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EDUCATION IN EUROPE: KEY FIGURES

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RÉPUBLIQUE FRANÇAISE

MINISTÈRE DE L'ÉDUCATION NATIONALE

MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR, DE LA RECHERCHE ET DE L'INNOVATION

2018

2nd edition

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In this publication, averages from datasets with OECD ("OECD", "EU 21", "TALIS") sources are not weighted, each country "weighing" the same in the comparison. Averages from datasets with Eurostat sources are however weighted.

Outermost regions (Azores, Canary Islands, Guadeloupe, French Guiana, Madeira, Martinique, Mayotte, La Réunion, Saint-Martin) are not displayed on the maps. However, data for each country in this publication take these outermost regions into account.

Data used in this publication were the most recent at the time this publication was written.

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FOREWORD

To be effectively carried out, a public education policy needs benchmarks. Scientific findings, experiments and international comparisons are some of the elements that enlighten us.

DEPP's *Education in Europe: Key figures* thus casts a light on our schools in the context of European school systems. The collected statistics therefore make it possible to get a clearer idea of where we stand and show where there is room for progress.

The findings of the PISA and TIMSS surveys highlight the importance of investing heavily in the early years of learning, especially for the most exposed students. This is the reason behind splitting classes during the first two years of primary education, which will help 340,000 students better grasp the fundamentals of reading, writing, counting and respecting others.

The highly contrasting situations of the labor market in European countries cruelly highlight the overly high rate of unemployment among the young in our country, which is why we are transforming our general, technological and vocational high schools so as to better support and thus better train the young generations.

New indicators in this second edition stress the preventive role that schools must play in fighting the risks to health (linked to obesity, for example) and dangerous practices (such as smoking). The health plan for the 0 to 6 year-olds that we have launched this year is one element in this approach.

Sharing good practices and healthy emulation between European school systems are ways of making collective progress which will enable Europe to become a continent of prosperity and social progress.

Jean-Michel Blanquer

France's Minister
of National Education

INTRODUCTION

International comparisons are playing a preponderant role in public discussions about education. They have become vital supporting struts in steering educational systems. Through its expertise and commitment in committees and European and international networks that produce them, the DEPP is deeply involved in the production of international statistics. The DEPP is the French correspondent in the European Eurydice network. Historically speaking and starting in 1991, it has been its task to raise the educational community's awareness for understanding international indicators through the publication of *L'état de l'École* ("The State of Education"). Over this same period the OECD's reference publication of indicators, *Education at a Glance,* has been put in place to which the DEPP has contributed for France.

This latest edition of *Education in Europe: Key figures* aims to make a reasoned set of the latest possible figures available to the general public concerning most of the dimensions of the educational systems of the European Union countries. Beginning with the Lisbon summit in 2000 the EU countries have been engaged in the common framework of cooperation in the fields of education and training, an engagement that was renewed in 2010 with the implementation of the strategic framework, *Education and Training 2020*. The great majority of the indicators either selected or construed for this publication have used Eurostat as their source, the general direction of the European Commission in charge of statistical information on a community-wide scale. OECD sources have also been used (such is the case for statistics on educational spending, certain statistics on teachers or student performances) along with statistics from the Eurydice network (e.g. the length of compulsory education or the working time of teachers) and IEA statistics (student performances).

The opening chapter describes **the economic and social environment of families with children in the European Union (EU).** The household structure, the educational attainment levels of parents and the comfort of dwellings reveal significantly different average characteristics from country to country. Thus, for example, over 60% of the 0 to 17 year-olds in Finland and Ireland have parents with higher education degrees, whereas in Croatia and Romania fewer than 25% are in a similar situation. Among the 0 to 17 year-olds, less than 1% live in housing without showers or bathtubs in the vast majority of the northern and western European countries, while this proportion reaches 35% in Romania and 17% in Bulgaria. The risk of poverty and social exclusion is everywhere systematically higher when parents have low levels of educational attainment.

Chapter two presents the **great diversity of the EU's educational systems.** Their very organization bears the mark of these singularities. Early childhood education and care systems, the age of compulsory enrolment (beginning and end) and even the structure of educational cycles vary from one country to the next. Indeed even if in a majority of cases there exist common course for all children that encompass primary and the first cycle of secondary education, in contrast certain countries (Austria, Germany, Lithuania and the Netherlands) stream their students early on into different branches. The latter are countries that traditionally have well developed apprenticeship systems, with the notable exception of Denmark where both the core curriculum – up to the end of the first cycle of secondary education – and an extensive apprenticeship system co-exist.

The third chapter deals with **education expenses.** The share of wealth produced allocated to education accounted for roughly an average of 5% in the 22 EU member countries of the OECD in 2014, but it varies significantly depending on the country. The impact of the economic and financial crisis of 2008 on expenditure for education was more or less felt within the member countries. As for the cost per student, it was mainly influenced at each educational level by four factors that were selected differently per country, i.e. teachers' salaries and their teaching time, students' instruction time and, lastly, class sizes.

Chapter four presents **the main characteristics of teachers in the EU.** Mostly female, the teaching population is aging, but this varies from one country to the next. In the present demographic context where the number of students remains stable, this aging confronts countries with the issue of making the teaching profession attractive. The great majority or teachers hold bachelor or masters degrees – at least those who work in the first cycle of secondary education. They teach in national contexts where their working conditions and employment (the number of students per teacher, regulations concerning the weekly workload, statutory salaries and access to further training) vary considerably.

Chapter five deals with **the results obtained by educational systems** from the angle of students' performances and the fairness in their distribution. These are mainly the findings of the PISA 2015, TIMSS 2015 and PIRLS 2016 surveys, which have been used here. The performances of European countries regarding 6 of the 7 quantified goals of the *Education and Training Strategy 2020* (learning mobility as defined by the present strategy has not yet been quantified) are also examined here, i.e. the fight against early school leaving, the proportion of higher education degrees, pre-pre-primary enrolment, lifelong learning, the proficiency of students in the reading, mathematics and science and lastly, the employability of recent graduates.

And lastly, chapter six highlights the **economic and social outcomes of education.** Degrees everywhere play a determining role on access to employment and incomes. Further education resulting in a higher degree is systematically seen as profitable. Penalized in their access to employment, people with low educational achievement also have less access to further training. The issue of gender, present in several chapters, deserves a particular mention here. Women, that have on average a higher educational attainment level than men, occupy a less favorable position in the labour market. Lastly, the impact of education is far from limited to just the labor market. Thus, for example, in all European countries the risk of obesity and behavior relating to smoking, but also participation in cultural activities or even the frequency of using computers, differ systematically according to the level of education attained. ■

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1.1 INTERNATIONAL STANDARD CLASSIFICATION OF EDUCATION

THE INTERNATIONAL NOMENCLATURE OF EDUCATIONAL PROGRAMMES AND LEVELS

In the context of the diversity of national educational systems and the meaning given to degrees, international comparisons must first use a common framework of definitions and nomenclatures. This common framework is the outcome of a long process that began with the inception of the International Bureau of Education in 1925 and, above all, with that of Unesco in 1945, which has gradually included other institutions (OECD and Eurostat).

Adopted by Unesco in 1978, the International Standard Classification of Education (ISCED) classifies education/training programmes (these are not "school curricula", attached to a particular grade) and the educational attainment levels in a unified nomenclature that makes it possible to conduct international statistical comparisons in education. An initial reform was carried out in 1997 that led to the creation of the ISCED 1997. It combined three types of criteria: the attainment level (from ISCED 0 to ISCED 6, **1.1.1**); the distinction between a general stream intended for continuing education (A), a vocational stream that may give access to further education (B) and a stream that prepares students directly for the labour market (C); and lastly, the duration of the programmes. The short programmes of vocational secondary education, called "3C short cycle", the duration of which is strictly less than two years, do not validate an ISCED 3 level of attainment.

The ISCED was once again reformed in 2011 by the three organizations that co-ordinate its implementation (UNESCO, OECD and Eurostat). From then on and in connection with the Bologna Process (cf. 2.2), higher education programmes are classified on 4 levels instead of the previous two (ISCED 5 to 8) **(1.1.1)**. Furthermore, ISCED 0 was split in two (ISCED 01 and 02) so as to distinguish the educational programmes taught in early childhood facilities (under 3 years old) from those of pre-primary education (children over 3; with the exception of France, where children can be enrolled at 2, and Belgium at 2.5). Each of the programmes from ISCED 2 to 5, as in ISCED 1997, was subdivided into "general" and "vocational".

The ISCED 2011 also provided greater clarity in distinguishing programmes that were previously sometimes borderline between two ISCED levels. It gave greater precision in using ISCED in surveys with households, which thus made it possible to better identify adult attainment levels and better distinguish between **formal**[📖] and **non-formal education**[📖]. Observing a population implies distinguishing, on the one hand, between the ISCED level "attained" according to the latest validated ISCED level and the ISCED "programme" this population was studying in at the date of observation. For example, students newly enrolled in an upper secondary school have attained ISCED level 2 since their academic path has been validated in the lower secondary. They are therefore studying in the ISCED 3 "programme". It is only once they have earned a *CAP* (secondary school vocational training certificate), a *BEP* (secondary school vocational degree) or a baccalaureate that they attain ISCED level 3. Adopting ISCED 2011 has made it possible to explain the conditions for achieving an educational level, which enables the correct classification of the education levels attained.

A CLASSIFICATION THAT NONETHELESS LEAVES ROOM FOR INTERPRETATION BY EACH COUNTRY

International definitions and classifications are embedded in a past interwoven by choices and developments that have made it possible to improve the quality of international statistics whilst inevitably leaving each nation with room for interpretation. Although all countries of the European Union have their own degrees, the way in which countries gather information about these degrees in their surveys, as well as the way they are then converted into the ISCED, may have an influence on all international data (cf. 5.2, p. 48).

The two examples given in **1.1.2** make it possible to give details of codifying two French programmes. The *CAP* and the general baccalaureate are both programmes leading to upper secondary degrees, so their classification begins with the number 3. The second number indicates the kind of programme: the *CAP* is a "vocational" programme, and the general baccalaureate, a "general" programme, which are assigned the numbers 5 and 4 respectively. And the third coding number indicates whether or not the programme validates the ISCED level in question and whether it gives access to the higher ISCED level. Here, the two programmes validate the ISCED-3 level, but only the baccalaureate makes it possible to accede to higher educational levels. The codes for the *CAP* and the general baccalaureate are therefore "353" and "344" respectively. ■

📖 See definition p. 74.

1.1.1 Correspondence table of programmes between ISCED 1997 and ISCED 2011

↳ UNESCO Institute For Statistics, *International Standard Classification of Education - ISCED 2011, 2012.*

ISCED 1997		ISCED 2011	
ISCED **0**	Pre-primary education *École maternelle*	ISCED **01**	Early childhood educational development *Education programmes targeting children under the age of 3*
		ISCED **02**	Pre-primary education *École maternelle*
ISCED **1**	Primary education *École élémentaire*	ISCED **1**	Primary education *École élémentaire*
ISCED **2** orientation: programmes A, B or C	Lower secondary education > minimum duration: 3 years *Collège*	ISCED **2** orientation: programmes 4 or 5	Lower secondary education > minimum duration: 3 years *Collège*
ISCED **3** orientation: programmes A, B or C	Upper secondary education > minimum duration: 2 years *Lycée général, technologique, professionnel*	ISCED **3** orientation: programmes 4 or 5	Upper secondary education > minimum duration: 2 years *Lycée général, technologique, professionnel*
ISCED **4** orientation: programmes A or B	Post-secondary non-tertiary education *Capacité en droit* *Diplôme d'accès aux études universitaires - DAEU*	ISCED **4** orientation: programmes 4 or 5	Post-secondary non-tertiary education *Capacité en droit* *Diplôme d'accès aux études universitaires - DAEU*
ISCED **5** orientation: programmes A or B	First stage of tertiary education *Établissements d'enseignement supérieur (universités, grandes écoles, etc.)*	ISCED **5** orientation: programmes 4 or 5	Short-cycle tertiary education *Sections de techniciens supérieurs - STS* *Diplôme universitaire technologique - DUT*
		ISCED **6** orientation unspecified	Bachelor's or equivalent level *Licence (LMD), Licence Professionnelle, Classe Préparatoire aux Grandes Écoles, etc.*
		ISCED **7** orientation not used	Master's or equivalent level *Master (LMD), formations d'ingénieur or d'école de Commerce, etc.*
ISCED **6** orientation: unspecified	Second stage of tertiary education *Établissements d'enseignement supérieur (universités, grandes écoles, etc.)*	ISCED **8** orientation not used	Doctoral or equivalent level *Doctorats*

Note: In the ISCED 1997 nomenclature, programmes A, B or C respectively designate general, vocational and short vocational programmes.
In the ISCED 2011 nomenclature, programmes 4 and 5 respectively designate general and vocational programmes.

1.1.2 Examples of programmes' codification in France according to ISCED 2011 nomenclature: *CAP* and *Baccalauréat général*

CAP (Certificat d'aptitude professionnelle)

ISCED	General / Vocational	Orientation
0		
1	4	1
2		2
3	**5**	**3**
4		4
5		
6		
7		
8		

Baccalauréat général

ISCED	General / Vocational	Orientation
0		1
1		2
2		3
3	**4**	**4**
4		
5	5	
6		
7		
8		

1.2 DEMOGRAPHIC CONTEXT

THE EUROPEAN UNION'S AGEING POPULATION MORE OR LESS PRONOUNCED DEPENDING ON THE COUNTRY

On 1 January, 2016 the 28 EU member states had a population of 510 million, including 136 million young people between the ages of 0 and 24, or 27% of the EU-28's overall population **(1.2.1)**. Ten years before, in 2006, the same age group contained 142 million, or 29% of the total population. The European Union is thus faced with demographic ageing where half of its population is now older than 43. The proportion of young people in the overall population shows significant differences from one country to the next, which reflect the contrasting demographic dynamics within the EU.

Indeed, only 7 countries have a proportion of young people (0 to 17) in their population greater than 20%. This segment varies from 16% in Germany to 26% in Ireland. The 18 to 24 year-old segment is less variable throughout the EU-28, ranging from 7% as the lowest in Spain and Ireland to 10% in Cyprus. Cyprus, France, Ireland and the United Kingdom, moreover, are the only countries in the EU-28 where the 0 to 24 year-old segment is above 30%. At the other end of the spectrum, in 7 countries (including Germany, Greece, Italy and Spain) this segment of the population is below 25%.

CONTRASTING FERTILITY AND NET MIGRATION RATES DEPENDING ON THE COUNTRY

The magnitude of **natural variations**🕮 and **net migration**🕮 respectively proves to be highly variable from country to country **(1.2.2).** Connected to a rise of the **life expectancy at birth**🕮 (78.9 years in 2006; estimated at 80.6 in 2015), maintaining a low fertility rate on average in the EU (1.54 children per woman from 15 to 49 in 2006; estimated at 1.58 in 2015) explains this ageing phenomenon. However, the **fertility rate**🕮 varies from country to country **(1.2.3)**. France, Ireland and Sweden had rates higher than 1.8 children per woman; whereas in Greece, Italy, Poland, Portugal and Spain the rate did not surpass 1.35 children per woman.

As seen since the last crisis, the intra- and extra-European migratory flows may have a determining influence on demographic dynamics. Thus in Latvia and Lithuania the demographic drop between 2009 and 2014 was mostly due to large-scale emigration. In contrast, Austria, Luxembourg, Malta and Sweden saw a tangible share of their demographic growth explained by positive net migration. France and Ireland were the only countries with net growth, mostly due to the natural variation. Lastly, Germany and Italy were in a situation where only net migration enabled them to maintain demographic growth. This phenomenon is in fact recent for Germany which has increased its population only since 2011 after losing population between 2003 and 2011. In 2016 Germany returned to the number of inhabitants that was comparable to the level it had in 2007. The migratory context is an important element in demographic dynamics at the same time as it challenges educational systems from the standpoint of schools receiving and incorporating non-native speaking students and their parents.

TWO-SPEED DEMOGRAPHIC PROGRESS IN EUROPE IN THE LONG TERM

By 2035 the EU should see its overall population increasing by 3% with the segment of the 0-24 year-olds decreasing by 2%, which confirms the continuing trend of the population's general ageing **(1.2.4)**. However two groups should be differentiated from one another. Firstly, those countries with a positive dynamic demographic in 2016 will most likely still have one in 2035 (with the exception of Cyprus), i.e. Denmark, France, the Netherlands, Sweden (with a 20% increase of its total population) and the United Kingdom. Despite these positive dynamics, the overall populations of these countries will grow faster than their young populations. With a 41% total population growth Luxembourg is a particular case; this increase however concerned a total population of less than 600,000 in 2016.

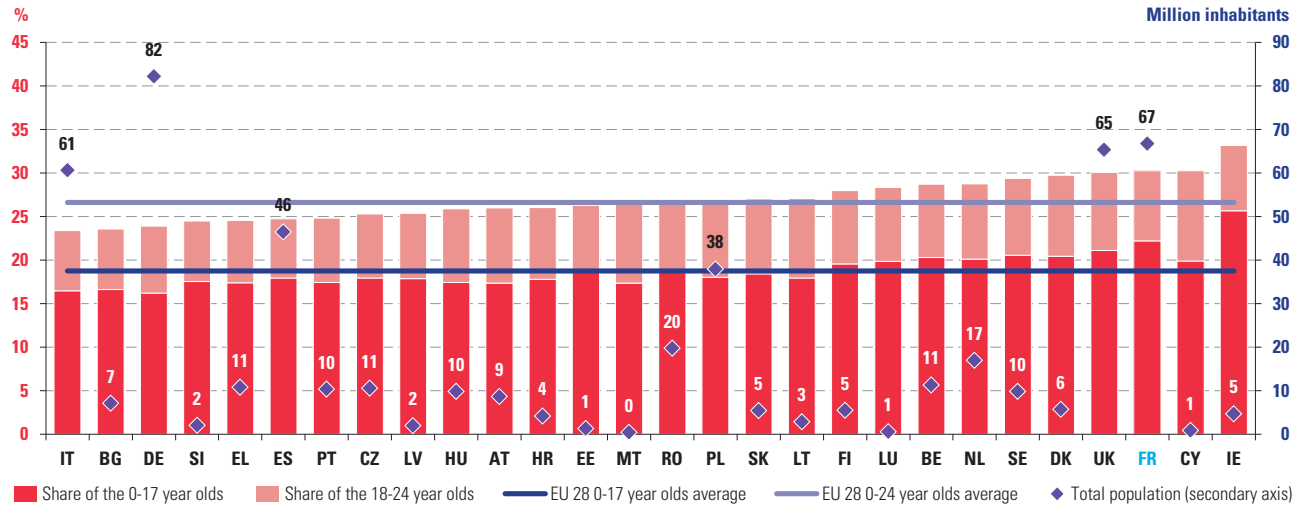
In contrast, the countries in the second group have at present an unfavourable demographic dynamic and risk losing a sometimes considerable portion of their population. Between now and 2035, 6 countries will have lost more than 10% of their overall population with this loss being as high as 22% in Lithuania. Here again in the majority of cases the portion of young people will fall faster than that of the total population.

In this scenario Germany is the only country that will reverse a trend which is unfavourable today. With the lowest population proportion of the 0 to 18 year-old group in the EU-28 **(1.2.1)** and a negative natural variation of its population between 2011 and 2016 **(1.2.2)**, Germany should see a rise in both its young and overall population before 2035. The German fertility rate is located in the estimated European average range **(1.2.3)**, which means that this change would mostly be attributable to migratory inflows which the country will continue to see in the coming years. ■

🕮 See definition p. 74.

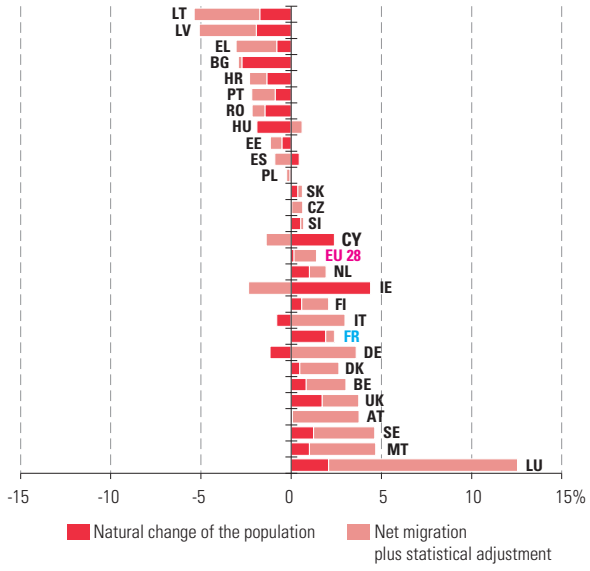
1.2.1 Proportion of 0-17 year olds and 18-24 year olds in the total population and population on 1 January in 2016

↳ Eurostat, *demo_pjan*.



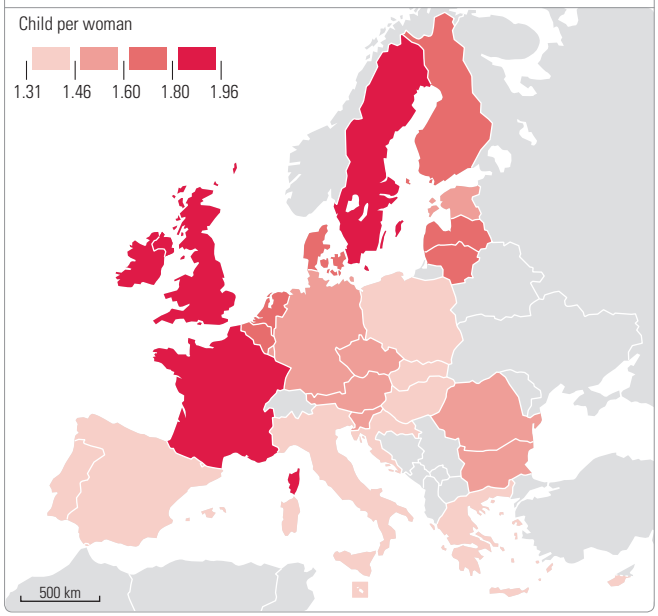
1.2.2 Natural change of the population and net migration – 2011/2016

↳ Eurostat, *demo_gind*.



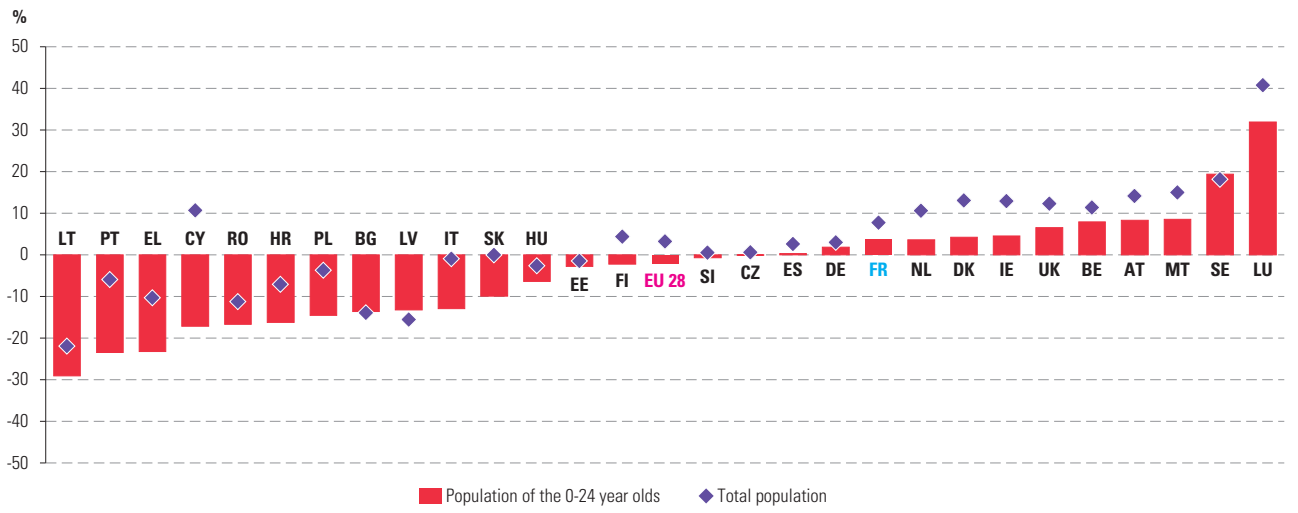
1.2.3 Total fertility rate in 2015

↳ Eurostat, *demo_find*.



1.2.4 Relative projection of the evolution of 0-24 year olds population and of the total population between 2016 and 2035

↳ Eurostat, *proj_13npms*.



1.3 FAMILY ENVIRONMENT OF DEPENDENT CHILDREN

A LARGE MAJORITY OF EUROPEAN HOUSEHOLDS LIVE WITHOUT CHILDREN

In 2016, in the 28 EU member states 70% of households had no **dependent children**[📖] (minors or under-24-year-olds without a professional activity) **(1.3.1)**. However this percentage was highly variable from country to country, with a minimum of 58% in Ireland and a maximum of 78% in Finland and Germany. It was not necessarily only a matter of countries with flagging demographic dynamics, for some countries, such as Denmark, Malta, the Netherlands and Sweden, the demographic variations of which were positive, had very high rates of childless households (cf. 1.2).

In the majority of countries over half of these childless households were adults living alone. Denmark, Finland, Germany, Lithuania and Sweden were the only countries that had their proportion of childless adults surpass 40% of all households. In Sweden's case this proportion was 52%.

The majority of households with children was composed of adults in couples (20% of all households in the EU-28, or two-thirds of households with children). Here too countries had highly variable situations. The proportion of households composed of an adult couple with children varied two-fold, ranging from 14% in Lithuania to 28% in Ireland. The portion of single-parent households had been 4% in the EU-28 since 2009. In 2016 this portion ranged from 2% in Croatia, Finland and Greece to 9% in Denmark. Is it possible to establish a "household with children" profile in the EU? In 2015 50% of European households with dependent children had a single child, and 38% two, with these averages covering the differences according to the country, largely explained by the national fertility rates (cf. 1.2).

HOUSING COMFORT: WIDE DISPARITIES BETWEEN COUNTRIES

Two indicators have been used here to assess the conditions in which school-age children live: on the one hand, the **overcrowding rate in housing**[📖], and on the other, the portion of children living in households without access to either a bath or shower **(1.3.2)**. The first indicator makes it possible to distinguish the western European countries from the eastern European countries. Except for Austria and Italy, in 2015 there were no western European countries where the over-crowding rate of households with dependent children rose beyond 17%. Inversely this rate was tangibly higher in the central European countries and those of the Balkans, reaching 68% in Romania.

The second indicator concerning the hygienic conditions in housing also showed a tangible difference between western and eastern Europe **(1.3.3)**. On EU-28 average 2% of the children from 0 to 17 had no access to a shower or bath in 2015. Romania (35%), Bulgaria (17%), Latvia (14%) and Lithuania (12%) had a severe lack of access to hygienic conditions in children's housing. The western European countries were in a much more favourable situation concerning access to hygiene. It is notable however that there was a trend, though slow, to improvement, i.e. in 2010 the rate in Romania was 44%, and the EU-28 average was 3%.

THE EDUCATION-ATTAINMENT LEVEL OF PARENTS OF YOUNG EUROPEANS

ZOOM

What is meant by "parents' education-attainment level" is the highest degree obtained by the father or mother.

In 2015, on average in the EU-28 15% of children from 0 to 17 had parents with an education-attainment level lower or equal to lower secondary education, which is considered here as a low educational attainment level, and 44% had parents with an higher education-attainment level (university degree or equivalent) **(1.3.4)**.

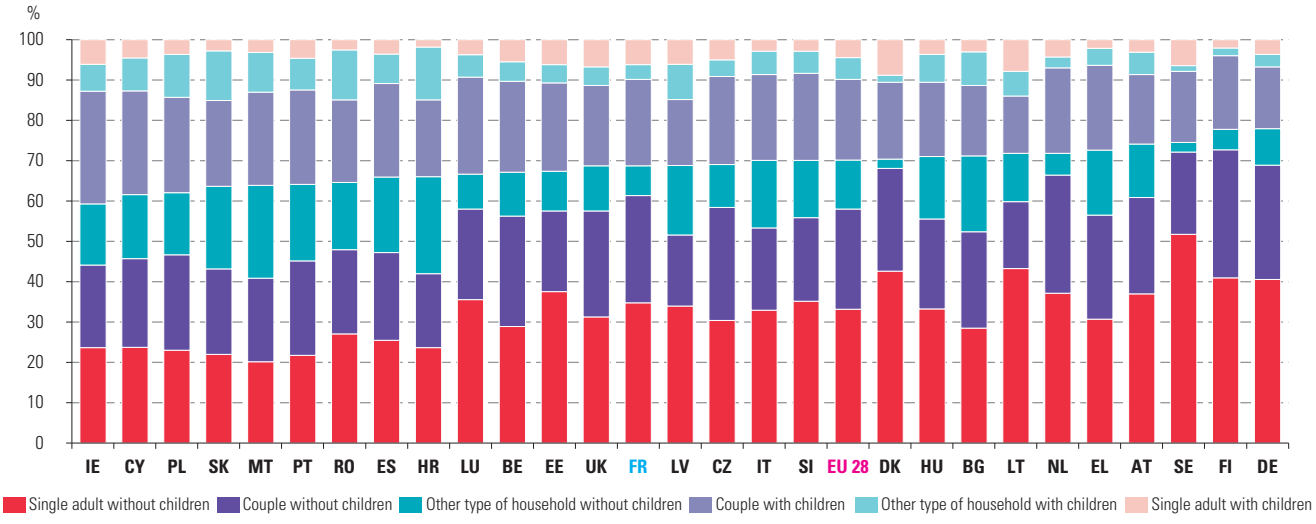
However four country groups can be differentiated: the first and the biggest, composed of western European countries (Finland, France, Germany, the Netherlands and Scandinavia) contained a majority of children whose parents had obtained a higher-education degree (at least 49% in France's case) and symmetrically few children of parents with a low level of education.

Diametrically opposed to the first, the second group of countries (Bulgaria, Italy, Luxembourg, Malta, Portugal and Romania), showed a high rate of children whose parents had obtained a low level of education (attaining 44% and 42% in Portugal and Malta respectively). Spain comprises the third group on its own by combining a high rate of children whose parents had low levels of education and a high rate of children with parents with higher-education degrees. Finally, the fourth group (Croatia, the Czech Republic, Poland, and Slovakia) was characterised by a large majority of children whose parents had obtained an upper secondary degree (56% in Poland and 67% in Croatia). ■

📖 See definition p. 74.

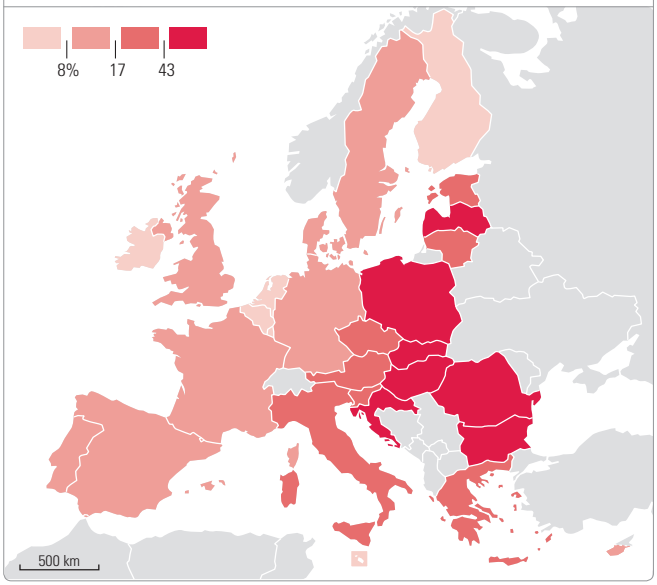
1.3.1 Household distribution by household composition in 2016

↳ Eurostat, *lfst_hhnhtych*.



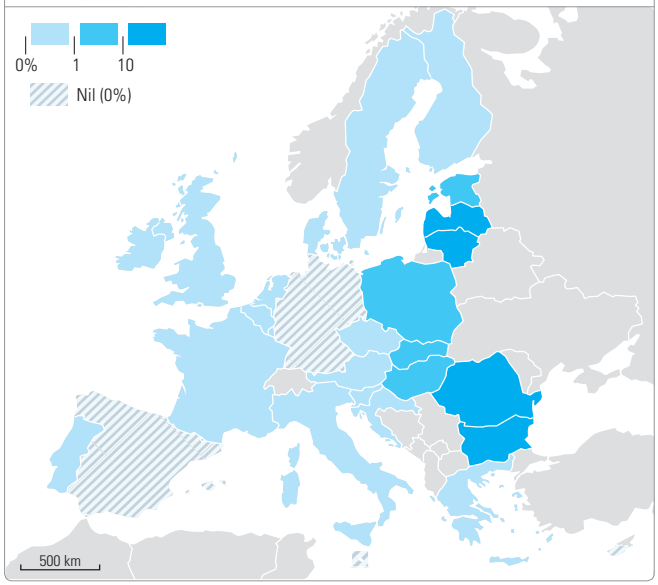
1.3.2 Overcrowding rate of households with 0-17 year old children in 2015

↳ Eurostat, *ilc_lvho05b*.



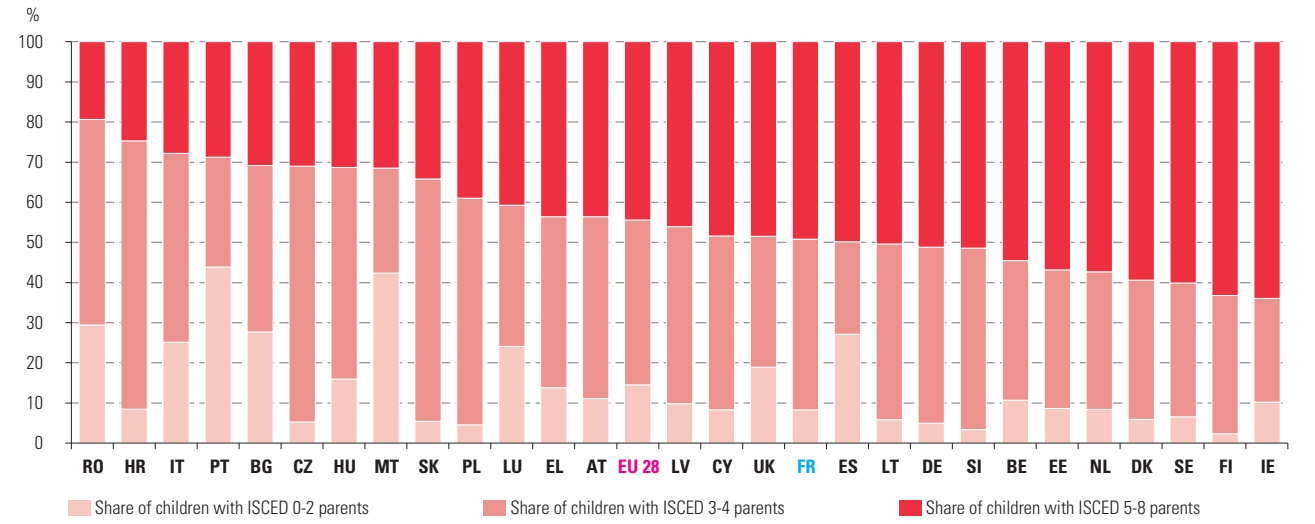
1.3.3 Share of 0-17 year olds having neither a bath nor a shower in their dwelling in 2015

↳ Eurostat, *ilc_mdho02c*.



1.3.4 Distribution of 0-17 year old children by educational attainment level of their parents in 2015

↳ Eurostat, *ilc_lvps25*.



1.4 HOUSEHOLD INCOME AND RISK OF POVERTY

HIGHLY DISPERSED INCOME IN EUROPE

The Eurostat EU-SILC survey *(Statistics on income and living conditions)* provides European data on the gross disposable income of households, i.e. the income that remains disposable to households once social-security contributions and tax charges have been deducted. Included in the calculation is all income from labour and investments, transfers between households and social transfers (excluding rents paid to landlords). The median income denotes the value at which the population is split into two equal groups, i.e. those whose income is above the median and those whose income is below it.

ZOOM

The **equivalent disposable median income** of households with dependent children in 2015 varied widely within the 28 EU member states **(1.4.1)**. In 2015, the highest incomes were found in Austria, the Benelux countries, Germany and the Scandinavian countries. It is worth noting that within this group Luxembourg occupied an extreme situation with a median income of households with dependent children at a **purchasing power standard** (PPS) of 26,900 PPS. The eastern European countries had a lower income level, sometimes up to 7-fold lower than Luxembourg's (e.g. Romania: 3,860 PPS in 2015). With a median income of households with dependent children of 10,060 PPS, Portugal was the western European country with the lowest income level.

INCOME INEQUALITIES HAVE REMAINED STABLE SINCE THE CRISIS

The Gini coefficient is a synthetic indicator of salary inequalities *(income, living standards, etc.)*. It varies between 0 and 1 (here shown from 0 to 100). It is equal to 0 in situations of perfect equality where all salaries, income, living standards, etc. are equal. At the other extreme, it is equal to 1 in the most unequal situation possible, i.e. where all salaries (income, standards of living, etc.) but one are zero. A drop in the Gini Index observed between two dates therefore indicates an overall reduction of inequalities; a rise indicates the reverse.

ZOOM

In 2015, on average in the EU-28 countries, the **Gini coefficient** of the equivalent disposable income was 31, on a par with 2007 **(1.4.2)**. This apparent stability did not however translate the sometimes significant changes in certain countries over the period. Three country groups stood out. The first, composed of 7 countries including Finland, Ireland, the Netherlands and Portugal, saw its coefficient fall since 2007. In this group income after taxes and social-security contributions was less unequal than before the advent of the crisis. Nonetheless, even after the crisis, Portugal (38) still had a coefficient well above that of Finland (25) or the Netherlands (27). Moreover, a recession can mechanically induce a reduction of income inequality (a larger fall of the highest incomes) while simultaneously increasing the risk of poverty of the most fragile segment of the population (cf. *infra*).

The second group, composed of 8 countries, including Germany, Greece, Italy and the United Kingdom, was characterised by a status quo similar to the average of the EU countries. And lastly, the third group, the largest in number (13 countries), including Denmark, France and Sweden saw inequalities increase. Yet the Gini coefficient remained less than 30 in these three countries.

A VERY HIGH RISK OF POVERTY AND EXCLUSION FOR LOW-QUALIFIED HOUSEHOLDS

Eurostat's measurement of the risk of poverty and social exclusion offers a synthetic measurement of the number of people at risk of poverty and social exclusion, i.e. those people whose disposable income is located below the poverty threshold set at 60% of the national median disposable income after social transfers and/or those who live in material want (lack of access to certain staple goods) and/or who live in very low labour-intensive households (less than 20% of potential working time).

ZOOM

The **rate of the risk of poverty and social exclusion** saw highly contrasting levels within the EU-28 **(1.4.3)**, ranging from 14% in the Czech Republic and 16% in Sweden and the Netherlands to 41% in Bulgaria. Spain and Italy (29%) and Ireland (26%), as well as 9 other countries surpassed 25% in the total population. The risk of poverty and social exclusion of the 0 to 17 year-old age group was systematically higher when the parents had a low educational attainment level **(1.4.3)**.

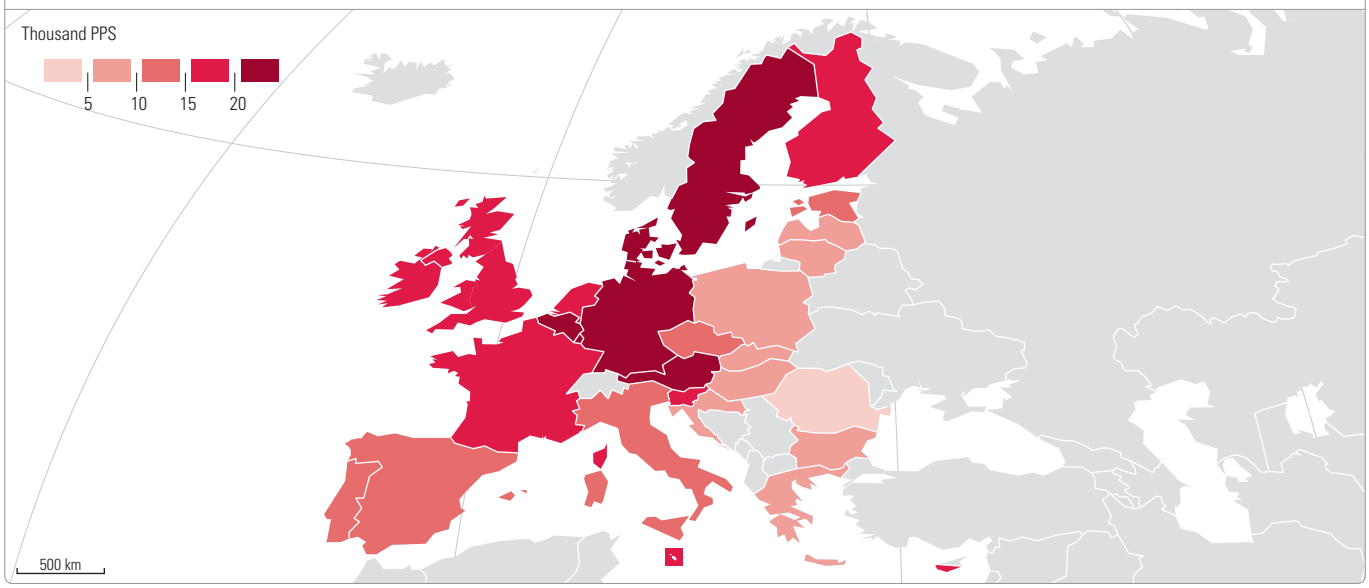
Two groups stood out in cases of children of parents with low educational attainment levels, i.e. the first, composed of numerous eastern European countries but also Belgium, Germany and Sweden showed a high risk of poverty for the children in these households. The second group showed a lower risk of poverty (Denmark, Estonia, Luxembourg, Malta, Portugal and Slovenia).

When the profiles of households whose parents had a high educational attainment level (the highest degree attained by the father or mother) were observed, here too, two groups stood out, i.e. the first, with a relatively high rate of risk of poverty and social exclusion of the 0 to 17 year-olds (greater than 15%), was composed of Greece, Ireland and the United Kingdom. The second group, including the Czech Republic, Finland, France and Slovenia, showed a rate of less than 10%. In Slovakia, this rate showed the largest spread according to the parents' educational attainment level with an 83% differential between the children of parents with a low level of educational attainment and those whose parents had a higher education degree. ■

See definition p. 74.

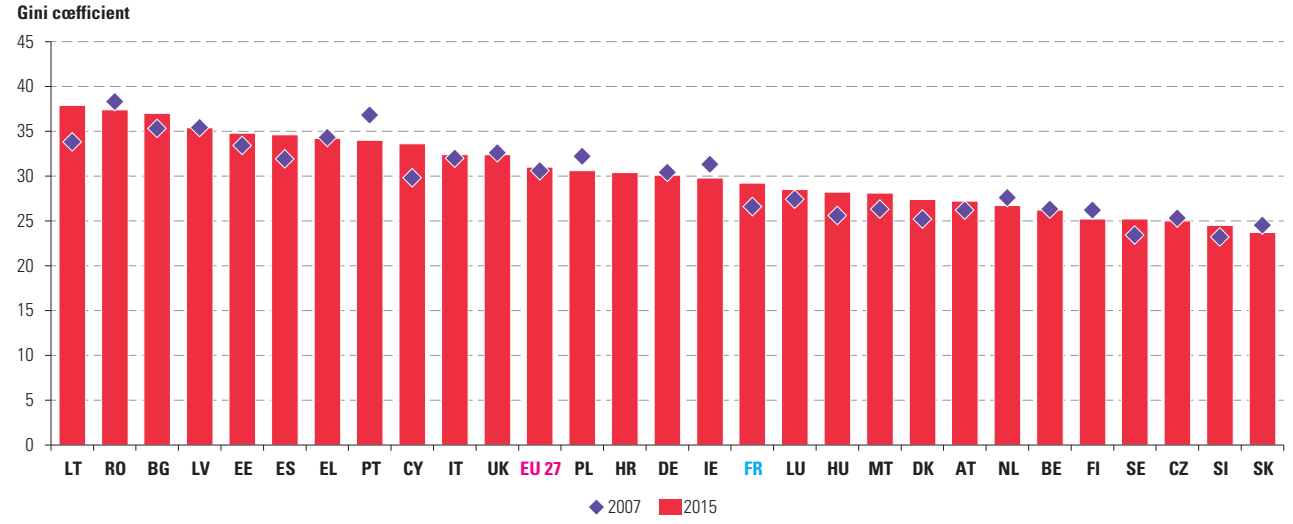
1.4.1 Median net disposable income (PPS equivalent) of households with dependent children in 2015

↳ Eurostat, *ilc_di04*.



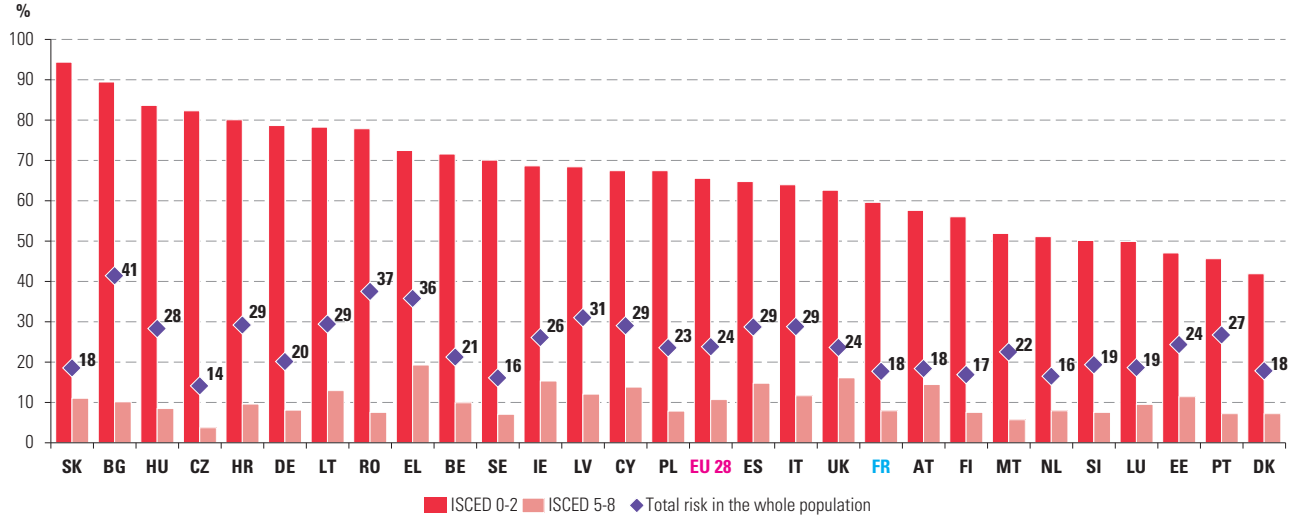
1.4.2 Change in the equivalent disposable income's Gini coefficient between 2007 and 2015

↳ Eurostat, *ilc_di12*.



1.4.3 0-17 year olds at risk of poverty or social exclusion by educational attainment of their parents in 2015

↳ Eurostat, *ilc_peps60* et *ilc_peps01*.



Note: In 2015, in France, the poverty or social exclusion risk of the total population is 18%. This rate amounts to 8% for children whose parents have an ISCED 5-8 educational attainment, and goes up to 60% for children with parents that have an ISCED 0-2 educational attainment.

