



What are the benefits of ISCED 2011 classification for indicators on education?

- The International Standard Classification of Education (ISCED) is the reference framework used to classify education programmes and related qualifications by education levels and fields. The basic concepts and definitions of ISCED are intended to be internationally valid and cover the full range of education systems.
- ISCED 2011, the second major revision of the classification, reflects significant shifts in the structure of tertiary education resulting from the Bologna process in Europe, the development of early childhood education, and increasing interest in statistics on the outcomes of education such as educational attainment.
- ISCED 2011 has been implemented for the first time in data collected for indicators published in *Education at a Glance 2015*. This new classification offers the potential for new analysis at both tertiary level and in early childhood education.
- The ISCED classification of fields of education was reviewed separately. The ISCED 2013 Fields of Education and Training classification (ISCED-F 2013) will be used for the first time in *Education at a Glance 2017*.

2015 18.4 2015 2014 2013 2012 2011 2010 2009 2008 2007 2006 2005 2004 2003 2002 2001 2000 1999 1998 1997 1996 1995 1994 1993 1992 1991 1990 1989 1988 1987 1986 1985 1984 1983 1982 1981 1980 1979 1978 1977 1976 1975 1974 1973 1972 1971 1970 1969 1968 1967 1966 1965 1964 1963 1962 1961 1960 1959 1958 1957 1956 1955 1954 1953 1952 1951 1950 1949 1948 1947 1946 1945 1944 1943 1942 1941 1940 1939 1938 1937 1936 1935 1934 1933 1932 1931 1930 1929 1928 1927 1926 1925 1924 1923 1922 1921 1920 1919 1918 1917 1916 1915 1914 1913 1912 1911 1910 1909 1908 1907 1906 1905 1904 1903 1902 1901 1900

Interest in international comparisons is growing alongside a need for more quantitative indicators.

In a global economy, the interest in international perspectives is rising. Therefore, governments are increasingly looking to international comparisons of educational opportunities and outcomes as they develop policies to enhance individuals' social and economic prospects, provide incentives for greater efficiency in schooling, and help to mobilise resources to meet rising demands.

Not only governments, but a range of people and organisations are interested in international comparisons of education systems, from academics requiring data for further analysis, to the general public wanting to monitor how schools are progressing towards producing world-class students.

These increasing needs have been accompanied by an expansion of internationally comparable data on education. Over the last decades, enormous progress in statistical techniques, data collection and processing procedures have enabled policy makers, researchers and the public at large to see how education has expanded around the world, and to benchmark performance and draw lessons from other countries.

An international framework to collect and report data on educational programmes is a prerequisite for the production of internationally comparable education statistics and indicators.

As the structure of educational systems varies widely between countries, comparable international standards and frameworks are needed to produce internationally comparable education statistics and indicators. UNESCO's International Standard Classification of Education (ISCED), developed in collaboration with countries and other international organisations such as the OECD and Eurostat, is the reference classification for organising education programmes and related qualifications by education levels and fields. The basic concepts and definitions of ISCED are intended to be internationally valid and cover the full range of education systems.

Mapping each country's educational programmes onto the ISCED framework – the ISCED mapping – helps to ensure that international comparisons are more transparent, consistent and better understood by users. The ISCED mappings use a range of questions for each national education programme on issues such as entry requirements, entry age, duration and diplomas obtained, as well as their corresponding ISCED level from pre-primary to tertiary education.



15
01433 28
6.5 2015 32
38
33.7 2015

Where necessary, the three international organisations involved (UNESCO, OECD and Eurostat) consult individual countries to resolve potential classification problems which might compromise the comparability of their education data. Based on this information, the three international organisations, in consultation with national statisticians, produce individual ISCED mappings for each country.

ISCED needs to adapt to changes in education systems.

The structure of education and learning systems has changed dramatically over the last 40 years. For example, tertiary education used to be reserved for a small elite, whereas in 2013 around 44% of 25-34 year-olds in OECD countries left education with a tertiary degree.

Reflecting these changes, there have been two revisions of the ISCED since it was initially developed by UNESCO in the mid-1970s. The classification was first revised in 1997 (ISCED-97), and then again between 2009 and 2011 to create ISCED 2011, adopted in November 2011. This second revision takes into account the implementation of the bachelor-master-doctoral structure of tertiary education systems in Europe (following the Bologna Declaration), the expansion of early education programmes designed for very young children, and the increasing relevance to policy makers of statistics on the outcomes of education, such as the educational attainment of the population. The ISCED 2011 classification has been used for the first time in data collected for indicators published *Education at a Glance 2015*.

