## Social dimension and mobility in the Bologna Process <br> Draft version <br> 06-02-2009

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## Foreword

In 2009 we can look back on ten years of higher education reform in a continually increasing European higher education area. The number of signatories to the Bologna Agreement has now reached 46. This region of higher education reform consists of a highly diverse set of national higher education systems, all sharing a number of common goals.

At the last meeting of the Ministers responsible for higher education, the Ministers agreed to the following common intention concerning the so-called 'social dimension' of the Bologna Process:

We share the societal aspiration that the student body entering, participating in and completing higher education at all levels should reflect the diversity of our populations. We reaffirm the importance of students being able to complete their studies without obstacles related to their social and economic background. (London Coттииіqué 2007, 2.18)

This was indeed not a new objective for the Bologna Process and the intention had been formulated in previous Communiqués. However, new was the agreement to require a specially commissioned data report:

We recognise the need to improve the availability of data on both mobility and the social dimension across all the countries participating in the Bologna Process. We therefore ask the European Commission (Eurostat), in conjunction with Eurostudent, to develop comparable and reliable indicators and data to measure progress towards the overall objective for the social dimension and student and staff mobility in all Bologna countries. Data in this field should cover participative equity in higher education as well as employability for graduates.
This task should be carried out in conjunction with BFUG and a report should be submitted to our 2009 Ministerial conference. (London Communiqué 2007, 3.4)

The two organisations which took on this commission in order to produce the report for the Ministerial conference were Eurostat, on behalf of the European Commission, and the Higher Education Information System (HIS) GmbH, on behalf of the EUROSTUDENT network.

Eurostat is the statistical office of the European Union and is a directorate general of the European Commission. It has a wide range of statistical data production in social, economics and environmental fields including data on education systems and education outcomes, which it could bring into the production of this report ${ }^{(1)}$. The Higher Education Information System (HIS) has been responsible for the central coordination of the EUROSTUDENT network and for the production of the three reports at the end of each three-year project cycle. Its staff has expertise on research into student life, particularly based on survey data ${ }^{(2)}$. The work of the two co-publishing organisations has been supported by a special working group for data collection set up to supervise the production of the report by the Bologna Follow-Up Group.

The purpose of this report is to endeavour to provide reliable, comparable data on central aspects of the social dimension within the European higher education area. The complementarities between the co-publishers have enabled us to give insights into the European higher education area, in many cases for all 46 signatory states. Efforts have been made to cover the relevant topics using appropriate existing international data sources. This resulted in the data coming from a combination of administrative data and specialised surveys. The choice of indicators and data sources was driven by the wish to provide data for evidence-based policy. More specifically, this data facilitates insights into similarities and differences between countries and therefore presents the opportunity for comparisons and the exchange of ideas and policy approaches. Stakeholders on a European, regional or institutional level can evaluate policies and practices in the light of the knowledge that alternatives and indeed improvements are possible.

Whilst all the data needs cannot be answered with the current international statistical system and data production, we hope that this comprehensive data report will prove an asset to the members of the Bologna Process in their search for common European wide objectives and in their development of special national initiatives.

[^0]In the process of drawing-up this report, progress in the construction of a monitoring system for the social dimension in the Bologna Process has been made. European statistical information systems, however, are rather slow to develop and evolve. They often rely on national data and data collection. Should the Ministerial Conference of the Bologna process so wish, more work on available and new data sources, the construction of indicators and the presentation of key context information for their interpretation could be done in the future.

| Walter Rademacher | Prof. Dr. Martin Leitner |
| :--- | :--- |
| Director-General | Chief executive |
| Eurostat | Higher Education Information System GmbH |

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## Introduction

## The Bologna Process: General overview

The Bologna declaration was signed in 1999 by 29 European ministers responsible for higher education. Today, 46 signatory countries (see the map below) are engaged in the process towards a European Higher Education Area (EHEA). Ever since, a ministerial meeting is held every two years and is devoted to monitor the ongoing process. Each summit (Prague, 2001; Berlin, 2003; Bergen, 2005; and London, 2007) led to a Communiqué in which ministers issue their conclusions and recommendations regarding the development of the process. The present report was prepared in the context of the next Ministerial Summit, to be held in April 2009 in Leuven and Louvain-la-Neuve, Belgium.

The Bologna Process is an intergovernmental initiative which also involves the European Commission, the Council of Europe and UNESCO-CEPES, as well as representatives of higher education institutions, students, staff, employers and quality assurance agencies. It aims to create a European Higher Education Area by 2010, and to promote the European system of higher education worldwide. This broad objective was translated in 1999 into several operational goals:

- to adopt an easily readable and comparable common framework of qualifications and cycles of study, in which students can choose from a wide and transparent range of high quality courses and benefit from smooth recognition procedures: 2 cycles for undergraduates (bachelor's degree) and graduates (master's and doctoral degree), reformulated later in 2003 (Berlin Communiqué) in 3 cycles - bachelor, master, doctorate;
- to remove the obstacles to student mobility across Europe, and more broadly support the mobility of students, teachers and researchers, as well as to promote the European dimension in higher education (in terms of curriculum and inter-institutional cooperation);
- to establish a system of credits, such as ECTS, as a means of promoting student mobility between countries and of facilitating the accreditation of prior learning outside of higher education contexts.
The Bologna Process is open-ended and driven by the recognition that in spite of differences, European higher education systems are facing common internal and external challenges. Other goals have subsequently been formulated over time. For instance, the promotion of lifelong learning was emphasised in the Prague Communiqué (2001). In Berlin (2003), priorities included amongst others the development of quality assurance and the establishment of closer links between the European Higher Education Area and the European Research Area. In the Bergen Communiqué (2005), ministers broadened their priorities through the reinforcement of the social dimension and removal of obstacles to mobility.
The need to take account of the social dimension was evoked in Prague (2001), under the impulsion of student representatives. This first intention was refined in Berlin (2003), where it was stated that the social dimension should be seen as a value in itself as well as one of the conditions for the competitiveness of the EHEA. Ministers stressed the need for appropriate studying and living conditions for students so that they can successfully complete their studies within an appropriate period of time without obstacles related to their social and economic background. The need for more comparable data on the social and economic situation of students was also emphasised.
The importance of the social dimension was reaffirmed by the ministers in the subsequent Communiqués of Bergen (2005) and London (2007). In 2007 a request for a specially commissioned data report was formulated and resulted in the present document. This request was the result of a feasibility study carried out between 2005 and 2007 by a Bologna working group including Eurostat and Eurostudent ${ }^{(1)}$.
The social dimension was then defined as processes leading to the objective that the student population entering, participating in and completing higher education should reflect the diversity of European, national and regional populations.

[^1]
## Scope of the report

The social aspiration that "the student body entering, participating in and completing higher education should reflect the diversity of our population ${ }^{(2) \text { " }}$ is shared by the Ministers responsible for higher education across the Bologna area. Such an aspiration is closely related to the notion of equity which reflects the idea of universal access to goods and services, alongside an deeply rooted ideal of justice and equal opportunities. In the context of scholastic achievement, the notion of equity can be divided into three main groups: equity of access, equity of treatment, and equity of outcomes. This statistical report echoes these three aspects of the concept of equity.

Equity of access considers that equal opportunities to access higher education should be guaranteed for all individuals. Chapter A (widening access) assesses how entry into higher education differs by age and sex. It provides information on the different (traditional or non-traditional) routes to enter higher education; it also sheds light on part-time studying and considers the impact of the education level of parents in the completion of tertiary education.

But providing equal access is not sufficient. Equity of treatment also requires an effective use of public and private resources (Chapter B) to ensure adequate study conditions for all students. Information on the study framework focuses on the resources that are devoted to higher education from a macro- (public investment in tertiary institutions and public financial support) and micro-perspective (household expenditure on tertiary education).

Students, teachers, researchers and administrative staff should benefit from the richness and diversity of the European higher education area. Therefore, another important aspect of the Bologna process is mobility of staff, students and graduates (Chapter C). Information on the mobility of students and staff provides insights into the ongoing construction of the EHEA. Although mobility has often been presented separately from the social dimension, this report aims to combine the two by analysing the socioeconomic background of nonmobile students, as well as the main obstacles hampering their mobility. Moreover, it can be assumed that such an international experience represents a sizeable asset in the career paths of students and staff.
Beyond access and treatment, ensuring equity of outcome should lead teachers and academics to bring all students to the same level of skills and competences (Chapter D). Moreover, if student life ends with entry into the labour market, the status and satisfaction of these young graduates regarding their new working life should be monitored so as to ensure that widened access to higher education does not lead to dead ends. Reporting on outcomes and employability means for instance providing information on educational attainment, graduation rates, and the ability of young graduates to secure and maintain employment in line with their level of education and aspirations.

## Selection of indicators

The selection of the indicators presented in this report was achieved through the work of a special working group on data collection set up by the Bologna Follow-Up Group. The members of the working group comprised representatives of ten countries and eight other organisations ${ }^{(3)}$.

This group explored existing data on the social dimension of higher education and evaluated data gaps on this issue. The final selection of indicators for the report was mainly based on the relevance of the indicators for analytical purposes, the effective availability of data (including the possibilities of differentiation) and the reliability of data collected. After consultation of various institutions providing quantitative and qualitative data on higher education, Eurostat and Eurostudent proposed a list of indicators that was discussed and then agreed upon within the Bologna Follow Up Group working group on data collection. This selection constitutes the basis of this report.

[^2]
## How to read the report

The report is composed of three main parts: the core report (four chapters), country profiles and an annex presenting detailed statistical tables.
A well-defined structure has been adopted in order to ensure the readability of the core report and allow both an in-depth reading and a quick overview of main contents. Each chapter starts with key findings and a few words on the topic and related indicators to be addressed. Each indicator is introduced by the rationale having led to its selection in relation to the social dimension of the Bologna Process. A more detailed description of the computed indicator follows, including possible limitations of the data reported. Graphical representations and comments on results close each section.

Key findings are presented in the margins of the report to highlight where more detailed analyses of the results may be found. In order not to overburden the text, methodological considerations were summarised in numbered boxes beside the text.

To aid the recognition of country groups, the data in many charts were sorted in ascending order according to the characteristic under consideration. This should not be misinterpreted as a suggestion for a strict ranking of countries from "the worst" to "the best".

In order to give a reference line for a given indicator, it is often useful to compute an aggregate, which aims at providing a central tendency of the countries on a given theme. A number of instruments may be used to measure a central tendency: the arithmetic average is the most common, as well as the median (the value under which are half of countries, and above which are the remaining half). A central tendency measure can be weighted according to the countries' size or not (giving the same importance to every country, whatever their population size). Whenever possible and/or relevant (sufficient coverage of countries), two aggregates were computed in order to provide a reference value; one referring to the European Union (EU), and the other to the Bologna area as a whole. On the one hand the report presents a "EU-27" aggregate, as normally computed by Eurostat. It is a weighted average, taking account of the demographic weight of the countries. This aggregate has the advantage of being relatively stable as most EU countries regularly provide data to Eurostat and have participated in most of the surveys presented here. In contrast, data obtained from nonEU countries was more fragmented, meaning that such a weighted average would have been too volatile. The aggregate used for the Bologna countries is an unweighted median. A median was preferred to an average, as it is statistically more robust (i.e. less sensitive to extreme values). However, the coverage of non-EU countries varies in such a way that the median still remains quite volatile. This central tendency indicator should therefore be considered with caution, especially in time series.

In a second part of the report, country profiles are presented to enable the reader to have a closer look at individual countries for a number of key indicators selected from the various chapters: access, study framework, mobility and outcomes. The perspective remains comparative, as the country is graphically represented in relation with the distribution of all countries on a given variable. Moreover the approach is also thematic, in the sense that a country might be assessed better across the different topics presented in the four chapters.
Lastly, the terms "higher education" and "tertiary education" are used synonymously in the report. Tertiary education, in line with "primary" and "secondary" education, refers to the ISCED (International Standard Classification of Education 1997) ${ }^{(4)}$ levels 5 and 6 . All tertiary programmes of any duration are therefore included. The expression "higher education" is used in the Bologna Process. As in many countries, the Bologna structure corresponds more or less to the coverage of ISCED 5A and 6; this term is used when referring to these levels or, in most of cases, to ISCED 5A alone. A focus on academic higher education at first-degree level (ISCED 5A) was used whenever possible in this report, as this sector is usually the largest part of any tertiary education system and the focus of many higher education policies.

[^3]
## Data availability

Most indicators presented in this report rely on two institutional data sources: Eurostat and Eurostudent III ${ }^{(5)}$. Three databases were used in Eurostat, namely the UNESCO-OECD-Eurostat data collection (UOE), the European Union Labour Force Survey (EU-LFS) and the European Union Statistics on Income and Living Conditions (EU-SILC). The Eurostudent project collates comparable data on the social and economic conditions of student life in Europe. The Eurostudent III survey was carried out between 2005 and 2008 in 19 Member States and four countries outside EU. This survey is currently unique on a European level as it captures student life in many European countries by surveying students directly.

Lastly, some data were taken from the Erasmus exchange programme for students and staff, and from the REFLEX study. Both of these sources have clear limitations. Erasmus data do not present the volume of exchanges (i.e. the number of students or academics), but the number of visits abroad. The REFLEX survey comprises self-reported information on the way young graduates experience their first steps in working life in only 13 countries. However, these sources were used due to the lack of statistical information on higher education staff mobility, surveying higher education graduates directly, as is the case of REFLEX, or because of a specific interest in the case of Erasmus exchange mobility.
All these different sources are based on different timescales, which explains why the reference periods vary according to each indicator. Moreover, for the sake of international comparability, it is important to use sources of information that provide the appropriate geographical coverage and the relevant information for the topic concerned (i.e. the social dimension of higher education).
Through its various data collections (UOE, EU-LFS and EU-SILC), Eurostat usually gathers information on Members States, the EFTA/EEA countries and candidates countries.

Since the Bologna area goes beyond this perimeter, it was necessary to solicit other international or national institutions for data from countries that do not belong to the above-mentioned categories. Some UOE data were provided by the UNESCO Institute of Statistics (UIS) or directly by the National Statistical Institutes. In the case of EU-LFS and EU-SILC indicators, Bologna countries were asked to provide comparable data from any household surveys they conducted at national level provided that their methodologies were comparable to the one used in EU-LFS or EU-SILC.

Despite the efforts to provide harmonised information, the large number of sources raises concern on the comparability of data provided by statistical infrastructure that are at different stages of development.

Every statistical report aims to answer users' needs in terms of information on a specific topic. This report is no exception. However, an additional objective is to point out the advantages and drawbacks of indicators and data that are currently available to monitor the social dimension of higher education in the Bologna area.
In this report, each indicator is detailed in terms of relevance regarding the social dimension; advantages and drawbacks in terms of comparability and explanatory power are also described briefly. At this stage, it appears that potential improvements are twofold: improving existing data collections and investing in the development of new data collections.

In fact, the existing statistical infrastructure and data collections constitute a strong and relevant basis for the analysis; work to improve their quality is currently under way. However, this report highlights some directions for qualitative improvements, as shown in the following examples.

The current report extensively uses the ISCED classification to characterise the level of education students attend and graduate in. Such a classification is useful to allow comparison across countries, but the implementation of the Bachelor-Master degree structure (BA/MA structure) makes it less relevant from a Bologna perspective. The main obstacle encountered so far was that countries are at different stages of implementation of the new three-cycle structure and are thus unable to provide sufficiently exhaustive data. However, this obstacle should soon be overcome, as the Bologna structure is becoming more widely implemented.

[^4]Interpreting part-time studying is still problematic. Current data allow evaluating the magnitude of part-time studying, but provide no information on the reasons for part-time study, which are crucial in defining policies. In fact, it is currently impossible to distinguish between those students who work to fund their studies, and those who seek to broaden their skills with a new qualification whilst concurrently working.

A growing interest in the social dimension of higher education necessarily implies the need to look at the educational background of people entering higher education. For this reason, we need to better understand what happens at the lower levels of the entire educational system. Indeed social selection can occur well before entry into higher education. As a result, indicators on survival rates at secondary level and tertiary level according to social and cultural background variables should be developed further, in order to efficiently identify relevant target groups of measures to promote equity.

Information on public support schemes to students is available at the macro level. However, such information at the micro level (student and households) is still fragmented. Information on the number of beneficiaries, on the average amount of support they are granted and on the average student debt after graduation is limited.

Important improvements are currently being made as regards data on mobility. The criterion of citizenship (i.e. considering as mobile a student or graduate who is not citizen of the country) has severe limitations, notably because migration flows can overestimate mobility in some countries. The criterion of prior education (i.e. considering as mobile a student enrolled in a country different from the one of previous level of education that is, ISCED 3 or 4 for students enrolled in ISCED 5) should be preferably used. However, few countries have so far collected this information.

Current harmonised sources of information provide data on graduates (i.e. the direct output of education system) and their situation in the labour market (i.e. employability). However, outcomes should also include impacts of higher education on civic participation, innovation and economic growth, health, etc. for which no information is currently available.
The social dimension suggests that more should be done for underprivileged people. Indeed, progress towards equity is often defined or measured by comparing groups of persons, for instance people with a low education versus high education, immigrant versus indigenous population, or other differentiation variables. In this report three main variables are considered: age, gender and educational attainment of parents (deemed to be a proxy for the socioeconomic background). Beside their intrinsic interest, these variables are used because they are the most commonly collected in numerous countries.

There is an argument for looking at other characteristics of population sub-groups regarding educational equity (inter alia religion, region, disability level, ethnicity, etc.). However, currently our statistical instruments and sources limit the feasibility of such analyses on a European scale. From the statistical point of view, it is clear that refining the population under scrutiny should be associated with adequate sampling rates (provided that the survey vehicle is preferred to administrative data) that is, a sufficient number of observations. This is especially the case if several variables need to be crossed (for instance, women aged 25-34 with a high level of education and coming from a family with a low educational level). Sampling designs should probably be redefined, taking into account the measures to be gathered as well as the analyses to be carried out. At the same time, the collection of such individual information about the population is very sensitive and in some countries not even possible for National Statistical Institutes.

In sum, this has been an exploratory report, where every effort has been made to balance policy relevance and utility with statistical robustness. More work should be done in this area in the future.

## Coverage and country abbreviations

## Bologna countries



| Albania | AL | France | FR | Norway | NO |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Andorra | AD | Georgia | GE | Poland | PL |
| Armenia | AM | Germany | DE | Portugal | PT |
| Austria | AT | Greece | EL | Romania | RO |
| Azerbaijan | AZ | Holy See | VA | Russian Federation | RU |
| Belgium | BE | Hungary | HU | Serbia | RS |
| Belgium (Flemish Community) | $\begin{aligned} & \text { BE } \\ & \mathbf{f l ^ { * }} \end{aligned}$ | Iceland | IS | Slovakia | SK |
| Belgium (French Community) | $\begin{aligned} & \text { BE } \\ & \text { fr* }^{*} \end{aligned}$ | Ireland | IE | Slovenia | SI |
| Belgium (Germanspeaking Community) | $\begin{aligned} & \text { BE } \\ & \text { de* } \end{aligned}$ | Italy | IT | Spain | ES |
| Bosnia and Herzegovina | BA | Latvia | LV | Sweden | SE |
| Bulgaria | BG | Liechtenstein | LI | Switzerland | CH |
| Croatia | HR | Lithuania | LT | The former Yugoslav Republic of Macedonia | MK** |
| Cyprus | CY | Luxembourg | LU | Turkey | TR |
| Czech Republic | CZ | Malta | MT | Ukraine | UA |
| Denmark | DK | Moldova | MD | United Kingdom | UK |
| Estonia | EE | Montenegro | ME | United Kingdom (England and Wales) | E/W* |
| Finland | FI | Netherlands | NL | United Kingdom (Scotland) | SCO* |

* Arbitrary code: no official code (ISO 3166 - alpha2) for those communities or countries.
$\qquad$
** Provisional code which does not prejudge in any way the definitive nomenclature for this country, which will be agreed following the conclusion of negotiations currently taking place on this subject at the United Nations.


## Other countries (UOE indicators)

| Australia | AU |  | New-Zealand | NZ |
| :--- | :--- | :--- | :--- | :--- |
| Canada | CA |  | The United States | US |
| Japan | JP |  |  |  |

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## Executive summary

## Widening access

## Entry into higher education

In 2006, the typical age for entering higher education ranged from 18 to 20 years in the Bologna area. Overall, the net entry rate for this age group was 33.3 \% in the EU- 27 , meaning that one third of the population aged between 18 and 20 is expected to enter higher education. The net entry rate for this age group was higher than $31.8 \%$ in half of the Bologna countries for which data are available.

In contrast, people over 25 rarely embark on higher education. With the exception of some Nordic countries (Finland, Sweden and Iceland), net entry rates by age were below $2 \%$ for those aged 25 or over. This suggests that the share of students who enter higher education following a prolonged interval between secondary schooling and university entry is rather low across the European higher education area. The demographic structure of the population entering higher education did not present any major changes between 2002 and 2006.

The feminisation of higher education is still under way and the gender gap has been bridged in most fields of study: in half of the Bologna countries, more than $56 \%$ of new entrants are women. In nearly all Bologna countries, women make up the majority of entrants to higher education, but feminisation has not reached similar levels across all fields and countries. In fact, sciences are still a predominantly male domain, with women representing only slightly more than one third of new entrants.

## Routes to higher education

Higher education institutions play a key role in providing lifelong learning opportunities, which is why access should be widened to students from all backgrounds and dead-ends within educational careers should be avoided. Besides upper-secondary education graduates, who constitute the traditional population entering tertiary institutions, those who took alternative routes should be given a second chance to access higher education.

Available data suggest that most new entrants into higher education follow traditional routes. At EU-27 level, higher education entrants account for $85 \%$ of qualifying graduates of general secondary schooling. Moreover, they represent at least $85 \%$ of such graduates in half of the Bologna countries, but disparities across countries remain strong. In more than two thirds of countries, the ratio between entrants and secondary-education graduates is higher among the female population than the male population.

Some disparities in this matter were observed across the Bologna countries. Two clusters suggest a looser link between graduating from upper-secondary education and entering higher education, either because entrants are much more numerous than graduates (which entails a large share of people coming from non-traditional routes, or large inbound mobility) or because they are far fewer than graduates (which entails a more limited access to higher education). In a third cluster, similar levels of secondary education graduates and higher education entrants make it difficult to venture any assumptions on the educational routes of new entrants.
When measured directly by Eurostudent, the share of students who enter higher education via non-traditional routes of accreditation (specifically prior learning and work experience) stood at $15 \%$ in England and Wales, but amounted to much less than $12 \%$ in most other countries for which data were available.

## Part-time studies

The range and provision of part-time studies across the Bologna area affect students' lives and chances of success in higher education. Interpreting current harmonised administrative data on this topic is difficult since it reveals only the magnitude of the phenomenon, but not its causes or real intensity.
Bologna countries show very marked differences on part-time studying: the share of part-time students ranged from less than $10 \%$ of the overall student population to slightly more than $50 \%$ in Sweden. Age is a key issue in part-time studying: at EU-27 level, more than half of students aged 30 and over study part-time, while this is far less widespread among younger students.
More than half of students reported spending more than 30 hours a week studying (attending lectures and personal study time) in the majority of countries.

However, in all countries, a minority of students can be considered as de facto part-time students, since they spend less than 21 hours a week studying. De facto part-time students account for more than $30 \%$ of the student population in Estonia, Slovakia and Finland - the countries with the highest values.

## Social background and completion of higher education

Success in higher education is not only a question of academic excellence. Despite the development of mechanisms promoting equity in education systems, the level of education of parents still has an impact on success in higher education. People whose parents have a high educational level have better chances of accessing and completing tertiary education than others.

In the EU-25, for every 100 persons whose parents have completed at most lower-secondary education, 17 have completed higher education. This share rises to $32 \%$ for those whose parents have upper-secondary education and reaches $63 \%$ for those whose parents have completed tertiary education. In some countries, less than $10 \%$ of those from low educational family backgrounds graduated from tertiary education. The continuing transmission of disadvantages through family backgrounds tends to affect men and women equally. But the situation is improving: young people from low educational family backgrounds have better chances of graduating than their elders did in the past.

## Study framework

Once a student has entered the higher education system, an effective use of public and private resources should provide an environment conducive to the successful completion of studies. The study environment influences students' experience of higher education, their commitment and learning processes and, therefore, their chances of success.

## Macro perspective: public investment in tertiary institutions

Public expenditure in higher education represents the efforts made by countries to ensure the basic operation of their higher education system, which generally includes teaching activities and research as well as ancillary services to support these primary activities. The recent expansion of higher education participation both in terms of volume and participative equity has led to increased demands on public funding and, as a result, present challenges for the public purse. These challenges have become more acute because of the concurrent increases in demands in other areas of the public budget (e.g. social services and health care).
Between 2001 and 2005, annual public expenditure on tertiary education increased at the same pace as gross domestic product (GDP) in Bologna countries. In 2005, half of the Bologna countries spent more than $1.1 \%$ of GDP on higher education, accounting for more than $2.8 \%$ of total public expenditure.

Annual expenditure by student compares total investments in higher education and the number of students in higher education. A "typical" Bologna country spent EUR 8300 PPS per full-time equivalent student in 2005, of which nearly $30 \%$ was devoted to R\&D and ancillary services. Expenditure per student varies on a scale of 1 to 7 in the Bologna area. Spending on core educational goods and services (i.e. expenditure without spending on R\&D and ancillary services) per student was twice as high in the US as in most Bologna countries. Between 2004 and 2005, total expenditure on tertiary educational institutions per full time student increased more rapidly than expenditure on education services.

Private funding has increased in almost all Bologna countries, although its level remains lower than in the US and Japan. In the Bologna area, higher education institutions receive one fifth of total resources from private funding. This share exceeds two fifths in Bulgaria, Latvia and Cyprus.

## Micro perspective: households expenditure on tertiary education

One major component of private funding is student fees. Although the complexity and diversity of contribution schemes make it difficult to assess how much a student ultimately pays, the data show that students devote up to $25 \%$ of their budgets to pay for tuition or other fees. Where such contributions exist, the amount varies in a proportion of 1 to 8 according to the country considered.

In all countries for which data are available, students usually combine income from a job and/or family and state support in order to pursue their studies. In many cases, students largely rely on their family and/or job as a main source of income, and state support may be insufficient to compensate for lacking family income. This lack of financial independence from parents may have an impact on the socioeconomic fabric of the student population.

## State financial support

In many countries, state support is provided to students and their families in order to alleviate financial barriers to higher education. Public support schemes which provide direct monetary support to students vary across the Bologna countries. In general, they are based on universal, compensatory or more rarely meritocratic criteria. Two major kinds of direct support may be considered: grants (non-repayable support) and loans (repayable). Within the Bologna area, the proportion of public expenditure on tertiary education dedicated to both forms of support (grants and loans) ranged from less than $5 \%$ to more than $20 \%$ in 2005. Nearly half of the Bologna countries for which data is available offer public subsidised loan schemes and these loans account for around $7 \%$ of public expenditure on tertiary education at EU-27 level. In the Bologna area the share of public expenditure allocated as loans is significantly high in Sweden, the United Kingdom, Iceland, Norway, and in Australia, New Zealand and Japan outside this area.

## Students and staff mobility

Student and staff mobility is expected to have a significant role to play in the development of a European higher education area. As stated in the London Communiqué (2007), "mobility of staff, students and graduates is one of the core elements of the Bologna Process, creating opportunities for personal growth, developing international cooperation between individuals and institutions, enhancing the quality of higher education and research, and giving substance to the European dimension".
Aside from fostering European citizenship, international mobility contributes to personal fulfilment and the development of competences, such as languages and intercultural understanding. Such skills are becoming more valued on an increasingly global labour market, and therefore can substantially enhance the employability of those students.

## Enrolments and graduation abroad

The percentage of students enrolled in higher education abroad in Europe is still quite low (2.3\% of students with EU-27 citizenship were studying abroad in Europe in 2006), but this outbound mobility rate is increasing continuously, both in the EU-27 and in the Bologna area ( $+4.5 \%$ annually on average between 2000 and 2006).

Inbound mobility rates in Europe on the whole stood at $7 \%$, with around half of these students being noncitizens from within the Bologna area. However, amongst others, Belgium, France, Austria, the United Kingdom and Switzerland registered an inbound mobility rate above $14 \%$, similar to that of Canada.
Despite a continuous increase of foreign students enrolled in the EU-27 at ISCED level 5 and 6 (albeit remaining low compared to Australia or New Zealand) the proportion of them coming from the Bologna area has dropped. In the EU-27, more than $10 \%$ of graduates were not citizens of the country of graduation. In Australia and New Zealand non-nationals accounted for around one third of all graduates. Within the European higher education area, the highest share of foreign graduates was registered in the United Kingdom, with 22 \%.

## Students abroad, socioeconomic background and staff mobility

This report also looks at short study-related periods abroad. Students report that financial resources constitute a main obstacle to mobility and the data show that studying abroad still depends on socioeconomic background. In most countries, students from highly educated family backgrounds are more likely to have experienced a study-related stay abroad; this share was sometimes more than three times higher than for students from families with a low educational background.

In some countries, the absence of public financial support to mobility appears to hamper its development. As reported by students, financial constraints are the most important obstacles in planning a study-related stay abroad.

Along with the linguistic barrier, this reason was most often given by students from families with a low educational background. But many of them, regardless of their social background, highlighted the lack of information available in their home country.

Comparable data on staff mobility are scarce. Staff mobility through the Erasmus mobility programme remains quite limited, but has been on the increase since 2001 ( $+7 \%$ annually on average).

## Outcomes and employability

One possible way to gauge the ability of higher institutions to transform enrolled students into qualified future workers is to link graduation and entry rates using the so-called survival rate. Additionally, the employability of those graduates has been of particular interest since labour market conditions have changed: the educational attainment of the overall population has increased over the past decades and new tertiary graduates are now entering a labour market where competition with experienced tertiary graduates is stronger than ever.
In a nutshell, the effective outcomes of tertiary education include, amongst other things, the number of graduates from tertiary education, how adapted new graduates are to labour-market needs and how much job satisfaction they enjoy. Two effective outcomes will be investigated in this report: the output of the higher education system, and the input into the labour market, or "employability" of graduates.

## Educational attainment of the population, graduation and survival rates

In the EU-27, almost a third of the population aged between 25 and 34 has completed tertiary education. This share has increased within younger generations in almost every Bologna country. This increase in the number of tertiary graduates is especially remarkable in the female population: with the exception of a few countries of the Bologna area, young women are closing the gap with men in terms of educational attainment.

In 2006, one in three individuals in the EU-27 at typical age of graduation obtained higher education qualifications (ISCED 5A first degree). Survival rates (the share of higher education entrants who graduate) in higher education (ISCED 5A) vary in the proportion of one to two in the Bologna area, ranging from 50 $\%$ to $80 \%$ or more.

## Unemployment rate and income

Higher education plays a major role in securing a job, but finding a first job may take time: young tertiary graduates (i.e. those having completed their studies within the last two years) are significantly more affected by unemployment than their more experienced peers.
In most countries, women are more affected than men by unemployment, which is also true for tertiary graduates. As regards the importance of the field of graduation, $10 \%$ of EU graduates in humanities, languages and arts are unemployed; this is twice as much as those in health and welfare.
Wage differences are above all a matter of educational attainment. In the EU-25, employees with a high educational level earn twice as much as medium- and low-educated employees. In addition, the median income of men is higher than that of women in all Bologna countries. However, wage disparities - in terms of interquartile range - are higher among highly educated employees, with some rare exceptions among the Bologna countries.

## Qualification mismatch

In around half of the Bologna area, $20 \%$ or more of young employees with tertiary education have occupations requiring a lower qualification than they have (vertical mismatch). Such mismatches affect a slightly higher share of men than women, but the situation differs across countries. Graduating in the field of services often results in being employed below one's skills. According to the self-assessment of workers, being employed at the relevant skill level, but in another field than the one studied for (horizontal mismatch) affects between 5 $\%$ and $10 \%$ of graduates.
A comparison between countries suggests a link between high educational attainment in the population aged 25-34 and the share of workers employed below their theoretical skill level (vertical mismatch). Indeed, in many Bologna countries around one fifth of workers are vertically mismatched, irrespective of the share of higher education graduates of the same age group.

Social dimension and mobility in the Bologna Process
Chapter A: Widening access

## A. Widening access

- In 2006, the typical age for entering higher education ranged from 18 to 20 years in the Bologna area. In contrast, people over 25 rarely embark in higher education: with the exception of some Nordic countries (Finland, Sweden and Iceland), net entry rates by age were below $2 \%$ for those aged 25 or over.
- Between 2002 and 2006, the demographic structure of the population entering higher education did not present any major changes.
- The feminisation of higher education is still underway and the gender gap has been bridged in most fields of education: in half of the Bologna countries, more than $56 \%$ of new entrants are women. Sciences are still a predominantly male domain, with women representing only slightly more than one third of new entrants.
a Available data suggest that most new entrants into higher education follow traditional routes. This seems especially true in the case of female entrants.
- Increasing participation in higher education is sustained by high percentage of qualifying graduates of secondary schooling. However, in a few countries, entrants in higher education represent less than $60 \%$ of qualifying graduates of upper secondary education.
- When measured directly, the share of students from non-traditional routes entering higher education stood at $11 \%$ in Estonia, but amounted to less than $10 \%$ in other countries for which data are available.
Countries show very marked differences on part-time studying. The share of part-time students ranged from less than $10 \%$ of the overall student population to slightly more than $50 \%$ in Sweden.
- Age is a key determinant when analysing part-time studying. In fact, at EU-27 level, more than half of students aged 30 and over are part-time students, while this is far less widespread among younger students.
I In a majority of countries, more than half of students declare spending more than 30 hours a week studying.
The level of education of parents still has an impact on success in higher education. In some countries, less than $10 \%$ of those whose parents have a low educational level graduated from tertiary education.
- The continuing transmission of disadvantages through family backgrounds tends to affect men and women equally.
- However, the situation is improving. Young people from low educational family backgrounds have better chances of graduating than their elders did in the past.


## Main issues

The social dimension concerns processes leading to the objective that the student population entering, participating in and completing higher education reflects the diversity of European, national and regional populations. Widening access to higher education is thus a first step towards guaranteeing equal opportunities for all, reinforcing the social, cultural and economic development of European
societies and finally improving the quality and attractiveness of European higher education.
In all European countries, compulsory education ends with lower- or upper-secondary education. At this stage, young people and parents must make a crucial decision: to go into higher education or to enter the labour market.

Such a decision is motivated by various factors such as personal motivation and aspirations，existing barriers and the variety of ways to enter higher education，the existing study framework（chapter B） and individual perceptions of private outcomes and rates of return（chapter D）of further studies．

This chapter looks at those entering the higher education system in order to highlight the growing diversity of the student population．

In the first instance，net entry rates by age will be compared across countries（Figure A．1a）so as to determine the age of those who embark for the first time in higher education．Age is not the only dimension of diversity：the distribution of entrants by fields of education and sex（Figure A．1c）also reflect students＇choices in terms of career prospects and shows the fields of education where female attendance predominates．

Widening access is possible through the creation of
new routes to enter higher education（Figure A．2a，b and Figure A．3a）in the context of lifelong learning． Additionally，studying part－time（Figure A．4a and b） is also a means for workers to improve their educational attainment and for student to gain working experience．The proportion of de facto part－ time students based on their study intensity （Figure A．4c）may also be affected by a lack of public financial support made available to students who as a resultneed to work to fund their studies．

Lastly，＂widening the constituency that higher education serves by including those groups who have traditionally been excluded＂${ }^{(1)}$ is a key issue in the social dimension of higher education．The extent to which disadvantages are transmitted through generations is a central point and the analysis compares across countries whether success in higher education is affected by the educational level of students＇parents（Figures A．5a and b）．

## A.1. Entry into tertiary education

The profile of students entering higher education is diverse and may be characterised according to demographic criteria (age and sex) and field of study. In fact, each Bologna country has its own way of organising its education system, and young Europeans do not enter higher education for the first time at the same age. Moreover, the breakdown of entry rates by sex highlights the overall feminisation of higher education, with the exception of science studies.