1.5 UNEMPLOYMENT, EMPLOYMENT AND INTERGENERATIONAL MOBILITY

EVERYWHERE, THE LEAST QUALIFIED INDIVIDUALS ARE MORE AFFECTED BY UNEMPLOYMENT

With the crisis in 2008 the **unemployment rate** tangibly increased in the entire European Union (EU). However in the countries of the EU-28 a slight fall in unemployment was seen between 2009 and 2016 **(1.5.1)**. In 14 of the 28 countries there was an occasionally clear-cut decline in unemployment such as in the Baltic countries (minus 8 percentage points in Latvia and minus 7 in Estonia). Unemployment in the other countries rose rather weakly, ranging from 1 to 4 percentage points in countries such as France, Italy, the Netherlands and Spain. Two countries stood out significantly, i.e. Cyprus and Greece with a respective rise of 8 and 14 percentage points over the period.

The unemployment rate in all European Union countries was higher for individuals without degrees. On average in the EU-28 countries the unemployment rate of the population with a low level of educational attainment was two-fold higher than the whole active population, but this ratio could reach 3 in the case of Bulgaria and Sweden, and even 5 in the Czech Republic. In 2016 the unemployment rate of those without degrees stood above the threshold of 25% in Greece, Lithuania, Slovakia and Spain and was less than or equal to 10% in 7 countries, including Denmark, Germany and the Netherlands.

LOWER EMPLOYMENT RATES IN SINGLE-PARENT HOUSEHOLDS

The employment situation of parents varied with the kind of household (single-parent families or not) **(1.5.2)**. Single-parent families with children were out of work more often than families of adult couples with children. In Europe single parenthood involved women in nearly 90% of the cases, and the **activity rates** of single men with children were much higher than those of women in the same situation. A 10 percentage point spread was seen between the employment rates of parents living in couples and those living alone, with extremes seen in the Netherlands (20 points), Belgium and Ireland (21 points) and indeed Malta (22 points). France was unfavourably positioned in relation to the EU-28 average with a 14 point difference against an average of 9 points in the other EU countries.

The proportion of children aged from 0 to 17 living in a jobless household was over 10% in nearly half of the EU-28 countries, including Bulgaria, France, Spain and the United Kingdom **(1.5.3)**, even though there was a very favourable trend in unemployment between 2009 and 2016 in the UK. Only Slovenia at 5% had a lower rate in 2016.

ADULTS ON AVERAGE HOLDING MORE DEGREES THAN THEIR PARENTS

zoom

PIAAC (*Programme for international assessment of adult competencies*) is an international OECD survey that uses a series of items to assess the proficiency in literacy and numeracy of individuals from 16 to 65 years old. Literacy means the ability to understand and use information contained in written texts in various contexts. It encompasses a variety of skills from the coding of words and phrases to understanding, interpreting and assessing complex texts. Numeracy means the ability to use, apply, interpret and communicate mathematical information and ideas. The average of OECD countries contained in part the findings of countries using 2015 as the reference year. The statistics for Denmark, France and Germany used 2012 for their reference year. The PIAAC is carried out in multi-year rounds. The first round (2011-2012) involved 24 countries, the second (2014-2015) 9 new countries, and the third round (2016-2017) a group of 6 countries, 5 of which were new, as well as the United States which had already participated in the first round.

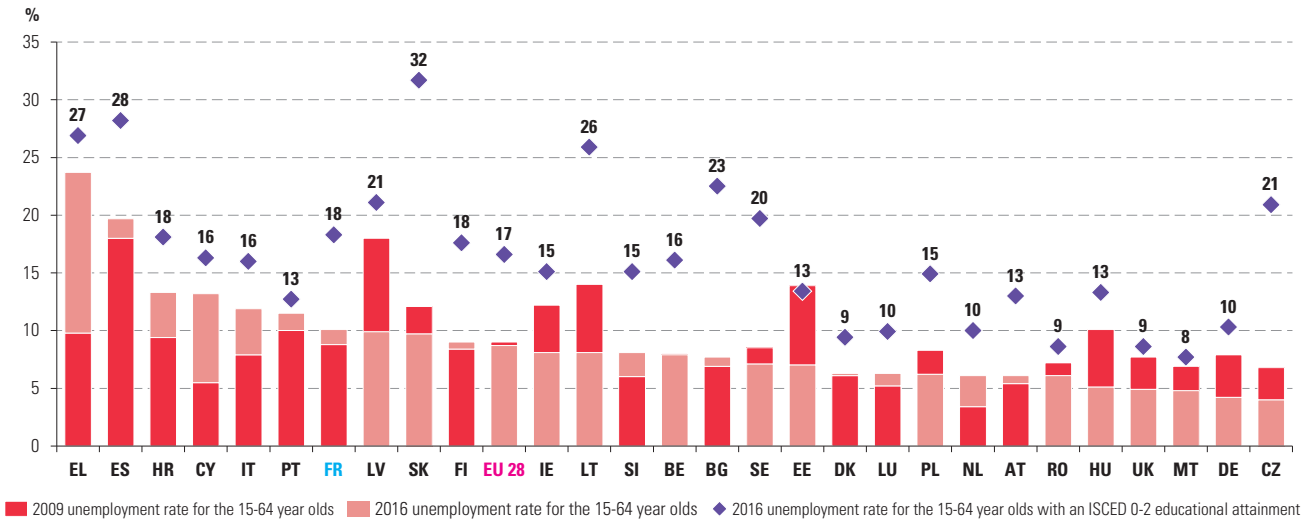
The PIAAC survey enables the comparison of people's educational levels with those of their parents (the highest degree attained by the father or mother). On average in the OECD countries 44% of those from 55 to 64 years old whose parents had low educational attainment (ISCED 0-2) did reach an identical educational level. This percentage fell to 31% for people between 25 and 34 **(1.5.4)**. Among the people from 55 to 64 whose parents held higher education degrees, 60% obtained an equivalent degree level, while such was the case for 67% of those from 25 to 34. The intergenerational mobility in matters of educational level became more marked for the more recent generations. Not all countries, however, were in the same configuration.

France was characterized by a upper secondary education massification that translated into both a tangible drop in the proportion of children with a low educational attainment and a big rise of children with higher education degrees, whether or not these latter had parents with higher education degrees. The Netherlands was typical of a mobility model through vocational education, i.e. no matter what degree level held by the parents, there was a rise in the proportion of children with secondary or non-upper post-secondary education degrees. Spain offered a diametrically opposed configuration: children of parents with low-level degrees also mostly held low-level degrees, including more recent generations (25-34); symmetrically, children with parents holding higher education degrees continued to accede massively to higher education. Germany is not presented here because of the high proportion of 25 to 34 year-old migrants, predominantly in ISCED 0-2, without being able to tell where these latter received their schooling (cf. 6.2). ■

See definition p. 74.

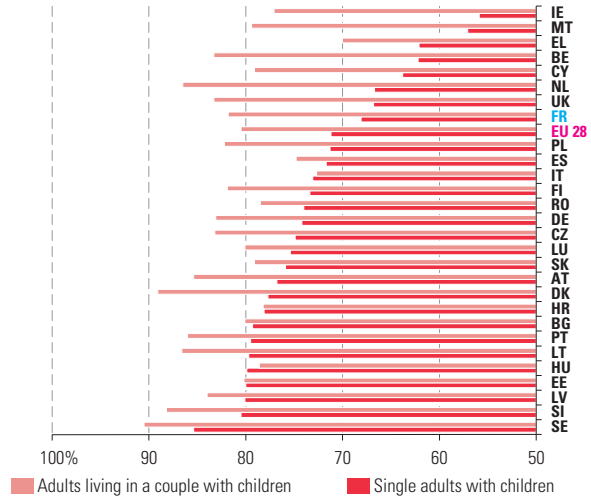
1.5.1 Average unemployment rate in 2009 and 2016, and unemployment rate of individuals with an ISCED 0-2 educational attainment in 2016

↳ Eurostat, *lfsa_urgaed*.



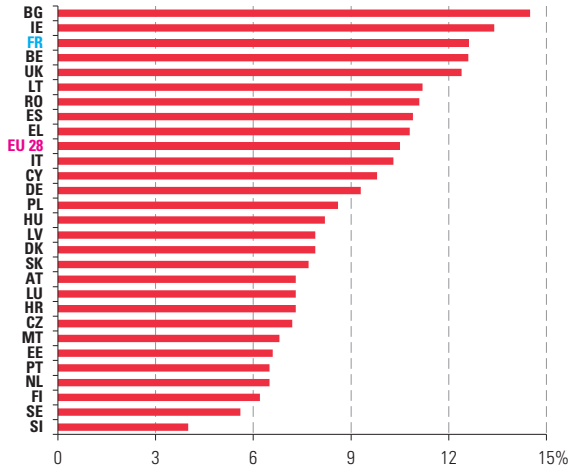
1.5.2 Employment rate of 15-64 year olds by family status in 2016

↳ Eurostat, *lfst_hheredty*.



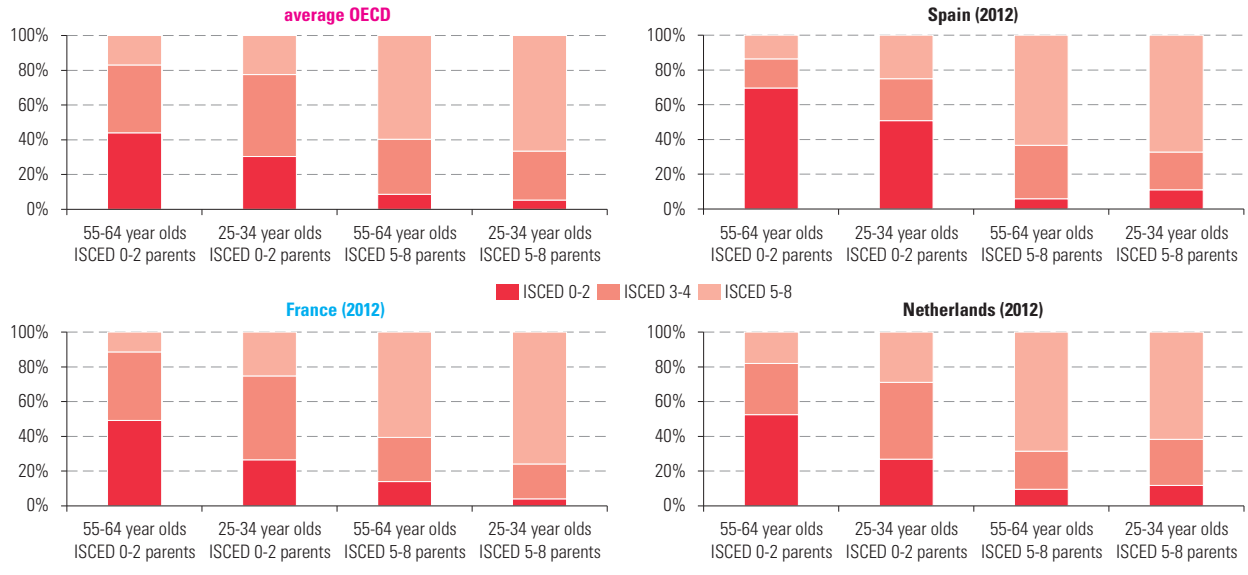
1.5.3 Share of 0-17 year olds that live in a jobless household in 2016

↳ Eurostat, *lfsi_jhh_a*.



1.5.4 Intergenerational mobility: educational attainment of 25-34 year olds and 55-64 year olds compared to that of their parents

↳ OECD, *EAG 2015*, tableA4.5, source PIAAC 2012 ou 2015.



Note: In France, 26% of the 25-34 year olds that have parents with an ISCED 0-2 educational attainment have an ISCED 0-2 educational attainment themselves; 48% of the same 25-34 year olds have an ISCED 3-4 educational attainment; 25% of the same 25-34 year olds have an ISCED 5-8 educational attainment. The OECD average is calculated on either 2012 or 2015, according to the most recent data available.

2.1 DIVERSITY OF EUROPEAN EDUCATION SYSTEMS (1)

EDUCATIONAL SYSTEMS GROUNDED IN NATIONAL HISTORIES

Each country's educational system is the result of a singular history, sometimes including a break with the past. Such was the case, for example, in various countries of the former Soviet bloc, which completely revamped their educational systems in the 1990s. An educational system is the reflection and vector par excellence of transmitting a nation's culture and values; the place for defining the major goals of education and the resources for achieving them (educational programmes). With greater or lesser degrees of inertia, the evolutions of a educational system reflect the major changes in society and the production apparatus (by orienting existing programmes and organising streams).

In their institutional diversity (the weight of the public sector, schools' governance modes, the training and recruitment of teachers, etc.), Europe's educational systems are hallmarked by common phenomena such as the progressive massification of education, at different levels of teaching. Although generalised in Europe, this massification has not occurred at the same time in all countries. Thus, for example, the massification in upper secondary education, which was begun in Scandinavia in the 1960s, was only seen later in most of the Mediterranean countries.

Observing the proportion of degree-holders in the young and older age-groups makes it possible to understand this massification of secondary education. In 2016 the proportion of the 55 to 64 year-olds in the EU 28 who held at least a secondary-education degree was 69%, whilst that of the 25-34 year olds was 84%. Only five countries did not attain the 80% threshold among the 25-34 year-olds (Italy, Malta, Portugal, Romania and Spain). Eight countries surpassed the 80% threshold in both age groups: the three Baltic countries, the Czech Republic, Finland, Germany, Poland and Slovakia, with the proportion of people with at least an ISCED-3 degree among the 55-64 year olds being very high, with a 96% spike in Lithuania. In the Czech Republic, Germany, Poland and Slovakia secondary school degrees are traditionally levers leading to employment, which explains the high rate of these degrees among the older generations. This phenomenon in the Baltic states and Finland is explained more by a long-standing trend for having access to higher education.

LONG COMMON-CORE PROGRAMMES OR EARLY STREAMING

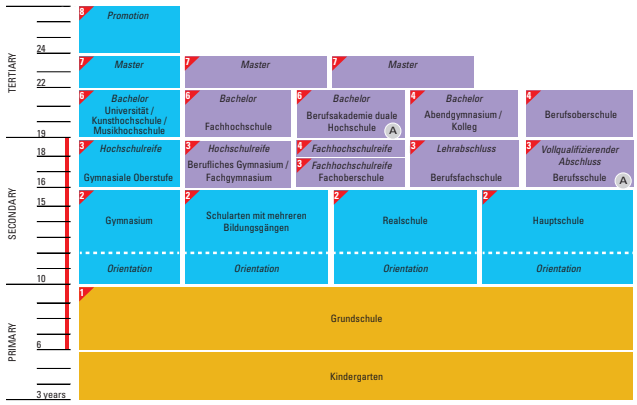
European educational systems predominantly show the existence of a «common-core programme» defined by a structural continuity between primary and lower-secondary education without specialisation at this level. The eastern European, Mediterranean (including France) and Scandinavian countries all have these common-core programmes (see figures **2.1.1** to **2.2.6**). This model was actively promoted in Sweden in the 1960s, then spread to all of Scandinavia. It was introduced to France in 1975. The common-core programmes of the Balkan and Scandinavian countries are notable for the fact that the teaching takes place in a single institution (*Grundskola* in Swedish).

In the 4 European countries where this common-core programme is not used (Austria, Germany, Lithuania and the Netherlands), students are streamed early. Traditionally these are countries with a highly developed apprenticeship system. The Danish exception must however be noted, for the country uses a common-core programme from 6 to 16 and a strong apprenticeship system. Early orientation here is «legitimised» by a lack of ranking in the collective mind, where the trades are highly valued, between the vocational and the education streams. ■

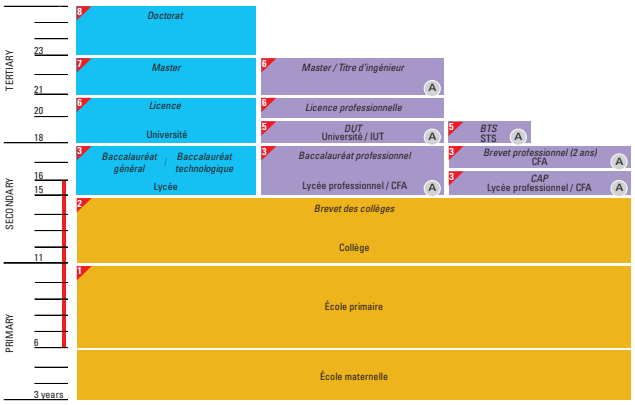
The dual German system ZOOM

The dual system, unique to Germany, offers combined school- and work-based programmes comprised of at least 12 hours of courses per week in vocational institutions and apprenticeships in companies spread over 3 to 4 days per week. It is relies on three key players, i.e. the Federal Institute of Vocational Training (BIBB), which is in charge of defining the training references under the authority of the Department of Education and Research (BMBF), the *Länders* (regions) and, thirdly, social partners, who are present at all governance levels.
Since its founding in 1969, the dual system relies on a strong partnership model where the social partners are responsible for the follow up and quality control of the vocational training institutions and on-the-job training in companies, for advising companies and instructors, for the recording of apprenticeship places available in companies and for setting apprentice-skill examinations. This makes it possible to define education according to the needs of economic sectors and to maintain a sufficient number of training places in a sector even when that sector is undergoing cyclical recession (source: DARES, *Document d'études : le modèle dual allemand,* September, 2014). In 2015 this system in Germany had about 1.4 million young people enrolled in a combined school- and work-based programme cycle. There has, however, been a tangible falling-off of the number of students in this system: in 2010 it contained some 1.6 million students, or a loss of 200,000 students over six years (Source: *Bildung und Forschung in Zahlen, Bundesministerium für Bildung und Forschung,* 2016 and 2017). And although in 2014 Germany had a percentage of ISCED-3 level students in vocational streams identical to that of the European Union, the German students were massively enrolled in apprenticeships, which was not the case of the students in the EU vocational streams (86% compared to 34%) (source: CEDEFOP, *Statistical Overviews on VET – Germany,* 2016).

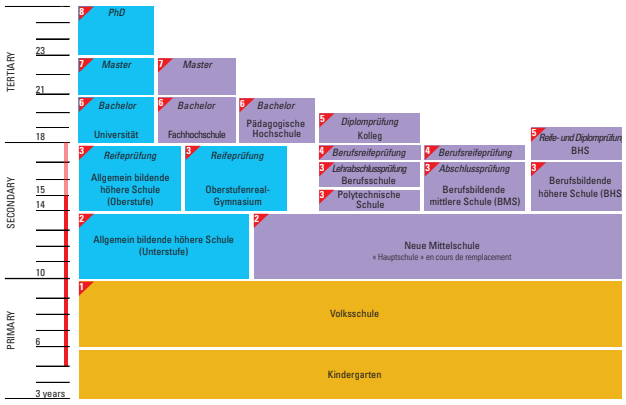
2.1.1 The German education system



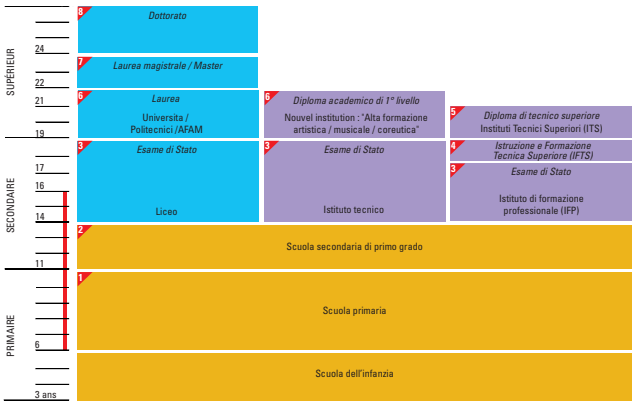
2.1.2 The French education system



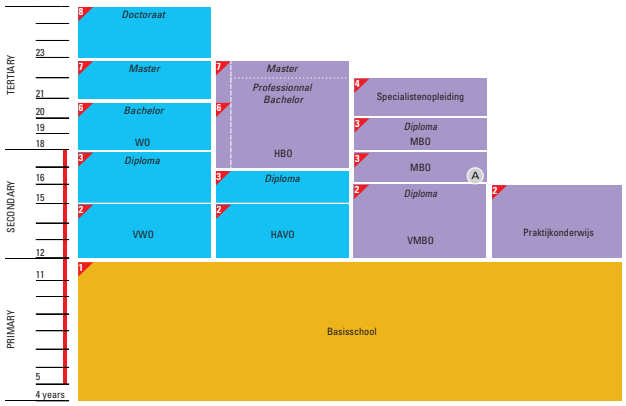
2.1.3 The Austrian education system



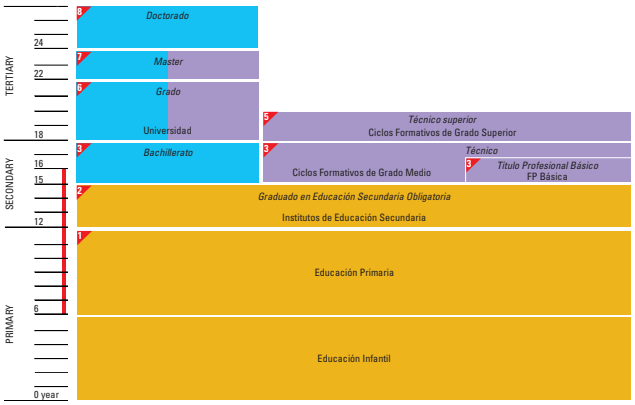
2.1.4 The Italian education system



2.1.5 The Dutch education system



2.1.6 The Spanish education system



Full-time compulsory education
Part-time compulsory education
A Apprenticeship available

Common core curriculum
General stream
Vocational stream

ISCED

↳ Official national data, Eurydice and Onisep.

2.2 DIVERSITY OF EUROPEAN EDUCATION SYSTEMS (2)

CLASSIFICATION OF ISCED 3 PROGRAMMES

The organisation of educational cycles varies from one country to another, in particular the theoretical age of moving from one cycle to another. If we compare the upper cycle of secondary education in the 12 education systems presented here (graphs **2.1.1** and **2.2.6**), it can begin at 14 (Austria, England and Italy), 15 (France, the Netherlands and Romania) or 16 (Estonia, Finland and Germany). The length of the programmes ranked in ISCED 3 also varies in these countries from 2 years (such as the vocational degrees in Spain and the CAP in France) to 5 years (such as the *Maturità* in Italy, which is similar to the French baccalaureate).

If, in the majority of the countries presented, the ISCED 3 degrees certify the end of an educational programme, there can be exceptions. In England, for example, the General Certificate of Secondary Education (GCSE) is taken by students in the middle of the ISCED 3 cycle. Moreover the theoretical age for sitting the ISCED 3 degree exams depends on the age at entry into the programme and its duration. Thus in the Netherlands one of the ISCED 3 vocational degrees is awarded at the age of 20 **(2.1.5)**.

POST-SECONDARY NON-TERTIARY EDUCATION

The post-secondary non-tertiary education (ISCED 4) aims at students acquiring knowledge, aptitudes and skills the complexity level of which is lower than that of tertiary education. At this level students acquire learning experience that completes secondary education and prepares them for entering the labour market or, as in certain cases, for entering tertiary education.

This type of education exists in France in the forms of the *Diplôme d'accès aux études universitaires* (DAEU – Degree for Access to Higher Education) or the *Capacité en Droit* (Basic Legal Qualification), but it is numerically marginal and falling, i.e. 44,000 students in 2012 and 34,000 in 2015 (Eurostat). Nonetheless it is more frequent in countries where the vocational streams are more developed (with Germany and Poland in the forefront). These two countries on their own accounted for 61% of the European ISCED 4 students in 2015, i.e. 764,000 and 262,000 students respectively (Eurostat). It should be noted that these two countries have also undergone perceptible and opposing changes in their ISCED 4 student demographics, i.e. in 2012, there were 548,000 students in Germany, which represented a rise of nearly 40%. In Poland in 2012 there were 317,000 students, almost a 20% drop.

This high number of ISCED 4 students may go a way to explaining the low percentage of tertiary degrees among the 30 to 34 year-olds in Germany compared to France, the northern European countries and the United Kingdom (*cf.* 5.3, p. 50). These programmes in fact generally target preparation for directly entering the labour market without pursuing tertiary education.

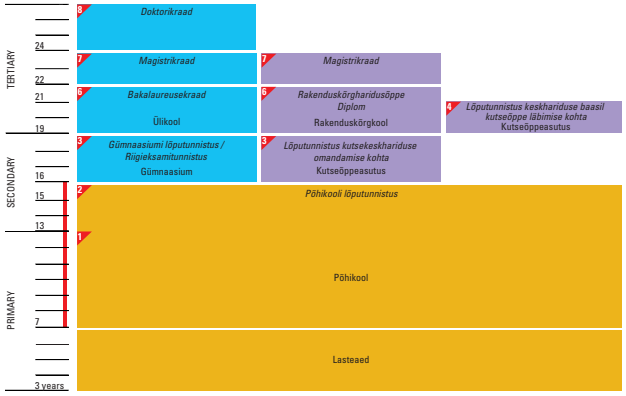
TERTIARY EDUCATION

The increase in the student flows towards tertiary education is a shared trend in the European countries, which the Bologna Process, begun in 1999, contributed to boosting even beyond the European Union framework (46 countries involved). The overall goal of this process is to create a European Higher Education Area (EHEA), which encourages the mobility of students and teachers and the improvement of the quality, attractiveness and competitiveness of higher education in Europe whilst maintaining the diversity of each country's educational systems. Of the six priority goals of the Bologna Declaration, two actively foster the organisation of tertiary education, i.e. adopting a degree system that is «easily readable and comparable» and a system based on «two cycles: undergraduate and graduate». Thus a standardised tertiary education system has been implemented in the countries involved in the stream known as «academic» (BMD), i.e. a 3-year (or 4 in Spain's case) undergraduate degree (often called a «Bachelor» degree as in the British and American systems), a two-year Masters degree and a PhD.

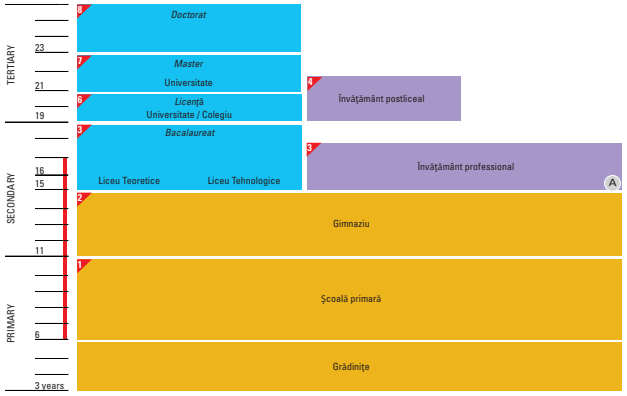
Nevertheless there is great disparity in the distribution between the four different ISCED levels of tertiary education as listed by the 2011 ISCED. The ISCED 5 programmes (short cycle, which in France constitutes an important part of the higher education programmes) are not systematically offered in all the 28 EU-member educational systems, and when they are, their duration is not uniform, e.g. one year in England compared to 3 years in Poland. The ISCED 6 programmes range in duration from one year (as with the vocational undergraduate degree in France which can be prepared after a *DUT* or a *BTS*, which are ISCED 5 level degrees) to 5 years (such as certain ISCED 6 level vocational degrees in Croatia).

One way to realise just how much higher education has expanded is to look at the portion of the population from 55 to 64 with ISCED 5 to -8 degrees, who did their higher-education studies predominantly in the 1970s and 80s, then compare it to the a younger age group. In 2016 in the European Union, the percentage of people with an ISCED 5 to -8 degree was 22% for the 55-64 age-group and 38% for the 25-34 group. In more than half of the European countries the gap in the proportion of degrees between these two age groups doubled (in France 22% among the 55-64 year olds compared to 44% for the 25-34 year olds). ■

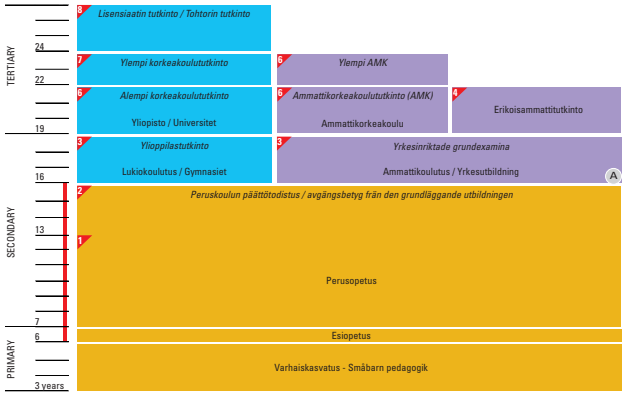
2.2.1 The Estonian education system



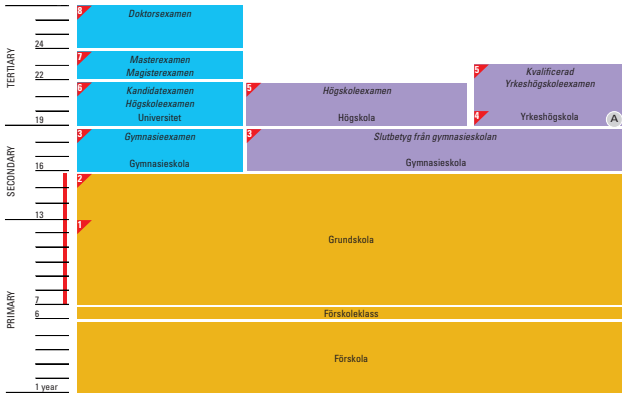
2.2.2 The Romanian education system



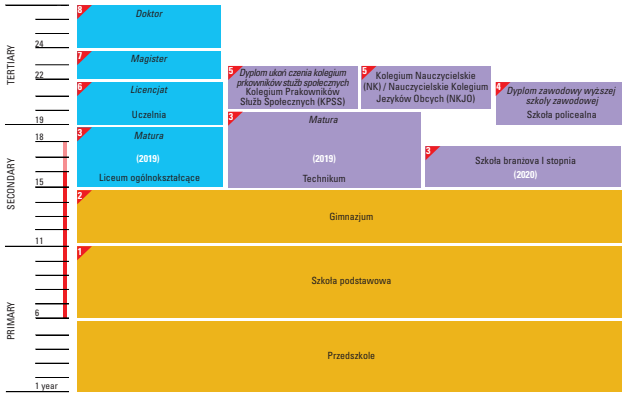
2.2.3 The Finnish education system



2.2.4 The Swedish education system

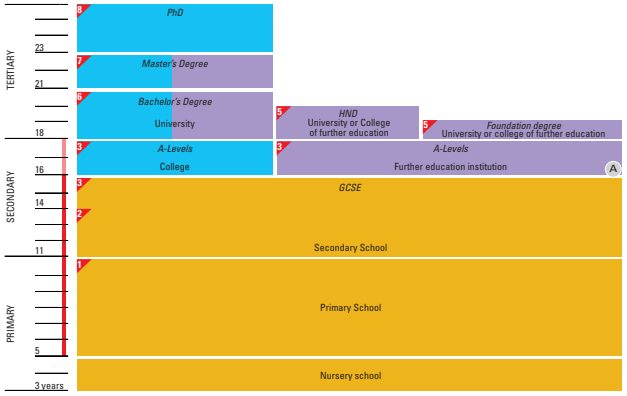


2.2.5 The Polish education system



Note: progressive changes have been implemented starting September 2017.

2.2.6 The English education system



Full-time compulsory education
Part-time compulsory education
A Apprenticeship available

Common core curriculum
General stream
Vocational stream

ISCED

↳ Official national data, Eurydice and Onisep.

2.3 EARLY CHILDHOOD EDUCATION AND CARE

THE ECEC'S REGULATORY FRAMEWORK IN EUROPE

Early childhood education and care (ECEC) ZOOM

Early Childhood Education and Care (ECEC) covers, on the one hand, all conditions of the child's care from their earliest years in an authorised centre, more often than not under the authority of the Ministry of Social Affairs (collective nurseries, kindergartens, family day care and authorised child-minders) and, on the other, all the pre-elementary education curricula offered to children in a dedicated facility up to the age of compulsory education.

Only eight countries in Europe guarantee by law a place in a facility, usually immediately after the post-natal parental leave period. Those countries are Estonia, Germany (since August, 2013, for children over a year old), Malta (since April, 2014, if both parents are working or in training), the Scandinavian nations, pioneers in the matter (in Sweden the first law on compulsory enrolment by municipalities occurred in 1985) and Slovenia. In the other countries the time lapse between the end of post-natal parental leave and the legally guaranteed enrolment of children is greater than two years. In certain countries (Ireland, Portugal, Spain and the United Kingdom) three-year-old children have a right to free access to the ECEC in a public framework. In France this legal access occurs at 2 (although not systematically guaranteed) and at 2.5 in Belgium.

PATERNITY LEAVE IS NOT OFFERED TO ALL MEN IN EUROPE

In 2016 in the EU-28 the average length of time of **paid leave for the birth of a child**[📖] was 22 weeks for mothers and one week for fathers **(2.3.1)**. For mothers the length of maternity leave varied from 6 weeks in Portugal to 59 weeks in Bulgaria. In the vast majority of countries (19 including Denmark, Estonia, Finland, France and Sweden), this leave was 20 weeks or less. As for the situation of fathers, 5 of the EU-28 countries had established one week or less of paternity leave; 7 countries (including Austria, the Czech Republic, Ireland and Malta) offer none.

21 of the EU-28 countries offered paid education leave to at least one of the parents, and 11 of them including France, offered it to both. Of the countries granting education leave to mothers, 4 (Estonia, Finland, Hungary and Slovakia) grant more than 130 weeks. The rate of replacement connected to this optional leave nonetheless varies widely from country to country. In Finland it is 15% of the mother's salary for 144 weeks. In Austria it climbs to 80% for 44 weeks. The countries that grant the shortest education leave to mothers are also those that grant the longest to fathers. It is worth noting that the birth and education leave combined for fathers to devote time to parenting is the longest in France.

RATES OF EMPLOYMENT AND EMPLOYMENT DURATION FOR WOMEN: CONTRASTING SITUATIONS IN THE EU

The European Union has made the development of young children's care a core issue in terms of support for birth rates, but also in terms of the participation of women in employment and the development of all children's cognitive and conative skills.

The **rate of employment**[📖] of child-bearing age parents varied tangibly between the genders and from country to country in 2016 **(2.3.2)**. In the EU-28 countries, the employment rate of childless adults was on average 80% for men and 78% for women. For adults living with children the employment rate was 89% for men and 70% for women. The employment rate was systematically higher for men – and the amount of part-time employment lower – when there was at least one child in the household. The situation was the exact opposite for women, i.e. the employment rate was systematically lower – and the amount of part time employment higher – when there was at least one child at home. The arrival of one or several children seemed however to have less of an impact on the professional situation of women in France than in the other EU countries.

TWO KINDS OF NATIONAL FACILITIES FOR YOUNG-CHILDREN CARE

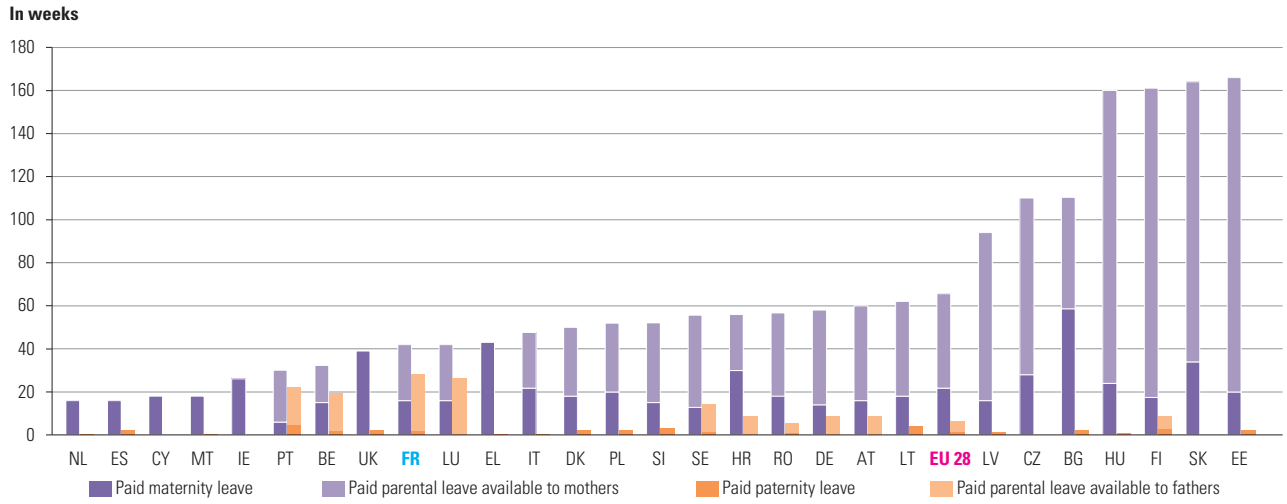
Every national configuration is unique, but it is possible to distinguish two models of ECEC organisation **(2.3.3)**. The first is the integrated model. This is a single facility for all pre-primary-school-age children, i.e. a single administration for children of all age groups, the same qualification level of staff (generally university educated) and the same source of funding. Generally speaking these centres enrol children from under one to six. This first model is found in the Baltic and Nordic countries, likewise in Croatia and Slovenia.

The second is the juxtaposed model and is the most widely adopted in Europe, offering two kinds of facilities, more often than not successive, each under different authorities according to the children's age group, i.e. the first covering children from 0 to 3 or 4 (except France, 2 year-olds, and Belgium 2.5 year-olds), most often under the authority of Social Affairs, with the second facility receiving children from 3 (or 2, even 2.5) to 5 or 6 years under the authority of the Department of Education. Lastly Austria, Bulgaria, Denmark, Spain, and the United Kingdom have both models where families can choose between the integrated or the juxtaposed models.■

📖 See definition p. 74.

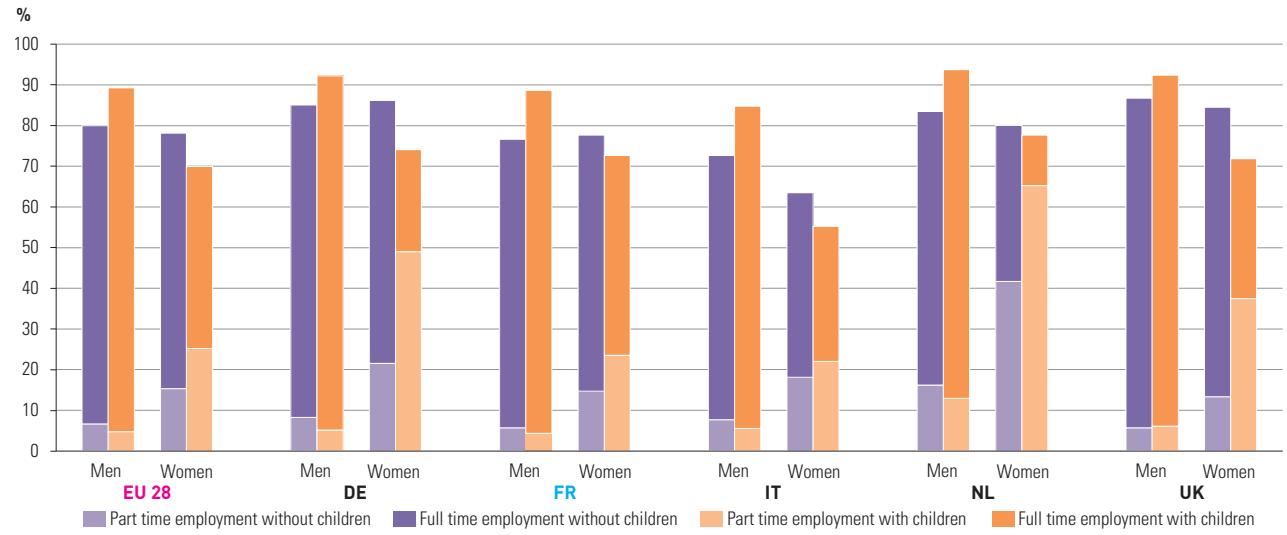
2.3.1 Paid maternity, paid paternity and parental leave available to parents in 2016

↳ OECD, *family database*.



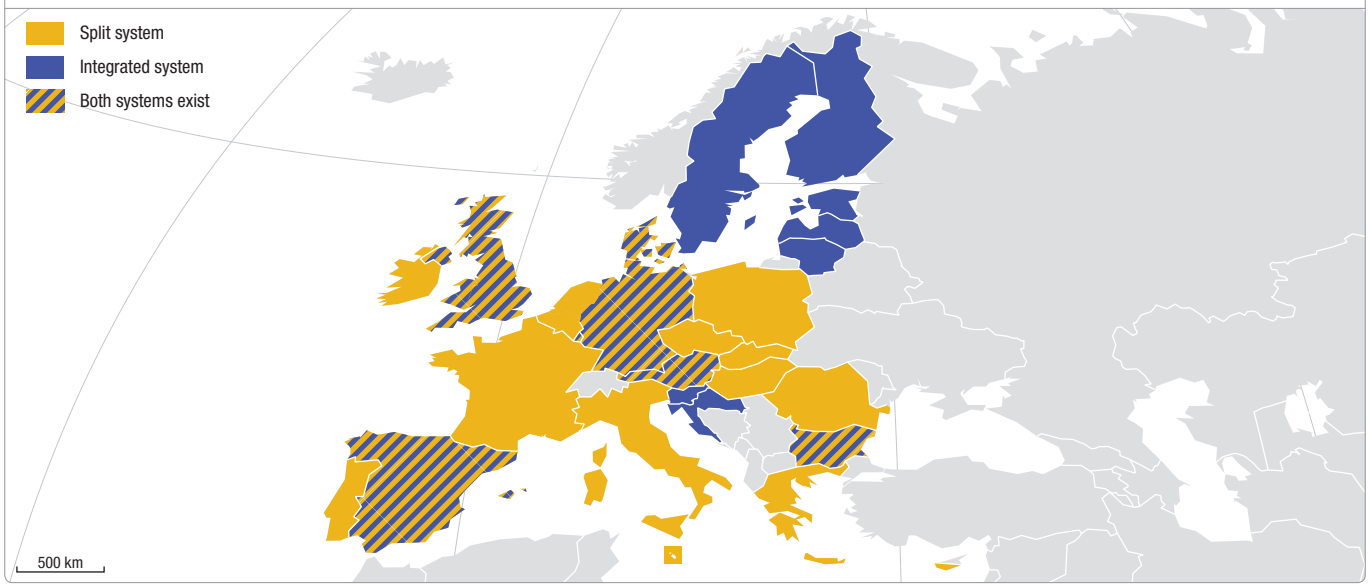
2.3.2 25-49 year-olds full time and part time employment rates by gender and household composition in 2016

↳ Eurostat, *lfst_hhindws ; own calculation*.



2.3.3 Organisation of centre-based early childhood education and care in Europe

↳ Eurydice, *Key data ECEC*, 2014.



2.4 SCHOOL EXPECTANCY AND INSTRUCTION TIME

UP TO 13 YEARS OF COMPULSORY EDUCATION

Like the structure of an education system, the compulsory length of education varies from one country to another. Figure **2.4.1**, detailing the compulsory length of education according to a student's age in 2016, highlights several reasons for these differences. The first among them, which is notable, was the student's age at the start of their compulsory education, which varied from 3 years-old (Hungary) to 7 (Estonia and Sweden). 8 countries (including England, Greece and the Netherlands) started students' compulsory education at the age of five, and more than half of the countries (16 of 28, including France, Germany, Italy and Spain) started it at 6.

Over half of the EU-28 countries (15, including Estonia, France, Ireland and Sweden) set the end of compulsory education at 16 years, with its varying from 15 (Croatia) to 19 (Germany). In the Netherlands, school is compulsory up to 18 years of age, unless the pupil obtains one of the three basic qualifications, in which case she or he may leave the education system from the age of 16. Moreover, it should be noted that the legal age for the end of compulsory education occurs at the end of ISCED 2 in numerous countries (Denmark, Finland, Greece and Latvia), whereas it is set during ISCED 3 in England, France and Italy. In all the length of compulsory education varies from 9 years (Croatia, Finland and Slovenia) to 13 years (Germany, Hungary and the Netherlands in the particular case of those without degrees at 16).

In 5 countries (Austria, Belgium, England, Germany and Poland), the period of full-time compulsory education is extended by a period of part-time compulsory education. This period makes it possible to follow a vocational training programme for a period of time that varies according to the country. It lasts for 3 years in Austria (since the 2016/2017 school year), Belgium and Germany and for 2 years in England and Poland where students have a choice between studying for an apprentice degree, combining part-time education with a professional activity or public service (volunteer) or simply remaining in full-time education.

AN EDUCATION CYCLE ISN'T OF UNIFORM LENGTH IN EVERY COUNTRY

Primary education does not contain the same number of years from one country to another. Figure **2.4.2** shows instruction time in annual volume hours, accumulated on the length of primary-school education. The issue of instruction time can be more fully assessed in time over the entire educational level. The average of the European Union OECD member countries is 775 hours per year, at the rate of 182 days of instruction per year over an average length of 5.6 years. Latvia has the fewest instruction hours per year with an average of 599 hours, and Denmark the most with 1,051 hours per year. France has the lowest number of instruction-days per year (162), whilst Denmark and Italy have 200 days of instruction.

It should be noted that the very structure of ISCED levels (*cf.* 1.1) vary widely from country to country. Indeed when Hungarian students end their primary education, French students end their *CM1* year (fourth year of primary education). Inversely, when Danish students end their primary-school education, French students end their *Cinquième* (second year of lower secondary education). In all, Hungarian students end the ISCED level after 2,260 hours of instruction distributed over 724 days of instruction and 4 years of school, while French students do likewise in 4,320 hours distributed over 648 days and 5 years of schooling, and Danish students finish the the same ISCED after 7,357 hours distributed over 1,400 days and 7 years of schooling. Timewise ISCED 1 varies from one to three within the European Union.

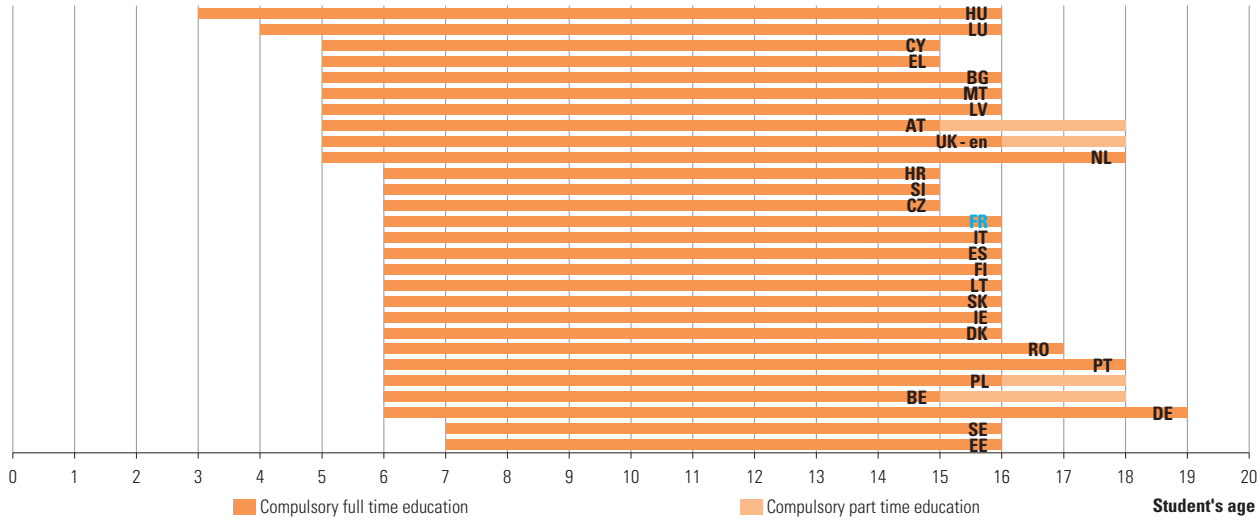
THE LEARNING OF BASICS ACCOUNTS FOR A MINIMUM OF A THIRD OF INSTRUCTION TIME

In the context of international comparisons the «basics» are composed of, on the one hand, reading, writing and literature and, on the other, mathematics. What portion do they occupy in the entire instruction time in ISCED 1 and ISCED 2? Figure **2.4.3** shows only the eight countries in which the breakdown of instruction time is strictly comparable.

