Education at a Glance

OECD Indicators 2012

Annex 3: Sources, methods and technical notes

Chapter A: The output of educational institutions and the impact of learning

Table 1: Specific notes by country in the different indicators

	A1		A2		X1	A3		
	A1.1 to A1.5	A1.1a to 3a,	A2.1 to A2.4	A2. 5 and A2.6		A3.1 A3.2 A3.3		A3.4
	Methodology	Standard errors	Methodology	Methodology	Methodology	Interpretation	Classification	Methodology
Australia	AUS					AUS	AUS	
Austria	AUT		AUT	AUT		AUT	AUT	
Belgium			BEL	BFL		BEL	BEL	
Canada	CAN			CAN		CAN	CAN	
Chile			CHL					
Czech Republic			CZE	CZE	CZE		CZE	
Denmark	DNK			DNK	DNK	DNK	DNK	
England								
Estonia				EST		EST		
Finland	FIN			FIN		FIN	FIN	
France	FRA		FRA	FRA			FRA	
Germany	DEU		DEU			DEU	DEU	
Greece			GRC		GRC		GRC	
Hungary	HUN		HUN	HUN		HUN	HUN	
Iceland			ISL	ISL			ISL	
Ireland				IRL	IRL		IRL	
Israel	ISR			ISR	ISR		ISR	
Italy						ITA	ITA	
Japan	JPN			JPN			JPN	
Korea				KOR		KOR	KOR	
Luxembourg	LUX		LUX	LUX		LUX	LUX	
Mexico	MEX			MEX			MEX	
Netherlands	NLD			NLD	NLD	NLD	NLD	
New Zealand			NZL	NZL			NZL	
Norway	NOR		NOR	NOR		NOR	NOR	
Poland	POL			POL	POL		POL	
Portugal	PRT					PRT	PRT	
Scotland								
Slovak Republic			SVK	SVK	SVK		SVK	
Slovenia				SLO				
Spain			ESP	ESP		ESP	ESP	
Sweden	SWE		SWE	SWE			SWE	
Switzerland	CHE		CHE			CHE	CHE	
Turkey	TUR		TUR		TUR		TUR	
United Kingdom	UKM			UKM	UKM		UKM	
United States			USA	USA			USA	
Brazil			BRA			BRA		
Saudi Arabia						SAU	SAU	
Russian Federation						RUS		

Table 1 (cont.): Specific notes by country in the different indicators

	A4	A5	A6	A7	A8	A9	A10	A11
	Methodology		Methodology & definitions	Methodology & definitions	Methodology & definitions	Methodology & definitions	Methodology	Methodology
Australia						AUS		
Austria								
Belgium	BFL							
Canada					CAN			
Chile								
Czech Republic					CZE			
Denmark					DNK			
England								
Estonia								
Finland								
France					FRA	FRA		
Germany								
Greece								
Hungary	HUN							
Iceland								
Ireland	IRL							
Israel	ISR							
Italy								
Japan								
Korea								
Luxembourg								
Mexico								
Netherlands								
New Zealand					NZL			
Norway								
Poland								
Portugal								
Scotland								
Slovak Republic								
Slovenia								
Spain								
Sweden								
Switzerland								
Turkey								
United Kingdom								
United States								USA
Brazil								
Russian Federation								

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CHAPTER A: THE OUTPUT OF EDUCATIONAL INSTITUTIONS AND THE IMPACT OF LEARNING

INDICATOR A1: To what level have adults studied?

- **Tables A1.1a, A1.1.b (web), A1.1.c (web), A.1.2a, A1.2.b (web), A1.2.c (web), A1.3a A1.3.b (web), A1.3.c (web), A1.4 and A1.5**

Methodology

Data on population and educational attainment are taken from OECD and EUROSTAT databases, which are compiled from national Labour Force Surveys (LFS). Tables b (for men) and c (for women) are available on the web.

The attainment profiles are based on the percentage of the population aged 25 to 64 that has completed a specified level of education. The International Standard Classification of Education (ISCED-97) is used to define the levels of education. **Back_to_Table1**

Sources

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
Australia	Australian Bureau of Statistics	Australian Bureau of Statistics, Labour Force Survey	Reference period May 2009	Data refer to persons aged 15 to 64	Respondents within households	22 800 households – 30 440 persons	4.0%	Households are selected and all non-visiting adults aged 15 to 64 are interviewed
Austria	Statistics Austria	Quarterly Mikrocensus	The data refer to annual averages of quarterly the Mikrocensus sample survey	Data refer to persons aged 15 and over		80 000 households(net)	5.4%	
Belgium	FOD Economie, Algemene Directie Statistiek en Economische Informatie; SPF Économie – Direction générale Statistique et Information économique	Labour Force Survey	Annual average of quarterly estimates	Persons aged 15 years old and over living in private households	Households	85 261 individuals	26.9%	
Canada	Statistics Canada	Monthly Labour Force Survey	The annual data are averages of monthly estimates	Data refer to persons aged 15 and over	Households	Approximately 54 000 households	10.0%	
Chile	INE	LFS	Quarter October-December	Data refer to persons aged 15 and over	Households	36 000 households per quarter	12.0%	

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
Czech Republic	Czech Statistical Office (CSU)	Labour Force Sample Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over	Persons	Around 25 600 households, *i.e.* approx 60 500 persons, *i.e.* approx 52 300 persons aged 15 and over	28.0%	Classification according to LFS questionnaire until 1997 used.
Denmark	Eurostat	European Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over				
Estonia	Eurostat	European Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over				
Finland	Eurostat	European Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over				
France	INSEE	Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 to 64	Households	45 000 households and about 70 000 inhabitants per quarter	from 18% to 22% depending on the quarter in 2006	

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
Germany	Federal Statistical Office	Labour Force Survey (Microcensus)	Annual average of quarterly estimates	Data refer to persons aged 15 and over	Households	1% of households	0.2% for questions on educational attainment	
Greece	National Statistical Service of Greece (NSSG)	Labour force survey	2nd quarter of each reference year	Data refer to persons aged 15 and over	All members of private households	2005: 31 619 households	2005: 9.4% of the total surveyed households	
Hungary	Hungarian Central Statistical Office	Labour Force Survey	Annual averages of quarterly estimates	Data refer to persons aged 15 to 74	Households	64 000 persons	20-21%	Armed forces are not included in the data.
Iceland	Eurostat	European Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over				
Ireland	Eurostat	European Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over	Households	Approx. 39 000 households		The actual achieved sample varies over time depending on the level of response.

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
Israel	Israel's Central Bureau of Statistics	Labour Force Survey	Annual average	Permanent residents aged 15 and over	Households	Approximately 22 400households.	13.0%	
Italy	ISTAT	Continuous Household Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over	Households (all the individuals in each sampled household are interviewed)	Sample size is 311 628 households.	11.5%	Sample design is a two-stage sampling with stratification of the primary units
Japan	Statistics Bureau, Ministry of Internal Affairs and Communications	The Labour Force Survey detailed tabulation	Annual average	Data refer to persons aged 15 and over	Households			The special survey of the Labour Force Survey was integrated into the Labour Force Survey in January 2002
Korea	National Statistical Office	Monthly economically active population survey (MEACS)	Annual average of monthly estimates	Data refer to persons aged 15 and over		33 000 households		Annual Report on the Economically Active Population Survey.
Luxembourg	Eurostat	European Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over				

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
Mexico	Secretaría del Trabajo y Previsíon Social (STPS)	Encuesta Nacional de Empleo (ENE)	Biennial survey since 1991, yearly since 1995	The survey covers civilian resident population aged 12 years and over including armed forces when they are usual residents in private households	Households	In odds years the survey is representative for the state, what increases the sample significantly	Around 15%	
Netherlands	Eurostat	European Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over				
New Zealand	Statistics New-Zealand	Household Labour Force Survey	The annual data are averages of quarterly estimates	Data refer to civilian non-institutionalised persons aged 15 and over	Households	15 000 households per quarter	8.5%	
Norway	Statistics Norway	Labour Force Survey	annual average	Persons 15 to 74 years old	Households	24 000 households	12.0%	
Poland	Glowny Urzad Statystyczny	Labour Force Survey	The data are averages of published quarterly figures	Data refer to persons aged 15 and over	Households	24 700 households	about 24%	

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
Portugal	Instituto Nacional de Estatística	Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over	Households (dwellings)	22,554 dwellings	16.10% in 2010	
Slovak Republic	Statistical Office of the Slovak Republic	Labour Force Sample Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over	Dwelling	Approximately 10 250 dwellings per quarter, *i.e.* approx 27 500 persons	6.6%	Classifications according to LFS questionnaire until 1999 and from 2000 used
Slovenia	Eurostat	European Labour Force Survey	Annual average of quarterly estimates	Data refer to persons aged 15 and over				
Spain	Instituto Nacional de Estadística	Labour Force Survey	Yearly average of quarterly estimates	Data refer to persons aged 16 and over	Enumeration area	Approximately 65 000 households	14.0%	Part of the non-response is treated. Final non-response rate: 8% (average year 2010)
Sweden	Statistiska Centralbyran	Labour Force Survey	The annual average	Data refer to persons aged 16 to 64	Individuals	Based on 204 042 interviews	19.2%	

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
Switzerland	OFS	Labour Force Survey	Until 2009: The annual data refer to the 2nd quarter (April-June) From 2010: The annual data refer to the first quarter (January-March)	Data refer to persons aged 15 and over	Persons within households	Until 2009: 48 000 (of which 15 000 oversampling of foreign nationals) From 2010: 30 000	30.0%	The reference person within the household is selected randomly. All data refer only to the reference person (no proxy data)
Turkey	State Institute of Statistics (SIS)	Household Labour Force Survey	Annual average of April and October.	Data refer to persons aged 15 and over living in private households.	Civilian resident non-institutional (excludes residents of schools, dormitories, kindergartens, rest homes for elderly persons, special hospitals, military barracks, and recreation quarters for officers).	15 000 households in each survey	10.0% (1 500 households in each survey)	Semi-annual survey for the period of October 1988-1999 and survey was applied in October and April within this term. Annual results refer to average of April and October. From January 2000, the HLFS is applied monthly. The results of the survey are determined as quarterly and yearly estimates.
United Kingdom	ONS	Labour Force Survey	Spring Labour Force Survey	Data refer to persons aged 16-64	Households	60 000 people / 130 000 households	approx 20.0%	Old Seasonal Quarters (Winter (December to February), Spring (March to May), Summer (June to August), Autumn (September to November)) - New Calendar Quarters from May 2006 (Q1 = January to March (JM), Q2 = April to June (AJ), Q3 = July to September (JS), Q4 = October to December (OD))

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
United States	Census Bureau and Bureau of Labour Statistics	March Current Population Survey (CPS)	Annual data	Data refer to persons aged 15 and over	Households	75 000 households, 206 000 persons	8.6% based on households	

Country	Statistical agency	Source	Reference period	Coverage	Primary sampling unit	Size of the sample	Overall rate of non-response	Remarks
Argentina, Indonesia, Russia, Saudi Arabia, South Africa	UNESCO Institute for Statistics (World Education Indicators Programme).							
Brazil	Instituto Brasileiro de Geografia e Estatítica-IBGE (Brazilian Institute of Geography and Statistics)	National Household Sample Survey (Pesquisa Nacional por Amostra de Domicílios – PNAD)	Annual average October-September	Data refer to persons aged 15 and over	Municipalities	150 591 households		Note: The people in military career were excluded.
China	Year 2000 census Chinese National Bureau of Statistics		2000	Data refer to persons aged 6 years and over				

Description of ISCED-97 education programmes

Attainment levels and mappings for each country

Table on standardised ISCED-97 national codes on attainment in LFS (2009)

	Pre-primary and primary education	Lower secondary education	below upper secondary education	Upper secondary education			Post-secondary non-tertiary education	Tertiary education			Advanced research programmes
	ISCED 0/1	ISCED 2	ISCED 3C Short	ISCED 3C Long	ISCED 3B	ISCED 3A	ISCED 4	ISCED 5B	ISCED 5A	ISCED 5A/6	ISCED 6
Australia	0/1	2		3C		3A	4C	5B	5A		6
Austria		0/1/2	3CS		3B	3A	4A, 4B	5B		5A/6	
Belgium	0,1	2		3CL		3A	4	5B	5A		6
Canada	0/1	2				3	4	5B		5A/6	
Chile		1,2A		3C	2A-3A/B	3A/B	4A/B - 5B	5B		5A/B/6	
Czech Republic	0/1	2		3CL		3A/B/4				5A/B/6	
Denmark	0/1	2	3CS	3CL		3A/B	4A/B	5B		5A/6	
Estonia (EULFS)	0,1	2		3CL		3A/B	4A/B	5B	5A		6
Finland (EULFS)	1	2				3A/B	4C	5B	5A		6
France	0, 1	2		3CL, 3CM	3B	3A	4	5B	5AL, 5AM, 5AS		6
Germany	1	2A		3C	3B	3A	4	5B	5A		6
Greece	0/1	2	3CS	3CL	3B	3A	4C	5B	5A		6
Hungary	1	2		3C		3A	4A	5B	5A		6
Iceland (EULFS)	1	2	3CS	3CL		3A/B	4A/B, 4C	5B	5A		6
Ireland (EULFS)	0,1	2	3CS			3A/B	4C	5B	5A		6
Israel	0,1	2				3A/3C		5B	5A		6
Italy	0/1	2	3CS	3CL		3A/B	4	5B	5A		6
Japan 2005						1/2/3		5B		5A/6	
Korea	0/1	2				3		4/5B		5A/6	
Luxembourg (EULFS)	0,1	2	3CS	3CL		3A/B	4	5B	5A		6
Mexico	0, 1	2A, 2C		3CL		3A		5B	5A	5A/6	6
Netherlands (EULFS)	0,1	2		3CL		3A/B	4, 4A/B, 4C	5B	5A		6
New Zealand		1/2	3CS	3CL		3A	4	5B	5A	5A/6	
Norway	0, 1A	2A		3C		3A	4A, 4C	5B	5A		6
Poland		1/2	3CS			3A	4B			5A/B/6	
Portugal	0,1	2				3	4		5A/B		6
Slovak Republic	0, 1	2		3C		3A (including 4)		5B	5A		6
Slovenia (EULFS)	0,1	2		3CL		3A/B		5B	5A		6
Spain	0, 1	2A, 2C		3C	3B	3A	4C	5B	5A		6
Sweden	1	2				3A	4	5B	5A	5A/6A	
Switzerland	1	2	3CS	3CL	3B	3A	4	5B	5A		6
Turkey	0, 1	2			3B	3A				5A/6	
United Kingdom	0	2	3CS	3CL	3B	3A	4	5B	5A		6
United States	0/1	2				3		5B, 5AI	5A		6
Brazil	0,1	2				3				5A/B/6	6
Russia	0,1	2			3B	3A	4	5B	5A		6

Source: National reports (data 2010, data collection 2011, preparation of *Education at a Glance 2012*)

The cells of this table indicate, for each country, the national programme categories that are included in the international levels of education indicated by the column headings.

Notes: 5AI refers to tertiary-type A intermediate degree. **Back_to_Table1**

Notes on specific countries

Australia: Australian data at the detailed level may be unreliable due to the suppression of small values. The data is indicative only and should be used with caution. **Back_to_Table1**

Austria: Due to major changes in the design of the Austrian Labour Force Survey, results for 2004 are not fully comparable with those of the previous years. In 2004 the continuous survey was implemented and a new interviewer organisation was built up. Furthermore, a new questionnaire was elaborated. **Back_to_Table1**

Canada: The Canadian Labour Force Survey does not allow for a clear delineation of attainment at ISCED 4 and at ISCED 5B; as a result, some credentials that should be classified as ISCED 4 cannot be identified and are therefore included in ISCED 5B.Thus, the proportion of the population with tertiary-type B education is inflated. Cells of less than 1 500 have been deleted. **Back_to_Table1**

Denmark: Danish LFS data on educational statistics had a break in 2007 due to changes in the survey structure. The new survey structure, which included a significant increase in the sample size, had an impact on education data in 2007. There is a break with previous data from Eurostat. Nevertheless, Statistics Denmark recreated 2009 figures in Education at a Glance 2011 so that they are comparable from 2009 to 2010 (i.e. figures in EAG 2012). **Back_to_Table1**

Finland: Tertiary-type B programmes have been phased out and replaced by tertiary-type A polytechnic education. Therefore, the attainment level in tertiary-type B education is decreasing while the attainment level in tertiary-type A education is increasing. Time series show a break in 2004 (use of Eurostat data). **Back_to_Table1**

France: There is a break in educational variables from 2003 arising from the continuing employment survey that officially replaced the annual employment survey. This led to changes in the way the survey reports the level of education and the age when surveyed (not at the end of the year). **Back_to_Table1**

Germany: ISCED 6 for the year 2003 caused a break in the series. **Back_to_Table1**

Hungary: Hungarian LFS data have a break in 1998 due to changes in the weighting techniques of the Hungarian Labour Force Survey, changes in the frame of inflation/weighting and because of the use of new weighting scores (based on the 2001 census). Hence data are comparable only from 2001. Between 1998 and 2000 the questionnaire offered different options (items) each year concerning the participation in education programmes. Thus the data series between 1998 and 2000 has a break in each year. A specification of ISCED 4 is used and data for ISCED 3A and ISCED 4 are provided separately. ISCED 5B concerns a new type of education that can only have been completed since 2000. **Back_to_Table1**

Israel: Although pre-academic institutions in Israel are classified under ISCED 4 in the national mapping of education, this level remains unaccounted for in this report, since the LFS does not include a specific answer category for this level, and it is reported under “other” in the LFS questionnaire. From 2007, unknown case answers provided to the questions on last school attended and total years of schooling are taken into account. The main result of using this algorithm is a different breakdown of

the primary/lower secondary disaggregation (no separate answer categories for these two). So from 2007 there is a break in the time series. **Back_to_Table1**

Japan: The Special Survey of the LFS, which had been the source of Questionnaire III, was abolished, and the LFS is used as a source for Questionnaire III from 2002. The LFS questionnaire asks people about their education and selects appropriate answers from the following: primary school, junior high school or senior high school (ISCED 1/2/3), junior college (ISCED 5B), college or university, including graduate school (ISCED 5A). Therefore, the data are not distributed by ISCED 0/1/2 and 3. The distribution between the 0/1/2 and 3/4 levels of education for 2003 and 2002 was based on 2001. This distribution is no longer applicable. Data for ISCED 0/1/2 for 2003 and 2002 as presented in the previous versions of *Education at a Glance* are no longer available. **Back_to_Table1**

Luxembourg: The results apply to those people living in Luxembourg who have been educated in Luxembourg, as well as to those who have been educated in another country. This means the figures cannot be used to analyse the national educational system. There was a break in 2003 due to transition to a quarterly continuous survey (Source Eurostat). **Back_to_Table1**

Mexico: Revised data series. There have been reclassifications on two occasions: First, for 1998/99 changes were introduced in the UOE: The *speciality studies* and the *master's degree* were reclassified in ISCED 5A first degree. The *technical professional* was reclassified at ISCED 5B. Second, for 2002/03, the *speciality studies* and the *master's degree* were reclassified in ISCED 5A second degree. **Back_to_Table1**

Netherlands: 1998 refers to ISCED 1976. **Back_to_Table1**

Norway: A break in time series on educational attainment occurred in 2005, as the classification of educational attainment was re-classified. The main change is an increase in ISCED 2 attainment, at the expense of ISCED 3. The attainment criteria for ISCED 3 were tightened from course completion to successful completion of the whole programme (studiekompetanse/fagbrev). A reasonable amount of movement also occurred between ISCED 3 and ISCED 5, but the net difference is marginal. A minimum of two years full-time study load, equivalent to 120 credit points, is defined as an attainment criterion for ISCED 5 (Detailed information: http://www.ssb.no/english/subjects/04/01/utniv_en/). **Back_to_Table1**

Poland: From 2006 onwards previous 3CS programmes for Poland have been reallocated to 3CLong, since 3C programmes in Poland last three years, which is similar to the typical cumulative duration of a standard national ISCED 3A general programme. **Back_to_Table1**

Portugal: Since 2004, no breakdown of ISCED 5A/5B is available. **Back_to_Table1**

Sweden: There were two breaks in the series: when the new standard for classification of education (SUN 2000) was applied in 2001, and in April 2005, when a new EU-harmonised questionnaire was introduced, leading, among other consequences, to a breakdown of ISCED 4 and 5B into two separate variables. The latter explains the decrease in tertiary attainment 2005. **Back_to_Table1**

Switzerland: Trend data have been revised from 1997 to 2008 to correct an error in the original data source. Changes in ISCED categories 3CS and 3CL were carried over the time series (1997 to 2008).