## Net entry rate by age and sex

The student population comprises two categories: entrants and continuing students. The former includes two sub-categories: new entrants into a level of education (students who, during the course of reporting period, for the first time enter any programme leading to a recognised qualification at this level of education, irrespective of whether they enter the programme at the beginning or at an advanced stage of the programme) and re-entrants (students who return to a level of education following a period of absence of at least one year from studying at that same level). Continuing students are those who were enrolled in higher education prior to the reference year. Analysing the net entry rate thus provides detailed information on students who embark for the first time in higher education.

## Indicator

By definition, the net entry rate (see M-box) is different from the enrolment rate. The latter considers the number of entrants (new or re-entrants) and continuing students of a specific age group that are enrolled in higher education. The net entry rate reflects how many people of each age group access higher education for the first time (i.e. new entrants); it is obtained by dividing the number of first-time entrants to each type of tertiary education of that age by the total population in the corresponding age group. It also provides insights into the typical age(s) at which students enter higher education for the first time and if differences between men and women occur.

Cross-country comparisons are limited by the fact that non-citizens who enrol for the first time in a country are usually counted as new entrants, regardless of their previous education in other countries. This has an impact on entry rates in countries hosting many foreign students (see Chapter C).

## Results

- The median value (see M-box) shows that in half of the Bologna countries, more than $11.2 \%$ of 19 -yearolds enter higher education, whereas at EU-27 level the net entry rate at the same age stood at $15.7 \%$.
- In the Bologna area, the theoretical entry age in higher education ranges from 17 (Turkey) to 20 (Iceland). In most countries, theoretical (i.e. the statutory age for entry in higher education) and typical (defined as the age at which entry rate is the highest) ages match or show a one-year difference. Indeed, in most of the countries for which data are available, the highest entry rates were registered at the age of 18 or 19. Differences between theoretical and typical entry age may be explained by the possibility of being held back a year during upper-secondary education, failing to obtain the upper-secondary school diploma, civil obligations (civilian or military service), selection procedures or conscious decisions on the part of students to postpone their studies (e.g. for work experience or travelling). Typical entry occurs later than in any other Bologna countries in Denmark (at the age of 21) and in Germany, Malta, Iceland and Switzerland (at the age of 20).
- Overall, the net entry rate for this age group was 33.3 \% in the EU-27, meaning that one third of the population aged between 18 and 20 years old is expected to enter higher education. In half of the Bologna countries for which data is available, the net entry rate for this age group is higher than $31.8 \%$.
- Entry rates broken down by age reveal marked disparities across countries. More than $20 \%$ of those aged 18 (Greece, Spain and the United Kingdom) or 19 (Bulgaria, Lithuania, Romania, Slovenia, Slovakia) enter higher education. In Italy and Poland, more than $30 \%$ of the population aged 19 enters higher education for the first time.

In 2006, the
typical entry age
into higher
education ranged
from 18 to 20
years in the
Bologna area

With the
exception of a few countries， less than $2 \%$ of young people aged 26 and over embark in higher－education studies

The feminisation of higher education is still underway
－Entry rates usually drop dramatically beyond the typical age at which young people enter higher education．This suggests that only a very small proportion of new entrants have previous experience （working，travelling abroad，etc．）before entering higher education．Net entry rates remained above 5 \％ for two or more consecutive years following the typical entry age only in Nordic countries，Hungary，the Netherlands，Austria，Poland，Portugal and Slovakia．With the exception of a few countries，less than 2 \％of young people begin higher education aged 26 or over．In the Netherlands，Finland，Sweden and Iceland，ultimate net entry rates are achieved through relatively high net entry rates for a range of age cohorts．This suggests a more open entry policy which is consistent with lifelong learning．
－At typical entry age，the EU－27 net entry rate was below that of Australia，New Zealand，Japan and the United States and Japan register the highest net entry rate（ $35.1 \%$ ）at typical age（18 years old）．However， at typical age，net entry rate in Greece，Italy，Lithuania，Poland and Slovenia is higher than the one registered in the United States．
－Entry rate by age show similar patterns for women and men．However，entry rates of women by age are usually higher than for their male counterparts．This is especially true at typical entry age or before this age．The gender gap in favour of women stood at more than 10 percentage points in Greece，Spain，Italy， Poland，Slovenia and Norway．

## M－Median values

The median value is the point dividing the Bologna countries into two equal halves，meaning that half of the Bologna countries are below the median value and the remaining half are above．This value is computed for all countries for which data are available and is unweighted（i．e．it does not take account of the countries＇ population size）．

## M－Net entry rate

The net entry rate of a specific age is obtained by dividing the number of first－time entrants to each type of tertiary education of that age by the total population in the corresponding age group（multiplied by 100）．

Figure A.1a: Net entry rate by age, ISCED 5A, 2006


Figure A.1a: Net entry rate by age, ISCED 5A, 2006 (continued)





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## Trend data

- The typical age of entry into higher education did not change in the EU-27 and the Bologna area between 2002 and 2006: young people usually enter higher education at 19. From the age of 19 , the net entry rates have increased over the period but changes should be considered with caution since countries covered by the aggregate differ from one year to another.
- Between 2002 and 2006, typical entry age has remained constant in most countries, but registered a higher level in 2006 than in 2002, except in Belgium and Ireland. In Belgium, young people aged 18 were nearly $19 \%$ to enter higher education in 2002, but only $10.5 \%$ of the same age in 2006. In Ireland, the entry rate at 18 decreased by one percentage point between the two years.
- In a few countries, "typical" entry age changed between 2002 and 2006. In Lithuania, entry rates of those aged 18 and 19 years old were around $15 \%$ in 2002. In 2006, entry rate at 19 reached $24 \%$ whereas it decreased to 6.2 \% for entrants aged 18. In comparison, students tended to embark later in higher education in Malta, Slovakia and to a lesser extent in Sweden.
- In half of the Bologna countries, at least $5 \%, 11 \%$ and nearly $8 \%$ of young people aged respectively 18 , 19 and 20 entered higher education in 2006. Beyond the age of 24 , less than $1 \%$ of the population of each age embark in higher education in half of the countries.

Figure A.1b: Net entry rate, ISCED 5A, 2002/2006


Note: EU-27 is computed on available data.
Source: Eurostat, UOE.

## Distribution of entrants by field of education and sex

When entering higher education, students choose their field of study according to intrinsic interest, job prospects and potential career development. They may be constrained in their choice by some specific procedures aimed at regulating the size of the student population through selection procedures or limitation of places at institutional, regional or national level. Whilst most countries apply similar procedures across all or most fields of study, some implement different procedures for the admission to certain fields of study ${ }^{(2)}$. These countries limit the number of places or select students in specific fields - especially health-related fields, engineering or artistic subjects.

More women enter higher education than men, which is in line with the situation in upper-secondary education: a majority of young women attend general programmes preparing them to further education at tertiary level rather than vocational programmes. However, the ongoing feminisation of higher education has not reached all fields of study, and some of them remain "male strongholds". Such pattern may have an impact of future employment and suggests that the gender gap in terms of occupation is unlikely to change in the medium term.

[^5]Between 2002 and 2006, the demographic structure of the population entering higher education did not change
significantly

The gender gap has been closed in most fields of education...
...but sciences are still a male stronghold, with women representing only slightly more than one third of new entrants

## Indicator

One relevant indicator to assess gender preferences in terms of subjects is to present the distribution of the population of entrants by sex for each field of study i.e. the percentage of female entrants in each field of study (Figure A.1.c). Of course, Bologna countries present some heterogeneity in this matter as shown by the minimum and maximum percentage of female entrants for each field of study. Furthermore, the Bologna median shows the share of women below and above which half of the Bologna countries are by field of study. For each field of study, the EU-27 is the bar of the histogram and the value for the EU-27 aggregate is displayed (the value is given on the left), as well as the Bologna median (see M-box), and the minimum and maximum observed among the Bologna countries.

## Results

- In all Bologna countries except Turkey, women make up the majority of entrants to higher education, but feminisation has not reached similar levels across all fields and countries.
- In education sciences and humanities, women make more than $50 \%$ of the cohort of entrants in all Bologna countries.
- In more than half of the Bologna area, women account for more than $65 \%$ of the new entrants in journalism and information services, humanities, veterinary medicine, teacher training, health, education and social services.
- Women are still a minority in the broad subject groups of science, engineering and agriculture, where they account for $38 \%, 24 \%$ and $49 \%$ of entrants respectively. Percentages of women entrants are especially low in computing ( $15 \%$ ), engineering and engineering trade ( $17 \%$ ) and transport services ( $18 \%$ ).
- Women are still under-represented in natural sciences and mathematics, accounting for $38 \%$ of the total number of entrants in these fields, but disparities between scientific domains are remarkable. At EU-27 level, women account for $61 \%$ of entrants in life science (including biology and biochemistry as well as environmental science) but $49 \%$ in mathematics and statistics and $44 \%$ in physical sciences.
- Women represent less than $10 \%$ of new entrants in computing (including computer science and computer use) in the Netherlands, Poland and the principality of Andorra, but nearly $40 \%$ in Bulgaria and Georgia and $44 \%$ in Cyprus.
- Engineering is still dominated by men, who account for $76 \%$ of new entrants at European level and 75 $\%$ in more than half of Bologna countries. Women are especially rare ( $17 \%$ ) entrants to engineering and engineering trades (mechanics and metal work, electricity and energy, electronics and automation, chemical and process and motor vehicles, ships and aircraft).

Figure A. 1 c: Percentage of female entrants, by field of education, ISCED 5A, 2006


[^6]
## A.2. Routes to higher education

The doors of higher-education institutions must be opened to students from various backgrounds in order to widen access and provide lifelong learning opportunities. In most European countries, the upper secondaryeducation certificate or its equivalent constitute the "traditional" route to higher education (Figure A.2a), but students may also take non-traditional routes (Figure A.2.b).

The aim that "the student body entering, participating in and completing higher education should reflect the diversity of our population" ${ }^{(3)}$ suggests that all students who complete upper-secondary education should have the skills and the opportunity to enter higher education if they wish (propaedeutic function). Moreover, this also entails that those who decided not to begin higher education immediately after upper-secondary education (because they graduated in upper-secondary vocational programmes, had work experiences, etc.) and those who failed during upper-secondary education but acquired additional knowledge and qualifications through non-formal learning, can be given a second chance to access higher education.

Although increasing participation is a policy objective shared by all Bologna countries, this may not be at the micro level: depending on national economic perspectives, upper-secondary graduates may prefer to stop studying and start their professional career for instance to avoid "opportunity costs". Moreover, many other reasons may discourage people who successfully completed upper-secondary education from entering higher education: low intrinsic interest in pursuing further studies, lack of sufficient financial resources to ensure satisfactory study conditions (chapter B) and low expectations in terms of career development prospects and future earnings (chapter D).

## Do all qualifying graduates of secondary school go to ISCED 5A?

Under the assumption that graduation from upper-secondary school is a traditional prerequisite to higher education, it would be interesting to see what share of such graduates enters higher education. Countries in which this share is low should be examined to investigate the reason why upper-secondary education graduates choose not to enter higher education. Policy action would be needed if students from particular student groups (e.g. with a low social background) made this choice based on their perception of obstacles to entry into higher education.

## Indicator

The "traditional route" to higher education may be translated into statistics using the International Standard Classification of Education (ISCED). According to this classification, upper-secondary programmes designed to provide direct access to the first stage of tertiary education and that are "largely theoretically based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes and profession with high skills requirements (ISCED 5A)" are labelled ISCED 3A. Post-secondary non-tertiary programmes (ISCED 4) usually "straddle the boundary between upper-secondary and post-secondary education from an international point of view" and ISCED 4A programmes are "designed to provide direct access to ISCED 5A".

The purpose of the analysis is to compare the magnitude of one population (i.e. new entrants in higher education (ISCED 5A)) to those who graduated from general upper-secondary education (ISCED 3A and 4A)). This provides only an approximation of those who follow the "traditional" route to higher education. However, the weakness of this indicator is threefold:

- Two different cohorts (the numerator and denominator are taken from two different reference years) are compared.
- Information on the real educational background of the population entering higher education is lacking. In fact, in some countries people who graduated from vocational upper-secondary education (ISCED 3B) may enter higher education.
- Moreover, the age at which compulsory education ends may have an impact on the level of the indicator. Indeed, countries where compulsory education ends during upper-secondary education may register higher shares of graduates at this level than countries where compulsory education ends with lowersecondary education.

[^7]As a result, the former may present lower values for this indicator, as upper-secondary schooling is not solely focussed on access to higher education.

## Results

- At EU-27 level, entrants to higher education account for 84.5 \% of qualifying graduates of general secondary schooling. Moreover, they represent at least $84.9 \%$ of such graduates in half of the Bologna countries, but disparities across countries are strong. Thus, higher-education institutions in Bologna countries potentially face different situations regarding the composition of the population they welcome. Finally, in more than two thirds of countries, the ratio between entrants and secondary-education graduates is higher among the female population than the male population.
- In a first cluster of countries, people entering higher education are more numerous than those who graduated from general upper-secondary education. This is especially the case in Spain, the Nordic countries (except Finland), Latvia, Austria, Portugal, Romania, Slovenia, Switzerland and Russia. This suggests that a substantial number of people enter higher education through non-traditional routes, i.e. people entering higher education after a period of work or graduates from vocational upper-secondary programmes (ISCED 3B) or coming from abroad to study. For instance, in Sweden, "Gymnasieskola" provide access to higher education. With the exceptions of Austria and Sweden, the same pattern was observed for women and men.
- In a second cluster, entrants in higher education account for more than $70 \%$ of the number of graduates in upper-secondary education. In Hungary, the Netherlands, Poland and Slovakia, this share even reaches $90 \%$ to $99 \%$ for the total population. With the exceptions of Germany, Hungary and the Netherlands, women registered higher shares of entrants (compared to graduates) than men.
- In a third cluster, people entering higher education accounted for less than $70 \%$ of graduates in uppersecondary education. This share was below $50 \%$ in Ireland, the former Yugoslav Republic of Macedonia and Cyprus. This - in a similar manner to the first cluster - suggests a looser link between graduating in upper-secondary education and entering higher education.


## Most higher-

education entrants follow the traditional route, especially women

People going in higher education account for less than $60 \%$ of qualifying graduates of upper secondary education in only a few countries

Figure A.2a: Entrants at ISCED 5A as a share of qualifying graduates of secondary schooling (ISCED 3A and 4A), 2006


Note : NZ 2003 data; US 2004 data.
Source: Eurostat, UOE.

## Trend data

A growing percentage of qualifying graduates of
secondary
schooling enter higher education

- Entry into higher education has increased during the past six years. At EU-27 level, entrants in higher education accounted for a growing percentage of qualifying graduates of secondary schooling. In 2001, this percentage amounted to $75.8 \%$ and reached $84.5 \%$ in 2006, which represents an increase of nearly 10 percentage points. This trend is similar for men and women.
- Between 2001 and 2006, entrants as a percentage of qualifying graduates of secondary schooling increased on annual average in all Bologna countries except in Germany, Estonia, Lithuania, Sweden and Former Yugoslav Republic of Macedonia. In Cyprus, Romania, Slovakia and Russia, the annual average growth rate was even higher than $4.5 \%$.

Figure A.2b: Entrants at ISCED 5A as a share of qualifying graduates of secondary schooling (ISCED 3A and 4A), 2001-2006



Source: Eurostat, UOE.

## A.3. Entering higher education via non-traditional routes

Widening participation is also about reducing dead-ends in educational systems, which preclude persons with sufficient competencies but lacking standard qualifications from furthering their education. Many countries have undertaken initiatives, within the past decade, to reduce dead-ends and provide potential students with a second chance to enter higher education. These alternative routes are often diverse and country-specific. Nevertheless, the Eurostudent indicator applied below provides a first insight into comparative practices.

## Indicator

The variety of routes to enter higher education raises some difficulties for administrative statistics to provide information on the percentage of students who enter higher education via non-traditional routes, but sample surveys may be more flexible on this issue. In fact, harmonised administrative statistics do not provide information on the educational background of entrants in higher education. Eurostudent has constructed an indicator assessing the percentage of student with non-traditional routes among the total number of students. Non-traditional route is understood here as "access to higher education through the validation of prior learning and work experience - with or without entrance examination". Such a narrow definition allows for more robust cross-country comparisons, but limits the scope of the analysis since it may not encompass all non-traditional routes available at national level. Comparisons between administrative data (Figure A.2a) and survey data can depict various scenarios across countries provided that data are considered comparable and consistent.

## Results

- Spain, Austria, Portugal, Sweden, and Norway show a connection between the share of entrants in higher education on qualifying graduates of secondary schooling and the percentage of students with nontraditional routes. These countries show more entrants in higher education than qualifying graduates of secondary schooling (Figure A.2a) and show in Figure A.3a between $6 \%$ and $9 \%$ of students coming from non-traditional routes. This suggests a close link between upper-secondary school graduation and entry into higher education and - additionally - the provision of alternative routes into higher education.
- The share of students with non-traditional routes is the highest in the United-Kingdom. In England and Wales, it stood at 14.6 \% whereas it reached 10.8 \% in Scotland.
- In Estonia and Ireland, the share of students with non-traditional routes stood at $11 \%$ and $8 \%$ respectively, but higher-education entrants accounted for less than $53.5 \%$ and $48.2 \%$ respectively of qualifying secondary-education graduates. This suggests that these countries have a looser link between upper-secondary school graduation and routes into higher education.
- Germany, Lithuania and Finland registered low shares of non-traditional students (less than $3 \%$ ) as well as levels of entrants to qualifying graduates below $100 \%$. This suggests that, aside from a few exceptions, upper-secondary graduation is the main route into higher education or that countries have a wider definition of "traditional routes". Furthermore, this also indicates that a relatively large share of secondary school graduates decide - for whatever reasons - against going into higher education and choose to enter vocational education or the labour market.

Figure A.3a: Students with non-traditional routes to higher education as a share of all ISCED 5A students, narrow definition, 2005-2008


[^8]In England and Wales, students from nontraditional routes accounted for $14.6 \%$ of the overall student population, but this share stood
below 12 \% in other countries

## A.4. Studying part-time in tertiary education

Countries registered very marked
differences on part-time studying, with the share of part-time students ranging from 10 \% to 50 \% of the student population

At EU-27 level, more than half of students aged 30 and over are parttime students

From the social dimension, analysing part-time studies in higher education is a problem. The variety of types of part-time studies (distance learning, evening and weekend courses, programmes allowing official parttime status, de facto part-time status, etc.) and underlying reasons (insufficient financial resources to afford full-time studies, need for employed people to update their skills) may lead to contradictory conclusions. In fact, a high share of part-time students raise concerns about the possible lack of individual financial resources, which goes against widening access to higher education. In contrast, the developing number of workers updating their knowledge through higher education programmes could be taken as evidence that participation in higher education has been widened beyond its traditional audience and more is more representative of the population as a whole. Frequency of part-time studying also depends on age. Indeed, older students are more keen on studying part-time to conciliate their studies with financial independence (and thus work) so as to start a family.

Looking at the organisation and provision of part-time studies across the Bologna countries leads to the conclusion that the consequences of part-time studies differ between countries and, indeed, some countries do not offer this form of studying at all (see M-box). The two indicators shown below present administrative data (Figure A.4a and b) and self-reported assessments of study intensity from students (Figure A.4c) in an attempt to present a more complete picture.

## Students studying part-time

## Indicator

International statistical comparison on part-time students calls for an operational definition. A part-time student is thus one whose commitment is less than $75 \%$ of the study week or a student who is expected to be in the programme for less than the full academic year. This definition is based on different measures (depending on specific national situations): academic value/progress, time commitment (both inside and outside the institutions where the programmes take place) or time in classroom.

## Results

- Part-time students represent less than $10 \%$ of the total student population in only four Bologna countries for which data is available (the Czech Republic, Denmark, Germany and Georgia).
- Conversely, they account for more than $30 \%$ of students in Latvia, Lithuania, Hungary, Poland, Slovakia, Finland and Russia (and Australia, New Zealand and the USA). In Sweden, just over half of students are part-timers. In other European countries (and Canada and Japan), part-time students represent between $10 \%$ and $30 \%$ of those attending higher education (ISCED 5A).
- Age is a key factor in studying part-time. In all European countries, the share of part-time students is at least three times higher in the older age group (aged 30 and over) than among the younger population. At these ages, part-time students make up the majority except in Belgium, Czech Republic, Denmark, Germany, Estonia, Iceland, Liechtenstein, Switzerland and Georgia.
- The proportion of part-time students aged 30 and over is especially high in Bulgaria, Lithuania, Hungary, Slovenia, Slovakia and Croatia, where they represent more than $80 \%$.
- At EU-27 level, almost $18 \%$ of students in higher education (ISCED 5A) are studying part-time but most part-time student ( $54 \%$ ) are older than 29.
- In half of the Bologna countries, the proportion of part-time students is lower than $10 \%$ for students aged under 30. Conversely, half of the Bologna countries register more than $53 \%$ of part-time students aged over 29.

Figure A.4a: Percentage of students studying part-time, by age group (15-29, 30+, all), ISCED 5A, 2006


Source: Eurostat, UOE.

## Trend data

- Between 2000 and 2006, the share of part-time students increased on average by more than $1.6 \%$ per year in half of the Bologna countries.
- The EU-27 registered the strongest annual increases in the proportion of part-time students between the years 2000-2001 and 2005-2006. This share increased on average by $4 \%$ per year between 2000 and 2006. The proportion of part-time students increased more rapidly in the population aged 30 and over ( $+28 \%$ over the period between 2000 and 2006) than among the youngest population of students ( $+18.3 \%$ ).

Part-time
studying has developed more rapidly within older student groups

- On average, the proportion of part-time students increased in most countries over the period except in Bulgaria ( -1.3 \%), the Czech Republic ( -1.6 \%), Estonia ( $-5.6 \%$ ), Latvia ( $1.7 \%$ ), the Netherlands ( $-1 \%$ ), Poland ( $-0.4 \%$ ), Croatia ( $-2.6 \%$ ), the former Yugoslav Republic of Macedonia ( $-3.1 \%$ ) and Russia ( -0.8 $\%)$. In contrast, Belgium, Lithuania and Romania registered the strongest growth in the share of part-time student, with an annual average growth of over $9 \%$.

Figure A.4b: Percentage of students studying part-time, by age group (15-29, 30+, all), ISCED 5A, 2000-2006


Source: Eurostat, UOE.

## Various forms of"part-time studies"

Focusing on study status in international comparisons may conceal differences in modus of study and study intensity. It is possible to differentiate between at least four types of "part-time" studying:

- Students enrolled in distance education. These students usually work and spend only part of their time for higher education studies.
- Students attending evening courses and weekend courses at higher education institutions. These programmes are specifically designed for students who work, and therefore can only spend part of their time on their studies, mainly outside working hours. These courses are offered by higher education institutions in addition to the courses for full-time students, mainly on evenings and weekends.
- Students enrolled in "normal" programmes, but with an official part-time status. Usually this can be expected to "allow" students to take less than $100 \%$ of credits per year, compared with what is expected from full-time students. These students would attend "normal" courses, but as a result of dedicating only part of their time to studies, the time until graduation would be expected to take longer than for full-time students.
- Students who are enrolled as full-time students, but who actually spend only part of their time on study related activities.
In some countries one of the most significant differences is that part-time students, even if studying with the same intensity as full-time students, may have to pay higher tuition fees and/or receive less state support for their studies (e.g. in England/Wales, the Netherlands and the Czech Republic). Other countries (e.g. Germany, the Netherlands and the Czech Republic) have introduced special tuition fees for full-time students, who take considerably longer to graduate than the expected duration.

[^9]
## De facto part-time status (self-reported empirical data)

Another meaningful indicator to assess how many students can be considered part-time students is to ask students how many hours they spent during the past week on study-related activities (i.e. lectures and personal study). It departs from an analysis of the formal status of student; it is also considered that the self-evaluated time in study-related activities by students is a better estimation of the phenomenon. Indeed, the Eurostudent data used here looks at the study intensity of students, who consider themselves as having full-time status in their respective national system.

## Indicator

This data is based on self-reported information and is not related to any theoretical full-time commitment of a normal national student, which explains the differences in results compared with the data provided by administrative sources (Figures A.4a and A.4b).

Particular emphasis is placed on students who declare spending less than 21 hours a week on study-related activities. These students are considered as studying de facto part-time.

## Results

- In all countries for which data are available, except Estonia, Slovakia and Finland, $70 \%$ or more of fulltime students declare they dedicate more than 20 hours a week to higher education studies. Among these de facto full-time students, a majority even devote more than 30 hours a week in 16 of the 21 countries for which data are available.
- In Estonia, Slovakia and Finland, more than one third of students with full-time status declared spending 20 hours or less studying during the past week. This share is six times higher than that of Portugal, which registered the lowest share of de facto part-time students.

In a majority of country, more
than half of students declare spending more than 30 hours a week studying

Figure A.4c: De facto student status: students with full-time status by size of effective workload for study-related activities per week, 2005-2008


Source: Eurostudent III.

## A．5．Social background and completion of higher education

A key element of the social dimension of higher education is that it should provide equitable conditions of access and success to all．Such access and success for all depend on many interrelated factors that go beyond higher education．Accessing higher education still largely depends on the ability of earlier stages of schooling （upper－secondary but also primary education）to compensate for educational effects of socioeconomic disadvantages through different structural mechanisms（tracking pupils at a late stage of education，improving teacher quality in underprivileged areas，etc．）．It also depends on those specific policies that raise the educational aspiration of underprivileged populations and develop non－traditional routes to higher education．

Financial factors also play a role in access to and success in higher education．To differing degrees，European countries have set up different schemes of public financial support to students．Countries may either support students to pay tuition costs（if they exist）or／and to cover living costs，through different financial arrangements（grants，loans or mixed grants and loans）（see Chapter B）．The conditions governing the award of such support and the amounts transferred to student clearly have an impact on both access to higher education and on the study framework：success is not only a question of academic excellence．
This section will look at completion of higher education by social background，in an attempt to assess the degree of social bias in different education and higher education systems．

## Indicators

One relevant indicator to approach the intergenerational transmission of disadvantages in education is to calculate the share of persons whose parents have completed at most low（ISCED 0－2）or medium（ISCED 3－ 4）or high（ISCED 5－6）education and who themselves have completed higher education．For instance，the number of people having parents with at most lower secondary education divides the number of people having parents with at most lower secondary education and having completed higher education．Such an indicator goes beyond monitoring the widening access to higher education．Indeed，it establishes a correlation between those who entered and successfully competed higher education and the highest educational level of their parents．
Results by sex（Figure A．5a）provide some insight into whether increasing female participation over the past decades has benefited all young women or predominantly those from a higher socioeconomic background．

Nonetheless，direct cross－country comparisons are still to be considered with caution，since the maximum educational attainment of parents is only a proxy for the socioeconomic background of those who completed higher education．Furthermore，the educational attainment of the overall population differs across European countries and the chances people have to attend and complete higher education irrespective of the level of the educational attainment of their parents differ greatly across countries．

## Results

The level of education of parents still has an impact on success in higher education
－At European level，there is a clear influence of the educational level of parents on the success（and thus access）of their children in higher education．Out of 100 persons whose parents＇maximum educational level is at most lower－secondary education， 16.5 have completed higher education．For those whose parents completed at most upper－secondary education，they are $31.7 \%$ who successfully completed higher education．This share reaches 62.5 \％for those whose parents have completed tertiary education．People whose parents have a high educational level thus had more chances than others of accessing and completing tertiary education．
－Overall，the impact of the educational level of parents on successful completion of higher education is especially high in the Czech Republic，Hungary，Cyprus，Poland，Slovenia and Slovakia as well as in Belgium，Italy，Luxembourg and Portugal．
－Four of the Nordic countries（Denmark，Finland，Sweden and Norway），Estonia and the United Kingdom registered a more limited impact of the educational level of parents．In Denmark，Finland，Sweden and Norway，public financial supports are not targeted to a specific student population but are universal．In Estonia and the United Kingdom，loans are available to all students ${ }^{(4)}$ ．

[^10]- When considering the total population, the influence of the educational level of parents on completing higher education reveals marked difference between countries. In the Czech Republic, Italy, Latvia, Hungary, Malta, Poland, Slovenia and Slovakia, less than $10 \%$ of those whose parents have at most lowersecondary education completed higher education, but this share stood at slightly more than one fourth in Germany, Finland and the United Kingdom.
- Completion of higher education increases when considering people with parents having completed at most upper-secondary education, but remains below $25 \%$ in some countries (the Czech Republic, Latvia, Hungary, Poland, Slovenia and Slovakia). This share exceeded $50 \%$ in Belgium, Ireland, Cyprus and Portugal.
- In all European countries (except Malta and Slovenia), more than $50 \%$ of those whose parents achieved higher education also completed higher education. In Belgium, Ireland, Cyprus and Luxembourg, more than $75 \%$ of those whose parents were highly educated also completed higher education; in Spain and France, this share amounted to 71.2 \% and 70.8 \% respectively.
- At EU-25 level, the transmission of disadvantages through generations affects sons and daughters to a similar extent, even if women continue to have lower chances of accessing and completing higher education than men (especially those from households with medium educational background). However, this overall picture hides remarkable disparities across countries.
- Regardless of the level of education of their parents, women have lower chances of completing higher education in Czech Republic, Germany, Ireland, Cyprus, Luxembourg and the Netherlands. The opposite holds true in the Nordic countries (except Norway), the Baltic states, France, Poland, Portugal and Slovenia.
- In the Czech Republic, Germany, Malta, the Netherlands and Austria, daughters of parents with a low educational level are proportionally far less likely to complete higher education than sons from similar households. For instance, in the Czech Republic, only $2.8 \%$ of women whose parents were educated to a lower-secondary level successfully completed higher education. This proportion is half of the one of men from an identical background.
- In Denmark, the Baltic States, Portugal, Finland, Sweden and Iceland daughters from an underprivileged socioeconomic background have much higher chances of completing higher education than sons in a similar position.
- In a majority of countries, daughters of households with a high educational level have better chances of finishing higher education than sons, with the exception of the Czech Republic, Germany, Ireland, Greece, Italy, Cyprus, Malta and the Netherlands, where the opposite pattern was observed.

In some
countries, less
than $10 \%$ of
those whose
parents have low
education
graduate from
higher education

The transmission
of disadvantages
through
generations tends
to affect males and females equally

Figure A.5a: Percentage of individuals (aged 25 and over) having completed higher education, according to the educational background of their parents (low, medium, high), by sex, 2005



Total $\triangle$ Female $\bullet$ Male


Source: Eurostat, EU-SILC.

## Indicators

Widening access to higher education implies that young generations have more chances of successfully completing higher education than their elders. The following indicator presents the intergenerational transmission of disadvantages for three age groups (25-34, 35-44 and 45-54); results by age group provide information on how chances of success in higher education have changed over time for a specific virtual cohort. Cross-country comparisons should be considered with caution due to sample sizes and structural differences in higher education systems. In fact, in countries where higher education lasts longer than in others, the indicator is less accurate for the youngest age group (25-34-year-olds) .

## Results

- At EU-25 level, for someone whose parents only had basic schooling (lower-secondary education), the chances of graduating from higher education have increased over time. Only $15 \%$ of persons aged between 45 and 54 years whose parents achieved at most lower-secondary education graduated from higher education, but this share stood at $23 \%$ among those aged between 25 and 34 .
- The European pattern is slightly different for those whose parents have achieved at least upper-secondary education. Indeed, at EU- 25 level, those aged between 25 and 34 years whose parent have uppersecondary or tertiary education and who completed tertiary education are proportionally less numerous than those aged between 35 and 44 years.
- Underprivileged young people have benefited from the development of higher education. In many Member States, the proportion of those whose parents achieved at most lower-secondary education and who graduated from tertiary education is higher among 25-34-year-olds than those aged between 35 and 44. For instance, these shares increased by more than $40 \%$ between these two age groups in Ireland, Spain, France, Lithuania, Malta, Poland, Portugal and Slovenia, but still stand at very different levels between these countries.
- In the Czech Republic, Germany, Estonia, Hungary and Slovakia, the share of people born in households with low educational level who completed tertiary education decreased between the two youngest age groups.

Figure A.5b: Percentage of individuals (aged 25-34, 35-44, 45-54) having completed higher education, according to the educational background of their parents (low, medium, high),
2005


Young people from households with low educational level have more chances of graduating than their elders

Figure A.5b: Percentage of individuals (aged 25-34, 35-44, 45-54) having completed higher education, according to the educational background of their parents (low, medium, high), 2005 (continued)


Source: Eurostat, EU-SILC.

Social dimension and mobility in the Bologna Process
Chapter B: Study framework

## B. Study framework

- Between 2001 and 2005, annual public expenditure on tertiary education increased at the same pace as Gross Domestic Product (GDP) in Bologna countries. In 2005, half of Bologna countries spent more than $1.1 \%$ of GDP on higher education. As a share of total public expenditure, half of Bologna countries devoted more than 2.8 \% to higher education.
- Annual expenditure by student reflects investment by the size of the respective higher education system, i.e. the number of students serviced. Expenditure per student varies on a scale from 1 to 7 among Bologna countries. A "typical" Bologna country spent EUR 8300 PPS per full-time equivalent student in 2005, of which nearly $30 \%$ was devoted to R\&D and ancillary services. Spending on core educational goods and services per student were twice as high in the US as in most Bologna countries.
B Bologna countries are increasingly investing in R\&D and ancillary services, while expenditure on core educational goods and services increase at a lower rate.
- In the Bologna area, higher education institutions receive one fifth of their total resources from private funding. Private funding increased in almost all Bologna countries, although its level remains low compared to the US and Japan.
- One major component of private funding is student fees. Although the complexity and diversity of contribution schemes make it difficult to assess how much a student ultimately pays, the data show that students devote up to $25 \%$ of their total budget to the payment of tuition or other fees. In higher education systems with fees, the amount varies in a proportion of 1 to 8 according to the country considered.
- In all countries for which data are available, students combine income from job, family and state support in order to pursue their studies. In many cases, students largely rely on their family and/or job as major income sources. In most countries state support is essential, but insufficient as a compensation for dependence on family and/or job income.
- The median Bologna country dedicates around $10 \%$ of public expenditure on tertiary education to non-repayable grants. A further form of support is repayable loans, although these are not yet widespread across Bologna countries.
- Public support schemes which provide direct monetary support to students vary across the Bologna countries. In general, they are based on universal, compensatory or meritocratic criteria. Further support is frequently provided indirectly, by providing infrastructure to the benefit of students (e.g. discount accommodation) or their parents (e.g. tax discounts), however, these schemes are hard to quantify in fiscal terms.


## Main issues

Once a student has entered the higher education system, an effective use of public and private resources can only be assured by providing a study environment, which is conducive to the successful completion of a student's studies. The study environment influences a student's experience of higher education and his/her learning process and, therefore, impacts on the effect of higher education studies. This challenge for both policy and practice
becomes even more relevant in view of the changing student body entering higher education and, especially, in relation to efforts to assure the study success of non-traditional students (see Chapter A).
This chapter looks at income and expenditure in higher education systems in order to highlight some of the aspects of the study framework from both a macro and micro perspective.