The learning of the basics accounts for between 30 and 50% of instruction time in the countries presented here, ranging from 32% in Hungary to 46% in France. France places the greatest importance in the reading, writing and literature grouping as well in mathematics. Only Estonia devotes relatively more time to the natural sciences and foreign languages (26% of curriculum time on ISCED levels 1 and 2) than France and Germany (22%). Hungary devotes 54% of instruction time to «other subjects», whilst France devotes only 32% to them (sports, art, technology, computer science and the social sciences). ■

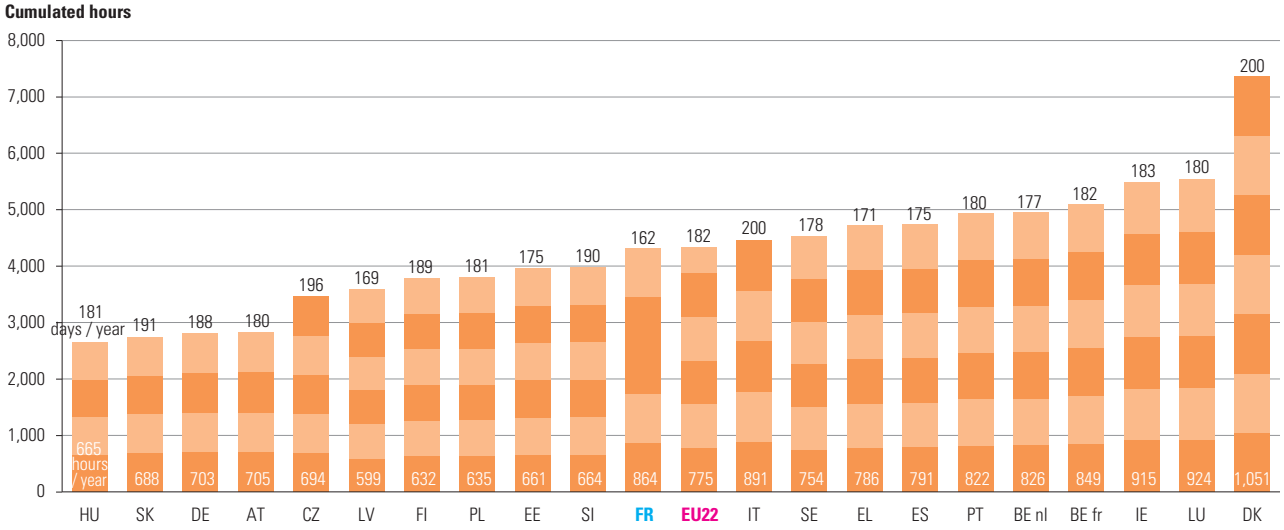
2.4.1 Compulsory education in Europe in 2016

↳ Eurydice, *The structure of the European Education Systems 2016/2017*, 2016.



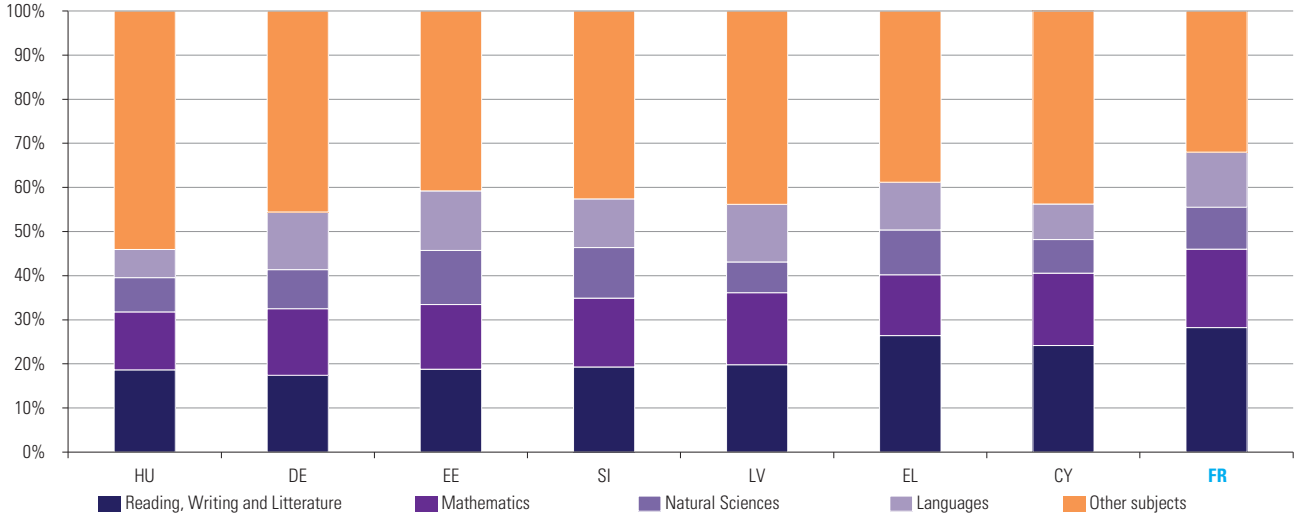
2.4.2 Cumulated instruction time at ISCED level 1 in 2015/2016

↳ OECD, *EAG 2016*, 2016.



2.4.3 Distribution of instruction time by subject at ISCED level 1 and ISCED level 2 in 2016

↳ Eurydice, *Recommended annual instruction time in full-time compulsory education in Europe 2016/2017*, 2017.



2.5 ENROLMENT RATES

A DOUBLE EUROPEAN GOAL FOR EARLY CHILDHOOD CARE AND EDUCATION

In matters of **early childhood education and care**[📖] (*cf.* graph 2.3), the European Union has set two quantified goals, i.e. offering care for at least 33% of the children under 3 and ensuring pre-primary education for at least 95% of children between 4 and the age of compulsory education. This latter goal is, moreover, one of the reference goals of the *Education and Training* 2020 strategy. Seven countries attained both goals in 2015, i.e. Belgium, Denmark, France, Luxembourg, the Netherlands, Spain and Sweden **(2.5.1)**, and nine countries attained one of the two goals, i.e. Austria, Germany, Italy, Hungary, Latvia, Malta, Portugal, Slovenia and the United Kingdom.

The 4 year-old-and-over goal was attained on average in the EU (95% in 2015), and the observed enrolment rates ranged from 74% (Croatia) to 100% (France, Malta and the United Kingdom). On the other hand, the goal of the first age category revealed greater variation between the countries. Whilst 77% of the under-threes attended institutions in Denmark, a mere 1% attended in Slovakia. Moreover it is appropriate to stress – a cause or a consequence of the low-care rate of young children? – that in some eastern European countries, post-natal parental or education leave was especially long, e.g. over 100 weeks in Bulgaria, the Czech Republic, Hungary and Romania (*cf.* 2.3).

A HIGH ENROLMENT RATE IN THE ENTIRE EUROPEAN UNION

What is the **enrolment rate of students**[📖] at the end of compulsory education? First of all it is important to remember that the age at the end of compulsory education varies between 15 and 18 years old depending on the country (*cf.* 2.4, p. 22). What's more, the enrolment rate indicator contains certain methodological limitations that explain, for example, why the observed rates can be higher than 100% in some cases, which calls for cautious interpretation. Nonetheless it is possible to draw a few general and comparative conclusions.

Generally speaking, given the massification of secondary education in Europe (cf. 2.1), very high enrolment rates were observed at the age of the end of compulsory education in the EU-28 in 2015 **(2.5.2)**. Only 5 countries did not attain 90% enrolment at this age, i.e. Bulgaria, Hungary, Luxembourg, Malta and Romania. In contrast 7 countries attained a rate of 100%.

UNEVEN ATTENDANCE IN TERTIARY EDUCATION

Observing attendance in tertiary education in the two successive age groups (20-24 year-olds and 30-34 year-olds) makes it possible to take note of both the intensity of continuing studies and the different ages at which this education takes place in each of the European countries. Indeed young adults do not necessarily continue their tertiary studies immediately after completing their secondary cycle. Civic and military duties, long internships or gap years carried out before or during tertiary education are common constraints or practices in the European Union.

In 2015, the attendance rates of the 20-24 year-olds in tertiary education in the EU-28 varied from 9% in Luxembourg to 48% in Slovenia **(2.5.3)**. Luxembourg's low rate can be explained in particular by the relatively recent creation of the University of Luxembourg (2003) and the high level of Luxembourg students enrolling in foreign tertiary education systems. In the EU-28 18 countries, including Belgium, France and Spain saw attendance rates higher than or equal to 30%, and 4 others (Ireland, Lithuania–the data for which are from 2014, Poland and Slovenia), with a rate greater than 40%. The attendance rates for the 30-34 year-olds varied from 2% in 5 countries (France, Malta, Romania, Slovakia and Slovenia) to 11% in Finland. Fewer than half of the EU's countries had a rate higher than or equal to 5% attendance in the age group **(2.5.4)**.

Does participation to tertiary education lead to a higher rate of graduates among the 30-34 age-group (*cf.* 5.3, p. 50)? It is interesting to note than it is not necessarily the countries with the highest attendance in tertiary education that record the highest number of advanced degrees. In 2015 in Luxembourg, the attendance rate of the 20-24 year-olds in higher education was 9%, whereas 52% of the 30-34 year-olds held advanced degrees with a large number of the latter having done their tertiary education abroad. To a lesser extent the United Kingdom was in a similar situation. The opposite was also seen, i.e. the Czech Republic with a high attendance rate (37% of the 20-24 year-olds) had a 30-34 year-old population with fewer degree-holders than the EU-28 average (30% of tertiary education degrees in 2015 compared to 38% for the EU-28). Other than the fact that students may have left the country where they obtained their degrees, the two following factors are likely to explain this gap:
– A time lag: a recent increase in higher education attendance which has not yet translated into the number of degrees attained by the 30-34 year-old age group;
– Abandonment: a portion of the students enrolled in tertiary education programmes not attaining a degree. ■

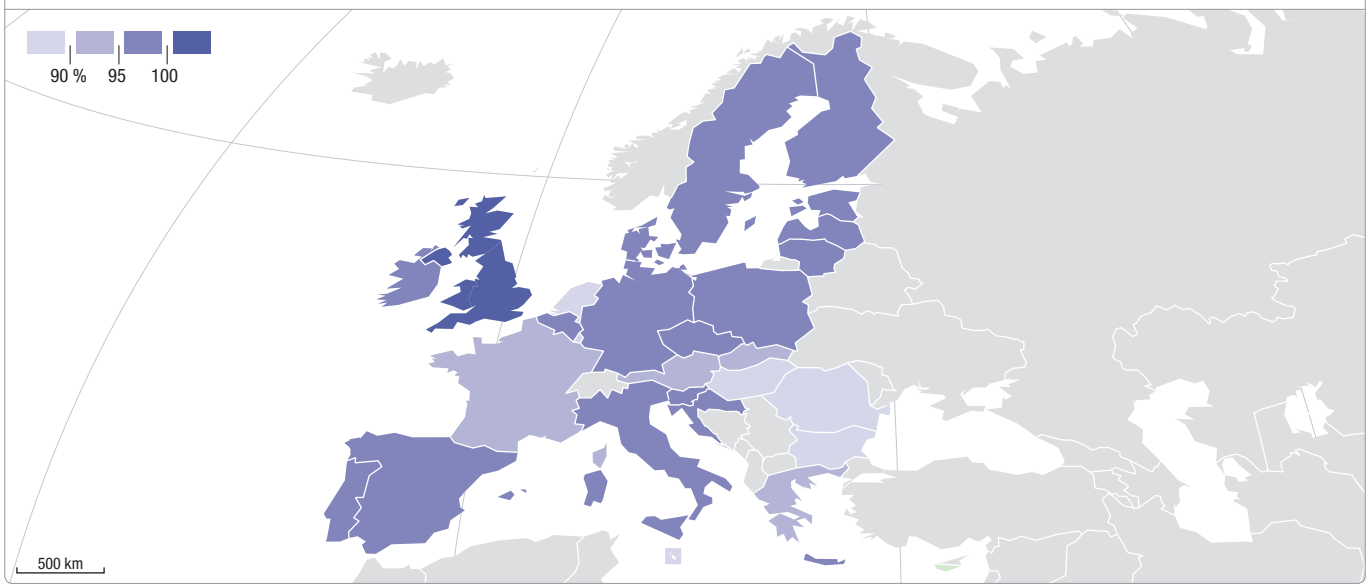
📖 See definition p. 74.

2.5.1 Enrolment of less than 3 year olds and of 4 to 6 year olds in educational programmes in Europe in 2015

↳ Eurostat, *ilc_caindformal* and *educ_uoe_enra10*.

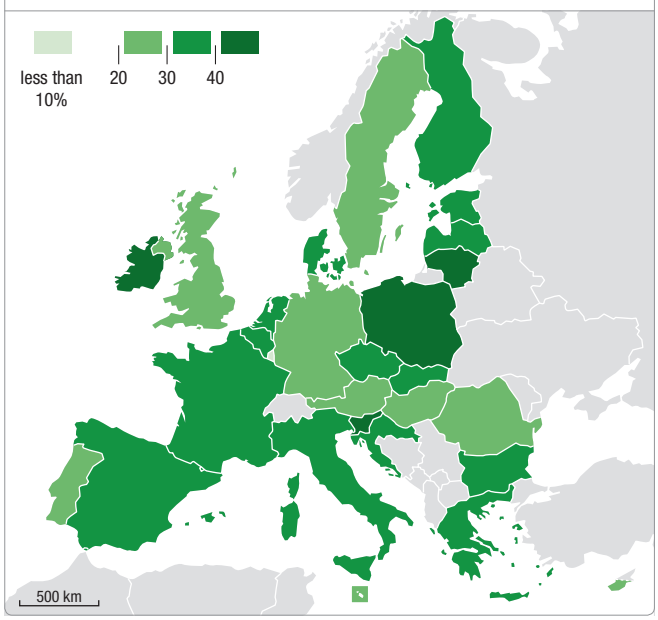
2.5.2 Enrolment rate and the age at the end of compulsory education in Europe in 2015

↳ Eurostat, *educ_uoe_enra09*.



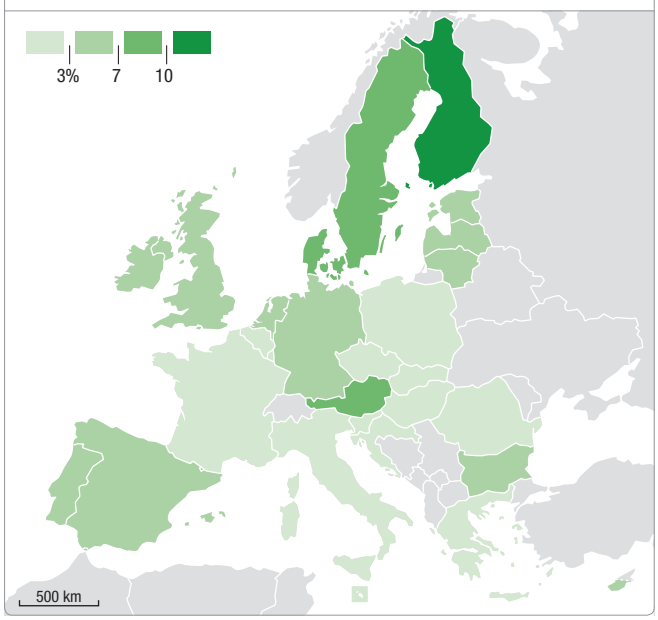
2.5.3 20-24 year olds participation rates to tertiary education in 2015

↳ Eurostat, *educ_uoe_enrto8*.



2.5.4 30-34 year olds participation rates to tertiary education in 2015

↳ Eurostat, *educ_uoe_enrto7*.



2.6 PLACE OF STUDENTS IN THE EDUCATION SYSTEM

A PREDOMINANCE OF BOYS IN VOCATIONAL EDUCATION

General and vocational education in each country does not have the same relative weight and is not seen in the same light. Although in some countries vocational education has been developed and valued for a long time, in other countries it developed later and initially suffered from lower esteem, which can have an impact on the distribution of students the streams. In 2015 in the 28-member European Union 53% of the ISCED level 3 students studied in the general stream and 47% in the vocational stream **(2.6.1)**. Tangible distribution gaps between the two streams could be seen from country to country. In the Czech Republic, which has the lowest enrolment rate in general education in Europe only 27% of the ISCED level-3 students studied in a general programme. At the other end of the scale Malta had a rate of 87%. Poland is the only EU country with equal distribution between the two streams in ISCED 3.

The distribution between the general and vocational streams is also subject to gender. In 2015 in the EU-28 there were more girls in general education (28% of all ISCED 3 students were girls in ISCED 34 whilst the boys accounted for 24%), and there were more boys in vocational education (21% of all students were girls in ISCED 35, and 27% were boys). Within the EU-28 only three countries (Finland, Sweden and the United Kingdom) had a larger proportion of girls as students in ISCED 35. Even in Poland, where near equality was seen in the distribution between the streams, girls accounted for 3/5 of the students in ISCED 34, whereas boys accounted for the same proportion in ISCED 35.

GREATER RECOURSE TO PRIVATE INSTITUTIONS IN SECONDARY EDUCATION

Categorising public/private is not self-evident ZOOM

The relative weight of public or private education in each country often depends on the history of the relationships maintained by the state with religious institutions. Education given in "private institutions independent of public authority" is still not very wide-spread in the EU-28 (**2.6.2** and **2.6.3**). Private education is most often given in "private institutions under public authority". These Eurostat categories refer to a clear partition in France. Categorisation is not, for all that, so self-evident in certain countries. In the United Kingdom, for example, the rate of students enrolled in private education undermines the influence of the Academies, which, although under the authority of the Ministry and most often funded by the state with frequent support from private sponsors and willing parents, enjoy wide-ranging autonomy in how they are run.

In 2015 in the EU-28 the portion of students attending public institutions in primary education stood at 87%, whilst this portion was 76% in secondary education. Indeed it is easy to see in graph **2.6.2** that only Malta and Spain had enrolment rates in private education in ISCED 1 that are higher than 20%. A more frequent recourse to private institutions in ISCED 2 and 3 was observable. The clear-cut advance of private education in the United Kingdom was notable with 66% of students being enrolled in private institutions known as "dependent" (*cf.* box). The percentage of students in "private institutions independent" of the public authorities, however, remained limited, whatever the ISCED level, with a maximum of 11% in Portugal.

BIGGER CLASS SIZES IN LOWER SECONDARY EDUCATION THAN IN PRIMARY

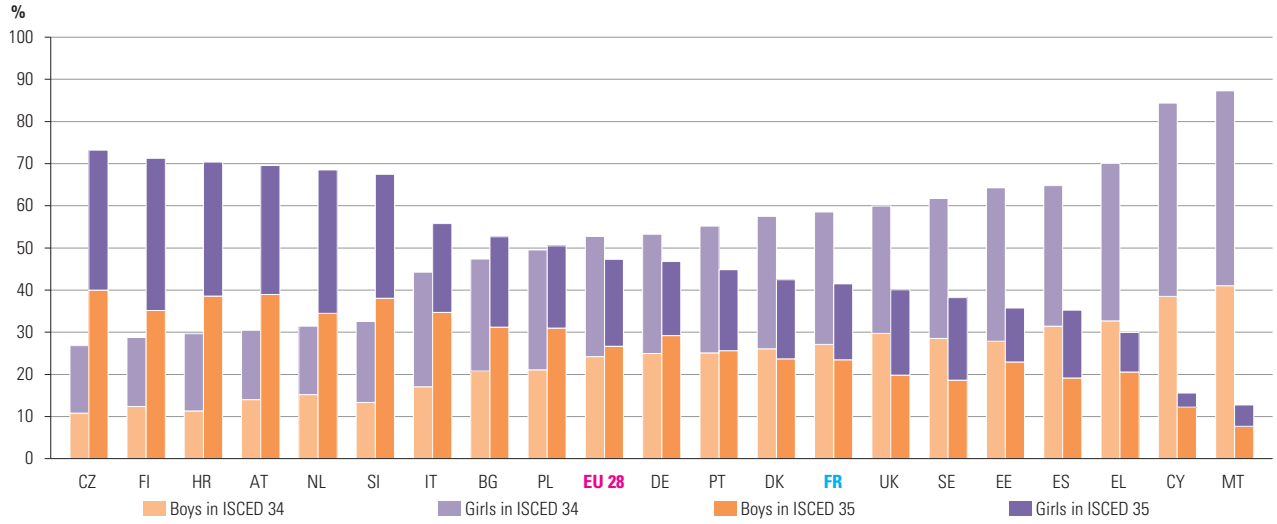
Average class sizes in primary and lower secondary education varied significantly within the European Union. Of the 19 countries presented here **(2.6.4)**, 15 (including France, Germany and Italy) had smaller average class sizes in primary education than in the lower secondary education. The average class size in the United Kingdom was the highest at 26 students per class, with the lowest being Luxembourg at an average of 16 students per class. These two countries were also the ones with the widest extremes of student numbers at this educational level, with 36,000 students in Luxembourg and 4,600,000 in the United Kingdom.

In lower secondary education, France and Spain had the largest classes in 2015 with an average of 25 students or more per class. The smallest classes were found in Latvia (14 students per class). Luxembourg had the lowest number of ISCED 2 students with 22,000 in 2015, compared to Germany's 4,500,000 students, the EU country with the highest number of students in ISCED 2.

The Czech Republic, France, Germany, Hungary, Portugal and Spain were the only EU-28 countries with over 20 students on average per class in primary education and lower secondary education. Lastly, the 5 most populated countries in the European Union (France, Germany, Italy, Spain and the United Kingdom) contained 60% of the EU-28 students on these two educational levels with 18 and 13 million students respectively in ISCED 1 and ISCED 2. This makes it possible to put the challenges faced by these countries into perspective in terms of material (buildings, etc.) and human (teaching and administrative staff) resources. ■

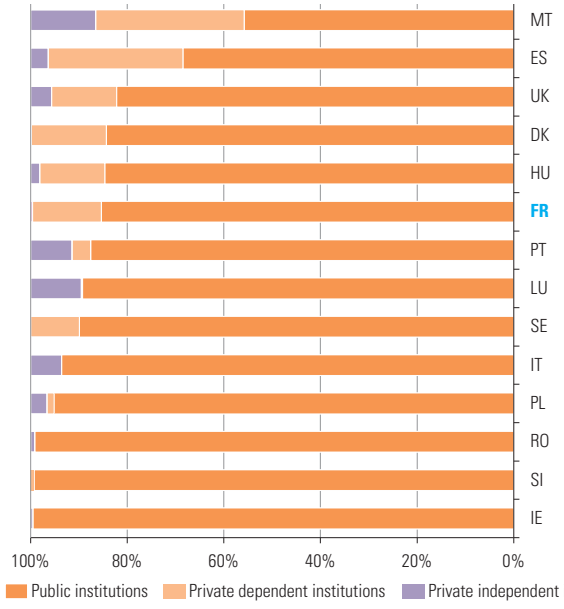
2.6.1 ISCED 3 students' distribution between general and vocational programmes by gender in 2015

Eurostat, *educ_uoe_enra16.*



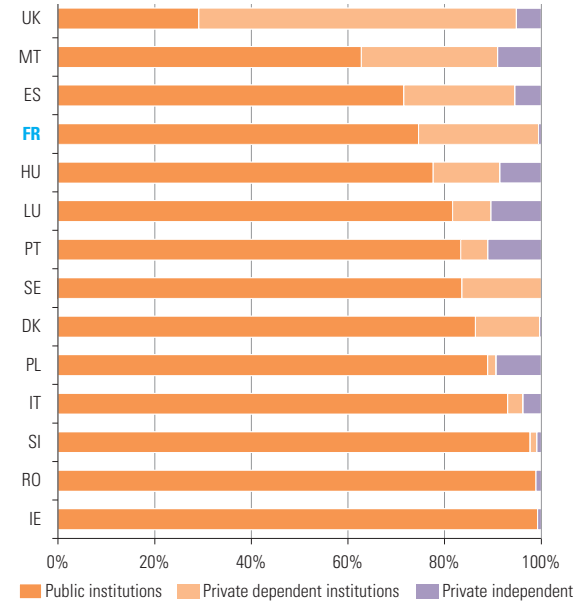
2.6.2 ISCED 1 students' distribution by type of institution in 2015

Eurostat, *educ_uoe_enra01.*



2.6.3 ISCED 2 and ISCED 3 students' distribution by type of institution in 2015

Eurostat, *educ_uoe_enra01.*



2.6.4 Average class size and total student population in ISCED 1 and ISCED 2 in 2015

Eurostat, *educ_uoe_enra02 ; OECD, EAG 2017, table D2.1.*

2.7 LEARNING FOREIGN LANGUAGES

LEARNING FOREIGN LANGUAGES BEGINS IN PRIMARY SCHOOL

Since 2003 a majority of European Union countries (16 out of 28) have lowered the age for beginning the compulsory learning of the first modern foreign language (MFL). Learning earlier explains in part the increase in the average study time of the first compulsory MFL in the EU, increasing from 9.9 years in 2003 to 11.3 years in 2015. Belgium (the German-speaking community), Cyprus, France (where learning now starts at 6 years old rather than 8), Poland and Romania are typical. In Cyprus and Poland, this lowering of the starting age was especially significant over the period, falling from 9 to 3 years of age in Cyprus's case and from 10 to 5 in Poland's. Moreover these are the only two countries where the teaching of a foreign language begins in pre-primary education (**2.7.1**, *cf.* MENESER-DEPP, *Note d'information,* no. 17.15).

In 2015 the students in the EU-28 countries were in general between 6 and 8 years old and were in primary education when they began to learn a foreign language. Six countries (Austria, France, Italy, Luxembourg, Romania and Spain) began learning at 6, whilst in the other 19 EU countries for which data are available it began later. Only Scotland and Ireland did not require learning an MFL. Nonetheless all Irish students were already learning the two official languages of their country, i.e. English and Gaelic.

THE TEACHING OF FOREIGN LANGUAGES TAKES PLACE ABOVE ALL IN THE SECONDARY

In 2015 the **cumulated compulsory instruction time**📖 devoted to learning a foreign language in ISCED 1 and ISCED 2 varied significantly from one EU country to the next. Among the countries for which data are available this instruction time varied from 407 hours in Hungary to 1,278 hours in Malta. With 1,008 hours devoted to foreign languages, France was one of only 3 countries (along with Germany and Malta) to devote more than 1,000 cumulate hours to MFL in ISCED 1 and ISCED 2

Although the first modern language is introduced in ISCED 1 in most of the European countries, the instruction time devoted to it remains relatively small. In the great majority of countries it varies from 5% to 10% of the overall instruction time in ISCED 1, whereas ISCED 2 remained central in learning a foreign language. Among the 17 countries presented here, 10 (including Finland, France and Germany) concentrated over 60% of cumulated instruction time to learning foreign languages in ISCED 2 alone. This is explained mainly by the introduction of the second MFL at this educational level. In ISCED 3, moreover, the instruction time devoted to languages is often dependent on diversified options and pathways, which explains the lack of international statistics at this level.

And among the countries presented, only 5 (Denmark, Estonia, Finland, Greece and Latvia) began compulsory learning of a second foreign language in ISCED 1. The instruction time devoted to it varied from 45 hours in Latvia to 102 in Greece. It is interesting to note than in Estonia, the second most studied MLF in ISCED 1 was Estonian as it is considered a foreign language by the large Russian-speaking community in the country.

FRENCH AND GERMAN ARE THE SECOND MOST STUDIED LANGUAGES IN EUROPE

Of the 24 official languages in the EU in 2014, English continued to progress and was the leading foreign language studied in Europe with 97% of the ISCED 2. French was in second place as the most studied language in the EU where an average of 34% of ISCED 2 students studied it. French was followed by German which was studied by 23% of ISCED 2 students, which in turn was followed by Spanish at a rate of 13%. However it should be noted that these percentages were sensitive to the class in which learning a second modern language began in the ISCED involved. Other languages than English, French, German and Spanish were studied by a minority of European students (4% of the students in ISCED 2 in 2014). In Estonia, Latvia and Lithuania where significant Russian-speaking communities live, Russian was an exception for it was selected by a majority of the students in ISCED 2. Two other languages stood out, i.e. Italian in Malta and Swedish in Finland. Geographical proximity and historical ties are often the explanations.

Graph **2.7.3** shows this «neighbouring» effect, i.e. all the countries neighbouring France mostly chose to study French, just as German and Russian were respectively predominant in Central Europe and the Baltic countries. Two types of countries stood out. First of all, the countries that promote and disseminate their language beyond their own borders (English, French, German, etc.), in particular by establishing sometimes secular institutions to develop their linguistic and cultural influence (*Alliance Française*/AEFE, the British Council and the *Goethe Institut*). They also happen to be the most populous nations in the EU. The second group includes countries that, by their size or history, are more open to the influence of foreign languages such as Luxembourg and Malta. The coexistence in Malta of three languages bears witness to various influences: Maltese and English (remnants of the British Empire) replaced Italian in 1934, which was until then the official language. Yet over half of the island's population still speaks Italian. ■

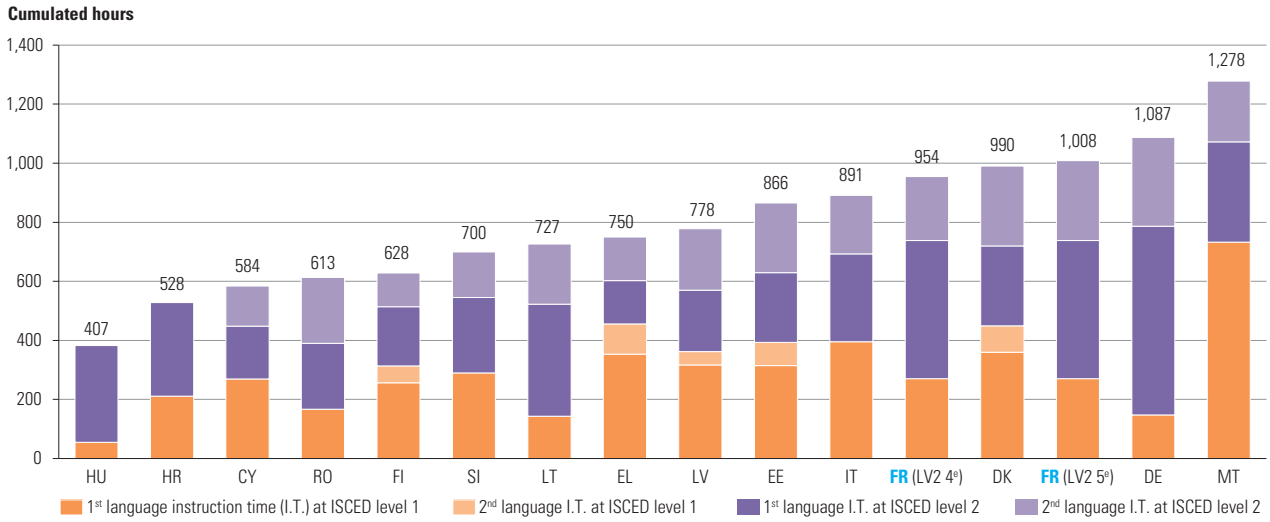
📖 See definition p. 74.

2.7.1 Starting age and learning time of the first compulsory modern foreign language per ISCED level in 2015

↳ Eurydice, *Key Data on Teaching Languages at School in Europe 2017 Edition, 2017.*

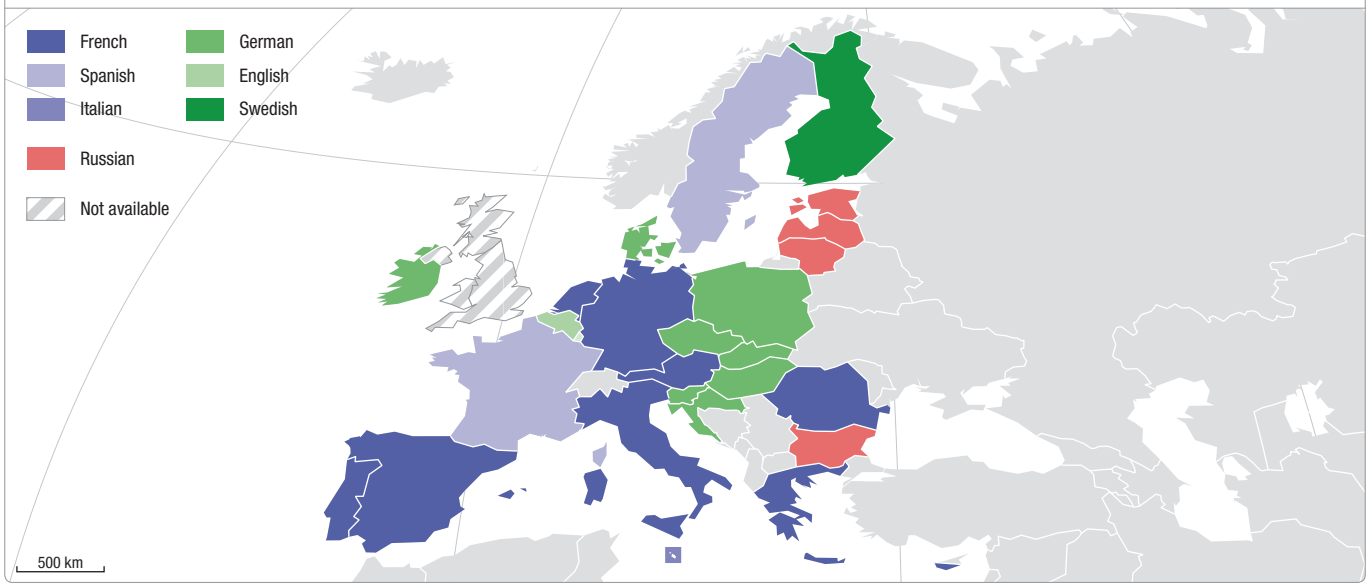
2.7.2 Cumulated compulsory instruction time devoted to foreign languages at ISCED level 1 and ISCED level 2 in 2016/2017

↳ Eurydice, *Recommended Annual Instruction Time in Full-time Compulsory Education in Europe 2016/2017, 2016.*



2.7.3 The second most studied foreign language by ISCED 2 students in 2014

↳ Eurostat, *educ_uoe_lang01.*



3.1 PROPORTION OF NATIONAL WEALTH DEVOTED TO EDUCATION

Expenditure on education according to the OECD ZOOM

The OECD retains several definitions of expenditure on education for educational institutions. The one that is used in this sheet includes all costs (educational services, ancillary services and research and development) funded by the central administration, regional and local governments, the private sector (households and enterprises) and international entities. Household expenses made outside the school, public funds for financing certain outside-school student expenses (e.g. living costs), and continuing education-related costs are excluded. However, grants that are funded by the State are included. Both ISCED 01 and ISCED 02 are not in the scope. Costs are either expressed as a percentage of GDP or as equivalent US dollars in **purchasing power parity (PPP)**. The PPP is a currency conversion rate making it possible to express the purchasing power of different currencies in a common unit.

A CONTAINED RISE IN THE PROPORTION OF GDP FOR EDUCATIONAL EXPENSES OVER THE DECADE

In 2014, the share of GDP dedicated to education expenditure by the 22 EU-member countries of the OECD is close to what it is in 2005 (4.7%) **(3.1.2)**. Global evolution between these two years differed, however, from country to country. In the 16 countries for which statistics are available, 10 saw a more or less tangible rise of the proportion of GDP dedicated to education over the decade, i.e. Estonia, Finland and Spain (+0.4 of a percentage point), Belgium and Ireland (+0.5%) and Portugal (+1%) were the notable examples. Germany and Latvia were the only countries that remained stable over the period. Lastly Sweden (-0.2%), Poland (-0.6%) and Hungary and Slovenia (-0.7%) saw tangible reductions in expenditure on education over the 2005-2014 period.

EDUCATION REMAINS VERY PREDOMINANTLY FUNDED BY PUBLIC SOURCES IN EUROPE

In 2014 the average expenditure for education by the 22 European Union OECD member countries amounted to 4.9% of their **Gross Domestic Product (3.1.1).** This proportion varied from 3.6% of the GDP in Luxembourg to 6.6% in the United Kingdom. If we look at the costs spent only on school education (from ISCED 1 to ISCED 4), the amount of the GDP devoted to education varied from 2.6% in the Czech Republic to 4.8% in Denmark and the United Kingdom. Expenditure for higher education as a percentage of GDP varied from 0.5% in Luxembourg to 1.9% in Estonia. Estonia was particularly noteworthy, for 38% of its spending on total education was devoted to higher education, which is 10 percentage points higher than the European average.

Education remained very predominantly funded by public sources. There was, however, greater relative weight of private funding in higher education. On average of the EU country members of the OECD, private resources accounted for 6% of ISCED 1 to ISCED 4 funding. This rate was 19% for ISCED 5 to ISCED 8. France's situation, with proportions of 7% and 18% respectively, was very close to the European average. If the expenditure on school education and higher education are combined, only 4 countries surpassed the 15% threshold of private-source funding, i.e. the Netherlands, Portugal and Spain, as well as the United Kingdom at 29% of expenditure on education coming from private sources. The UK was an exception in Europe, particularly in higher education where nearly 70% of the funding was privately sourced with a large proportion being covered by households in the form of tuition and administrative fees (*cf.* 3.3).

CONTRASTING DEVELOPMENTS IN SPENDING ON PUBLIC EDUCATION SINCE THE CRISIS

What impact has the crisis had on expenditure for education in the European Union countries? It is relevant here to focus on public expenditure for education to gauge countries' budgetary responses to the crisis. Only expenditure funded by the central administration, regional and local governments and international entities has been taken into account.

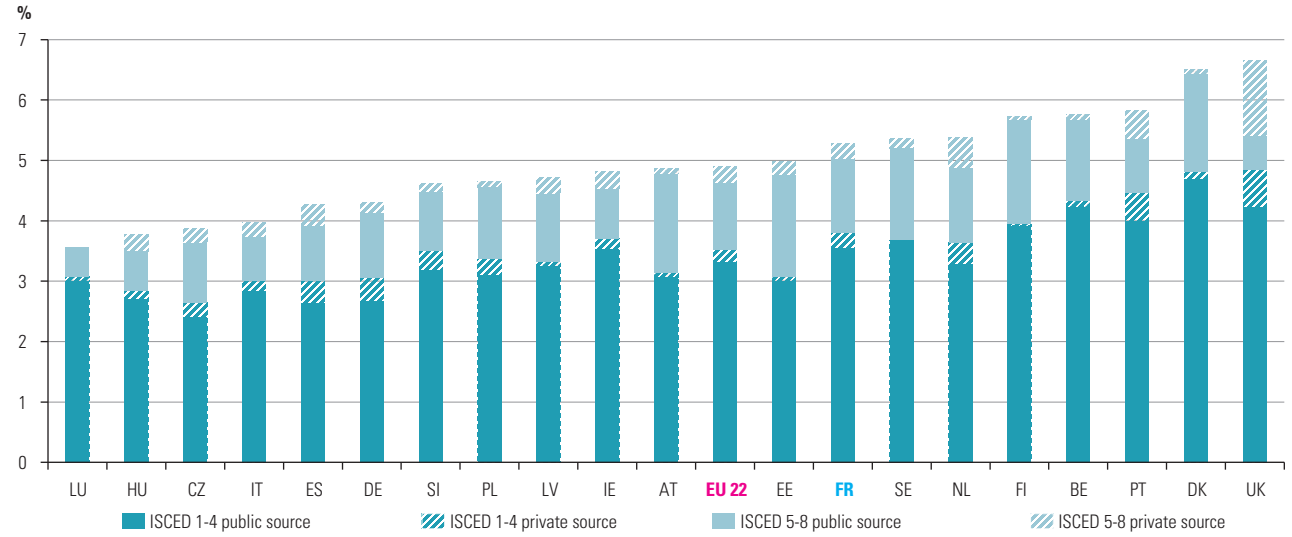
Between 2008 and 2014, in the 22 EU-member countries of the OECD, public expenditure for educational institutions increased on average by 1.3% whilst the GDP of these same countries increased by only 0.1% **(3.1.3)**. But here too this overall situation hid large disparities between countries over the period.

Among the countries studied here, two big groups can be differentiated. The first contains the countries where there was a reduction in public educational spending. It is composed of six countries, including Estonia, Italy (-17%) and Spain (-13%). Estonia's case is singular in that it was the only country that saw a rise in its GDP. The second group is composed of those countries where there was a rise in their public spending on education, often along with a rise in their GDP, but not systematically (e.g. Finland). In Slovakia the rise in public spending was very clear-cut with a 29% increase between 2008 and 2014. With a very limited rise in its public spending on education and its GDP, France was very close to the average for the European OECD countries. ■

See definition p. 68.

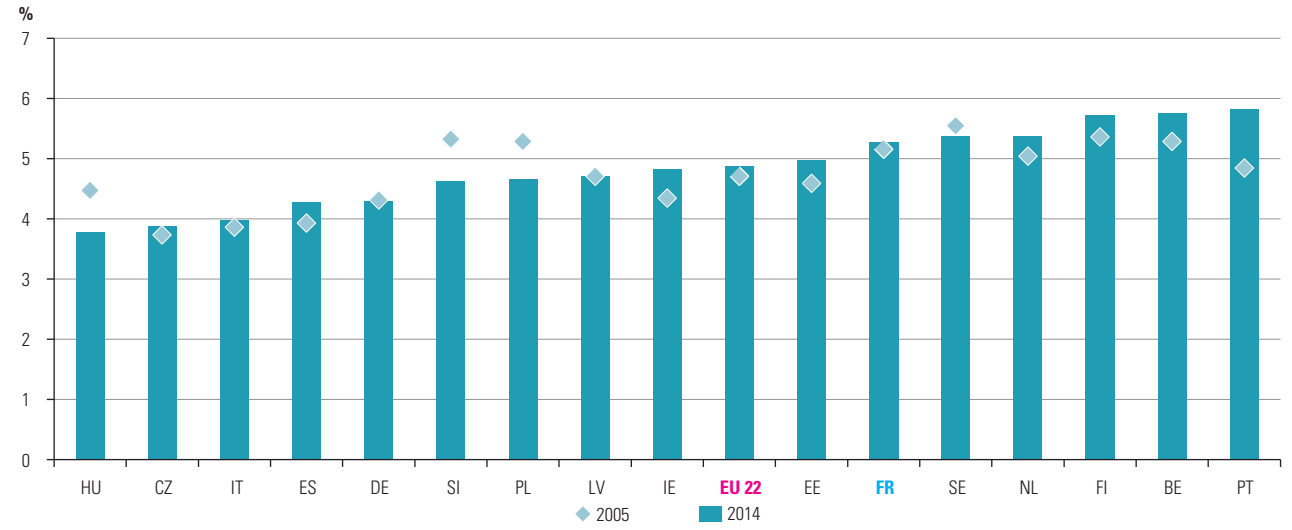
3.1.1 Expenditure on educational institutions as a percentage of GDP, by source of funding and ISCED level in 2014

↳ OEC D, *EAG 2017, table B2.3.*



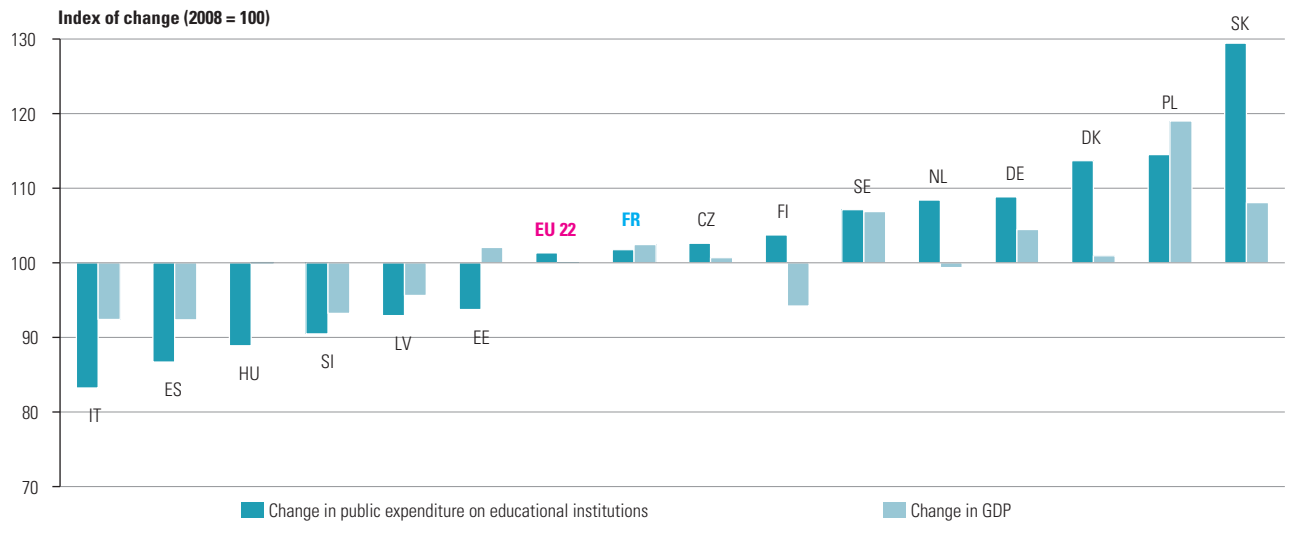
3.1.2 Expenditure on educational institutions as a percentage of GDP in 2005 and in 2014

↳ OEC D, *EAG 2017, table B2.2.*



3.1.3 Change of public expenditure on education institutions and change in GDP between 2008 and 2014

↳ OEC D, *EAG 2017, table B2.4.*



3.2 COST OF A STUDENT

CONTRASTING COSTS PER STUDENT AND PER EDUCATIONAL LEVEL

In 2014 the cost of education per student (*cf.* 3.1, p. XX), for the average of the 22 EU OECD member countries was higher for students in secondary education (10,360 US dollars **PPP**[📖]) than for students in primary education (8,800 USD PPP) **(3.2.1)**. There were significant differences within the EU-22 with Hungary showing the lowest cost per student (less than 4,000 USD PPP in ISCED 1 and ISCED 2 and Luxembourg the highest (over 21,000 USD PPP for each ISCED level of school education.

Observed by level of education, the annual expenditure per student revealed different choices across the countries. Finland and Slovenia allocated a remarkably high amount per student in ISCED 2 compared to that allocated in ISCED 1 or ISCED 3. Singular in the EU-22, Denmark focused on ISCED 1 with the annual expenditure per student reducing as the ISCED level increased. France and Germany showed fairly similar profiles with costs per student below the EU-22 average in ISCED 1 but rising with the educational level to attain values considerably above the average in ISCED 3.

FACTORS INFLUENCING THE EXPENDITURE LEVELS PER STUDENT

Four main factors influence expenditure per student: the teachers' **gross actual salary**[📖] (main factor of expenditure), teachers' **teaching time**[📖] (according to public regulations), students' **instruction time**[📖] (according to public regulations) and, finally, the **average class size**[📖]. Per student expenditure is an increasing function of the teachers' salary and of the students' instruction time; it is a decreasing function of the teachers' teaching time and of the average class size. Observing the per student expenditure in ISCED 2 in three European countries (France, Germany and Italy) reveals different approaches.

France and Germany have an annual expenditure per ISCED 2 student which is very close to the average of the 22 EU OECD member countries. In Germany, two factors weigh the expenditure per student down: a high teaching time and a high number of students per class on average. However, the teachers' salary, which is much higher than the EU 22 average, pulls the level of expenditure per student back up to the European average. In France, where the teachers' salary is very similar to the EU 22 average, the significantly high number of students per class is enough to compensate by itself the low teaching time and the high instruction time.

In Italy, the significantly low teachers' salary is enough to explain the relatively low annual expenditure per student in ISCED 2. Indeed, the three other factors that pull the expenditure up (a very high number of hours of instruction time, a close-to-average number of students per class and a low number of teaching hours) do not compensate the low salary.