Before 2001, however, ISCED 3CL only partially reflects the reality. It should not be distinguished from other categories of ISCED 3. In general, before 2001, it is not possible to distinguish between the ISCED categories 1 and 2, as well as to the ISCED categories 3 and 4 or that of ISCED 5A and 6. **Back_to_Table1**

Turkey: The 2007 figures were adjusted according to the new census showing a decrease in total population compared to the projections. For the moment no adjustment/revision are available for the previous years. When the new population projections will be ready, the series will be revised back in time, including 2007 figures. It is not correct to compare 2007 figures with previous years. **Back_to_Table1**

United Kingdom: An improved methodology introduced in 2009 led to an increase in measured educational attainment. For 25-64 year-olds the effect was an increase of 3.4 percentage points for those with at least upper secondary level education, and 3.4 percentage points for tertiary level attainment. Women aged 60-64 are included from 2009. The back time-series was revised in 2008, taking account of re-weighted (to mid-census population estimates) and revised (now using calendar rather than seasonal quarters) data. The revisions provided an opportunity to correct some long-standing anomalies in older data (reported up to 2005), such as an over-estimation of the proportion holding ISCED 6 (doctorate level), and where ISCED 3B was incorrectly grouped in 3A.

Back_to_Table1

Standard errors for Table A1.3a

Table A1.3a below show the original estimates presented in the *EAG 2011* (i.e. 2009 data) alongside the estimated standard errors. In addition, an asterisk immediately following the estimate indicates whether the value has a statistically significant difference compared to the OECD average. For most countries, the standard errors were computed under the assumption of a simple random survey. For Australia, Canada, France, Germany, Italy, Japan, Slovak Republic, Switzerland, the United Kingdom, and the United States, country representatives provided standard errors incorporating adjustments for the complex sample designs within their countries.

Standard error estimates based on the simple random sample assumption were based on sample size data collected from labour force surveys from both individual countries as well as from the European Union-Labour Force Survey (EU-LFS), which contains survey data from many countries. The sample sizes of the surveys differ widely, ranging from relatively small samples in Estonia, Iceland, Luxembourg, and New Zealand to relatively large surveys in France, Germany, Italy, Mexico, the Netherlands, Spain, and the United Kingdom. In cases where sample size information could not be obtained, it was estimated using the sampling rate information provided in the NEAC survey metadata. For the purpose of the estimates, the sample rate was multiplied by the various weighted population groups to compute an estimated sample size. Estimation of sample sizes was only done for four out of the thirty-six countries in the analysis.

It is crucial to note that employing the simple random survey assumption offers a conservative, “best-case scenario” of standard error estimates. As most, if not all, country’s labour force surveys use complex sample designs, the standard errors would generally be larger if the sample design information were used. The generally small standard errors on Table A1.3a result in the finding that most of the values are statistically significantly different from the OECD average. If the standard

errors were larger, indicating a wider range of possible true values, it would be harder to discern a significant difference between one country and the OECD average value.

In order to get a sense of the impact of these standard errors on the meaning and interpretation of EAG 2011 values it is helpful to compute the associated confidence intervals. These confidence intervals seem reasonably close to the reported EAG 2011 value in most cases, indicating that we can be fairly confident about the statistical accuracy of the values on Tables A1.3a, using the available information on sample sizes. However, even though these estimates are relatively precise, small standard errors can still complicate some types of interpretations of these values, in particular, OECD rankings.

While the findings generally support the validity of the tables appearing in *EAG 2011*, they also suggest that more attention to statistical testing and statistical validity is needed, particularly when detailed data using smaller segments of the population are presented. Also, the standard error estimates should incorporate appropriate adjustments for survey design effects, where the information is available. **Back_to_Table1**

Table A1.3a. Population with tertiary education (2009)

Percentage of the population that has attained tertiary-type B education or tertiary-type A and advanced research programmes, by age group

Column 16 refers to absolute numbers (in thousands)

		Tertiary-type B education										Tertiary-type A and advanced research programmes										Total tertiary									
		25-64		25-34		35-44		45-54		55-64		25-64		25-34		35-44		45-54		55-64		25-64		25-34		35-44		45-54		55-64		25-64 in thousands
		(1)		(2)		(3)		(4)		(5)		(6)		(7)		9		(9)		(10)		(11)		(12)		(13)		(14)		(15)		(16)
OECD	Australia	10.1	(0.25)	10.2 *	(0.41)	10.8	(0.45)	9.8	(0.45)	9.4 *	(0.44)	26.8 *	(0.43)	34.6 *	(0.71)	27.2 *	(0.75)	23.8 *	(0.77)	20.0 *	(0.68)	36.9 *	(0.44)	44.8 *	(0.79)	38.0 *	(0.85)	33.6 *	(0.75)	29.4 *	(0.84)	4,134
	Austria	7.6 *	(0.08)	5.8 *	(0.16)	8.0 *	(0.16)	8.7 *	(0.16)	7.7 *	(0.18)	11.4 *	(0.10)	15.3 *	(0.25)	12.3 *	(0.19)	9.6 *	(0.17)	8.2 *	(0.18)	19.0 *	(0.12)	21.1 *	(0.28)	20.3 *	(0.24)	18.3 *	(0.22)	15.9 *	(0.25)	875
	Belgium	15.9 *	(0.15)	18.3 *	(0.34)	17.6 *	(0.31)	15.4 *	(0.28)	12.0 *	(0.27)	17.5 *	(0.16)	24.2 *	(0.38)	19.3 *	(0.32)	14.9 *	(0.28)	11.4 *	(0.27)	33.4 *	(0.19)	42.5 *	(0.44)	36.9 *	(0.39)	30.3 *	(0.36)	23.4 *	(0.36)	1,943
	Canada	24.1 *	(0.16)	26.0 *	(0.34)	26.6 *	(0.29)	23.8 *	(0.27)	19.6 *	(0.27)	25.4 *	(0.22)	30.1 *	(0.44)	29.1 *	(0.40)	21.4 *	(0.31)	21.1 *	(0.32)	49.5 *	(0.22)	56.1 *	(0.40)	55.7 *	(0.37)	45.1 *	(0.35)	40.7 *	(0.38)	9,187
	Chile	8.0 *	(0.11)	11.0	(0.22)	10.0 *	(0.20)	6.7 *	(0.17)	3.1 *	(0.14)	16.4 *	(0.15)	24.0 *	(0.30)	14.2 *	(0.23)	13.6 *	(0.23)	13.5 *	(0.28)	24.4 *	(0.18)	34.9 *	(0.33)	24.2 *	(0.28)	20.2 *	(0.27)	16.6 *	(0.30)	2,004
	Czech Republic	x(11)	†	x(12)	†	x(13)	†	x(14)	†	x(15)	†	15.5 *	(0.10)	20.2 *	(0.23)	14.8 *	(0.20)	15.6 *	(0.20)	10.8 *	(0.16)	15.5 *	(0.10)	20.2 *	(0.23)	14.8 *	(0.20)	15.6 *	(0.20)	10.8 *	(0.16)	948
	Denmark	7.2 *	(0.11)	8.5 *	(0.35)	7.9 *	(0.28)	6.8 *	(0.19)	5.7 *	(0.15)	27.1 *	(0.18)	36.2 *	(0.60)	31.0 *	(0.47)	21.5 *	(0.30)	20.1 *	(0.25)	34.3 *	(0.19)	44.7 *	(0.62)	39.0 *	(0.50)	28.3 *	(0.33)	25.8 *	(0.27)	978
	Estonia	13.2 *	(0.33)	14.8 *	(0.75)	11.0	(0.58)	15.2 *	(0.65)	11.5 *	(0.66)	22.7 *	(0.41)	21.7 *	(0.87)	25.3 *	(0.80)	22.5 *	(0.75)	21.3 *	(0.85)	36.0 *	(0.47)	36.6	(1.02)	36.3 *	(0.89)	37.7 *	(0.87)	32.8 *	(0.97)	256
	Finland	14.7 *	(0.11)	3.4 *	(0.13)	19.3 *	(0.26)	20.1 *	(0.25)	15.3 *	(0.22)	22.6 *	(0.13)	36.0 *	(0.34)	25.2 *	(0.29)	17.4 *	(0.23)	13.7 *	(0.21)	37.3 *	(0.16)	39.4 *	(0.34)	44.5 *	(0.33)	37.5 *	(0.30)	29.0 *	(0.28)	1,076
	France	11.6 *	(0.07)	17.5 *	(0.18)	13.5 *	(0.15)	9.5 *	(0.12)	6.0 *	(0.10)	17.3 *	(0.08)	25.7 *	(0.20)	18.8 *	(0.17)	12.7 *	(0.14)	12.0 *	(0.14)	28.9 *	(0.10)	43.2 *	(0.23)	32.3	(0.20)	22.2 *	(0.17)	18.0 *	(0.16)	9,263
	Germany	9.3 *	(0.05)	6.8 *	(0.10)	9.8 *	(0.10)	10.5 *	(0.11)	9.7 *	(0.12)	17.1 *	(0.07)	18.9 *	(0.16)	18.0 *	(0.14)	15.9 *	(0.13)	15.6	(0.15)	26.4 *	(0.08)	25.7 *	(0.19)	27.8 *	(0.17)	26.4 *	(0.16)	25.3 *	(0.18)	11,721
	Greece	6.7 *	(0.06)	10.1 *	(0.16)	7.7 *	(0.13)	5.3 *	(0.11)	2.7 *	(0.08)	16.9 *	(0.09)	19.3 *	(0.21)	18.6 *	(0.19)	16.3 *	(0.18)	12.3 *	(0.16)	23.5 *	(0.11)	29.4 *	(0.24)	26.4 *	(0.22)	21.6 *	(0.20)	15.0 *	(0.18)	1,435
	Hungary	n	†	1.0	†	n	†	n	†	n	†	19.4 *	(0.10)	24.1 *	(0.23)	18.6 *	(0.20)	18.1 *	(0.19)	16.2 *	(0.18)	19.9 *	(0.10)	25.1 *	(0.23)	19.0 *	(0.20)	18.3 *	(0.19)	16.3 *	(0.18)	1,104
	Iceland	3.9 *	(0.21)	2.5 *	(0.31)	5.6 *	(0.50)	4.3 *	(0.41)	3.2 *	(0.41)	28.8 *	(0.48)	33.4 *	(0.96)	32.5 *	(1.01)	27.4 *	(0.90)	19.5 *	(0.91)	32.8 *	(0.50)	35.8	(0.98)	38.2 *	(1.05)	31.7 *	(0.94)	22.8	(0.97)	53
	Ireland	14.9 *	(0.10)	18.7 *	(0.20)	16.9 *	(0.19)	12.2 *	(0.18)	8.9 *	(0.17)	20.9 *	(0.11)	28.8 *	(0.23)	22.5	(0.21)	16.0 *	(0.20)	11.4 *	(0.19)	35.9 *	(0.13)	47.6 *	(0.26)	39.4 *	(0.25)	28.2 *	(0.24)	20.2 *	(0.24)	848
	Israel	15.5 *	(0.14)	13.4 *	(0.26)	16.3 *	(0.29)	16.4 *	(0.30)	16.7 *	(0.32)	29.4 *	(0.18)	29.5 *	(0.35)	30.8 *	(0.36)	28.5 *	(0.37)	28.4 *	(0.39)	44.9 *	(0.20)	42.9 *	(0.37)	47.1 *	(0.39)	44.9 *	(0.41)	45.0 *	(0.43)	1,511
	Italy	n	†	n	†	n	†	n	†	n	†	14.1 *	(0.07)	19.9 *	(0.19)	15.0 *	(0.14)	11.4 *	(0.14)	10.0 *	(0.14)	14.5 *	(0.07)	20.2 *	(0.19)	15.4 *	(0.15)	11.8 *	(0.14)	10.3 *	(0.14)	4,836
	Japan	19.1 *	(0.10)	23.9 *	(0.25)	23.4 *	(0.22)	18.6 *	(0.21)	11.0 *	(0.15)	24.6 *	(0.11)	31.8 *	(0.27)	25.3 *	(0.23)	26.1 *	(0.24)	16.4 *	(0.18)	43.8 *	(0.13)	55.7 *	(0.29)	48.7 *	(0.26)	44.7 *	(0.27)	27.4 *	(0.22)	29,230
	Korea	11.6 *	(0.16)	25.5 *	(0.42)	11.5	(0.30)	5.2 *	(0.22)	1.4 *	(0.15)	27.1 *	(0.23)	37.6 *	(0.47)	32.8 *	(0.44)	20.5 *	(0.39)	11.9 *	(0.41)	38.8 *	(0.25)	63.1 *	(0.47)	44.3 *	(0.46)	25.8 *	(0.42)	13.2 *	(0.43)	11,042
	Luxembourg	14.6 *	(0.34)	20.4 *	(0.87)	14.8 *	(0.60)	11.3	(0.58)	11.3 *	(0.69)	20.2 *	(0.39)	24.1 *	(0.93)	23.1	(0.72)	17.7	(0.70)	13.6 *	(0.75)	34.8 *	(0.46)	44.5 *	(1.08)	37.9 *	(0.83)	29.0 *	(0.84)	24.9 *	(0.94)	93
	Mexico	1.1 *	(0.01)	1.2 *	(0.03)	1.1 *	(0.03)	1.2 *	(0.03)	0.7 *	(0.03)	15.9 *	(0.05)	20.2 *	(0.10)	14.9 *	(0.09)	15.1 *	(0.10)	9.8 *	(0.10)	15.9 *	(0.05)	20.2 *	(0.10)	14.9 *	(0.09)	15.1 *	(0.10)	9.8 *	(0.10)	7,789
	Netherlands	2.8 *	(0.03)	2.5 *	(0.07)	3.3 *	(0.07)	2.8 *	(0.06)	2.3 *	(0.06)	30.0 *	(0.09)	37.6 *	(0.22)	30.3 *	(0.18)	28.0 *	(0.17)	25.1 *	(0.18)	32.8 *	(0.09)	40.1 *	(0.22)	33.6 *	(0.18)	30.8 *	(0.17)	27.4 *	(0.18)	2,922
	New Zealand	16.9 *	(0.36)	15.9 *	(0.76)	15.7 *	(0.67)	18.3 *	(0.71)	17.9 *	(0.77)	23.2 *	(0.41)	30.8 *	(0.96)	25.5 *	(0.81)	19.5	(0.73)	15.8	(0.73)	40.1 *	(0.47)	46.7 *	(1.04)	41.2 *	(0.91)	37.8 *	(0.89)	33.7 *	(0.94)	851
	Norway	2.2 *	(0.06)	1.4 *	(0.11)	1.9 *	(0.11)	2.7 *	(0.13)	2.8 *	(0.14)	34.5 *	(0.20)	45.5 *	(0.45)	37.8 *	(0.38)	30.1 *	(0.37)	24.4 *	(0.35)	36.7 *	(0.20)	46.8 *	(0.45)	39.7 *	(0.38)	32.8 *	(0.38)	27.2 *	(0.36)	915
	Poland	x(11)	†	x(12)	†	x(13)	†	x(14)	†	x(15)	†	21.2 *	(0.12)	35.4 *	(0.29)	20.9 *	(0.25)	13.1 *	(0.19)	12.6 *	(0.19)	21.2 *	(0.12)	35.4 *	(0.29)	20.9 *	(0.25)	13.1 *	(0.19)	12.6 *	(0.19)	4,469
	Portugal	x(11)	†	x(12)	†	x(13)	†	x(14)	†	x(15)	†	14.7 *	(0.12)	23.3 *	(0.32)	15.1 *	(0.24)	11.0 *	(0.20)	7.4 *	(0.17)	14.7 *	(0.12)	23.3 *	(0.32)	15.1 *	(0.24)	11.0 *	(0.20)	7.4 *	(0.17)	873
	Slovak Republic	0.8 *	(0.08)	0.9 *	(0.15)	0.6 *	(0.15)	0.8 *	(0.14)	1.0 *	(0.16)	14.6 *	(0.30)	19.7 *	(0.66)	14.0 *	(0.61)	13.3 *	(0.55)	11.2 *	(0.50)	15.8 *	(0.30)	20.6 *	(0.67)	14.6 *	(0.62)	14.1 *	(0.56)	12.1 *	(0.52)	489
	Slovenia	10.8 *	(0.16)	11.7	(0.35)	11.8	(0.35)	10.0	(0.28)	9.4 *	(0.31)	12.6 *	(0.17)	18.7 *	(0.42)	14.2 *	(0.38)	9.4 *	(0.27)	7.3 *	(0.27)	23.3 *	(0.22)	30.4 *	(0.50)	26.0 *	(0.48)	19.4 *	(0.37)	16.7 *	(0.39)	272
	Spain	9.5 *	(0.05)	13.2 *	(0.11)	11.4	(0.10)	7.2 *	(0.08)	4.1 *	(0.07)	20.1 *	(0.07)	25.0 *	(0.15)	22.2 *	(0.13)	18.0 *	(0.12)	12.5 *	(0.11)	29.7 *	(0.07)	38.2 *	(0.16)	33.5 *	(0.15)	25.2 *	(0.14)	16.6 *	(0.13)	7,844
	Sweden	8.7 *	(0.07)	8.5 *	(0.15)	8.3 *	(0.14)	9.4 *	(0.15)	8.9 *	(0.14)	24.3 *	(0.11)	33.9 *	(0.26)	26.3 *	(0.22)	19.3 *	(0.20)	18.0 *	(0.19)	33.0 *	(0.12)	42.3 *	(0.27)	34.6 *	(0.24)	28.7 *	(0.23)	26.9 *	(0.22)	1,592
	Switzerland	10.3	(0.28)	9.4 *	(0.71)	11.6	(0.50)	10.6	(0.53)	9.2 *	(0.53)	24.7 *	(0.22)	30.5 *	(0.49)	26.3 *	(0.41)	22.4 *	(0.44)	19.1 *	(0.42)	35.0 *	(0.12)	40.0 *	(0.28)	37.9 *	(0.20)	33.0 *	(0.23)	28.3 *	(0.25)	1,512
	Turkey	x(11)	†	x(12)	†	x(13)	†	x(14)	†	x(15)	†	12.7 *	(0.07)	16.6 *	(0.13)	11.3 *	(0.12)	9.7 *	(0.12)	9.9 *	(0.15)	12.7 *	(0.07)	16.6 *	(0.13)	11.3 *	(0.12)	9.7 *	(0.12)	9.9 *	(0.15)	4,065
	United Kingdom	10.0 *	(0.12)	8.5 *	(0.25)	11.0 *	(0.24)	10.8 *	(0.24)	9.5 *	(0.24)	26.9 *	(0.17)	36.3 *	(0.39)	28.0 *	(0.33)	23.3 *	(0.33)	19.2 *	(0.32)	36.9 *	(0.19)	44.9 *	(0.41)	38.9 *	(0.37)	34.1 *	(0.37)	28.7 *	(0.37)	11,992
	United States	9.8 *	(0.08)	8.9 *	(0.15)	10.2 *	(0.15)	10.8 *	(0.16)	9.2 *	(0.17)	31.4 *	(0.16)	32.1 *	(0.32)	32.9 *	(0.26)	29.1 *	(0.29)	31.7 *	(0.33)	41.2 *	(0.19)	41.1 *	(0.33)	43.1 *	(0.31)	39.9 *	(0.32)	40.8 *	(0.35)	66,148
	OECD average	**10.4**	**(0.03)**	**11.0**	**(0.07)**	**11.3**	**(0.06)**	**10.2**	**(0.06)**	**8.2**	**(0.06)**	**21.4**	**(0.04)**	**27.7**	**(0.08)**	**22.8**	**(0.07)**	**18.6**	**(0.07)**	**15.6**	**(0.07)**	**30.0**	**(0.04)**	**37.1**	**(0.08)**	**32.1**	**(0.08)**	**26.9**	**(0.07)**	**22.4**	**(0.08)**	
	OECD total (in thousands)																														
	EU21 average	**9.9** *	**(0.04)**	**10.0** *	**(0.09)**	**10.8** *	**(0.07)**	**9.8** *	**(0.07)**	**7.9** *	**(0.07)**	**19.4** *	**(0.04)**	**25.9** *	**(0.09)**	**20.6** *	**(0.08)**	**16.4** *	**(0.07)**	**13.8** *	**(0.07)**	**27.0** *	**(0.04)**	**34.1** *	**(0.10)**	**28.9** *	**(0.09)**	**23.9** *	**(0.08)**	**19.8** *	**(0.08)**	
Other G20	Argentina 1	x(11)	†	m	†	m	†	m	†	m	†	x(11)	†	m	†	m	†	m	†	m	†	13.7	m	m	†	m	†	m	†	m	†	2,909
	Brazil	x(11)	†	x(12)	†	x(13)	†	x(14)	†	x(15)	†	10.9 *	(0.07)	11.6 *	(0.12)	11.3 *	(0.13)	10.7 *	(0.14)	8.9 *	(0.16)	10.9 *	(0.07)	11.6 *	(0.12)	11.3 *	(0.13)	10.7 *	(0.14)	8.9 *	(0.16)	10,502
	China 2	x(11)	†	x(12)	†	x(13)	†	x(14)	†	x(15)	†	x(11)	†	x(12)	†	x(13)	†	x(14)	†	x(15)	†	4.6	m	6.1	m	4.8	m	3.0	m	3.1	m	31,137
	India	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m	†	m
	Indonesia 3	x(11)	†	m	†	m	†	m	†	m	†	x(11)	†	m	†	m	†	m	†	m	†	4.5	m	m	†	m	†	m	†	m	†	5,447
	Russian Federation 4	33.5 #	†	34.2 *	†	37.1 *	†	34.4 *	†	26.0 *	†	20.8 *	†	21.3 *	†	21.3 *	†	20.4 *	†	18.9 *	†	54.0 *	†	55.5 *	†	58.1 *	†	54.3 *	†	44.5 *	†	m
	Saudi Arabia 5	x(11)	†	m	†	m	†	m	†	m	†	x(11)	†	m	†	m	†	m	†	m	†	14.9	m	m	†	m	†	m	†	m	†	1,594
	South Africa 6	x(11)	†	m	†	m	†	m	†	m	†	x(11)	†	m	†	m	†	m	†	m	†	4.3	m	m	†	m	†	m	†	m	†	1,023
	G20 average	**14.0** *	**(0.04)**	**16.3** *	**(0.07)**	**15.5** *	**(0.07)**	**13.5** *	**(0.06)**	**10.2** *	**(0.06)**	**20.8** *	**(0.04)**	**25.9** *	**(0.09)**	**22.0** *	**(0.08)**	**18.5**	**(0.08)**	**15.8**	**(0.08)**	**25.1** *	**(0.05)**	**36.0** *	**(0.09)**	**31.8** *	**(0.09)**	**26.9**	**(0.08)**	**22.1** *	**(0.09)**	
	G20 total (in thousands)																														**13,060**

† Not applicable.

