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EDUCATION AT A GLANCE 2013
OECD INDICATORS

A Country Profile for Ireland

STATISTICS SECTION
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Introduction

The latest edition of ***Education at a Glance (EAG)*** was published by the OECD on Tuesday **25th June 2013**. The reference year for data in this publication is the school year 2010/2011 (or the financial year 2010 or the calendar year 2011 in the case of labour market status). EAG has been published by OECD on a yearly basis since 1992. Many of the indicators form a stable series for which Ireland's position can be ranked in relation to up to 33 other OECD countries.

EAG is organised into four chapters:

A. The Output of Educational Institutions and the Impact of Learning
B. Financial and Human Resources Invested in Education
C. Access to Education, Participation and Progression
D. The Learning Environment and Organisation of Schools

This document highlights some key indicators – following the structure of EAG according to the above four chapters. The main focus is on how Ireland compares with the 'OECD average' (see Technical Note 1, page 24). An 'EU21' average is also shown for some indicators in respect of those 21 countries that are member states of both the European Union and the OECD (refer to Technical Note 2, page 24). Levels of education are classified in EAG by a system referred to as ISCED (see Technical Note 3, page 24).

Most of the data presented in EAG are based on detailed information provided through the 'UOE Data Collection' (UNESCO, OECD and Eurostat) supplied each year by all OECD countries and, in the case of Ireland, the Department of Education and Skills[1]. Some indicators are based on other sources such as the Quarterly National Household Survey, the EU Survey on Income and Living Conditions, the OECD-INES Network for the Collection and Adjudication of System-level Descriptive Information on Educational Structures, Policies and Practices (NESLI) and the OECD-INES Network on Labour Market, Economic and Social Outcomes of Learning (LSO).

In regard to expenditure, data are provided in relation to nearly all areas of public provision of education and training, following international guidelines. Hence, data on expenditure for education, training and educational research by FÁS, Teagasc, Fáilte Ireland, Forfás and various other public bodies are included along with voted expenditure by the Department of Education and Skills in 2010. Payments of child benefit by the Department of Social Protection conditional on student status in 2010 are included.

The entire pdf copy of Education at a Glance Indicators 2013, as well as the detailed data tables in Excel format, can be downloaded here: http://www.oecd.org/edu/eag2013.htm

If you wish to consult or download data from last year's publication – EAG2012 – go to: http://www.oecd.org/edu/eag2012

[1] However, data drawn from the Quarterly National Household Survey or the European Survey on Income and Living Conditions together with data on GDP and population have been drawn directly from Eurostat or the Central Statistics Office. Data on enrolment, graduates, entrants, expenditure and numbers of teachers have been supplied by the Statistics Section of the Department while data on statutory teacher salaries, working hours and surveys of school accountability have been provided by the Inspectorate following consultation with relevant sections of the Department. Data from the Programme of International Student Assessment and the International Civic and Citizenship Study were gathered by the Educational Research Centre in Ireland but sourced directly from the OECD.

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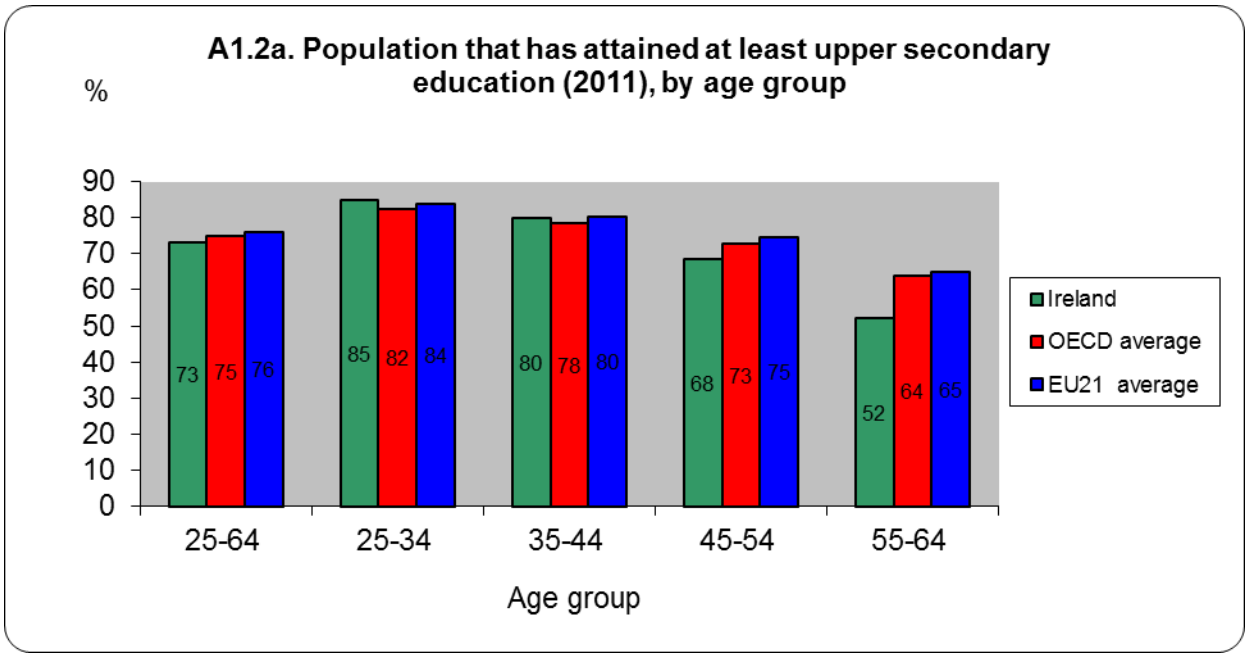
1 The Output of Educational Institutions and the Impact of Learning

1.1 Educational attainment in the adult population (how many people in the adult population have completed a particular level of education).

1.1.1 Upper-secondary educational attainment (A1)

Ireland, starting from a position of a relatively low level of completion of education in the population as a whole in the mid-20th century, has been catching up with other economically developed countries. There has been a steady increase over recent decades with a particularly fast catching-up by groups who completed their initial education in the 1970s and later. In 2011, 52% of persons aged between 55 and 64 had completed upper-secondary or higher (Leaving Certificate or equivalent or higher). The corresponding figure was 64% on average across the OECD. However, 85% of 25-34 year olds here had completed upper-secondary education compared to 82% across the OECD. So, the gap in attainment levels in Ireland[2] between 55-64 year olds and 25-34 year olds was very large at 33 percentage points – and was fourth highest (behind Korea, Portugal and Greece) of any OECD country in 2011 *(A1.2a; P36[3])*.