Note that some other factors that influence expenditure were not taken into account here: boarding services, canteens, administrative services, school transports. These factors may also enlighten differences between countries. However, international indicators do not allow the comparison of such expenses in a consistent manner.

LARGE DISPARITIES IN CUMULATIVE EXPENDITURE IN A STUDENT'S CAREER IN EUROPE

ZOOM

To examine cumulative expenditure per student, the oecd looks at an age group (6 to 15 years old) that corresponds to compulsory schooling in a majority of countries in the EU. To each age, the OECD applies the observed annual expenditure per student for the corresponding ISCED level. For instance, a 14 years-old French student would be in troisième, in ISCED level 2, which corresponds to a 10,310 USD PPP annual expenditure. An Italian student of the same age would be in ISCED level 3, meaning an annual expenditure of 8,860 USD PPP.

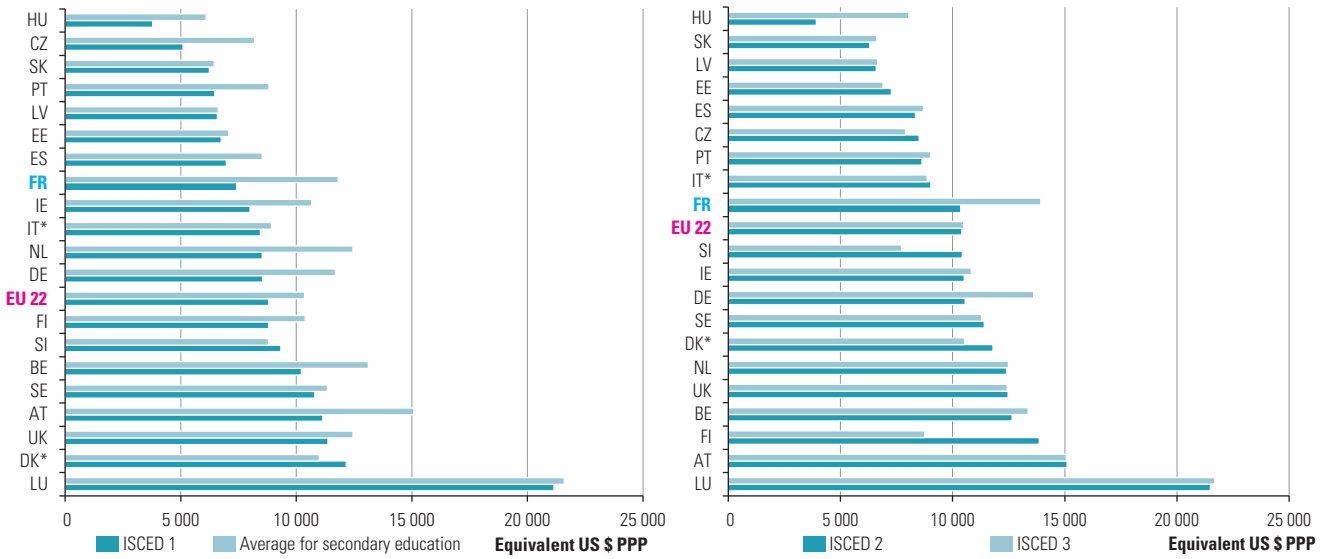
In 2014 the cumulative annual expenditure per student between 6 and 15 in the 22 EU OECD member countries was on average 91,620 USD PPP **(3.3.3)**. The national configurations nonetheless varied within the EU itself. Hungary had the lowest cumulative expenditure (46,880 USD PPP) and Luxembourg the highest (213,100 USD PPP), or a 1 to 4.5 spread within the EU. Among the 18 countries presented, eleven (including Italy, Germany and Spain) were located between 50,000 and 100,000 USD PPP. With 92,150 USD PPP France was close to the European average.

This method for counting the cumulative expenditure per student does not, however, make it possible to consider the burden of the ISCED 3 level, the length of which often largely surpasses the 15 year-old milestone and which concentrates a high level of expenditure per student in some countries such as France and Germany **(3.2.1)**. ■

📖 See definition p. 68.

3.2.1 and 3.2.2 Annual expenditure by educational institution per student and ISCED level in 2014

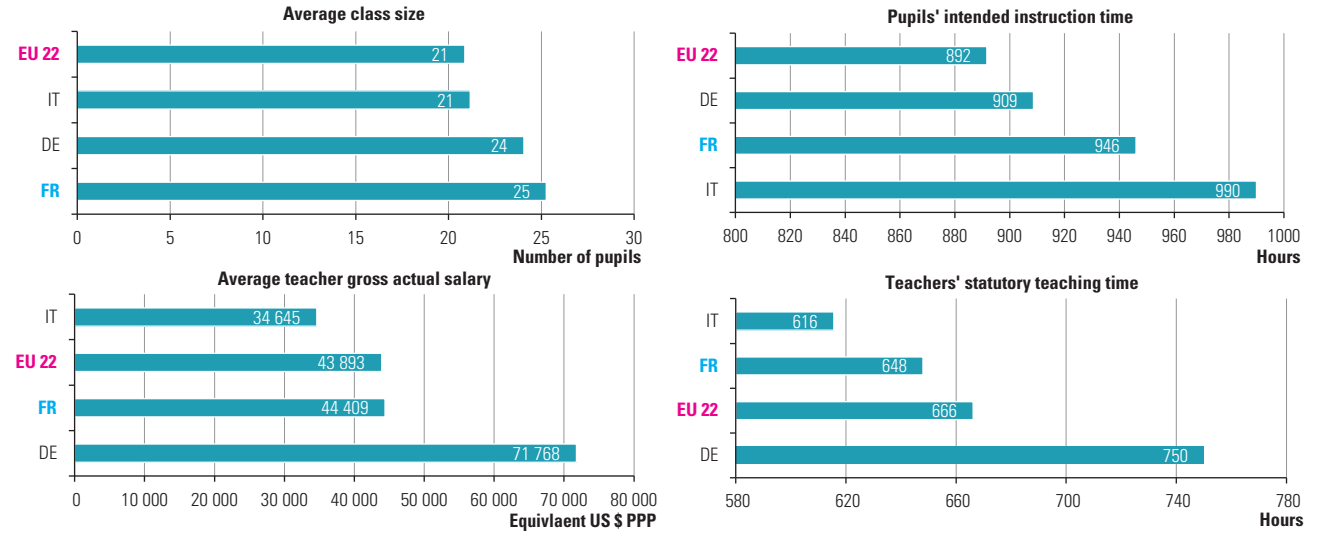
↳ OECD, *EAG 2017, table B1.1.*



Note: Data for Denmark and Italy only regard public educational institutions.

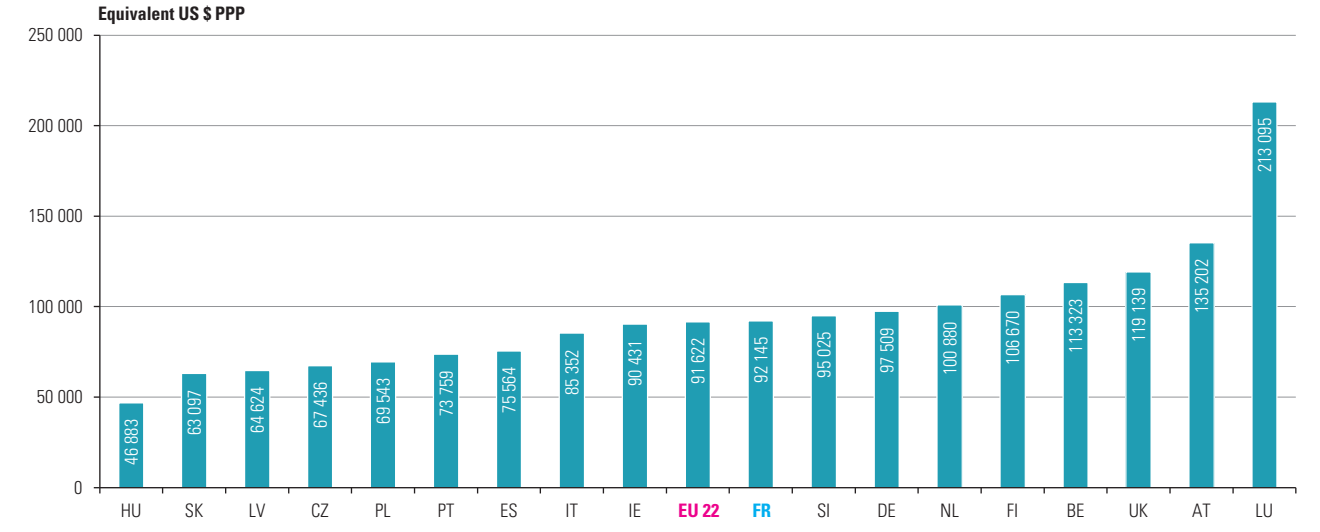
3.2.3 Factors that have an influence to the salary cost per student at ISCED level 2 in 2014

↳ OECD, *EAG 2017, table D1.1, table D2.1, table D3.4, table D4.2.*



3.2.4 Cumulative expenditure per student between 6 and 15 in 2014

↳ OECD, *EAG 2017, table B1.4.*



3.3 TUITION AND ADMINISTRATIVE FEES IN HIGHER EDUCATION AND STUDENT SUPPORT

GENERALLY CONTAINED UNIVERSITY TUITION AND ADMINISTRATIVE FEES

In 2017/2018 in the 28 EU countries tuition and administrative fees charged by subsidised public or private education institutions have been relatively contained **(3.3.1)**. In 18 (including Finland, France, Germany, Greece and Poland) of the 30 (here England, Ireland, Scotland and Wales are all considered separately), the fees were less than 1,000 euros per full-time student for an academic year, and in 10 countries these fees are either inexistent or less than 100 euros.

ZOOM

Every year the **Eurydice** European network publishes a report called National Student Fee and Support Systems in European Higher Education. It deals with tuition and administrative fees (including, among other things, compulsory fees for social security) as well as indirect support (in the form of family allowances) and direct support (public-administration regulated grants and loans) given to students in subsidised public or private higher-education institutions. Only the bachelor's and master's cycles are taken into account here. Private higher education institutions and (for France) secondary education institutions (BTS, CPGE) are not included. The currency units used here are expressed either in euros or in national currencies without **purchasing power parity (PPP)**[📖].

Fees are highest in England and Wales. The university tuition and administrative reform applied at the start of the 2012 academic year raised the fees to 9,000 pounds sterling (or about 10,200 euros in the 4th quarter, 2017) as the ceiling of these fees for the first cycle. To meet these high fees, students take out loans at prime rates that they are to repay only once their annual salary is higher than £21,000 (or about 23,800 euros in the 4th quarter, 2017). The fees in Northern Ireland are also very high, though not as high as those in England or Wales. Students in Italy, Latvia, the Netherlands and Spain also pay fees of over 1,000 euros per year for the majority of public or subsidised higher education programmes.

Estonia is an interesting case: it changed its system in 2013/2014 by linking the amount of fees to a student's performance. That is, students managing to attain 30 ECTSs (***European Credit Transfer System***[📖] – the university credits system) per semester and 60 ECTSs per year in an educational programme given in the Estonian language are exempted from fees. For students failing to attain the necessary credits, higher educational institutions are entitled (but not obliged) to have students pay for each missing ECTS credit. In the majority of programmes the maximum cost for each missing ECTS is 50 euros. Certain fields however can raise the cost of the ECTSs, e.g. arts, medicine, veterinary medicine and dentistry (100 euros) and airplane pilot training (120 euros).

A WIDE INSTITUTIONAL VARIETY OF STUDENT-SUPPORT SYSTEMS

Student financial aid in the European Union takes many different forms, but direct financial support in the guise of grants and state-regulated loans is the most common **(3.3.2)**. In the majority of cases these loans rely on distinct procedures (students receive either a loan or a grant), but they may sometimes be combined (in Denmark, for example, only scholarship students may benefit from public loans). In the 28 EU countries the majority offer several types of direct-aid solutions. Only the United Kingdom (excepting Scotland) offers only regulated loans, and 10 countries (including Austria, France and Italy) offer only grants. Grants may be awarded according to specific criteria, most often based on resources or specific needs (e.g. disabilities). In Denmark, the amount can be as high as 9,700 euros per year. Some grants are linked to students' performances without being resource-based (Estonia, Germany) or resource-based (Austria, Italy).

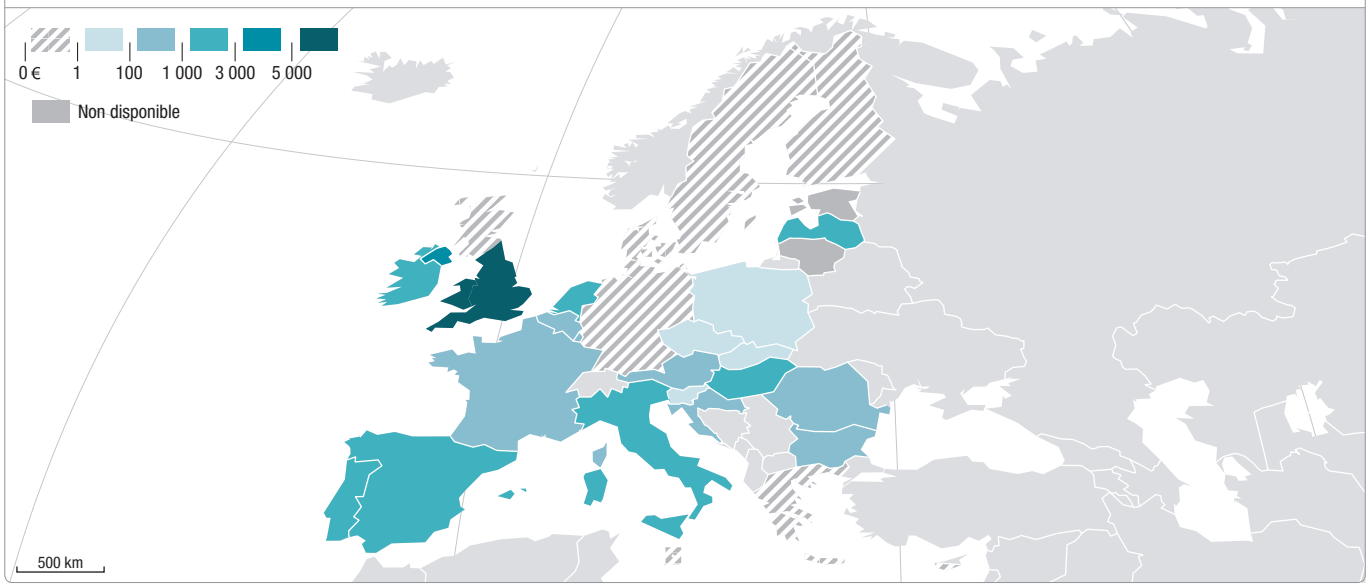
Indirect financial aid, consisting in tax benefits or family allowances for students or their families, is less common. Of the EU-28 countries, 16 offer indirect financial aid solutions to students and/or their families **(3.3.3)**. Luxembourg alone offers only family allowances, and 6 countries (including Ireland and Slovenia) offer only tax benefits. The 9 other countries (including Belgium, France and Germany) offer both types of aid that coexist or are combined.

A CONSIDERABLE PROPORTION OF GRANT RECIPIENTS IN THE MAJORITY OF THE EU COUNTRIES

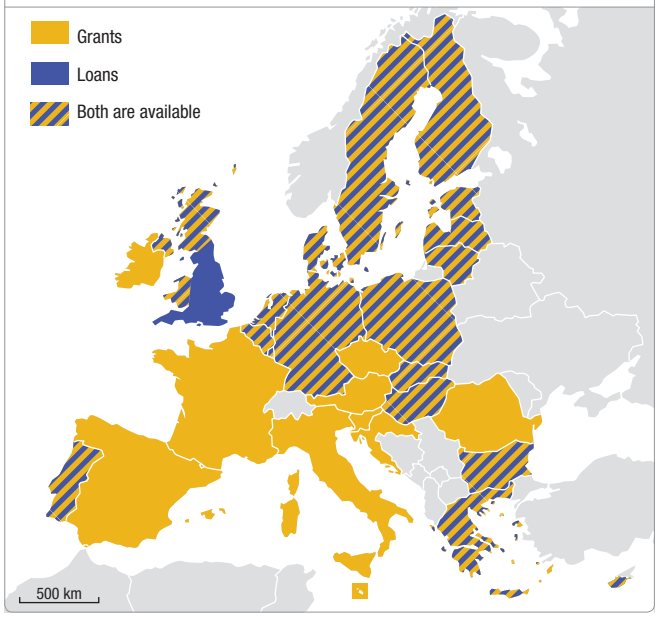
In 2016/2017 students in the EU-28 countries generally turned to financial aid. In 8 countries, including Austria, Belgium, Estonia and Poland, between 10 and 25% of the students received grants **(3.3.4)**. At 35% France has a relatively sizeable proportion of grant-recipients, which is similar to Germany, Ireland, Slovenia and Spain. Lastly Denmark, Finland, Luxembourg, Malta, Sweden and the United Kingdom had an absolute majority of first-cycle students with grants in 2016/2017. ■

📖 See definition p. 68.

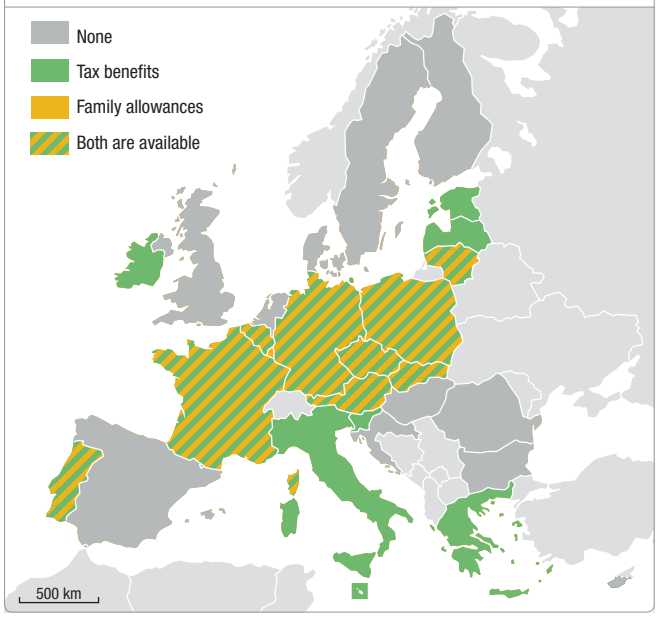
3.3.1 Most common tuition and administrative fees in first cycle higher education programmes in 2017/18



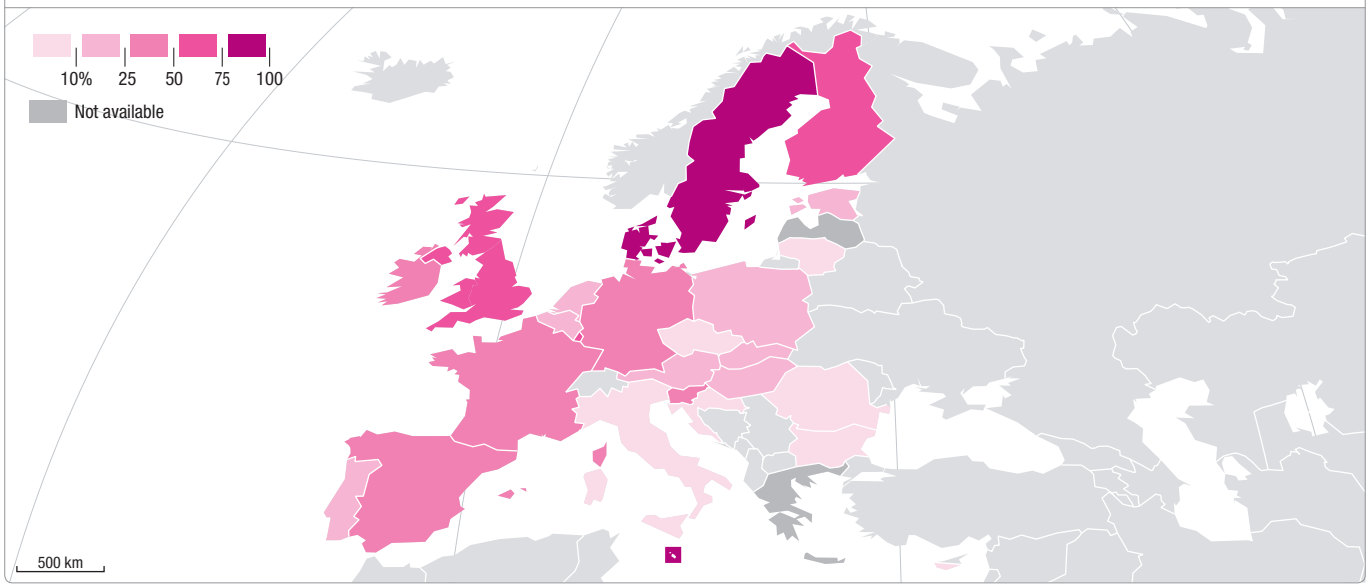
3.3.2 Main types of direct students support available to first cycle full-time students in 2017/18



3.3.3 Main types of indirect students support available to first cycle full-time students in 2017/18



3.3.4 Percentage of full-time students receiving universal or need-based grants in first cycle higher education in 2016/17



↳ Eurydice, *National Student Fee and Support Systems in European Higher Education 2017/2018*, 2017.

4.1 WHO ARE THE TEACHERS?

OLDER TEACHERS AT HIGHER TEACHING LEVELS

In 2015 in the 28-member countries of the European Union teachers' ages were on average higher when the ISCED levels they were teaching in were higher. Among the 23 countries presented here, 9 had 40% of their teachers aged under 40 in ISCED 1. Only 6 countries had in the same situation in ISCED 2, and 4 countries in ISCED 3 **(4.1.1)**. There were however big differences from country to country.

In a first group of countries (Belgium, Croatia, Luxembourg and Malta) the proportion of teachers under 40 was over 40% at each teaching level. A second group (Bulgaria, Greece, Italy, Latvia and Lithuania) had a proportion of "young" teachers under 30% for the three teaching levels. Italy stood out clearly with about 10% of teachers under 40 at each ISCED level. A third group (Finland, France, the Netherlands and Slovenia) had a concentration of older teachers at ISCED 3 (75% were over 40) and relatively young populations at ISCED levels 1 and 2 (about 40% of teachers under 40).

But even where the teaching population was ageing, the number of students did not appreciably fall. In this context, the attractiveness of the teaching profession and training seemed a particularly important issue.

A PREDOMINANTLY FEMALE PROFESSION IN EUROPE

Women were everywhere a large majority in teaching **(4.1.2)**, except at ISCED 3 in Luxembourg where the proportion of women teachers was no more than 50%. It is noteworthy however that this proportion decreased everywhere with the ISCED teaching level. In 2015 women accounted everywhere for more than 80% of the teachers at ISCED 1 except in 4 countries (Greece, Luxembourg, Spain and Sweden), whereas they surpassed this threshold in ISCED 2 in only 3 countries (Bulgaria, Latvia and Lithuania). Only one country (Latvia) had such a largely female teaching population in ISCED 3. The differences, however, were tangible across the EU's countries: in primary-school teaching the proportion of women in the teaching ranks varied from 70% in Greece to 97% in Hungary, Lithuania and Slovenia. The differences were even greater in secondary education (from 50% in Luxembourg to 85% in Latvia).

In the Netherlands the proportion of women in ISCED 2 and 3 was especially low (52% in each case). Women were, however, more present among the young teachers, which well reflects the general increase in the employment rates of women over the past fifteen years in the country.

A LARGE MAJORITY OF TEACHERS WITH BACHELOR'S OR MASTER'S DEGREES

ZOOM

The purpose of the international **TALIS**📖 survey (*Teaching And Learning International Survey*) is to gather declarative data on the teaching environment and the working conditions of teachers in lower secondary education schools (ISCED 2, or collèges in France). The sample for each country is comprised of at least 20 teachers working in 250 schools (public and private) as well as the leaders of these schools (lower secondary principals in France). The survey's first round took place in 2008 (with France not participating). In 2013 34 countries took part in the second round, including 24 member-countries of the OECD and 19 from the European Union. Some countries extended the survey to include teachers and principals of primary schools and upper secondary education.

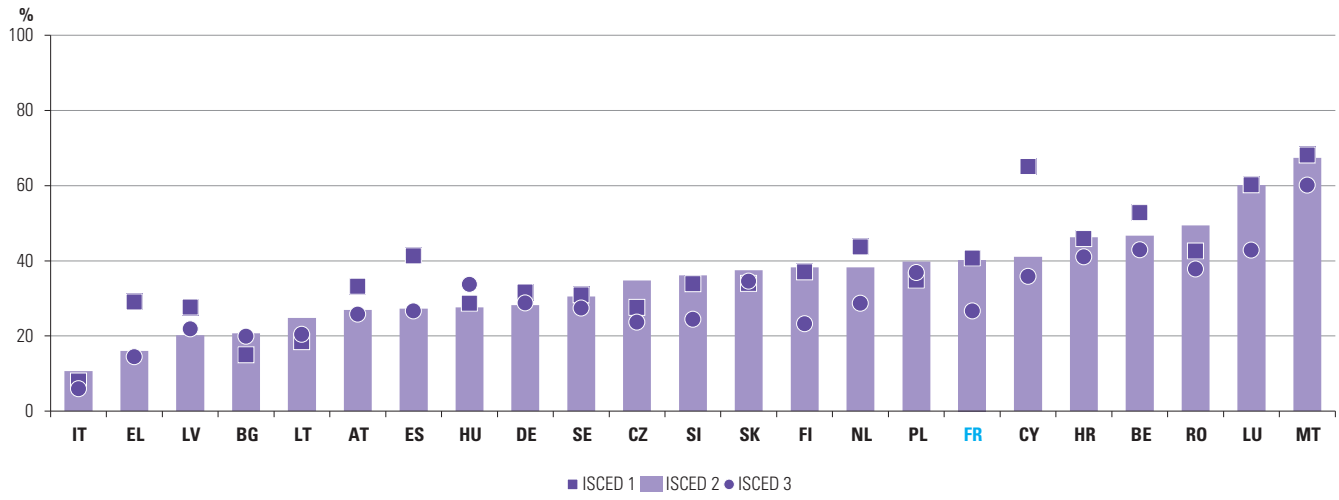
In the countries participating in the 2013 TALIS Survey for ISCED 2 an average of 96% of teachers held a bachelor's or master's degree (ISCED 5 in the 1997 nomenclature). Only 2% of the same teachers held doctorates **(4.1.3)**. In France 97% of lower secondary teachers held bachelor's or master's degrees, and 2% held a doctorate, which placed the country very close to the TALIS average. However, in six participating countries (the Czech Republic, Estonia, Italy, the Netherlands, Spain and Sweden), there was a relatively large proportion of ISCED-2 teachers without a higher education degree.

A very high portion of teachers in Portugal stated they had an educational attainment level of ISCED 6 (12%), which corresponded to a doctorate (or equivalent) in the 1997 nomenclature (ISCED 8 in the 2011 nomenclature). This was due in part to the ranking of masters' degrees in Portugal according to methods inherited from the period prior to the 1999 Bologna Process (*cf.* 2.2, p. 20). ■

📖 See definition p. 74.

4.1.1 Proportion of teachers that are less than 40 years old by ISCED level in 2015

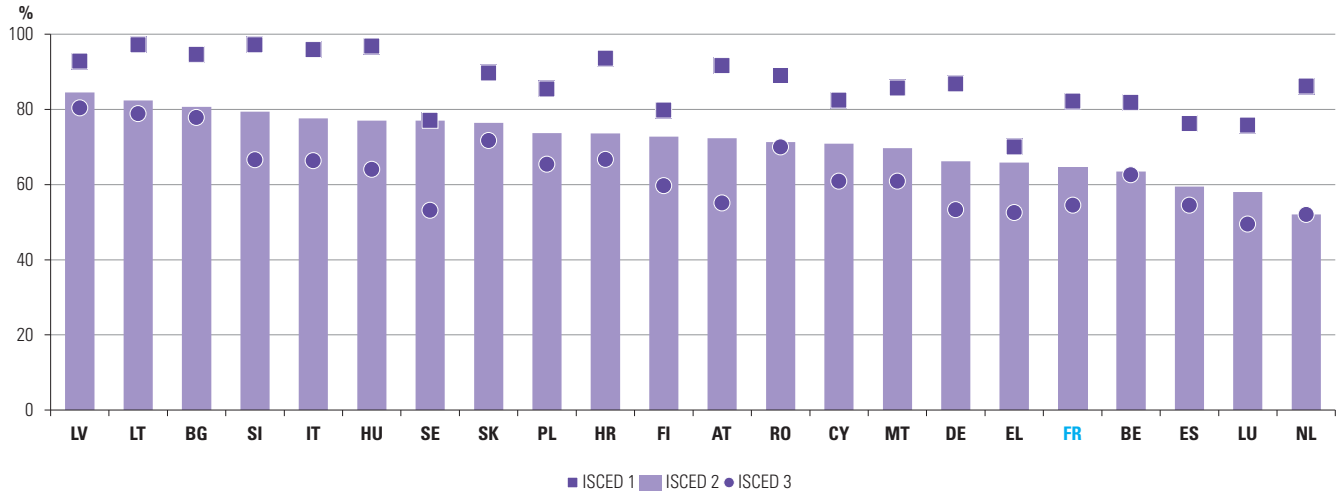
↳ Eurostat, *educ_uoe_perdo1.*



Note: Data for Estonia, Portugal and the United Kingdom are constructed with different methodology and are not presented here. Data for Danemark and Ireland are not available.

4.1.2 Proportion of female teachers by ISCED level in 2015

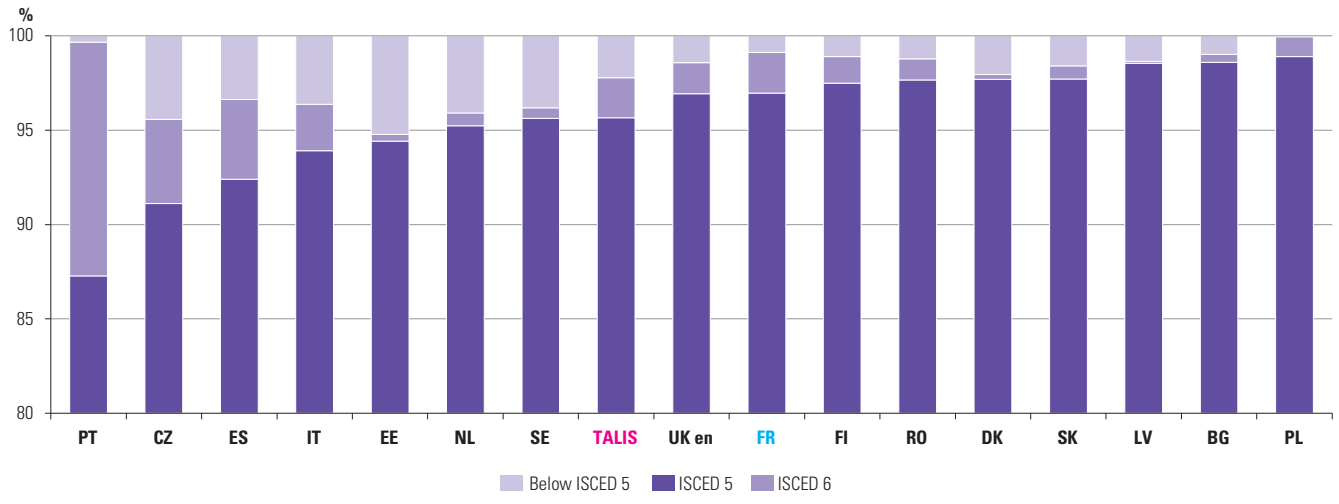
↳ Eurostat, *educ_uoe_perdo3.*



Note: Countries that are not presented in 4.1.1 are also absent here (this also stands for Czech Republic in this indicator).

4.1.3 Distribution of ISCED 2 teachers by highest level of formal education attained in 2013 (ISCED 1997)

↳ OECD, *TALIS 2013*, table 2.2.



Note: In Portugal, Master's degrees that were obtained before the Bologna Process (*cf.* 2.2) were labelled as ISCED 6 diploma in the 1997 nomenclature.

4.2 TEACHERS' WORKING CONDITIONS

EUROPEAN TEACHERS MOST PREDOMINANTLY WORK IN PUBLIC SCHOOLS

Categorising public/private is not self-evident ZOOM

The relative weight of public or private teaching in each country is often an adjunct of the history of the relationships maintained between the State and religious institutions. Teaching given in "private schools independent of the public authorities" is not very extensive in the EU-28. Private education is most often given in "private schools that depend on the public authorities". These Eurostat categories correspond to a clear separation in France. Yet the categorising is not self-evident in certain countries. In the Netherlands, for example, the decision to reclassify private faith-oriented schools into the public sector was made in the early 2000s. The private faith-oriented schools in the Netherlands, which enrol the vast majority of students, are nearly completely funded by the State.

In 2015 in the 28 member states of the European Union teachers worked very predominantly in the public sector. Nonetheless this indicator was subject to the same methodological precautions as that of the distribution of students per type of school (*cf.* 2.6). The proportion of ISCED-1 teachers working in public schools was 95% or more in 8 countries, including Croatia, Finland and the Netherlands **(4.2.1)**. The lowest proportion was found in Malta where over 30% of primary-school teachers worked in private schools.

In ISCED 2 the proportion of teachers in the private sector was slightly higher than in ISCED 1 without the average profile of countries changing **(4.2.1)**. In Cyprus and France this difference between the two ISCED levels was 7 points. In 5 other countries (Italy, Latvia, Portugal, Romania and Slovenia) the proportion of teachers working in public schools was slightly higher in lower secondary education than in primary education.

DIVERSE WORKING TIME REGULATIONS IN ISCED 2

Three categories of teachers' working time can be subjected to regulations, i.e. total working time (most often that which is applied to all workers), the time of required presence in the school, and finally teaching time **(4.2.2)**. In this field there is great diversity in matters of legal or conventional standards in ISCED 2 that exist in countries: Greece, Hungary, Portugal, Scotland and Spain set definitions for the three components, whereas the other countries set regulations for two of the three at best. Greece was the only country where the time full-time teachers were supposed to spend in school was identical to their total working time. England, Estonia, Northern Ireland and Wales did not regulate the minimum teaching time. Lastly, in the countries where no document regulates teachers' total working time, teachers must be present in the school for a minimum number of hours or teach according to a regulated number of hours, or both.

Regulated teaching time (excluding overtime) was seen in many countries in the form of an interval of values defined according to different criteria, e.g. in France the volume varied from 15 to 20 weekly hours depending on the regime to which teachers were affiliated. This time was higher in Germany than in France (24- to 28-hour intervals per week). Finland's regulations were comparable to France's (from 14 to 18 hours) but also set a minimal presence time in the school (21 hours).

FEWER STUDENTS PER TEACHER IN LOWER SECONDARY EDUCATION

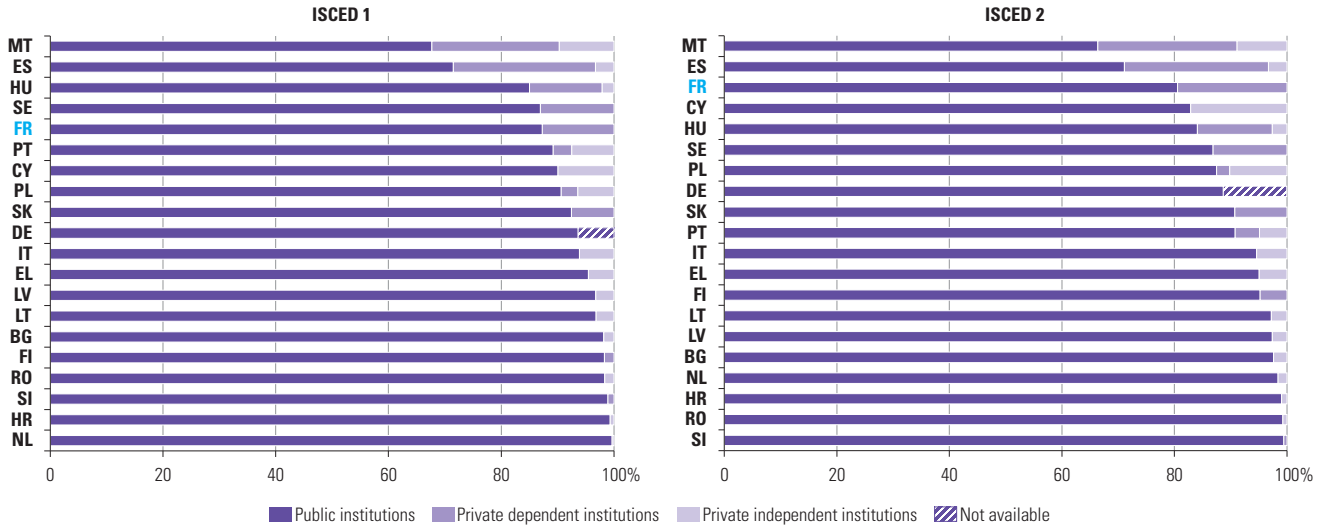
In the European Union in 2015 the **ratio of students to teaching staff**[📖] was less in ISCED 2 than in the other educational levels **(4.2.3)**. Indeed on average in the 22 European Union members of the OECD the ratio was 11 students per teacher in ISCED 2, whereas it was 14 students in ISCED 1 and 12 students in ISCED 3. This average, however, hid numerous national disparities, and two country groups diverged from the rule.

The first group (Italy, Hungary and Luxembourg) was typified by a ratio that was relatively low and nearly identical for each ISCED level. The second group (France and Spain) was defined by a student/teacher ratio that systematically decreased when the educational level increased. Moreover France had the highest ratio in ISCED 1 among the countries presented here (19 students per teacher, the same as the Czech Republic). The fairly low ratio in ISCED 3, moreover, was explained by the large number of options in general and technological education and by the constraints connected to workshop training in vocational education. ■

📖 See definition p. 74.

4.2.1 Distribution of ISCED 1 and ISCED 2 teachers by type of institution in 2015

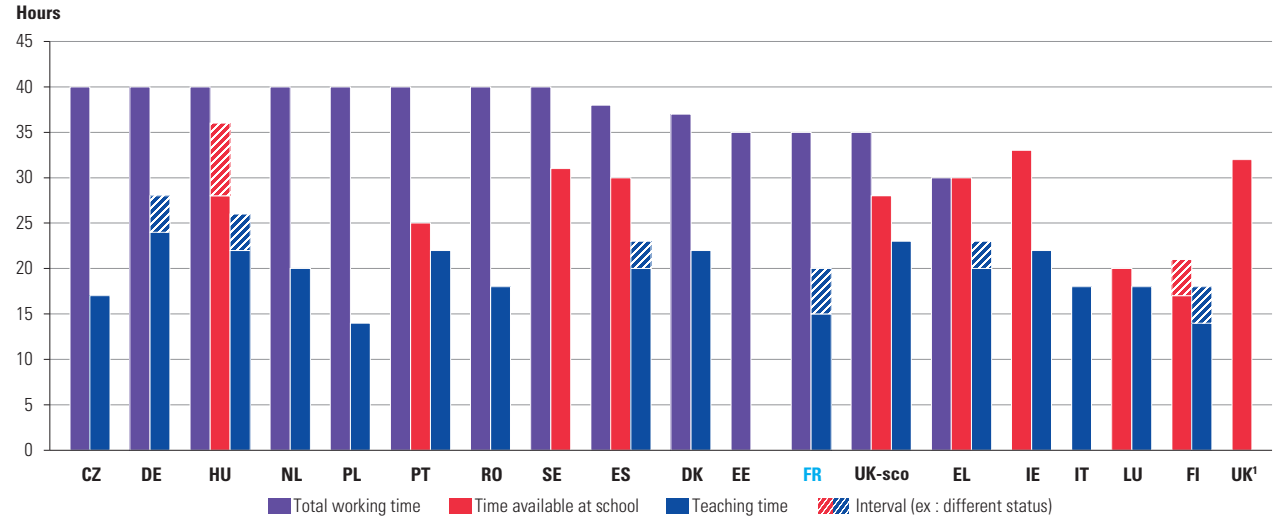
↳ Eurostat, *educ_uoe_perp02*.



Note: Data for the different categories of private institutions are not available in Germany.

4.2.2 Official definitions of the weekly workload in hours of full-time ISCED 2 teachers according to central regulations in 2013/2014

↳ Eurydice, *The teaching profession in Europe*, fig. 1.7.

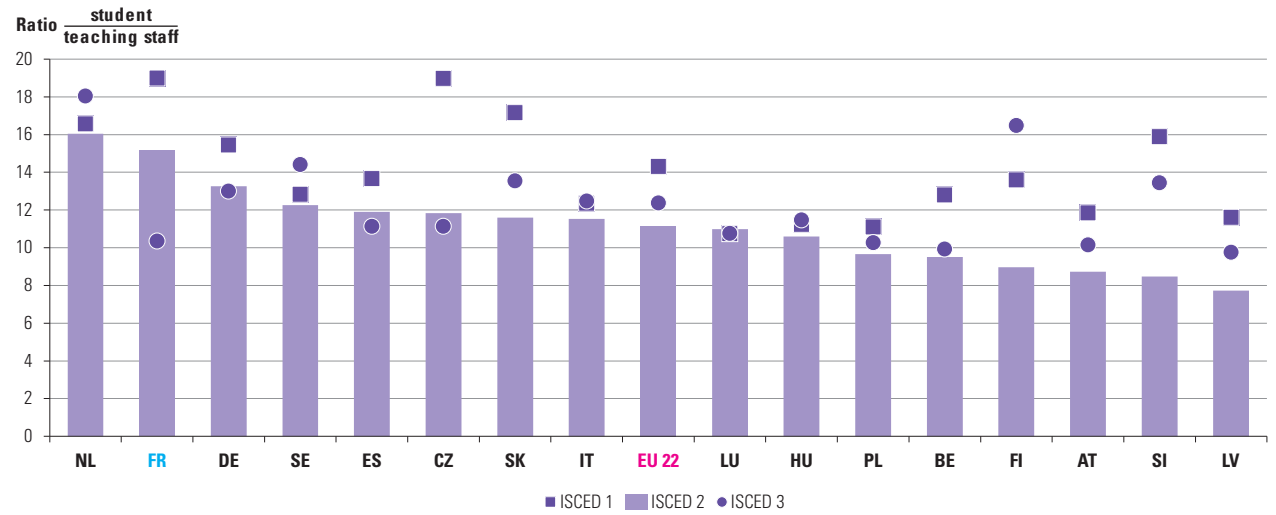


1. UK = eng, wls, nir

Note: In France, the minimal teaching time is the one of the *"agrégés"* teachers (15 hours), while they only represent 5% of ISCED 2 teachers in 2014. The maximal teaching time is the one of certified P.E. teachers (20 hours).

4.2.3 Ratio of students to teaching staff in educational institutions by ISCED level in 2015

↳ OECD, *EAG 2017*, table D2.2.



4.3 TEACHERS' SALARIES

HIGHLY CONTRASTING STATUTORY SALARIES IN THE EUROPEAN UNION

Statutory salaries and actual salaries according to the OECD ZOOM

The OECD estimates the statutory remuneration based on the most representative teacher at the ISCED level 2. It describes the basic gross salary including universal bonuses (maintenance allowances, etc.) of a full-time teacher at different teaching levels to whom a certain seniority is attributed. The typical qualification corresponds to the level of degree attained or to the most frequently observed teacher status (in France: a qualified lower secondary or upper secondary teacher). In contrast, the maximal qualification level corresponds to the level of degree attained or to the highest teacher status (in France, the agrégé). In the past few years the OECD has also gathered data for teachers' actual salaries. In France this data gathering relies on the INSEE's information system about public service personnel (SIASP). Contrary to the statutory salary indicator, the actual salary indicator takes into account all remuneration received (overtime and bonuses). Salaries are expressed in **purchasing power parity**📖 (PPP).

In 2015 ISCED 2 teachers in the 22 European Union member-states of the OECD had starting salary levels above 30,000 USD PPP **(4.3.1)** in eleven countries, including Luxembourg (where the salary was 80,000 USD PPPs), Denmark, France, Germany, the Netherlands and Spain, whereas salaries were under 20,000 USD PPPs in six other countries (including Greece, Hungary and Poland). The differences between start and end of "career" salaries also varied: they are seen here at their theoretical maximum (qualification or status differing between the start and end of career). Although it is suitable to retain the differences of remuneration levels between countries, 2 country groups emerged: the first (Denmark, Finland and Germany) with an overall increase of under 50% over the whole career, and the second (Austria, England and France) with teachers' statutory salaries more than doubling over a career.

Across the countries there was an observable, highly differentiated evolution of salaries over a career. There were three big groups. The first, that of the average of the 22 EU-member countries of the OECD, saw a relatively linear rise of ISCED-2 teachers' statutory salaries. This profile was seen in England, Italy and Luxembourg. The second group, including Denmark, Germany, the Netherlands and Poland, was defined by a very clear rise in statutory salaries at the start of career, then near stagnation once the threshold of 15 years of experience was reached. Lastly, the third group – Finland, France and Spain – was typified by a low rise in statutory salaries at the start of a teaching career, followed by a very clear rise by the end.

THE IMPACT OF THE ECONOMIC CRISIS ON STATUTORY SALARIES

Observed between 2005 and 2015, the average statutory salaries of ISCED-2 level teachers of the 22 EU member-countries of the OECD initially saw a slight rise in salaries between 2005 and 2010, then a slight dip between 2010 and 2015 because of budgetary adjustments made following the financial crisis **(4.3.2)**. Yet this change in the average was not seen in all European countries. Whilst certain countries saw especially large decreasing adjustments between 2005 and 2015 (in particular Greece), others (Latvia and Poland) saw tangible increases in teachers' statutory salaries over the same period. 4 countries – Germany, Latvia, Luxembourg and Poland – saw their statutory salaries rise over the two sub-periods considered. The ISCED-2 teachers' statutory salaries in France, Italy and Scotland remained stable over the two sub-periods.

HIGHER SALARIES IN SECONDARY EDUCATION

The actual salaries of teachers from 25 to 64 years old were on average higher in secondary education than in primary education. In 2015 on average in the 22 countries of the EU-28 member countries of the OECD, the average gross annual actual salaries of ISCED-3 teachers was 47,150 USD PPPs, whereas ISCED-1 teachers earned 41,310 USD PPPs **(4.3.3)**.

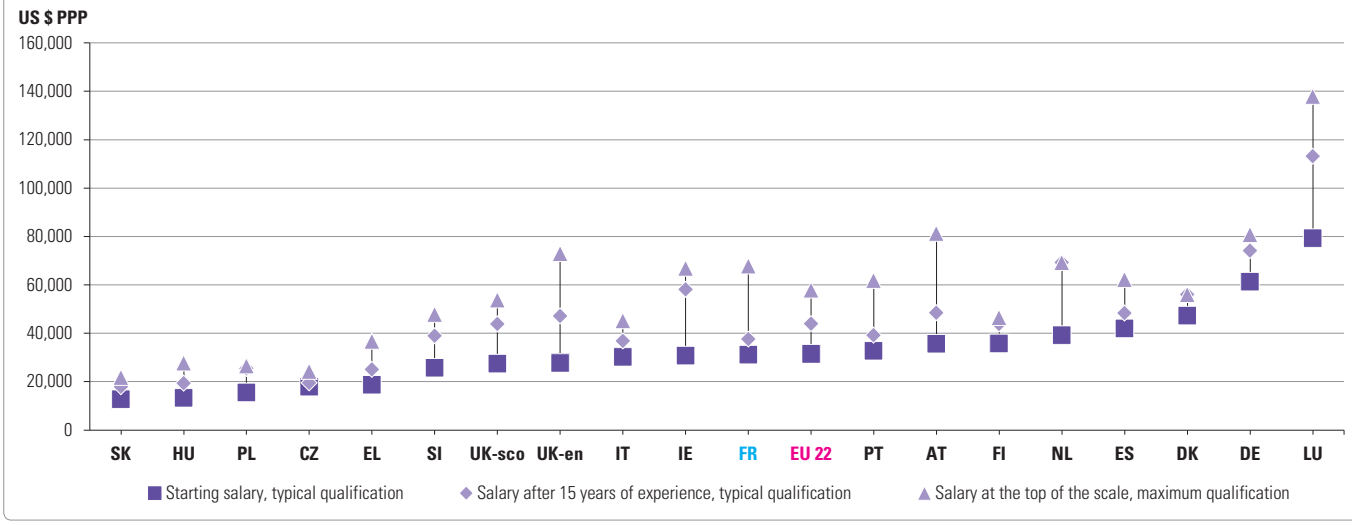
In Germany and the Netherlands teachers' actual salaries were among the highest in the European Union on all educational levels. For German ISCED-3 level teachers the salary was over 70,000 USD PPPs. In France the actual salary was very close to the average of the OECD countries for teachers in the 3 ISCED levels. However it was less than the average at ISCED 1, whilst it was higher in secondary education, in particular in ISCED 3. Lastly, Estonia had identical actual salaries for the three ISCED levels (22,070 USD PPPs), tangibly lower than the average at all these levels.