* Statistically significant difference compared to the OECD average.

1. Year of reference 2003. Source: UNESCO/UIS, educational attainment of 25-year-olds and older.

2. Year of reference 2000. Source: 2000 census, Chinese National Bureau of Statistics, education level (College, University and Master and above) of 25-64 year-olds.

3. Year of reference 2007. Source: UNESCO/UIS, educational attainment of 25-year-olds and older.

4. Year of reference 2002. Data are from a census, so standard errors are not applicable.

5. Year of reference 2004. Source: UNESCO/UIS, educational attainment of 25-year-olds and older.

6. Year of reference 2007. Source: UNESCO/UIS, educational attainment of 25-year-olds and older.

Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2011).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

INDICATOR A2: How many students are expected to finish secondary education?

- **Upper secondary graduation rates (Tables A2.1, A2.2 and A2.3)**

Methodology

In order to calculate gross graduation rates, countries identified the age at which graduation typically occurs. The graduates themselves, however, could be of any age. To estimate gross graduation rates, the number of graduates is divided by the population at the typical graduation age (Annex 1). In many countries, defining a typical age of graduation is difficult because the ages of graduates vary so much. Typical ages of graduation and graduation rate calculation methods are shown in Annex 1. **Back_to_Table1**

The ***unduplicated count of all ISCED 3 graduates*** gives the number of persons who graduate in the reference period from any ISCED 3 programme **for the first time**, *i.e.* students who have not obtained an ISCED 3 (A, B or C) qualification in **previous** reference periods. For example, students who graduated from ISCED 3A programmes in the period of reference, but obtained a short ISCED 3C graduation in an earlier year, should (correctly) be reported as ISCED 3A graduates, but must be excluded from the unduplicated count of graduates in column 1 of Table A2.1. Similar cases may occur in the reporting of vocational and general programmes.

Upper secondary graduation rates for general or for pre-vocational/vocational programmes are based on all graduates, not first-time graduates. **Back_to_Table1**

Notes on specific countries

Austria: In 2007, figures for ISCED 3B and 3C are partly based on estimates. Graduation rates from programmes designed to prepare students for tertiary-type A education are the sum of graduation rates from ISCED 3A programmes and ISCED 4A programmes. ISCED 4A programmes (*Berufsbildende Höhere Schule*) span ISCED levels 3A and 4A. Graduates of these programmes were not counted as ISCED 3A graduates before, thus no double counting occurs. **Back_to_Table1**

Belgium: Data on the German-speaking Community and for independent private institutions are not integrated in the data for Belgium in the UOE data collection. Data on graduates are not available for special education.

Brazil: Data includes Youth and Adult Education Programmes (EJA), Special Programmes and distance-learning programmes (youth and adult education and higher education programmes). For ISCED 3, only the total number of graduates has been provided given that the classification (fields of education) adopted by Brazil is not aligned with ISCED 97. **Back_to_Table1**

Chile: From 2010 (UOE 2011 data collection), the adult education programmes have been included. The trend data series have been updated accordingly from 2004. **Back_to_Table1**

Czech Republic: Upper graduation rate in 2010 is underestimated by about 3-4 percentage points because of changing data collection methodology (especially in vocational programmes). **Back_to_Table1**

France: In the UOE 2007 data collection, students who graduated at ISCED 3 pre-vocational programmes are represented under ISCED 3 general programmes. In France, all – or almost all – ISCED 3B students are already ISCED 3C graduates. In the UOE 2010 data collection, all the trend data have been revised. **Back_to_Table1**

Germany: For *Gymnasium* in most German Länder, an educational reform took place that reduced the length of study for the university entrance qualification (*Abitur*) from nine to eight years (after four years in primary school). This reform is known as the G8. As a result, the *Gymnasium* curriculum was restructured and afternoon classes were introduced. The introduction stage (*Einführungsphase - E1*) in grade 10 of the G8-*Gymnasium* is now allocated to upper secondary education. But in most Länder the "classical" G9-*Gymnasium* still exists besides G8. For these G9-*Gymnasium* grade 10 is still reported in lower secondary education. In 2010 the change refers to 155 023 students (17.3 % of all students in ISCED 3A at *Gymnasium*) who are now allocated to ISCED 3A. According to the ongoing process (depending on the number of the Länder concerned and the starting year of the reform in each Land), the number of students in grade E1 will increase in the next years. As a result (depending on the starting year in each Land) there will be double graduation years in the Länder. This means that the last volume of G9-*Gymnasium* (which had been reformed to G8) and the first volume of G8-*Gymnasium* achieve their *Abitur* (university entrance qualification) in the same year. This is a one-time effect in each Land introducing G8-*Gymnasium*, but the relevant year differs from Land to Land.

Vocational programmes in the Federal Länder: An important achievement of the project "database of the vocational programmes in the Federal Länder" is the detailed analysis of all programmes at vocational schools in the Federal Länder by content of the programme, main diplomas, credentials and certifications awarded. The analysis was based on information comparable to the ISCED-Mapping which had been collected for each programme. The main result of this project is a consistent classification of education programmes, pathways and sectors for all national and international purposes. Programmes at vocational schools only offering lower secondary general qualifications or that have only pre-vocational content are now allocated to ISCED 2A or 2B, respectively. These changes mainly refer to *Berufsfachschulen* (of which there are more than 50 different types in the Federal Länder) and those students at *Berufsschulen* who have no contract in the dual system (full-time students). In the German Educational Report, the whole sector is identified as the transition system: preparatory vocational training, vocational education in training programmes not leading to a recognised qualification, practice placement or partial qualification. Until 2008, programmes at *Berufsfachschulen* aimed at qualifying Kindergarten teachers and school-based vocational education for medical assistants, nurses, midwives or social assistants had been allocated to ISCED 3B while the respective programmes at health-sector schools, or *Fachschulen*, had been allocated to ISCED 5B. Now all these programmes, regardless of the type of school, are allocated to ISCED 5B. **Back_to_Table1**

Hungary: First-time graduates are estimated. The main reason for the decrease in the number of graduates from vocational programmes in 2007 is an increase from one to two years in the duration of vocational programmes in many of professions. This explains why there are no graduates in these professions for this particular year, yet an increase in the graduation figure in 2008. Furthermore, in 2004 a new programme (3AG programmes with a language preparatory grade) was introduced. This programme's duration is five years (the typical duration at 3A level is four years), therefore students in this programme will graduate in 2009 instead of 2008. The increase in upper secondary graduation rates for ISCED 3 general programmes and the decrease in graduation rates for ISCED 3 pre-

vocational/vocational programmes in 2004 are due to the change in the ISCED classification of the vocational secondary school programmes. Previously they were classified as ISCED 3A pre-vocational programmes, but the proportion of vocational subjects has dropped below 25% in recent years. Therefore, these programmes have been reclassified as ISCED 3A general programmes in the revised UOE questionnaire. At the same time, in Grades 9 and 10 of the vocational school, the proportion of vocational (or rather pre-vocational) subjects was raised somewhat above 25% of the total instruction time. Therefore, this programme (formerly classified as 3C general) was reclassified as ISCED 3C pre-vocational. Graduation rates for 2000 are "missing" because that year's statistics cannot be compared to those of subsequent years. The structure of upper secondary education changed in such a way that a large part of vocational training was elevated to the post-secondary level, while in former years vocational secondary schools' programme were changed from ISCED 3B to ISCED 3A. In the transition year, therefore, there is duplication in the data. Due to the multi-cycle training (Bologna structure) introduced in 2006 in ISCED level 5A, the proportion of graduates in some fields of training changed. For example, the former teacher-training in college was classified into the field "education". In the Bologna structure it was separated into two cycles and the first, bachelor cycle was classified into other fields (*e.g.* humanities or science). There were changes in vocational secondary and post-secondary education by field due to the new National Vocational Qualification List introduced from 2006. The decrease in the post-secondary graduation rates from 2004 is due to the fact that ISCED 4A programmes (general programmes designed for students who have graduated with a 3C vocational qualification but want to pass a maturity examination) were abolished in 2003. Students can now enrol in secondary vocational programmes preparing for maturity examinations at grade 10 or 11, depending on their study achievements. Graduation rates in post-secondary non-tertiary education now refer only to students enrolled in ISCED 4C vocational programmes. **Back_to_Table1**

Iceland: Graduation data for ISCED 3 in 1995 refer to the school year 1995/96. At ISCED 3, all graduates are counted except for the journeymen's exam (since they usually have another graduation first) and a few introductory programmes. **Back_to_Table1**

Luxembourg: A significant proportion of the youth cohort study in neighbouring countries at ISCED 3 level. **Back_to_Table1**

New Zealand: Graduates consist of those at secondary-school level and those from post-school programmes at ISCED 3 level. Unduplicated counts are achieved by excluding from ISCED 3 post-school graduates students who have attained prior ISCED 3 qualifications either at school or post-school, then adding ISCED 3 graduates from school. As the latter can be measured only when the student leaves school rather than the year in which the qualification is attained there is a mismatch in the timing of measurement of graduates. This is not considered significant. A new system of national qualifications has been introduced and the measure of attainment associated with graduation is higher than the one used in 1995. A break in the series occurred between 2008 and 2009 due the inclusion of ISCED 3C short graduates and graduates from private institutions. **Back_to_Table1**

Norway: ISCED3 graduates include persons who obtain ISCED 3 general qualifications for entering ISCED5 (studiekompetanse) and persons who obtain the ISCED 3 trade certificate (fagbrev). The latter group includes persons who obtain the trade certificate without necessarily attending the program (praksiskandidater). **Back_to_Table1**

Slovak Republic: The lower level of graduation rates at ISCED 3 level between 2001 and 2003 has been caused by gradual transfer of 8-years´ basic schools to 9-years´ from the school year 1997/98 (the transition lasted 3 years). **Back_to_Table1**

Spain: The break in series in the 2003 school year is due to the revision of the national population data. The break in series in 2005 is due to the inclusion of the programme Occupational Training (one semester and more) classified as ISCED 3C (short programme). From UOE 2010 data collection, changes have been included at ISCED 3 by destination classification (according to the new law). **Back_to_Table1**

Switzerland: Changes in graduations from ISCED 4 are due to changes in the educational system: programmes in ISCED 4 have been replaced by either programmes in ISCED 3 or 5B. The increase in ISCED 3 is partially due to the aforementioned change in educational systems, but partially also due to a change in methodology. **Back_to_Table1**

Sweden: In Sweden, graduation from upper secondary education exists only in the part of the school system designed for students under the age of 21. Students studying in adult education may complete ISCED 3 and be awarded a certificate. These certificates may fulfill the entry requirement for higher education, but there is currently no registration of whether or not they are formally equivalent to graduation. **Back_to_Table1**

Turkey: Open education is excluded. Graduates from ISCED 3C short programmes are missing. During the 2007/08 school year, the duration of the all secondary education programmes that lasted three years was extended to four years. Therefore fewer students graduated this year. The number will go up again in the following years. **Back_to_Table1**

United States: General Educational Development (GED) programmes and other alternative forms of upper secondary school completion are not included in the graduation-rate calculations. U.S. data for graduates by age are calculated by applying totals by ISCED level from universe data to age distributions by ISCED level, which are drawn from a nationally representative sample of households in the United States. These age distributions fluctuate from year to year, resulting in estimates at some ages increasing and at other ages decreasing. These fluctuations become particularly notable for population bands on the fringe of an ISCED level from which relatively few people graduate. **Back_to_Table1**

- **Post-secondary non-tertiary graduation rates (Table A2.1a-Web)**

Methodology

Please see notes to Table A2.1. **Back_to_Table1**

Typical ages of graduation and graduation rate calculation methods are shown in Annex 1. **Back_to_Table1**

Notes on specific countries

Greece: Data for ISCED 4 are estimates. **Back_to_Table1**

Distribution of upper secondary vocational graduates, by field of education and gender (Table A2.4)

Classification

Tertiary graduates who receive their qualification in the reference year are classified by field of education based on their subject of specialisation. The 25 fields of education used in the UOE data collection instruments follow the revised ISCED classification by field of education. The same classification by field of education is used for all levels of education. For definitions and instructions refer to the ISCED Classification (UNESCO, 1997). The classification is in accordance with the fields of training defined in the *Fields of Training – Manual* (EUROSTAT, 1999).

Germany: Until 2008, programmes at *Berufsfachschulen* aimed at qualifying Kindergarten teachers and school-based vocational education for medical assistants, nurses, midwives or social assistants had been allocated to ISCED 3B while the respective programmes at health-sector schools, or *Fachschulen*, had been allocated to ISCED 5B. Now all these programmes, regardless of the type of school, are allocated to ISCED 5B. This leads to a decline of the percentage of health and welfare in ISCED 3 and a rise in the percentage of health and welfare in ISCED 5B.

- **Successful completion of upper secondary programmes, by gender and programme orientation (Tables A2.5 and A2.6)**

The data are based on a special survey carried out in December 2011. Successful completion of upper secondary programmes is estimated using different methods: true cohort, longitudinal survey and proxy cohort data. A detailed description of the method used for each country is presented below (years of new entrants, years of graduates, programmes taken into account, etc.)

Methodology

Data on successful completion of upper secondary programmes were collected through a special survey undertaken in December 2011. The completion is calculated as the ratio of the number of students who graduate from an upper secondary programme during the reference year to the number of new entrants in this degree *N* years before, with *N* being the duration of the programme. The calculation of the completion is defined from a cohort analysis in three quarters of the countries (true cohort method and longitudinal sample). The estimation for the other countries assumes constant student flows at the upper secondary level, owing to the need for consistency between the graduate cohort in the reference year and the entrant cohort *N* years before (Proxy cohort data). This assumption may be an oversimplification.

These two methodologies to estimate completion rates are:

True cohort method

The calculations are based on information from individual student registers. The completion rate gives the proportion of entrants who graduated within *N* years (or N+2). The year of entrance gives the year when the observed cohort of students entered the level. These individual students are followed up on an individual basis within the normal duration of the programme *N*, or within N+2, to establish whether they drop out, change orientation or graduate.

Proxy cohort data

To calculate the successful completion using the Proxy cohort data method, the number of graduates from upper secondary programmes (2010 data) is divided by the number of new entrants into these programmes *N* years before multiplied by 100. *N* is the normal duration of the programmes. This ratio is adjusted to take into account changes in the population (deaths, international migration factors).

Notes on specific countries

Austria:

Method: True-cohort

Year used for new entrants: 2006-07

Theoretical duration of the programmes:

- 4 years for general programmes

Flemish Community (Belgium):

Scope of the data in the survey

Method: True cohort

Year used for new entrants: 2004-05

Theoretical duration of the programmes: The theoretical duration of all programmes in scope of this survey is 4 years (2 stages of 2 years each).

The data in the survey are based on the pupils' register for secondary education. Information by individual pupil is available in this database.

The data in scope of this survey cannot be compared with the UOE data collection. The UOE data collection takes into account special secondary education, part-time secondary education, apprenticeship courses organised by Syntra Vlaanderen, adult education, etc. Please take this into account in the analysis of the data.

New entrants

The reference year for the new entrants is the school year 2004-2005. The entrants integrated in the survey are limited to the pupils from whom we are sure that they haven't been enrolled in 2003-2004 in the 1st grade of the 2nd stage of regular secondary education (= first grade of ISCED 3).

About 93% of the pupils in the 1st grade of the 2nd stage of regular secondary education are new entrants.

Number of entrants who graduate at ISCED 3

The data integrated in this row of the survey refer to the new entrants who graduated at the end of the school year 2007-2008 (theoretical duration of the programmes in scope of this survey = 4 year) and following (information integrated in the N+2 years). Pupils who have been graduated before the end of the school year 2007-2008 (for example pupils who jumped a grade) have been excluded. The allocation by type of education (general versus vocational) is based on the start position of the pupil and not on the type of education in which the pupil graduated.

Number of students still in education

The number of students refers to the students who are still enrolled in secondary education at ISCED 3 level. Students who have entered adult education, Syntra-training, higher education, or other ISCED levels … are not taken into account. The pupils are allocated by type of education (general versus vocational) on the basis of their start position in the school year 2004-2005.

Number of students who dropped out

Number of students who dropped out = number of new entrants decreased with the number of entrants who graduated at ISCED 3 and the number of students still in education at ISCED 3 level. These pupils are no longer enrolled in secondary education at ISCED 3 level but it is possible that they are still in other forms of education (for example already in higher education, in training offered by Syntra).**Back_to_Table1**

Canada:

Method: Proxy cohort data

Year used for new entrants: Canada is not able to collect data on new entrants. For the survey, they used grade 10 enrolments for the school year 2006-07.

Theoretical duration of the programmes: three years - (2008-2009); 16-19 year-old first-time secondary graduates (in Quebec, 15-18 year-olds graduating from Secondaire 5) adjusted for deaths and net interprovincial and international migration that occur in the period between grade 10 and the graduating year. For Canada, the adjustment factor is below 100% as there is more inwards migration than outwards migration. There are possible flows in and out of the public school system between enrolment in grade 10 and graduation at the end of grade 12, such as moves between public and private schools, that are not taken into account. **Back_to_Table1**

Czech Republic:

Method: Cross-cohort

Year used for new entrants: 2006-07

Theoretical duration of the programmes:

- 4 years for general programmes
- 3-4 years for vocational programmes

New entrants

New entrants from 2006-07, but all graduates of full-time programmes

Number of entrants who graduate at ISCED 3

Full-time programmes only (programmes with full curriculum) **Back_to_Table1**

Denmark:

Method: True cohort

Year used for new entrants: 2002-03

Theoretical duration of the programmes:

- 2-3 years for general programmes
- 2-4 years for vocational programmes **Back_to_Table1**

Estonia:

Method: True cohort

Year used for new entrants: 2004

Theoretical duration of the programmes: 3 years for general and vocational programmes

New entrants

"ISCED 3 entrants" follows those born in 1988 who entered ISCED 3 level general (3G) and vocational (3V) programmes in 2004 (14 478 persons). It covers 71% of the total of age cohort enrolled at ISCED 3 level programmes at any time up till 2011 (according to in the register – Estonian Education Information System). Another large group of 4 413 people (22% in total) entered secondary education in 2005 and the rest started between 2006 - 2010, in diminishing numbers each year.