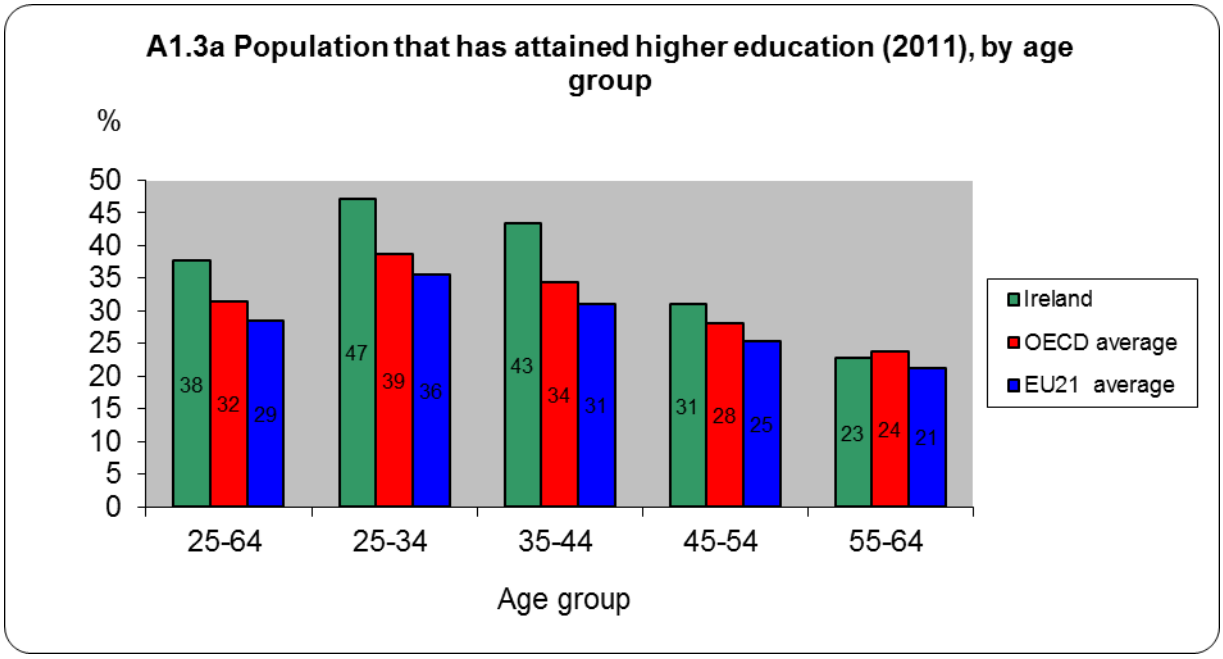
[2] These figures also include migrants who have completed their education outside Ireland. The overall impact on educational attainment arising from inward migration is limited; however, it does have the effect of raising levels of attainment especially among the young age-groups where recent migrants tend to have a higher level of educational attainment.

[3] The exact cross-reference to the information in EAG is given throughout this document in the following way (example): *A1.2a; P36* = Indicator A1.2a on Page 36 of the published EAG 2013.

1.1.2 Educational attainment - other levels of education (A1)

Taking the adult population as a whole (aged 25-64), the rate of tertiary attainment *(A1.4; P32)* in Ireland was above the OECD average (38% compared to 32%). However, the proportion of adults without a Leaving Certificate or above was 27% and was slightly more than the OECD average proportion, at 25%. Hence, there is a greater disparity in educational attainment, here, with a relatively better educated youth cohort and a relatively poorly educated cohort over the age of 50. On average, the proportion of adults with tertiary attainment in Ireland increased by 5.2% per annum since 2000. This compares to 3.3% per annum across the OECD in tertiary attainment among the adult population between 2000 and 2011. *(A1.4a; P38).*

Attainment at higher education level (whether university or other higher education) was particularly high among 25-34 year olds in Ireland where, at 47%, Ireland was above the OECD average of 39% (or EU21 at 36%) – refer to *A1.3a; P37.*



1.2 Upper-secondary and tertiary graduation rates (A2)

1.2.1 Upper-secondary rates

Completion of upper-secondary level education (or equivalent) is an important education milestone and benchmark indicator internationally. Even prior to the recent economic downturn, retention to Leaving Certificate had been increasing and many adults are availing of continuing education opportunities to top up their initial education to Leaving Certificate level or higher.

There are, broadly, three ways of measuring completion at this level: (i) track individual pupils through secondary level to completion, (ii) examine the attainment of various age-cohorts at one point in time or (iii) sum the number of 'graduates' (e.g. Leaving Certificate candidates) by single year of age in a given year (2011) as a percentage of each single year of age cohort (18 years of age). Using this last measure *(A2.1a; P50)*, the OECD-avera5ge graduation rate was 83% and the average age of graduation was 20 (or 84% for EU21 with an average age of graduation of 20). The corresponding figure for Ireland in 2011 was 89% and the average age at graduation was 19. In Ireland the rate was 90% and 88% for females and males, respectively.

The numbers of upper-secondary graduates also include a range of education pathways, including FÁS and other FETAC awards. As for the vast majority of OECD countries, there is a much higher graduation rate among females than among males.

A comparison, over time, of upper Secondary graduation rates *(A2.2a; P52)* shows an increase followed by a stabilisation of rates of completion in many countries including Ireland. Note that the graduation rates for Ireland have decreased from those published in last year's EAG when the figure was 94%. This is largely to do with variations in the underlying single year of age population estimates following the results of the 2011 Census of Population rather than changes to the actual absolute number of graduates. In the case of Ireland, some of the increase was associated with the inclusion of particular FETAC awards from 2003 onwards that were not previously included in statistical returns made to the international organisations. The drop in estimated completion between 2005 and 2006 is associated with the reclassification of a number of FETAC awards from ISCED level 3 to level 4.

1.2.2 Tertiary completion rates (A3)

As with upper-secondary education, it is possible to contrast countries in terms of the ratio of graduates to the typical age cohort. The data shown in *A3.1a; P* distinguishes 'Tertiary-type B' (Higher Certificate/Ordinary Bachelor Degree) and 'Tertiary-type A' qualifications (Honours Bachelor Degree). Ireland was well above the international averages in tertiary graduation with a particularly strong lead in terms of Tertiary-type B (or ISCED level 5B) where it was the fifth highest in the OECD in 2011 at 22% - well above the OECD average of 11%. The graduation rate of 1.9% at PhD level here was above the OECD average of 1.6%. The OECD has included an estimate of graduation rates when the impact of international/foreign students was excluded *(A3.1a; P61)*. A number of countries – especially English-speaking – stand out as having large numbers of foreign graduates from postgraduate programmes including PhD (UK, Australia, New Zealand and the US). Irish data show that the graduation rate for postgraduates was 1.6% when international students were excluded).

A3.1/A3.2: Tertiary graduation rates (2000 and 2011)

Percentage of higher education graduates to the population at the typical age of graduation

	Higher Certificate/Ordinary Bachelor Degree (Type B)		Honours Bachelor Degree (Type A)		PhD
	2000	**2011**	**2000**	**2011**	**2011**
Ireland	15	22	30	43	1.9
OECD average	9	11	28	40	1.6
EU21 average	7	9	27	41	1.7
Ranking (OECD)	3rd of 17	5th of 26	11th of 23	11th of 28	10th of 32

1.3 Educational attainment and the labour market (A5)

EAG2013 provides data on the educational attainment of different groups in the labour force using data for 2011 – the fourth year of the economic downturn. It is a well-recognised finding that, in all countries for which data are available, the rate of participation in the labour force, occupations held and earnings from employment are all strongly related to educational attainment. Across the OECD differences emerge in labour market profiles between men and women; these differences are sharper in those countries where, traditionally, women work on a part-time basis or withdraw for a period from the labour force.