In the first instance, public expenditure is compared across the countries in relation to the strength of a country's economy and its education budget (Figures B.1a and B.1b) and in relation to the number of students in the respective higher education system (Figures B.1c and B.1d).

Public expenditure is not the only source of funding for higher education institutions and, therefore, the mix between public and private funding sources is analysed in the subsequent section (Figures B.2a and B.2b).

A major source of private income for HEIs, and one particularly relevant within the context of the social dimension of higher education, is students' fees and other financial contributions. The analysis looks at these by comparative price (Figure B.2c) and by share
of students' total monthly income (Figure B.2d).
Students finance their studies through three main income sources - parents, state support and jobs. The analysis shows a comparative picture for European higher education (Figure B.3c). Of particular interest from a policy perspective is the design of state support. The analysis in this chapter compares countries by the share of repayable and nonrepayable support (mix of loans and grants - Figures B.3a and B.3b), by the use of equity-based criteria (Figure B.4a) and by the supplementary provision of indirect support (Figure B.3d). Finally, case-study data will also be provided to illustrate the effects of both direct and indirect state support on students' incomes (Figure B.4b).

## B.1. Expenditure on Higher education

Public expenditure on higher education represents the efforts made by respective countries to ensure the basic operation of the higher education enterprise, which encapsulates, in general, research and teaching activities, as well as ancillary services in order to support these primary activities. Both the recent expansion of higher education participation in terms of volume and the widening of participation in terms of participative equity (see Chapter A) lead to increased demands on public funding and, therefore, present challenges for the public purse. These challenges become more acute because of the concurrent increases in demands in other areas of the public budget (e.g. social services and health care).

## Public expenditure in relation to strength of a country's economy and share of public budget

Public expenditure (from local, regional and national levels of governments) on tertiary education includes not only the funding of universities and higher education institutions, but also all other tertiary educational institutions which provide education-related services. This includes entities administering education (for example, ministries or departments of education), entities providing ancillary services (vocational and psychological counselling, student transport, etc.), and entities performing educational research, curriculum development, and educational policy analysis.

## Indicators

One relevant indicator to assess a country's financial effort in supporting its higher education system is the share of public expenditure on higher education in relation to gross domestic production (GDP), i.e. public expenditure weighted by the strength of a country's economy. This indicator represents the share of available income generated in an economy which is allocated to higher education and, as such, may reflect government efforts to invest in tertiary education (Figure B.1a).
Governments have to make policy choices in respect of their investment in higher education as opposed to other areas. A further indicator can be used to reflect these choices and respective priority given to higher education over other areas of public funding. This indicator presents public expenditure on higher education as a share of total public expenditure (Figure B.1a).

## Results

- The results shows that in 2005, the median Bologna country invested $1.1 \%$ of GDP in and $2.8 \%$ of total public expenditure in higher education (median values - see box M1) - these values are used in Figure B.1a to determine the benchmark. At EU-27 level, expenditure on higher education stood at $1.2 \%$ of GDP, or $2.5 \%$ of total public expenditure.
- The Nordic countries (Denmark, Finland, Sweden and Norway) invest the highest shares of GDP in higher education, ranging in 2005 from 1.9 \% of GDP in Sweden to 2.4 \% in Denmark (although some ISCED level 4 expenditure is included, this represented the largest share among the countries reported here). A large part of that expenditure was devoted to financial aid to students in the form of grants and loans (see Figure B.7a below). Beside the Nordic countries, Georgia shows the highest share (3.3 \%) of GDP invested in higher education.
- Regarding the share of total public expenditure invested in higher education, a further group of countries join the first Nordic group and Georgia - Cyprus, Iceland, Switzerland and Ukraine with a share of investment ranging from 3.6 \% (Cyprus) to 5.6 \% (Ukraine).
- Bulgaria, the Czech Republic, Italy, Hungary, Malta, Portugal and Slovakia allocate around or less than 2 $\%$ of their public budget to higher education; in comparison these are low values.


## M1 - Median values

The median value is the point dividing the Bologna countries into two equal halves, meaning that half of the Bologna countries are below the median value and the remaining half are above. This value is computed for all countries for which data are available and is unweighted (i.e. it does not take account of the countries' population size).

In 2005, half of
Bologna
countries
devoted more
than $2.8 \%$ of
total public
expenditure to
higher education.

Figure B．1a：Annual public expenditure allocated to tertiary education，as a percentage of GDP and of total public expenditure－ 2005


Note：TR，RU， 2002 data；CA， 2002 data．
Source：Eurostat，UOE．

From 2001 to
2005，annual
public
expenditure on tertiary education
increased at the same pace as GDP．

## Trend data

－In all Bologna countries for which data are available the unweighted median indicates that tertiary education expenditure in relation to GDP has not increased between 2001 and 2005．In this period，the share of public expenditure devoted to higher education remained relatively stable（see Figure B．1b right－ hand chart－data for all countries are available in the annex）．

Figure B. 1 b: Annual public expenditure allocated to tertiary education, as a percentage of GDP and of total public expenditure - 2001-2005


Note: the EU-27 aggregate is a weighted average which is not directly comparable to the Bologna unweighted median, for which small-sized countries are given a greater weight.
Source: Eurostat, UOE.

- Using the EU-27 weighted average, we can see that EU countries increased public expenditure on tertiary education by around $5 \%$ between 2001 and 2005, with an average annual growth rate of $1.7 \%$.
- Huge variations across countries were also observed: public expenditure on tertiary education in relation to GDP was reduced by 22 \% between 2001 and 2005 in Lithuania, whereas in the United Kingdom and Russia, it increased by $50 \%$.


## Total expenditure on higher education by number of students

When considering the performance of education systems in relation to their financial resources, it is also relevant to look at total expenditure (both public and private) per student. This indicator reflects the financial investment of a country in relation to the size of the student population.

## Indicator

Total expenditure on educational institutions per student represents the amount of income a tertiary institution has per enrolled student. These amounts are expressed in EUR PPS (Purchasing Power Standards see box M2) which take into account the different price levels in each country.

The annual expenditure per student shown here includes direct expenditure on educational institutions, provided by public and private sources. However, it does not include expenditure directed outside educational institutions (see box M3). Direct expenditure on educational institutions is more directly connected to the provision of educational programmes and therefore to its quality.
Two kinds of expenditure on educational institutions can be distinguished. "Core expenditure" is expenditure directly related to the provision of instructional services. Additionally, expenditure may be used for educational peripheral goods and services which include research and development as well as ancillary services (meals, transport, accommodation, etc.).
It should be noted that it is currently not reliable to differentiate between these two categories - ancillary services and research - which limits the value of a comparison between "core expenditure" and other at the present, since expenditure in ancillary services may be made to improve the study conditions of students.

## Expenditure per

 student varies on a scale from 1 to 7 among Bologna countries.
## Results

- From the unweighted median computed on available data, it appears that the median Bologna country spent EUR 8290 PPS per full-time equivalent student in 2005 (Figure B.1c). When considering only core expenditure (total expenditure minus expenditure on research and ancillary services), this amounted to EUR 5900 PPS in 2005, corresponding to a share of $71 \%$ of total expenditure.
- On the basis of the EU-27 average one can see that core expenditure accounted for two thirds of spending; one third of total expenditure on educational institutions being devoted to research and development and ancillary services.
- In 2005, five countries (Denmark, Austria, Sweden, Liechtenstein and Norway) spent more than 1.5 times the Bologna median level of total expenditure, whereas the Baltic countries, Bulgaria, Romania and Russia spent less than half of this median amount. This reveals a significant gap between Bologna countries in terms of investment per student in tertiary education: expenditure per student ranges from EUR 2400 PPS in Romania up to EUR 17000 PPS in Liechtenstein.
- This variation is partly due to the differences between countries investing in research and development (R\&D) and in ancillary services with a share of annual expenditure devoted to "core education" varying from less than $60 \%$ in Germany, Sweden and the United Kingdom, to (almost) $100 \%$ in Estonia, Iceland and Croatia.
- Outside the Bologna area, expenditure per student in 2005 amounted to EUR 7940 PPS in New-Zealand and EUR 20953 PPS in the United States (Figure B.2a). This amount was more than double the total expenditure in $75 \%$ of countries reported here. Expenditure in the US was greater than anywhere else, especially in terms of "core expenditure", as only $23 \%$ of total expenditure was devoted to R\&D and ancillary services.


## M2 - Purchasing Parity Standards

Purchasing Power Standard (PPS) shall mean the artificial common reference currency unit used in the European Union to express the volume of economic aggregates for the purpose of spatial comparisons in such a way that price level differences between countries are eliminated. Economic volume aggregates in PPS are obtained by dividing their original value in national currency units by the respective PPP (Purchasing Power Parity). 1 PPS thus buys the same given volume of goods and services in all countries, whereas different amounts of national currency units are needed to buy this same volume of goods and services in individual countries, depending on the price level.

## M3 - Collating total expenditure on higher education

Education expenditure includes direct expenditure on educational institutions and indirect expenditure on goods, services purchased outside educational institutions to support educational activities and transfers from governments to private entities earmarked for education or from private entities to households in the form of financial aid to students. The funding of this expenditure is provided by public (government at local, regional and national level) and private (households and other private entities) sources. It can be argued that expenditure on educational institutions is more directly connected to the provision of educational programmes and therefore to its quality. Actually, data on funds from private entities (private businesses, non-profit organisations and labour organisations) and households directed outside educational institutions (household expenditure on education goods, services purchased outside educational institutions and financial aid to students given by other private entities) are difficult to collect in many countries. To ensure reliable comparisons across countries, it is thus appropriate to focus only on expenditure directed inside tertiary educational institutions.

Figure B.1c: Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS) including and excluding expenditure on research and ancillary services, ISCED 5-6 - 2005


Note: DK, 2004 data.
Source: Eurostat, UOE .

## Trend data

- The evolution of total expenditure per student showed strong disparities, at least recently, within the Bologna area. Despite a decrease in Slovakia ( -11 \%) between 2004 and 2005, strong increases were registered over the same period in Latvia ( +28 \%), Poland ( $+27 \%$ ), Portugal ( $+34 \%$ ), the United Kingdom ( $+29 \%$ ) and Russia ( $+35 \%$ ) - see Figure B.1d.
- There appears to be a general trend towards increases in expenditure on R\&D and ancillary services and a concurrent decrease in expenditure on core goods and services. For example, for the EU27 weighted average, the annual core expenditure per student decreased by $3.1 \%$ on average between 2003 and 2005, whereas expenditure on $\mathrm{R} \& \mathrm{D}$ and ancillary services increased by $17.4 \%$. This difference can be observed in $80 \%$ of Bologna countries for which data is available, and was especially marked in Ireland, Latvia, Lithuania, Slovakia and the United Kingdom. In the latter country, core expenditure decreased on average by $4 \%$ a year between 2003 and 2005, whereas expenditure on research and development and ancillary services increased by $65 \%$. A similar trend is visible in the US data.
- In contrast, expenditure on core education increased on average by $17 \%$ a year in Poland, while expenditure on $\mathrm{R} \& \mathrm{D}$ per student increased at an annual average growth rate of $5 \%$.

Bologna
countries are increasingly investing in R\&D and ancillary services, while expenditure on core educational goods and services increase at a lower rate.

Figure B.1d: Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS) with and without expenditure on research and ancillary services, ISCED 5-6 - 2001-2005


Note: in order to compare data in a reliable way, only data for which data were available on both dimensions (total and core exp.) were taken into account.

Source: Eurostat, UOE.

## Synthesis: Public expenditure and total expenditure by student numbers

Since both analyses above present different perspectives on expenditure in higher education, it is informative to compare the results for Bologna countries. Figure B.1e shows total expenditure per student ( y -axis) against public expenditure as a share of GDP (x-axis) for 2005.

As a reminder, the $x$-axis includes expenditure outside educational institutions (not included in the $y$-axis), while the $y$-axis includes private funds to tertiary institutions (of which tuition fees and all other costs paid by households) in addition to public subsidies.

## Results

Taking the unweighted median of all Bologna countries (for which data are available) as a baseline, four groups of countries stand out.

- Bottom right-hand part of the dispersion chart: In Greece, Poland and Turkey the public financial effort is relatively high, but overall educational institutions have rather limited resources per enrolled student.
- Bottom left-hand part of the dispersion chart: A dozen countries where limited public spending related to the strength of the national economy is coupled with limited total expenditure per student.
- Top right-hand part of the dispersion chart: Considerable public financial effort made in most Nordic countries (around or more than $2 \%$ of GDP), but this does not result in high resources per student for educational institutions in comparison to other Bologna countries. Indeed, financial resources per student in educational institutions of those countries are quite similar to those in Belgium, Germany, the Netherlands, Austria or the United Kingdom. This is partly due to the fact that in Nordic countries a large share of expenditure is devoted to public support for students (and therefore not directed inside institutions), and to the fact that private sources of educational institutions' income (included in $y$-axis) are low (e.g. low or non-existent tuition fees).
- Top left-hand part of the dispersion chart: Taking the example of Japan, this is clearly a higher education system which is largely funded through high private contributions to higher education institutions, since the public investment is comparatively low. Other factors might however explain this particular pattern, such as comparatively fewer student enrolled inside the country, or a stronger economy in term of GDP.

Figure B.1e: Annual total expenditure per full-time equivalent student (in EUR PPS) compared to public expenditure on tertiary education as a percentage of GDP, ISCED 5-6 2005


Note: TR, 2004 data. Bologna median was computed only from countries for which data were available on both dimensions.
Source: Eurostat, UOE.

## B.2. Higher education institutions' income from private sources and from student contributions

In order to cope with increasing costs due to the increasing number and diversity of students, new technologies and diversification of specialisations, higher education institutions have two alternatives in order to maintain or improve standards of quality. They may either demand additional funds from governments or collect funds from private entities. Concerning the latter choice, higher education institutions may charge fees to students: this is the most common form of cost sharing, as it will be seen below.

## Share of institutional income from private sources overall

## Indicator

Private contributions to higher education institutions may take one of two forms. Firstly, students and their families make payments to educational institutions, not only tuition fees but also in the form of fees for ancillary services, such as accommodation and meals. Secondly, private businesses, non-profit organisations and labour organisations make transfers to educational institutions. All these represent the contribution of the private sector to the financial resources of higher education institutions.

However, it should be noted that even when educational institutions receive their funds from private entities, it doesn't mean that they come originally from the government, in the form of transfers or social benefits given by government to those private entities.

Figure B.2a presents the share of private funding in the total income of higher education institutions from private and public sources (international sources are excluded here).

## Results

- In half of the Bologna countries for which data is available, the share of households and other private entities in higher education institutions income was over $22 \%$ in 2005 (unweighted median). The EU-27 average stands at a similar level at $20 \%$.
- In 2005, Bulgaria, Cyprus and Latvia reported very high shares of private funding, representing more than double the Bologna median level.
- Conversely, private contributions to higher education institutions were less than one third of the Bologna median in Austria, and less than one sixth in Denmark, Greece, Finland and (in 2003) Norway. Hence, educational systems in these countries predominantly rely on public funding for tertiary education.

Figure B.2a: Higher education institutions' income from private sources (households and other private entities) as a percentage of all public and private sources, ISCED 5-6 - 2005


Figure B.2a: Higher education institutions' income from private sources (households and other private entities) as a percentage of all public and private sources, ISCED 5-6 - 2005 (continued)


Source: Eurostat, UOE.

## Trend data

- The general trend over the six years between 2000 and 2005 is an increase of contributions from household and private entities to higher education institution's income: half of Bologna countries record an average annual growth rate of $2.75 \%$ or more.
- Three quarters of all Bologna countries reported increases in the share of private funding between 2000 and 2005, of which the strongest increases were observed in Portugal (average annual growth rate of +41 \%), Slovakia (+29 \%) and Turkey (+46 \% between 2000 and 2004).
- Even among countries with a low private contributions share, the trend is upwards, although remaining low. Indeed, the share of private funding strongly increased between 2000 and 2005 in Denmark (average annual growth rate of $+9 \%$ ), Greece ( $+124 \%$ ) and Austria ( $+17 \%$ ). Notable exceptions to this were Belgium and Cyprus, with an average annual decrease of $7.9 \%$ and $7.7 \%$, respectively.
- Compared to Japan and the United States, for example, private contributions to higher education institutions are in fact relatively low in Bologna countries. In the case of these two countries the share of private funding stands at around two thirds of total institutional income and has remained stable over time.

Figure B.2b: Higher education institutions' income from private sources (households and other private entities) as a percentage of all public and private sources, ISCED 5-6 - 20012005


[^11]
## Private funding

 increased in almost all Bologna countries but it remains low compared to theUS and Japan.

The complexity and diversity of contribution schemes are obstacles to the evaluation of how much a student pays for its education

## Students' financial contributions to higher education institutions

Whilst cost-sharing between public and private sources is increasingly being seen as important in order to ensure an appropriate level of resources for higher education institutions, contributions requested from students themselves are a key issue for them and their families. These can indeed represent a large part of their budgets, depending on financial aids granted to them (for the issue of financial support, see next sections). Demanding high contributions for access to higher education may indeed constrain access for certain student groups or have repercussions for their whole study framework (e.g. the time spent studying).

A huge variety of student contributions can be requested by higher education institutions. Contributions to tuition costs are the most well-known, and are often the highest. Contributions to administrative costs can include entrance fees (payable only once), registration fees (payable every year) and certification fees (payable the year of graduation). Finally, contributions can be asked to cover ancillary services, such as those offered by student organisations. National regulations on contributions to be requested from students vary a great deal between countries. In some countries no contribution is requested from students.

The mapping exercise of Eurydice (Eurydice/Eurostat, 2007, Key data on higher education 2007. Brussels) considered compulsory payments to be made each year of the first cycle by full-time daytime students for a first qualification in the public and government-dependent sectors (reference year 2005/06). It found eight EUmember states, plus Scotland, where access to higher education was free of charge: the Czech Republic (ISCED 5A level), Denmark, Greece, Spain (ISCED 5B level), Ireland, Cyprus, Malta, Finland and Scotland. However, in Ireland, students must pay a student service charge to their college or institution. This amount varies depending on the college attended. This was not reported, as it is deemed another type of contribution. Moreover, in all those countries (except Denmark, Greece, Cyprus and Malta), students who are held back a year have to contribute to tuition costs. This is particularly relevant from the perspective of equity, as the most affluent students could have a second chance where the poorest of them could not.
In Norway, Sweden and Finland (not Denmark and Iceland), only annual contributions to student organisations are required in the public sector (in Norway, tuition fees are charged by government-dependent private institutions). Other countries like Estonia, Hungary, Latvia, Romania and Slovenia offer a limited number of study places, which are fully subsidised, while students in non-subsidised places pay fees.
Although many students can participate in higher education free of charge, the current trend seems to be towards cost sharing (tuition fees). For example, in Germany tuition fees were gradually introduced across the federal states (or Bundesländer) between 2006 and 2008, while in the United Kingdom (except in Scotland) tuition costs increased significantly in 2006 and 2007, under the label top-up fees. According to the Eurydice mapping, contributions to institutional costs (both administrative and tuition costs) were the highest in Portugal, Latvia (for students without a subsidised place), the United Kingdom and Liechtenstein.

Contributions to be paid vary between countries and within countries as well, depending for example on the ISCED level attended, or the sector of the institution (public or government-dependent private). Besides, fees can be left at the discretion of the institutions and/or targeted at special groups of students (e.g. part-time students, students above the state admission quota, graduate students, ex post fees for failing students). As a result, this variety of regulations does not provide a reliable picture of the financial burden for an average student.

## Indicator

The EUROSTUDENT III survey facilitates an assessment of the extent to which the different systems affect students' expenditure on an empirical basis, since the source of information are the students themselves. Here, contributions paid by students include all types of contributions (tuition fees and administrative fees) and are considered irrespective of any public financial support. The sample is made up of students attending ISCED 5A institutions and can include students held back a year and part-time students.
The analysis considers the fees in Euro values (Figure B.2c) and relative to total expenditure (Figure B.2d).
Reporting those contributions as a share of total expenditure (i.e. study-related costs like books and learning material, as well as living costs) provides a better picture of the burden represented by contributions in students' budgets. For accuracy reasons, only answers from students living away from the parental home are reported here, assuming that their estimation of expenditure would be more reliable than those whose parents accommodate and feed them.

Figure B.2c: Monthly students' obligatory contributions to higher education institutions, in nominal and comparative amounts, ISCED 5A - 2005-2008


Note: Amounts rounded at the nearest 10 EUR PPS.
Source: Eurostudent III.

## Results

- Contributions paid by students from countries participating in the EUROSTUDENT survey differ widely according to country (Figure B.2c).
- Excluding countries where student contributions were close to zero (Germany, Finland, Sweden and Scotland), tuition and other fees paid to higher education institutions can vary in a proportion of 1 to 8: from EUR 30 PPS in France and Slovenia to EUR 240 PPS in Bulgaria.
- In four other countries (Estonia, Latvia, Portugal, and England and Wales), students pay close to or more than EUR 150 PPS a month. These results are in line with figures on higher education institutions' incomes, where the shares of private funding were among the highest in those five countries (Figure B.2a).

Figure B.2d: Students' contribution to higher education institutions, in percentage of total expenditure of students living away from the parental home, ISCED 5A —2005-2008


- In all countries considered, student contributions to educational institutions represent less than $25 \%$ of their total expenditure.
- Higher education attendance (ISCED 5A level) may be perceived as more affordable in France, Slovenia, Slovakia and Switzerland compared to all related expenditure (accommodation, study books and material, etc.), since tuition and other fees represent at most $5 \%$ of a student's total expenditure.
- Conversely, in Bulgaria, Estonia, Latvia, Lithuania, Portugal and Turkey, student contributions to HEIs account for a larger share of students' budget. In these countries, close to or more than one fifth of their budgets is spent on contributions to higher education institutions.

Where applicable, tuition and other fees paid by students can vary in a proportion of 1 to 8 according to the country considered.

Students spend
up to $25 \%$ of
their total budget on the payment of tuition or other fees.

Chapter B: Study framework (dratf)

## B.3. Student income and public support

In many countries, state support is provided to students and their families in order to alleviate financial barriers to higher education participation. With the concurrent increases in cost-sharing initiatives (i.e. student fees) and efforts to increase the diversity of participation according to students' social backgrounds finding appropriate mechanisms of financial support is becoming even more important in order to assure effective higher education provision.

## Form of student financial aid

Financial aid is provided in a variety of forms. Here are considered grants and other scholarships (of which non repayable cash support) and loans (repayable cash support) - see box M4.

## Indicators

Figure B.3a shows the amount of grants and loans awarded to students as a share of all public expenditure on higher education. Public expenditure on tertiary education refers to total public expenditure at that level of education. Total public expenditure on education consists of direct public funding for educational institutions, financial support to students and public transfers to not-for-profit organisations and firms.

## M 4 - Public financial support to households and students (UOE)

Public transfers to households can depend on any level of government and include scholarships and other grants, and student loans. Those transfers exclude any tax benefits to students or their families (such as tax credits or deductions from taxable income) as well as allowances that are independent of the student status. Public (and private) scholarships, grants, or loans are provided to students not primarily or exclusively to cover the tuition fees charged by educational institutions but rather to subsidise student living expenses.

## Scholarships and other grants

Scholarships and grants to students and households include public scholarships and all kinds of similar public grants, such as fellowships, awards and bursaries for students. Government scholarships that are channelled through educational institutions for administrative purposes are considered government transfers to students. Are also included child allowances (whenever contingent to student status), and special public subsidies in cash or in kind (that are contingent on student status), such as subsidies to educational institutions for ancillary services, i.e. for lodging, meals, health services, or other welfare services (transport, books and supplies, social and recreational services, study abroad, etc.).

## Loans

Students loans are reported on a gross basis - that is, without subtracting or netting out repayments or interest payments from the borrowers (students or households). Thus, student loan expenditure represent the total value of loans paid by government to students during the reference year. The cost to government of servicing these loans (i.e. interest rate subsidies and the cost of default payments) is not included.

## Results

- When considering both forms of support, in all Bologna countries a median of $15 \%$ of public expenditure on higher education was dedicated to financial support to students in 2005. This proportion ranged from less than $5 \%$ in Greece, Poland and Switzerland to more than $20 \%$ in the Nordic countries (except Finland), Cyprus, the Netherlands, Slovenia and the United Kingdom.
- In 2005, grants and other scholarships to tertiary students accounted for more than $10 \%$ of public expenditure on higher education in half of Bologna countries for which data are available. Loans schemes are not so widespread in the Bologna area: in 2005, 14 out of 28 Bologna countries subsidised loans, of which four devoted less than $1 \%$ of total public expenditure to this kind of support.

The median Bologna countries dedicates around $10 \%$ of public expenditure on tertiary education to grants.

- At EU level, grants and subsidies accounted for around $14 \%$ of total public expenditure, while loans accounted for $6.6 \%$. The share of loans in total public financial support to higher education (loans and grants) was thus almost $20 \%$ in 2005.
- Cross-country differences are considerable, both in terms of grants and loans in total public support to tertiary students. As regards grants as a share of public expenditure in 2005, the highest shares were observed in Denmark ( $26 \%$ ), Cyprus ( 49 \%), Malta ( $30 \%, 2003$ data) and Slovenia ( $24 \%$ ), which is more than double the Bologna median. By contrast, the share of grants in relation to public expenditure was less than half the Bologna median in Greece ( $0.8 \%$ ), Poland ( $1.1 \%$ ), Romania ( $5.6 \%$ ) and Switzerland ( $2.2 \%$ ). It must also be noted that grant levels varied from one year to the next in the Baltic countries and some Eastern countries.
- Loans are awarded in only few countries. In some countries, loans were in 2005 the only form of public financial support, such as Iceland, or represented more than half of financial aid, such as in the Netherlands, Sweden, the United Kingdom, Norway and Turkey (2004). Loans are less frequently offered or taken out by students in Belgium, France, Italy and Lithuania, while they do not exist in the remaining countries.
- Considering other countries outside the Bologna area, Australia, Japan and United States differ considerably in the importance given to loans and grants: in Japan public financial aid comprised almost exclusively loans, whereas the opposite was observed in the United States, which is more similar to the EU.
- It is worth noting that, as a share of public expenditure on tertiary education, financial aids to students and their family were the highest in countries where access to higher education is free of charge (Denmark, Cyprus, Malta and Slovenia). This seems quite paradoxical, but it has to be kept in mind that students bear many costs associated with higher education participation. For example, in many countries, students have to live far away from home, or even abroad, to attend tertiary education, and spend much on transport and accommodation.

Figure B.3a: Public financial aid to tertiary students, by type (loans and grants), as a percentage of public expenditure on tertiary education, ISCED 5-6 - 2005


Note: HU, CA: 2002 data; AT, 2004 data. Data sorted in ascending order, by Grants.
Source: Eurostat, UOE.

Loans are more widespread in Australia and Japan than in the Bologna area.

## Trend data

- Between 2000 and 2005 (Figure B.3b), for all Bologna countries the median of average annual growth rate for grants (as a share of public expenditure on tertiary education) was $+1.6 \%$. When considering only Bologna countries where loans are awarded to students, this median was $+1.1 \%$ for grants and $+0.2 \%$ for loans. In other words, expenditure increased faster for grants than for loans, even when considering only countries where loans can be contracted by students.
- However, a different picture emerges at EU level, as the share of loans in total public support (grants and loans) grew on average by 2.3 \% a year between 2000 and 2005.
- Considering other countries outside the Bologna area, the evolution between 2000 and 2005 was rather stable in Australia (average annual growth rate of $+0.5 \%$ ), New-Zealand ( $+0.7 \%$ ) and Japan ( $+1.1 \%$ ). In contrast, the share of loans in total public support grew by $25 \%$ in the United States.

Figure B.3b: Public financial aid to tertiary students, by type of aid (loans vs grants), as a percentage of public expenditure on tertiary education, ISCED 5-6 - 2001-2005



Source: Eurostat, UOE.

## Components of students' income

State support is clearly only one component of a students' income. These components can be broadly described by three categories:

- Parents' or relatives' contributions: In many countries, parents are seen as the "first stop" for financial support. In some cases the state supports parents by providing special benefits to them for the support of their children (see above). In all cases, direct financial support from parents is a common and essential form of financial support for students.
- State support: To alleviate a dependency on parental support, countries often introduce programmes to support students financially. These programmes are often targeted at those students in need of such support (e.g. based on their socio-economic background). Other approaches are to support all students based on the premise that they are independent young adults or to support the best students according to merit. This latter option is used in order to stimulate or reward students' efforts. Mixed approaches also exist.
- Income from employment: This form of income can be seen as a coping strategy used by students to topup their other funding sources. Additionally, it is also a flexible source of income since it is based on the actions of the students themselves and not their parents or the state.


## Indicators

Figure B.3c shows the relative importance of students' sources of income: state financial support (repayable or not), family support, and earnings from gainful employment. Only answers from students living away from the parental home are reported here and only direct cash support is considered. Other direct forms of support for students excluding state, parents and employment are also not shown in the chart in order to simplify comparisons.

Direct non-cash support (e.g. subsidised accommodation, exemption or reduction of tuition fees, health insurance, etc.) is not taken into account and support to parents (e.g. prolonged child benefit or tax reliefs) is also excluded. It may be assumed that parents pass that support on to their children: in some countries, this kind of support can therefore be reflected through the parental source of income. In such cases, state support may be underestimated, while family support is overestimated.

## Results

- The empirical self-reported data show that in four countries (the Netherlands, Finland, Sweden and the United Kingdom) students essentially rely on state support for living, as it accounts for close to or more than $40 \%$ of their total income. It has to be kept in mind that in three of the four countries (not Finland), a large share of this support is repayable after studies (Figure B.3a).
- In countries where state support represents $15 \%$ or less of total income, the main source of income for students is the family or partner (Ireland, Portugal, Romania and Slovenia) or a paid job (Czech Republic, Estonia, Spain, Latvia and Slovakia) or both in similar proportions (Lithuania, Austria and Switzerland).
- Turkey is the only country where job earnings accounted for such a low share in the income of independent students ( $4 \%$ ). Overall, a large share of higher education students appears to be able to find the opportunity to work in a paid employment alongside their studies. However, this is likely to be at the expense of an increased workload and lower involvement in studies, leading in some cases to longer studies.

Figure B.3c: Income sources (job, state, family) as a percentage of total student income (students living away from the parental home) - 2005-2008


Source: Eurostudent III.

## Composition of overall public support to households

As mentioned above, public support to students can take many forms and is often provided by a multitude of state agencies (i.e. both education and social affairs ministries). This makes a comprehensive assessment of overall public investment in higher education and investment forms problematic.

A recent explorative comparative study has analysed the streams of public subsidies, which are meant for students, in six countries - Czech Republic, England, Germany, Netherlands, Norway and Spain (Schwarzenberger, 2008). Three main streams were investigated:

Students mainly
rely on their
family and/or job
to finance their
studies.

In most countries
state support is essential but vastly insufficient to study in higher education.
－Direct cash support：Cash which is allocated directly to students．This is included in the EUROSTUDENT figures in the analysis above．
－Non－cash support：This support has the effect of decreasing students＇expenditure，e．g．subsidised accommodation，transport，health insurance or meals and support students through ancillary provisions such as libraries and counselling．
－Indirect cash support：Cash（e．g．prolonged child benefit）or tax discounts which are allocated to students＇ parents in order to help them assist their student children．Under the assumption that parents do pass on this support to their student children．As mentioned above，this support would be reflected to a certain degree in the extent of parental support to students＇income in the EUROSTUDENT figures in the analysis above．

## Indicator

The analysis carried out by the international team for the Schwarzenberger project collated information on the availability and utilisation of support schemes－from grants to child benefits and tax exemptions－and calculated their relative weight in total expenditure on higher education using national accounts data．The results can be seen in Figure B．3d．

## Results

Two groups of countries are visible from the exploratory analysis：
－It can be seen that both indirect cash support（via parents）and direct non－cash support（in the form of infrastructure）are particularly important components of state support to households in the Czech Republic and Germany．
－In Spain and Norway，particularly，state support is largely provided as direct cash support to students．

Figure B．3d：Composition of public support to households（direct／indirect cash support－ non－cash support），ISCED 5A－2005－2008


Source：Schwarzenberger，A．（2008，ed．），Public／private funding of higher education：a social balance．HIS，Hanover．

## B.4. Allocation of state support by social background

In order to promote the participation of certain groups of students in higher education, states frequently offer financial support, as seen in the analyses above. Irrespective of the amount and the significance of this income component for students, such schemes may variously target different student groups:

- From a social perspective, a fundamental mechanism of financial support is to target students from underprivileged backgrounds who are deemed as needing it the most. Such a compensation mechanism is one way of awarding financial support.
- A second way is to base financial support on results obtained by students. This meritocratic criterion is often used in combination with the social one and is rarely used alone.
- In a third option, all students are considered equal irrespectively of their family background and therefore are all entitled to the same amount of support. This universal principle is often associated with the idea that students are financially independent of their parents, or should be.


## Targeting direct state support to specific student groups

In the first analysis, direct state support will be analysed by social background. In this way, it is possible to see to what degree state support given as cash to students is targeted to specific student groups.

## Indicator

In the EUROSTUDENT III survey, a proxy of students' socio-economic background was estimated through the educational attainment level of their father (low versus high) (see box M5).

Figure B.4a shows the state support that two groups of students (father with low or high level of education) receive in comparison with the average support per student, in percent. A positive ratio means that the corresponding group of students received more than an average student, while a negative one means the opposite.

It should be noted that the data here do not distinguish between repayable and non-repayable support, which is an important aspect for the most underprivileged households. Yet in some countries such as the United Kingdom, some grants are awarded to the poorest students in addition to universal loans (cf. EUROSTUDENT III (2008) for further analyses).

Figure B.4a: State support differences according to the educational level of parents (low or ISCED 0-2 vs high or ISCED 5-6), students living away from the parental home, ISCED 5A -2005-2008


Source: Eurostudent III.

Public support
schemes can be based on
universal,
compensatory or meritocratic criteria.

All countries try to compensate socio-economic disparities, but results are difficult to assess.

## Results

- In Ireland, Switzerland and Bulgaria, the contrast between the amounts of support by social group is highest for the countries available. For example, in Ireland, students whose fathers have a low education level receive nearly double the support which an average student receives ( $+93 \%$ ), while students from highly educated backgrounds receive around one half of this average support. Such a compensatory scheme was reported in most countries.
- In Nordic countries, the Netherlands, Romania, the United Kingdom (England/Wales and Scotland) and Turkey, this difference between students from low and high education family backgrounds is essentially absent, indicating that support schemes in these countries tend to be more universal. Considering all students as (almost) equal is often justified by the fact that financial ties to parents should be minimal at this age. However, according to EUROSTUDENT data, strictly speaking this does not appear to be true, even for students living away from the parental home, especially in Romania and Turkey (Figures B.2c and B.2d).

Meritocratic
systems may have unexpected pernicious effects.

- Results in Estonia and Slovenia may be explained by the fact that social criteria are not used to allocate funds, but results-based or meritocratic criteria are used instead. As a result, students from highlyeducated families appear to be advantaged by these criteria. In addition, the group of students from a low social background is very small in Estonia ( $5 \%$ of the student population).