Reference year 2004 represents the time when most of the 1988 cohort started their secondary education for the first time. Completion and drop-out numbers are reported for 2007, as the nominal length of both general and vocational programmes is three years, and then again for 2009 (n+2) and 2010 (n+3).

Number of entrants who graduate at ISCED 3

"Graduates" are those who completed 3G or 3V programmes. Division between the respective groups is based on their initial choice of track. A number of persons changed their study programmes during the follow-up period. Their progress is reported within their initial group, but a distinction is made between the 3G and 3V graduates, *e.g.* if a person started his/her studies in 2004 in 3V but switched to 3G at some point and managed to complete the programme by 2007 (or by 2009 and 2010 in respective tables), he/she is still considered as a graduate in the total number of graduates of the group of 3V but he/she is reported separately from those who started at 3V and graduated from the same track. This approach allows for following the path chosen by entrants and reporting their status in the graduate/drop-out/still in education scale properly.

"Number of students still in education" includes those among the ISCED 3 entrants who were still studying in 2007 (and 2009, 2010 respectively). Students still in secondary education are reported as such, regardless of their movements between 3G and 3V programmes. Those who switched from 3G to 3V (or vice versa) are still reported within the group of their initial choice of track, but their current status in their second choice is given separately.

"Number of students who dropped out" includes only students who have dropped out of their initial choice of programme and have not, by 2007 (or 2009 and 2010 respectively), obtained any ISCED 3 level qualification elsewhere and are not studying in any secondary education programme during the year in question. To see the number of drop-outs from 3G, for example, regardless of their progress elsewhere within secondary education, the number of students who left 3G to study in 3V and those who graduated in 3V could be added to the number of students reported in the table. Both numbers are available in the table. **Back_to_Table1**

Finland:

Method: True cohort

Year used for new entrants: 2004

Theoretical duration of the programmes: 3 years for general and vocational programmes

Note: The decrease in the number of drop-outs in n+3 data is a result of the fact that many students return to ISCED 3 education after dropping out of ISCED 3 (e.g. they change their field of education or from general to vocational education). These students thus reappear as students still in education at ISCED 3 and reduce the overall number of drop-outs.

The number of students who are entrants in ISCED 3 vocational programmes but graduate from ISCED 3 general programmes decreases in n+3 data because some of these students attend both general and vocational programmes. If a student starts a vocational programme in the monitored year and graduates from a general programme in the monitored period he/she is registered as entrant in the vocational but as a graduate in the general programme.

However, if the same student graduates from a vocational programme in a later monitored year, he/she is registered as a vocational programme graduate instead of a general programme graduate. This is why the number of graduates from general programmes (for entrants in vocational programmes) can actually decrease in n+3 data. **Back_to_Table1**

France:

Method: Longitudinal sample survey

Year used for new entrants: 1999-2005

Theoretical duration of the programmes:

- 3 years for general programmes
- 2 years for vocational programmes

The cohort has been followed up since the first year of education at ISCED 2. The theoretical duration of ISCED 2 education is 4 years. Grade repetitions occur once or twice in certain cases. Therefore, the entrance to ISCED 3 occurred from 1999 (school year 1999-2000) to 2005 (school year 2005/06). The period for passing exams is about n+3 years. France only took into account the first graduation from ISCED 3 for these calculations. Students who began "baccalauréat technologique" after a first vocational graduation are not considered as having graduated from a general programme. **Back_to_Table1**

Hungary:

Method: Proxy cohort data

Year used for new entrants: 2006-07

Theoretical duration of the programmes:

- 4 years **Back_to_Table1**

Iceland:

Method: True cohort

Year used for new entrants: Autumn 2003

Theoretical duration of the programmes: 4 years used for both general and vocational programmes. There are vocational programmes taking from 0.5-5 years but 4 year programmes are most common. A one year general programme also exists but a large majority of students in general programmes study in a 4 year programme.

New entrants

New entrants are those who are students at ISCED 3 and have not been students at ISCED 3 before since the start of the student register in 1975. The survey is limited to students in day school programmes. All new entrants are included, not considering the duration of the programme they are entering. Students in pre-vocational programmes are counted with students in vocational programmes.

Number of entrants who graduate at ISCED 3

Graduates are those who had successfully completed an ISCED 3 programme of at least 2 years duration by 2007 (N) or 2009 (N+2). Entrants who successfully completed shorter programmes than 2 years are not included with graduates. The data are based on the programme the student entered in 2003. Some students have changed their programme of study during this period, *e.g.* switched from a general to a vocational programme and vice versa. Is it also quite common to complete both a general and a vocational programme. Students who graduate both from general and vocational programmes in this period are counted both with graduates from general and vocational programmes but only once in the total number of graduates. A few of the students have completed a higher exam even though they did not complete ISCED 3, but they are not counted with graduates. A considerable number of graduates have completed a two year vocational programme. Many of those graduates continue in school and also complete a 4 year general programme. The existence of 2 year vocational programmes is the main reason for the higher graduation rate from vocational programmes than from general programmes.

Number of students still in education

Students still in education in Iceland at ISCED levels 3-6 in the autumn of 2007 (N) or 2009 (N+2). In addition, a few students are receiving student loans to study abroad, and even though they have not graduated from ISCED 3, they are not included in student numbers.

Number of students who dropped out

These are new entrants in 2003 who have not graduated from an ISCED 3 programme of at least 2 years duration and are not studying in schools in Iceland at ISCED levels 3-6 within the timeframe given. **Back_to_Table1**

Ireland:

Method: True cohort

Year used for new entrants: 2004

Theoretical duration of the programmes:

- 2-3 years for general programmes
- 2-3 years for vocational programmes

Note: This data relates to a cohort of pupils who entered the second level system in 2001. These pupils followed ISCED 2 programmes for 3 years. Following this, students have an option of taking an ISCED 3 level programme, called Transition Year, for one year before embarking on a two-year Leaving Certificate programme. Hence the theoretical duration is 2 or 3 years.

Number of entrants who graduate at ISCED 3

This data is an underestimate, as the figure is not adjusted for factors such as students who left the state-aided school sector to pursue their senior-cycle education in private, non-aided institutions, or emigration or death. Also adjustments have not been made for students who left the state-aided school sector to pursue alternative educational pathways, such as apprenticeships. **Back_to_Table1**

Israel:

Method: True cohort

Year used for new entrants: 2007

Theoretical duration of the programmes: 3 years for general and vocational programmes **Back_to_Table1**

The data for Israel are based solely on student files under the responsibility of their Ministry of Education, and therefore exclude two types of programmes:

- Apprenticeships under the responsibility of the Ministry of Labour. These institutions, classified as upper secondary education, account for 3-4% of all upper secondary students.

- Higher Yeshivas, which cater to Ultra-Orthodox Jewish boys. In principle it is a post-secondary type of education, but the Ultra-Orthodox system allows for boys to enter these institutions before the official completion age for upper secondary education.

Thus, the gender gap found in completion rates for Israel can be traced back to these two phenomena, as boys account for the large majority of apprenticeship students, while Yeshivas cater for boys only. These two populations may be viewed as dropping out of the system, while in fact they only "drop" from the system which is under the Ministry of Education.

Japan:

Method: True-cohort

Year used for new entrants: 2007

Theoretical duration of the programmes: 3 years for general and vocational programmes **Back_to_Table1**

Korea:

Method: True-cohort

Year used for new entrants: 2007

Theoretical duration of the programmes:

- 3 years for general programmes
- 3 years for vocational programmes **Back_to_Table1**

Luxembourg:

Method: True cohort

Year used for new entrants: 2000-01

Theoretical duration of the programmes:

- 4 years for general programmes
- 2-5 years for vocational programmes **Back_to_Table1**

Mexico:

Method: Proxi cohort data

Year used for new entrants: 2008

Theoretical duration of the programmes:

- 3 years for general programmes
- 3 years for vocational programmes **Back_to_Table1**

Netherlands:

Method: True-cohort

Year used for new entrants: 2007

Theoretical duration of the programmes:

- 3 years **Back_to_Table1**

New Zealand:

Method: True cohort

Year used for new entrants: 2004

Theoretical duration of the programmes: 3 years for general programmes (vocationally-oriented initial education school-based programmes are largely non-existent).

The data includes only entrants to ISCED 3 in secondary school settings. New entrants to ISCED 3 general or vocational programmes in post-school institutions, either as adults or youth, have not been included.

The vast majority of students enter ISCED 3 in school, rather than post-school settings, and do so as general programme entrants. ISCED 3 programmes in schools are predominantly general programmes. In New Zealand, the starting cohort (denominator) relates to those starting in regular school programmes. The numerator includes any of these who go on to complete an ISCED 3 qualification, whether in the regular school environment or after they have left regular school. Most will complete at school, but some drop out of school and subsequently enrol in a post-secondary institution - and go on to complete a qualification that may be quite different from the standard school qualifications, but is nonetheless deemed to be equivalent to ISCED 3. This explains most of the increase in New Zealand's rates from 59% after 3 years (the normal length of upper secondary), to 64% and 66% after 5 and 6 years, respectively.

Most students enter ISCED 3 (usually aged 15) in year 11. Most students entering ISCED 3 do so into a one-year programme (called the "National Certificate of Educational Achievement Level 1", or "NCEA 1"). The flexibility of the New Zealand National Qualifications Framework and NCEA allows students to build up credits over time. Students who do not gain a qualification in one year retain credits and may obtain qualifications in subsequent years. Typically students gain NCEA 1 after their first year, NCEA 2

after two years and NCEA 3 after three years. Upon reaching age 16 (or 15 under rare circumstances) students may choose to leave school for the labour market or tertiary study with or without one or all of these school qualifications.

Those who leave school after just one year of upper secondary education with the NCEA 1 qualification are coded to ISCED 3CS. This group represents an established educational pathway for about 8% to 10% of regular school ISCED 3 entrants. This established pathway is one reason for the lower upper secondary completion rate in New Zealand (given that 3CS does not count as ISCED 3 completion).

Students completing NCEA 2 or higher are considered to have completed ISCED 3. The most common entrance requirement for students wanting to go on to higher education is known as 'University Entrance'. This requirement is met by attaining 4 reading and 4 writing credits from NCEA 2 or higher; 14 credits from Mathematics at level 1 or higher; and 42 credits at Level 3 or higher, including 14 credits in each of two subjects from an approved list and 14 credits from no more than two additional approved subjects.

All students at the start of their upper secondary year (year 11) enter a general one-year programme known as NCEA 1. It is the same programme, regardless of whether they plan to leave school with NCEA 1 as their final school qualification, or whether they plan to use their NCEA 1 to gain NCEA 2, or NCEA 3. **Back_to_Table1**

Norway:

Method: True cohort

Year used for new entrants: 2004

Theoretical duration of the programmes:

- 3 years for general programmes
- 4 years for vocational programmes

The survey on upper secondary completion rates is based on the entry cohort in 2002. As the typical duration of 3G programmes is 3 years, the upper secondary completion rates for the 3G (general) entry cohort has been examined after 3 years (n), 5 years (n+2) and 6 years (n+3). For 3C programmes, the typical duration is 4 years, and the upper secondary completion rates for the 3C (vocational) entry cohort has been examined after 4 years (n), 6 years (n+2) and 7 years (n+3). The survey on ISCED 3 cohort - total is then completed, except for no information on first-time ISCED 3.

On student drop-outs: some students did not successfully complete the final examination, but they should not be mixed with students who dropped out sometime during the programme. **Back_to_Table1**

Poland:

Method: True cohort

Year used for new entrants: 2006-07

Theoretical duration of the programmes:

- 3 years for general programmes

- 2-4 years for vocational programmes

First-time enrolled at ISCED 3 equals ISCED 3 entrants, as all second-chance, bridging or supplementary programmes at ISCED 3 level have been excluded.

It is impossible to extract the data on students who graduate in (an expected) graduation year + 2, 3, or more years without an individual students' data register. It is possible, however, to check the number of "late graduates" by comparing the number of entrants to the first grade of ISCED 3 level, broken down by age, with number of graduates by age (leaving the correct time gap for the duration of the particular programme). This could be done, but given a change in the data-collection system, it might not be accurate. Drop-out levels could be calculated in this way, too, as long as precise data on graduates and entrants by age, not just by age group or type of programme (for youth or adults) are available.

Students of bilingual programmes in general upper-secondary schools (lasting usually one year longer than typical general upper secondary programmes) have been omitted due to incomparability of data (no data of graduates serving as a basis for calculating completion rates). Students in supplementary language class at general upper-secondary schools account for 0.09% of all those who attended general upper secondary schools in 2009 (0.28% of the cohort of first grade of the relevant programme).

Entrants and graduates of 2, 3 and 4 year-long vocational programmes have been calculated separately. **Back_to_Table1**

Slovak Republic:

Method: Proxi cohort data

Year used for new entrants: 2006

Theoretical duration of the programmes:

- 4 years for general programmes
- 3 years for vocational programmes **Back_to_Table1**

Slovenia:

Method: Proxi cohort data

Year used for new entrants: 2007

Theoretical duration of the programmes:

- 4 years for general programmes
- 3-4 years for vocational programmes **Back_to_Table1**

Spain:

Method: Proxy cohort data

Year used for new entrants: 2006-07 (New entrants into ISCED 3A and 3B programmes)

Theoretical duration of the programmes: 2 years for general and vocational programmes

The data only refer to the main general (Bachillerato) and vocational (Ciclos Formativo de FP) programmes at ISCED 3. **Back_to_Table1**

Sweden:

Method: True cohort

Year used for new entrants: 2006

Theoretical duration of the programmes: 3 years for general and vocational programmes

Sweden completed the first table for “regular” upper secondary education without checking whether the students have continued their studies (and maybe graduated) in the adult education system. **Back_to_Table1**

United Kingdom:

Method: True cohort

Year used for new entrants: 2006

Theoretical duration of the programmes:

- 2 years for general programmes **Back_to_Table1**

United States:

Method: Longitudinal sample survey

Year used for new entrants: 2002

Theoretical duration of the programmes: 3 years for general and vocational programmes

The ISCED 3 entrants number provided by the United States does not capture students who dropped out prior to entering Grade 10 (either not having completed ISCED 2, or not having transitioned from ISCED 2 to ISCED 3).

The ISCED 3 graduates number provided by the United States excludes students who have completed General Education Development (GED) equivalency tests, and the "Number of students still in education" excludes students working towards equivalency credentials. Students who have completed or are working towards equivalency credentials are included in the "Number of students who dropped out" category. **Back_to_Table1**

■ Tables X1.1a, X1.1b, X1.3 Typical age, graduation, entry rate calculation and summary of upper secondary (ISCED 3) programme completion requirements

- **Typical age**

The typical age refers to the age of the students at the beginning of the school year; students will generally be one year older than the age indicated when they graduate at the end of the school year. The typical age is used for the graduation rate calculation.

- **Summary of upper secondary programme completion requirements**

Notes on specific countries

Czech Republic : *3A* - Certificates at the end of each year are based on current checking. Final exam (*maturita*) is a comprehensive one.

3B - Certificates at the end of each year are based on current checking. Final exam (absolutorium) is a comprehensive one.

3C - Current checking rather than exams. Certificates at the end of each year are based on the current checking. Final exam is a comprehensive one. **Back_to_Table1**

Denmark: *3C* - The main course in vocational training is normally completed with a "journeyman's test" or a similar examination testing. The test may be taken after the school period as an actual journey man's test performed in the business. **Back_to_Table1**

Greece: *3A* - Students are examined twice/at the end of each year after compulsory attendance;

3C - Students are examined at the end of each year after compulsory attendance. **Back_to_Table1**

Ireland: *3A* - To be a candidate for the exam a student must either have completed the 2 year LC programme or have attained the age of 17 years.

3C - The Leaving Certificate Applied assessment takes place over the two years under three headings: Satisfactory Completion of Modules, Performance of Student Tasks and Performance in the Terminal Examinations. The two-year programme consists of four half-year blocks called Sessions and achievements are credited in each of these Sessions. At the end of each Session a student is credited on satisfactory completion of the appropriate modules. Student Tasks are assessed by external examiners appointed by the Department of Education and Science. These Tasks may be in a variety of formats - written, audio, video, artefact etc. Each student is also required to produce a report on the process of completing the Task. This report may be incorporated in the evidence of task performance. Terminal Examinations are provided in the following areas: English and Communication, Two Vocational Specialism, Mathematical Applications, Language (Gaeilge Chumarsaideach & Modern European Languages) and Social Education. **Back_to_Table1**

Israel: In Israel, students who complete 12th grade are considered upper secondary graduates. Matriculation exams are used as an extra indicator for completion but not the only one. Number of hours

per student in upper secondary education to complete the programme is 110 hours within three years of studying (10th to 12th grade). **Back_to_Table1**

The Netherlands: *3A* - Each course can be finalised by an exam. Together with the result of the final exam the results of these exams determine the final result for the respective study subject. Since 1999 the Netherlands introduced a new second phase of secondary education. This means that pupils are encouraged and taught to study independently. The number of course hours prescribed by the government now describe the number of hours that a typical pupil is expected to need to get familiar with the contents of the course. For each course this number is given by the government. The total number of these 'course hours' amounts to 1 600 / year. 1 000 hours of them are taken care of during school time as part of the educational programme. For the remaining hours pupils are expected to study themselves.

3C - Minimum entrance requirement is ISCED 2. **Back_to_Table1**

Poland: The *Świadectwo maturalne* certificate, which gives access to tertiary education, is awarded on the basis of a final examination and the grades obtained in the final year. Those pupils who do not wish to take the matura examination are awarded the secondary school leaving certificate, which is based solely on the grades and work over the year.

Except for the *Świadectwo maturalne* certificate students of technical secondary schools can be awarded a diploma confirming vocational qualifications at the technical level after passing the final examination.

Students of basic vocational schools who do not wish to take examination (confirming obtaining of vocational qualifications at the basic vocational level) are awarded the basic vocational school leaving certificate, which is based solely on the grades and work over the year. **Back_to_Table1**

Slovak Republic: *3A* - practical training in grade 2 and 3 per 2 weeks in some cases up to 4 weeks for all grades *e.g.* in veterinary medicine. Or typical apprenticeship programme with one third of practical training. (certificate on apprenticeship) extended by increased portion of general subjects which are also included in final examination (*matura* examination) and also giving access to higher education.

3C - training for children with special needs, two thirds of which represent practical training, final examination consists only from vocational subjects, including a practical part; or final examination consists only of vocational subjects, including practical part; or typical apprenticeship programme with one third of practical training. **Back_to_Table1**

Turkey: *3C* - Obligatory vocational training of at least eight hours per week. Candidates have to pass the assistant mastership exam after three years of study or five years of work experience. **Back_to_Table1**

United Kingdom: For the majority of general 3A (such as A levels and Scottish Highers) and 3C programmes (such as GCSEs and Scottish Standards) there are modular examinations at intervals during the programme as well as at the end. For most subjects, assessed coursework also contributes to the grade. For each separate subject within the programme, there is a range of possible attainment grades. For vocational 3A/B programmes such as NVQs there may be some formal tests but the pass criterion is demonstrable competence in the workplace (or simulated workplace). Evidence for the assessment is gathered mainly by direct observation of the candidate performing in a workplace setting, often supplemented by a portfolio of documentary evidence relating to work task undertaken by the candidate.

There are typical course hours especially for general 3A and 3C programmes (less so for vocational programmes), but these are not strictly mandatory and for most programmes it is possible to register for the assessment whether or not the candidate is enrolled in the regular education system. **Back_to_Table1**

INDICATOR A3: How many students are expected to graduate from tertiary education?