On average of the 22 EU-member countries of the OECD, it was above all primary-level teachers who faced unattractive salaries when compared to the salaries of other people in employment with a higher-education degree. It is worth remembering, however, that average salaries per country were sensitive to the structure of the teaching populations. So, for example, the large portion of elderly teachers in Germany pulled the actual salary upwards. ■

📖 See definition p. 74.

4.3.1 ISCED 2 teachers' (between 25 and 64 years old) statutory salaries according to their status and seniority in 2015

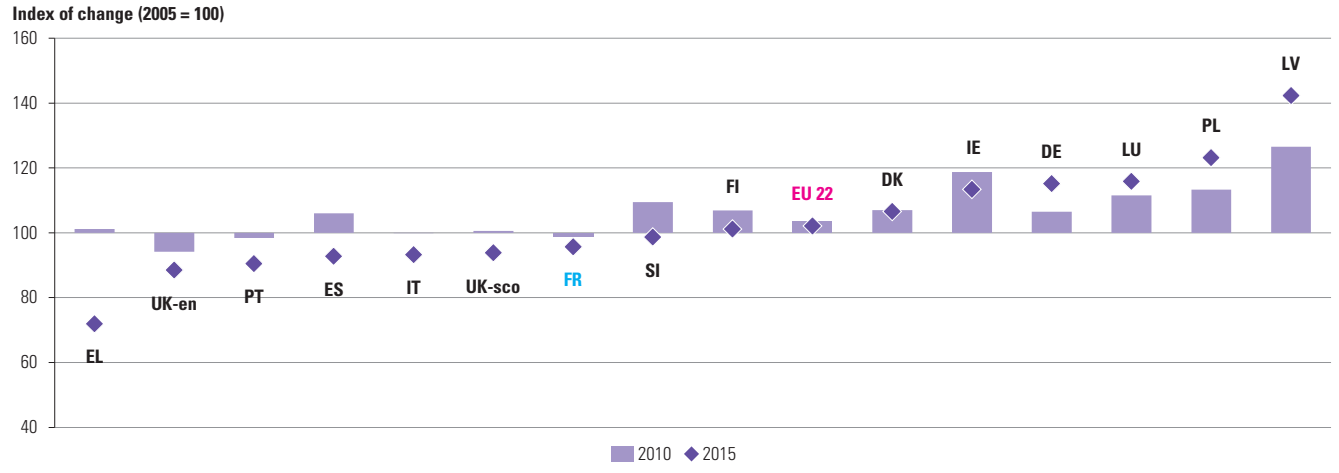
↳ OECD, *EAG 2017*, table D3.1a et table D3.6.



Note: In France, the typical qualification is the "certified" status, and the maximal qualification is the *"agrégé"* status.
Sweden is absent because there is no statutory salary.

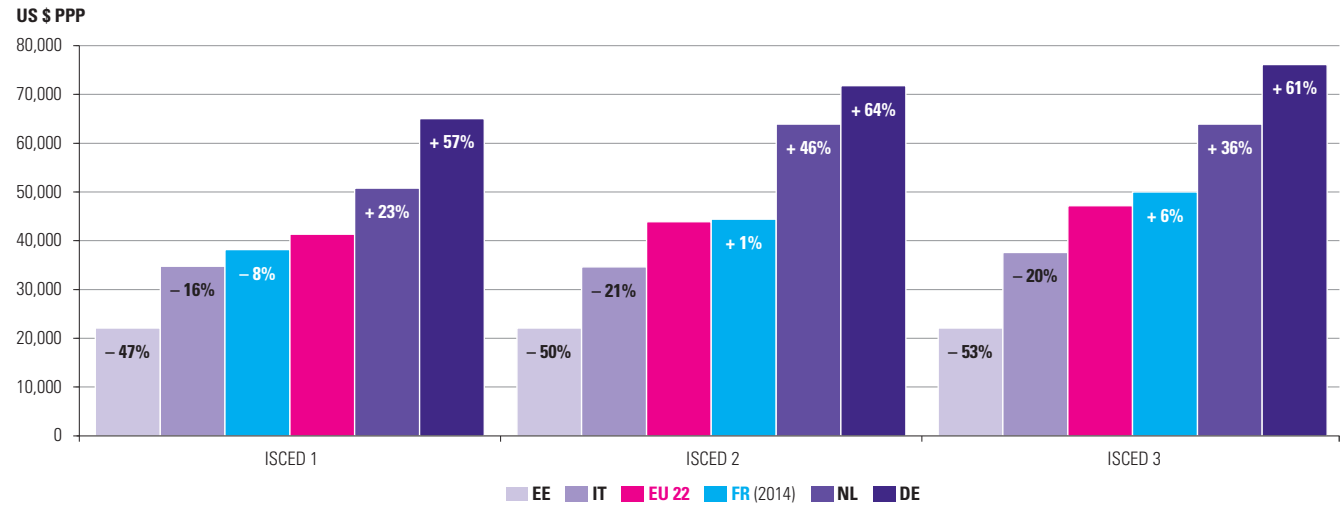
4.3.2 ISCED 2 teachers with a typical qualification (between 25 and 64 years old) statutory salaries' evolution in 2005, 2010 in 2015

↳ OECD, *EAG 2017*, table D3.5a.



4.3.3 Public institutions teachers' (between 25 and 64 years old) gross annual actual salary by ISCED level in

↳ OECD, *EAG 2017*, table D3.4.



Note: In 2015, in Estonia, ISCED 1 teachers receive and actual salary of 22,066 US $ PPP, 47% below OECD average. France data's year of reference is 2014.

4.4 INITIAL TRAINING AND PROFESSIONAL DEVELOPMENT OF TEACHERS

DIVERSE REGULATIONS FOR THE INITIAL EDUCATION OF TEACHERS

Graph **4.4.1** shows the requirements by central regulations supervising the initial education of future teachers in the European Union. In 15 EU countries, including France (from 2009), Germany, Italy and Spain, an initial education level of a master's (ISCED 7 in the 2011 nomenclature) is required. There are two initial education systems that exist in the EU: in the first case, future teachers follow a route with a professional aim from the start of their higher education (the concurrent system); in the second system they begin with academic studies in a subject, and then specialise as teachers (the consecutive system). The concurrent system predominates in the EU 28, with 21 countries adopting it (including Finland, Germany, the Netherlands and Poland). Note that in some countries the two systems may coexist (Austria, Finland, the Netherlands and Poland); in this case the graph indicates which of the two systems predominates.

In 24 countries of the EU 28 initial ISCED-2 teacher education lasts from 4 to 5 years. If we take into account only the predominant or single systems in each country, Italy and Luxembourg are the only ones where the duration of initial education is greater than 5 years. It lasts less than 4 years only in Austria and Romania. Estonia, France, Portugal and Spain share the same initial education profile, i.e. the consecutive system at the master's level. In the Netherlands the degree level attained at the end of initial education has an impact on the teaching level of future teachers: a bachelor's degree is enough to teach in ISCED 2, but a master's degree is required for ISCED 3. In Austria a master's degree is required for teaching in the general secondary education, whereas a bachelor's degree is enough to teach in the vocational secondary education.

PROFESSIONAL DEVELOPMENT IS NOT COMPULSORY FOR ALL TEACHERS IN EUROPE

Graph **4.4.2** shows the status of professional development for ISCED-2 teachers in the central regulations of the EU-28 countries. Three overall systems are differentiated: compulsory professional development with an annual minimum education time for teachers as defined in official documents; the "professional duty", for which a regulatory obligation exists, but without a defined annual hourly quota; and professional development considered as optional. The graph adds an additional dimension to these systems, i.e. the connection between professional development and the career advancement of teachers (promotion or salary rises).

In 22 countries of the EU 28 professional development is compulsory whether or not its annual duration is defined. Regulatory obligations with their duration defined in official documents is a system particularly seen in the central-European countries (Austria, Bulgaria and Slovenia), as well as in the Baltic countries and Portugal. The "professional duty" system is most often seen in EU countries such as England, Finland, Germany and Italy. Only 6 of the EU's countries consider professional development as optional: including Greece, the Netherlands and Sweden. In France, professional development is considered optional even if it may help ISCED-2 teachers advance their careers.

A MAJORITY OF TEACHERS PARTICIPATE IN PROFESSIONAL DEVELOPMENT

Participation in development: what measure? ZOOM

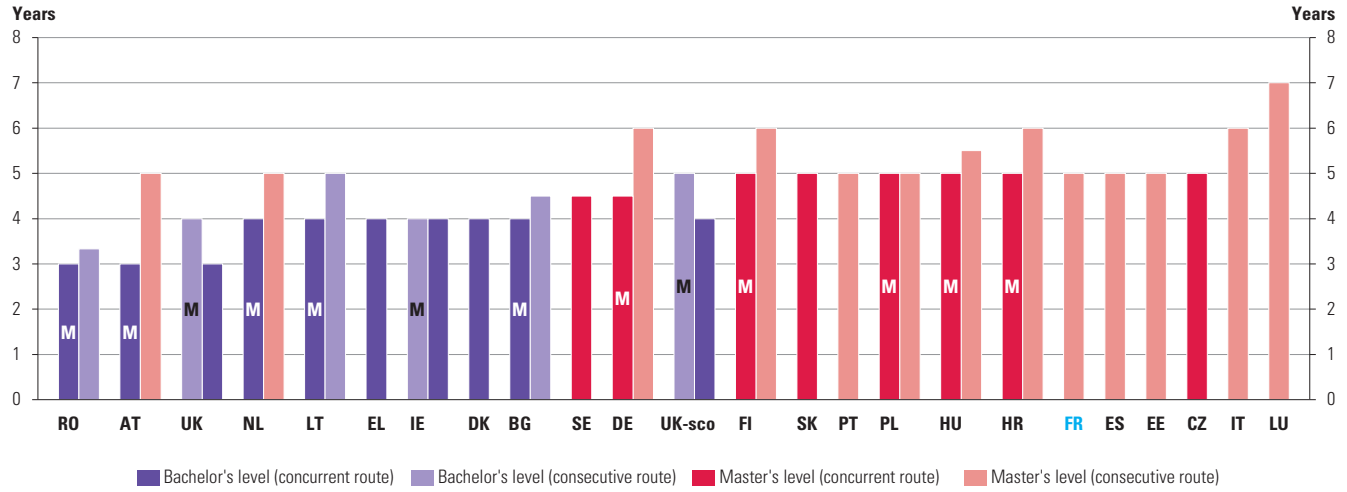
The OECD **TALIS 2013** survey shows the rates of participation of teachers in professional development over the previous twelve months, based on several activity categories, i.e. courses and workshops on subjects taught or teaching methods; education conferences or seminars; visits to other schools; qualification programmes leading to a degree, etc. These various development categories are not mutually exclusive.

In all the countries taking part in TALIS 2013 the participation rates of ISCED-2 teachers in professional development courses or workshops, containing subjects taught and teaching methods over the 12 previous months was 72% **(4.4.3)**. Among the EU countries taking part in the survey, the lowest rate of participation in professional development courses and workshops was in Slovakia at 39%. Only Estonia, Latvia and Poland saw teacher participation rates higher than 80%. The average duration of these courses and workshops was 8 days. Portugal, Romania and Spain were exceptions, however, with durations of 12, 22 and 18 days respectively. In England and Finland ISCED-2 teachers stated they had attended courses that lasted 3 days or less.

Lastly in all countries participating in TALIS 2013 the two fields in which teachers felt where their greatest needs arose were teaching students with special needs (22% of the teachers) and the use of ICT for classroom teaching (19%). The percentages in France of teachers responding to each of these fields were 27% and 25% respectively. ■

4.4.1 Minimum level and total duration of initial teacher education required to teach at ISCED 2 level according to central regulation in 2013/2014

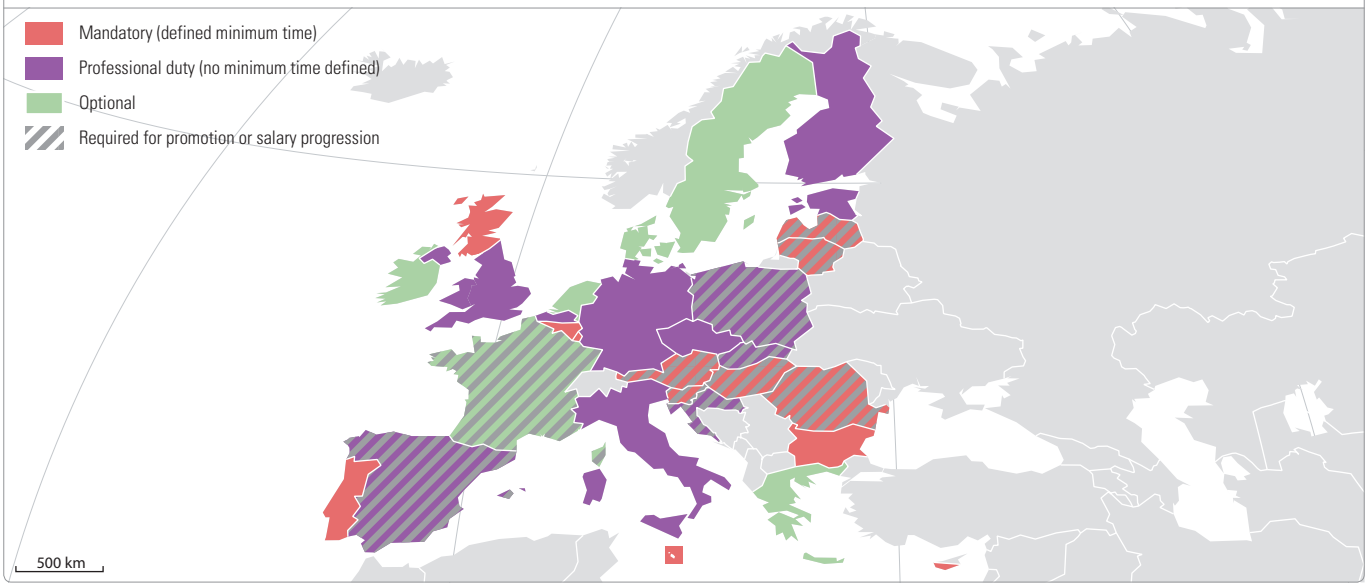
↳ Eurydice, *Teaching profession in Europe*, fig. 2.1.



Note : Bars with a "**M**" written on them represent the predominant initial teacher education system when more than one system exists in a country.

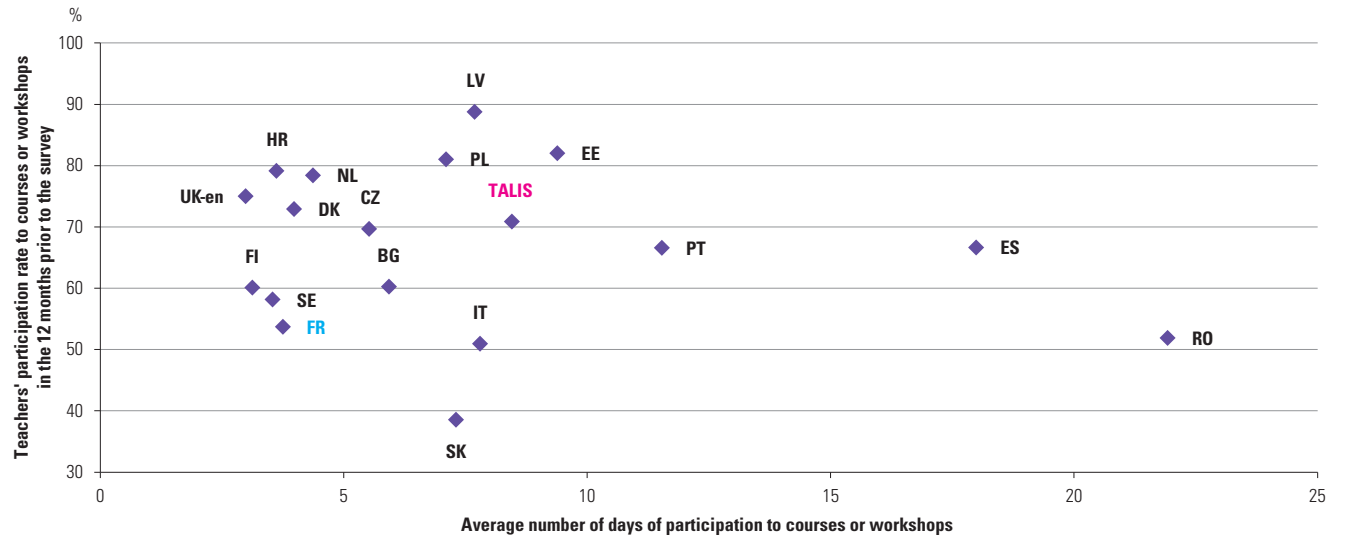
4.4.2 Status of CPD for teachers in ISCED 2 according to top-level authority regulations, 2016/2017

↳ Eurydice, *Teaching careers in Europe*, fig. 3.4, 2018.



4.4.3 ISCED 2 teachers' participation rates and average number of days spent in professional development in the form of courses or workshops in 2013

↳ OECD, *TALIS 2013*, table 4.9 et table 4.9 web.



4.5 PERCEPTION OF THE TEACHING PROFESSION AND ITS IMAGE IN SOCIETY

A PROFESSION LEAVING LITTLE ROOM FOR COLLABORATIVE WORK

The data of the **TALIS** 2013 survey were based on statements by ISCED-2 teachers concerning the real conditions of exercising their profession and on their perceptions of its various dimensions. The survey showed that teaching in numerous countries was seen as a rather solitary profession. On average over 40% of teachers reported they never participated in professional collaborative activities consisting in observing the classroom work of other teachers or teaching a course as a team **(4.5.1)**. This percentage was especially high in France and Spain: 87% and 78% for the first activity and 69% and 63% for the second respectively. Collaborative courses also seemed very rare in Bulgaria and the Netherlands. At the other end of the range are the countries where few teachers reported never observing their colleagues in class, but a good proportion of them reported never teaching together (England, Latvia, Poland and Romania).

Participation in professional development or in activities organised for several classes and age groups (projects, etc.) gave rise more often to collaboration between teaching colleagues. The respondents who reported never participating in these activities were on average only about 20%. There was nonetheless a diversity of situations across the countries. Although France was close to this TALIS average for both activities, such was not the case in Spain, which had a high proportion of teachers who never participated in activities organised collectively for several classes or age groups. In Finland, and even more in Slovakia, a large number of teachers never participated in group professional development.

A LARGE PORTION OF TEACHERS WORKING IN DISADVANTAGED SCHOOLS HAD LESS THAN 5 YEARS OF EXPERIENCE

The TALIS 2013 survey identified several kinds of institutional difficulties faced by teachers, i.e. a concentration of students from disadvantaged social backgrounds, students that had a mother tongue different from that used for teaching or students with special needs (disabilities, precocious students, etc.). Students with special needs were too diverse a group to be presented here. Graph **4.5.2** only shows the first two indicators in the 15 EU countries participating in TALIS 2013 for which the data were statistically significant. It is important to know if the teachers who taught in these schools possessed enough experience to handle the student populations concerned in the best possible way.

TALIS 2013 made it possible to partially answer this question. Of the teachers working in ISCED-2 schools with over 30% of students from disadvantaged backgrounds, 20% on average had 5 years or less of experience. Also of the teachers working in ISCED-2 schools with more than 10% non-native speakers, 19% had 5 years of experience or less. This average, however, did not make it possible to see the disparity in national situations. Take the cases of Croatia, Romania and the United Kingdom, for example, where new teachers were over-represented in these schools. In contrast relatively inexperienced teachers in Bulgaria, Italy, Latvia and Spain were under-represented in these schools. France, with less than 15% of new teachers in schools faced with these difficulties, stood in a relatively advantageous position.

TEACHERS SAID THEY WERE BOTH SATISFIED WITH THEIR PROFESSION YET LITTLE VALUED BY SOCIETY

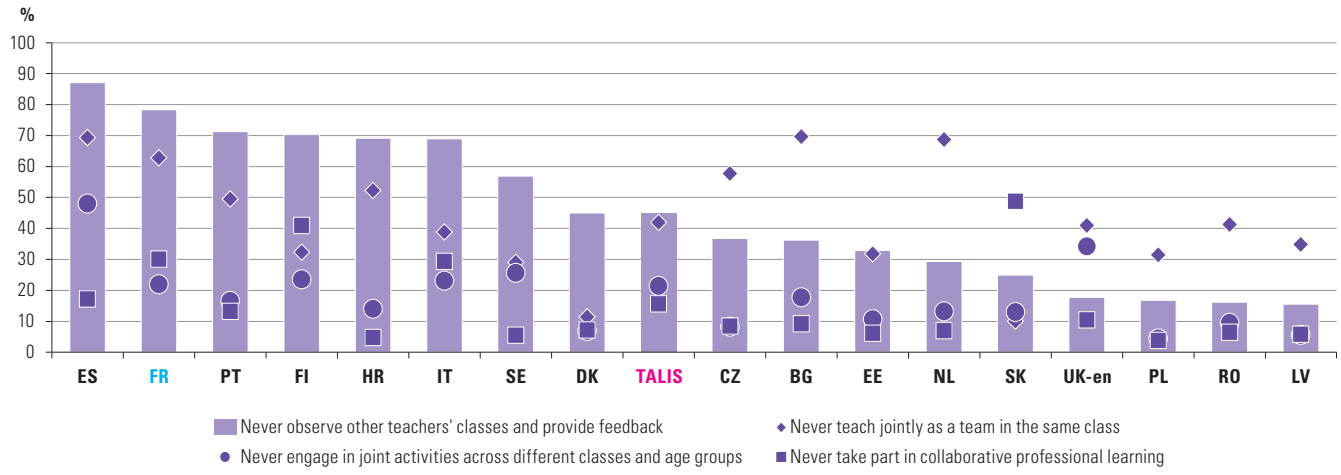
The TALIS 2013 highlighted an apparent paradox. On the one hand a majority of teachers reported that they were satisfied with their profession. In all of the countries participating in the survey 91% of ISCED-2 teachers said they were satisfied **(4.5.3)**. On the other hand only 31% said they had the feeling that the teaching profession was valued by society.

In 13 European countries among the 18 participating in the survey, over 90% of their teachers said they were satisfied with their profession. This was the case for Estonia, Finland, Italy and Spain with the minimal value being seen in England (82%). Simultaneously in more than half of the countries (including France and, once again, Estonia, Italy and Spain), 15% at most of the teachers felt that society valued their profession. This feeling of value was more highly developed in Finland (59%) and the Netherlands (40%), whereas it was especially low in France (5%), Slovakia (4%) and Sweden (5%). ■

See definition p. 74.

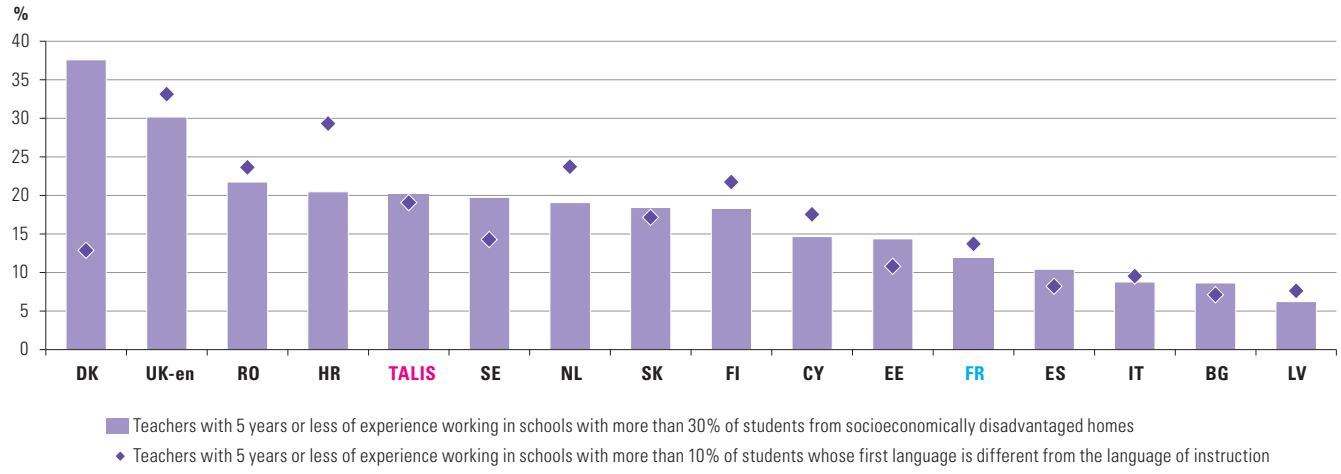
4.5.1 Percentage of teachers who report never doing the following activities in ISCED 2 in 2013

↳ OECD, *TALIS 2013*, table 6.15.



4.5.2 Proportion of teachers with 5 years or less of experience working ISCED 2 institutions that concentrate difficulties in 2013

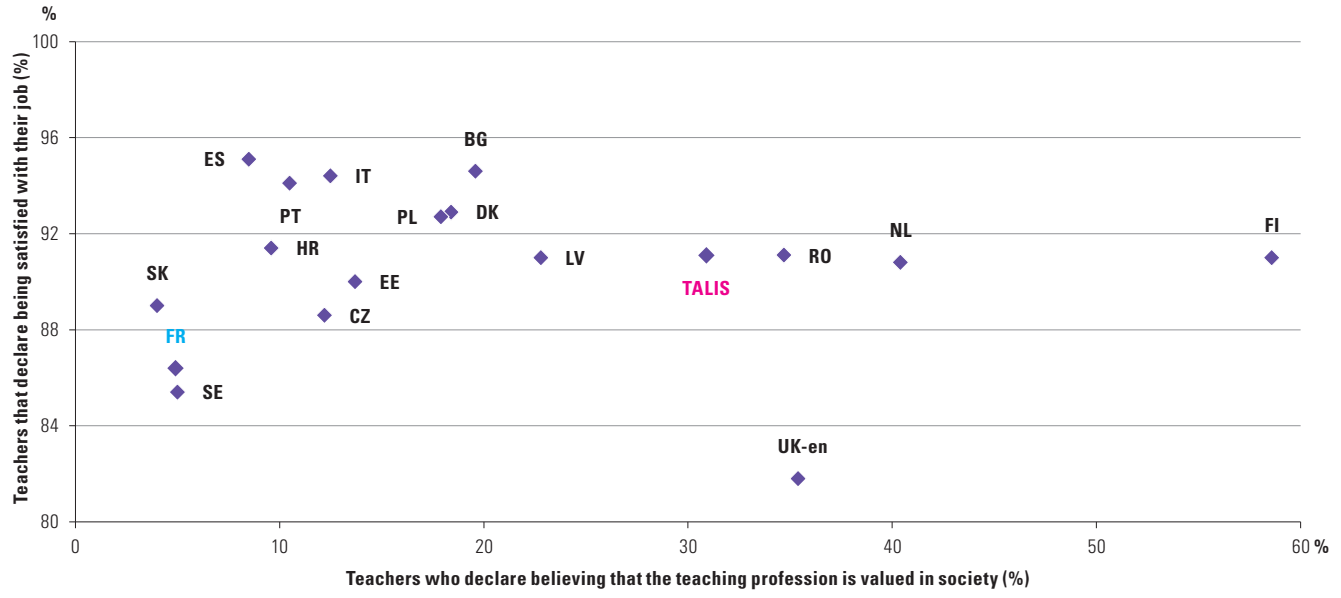
↳ OECD, *TALIS 2013*, table 2.11.



Note: In France, among the teachers that work in ISCED 2 schools where 30% or more of pupils come from socioeconomically disadvantaged households, 12% have 5 years or less of experience (88% have more than 5 years of experience). In the same country, among the teachers that work in ISCED 2 schools where 10% or more of pupils whose first language is different from the language of education, 14% have 5 years or less of experience (86% have more than 5 years of experience).

4.5.3 Teachers' job satisfaction and how teachers think their profession is valued in society in 2013

↳ OECD, *TALIS 2013*.



5.1 EDUCATION AND TRAINING 2020

A shared strategy driven by the European Commission ZOOM

The education and training policies have won a new place in the European Union (EU) since the adoption in 2000 of the Lisbon strategy which made «knowledge» the pillar of economic and social development. A year later the Member States and the European Commission defined a framework of co-operation in the fields of education and training. The current strategic framework, *Education and Training 2020*, was implemented in 2009 as an integral part of the Europe 2020 strategy.
The EU disposes of the ability to support, co-ordinate and complement the action of Members States. Although each of them maintains policy sovereignty in applying the principle of subsidiarity, the effects on the national management of the educational and training systems are significant.

SEVEN BENCHMARK CRITERIA DEFINED

Each of the following targets have been set by the European Union for 2020:

1. Early leavers: The rate of young people from 18 to 24 who have left the education system without graduating and without doing training over the four weeks previous to the survey should not surpass 10% (*cf.* 5.2, p. 52);
2. Higher education graduates: the proportion of people from 30 to 34 years old that have a degree from higher education should be at least 40% (*cf.* 5.3, p. 54);
3. Early education: the participation in pre-primary education of children aged between 4 and the age of compulsory education should be at least 95%;
4. Proficiency baseline in reading, mathematics and science: The percentage of underachieving young people aged 15 as measured by PISA in each of these subjects should be below 15% (*cf.* 5.4, p. 56);
5. Life-long learning: the participation of adults (25 to 64) in life-long educational and training activities should be at least 15%;
6. Mobility for learning purposes: Two goals have been set, i.e. **a.** at least 20% of higher education graduates should have a period of study or training abroad related to this education (including internships), acquiring a minimum of 15 ETCS credits or for a period of at least three months; **b.** At least 6% of the 18 to 34 year-old graduates of initial vocational education and training should have done a period of study or training abroad related to this type of learning or training (including internships) of at least two weeks. *These two targets are not yet measured by Eurostat;*
7. The employability of recent graduates: the employment rate of recent graduates of upper secondary and tertiary education aged from 20 to 34 having left the education and training system for a maximum of three years should be at least 82%.

Beyond these shared goals, countries have sometimes set their own national goals that are either more demanding than the shared target or less. For example in the case of early leavers, France has set more stringent goals of 9.5% instead of 10%, whereas Spain has set a less demanding threshold of 15%.

THE EUROPEAN UNION COUNTRIES REGARDING THE SEVEN BENCHMARK CRITERIA

Although these goals have been set for the entire European Union, they are subject to follow-up by the European Commission for each of the EU countries.

On average in the EU-28 in 2016 no goal was attained, although the goals for early leavers, tertiary education attainment and participation in pre-primary learning are nearing the mark. **(5.1.1)**. On national levels the two most commonly attained goals per country are those for early leavers and the percentage of tertiary education-attainment graduates. Each target was attained by 17 countries (including France for both goals) of the 28 European Union Members **(5.1.2)**. In 2016 only 7 countries (including Denmark, Finland and France) attained or surpassed 4 or more goals of the 6 that are subject to measurement in the Education and Training 2020 strategy, and none attained all the goals. Only Bulgaria, Portugal and Romania have attained none of the goals. Lastly only Estonia and Finland attained or surpassed each of the three PISA sub-goals. ■

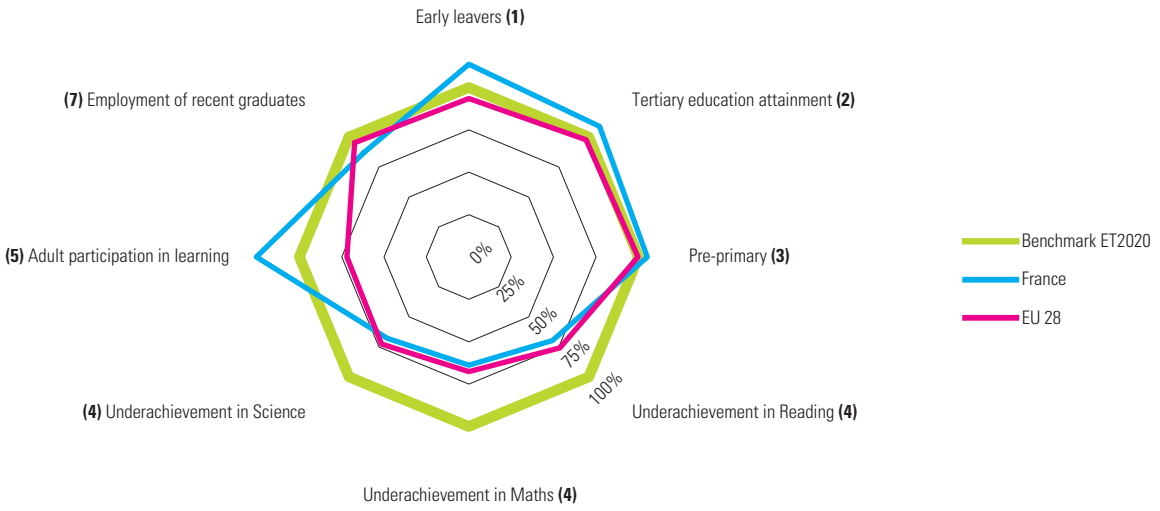
Survey on types of work and benchmark criteria ZOOM

Early leavers, the percentage of tertiary education graduates and adults in training are measured from the **EU labour force survey (EU LFS)**[🕮]. In France the continuous employment survey is the section of the survey on the labour force. Although they enable it, these surveys were not initially designed to measure education levels, encouraging a certain caution about the international comparison of data. Given the size of the survey's samples, moreover, comparing data to the nearest decimal has limited relevance.

🕮 See definition p. 74.

5.1.1 Relative position of France and of the EU 28 with respect to Education and Training 2020 targets, as of 2016

↳ Eurostat.



Note: As of 2016, France achieved and went beyond 4 targets of Education and Training 2020 framework: Adult participation in learning, Early leavers of education and training, Tertiary education achievement and Early childhood education and care. The Early leavers objective, with a 8.9% score for France, (which is below the 10% threshold), is translated on the figure by a 10/9*r radius,if r is the European target's radius.

5.1.2 The 28 countries of the European Union's situation regarding each Education and Training 2020 headline target, as of 2016

↳ Eurostat.

2016	Early leavers (1)	Tertiary education attainment (2)	Pre-primary (3)	Underachievement in Reading (4)	Underachievement in Maths (4)	Underachievement in Science (4)	Adult participation in learning (5)	Employment of recent graduates (7)
Target	**10**	**40**	**95**	**15**	**15**	**15**	**15**	**82**
EU 28	10.7	39.1	94.8	19.7	22.2	20.6	10.8	78.2
BE	**8.8**	**45.6**	**98**	19.5	20.1	19.8	7	81.2
BG	13.8	33.8	89.2	41.5	42.1	37.9	2.2	72
CZ	**6.6**	32.8	88	22	21.7	20.7	8.8	**86.7**
DK	**7.2**	**47.7**	**98.5**	**15**	**13.6**	15.9	**27.7**	**83.9**
DE	10.2	33.2	**97.4**	16.2	17.2	17	8.5	**90.2**
EE	10.9	**45.4**	91.6	**10.6**	**11.2**	**8.8**	**15.7**	77.1
IE	**6.3**	**52.9**	92.7	**10.2**	**15**	15.3	6.4	79.5
EL	**6.2**	**42.7**	79.6	27.3	35.8	32.7	4	49.2
ES	19	**40.1**	**97.7**	16.2	22.2	18.3	9.4	68
FR	**8.9**	**43.6**	**100**	21.5	23.5	22.1	**18.8**	71.7
HR	**i**	29.5	73.8	19.9	32	24.6	3	72.5
IT	13.8	26.2	**96.2**	21	23.3	23.2	8.3	52.9
CY	**7.7**	**53.4**	89.6	35.6	42.6	42.1	6.9	73.3
LV	**10**	**42.8**	**95**	17.7	21.4	17.2	7.3	81.4
LT	**4.8**	**58.7**	90.8	25.1	25.4	24.7	6	**82.4**
LU	**5.5**	**i**	**96.6**	25.6	25.8	25.9	**16.8**	**85.4**
HU	12.4	33	**95.3**	27.5	28	26	6.3	**85**
MT	19.6	29.8	**100**	35.6	29.1	32.5	7.5	**96.6**
NL	**8**	**45.7**	**97.6**	18.1	16.7	18.5	**18.8**	**90.1**
AT	**6.9**	**40.1**	**95**	22.5	21.8	20.8	14.9	**87.6**
PL	**5.2**	**44.6**	90.1	**14.4**	17.2	16.3	3.7	80.2
PT	14	34.6	93.6	17.2	23.8	17.4	9.6	73.8
RO	18.5	25.6	87.6	38.7	39.9	38.5	1.2	69.3
SL	**4.9**	**44.2**	90.5	15.1	16.1	**15**	11.6	76.7
SK	**7.4**	31.5	78.4	32.1	27.7	30.7	2.9	79.6
FI	**7.9**	**46.1**	83.6	**11.1**	**13.6**	**11.5**	**26.4**	77.4
SE	**7.4**	**51**	**95**	18.4	20.8	21.6	**29.6**	**86.7**
UK	11.2	**48.1**	**100**	17.9	21.9	17.4	14.4	**84.4**

Note: Figures in bold represent the cases where the country already reached the objective of the Education and Formation 2020 framework. For instance, as of 2016, with 6.6% of Early leavers, Czech Republic already reached the common target of 10%. The letter "i" designates statistically inconsistent data due to the size of the sample.

5.2 EARLY SCHOOL LEAVERS

Early school leavers: what are we talking about? ZOOM

Young people are in an early school-leaving situation when they are from 18 to 24 years old and have achieved a low level of education, have left the education system and have had **no formal**📖 or **non-formal education**📖 in the four weeks prior to the survey. Persons defined as having "low levels of education" (ISCED 0-2) have an educational attainment level lower than or equivalent to the end of the first cycle of secondary education or those prepared beyond this first cycle but with a timeframe strictly less than two years, or those leaving before 11 years of cumulated education from the beginning of ISCED 1. Early leavers in France have not attained a CAP, a BEP or any higher degree.

A MEASUREMENT DEPENDENT ON THE CLASSIFICATION OF DEGREES

Two examples show the difficulty of classifying degrees per country. The first stems from the existence of attainment levels coming in the middle of a cycle and not at the end: Malta, the education system of which is very close to that of the United Kingdom, nonetheless did not practise the same classification for the holders of the General Certificate of Secondary Education (GSCE, *cf.* 2.2, p. 20) because of applying ISCED 1997 late. A Eurostat simulation exercise for the years 2010 and 2011 made it possible to show that only the reclassification of holders of the GCSE from ISCED 2 to ISCED 3 made the indicators of early leavers in Malta drop by more than 10 points. The second example concerns the vocational training degrees obtained in less than two years which exist in numerous eastern European countries. In these countries it appears difficult to classify as early leavers the holders of such degrees that traditionally give access to the labour market.

THE GAPS BETWEEN COUNTRIES REMAIN CONTRASTED DESPITE AN OVERALL REDUCTION

In the 2016 European Union the average rate of early leavers stood at 11%. Romania and Spain (19%) and Malta (20%) had the highest rates in Europe **(5.2.1)**. At the other end of the spectrum 9 countries (including Austria, Ireland and Poland) had fewer than 7% early leavers. A last group of countries (including Finland, France and the Netherlands) occupied an intermediate position (between 8 and 10%). 17 countries in 2016 reached the Europe 2020 goal of fewer than 10% of early leavers. It is noteworthy that there was an overall drop in the rates of early leavers in the EU with the European average reducing from 15% to 11% between 2007 and 2016. In that decade a similar evolution was achieved for both genders **(5.2.2)**. The gap favouring females was nonetheless reduced slightly, from 4 points in 2007 to 3 points in 2016.

Determined, co-ordinated political actions seemed to bring results. In the Netherlands, for example, the policy revolves around three pillars, i.e. the law now imposes on underachieving students one or two additional years of part-time education until the age of 18 and makes it compulsory for schools to report leavers; the early identification of absenteeism and early leaving makes it possible to individually follow those students implicated; a contract between State-town-school stimulates the co-ordination of stakeholders locally and makes it possible to better orient early leavers to the vocational track in close collaboration with economic stakeholders. Lastly, financial incentives have been put in place for the schools managing to reduce the number of their early leavers.

Moreover, public policies in the fight against school leavers don't very often include the dimension of gender. However, the Swedish programme can be mentioned, *#jagmed* (literally "me too"), the main goal of which is to identify and prevent cases of school leaving, as well as encouraging already-departed students to resume their studies. This regional programme is aimed at students of both genders from 15 to 24 and focuses on the second cycle of secondary education. One of its main actions is to develop counselling in educational orientation so as to enable each student to have as broad a view as possible of their career choices by "defusing" orientations that are traditionally monopolised by one gender or the other. Although rare, these strategies also seek to deconstruct certain gender stereotypes more generally in the society as a whole.

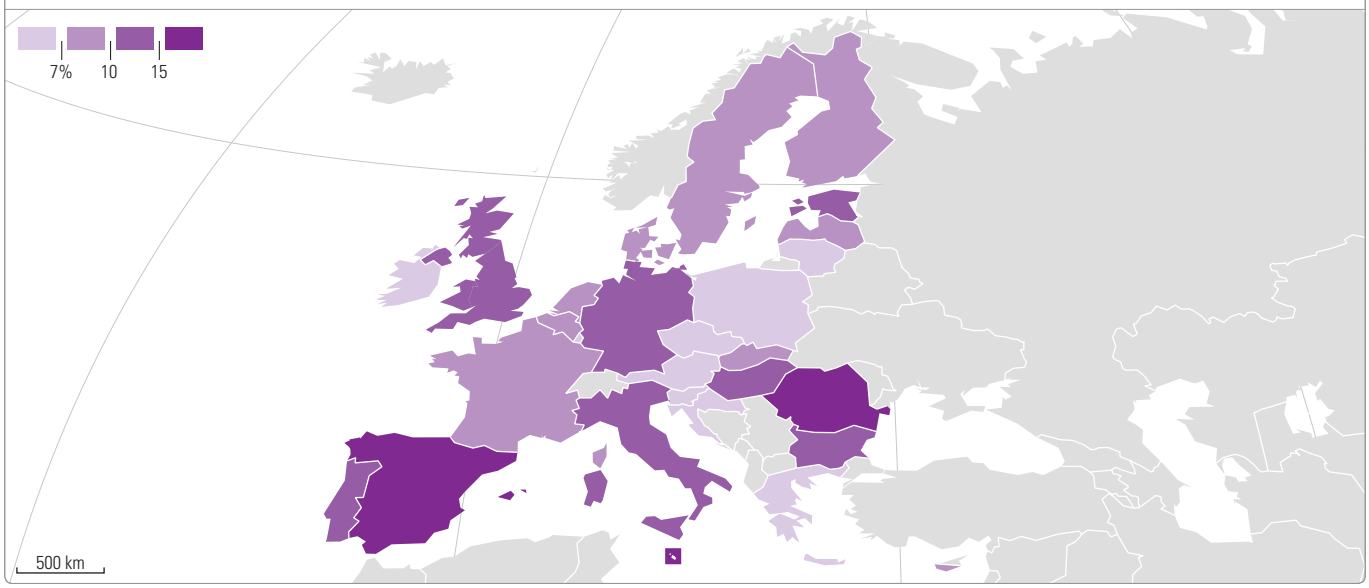
WOMEN: LESS CONCERNED BY EARLY LEAVING BUT PENALISED MORE ON THE LABOUR MARKET

Women are less concerned than men by leaving school early. Among the countries presented in figure **5.2.3**, only the Czech Republic and Romania show nearly identical rates for both genders. In Italy, Portugal and Spain the gap between men and women comes to or surpasses 5 percentage points. With its 3-point gap between men and women, France is near the European average. For all that, although more men than women are early leavers, the latter more often occupy the status of inactivity than men. Yet the higher rate of employment of male early leavers says nothing about the quality of the employment. ■

📖 See definition p. 74.

5.2.1 Proportion of early school leavers among 18-24 year olds in 2016

↳ Eurostat ; *edat_lfse_14.*

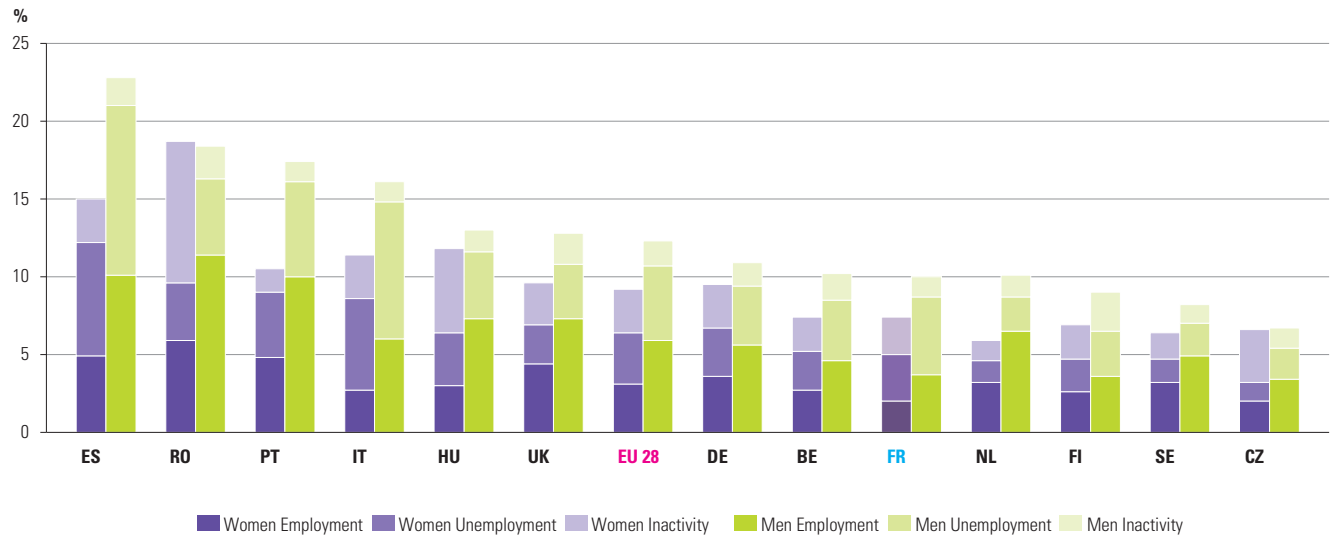


5.2.2 Proportion of early school leavers among 18-24 year olds by gender in the EU 28 and in France between 2007 and 2016

↳ Eurostat ; *edat_lfse_14.*

5.2.3 Early school leavers by labour status and gender in 2016

↳ Eurostat ; *edat_lfse_14.*



5.3 THE EDUCATIONAL ATTAINMENT LEVELS OF THE 25 TO 34 YEAR-OLDS

THE GREAT MAJORITY OF YOUNG EUROPEANS HAVE ATTAINED DEGREES

The proportion of the 25 to 34 year-old population with at least a degree from the second cycle of secondary education (ISCED 3) has risen within the European Union. Between 2007 and 2016 the percentage of the 25 to 34 year-olds attaining at least ISCED-3 level or above rose from 79% to 83% in the EU-28. Malta and Spain were the only countries of the EU-28 whose rate of secondary education attainment was under 70% in 2016 **(5.3.1)**.