## M 5 - Socio-economic background by highest education attainment of parents

In international comparisons the educational attainment of students' parents is often viewed as an indicator for the impact of socio-cultural and economic factors on access to higher education. Using parents' educational background instead of, for instance, their occupational status as an indicator of students'social background has the advantage of a greater reliability in international comparisons, due to the availability of an international coding scheme. The analysis of students' educational background is focused on two groups, which represent two extremes on a social scale. On the one hand, the share of students whose parents graduated from tertiary education (ISCED 5 and 6) is analysed to assess the extent of social reproduction in a higher education system. On the other hand, the share of students whose parents have only completed lower secondary school (ISCED 0-2) is analysed to assess social disadvantage. Despite the existence of data for both fathers and mothers, a particular focus is placed in EUROSTUDENT data on fathers' educational attainment. That way of presenting the data rests on the common - though not uncontroversial - assumption that a family's socio-economic and social status is best reflected by the educational attainment of the father.

## Overall assessment of the impact of state support

As already mentioned, it is highly problematic to collate all financial flows of state support and, therefore, to assess the full impact of the allocation of support. The above mentioned study from Schwarzenberger (2008) has attempted this for a selection of countries.

## Indicator

Figure B. 4 b takes the sum of total support to students with low education backgrounds as a baseline with an index value of 100. Index values lower than 100 indicate a percentage decrease in the level of support by higher social backgrounds.

In should be noted that this was an exploratory study, which can provide some insights into the overall impact of state support, but more research is necessary.

## Results

- Figure B.4b shows that the high levels of indirect cash support and direct non-cash support in Germany and the Czech Republic have the effect of levelling out the targeted supported provided to students of low socio-economic backgrounds (compare with Figure B.4a).
- England/Wales and, particularly, Spain provide examples of countries in which public support is highly targeted by social background.

Figure B.4b: Total public subsidies by socio-economic background, ISCED 5A — 2005-2008

|  | low | lower medium | higher medium | high |
| :--- | :---: | :---: | :---: | :---: |
| CZ | 100 | 89 | 98 | 96 |
| DE | 100 | 99 | 90 | 90 |
| ES | 100 | 69 | 70 | 18 |
| NL | 100 | 88 | 85 | 78 |
| E/W | 100 | 102 | 79 | 57 |
| NO | 100 | 91 | 96 | 97 |

Source: Schwarzenberger, A. (2008, ed.). Public/private funding of higher education: a social balance. HIS, Hanover.

Social dimension and mobility in the Bologna Process
Chapter C: Mobility

## C. Mobility

- The percentage of students enrolled abroad in Europe is quite low ( $2.3 \%$ of students with European (EU-27) citizenship were studying abroad in Europe in 2006), but this outbound mobility rate is increasing continuously, both within the EU- 27 and the Bologna area ( $+4.5 \%$ on average between 2000 and 2006).
- Inbound mobility rates in Europe are still far from those observed in Australia or Canada: in the EU, the attractiveness for non-citizens students is only half as high as in Canada, and only a third as high as in Australia.
- Despite a continuous increase of foreign students enrolled at ISCED levels 5A and 6 in the EU-27 (albeit remaining low compared to Australia or New-Zealand), the part of them coming from the Bologna area has dropped.
- In the EU-27, more than one in ten graduates were not citizens of the country of graduation: in Australia and New-Zealand this figure was almost three times higher.
- In most countries, students from highly educated backgrounds are more likely to have experienced a study-related stay abroad: in some countries, this share was more than three times higher than for students from low-educated families.
- In some countries, the absence of public financial support to mobility appears to hamper its development. As reported by students, financial constraints are the most important obstacles in planning a study-related stay abroad. This reason was most often given by students from loweducated backgrounds. But many of them, whatever their social background, highlighted the lack of information available in their home country.
- Staff mobility through the Erasmus mobility programme remains quite limited, but has been on the increase since 2001 ( $+7 \%$ annually on average).


## Main issues

Student and staff mobility is expected to have a significant role to play in the development of a European Higher Education Area. As stated in the London Communiqué (2007), "mobility of staff, students and graduates is one of the core elements of the Bologna Process, creating opportunities for personal growth, developing international cooperation between individuals and institutions, enhancing the quality of higher education and research, and giving substance to the European dimension".

The aim is to promote mobility so as to enable students, academics, researchers and administrative staff to benefit from the richness of the European Higher Education Area, including its democratic values and diversity of cultures and languages. Aside from fostering European citizenship, international mobility contributes to personal fulfilment and the development of competences, such as languages and
intercultural understanding. Such skills are becoming more valued on an increasingly international labour market, and therefore can substantially enhance the employability of those students (Chapter D).
This chapter will take a look at student mobility and, to a less extent (due to a lack of available data), at staff mobility.

The number of students from a particular country studying abroad is a first indicator of student mobility (Figures C. $1 \mathrm{a} \& \mathrm{~b}$ ). This outbound mobility rate is complemented by the inbound flows, i.e. the enrolment of foreign students in a given country. Inbound mobility reflects the attractiveness of tertiary education in that particular country and its capacity to enrol foreign students (Figures C.1c\&d). In order to better assess mobility in the Bologna area, special focus will be set on those foreign students from the Bologna area.

Enrolments abroad do not provide any information on the rate at which students remain abroad until graduation. More than just an access to studies abroad reflected in enrolment rates, graduating abroad implies a deeper involvement in studies abroad and as such is an important indicator of mobility (Figure C.2a).
Empirical data provide an insight about the obstacles students must face to study abroad, and which therefore must be overcome by policy-makers (Figure C.3b). Specific attention is paid to the social
dimension of mobility: as mobility is likely to provide students with desirable skills for the labour market, equal opportunities to study abroad must be ensured. In this respect, the social background of participation in mobility abroad is examined in Figure C3a, and Figure C.3c provides details on the perceived obstacles to mobility.

Lastly, a comparative analysis on staff mobility is carried out using Erasmus programme data (Figure C.4a).

## M1 - Defining internationally mobile students

According to the UOE conventions, "internationally mobile students" are students who have crossed borders expressly with the intention to study. The measurement of student mobility depends to a large extent on country-specific immigration legislations and data availability constraints. In most cases, the definition remains based on the nationality of the student, although this is not always the case and various practices do exist. Non-citizenship of the host country is a simple measure, however it is not the most reliable way of assessing student mobility, as this includes immigration flows.
Two other criteria are used in the data collections of some countries, which provide a better picture of real mobility for study purpose: the criteria of residence and prior education. Considering non-resident students as mobile students reduces the incidence of migration flows, but is not yet perfect: some students residing close to a bordering country choose to carry out their entire studies in this neighbouring country and, as such, are not strictly mobile (in the sense of having moved into a different educational system). This is also true for the citizenship criterion. The criterion of prior education (according to which students from another educational system in their previous studies are deemed as mobile) is expected to reduce this bias.

Due to the low availability of data based on residence or prior education, data reported here consider citizenship as the criterion for mobility. It has to be kept in mind, however, that being non-citizen is not strictly speaking being mobile.

## C.1. Mobility in enrolment of students

At first glance, enrolments abroad provide an indication on the mobility of tertiary students. Even if the time spent abroad is limited (e.g. one academic year), it provides those students with a study experience in a different country, possibly with a different culture and language. Two main indicators can be used to measure enrolments abroad. On the one hand, the number of students from a given country going abroad (outbound mobility) is a partial reflection of measures taken in that country to promote student mobility. On the other hand, the number of foreign students enrolled in a given country (inbound mobility) provides an indication on the attractiveness of its tertiary education system, as well as its capacity and willingness to enrol students from abroad.

## Percentage of national students enrolled abroad in Europe

This indicator reflects students' mobility outside their country of origin. From a policy point of view, such behaviour may be fostered by providing relevant information to tertiary students, and/or by regulations obliging students to spend part of their studies abroad, and/or by public financial support awarded to them.

In some countries (as in Luxembourg), it is mandatory to have had a study-related stay abroad (training course, internship) before obtaining a degree in some Master programmes. . In France, engineers are urged to spend time abroad for linguistic reasons, as an acceptable level in English is required to graduate. In Austria, students from polytechnic institutes are required to spend one semester abroad ${ }^{(1)}$. In a further group of countries, large shares of students have little choice but to study abroad due to the small size and limited provision of specialist courses in their country; those students are sometimes even more numerous than those who choose to remain in their country-this phenomenon is often referred to as 'vertical mobility'.

The issue of portable student support is highly relevant in fostering international mobility. According to the Eurydice network (Eurydice/Eurostat, 2007, Key data on higher education 2007, Brussels), many countries combine two kinds of mobility support: specific measures to encourage mobility and portability of national student support (reference year 2005/06). In some countries there is no portability (Latvia and Romania), and sometimes no centrally regulated support of any kind is provided to mobile students (Greece, Poland, Portugal and Turkey), although institutions may help at the local level.

## Indicator

Figures C.1a and C.1b present the number of outgoing students for each country, based on their citizenship, as a percentage of all students enrolled in their home country. Although this is a standard indicator it does have a number of limitations. According to UOE conventions, only study periods of one full academic year or more are considered (e.g. excluding Erasmus students - see box M2 for more information on this exchange programme). Additionally, the definition of nationality causes some inaccuracies (see box M1).

## M2 - Erasmus exchange programme

Exchange students are theoretically excluded from the UOE data on mobility. These programmes, characterised by a relatively short duration, are called 'exchanges' because originally the goal was an exchange of students between different countries. No trade-off is actually required, so a student is allowed to go to another country without finding a counterpart in that country to exchange with. Various EU programmes were created to support learning mobility across Europe. The most famous of them is probably Erasmus, often considered as the European Union's flagship mobility programme.

In 2006 at EU-27 level, Erasmus exchange students represented less than $1 \%$ of total enrolments at ISCED 5 A level, with an average stay of 6 to 7 months. More than half of them went to one of the following four countries: Spain (18 \%), France (14 \%), Germany (11 \%) and the United Kingdom (10 \%).

[^12]Furthermore, the following figures only present data for students studying abroad within Europe, meaning here (due to data availability) EU-27, candidate countries (Croatia, the former Yugoslav Republic of Macedonia and Turkey) and EFTA countries (European Fair Trade Association: Iceland, Liechtenstein, Norway and Switzerland). Indeed, as the data collected only consider students from abroad (and not students abroad) by country of origin, the list of host countries is limited to those countries participating in the data collection. As a result, the share of foreign students in other countries of the world cannot be assessed. Besides, the lack of data on the distribution of students by nationality in some countries ${ }^{(2)}$ leads to an underestimation of the values and hamper comparability over time, as students going to those countries are not included here.

Figure C.1a: Outbound mobility rate: number of students from a given country studying abroad in Europe (EU-27, EFTA and candidate countries) as a percentage of the total enrolment in that country, ISCED 5A and 6-2006


Source: Eurostat, UOE.

[^13]
## Results

- The median value (see box M3) shows that in half of Bologna countries, less than $3 \%$ of students were enrolled abroad in Europe in 2006. This share was quite similar at EU 27 level, where $2.3 \%$ of students were internationally mobile. However, these data do not take into account students enrolled in Australia, Canada or the United States.
- The highest outbound mobility rates were observed in the countries where the range of tertiary programmes is more limited (Cyprus, Luxembourg, Liechtenstein and Andorra). In most of these countries, tertiary students are more numerous outside than inside the country. In Ireland, Iceland and Albania, students enrolled abroad represented more than $15 \%$ of all students enrolled in those countries. It has to be noted that $94 \%$ of Irish students studying abroad in Europe went to the United Kingdom, and nearly $75 \%$ of Albanian students went to Italy.
- Conversely, student mobility is very low (less than $1 \%$ ) in the United Kingdom, Russia and Ukraine. Except for Greece and Portugal, countries where there is neither public financial support for mobile students nor portability of national support (data only available for EU, EEA countries and Turkey) reported outbound mobility rates below the EU average.
- Outside the Bologna area, students from Australia, New-Zealand and Canada are more likely to be enrolled in Europe than those from Japan or the United States.


## M3 - Median value

The median value is the point dividing the Bologna countries into two equal halves, meaning that half of the Bologna countries are below the median value and the remaining half are above. This value is computed for all countries for which data are available and is unweighted (i.e. it does not take account of the countries' population size). This measure was used because it is more robust to missing data for some countries, which happens for several indicators.

## Trend data

- Between 2000 and 2006, in half of the Bologna countries the outbound mobility rate increased by more than $4.5 \%$ on average. With an average annual growth rate of $+3.6 \%$, the EU- 27 registered a similar trend over recent years.
- The outbound mobility rate fell significantly in Greece and Turkey, with an annual decrease of around $10 \%$ on average. Conversely, with an average annual growth rate around or above $+20 \%$, Bulgaria, Georgia and the former Yugoslav Republic of Macedonia registered the highest increases in terms of students going abroad.

In view of enrolments abroad, it seems that most European
countries are still
far below the
target of $20 \%$ of
graduates having
had a study
experience abroad
The absence of public financial
support for
mobility appears
to hamper
student mobility

The outbound mobility rate is
increasing
continuously in
both the EU27
and the Bologna
area

Countries
enrolling more than $12.5 \%$ of non-citizen students are essentially located in Western Europe

Inbound mobility rates in Europe are still below those observed in Australia or Canada

Figure C.1b: Number of students from a given country studying abroad (in Europe - EU-27, EFTA and candidate countries) as a percentage of the total enrolment in that given country, ISCED 5A and 6-2000-2006



Note: break in series (availability of data in some European countries) limit comparability over time.
Source: Eurostat, UOE.

## Percentage of foreign students enrolled in national higher education systems

Two dimensions are investigated here. On the one hand, the number of foreign students from the Bologna area provides information on student mobility within the Bologna area. On the other hand, focusing on students from all over the world sheds light on the attractiveness of higher education systems in the Bologna countries.
This indicator provides an insight into the attractiveness of a specific country for foreign students and will reflect efforts on the part of host countries to attract students.

## Indicator

Figures C.1c and C.1d present the number of incoming students for each country, based on their nationality, as a percentage of all students enrolled in the host country. Although this is a standard indicator it does have a number of limitations (see notes above), as both figures use non-citizenship as a criterion of mobility.

## Results

- At EU level, around $7 \%$ of students enrolled were from abroad in 2006, half of which came from another Bologna country (Figure C.1c). This figure was significantly lower when considering the Bologna area, where a median $3.3 \%$ of non-citizen students were enrolled at ISCED 5A and 6 levels. In half of Bologna countries, foreign students from the Bologna area represented $65 \%$ or more of the total number of foreign students (counting all citizenships).
- Liechtenstein enrolled the largest share of non-citizen students ( $90 \%$, of which $85 \%$ from Germany, Austria and Switzerland). In Belgium, Germany, France, Sweden, the United Kingdom and Switzerland, more than one in eight students enrolled were not nationals. These rates were slightly lower than those registered in Canada (15\%) and Australia ( $20 \%$ in 2005).
- Along with the Czech Republic and Cyprus, the above-mentioned countries also registered the highest enrolment rates for citizens from the Bologna area, with the exception of France. This is due to the fact that students from the Bologna area represent only around $20 \%$ of all foreign students in France, similarly to Portugal and Russia. In France and Portugal, this ratio is among the lowest for historical reasons, as many non-citizen students come from former African colonies and, as regards Portugal, from Brazil. In contrast, in Cyprus, Slovenia, the former Yugoslav Republic of Macedonia and Liechtenstein, almost all non-citizens students come from the Bologna area (more than $95 \%$ of them).

Figure C. 1 c: Incoming mobility: number of students from abroad (world and Bologna area) studying in a given country, as a percentage of the total enrolment in that country, ISCED 5A and 6 - 2006


Note: NL \& AT, 2003 data.
Source: Eurostat, UOE.

## Trend data

- With an average annual growth rate of $+5.8 \%$ between 2000 and 2006, the EU 27 inbound mobility rate shows that Higher Education in the EU has not lost its attractiveness. In the Bologna area, half of countries increased their number of non-citizen students by more than $5.3 \%$ per year on average.
- With an average annual growth rate of around or more than $+20 \%$, the Czech Republic, Estonia and Armenia registered the most important increases in enrolling foreign students over the past years. Conversely, in Slovakia, Romania, Turkey and Albania, as a share of the total tertiary student population, a decreasing number of students are enrolled from abroad (average annual decrease of 5\% or more).
- The number of Bologna country citizens enrolled in the EU-27 has not increased at the same pace as all foreign students (of any citizenship). In relation to all foreign students, the number of foreign students from the Bologna area has decreased by $5.6 \%$ a year on average since 2001. At the Bologna level, this is also true for 17 out of 28 countries with available data. In other words, it seems that mobility within the Bologna area has proportionally decreased over recent years. This trend is especially marked in France, Malta, Sweden, Turkey and Norway.
- Outside the Bologna area, the attractiveness of higher education systems has increased at a higher rate than in the EU-27, with an average annual growth rate of $+11 \%$ in Australia, and $+30 \%$ in New Zealand.

In the EU-27, in
relation to all
foreign students
enrolled at ISCED
levels 5A and 6,
an ever-smaller
share of students come from the Bologna area

The
attractiveness of
Higher education
is low in the EU-
27 compared to
Australia or New
Zealand

Figure C.1d: Incoming mobility: number of students from abroad (world and Bologna area) studying in a given country, as a percentage of the total enrolment in that country, ISCED 5A and 6 - 2000-2006


Note: break in series (availability of data in some European countries) limit comparability over time.
Source: Eurostat, UOE.

## C.2. Mobility in graduation of students

Probably more than enrolment, graduating abroad reflects a stronger involvement in international studies, as this often requires a long period of time and as well as a high level of integration in a foreign higher education system. Even though the final graduation certificate is often recognised in their country of origin, students with a foreign degree can also apply for a job in the host country, thus giving a professional extension to their mobility as a student.

## Percentage of graduates in the country from abroad

## Indicator

The following indicators on foreign graduates are calculated in a similar way as above: by taking the number of graduates as a percentage of all graduates in a given national system of higher education. Besides the criterion of non-citizenship, prior education is used to signify "foreign students" for data from six EU countries for illustrative purposes (see box M1, above). In countries where it is available, the difference between both figures provides an idea on the extent to which citizenship is a good proxy of student mobility.

## Results

- In the EU-27, $11 \%$ of graduates were not nationals of the country of graduation. Surprisingly, this ratio is much higher than the ratio of enrolment of foreign students (7.4\% - Figure C.1c). This can be partly (yet not fully) explained by the limited number of countries participating in the EU-27 aggregate (only 17 countries included, with the notable absence of France, which records a high rate of foreign students enrolled).
- In Slovakia, Lithuania, Turkey, Croatia and the former Yugoslav Republic of Macedonia, the proportion of foreign graduates was less than $1 \%$. This is in line with inbound mobility rates (Figure C.1c). Actually, ratios of foreign enrolment and graduation are obviously linked. Exceptions to this rule include Cyprus, Lithuania, Portugal, Sweden, Iceland and Switzerland, where the number of foreign graduates are less than expected compared to the level of foreign enrolment. This may be explained by the increase in inbound enrolments over recent years in Portugal and Sweden (around $10 \%$ of average annual growth) as well as in Lithuania ( $+7 \%$ annually on average), and to a lesser extent in Cyprus, Iceland and Switzerland (+2\%).
- In contrast, the shares of graduates from abroad were the highest in Belgium, Germany, Austria, the United Kingdom, Liechtenstein and Switzerland, with a share higher than $10 \%$. As stated above, despite such a high share, Switzerland registered fewer foreign graduates than expected compared to enrolment levels. Conversely, in the United Kingdom, the graduation rate of non-nationals was higher than expected compared to enrolment levels. However this cannot be explained by a decrease in foreign enrolment rates ( $+6 \%$ on average between 2000 and 2006).
- With the exception of the United Kingdom and Liechtenstein, high shares recorded in Europe are nevertheless still far behind those observed in other countries outside the Bologna area, such as in Canada ( $18 \%$ in 2005), Australia or New Zealand (around 30\%).
n 2006, in the EU27 , more than one out of ten graduates were not nationals of the country of graduation

Foreign graduation rates in Europe remain
behind those observed in

Canada or
Australia

Figure C.2a: Percentage of graduates from abroad (non-citizens and prior education outside the country), ISCED 5A - 2006


Note: UK: data based on country of residence (instead of citizenship).
Source: Eurostat, UOE.

## Trend data

- Between 2004 and 2006, at EU level (data for only 17 countries are available), the proportion of graduates from abroad increased by $9.7 \%$ per year on average. In half of the Bologna area, this rate stood at $3 \%$ or more.
- Despite this general trend, some countries registered a decrease of around $15 \%$ on average over the same period (Cyprus, Lithuania, Turkey and the former Yugoslav Republic of Macedonia). The strongest increases were observed in Sweden (AAGR of 15\%), Iceland (+23\%), Slovenia ( $+28 \%$ ) and especially the Czech Republic (+50\%).

Figure C.2b: Percentage of graduates from abroad (non-citizens), ISCED 5A - 2004-2006


Source: Eurostat, UOE.

## C.3. Mobility by social background and perceived obstacles

In the Bergen Communiqué (2005), the Ministers in charge of Higher Education stressed their willingness to lift obstacles to mobility by facilitating the delivery of visas and work permits and by encouraging participation in mobility programmes. The issue of public financial support is also a major lever of international mobility. As mobility is considered a key opportunity for learning and self-development, ensuring mobility for all students whatever their background is a priority from a social point of view.
This section will investigate the issue of participative equity in European mobility and the perception of students on the most significant obstacles to mobility. This data necessarily comes from surveying students and the analysis is, therefore, based on Eurostudent data. In contrast to the previous section in this chapter, the data here refer to national students in their higher education system reflecting on study-related periods abroad (see box M4).

## M4 - Data on mobility in the EUROSTUDENT survey

Instead of considering how many students are currently enrolled abroad, the EUROSTUDENT III survey asked a cross-section of students (currently in their own country) whether they have had a study experience abroad in the course of their higher education course. Therefore, students currently abroad are not included and students may still go abroad during the course of their studies. However, the EUROSTUDENT data is more comprehensive than other sources (e.g. it includes Erasmus figures), as it covers various types of mobility (enrolments in a university abroad, as well as language courses and work placements / internships). The figures cannot, therefore, be compared directly to the previous ones in this chapter.

## Mobility by social background

## Indicator

Figure C3.a presents the share of a cross-section of national students who have been abroad for study-related periods during the course of their studies. For each country, the national average is compared to students from high and low education backgrounds in order to assess the effects of social background. The social background of students is estimated by their parents' educational level: low (up to lower-secondary school, i.e. up to ISCED 2) and high (ISCED 5 or 6).

## Results

- The share of students reporting they have had a study-related stay abroad is well above $7 \%$ in Finland (10.5\%), Austria (7.9\%) and Germany (7.7\%).
- In most countries, students from highly-educated backgrounds are more likely to have been abroad to study. This is especially the case in Bulgaria, Italy, Slovenia, Romania and Turkey, as students from highlyeducated families were three times more likely to have studied abroad than students from low-educated backgrounds.
- Parity was almost achieved only in Austria and Switzerland. These differences by social background are less pronounced due to indirect mechanisms. For instance, in Austria, students from the polytechnic schools are required to study abroad for one semester; these students were also more likely to come from lower social backgrounds. The field of study can also affect mobility rates. For instance, in social sciences students from lower educated families were over-represented in Switzerland, and this field of study also registered the highest mobility rates ${ }^{(3)}$.

In most countries, students from highly educated backgrounds are more likely to have been abroad to study

[^14]Figure C.3a: Students having been abroad, by educational level of parents, ISCED 5A -2005-2008


Source: Eurostudent III.

## Perceived obstacles to mobility

Several types of obstacles to mobility were identified in the Eurostudent survey. The lack of financial support, for example through the portability of support awarded in the country of origin, is one of them. Broadly speaking, other obstacles included lack of language skills, lack of motivation, and insufficient support both in the home and the host country.

## Indicators

Figure C.3b shows the percentage of students evoking the different obstacles to a study-related stay abroad, both for the entire student population and for those enrolled in engineering. Figure C3.c reports the share of surveyed students having been abroad, broken down by their parents' educational level: low (up to lowersecondary education) and high (tertiary education). Only the median of all participating countries is shown here. Detailed data per country can be found in tables in annex.

## Results

- According to the students surveyed, the linguistic issue is not the main obstacle to their mobility. The main barrier preoccupying students is financial. Within this category, the possible loss of social benefits (for instance the non-portability of support) is not as important as the risk of additional financial burden in itself. A second factor hampering mobility is a perceived insufficient support in the home country for mobility. In half of the countries, more than $50 \%$ of surveyed students consider this as a significant barrier. More precisely, their main fear is to be delayed in the course of their studies (on average, nearly one third of them pointed out this aspect as important). They are also concerned about the validity or transferability of the qualifications obtained abroad (mentioned by nearly one quarter of them on average).
- The financial barrier was frequently cited by students in Estonia and Turkey, where more than $80 \%$ of students consider it as a major obstacle to enrolling abroad. By contrast, less than one third of students reported this concern in Italy and the Netherlands. Insufficient support in the home country was reported by more than $60 \%$ of students in Estonia, Slovakia and Turkey. Students in Bulgaria and Italy are more satisfied regarding this aspect, as less than one quarter of them consider it as a very strong obstacle to studying abroad.
- Two types of obstacles particularly distinguish engineers from the rest of students: motivation and lack of language competency. On the one hand, engineers report a higher level of motivation (higher personal drive, and less worry about being separated from a partner or friends). On the other hand, however, they do not feel confident enough in their linguistic skills. Measures to improve their study programmes with languages courses (as in France) could help give those students more self-confidence in that matter.

Figure C.3b: Main barriers to studying abroad, ISCED 5A - 2005-2008


- (Very) Strong influence factor for students, who have not been abroad
- (Very) Strong influence factor for students, who have not been abroad and who study engineering

Source: Eurostudent III.

- Differences in perceived obstacles by social background (Figure C.3c) are also reflected in the lack of language skills and individual motivation, along with the financial aspect. Comparing students from a low-educated family with all students shows that they differ the most on the financial dimension. Students from low-educated backgrounds are more numerous in pointing out this matter as a significant obstacle to their mobility.
- This contrast by social background is particularly marked in Austria (where financial insecurity was mentioned by students from low-educated backgrounds twice as much as the entire population), Bulgaria and Italy. However, this contrast was negligible in the Czech Republic, Estonia and Turkey, but this is due to the fact that this preoccupation is generalised and considered as important by all students, regardless of their social background.
- The second differentiating dimension is languages. More students from low-educated families consider that their language skills could prevent them from making the most of their experience abroad.
- This contrast is especially marked in Estonia (where students from low-educated backgrounds are twice as less confident about their language skills than the entire student population) and, to a lesser extent, Switzerland.

Figure C.3c: Main barriers to studying abroad, by parents' educational level, ISCED 5A -2005-2008


[^15]- (Very) Strong influence factor for students with low education backgrounds (up to low secondary school certificate), who have not been abroad

[^16]
## C.4. Staff mobility

Like student mobility, staff mobility helps give substance to the European dimension. Indeed, staff mobility is likely to be linked to student mobility, as it can foster the ties needed for international cooperation between institutions.

The data is very limited on staff mobility, which is largely related to problems of statistical capture. The data source chosen is taken from the Erasmus programme.

## Mobility of academics

## Indicator

Figure C.4a shows the number of stays abroad by academics and academic staff in the framework of the Erasmus programme. Those data are limited in scope, as those stays abroad are of short duration (five to six days on average). Nevertheless, they shed some light on international cooperation between institutions.

## Results

- Only few academics welcome the opportunity to visit another country, despite the Erasmus mobility programmes: the number of stays abroad represent around $2 \%$ of all academics and academic staff at ISCED 5-6.
- However, in some countries the number of stays abroad as a percentage of staff can exceed 5\% (in Belgium, the Czech Republic, Latvia, Lithuania and Malta), but this share remained below $10 \%$ in all countries.
- Compared to their academic population, some countries welcome a relatively high share of tertiary academics from abroad, such as in Malta (12\%).
- The number of incoming academics and academic staff is highly correlated to the number of outgoing staff, which reveals that an exchange scheme has been put into place. In most countries, inflows and outflows are quite balanced. However, academic staff in Bulgaria, the Czech Republic, Lithuania, Poland, Romania and Turkey are more likely to go abroad to another country rather than vice versa. Conversely, in Italy, Malta, Portugal and Slovenia, there are more incoming than outgoing academics within the framework of the Erasmus programme.

Figure C.4a: Teacher mobility in the framework of the Erasmus programme: total number of stays abroad, by home and host country, as a percentage of total number of academics and academic staff, ISCED 5-6 - 2005/06


Note: Finland: data for 2004/05.
Source: ERASMUS mobility programme.

## Trend data

- At EU-27 level, the number of academics staying abroad within the framework of the Erasmus programme has been on the increase since 2001. On average, the annual growth rate was $+7 \%$ from 2001 to 2006.
- This growth was especially marked in Cyprus, Latvia, Lithuania and Slovakia, with an average annual growth rate of more than $+20 \%$. Conversely, the United Kingdom was the only country to register an average annual decrease ( $-1.4 \%$ ) in the number of outgoing academic staff.

A growing share of academics and academic staff are going abroad in the framework of the Erasmus programme

Figure C.4b: Teacher mobility in the framework of the Erasmus programme: total number of stays abroad, by home and host country, as a percentage of total number of teachers and academic staff, ISCED 5-6 - 1999/2000-2005/06


Source: ERASMUS mobility programme.

# Social dimension and mobility in the Bologna Process <br> Chapter D: Effective outcomes and employability 

## D. Effective outcomes and employability

- In the EU-27, almost a third of the population aged between 25 and 34 has completed higher education. This share is increasing in younger generations in almost all Bologna countries, except Germany and probably Serbia. This increase in the number of higher education graduates particularly benefits women, who are closing the gap with men, which is often high among the oldest generation (45-64 year olds). However, this gap has not been bridged in all countries of the Bologna area.
- In 2006, in the EU-27 one in three individuals at typical age of graduation obtained highereducation qualifications (ISCED 5A first degree). The rate of study completion (survival rate) in higher education (ISCED 5A) vary in the proportion of one to two in the Bologna area.
- High qualifications play a major role in securing a job, but a high level of education is not always an immediate asset in all labour markets of the Bologna area. Unemployment is also a matter of age. Indeed, recent graduates (who completed their studies within the last two years) often experience problems entering the labour market, which affects their unemployment rate in comparison to their more experienced counterparts.
Women are in most countries more affected by unemployment than men, whatever their educational attainment. The field of study also affects a graduate's chances of entering the labour market: $10 \%$ of EU graduates in the broad field of humanities, languages and arts are unemployed, twice as much as those in health and welfare.

D Differences in wage levels are above all a matter of educational attainment. Highly educated EU25 workers earn twice as much as medium- and low-educated workers. However, not all workers benefit equally from their education. The range of income levels from highly educated workers is very wide, with the rare exception of the Nordic countries (excluding Iceland). Gender disparities are also found in wage levels, as in all Bologna countries the median income of men is higher than that of women.

- In around half of the Bologna area, $20 \%$ or more of young workers with tertiary education are employed below their theoretical skill level (vertically mismatched). In this, men are slightly more often mismatched than women. Graduating in the field of services often results in being employed below the theoretical skill level. According to the self-assessment of workers, a large share of workers employed below their theoretical skill level (vertical mismatch) is also employed in a different field than the one they studied for (horizontal mismatch).
- In some countries, high educational attainment among the population aged 25-34 is associated with a high rate of vertical mismatch for young tertiary graduates.


## Main issues

Once students have entered the higher education system (Chapter A), the amount of resources invested in their education (Chapter $B$ ) is no guarantee of their successful completion of studies and subsequent entry into the labour market. In a nutshell, the effective outcomes of tertiary education include how many students graduate from tertiary education, and how adapted they are to the labour market.
Two aspects of effective outcomes will be investigated here: the output of the higher education system, and its input into the labour market, or "employability" of graduates.

In the first instance, the educational attainment of the population in the Bologna countries will be considered for different groups by gender and age (Figure D.1a) and by field of graduation (Figure D.1b). Educational attainment of the different age groups will provide an insight into the trends over past decades, and will be complemented by more recent graduation rates (Figures D.2a and D.2b). An attempt will be made to link graduation and entry rates using the "survival rate" (Figure D.2c), in order to gauge the ability of higher institutions to transform students into qualified future workers.

Employability was, alongside entrepreneurship, adaptability and equal opportunities, one of the four 'pillars' of the European Employment Strategy, until it was reformulated in 2000. The improvement of graduate employability is also a key issue for the Bologna Process (London Communiqué, 2007). It refers to a person's ability to secure initial employment, remain in employment, and obtain new employment if required.

As a result, a large section is devoted to unemployment rates in order to assess the employability of different groups of graduates, according to their educational attainment and gender (Figure D.3a), number of years since graduation (D.3b), and field of graduation (D.3c). Ideally, the notion of employability also encompasses the quality
of such work or employment. Graduates may be able to obtain work, but it may be below their theoretical skill level or they may be employed in low paid, undesirable or unsustainable jobs. In line with this, the income of tertiary education graduates will be presented by educational attainment (Figure D.4a) and gender (D.4b). Lastly, a section will be devoted to what is called qualification mismatch (Figures D.5a to D.5d).

In line with the previous chapters, it would be appropriate to look at many of the issues in this chapter by social background. This is because reducing inequalities within higher education should foster equal opportunities in the labour market. However, at present there are significant data gaps in this area and no data is available.

## D.1. Educational attainment of the population

At society level, a first indicator of outcome to be considered is the level of education of the population, that is the share of individuals having obtained high-level qualifications (ISCED 5A, 5B or 6).

## Educational attainment across generations

Comparing educational attainment across different age groups can give an idea of how much the share of tertiary graduates in the population has changed over the past decades.

Figure D.1a: Percentage of persons with tertiary education, by sex and age group (25-34, 3544, 45-64) - 2007



- Total $\triangle$ Female - Male

- Total $\Delta$ Female - Male

Note: Countries are sorted in ascending order, by total, 25-34 y. RS: 2008 data.
Source: EU-LFS (Labour Force Survey).

In the EU-27, almost a third of 25-34-year-olds are highly educated. This share is increasing through generations in most of the Bologna area

This increase particularly benefits women, who are closing the gap with men often observed in older generations (45-64). However, gender parity has not yet been achieved anywhere in Europe

## Indicator

Figure D.1a shows the share of tertiary education graduates in three age groups (25-34, 35-44, 45-64) as a percentage of all individuals of the same age group and gender.

The upper age limit has been set at 64, as it seems that the amount of schooling correlates with a higher life expectancy (e.g. Rogot, Sorlie \& Johnson, $1992^{(1)}$ ), and the age limit should therefore reduce this bias.

## Results

- At EU-27 level, a steady increase was observed in educational attainment through generations: tertiary education graduates accounted for around $20 \%$ of the population aged $45-64,25 \%$ of those aged $35-44$, and $30 \%$ of $25-34$-year-olds. The only countries where educational attainment of younger generations is lower than that of both 35-44 and 45-64-year-olds are Germany and maybe (unreliable data) Serbia.
- Recent changes were most striking in France, Malta, Poland and Portugal, where the number of tertiary graduates increased at a rate of around $50 \%$ from one age group to the next. Changes were more recent in Romania and Slovakia, where an increase of $+30 \%$ and $+60 \%$ respectively was observed among those aged 25-34 compared to 35-44-year-olds, whereas this latter age group registered the same educational attainment level as the older generation.
- Intergenerational differences vary according to gender in favour of women: the increase in educational attainment was sharper for women than for men. At EU level and in all Bologna countries (median), there are more tertiary graduates among men than among women in the oldest generation (45-64), whereas a balance was struck among the population aged 35-44, and the opposite was observed among the youngest generation.
- This balance point occurs later in some countries (in the youngest generation in Germany and Austria) or has not been reached yet (Turkey), whereas in Bulgaria, Poland, Portugal Slovenia and the Baltic States, the equilibrium between male and female higher education graduates was achieved already among the oldest generation (45-64).