- **Graduation rates in tertiary education - Tables A3.1, A3.2, A3.3 and A3.5 (Web only)**

Methodology

Typical ages of graduation and graduation rate calculation methods are shown in Annex 1. **Back_to_Table1**

Notes on specific countries

Australia: The growth in the number of foreign students in Australia has contributed to the rise of this indicator since 2000. **Back_to_Table1**

Austria: During the 2007/08 school year (UOE 2009 data collection), post-secondary colleges for teacher training (ISCED 5B) were transformed into ISCED 5A programmes offered at University Colleges of Teacher Education and post-secondary colleges for medical services were partially transformed into Fachhochschul programmes. University courses and private universities (partly ISCED 5A, partly ISCED 5B) are also included for the first time in the UOE data collection. During the 2008/09 school year (UOE 2010 data collection), courses with credits offered by teacher training institutions were reported for the first time. Furthermore, an evaluation of the entry requirements and acquired qualifications of two small programmes led to their re-classification. In previous years Aufbaulehrgänge and Berufsbildende höhere Schulen für Berufstätige were classified as ISCED 4, in the current data collection they are reported as ISCED 5B programmes. **Back_to_Table1**

Belgium: Data for the German speaking Community are not integrated in the Belgian data. **Back_to_Table1**

Belgium (Flemish Community): Data are not available for the following institutions: K.M.S. (Royal Military Academy) and the Protestant Faculty. Most data on first-time graduates are missing.

Due to the introduction of the BAMA structure and allocation to ISCED, the data cannot be compared from one year to the next. From the UOE 2011 data collection on, the associate degree is integrated in ISCED 5. On 1 September 2009, 2 new training forms have been introduced in the Flemish educational system: the associate degree ('HBO') and advanced secondary education ('Se-n-Se'). Legally advanced secondary education is allocated at the level of secondary education; the associate degree is allocated at the level of higher education. In ISCED 1997 advanced secondary education is allocated at ISCED 4; the associate degree is allocated at ISCED 5B.**Back_to_Table1**

Belgium (French Community): The gradual implementation of the Bologna process affects the number of graduates taken into account at the ISCED 5A level. In 2007, following the introduction of the BAMA structure, bachelors' degrees (obtained at the end of a 3-year programme) were granted for the first time and considered as first degrees at this level. Previously, at least 4 years were necessary at the 5A level to obtain a 1st degree. As the Bologna process is being implemented progressively, the first degrees of the old system are still being counted as first degrees. Next year, with the arrival of the first masters' graduates (2nd degree at the ISCED 5A level), the data will be more balanced. However, in this transition period, the data cannot be compared from one year to the next. **Back_to_Table1**

Brazil: Master degree programmes are included in ISCED 5 data. The Higher Education Census (ISCED 5) does not collect data on first and second qualifications separately and data on graduates by age group. Therefore, the percentage of students enrolled in the last year of a tertiary course by age, collected by PNAD (household survey), is used to distribute graduates by age. Tertiary-type B programmes are included with tertiary-type A. **Back_to_Table1**

Canada: Tertiary-type A and tertiary-type B results are those from publicly funded institutions. The reference year is 2009. **Back_to_Table1**

Czech Republic: From 2009, new data source for students belonging to ISCED 5B (from students´ register). It allows for a better split concerning the age of the students. In previous years data was estimated.

Denmark: From the 2005 UOE data collection, some parts of adult education (part-time) have been included according to the revised tables and the UOE manual. This explains the large increase in the tertiary-type B entry rates compared since then and the changes in the distribution of fields of education**.** Concerning data on foreign/mobile students, the implementation of the operational definition have been changed. We have observed that the population register does not always have the right immigration date for mobile students. Foreign students who are registered in the population register with an immigration date after start of the educational program are now included as mobile students. **Back_to_Table1**

Estonia: The reference date for ages for graduates has changed from 2007 data to conform to the UOE data collection manual. This change may cause a break in the series. **Back_to_Table1**

Finland: Due to a structural change in the tertiary education system, ISCED 5B programmes (vocational college) have been phased out. At the same time, the volume of polytechnic education (ISCED 5A) has increased, hence the increase in ISCED 5A graduates.

The long master's degrees are reported as first degrees until UOE 2009 collection data (year 2008 data). Since then the long master's degrees are reported as second degrees.. Since the UOE 2007 collection data (year 2006 data) on graduates who are non-citizens of reporting country are based on annual individual data-based qualification and degree register data. Previously data on graduates who are non-citizens of the reporting country were based on the Register of Completed Education and Degrees. The high number of graduates in ISCED 5A education in 2008 is caused by the termination of the option to graduate, according to the pre-Bologna study programmes in most of the fields of education. The number of graduates was record high in university education because of this. Though the increase was real, it was temporary as in 2009 the graduate numbers decreased back to their normal level. **Back_to_Table1**

Germany:Until 2008, programmes at *Berufsfachschulen* aimed at qualifying Kindergarten teachers and school-based vocational education for medical assistants, nurses, midwives or social assistants had been allocated to ISCED 3B while the respective programmes at health-sector schools, or *Fachschulen*, had been allocated to ISCED 5B. Now all these programmes, regardless of the type of school, are allocated to ISCED 5B. This leads to a significant rise in ISCED 5B graduation rates.

Hungary: Tertiary-type B programmes are relatively new. There is also an increasing number of students who enrol in tertiary-type B programmes. **Back_to_Table1**

Italy: ISCED 5A second degree graduates and ISCED 6 graduates are not available. The number of students graduated from three to five year programmes decreased due to a reclassification of the old

programmes. Reference date for ages is 31/12/09 at tertiary level (UOE 2010 data collection). **Back_to_Table1**

Korea: From UOE 2009 data collection, four tertiary-type B (first qualification) have been reallocated to tertiary-type A (first degrees): Sanup daehak (Industrial University), Kakjong-hakgyo (daehak kwajong) (miscellaneous school, undergraduate course), Gyoyuk daehak (university of education), Kisul daehak (daehak kwajong) (polytechnic college, undergraduate course). In addition, two new programmes have been added to each of tertiary-type A (first) and B (first): Sanae daehak (jeonmun daehak kwajong) (college in the company, college course) into 5B; Sanae daehak (daehak kwajong) (college in the company, undergraduate course) into 5A. Another important change is that one tertiary-type B (second qualification) has shifted to tertiary-type A (second degrees), leaving no more programmes in tertiary-type B (second category): Teuksu daehakwon (graduate school, special). **Back_to_Table1**

Luxembourg: A significant proportion of the youth cohort studies in neighbouring countries at the ISCED 5 and 6 levels. **Back_to_Table1**

Netherlands: Graduate data only include publicly financed institutions, referred to as "public institutions" by the Dutch national statistical and educational environment. **Back_to_Table1**

Norway: As the bachelor–master system has been introduced, some educational programmes have changed from ISCED 5B to ISCED 5A. This causes a decrease in the number of graduates from ISCED 5B programmes and a corresponding increase in graduates in 5A programmes. **Back_to_Table1**

Portugal: Data exclude post-doctorate degrees. **Back_to_Table1**

Spain:

Break in series first time graduates at ISCED 5A in the 2009 school year, gross graduation rates have been replaced by net rates, with an important impact due to the structure of the population.

Back_to_Table1

Saudi Arabia: The statistics department of the Ministry of Higher Education does not collect data on first–time graduates neither on graduates by age. All graduates are reported as first-time graduates. Graduation rates may be overestimated.

Switzerland: First-time graduates ISCED 5B are estimated using labour force survey data. The rapid increase of graduation rates at tertiary-type B level in Switzerland between 2006 and 2007 is due to a better coverage of the data and to the upgrading of a number of programmes in the field of "health and welfare" to the tertiary level. This had led to an increase in the number of female graduates in tertiary-type B. **Back_to_Table1**

Russian Federation: Data on advanced research programmes include only data on public institutions. **Back_to_Table1**

United States: US data for graduates by age are calculated by applying totals by ISCED level from universe data to age distributions by ISCED level which are drawn from a nationally representative sample of households in the United States. These age distributions fluctuate from year to year, resulting in estimates at some ages increasing and at other ages decreasing. These fluctuations become particularly

notable for population bands on the fringe of an ISCED level which have relatively few people graduating. Some programmes are included in "Bologna sheet" of the questionnaire that are not included in ISCED, such as graduates from academic associate's degrees in the US. **Back_to_Table1**

Classification of tertiary programmes

Tertiary graduates are those who obtain a tertiary qualification in the specified *reference year* (graduation at the end of the academic year 2007/08). This indicator distinguishes among different categories of tertiary qualifications: *i)* tertiary-type B qualifications (ISCED 5B); *ii)* tertiary-type A qualifications (ISCED 5A); and *iii)* advanced research degree of doctorate standard (ISCED 6). For some countries, data are not available for the categories requested. In such cases, the OECD has assigned graduates to the most appropriate category. Programmes included at the tertiary levels are listed below for each country.

Australia:

ISCED5A	
First	"Bachelor's" (Degree) (3-4 years); "Bachelor's" (Degree with Honours) (4-5 years); Bachelor of Dentistry (5 years); Bachelor of Veterinary Science (5 years); Bachelor of Medicine and Surgery (7 years); Graduate Diplomas (1.5 years)
Second	Master's Degree (2 years) (by coursework or research); Doctorate (by course work) (3 years)
ISCED 5B	
First	Diplomas, Advanced Diplomas (2 years); Associate Degree (2 years)
Second	a
ISCED 6	Doctorates (by research) (3 years)

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Austria:

ISCED 5A	
First	Bachelor programme "Bachelor" (3 years); Diploma programme "Magister/ Diplomingenieur/ Doktor (1st)" (4-6 years)
Second	Master programme "Master/ Diplomingenieur" (2 years); Post-graduate studies "MSc, MBA" (2 years)
ISCED 5B	
First	Master craftsmen/ foreman courses "Meisterprüfung/ Werkmeisterprüfung" (2 years); Technical and vocational education colleges "Diplomprüfung" (2 years); Post-secondary colleges for medical services "Diplom"(3 years)
Second	University courses "akademische Bezeichnung" (2 years)
ISCED 6	Doctorate "Doktor"(2 years), Doctorate Ph.D. (3 years)

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Belgium (Flemish Community)

ISCED 5A	
First	Basic academic education, two cycles: Basisopleidingen aan de universiteiten (4-7 years); Basic academic education, Open University: Basisopleidingen, Open Universiteit; Basic academic education, Protestant Theological Faculty: Basisopleidingen aan de Universitaire Faculteit voor Protestantse Godsgeleerdheid (4 years); Royal Military Academy : Koninklijke Militaire School (4.5 years); Academic bachelor's programmes: academisch gerichte bacheloropleidingen;
Second	Masters degree; Specific teacher education after master: Specifieke lerarenopleiding na master; Master after profesionnal bachelor: Master na professionneel gerichte bachelor; ; Academic teacher training: Academische initiële lerarenopleiding (1 year); Advanced studies at the Institute for Tropical Science: Voortgezette opleidingen aan het Instituut voor Tropische Geneeskunde; Academic teacher training provided by 'hogescholen': Initiële lerarenopleiding van academisch niveau (1 year); Doctoral training: Doctoraatsopleiding; Advanced master's programmes: master-na-masteropleiding
ISCED 5B	
First	Associate degree ('HBO'); Professional bachelors degree:; Adult education - higher vocational adult education: Volwassenenonderwijs – hoger beroepsonderwijs van het volwassenenonderwijs; Specific teacher education: Specifieke lerarenopleiding
Second	Bachelor following bachelor; Specific teacher training after profesional bachelor: specieke lerarenopleiding na professionele bachelor
ISCED 6	Doctorate, Universities: Doctoraat, universiteiten; Doctorate at the Instititute for Tropical Science: Doctoraat aan het Instituut voor Tropische Geneeskunde; Doctoraat aan de Universitaire Faculteit voor Protestantse Godsgeleerdheid

Belgium (French Community):

ISCED 5A	
First	Enseignement supérieur de promotion sociale de type long; Enseignement supérieur de type long (4-5 years); Enseignement universitaire (1er et 2e cycle) (4, 5, 6 or 7 years); Ecole Royale Militaire (4-5 years); Faculté de théologie protestante
Second	Agrégation de l'enseignement secondaire supérieur (2 years); Enseignement supérieur de type long: année complémentaire (1 year); Enseignement universitaire: année complémentaire et 3e cycle (1+ years)
ISCED 5B	
First	Enseignement supérieur de promotion sociale de type court; Enseignement supérieur de type court (3 years); Enseignement artistique supérieur (musique et arts plastiques) (3 years)
Second	Enseignement supérieur de type court complémentaire (1 year)
ISCED 6	Doctorat et Agrégation de l'enseignement supérieur

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Canada:

ISCED 5A	
First	Bachelor's degree; First professional degree; Applied degree; Collaborative degree program; University transfer programme; Licensed undergraduate; Licentiate or testamur;
Second	Master's degree; Master's qualifying year; Graduate qualifying programme (second cycle); Residency (medical, dental, veterinary); Doctorate (Ph.D.) qualifying year or probationary; Internship (post-M.D.);
ISCED 5B	
First	Technical diploma; Undergraduate level certificate or diploma
Second	Post career, technical or professional training programme
ISCED 6	Doctorate (Ph.D.); Equivalent earned doctorate; Post-doctoral programme;

The Czech Republic:

ISCED 5A	
First	Bachelor University study "bakalář" (3 years and 3-4 years); Teacher training for primary education Master's "Magistr" (4 years) University Master "magistr uměni/ inženýr (architekt)" (5-6 years); University Master in (Veterinary) Medicine "doktor (veterinární) medicíny" (6 years)
Second	Post-graduate Pedagogical Certificate "osvědčení" (1 year); Post-graduate Certificate "osvědčení"(2 years); University Master "magistr uměni/ inženýr" (2-3 years)
ISCED 5B	
First	Higher Technical School for technicians, hotel managers, bank clerks, nurses "Vyšší odborná škola" (2-2.5 years and 3-3.5 years); Performing Arts and Dance Conservatoire Absolutorium (6 years and 8 years)
Second	a
ISCED 6	University Doctoral Study "Doktor" (3 years)

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Denmark:

ISCED 5A	
First	Tertiary education medium cycle "Diplomingeniør, maskin- mester, sygeplejerske, folke- skolelærer m.fl." (3-5 years); Bachelor's degree (3 years); Tertiary education long cycle, museum conservator, *e.g.* from Music Academy "Konservator, konservatorieuddannelserne" (5-7 years)
Second	Tertiary education long cycle "Cand. Mag., cand. Scient., cand. Polyt., etc." (2 years)
ISCED 5B	
First	Tertiary education short cycle, including technician qualification "Datamatiker/ byggetekniker/ Maskintekniker" (2-3 years)
Second	a
ISCED 6	Doctoral Programmes Ph.D. (3 years); Doctorate "Doktorgrad" (5-10 years)

Finland:

ISCED 5A	
First	Lower University Programmes (Bachelor's degree, 3 years); Polytechnic Bachelor's Degree Programmes (3.5-4.5 years); Higher University Programmes (Master's Degree, 5-6-years); Polytechnic Master's Degree Programmes (1-1.5 years after graduation from Polytechnic Bachelor's Degree Programme)
Second	Specialists in Medicine/Dentistry/Veterinary Medicine (5-6 years)
ISCED 5B	
First	a (tertiary-type B programmes have been phased out. Thus the number of students in tertiary-type B education is at the moment negligible)
Second	a
ISCED 6	Doctorate programmes – "Licentiate" (2 years); "Doctor" (4 years)

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France:

ISCED 5A	
First	First university diploma (First cycle 2 years "DEUG" + Second cycle 1 year "Licence") (3 years); Higher engineering school diploma "Diplôme d'ingénieur" (3-4 years) and Higher business school diploma "Diplôme d'ingénieur commercial" (3 years) including ' les Classes préparatoires aux grandes écoles (CPGE)" (2 years); Specialised higher schools diverse professional diplomas including in architecture, veterinary surgery, art etc "Diplômes professionnels divers (notaire, architecte, vétérinaire, journaliste,etc.)" (3-4 years); University pharmacy diploma "Diplôme de pharmacien" (5 years); University Diploma in Medicine/ Dentistry "Docteur en medicine/ Diplôme de dentiste" (7 years)
Second	University education 2nd cycle 2 year "Maîtrise" (1 year); Teaching in university institute of training Master (IUFM) "CAPES, Professeur des écoles, etc." (2 years); Special diploma in health "Diplôme d'études spécialisées" (3 years)
Third	University education 3rd cycle "Diplôme d'études supérieures spécialisées (DESS)" (1 year)
ISCED 5B	
First	Specific vocational training diploma "Diplôme universitaire de technologie (DUT) » (2 years); Specialised higher school short professional diploma, *e.g.* in special education, laboratory technician, social worker "Diplômes professionnels divers (éducateur spécialisé, laborantin, assistante sociale, infirmier-infirmière, etc.) » (2-3 years); High-level technician award (school or school and work-based) "Brevet de technician supérieur (BTS)" (2 years)
Second	
ISCED 6	University education 3rd cycle 1st year "Diplôme d'études approfondies (DEA)" (1 year); Doctorate programmes "Diplôme de docteur" (3 years)

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Germany:

ISCED 5A	
First	Bachelor's degrees (3 years) Fachhochschulen: degree "Diplom (FH)" (4 years); University degree "Diplom oder Staatsprüfung" (5 years)
Second	Master's degrees (2 years, cumulative duration of 5 years)
ISCED 5B	
First	Specialised academies (Bavaria) "Abschluss der Fachakademie/ Fachhochschulreife" (2 years); Health sector schools for medical assistants/ nurses "Abschlusszeugnis für medizinische Assistenten, Krankenschwestern/ -pfleger" (3 years); Specialised vocational schools (Berufsfachschulen): Abschlusszeugnis in Gesundheits- und Sozialberufen bzw. Erzieher- oder Kinderpflegerausbildung (2 years & 3 years); Trade and technical schools "Fachschulabschluss, Meister/Techniker, Erzieher" (2 years & 3-4 years); Colleges of public administration diploma "Diplom (FH)" (3 years);
Second	a
ISCED 6	Doctoral studies "Promotion" (2-5 years)

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Greece:

ISCED 5A	
First	University (University Sector): Panepistimio: a. University (Panepistimio) (8, 10 or 12 semesters) b. Technical University (Polytechneio) (10 semesters) c. School of Fine Arts (Scholi Kalon Technon) (10 semesters) d. Greek Open University (Elliniko Anoikto Panepistimio – E.A.P.) (12 subject units – 4 years)
Second	University Sector: Post-graduate studies (Master): a. University (Panepistimio) (1-2 calendar years) b. Technical University (Polytechneio) (1-2 calendar years) c. School of Fine Arts (Scholi Kalon Technon) (1-2 calendar years) d. Greek Open University (Elliniko Anoikto Panepistimio-E.A.P.) (3 years)
ISCED 5B	
First	Technological educational institution (technological sector): Technologiko Ekpaideftiko Idryma (T.E.I.); (4 years of which 3.5 years school-based, plus 1 semester work-based)
Second	Technological sector: post-graduate studies (Master): a. Technological educational institutions (offering programmes in co-operation with university sector institutions in Greece, subcategory a: Panepistimio) (1-2 calendar years) b. Technological educational institutions (offering programmes in co-operation with overseas University Sector Institutions) (1-2 calendar years) *Note*: The data concerning these programmes are reported under ISCED 5A, second qualification.
ISCED 6	
	University sector (Post-graduate studies): Doctorate programme (Didaktoriko diploma); a. University (Panepistimio) (6 semesters) b. Technical University (Polytechneio) (6 semesters) c. School of Fine Arts (Scholi Kalon Technon) (6 semesters) d. Greek Open University (Elliniko Anoikto Panepistimio-E.A.P.) (6 semesters)
	Post-graduate studies: post-doctorate programme (Metadidaktoriko diploma); a. University sector (Panepistimio) b. Research institutions *Note*: Greek legislation does not give information concerning post-doc programmes such as theoretical duration of the programme under study. Also, institutions offering post-doc programmes are not classified into a specific category of institutions and thus an exhaustive list cannot be compiled

Hungary:

ISCED 5A	
First	Ba/BSc programmes (3-3,5 years); College first programmes (3-4 years); University first programmes (4-6 years)
Second	Ma/MSc programmes (2 years); postgraduate specialisation programmes (1-2 years)
ISCED 5B	
First	Tertiary vocational programmes (2-3 years)
Second	a
ISCED 6	Doctoral programmes (Ph.D., DLA) (3 years)

The information on length refers to theoretical duration of the programme. **Back_to_Table1**

Iceland:

ISCED 5A	
First	First University Degree “Háskólanám 3ja/ 4ra/ 5/ 6 ára til fyrstu gráðu” (3, 4, 5 or 6 years);
Second	Master’s Degree after 3-4 years 1st degree “Háskólanám, 1,5-2 viðbótarár ofan á 3-4 ár, tekin viðbótargráða” (1.5-2 years); Master's Degree after 5-6 years 1st degree “Háskólanám, 2 viðbótarár ofan á 5-6 ár, tekin viðbótargráða” (2 years)
ISCED 5B	
First	Tertiary Diploma “Æðra nám í 2 ár án háskólagráðu” (2 years); Tertiary Diploma “ Æðra nám í 3 ár án háskólagráðu ” (3 years); Teacher's Qualification (no degree) “Nám til kennsluréttinda án háskólagráðu” (1 year).
Second	a
ISCED 6	Doctoral programme (Ph.D.) “Doktorsnám” (3-4 years)

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Ireland:

ISCED 5A	
First	Honours Bachelor’s Degree (3-4 years); Honours Bachelor’s Degree in (Veterinary) Medicine/ Dental Science/ Architecture (5-6 years)
Second	Post-graduate Diploma (1 year); Master’s Degree (taught) (1 year); Masters Degree (by research) (2 years)
ISCED 5B	
First	Higher Certificate (2 years); Ordinary Bachelor Degree (3 years)
Second	Ordinary Bachelor Degree (3 years)
ISCED 6	Doctoral Degree (Ph.D.) (3 years)

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Israel:

ISCED 5A	
First	Bachelor's degree from universities (3 years); Bachelor's degree from the Open University (6 years); Teacher training colleges – academic track (2-4 years)
Second	University Second Degree (2 years); University Post-Graduate Diploma (2 years); Second Degree from academic colleges (2 years); Second Degree from the Open University
ISCED 5B	
First	Post-secondary education (2 years); Teacher training colleges – non-academic track (2 years)
Second	a
ISCED 6	Third Degree (5-6 years)

Italy:

ISCED 5A	
First	University Degree "Diploma di Laurea" (4-6 years); University Degree "Diploma Universitario" (3 years); Diploma di laurea di 1° livello (3 years); Diploma di laurea specialistica a ciclo unico (5-6 years)
Second	Professional Post-graduate Diploma "Diploma di specializzazione" (2-5 years); Post-graduate Certificate "Attestato di partecipazione al Corso di perfezionamento" (1 year); Master's of first and second level "master di 1°/2° livello"; Specialisation course "Specializzazione post-laurea"
ISCED 5B	
First	Diploma from Fine Arts Academy "Diploma di Accademia di Belle Arti" (4 years); Dramatic Art Studies Diploma "Accademia di arte drammatica – Diploma di attore o diploma di regista" (3 years); Higher Artistic Studies Diploma "Diploma di Istituto Superiore Industrie Artistiche" (4 years); Music Conservatory Diploma "Conservatorio musicale (specializzione di 2 anni)" (2 years); Dance Studies Diploma "Accademia di Danza – Diploma di avviamento e/o perfezionamento" (3 years)
Second	a
ISCED 6	Doctorate "Titolo di Dottore di ricerca" (3 years)

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Japan:

ISCED 5A	
First	Bachelor's Degree “Gakushi”(4 years); Bachelor's Degree in Pharmacy (practical course)/Medicine/Dentistry/Veterinary Medicine “Gakushi” (6 years); University Advanced Course Certificate of Completion “Daigaku Senkoka” (1 year+)
Second	Master's Degree “Shushi” (2 years); Professional Graduate School Master’s Degree “Shushi(Senmonshoku)”(2 years); Juris Doctor “Houmu-hakushi”(3 years)
ISCED 5B	
First	Specialised Training College Postsecondary Course Technical Associate; Qualification “Senmonshi” (1 year+); Junior College Associate Qualification “Jun-gakushi” (2-3 years); College of Technology Associate Qualification “Jun-gakushi” (2 years); Junior College Advanced Qualification “Tanki-daigaku Senkoka” (1+years); College of Technology Advanced Qualification “Koto-senmon-gakko Senkoka” (1+ years)
Second	
ISCED 6	Doctor's Degree “Hakushi” (5 years); Doctor's Degree in Medicine/Dentistry/Veterinary Medicine “Hakushi” (4 years)

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Korea:

ISCED 5A	
First	Bangsongtongsin daehak [air and correspondence university (open university)] (2-4 years); Daehak(gyo) (university) (4 years); Hankuk kwahak kisulwon (Korea Advanced Institute of Science and Technology) (4 years); Hankuk yeosuljonghap hakgyo (yeosulsa kwajong) (the Korean National University of Arts) (4 years); Woikwa deahak,chikwa daehak (university, medical-dentistry) (6 years)
Second	Hankuk jeongsin munwha yeonku won (seoksa kwajong) (the Academy of Korean Studies, MA course) (2-3 years); Ilbandaehakwon (seoksa kwajong) (graduate school, Master's degree programme, short) (2 years); Hankuk kwahak kisulwon (seoksa kwajong) (Korea Advanced Institute of Science and Technology, MA course) (2 years); Daehakwon daehak (seoksa kwajong) (university of graduate school) (2 years); Hankuk yeosuljonghap hakgyo (jeonmun yeosulsa kwajong) (the Korean National University of Arts, MA course) (2 years)
ISCED 5B	
First	Yukkun samsakwan hakgyo (third military academy) (2 years); Kakjong-hakgyo (daehak kwajong) (miscellaneous school, undergraduate course) (4 years); Sanup daehak (gaebang daehak) (open university, polytechnic university) (4 years); Yukkun sakwan hakgyo (military academy) (4 years); Geongchal daehak (National College of Police) (4 years); Gyoyuk daehak (university of education) (4 years); Kukkunganho sakwan hakgyo (nursing academy) (4 years); Haekun sakwan hakgyo (naval academy) (4 years); Kongkun sakwan hakgyo (Air Force Academy) (4 years) Jeonmun daehak (junior college) (2-3 years); Kinung daehak (polytechnic college) (2 years); Kakjong-hakgyo (jeonmun daehak kwajong) (miscellaneous school, junior college course) (2 years); Kisul daehak (technical college) (2-4 years)
Second	Kukbang daehakwon (School of National Security) (2 years); Teuksu daehakwon (graduate school, special) (2-3 years); Jeonmun daehakwon (graduate school, professional) (2.5 years)
ISCED 6	Hankuk kwahak kisulwon (baksa kwajong) (Korea Advanced Institute of Science and Technology) (3 years); Hankuk jeongsin munwha yeonku won (baksa kwajong) (Academy of Korean Studies, Ph.D.) (3 years); Ilban daehakwon (baksa kwajong) (graduate school, doctoral programme) (3 years); Daehakwon daehak(baksa kwajong) (university graduate school) (3 years)

Luxembourg:

ISCED 5A	
First	University courses: Cours universitaires 1er cycle:DPCU (2 years); Stage pédagogique ; formation obligatoire pour l'accès à une profession de professeur d'enseignement secondaire (2 years); Stage pédagogique: formation obligatoire pour l'accès à une profession d'avocat avoué (2 years)
Second	-
ISCED 5B	
First	Higher technician certificate: Brevet de technicien supérieur (BTS) (2 years); Short-term course in higher studies of administration or studies of informatics: Cycle court d'études supérieures en gestion ou en informatique (2 years)
Second	Training of industrial engineers: Formation à l'ingénieur industriel (4 years); Initial training of primary and pre-primary teachers: Formation des instituteurs (3 years); Training of graduated educators, full-time: Formation d'éducateurs gradués (plein temps) (3 years); Training of graduated educators, while working: Formation d'éducateurs gradués (en cours d'emploi) (6 years)
ISCED 6	Etudes supérieures spécialisées en contentieux communautaires

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Mexico:

ISCED 5A	
First	Educación normal licenciatura [teacher training school programmes (Bachelor's degree programme)] (4 years); Licenciatura universitaria [university degree programmes (Bachelor's degree programme)] (4-5 years); Licenciatura tecnológica [technological institutes programmes (Bachelor's degree programme)] (4-5 years)
Second	Programa de especialización [specialisation programme (short)] (1 years); Programa de maestría [Master's degree programme (long)] (2 years)
ISCED 5B	
First	Técnico superior [technological universities programmes (vocational associate's degree programmes)] (2 years)
Second	-
ISCED 6	Programa de doctorado [Doctoral programme – Doctorate (Ph.D. Research)] (3 years)

The Netherlands:

ISCED 5A	
First and second	Higher professional education (long programmes) and university education, full-time programmes; (Lang) HBO en WO, voltijd (4-6 years); higher professional education (long programmes) and university education, part-time programmes, excl. the Open University; (Lang) HBO en WO, deeltijd, excl. the Open University; Open University qualification programmes; Open University, diploma programmes
ISCED 5B	
First	*ISCED 5B programmes have been reintroduced in the Netherlands in 2007/08. It is therefore a growing field. In 2008/09 the number of students enrolled in ISCED 5B is sufficient for publication. The number of graduates is not (yet) sufficient for publication.*
Second	-
ISCED 6	Research assistants; AIOs (4 years)

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New Zealand:

ISCED 5A	
First	Bachelor's Degree (3-5 years); Graduate Certificates and Diplomas (1/2 year); Bachelor's Honours (1-2 years)
Second	Master's Degree, (1-2 years), Post-graduate Certificate, Post-graduate Diploma,
ISCED 5B	
First	National and Local (institution-specific) Certificates and Diplomas (1-2 years)
Second	a
ISCED 6	Doctor of Philosophy "Ph.D."/ Higher Doctorate (3-5 years)

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Norway:

ISCED 5A	
First	First/lower degree (lavere grad), bachelor's degree, short professional education, (3-4 years),
Second	Second/higher degree (høyere grad: hovedfag/mag.art (2-3 years), master's degree (2 years); Long professional programmes (lange profesjonsutdanninger), integrated master's degrees (integrerte mastergrader): (5 years); Very long professional programmes (6 years)
ISCED 5B	
First	Tertiary education, < 3 years, 1st degree: Høyere utd., < 3 år, lavere grad (2-2.5 years)
Second	a
ISCED 6	Doctorate, Ph.D.: Doktorgrad (3 years)/ unspecified

Poland:

ISCED 5A	
First 3-4 years of duration leading to a first degree	Professional degree (Bachelor's degree) *Licencjat* (3-4 years); Professional degree (Engineer) *Inżynier* (3.5-4 years);
Long-term first degree - Long first degrees considered to be part of the Bologna structure (duration 5 or more years)	Master's degree (law, psychology) *Magister* (5 years); Degree in medical sciences (veterinary degree *Lekarz weterynarii* (5.5 years); degree in medicine *Lekarz* (6 years))
Second	Post-bachelor's/post-engineering master's degree Magister (1.5-2 years); Post-graduate Certificate Studia Podyplomowe (0.5-2 years)
ISCED 5B	
First	Teacher Training College Diploma Dyplom ukończenia Kolegium Nauczycielskiego (3 years); Foreign Language Teacher Training College Diploma Dyplom ukończenia Nauczycielskiego Kolegium Języków Obcych (3 years) Social Workers' College Diploma Dyplom ukończenia Kolegium Pracowników Służb Społecznych (3 years)
Second	a
ISCED 6	Scientific degree of Doctor (PhD.) Stopień naukowy doktora (approx. 4 years)

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Portugal:

ISCED 5A	
First	*Licenciatura* programmes (4 or 5 years, 6 years in special cases) provided by universities and polytechnics, leading to the *licenciado* degree The *licenciatura* programmes provided by polytechnic education in most fields are two cycles/programmes called *cursos bietápicos de licenciatura*: the first cycle (3 years) leads to the *bacharel* degree (5B first), and the second cycle (1-2 years) leads to the *licenciado* degree (5A first) Universities and polytechnics also offer to *bacharéis* (5B first), in the fields of teacher training and nursing, 1-2 year programmes leading to the *licenciado* degree, called *cursos complementares de licenciatura*
Second	*Especialização de pós-licenciatura* (also identified frequently as *Pós-Graduação*) (1-2 years) – Specialised studies taken after *licenciatura*, leading to a certificate.
ISCED 5B	
First	*Bacharelato* (3 years) programmes provided by universities (rarely) and polytechnics, leading to the *bacharel* degree
Second	*Especialização pós-bacharelato (1 year) – Specialised studies taken after bacharelato, leading to a certificate*
ISCED 6	*Mestrado* programmes (2 years after *licenciatura*) provided by university education, leading to the *mestre* degree. *Doutoramento* programmes (variable, usually 3 years, sometimes 4 or 5 years after *mestrado* or, in certain conditions, after *licenciatura*), provided by universities, leading to the *doutor* degree

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The Slovak Republic:

ISCED 5A	
First	"Bachelor's" Degree 3-4 years; "Master's" degree (4 years); "Master's" degree in Engineering (5-5.5 years); Degree in Engineering/Architecture/Medicine/Veterinary Medicine (6 years)
Second	Supplementary Educational Study – "Certificate" (2 years); Teaching an Additional Subject – "Diploma" (2-4 years) Examina Rigorosa – "Academic Degree (JUDr., PaedDr., RNDr., PhDr., etc.)" (usually 1 year);
ISCED 5B	
First	Post-secondary Specialisation Study – "Graduate's Diploma" (2-3 years); Higher Professional Studies – "Graduate's Diploma" (3 years); Dance Conservatory – "Graduate's Diploma" and "Certificate on Maturita Examination" (8 years); Conservatory and Secondary Schools Specialising in Arts – "Graduate's Diploma" and "Certificate on Maturita Examination" (6 years)
Second	
ISCED 6	Doctorate Study (Ph.D., ArtD.) (3 years)

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Spain:

ISCED 5A	
First	Bachelor's degree “Diplomado Universitario, Arquitecto Técnico e Ingeniero Técnico” (3 years); Conservation and Restoration of Cultural Assets “Conservación y Restauración de Bienes Culturales” (3 years); Military Programme – Medium Grade “Militar de carrera de la escala media (Diplomado Universitario)” (3 years); University degree – First and Second Cycle “Licenciado, Arquitecto e Ingeniero” (4-6 years); Higher Dramatic Art Studies Degree “Título Superior de Arte Dramático” (4 years); Music Studies Advanced Degree “Titulación Superior por especialidad musical” (4 years); Military Programme – Medium Grade “Militar de carrera de la escala media (Diplomado Universitario)” (3 years); Military Programme – Higher Grade “Militar de carrera de la escala superior (Licenciado universitario)” (5 years)
Second	Master's degree – “Máster oficial” (1-2 years); “Especialidades Médicas” (2-5 years)
ISCED 5B	
First	Specific Vocational Training in Plastic Arts and Design – Advanced Level Qualification “Técnico Superior – Ciclos Formativos de Artes Plásticas y Diseño de Grado Superior” (2 years); Specific Vocational Training – Advanced Level Qualification “Técnico Superior – Ciclos Formativos de Formación Profesional de Grado Superior” (2 years); Specific Vocational Training – Advanced Level (Distance Learning) “Técnico Superior – Ciclos Formativos de Formación Profesional de Grado Superior (Distancia)” (2 years); Military Programme Basic Grade “Militar de carrera de la escala básica” (2 years); Specific Vocational Training in Sports - Advanced Level Qualification “Técnico Superior - Enseñanzas Deportivas de Grado Superior (2 years)
Second	a
ISCED 6	Doctorate “Doctor” (4-6 years)

Sweden:

ISCED 5A	
First	Bachelor's programme (general and professional qualifications, 3-3.5 years); Master's programme (professional qualifications, 4-4.5 years); Master's programme in Engineering, Pharmacy, Architecture, Forestry, Psychology and Dental Surgery (5 years); Master's programme in Medicine and Veterinary Medicine (5.5 years)
Second	Master's programme (general qualifications, 2 years); Master's programme (general qualifications, 1 year); Postgraduate Diploma in Specialist Nursing (1-1.25 years); Postgraduate Diploma in Midwifery, Psychotherapy and Special Educational Needs (1.5 years)
ISCED 5B	
First	Diploma (general and professional qualifications, 2 years); Degree Certificate in Advanced Vocational Education and Training (2-3 years)
Second	a
ISCED 6	Doctorate programmes – Licentiate (2 years) and Doctor (4 years)

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Switzerland:

ISCED 5A	
First	Pedagogical University Certificate « Pädagogische Hochschule/ Haute École Pédagogique » (3 years); University of Applied Science Diploma “Fach-hochschuldiplom -diploma” (3 years); University Bachelor's Degree (3 years) and Diploma “Hochschulen – Lizentiat, Diplom, Staatsexamen” (4 years)
Second	University Master's Degree (2 years), Postgraduate Degree “Fachhochschul Nachdiplom” (1 year); University Postgraduate Diploma “Nachdiplom/ Diplôme du troisième cycle/ Postgrade” (1 year)
ISCED 5B	
First	Diploma of Higher Vocational Education – Stage I "Berufsprüfung/ Examen professionel" (1-2 years); Diploma of Technical School "Höhere Fach- und Berufsschule/ École technique" (2 years); Teacher’s Certificate – Teacher Training II "Primarlehrerpatent/ Fachlehrerpatent" (3 years); Polytechnic School Diploma from a Higher Vocational College “Höhere Fachschule/ École Professionnelle Supérieure/ Scuola Professionale Superiore” (3 years)
Second	Trade Master's Diploma or equivalent in Higher Vocational Education – Stage II “Höhere Fachprüfung/ Examen Professionnel Supérieur” (1-2 years)
ISCED 6	University Doctorate “Doktorat/ Ph.D.” (4 years); Post doctorate degrees “Universitäre Habiltationen” (number of years unknown)

Turkey:

ISCED 5A	
First	University: Üniversite (4 years); Integrated higher school for hearing impaired: İşitme Engelliler Entegre Yüksek Okulu; Open Training Faculty: Açık Öğretim Fakültesi (4 years); Conservatory: Konservatuar (4 years); Medical science, veterinary, dentistry: Eczacılık Veterinerlik ve Tıp Fakültesi (5-6 years)
Second	Enstitüler: Mastır (2 years); Specialisation in medical science: Tıpta Uzmanlık (4 years)
ISCED 5B	
First	Vocational higher Schools: Meslek Yüksek Okulu (2 years); Open training Faculty: Açık Öğretim Fakültesi (2 years); Integrated higher school for hearing impaired: İşitme Engelliler Entegre Yüksek Okulu (2 years)
Second	
ISCED 6	Enstitüler: Doktora (4 years)

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The United Kingdom:

ISCED 5A	
First	Bachelor's Degree “BA, BSc, etc.” (3-4 years); Bachelor of Education “BEd” (4 years); Bachelor of Medicine “MB” (5 years+)
Second	Master's Degree taught “MA, MSc, MBA, etc." (1 year); "Postgraduate Diploma/Certificate “PG Dip/PG Cert” (9m); Teaching Qualification – Postgraduate Certificate in Education “PGCE” (1 year); Master's Degree by Research “Mphil, etc.” (2 years+)
ISCED 5B	
First	Higher National Certificate “HNC” (1 year); Diploma of Higher Education “DipHE” (2 years); Higher National Diploma “HND” (2 years); Foundation Degree, National Vocational Qualification (NVQ) Level 4, and NVQ Level 5
Second	a
ISCED 6	Doctor of Philosophy “Ph.D.” (3 years+)

The United States:

ISCED 5A	
First	Bachelor's Degree Programme (4 years)
Second	Master's Degree programme (short) (1-2 years); Master's Degree programme (long) (2-3 years); First-Professional Degree Programme (3 years); First-Professional Degree Programme – Medical (4 years)
ISCED 5B	
First	Vocational Associate's Degree Programme (2 years)
Second	a
ISCED 6	Doctorate (Ph.D. – Research) (5 years)

Note: Academic associate's degree programmes (2 years) are not included, as for international comparisons these degrees are regarded as "intermediate degrees". Post-graduate certificate programmes (typically 1 year) are not included. **Back_to_Table1**

Saudi Arabia:

ISCED 5A	
First	Bachelor's (4 years); Bachelor of Education (4 years); Bachelor of Medicine (5 years+)
Second	Master's MA, MSc, MBA, etc." (2-3 years); "Postgraduate Diploma/Certificate (1 year)
ISCED 5B	
First	Intermediate Diploma (2 years), National Vocational Diploma (2-3 years)
Second	a
ISCED 6	Doctor of Philosophy "Ph.D." (3 years+)

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- **Table A3.5. (Web only) Trends in net graduation rates at advanced research qualifications**

Please see notes for Table A3.1.

INDICATOR A4: What is the difference between the career aspirations of boys and girls and the fields young men and women study in tertiary education?