Calculated as the number employed as a percentage of the total population group, employment rates were higher for men than for women in every country for all levels of educational completion combined. The 2011 OECD averages were 80% for men and 65% for women *(A5.1b; P87)*. The corresponding rates in Ireland were 71% and 61% for men and women respectively. Employment rates vary sharply by educational attainment. Table A5.1b shows that for those women who have left school before Junior/Intermediate Certificate in Ireland (taking the whole population aged 25-64), only 26% were in employment compared to 37% on average across the OECD. These patterns suggest a pervasiveness of disincentives in relation to employment for women with lower levels of education (and correspondingly lower levels of pay from work if they were employed in the labour market). The corresponding rates at university degree level and higher (ISCED5A and ISCED 6) were 81% (Ireland) and 79% (OECD average).

In 2011 the unemployment rate for males in Ireland at 16.0% was more than double the OECD average of 7.0% whereas the unemployment rate for females at 9.2% was above the OECD average of 7.2% *(A5.2b; P90)*.

The economic downturn has impacted particularly sharply on adults with below upper-secondary attainment. Rates of unemployment in Ireland rose from 8.2% in 2008 to 21.7% in 2011 for adults with below upper-secondary attainment and from 3.0% to 7.1% for tertiary graduates *(A5.4a; P94)*.

1.4 Individual labour market returns to education (A6, A7)

Education may be viewed as an investment in future earnings from employment with a 'premium' or additional income arising from higher education and the associated skills and productivity of the person. The 'premium' to higher education takes no account of differences in tax-take between countries. A number of other factors apart from education impact on earnings, including experience, sector of employment, market power and wage-bargaining arrangements in each country and sector. The 'premium' to higher education was lower in countries with more egalitarian earnings structures. With upper-secondary education as the baseline level of education for most workers in recent decades, investment in higher education gives a clear earnings gain to those who complete this level

of education. Leaving aside the cost and forgone earnings during higher education studies, the additional earnings (before deduction of income and consumption taxes) associated with higher education vary considerably by country.

Using 2011 data (the Irish data refers to 2010) and benchmarking on upper-secondary and post-secondary non-tertiary education (ISCED 3 and 4 combined) and comparing for the whole population aged 25-64, tertiary graduates in employment in Ireland earned, on average, 75% more than the benchmark *(A6.2a; P113)*. The corresponding OECD average was 57%. In Ireland, individuals with less than upper-secondary completion and in employment earned on average 15% less than those at the benchmark. The OECD average was 24% *(A6.2a; P113)*.

Looked at from another angle - comparing male and female earnings for a given level of education - there was a large pay-gap between men and women in the case of low levels of educational completion. For women who left school before the Leaving Certificate and were in employment in 2010, earnings were, on average, only 60% of earnings of men who left school before the Leaving Certificate *(A6.3b; P120)*. Indicator A6.4a (available on the web only) provides a crude indication of relative poverty based on the earnings distribution for those in employment by level of education. 38% of persons with below upper-secondary attainment earned one half or less of median earnings compared to 14% in the case of tertiary 5A/6 graduates. Overall, 26% of persons in employment in Ireland earned one half or less than median earnings compared to 17% on average across the OECD.

Indicator A7 (pages 126-147) provides information on incentives to invest in education by estimating the economic 'value' of education in terms of lifetime earnings. In this indicator, no account is taken of the various social, cultural and non-market benefits of education – to the individual as well as the wider community. However, other indicators are provided to illustrate likely societal benefits from additional education (see section 1.7 below). An individual incurs costs when investing in education (direct costs such as tuition fees and indirect costs such as forgone earnings while in school). The overall benefits of this investment are assessed by estimating the 'economic value' of the investment, which essentially measures the degree to which the investment costs of attaining higher levels of education translate into higher levels of earnings. The approach used is to estimate the Net Present Value (NPV) defined as the amount which would have to be invested to achieve a comparable flow of future returns based on the estimated additional earnings to individuals over a lifetime of employment. Costs and benefits in different periods are discounted back to the beginning of the investment period by means of an estimated internal rate of interest.

This estimation may be divided into two components:

- Monetary value of investment by individuals = individual's earnings less costs
- Monetary value of investment by public authorities (section 1.5 below) = higher income taxes + social contributions + lower social transfers to individuals less costs borne by the government.

Clearly, the estimated financial return to individuals or government is based on a very partial and historic relationship between different variables. Short-term changes in labour market conditions as well as long-term shifts in patterns of behaviour may change the actual outcome very significantly compared to the estimates shown here which are based on average and stable relationships between variables. Moreover, no account is taken of macro-economic impacts such as spillover effects on productivity at the firm or regional level of investment in human capital. The joint impact of investing in the skills of many individuals may exceed the sum of the individual parts.

The private net present value for an individual obtaining **upper-secondary** or **post-secondary, non-tertiary education** as part of initial education in Ireland was US$142,366 for males and US$118,058 for females *(refer to A7.1; P140)*. At **tertiary** level *(indicator A7.3, P144)* the figures for Ireland are US$288,543 for males and US$185,960 for females.

A range of factors may explain the high additional earnings to more highly-educated persons in Ireland including: greater wage dispersion in the labour force and concentrations of highly educated workers in modern exporting sectors.

Using a combination of information on costs and benefits it is possible to calculate the 'internal rate of return' to investment by level and for men and women.

A7.1a&b/A7.3a&b: Private internal rates of return for an individual

(in equivalent USD - 2009 or latest available year)

	Upper secondary + post-secondary (non-tertiary)		**Tertiary**	
	Men	Women	Men	Women
Ireland	20.4	21.3	19.8	14.2
OECD average *(for those countries for which estimates were made)*	14.5	13.7	13.0	11.5

Source: Indicator A7.1a&b & A7.3a&b; Page 140-141 & 144-145

1.5 Public (fiscal) labour market returns to education (A7)

The Net Present Value of public investments in **upper-secondary** or **post-secondary non-tertiary education** *(A7.2a&b; P142 - 143)* was US$60,903 for males and U$40,152 for females. The corresponding figures for tertiary level were US$220,792 for males and US$126,380 for females. These are hypothetical estimates of returns to additional government expenditure taking account of the impact on individual earnings, social transfers, savings in unemployment and additional upfront cost. Costs and benefits are projected forward on the basis of data observations at one point in time (2009).

Note that there have been some changes to the methodology used for indicators A7.1, A7.2, A7.3 and A7.4 when compared to previous years EAGs.