## Educational attainment by field of study

The near educational parity seen between the sexes on average is not maintained by field of study, where there are quite wide educational disparities. In this section comparisons between the sexes by field of study are shown to highlight the extent of those differences. This data, in turn, might lead to considerations on where initiatives would be needed to achieve a more balanced educational attainment across genders.

## Indicator

Figure D.1b shows the higher education attainment rate by field of study, i.e. the percentage of higher education graduates among all graduates at any level of education. For reliability purposes (sufficient sample size), not all detailed ISCED 97 fields are shown, but only broad fields of study. For each field of study, the EU-27 figure is displayed (on the left-hand side), as well as the Bologna median (see box M1), and the minimum and maximum observed among the Bologna countries.

## M1 - Median values

The median value is the point dividing the Bologna countries into two equal halves, meaning that half of the Bologna countries are below the median value and the remaining half are above. This value is computed for all countries for which data are available and is unweighted (i.e. it does not take account of the countries' population size).

[^17]
## Results

- In the EU-27, 73 \% of those who graduated in education science did so in tertiary institutions. By contrast, the broad fields of engineering, manufacturing and construction as well as services registered the lowest shares of tertiary education graduates.
- In some fields (teacher training, social sciences, and especially health and welfare and services), higher level programmes tend to train more men than women. In the field of health, for example, this can be due to the differences between caring occupations (traditionally female) and other more qualified (ISCED 56) occupations.
- Conversely, it seems that there are proportionally more highly qualified women than men in the field of agriculture and veterinary care. A relatively balanced share was observed in the field of engineering, manufacturing and construction.

In half of broad
fields of
education, more women tend to graduate in the
lower-level
programmes

Figure D. 1 b: Percentage of persons with tertiary education aged 25-39, by field of study — 2007


Note: RS: 2008 data.
Source: EU-LFS (Labour Force Survey).

## D.2. Graduation and survival rates

A population's educational attainment is directly related to the graduation rate of students who accessed tertiary education. In order to register high educational attainment, high entrance rates in tertiary education need to be translated into high graduation rates. The survival rate makes the link between these two measures, and is also a measure of the effectiveness of a higher education system.

## Access and completion of tertiary studies

## Indicators

In order to visualise the gap between entry and exit rates for higher education, Figure D.2a compares net entry rates with gross graduation rates:

- Net entry rates are the sum of entry rates by single year of age, the latter being obtained by dividing the total number of new entrants (see glossary and methodological notes) of a specific age by the total population of that age and multiplying by 100 .
- Gross graduation rates are calculated by dividing the total number of graduates (all ages) from first degree programmes in public and private institutions by the population at the typical age of graduation and multiplying by 100 .

Both indicators refer to ISCED 5A only, which can result in an underestimation of figures for tertiary education in countries where ISCED 5B programmes represent a large part of the tertiary education system.

## Results

- As regards the net entry rates, figures range from less than $30 \%$ in Belgium, Cyprus, Turkey and Georgia to more than $60 \%$ in Poland, Finland, Sweden and Iceland. Gross graduation ratios range from less than $20 \%$ in Turkey and the former Yugoslav Republic of Macedonia, up to around or more than $50 \%$ in Denmark, Ukraine and Iceland. Some low values can be explained by the number of students entering or graduating in higher education abroad (Chapter C), or by the structure of the higher education system, specifically the importance of ISCED 5B (not taken into account here) among all tertiary programmes.
- In the EU-27, a net entry rate of 50 \% was registered in 2006 (ISCED 5A), whereas the number of graduates represent $33 \%$ of the population in age of graduation at the first degree of that level. The gross graduation rate thus represents $65 \%$ of net entry rate. This ratio of graduation rate to entry rate is a rough measure of the gap between access and outcome.
- Looking at the ratio between graduation rate and entry rate, Japan registered the highest value of all countries reported here ( $86 \%$ ), whereas the United States recorded a lower share than EU-27, at 63 \%. There are wide variations across Europe on this measure: it exceeded $90 \%$ in Denmark, Ireland, Iceland and Switzerland, while it did not reach 50 \% in Greece, Hungary, Slovenia and Turkey.
- Graduation rates are quite obviously related to educational attainment of $25-34$-year-olds (Figure D.1a). The relation is not, however, perfect, as phenomena such as graduation abroad or brain drain occur in some countries. In the Czech Republic, Italy, Poland, Slovakia and Iceland, the educational attainment of 25 -34-year-olds is lower than what might be expected from the graduation rate.

Figure D.2a: Gross graduation rate and net entry rate, ISCED 5A - 2006


Note: Countries are sorted by graduation rate in ascending order FR: 2003 data; EE, gross graduation rate: 2004 data; MT, gross graduation rate: 2005 data; those countries are not taken into account in the EU-27 aggregate (19 countries in 2006 for graduation rate).
Source: Eurostat, UOE.

## Trend data

- On average, entry as well as graduation rates seem to have increased since 2000, with an average annual growth rate of +4.5 \% for entry rates at EU-27 level (Figure D.2b). Both indicators (graduation and entry rates) seem to evolve together over time, but limited availability of data prevents drawing reliable conclusions on this point.

Figure D.2b: Gross graduation rate and net entry rate, by sex, ISCED 5A - 2000-2006


[^18]Source: Eurostat, UOE.

## A quantification of the gap between access and outcome: the survival rate

Comparing entry and graduation rates (Figure D.2a) is not a strict measure of progress of students in tertiary education. Indeed, the notional length of first-cycle studies varies from one country to the next and also between different programmes within a given country. Although limited in availability and still in progress from a methodological point of view, the so-called survival rate aims to provide a better quantification of the gap between access and graduation.

## Indicator

An estimate of the survival rate has been calculated with due regard for several factors, including the number of graduates in 2004, the number of student entrants over several preceding years, and the notional length of programmes. The methodology is "synthetic" in the sense that it compares a cohort of entrants to the number of graduates an appropriate number of years later. Not all individuals in the cohort of entrants and of graduates are necessarily the same.

## Results

- In half of the countries considered here, at least three quarters of students attain a first degree once they have entered higher education.

Survival rates in higher education (ISCED 5A) vary in the proportion of one to two in the Bologna area

- The percentage of students who graduate may be higher than or equal to $80 \%$ (as in Bulgaria, Ireland, Italy, Cyprus and Malta) or in the order of $50 \%$ (Estonia, Turkey and the former Yugoslav Republic of Macedonia).
- It has to be noted that the survival rate in Greece is among the highest observed here, which is not consistent with the conclusion drawn by comparing graduation and entry rates (Figure D.2a), where only new entrants are taken into account.

Figure D.2c: Survival rates, ISCED 5A first degree - 2004


Source: Eurostat, UOE.

## D.3. Employment of tertiary education graduates

Beyond access and graduation in tertiary education, entering the labour market successfully is another challenge graduates must face. The first step is basically to get a job. This section focuses on unemployment rates of tertiary graduates by age, gender, field of study and recency of graduation. The unemployment rate is the percentage of unemployed people in the labour force (employed and unemployed). The inactive population, i.e. unemployed people who are not seeking a job, is therefore excluded from this calculation.

## Unemployment and educational attainment

Widening access to tertiary education and improving graduation rates, notably by ensuring the best study framework for all students, provides a potential stock of highly skilled workers for the labour market. As tertiary education requires varying amounts of investment from the state, the taxpayer and the student (Chapter B), an assessment of the employment prospects of graduates is of prime relevance in order to evaluate the effectiveness of such investments.

## Indicator

Figure D.3a shows the unemployment rate of graduates aged 25-34 for three educational levels: low (ISCED 1,2 and $3 c$ short), medium (ISCED 3 - excluding $3 c$ short - and 4), and high (ISCED 5 and 6). Within each of those categories, the figure is shown for women and men separately. For example, the first value on the left of the graph is the estimated unemployment rate of women having completed a "low" level educational programme.

## Results

- Educational level obviously correlates with employment: the more qualified people are, the less affected they will be by unemployment. In half of the Bologna countries, the unemployment rate of low-educated people is $16 \%$, while it was a third less for highly educated people ( $5.7 \%$ ) and stood at $10 \%$ for the medium category. Figures within the EU-27 were either quite similar or higher.
- This correlation must however be qualified by country. Unemployment rates are especially lower among the highly educated population in the Czech Republic and Slovakia, but this is partly due to a very high unemployment rate for low-educated people ( $34 \%$ and $67 \%$, respectively), as well as in Bulgaria, Germany, and Poland.
- Although graduating from tertiary education is clearly an asset in most Bologna countries, this is less the case in the labour markets in Italy, Portugal and Turkey, where the unemployment rate of tertiary graduates is similar or even above that of other educational attainment categories.
- The unemployment rate of men aged $25-34$ is slightly lower than that of women of the same age, whatever the educational attainment. At EU level, in the highly educated group, the unemployment rate of men is $19 \%$ lower than that of women, $15 \%$ lower in the medium category, and $23 \%$ lower among the loweducated group. This result is quite surprising given the fact that the number of women on the labour market (i.e. the number of women employed, or unemployed but actively seeking work, as a percentage of all women of the same age group) is already lower than for men, e.g. due to childcare responsibilities.
- In most of countries, educational attainment does not seem to reduce or increase the employment gap between women and men. In some countries, however, gender differences in employment vary widely according to educational attainment. This is the case in Belgium, Estonia, the Netherlands, and Serbia, where relatively important gender differences in favour of men are observed in lower educational categories (low and medium) but disappear in the highly educated group. In Romania and Moldova in particular, men are more affected than women by unemployment in the lower categories, but this gap is reduced among the highly educated population.

In the Bologna countries, a highlevel qualification plays a major role in securing a
job...
... but a high
educational level
is less of an asset in some labour markets in the Bologna area

In most countries, women are more often faced with unemployment than men, regardless of their educational attainment

Figure D.3a: Unemployment rate of graduates aged 20-34, by sex and by educational attainment (low, medium, high) - 2003-2007, cumulated

Total $\triangle$ Female Male

Total $\triangle$ Female $\bullet$ Male


Note: Countries sorted in ascending order by Total, High. RS: 2008 data. Unreliable estimates (probability of 0.95 to vary between plus and minus 5 up to 10 percentage points): MD, low, female and male; RS, low, female and male \& high, male.

Source: EU-LFS (Labour Force Survey).

## Unemployment and recency of graduation

Employers frequently require work experience from employment candidates. Consequently, some governments have set up employment programmes for young graduates. The data below present the extent to which recent graduates experience problems entering the labour market compared to their seniors.

## Indicator

Figure D.3b shows unemployment rates broken down by recency of graduation: those who graduated within the two last years against those who graduated at least three years ago. Data are limited to the age group 2034 in order to avoid any interference with the age effect, especially for the gender comparisons.

Figure D.3b: Unemployment rate of tertiary education graduates aged 20-34, by sex and number of years since graduation - 2003-2007, cumulated


- Total $\triangle$ Females - Males

- Total $\triangle$ Females - Males

Note: Countries sorted in ascending order by Total, 0-2. RS: 2008 data. Unreliable estimates (probability of 0.95 to vary between plus and minus 5 up to 10 percentage points): HR, males $0-2$; RS, total $0-2$, females and males $3+$. Very unreliable and not displayed data (probability of 0.95 to vary by more than 10 percentage points): RS, females and males $0-2$.

Source: EU-LFS (Labour Force Survey).

The most recent
graduates have a
higher rate of
unemployment than their more experienced counterparts

After educational attainment, unemployment is above all a matter of age

## Results

- In the EU-27, more than one recent graduate in eight is unemployed; this is nearly three times more than those who graduated at least three years ago. A similar pattern was observed for the Bologna countries.
- With the exception of Iceland, where unemployment rates are similar in both groups, recent graduates are more affected by unemployment than those who graduated at least three years ago. Recent graduates have an unemployment rate four to five times higher in the Czech Republic, Luxembourg, Hungary, Slovenia, Slovakia and Romania. It could be expected that the phenomenon is more acute where labour market conditions are more difficult (i.e. with higher unemployment rates for $25-34$-year-olds with tertiary education), but it appears that the situation of recent graduates compared to their more experienced counterparts is not simply a matter of the overall unemployment rate (analysis not shown).
- For all countries as a whole, this discrepancy between recent and other graduates applies equally for men and women. However, being recently graduated is especially impeding for women in Luxembourg, Austria and Iceland. In Austria for example, men are twice as likely to be unemployed when they are recent graduates; for women the figure is three times higher.


## Unemployment and field of study

Different fields of study enjoy varying degrees of professional orientation in the labour market; graduates therefore have a more or less direct transition to the workplace. Furthermore, different fields of study prepare for economic sectors which may be increasing or delaying the European transition to a knowledge society. In this section, therefore, unemployment rates of graduates will be considered by field of study.

## Indicator

Figure D.3c shows unemployment rates by broad field of study for three age groups (25-34, 35-44 and 4564). In order to ensure sufficient sample sizes and compute reliable estimates, data from 2003 to 2007 were cumulated. For each field of study, the EU-27 figure is displayed (the value is given on the left) as well as the Bologna median, and the minimum and maximum observed among the Bologna countries.

## Results

- The field of humanities, languages and arts appears to be the field most affected by unemployment in all age groups. As regards the youngest age group (25-34), the unemployment rate of graduates in humanities, languages and arts can be twice as high as in the field of health and welfare or engineering, manufacturing and construction.
- These stark differences between fields of study remain for the older age groups, but are strongly reduced, due to a significant decrease in the unemployment rate with increasing age, especially above the age of 35.
- Actually, more detailed analyses (not reported here) show that, across countries, differences in unemployment rates are above all a matter of educational attainment and then a matter of age. With age, not only differences across fields are reduced, but also those observed across educational attainment levels and across genders (yet never eradicated, especially for educational attainment).

Figure D.3c: Unemployment rate of tertiary education graduates, by field of study and age -2003-2007, cumulated


In the EU, 10 \% of economically
active graduates
in humanities,
languages and
arts are
unemployed,
twice as much as
those from the
field of health and welfare

Note: RS: 2008 data. Some data from some countries were very unreliable and not taken into account here (see table in annex).
Source: EU-LFS (Labour Force Survey).

## D.4. Returns on education

Finding a job is a necessary prerequisite for a successful professional life, but a well-paid job is even better. The question of private returns on higher education has in recent times become more relevant in the context of discussions on cost-sharing for higher education participation (Chapter B). The higher the private returns on education, the easier it is to see the benefits of private investment in higher education participation (inter alia through tuition fees). Moreover, a higher income results in higher income tax payments, which can be seen as the payback of the original investment of taxpayers' money. A high return on investment for individuals is, therefore, not necessarily a justification for raising tuition fees. It is, however, relevant to this debate.

## Income and educational attainment

What are the differences in wage levels by education attainment? This first overall analysis will look at the relative advantage or disadvantage of higher or lower levels of educational attainment.

## Indicator

Figure D.4a shows the gross income of workers (family workers excluded) on an annual basis by educational attainment. Cash as well as fringe benefits are included. All amounts are given in EUR PPS in order to make them comparable between countries (see M2-box).

## M2 - PPS (Purchasing Power Standard)

Purchasing Power Parity (PPP) is a currency conversion rate that converts economic indicators expressed in a national currency to an artificial common currency that equalises the purchasing power of different national currencies. In other words, PPP is both a price deflator and a currency converter; it eliminates the differences in price levels between countries in the process of conversion to an artificial common currency, called Purchasing Power Standard (PPS).

For each category of educational attainment - low (ISCED 1, 2 and 3 c short), medium (ISCED 3 - excluding 3 c short - and 4), and high (ISCED 5 and 6) - the median income as well as percentiles 25 and 75 (see M3box) are provided. The difference between those percentiles, therefore, looks beyond the average to show the range of income levels earned by educational attainment. This analysis indeed reveals that large overlaps between educational levels exist.

## M3 - Percentile, P25 \& P75, interquartile range

The percentile $X$ (with $X \geq 0$ and $\leq 100$ ) of a sampled variable is the value of the variable under which are $X$ percent of the observations in the sample. For example, a percentile 25 (denoted P25) of EUR 1000 for an income variable means that 25 \% of people in that sample earn less than EUR 1000.
Percentile 0 is the minimum, and P100 the maximum. The median is percentile 50 .
The difference between P75 and P25 (also called quartile 3 and 1 respectively) is called the interquartile range and measures the values' dispersion.

## With a high

educational level, EU-25 employees double their pay slip compared to medium and low educated employees

## Results

- Wages vary considerably according to educational level attainment. Considering the median income, those having a high educational level in the EU-25 earn nearly twice as much as those with a low or medium level of education. This is the case in all countries without exception.
- Wage differences across educational attainment categories are the most marked in Germany, where the gross income trebles for highly educated workers: the difference between high- and low-educated workers reaches a factor of almost 5. In contrast, in Belgium, France, Malta and Sweden, the income of the highly educated is less than 1.5 times more than that of other educational attainment categories.
- As regards dispersion of earnings, interquartile ranges show that wages are more disparate among the highly educated (in the EU, the individual under whom are the 25 \% lowest wages earns EUR 24200 PPS less than the one over whom are the $25 \%$ highest salaries) than among workers educated to a medium (interquartile range of EUR 17900 PPS) and low level (EUR 15400 PPS).
- In contrast to this tendency, the dispersion of wages is quite balanced in the three educational level groups in the Nordic countries (except Iceland).
- Clear overlaps exist between income ranges earned by highly educated workers and the ranges for lower educational levels. This means that a higher education does not translate into a higher annual wage for everyone.

With the rare exceptions of the Nordic countries (excluding Iceland), wage disparities are
higher among
highly educated employees

Figure D.4a: Annual gross income (cash and non-cash) of workers (family workers excluded) in PPS EUR, by educational attainment - 2006


Note: Countries sorted in ascending order by Median, High.
Source: Eurostat, EU-SILC

- More detailed analyses (not presented here) show that the difference between graduates of high and low educational levels (ratio high/low of medians) tend to increase with age. This is especially the case in Ireland, Spain, Cyprus, Slovenia and the United Kingdom. For instance, in Ireland, graduates of higher education earn 1.5 times more than graduates of lower levels in the age group 25-34, twice as much among age group 35-44, and three times a much among 45-54-year-olds. There are, however, rare examples where income differences between high and low educational attainment decrease by age (Germany) or are quite stable (Denmark). The general tendency of increasing wage disparity by educational attainment according to the age of the graduate may be affected by two factors: either career advancement is facilitated by higher education attainment or/and graduation provided better chances on the labour market in the past due to the relative scarcity of qualifications (Figure D.1a).


## Income and gender

It is of particular relevance for a report on the social dimension of higher education to investigate the wide range of income levels by educational level for social disparities. At the moment it is only possible to do this for gender due to gaps in data availability.

In all Bologna
countries, the median income of men is higher than that of women

## Indicator

Figure D.4b considers gender equity in wages, presenting as before median gross income as well as 1st and 3rd quartiles for men, women and the total.

## Results

- At EU-25 level, the median income of women represents two thirds of that of men. The domination of men on this criterion is observed in all countries without exception. The gap is especially prominent in Germany, Luxembourg, the Netherlands and Iceland, where the median income of women represents less than $65 \%$ of that of men. Gender disparities are less significant in Denmark, Malta, Poland, Slovenia and Slovakia, as women's wages account for between $80 \%$ and $90 \%$ of men's income.
- According to the interquartile range, wage levels are more disparate among men than among women. This is partly due to the fact that income variance is higher in the categories where the median is higher. However, in the Czech Republic, Estonia and Malta, the dispersion according to gender is wide despite small differences in the median.
- More detailed statistical analyses show that gender disparities are smaller among workers with tertiary education (Figure D.4b) than among the population educated to a medium or low level (not shown). The gap typically observed in favour of men is reduced (but not closed) among those with a high educational attainment. This is especially marked in Ireland, the Netherlands and the United Kingdom (where gender disparities are huge among the those with a low level of education: by a factor of close to 3 in Ireland and the Netherlands). In contrast, the gap (when comparing median incomes) increases in the Czech Republic, Hungary, Poland and Finland. For example, in Hungary highly educated men earn $30 \%$ more than women in the same category, whereas men and women are paid evenly among the workers with a low level of educational attainment.

Figure D.4b: Annual gross income (cash and non-cash) of workers (family workers excluded) with tertiary education in PPS EUR, by sex - 2006


Note: Countries sorted in ascending order by Median, Total.
Source: Eurostat, EU-SILC.

## D.5. Qualification mismatch

Another perspective on the comparative utility of educational attainment can be provided by turning to educational attainment and the skills required in a graduate's current occupation; in other words, a look at the quality of the job obtained.
This section focuses on qualification mismatch. Two main types of mismatch will be analysed by looking at graduate employment:

|  | Employment position is in the <br> same field as the educational <br> qualification | Employment position is not in <br> the same field as the <br> educational qualification |
| :--- | :---: | :---: |
| Employment position equates <br> to educational attainment | Qualification match | Horizontal mismatch |
| Position is below level of <br> educational attainment | Vertical mismatch | Vertical and horizontal <br> mismatch |

## Mismatch and gender

## Indicator

Based on the skill levels corresponding to the different ISCO categories of jobs (see M4-box), it is assumed that graduates from educational levels ISCED 5 and 6 are intended to occupy jobs with the skill levels ISCO 1,2 or 3 . As a result, a tertiary graduate is considered as vertically mismatched when he or she occupies a post not included in categories ISCO 1, 2 or 3.

## M4 - ISCO - International Standard Classification of Occupations

The International Standard Classification of Occupations (ISCO) is a tool under the responsibility of ILO for organising jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. The third version of the International Standard Classification of Occupations, ISCO-88, was adopted in 1987.The updated classification was adopted in December 2007 and is known as ISCO-08. This last version was not used here.

Ten major groups are determined of which the first three are of interest here: Legislators, Senior officials and Managers (ISCO 1), Professionals (ISCO 2), and Technicians and associate professionals (ISCO 3). ISCO 1 and 2 occupations require a skill level corresponding to ISCED 5A and ISCED 6 - academic - levels of education (ISCED 97). ISCO 3 skill level is closer to that taught at ISCED 5B - more vocationally-orientated - (and possibly 5A) levels. In all, those three first ISCO categories include posts to be typically occupied by tertiary graduates.

Figure D.5a shows the number of tertiary graduates aged 25-34 employed in different ISCO categories as a percentage of all employees; economically inactive and unemployed persons are therefore excluded here. Three ISCO groups are taken into account. Employees in an occupation not classified in the categories ICSO 1,2 , or 3 are considered vertically mismatched. ISCO 1,2 and 3 employees are all in a relevant occupation as regards their qualification level, but ISCO 3 is presented separately as this category refers more specifically to less theoretical programmes (typically ISCED 5B). ISCED 5A graduates in this category would therefore be considered vertically mismatched. However, the data do not allow a distinction to be made between ISCED 5B and ISCED 5A and 6 graduates.

In around half of the Bologna area, 20 \% or more of young employees with tertiary education are vertically mismatched

## As regards

vertical
mismatch, gender
disparities vary
above all
according to
country, but men
are slightly more
often
mismatched

## Results

- In nearly half of the Bologna area, more than one in five graduates aged 25-34 are employed below their skill level. This vertical mismatch affects 25 \% of tertiary graduates in the EU-27.
- Situations can be extreme throughout the European continent. The vertical mismatch rate is lower than 10 \% in the Czech Republic, Luxembourg and Malta, but reaches $30 \%$ or more in Cyprus, Ireland and especially Spain ( 42 \%).
- The Nordic countries (excluding Iceland) registered a vertical mismatch rate below the EU-27 average (from $15 \%$ to $18 \%$ ), but presented a large share of tertiary graduates occupying ISCO 3 posts. It is not possible to say whether all these graduates come from an ISCED 5B level programme (fundamentally practical and technical) and are therefore in principle not mismatched, or if a large part of them indeed work in an occupation below their theoretical skill level.
- At EU-level, there is a balance between women and men as regards vertical mismatches. But this is not true for every country. In Luxembourg, women are proportionally 4 times more vertically mismatched than men, whereas in Lithuania, Austria and Moldavia, men are around 1.5 times more in this situation. In a half of the Bologna countries, men are at least $10 \%$ more mismatched than women.
- Vertical mismatches might be caused by difficulties in entering the labour market. However, computations show that the unemployment rate of tertiary graduates (Figure D.3a) is not generally linked to vertical mismatch. Although the relatively high rate of unemployment among tertiary graduates aged 25-34 is associated with a relatively high vertical mismatch rate in Belgium, Bulgaria, Spain and France.
- However, the proportion of tertiary graduates working in ISCO 3 jobs may explain a reduced addedvalue in terms of income (Figure D.4a) for highly educated graduates compared to their counterparts with a medium educational attainment.

Figure D.5a: Proportion of people with tertiary education aged 25-34 and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO 3 (technicians and associate professionals) and not in ISCO 1|2|3, by sex - 2007


Figure D.5a: Proportion of people with tertiary education aged 25-34 and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO 3 (technicians and associate professionals) and not in ISCO 1|2|3, by sex - 2007 (continued)


Note: Countries sorted in descending order by Total, not ISCO 1|2|3. Unreliable estimates (probability of 0.95 to vary between plus and minus 5 up to 10 percentage points): EE, Males, ISCO $1 \mid 2$ and Not ISCO $1|2| 3$; LV, Males, ISCO $1 \mid 2$; EE: Males, ISCO $1 \mid 2$ and ISCO 3; RS, all data except total Not ISCO $1|2| 3$ \& Females Not ISCO $1|2| 3$.

Source: EU-LFS (Labour Force Survey).

- More interesting is the correlation between higher educational attainment (the proportion of 25-34-yearolds having graduated in tertiary education) and vertical mismatch. Figure D.5b locates every country simultaneously on both dimensions. In general terms it seems that the larger the share of graduates of tertiary education, the higher the share of graduates beginning their career below their theoretical skill level. Ireland, Spain and Cyprus are highly representative of this trend.
- The Nordic countries (excluding Iceland) and Luxembourg (to a lesser extent) appear to contradict this link. They display a low level of vertical mismatch despite a relatively high level of educational attainment, but it has to be borne in mind that in those countries many tertiary graduates are employed in ISCO 3 jobs (where vertical mismatch can occur for those who graduated in theoretically-based programmes).

Figure D.5b: High educational attainment and vertical mismatch - 2007


Source: EU-LFS (Labour Force Survey)

## Mismatch and field of study

As mentioned above, different fields of study enjoy varying degrees of professional orientation in the labour market. Furthermore, these fields are more or less affected by changes in the general economy and specifically in the labour market. These differences may affect the frequency of vertical mismatch by field of study which is investigated in this section.

## Indicator

Figure D. 5 c shows vertical mismatch rates by broad field of study, separately for women, men, and total. For each field of study, the EU-27 figure is displayed (the value is given on the left), as well as the Bologna median, and the minimum and maximum observed among the Bologna countries.

## Results

- More than a matter of gender, vertical mismatch is above all correlated with the field of study in which employees graduated. For example, in the EU-27, only one in eight graduates in the fields of teacher training and education science, or in health and welfare, are vertically mismatched. By contrast, in the field of services, half of employees with tertiary education occupy a position below their skill level, with a maximum of $85 \%$ recorded in Cyprus. The appropriateness of this field of study for higher education might therefore be called into question. Despite a low number of students graduating from tertiary programmes within this field (Figure D.1b), the unemployment rate is among the highest (Figure D.3c), as well as the share of vertically mismatched employees.
- Gender differences are quite balanced overall and depend on the field of study. Men are relatively more frequently affected as graduates in the fields of engineering, manufacturing and construction and agriculture and veterinary, while women are proportionally more mismatched as graduates in sciences, mathematics and computing, and above all in social sciences, business and law.


## Self-perception of qualification and skills mismatch

On the basis of the Reflex survey, it is possible to get a more comprehensive perspective on skills mismatch, which looks at both horizontal and vertical mismatches together. Based on survey data, this section captures graduates' self-perception on whether their current occupation 'fits' their academic studies. It might be assumed that the closer the fit, the higher the self-perception of the utility of tertiary education for these graduates.

Figure D.5c: Proportion of people aged 25-34 with tertiary education who are vertically mismatched (not in ISCO 1, 2 or 3), by field of study and sex-2003-2007, cumulated


Graduates in the field of services have jobs frequently below their theoretical skill level

## Indicator

Qualification mismatch as measured by the REFLEX survey is measured by self-assessment. The individuals of the sample (people who graduated 5 years ago) were asked to assess their job in relation to their education. The measure is certainly less standardised than a variable based on the ISCO international classification. However, a distinction is made between 3 types of mismatch: horizontal mismatch (being at the relevant skill level, but in another field than that of graduation), vertical mismatch, and both. The two latter categories correspond to the vertical mismatch as considered in the previous indicators.
As for previous figures, only workers are included in the denominator; unemployed persons are excluded.

Figure D.5d: Qualifications mismatch as reported by employed graduates with more or less 5 years of experience since leaving higher education, by type of mismatch (horizontal, vertical, or both), ISCED 5A second degree - 2005


Note: Countries are sorted in ascending order by exact match.
Source: REFLEX, 2005.

## Results

- Vertical mismatch in the same field as graduation can be seen to be the most common type of qualification mismatch. Taken together with horizontal and vertical mismatch, over a quarter of graduates consider themselves to have a job not fitting their educational attainment in the Netherlands ( 25 \%), Estonia (30 \%), Spain (31 \%) and the United Kingdom (45 \%).
- Being employed at the relevant skill level but in another field (horizontal mismatch) was reported by between $5 \%$ and $10 \%$ of graduates, with the highest levels registered in France, Austria and the Czech Republic.
- The self-perceptions from the Reflex survey are quite consistent with the match rates obtained in LFS by the ISCO methodology. Indeed, excluding horizontal mismatch from other types of mismatch, only graduates in Estonia, the Netherlands and especially the United Kingdom tend to overestimate their qualification mismatch, as compared with ISCO matching.


## COUNTRY PROFILES

## (draft)

## Note to the reader:

The country profiles present the same set of indicators for each country of the Bologna area. These indicators are extracted from each of the four chapters included in the report entitled "Social dimension and mobility in the Bologna process".

The country profile presents a range of statistical data for each indicator:

- the value of the indicator for the country under consideration;
- the median of the distribution of countries: the median value is the point dividing the number of countries into two equal halves, meaning that half of the countries are below the median value and the remaining half are above. This value is computed for all countries for which data are available and is unweighted (i.e. it does not take account of the countries' population size);
- percentiles $10,25,75$ and 90 aim at describing the dispersion of the countries under investigation. The percentile X (with $\mathrm{X} \geq 0$ and $\leq 100$ ) of a sampled variable is the value of the variable under which are X percent of the observations in the sample.

Example: "Percentile 10 of female entrants in science as a percentage of total entrants in science is $30 \%$ " means that in 10 \% of the EU-27 countries, female entrants in science represent less than $30 \%$ of the total entrants in science at ISCED level 5a. It also means that in $90 \%$ of the EU-27 countries, female entrants in science represent more than $30 \%$ of the total entrants in science.

When, for a given country, the indicator is not available, this country is not presented in the graph.
Two sources were used to compile the information: Eurostat and Eurostudent III. As a result, the distribution of countries is based:

- on the 27 Member States of the European Union for information provided by Eurostat (except for indicator A8 which displays EU-25);
- on the countries participating in the Eurostudent III survey for the information provided by Eurostudent.