- **Tables A4.1, A4.2, A4.3 and A4.7: PISA data**

- **Tables A4.4 Trends in entry rates at tertiary level, by gender (1995-2010)**

Please see notes to Annex3_ChapterC

- **Table A4.5 and A4.6: Percentage of tertiary qualifications awarded to women at different tertiary levels (2010) and Percentage of tertiary qualifications awarded to women in tertiary-type A and advanced research programmes, by field of education (2000, 2010)**

Please see also notes to Table A3.1.

Classification

Tertiary graduates who receive their qualification in the reference year are classified by field of education based on their subject of specialisation. These figures cover graduates from all tertiary degrees reported in Table A3.1. The 25 fields of education used in the UOE data collection instruments follow the revised ISCED classification by field of education. The same classification by field of education is used for all levels of education. For definitions and instructions refer to the ISCED Classification (UNESCO, 1997). The classification is in accordance with the fields of training defined in the *Fields of Training – Manual* (EUROSTAT, 1999). **Back_to_Table1**

Notes on specific countries:

Belgium (Flemish Community): Data refer to graduates and not to graduation. **Back_to_Table1**

Hungary: This table is based on graduations rather than graduates. In education, students often graduate in two subjects, which means that the increase is due to double counting. Before, students were weighted 0.5 in each subject. The increase in health and welfare is due to a tertiary-type 5B programme which primarily attracts women. **Back_to_Table1**

Ireland: Data refer to graduates and not to graduation. At ISCED 5 and 6 data on joint awards were not available for inclusion for UOE 2010. These data were included in previous years. **Back_to_Table1**

Israel: This year, the data (from the UOE 2009 data collection) on fields of study have gone through a thorough revision. As a result, many subfields have been reclassified. Most graduates formerly considered to belong to Teacher training are now included under Education science. Many fields formerly reported under Social services are now included under Health, this being a correction of past misclassification. Several programmes which were under Engineering and engineering trades are now included under Manufacturing and processing. **Back_to_Table1**

INDICATOR A5: Does socio-economic background affect student performance? (PISA)

For any necessary information, please refer to the PISA website (www.pisa.oecd.org). **Back_to_Table1**

INDICATOR A6: To what extent does parental education influence students' access to tertiary education?

Definitions

The 2009 Transition Ad Hoc Module, a supplement to the 2009 EU Labour Force Surveys, was used for most countries in this analysis. The Adult Literacy and Lifeskills Survey (ALL) were used for Australia, Canada, New Zealand and the United States. The first wave, which took place in 2003, includes Canada and the United States. The second wave, which took place in 2006, includes Australia and New Zealand.

Three broad educational categories are used in this comparison for parents and youth educational attainment for most countries: low levels of education (ISCED levels 0-2 completed, the person has not completed upper secondary education); mid levels of education (ISCED levels 3-4 completed, the person has completed upper secondary or post-secondary, non-tertiary education); and high levels of education (ISCED levels 5-6 completed, the person has completed tertiary education).

For the student attendance data (Table A6.1), the Adult Literacy and Lifeskills Survey (ALL) is used for the four countries (Australia, Canada, New Zealand and the United States), which have a different categorization of educational levels. The low level of education category includes persons who are attending upper secondary or less than high school (ISCED 0-3) education; the mid level, those who are attending post secondary, non tertiary education or tertiary but not in university (ISCED 4 and5B); and the high level, those attending university courses (ISCED 5A and above). This disparity between ALL and the 2009 Transition Ad Hoc Module categories might distort comparability, as young people from lower socio-economic status are more likely to enter ISCED 5B as opposed to ISCED 5A-type education. Therefore, the omission of data on 5B qualifications may understate intergenerational mobility in these countries. **Back_to_Table1**

Methodology

For countries sourced from ALL, respondents between the ages of 26 and 35 were included in the analysis of the educational attainment data, as opposed to ages 25 to 34 for the Ad Hoc Module. In the analysis of the school attendance data, respondents between the ages of 16 and 35 were included. Respondents were excluded from the analysis if the education level of at least one parent was not available.

There may be some differences in the information collected from the countries, as well as differences between the two data sources. These differences could impact the results (See section Definitions above).

Assessing inequalities in access to higher education is achieved by comparing the proportion of students from a certain educational background who attend higher education to the proportion of parents with this level of education in the total parent population. The odds of someone coming from a family with low levels of education, for instance, is calculated as the proportion of higher education students with low educated parents, and compared with the proportion of low educated parents in the total parent population. Odds below 1 indicate a small likelihood of enrolling in higher education; odds close to 1 indicate an equal opportunity; and odds exceeding 1 indicate a great likelihood of enrolling in higher education.

Inequalities in educational attainment (completed education) are examined by comparing the educational attainment of 25-34 year-old non-students to that of their parents.

Because the data on students in higher education begins with students aged 20 years-old, there may be underreporting of participation as some students may begin higher education before the age of 20. Upward and downward mobility trends are therefore affected. **Back_to_Table1**

INDICATOR A7: How does educational attainment affect participation in the labour market?

- **Tables A7.1a, A7.1b (web), A7.2a, A7.2b (web), A.7.3a, A7.3.b (web), A7.3.c (web), A7.4a A7.4.b (web), and A7.4.c (web)**

Methodology and definitions

Data on population and educational attainment are taken from OECD and EUROSTAT databases, which are compiled from national LFSs. Tables (b for males, c for females) are available on the web.

The attainment profiles are based on the percentage of the population aged 25 to 64 that has completed a specified level of education. The International Standard Classification of Education (ISCED-97) is used to define the levels of education.

The employment rate for a particular age group is equal to the percentage of individuals in the population of the same age group who are employed as defined according to the guidelines of the International Labour Organization (ILO). The unemployment rate for a particular age group is equal to the percentage of individuals in the labour force of the same age group who are unemployed.

The unemployed are defined as individuals who are without work, actively seeking employment and currently available to start work. The employed are defined as those who during the survey reference week: *i)* work for pay (employees) or profit (self-employed and unpaid family workers) for at least one hour, or *ii)* have a job but are temporarily not at work (through injury, illness, holiday, strike or lock-out, educational or training leave, maternity or parental leave, etc.) and have a formal attachment to their job. **Back_to_Table1**

- **Table A7.5**

See Indicator A8.

- **Table A7.6**

Data on VET have been collected by LSO network, Learning and Labour Transitions working group.

Vocational or technical education is defined as “Education which is mainly designed to lead participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation or trade or class of occupations and trades. Successful completion of such programmes lead to a labour market relevant vocational qualification recognized by the competent authorities in the country in which it is obtained (e.g. Ministry of Education, employer’s associations, etc.)” (ISCED-97 paragraph 59).

VET has been identified through the orientation dimension of ISCED and these first results are restricted to ISCED levels 3 and 4.

The orientation is a dimension defined by ISCED as “the degree to which the programme is specifically oriented towards a specific class of occupation and trades”. ISCED-97 distinguishes the "orientations" vocational, prevocational and general of educational programmes. In this work, following the changes proposed for ISCED 2011, the countries used only two categories: “vocational” or “general”.

Countries have defined general or vocational orientation based on the features of the education programme and the resulting credentials and qualifications (first column of the table). Some countries may also use variables based on students’ choice of education field and students’ destinations after their studies, because such variables also reflect the distribution of students in general and vocational programmes. The table below summarizes the method used in determining the orientation of educational attainment at ISCED level 3 from Labour Force Survey.

	On the basis of programmes, credentials, or qualifications (Pr./Cr.)	ONLY on the basis of programmes, credentials *and of* field of education	ONLY on the basis of fields of education	ONLY on the basis of destination	Detailed information not available	Possible additional method	Method foreseen for indicators based on NEAC-VET in EAG 2012
	7	8	9	10	11	12	13
Australia	Pr./Cr.					Destination	Pr./Cr.
Austria	Pr./Cr.					Fields	Pr./Cr.
Belgium	Pr./Cr.						Pr./Cr.
Brazil					X		-
Canada*					X		-
Chile					X		-
Czech Republic			Fields			Fields	Fields
Denmark	Pr./Cr.						Pr./Cr.
Estonia	Pr./Cr.					Fields	Fields
Finland	Pr./Cr.					Fields	Fields
France	Pr./Cr.					Destination	Destination
Germany	Pr./Cr.					Destination	Pr./Cr.
Greece	Pr./Cr.					Destination	Destination
Hungary	Pr./Cr.						Pr./Cr.
Iceland	Pr./Cr.					Destination	Destination
Ireland	Pr./Cr.						
Israel	Pr./Cr.						Pr./Cr.
Italy	Pr./Cr.						Pr./Cr.
Japan					X	Destination	-
Korea				Destination		Destination	Destination
Luxembourg	Pr./Cr.						
Mexico					X	Destination	-
Netherlands	Pr./Cr.					Fields Destination	Pr./Cr.
New Zealand	Pr./Cr.						Pr./Cr.
Norway	Pr./Cr.					Destination	Pr./Cr.
Poland	Pr./Cr.					Fields	Pr./Cr.
Portugal	Pr./Cr.						
Russian Federation					X	Destination	-
Slovakia	Pr./Cr.					Fields	Pr./Cr.
Slovenia	Pr./Cr.					Destination	Destination
Spain	Pr./Cr.					Fields Destination	Pr./Cr.

Sweden	Pr./Cr.					Fields	Pr./Cr.
Switzerland	Pr./Cr.					Fields	Pr./Cr.
Turkey	Pr./Cr.					Fields	Pr./Cr.
United Kingdom	Pr./Cr.						Pr./Cr.
United States (*)							

General notes

Historical data on educational attainment are only available for the three major levels of education:

Less than upper secondary education – 0/1/2/3C short (ISCED97 equivalent levels).

Upper secondary and post-secondary education – 3/4 (ISCED-97 equivalent levels).

Tertiary non-university and university – 5/6 (5A/5B/6 ISCED-97 equivalent levels).

Before 1997, educational attainment levels were coded according to international mapping ISCED-76. The ISCED-76 levels have been allocated to ISCED-97 levels.

Sources and notes on specific countries: see ***Indicator A1***, **Back_to_Table1**

INDICATOR A8: What are the earnings premiums from education?

- **Tables A8.1, A8.2a, A8.2b, A8.2c, A8.3a, A8.3b, A8.4a (web), A8.4b (web) and A8.4c (web)**

Methodology and definitions

The total (men plus women – M+W) average for earnings is not the simple average of the male and female earnings figures, but the average based on earnings of the total population. This overall average weights the average earnings figure separately for men and women by the share of men and women at different levels of attainments (and therefore of earnings).

Notes on specific countries

Earnings data for the Czech Republic, Hungary, Luxembourg, Poland and Portugal exclude part-time work. Moreover earnings data for Hungary, Luxembourg, Poland and Portugal exclude part-year or seasonal employment.

Earnings are considered before income tax except for Belgium and Korea where data are after income tax. The length of the reference period is one week for Australia, New Zealand and the United Kingdom; one month for Belgium, France, Hungary, Ireland and Portugal; the calendar year for Austria, Canada, the Czech Republic, Denmark, Finland, Germany, Italy, Luxembourg, the Netherlands, Norway, Spain and Sweden and the United States; and other 12-month period for Korea and Switzerland.
Original earnings data are expressed in national currencies. **Back_to_Table1**

Canada: The methodology used for calculating earnings has changed this year. As a result, the data from EAG 2012 is not directly comparable with data from previous editions of EAG. **Back_to_Table1**

Czech Republic: The term full time is a self-designated full-time status. Working hours are defined for a concrete position which is the same as real time usage defined as a full-time. As far as the working hours defined for concrete job differ from real time the employee spends at work, it is defined as part-time. There is another additional criterion that says: if the defined working hours for concrete position are less than 30 hours per week, it automatically marked as a part-time. But the usual working time is 40 hours per week for full-time. **Back_to_Table1**

Denmark: There was a change in the coverage of the income definition in 2003. As a consequence, the data from 2003 and onwards in the trends series on earnings are not directly comparable with data from 2002 and earlier years. **Back_to_Table1**

France: From 2006 inclusion of quarterly and yearly bonuses and self-employed declared earnings from work tend to increase earnings differences between educational levels and relative indexes.

The French source on incomes data has changed. The source on incomes data has been the French Enquête Emploi en Continu (EEC) (Labour Force Survey, LFS) until year 2007; incomes were caught within a reference period of one month. Starting for incomes on year 2008, the new source is Statistiques sur les Revenus et les Conditions de Vie (SRCV) (Statistics on Incomes and Living Conditions, SILC), whose the reference period lasts 12 months.**Back_to_Table1**

New Zealand: There is a significant gender and level interaction affecting earnings differentials for Type B. New Zealand men with type B qualifications earn more than men with upper secondary qualifications; women likewise. But when men and women are combined, the combined earnings for those with type B are lower than those with upper secondary. The much higher proportion of women with older lower-paying type B qualifications (*e.g.* nursing diplomas) acts to artificially lower the overall Men + Women type B premium. **Back_to_Table1**

Sources

Australia	Survey of Education and Training Experience
Austria	Micro-census on wage tax statistics (administrative data)
Belgium	Labour Force Survey (Continue Enquête naar de Arbeidskrachten/Enquête continue sur les Forces de Travail)
Brazil	Pesquisa Nacional por Amostra de Domicílios
Canada	Survey of Labour and Income Dynamics
Czech Republic	Average Earnings Information System (Informační systém o průměrném výdělku)
Denmark	Not reported
Estonia	Eesti tööjõu-uuring
Finland	The Register-based Employment Statistics
France	French Labour Force Survey (Enquête Emploi)
Germany	German Socio-economic Panel Study (SOEP)
Iceland	EU-SILC
Hungary	Individual salary and earning of employees
Ireland	EU Survey of Income and Living Conditions (SILC)
Israel	Income survey (תוסנכה רקס)

Italy	Bank of Italy Survey on Household Incomes and Wealth
Korea	Labour Force Survey 2009
Luxembourg	Structure of earnings survey (every four years)
New Zealand	New Zealand Income Survey, June 2009 Quarter
Norway	Income Statistics for Persons and Families
Poland	SES− Structure of earnings survey by occupation (struktura wynagrodzeń według zawodów w październiku)
Portugal	Personal Tables, Quadros de Pessoal
Slovenia	Tax Register, Statistical Register of Employment (Davčni register - dohodnina - SRDAP)
Spain	European Survey on Income and Living Conditions (Encuesta de Condiciones de Vida) (EU-SILC) Sweden National register on income (Inkomstregistret)
Switzerland	Swiss Labour Force Survey (Schweizerische Arbeitskräfte Erhebung)
Turkey	Household Budget Survey
United Kingdom	Labour Force Survey
United States	Current Population Survey (Annual social and economic supplement – March CPS) **Back_to_Table1**

INDICATOR A9: What are the incentives to invest in education?

■ Tables A9.1, A9.2, A9.3 and A9.4

Methodology and definitions

The Net Present Value (NPV) represents a measure of the economic benefit obtained, over an individual's working life, relative to the cost of obtaining higher levels of education. The NPV can be measured from either the individual's or society's point of view. Private NPV measures the discounted net economic payoff to an individual investing in obtaining a higher level of education. Public NPV measures the net fiscal benefits to society of an individual obtaining a higher level of education. The formulae for calculating both types of return are the same, although the costs and benefits differ between the two.

The Net Present Value (NPV) calculation is an actuarial method of discounting over time the cost of making an investment relative to the benefits that the investment produces. NPV is a traditional criterion for making investment choices, in that it provides a monetary estimate of the value of investments in terms of their economic benefits, after accounting for the costs of the investments. NPV is calculated as follows:

$$NPV = -\sum_{t=0}^{d-1} C_t / (1+i)^t + \sum_{t=d}^{64-a-d} B_t / (1+i)^t$$

where:

Ct = costs at period t (t ∈ 0, d-1)

Bt = benefits at period t (t ∈ d, 64-a-d)

i = the discount rate at which future costs and benefits are valued in the present

d = the duration of studies (in years)

a = age at the beginning of education/training

64 = age at the last year of activity in the labour market.

The discount rate (i) is fixed to 3%, which reflects the real interest one can expect, under normal circumstances, by investing in long-term government bonds in most countries.

The composition of costs and benefits

The cost elements are the following:

1. Foregone earnings

Foregone earnings are the value of earnings that would have been obtained if the individual had worked at the lower level of education instead of making the investment in education.

2. Training costs

Two forms of educational expenditure are taken into account in the analysis:

- Public expenditures on education (for infrastructure, teachers' wages, as well as subsidies, etc.).

- Private expenditures (tuition, other fees, etc.).

3. Additional tax payments resulting from an education-induced increase in taxable income and decrease in transfers.

These costs can be grouped as follows:

Private costs:

Foregone earnings + direct private expenditures - grants allocated (at tertiary level of education only)+ increased future taxes + lost transfers

Public costs:

Lost tax receipts during the training + public expenditures + grants allocated (at tertiary level of education only)

In the calculation of private NPV, private costs are included; and in the calculation of public rates of return, public costs are included.

The benefits associated with the individual's decision to invest in training are:

1. Increased earnings levels arising from a higher level of education.

2. A lower probability of being unemployed associated with higher education.

3. For the public sector, additional tax receipts, plus less transfers to pay.

These can be grouped as follows:

Private benefits:	Increases in earnings+ higher probability of being employed
Public benefits:	Additional tax receipts + transfers saving

In calculating the private NPV, private benefits are included. In calculating the public NPV, public benefits are included. **Back_to_Table1**

NPV calculations are based on the same method as internal rate of return (IRR) calculations. The main difference between the two methods lies in how the interest rate is set. For calculations developed within the IRR framework, the interest rate is raised to the level at which the economic benefits equal the cost of the investment and it pinpoints the discount rate at which the investment breaks even. In the NPV approach, the discount rate is fixed at the beginning of the analysis and the economic benefits and costs are then valued in line with the chosen interest rate. The NPV has some advantages over IRR in that it is better suited to long-term investments. IRR typically favours short-term investments with large cash flows that are close in time with the investment. The NPV is thus better suited for educational investments that typically span several decades. A further advantage of the NPV method is its flexibility and the possibility of analysing the different components that make up the overall returns.

The NPV ranks investments differently from the IRR because of differences in the magnitude of cash flows and how these are distributed over the lifetime of the investment. Internal rates of return are given in the tables to provide some guidance on the interest rate at which the investment breaks even in different countries. However, the analysis focuses on how the value of education differs between countries. The economic benefits of tertiary education are compared to upper secondary education, and those for upper secondary education are compared to below upper secondary education. In the calculations, women are benchmarked against women and men against men.

Data and model assumptions

Data

1. Data on earnings for individuals in part-time work are excluded for the Czech Republic, the Netherlands, Poland and the United Kingdom. The source of these data is *The Education and Earnings database* for which data were collected by Statistics Sweden.

2. Starting age of education and duration of studies are based on indicator B1 (*Education at a Glance* 2011), or school expectancy, indicator C1 (*Education at a Glance* 2011).

3. Annual expenditure on educational institutions per student for all services by type of programme (lower, upper and tertiary), as well as relative proportions of public and private expenditure on educational institutions, by level of education (no distinction lower/upper secondary) refer to indicators B1 and B3 (*Education at a Glance* 2011), respectively.

4. Tax rates on earnings and transfers (housing benefits + social assistance) are taken from the OECD database on Benefits and Wages, provided by the Directorate for Employment, Labour and Social Affairs.

5. Unemployment rates by age and by level of education are derived from NEAC Network B database (*Education at a Glance* 2011).

6. Grants are derived from a LSO network special data collection, Economic Working Group.

The assumptions of the model

1. Foregone earnings during the training period are assumed to be the minimum wage when the individual has continued directly to the next highest level of education (at upper secondary level of education, as well as at the tertiary level of education) before entering the labour market.

2. Lifetime earnings streams are estimated from cross-section data based on age cohorts. The average annual earnings for each age group were assigned to the midpoint of the interval. Between two midpoints, earnings have been adjusted to fit a straight line using the method of least squares, along a linear trend. In cross-section data, earnings differentials between age cohorts reflect accumulated work experience, additional training investments made on the job and technological change. Earnings for all educational categories are likely to increase over time with productivity increases in the economy as a whole over long periods.

3. Employment probabilities (one minus the unemployment rate) are applied to average annual earnings for each education, gender and age group cohort.

4. Earnings of the individual during the training period are assumed to be zero.

5. The duration of education varies from one country to another with the national average.

6. The estimate does not take account of certain tax effects which would have a non negligible impact among these are:
- that people with high incomes pay more VAT, due to higher levels of consumption.
- that people with high incomes to a greater extent than people with lower incomes own private property and hence pay a private property tax.
- that people with high incomes to a greater extent than people with low incomes have private pensions and that such pensions are taxed.