A7.2a&b/A7.4a&b: Public internal rates of return for an individual

(in equivalent USD - 2009 or latest available year)

	Upper secondary + postsecondary (non-tertiary)		Tertiary	
	Men	Women	Men	Women
Ireland	8.1	4.2	17.0	13.7
OECD average *(for those countries for which estimates were made)*	8.4	6.8	11.2	9.0

Source: Indicator A7.2 & A7.4; Pages 142-143 & 146-147.

1.6 Health outcomes of education (A8)

Just as education is associated with labour market and public fiscal returns to education, it may also be associated with higher levels of health, trust, democracy and social cohesion. The social outcomes indicator for Education at a Glance 2013 focuses on the relationship between level of education attained and health outcomes, namely prevalence of smoking and body weight.

Indicator A8 shows that across the OECD, the relationship between educational attainment and these health indicators is strong even when differences in income, gender and age are taken into account. In Ireland, the data shows that 21.2% of adults with below-upper-secondary education are obese, compared to 12.8% of those with a tertiary qualification (*Table A8.1*). Even when controlling for income, gender and age, having a tertiary qualification results in a 6.6% reduction in the likelihood of being obese, compared to having a below-second-level education. (*Table A8.3*)

The relationship between educational attainment and smoking is even stronger in Ireland. When income, gender and age are taken into account, a tertiary-level qualification is associated with a 15.5% decrease in the likelihood of being a smoker, compared to having a below-second-level education. (*Table A8.4*). Overall, almost 23% of adults with a third-level qualification are smokers, compared to just over 30% of adults with an upper-secondary-level qualification and 38.1% of adults with below-second-level education.

2 Financial and Human Resources Invested in Education

2.1 Trends in education spending (B1)

The latest available international data on expenditure refer to 2010 financial year and reflect the position at the beginning of the continuing economic downturn. With rapid growth in national income as well as in public expenditure in the decade up to 2007, spending by public authorities on education also grew rapidly in Ireland, as it did in most other OECD countries. Between 2005 and 2010, in real terms (allowing for inflation), total public and private spending increased in Ireland by 44% (compared to 13% on average across OECD countries) for all levels of education combined below Higher Education (*B1.5a; P178*)[4]. In Higher Education (HE), expenditure in Ireland grew by 40%, compared to a 20% rise across the OECD (*B1.5b; P179*).

B1.5: Change in *public and private* expenditure on educational institutions between 2005 & 2010 *(2005=100)* **– constant prices**

	'Below HE' - primary to post-secondary level	**Third level**
Ireland	144	140
OECD average	113	120
Ranking (OECD)	1st of 31	3rd of 30

Source: Table B1.5

2.2 Expenditure on education relative to national income or public spending (B2)

Total spending as % of national income *(B2.1; P182):* Expenditure on education (public and private combined) in 2010 was 6.4% of Gross Domestic Product (up from 5.6 % in 2008), which is now slightly above average OECD expenditure at 6.3% of GDP and above the EU-21 average of 5.9% of GDP. A contraction in GDP in 2008 and 2009 explains some of this increase. This figure reflects Ireland's continued maintenance of higher spending levels on education as the economy shrunk. The percentage of GDP spent on higher education in Ireland in 2010 was the same as the OECD average (at 1.6% of GDP) whereas at below-HE level, the proportion was higher than the OECD average (4.8% compared to 3.9%).

[4] In deflating current price data, OECD uses the GDP price deflator. Alternative methods including the use of a public current expenditure price deflator by CSO in 'Measuring Ireland's Progress' gives different (typically lower) estimates of growth in expenditure per student over time (refer to Table 5.1 of MIP2011).

Public expenditure on education as a % of total public expenditure *(B4.2; P212)*: As a percentage of total public expenditure, public spending on education has decreased significantly from 13.4% in 2009 to 9.7% in 2010. The 2010 OECD average was 13.0%. The main driver of this change was the very significant increase in public expenditure recorded in 2010 over 2009 as a result of huge capital transfers to Irish banks as a result of the recapitalisation programme.

2.3 Expenditure on education per student (B1, B3)

Total expenditure per student, in Ireland, exceeded the OECD average for all levels in 2010 (refer to B1.1a below)[5]. Expenditure per student increased, respectively, for 'below HE' and HE by 33% and 28% in real terms between 2005 and 2010 (*Tables B1.5a and B1.5b*). Over time, in Ireland, the relative gap between expenditure per student at primary and tertiary level has narrowed.

It should be noted that cumulative expenditure per student by educational institutions over the average duration of tertiary studies is somewhat less than the OECD average in Ireland because of the shorter average duration of studies, here (*Table B1.3a*).

For a different view of comparative expenditure, focusing only on public expenditure for public educational institutions refer to Table B3.4 below. As in B1.1a Ireland was above the OECD average in 2010, for spending per student at all levels.

B1.1a: Annual expenditure on educational institutions per student (2010)
(In equivalent US$ converted using purchasing power parities for GDP)

	Primary	Secondary	Tertiary (including research and development)	Primary to tertiary
Ireland	8,384	11,380	16,008	10,685
OECD average	7,974	9,014	13,528	9,313
Ranking (OECD)	14th of 32	8th of 31	10th of 30	10th of 29

[5] It should be borne in mind that the OECD average itself has been impacted by the addition of new member countries over time.

Public expenditure on pre-primary education

2010 was the first full year of implementation of the ECCE scheme, and so Ireland now has OECD comparative data for per-capita public expenditure on pre-primary education in public and private institutions. The calculation includes expenditure on the ECCE scheme divided by the full-time equivalent number of pupils on the ECCE program in 2010.

Table B3.4 shows that public expenditure in Ireland on pre-primary education, at $6,121 per student, was above the OECD average expenditure of $5,643, and Ireland ranked 10th of 29 OECD countries for this indicator.

The equivalent data for public expenditure for other levels of education is shown in Table B3.4 below.

B3.4: Annual public expenditure on public* educational institutions per student (2010)

(In equivalent US$ converted using purchasing power parities for GDP)

	Pre-primary	Primary thru post-secondary, non-tertiary	Tertiary	All levels
Ireland	6,121	9,311	12,928	9,906
OECD average	5,643	8,412	11,312	8,382
Ranking (OECD)	10th of 29	9th of 28	10th of 26	10th of 26

Source: Table B3.4

** Definitions of public and private vary across countries.*

2.4 Annual expenditure on educational institutions per student relative to GDP per capita (B4)

The absolute amount spent per student reflects a number of factors including widely varying levels of GDP per capita across OECD member countries. To adjust for relative prosperity, total annual expenditure per student at each level of education (primary, secondary and tertiary) is divided by GDP per capita *(B1.4; P177).* Average expenditure per pupil across all levels in Ireland relative to GDP per capita (primary to higher education) was, in past years, amongst the lowest among OECD countries (refer to B1.4 below). In recent years Ireland's ranking has improved for this measure, most significantly for expenditure at second-level education. However, Ireland's overall ranking remains slightly below the OECD average.