## Legend of the graphs:



Eurostudent Percentile 90

Eurostudent Percentile 75
Eurostudent Median
Country X
Eurostudent Percentile 25

Eurostudent Percentile 10

Widening access

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A.2a: Entrants at ISCED 5A as a percentage of qualifying graduates of secondary schooling (ISCED 3A and 4A), 2006
A.4a: Percentage of students studying part-time, ISCED 5A, 2006

A5b: Percentage of individuals having completed higher education, with parents having a low educational background, 2005
A.3a (right scale): Students with a non-traditional route to higher education, as a percentage of all ISCED 5A students

Mobility

C.1a: Number of students studying abroad in Europe, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
C.1c: Number of students from abroad, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
C.2a: Percentage of graduates from abroad, ISCED 5, 2006
C.3a: Students having been enrolled abroad, with parents having a low educational level, 2005-08

Study framework

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B.3c: Income sources from state as a percentage of total student income (students living away from the parental home), 2005-07
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Effective outcomes

D.1a: Percentage of persons aged 25-34 with tertiary education, 2007
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Country profile: BELGIUM - French Community (BE fr)

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A.2a: Entrants at ISCED 5A as a percentage of qualifying graduates of secondary schooling (ISCED 3A and 4A), 2006
A.4a: Percentage of students studying part-time, ISCED 5A, 2006

A5b: Percentage of individuals having completed higher education, with parents having a low educational background, 2005
A.3a (right scale): Students with a non-traditional route to higher education, as a percentage of all ISCED 5A students

Mobility

C.1a: Number of students studying abroad in Europe, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
C.1c: Number of students from abroad, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
C.2a: Percentage of graduates from abroad, ISCED 5, 2006
C.3a: Students having been enrolled abroad, with parents having a low educational level, 2005-08

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B.2a: Percentage of educational institutions' income coming from households and other private sources (international sources excluded), ISCED 5-6, 2005 B.3a: Percentage of public expenditure on tertiary education allocated to loans and grants to students, ISCED 5-6, 2005
B.2d: Students' contributions to higher education institutions, in percentage of total expenditure of students living away from the parental home
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B.1a(right scale): Public expenditure on tertiary education, as \% of GDP, 2005

## Effective outcomes


D.1a: Percentage of persons aged 25-34 with tertiary education, 2007
D.5a: Proportion of people aged 25-34 with tertiary education and employed in ISCO 1 and 2 (legislators, senior officials, managers and professionals), or in ISCO 3 (technicians and associate professionals), 2007
D.3a (right scale): Employment rate of tertiary graduates aged 20-34, 2003-07 cumulated


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Country profile: HUNGARY (HU)


#### Abstract

Widening access 


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Country profile: LATVIA (LV)


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D.3a (right scale): Employment rate of tertiary graduates aged 20-34, 2003-07 cumulated

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A.1c science: Female entrants in science as a percentage of total entrants in science, ISCED 5A, 2006
A.2a: Entrants at ISCED 5A as a percentage of qualifying graduates of secondary schooling (ISCED 3A and 4A), 2006
A.4a: Percentage of students studying part-time, ISCED 5A, 2006

A5b: Percentage of individuals having completed higher education, with parents having a low educational background, 2005
A.3a (right scale): Students with a non-traditional route to higher education, as a percentage of all ISCED 5A students
C.1a: Number of students studying abroad in Europe, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
C.1c: Number of students from abroad, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
C.2a: Percentage of graduates from abroad, ISCED 5, 2006
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B.2a: Percentage of educational institutions' income coming from households and other private sources (international sources excluded), ISCED 5-6, 2005 B.3a: Percentage of public expenditure on tertiary education allocated to loans and grants to students, ISCED 5-6, 2005
B.2d: Students' contributions to higher education institutions, in percentage of total expenditure of students living away from the parental home
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B.1a(right scale): Public expenditure on tertiary education, as \% of GDP, 2005

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D.1a: Percentage of persons aged 25-34 with tertiary education, 2007
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A.2a: Entrants at ISCED 5A as a percentage of qualifying graduates of secondary schooling (ISCED 3A and 4A), 2006
A.4a: Percentage of students studying part-time, ISCED 5A, 2006

A5b: Percentage of individuals having completed higher education, with parents having a low educational background, 2005
A.3a (right scale): Students with a non-traditional route to higher education, as a percentage of all ISCED 5A students

Mobility

C.1a: Number of students studying abroad in Europe, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
C.1c: Number of students from abroad, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
C.2a: Percentage of graduates from abroad, ISCED 5, 2006
C.3a: Students having been enrolled abroad, with parents having a low educational level, 2005-08

Study framework

B.2a: Percentage of educational institutions' income coming from households and other private sources (international sources excluded), ISCED 5-6, 2005 B.3a: Percentage of public expenditure on tertiary education allocated to loans and grants to students, ISCED 5-6, 2005
B.2d: Students' contributions to higher education institutions, in percentage of total expenditure of students living away from the parental home
B.3c: Income sources from state as a percentage of total student income (students living away from the parental home), 2005-07
B.1a(right scale): Public expenditure on tertiary education, as \% of GDP, 2005

Effective outcomes

D.1a: Percentage of persons aged 25-34 with tertiary education, 2007
D.5a: Proportion of people aged 25-34 with tertiary education and employed in ISCO 1 and 2 (legislators, senior officials, managers and professionals), or in ISCO 3 (technicians and associate professionals), 2007
D.3a (right scale): Employment rate of tertiary graduates aged 20-34, 2003-07 cumulated

Country profile: SWITZERLAND (CH)


#### Abstract

Widening access 


A.1c science: Female entrants in science as a percentage of total entrants in science, ISCED 5A, 2006
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C.1a: Number of students studying abroad in Europe, as a percentage of all students enrolled, ISCED 5A \& 6, 2006
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# Social dimension and mobility in the Bologna Process 

## Annex: <br> Statistical tables

## Provisional version

Footnotes and flags to be included

## A. Widening access

Table A.1a,b: Net entry rate by age, ISCED 5A, 2002 and 2006

|  | Net entry rates, by age, ISCED 5A, 2006 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total (Females + Males) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30-34 | 35-39 | 40+ |
| EU-27 | 0.0 | 0.9 | 9.4 | 15.7 | 8.1 | 4.4 | 2.8 | 2.0 | 1.4 | 1.8 | 0.9 | 0.7 | 0.6 | 0.6 | 0.4 | 0.2 | 0.0 |
| Bologna* | 0.0 | 0.1 | 4.9 | 11.2 | 7.7 | 3.7 | 2.3 | 1.7 | 1.3 | 1.1 | 0.9 | 0.7 | 0.6 | 0.6 | 0.4 | 0.3 | 0.0 |
| BE | 0.0 | 0.3 | 10.5 | 3.1 | 1.7 | 1.5 | 1.4 | 1.2 | 0.9 | 0.7 | 0.5 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.0 |
| BG | 0.0 | 0.1 | 2.5 | 20.7 | 6.2 | 2.6 | 1.6 | 1.1 | 0.8 | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 |
| CZ | 0.0 | 0.1 | 0.5 | 17.8 | 15.8 | 3.7 | 1.7 | 1.3 | 0.9 | 0.7 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 | 0.0 |
| DK | 0.0 | 0.0 | 0.3 | 3.9 | 10.1 | 12.2 | 8.7 | 5.2 | 3.4 | 2.5 | 1.9 | 1.4 | 1.1 | 0.9 | 0.6 | 0.4 | 0.1 |
| DE | 0.0 | 0.0 | 0.9 | 6.6 | 9.3 | 5.9 | 3.5 | 2.6 | 1.8 | 1.2 | 0.9 | 0.6 | 0.5 | 0.4 | 0.2 | 0.1 | 0.0 |
| EE | 0.0 | 0.2 | 6.5 | 17.4 | 4.1 | 2.1 | 1.5 | 1.1 | 0.8 | 0.6 | 0.7 | 0.5 | 0.6 | 0.5 | 0.4 | 0.2 | 0.0 |
| IE | 0.0 | 3.6 | 16.1 | 11.5 | 2.8 | 1.1 | 0.7 | 0.5 | 0.7 | 0.5 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 |
| EL |  | 6.1 | 24.7 | 3.6 | 1.4 | 0.8 | 1.2 | 1.2 | 1.4 | 1.3 | 1.1 | 0.8 | 0.8 | 1.1 | 0.8 |  |  |
| ES | 0.0 | 0.0 | 23.8 | 6.1 | 3.3 | 2.3 | 1.7 | 1.2 | 0.8 | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 |
| FR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IT |  |  | 3.8 | 31.6 | 6.5 | 2.3 | 1.2 | 0.8 | 0.6 |  |  |  |  |  |  |  |  |
| CY | 0.0 | 1.0 | 5.1 | 0.9 | 1.4 | 0.2 | 0.5 | 0.4 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| LV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LT |  | 0.4 | 6.2 | 24.2 | 5.6 | 2.2 | 1.8 | 1.6 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 | 0.3 | 0.0 |
| LU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HU | 0.0 | 0.0 | 9.8 | 17.1 | 8.3 | 5.5 | 3.8 | 2.8 | 2.2 | 1.8 | 1.6 | 1.4 | 1.3 | 1.2 | 0.9 | 0.5 | 0.1 |
| MT | 0.0 | 0.0 | 0.1 | 9.4 | 10.2 | 3.7 | 3.0 | 3.1 | 2.1 | 1.7 | 1.2 | 1.1 | 0.8 | 0.8 | 0.5 | 0.3 | 0.1 |
| NL | 0.0 | 6.3 | 15.3 | 10.9 | 7.5 | 5.2 | 3.1 | 1.9 | 1.2 | 0.9 | 0.6 | 0.5 | 0.4 | 0.4 | 0.2 | 0.1 | 0.1 |
| AT | 0.0 | 0.0 | 4.8 | 9.2 | 8.4 | 5.4 | 3.2 | 2.2 | 1.7 | 1.2 | 0.8 | 0.6 | 0.4 | 0.3 | 0.2 | 0.1 | 0.0 |
| PL |  |  | 0.8 | 33.2 | 17.4 | 7.6 | 4.5 | 2.9 | 1.8 | 1.1 | 0.8 | 0.7 | 0.6 | 0.6 | 1.2 |  |  |
| PT | 0.0 | 0.0 | 18.9 | 10.0 | 5.2 | 3.1 | 2.1 | 1.4 | 1.2 | 1.1 | 0.9 | 0.9 | 0.8 | 0.7 | 0.5 | 0.3 | 0.1 |
| RO |  |  | 11.0 | 22.1 | 7.8 | 4.1 | 2.8 | 2.2 | 2.0 | 1.7 | 1.3 | 1.3 | 1.0 | 0.9 | 0.4 | 0.6 |  |
| SI | 0.0 | 0.0 | 3.5 | 29.7 | 5.5 | 1.8 | 0.8 | 0.6 | 0.6 | 0.5 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.0 |
| SK | 0.0 | 0.0 | 2.9 | 20.7 | 15.6 | 5.3 | 2.9 | 2.3 | 1.9 | 1.6 | 1.3 | 1.1 | 1.0 | 0.9 | 0.8 | 0.6 | 0.1 |
| FI | 0.0 | 0.0 | 0.4 | 19.7 | 13.5 | 9.7 | 5.7 | 4.0 | 3.0 | 2.2 | 1.9 | 1.6 | 1.3 | 1.1 | 0.8 | 0.6 | 0.1 |
| SE | 0.0 | 0.0 | 0.9 | 12.3 | 12.3 | 10.1 | 7.5 | 5.8 | 4.2 | 3.1 | 2.3 | 1.7 | 1.4 | 1.2 | 0.9 | 0.6 | 0.1 |
| UK | 0.0 | 1.2 | 21.5 | 10.6 | 4.3 | 2.9 | 2.1 | 1.6 | 1.2 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.1 |
| HR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TR | 0.2 | 2.4 | 7.9 | 6.9 | 3.6 | 2.0 | 1.6 | 1.4 | 1.2 | 0.9 | 0.7 | 0.5 | 0.4 | 0.3 | 0.1 | 0.1 | 0.0 |
| IS | 0.0 | 0.0 | 0.3 | 1.5 | 16.0 | 13.3 | 7.8 | 5.3 | 4.0 | 4.1 | 2.6 | 1.9 | 1.9 | 1.7 | 1.2 | 0.8 | 0.2 |
| $\mathbf{L I}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NO | 0.0 | 0.3 | 15.9 | 17.6 | 8.0 | 4.0 | 2.5 | 1.8 | 1.5 | 1.2 | 1.1 | 0.8 | 0.8 | 0.7 | 0.6 | 0.5 | 0.2 |
| CH | 0.0 | 0.1 | 1.8 | 5.9 | 8.0 | 5.7 | 3.3 | 2.4 | 1.7 | 1.2 | 1.0 | 0.8 | 0.7 | 0.5 | 0.4 | 0.2 | 0.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AU | 0.0 | 3.7 | 20.1 | 12.4 | 7.4 | 5.6 | 5.0 | 4.6 | 3.7 | 2.7 | 2.2 | 1.8 | 1.4 | 1.2 | 0.9 | 0.6 | 0.2 |
| CA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NZ | 0.1 | 1.6 | 19.2 | 9.5 | 5.8 | 4.0 | 2.8 | 2.3 | 2.0 | 1.6 | 1.6 | 1.3 | 1.2 | 1.1 | 0.9 | 0.8 | 0.3 |
| JP | 0.0 |  | 35.1 | 6.3 | 1.0 | 0.3 |  |  |  |  |  |  |  |  |  |  |  |
| US | 0.2 | 2.2 | 24.0 | 10.9 | 5.7 | 2.9 | 2.0 | 2.0 | 1.4 | 0.9 | 0.9 | 0.9 | 0.7 | 0.9 | 0.6 | 0.4 | 0.1 |

[^19]|  | Net entry rates by age, males and females, ISCED 5A, 2002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30-34 | 35-39 | 40+ |
| EU-27 | 0.0 | 0.9 | 11.5 | 11.7 | 5.8 | 3.4 | 3.1 | 1.7 | 1.2 | 0.9 | 0.7 | 0.5 | 0.4 | 0.4 | 0.2 | 0.1 | 0.0 |
| Bologna* | 0.0 | 0.1 | 7.0 | 11.0 | 5.0 | 2.5 | 1.7 | 1.4 | 1.0 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 | 0.0 |
| BE | 0.0 | 0.6 | 18.9 | 4.6 | 1.5 | 1.3 | 1.0 | 0.9 | 0.6 | 0.5 | 0.5 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | 0.0 |
| BG | 0.0 | 1.2 | 8.1 | 13.2 | 3.6 | 2.1 | 1.1 | 0.9 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.3 | 0.2 | 0.1 | 0.0 |
| CZ | 0.0 | 0.0 | 3.4 | 12.6 | 7.9 | 1.4 | 0.9 | 0.6 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.0 |
| DK | 0.0 | 0.0 | 0.2 | 2.5 | 7.6 | 10.1 | 8.1 | 5.1 | 3.4 | 2.4 | 1.8 | 1.4 | 1.0 | 0.7 | 0.5 | 0.3 | 0.1 |
| DE | 0.0 | 0.0 | 0.7 | 5.7 | 8.7 | 6.0 | 3.9 | 3.0 | 2.1 | 1.4 | 0.9 | 0.7 | 0.5 | 0.4 | 0.2 | 0.1 | 0.0 |
| EE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IE | 0.0 | 3.4 | 17.1 | 13.2 | 2.2 | 0.8 | 0.5 | 0.3 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| EL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ES | 0.0 | 0.0 | 22.6 | 11.0 | 5.0 | 3.7 | 1.6 | 1.1 | 0.7 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 |
| FR | 0.0 | 1.8 | 19.0 | 8.2 | 3.8 | 1.5 | 1.0 | 0.6 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| IT |  |  | 4.0 | 27.6 | 6.5 | 2.8 | 9.5 |  |  |  |  |  |  |  |  |  |  |
| CY | 0.0 | 0.9 | 3.9 | 0.9 | 0.9 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| LV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LT |  | 0.2 | 14.7 | 14.5 | 2.8 | 2.5 | 2.4 | 2.0 | 1.6 | 1.4 | 1.5 | 1.3 | 1.1 | 1.1 | 0.6 | 0.3 | 0.0 |
| LU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HU | 0.0 | 0.2 | 10.0 | 15.4 | 8.0 | 4.7 | 3.4 | 2.7 | 2.2 | 1.9 | 1.6 | 1.4 | 1.3 | 1.2 | 0.7 | 0.4 | 0.0 |
| MT | 0.0 | 0.1 | 15.5 | 4.9 | 1.5 | 2.4 | 0.3 | 0.6 | 0.4 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 |  |  |
| NL | 0.0 | 5.4 | 13.4 | 11.0 | 7.1 | 4.4 | 2.5 | 1.5 | 1.0 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 | 0.1 |
| AT | 0.0 | 0.0 | 5.1 | 8.2 | 6.3 | 3.6 | 2.1 | 1.5 | 1.1 | 0.7 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 |
| PL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RO |  |  | 13.3 | 14.1 | 5.0 | 2.3 | 1.6 | 1.2 | 1.0 | 0.9 | 0.7 | 0.6 | 0.5 | 0.4 | 0.2 | 0.2 |  |
| SI | 0.0 | 0.0 | 3.4 | 23.2 | 3.6 | 1.1 | 0.4 | 0.4 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.3 | 0.1 | 0.1 | 0.0 |
| SK | 0.0 | 0.0 | 12.9 | 11.8 | 4.9 | 2.6 | 1.6 | 1.4 | 1.1 | 1.0 | 0.8 | 0.7 | 0.7 | 0.6 | 0.3 | 0.2 | 0.0 |
| FI | 0.0 | 0.0 | 0.3 | 15.3 | 14.0 | 11.0 | 6.2 | 4.1 | 3.0 | 2.3 | 1.7 | 1.4 | 1.1 | 1.0 | 0.7 | 0.6 | 0.1 |
| SE | 0.0 | 0.0 | 0.3 | 11.7 | 13.6 | 9.9 | 6.7 | 4.9 | 3.6 | 2.6 | 2.0 | 1.7 | 1.4 | 1.3 | 1.1 | 0.8 | 0.2 |
| UK | 0.0 | 1.3 | 19.3 | 9.8 | 3.3 | 2.1 | 1.7 | 1.4 | 1.1 | 0.9 | 0.8 | 0.6 | 0.5 | 0.5 | 0.3 | 0.2 | 0.0 |
| HR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TR | 0.3 | 1.6 | 6.0 | 4.1 | 2.3 | 1.6 | 1.4 | 1.1 | 0.9 | 0.7 | 0.6 | 0.4 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 |
| IS | 0.0 | 0.1 | 0.1 | 0.8 | 14.2 | 12.0 | 7.9 | 5.3 | 4.0 | 2.9 | 2.5 | 2.2 | 1.5 | 1.5 | 1.3 | 0.8 | 0.2 |
| LI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CH | 0.0 | 0.1 | 1.2 | 4.7 | 7.4 | 6.0 | 3.4 | 2.1 | 1.4 | 1.1 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.2 | 0.0 |
| AD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AU | 0.1 | 3.9 | 20.4 | 8.9 | 5.7 | 4.8 | 3.9 | 3.7 | 3.0 | 2.7 | 2.1 | 1.8 | 1.5 | 1.3 | 1.0 | 0.7 | 0.2 |
| CA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NZ | 0.1 | 1.2 | 13.0 | 6.9 | 4.8 | 3.7 | 3.2 | 3.0 | 2.5 | 2.2 | 1.8 | 1.8 | 1.6 | 1.5 | 1.2 | 0.9 | 0.3 |
| JP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| US | 0.1 | 0.7 | 8.8 | 11.4 | 9.5 | 8.6 | 5.7 | 3.5 | 2.5 | 1.4 | 1.2 | 1.0 | 0.8 | 0.5 | 0.5 | 0.2 | 0.1 |

* 'Bologna' refers to the unweighted median of Bologna countries

Table A.1c: Percentage of female entrants, by field of education, ISCED 5A, 2006

|  | Percentage of female entrants, by field of education, ISCED 5A, 2006 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All fields of education | Education (field 14) | Teacher <br> training <br> (field 141) | Education science (field 142) | Humanities and arts (broad group 2) | Arts (field 21) | Humanities (field 22) | Social sciences (broad group 3) | Social and behavioural science (field 31) | Journalism and information (field 32) | Business and administrati on (field 34) |
| EU-27 | 54.8 | 74.2 | 72.0 | 77.6 | 66.1 | 61.6 | 68.0 | 56.9 | 61.7 | 63.6 | 53.3 |
| Bologna* | 56.2 | 76.5 | 74.0 | 81.5 | 66.7 | 62.4 | 69.1 | 57.5 | 63.5 | 65.6 | 54.3 |
| BE | 53.0 | 84.4 | 0.0 | 85.3 | 59.7 | 61.1 | 59.4 | 56.4 | 64.2 | 64.5 | 37.9 |
| BG | 52.6 | 64.0 | 63.2 | 69.5 | 62.0 | 56.3 | 63.9 | 61.5 | 61.2 | 67.6 | 61.5 |
| CZ | 54.2 | 76.2 | 76.7 | 73.0 | 68.1 | 56.9 | 71.4 | 61.2 | 61.7 | 68.7 | 61.4 |
| DK | 59.8 | 69.7 | 68.9 | 77.4 | 62.9 | 60.0 | 63.5 | 50.9 | 55.3 | 52.5 | 46.3 |
| DE | 53.1 | 69.5 | 84.0 | 66.4 | 70.8 | 65.8 | 71.6 | 52.0 | 59.5 | 69.4 | 45.8 |
| EE | 59.4 | 92.3 | 93.2 | 85.7 | 74.1 | 73.2 | 74.5 | 61.8 | 65.3 | 65.6 | 59.5 |
| IE |  |  |  |  |  |  |  |  |  |  |  |
| EL |  |  |  |  |  |  |  |  |  |  |  |
| ES | 56.5 | 75.7 | 75.2 | 81.5 | 60.4 | 62.4 | 59.1 | 57.2 | 61.3 | 65.5 | 55.5 |
| FR |  |  |  |  |  |  |  |  |  |  |  |
| IT | 55.6 | 90.0 | - | 90.0 | 69.9 | 64.4 | 74.1 | 54.3 | 55.8 | 60.7 | 46.8 |
| CY | 69.5 | 81.1 | 83.1 | 71.4 | 84.4 | - | 84.4 | 72.3 | 74.4 | - | 69.3 |
| LV |  |  |  |  |  |  |  |  |  |  |  |
| LT | 55.5 | 70.7 | 68.4 | 89.8 | 74.8 | 68.2 | 78.0 | 68.1 | 74.1 | 75.7 | 67.1 |
| LU |  |  |  |  |  |  |  |  |  |  |  |
| HU | 58.2 | 72.4 | 71.3 | 85.0 | 68.1 | 58.6 | 69.2 | 65.2 | 63.7 | 70.2 | 65.5 |
| MT | 56.3 | 78.0 | 76.4 | 80.4 | 61.0 | 62.5 | 60.3 | 55.0 | 65.8 | 55.6 | 53.4 |
| NL | 52.8 | 75.8 | 73.2 | 92.4 | 54.7 | 48.6 | 63.7 | 47.5 | 62.5 | 56.0 | 37.5 |
| AT | 53.6 | 76.5 | 67.7 | 85.2 | 71.5 | 67.1 | 73.2 | 57.8 | 62.5 | 69.5 | 52.0 |
| PL | 52.8 | 67.8 | 63.5 | 74.6 | 66.2 | 64.0 | 66.6 | 57.5 | 60.2 | 63.8 | 56.1 |
| PT | 58.1 | 82.1 | 81.9 | 82.7 | 59.5 | 57.0 | 62.5 | 57.3 | 62.4 | 65.6 | 51.4 |
| RO | 54.2 | 83.9 | 21.6 | 91.1 | 67.3 | 54.7 | 69.3 | 59.8 | 67.0 | 70.0 | 59.3 |
| SI | 60.5 | 75.8 | 75.8 |  | 75.1 | 64.6 | 77.4 | 67.4 | 70.9 | 84.7 | 64.3 |
| SK | 57.5 | 76.8 | 72.8 | 85.5 | 59.8 | 53.9 | 61.2 | 64.0 | 66.6 | 70.5 | 64.3 |
| FI | 56.4 | 80.0 | 78.4 | 85.2 | 71.8 | 67.9 | 76.0 | 64.3 | 69.2 | 72.8 | 63.4 |
| SE | 56.6 | 74.8 | 74.0 | 77.3 | 61.7 | 56.0 | 63.7 | 58.9 | 64.4 | 63.9 | 51.8 |
| UK | 55.5 | 81.9 | 83.1 | 80.7 | 61.7 | 60.5 | 62.7 | 56.2 | 63.4 | 57.2 | 47.4 |
| HR |  |  |  |  |  |  |  |  |  |  |  |
| MK | 53.0 |  |  |  |  |  |  |  |  |  |  |
| TR | 44.3 | 50.5 | 48.1 | 76.4 | 52.5 | 52.8 | 52.4 | 43.7 | 44.3 | 45.4 | 42.7 |
| IS | 61.0 | 79.2 | 78.6 | 87.1 | 68.1 | 64.5 | 69.1 | 59.2 | 66.7 | 77.3 | 55.2 |
| LI |  | - | - | - |  | - |  |  | - | - |  |
| No | 60.0 | 75.0 | 78.6 | 59.8 | 64.3 | 64.8 | 63.9 | 57.3 | 63.6 | 58.0 | 52.0 |
| CH | - | - | - | - | - | - | - | - | - | - | - |
| AD | 56.1 | 95.1 | - | - |  | - | 78.6 | 56.4 | - | 57.1 | - |
| AL |  |  |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |
| GE | 57.3 | 78.3 | 0.0 | 78.3 | 75.1 | 68.7 | 80.1 | 56.7 | 47.2 | 84.9 | 44.9 |
| MD |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |  |  |
| AU |  |  |  |  |  |  |  |  |  |  |  |
| CA |  |  |  |  |  |  |  |  |  |  |  |
| NZ |  |  |  |  |  |  |  |  |  |  |  |
| JP | 41.0 | 59.4 | 53.6 | 59.9 | 67.0 | 69.2 | 66.6 | 32.3 |  |  |  |
| US | 54.8 |  |  |  |  |  |  |  |  |  |  |

[^20]|  | Percentage of female entrants, by field of education, ISCED 5A, 2006 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Law (field 38) | $\begin{aligned} & \text { Science } \\ & \text { (broad } \\ & \text { group 4) } \end{aligned}$ | Life sciences (field 42) | Physical sciences (field 44) | Mathematic $s$ and statistics (field 46) | Computing (field 48) | Engineering <br> (broad group 5) | Engineering and engineering trades (field $\qquad$ | Manufacturi ng and processing (field 54) | Architecture and building (field 58) | Agriculture (broad group 6) |
| EU-27 | 56.7 | 37.9 | 60.8 | 43.9 | 49.4 | 15.1 | 24.1 | 17.3 | 41.2 | 34.4 | 48.9 |
| Bologna* | 58.4 | 37.3 | 64.7 | 43.5 | 45.3 | 16.8 | 25.4 | 17.5 | 46.4 | 36.7 | 49.7 |
| BE | 58.4 | 41.5 | 55.9 | 31.6 | 44.3 | 15.4 | 25.3 | 18.9 | 40.0 | 45.3 | 51.9 |
| BG | 58.7 | 46.2 | 64.5 | 49.2 | 40.4 | 39.0 | 31.3 | 27.9 | 46.4 | 44.3 | 50.7 |
| Cz | 52.5 | 31.7 | 71.5 | 47.7 | 49.4 | 14.1 | 25.4 | 15.4 | 61.4 | 36.7 | 59.4 |
| DK | 59.8 | 34.2 | 61.9 | 40.1 | 38.9 | 13.2 | 27.6 | 25.5 | 77.1 | 28.3 | 75.7 |
| DE | 57.2 | 43.1 | 68.3 | 43.5 | 58.3 | 17.4 | 19.8 | 12.1 | 42.3 | 39.7 | 50.7 |
| EE | 59.7 | 43.0 | 73.5 | 30.9 | 72.2 | 22.5 | 25.4 | 20.8 | 32.8 | 27.3 | 48.7 |
| IE |  |  |  |  |  |  |  |  |  |  |  |
| EL |  |  |  |  |  |  |  |  |  |  |  |
| ES | 54.3 | 30.0 | 63.8 | 45.0 | 48.5 | 15.5 | 28.5 | 23.3 | 37.5 | 38.2 | 44.7 |
| FR |  |  |  |  |  |  |  |  |  |  |  |
| $1{ }^{\text {I }}$ | 58.3 | 50.4 | 66.9 | 41.5 | 49.4 | 13.0 | 28.3 | 17.1 | 55.0 | 39.6 | 43.7 |
| Cr | - | 57.7 | 83.3 | 55.7 | 76.1 | 44.3 | 33.6 | 19.2 | . | 50.0 | - |
| Lv $\mathrm{lv}^{(1)}$ |  |  |  |  |  |  |  |  |  |  |  |
| LT | 63.6 | 30.2 | 69.1 | 39.8 | 54.0 | 14.0 | 23.4 | 14.3 | 69.0 | 28.9 | 53.4 |
| Lu |  |  |  |  |  |  |  |  |  |  |  |
| HU | 62.2 | 30.6 | 64.9 | 37.6 | 37.8 | 20.9 | 18.6 | 8.6 | 52.4 | 35.1 | 45.0 |
| мт | 48.9 | 31.6 | 25.4 | 14.3 | 48.1 | 24.8 | 26.0 | 17.8 | - | 43.5 | 100.0 |
| NL | 64.0 | 16.2 | 55.3 | 27.6 | 27.0 | 9.3 | 14.9 | 7.4 | 75.6 | 16.6 | 48.6 |
| At | 58.2 | 36.7 | 65.3 | 31.7 | 39.7 | 19.1 | 24.5 | 14.3 | 32.2 | 40.8 | 60.9 |
| PL | 53.8 | 31.3 | 62.0 | 53.5 | 57.3 | 8.6 | 23.4 | 15.3 | 36.8 | 30.3 | 48.0 |
| PT | 60.8 | 34.3 | 66.1 | 48.4 | 44.6 | 16.3 | 26.3 | 17.5 | 61.7 | 35.4 | 58.8 |
| RO | 47.3 | 48.2 | 63.0 |  | 39.9 |  | 29.3 | 26.4 | 32.0 | 56.1 | 34.4 |
| SI | 70.4 | 42.6 | 77.5 | 51.2 | 69.7 | 13.6 | 31.6 | 15.3 | 59.1 | 40.5 | 60.5 |
| Sk | 54.4 | 35.5 | 63.1 | 45.9 | 52.1 | 11.0 | 28.5 | 22.9 | 50.8 | 33.6 | 38.1 |
| FI | 60.0 | 41.0 | 75.2 | 50.5 | 50.4 | 28.1 | 18.9 | 16.8 | 44.9 | 20.3 | 48.6 |
| SE | 62.5 | 40.7 | 60.5 | 44.8 | 43.4 | 21.9 | 24.2 | 21.1 | 33.5 | 37.9 | 47.3 |
| UK | 60.6 | 36.7 | 50.0 | 42.1 | 38.8 | 17.9 | 18.8 | 11.8 | 33.4 | 24.7 | 69.9 |
| HR |  |  |  |  |  |  |  |  |  |  |  |
| mk |  |  |  |  |  |  |  |  |  |  |  |
| TR | 47.4 | 37.9 | 54.1 | 35.7 | 44.0 | 21.0 | 27.3 | 12.0 | 43.1 | 31.8 | 32.5 |
| Is | 55.2 | 47.2 | 74.3 | 47.7 | 35.5 | 12.1 | 33.2 | 26.6 | 75.0 | 47.6 | 45.0 |
| LI |  | - |  |  | - |  |  |  | - |  |  |
| No | 63.2 | 36.0 | 65.1 | 46.5 | 46.0 | 18.0 | 23.2 | 18.6 | 55.8 | 28.0 | 63.4 |
| CH | - | - | - | - | - | - | - | - | - | - | - |
| AD | - | - | - | - | - | 9.9 | - | - | - | - | - |
| AL |  |  |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |  |  |
| Az |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |
| GE | 57.8 | 43.8 | 42.3 | 0.0 | 25.2 | 39.6 | 0.4 | 39.6 | 15.9 | 18.0 | 36.7 |
| MD |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |  |  |
| va |  |  |  |  |  |  |  |  |  |  |  |
| AU |  |  |  |  |  |  |  |  |  |  |  |
| CA |  |  |  |  |  |  |  |  |  |  |  |
| NZ |  |  |  |  |  |  |  |  |  |  |  |
| JP |  | 25.9 |  |  |  |  | 10.6 |  |  |  | 39.2 |
| us |  |  |  |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

|  | Percentage of female entrants, by field of education, ISCED 5A, 2006 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Agriculture, forestry and fishery (field 62) | Veterinary (field 64) | Health and welfare (broad group 7) | $\begin{aligned} & \text { Health } \\ & \text { (field } 7 \text { 1 } \end{aligned}$ (field 72) | Social services (field 76) | Services (broad group 8) | Personal services (field 81) | Transport services (field 84) | Environmen tal protection (field 85) | Security services (field 86) | Not known or unspecified |
| EU-27 | 44.6 | 72.6 | 75.4 | 73.8 | 81.7 | 50.7 | 59.4 | 17.8 | 47.0 | 28.8 | 46.6 |
| Bologna* | 45.8 | 74.1 | 76.8 | 76.0 | 82.9 | 49.7 | 59.0 | 16.6 | 51.7 | 22.7 | 53.5 |
| BE | 34.1 | 69.2 | 63.1 | 63.1 | 100.0 | 43.6 | 43.8 | - | 42.9 | 36.7 | 71.4 |
| BG | 47.0 | 62.3 | 66.1 | 63.3 | 74.9 | 39.7 | 49.7 | 20.7 | 57.9 | 30.1 | 47.0 |
| CZ | 56.8 | 81.0 | 75.1 | 76.8 | 72.1 | 45.4 | 57.4 | 16.2 | 53.2 | 21.0 | 22.2 |
| DK | 62.5 | 89.8 | 81.2 | 84.2 | 78.7 | 33.7 | 47.6 | - | - | 4.4 | - |
| DE | 42.2 | 84.7 | 72.4 | 67.6 | 79.9 | 50.6 | 67.4 | 23.4 | 35.3 | 29.7 | 71.7 |
| EE | 39.4 | 83.6 | 82.6 | 80.5 | 92.3 | 58.8 | 44.6 | 48.2 | 70.0 |  | - |
| IE |  |  |  |  |  |  |  |  |  |  |  |
| EL |  |  |  |  |  |  |  |  |  |  |  |
| ES | 34.4 | 66.4 | 77.1 | 76.6 | 79.4 | 57.6 | 61.1 | 17.1 | 51.7 | 6.5 | - |
| FR |  |  |  |  |  |  |  |  |  |  |  |
| IT | 39.6 | 68.4 | 67.2 | 64.8 | 89.8 | 46.1 | 47.8 | 22.9 | 47.8 | 13.4 | - |
| Cr | - | - | - | - | - | - | . | - | - | - | - |
| LV |  |  |  |  |  |  |  |  |  |  |  |
| LT | 47.1 | 72.8 | 82.9 | 80.7 | 88.9 | 42.0 | 25.8 | 13.8 | 57.2 | 4.4 | - |
| LU |  |  |  |  |  |  |  |  |  |  |  |
| HU | 42.5 | 69.5 | 76.5 | 72.4 | 83.1 | 57.1 | 71.0 | - | 48.8 | 39.9 | - |
| MT | 100.0 | - | 71.7 | 69.5 | 77.8 | 85.2 | 85.2 | - | - | - | - |
| NL | 44.8 | 75.4 | 75.5 | 72.9 | 80.1 | 50.1 | 59.2 | 14.3 | 39.6 | 23.5 | 53.5 |
| AT | 53.6 | 87.4 | 62.4 | 60.6 | 74.4 | 49.3 | 59.0 | 34.4 | 46.5 | 7.1 | 11.3 |
| PL | 46.6 | 65.3 | 75.4 | 75.4 | - | 48.0 | 59.1 | 12.1 | 41.3 | 22.7 | - |
| PT | 49.7 | 66.4 | 78.9 | 77.4 | 89.6 | 47.5 | 48.5 | 15.9 | 60.2 | 25.2 | - |
| RO | 34.4 |  | 70.3 | 70.3 |  | 43.8 | 56.0 | 7.0 |  |  | 48.2 |
| SI | 56.6 | 77.5 | 77.4 | 73.4 | 90.9 | 54.2 | 71.5 | 48.0 | 56.6 | 54.5 | - |
| SK | 34.9 | 60.8 | 82.4 | 83.9 | 81.0 | 41.4 | 61.1 | 40.1 | 53.5 | 27.7 |  |
| FI | 47.6 | 89.7 | 88.5 | 87.7 | 91.2 | 74.4 | 80.7 | 9.3 | 75.8 | 16.2 | - |
| SE | 43.4 | 74.1 | 82.1 | 81.5 | 84.6 | 53.6 | 61.2 | 14.7 | 47.8 | 47.7 | 72.0 |
| UK | 66.9 | 78.0 | 77.7 | 76.6 | 82.6 | 66.0 | 67.9 | - | 46.0 | - | 64.8 |
| HR |  |  |  |  |  |  |  |  |  |  |  |
| MK |  |  |  |  |  |  |  |  |  |  | 53.0 |
| TR | 33.4 | 29.0 | 57.4 | 60.7 | 35.9 | 41.4 | 54.7 | 10.0 | 33.6 | 8.8 | - |
| IS | 45.0 | - | 84.1 | 83.1 | 88.3 | 73.2 | 73.4 | - | 72.2 | - | - |
| LI | - | - |  | - |  | - | - | - | - | - | - |
| NO | 55.6 | 84.7 | 82.1 | 82.0 | 83.4 | 52.1 | 57.5 | 38.8 | 60.7 | 18.8 | 56.0 |
| CH | - | - | - | - | - | - |  | - | - | - | - |
| AD | - | - | - | 75.0 | - | - | - | - | - | - | - |
| AL |  |  |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |
| GE | 27.7 | 36.7 | 0.0 | 78.3 | 0.0 | 14.1 | 0.0 | 14.1 | 0.0 | 0.0 | 0.0 |
| MD |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |  |  |
| AU |  |  |  |  |  |  |  |  |  |  |  |
| CA |  |  |  |  |  |  |  |  |  |  |  |
| NZ |  |  |  |  |  |  |  |  |  |  |  |
| JP | 37.7 | 49.9 | 58.3 | 58.3 |  | 90.3 |  |  |  |  | 46.4 |
| US |  |  |  |  |  |  |  |  |  |  | 54.8 |