The ISCED fields of education were reviewed in a separate process. The ISCED 2013 Fields of Education and Training classification (ISCED-F 2013) will be used for the first time in *Education at a Glance 2017*. This should allow improvements in the analysis of the links between the fields of education studied and labour market outcomes.

What are the major changes introduced in ISCED 2011?

Improved definitions of levels of education, programmes and attainment levels

ISCED covers formal and non-formal education and the 2011 classification includes improved definitions of formal and non-formal education, educational activities and programmes. ISCED 2011 also revises the ISCED-97 levels of education programmes (ISCED-P) and introduces a related classification of educational attainment levels (ISCED-A) based on recognised educational qualifications. This should allow a clearer correspondence between enrolment and attainment statistics.

The levels of education are also more clearly delineated, which should be particularly helpful for programmes at the border between two levels (for example, between ISCED levels 3 and 4), and ensuring the consistency of classification across countries.

Revised dimensions within ISCED levels

The complementary dimensions within ISCED levels have also been revised. ISCED 2011 offers only general and vocational orientation of programmes, dropping the pre-vocational orientation included in ISCED-97 as it does not provide labour-market relevant qualifications. These programmes are mainly classified as general education in ISCED 2011.

ISCED-97 also divided tertiary programmes into two categories, depending on the type of subsequent education. In contrast, ISCED 2011 identifies only one group of programmes providing access to higher education levels. The ISCED 2011 sub-category “level completion with access to higher ISCED levels” corresponds to the combined destination categories A and B from ISCED-97. ISCED 2011 further sub-classifies programmes which do not provide access to higher ISCED levels into the sub-categories “no level completion”, “partial level completion” and “level completion”. These three sub-categories in ISCED 2011 correspond to destination category C in ISCED-97.

Increased numbers of levels of education

ISCED 2011 differentiates nine levels of education, two more than ISCED-97 (see Table 1). The changes have taken place at the two extremes of the classification: early childhood education and tertiary education.

2015
33.7 28.32
36.8 18.4 38.4
28.32 8.625 36.5
2015 2015 2015
18.4 2014 28.32 36.5
36.5 2015 32.8 28.32



Table 1. Comparison of levels of education between ISCED 2011 and ISCED-97

ISCED 2011		ISCED-97	
01	Early childhood educational development	-	
02	Pre-primary education	0	Pre-primary education
1	Primary education	1	Primary education or first stage of basic education
2	Lower secondary education	2	Lower secondary education or second stage of basic education
3	Upper secondary education	3	(Upper) secondary education
4	Post-secondary non-tertiary education	4	Post-secondary non-tertiary education
5	Short-cycle tertiary education	5	First stage of tertiary education (not leading directly to an advanced research qualification) (5A, 5B)
6	Bachelor's or equivalent level		
7	Master's or equivalent level		
8	Doctoral or equivalent level	6	Second stage of tertiary education (leading to an advanced research qualification)

Tertiary education, commonly understood as academic education but also including advanced vocational or professional education, has been restructured to better distinguish bachelor's, master's and doctoral programmes. It now comprises four levels, compared with two levels in ISCED-97. The first stage of tertiary education (level 5 in ISCED-97) is now divided into three levels: short-cycle tertiary education (level 5), bachelor's or equivalent level (level 6), and master's or equivalent level (level 7). Programmes previously classified as the second stage of tertiary education (level 6 in ISCED-97) are now level 8, doctoral or equivalent level.

Early childhood education (level 0), referring to programmes that have an intentional education component and targeting children below the age of entry into primary education, has been expanded. Programmes are now further classified into two categories depending on the age of the child and the level of complexity of the educational content. ISCED 2011 has a new category of early childhood educational development programmes (code 01), generally designed for children younger than 3, which was not covered by ISCED-97. Pre-primary education (code 02), designed for children typically aged 3 and over, corresponds to level 0 in ISCED-97. Integrated programmes designed to include children both younger and older than 3 should be allocated to 01 and 02, according to the age of the children. This may involve estimating the expenditure and personnel at levels 01 and 02, respectively.

ISCED 2011 offers the possibility for new analysis at tertiary levels ...

The ISCED 2011 classification of tertiary education allows the development of new indicators and can clarify the significant differences in education systems between countries. For example, new data based on ISCED 2011 show that the international mobility of tertiary students across OECD countries tends to be much higher for doctoral students than for any other tertiary level, and that it also tends to be substantially higher at the master's than at the bachelor's level or for short-cycle programmes. This is particularly interesting in the context of different tuition fees for domestic and international students and for different levels of tertiary programmes (Figure 1).