B1.4: Annual expenditure on educational institutions per student relative to GDP per capita

	Primary	Secondary	Tertiary (Including research and development)	Primary to tertiary
Ireland	20	28	39	26
OECD average	23	26	41	28
Ranking (OECD)	26th of 32	15th of 31	20th of 30	20th of 29

2.5 Public subsidies for education to private entities (B5)

A significant portion of public spending on higher education, internationally, goes towards subsidies to households for tuition or student living costs. These may take the form of direct grants, subsidies, student loans and services-in-kind. In Ireland the proportion of public education expenditure dedicated to directly subsidising higher education students was above the OECD average – 13.1% for Ireland and 11.4% for the OECD average *(B5.4; P236)*.

2.6 Allocation of expenditure by resource category (B6)

Most of expenditure on education in OECD countries is accounted for by salaries – in particular teacher salaries. In 2010, on average across the OECD, they accounted for 62% of total current expenditure at primary, secondary and post-secondary non-tertiary levels. In Ireland the corresponding figure was even higher at 70.1% (*B6.2; P*). Correspondingly, 10.5% of current expenditure in primary, secondary and post-secondary non-tertiary education, combined, goes towards compensation of non-teaching staff in Ireland compared to the OECD average of 15.5 per cent. Compared to other countries, Ireland also spends slightly less on non-pay current items, at 19.4% compared to the OECD average of just under 22% (*B6.2; P239*).

2.7 Which factors influence level of spending? (B7)

As in last year's EAG, Tables B7.1a to B7.1c show a breakdown of the contribution of the following four factors to differences in teacher salary cost per pupil at a given level of education:

- instruction time of students
- teaching time of teachers
- teachers' salaries
- class size

B7 takes the differences between the OECD average and each individual country's value at each level of education from primary to upper secondary, for teachers' salary cost per student, and looks at which of the above four factors are the main drivers for the difference. For Ireland, which has a higher salary cost per student than the OECD average, the main factor behind the difference between Ireland and the OECD's teacher salary cost per student, is the relative size of our teachers' salaries, which are larger than the OECD average.

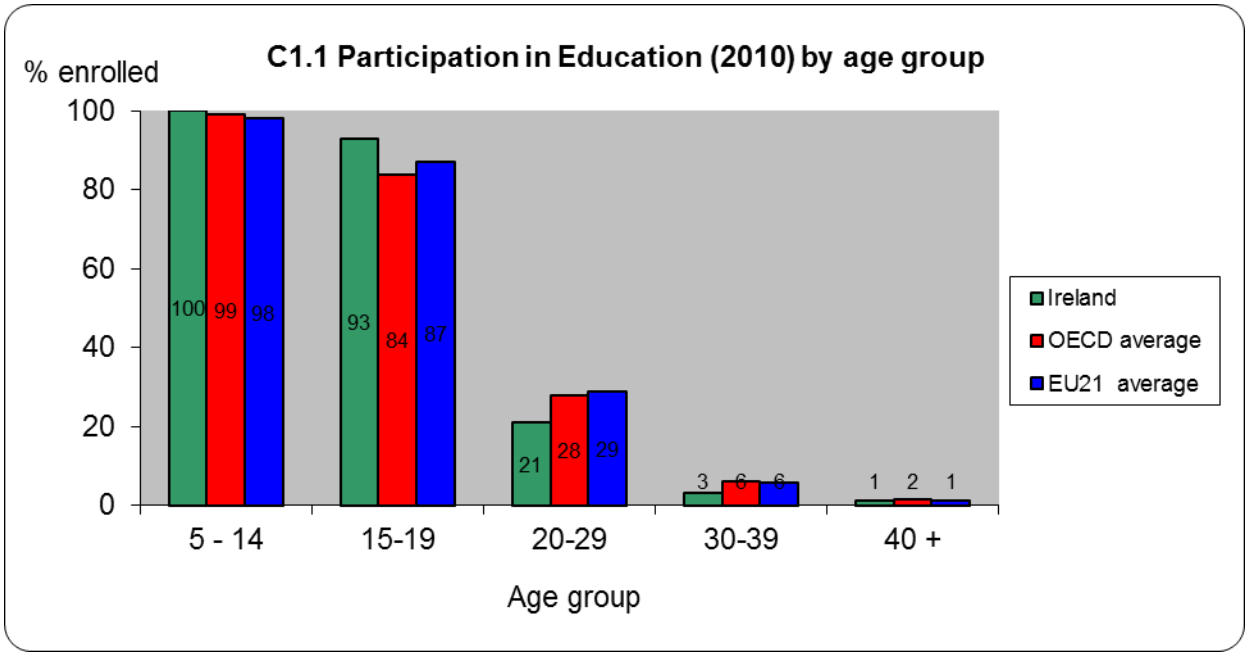
This indicator serves to highlight that, often, educational outcomes are not simply a function of the level of expenditure, as the same level of expenditure can be allocated in many different ways; they may have differing resultant effects on outcomes depending on whether the expenditure is used on higher teachers' salaries, extra instruction time for students or smaller classes.

3 Access to Education, Participation and Progression

3.1 Participation outside of compulsory education (C1, C2, C3)

Early childhood education: The enrolment rate in Ireland for children aged 3 to 4 was 85% in 2010/11 compared to an OECD average of 75% and a EU21 average of 82% *(C1.1a; P 269)*. Table C2.1: P286 shows the enrolment rates of children aged 3, 4, 5 and 6 in pre-primary and primary education. The data for Ireland show that 63% of 4-year-olds are enrolled in pre-primary education, the fifth lowest of all countries shown. However, this is because a further 39% of 4-year-olds are enrolled in primary education. Ireland, the UK and (for a very small number) Australia, are the only countries with 4-year-olds enrolled in primary education. Moving across the table, 99% of Irish 5-year-olds are enrolled in primary education whereas 81% of 5-year-olds across the OECD are enrolled in pre-primary education.

Transition to adulthood and further/higher education: The enrolment rates for 15-19-year-olds, here, exceeds the OECD and EU21 averages but rates for all the older age groups trail the international averages *(C1.1a; P269)*. Ireland shares, in common with some other OECD countries, a pronounced pattern of early completion of upper-secondary education and commencement of further and higher education around the age of 18. The enrolment rates for the older age groups (20–29, 30–39 and 40+) here trail the international averages for the OECD and EU21 averages respectively, illustrating a strong emphasis in Ireland on initial formal education and training and relatively less emphasis for older age-groups.



Examining trends over time *(C1.2; P 270)* shows that enrolment among 20-29-year-olds increased from 14% to 21% between 1995 and 2005 but fell back to 18% in 2008 – suggesting a possible negative impact on enrolment arising from rapid economic growth in the 2004-2008 period. The rate increased in 2010 to 21% and remained constant for 2011.