One of the priority goals of the Europe 2020 strategy is to reach, even surpass, the threshold of 40% of tertiary education graduates among the 30 to 34 year-olds by 2020. In 2016 this rate was 39% on average in the EU-28 **(5.3.2)**. In all, 18 countries reached or surpassed this target. The highest rates in the EU-28 were for the most part located in northern Europe (Lithuania 59%, Ireland 53% and Sweden 51%). The lowest rates were seen in Italy and Romania (26%). France more than met the European target (44%).

The proportion of higher education graduates does not always reflect the performance of a national educational system. The brain gain/drain, for example, which corresponds to the migration of highly skilled individuals, influences this rate upwardly if the welcoming country receives an already trained person or downwardly when the country trains them, then sees them emigrate (*cf.* 5.2, p. 48). In some cases, the influence of the apprenticeship in vocational education (Germany) or the tracks of secondary education leading to professions (eastern Europe) can "compete" in continuing higher education. Lastly and generally speaking, countries presenting a high rate of early leavers have also had a relatively low rate of higher education degrees. Spain, however, showed a situation where the two indicators didn't follow this pattern, with 40% rate of higher-education degrees despite an early-leavers rate of 19% in 2016.

THE GAP BETWEEN MEN AND WOMEN WIDENED TO THE LATTER'S ADVANTAGE

In the 2016 EU-28 the proportion of individuals aged between 30 and 34 have a higher average education attainment than 10 years before. On average in the 28 countries the percentage of ISCED 5-8 graduates among the 30 to 34 year-olds rose from 30% in 2007 to 39% in 2016. This average faithfully reflects the national situations where men and women nearly systematically more often earned ISCED 5-8 degrees in 2016 than in 2007. There were only 4 cases where the proportions fell. This was the case for men in Cyprus (-0.5 of a point) and in Spain (-2.3 points), as well as for both genders in Finland (-0.9 of a point for men and -1 point for women). The portion of women with higher education degrees was already higher than the men in 2007, meaning that the gap between both genders was increased over the following period **(5.3.3)**. In 2016 the only EU country where women did not hold more higher-education degrees than men was in Germany.

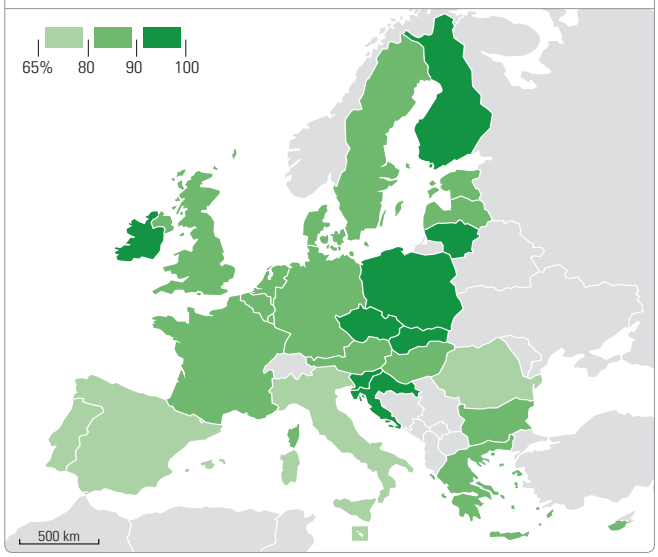
WOMEN WITH MORE DEGREES BUT LESS PRESENCE IN THE SCIENTIFIC FIELDS

Few European countries have centred their policies for developing higher education on the issue of gender. Where such policies exist, they have single leverage: the balance in gender in the higher tracks and two main goals related to the labour market. The first among them was to reduce inequalities between men and women, whether it be inequality in pay or job opportunities. The second was to regulate the needs of skilled personnel on the labour market. Although the overarching strategy consisted in creating a balance within tracks, two approaches could nonetheless be distinguished. The first consisted in promoting tracks among students in secondary education in which women in particular were not inclined to go. This approach was particularly seen in France and the United Kingdom. The second approach, adopted in Norway (a non-EU country) resorted to more direct action by public authorities. The Norwegian system of candidates for higher learning works on the principle of classifying candidates by a central body for managing admissions to higher education. Several criteria are taken into account in decision-making for a candidate (academic achievement in secondary education, age, gender, the regional distribution of students, etc.). Coefficients are attributed to these criteria with the academic results remaining primary, but the student's gender can also influence the decision. For example a higher coefficient is given to women who apply for engineering, maritime or agricultural programmes.

However this balance between the genders in the higher-education tracks has not been achieved in Europe. Women have been the majority presence in training leading to teaching or the fields of health, literary or artistic subjects and the social sciences; women were much less numerous in training for the sciences, ICTs, engineering or the manufacturing industries **(5.3.4)**. In as much as higher education degrees provide relative protection from unemployment and the risk of poverty, the orientation of women into secondary and tertiary teaching goes some way to explaining some of the inequalities in pay and status between the genders. ■

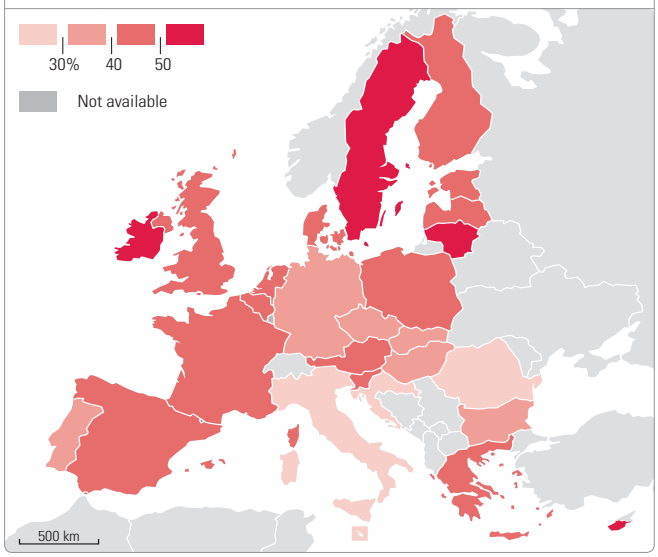
5-3-1 Proportion of 25-34 year olds with at least an upper secondary educational attainment in 2016

↳ Eurostat ; *edat_lfse_03.*



5-3-2 Proportion of 30-34 year olds with a Tertiary education educational attainment in 2016

↳ Eurostat ; *edat_lfse_03.*

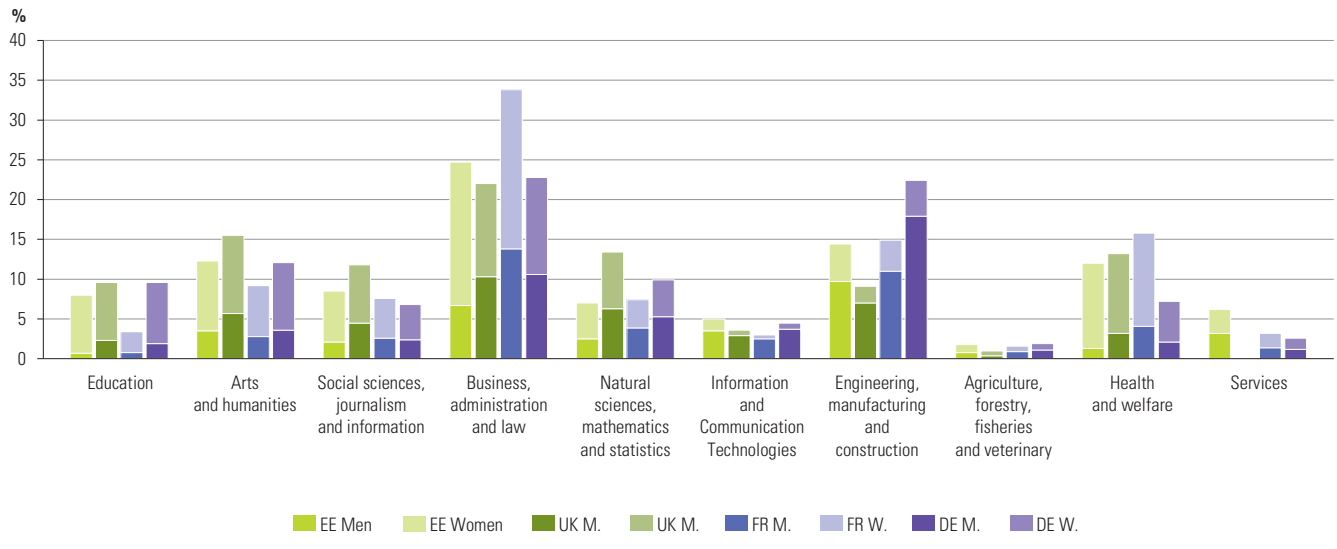


5-3-3 Proportion of 30-34 year olds with an ISCED 5-8 education attainment level in the EU 28 and in France between 2007 and 2016

↳ Eurostat ; *edat_lfse_03.*

5-3-4 Distribution of the higher education graduates by field of study and gender during the 2015 academic year

↳ Eurostat ; *educ_uoe_grado3.*



5.4 PISA 2015: SCIENCE IN THE EUROPEAN UNION

ZOOM

Every three years since 2000 and under the aegis of the OECD **PISA** (*Programme for International Student Assessment*) assesses the skills of 15-year-old students in three fields: reading, mathematics and science. PISA is intended for the age group that comes to the end of compulsory schooling in most of the OECD countries whatever the educational career past or future. In France this essentially means seconde of ISCED 3 (10th grade, in general and technological or vocational tracks in Lycées) and troisième of ISCED 2 (9th grade, in collèges, about a quarter of the french students for PISA 2015). Students are not assessed on knowledge per se but more on their ability to harness and apply their knowledge in various situations, sometimes well removed from the classroom framework. The survey included a total sample of 510,000 students in the 72 countries/economies of PISA 2015.

PERFORMANCES IN THE SCIENCE TEST SINCE 2006

In 2015 the survey was mainly devoted to science (the ability of individuals to respond to questions relating to science and technology as thoughtful citizens). Indeed each version of PISA contains one major and two minor fields. To be completely relevant, comparisons of major fields must therefore be done in nine-year cycles. Thus in science, PISA 2015 can be compared to PISA 2006.

ZOOM

Can countries be ranked in PISA?
The PISA scores are subject to statistical uncertainty related, in particular, to measurement error due to the size of the sample used. Rankings are therefore not relevant, for countries that follow each other in the ranking rarely have significantly different scores. So in 2015 of the OECD countries in science France could be ranked anywhere between 17th and 25th.

In 2015 the mean scores of the 35 OECD countries in science was 493, and 498 in 2006. This difference in the OECD mean scores between the two surveys is not significant, no more so than the national mean scores of 15 countries, including France, Germany or Italy **(5.4.1)**. During this period the mean score dropped significantly in 9 EU countries (including Finland, Greece and the Netherlands). It rose in only 2 countries (Portugal and Romania). Although Finland, Hungary and Slovakia underwent the biggest drops between the two PISA surveys (33, 27 and 28 points respectively), the first remained tangibly above the OECD mean score, whereas the two others were significantly below it.

ARE 15 YEAR-OLDS PLANNING ON SCIENTIFIC CAREERS?

In addition to the cognitive tests, a context questionnaire was submitted to students so as to gather information on their socio-economic profiles as well as their mindsets and engagement regarding science [Source: DEPP-MEN, *Note d'information*, 16-37, 2016]. The 2015 questionnaire asked students what professions they expected to be exercising by the time they were 30. The OECD proposed 4 major scientific career families into which students could project themselves: "speciality of science and engineering", "speciality of health", "specialist of Information and Communications Technologies" and "science-related technicians or associate". In the OECD countries 25% of the boys and 24% of the girls on average stated they wanted to pursue a scientific profession.

Among the 5 countries presented here, 15 year-old students expressing a desire to pursue a scientific profession manifested professional ambitions. For each of the genders only a very small percentage of students planned on an associate profession of a scientific nature **(5.4.2)**. Moreover it was observed that already at 15 years-old there was a strong gendered representation of professions: girls mainly expected to enter health-related professions, while boys saw themselves more in traditional engineering professions or as engineers in the ICTs (*cf.* 5.3, p. 50).

NUMEROUS COUNTRIES STILL FAR FROM THE GOAL OF THE 2020 EUROPE STRATEGY

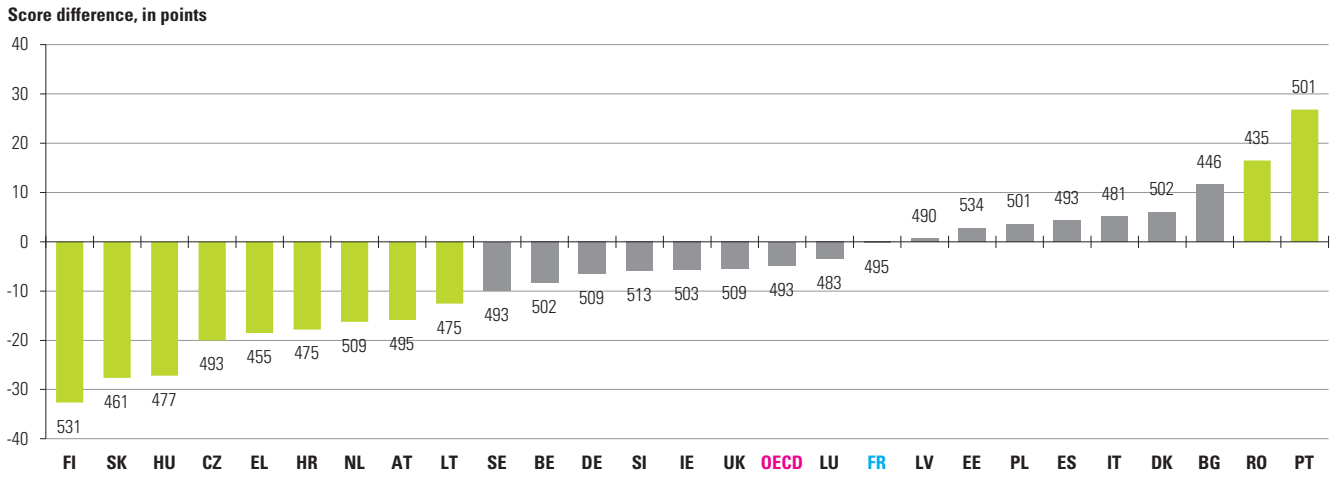
The "Europe 2020" strategy set a goal of 15% or less of low-performing students in science in PISA (*cf.* 5.1). In the distribution of students per PISA **proficiency level**, low-performing students are those who are ranked below level 2 (or the "under 1b", "1b" and "1a" groups). Level 2 is thus the "baseline level starting at which students begin to manifest skills that will enable them to effectively and productively participate in the life of society". Students known as "top performers" are those students ranked at levels 5 and 6.

In 2015 in the EU-28 only 3 countries attained this "Europe 2020" goal: Estonia, Finland and Slovenia **(5.4.3)**. Moreover, Estonia and Finland were the only countries to have a greater proportion of high-performing students than low-performing students. With 22% of its students low-performing and 8% high-performing in science, France was located very close to the OECD average. ■

See definition p. 74.

5.4.1 Evolution of the mean score in science between PISA 2006 and PISA 2015

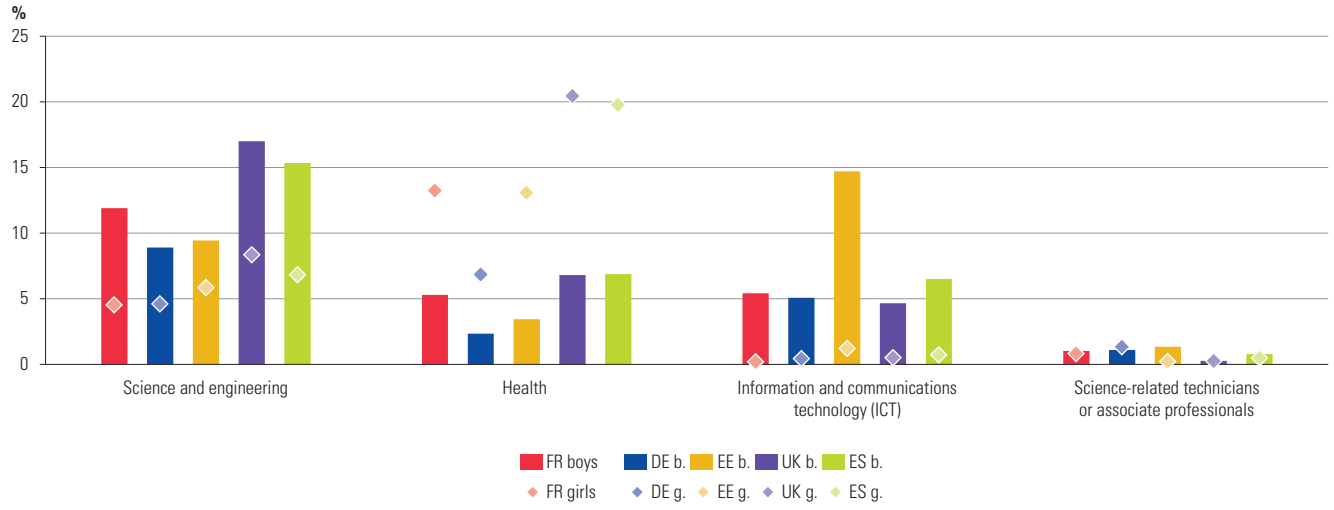
↳ OECD ; *PISA 2015 volume I, table I.2.4a.*



Note: Between 2006 and 2015, the mean score of performance of 15 year old students at the PISA science assessment in Portugal increased by 27 points and reached 501 in 2015. Grey histograms correspond to the countries where the score difference is not statistically significant.

5.4.2 Students expecting to work as science-related high-level professionals or associate professionals at age 30, by gender in 2015

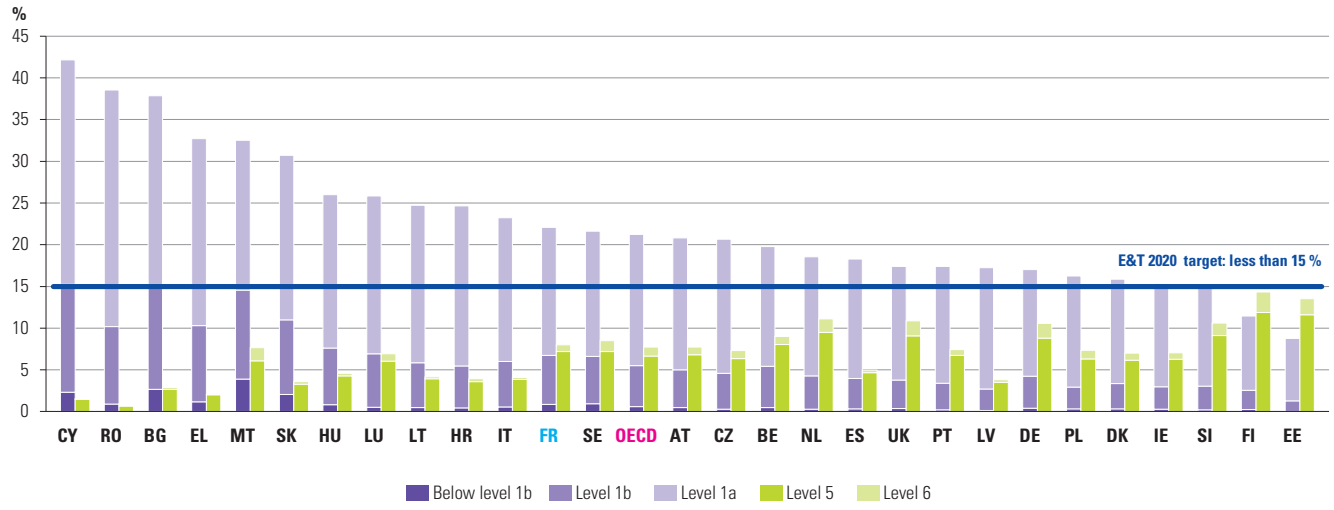
↳ OECD ; *PISA 2015 volume I, table I.3.10a.*



Note: In 2015 in France, 12% of 15 year old boys and 5% of 15 year old girls are expecting to work as science-related high-level professionals in Science and engineering.

5.4.3 Proportion of low performers and top performers in science in PISA in 2015

↳ OECD ; *PISA 2015 volume I, table I.2.1a.*



5.5 PISA 2015: SOCIAL AND ECONOMIC STATUS AND STUDENTS' PERFORMANCES

Measuring the influence of social and economic status ZOOM

So as to measure the influence of a student's social and economic status on the **PISA** test scores, the OECD has concocted an index of Economic, Social and Cultural Status (ESCS) from a set of elements about the situation of the student's parents (e.g. educational attainment level and the father and mother's professional status) and on a student's access to certain goods or study conditions (individual room, an office to work in, internet connection, the amount of books present in the home, etc.). Students are thus classified in four equal groups: the "bottom quarter" containing the 25% of students with the lowest ESCS index, and the "top quarter", the 25% of students with the highest ESCS index [Source: DEPP-MENESR, *Note d'information,* 13-31, 2013].

A PERFORMANCE LEVEL LINKED TO SOCIAL STATUS

In 2015 the mean score of all students in oecd countries was 493 in the science tests (*cf.* 5.4). The OECD's "bottom quarter" students had a mean score of 452 points, whereas the "top quarter" students scored a mean of 540 **(5.5.1)**. Estonia saw both the top score of "bottom quarter" students in the EU-28 (504) and the top score of the "top quarter" students (573). In contrast Bulgaria, Cyprus and Romania saw the lowest scores, both for their "top quarter" students (502, 474 and 477 points respectively) and for their "bottom quarter" students (395, 399 and 401 points respectively).

Estonia and France showed contrasting profiles. Estonia was typified by a high mean score – among the highest in the EU-28 countries – but also by the narrow differences of scores between "top quarter" and "bottom quarter" students. In 2015 only Latvia showed a score difference between quarters of the ESCS index lower than that of Estonia in the science test (a 63 point difference in Latvia and 69 points in Estonia). Conversely in France the "bottom quarter" students scored lower than the mean score of students in OECD countries in the same ESCS quarter; its "top quarter" students scored the highest. Within the EU-28 only Luxembourg saw a bigger score difference between the "top quarter" and "bottom quarter" students (a 128 point difference in Luxembourg to 118 in France). Germany also was in a situation where the performance gap was socially significant (103 points). In France, however, this strong correlation between the social and economic status of students and their performance in science tests did not get worse between 2006 and 2015.

PERFORMANCE AND EQUITY: CONTRASTING CONFIGURATIONS WITHIN THE EUROPEAN UNION

Graph **5.5.2** makes it possible to compare the **social equity of performances** (horizontal axis) and the mean score of students in the PISA science test (vertical axis). In 2015 all EU-28 countries were distributed in equal number above and below the mean performance of the OECD countries, also on both sides of the OECD's mean equity axis. France combined a low equity score (comparable to Hungary and Luxembourg) and a performance score similar to the OECD average. Latvia and Sweden, both with performance scores identical to the OECD average, were typified, however, by an equity of results higher to those of the OECD. Bulgaria, Hungary, Malta and Slovakia showed both low performance scores and low equity. Estonia and Finland alone combined high performances and equity higher than the OECD average.

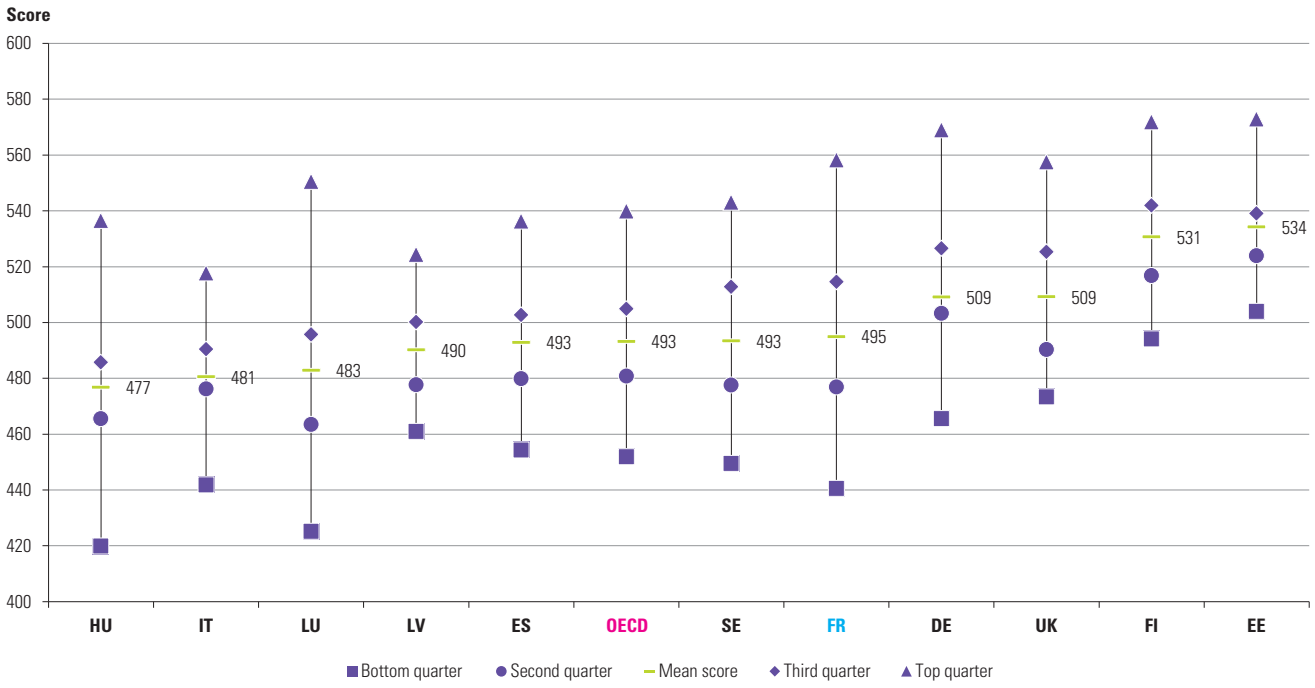
THE MANY FACTORS INFLUENCING PERFORMANCE

The factors increasing the probability for 15-year-old students to find themselves strictly below the **proficiency baseline** were not limited to a disadvantaged social and economic status but included other family and individual characteristics. The OECD illustrates the extent and influence of these characteristics with an example given for PISA 2012, the major subject of which was mathematics (an individual's ability to formulate, use and interpret mathematical reasoning in a range of real-life contexts). On average in the OECD countries, a student with an advantaged social and economic status, was male, living in a two-parent family, native born, speaking the same language at home as at school, living in an urban setting, having attended more than one year of pre-primary school, never having repeated a school year and enrolled in a general track/general school, had a 5% probability of under-performing in science. Conversely, a student with a disadvantaged status who was female, living in a single-parent, immigrant-origin family, speaking a different language at home than at school, living in a rural area, not having attended pre-primary school, having repeated a school year and following a vocational track, had an 83% chance of underperforming [OECD, *PISA In Focus,* num. 60, February, 2016]. ■

See definition p. 74.

5.5.1 Mean score in science by PISA index of student's economic, social and cultural status (ESCS) in PISA 2015

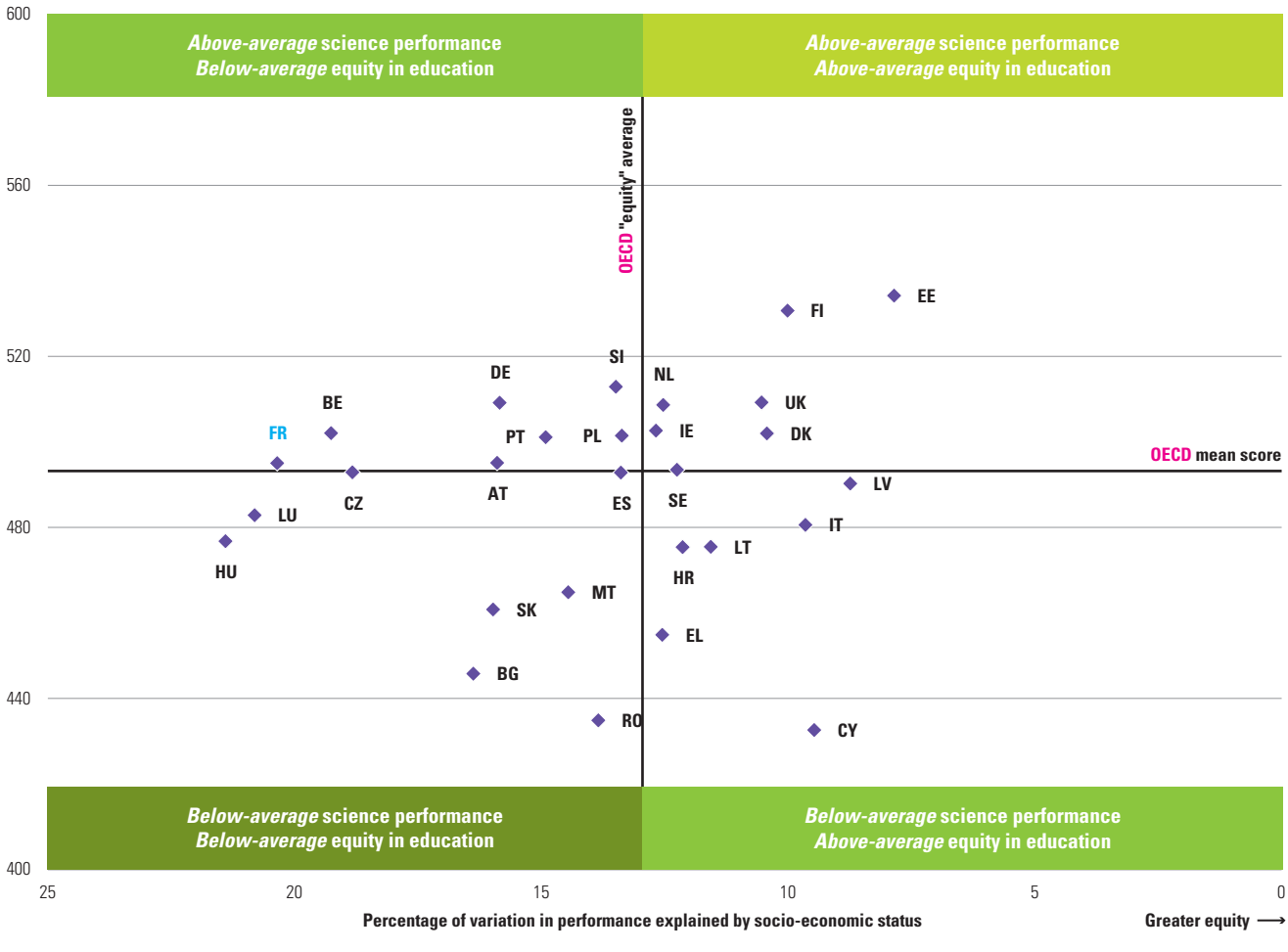
↳ OECD ; *PISA 2015 volume I, table I.6.3a.*



Note: In 2015 in France, the mean score in science for students of the bottom quarter in the ESCS index is 441, while the mean score of the students of the top quarter of the index is 558. The mean score for the entirety of the sample is 495. Only a panel of the EU 28 countries is presented above.

5.5.2 Student performance and equity in science in PISA 2015

↳ OECD ; *PISA 2015 volume I, table I.6.3a.*



Note: In 2015 in France, the mean score in science of the students is 495, while the percentage of variation explained by the social and economic status of the student is 20% (see annex "social equity in performances").

5.6 PISA 2015: READING COMPREHENSION AND COLLABORATIVE PROBLEM-SOLVING

FEWER UNDERPERFORMING STUDENTS IN READING THAN IN THE OTHER PISA SUBJECTS

In **PISA**[📖] 2015, reading comprehension was assessed as a secondary subject. **Distribution by proficiency**[📖] levels made it possible to observe the proportion of students known as "low-performing" and "high-performing". "Low performing" students are ranked below level 2, which corresponds to the "baseline from which students begin to demonstrate skills that enable them to participate effectively and productively in the life of society" (*cf.* 5.4, p. 54). Students known as "high performers" are ranked in levels 5 and 6.

The proportion of student's not yet possessing these skills in the OECD (levels strictly below 2) was 20% on average (22% for the EU-28) **(5.6.1)**. Within the EU-28 in 2015 only 5 countries met or surpassed the assessment criteria of the European strategy in reading comprehension (Denmark, Estonia, Finland, Ireland and Poland – *cf.* 5.1. p. 48). In 2015 Bulgaria was the EU-28 country with the largest percentage of low-performing students in reading comprehension with more than 40% of students below level 2. Estonia, Finland and Ireland were the EU's only countries with more 15-year-old students performing highly than underperforming. Lastly France presented a unique profile, characterised both by a high rate of low-performing students (21%) and a high rate of high-performing students, which only Finland surpassed in the EU (13% for France and 14% for Finland).

GIRLS OUTPERFORMED BOYS IN COLLABORATIVE PROBLEM-SOLVING

In 2015 24 of the 28 EU Member States of the OECD participated in the PISA test for collaborative problem-solving. The girls in these countries systematically out-performed the boys. The average score of the 15-year-old students in all countries of the OECD was 500. This mean score varied tangibly across the countries of the European Union with the lowest mean score seen in Cyprus (444) and the highest in Estonia and Finland (535). If the scores are examined by gender, the girls' mean score on average of the OECD countries was 515, whereas the boys' mean score was 486 **(5.6.2)**. The widest mean score difference according to gender was seen in Finland (a 48-point difference), whereas the narrowest difference was seen in Portugal (19 points). With a mean score of 494 for all students and a score difference per gender of 29 points, France was located very near the OECD average.

Collaborative problem-solving according to PISA ZOOM

Since the 2012 round, the PISA problem-solving test has aimed at assessing the following 4 processes: exploring and understanding information given; conjuring up a problem and formulating assumptions; planning and executing a strategy; and assessing the result obtained. The 2015 survey repeated these processes and enriched each with a collaborative skill. Collaborative problem-solving has been defined as "an individual's ability to engage effectively in a process where two individuals (or more) attempt to solve a problem by sharing their thoughts and efforts required to find a solution, as well as in sharing their knowledge, skills and efforts to implement this solution". The test is computerised, and the agents who collaborate with the student are simulated by computers. As assessed in PISA 2015, the collaboration-related skills (which were as many categories of the 4 processes of problem-solving assessed in 2012) were the following: establishing and maintaining a common understanding; establishing and maintaining an organised group; and implementing appropriate collaborative actions to solve the problem. Only 52 countries participated in this reworked problem-solving test.

THE COLLABORATIVE PROBLEM-SOLVING TEST LESS SENSITIVE TO SOCIAL ORIGINS

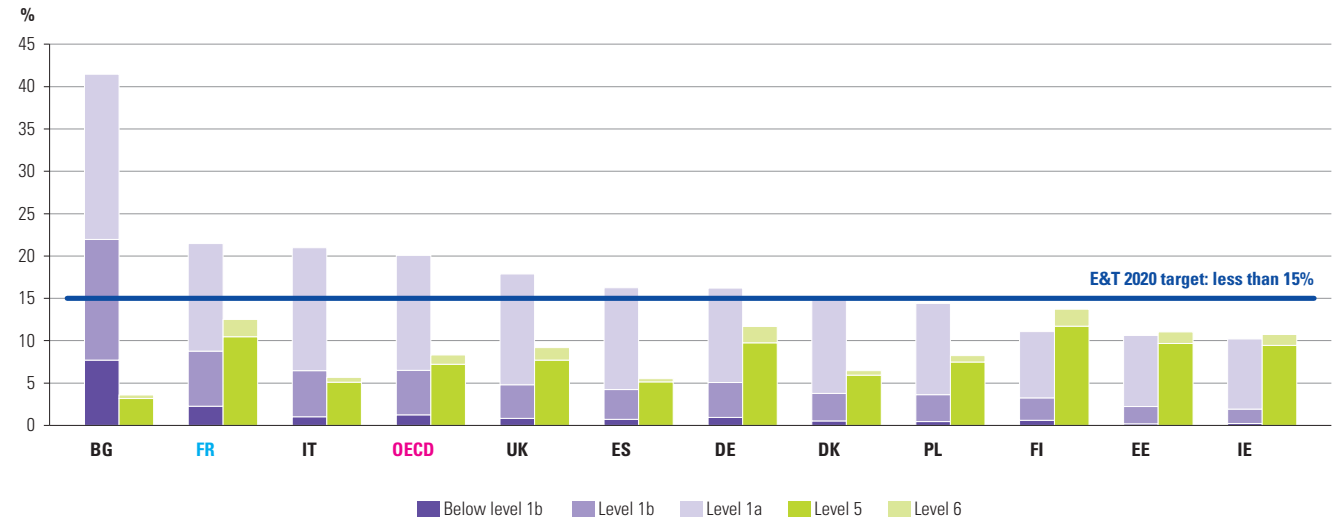
The results obtained for the PISA collaborative problem-solving test can be broken down according to the economic, social and cultural (ESCS) status of the students (*cf.* 5.5 p. 54). In 2015 in all of the OECD countries participating in this test, the mean score of the 15-year-old students was 500, that of the "bottom quarter" students was 468 and for the "top quarter" it was 536 **(5.6.3)**. The score difference according to social origins (69 points) – thus the assumed impact of social status on the results – was less large than for the science test (88 points). The same was true for all of the EU-28 countries participating in the collaborative problem-solving test.

As for the science test, Estonia and Latvia were the countries with the lowest score difference between "top quarter" and «bottom quarter" students (differences of 56 and 55 points respectively). Yet Estonia showed a mean score for all students that was clearly higher than Latvia. Of the countries presented here, France, Germany, Hungary and Luxembourg were the only countries where the score difference between the top and bottom quarter of the ESCS index was higher than the OECD average.■

📖 See definition p. 74.

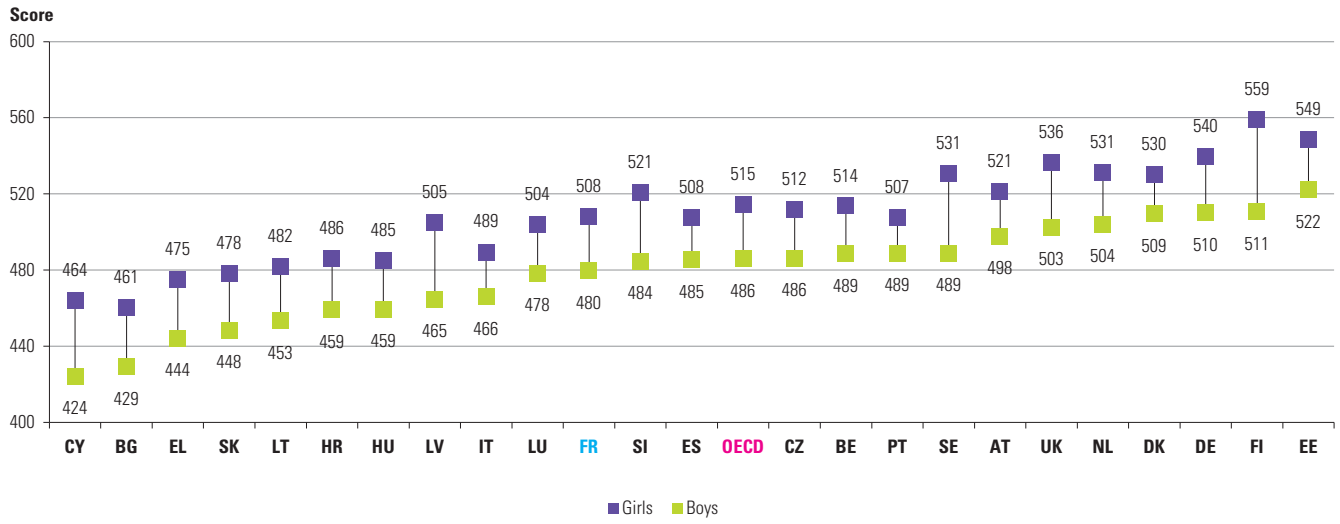
5.6.1 Proportion of low performers and top performers in reading in PISA in 2015

↳ OECD ; *PISA 2015 volume I, table I.4.1a.*



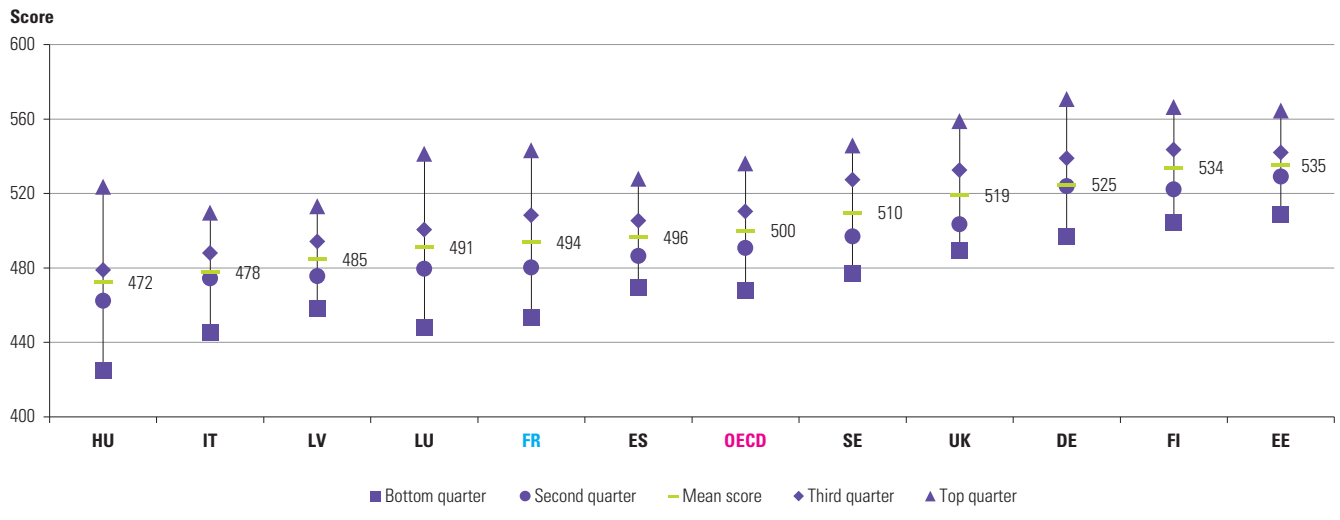
5.6.2 Score difference in collaborative problem-solving by gender in 2015

↳ OCDE ; *PISA 2015 volume V, table V.4.3a.*



5.6.3 Score difference in collaborative problem-solving by PISA index of student's economic, social and cultural status (ESCS)

↳ OCDE ; *PISA 2015 volume V, table V.4.6a.*



5.7 TIMSS 2015

ZOOM

The TIMSS international survey (*Trends in International Mathematics and Science Study*) is held every 4 years by the *International Association for the Evaluation of Educational Achievement* (IEA). It is a survey that assesses performances in mathematics and science of students in the fourth and eighth grades. Graphs 5.7.1 and 5.7.2 show only the data for tests of fourth graders in primary school. France did not take part in the eighth grade test. Like PISA and PIRLS, TIMSS sets the centre of the scale at 500. In 2015 49 countries/partner economies participated in the TIMSS survey for the fourth grade of primary school (except for England, where it is the fifth grade given the fact that primary school there begins at the age of 5). Within the European Union 19 countries, 2 nations (England and Northern Ireland) and the Flemish community in Belgium participated [Source: DEPP-MEN, *Note d'information,* 16-33, 2016].

BOYS ALREADY HIGHER PERFORMERS IN MATHS IN THE 4TH GRADE

In 2015 in the 21 European Union countries participating in the TIMSS survey for students in the fourth year of primary school, the students scored an overall average of 527 in the maths test. This score varied tangibly across the countries. In Europe the lowest overall mean scores were recorded in France (488) and Slovakia (498), whereas the highest scores seen were in England and Ireland (546 and 547 respectively).

On average in the EU countries participating in the survey, the boys had a mean score in maths slightly higher (529) than the girls (523) **(5.7.1)**. In 11 countries (including England, France, Italy and Spain) the boys scored significantly higher than the girls. Only Finland saw the girls score a significantly higher mean than the boys (9 points).

NO SIGNIFICANT DIFFERENCE IN SCORES BETWEEN THE GENDERS IN SCIENCE IN THE 4TH GRADE

In 2015 the EU countries participating in the TIMSS survey for the 4th grade of primary school had an overall mean score of 525 in the science test. As for maths, the overall mean score did not reflect the diversities of national situations. In science, the national mean score of the European countries varied from 481 in Cyprus to 553 in Finland.

However in contrast to the maths test, there was a relative mean score balance between the genders. Indeed on average in the 21 participating European countries the boys had a mean score of 526 and the girls a mean score of 524 **(5.7.2)**. Moreover 7 countries (including the Czech Republic, Italy and Spain) had a profile characterised by a significantly higher score for the boys, and 3 countries (Bulgaria, Finland and Sweden) saw the reverse situation. As for France, where the girls and boys attained an identical overall mean score, once again it saw a very much lower mean score compared to the other EU countries.

BY THE END OF SECONDARY SCHOOL, BOYS HEADING FOR THE SCIENTIFIC TRACKS PERFORMED HIGHER THAN GIRLS

ZOOM

The timss international survey also makes it possible to assess student's acquired knowledge at the end of secondary school. Indeed the "advanced" TIMSS survey assesses knowledge in maths and physics of students who are intending to follow scientific, technological, engineering or math careers (STEM). These students have received the best scientific training offered by their countries. In France the targeted students are those in the final upper secondary year (*Terminale*) in the general track in the scientific series. A very limited number of countries participated in this aspect of the survey (9 countries in 2015, of which 5 were from the European Union). Contrary to PISA or TIMSS in the fourth year of primary school, advanced TIMSS is not representative of all students of a given age or a educational level. A coverage rate is calculated per country and corresponds to the proportion of targeted students (all of *"Terminale-S"* in France) in the total population of young people the same age (18 years-old in France) [Source: DEPP-MEN, *Note d'information,* 16-35, 2016]. Moreover two sub-samples were extracted in France among the students having chosen to follow a maths speciality in *Terminale-S* and among those postulating to scientific Preparatory Classes for *Grandes Écoles.*

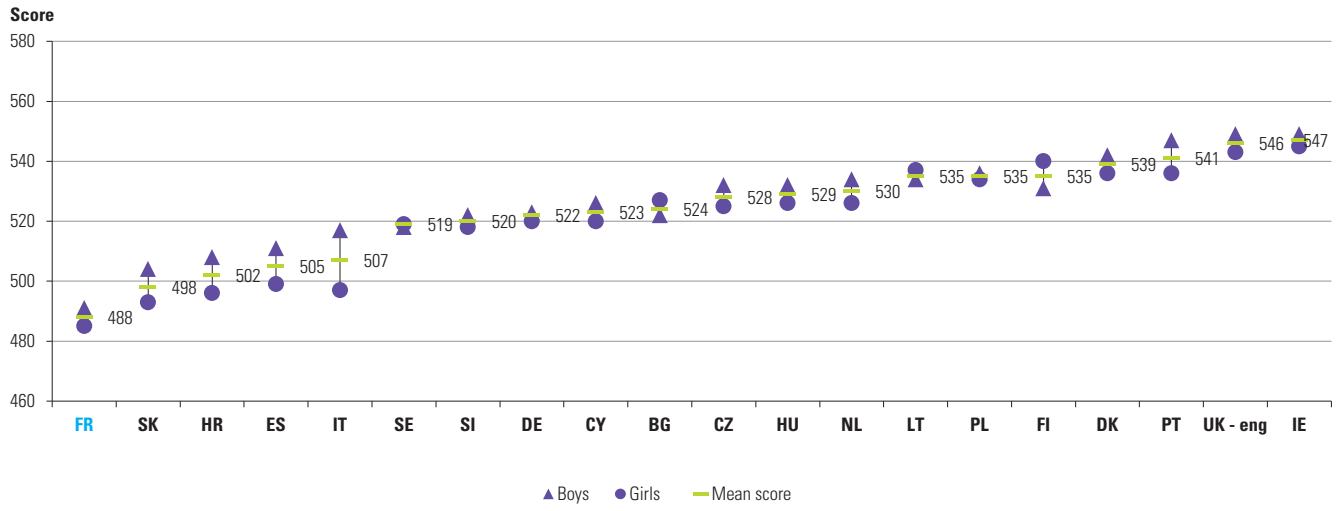
In 2015 the coverage rates of the 5 EU-28 countries participating in the advanced TIMSS survey were the highest of all the participating countries, but they nonetheless varied from 14% in Sweden to 34% in Slovenia. In France this coverage rate was 22%. The 5 European countries reported the following scores: Italy (422), Sweden (431), Slovenia (460), France (463) and Portugal (482).