Another example of new developments resulting from ISCED 2011 relates to the significant differences in the labour market outcomes of different levels of education. Thus, *Education at a Glance 2015* data show that employed adults with a bachelor's or equivalent degree earn about 60% more than employed adults with upper secondary education, but those with a master's, doctoral or equivalent degree earn more than twice as much (see Chart A6.1 in *Education at a Glance 2015*).

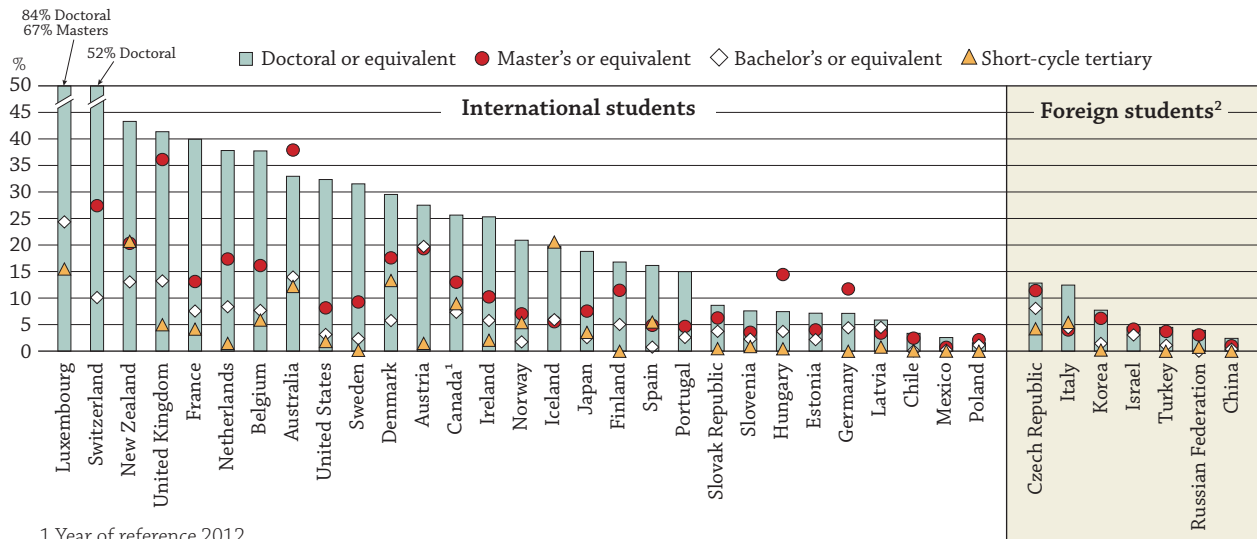
...as well as for early childhood education.

A growing body of evidence shows the importance of early childhood education for future outcomes, especially for certain disadvantaged groups. For instance, early childhood education is particularly beneficial for students with an immigrant background. The new analysis of *Education at a Glance 2015* also shows that, on average, more than 50% of children enrolled in early childhood development programmes (ISCED 01) attend private institutions. This can result in heavy financial burdens for parents from a low socio-economic background, even when government subsidies are provided (see Chart C2.3 in *Education at a Glance 2015*).





Figure 1. **Student mobility in tertiary education, by ISCED level (2013)**
International or foreign student enrolments as a percentage of total tertiary education



1. Year of reference 2012.

2. Foreign students are defined on the basis of their country of citizenship, these data are not comparable with data on international students and are therefore presented separately in the chart.

Countries are ranked in descending order of the percentage of international or foreign students in doctoral or equivalent programmes.

Source: OECD. Table C4.1. See Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink <http://dx.doi.org/10.1787/888933284253>

The bottom line: ISCED 2011 is an important step forward in a long-term process designed to improve the comparability of educational statistics. Implemented for the first time in the indicators published in *Education at a Glance 2015*, this revised classification enables new analysis, especially for early childhood and tertiary education. Further developmental work using ISCED 2011 data will be undertaken in the next few years to incorporate the differentiation by tertiary levels of education and field of education into an increasing number of indicators and to improve the coverage and comparability of data on early childhood education.

For more information

OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris.

OECD/Eurostat/UNESCO Institute for Statistics (2015), *ISCED 2011 Operational Manual: Guidelines for Classifying National Education Programmes and Related Qualifications*, OECD Publishing, Paris.

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