Note on specific countries

Australia: 2005 data has been used to produce indicator A9 for Australia because not all components used to derive this indicator were available for later years. **Back_to_Table1**

Denmark: Most Danish tertiary students (about 70%) work while studying and hence pay taxes on their wages**.** **Back_to_Table1**

New Zealand: One factor for New Zealand that affects lower returns comparisons is the mix effect when type B and type A are combined and reported as tertiary. Countries with a high proportion of type B might show as lower returns to tertiary, even though both returns for B and A might be higher. For New Zealand, this has an effect given out large vocational sector – although it is by no means the only, or maybe even the biggest factor. Their returns are still relatively lower despite this.

For further information on how to interpret A9, please refer to *The User's Guide to Indicator A9* available on www.oecd.org/edu/eag2011

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INDICATOR A10: How does education influence economic growth, labour costs and earning power?

- **Tables A10.1, A10.2, A10.3, A10.4 (web), A10.5 and A10.6 (web)**

Methodology

For the definition of full-time earnings, countries were asked whether they had applied a self-designated full-time status or a threshold value of typical number of hours worked per week. Ireland, Italy, Luxembourg, Portugal, Spain, Sweden and the United Kingdom reported self-designated full-time status; the other countries defined full-time status by the number of working hours per week. The threshold was 36 hours per week in Austria, Hungary and the Slovak Republic; 35 hours in Australia, Brazil, Canada, Estonia, Germany and the United States; and 30 hours in the Czech Republic, Greece and New Zealand. Other participating countries did not report a minimum normal number of working hours for full-time work. For some countries, data on full-time, full-year earnings are based on the European Survey on Income and Living Conditions (EU-SILC), which uses a self-designated approach in establishing full-time status.

Not all countries were able to verify full-time status over the whole reference period for the earnings data. Hungary and New Zealand reported only full-time status at the time of the survey, while the surveys in the Czech Republic, Germany, Italy, Norway, the Slovak Republic and Spain verified full-time status over the whole reference period. For the other countries, full-time status was verified for a period similar to the length of the reference period, but the period may differ slightly from the reference period for earnings.

The length of the reference period for earnings also differed. Australia, New Zealand and the United Kingdom reported data on weekly earnings, while Belgium, Estonia, Finland, France, Hungary, Korea and Portugal reported monthly data. In Austria, the Czech Republic, Denmark, Germany, Greece, Israel, Italy, Luxembourg, the Netherlands, Norway, the Slovak Republic, Slovenia, Spain, Sweden and the United States, the reference period for the earnings data was 12 months. Earnings from full-time work can, in some instances, be affected by overtime hours worked in some countries, thus normal full-time earnings can be somewhat overstated. The full-time earnings data shown in this indicator thus differ across countries to some extent. In addition, immigration can sometimes affect earnings levels and can explain some of the differences among countries. Results should therefore be interpreted with caution.

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INDICATOR A11: What are the social outcomes of education?

Methodology

Out of six indicators presented in this year's edition of *Education at a Glance* (EAG), five are indicators for the adult population (aged 25-64) and one is an indicator for the student population (approximately age 14). Among the indicators for adults, three are new indicators and two are updates of indicators presented in EAG 2011. The indicator for the student population is a new indicator. The following describes the data sources and how the indicators are calculated.

Indicators for the adult population

Data for three new indicators for adults (*i.e.* life expectancy, electoral participation of younger and older adults, engagement in social activities) were compiled from the following international and national surveys.

- The EUROSTAT data base (2012) http://epp.eurostat.ec.europa.eu/portal/page/portal/population/data/database
- Statistics Canada's CANSIM data base (2012) http://www5.statcan.gc.ca/cansim/home-accueil?lang=eng&p2=50
- FitzGerald, Byre and Znuderl (2011) for Ireland
- Centers for Disease Control and Prevention's (CDC) Vital and Health Statistics (2010) http://www.cdc.gov/nchs/data/series/sr_02/sr02_151.pdf for the United States
- The European Social Survey (ESS, 2008 and 2010) http://www.europeansocialsurvey.org/
- The Canadian General Social Survey (GSS, 2008) http://www.statcan.gc.ca/dli-ild/data-donnees/ftp/gss-esg/gssc-esgc2008-eng.htm/
- Estudo Eleitoral Brasileiro (ESEB, 2010) – CESOP-UNICAMP

Note on specific countries

United States: Information on voting and registration by various demographic and socioeconomic characteristics is collected in national election years in a supplement of the Current Population Survey (CPS), a survey of about 50,000 households. In order to be eligible to vote in the United States, voters must be at least 18, be a U.S citizen, and be registered to vote in the state in which they reside. In the United States most convicted felons lose their right to vote while incarcerated. States policies vary on whether and how voting rights are restored after completion of a sentence. In the November 2008 election, 64% of the population of voting-age citizens went to the polls. People in the military, U.S. citizens living abroad, and people in institutional housing, such as correctional institutions and nursing homes, were not included in the survey. For a discussion of the differences between the official counts of votes cast and the CPS data, see the section on Measuring Voting and Registration in the Current Population Survey. For more information on the CPS Voting and Registration Supplement, please visit the website:

http://www.census.gov/hhes/www/socdemo/voting/index.html. **Back_to_Table1**

Updated indicators for adults (*i.e.* electoral participation and life satisfaction) were compiled from the following international and national surveys:

- The European Social Survey (ESS, 2010) http://www.europeansocialsurvey.org/
- The Canadian General Social Survey (GSS, 2008) http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=5024&lang=en&db=imdb&adm=8&dis=2
- The New Zealand General Social Survey (GSS, 2008) http://www.stats.govt.nz/nzgss/
- The Current Population Survey (CPS, 2008), November 2008 Voting and Registration Supplement File – the United States http://www.census.gov/hhes/www/socdemo/voting/index.html

Except for indicators on life expectancy (T_A11.1 and C_A11.1) and on student's attitudes (T_A11.4 and C_A11.3), all samples were restricted to adults aged 25 to 64. The educational attainment variable in each data source was converted to an ISCED 3-level educational attainment variable (*i.e.* below upper secondary education; upper secondary education, and tertiary education). These conversions are summarized below in Table 11.1 for each data source. The percentage of adults at each ISCED level grouping was then compared to the educational attainment percentages published in EAG for the relevant comparison year. For each data source, if the percentage of adults for a country at any one of these three levels differed from the corresponding percentage in EAG by more than 10 percentage points, that country was excluded from analysis. The country representative for the *Network on Labour Market, Economic and Social Outcomes of Learning* could override this criterion. Table 11.2 below shows the final selection of data sources used for indicator construction.

Although the use of multiple data sources was restricted to those sources that included comparable survey questions, the data sources differ in many ways that could affect the comparability of the indicators; readers therefore should use caution when comparing indicator findings across countries that are based on

different data sources. The following provides exact questions used in each questionnaires, and the coding rules that have been adopted.

Electoral participation (voting)

ESS (2008; 2010)	Some people don't vote nowadays for one reason or another. Did you vote in the last [country] national election in [month/year]? Yes, no, not eligible to vote, don't know. Yes coded as voting. Those who did not know if they voted are excluded from the analysis.
GSS (2008): Canada	Lots of people find it difficult to get out and vote. Did you vote in the last federal election? Yes, no, don't know, refusal. Yes coded as voting. Those who did not know if they voted or refused to respond are excluded from the analysis.
GSS (2008): New Zealand	The general election is where the whole country votes to decide who will govern the country for the next three years. Did you vote in the last general elections? Yes, no, don't know, refused. Yes coded as voting. Those who did not know if they voted or refused to respond are excluded from the analysis.
Lifelong Education Survey (2009): Korea	Did you vote in the last national election in April, 2008? Yes, no, don't know. Yes coded as voting. Those who did not know if they voted are excluded from the analyses.
CPS (2008): United States	In any election, some people are not able to vote because they are sick or busy or have some other reason, and others do not want to vote. Did you vote in the (presidential) election held on Tuesday, November 4, 2008? Yes, no, don't know, refused, no response. Yes coded as voting. Those who did not know if they voted or refused to respond are excluded from the analysis.
ESEB (2010) : Brazil	Did you vote in the first round of these elections? Did you vote in the second round of these elections? Yes, no, don't know. Yes coded as voting.

ESS: European Social Survey
ISSP: International Social Survey Programme
GSS: General Social Survey
CPS: Current Population Survey
NHIS: National Health Interview Survey
ESEB: Estudo Eleitoral Brasileiro

Information on voting and registration by various demographic and socioeconomic characteristics is collected in national election years in a supplement of the Current Population Survey (CPS), a survey of about 50,000 households. In order to be eligible to vote in the United States, voters must be at least 18, be a U.S citizen, and be registered to vote in the state in which they reside. Convicted felons lose their right to vote. In the November 2008 election, 64% of the population of voting-age citizens went to the polls. People in the military, U.S. citizens living abroad, and people in institutional housing, such as correctional institutions and nursing homes, were not included in the survey. For a discussion of the differences between the official counts of votes cast and the CPS data, see the section on Measuring Voting and Registration in the Current Population Survey. For more information on the CPS Voting and Registration Supplement, please visit the website:

http://www.census.gov/hhes/www/socdemo/voting/index.html.

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Engagement in social activities

ESS (2010)	Compared to other people of your age, how often would you say you take part in social activities? Much less than most, Less than most, About the same, more than most, much more than most, don't know. About the same, more than most, much more than most coded as engaged. Those who did not know if they took part in social activities are excluded from the analysis.

The data source for this indicator comes exclusively from the European Social Survey (ESS).

Life satisfaction

ESS (2010)	All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 means extremely dissatisfied and 10 means extremely satisfied. 00 Extremely dissatisfied 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 Extremely satisfied, 88 don't know. Responses 7, 8, 9, 10 coded as satisfied with life. Those who did not know are excluded from the analysis.
Lifelong Education Survey (2010): Korea	How much are you satisfied with your life in general? 0 means very unsatisfied and 10 means very satisfied. Responses 7, 8, 9, 10 coded as satisfied with life.

To calculate incremental differences, country-specific regression models were estimated to predict each dichotomous outcome variable (*e.g.* high versus low level of interest in politics) from individuals' educational attainment level, with and without control variables for age, gender and family income. In each regression equation, two categorical dummy variables were included for the educational attainment level (0-1 dummies for below upper-secondary education and tertiary education, with upper secondary education as the omitted group). The coefficients for these educational attainment variables provided the measures of incremental differences or, in other words, the difference in the average level of the outcome variable (which can be interpreted as the share of individuals) across levels of education. For analyses with control variables, age was included as a continuous variable along with an age-squared term (to account for possible curvilinear relationships), and gender was included as a 0-1 dummy variable. Family income was included as a set of dummy variables, based on the income categories included in each data source, and with an additional dummy variable for missing values on income.

In preliminary analyses, both probit and ordinary least squares (OLS) regressions were used, and were found to produce very similar estimates of incremental differences. Because OLS regression provides more readily interpretable coefficients, OLS was used for the final analysis to generate incremental differences (see Tables A11.3 and A11.5). Back_to_Table1

Table 11.1. Conversion from international data source educational attainment variable to 3-level ISCED educational attainment variable

Data Source	Coding in Data Source	Description of Level in Data Source	ISCED Conversion
ESS	0	Not completed primary	Below upper secondary
	1	Primary or first stage of basic	Below upper secondary
	2	Lower secondary or second stage of basic	Below upper secondary
	3	Upper secondary	Upper secondary
	4	Post secondary non-tertiary	Upper secondary
	5	First stage of tertiary	Tertiary
	6	Second stage of tertiary	Tertiary
GSS -Canada	1	Some secondary/high school	Below upper secondary
	2	Elementary school/no schooling	Below upper secondary
	3	Some university	Upper secondary
	4	Some community college/CEGEP/nursing	Upper secondary
	6	Some trade/technical	Upper secondary
	5	High school diploma	Upper secondary
	7	Diploma/certificate from trade/technical	Upper secondary
	8	Doctorate/masters/some graduate	Tertiary
	9	Bachelor's degree	Tertiary
	10	Diploma/certificate from community college	Tertiary
GSS - New Zealand	1	No qualifications	Below upper secondary
	2	Level 1 certificate*	Below upper secondary
	3	Level 2 certificate*	Upper secondary
	4	Level 3 certificate*	Upper secondary
	6	Level 4 certificate*	Upper secondary
	5	Level 5 diploma*	Tertiary
	7	Level 6 diploma*	Tertiary
	8	Bachelor's degree and Level 7 qualifications*	Tertiary
	9	Post graduate honours degrees	Tertiary
	10	Master's/Doctorate degree	Tertiary
	11	Overseas secondary school qualifications	Upper secondary
CPS –United States		Less Than 1st Grade	Below upper secondary
		1st,2nd,3rd Or 4th Grade	Below upper secondary
		5th Or 6th Grade	Below upper secondary
		7th Or 8th Grade	Below upper secondary
		9th Grade	Below upper secondary
		10th Grade	Below upper secondary
		11th Grade	Below upper secondary
		12th Grade No Diploma	Below upper secondary
		High School Grad-Diploma Or Equiv (ged)	Upper secondary
		Some College But No Degree	Upper secondary
		Associate Degree-Occupational/Vocational	Tertiary
		Associate Deg.-Academic Program	Tertiary
		Bachelor's Degree(e.g. BA, AB, BS)	Tertiary

		Master's Degree (e.g. MA, MS, MEng, MEd, MSW)	Tertiary
		Professional School Deg(e.g. MD, DDS, DVM)	Tertiary
		Doctorate Degree (e.g. PhD, EdD)	Tertiary
Lifelong Education Survey- Korea	1	Elementary	Below upper secondary
	2	Middle school	Below upper secondary
	3	High school	Upper secondary
		Associate Bachelor's degree	Tertiary
		Bachelor's degree	Tertiary
		Master's degree	Tertiary
		Doctorate Degree	Tertiary
ESEB – Brazil	1	Illiterate/Never went to school	Below upper secondary
	2	ISCED 1 (incomplete)	Below upper secondary
	3	ISCED 1	Below upper secondary
	4	ISCED 2 (incomplete)	Below upper secondary
	5	ISCED 2	Below upper secondary
	6	ISCED 3 (incomplete)	Below upper secondary
	7	ISCED 3	Upper secondary
	8	ISCED 5 (incomplete)	Upper secondary
	9	ISCED 5 (1st degree)	Tertiary
	10	ISCED 5 (1st degree) and 6	Tertiary

Note: * refers to New Zealand NQF level.

ESS: European Social Survey
ISSP: International Social Survey Programme
GSS: General Social Survey
CPS: Current Population Survey
NHIS: National Health Interview Survey
KEDI: KEDI's Korean Social Capital Survey

Table 11.2. Countries included in social outcomes indicators, and the data source for each country

OECD Countries	Electoral Participation (voting)	Engaging in social activities	Life Satisfaction
Austria	ESS 2008	ESS 2010	ESS 2010
Belgium	ESS 2008, 2010	ESS 2010	ESS 2010
Canada	GSS 2008	-	GSS 2008
Czech Republic	ESS 2008, 2010	ESS 2010	ESS 2010
Denmark	ESS 2008, 2010	ESS 2010	ESS 2010
Estonia	ESS 2008, 2010	ESS 2010	ESS 2010
Finland	ESS 2008, 2010	ESS 2010	ESS 2010
France	ESS 2008, 2010	ESS 2010	ESS 2010
Germany	ESS 2008, 2010	ESS 2010	ESS 2010
Greece	ESS 2008, 2010	ESS 2010	ESS 2010
Hungary	ESS 2008, 2010	ESS 2010	ESS 2010
Ireland	ESS 2008, 2010	ESS 2010	ESS 2010
Israel	ESS 2008, 2010	ESS 2010	ESS 2010
Korea	KEDI 2009	-	KEDI 2010
Netherlands	ESS 2008, 2010	ESS 2010	ESS 2010
New Zealand	GSS 2008	-	GSS 2008
Norway	ESS 2008, 2010	ESS 2010	ESS 2010
Poland	ESS 2008, 2010	ESS 2010	ESS 2010
Portugal	ESS 2008, 2010	ESS 2010	ESS 2010
Slovak Republic	ESS 2008, 2010	ESS 2010	ESS 2010
Slovenia	ESS 2008, 2010	ESS 2010	ESS 2010
Spain	ESS 2008, 2010	ESS 2010	ESS 2010
Sweden	ESS 2008, 2010	ESS 2010	ESS 2010
Switzerland	ESS 2008, 2010	ESS 2010	ESS 2010
Turkey	ESS 2008, 2010	ESS 2010	ESS 2010
United Kingdom	ESS 2008, 2010	ESS 2010	ESS 2010
United States	CPS 2008	-	-
Partner countries			
Brazil	-	-	ESEB 2010
Russian Federation	ESS 2008, 2010	ESS 2010	ESS 2008

ESS: European Social Survey
ISSP: International Social Survey Programme
GSS: General Social Survey
NHIS: National Health Interview Survey
KEDI: Lifelong education survey in Korea
CPS: Current Population Survey
ESEB: Estudo Eleitoral Brasileiro

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Indicators for the student population

Data on students' attitudes towards equal rights for ethnic minorities was compiled from the International Civic and Citizenship Education Study (ICCS). The ICCS was carried out by the International Association for the Evaluation of Educational Achievement. Thirty-eight countries participated with national project teams collecting data and conducting national analysis. A major part of the data comes from samples of students in Grade 8 (or equivalent, students approximately 14 years of age) on student achievement (civic knowledge) and on a range of attitudes as well as indicators of civic participation or expected participation. The main data collection by testing and surveys of individuals took place between October 2008 and June 2009. More than 140 000 students (roughly 2 000 to 6 500 individuals per country) in more than 5 300 schools from the 38 countries took part. The quality of the data is enhanced by the rigorous control exercised by the ICCS international team over item translation from English to the languages used in the schools of the participating countries, over sampling frames and over the school-size stratified random sampling of schools and of respondents within schools. See http://iccs.acer.edu.au/ for more details on the ICCS.

ICCS international produced a Civic Knowledge scale for international comparisons and national use, based upon a final selection of 79 test questions. They typically presented some brief contextual stimulus (an image or some text) followed by items relating to the common context. Seventy-three items were multiple-choice, and six were open-ended questions with constructed-response based upon answers to be given by students (typically between one and four sentences in length). Three-quarters of the test items involved reasoning and analysis associated with civics and citizenship, the others focused on factual knowledge.

The development of the proficiency scale by the international ICCS research team was based on the scaled difficulties of the assessment items. Rasch modeling was used. Analysis was carried out to ensure good item validity for all participating countries. Civic Knowledge was measured on a scale where the international average was set to 500 scale points, with a standard deviation of 100 scale points.

Analysis of the data led ICCS to establish these proficiency levels:

Level 1: characterised by engagement with the fundamental principles and broad concepts that underpin civic and citizenship and by a mechanistic working knowledge of the operation of civic, civil, and political institutions. This contains those with 395 to 478 score points on the test.
Level 2: characterised by knowledge and understanding of the main civic and citizenship institutions, systems, and concepts as well as an understanding of the interconnectedness of such institutions and relevant operational processes (479 to 562 score points).
Level 3: characterised by the application of knowledge and understanding to evaluate or justify policies, practices and behaviours based on students' understanding of civics and citizenship (563 score points and above).
In addition, students who failed to reach "Level 1" (those who had less that 395 score points on the test). These students did not reach the minimum performance deemed by ICCS to constitute the most basic civic knowledge level commonly set as targets for participating countries.

The indicators presented in Table A11.4 and Chart A11.3 are calculated based on the average value of scales (for each of the proficiency scale) that measure the extent to which students express supportive attitudes towards gender equality.

ICCS (2009)	The scale measuring supportive attitudes towards gender equality is based on answers to 6 attitude questions. Students were given these options: "strongly agree", "agree", "disagree" and "strongly disagree" with regard to 6 statements: • Men and women should have equal opportunities to take part in government • Men and women should have the same rights in every way • Men and women should get equal pay when they are doing the same jobs • Women should stay out of politics • When there are not many jobs available. men should have more right to a job than women • Men are better qualified to be political leaders than women are Higher scale scores indicate higher levels of support for gender equality. Rasch Partial Credit Model was used for scaling, and the resulting weighted likelihood estimates (WLEs) were transformed into a metric with a mean of 50 and a standard deviation of 10 for those equally weighted national samples that satisfied guidelines for sample participation. Average within scale reliability (Alpha) = .79 with equally weighted national samples.

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