The proportions of girls and boys among the assessed students in Europe were relatively balanced, i.e. a 37% minimum of girls in Italy and a maximum of 60% of girls in Slovenia **(5.7.3)**. The differences in scores between the genders were statistically significant only in France, Slovenia and Sweden. They were, moreover, systematically in favour of the boys. ■

See definition p. 74.

5-7.1 Score in mathematics in TIMSS fourth grade by gender in 2015

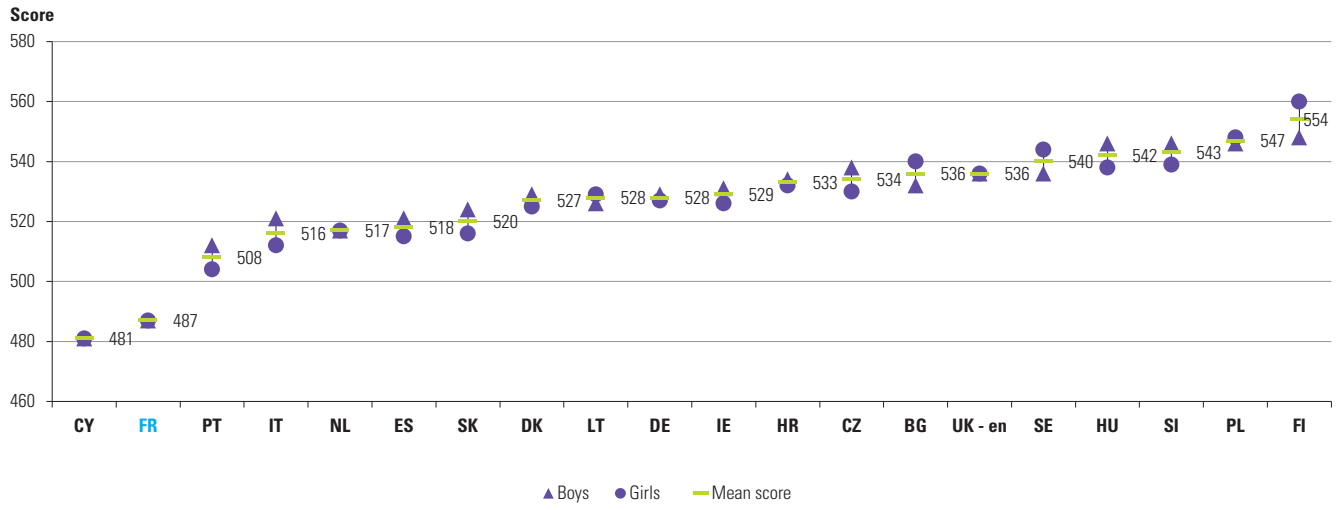
↳ IEA, *TIMSS 2015 mathematics*, exhibits 1.1 et 1.10.



Note: In 2015 in France, 4th grade pupils have a general mean score of 488, 4th grade girls have a mean score of 491 and 4th grade boys have a mean score of 485. Countries are ranked by ascending order of the mean score.

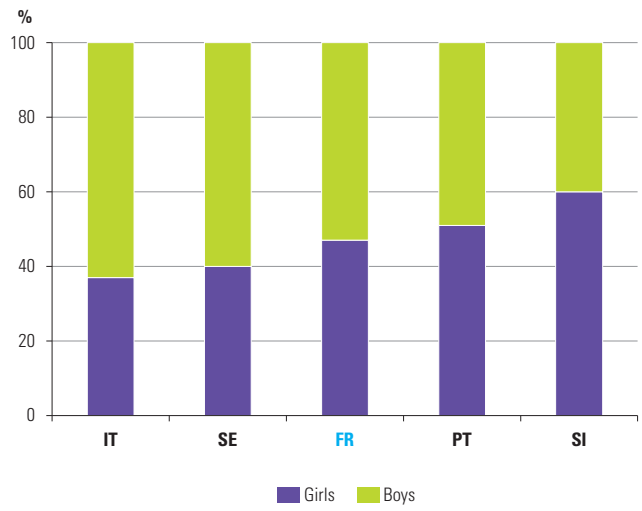
5-7.2 Score in science in TIMSS fourth grade by gender in 2015

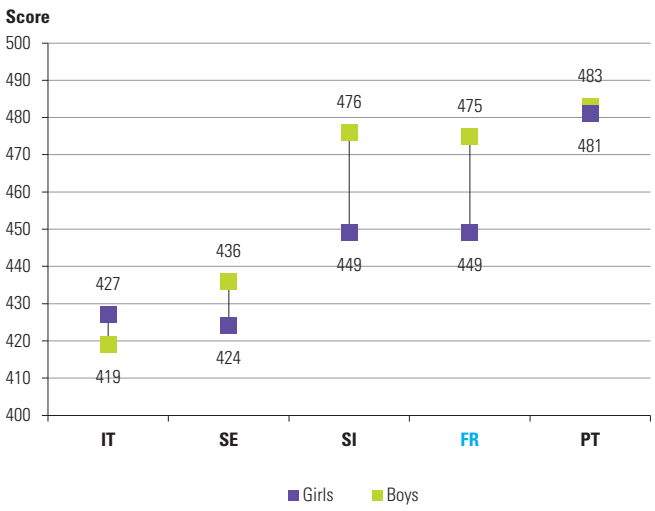
↳ IEA, *TIMSS 2015 science*, exhibits 1.1 et 1.10.



5-7.3 Distribution of students by gender and score difference by gender in TIMSS mathematics advanced in 2015

↳ IEA, *TIMSS 2015 mathematics advanced*, exhibit M1.6.





5.8 PIRLS 2016

ZOOM

The PIRLS international survey (*Progress in International Reading Literacy Study*) is conducted every 5 years by the *International Association for the Evaluation of Educational Achievement* (IEA). This survey assesses the performance in reading literacy from a representative sample of students in the fourth year of primary school counting from the first year of primary school of the participating countries (except for England and Malta where the test is given in the 5th year due to the fact that primary education there begins at 5). As with PISA and TIMSS, PIRLS sets the centre of the score scale at 500. In 2016 50 countries/partner economies participated in the PIRLS test for the 4th grade. Within the European Union, 20 countries, 2 nations (England and Northern Ireland) and Belgium's Flemish and French communities participated [Source: DEPP-MEN, *Note d'information,* 17-24, 2017].

GIRLS SYSTEMATICALLY PERFORMED HIGHER THAN THE BOYS IN THE 4TH GRADE

In 2016 in 22 of the 28 European Union countries participating in the PIRLS survey, the 4th grade students attained an overall mean score of 540. The highest European mean scores were seen in Finland and Ireland (566 and 567 points respectively), whereas the lowest scores occurred in France and Malta (511 and 452 points respectively) **(5.8.1)**. At the time of the test, the average age of European students was 10.3 with the oldest students being Latvian (10.9 years old) and the youngest Italian and Maltese (9.7 years old). With its students at an average age of 9.8 when they took the test, France was one of 4 countries where the students were the youngest.

With the exception of Portugal, where the score differences per gender were not statistically significant, girls achieved better scores than boys in all the European countries participating in the survey. Finland and Malta, which recorded the highest and lowest extremes of the mean scores of the EU-28, were also the two countries where the score differences per gender were the greatest (22 and 21 point disparities respectively). France, with an 8 point difference, showed a girl-boy difference among the lowest in Europe.

GIRLS WERE HIGHER PERFORMERS WHATEVER THE READING PROCESS OR READING PURPOSE

ZOOM

PIRLS creates two groups of independent score scales. The first group of two scales makes it possible to analyse scores according to the type of texts read by students, i.e. "literary texts" (those that tell a story in the form of narrative fiction) and "informational texts". The latter are specifically drafted for the PIRLS survey within each participating country by authors who are used to writing for a young audience, which enables them to avoid, among other things, the prejudices relating to translation. The second group of scales combines four comprehension processes broken down into two sub-scales according to their degree of complexity: "retrieval" and "inference" (less complex sub-scale) and "interpretation" and "integration and evaluation" (more complex).

In 2016 the European Union students achieved a similar score whatever the texts read in the first group of scales, i.e. literary (542 points) or informational (539 points). Malta recorded the lowest scores for the two scales of the first group (452 and 451 respectively), whereas the highest score was achieved in Ireland for the literary texts (571) and in Finland for the informational texts (569). Scoring 513 on the literary texts scale and 510 on the informational texts scale, France displayed scores significantly lower than the European average.

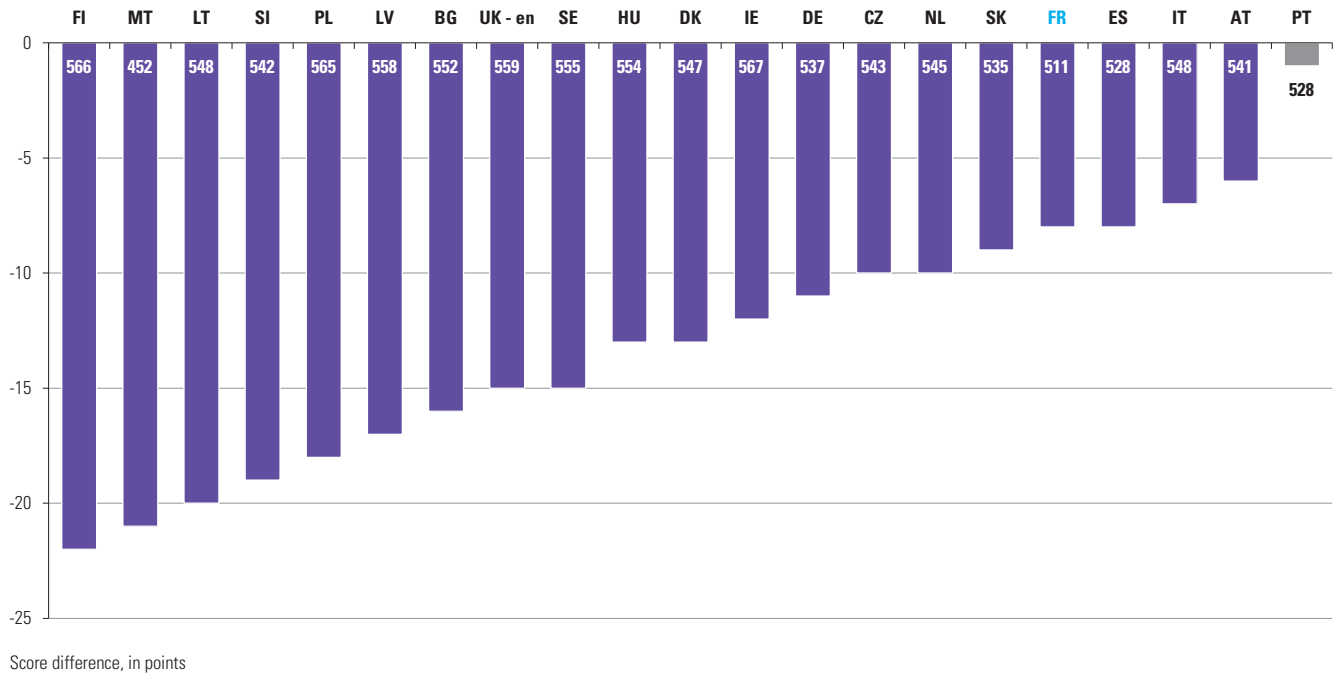
When the two score scales related to the literacy process (second group of scales) it is notable that the mean scores attained by 4th grade European students in primary school were 542 points for the "retrieval and infer" scale and 539 points for the "interpret and evaluate" scale. Here again Malta had the lowest mean scores (452 and 451 points respectively), while the highest scores were achieved in Finland for the "retrieve and infer" scale (572) and in Poland for the "interpret and evaluate" process (570). Once again France showed scores significantly lower than the European average with a score of 521 for the "simple" process and 501 for the more complex process.

Broken down by gender, the two scale groups of scores make it possible to show that boys, whatever the reading purpose (type of text) or comprehension process, achieved scores that, at best, were not statistically different from the girls' **(5.8.2)**. Finland and Lithuania were the only countries where the score difference in favour of the girls was 20 points higher for all 4 score scales. Lastly, France showed the narrowest score disparities according to gender in Europe. ■

See definition p. 74.

5.8.1 Boys' score compared to the girls in PIRLS fourth grade in 2016

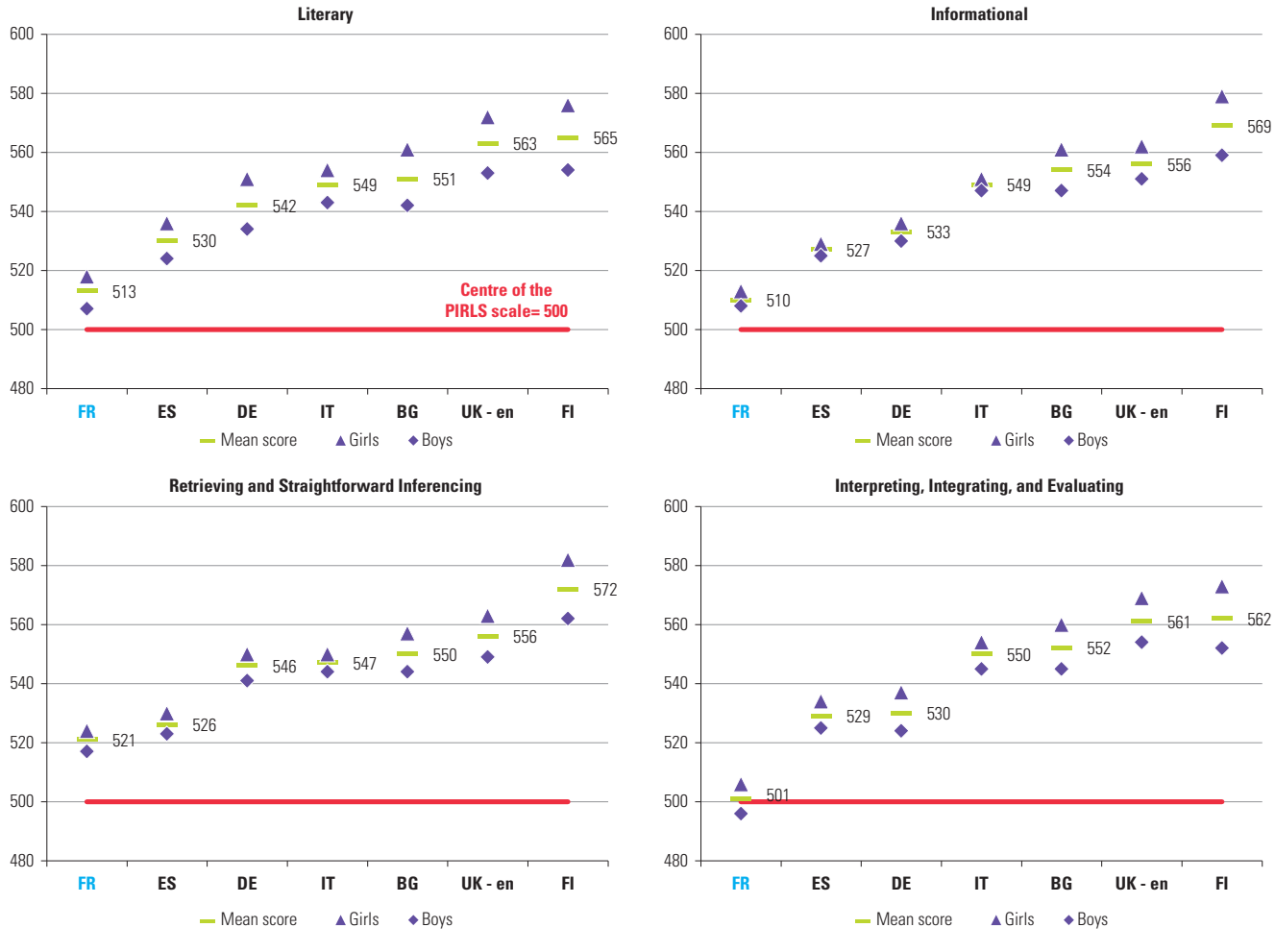
↳ IEA, *PIRLS 2016*, exhibit 1.5.



Note: In 2016 in France, boys in 4th grade have achieved a score in average 8 points below the girls' score. On average, French 4th grade pupils' have reached a score 511. The grey histogram corresponds to the only country where the gender score difference is not statistically significant.

5.8.2 Mean score and gender score difference in PIRLS fourth grade according to reading purposes and comprehension processes in 2016

↳ IEA, *PIRLS 2016*, exhibit 3.7.



Note: In 2016 in France, 4th grade pupils have reached a score of 513 on average on literary types of texts, 2 points above the general mean score of 4th grade pupils in PIRLS in France. Boys have achieved a score of 507 while girls have achieved a score 518 to the same type of text.

6.1 STUDIES, EMPLOYMENT, UNEMPLOYMENT, NEETs

NEETs ZOOM

Are defined as Neither in employment, education or training (NEETs): unemployed or inactive persons, in the **ILO's** sense, who do not pursue their initial studies and who have stated they have not followed formal or non-formal education in the four weeks preceding the survey (**LFS**). The NEET indicator compares this population for a certain age group to the entire population of the same age (population on January 1st, Demographic Statistics of Eurostat). It thus focuses on the person's situation in terms of employment rather than on their level of qualification.

THE TRANSITION BETWEEN TRAINING AND THE LABOUR MARKET IS NOT UNIFORM IN EUROPE

On average in the 28 countries of the European Union in 2016 the transition between training and the labour market differed according to gender **(6.1.1)**. Although there was no difference between the genders in the 15-19 year-old age group, the next age group (20-24) showed men as more often employed than women (a 7-point difference), and women had a greater tendency to extend their education. In the 25-29 and 30-34 year-old age groups there was a majority of employed persons of both genders, but also and most notably high rates of NEETs, especially among women (26% of NEET women between 30 and 34 as opposed to 13% for men). Finally there was a high portion of persons in "training and employment" (a combination of apprenticeship or work during studies), and this in all age groups.

Graph **6.1.1** also shows that the transition into the labour market was not uniform between countries. Each of the three countries presented here shows a different profile. First of all the German profile shows a considerable use of apprenticeship in the 15-19 age group and a very high **employment rate** for both genders in the 30-34 age group. France, the second profile, was typified by a later entry into the labour market, with French students systematically entering higher education following their secondary schooling. And lastly the United Kingdom differed by its relatively early access to the labour market (an employment rate of over 40% for both genders in the 20-24 year-old age group) and a very wide gap between the genders of NEETs for the two latter age groups.

THE EDUCATION LEVEL ATTAINED WAS SYSTEMATICALLY AN IMPORTANT DETERMINING FACTOR IN ACCESSING EMPLOYMENT

The risk of unemployment among young adults from 25 to 39 was all the lower as their level of educational attainment increased. In the EU-28 in 2016 the **unemployment rate** of young adults with a higher education degree was 6%, whilst it reached 20% among those without a degree **(6.1.2)**. With the exception of Denmark and Portugal, unemployment fell as the ISCED level increased in each of the EU-28 countries, whatever the average national unemployment rate. However, the differences in unemployment rates between ISCED levels varied according to the country. In Slovakia, this difference was 29 points between those with higher education degrees and those without degrees (average unemployment rate: 12%). The differential was 6 points in the Netherlands and United Kingdom (respective average unemployment rates: 6% and 5%), and 19 points in France (average unemployment rate: 9%). In Slovakia's case the gap was made greater by the fact that the "low education levels" were in fact "very low".

THE LEAST SECURE POPULATION LAY ON THE CUSP BETWEEN THE NEETS AND THE EARLY SCHOOL LEAVERS

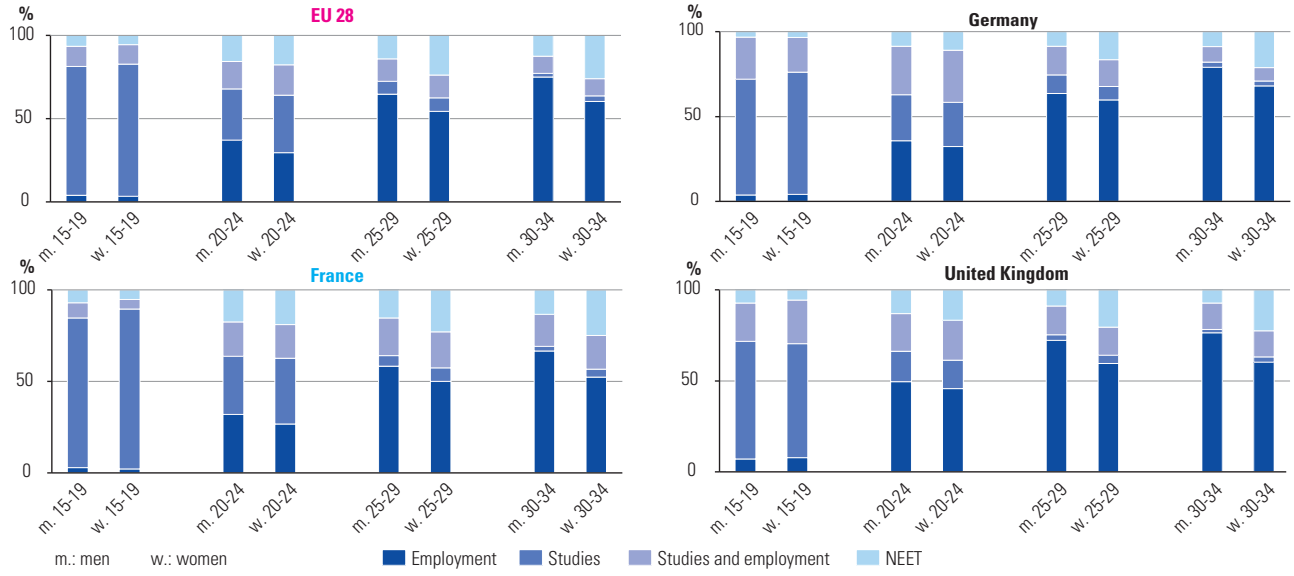
The two indicators – early school leavers (here called ESL – cf. 5.2) and NEETs – denote young people who had left the educational system and were not doing any training. The first term however includes only those without degrees, whatever their status in the labour market, whereas the second term only refers to young people without employment, whether or not they had a degree. So they are complementary indicators, the first replying more to the challenges of guiding educational policies, and the second to employment policies.

Graph **6.1.3** shows the situation of young people from 18 to 24 regarding these two indicators. Thus in the EU-28 9% of young people in this age group were NEETs with degrees and 6% were NEETs without degrees. Still in the EU, 5% of young people in the same age group were early school leavers in employment, whereas 6% were early leavers without employment. These 6% corresponded to the NEETs without degrees. In France and Italy about a third of the early leavers were employed, whereas this portion came close to 50% in all of the EU-28 and Germany. It therefore appears that for degreeless early leavers in France and Italy it was harder to gain access to employment than in Germany and for the EU average. Conversely in France and Italy some two-thirds of the NEETs held degrees, whereas this portion was less than 50% in Germany. ■

See definition p. 74.

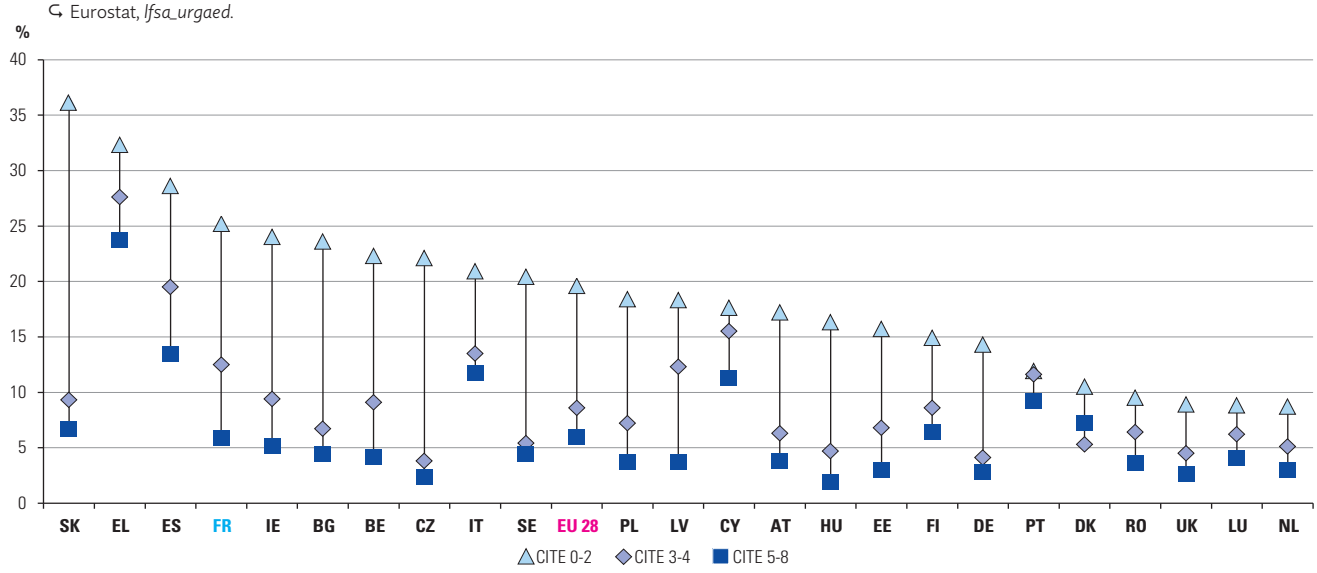
6.1.1 Young adults transition from studies to labour market by gender and age group in the European Union, in France, in Germany, and in the United Kingdom in 2016

↳ Eurostat, *edat_lfse_18.*



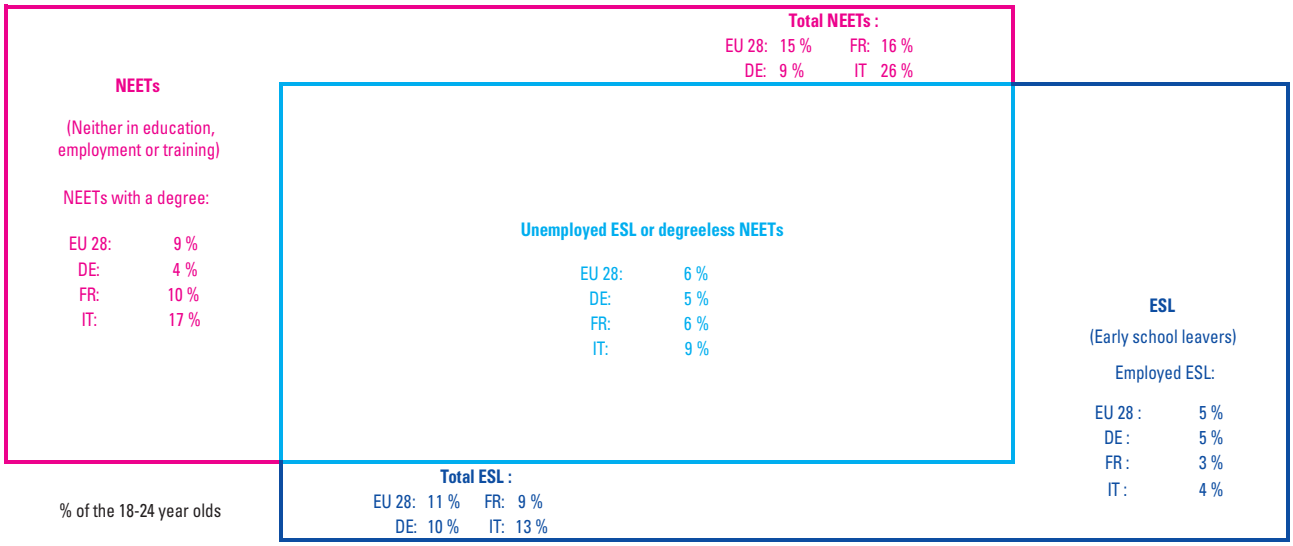
6.1.2 Unemployment rate of 25-39 year olds by educational attainment level in 2016

↳ Eurostat, *lfsa_urgaed.*



6.1.3 NEETs and Early Schol Leavers in the European Union, in France, in Germany and in Italy in 2016

↳ Eurostat, *edat_lfse_14* et *edat_lfse_21.*



6.2 ACCESS TO EMPLOYMENT ACCORDING TO GENDER AND ORIGINS

MEN LESS THREATENED BY UNEMPLOYMENT AT ALL EDUCATIONAL LEVELS

In 2016 on average in the 28 European Union countries men from 25 to 39 years old had a lower **unemployment rate**[📖] than women with identical educational attainment levels **(6.2.1)**. Although relatively contained in the specific age group of young adults, the difference between men and women, however, diminished as the educational level increased. Indeed, on average in the EU-28 the difference in the unemployment rate between men and women was 5 points at ISCED 0-2 levels whilst it was only 2 points at ISCED 5-8. The difference in the unemployment rate between men and women was the greatest in Greece (in the men's favour) for the two educational attainment levels presented here: 14 points for those without degrees and 10 points for those with higher education degrees. France's situation was close to the European average, although it's unemployment rates for the two genders were among the highest for those with low levels of educational attainment.

It is interesting to note that, although on average in the EU-28 men were less often unemployed than women with an equivalent educational attainment level, there were five countries with atypical situations. The first four – Austria, Bulgaria, Germany and Romania – all had both a lower female unemployment rate than men among those without degrees and an identical rate between men and women for those with higher educational degrees. Sweden, the fifth country, was the only country where unemployment seemed to affect less women than men with ISCED 5-8 attainment levels with the statistically significant gap being 0.4 points in favour of the women.

WOMEN MORE AFFECTED BY INACTIVITY OR PART TIME EMPLOYMENT

In 2016 men in the EU-28 countries from 15 to 39 were employed more often than women, with 66% of men as opposed to only 57% of women in this status **(6.2.2)**. The **percentages of unemployment**[📖] being relatively close (8% for men and 7% for women), the difference of status was due to the higher rate of **inactivity**[📖] among women (35%) than men (26%) in the age group under consideration. The status of inactivity covers both training without parallel employment (cf. 6.1, p. 58) and withdrawal from the labour market, each situation being impossible to differentiate here.

The percentage of inactive women in the age group under consideration was systematically higher to the percentage of inactive men. In Italy and the United Kingdom the inactivity rate for women in this age group was at least 10 points higher than for men, whereas this difference was only 1 point in Portugal. The employment rate in the same age group was always symmetrically higher for men, with a 13-point difference in Italy and a 9-point difference in the United Kingdom but only 2 points in Portugal. The largely female part-time employment contributed to narrowing the employment-rate gaps between men and women. Part-time employment accounted for about 25% of women in the age-group in Germany and the United Kingdom and reached 53% in the Netherlands. Here again, Portugal was in an atypical situation with less than 10% of part-time employment among women.

PARENT ORIGINS INFLUENCED ACCESS TO EMPLOYMENT

Migratory origins, the methodological choices ZOOM

The choice here was to consider individuals born in the focus country in the 20-64 year-old age group and born either of native-born parents or parents of mixed origins (one foreign-born parent) or of foreign origins (both parents born elsewhere). All of these descendants therefore theoretically attended the country's educational system. Considering people born abroad and having immigrated to the focus country carries the risk of including people who did not attend the focus country's educational system, which leads to a serious limitation for comparison.

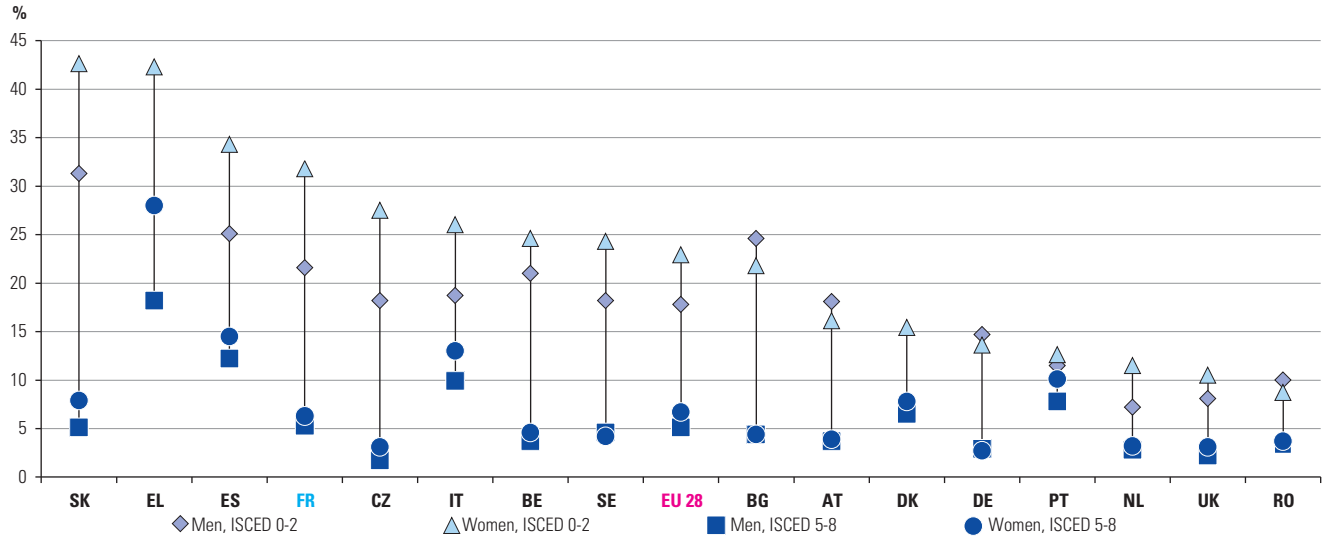
Observed in certain European countries with a history of immigration, in 2014 the 20-64 year old population born in the country and having parents of mixed or foreign origins was, in a nearly totally systematic way, less often in employment than the population with native parents **(6.2.3)**. However, for people with an ISCED 0-2 level degree or an ISCED 5-8 level degree, the employment-rate differences with an equal educational attainment level were relatively contained.

ISCED 3-4 was the educational attainment level that presented the biggest employment-rate differences between 20-64 year-olds with native-born parents and those of parents with mixed or foreign-born origins (in favour of the former) with the exception of Germany where this difference was only two points. In Spain the difference was 22 points and in France, 10 points. The difference observed for those with higher education degrees was on average narrower for those with ISCED 3-4 levels of educational attainment. It varied by 4 points in favour of the native-borns (Spain) to 4 points in favour of children born to foreign or mixed-origin parents (Germany). ■

📖 See definition p. 68.

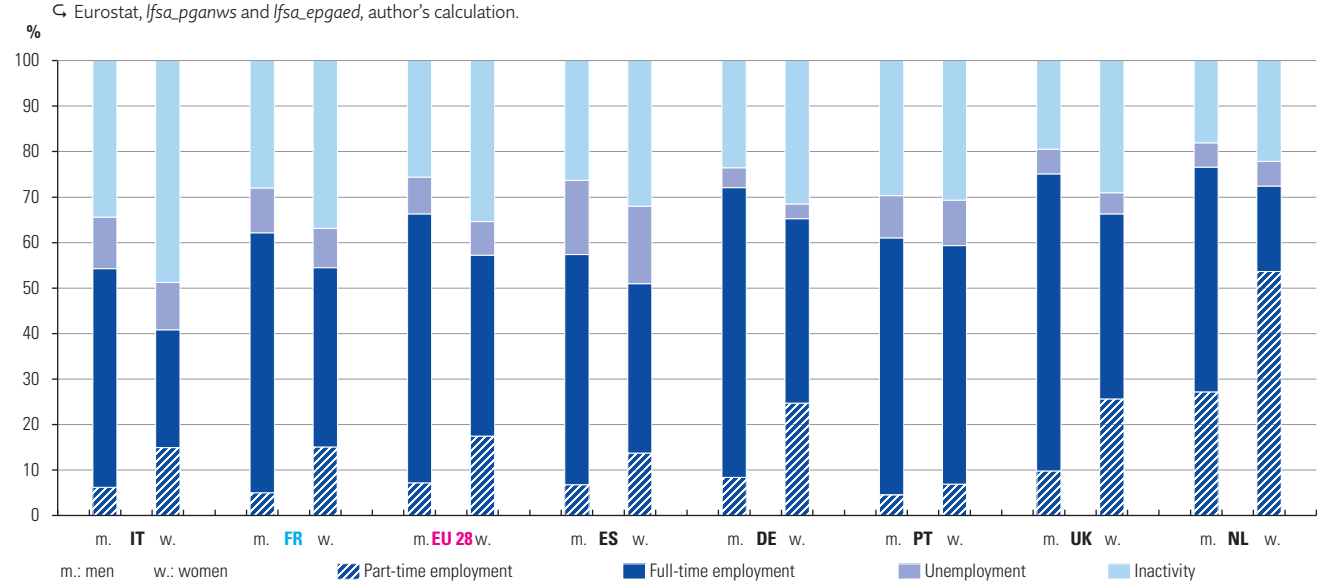
6.2.1 Unemployment rate of the 25-39 year olds by gender and educational attainment level in 2016

↳ Eurostat, *lfsa_urgaed*.



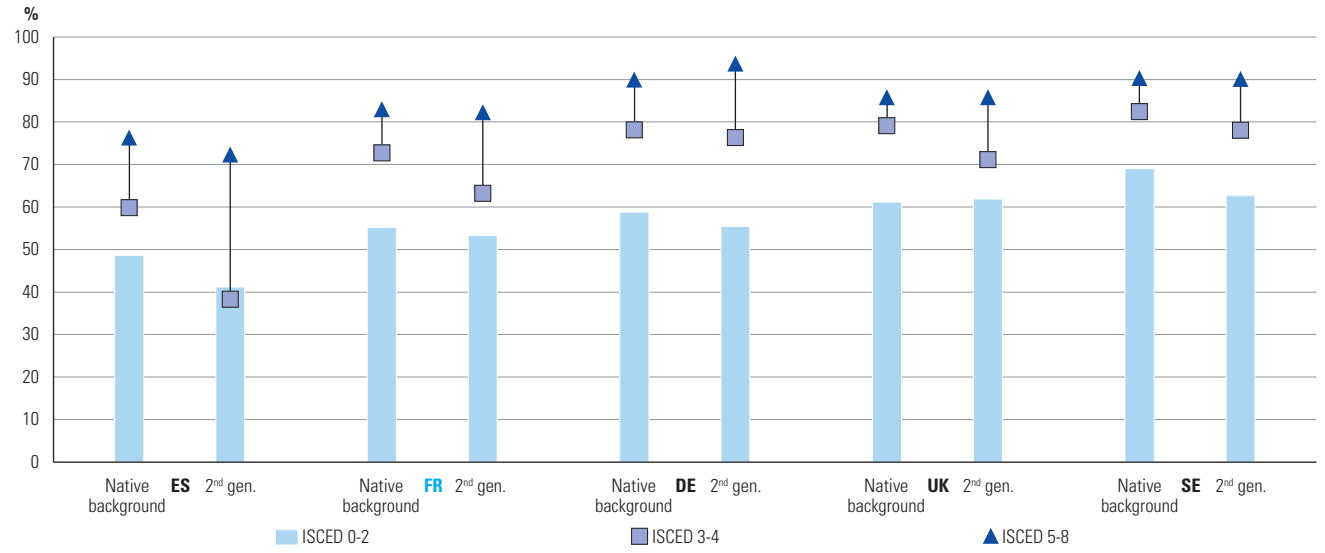
6.2.2 Distribution of the 15-39 year olds by gender and work status in 2016

↳ Eurostat, *lfsa_pganws* and *lfsa_epgaed*, author's calculation.



6.2.3 Employment rate of the 20-64 year olds born in the country by educational attainment level and parents' citizenship in 2014

↳ Eurostat, *lfso_14lel*.



6.3 INCOME ACCORDING TO THE EDUCATIONAL ATTAINMENT LEVEL AND GENDER

Income according to EU-SILC ZOOM

The Eurostat EU-SILC survey *(Statistics on Income and Living Conditions)* provides European statistics on the gross disposable income of households, i.e. the income remaining to households after deduction of tax and benefits contributions. Included in the calculation is all income from work and capital, transfers between households and social transfers (excluding rents paid to owners for housing). The median income indicates the value at which the population is split into two equal parts, i.e. those with incomes above the median and those with incomes below it.

THE POSITIVE IMPACT OF THE EDUCATIONAL ATTAINMENT LEVEL ON INCOME

In all the 28 European Union countries in 2016 the gross disposable income of people of 18 and over grew with the level of educational attainment. Nonetheless the amount varied palpably depending on the level of GDP per head in each country and the distribution of income within each country. Whether it was for ISCED 0-2 or for ISCED 5-8, the extreme values were in Romania (lowest incomes) and Luxembourg (highest incomes). The median annual incomes per country (in PPS equivalent) among people with ISCED levels 0-2 varied from 3,730 PPS to 24,030 PPS, and for those with ISCED levels 5-8 from 8,700 PPS to 36,050 PPS **(6.3.1** and **6.3.2)**. Whatever the ISCED level considered, France was among the countries where annual median income was the highest.

In 2016 the ratio between the median annual income of higher education-attainment levels and those with lower-level degrees varied from 1.42 in Denmark (the lowest ratio) to 2.47 in Bulgaria (the highest ratio). The relative advantage provided by a higher education-attainment level was therefore considerable in Bulgaria. This ratio was 1.47 in France, 1.61 in Germany, 1.60 in the United Kingdom and 1.67 in Italy.

WOMEN WERE LESS WELL PAID ON EQUIVALENT EDUCATION-ATTAINMENT LEVELS

In the 22 OECD-member countries of the EU in 2016 full time employed women systematically earned less income than men with equivalent qualifications **(6.3.3)**. On average in the 22 countries women with low education-attainment levels received income equivalent to 80% of men's. This ratio varied from 60% in Estonia to 91% in Sweden. For ISCED 5-8 levels the average was 74% and varied from 67% in Estonia to 86% in Luxembourg. In France where the ratio corresponded respectively to 75% and 71% of the income earned by men for ISCED 0-2 and ISCED 5-8, women's income was close to the European average.

It should be noted that, with only two exceptions (Estonia and Spain), the gap in earned income of women compared to men narrowed as their ISCED level rose. However this observation does not take into account the dispersion of incomes within an ISCED level for the entire population.

Earned income according to the OECD ZOOM

The OECD's indicator of earned income used here **(6.3.3** and **6.3.4)** applies to full-time workers, paid throughout the entire year of reference. It is gross earned income. The sources for the European countries may come from the EU-SILC survey (the case for France), the **LFS**📖 survey or national sources. Countries not providing full statistics per ISCED have not been considered.

HIGHER EDUCATION: THE "NEXT DEGREE" IS ALWAYS PROFITABLE

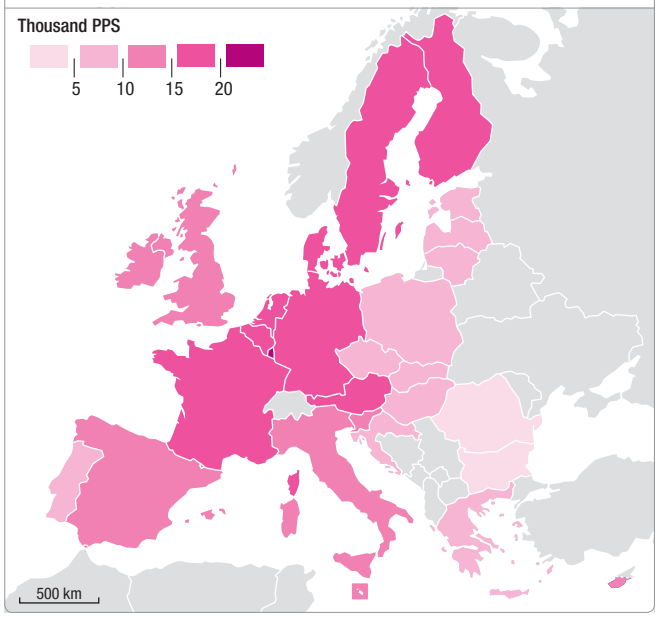
In the average of the OECD-member European countries in 2016 for which data were available, receiving a higher degree in higher education was as ever profitable, given the increased earnings that were associated with the degree **(6.3.4)**. Indeed, on average, compared to active workers from 25 to 64 with an ISCED level 3, those of the same age with an ISCED 5 level earned 24% more; those with an ISCED 6 level earned 38% more, and those with ISCED 7 and 8 earned 77% more. With the exception of Austria, Denmark and Estonia, incomes in each country grew with the educational level attained. In Hungary a Master's or PhD carried the greatest relative benefits compared to degrees on the ISCED 3 level.

In certain countries, such as Germany, Hungary and the United Kingdom, the increased income linked to a higher ISCED level was linear. In other countries, such as Denmark and Finland, going from ISCED levels 5 to 6 created a limited increase of income with the relative benefit being higher for ISCED levels 7 and 8. France illustrated this situation especially well, as obtaining a Master's degree there provides a noticeable raise in earnings. ■

📖 See definition p. 74.

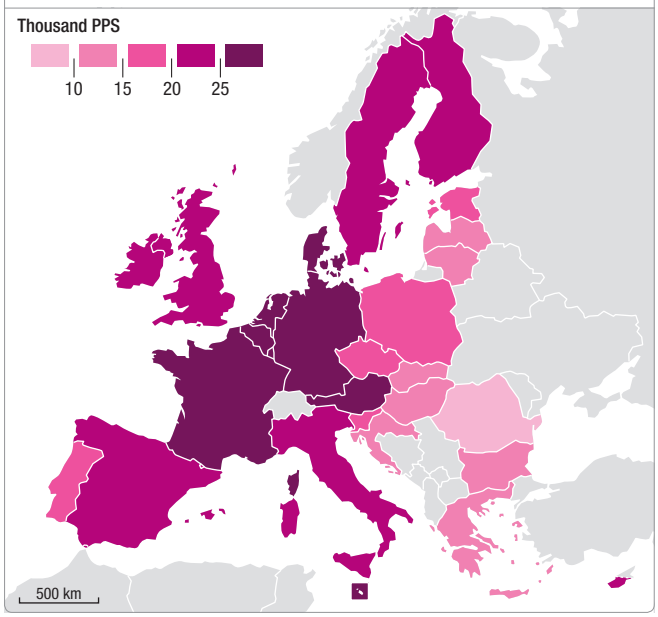
6.3.1 Median income of the 18 years old or over with an ISCED 0-2 educational attainment level in 2016, PPS equivalent

↳ Eurostat, *ilc_dio8*.