* 'Bologna' refers to the unweighted median of Bologna countries

Table A.2a,b: Entrants at ISCED 5A as a share of qualifying graduates of secondary schooling (ISCED 3A and 4A), 2001-2006

|  | Entrants at ISCED SA a a a share of qualifying graduates of secondary schooling (ISCED 3 3 and 4A) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2000 \\ & \text { Total } \end{aligned}$ | Females | 2001 |  |  | 2002 |  |  | 2003 |  |  | 2004 |  |  |   <br> Males $\begin{array}{l}\text { 2005 } \\ \text { Total }\end{array}$ |  | Females | Males | $2006$Total | Females | Males |
|  |  |  | Males | Total | Females | Males | Total | Females | Males | Total | Females | Males | Total | Females |  |  |  |  |  |  |  |
| EU-27 | 73.2 | 73.0 | 73.4 | 75.8 | 76.4 | 75.0 | 80.7 | 81.1 | 80.3 | 81.0 | 81.6 | 80.5 | 81.9 | 825 | 81.2 | 82.0 | 82.7 | 81.3 | 84.5 | 85.6 | 83.3 |
| Bologna* | 64.9 | 66.9 | 71.1 | 75.8 | 74.5 | 76.7 | 70.6 | 75.1 | 69.0 | 77.5 | 81.2 | 75.6 | 78.1 | 81.5 | 69.3 | 78.9 | 83.8 | 79.0 | 849 | 92.0 | 76.4 |
| $\overline{\text { BE }}$ |  |  |  | 47.1 | 44.6 | 49.8 | 47.4 | 45.2 | 49.8 | 49.3 | 47.0 | 51.9 | 51.5 | 49.2 | 54.0 | 50.2 | 53.0 | 47.2 | 51.8 | 52.1 | 51.6 |
| BG | 54.9 | 58.2 | 51.7 | 49.5 | 52.8 | 46.4 | 67.1 | 71.8 | 62.7 | 49.4 | 53.5 | 45.5 | 51.6 | 55.2 | 48.3 | 51.3 | 54.6 | 48.1 | 54.1 | 57.1 | 51.2 |
| cz | 91.7 | 80.6 | 104.2 | 53.9 | 54.5 | 53.2 | 50.0 | 43.0 | 59.1 | 45.0 | 40.7 | 50.8 | 49.3 | 45.5 | 54.3 | 53.3 | 485 | 59.5 | 63.9 | 61.8 | 66.5 |
| DK | 63.0 | 57.2 | 71.1 | 93.0 | 100.6 | 82.5 |  |  |  | 109.4 | 113.3 | 1040 | 1047 | 108.1 | 99.9 | 103.0 | 106.8 | 97.7 | 109.1 | 112.6 | 104.1 |
| DE | 71.8 | 68.1 | 75.7 | 78.9 | 75.0 | 83.1 | 84.2 | 79.3 | 89.6 | 83.5 | 81.2 | 85.9 | 82.6 | 76.2 | 89.6 | 74.8 | 68.7 | 81.6 | 70.3 | 64.9 | 76.4 |
| EE | 99.1 | 99.2 | 99.0 | 92.1 | 99.6 | 83.1 | 82.9 | 87.6 | 76.9 | 77.5 | 86.0 | 67.2 | 78.1 | 89.9 | 64.3 | 72.9 | 81.9 | 62.3 | 53.5 | 59.0 | 47.1 |
| ${ }^{1}$ | 34.9 | 35.3 | 34.5 | 45.0 | 47.0 | 42.8 | 47.0 | 49.2 | 44.6 | 47.4 | 49.5 | 45.0 | 50.9 | 53.4 | 48.1 | 52.4 | 55.2 | 49.2 | 48.2 | 497 | 46.5 |
| EL |  |  |  |  |  |  |  |  |  |  |  |  | 58.1 | 57.1 | 59.3 | 73.3 | 71.2 | 75.9 | 84.9 | 92.0 | 76.3 |
| es | 95.0 | 95.1 | 94.8 | 1023 | 100.0 | 105.2 | 1088 | 106.6 | 111.6 | 1149 | 112.6 | 118.1 | 111.6 | 109.6 | 114.5 | 111.0 | 1083 | 114.7 | 1095 | 107.2 | 112.7 |
| fr |  |  |  | 72.7 | 74.1 | 70.9 |  |  |  | 74.1 | 76.8 | 70.9 |  |  |  |  |  |  |  |  |  |
| $1{ }^{19}$ | 63.7 | 66.9 | 60.2 | 63.5 | 675 | 59.0 | 72.6 | 78.4 | 66.5 |  |  |  | 75.5 | 81.5 | 69.3 | 77.9 | 84.8 | 70.8 | 75.7 | 823 | 68.9 |
| cr | 8.2 | 11.7 | 4.2 | 8.3 | 12.5 | 3.8 | 8.6 | 13.6 | 3.4 | 9.9 | 14.9 | 4.7 | 10.1 | 14.8 | 5.1 | 10.0 | 14.9 | 4.9 | 13.3 | 18.2 | 8.2 |
| เv | 139.2 |  |  | 109.1 |  |  | 110.0 |  |  | 127.4 |  |  | 1543 |  |  | 136.7 |  |  | 130.8 |  |  |
| เt | 62.8 | 65.1 | 59.8 | 64.9 | 67.8 | 61.2 | 65.2 | 69.8 | 59.9 | 64.5 | 71.1 | 57.1 | 66.8 | 72.8 | 59.9 | 64.5 | 70.0 | 58.3 | 63.6 | 65.9 | 61.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ни | 103.1 | 100.6 | 106.1 | 89.8 | 899 | 89.8 | 97.7 | 97.0 | 98.5 | 121.1 | 119.7 | 122.9 | 102.4 | 101.2 | 103.9 | 105.5 | 110.4 | 99.6 | 99.4 | 98.1 | 101.0 |
| мт |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 194.9 | 170.1 | 238.6 | 81.4 | 90.6 | 72.0 |
| NL | 90.2 | 87.6 | 93.0 | 94.2 | 90.1 | 99.0 | 89.6 | 88.0 | 91.3 | 95.8 | 92.4 | 99.9 | 98.4 | 95.9 | 101.5 | 101.8 | 98.7 | 105.6 | 97.2 | 943 | 100.6 |
| ${ }^{\text {at }}$ |  |  |  | 935 | 89.0 | 99.2 |  |  |  | 97.9 | 91.7 | 106.1 |  |  |  | 96.2 | 88.9 | 106.5 | 101.2 | 94.9 | 109.6 |
| PL | 90.1 |  |  | 89.4 |  |  | 90.2 |  |  | 91.1 |  |  | 823 | 823 | 82.3 | 87.8 | 88.7 | 86.8 | 94.7 | 96.0 | 93.3 |
| PT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 105.5 | 1053 | 1058 |
| Ro | 64.9 | 62.1 | 68.3 | 93.0 | 92.5 | 93.7 | 94.7 | 92.8 | 96.9 | 76.5 | 77.2 | 75.6 | 1018 | 104.0 | 99.3 | 98.5 | 96.5 | 1009 | 118.4 | 118.8 | 117.9 |
| sı | 90.5 | 89.6 | 91.9 | 1015 | 1025 | 99.9 | 124.4 | 124.5 | 124.4 | 1143 | 111.7 | 117.9 | 105.3 | 103.0 | 108.6 | 114.6 | 110.6 | 120.6 | 1215 | 124.8 | 116.5 |
| sk | 50.1 | 43.3 | 58.5 | 60.7 | 53.8 | 68.8 | 68.6 | 65.9 | 71.5 | 86.8 | 83.6 | 90.3 | 67.4 | 66.5 | 68.5 | 79.9 | 829 | 76.5 | 90.5 | 992 | 80.9 |
| FI | 56.8 | 57.4 | 56.0 | 58.1 | 58.4 | 57.7 | 57.3 | 56.3 | 58.6 | 58.0 | 56.2 | 60.4 |  |  |  | 56.2 | 56.3 | 56.2 | 57.3 | 58.6 | 55.7 |
| SE | 95.2 | 111.4 | 78.7 | 105.4 | 123.1 | 86.8 | 1129 | 133.6 | 91.5 | 115.6 | 137.1 | 93.7 | 107.6 | 125.4 | 89.3 | 99.7 | 112.8 | 86.2 | 100.2 | 111.6 | 88.5 |
| $\frac{\mathrm{UK}}{\mathrm{HR}}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 689 |  |  |
| мк | 48.6 | 51.1 | 45.8 | 48.8 | 52.6 | 44.8 | 57.2 | 57.1 | 573 | 48.6 | 51.2 | 45.8 | 43.0 | 47.9 | 38.1 | 47.5 | 52.0 | 43.0 | 46.9 | 50.6 | 43.3 |
| TR | 55.6 | 52.0 | 58.5 | 56.0 | 55.5 | 56.5 | 64.1 | 61.3 | 66.3 | 59.5 | 56.9 | 61.6 | 48.9 | 46.1 | 51.2 | 58.7 | 56.7 | 60.4 | 57.0 | 55.8 | 58.0 |
| 15 | 1305 | 134.6 | 124.1 | 125.3 | 132.9 | 113.3 | 13.7 | 139.4 | 130.0 | 142.9 | 145.4 | 138.8 | 1295 | 132.7 | 124.2 | 136.2 | 145.2 | 122.8 | 1309 | 134.6 | 125.6 |
| ${ }^{\text {L }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 91.8 | 96.2 | 85.5 | 89.1 | 90.8 | 86.6 |  |  |  | 122.4 | 123.0 | 121.7 | 109.1 | 107.8 | 110.7 | 126.5 | 124.4 | 129.5 | 121.1 | 123.3 | 118.0 |
| CH |  |  |  |  |  |  | 117.3 | 106.3 | 128.5 | 119.6 | 109.6 | 130.2 | 131.3 | 119.4 | 144.7 | 123.2 | 119.6 | 127.2 | 126.8 | 120.7 | 133.3 |
| AD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AL ${ }_{\text {AM }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }_{\text {Az }}^{\text {AM }}$ |  |  |  |  |  |  | 47.9 | 46.4 | 47.9 | 48.8 | 48.7 | 48.8 | 52.3 | 52.2 | 52.4 | 55.9 | 53.4 | 58.7 | 58.9 | 585 | 59.3 |
| BA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }_{\text {M }}^{\text {GE }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RU | 98.1 |  |  | 98.1 |  |  | 1097 |  |  | 111.1 |  |  | 118.2 |  |  | 117.3 |  |  | 122.9 |  |  |
| UA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| au | 89.5 | 93.0 | 85.5 | 975 | 99.9 | 94.9 | 11.1 | 114.8 | 109.1 | 98.9 | 98.3 | 995 | 1023 | 1015 | 103.2 | 121.6 | 124.7 | 118.0 | 125.5 | 129.8 | 120.6 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nz | 110.5 | 126.9 | 92.9 |  |  | 101.4 | 105.2 | 117.6 | 91.1 | 120.5 | 135.5 | 103.8 |  |  |  |  |  |  |  |  |  |
| JP |  |  |  | 58.5 | 44.2 | 73.7 | 60.3 | 47.4 | 73.9 | 61.9 | 49.8 | 74.7 | 63.2 | 50.9 | 76.1 | 63.9 | 51.1 | 77.4 | 65.5 | 52.9 | 78.6 |
| us |  |  |  |  |  |  | 86.4 | 91.2 | 81.5 | 86.1 | 947 | 77.6 | 843 | 90.3 | 78.0 |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

Table A.3a: Students with non-traditional routes to higher education as a share of all ISCED 5A students, narrow definition, 2005-2008

|  | Students with a non-traditional route to higher education, as a <br> percentage of all ISCED 5A sudents |
| :--- | :---: |
| BG |  |
| CZ |  |
| DE | 1.4 |
| EE | 11.0 |
| IE | 7.9 |
| ES | 9.1 |
| FR |  |
| IT |  |
| LV |  |
| LT |  |
| NL |  |
| AT |  |
| PT | 6.9 |
| RO | 6.1 |
| SI |  |
| SK |  |
| FI |  |
| SE | 6.1 |
| E/W | 14.6 |
| SCO | 10.8 |
| TR | 8.1 |
| NO | 8.7 |
| CH |  |

Definition: Accreditation of formal or informal prior learning and experience (with or without special entrance examination)

Table A.4a,b: Percentage of students studying part-time, by age group (15-29, 30+, all), ISCED 5A, 2000-2006

|  | Percentage of students studying part-time, by age group (all, 15-29, 30), , ICED 5A, $2000-2006$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2000 |  | 2001 |  |  | 2002 |  |  | 2003 |  |  | 2004 |  |  | ${ }_{30+} \quad \begin{gathered}\text { 2005 } \\ \text { all }\end{gathered}$ |  | 2006 |  |  |  |  |
|  | all | 15-29 | 30+ | all | 15-29 | $30+$ | all | 15-29 | $30+$ | all | 15-29 | 30+ | all | 15-29 |  |  | 15-29 | 30+ | all | 15-29 | 30+ |
| EU-27 | 13.9 | 10.6 | 42.0 | 14.9 | 11.3 | 46.7 | 15.9 | 11.9 | 45.9 | 15.9 | 11.7 | 45.4 | 15.9 | 11.4 | 47.1 | 16.5 | 11.6 | 48.6 | 17.6 | 12.5 | 53.8 |
| Bologna* | 145 | 9.3 | 45.8 | 17.6 | 10.4 | 56.0 | 17.7 | 12.1 | 60.2 | 16.9 | 10.8 | 56.2 | 17.1 | 10.8 | 56.0 | 16.2 | 11.3 | 53.1 | 178 | 10.9 | 49.9 |
| BE | 3.9 | 2.7 | 19.4 | 3.1 | 2.1 | 18.4 | 3.7 | 2.6 | 20.7 | 3.8 | 2.5 | 21.0 | 5.8 | 4.1 | 26.8 | 6.8 | 5.1 | 27.7 | 12.9 | 11.1 | ${ }^{36.3}$ |
| BG | 32.2 | 29.6 | 76.2 | 30.7 | 27.2 | 76.8 | 28.2 | 24.2 | 73.5 | 29.7 | 25.3 | 76.2 | 30.0 | 25.2 | 79.7 | 29.4 | 24.6 | 79.6 | 29.6 | 24.4 | 80.1 |
| cz | 8.2 | 7.7 | 16.9 | 8.0 | 7.4 | 16.9 | 11.7 | 10.8 | 24.1 | 3.7 | 2.1 | 19.8 | 4.4 | 25 | 21.1 | 4.2 | 2.5 | 17.9 | 42 | 2.0 | 18.5 |
| DK | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.3 | 5.4 | 7.2 | 1.9 | 21.0 | 7.9 | 1.5 | 23.4 |
| DE | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.8 | 1.9 | 14.7 | 4.0 | 1.9 | 15.8 |
| EE | 20.9 | 17.2 |  | 23.4 | 17.9 |  | 25.3 | 18.0 |  | 14.8 | 8.3 |  | 17.3 | 9.6 |  | 19.3 | 11.0 | 55.4 | 11.5 | 7.4 | 28.8 |
| 1 E | 13.0 | 10.7 | 62.4 | 17.0 | 11.6 | 56.0 | 15.3 |  |  | 15.9 |  |  | 15.9 |  |  | 15.7 |  |  | 16.6 |  |  |
| EL | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  |
| es | 8.7 | 4.5 | 45.5 | 9.3 | 4.6 | 50.7 | 10.1 | 4.9 | 51.5 | 10.7 | 4.9 | 51.1 | 11.7 | 5.2 | 52.6 | 11.3 | 4.6 | 49.4 | 12.1 | 4.9 | 49.9 |
| fr | 0.0 | 0.0 |  | 0.0 | 0.0 |  | -2.5 | -1.1 |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| $\pi$ | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  |
| Cr | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| เv | 43.2 | 30.9 | 83.5 | 43.4 | 28.9 | 82.5 | 40.3 | 25.2 | 79.6 | 41.4 | 25.8 | 76.8 | 32.8 | 21.3 | 65.1 | 35.8 | 18.6 | 70.7 | 37.6 | 19.8 | 73.5 |
| ${ }_{\text {LT }}$ | 23.7 | 19.9 | 74.4 | 27.6 | 23.0 | 78.9 | 32.4 | 25.3 | 85.4 | 35.5 | 27.4 | 85.8 | 37.4 | 27.8 | 893 | 39.8 | 29.2 | 90.7 | 40.4 | 29.9 | 91.7 |
| Lu | 0.0 |  |  | 0.0 |  |  | 7.1 |  |  | 0.0 |  |  |  |  |  |  |  |  |  |  |  |
| ни | 42.7 | 35.1 |  | 44.3 | 35.3 | 95.2 | 45.4 | 36.2 | 95.0 | 47.4 | 37.4 | 95.9 | 47.9 | 36.8 | 95.7 | 47.4 | 35.3 | 95.6 | 46.3 | 33.1 | 95.0 |
| мт | 6.3 | 2.0 | 45.8 | 8.4 | 4.2 |  | 10.2 | 4.8 | 60.3 | 0.0 | 0.0 |  | 11.2 | 6.3 | 52.0 | 10.3 | 2.2 | 67.7 | 193 | 9.7 | 71.1 |
| nL | 16.6 | 6.9 | 81.6 | 17.3 | 7.3 | 81.5 | 17.7 | 7.5 | 80.1 | 17.4 | 7.4 | 78.7 | 17.5 | 7.4 | 79.2 | 16.7 | 6.9 | 78.4 | 15.5 | 6.5 | 76.9 |
| ${ }_{\text {at }}$ | 0.0 | 0.0 | 0.0 |  |  |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| PL | 46.8 | 45.1 | 93.9 | 46.9 | 46.0 | 93.6 | 43.9 | 42.3 |  | 42.9 | 40.7 |  | 41.3 | 38.7 |  | 40.0 | 37.4 |  | 45.2 | 42.5 |  |
| PT |  |  |  |  |  |  |  |  |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R0 | 14.5 | 12.9 |  | 19.5 | 17.1 |  | 21.3 | 18.8 |  | 22.0 | 19.3 |  | 20.9 | 183 |  | 21.6 | 18.9 |  | 24.4 | 21.5 |  |
| 51 | 18.5 | 12.8 | 82.2 | 17.8 | 12.7 | 81.3 | 19.7 | 13.9 | 85.5 | 18.6 | 13.8 | 82.5 | 18.3 | 13.5 | 81.9 | 19.1 | 12.9 | 83.6 | 23.1 | 15.9 | 86.7 |
| sk | 25.4 | 21.2 | 96.2 | 26.9 | 22.3 | 96.5 | 29.7 | 25.2 | 95.8 | 28.4 | 23.3 | 95.2 | 32.4 | 25.4 | 96.3 | 34.0 | 25.1 | 96.9 | 36.3 | 25.4 | 97.2 |
| F1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 36.5 | 29.1 | 60.2 | 38.8 | 32.1 | 61.8 | 38.9 | 32.3 | 60.8 | 39.5 | 32.6 | 62.1 | 38.4 | 31.2 | 61.6 |
| SE | 44.5 | 36.1 | 63.4 | 44.7 | 35.8 | 63.8 | 45.8 | 36.3 | 65.2 | 47.6 | 37.4 | 67.0 | 48.3 | 38.1 | 67.5 | 49.2 | 39.4 | 68.1 | 50.5 | 40.4 | 70.5 |
| uk | 225 | 9.3 | 68.8 | 22.3 | 9.2 | 69.2 | 25.6 | 11.2 | 72.7 | 24.8 | 10.8 | 71.3 | 27.7 | 12.0 | 74.5 | 27.4 | 12.2 | 74.3 | 27.3 | 12.4 | 74.2 |
| HR |  |  |  |  |  |  |  |  |  | 21.2 | 17.7 |  | 21.3 | 17.8 | 83.3 | 21.8 | 18.1 | 83.9 | 19.5 | 16.4 | 80.4 |
| мк | 175 |  |  | 20.2 |  |  | 17.3 |  |  | 16.5 |  |  | 15.9 |  |  | 15.6 |  |  | 14.1 |  |  |
| TR | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 19.1 | 11.0 | 44.1 | 20.7 | 12.7 | 43.6 | 23.6 | 13.0 | 49.9 | 26.2 | 14.3 | 51.7 | 24.9 | 12.8 | 47.4 | 23.6 | 11.6 | 445 | 21.5 | 10.8 | 39.8 |
| $\stackrel{1}{ }$ |  |  |  |  |  |  |  |  |  | 94.5 | 94.2 | 95.3 | 100.0 | 100.0 | 100.0 | 28.1 | 17.3 | 56.6 | 22.2 | 15.0 | 48.5 |
| No | 26.8 | 21.5 | 41.0 | 26.3 | 19.2 | 42.4 | 32.0 | 22.4 | 51.4 | 28.4 | 16.8 | 51.8 | 28.0 | 17.6 | 48.8 | 28.3 | 17.3 | 50.9 | 27.7 | 16.5 | 51.1 |
| СН |  |  |  |  |  |  | 10.0 | 5.3 | 32.5 | 10.7 | 5.6 | 34.8 | 10.8 | 5.7 | 35.1 | 10.9 | 5.7 | 35.7 | 10.7 | 5.8 | 33.9 |
| AD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }_{\text {a }}$ |  |  |  |  |  |  | 7.1 |  |  | 6.9 |  |  | 9.9 |  |  | 15.5 |  |  | 19.0 |  |  |
| Az |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GE | 21.5 | 19.7 | 67.0 | 18.2 | 17.5 | 68.4 | 19.6 | 18.2 | 65.7 | 18.6 | 17.4 | 60.7 | 16.9 | 15.8 | 59.3 | 13.4 | 12.5 | 42.7 | 11.8 | 11.4 | 29.2 |
| me |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  | 46.9 |  |  | 42.0 |  |  | 43.8 |  |  | 44.9 |  |  | 45.1 |  |  |
| $\begin{aligned} & \text { UA } \\ & \text { VA } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| va |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| au | 37.8 | 26.4 | 74.1 | 38.9 | 27.6 | 74.6 | 34.3 | 21.5 | 71.4 | 32.8 | 20.0 | 70.1 | 32.2 | 19.7 | 70.0 | 31.4 | 19.0 | 69.8 | 31.2 | 19.1 | 69.8 |
| CA | 32.4 | 22.0 | 71.5 | 32.3 | 22.1 | 71.2 |  |  |  |  |  |  | 30.5 | 20.9 | 69.3 | 25.8 | 16.9 | 66.1 | 25.9 | 16.9 | 65.6 |
| Nz | 30.5 | 16.3 | 64.1 | 30.5 | 16.0 | 64.3 | 29.6 | 16.0 | 62.9 | 44.6 | 33.6 | 71.9 | 497 | 37.7 | 76.7 | 40.8 | 27.4 | 72.6 | 40.7 | 28.0 | 72.5 |
| JP | 9.6 |  |  | 9.6 |  |  | 9.6 |  |  | 9.7 |  |  | 10.3 |  |  | 10.3 |  |  | 11.6 |  |  |
| us | 35.1 | 23.6 | 74.9 | 36.9 | 33.2 | 51.5 | 24.3 | 14.8 | 63.1 | 35.8 | 22.3 | 73.1 | 35.6 | 24.8 | 72.6 | 35.3 | 26.0 | 68.8 | 35.0 | 26.0 | 66.6 |

* 'Bologna' refers to the unweighted median of Bologna countries

Table A.4c: De facto student status: students with full-time status by size of effective workload for studyrelated activities per week, 2005-2008

|  | Full-time students (in \%) by study-related activities (hrs/wk), only students with formal status as full-time |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | up to $10 \mathrm{~h} / \mathrm{w}$ | $11-20 \mathrm{~h} / \mathrm{w}$ | 21-30 h/w | $>30 \mathrm{~h} / \mathrm{w}$ |
| BG | 3.9 | 8.0 | 19.6 | 68.5 |
| CZ | 7.7 | 16.6 | 26.7 | 49.0 |
| DE | 6.0 | 11.5 | 23.8 | 58.6 |
| EE | 18.0 | 25.6 | 24.9 | 31.5 |
| IE | 1.3 | 12.8 | 35.1 | 50.8 |
| ES | 8.4 | 14.1 | 23.0 | 54.6 |
| FR | 10.0 | 12.7 | 20.7 | 56.6 |
| IT | 2.7 | 15.0 | 25.8 | 56.5 |
| LV | 6.0 | 23.6 | 31.1 | 39.3 |
| LT |  |  |  |  |
| NL | 4.8 | 15.2 | 24.5 | 55.5 |
| AT | 6.2 | 13.7 | 23.3 | 56.7 |
| PT | 1.6 | 3.4 | 17.3 | 77.7 |
| RO | 1.1 | 6.8 | 16.1 | 76.0 |
| SI | 7.3 | 15.8 | 19.7 | 57.2 |
| SK | 11.0 | 22.6 | 28.5 | 37.9 |
| FI | 16.4 | 16.8 | 22.1 | 44.7 |
| SE | 3.1 | 13.0 | 24.9 | 59.0 |
| E/W |  |  |  |  |
| SCO |  |  |  |  |
| TR | 1.5 | 8.4 | 23.0 | 67.0 |
| NO | 4.0 | 13.9 | 28.2 | 53.9 |
| CH | 5.0 | 9.0 | 17.0 | 69.0 |

Table A.5a: Percentage of individuals (aged 25 and over) having completed higher education, according to the educational background of their parents (low, medium, high), by sex, 2005

|  | Percentage of individuals ( 25 y . and over) having completed higher education, according to the educational background of their parents, 2005 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High |  |  | Medium |  |  | Low |  |  |
|  | Total | Female | Male | Total | Female | Male | Total | Female | Male |
| EU-25 | 62.5 | 61.9 | 63.2 | 31.7 | 29.9 | 33.6 | 16.5 | 16.4 | 16.7 |
| BE | 78.2 | 80.4 | 75.8 | 50.2 | 51.5 | 48.8 | 21.4 | 20.5 | 22.3 |
| CZ | 50.9 | 46.4 | 55.4 | 11.4 | 10.5 | 12.3 | 4.4 | 2.8 | 6.1 |
| DK | 53.6 | 60.7 | 47.6 | 26.8 | 29.3 | 24.2 | 19.0 | 21.8 | 16.2 |
| DE | 57.6 | 54.1 | 61.6 | 34.7 | 26.9 | 42.7 | 27.0 | 22.3 | 31.9 |
| EE | 54.0 | 61.0 | 46.5 | 30.7 | 38.8 | 21.2 | 18.8 | 24.0 | 12.7 |
| IE | 76.7 | 73.7 | 80.2 | 54.9 | 53.2 | 57.0 | 20.6 | 19.6 | 22.2 |
| EL | 63.8 | 61.8 | 66.0 | 42.7 | 43.4 | 42.0 | 15.3 | 15.0 | 15.6 |
| ES | 71.2 | 72.3 | 70.1 | 49.6 | 51.8 | 47.2 | 21.1 | 20.8 | 21.3 |
| FR | 70.8 | 73.2 | 68.2 | 47.1 | 48.3 | 45.8 | 19.8 | 20.4 | 19.1 |
| IT | 60.7 | 59.2 | 62.3 | 32.6 | 33.1 | 32.0 | 7.7 | 7.5 | 7.9 |
| CY | 79.4 | 77.6 | 81.6 | 52.0 | 51.3 | 52.7 | 18.7 | 16.9 | 20.6 |
| LV | 52.6 | 60.1 | 44.3 | 23.0 | 31.2 | 13.5 | 9.5 | 11.1 | 7.6 |
| LT | 62.2 | 70.7 | 53.4 | 29.9 | 36.6 | 22.8 | 15.3 | 17.6 | 12.6 |
| LU | 78.0 | 77.9 | 78.1 | 31.2 | 27.9 | 34.6 | 11.1 | 9.5 | 12.7 |
| HU | 57.6 | 61.0 | 54.4 | 18.7 | 20.8 | 16.6 | 6.1 | 5.5 | 6.7 |
| MT | 43.9 | 36.3 | 50.6 | 27.9 | 35.6 | 21.0 | 6.7 | 5.1 | 8.2 |
| NL | 68.0 | 63.8 | 72.1 | 41.4 | 38.2 | 44.8 | 22.9 | 17.7 | 28.4 |
| AT | 54.4 | 57.4 | 50.9 | 25.3 | 21.2 | 29.3 | 12.7 | 8.6 | 16.9 |
| PL | 66.6 | 72.4 | 60.5 | 22.1 | 25.9 | 18.3 | 6.2 | 7.0 | 5.4 |
| PT | 61.4 | 67.9 | 54.4 | 53.7 | 60.3 | 46.1 | 10.2 | 12.6 | 7.8 |
| SI | 42.4 | 47.6 | 37.4 | 19.3 | 22.7 | 15.9 | 4.4 | 4.4 | 4.3 |
| SK | 51.2 | 54.8 | 47.4 | 18.3 | 18.6 | 18.1 | 7.5 | 6.4 | 8.9 |
| FI | 57.9 | 66.1 | 50.3 | 39.7 | 46.8 | 32.4 | 25.6 | 28.9 | 22.2 |
| SE | 59.1 | 62.1 | 56.3 | 45.1 | 49.1 | 40.8 | 22.6 | 28.3 | 17.2 |
| UK | 67.3 | 68.9 | 65.5 | 42.5 | 42.3 | 42.8 | 26.9 | 27.6 | 26.1 |
| IS | 52.5 | 56.8 | 48.4 | 27.5 | 30.5 | 24.3 | 12.5 | 14.3 | 10.9 |
| NO | 54.9 | 54.8 | 54.9 | 30.8 | 34.1 | 27.8 | 16.3 | 15.4 | 17.2 |

Table A.5b: Percentage of individuals (aged 25-34, 35-44, 45-54) having completed higher education, according to the educational background of their parents (low, medium, high), 2005

|  | Percentage of individuals (25-34, 35-44, 45-54, 55-64 y.) having completed higher education, according to the educational background of their parent, 2005 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | High |  |  |  |  | Medium |  |  |  |  | Low |  |  |
|  | Total | 25-34 | 35-44 | 45-54 | 55-64 | Total | 25-34 | 35-44 | 45-54 | 55-64 | Total | 25-34 | 35-44 | 45-54 | 55-64 |
| EU-25 | 62.5 | 60.9 | 63.1 | 66.9 | 60.1 | 31.7 | 30.3 | 31.9 | 33.8 | 31.3 | 16.5 | 22.9 | 17.5 | 14.9 | 12.5 |
| BE | 78.2 | 82.3 | 76.8 | 73.7 | 77.2 | 50.2 | 51.2 | 51.0 | 46.3 | 52.7 | 21.4 | 26.2 | 23.7 | 20.4 | 17.3 |
| CZ | 50.9 | 48.6 | 53.7 | 49.9 | 54.2 | 11.4 | 10.1 | 14.2 | 12.8 | 8.3 | 4.4 | 2.5 | 3.5 | 5.7 | 4.6 |
| DK | 53.6 | 53.4 | 49.4 | 57.0 | 70.9 | 26.8 | 28.9 | 27.7 | 30.5 | 18.9 | 19.0 | 20.3 | 19.8 | 22.3 | 15.4 |
| DE | 57.6 | 45.1 | 60.5 | 68.5 | 59.6 | 34.7 | 27.3 | 35.0 | 39.0 | 35.2 | 27.0 | 15.4 | 23.1 | 31.8 | 29.4 |
| EE | 54.0 | 48.0 | 52.6 | 63.0 | 70.4 | 30.6 | 23.7 | 32.1 | 32.9 | 38.3 | 18.8 | 4.6 | 16.7 | 20.1 | 22.0 |
| IE | 76.7 | 77.0 | 83.0 | 71.2 | 69.4 | 54.9 | 60.0 | 47.6 | 55.9 | 54.4 | 20.6 | 37.0 | 21.0 | 16.1 | 12.8 |
| EL | 63.8 | 63.0 | 71.2 | 51.3 | 67.2 | 42.7 | 39.3 | 47.9 | 49.6 | 37.0 | 15.3 | 18.1 | 18.9 | 13.6 | 10.6 |
| ES | 71.2 | 73.0 | 73.6 | 68.2 | 60.5 | 49.6 | 54.3 | 48.1 | 46.4 | 38.2 | 21.1 | 31.6 | 22.1 | 15.4 | 10.9 |
| FR | 70.8 | 78.9 | 63.4 | 72.9 | 57.9 | 47.1 | 54.0 | 45.3 | 38.6 | 40.4 | 19.8 | 32.1 | 21.7 | 15.6 | 11.6 |
| IT | 60.7 | 60.2 | 62.2 | 59.6 | 61.2 | 32.6 | 28.8 | 31.0 | 45.7 | 34.7 | 7.7 | 9.1 | 8.4 | 7.8 | 5.5 |
| CY | 79.4 | 79.2 | 80.7 | 78.4 | 78.1 | 52.0 | 51.6 | 51.1 | 60.8 | 44.9 | 18.7 | 25.6 | 19.1 | 17.8 | 14.1 |
| LV | 52.6 | 44.3 | 53.9 | 59.4 | 64.0 | 23.0 | 19.0 | 21.6 | 27.4 | 33.6 | 9.5 | 8.5 | 8.4 | 9.3 | 10.6 |
| LT | 62.2 | 65.0 | 55.7 | 68.8 | 59.5 | 29.9 | 29.0 | 25.8 | 38.2 | 39.0 | 15.3 | 15.3 | 10.7 | 18.4 | 16.3 |
| LU | 78.0 | 81.2 | 78.4 | 73.9 | 69.0 | 31.2 | 39.0 | 27.3 | 26.2 | 36.8 | 11.1 | 14.3 | 12.0 | 9.2 | 10.0 |
| HU | 57.6 | 55.0 | 62.8 | 55.4 | 59.9 | 18.7 | 16.9 | 21.7 | 17.8 | 20.4 | 6.1 | 2.9 | 4.2 | 6.1 | 8.8 |
| MT | 43.9 | 53.6 | 42.8 | 32.6 | 30.1 | 27.9 | 36.1 | 24.8 | 24.6 | 8.0 | 6.7 | 10.0 | 6.8 | 5.5 | 4.6 |
| NL | 68.0 | 67.8 | 68.2 | 68.4 | 68.6 | 41.4 | 41.8 | 39.3 | 40.3 | 48.1 | 22.9 | 30.2 | 24.8 | 22.4 | 18.0 |
| AT | 54.4 | 53.0 | 55.4 | 59.9 | 50.9 | 25.3 | 26.2 | 26.1 | 24.8 | 22.8 | 12.7 | 13.0 | 15.3 | 11.9 | 10.6 |
| PL | 66.6 | 73.6 | 60.1 | 59.6 | 61.0 | 22.1 | 25.1 | 19.6 | 18.6 | 21.8 | 6.2 | 8.5 | 5.7 | 5.4 | 7.0 |
| PT | 61.4 | 60.2 | 59.3 | 67.7 | 72.6 | 53.7 | 49.2 | 42.9 | 68.0 | 70.5 | 10.2 | 15.4 | 8.3 | 8.9 | 7.2 |
| SI | 42.4 | 33.1 | 58.9 | 51.2 | 43.1 | 19.3 | 23.4 | 19.2 | 16.3 | 13.2 | 4.4 | 6.5 | 4.6 | 3.7 | 3.8 |
| SK | 51.2 | 45.4 | 49.0 | 62.4 | 62.5 | 18.3 | 16.0 | 16.4 | 23.3 | 20.0 | 7.5 | 4.2 | 6.2 | 7.6 | 8.8 |
| FI | 57.9 | 52.1 | 67.3 | 63.9 | 76.4 | 39.7 | 38.2 | 36.9 | 46.9 | 58.7 | 25.6 | 25.6 | 28.9 | 27.1 | 22.7 |
| SE | 59.1 | 58.7 | 58.5 | 56.7 | 66.7 | 45.1 | 44.4 | 47.7 | 49.1 | 43.8 | 22.6 | 26.0 | 21.1 | 22.9 | 21.2 |
| UK | 67.3 | 73.3 | 65.8 | 67.2 | 55.2 | 42.5 | 50.2 | 41.9 | 43.9 | 33.7 | 26.9 | 38.0 | 30.3 | 26.2 | 18.8 |
| IS | 52.5 | 50.6 | 50.7 | 56.5 | 65.6 | 27.4 | 29.3 | 27.1 | 32.7 | 14.8 | 12.5 | 14.1 | 14.4 | 14.4 | 6.3 |
| NO | 54.9 | 56.0 | 51.6 | 59.4 | 52.5 | 30.8 | 30.6 | 29.8 | 30.6 | 32.7 | 16.3 | 21.9 | 22.7 | 15.4 | 10.5 |