Access to higher education: Indicator *C1.5; P334* shows distributions of higher education students by full- and part-time. There are relatively high numbers of part-time higher education students in Ireland at ISCED5B (NFQ Level 6 (higher) and 7) compared to ISCED 5A and advanced programmes. The age profile of new entrants to higher education is shown in *C3.1b; P300*. 28% of entrants in Ireland were aged 25 or older in the case of ISCED5B programmes, compared to 38% on average across the OECD. There was a decrease in the rate of entry to higher education here between 2010 and 2011. This is partly due to the underlying single year of age population estimates rather than due to decreases in absolute numbers.

3.2 Student mobility in higher education (C4)

Among full-time international tertiary students in Ireland, 20% were from Asia; 41.3% were from a European country (other than Ireland); 12.0% were from North America *(C4.3; P 308)*. For those students from Ireland studying abroad (including part-timers) at tertiary level, 84.6% were studying in the UK (many of whom in Northern Ireland) *(C4.4; P321)*. 10.6% of UK citizens enrolled in tertiary education abroad study in Ireland.

3.3 How successful are students in moving from education to work? (C5)

The proportion of young people aged 15-19 who were unemployed or not in employment, education or training (NEET) was 8.3% on average across OECD countries in 2011 *(C5.4a; P340)*. The corresponding figure for Ireland was 9.4%, down from 10.4% in 2010 and 11.0% in 2009. The proportions for 20-24 year olds were 18.4% and 26.4% for the OECD average and Ireland, respectively. Taking all young people aged 15-29, only Turkey, Israel, Mexico, Spain, Chile and Italy (at 34.6%, 27.6%, 24.7%, 24.4%, 23.7% and 23.2%) recorded higher NEET rates than Ireland (22.0%), while the NEET rate in Greece was just below Ireland at 21.8%. The corresponding rate was 15.5% in the UK and 7.2% in Luxembourg, while the OECD average was 15.8%.

4 The Learning Environment and Organisation of Schools

4.1 Instruction time in schools (D1)

The quantity of time spent in formal instruction or teaching is an important measure of educational input. In each EAG, OECD publishes comparative data on instruction time according to the formal policy in each country distinguishing between time that is considered compulsory and time that is intended for instruction in a given curriculum area. At both primary and lower-secondary level, instruction time (compulsory or intended) here was greater than the OECD average. Caution is needed, however, in comparing countries because (a) intended instruction can diverge significantly from actual instruction time and this divergence may not be the same across countries, and (b) the exact interpretation of 'instruction' may not be consistent in every case (refer to Technical Note 6).

D1.1: Average number of hours per year of total INTENDED and COMPULSORY instruction time (2010/2011)

	Primary		**Lower secondary**	
	Intended	***Compulsory***	***Intended***	***Compulsory***
Ireland	869	869	935	935
OECD average	802	791	924	907
EU21 average	783	768	906	881
Ranking (OECD)	11rd highest of 32*	10th highest of 32*	14th highest of 31*	12th highest of 31*

* In the tables on instruction time the Flemish Community of Belgium and the French Community of Belgium are counted separately, as are England and Scotland.

In the case of primary schools, 12% of compulsory instruction time was given to Mathematics compared to an OECD average of 17%. Science accounts for 4% of instruction time compared to 7% across the OECD. By contrast, 11% of compulsory instruction time was given to Religion in Ireland (the second highest in this table behind Israel) compared to an OECD average of 4% and 29% of compulsory instruction time is given to Reading, Writing and Literature - above the OECD average of 26%. Modern foreign languages accounted for an average of 6% of compulsory instruction time across the OECD, and 7% of compulsory instruction time across the EU in contrast to a near negligible amount in Ireland for that age group.

Caution is needed in making these comparisons by subject area. For example, time given to 'Reading, writing and literature' reflects the combined total of both official languages – Irish and English *(D1.2a; P361 and D1.2b; P362).* Refer to Technical Note 6.

D1.2a: Instruction time for particular subjects as a percentage of total compulsory instruction time for primary schools (2010/2011)

	Reading, writing and literature	Maths	Science	Social studies	Modern languages	Arts	Physical education	Religion	Other - including flexible curriculum
Ireland	29	12	4	8	-	12	4	11	20
OECD average	26	17	7	7	6	11	9	4	11
EU21 average	27	17	7	6	7	12	9	4	10

No time is dedicated to modern languages at primary school in Ireland. The highest country was Luxembourg where 15% of instruction time is devoted to modern languages at primary level.

At lower secondary, 10% of instruction time is devoted to modern languages – 4% lower than the OECD average of 14% and the fifth lowest of 27 OECD countries reporting. Refer to *D1.2b; P362*. Technical Note 6 contains more information.

4.2 Class size and pupil-teacher ratio (D2)

Average class size (ACS) and pupil-teacher ratio (PTR) *(D2.1 and D2.2; P374-375)*: The pupil-teacher ratio at primary level declined gradually in Ireland from 21.5 in 1999/00 (when the OECD average was 17.7) to 15.9 in 2009/2010 and decreased further to 15.7 in 2010/2011.

D2.1/2.2: Pupil-teacher ratios and average class size in public primary schools in 1999/2000 & 2010/2011

	1999/00		***2010/11***	
	Pupil-teacher ratio	***Average class size***	***Pupil-teacher ratio***	***Average class size***
Ireland	21.5	24.8	15.7	23.9
OECD average	17.7	22.1	15.4	21.3
Rank position (OECD)	4th highest of 27	5th highest of 23	15th highest of 30	7th highest of 28

At second level, the PTR in Ireland was 14.4. Refer to Technical Note 7 for further information on the estimation of class size at lower-secondary level.

D2.1/2.2: Pupil-teacher ratios and average class size in public^ secondary schools in 1999/2000 & 2010/2011

	1999/00		*2010/10*	
	Pupil-teacher ratio	***Average class size***	***Pupil-teacher ratio***	***Average class size***
Ireland	15.9	22.7*	14.4	-
OECD average	14.3	23.6	13.6	23.4
Rank position (OECD)	6th highest of 24	15th highest of 23	10th highest of 31	-

^ Public secondary schools in Ireland include all voluntary secondary schools (both fee-paying and non-fee-paying) along with community, comprehensive and VEC schools.

* Lower secondary only (based on D/ES Teacher Timetable Database).

The PTR for second level in EAG differs to the figure shown in the DES Statistical Report (13.6) for the same year (2010/2011), due to the inclusion of pupils and teachers in other settings such as STTC, Youthreach and FÁS.

The student-staff ratio at third level in Ireland, as reported in this year's EAG, refers to public institutions only *(D2.2; P375).*

D2.2 Student-staff ratio in higher education

	2010/2011
Ireland (publicly funded only)	14.6
OECD average (public and private institutions)	15.6
Rank position (OECD)	14th highest of 23

4.3 Teachers' salaries (D3)

Gross salaries paid to teachers in Ireland reflect salaries paid to higher education graduates as well as wage, salary and GDP levels prevailing in Ireland. The reference year used in this year's EAG is 2010/11. Data were derived from the OECD-INES Survey on Teachers and the Curriculum. Data were reported in accordance with 'formal policies for public institutions'. Statutory salaries reported in this indicator are not the same as actual expenditures on salaries. Differences in taxation, pension provision and various non-salary benefits are not factored into these comparisons. Refer to Technical Note 12 for further details.