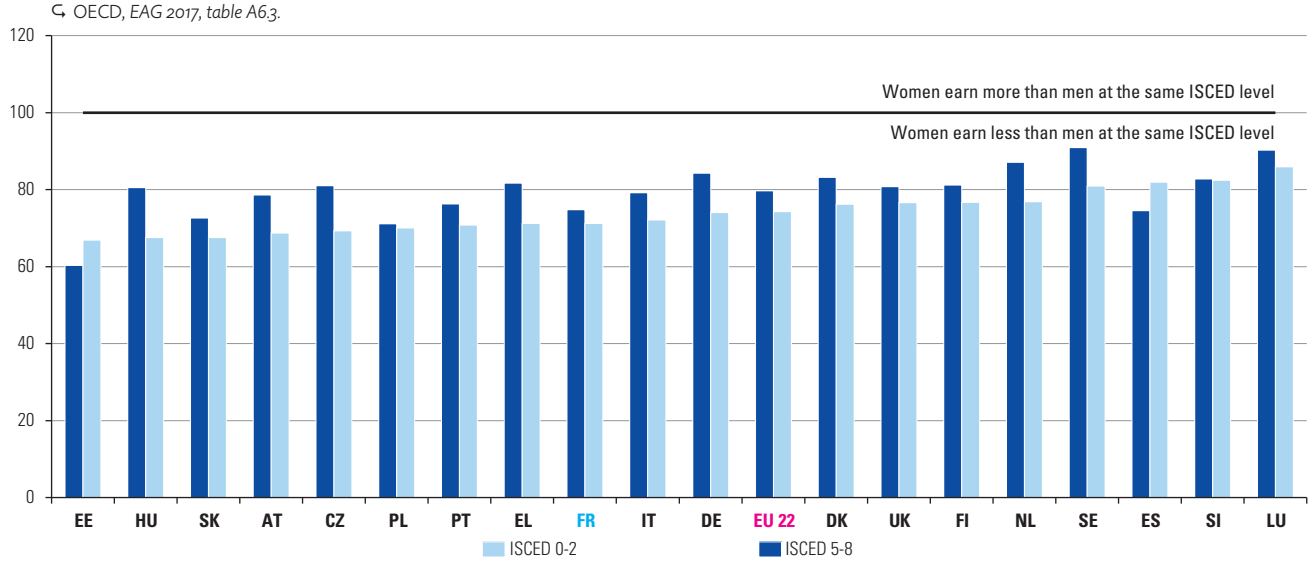
6.3.2 Median income of the 18 years old or over with an ISCED 5-8 educational attainment level in 2016, PPS equivalent

↳ Eurostat, *ilc_dio8*.



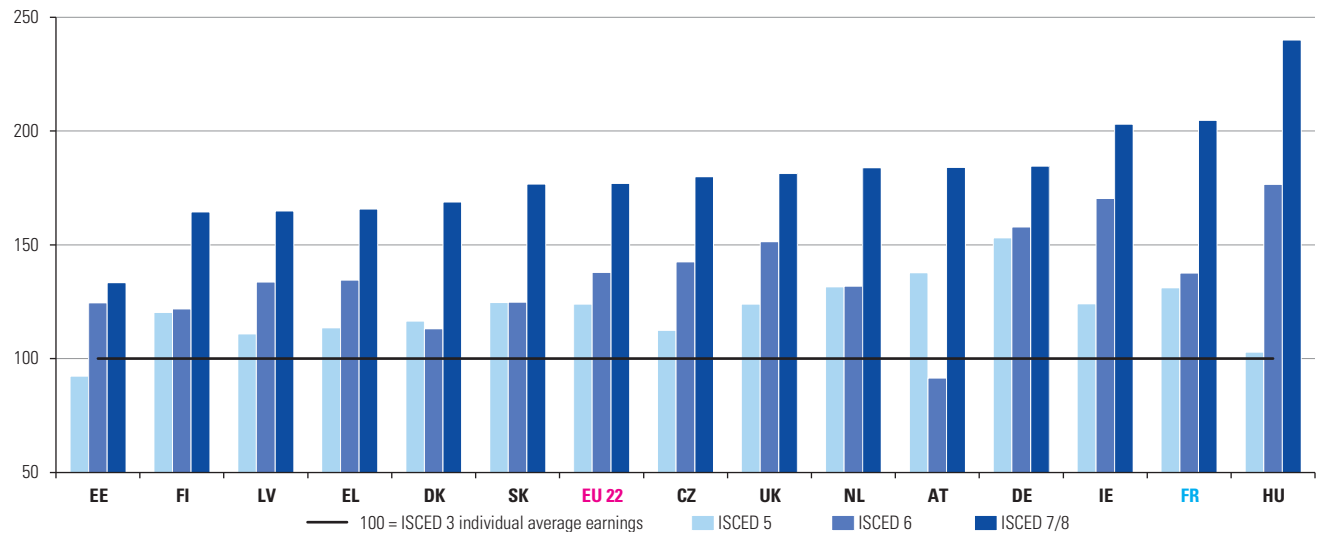
6.3.3 Difference in earnings between female and male workers (full-time employment) by educational attainment level in 2015

↳ OECD, *EAG 2017, table A6.3.*



6.3.4 Relative earnings of adults working full-time by educational attainment level in 2015

↳ OECD, *EAG 2017, table A6.1.*



6.4 EDUCATION AND HEALTH

IS HEALTH LINKED TO THE EDUCATIONAL LEVEL ATTAINED?

The Minimum European Health Module (MEMH) of the EU-SILC survey ZOOM

The EU-SILC survey gathers data on the health of people 16 and over in Europe. It considers only 3 specific concepts: self-perceived health, chronic morbidity and activity limitation (partial or total). These data are based on statements by respondents. Graph **6.4.1** presents the data of the first two concepts. The data of self-perceived health came from answers to the following question: "How is your health in general? Very good, good, fairly good, poor or very poor?" The graph shows an aggregate of the percentage of individuals who stated they were in good or very good health. The question asked for chronic morbidity was the following: "Do you have any longstanding illness or health problem (of at least six months)? Yes, no?"

In 2016 on average 80% of people 16 and over with higher education-attainment levels in the European Union 28 stated they were in good or very good health. Such was the case for only 56% of people with ISCED levels 0-2 **(6.4.1)**. France's rates were near those of the EU-28 average, 77% and 53% respectively. Although the level of self-perceived health grew systematically with the level of education, the differences between low levels of education and higher education varied according to the country. The gap was the widest in Portugal (a 41 point gap), and in Denmark the narrowest with a 16 point gap. There were only 6 countries where at least 60% of individuals with ISCED levels 0-2 stated they were in good or very good health.

Longstanding illness or health problems were less often declared by people with a high level of education. In the EU-28 in 2016 43% of people of 16 or over with a low level of education declared a health problem lasting more than 6 months, whereas it was the case in only 29% of people with ISCED levels 5-8. Here too the gaps between ISCED levels varied widely according to the country. The widest gaps were observed in Croatia and Lithuania with a spread of 31 points, whilst the narrowest gap was seen in Germany (6 points).

OCCASIONAL SMOKING MORE FREQUENT AMONG PEOPLE WITH DEGREES

Although smoking-related habits differ per country in the EU, they seem to be linked to the person's educational level. In 2016 the EU-28 average was 24% of people with low educational-attainment levels stated they smoked (occasional and daily smokers combined) as opposed to 19% of the ISCED 5-8 level individuals **(6.4.2)**. Moreover habits differed according to the ISCED level, i.e. the percentage of occasional smokers among all smokers was greater among people with higher education-attainment levels (about 30% with ISCED 5-8 levels) than among those with low education-attainment levels (about 13%).

However this European average is not reflected in every country. For example, the gap between the percentage of smokers per ISCED level was highest in Estonia (a difference of 16 points). Moreover among the countries presented here, only France, Portugal and Romania had more smokers among the higher education-attainment levels than among the lower education-attainment levels. However France and the Netherlands stood out by their high rates (8%) of occasional smokers among people with ISCED levels 5-8.

THE RISK OF OBESITY DECREASED WHEN THE EDUCATIONAL LEVEL INCREASED

The body mass index ZOOM

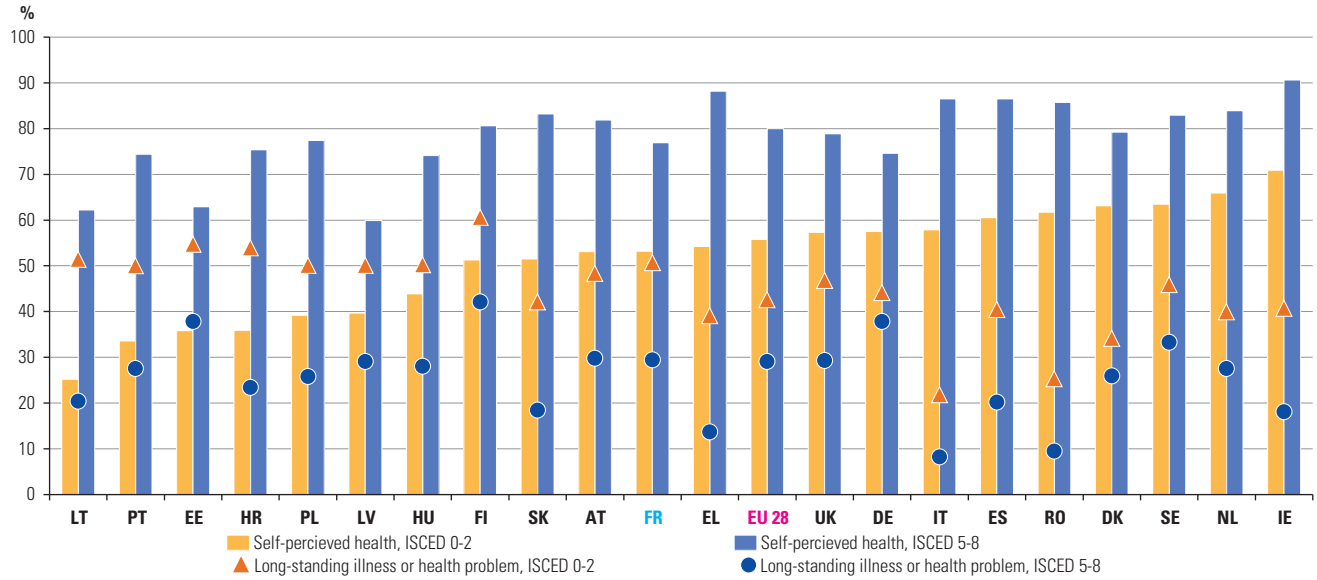
The World Health Organisation (WHO) has adopted the body mass index (BMI) to observe excess weight and obesity in populations. The BMI is calculated by dividing the mass in kilogrammes by the height in metres squared (kg/m²). The WHO has set BMI thresholds to define different situations: a "normal" BMI is located between 18.5 and 25 kilos/m², a threshold beyond and below which the risk of mortality is significantly increased: overweight is located between 25 and 30 kilos/m², beyond which is becomes obesity. These data come from the **EHIS** survey *(European Health Interview Survey)*, the 2nd edition of which was carried out between 2013 and 2015.

In 2014 the average proportion of obese individuals in the 26 countries participating in the EHIS survey decreased quasi-systematically as the level of education rose **(6.5.4)**. in 2014 In the vast majority of countries participating in the survey (20 of 26) over 20% of the population with low educational levels were obese. In Malta obesity affected over 30% of the population with low educational levels and more than 20% of the population with higher educational levels, which corresponded to the EU's upper extreme. In France the proportion of the population with obesity was slightly higher than the EU-28 average for ISCED levels 0-2 and slightly lower for the other two ISCED levels attained. ■

See definition p. 74.

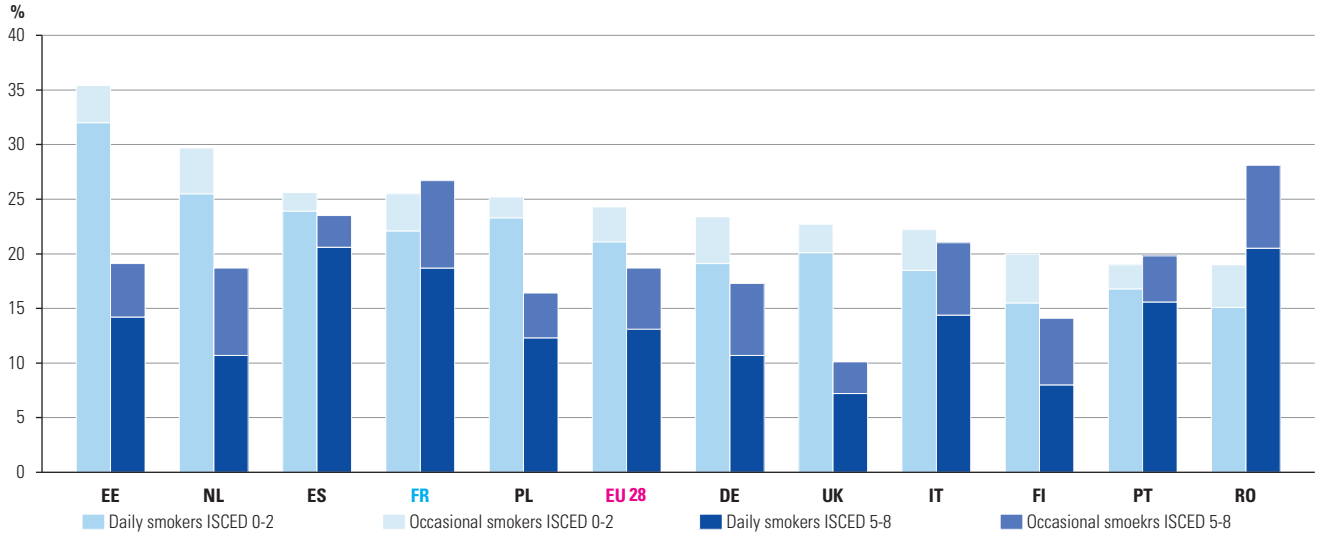
6.4.1 Proportion of the 16 years old or over declaring being in good or very good health and declaring having a long-standing illness or health problem among by educational attainment level in 2016

↳ Eurostat, *hlth_silc_02* et *hlth_silc_05*.



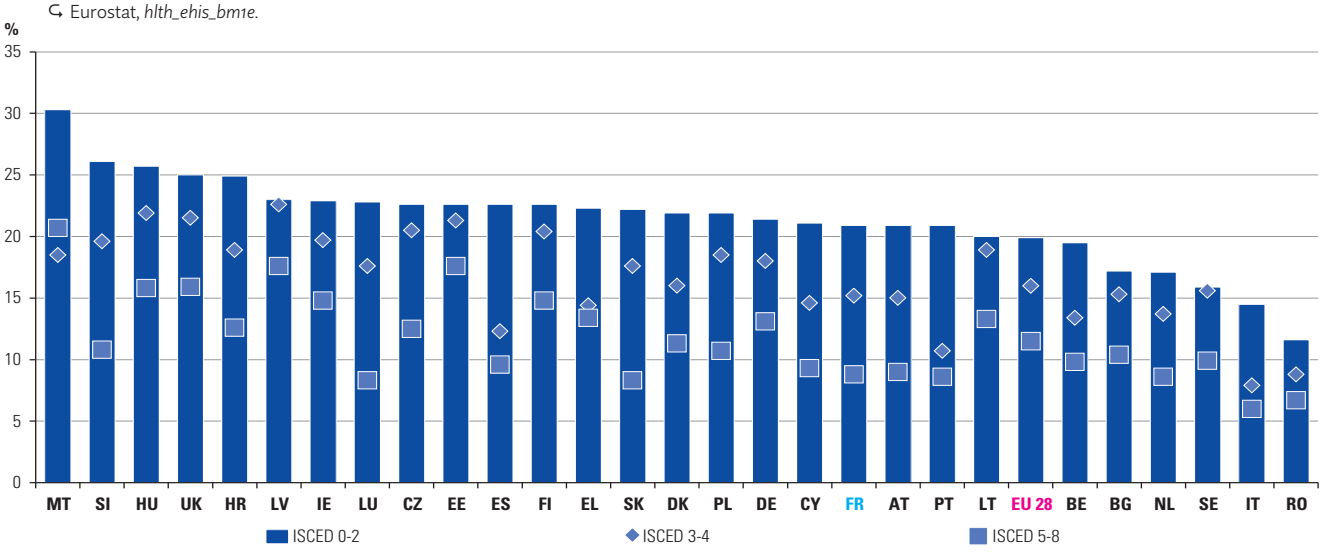
6.4.2 Tobacco usage among the 18 years old or over by educational attainment level in 2014

↳ Eurostat, *hlth_ehis_sk1e*.



6.4.3 Proportion of the population with obesity among the 18 years old or over by educational attainment level in 2014

↳ Eurostat, *hlth_ehis_bm1e*.



6.5 EDUCATION, CULTURAL PRACTICES AND DIGITAL USE

THE CONSUMPTION OF CULTURAL GOODS IS THE PREROGATIVE OF THOSE WITH HIGHER EDUCATIONAL ATTAINMENT

The impact of a person's educational level on their cultural practices ZOOM

In 2015, the **EU-SILC** 🕮 survey included an ad-hoc module on social and cultural participation and material deprivation. It made it possible to relate individuals' cultural practices to the educational level they attained. Graph **6.5.1** charts 16 year-olds and over who had participated in a cultural activity (cinema, live performances or cultural sites) at least once over the previous twelve months according to the ISCED level they had attained.

In the 28 European countries in 2015 it was observed that participation in cultural activities was highly variable according to the educational level attained. More than half of the 28 EU countries showed differences in rates of participation greater than 40 points between people with low levels of education and those with higher educational levels. However, whilst the rate of participation among those with higher educational levels surpassed 80% in the vast majority of European countries, the participation varied considerably within the population with ISCED levels 0-2. It ranged from 11% in Bulgaria to 76% in Denmark. With high rates for both sectors, France was in a relatively advantageous position.

THE USE OF DIGITAL TOOLS IS NOT YET UNIVERSAL IN EUROPE

Digital use ZOOM

So as to measure digital use by households and companies Eurostat has implemented an annual survey about Information and Communication Technology (ICT). This survey collects data on the 16 to 74 year-old population and its access to the ICTs, as well as how it uses them. The survey also makes it possible to breakdown households and individuals per ISCED level attained.

In the 28 EU countries in 2015 the portion of the population using a computer daily varied widely according to the educational level. On average in the 28 countries only 39% of people with low educational attainment aged 16 and over used a computer on a daily basis, whilst this rate reached 87% among those with higher educational attainment **(6.5.2)**. Here too there was a relative uniformity among the more highly educated. The daily use of a computer systematically surpassed 80% for the population with ISCED 5-8 levels in the EU countries.

Although digital use seems widely developed among more highly educated people across the EU-28, this use varied considerably for those with lower levels of educational attainment. In 13 countries (including Austria, Ireland and Spain) fewer than 40% of people with ISCED levels 0-2 used a computer daily, with the lowest being 20% in Bulgaria and Romania. However in 4 countries (Finland, Germany, Luxembourg and the Netherlands), this rate surpassed 60%. France had proportions near the European average for the two ISCED levels.

THE USE OF PUBLIC INTERNET SERVICES IS ALSO HIGHLY LINKED TO THE EDUCATIONAL LEVEL

Digital use is particularly enlightening in the framework of government services made available and regulated on-line. This is notably the case of a certain number of public services such as filing out requests for social security benefits, enrolling children in schools or universities and declaring and paying taxes on-line, which pertained to a European directive (directive 2016/2102 of the European Parliament and the European Union Council in 2016).

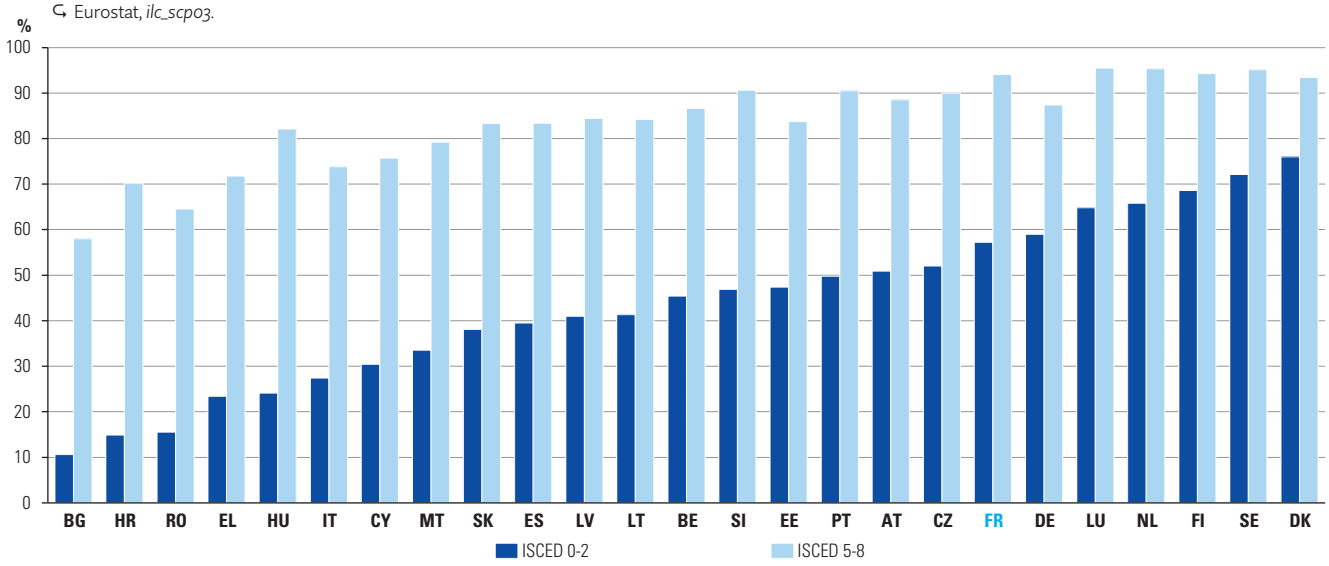
The data gathered by Eurostat's ad-hoc module of the ICT survey in 2013 made it possible to shed precise light on the use of on-line public services by the population according to the educational level attained. Graph **6.5.3** presents the findings for individuals having already made an income-tax declaration on-line, a service which to date is the most commonly available on the Internet in Europe. In 2013, if only 35% of those who attained higher education in the 28 EU countries declared their taxes via the Internet, the percentage of those with lower educational levels with access to the same services was much lower (7%). France was in a favourable position as it enjoyed some of the highest rates in Europe for each of the two ISCED levels.

Nonetheless it is advisable to consider these data cautiously, for this indicator may in fact be dependent on exogenous factors such as access to a computer and/or Internet in households, accessibility to and ease of use on destination sites, fiscal regulations, etc. ■

🕮 See definition p. 78.

6.5.1 Frequency of participation in cultural activities (cinema, live performances or cultural sites) in the last 12 months by educational attainment level in 2015

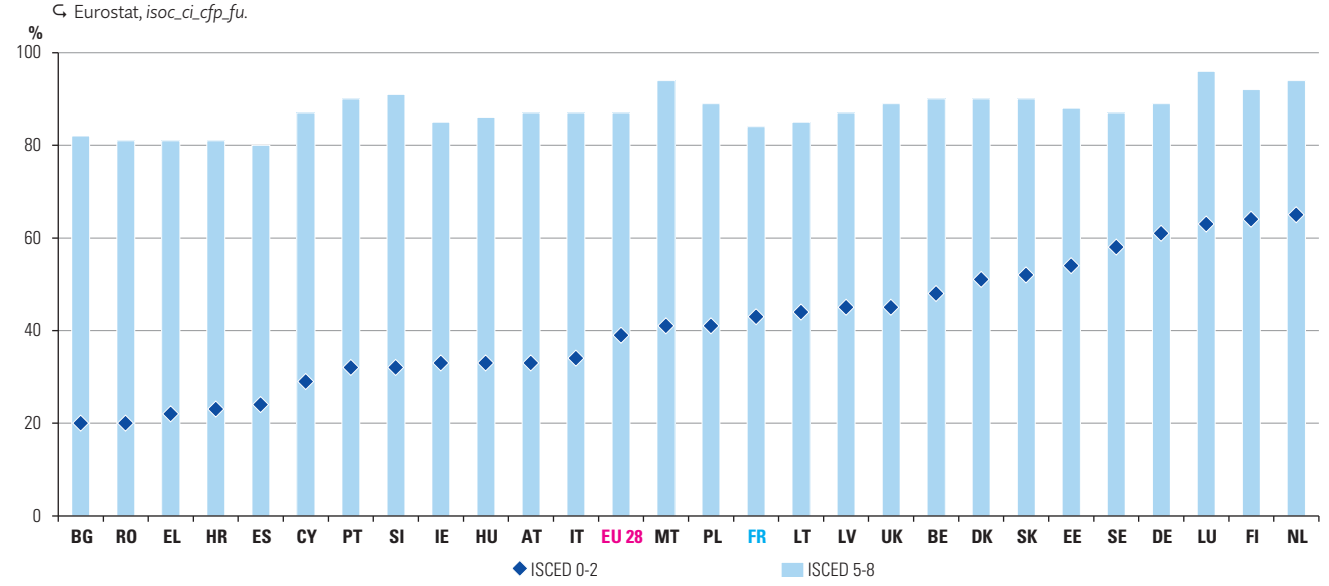
↳ Eurostat, *ilc_scp03*.



Note: In 2015 in France, 57% of the individuals that are 16 years-old and more and have an ISCED 0-2 educational attainment declare that they have participated at least once in a cultural activity over the course of the 12 last months; this rate is 94% for the individuals that have an ISCED 5-8 educational attainment.

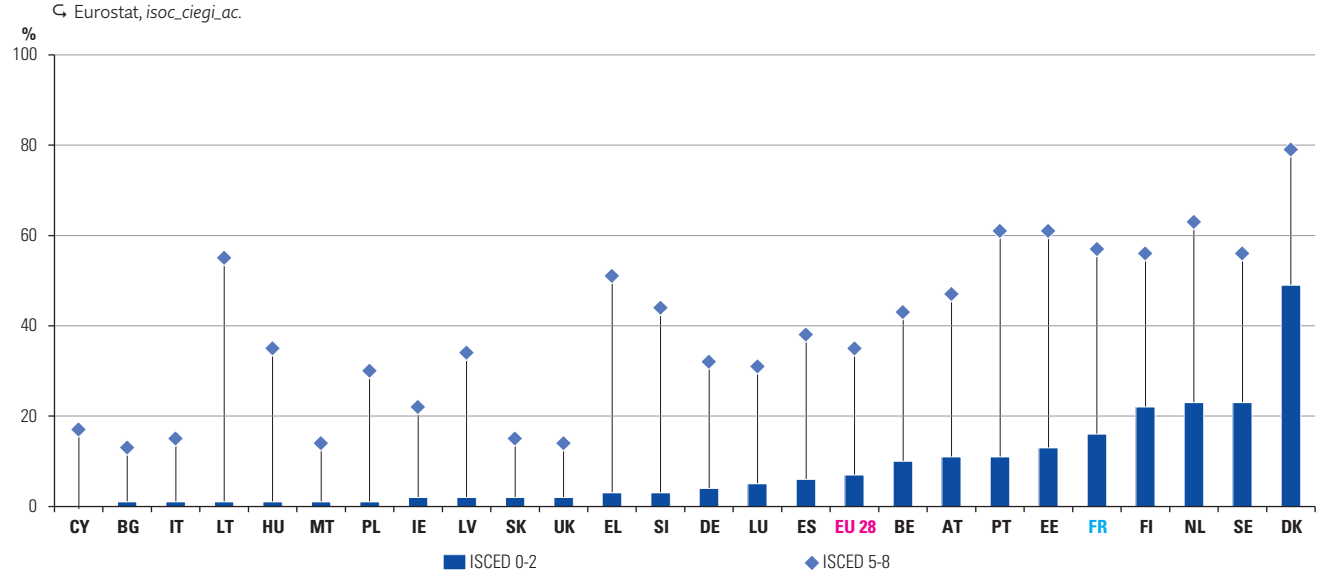
6.5.2 Daily use of a computer by 16 year olds or over by educational attainment level in 2015

↳ Eurostat, *isoc_ci_cfp_fu*.



6.5.3 Proportion of the population that has submitted an income tax declaration via websites of public authorities by educational attainment level in 2013

↳ Eurostat, *isoc_ciegi_ac*.



DEFINITIONS

Activity rate
The activity rate is the ratio between the number of active persons (occupied labour force and the unemployed) and the corresponding total population. (def. INSEE)

Baseline proficiency
According the OECD, the baseline is the threshold at which "individuals begin to manifest skills that will enable them to effectively and productively participate in the life of society». The level 2 is the baseline proficiency level. Students who are grouped in levels below 2 (i.e level "under 1b", "1b" and "1a") are called low performers.

Childbirth leave
Employment-protected paid leave of absence for employed women around the time of childbirth. The ILO convention on maternity leave stipulates the period of leave to be at least 14 weeks. In most countries beneficiaries may combine pre- with post-birth leave. Paternity leave is not stipulated by international convention.

Class size
Call size is calculated by the OECD by dividing the number of students enrolled by the number of classes. Special-needs programs are excluded, as well the sub-groups of regular classroom settings. (def. OECD)

Cumulated mandatory instruction time
Cumulated global mandatory instruction time is the sum of the total number of mandatory instruction by ISCED level. It can be provided for the whole mandatory instruction time or by specific subject, such as foreign languages.

Dependent children
A dependent child is a member of a household who is less than 25 years old and relies economically and socially on other members of the household (parents/adults). All members of a household who are less than 15 years old are considered as dependent by default. Members who are between 15 and 24 years old are considered dependent if they are inactive.

Early Childhood Education and Care (ECEC)
ECEC covers, on the one hand, all conditions of the child's care since their earliest years in an authorised institution, often under the authority of the Ministry of Social Affairs (day nurseries, nursery schools, family day care and authorised child-minders) and, on the other, the pre-primary education curricula offered to children in a dedicated institution up to the age of compulsory education.

Employment rate
The employment rate of a class of individuals is the ratio of the number of individuals in the class who have a job to the total number of individuals in the class. It can be calculated for the whole population of a country, but is usually restricted to the population of working age (generally defined, for the purposes of international comparison, as persons of between 15 and 64 years of age), or to a sub-category of the population of working age (women aged 25 to 29 years, for example). (def. INSEE)

Enrolment rate
The enrolment rate is the percentage of young people of a given school age who are schooled, against the total population of the same age. (def. INSEE)

European Credit Transfer system (ECTS)
ECTS is a credit system is student-centred, based on the learning achievements, the workload and the learning outcomes of a given course or programme. ECTS helps with the planning, delivery and evaluation of study programmes, and makes them more transparent. Greater transparency of learning achievements simplifies mobility through the recognition of studies done in other countries. 60 ECTS credits are the equivalent of a full year of study or work. (def. European commission)

Formal education
Education that is institutionalized, intentional and planned through public organizations and recognized private bodies and, in their totality, make up the formal education system of a country. Formal education programmes are thus recognized as such by the relevant national educational authorities or equivalent, e.g. any other institution in co-operation with the national or sub-national educational authorities. Formal education consists mostly of initial education. Vocational education, special needs education and some parts of adult education are often recognized as being part of the formal education system. (def. UNESCO)

Full-time equivalent employment
Total number of hours worked divided by the annual average number of hours worked in full-time jobs on a given economic territory. (def. INSEE)

Gini index
The Gini index (or coefficient) is a composite indicator of inequalities in wages (in income, standard of living, etc.). It varies between 0 and 1. It would be equal to 0 in situations of perfect equality in which all wages, income and standard of living, etc. were equal. At the other end of the scale, it would be equal to 1 in the most unequal situation possible, where all wages (income, standards of living, etc.) except one were zero. A fall in the GINI index observed between two dates indicates an overall reduction in inequalities and conversely (but does not indicate what induces the change, especially towards lower or higher values of distribution).

Gross domestic product (GDP)
An aggregate representing the final result of the production activity of resident production units. The GDP is equal to the sum of the final domestic uses of goods and services (final effective consumption, gross fixed capital formation, variations in stocks) plus exports and minus imports. (def. INSEE)

Households' disposable income
The disposable income of a household includes the income from its activity (after deduction of social security contributions), the income from its assets, the transfers from other households, and social benefits (including retirement pensions and unemployment benefits), net of direct tax. (def. INSEE) The median income divides the population in two : 50% of the

population earns less, 50% of the population earns more. Using the median instead of the mean allows mitigating the impact of extreme values.

Inactivity
Inactive are conventionally those who are neither in employment (ILO) nor job seekers, i.e. young people under 15, non-working students and pensioners, people unable to work, etc.

Informal learning
Forms of learning that are intentional or deliberate but are not institutionalized. They are less organized and structured than either formal or non-formal education. Informal learning may include learning activities that occur in the family, in the work place, in the local community, and in daily life, on a self-directed, family-directed or socially-directed basis. (def. UNESCO)

Instruction Time
Instruction time refers to the time a public school is expected to provide instruction to students on all the subjects integrated into the compulsory and non-compulsory curriculum, on school premises or in before-school/after-school activities that are formal parts of the compulsory programme. Instruction time excludes breaks between classes or other types of interruptions, non-compulsory time outside the school day, time dedicated to homework activities and individual tutoring or private study. (def. OECD EAG)

International Labour Office
The International Labour Office (ILO) is a UN agency in charge of general issues related to labour in the world. It is located in Geneva. It harmonises concepts and definitions relative to labour and employment, in particular those relative to the working population and to the unemployed.

Life expectancy at birth
Life expectancy at birth (or at age 0) represents the mean length of life of a synthetic cohort exposed at each age to the mortality patterns of a given year. It is a measure of mortality that is independent of the effects of age structure. Life expectancy at birth is a particular case of life expectancy at age x, which represents the mean number of remaining years of life beyond age X, under the mortality conditions of the year in question. (def. INSEE)

Natural balance
The natural balance is the difference between the number of births and the number of deaths recorded over a period. (def. INSEE)

Neither in employment, education or training (NEET)
NEETs (Neither in Employment nor Education and Training) are defined as people either unemployed or inactive as defined by the ILO, who do not continue their initial studies and who state that they have not been in formal or non-formal education in the four weeks prior to the survey (LFS). This indicator compares NEETs of a certain age group to the whole population of the same age group (population on January 1st, Eurostat population statistics). It thus focuses more on the labour status of an individual rather than its' education attainment level.

Net migration plus statistical adjustment
The migration balance is the difference between the number of persons having entered the territory and the number of persons having left the territory in the course of the year. This concept is independent of nationality. The statistical adjustment warns the reader that this indicator may include population changes that are not imputed to births, deaths, immigration and emigration, such as adjustments of administrative statistics of population.

Non-formal education
Education that is institutionalized, intentional and planned by an education provider. The defining characteristic of non-formal education is that it is an addition, alternative and/or a complement to formal education within the process of the lifelong learning of individuals. It is often provided to guarantee the right of access to education for all. It caters for people of all ages, but does not necessarily apply a continuous pathway-structure; it may be short in duration and/or low intensity, and it is typically provided in the form of short courses, workshops or seminars. Non-formal education mostly leads to qualifications that are not recognized as formal qualifications by the relevant national educational authorities or to no qualifications at all. (def. UNESCO)

Occupied labour force
The occupied labour force «in the sense of the ILO» includes the persons (aged 15 years or older) who have worked (even for one hour) in the course of a given week (called reference week), be they salaried, self-employed or helpers in an enterprise or a family operation. It also includes persons who have a job but who are temporarily absent for reasons such as sickness (less than one year), paid leave, maternity leave, industrial dispute, training, etc. National servicemen, apprentices and paid interns are included in the occupied labour force. (def. INSEE)

Overcrowding rate
The overcrowding rate is the ratio of the number of households that live in an overcrowded dwelling compared to the total number of households. The characterisation of overcrowding is calculated with the number of rooms, accounting for necessary equipment: a living room for the household, a room for each couple, a room for every single individual that is 19 years old or more, and a room for two children if they are of the same sex or they both are below 7 years old. In order to not be overcrowded, a dwelling has to legally provide a defined minimum surface: 25m² for an individual that lives alone and 18m² per individual for every other household. (def. INSEE)

Parental leave
Employment-protected leave of absence for parents, which is often supplementary to specific maternity and paternity leave periods, and frequently, but not in all countries, follows the period of maternity leave. Entitlement to the parental leave period is often individual (i.e. each parent has their own entitlement) while entitlement to public income support is frequently family-based, so that in general only one parent claims such income support at any one time. In some countries parental leave is generally a sharable family entitlement

but with certain periods reserved for use by the mother or father, implying that a certain number of weeks are effectively 'reserved' for fathers or the 'second' parent. For instance, in France, parental leave can go up to 1 year, under the condition of both parents taking 26 weeks of leave each.

PISA performance level groups
PISA's proficiency levels are not built ex-ante but ex-post, based on the results. The range of scores (maximum value - minimum value) is divided by a defined number of groups. From this result are given thresholds that constitute the proficiency levels. A required level of skills, knowledge and field understanding is tied to each level. The student is assigned to a level according to his/her score, which corresponds to him/her a probability of success to items linked to this level of at least 50%. According the the OECD: «level 2 is considered the baseline level of proficiency that is required to participate fully in modern society.»

Purchasing power parity (PPP)
Purchasing power parity (PPP) is a money conversion rate used to express the purchasing powers of different currencies in common units. (def. INSEE)

Purchasing power standard (PPS)
Purchasing power standard is an artificial common reference currency unit used in the European Union which eliminates the differences of price levels between countries. So, a PPS allows to buy the same volume of goods and services in all the countries. (def. INSEE)

Share of unemployment
The share of the unemployed is the proportion of the unemployed in the total population. This indicator is lower than the unemployment level which measures the proportion of unemployed only within the labour force. It is used to offset the very high level of unemployment in the under-25 age group. As a large number of young people are studying and relatively few have a job, their unemployment level is very high whereas the proportion of unemployed within that age group is much lower (share of unemployment = the unemployment rate × the activity rate). (def. INSEE)

Slack work
When a company reduces its activity below the legal hours or periodically stops all or part of its activity and is not planning to break the employment contracts that bind it to its employees, it may resort to slack work. The slack work compensation system makes it possible to manage an occasional drop in activity that is limited over time and has the civil year as its framework. (def. INSEE)

Teaching time
Teaching time is defined as the scheduled number of hours that a full-time teacher teaches a group or class of students as set by policy, teachers' contracts of employment or other official documents. Teaching time can be defined on a weekly or annual basis. It is a net contact time for instruction as it excludes periods of time formally allowed for breaks between lessons or groups of lessons and the days that the school is closed for holidays. According to the definition the OECD uses, in primary education, short breaks between lessons are included if the classroom teacher is responsible for the class during these breaks. (def. OECD EAG)

Total fertility rate
Total period fertility measures the number of children a woman would have in the course of her life if the fertility rates observed at each age remained unchanged. (def. INSEE)

Ratio of students to teaching staff
The ratio of students to teaching staff is obtained by dividing the number of full-time equivalent students at a given level of education by the number of full-time equivalent teachers at that level and in similar types of institutions. (def. OECD)

Risk of poverty and social exclusion
Eurostat offers a summary measurement of the number of people at risk of poverty and social exclusion, i.e. those whose income is located below the poverty line (set at 60% of the national median of disposable income after social transfers) and/or those who live in material want (a lack of access to certain staple foods and goods) and/or live in very low labour-intensive households (under 20% of potential work time).

Unemployment
In application of the international definition adopted in 1982 by the International Labour Organisation (ILO), an unemployed person is a person of working age (15 or over) who meets three conditions simultaneously: being without employment, meaning having not worked for at least one hour during the reference week; being available to take up employment within two weeks; having actively looked for a job in the previous month or having found one starting within the next three months.

Unemployment rate
The unemployment rate is the percentage of unemployed people in the labour force (occupied labour force + the unemployed). The unemployment rate can be given for the whole active population or for a given group (age group, gender, etc.). An unemployment rate per age can be calculated by calculating the ratio of the unemployed persons in an age group to the labour force of the said age. The unemployment rate is different from the share of unemployment which measures the proportion of unemployed people in the population as a whole.

Social equity in student performance
Many indicators exist in PISA to measure the impact of the social and economic background of a student on his/her performance (S. Keskpaik et T. Rocher (2011), "*Pour une mesure de l'équité dans PISA: pour une décomposition des indices statstiques*", *Éducation et Formations* n°80, MENESER-DEPP). In the figure 5.5.2, the one that was used is the Percentage of variation in performance explained by the ESCS index. It gives a measure of the «strentgh» of the link between performance and socio-economic background; it indicates to what extent is the performance of a student predictable when accounted for his/her background.

Education at a Glance (EAG)
Created by the OECD at the beginning of the 90's, Education at a Glance is the main statistical publication of the OECD in education. These indicator look into the participation in education (access to education, participation rates to each ISCED level, distribution between public and private institutions, fields of study in tertiary education, etc.); on results (diplomas and titles success); on resources and teaching methods that influence these results (invested budgets, instruction time, teachers, salaries, etc.); and finally the returns of education (professional integration, income by ISCED level, etc.). Gender inequality data hold an ever growing place. Many of these indicators come from a joint data collection made by three international institutions: the UNESCO, the OECD and Eurostat (UOE joint data collection).

European Health Interview Survey (EHIS)
Health interview surveys offer comprehensive data on the health status of a population and health-related topics based on answers by respondents of a representative sample of the population. EHIS covers the following topics: Health status (self-perceived health, chronic diseases, accidents, etc.); Health determinants (smoking and alcohol consumption, body weight, etc.); Health care (use of health care services and use of medicines, but also unmet needs for health care). EHIS is used as a data source for important health and social policy indicators such as the European Core Health Indicators (ECHI) or indicators of the health and long-term care strand developed under the Open Method of Coordination on social protection and social inclusion (EU social indicators).

European Labour Force Survey (EU-LFS)
A labour force survey, abbreviated as LFS, is an inquiry directed to households, designed to obtain information on the labour market and related issues through a series of personal interviews. The European Union (EU) LFS covers all citizens living in private households and excludes those in collective households, such as boarding houses, residence halls and hospitals. The definitions used are common to all EU Member States and are based on international recommendations by the International Labour Organization (ILO).

European Statistics on Income and Living Conditions (EU-SILC)
The EU statistics on income and living conditions, abbreviated as EU-SILC, is the reference source for comparative statistics on income distribution and social inclusion in the European Union (EU).EU-SILC is a multi-purpose instrument which focuses mainly on income. Detailed data are collected on income components, mostly on personal income, although a few household income components are included. However, information on social exclusion, housing conditions, labour, education and health information is also obtained. The reference population in EU-SILC includes all private households and their current members residing in the territory of the countries at the time of data collection.

Eurydice
Eurydice, an information network of the European Union, was created in 1980, and is part of the "Education, Audiovisual and Culture" Executive Agency. The network, which regroups 42 national units based in 38 countries participating in the programme regarding education and life-long learning (28 Member States, Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Iceland, Liechtenstein, Montenegro, Norway, Serbia, Switzerland and Turkey), is centred around the mutualisation of information regarding education systems and policies, as well as the production of comparative studies and indicators (for France, the DEPP is the main contributor).

Minimum European Health Module (MEMH)
The Minimum European Health Module (MEHM) was developed in order to get declarative data on health from populations in Europe. The module was developed to be used in all social surveys and is at present implemented in the EHIS and EU-SILC. The questionnaire is a set of three general questions characterizing three different concepts of health: Self-perceived health ("How is your health in general? Is it..." with answer categories Very good / Good / Fair / Bad / Very bad); Chronic morbidity ("Do you have any longstanding illness or health problem?" Yes / No); Activity limitations due to health problems ("For at least the past 6 months, to what extent have you been limited because of a health problem in activities people usually do? Would you say you have been ..." with answer categories "severely limited / limited but not severely or / not limited at all?").

Progress in International Reading Literacy Study (PIRLS)
The PIRLS international survey (Progress in International Reading Literacy Study) is conducted every 5 years by the International Association for the Evaluation of Educational Achievement (IEA). This survey assesses the performance in reading literacy from a representative sample of students in the fourth year of primary school in the participating countries. In 2016, 50 countries/ partner economies participated in the PIRLS test for the 4th grade. Within the European Union, 20 countries, 2 nations (England and Northern Ireland) and Belgium's Flemish and French communities participated (for France, the DEPP is the main contributor).

Programme for International Assessment of Adult Competences (PIAAC)
PIAAC (Programme for International Assessment of Adult Competences) is an international survey by the OECD that seeks to measure, through a range of items, the literacy and numeracy skills of the 16 to 65 year-old population. Literacy represents the ability to understand and use information from written texts in a variety of contexts. It comprises a range of skills, from the coding of words and sentences to the comprehension. Numeracy is defined as the ability to use, apply, interpret, and communicate mathematical information and ideas. The initial findings (PIAAC 2012, done in 24 countries, including 16 European ones) were published in October of 2013.

Programme for International Student Assessment (PISA)
Every three years since 2000, PISA (Programme for International Student Assessment), under the authority of the OECD, assesses the skills of 15-year-old students in three subjects i.e. writing, mathematics and scientific literacy. PISA is aimed at the age group that arrives at the end of compulsory education in most of the OECD countries, whatever their past and future educational careers. Students are not assessed on knowledge

in the strict sense but on their ability to use their knowledge in a variety of situations, sometimes removed from those encountered in the educational framework. In 2015, the survey covered a total representative sample of 510,000 students of the 72 PISA countries/economies (for France, the DEPP is the main contributor).

Teaching and Learning International Study (TALIS)
The purpose of TALIS (Teaching and Learning International Survey) is to gather declarative data about the teaching milieu and the working conditions of teachers in the first-cycle of secondary education institutions (*collèges* in France). Each country's sample is composed of at least 20 teachers from 250 institutions (public and private) as well as the heads of these institutions. The findings covered 34 countries in 2013, including 24 OECD member-states and 19 EU member-states. Some countries extended the survey to include teachers and school heads of the primary and the second-cycle of secondary education (for France, the DEPP is the main contributor).

Trends in International Mathematics and Science Study (TIMSS)
The TIMSS international survey (Trends in International Mathematics and Science Study) is held every 4 years and is conducted by the International Association for the Evaluation of Educational Achievement (IEA). It assesses performances in mathematics and science of students in the fourth and eighth grades in the participating countries. France did not take part in the eighth grade test. In 2015, 49 countries/partner economies participated in the TIMSS survey for the fourth grade of primary school (except for England, where it is the fifth grade given the fact that primary school there begins at the age of 5). Within the European Union 19 countries, 2 nations (England and Northern Ireland) and the Flemish community in Belgium participated (for France, the DEPP is the main contributor).

TIMSS "advanced"
The "advanced" TIMSS survey assesses knowledge in maths and physics of students who are intending to follow scientific, technological, engineering or math careers (STEM). These students have received the best scientific training offered by their countries. In France the targeted students are those in the final upper secondary year (*Terminale* for France) in the general track in the scientific series. A very limited number of countries participated in this aspect of the survey (9 countries in 2015, of which 5 were from the European Union). Contrary to TIMSS in the fourth year of primary school, advanced TIMSS is not representative of all students of a grade. A coverage rate is calculated per country and corresponds to the proportion of targeted students (all of *"Terminale S"* in France) in the total population of young people the same age (18 years-old in France).

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EDUCATION IN EUROPE: KEY FIGURES

2nd edition 2018

Education in Europe: Key figures aims to present a hundred European statistical indicators on education and training to a rather wide European audience. Through 33 factsheets including texts, methodological focuses, graphs, tables and maps, the publication offers data on:

1. Socioeconomic environment in which children live and learn;
2. Diversity of European education systems;
3. Education expenditure and fees;
4. Characteristics of European teaching staff;
5. Results of education systems compared in terms of performance or equity;
6. Impact of education or training attainment level on careers, income and persons' health.

An annex contains information on definitions and sources. The publication is also available in French.

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Florence Lefresne, former head of the European and International Relations Unit (MIREI) at the DEPP during the first phase of this work.

The **MIREI** (European and International Relations Unit) coordinates European and international activities at the DEPP. It carries out comparative studies on education systems and policies. It also takes part in several comities of the OECD, the European Commission and the UNESCO. The MIREI is the French correspondent of Eurydice, a European education information network.

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