Indicator *(D3.1; P388-389)* summarises data on salary levels of teachers at primary and secondary level in absolute amounts. All national or Euro-currency values have been converted into US dollars at purchasing power parity (thus adjusting for price differences between different economies). All salary amounts reflect statutory entitlements based on minimum qualification requirements. Salary levels are assumed to be identical for teachers at lower- and upper-secondary level in Ireland due to the common salary scale, whereas internationally it varies by level within secondary. There is, in the case of Ireland, no gap in statutory salaries between teachers at primary and second level and between teachers at lower- and upper-secondary level whereas in most other countries, salaries increase with level.

At primary level, Irish teachers are better paid (in absolute terms) than teachers in most other countries. The relative position of primary level teachers here improves as they move from the minimum to the maximum of the pay scale. At secondary level, Irish teachers are also better paid than elsewhere.

Note that these figures relate to salary scales for full-time teachers only (and hence not representative of teachers engaged on a part-time basis).

D3.1: Teachers' salaries (2010/2011) after 15 years of experience

(in equivalent US$ converted using PPPs)

	Primary	Lower second level	Upper second level
Ireland	54,954	54,954	54,954
OECD average	38,136	39,934	41,665
EU21 average	38,602	40,526	42,834
Ranking	4th highest of 35*	5th highest of 34*	8th highest of 34*

* In the tables on teachers' salaries, the Flemish Community of Belgium and the French Community of Belgium are counted separately, as are England and Scotland.

Another way of looking at comparisons of teacher pay is to look at an index of change in salaries. Starting with the year 2000 as 100, the figure for Ireland for 2011 was 1.32 for primary and 1.31 for lower and upper secondary *(D3.4; P392)*. This value was higher than the corresponding OECD average of 1.20 for primary, 1.16 for lower secondary and 1.17 for upper secondary.

Yet another way of looking at comparisons of teacher pay is to compare teachers' salaries to those of other tertiary-educated workers *(D3.2; P390)*. On average in OECD countries, primary teachers

earn 82% of the salary of a tertiary-educated, 25-64 year-old full-time, full-year worker; lower-secondary teachers are paid 85% and upper-secondary teachers are paid 89% of that benchmark salary. The corresponding figures for Ireland are 82% for primary, lower secondary and upper secondary.

4.4 Teachers' working time (D4)

The teaching contract for Irish teachers focuses primarily (if not exclusively) on teaching time. This is unusual by international standards because the teachers' contract in many OECD countries includes additional specifics on working time required at school and the overall statutory working time of teachers extends well beyond their compulsory teaching time.

The following tables illustrate this key point because the OECD average 'total statutory working time' of teachers was more than double the international average 'teaching time' at both primary and second level. Therefore, while the teaching time of Irish teachers was relatively high by international standards, their 'working time required at school' was one of the lowest in the OECD at primary and second level.

The regulation of teachers' working time varies widely among countries. While some countries formally regulate contact time only, others establish working hours as well. In some countries, time was allocated for teaching and non-teaching activities within the formally established working time. In most countries, teachers are formally required to work a specified number of hours per week to earn their full-time salary; this includes teaching and non-teaching time. Within this framework, however, countries differ in the allocation of time to teaching and non-teaching activities. Typically, the number of hours for teaching was specified, but some countries also regulate at the national level the time that a teacher has to be present in the school. Refer to Technical Notes 9 to 11 for further information on the definition of teaching and working time.

D4.1: Details of primary teachers' working time 2010/2011 (page 394)

	Ireland	**OECD average**	**EU21 average**
Number of weeks of instruction	37	38	38
Number of days of instruction	183	185	182
Net teaching time, in hours	915	790	766
Working time required at school, in hours	1,055	1,215	1,135
Total statutory working time, in hours	Not applicable	1,671	1,599

D4.1: Details of lower-second-level teachers' working time 2010/2011 (page 394)

	Ireland	OECD average	EU21 average
Number of weeks of instruction	33	38	37
Number of days of instruction	167	185	181
Net teaching time, in hours	735	709	665
Working time required at school, in hours	740	1,219	1,118
Total statutory working time, in hours	Not applicable	1,667	1,598

4.5 Age and gender distribution of teachers (D5)

Indicator D5 presents data on the gender and age distribution of teachers at each level. Over a fifth (21.3%) of primary teachers in Ireland were under 30; this compares to the OECD average of 13% *(D5.1; P405).*

As in the majority of other countries, the teaching profession in Ireland continues to be dominated by females *(D5.3; P405).*

Technical Notes

1. For most indicators an '**OECD average'** (or unweighted mean) is shown along with an '**OECD total**' measure. The OECD average is calculated as the unweighted mean of the data values of all OECD countries for which data are available or can be estimated. The OECD average refers to an average of data values at the level of the national systems and can be used to answer the question of how an indicator value for a given country compares with the value for a typical or average country. It does not take into account the absolute size of the education system in each country. The OECD total measure is calculated as a weighted mean of the data values of all OECD countries for which data are available or can be estimated. It reflects the value for a given indicator when the OECD area is considered as a whole.

2. As of August 2012, OECD comprised 34 member countries of which 21 are members of the European Union. These are referred to as 'EU21' and comprise: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden and the United Kingdom. Hence, there are 6 EU member states (27 minus21) that are not members of the OECD (and are not included in EAG) while there are 13 OECD member countries that are not members of the European Union but are included in EAG. Data for a number of countries in partnership with OECD, including China, Russia and Brazil, are shown in some tables but these are shown separately within the table and are not included in the calculation of the OECD averages.

   Comparative data on education and training for EU member states up to the year 2011 may be accessed at the following website:

   http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

   (and follow links to Database -> Population and Social Conditions -> Education)

3. **ISCED Coding (as applied to Ireland)**

   ISCED 0 (Pre-primary)

   Early Start classes in primary schools and pre-school Traveller centres (note that Early Childhood Care and Education will be included in EAG2013).

   ISCED 1 (Primary)

   All classes in National Schools including Junior and Senior Infant classes plus 1st to 6th class.

   ISCED 2 (Lower Secondary)

   Junior Cycle + some FETAC NFQ level 2 courses.

   ISCED 3 (Upper Secondary)

   Senior Cycle + BIM, Teagasc, FÁS, Fáilte programmes at NFQ levels 4 and 5.

   General: Leaving Certificate & Transition year

   Vocational: some FÁS programmes

   Pre-vocational: LCVP, LCA and VTOS

ISCED 3A

Leaving Cert (traditional) and Vocational programmes.

ISCED 3B

Programmes at level 3 designed to provide direct access to ISCED 5B. Category is not relevant in the Irish context.

ISCED 3C

Leaving Cert Applied, Transition year, VTOS and some FÁS programmes.

Programmes at this level are not designed to lead directly to ISCED 5A or 5B. Therefore, these programmes lead directly to labour market, ISCED 4 programmes or other ISCED 3 programmes and in terms of Irish reporting consists of FETAC level 4 and 5 awards such as FETAC specific skills certificate and FETAC national skills certificate.

ISCED 4 (Post-secondary, non-tertiary)

Post-Leaving Certificate courses + apprenticeships + Fáilte, Teagasc programmes at NFQ levels 5 or 6 (but not Higher Certificate). ISCED 4C programmes are not designed to lead directly to ISCED 5A or 5B. These programmes lead directly to labour market or other ISCED 4 programmes. Examples include apprenticeships, Teagasc farming or horticulture certificate/diploma and the National Craft Certificate at NFQ levels 5 or 6.

ISCED 5A (Tertiary)

NFQ level 8. First Honours Bachelors Degree (3-4 yrs); Honours Bachelors Degree in (Veterinary) Medicine/Dental Science/Architecture (5-6 yrs); Second Postgraduate Diploma (1 yr); Masters Degree (taught) (1 yr); Masters Degree (whether taught or by research) (2 yrs)

ISCED 5B (Tertiary)

NFQ levels 6 (higher) and 7. First Higher Certificate (typically 2 yrs); Ordinary Bachelor Degree (typically 3 yrs); Second Ordinary Bachelor Degree (3 yrs).

Tertiary-type B programmes (Higher Certificate/ Ordinary Bachelor Degree) are classified at the same level of competencies as tertiary-type A programmes, but are more occupationally-oriented and usually lead to direct labour market access. The programmes are typically of shorter duration than type A programmes – usually two to three years.

ISCED 6 (Tertiary PhD)

Doctoral Degree (PhD)

4. Compared to data published in *Education at a Glance 2012*, expenditure per student increased significantly - by about 15% at all levels of education combined - and by nearly 30% at the tertiary level. At the tertiary level, apart from changes in the number of students (and PPPs), one half of this increase per student can be accounted for by increases in public funding for tertiary education, 32% accounted for by wider coverage of private expenditure and the remaining 18% accounted for by wider data coverage in public expenditure.

5. It should be noted that increases in per-student expenditure at second level over time in Ireland as published by the Department of Education and Skills and the Central Statistics Office differ from trends in per-student expenditure as published by OECD in EAG for a number of reasons including:

- Capital spending is included in the OECD estimate but not in the Department of Education and Skills/CSO data which refer to recurrent spending only.

- Private spending is included in the OECD estimate but not in DES/CSO figures.
- In line with international guidelines, spending by other public bodies (FÁS, other Departments etc.) are included in the OECD estimates but not in DES/CSO figures up to 2010.

6. *Instruction time* in Indicator D1 refers to intended (or separately compulsory) instruction time based on policy documents (e.g. curricula) in countries where a formal policy exists. In countries where such formal policies do not exist, the number of hours was estimated from survey data. Data are based on countries' responses to questionnaire CURR 1 of the system-level annual data collection of INES NESLI network's Survey of Teachers and the Curriculum. Data were collected on classroom sessions per year in public institutions, by subject in the modal grades of students age 7 to 15 for the referenced school year 2010/2011. Hours lost when schools were closed for festivities and celebrations (such as national holidays) were excluded. Intended instruction time does not include non-compulsory time outside the school day, homework, individual tutoring or private study done before or after school.

Curriculum: Note in Annex III for Ireland (EAG2013): 'The curriculum for primary schools is an integrated curriculum and envisages an integrated learning experience for children which should facilitate cross-curricular activity. To assist schools in planning the implementation of the curriculum, a time framework is suggested that allocates a minimum time to each of the curriculum areas. Four hours each day must be set aside for secular instruction. A period of two hours a week of discretionary time is allowed to accommodate different school needs and circumstances and to provide for the differing aptitudes and abilities of the pupils. This is included under the compulsory flexible curriculum.

Time allocation is based on the following weekly framework for a 36.6-week school year in primary education: English (4.5 hours); Irish (3 hours); Mathematics (3 hours); Social, Environment and Scientific Education (3 hours, divided between Science and Social Sciences); Social, Personal and Health Education (0.5 hours, included in "other"); Physical Education (1 hour); Arts Education (3 hours); discretionary curriculum time (2 hours); Religious Education (2.5 hours); assembly/roll call (2.5 hours, included in "other") and small breaks (0.8 hours, included in "other") - total 25.8 hours. Recreation (typically 2.5 hours) is not included in the curriculum tables (EAG2013, Annex III: www.oecd.org/edu/eag2013).

7. *Average class size* at junior cycle was previously estimated from data provided by the Post-Primary Timetables Database. During one reference week in September, all schools were asked to provide class-size information for all periods of instruction (classes). The total number of pupils in attendance in all periods of instruction is divided by the total number of periods of instruction during the reference week. This data source is no longer available.

8. *Teaching time* is defined as the number of hours per year that a full-time teacher teaches a group or class of students according to policy. It is normally calculated as the number of teaching days per annum multiplied by the number of hours a teacher teaches per day (excluding periods of time formally allowed for breaks between lessons or groups of lessons). Number of *teaching weeks* refers to the number of weeks of instruction excluding holiday weeks. The number of *teaching days* is the number of teaching weeks multiplied by the number of days a teacher teaches per week, less the number of days that the school is closed for festivities. Some countries, however, provide estimates of teaching time based on survey data. At the primary

level, short breaks between lessons are included if the classroom teacher is responsible for the class during these breaks.

9. *Teacher working time* refers to the normal working hours of a full-time teacher. According to formal policy in a given country, working time can variously refer only to the time directly associated with teaching (and other curricular activities for students such as assignments and tests, but excluding annual examinations) or the time directly associated with teaching and hours devoted to other activities related to teaching, such as lesson preparation, counselling students, correcting assignments and tests, professional development, meetings with parents, staff meetings and general school tasks. Working time does not include paid overtime.

10. *Number of days a teacher teaches per year:* The minimum school year for pre-primary and primary education is 183 days; for secondary education it is 167 days. In actuality, minimum = maximum. Please note that ISCED 'Pre-primary' is, in effect, the first 2 years of primary schooling in Ireland, where children begin primary education between the ages of 4 and 5.

11. *Number of hours a teacher teaches per* day*:* For primary education: (5 hours 40 minutes) – (30 minutes recreation) = 5 hours 10 minutes; for pre-primary, one hour less teaching is required, i.e. 4 hours 10 minutes. For secondary education, 22 hours per week (maximum) are required = 4.4 teaching hours on average per day.

12. *Teachers' Salaries:* Data on statutory teacher salaries are based on the salary scales and are derived from the 2012 NESLI Survey on Teachers and the Curriculum Data. Data presented in EAG 2013 for starting salary refers to the second point of the salary scale and do not include any allowances.