## B. Study framework

Table B.1a,b,e: Annual public expenditure allocated to tertiary education, as a percentage of GDP and of total public expenditure - 2001-2005

|  | Annual public expenditure on tertiary education as a \% of GDP |  |  |  |  |  |  |  |  |  | Annual public expenditure on tertiary education as a \% of total public expenditure |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2001 |  | 2002 |  | 2003 |  | 2004 |  | 2005 |  | 2001 |  | 2002 |  | 2003 |  | 2004 |  | 2005 |  |
| EU-27 | 1.08 |  | 1.14 |  | 1.14 |  | 1.13 |  | 1.15 |  | 2.35 |  | 2.46 |  | 2.43 |  | 2.43 |  | 2.48 |  |
| Bologna * | 1.09 |  | 1.16 |  | 1.10 |  | 1.12 |  | 1.14 |  | 2.59 |  | 2.57 |  | 2.55 |  | 2.66 |  | 2.77 |  |
| BE | 1.34 | i | 1.33 | i | 1.31 | i | 1.29 | i | 1.29 | i | 2.73 | i | 2.67 | i | 2.57 | i | 2.63 | i | 2.62 | i |
| BG | 0.82 |  | 0.83 |  | 0.83 |  | 0.80 |  | 0.76 |  |  |  | 2.09 |  | 2.07 |  | 2.02 |  | 1.92 |  |
| CZ | 0.79 |  | 0.86 |  | 0.94 |  | 0.94 |  | 0.89 |  | 1.78 |  | 1.87 |  | 1.98 |  | 2.08 |  | 1.99 |  |
| DK | 2.71 | i | 2.70 | i | 2.50 | i | 2.51 | i | 2.38 | i | 4.94 | , | 4.89 | i | 4.49 |  | 4.56 |  | 4.46 | i |
| DE | 1.10 |  | 1.16 |  | 1.19 |  | 1.16 |  | 1.14 |  | 2.31 |  | 2.41 |  | 2.46 |  | 2.46 |  | 2.43 |  |
| EE | 1.03 |  | 1.08 |  | 1.02 |  | 0.87 |  | 0.92 |  | 2.95 |  | 3.03 |  | 2.95 |  | 2.54 |  | 2.76 |  |
| IE | 1.22 |  | 1.18 |  | 1.09 | i | 1.11 | i | 1.11 | i | 3.66 |  | 3.53 |  | 3.26 |  | 3.27 |  | 3.25 |  |
| EL | 1.06 | i | 1.15 | i | 1.11 | i | 1.33 | i | 1.44 | i | 2.36 | i | 2.57 | i | 2.46 | i | 2.93 | i | 3.32 |  |
| ES | 0.97 |  | 0.97 |  | 0.99 | i | 0.97 | i | 0.95 | i | 2.50 |  | 2.50 |  | 2.59 |  | 2.50 |  | 2.46 |  |
| FR | 1.21 |  | 1.22 |  | 1.23 |  | 1.21 |  | 1.19 |  | 2.34 |  | 2.32 |  | 2.30 |  | 2.27 |  | 2.23 |  |
| IT | 0.80 |  | 0.85 |  | 0.78 |  | 0.77 |  | 0.76 |  | 1.66 |  | 1.80 |  | 1.61 |  | 1.62 |  | 1.59 |  |
| CY | 1.14 | i | 1.38 | i | 1.55 | i | 1.48 | i | 1.58 | i | 2.99 | i | 3.43 | i | 3.44 | i | 3.45 | i | 3.63 | i |
| LV | 0.89 |  | 0.85 |  | 0.74 |  | 0.68 |  | 0.88 |  | 2.59 |  | 2.37 |  | 2.12 |  | 1.91 |  | 2.47 |  |
| LT | 1.34 |  | 1.41 |  | 1.00 | i | 1.06 | i | 1.04 | i | 3.63 |  | 4.04 |  | 3.00 | i | 3.19 | i | 3.09 | i |
| LU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HU | 1.08 |  | 1.22 |  | 1.21 |  | 1.02 |  | 1.03 |  | 2.29 |  | 2.38 |  | 2.47 |  | 2.08 |  | 2.06 |  |
| MT | 0.88 |  | 0.90 |  | 0.81 |  | 0.53 |  | 1.07 | b | 2.04 |  | 2.09 |  | 1.70 |  | 1.17 |  | 2.38 | b |
| NL | 1.27 |  | 1.26 |  | 1.33 |  | 1.35 |  | 1.37 |  | 2.79 |  | 2.73 |  | 2.82 |  | 2.93 |  | 3.04 |  |
| AT | 1.35 |  | 1.28 |  | 1.29 |  | 1.42 |  | 1.48 |  | 2.65 |  | 2.52 |  | 2.53 |  | 2.83 |  | 2.97 |  |
| PL | 1.04 |  | 1.05 |  | 1.02 |  | 1.15 |  | 1.19 |  | 2.37 | i | 2.38 | i | 2.29 | , | 2.69 | i | 2.74 | i |
| PT | 1.03 | i | 0.95 | i | 1.00 | i | 0.83 | i | 0.98 | i | 2.32 | i | 2.15 | i | 2.21 | i | 1.79 | i | 2.05 | i |
| RO | 0.79 |  | 0.70 |  | 0.68 | i | 0.70 | i | 0.81 | i | 2.02 |  | 1.77 |  | 2.02 |  | 2.14 |  | 2.41 |  |
| SI | 1.30 |  | 1.29 |  | 1.32 |  | 1.32 |  | 1.27 |  | 2.70 |  | 2.75 |  | 2.80 |  | 2.85 |  | 2.77 |  |
| SK | 0.82 | i | 0.87 | i | 0.85 | , | 0.98 | i | 0.81 | i | 1.85 | i | 1.93 | i | 2.11 | i | 2.59 | i | 2.12 | i |
| FI | 1.99 |  | 2.02 |  | 2.05 |  | 2.07 |  | 2.01 |  | 4.17 |  | 4.13 |  | 4.10 |  | 4.12 |  | 3.98 |  |
| SE | 2.00 |  | 2.10 |  | 2.11 |  | 2.04 |  | 1.92 |  | 3.58 |  | 3.70 |  | 3.70 |  | 3.68 |  | 3.47 |  |
| UK | 0.80 | i | 1.07 | i | 1.06 | i | 1.01 | i | 1.21 | i | 2.00 | i | 2.62 | i | 2.51 | i | 2.36 |  | 2.78 | i |
| HR |  |  | 0.68 | i | 0.84 | i | 0.81 | i | 0.86 | i |  |  |  |  |  |  |  |  |  |  |
| MK |  |  | 0.55 | i | 0.51 | , |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TR | 1.17 | i | 1.20 | i | 1.21 | , | 1.13 | i |  |  |  |  |  |  |  |  |  |  |  |  |
| IS | 1.07 | i | 1.25 | i | 1.33 | i | 1.39 | i | 1.46 | i | 2.52 | i | 2.83 | i | 2.92 | i | 3.15 | i | 3.44 | i |
| LI |  |  | 0.35 |  | 0.32 |  | 0.34 |  | 0.20 |  |  |  |  |  |  |  |  |  |  |  |
| No | 1.84 |  | 2.08 |  | 2.29 |  | 2.40 |  | 2.27 |  | 4.17 | i | 4.43 | i | 4.76 | i | 5.27 | i | 5.40 | i |
| CH | 1.25 |  | 1.39 |  | 1.62 |  | 1.65 |  | 1.48 |  | 3.60 |  | 3.85 |  | 4.46 |  | 4.60 |  | 4.19 |  |
| AD |  |  |  |  |  |  | 0.13 |  | 0.07 |  |  |  |  |  |  |  |  |  |  |  |
| AL |  |  | 0.50 | s |  |  |  |  |  |  |  |  | 1.48 | s |  |  |  |  |  |  |
| AM | 0.95 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GE | 3.70 |  | 3.93 |  | 3.25 |  | 3.50 |  | 3.29 |  | 13.05 |  | 11.80 |  | 11.60 |  | 12.00 |  | 8.80 |  |
| MD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RU | 0.54 |  | 0.65 |  | 0.68 |  | 0.65 |  | 0.79 |  | 1.99 |  | 1.81 |  | 2.26 |  | 2.37 |  |  |  |
| UA | 1.49 |  | 1.85 |  | 1.73 |  | 1.69 |  | 1.79 |  | 5.49 |  | 6.91 |  | 6.11 |  | 5.74 |  | 5.57 |  |
| VA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AU | 1.11 |  | 1.13 |  | 1.10 |  | 1.13 |  | 1.09 |  |  |  |  |  |  |  |  |  |  |  |
| CA | 1.82 |  | 1.80 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NZ | 1.67 |  | 1.73 |  | 1.65 |  | 1.65 |  | 1.51 |  |  |  |  |  |  |  |  |  |  |  |
| JP | 0.55 | i | 0.54 | i | 0.62 | i | 0.65 | i | 0.61 | i | 1.59 |  |  |  |  |  |  |  |  |  |
| Us | 1.48 | i | 1.40 | i | 1.50 | i | 1.32 | i | 1.33 | i | 5.00 | i |  |  |  |  |  |  |  |  |

[^21]Table B.1c,d,e: Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS) with and without expenditure on research and ancillary services, ISCED 5-6 - 20012005

|  | Annual expenditure on public and private educational institutions per full-time equivalent student in EUR PPS at tertiary level of education (isced 56) |  |  |  |  |  |  |  |  |  | Annual core expenditure on public and private educational institutions per full-time equivalent student in EUR PPS at tertiary level of education (isced 56) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2001 |  | 2002 |  | 2003 |  | 2004 |  | 2005 |  | 2003 |  | 2004 |  | 2005 |  |
| EU-27 | 7710 |  | 7957 |  | 7901 |  | 7873 |  | 8282 |  | 5336 |  | 5271 |  | 5505 |  |
| Bologna* | 7330 |  | 7197 |  | 7087 |  | 6879 |  | 8290 |  | 5697 |  | 5752 |  | 5934 |  |
| BE | 10238 | i | 10481 | i | 10007 | i | 9621 | i | 10117 | i | 6535 |  | 6171 |  | 6534 |  |
| BG | 2950 |  | 3462 |  | 3646 |  | 3610 |  | 3642 |  | 2911 |  | 2848 |  | 2812 |  |
| CZ | 5087 |  | 5312 |  | 5914 |  | 5583 |  | 5624 |  | 4783 |  | 4539 |  | 4428 |  |
| DK | 12569 |  | 13167 |  | 11765 | i | 12820 | i | 12654 | i | 8555 |  | 9588 |  |  |  |
| DE | 9340 |  | 9566 |  | 10138 |  | 10125 |  | 10425 |  | 5875 |  | 5892 |  | 5996 |  |
| EE |  |  |  |  |  |  |  |  | 3338 |  |  |  |  |  | 3336 |  |
| IE | 8493 |  | 8367 |  | 7940 | i | 8510 | i | 8856 | i | 6140 |  | 6204 |  | 6248 |  |
| EL | 3856 |  | 4151 |  | 4126 |  | 4705 |  | 5186 |  | 2767 |  | 3426 |  | 3772 |  |
| ES | 6577 |  | 6942 |  | 7520 | i | 7871 | i | 8535 | i | 5519 |  | 5752 |  | 6076 |  |
| FR | 8679 |  | 9117 |  | 8789 |  | 8871 |  | 9302 |  |  |  |  |  | 5934 |  |
| IT | 7276 |  | 6979 |  | 7087 | i | 6416 |  | 6786 |  | 4533 |  | 3736 |  | 4270 |  |
| CY | 8492 |  | 8695 |  | 7506 |  | 7342 |  | 8817 |  | 6353 |  | 5968 |  | 7038 |  |
| LV | 2750 |  | 2945 |  | 2840 | i | 2931 |  | 3765 |  | 2499 |  | 2583 |  | 3151 |  |
| LT | 2957 | i | 3191 | i | 3341 | i | 3685 |  | 3801 |  | 2793 |  | 2979 |  | 3023 |  |
| LU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HU |  |  |  |  |  |  | 5535 |  | 5353 |  |  |  | 4215 |  | 4006 |  |
| MT | 5885 | i | 7023 | i | 5763 |  | 5807 |  | 9079 | b |  |  |  |  | 7683 | b |
| NL | 11427 |  | 11777 |  | 11320 |  | 11505 |  | 11744 |  | 7030 |  | 7174 |  | 7374 |  |
| AT | 9639 |  | 10828 |  | 11018 |  | 11891 |  | 12813 |  | 7181 |  | 8087 |  | 8631 |  |
| PL | 3362 |  | 4123 |  | 3543 | i | 3716 | i | 4716 | i | 3138 |  | 3277 |  | 4266 |  |
| PT | 4220 | i | 3983 | 1 | 4429 | i | 4652 | i | 6244 | i |  |  |  |  | 4907 |  |
| RO |  |  |  |  |  |  |  |  | 2403 |  |  |  |  |  |  |  |
| SI | 7384 |  | 6216 |  | 5804 |  | 6242 |  | 7080 |  | 4731 |  | 5348 |  | 5815 |  |
| SK | 4766 | i | 4142 | i | 4027 | i | 5485 | i | 4892 | i | 3333 |  | 4013 |  | 3615 |  |
| FI | 7832 |  | 9689 |  | 9811 |  | 10525 |  | 10390 |  | 6113 |  | 6478 |  | 6406 |  |
| SE | 13211 |  | 13449 |  | 13534 |  | 13775 |  | 13490 |  | 6970 |  | 7096 |  | 7005 |  |
| UK | 9104 |  | 9751 |  | 9831 | i | 9383 | i | 12106 | i | 7564 |  | 7183 |  | 6984 |  |
| HR |  |  | 3320 | u | 3332 | $u$ | 3390 | u | 4235 | $u$ | 2925 | u | 3295 | u | 4004 | $u$ |
| MK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TR | 3349 | $u$ | 3978 | $u$ | 3372 | iu | 5576 | $u$ |  |  |  |  | 5495 | u |  |  |
| IS | 6778 | i | 7371 | i | 6675 | i | 7684 | i | 8290 | i | 4833 |  |  |  |  |  |
| LI |  |  | 17469 | i | 13972 | i | 10536 | i | 17061 | i | 12579 | i | 9520 | i | 14752 | i |
| NO | 11661 |  | 11781 |  | 11850 | i | 12554 | i | 13156 | i | 7834 |  | 8593 |  | 8373 |  |
| CH |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  | 2254 |  | 2347 |  | 3158 |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AU | 11175 |  |  |  | 10651 |  | 11574 |  | 12453 |  |  |  |  |  |  |  |
| CA |  |  | 19301 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NZ |  |  |  |  |  |  | 7047 |  | 7940 |  |  |  |  |  |  |  |
| JP | 9621 | 1 | 9976 | i | 9688 | i | 10269 |  | 10324 |  |  |  |  |  |  |  |
| US | 19127 | i | 17635 | i | 20446 |  | 19044 |  | 20949 |  | 16594 |  | 15029 |  | 16037 |  |

[^22]Table B.2a,b: Higher education institutions' income from private sources (households and other private entities) as a percentage of all public and private sources, ISCED 5-6 - 2001-2005

|  | Educational institutions' income coming from private (households and other private entities) sources as a percentage of all public and private sources (international sources excluded), ISCED 5-6, 2000-2005 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| EU-27 | 18 | 18 | 18 | 19 | 18 | 20 |
| Bologna* | 14 | 15 | 14 | 16 | 16 | 22 |
| BE | 15 | 16 | 14 | 13 | 10 | 9 |
| BG | 41 | 44 | 44 | 43 | 42 | 42 |
| CZ | 15 | 15 | 12 | 17 | 15 | 19 |
| DK | 2 | 2 | 2 | 3 | 3 | 3 |
| DE | 8 | 9 | 8 | 13 | 14 | 15 |
| EE |  |  |  |  |  | 30 |
| IE | 14 | 15 | 14 | 16 | 17 | 16 |
| EL | 0 | 0 | 0 | 3 | 2 | 3 |
| ES | 26 | 24 | 24 | 23 | 24 | 22 |
| FR | 16 | 16 | 16 | 16 | 16 | 16 |
| IT | 22 | 22 | 21 | 28 | 31 | 30 |
| CY | 80 | 58 | 58 | 56 | 52 | 52 |
| LV | 41 | 46 | 49 | 53 | 54 | 44 |
| LT |  |  |  | 35 | 34 | 35 |
| LU |  |  |  |  |  |  |
| HU | 23 | 22 | 21 | 22 | 21 | 22 |
| MT | 1 | 3 | 6 | 6 | 8 | 0 |
| NL | 22 | 22 | 21 | 22 | 22 | 22 |
| AT | 4 | 5 | 8 | 7 | 6 | 7 |
| PL |  |  | 30 | 31 | 27 | 26 |
| PT | 8 | 8 | 9 | 8 | 14 | 32 |
| RO | 30 | 0 | 0 |  |  | 36 |
| SI |  | 23 | 24 | 24 | 24 | 23 |
| SK | 9 | 7 | 15 | 14 | 19 | 23 |
| FI | 3 | 4 | 4 | 4 | 4 | 4 |
| SE | 12 | 12 | 10 | 11 | 12 | 12 |
| UK | 32 | 29 | 28 | 30 | 30 | 33 |
| HR |  |  | 18 |  |  | 27 |
| MK |  |  |  |  |  |  |
| TR | 5 | 4 | 10 | 5 | 10 |  |
| IS | 5 | 5 | 4 | 11 | 9 | 9 |
| LI |  |  |  |  |  |  |
| NO | 4 | 3 | 4 | 3 |  |  |
| CH |  |  |  |  |  |  |
| AD |  |  |  |  | 2 | 3 |
| AL |  |  |  |  |  |  |
| AM |  | 43 |  |  |  |  |
| AZ |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |
| AU | 39 | 49 | 51 | 52 | 52 | 52 |
| CA | 39 | 44 | 44 |  |  |  |
| NZ |  |  |  |  | 39 | 39 |
| JP | 55 | 57 | 59 | 60 | 59 | 66 |
| US | 66 | 66 | 55 | 57 | 65 | 65 |

[^23]Table B.2c: Monthly students' obligatory contributions to higher education institutions, in nominal and comparative amounts, ISCED 5A - 2005-2008

|  | Monthly students' obligatory contributions to higher education <br> institutions, in nominal and comparative prices |  |
| :--- | :---: | :---: |
|  | Nominal amount (in EUR) | EUR PPS |
| BG | 103 | 240 |
| CZ | 29 | 50 |
| DE | 0 | 0 |
| EE | 100 | 160 |
| IE | 140 | 110 |
| ES | 81 | 90 |
| FR | 29 | 30 |
| IT |  |  |
| LV | 78 | 140 |
| LT | 38 | 70 |
| NL | 118 | 110 |
| AT | 57 | 60 |
| PT | 132 | 150 |
| RO | 20 | 40 |
| SI | 21 | 30 |
| SK | 20 | 40 |
| FI | 0 | 0 |
| SE | 0 | 0 |
| E/W | 176 | 170 |
| SCO | 0 | 0 |
| TR | 79 | 120 |
| NO | 84 |  |
| CH |  | 60 |

[^24]Table B.2d: Students' contribution to higher education institutions, in percentage of total expenditure of students living away from the parental home, ISCED 5A -2005-2008

|  | Students' contributions to higher education institutions, in percentage of total expenditure of students living <br> away from the parental home |  |
| :--- | :---: | :---: |
|  | all students living away from the parental home | 21yr old students living away from the parental home |
| BG | 18.5 | 14.4 |
| CZ | 9.7 | 10.8 |
| DE | 0.0 | 0.0 |
| EE | 16.7 | 11.2 |
| IE | 9.5 | 10.1 |
| ES | 9.3 | 13.1 |
| FR | 4.6 | 5.0 |
| IT | 18.1 | 22.3 |
| LV | 17.6 | 13.7 |
| LT | 14.0 | 16.5 |
| NL | 5.6 | 6.7 |
| AT | 17.8 | 19.2 |
| PT | 10.4 | 9.3 |
| RO | 3.7 | 6.7 |
| SI | 5.4 | 0.0 |
| SK | 0.0 | 0.0 |
| FI | 9.6 | 0.0 |

Table B.3a,b: Public financial aid to tertiary students, by type of aid (loans vs grants), as a percentage of public expenditure on tertiary education, ISCED 5-6 -2001-2005

|  | Public financial aid to tertiary students, by form (loans vs grants) a a a percentage of public expenditure on tertiary education, ISCED 5-6, 2000-2005 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Scholarships and other grants |  |  |  |  |  | Loans |  |  |  |  |  |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| EU-27 | 12.8 | 14.6 | 12.9 | 13.4 | 13.7 | 13.9 | 6.5 | 4.8 | 8.1 | 7.1 | 6.8 | 6.6 |
| Bologna* | 11.0 | 10.5 | 10.7 | 10.6 | 10.8 | 10.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| BE | 16.3 | 17.3 | 15.1 | 15.8 | 15.7 | 15.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BG | 10.1 | 11.7 | 11.5 | 10.6 | 10.8 | 10.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| cz | 8.6 | 7.9 | 7.0 | 6.2 | 5.8 | 5.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| dK | 33.9 | 29.8 | 26.2 | 26.8 | 25.2 | 25.8 | 4.9 | 4.8 | 5.1 | 5.5 | 5.1 | 5.0 |
| DE | 10.9 | 11.7 | 12.7 | 13.5 | 14.1 | 14.1 | 3.1 | 3.8 | 3.9 | 3.7 | 3.8 | 5.1 |
| ee | 5.9 | 2.8 | 7.8 | 5.0 | 0.0 | 8.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| IE | 12.4 | 11.9 | 12.3 | 13.8 | 14.8 | 14.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| EL | 5.8 | 6.4 | 5.5 | 6.0 | 5.2 | 0.8 |  |  |  |  |  | 0.7 |
| es | 8.5 | 8.3 | 7.9 | 7.9 | 7.8 | 8.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| FR | 7.8 | 8.0 | 8.1 | 8.2 | 8.0 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ${ }^{17}$ | 18.3 | 12.4 | 15.8 | 17.0 | 16.7 | 16.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| cr | 40.6 | 39.7 | 39.6 | 44.5 | 47.7 | 48.7 | 10.8 | 11.8 | 12.9 | 11.5 | 9.1 | 8.9 |
| ıv | 12.7 | 12.0 | 12.7 | 14.6 | 13.0 | 9.0 | 12.2 | 12.8 | 8.0 | 5.1 | 2.2 | 0.4 |
| LU |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| нu | 11.1 | 16.4 | 13.2 | 14.7 | 15.8 | 15.7 |  | 3.1 | 9.1 |  |  |  |
| мт | 35.2 | 26.6 | 25.2 | 30.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| nL | 11.4 | 10.8 | 8.2 | 12.1 | 12.2 | 12.3 | 14.7 | 12.8 | 13.4 | 13.7 | 14.9 | 15.5 |
| ${ }^{\text {at }}$ | 13.6 | 12.7 | 15.4 | 16.6 | 18.1 | 16.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| PL | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| PT | 6.7 | 6.2 | 4.9 | 2.2 | 5.4 | 8.9 |  |  | 0.0 |  |  |  |
| Rо | 0.0 | 9.7 | 8.3 | 7.7 | 7.2 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| st |  | 25.6 | 25.3 | 25.2 | 23.7 | 23.7 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| sk | 2.1 | 9.3 | 15.8 | 6.8 | 9.2 | 12.1 | 1.6 | 1.1 | 1.7 | 1.8 | 1.5 | 1.6 |
| FI | 16.9 | 18.2 | 17.8 | 17.4 | 16.7 | 16.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| SE | 9.6 | 10.3 | 10.7 | 10.4 | 10.5 | 10.3 | 19.9 | 19.9 | 18.6 | 18.0 | 17.6 | 16.8 |
| UK | 12.9 | 5.3 | 1.6 | 1.6 | 0.2 | 6.7 | 0.0 | 0.0 | 22.4 | 23.2 | 23.7 | 19.1 |
| HR |  |  |  |  |  |  |  |  |  | 4.3 | 3.3 | 3.9 |
| мк |  |  | 7.1 | 7.3 |  |  |  |  | 9.1 | 6.4 |  |  |
| TR | 1.3 | 6.2 | 4.2 | 3.2 | 2.9 |  | 6.6 | 7.8 | 8.4 | 10.0 | 16.3 |  |
| Is | 0.0 | 0.0 | 0.0 | 0.0 |  |  | 21.9 | 23.7 | 21.0 | 21.4 | 22.2 | 23.1 |
| 4 |  |  |  |  |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |
| No | 11.5 | 10.4 | 11.6 | 14.9 | 11.0 | 10.9 | 17.1 | 20.4 | 21.2 | 21.8 | 29.8 | 31.7 |
| CH |  | 0.7 | 0.7 | 1.2 | 2.0 | 2.2 |  | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 |
| AD |  |  |  |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |  |  |  |
| am |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{\text {az }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }_{\text {M }}^{\text {M }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \mathrm{UA} \\ & \mathrm{VA} \end{aligned}$ | UA |  |  |  |  |  |  |  |  |  |  |  |
| AU | 14.5 | 15.9 | 14.1 | 13.5 | 14.6 | 14.7 | 17.2 | 17.0 | 20.8 | 21.5 | 18.1 | 17.7 |
| ca | 13.6 | 15.7 | 16.8 |  |  |  | 5.7 | 6.0 | 3.9 |  |  |  |
| Nz | 22.2 | 14.7 | 14.2 | 13.3 | 13.7 | 12.7 |  | 31.5 | 33.5 | 30.9 | 29.8 | 29.6 |
| Jp |  | 1.0 | 1.1 | 2.4 | 1.0 | 0.7 | 11.1 | 13.5 | 15.1 | 16.2 | 17.2 | 20.9 |
| us | 9.2 | 11.3 | 13.8 | 13.9 | 15.4 | 14.9 | 8.1 | 26.1 | 1.7 | 3.9 | 5.3 | 8.6 |

[^25]Table B.3c: Income sources (job, state, family) as a percentage of total student income (students living away from the parental home) - 2005-2008

|  | Income sources (job, state, family) as a percentage of total student income <br> (students living away from the parental home), 2005-07 |  |  |
| :--- | :---: | :---: | :---: |
|  | family / partner (cash and <br> intangibles) | job | state |
| BG | 58 | 24 | 18 |
| CZ | 21 | 72 | 6 |
| DE | 58 | 28 | 14 |
| EE | 33 | 60 | 7 |
| IE | 69 | 20 | 11 |
| ES | 40 | 52 | 8 |
| FR | 37 | 32 | 31 |
| IT | 36 | 53 |  |
| LV | 46 | 44 | 11 |
| LT | 19 | 37 | 9 |
| NL | 47 | 42 | 44 |
| AT | 72 | 20 | 11 |
| PT | 52 | 38 | 7 |
| RO | 54 | 38 | 10 |
| SI | 8 | 92 | 8 |
| SK | 18 | 42 |  |
| FI | 13 | 24 | 40 |
| SE | 23 | 34 | 63 |
| E/W | 31 | 24 | 43 |
| SCO | 67 | 48 | 45 |
| TR |  |  | 29 |
| NO | 48 | 45 | 7 |
| CH |  |  |  |
|  |  |  |  |

Table B.3d: Composition of public support to households (direct/indirect cash support - non-cash support), ISCED 5A - 2005-2008

|  | Composition of public support to households (direct-indirect, cash-non cash), ISCED 5A, <br> 2005-2007 |  |  |
| :--- | :---: | :---: | :---: |
|  | direct cash support | direct non-cash support | indirect cash support |
| CZ | 31 | 50 | 18 |
| DE | 19 | 37 | 44 |
| ES | 100 |  |  |
| NL | 68 | 29 | 3 |
| E/W | 77 | 23 |  |
| NO | 97 | 3 |  |

Table B.4a: State support differences according to the educational level of parents (low or ISCED 0-2 vs high or ISCED 5-6), students living away from the parental home, ISCED 5A - 2005-2008

|  | State support differences according to the <br> parents' educational level, students living <br> away from the parental home, 2005-07 |  |
| :--- | :---: | :---: |
|  | low education | high education |
| BG | 133 | 14 |
| CZ | 59 | -19 |
| DE | 57 | -24 |
| EE | -51 | 9 |
| IE | 93 | -44 |
| ES | 28 | -36 |
| FR | 40 | -19 |
| IT |  |  |
| LV |  |  |
| LT | 10 | -5 |
| NL | 56 | -37 |
| AT | 29 | -50 |
| PT | 11 | -9 |
| RO | -40 | 16 |
| SI |  |  |
| SK | 1 | -2 |
| FI | 6 | 0 |
| SE | 7 | -1 |
| E/W | 6 | -12 |
| SCO | 88 | -6 |
| TR |  | -35 |
| NO |  |  |
| CH |  |  |

Table B.4b: Total public subsidies by socio-economic background, ISCED 5A — 2005-2008

|  | Total public subsidies by socio-economic background, ISCED 5A, 2005-07 |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | low | lower medium | higher medium | high |
| CZ | 100 | 89 | 98 | 96 |
| DE | 100 | 99 | 90 | 90 |
| ES | 100 | 69 | 70 | 18 |
| NL | 100 | 88 | 85 | 78 |
| E/W | 100 | 102 | 79 | 57 |
| NO | 100 | 91 | 96 | 97 |

## C. Student and staff mobility

Table C.1a,b: Outbound mobility rate: number of students from a given country studying abroad in Europe (EU-27, EEA, EFTA and candidate countries) as a percentage of the total enrolment in that country, ISCED 5A and 6-2000-2006

|  | Outbound mobility rate: number of students from a given country studying abroad in Europe (EU-27, EFTA and candidate countries) as a percentage of the total enrolment in that country, ISCED 5A and 6-2000-2006 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| EU-27 | 1.9 | 2.0 | 2.0 | 2.2 | 2.1 | 2.0 | 2.3 |
| Bologna* | 2.3 | 2.4 | 2.5 | 2.8 | 2.7 | 2.5 | 3.1 |
| BE | 4.0 | 4.2 | 4.3 | 4.6 | 3.7 | 3.5 | 3.3 |
| BG | 2.7 | 4.4 | 6.3 | 7.9 | 8.8 | 8.7 | 9.4 |
| CZ | 1.1 | 1.4 | 1.5 | 1.7 | 1.6 | 1.5 | 1.7 |
| DK | 4.2 | 2.4 | 2.5 | 2.5 | 2.5 | 2.3 | 2.5 |
| DE | 1.3 | 1.7 | 2.0 | 2.1 | 1.6 | 1.7 | 2.0 |
| EE | 2.7 | 3.5 | 3.4 | 4.9 | 5.4 | 5.3 | 5.9 |
| IE | 13.0 | 10.8 | 10.2 | 10.1 | 11.2 | 11.8 | 16.9 |
| EL | 19.6 | 14.8 | 11.1 | 10.0 | 10.8 | 7.6 | 8.5 |
| ES | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.1 | 1.2 |
| FR | 1.6 | 1.6 | 1.8 | 1.8 | 1.9 | 2.0 | 2.2 |
| IT | 1.1 | 1.5 | 1.5 | 1.6 | 1.2 | 1.2 | 1.3 |
| CY | 255.8 | 244.9 | 147.6 | 343.6 | 336.9 | 345.7 | 340.5 |
| LV | 1.2 | 1.4 | 1.4 | 1.9 | 1.6 | 1.8 | 2.2 |
| LT | 1.9 | 2.2 | 2.3 | 2.7 | 2.7 | 2.9 | 3.6 |
| LU | 755.7 | 322.2 | 294.0 | 309.1 |  |  | 296.6 |
| HU | 1.3 | 1.7 | 1.7 | 1.7 | 1.2 | 1.1 | 1.3 |
| MT | 9.6 | 7.9 | 15.8 | 6.8 | 9.7 | 8.2 | 11.0 |
| NL | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.6 |
| AT | 3.5 | 3.4 | 4.7 | 4.7 | 4.6 | 4.2 | 4.4 |
| PL | 0.8 | 0.8 | 0.9 | 1.0 | 1.1 | 1.1 | 1.4 |
| PT | 1.9 | 1.9 | 2.0 | 2.2 | 2.4 | 2.6 | 3.2 |
| RO | 1.4 | 2.0 | 2.2 | 2.2 | 2.4 | 2.1 | 2.1 |
| SI | 2.8 | 2.9 | 2.9 | 4.3 | 2.8 | 2.2 | 2.8 |
| SK | 2.3 | 5.7 | 3.6 | 8.5 | 7.9 | 8.5 | 10.4 |
| FI | 3.1 | 2.8 | 2.8 | 2.8 | 2.7 | 2.5 | 2.7 |
| SE | 2.2 | 2.3 | 2.2 | 2.1 | 1.9 | 1.9 | 2.3 |
| UK | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| HR |  |  |  | 8.7 | 9.1 | 7.0 | 8.2 |
| MK | 6.2 | 7.3 | 4.4 | 9.7 | 11.0 | 12.5 | 12.5 |
| TR | 3.7 | 2.5 | 2.5 | 2.4 | 2.2 | 1.9 | 1.9 |
| IS | 17.2 | 18.4 | 16.8 | 17.5 | 16.8 | 18.1 | 18.5 |
| LI |  |  |  | 122.3 | 83.6 | 86.3 | 77.5 |
| NO | 4.2 | 4.7 | 4.3 | 4.1 | 4.2 | 4.0 | 4.1 |
| CH |  |  | 4.8 | 3.4 | 4.3 | 3.4 | 3.9 |
| AD |  |  | 1036.1 | 930.2 | 1274.5 | 933.0 | 573.8 |
| AL | 9.1 | 5.1 | 5.8 | 6.9 | 21.8 | 6.3 | 28.6 |
| AM | 0.8 | 0.8 | 0.9 | 1.2 | 1.2 | 1.1 | 1.6 |
| AZ | 1.7 | 1.6 | 1.6 | 1.5 | 1.7 | 1.7 | 1.8 |
| BA |  |  |  |  |  |  |  |
| GE | 1.0 | 1.3 | 1.7 | 2.1 | 2.4 | 2.3 | 3.0 |
| MD | 6.5 | 6.5 | 5.5 | 5.7 | 5.9 | 5.8 | 6.7 |
| ME |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |
| RU | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 |
| UA | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 |
| VA |  |  |  |  |  |  |  |
| AU | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.5 |
| CA | 0.5 |  | 0.6 |  | 0.7 | 0.7 | 0.9 |
| NZ | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 |
| JP | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 0.3 |
| US | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |

[^26]Table C.1c,d : Incoming mobility: number of students from abroad (world and Bologna area) studying in a given country, as a percentage of the total enrolment in that country, ISCED 5A and 6-2000-2006

|  | Number of students from abroad studying in a given country, as a percentage of the total enrolment in that country, ISCED 5A \& 6, 2000-2006 |  |  |  |  |  |  | Number of foreign students from the Bologna area, as a percentage of all students enrolled in the host country, ISCED 5A \& 6, 2000-2006 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| EU-27 | 5.4 | 5.3 | 6.4 | 6.2 | 6.5 | 6.7 | 7.4 | 3.0 | 3.6 | 3.8 | 3.8 | 3.3 | 3.7 | 3.7 |
| Bologna* | 2.9 | 3.3 | 3.5 | 2.7 | 2.6 | 2.9 | 3.3 | 1.9 | 2.7 | 2.8 | 2.7 | 2.6 | 2.6 | 2.9 |
| BE | 12.1 | 12.2 | 12.5 | 13.0 | 13.6 | 13.9 | 14.3 | 7.0 | 7.3 | 7.7 | 8.0 | 8.3 | 8.8 | 9.3 |
| BG | 3.2 | 3.4 | 3.6 | 3.6 | 3.7 | 3.8 | 3.9 | 2.9 | 3.1 | 3.2 | 3.2 | 3.4 | 3.4 | 3.6 |
| CZ | 2.5 | 3.2 | 3.7 | 3.9 | 5.1 | 6.0 | 7.0 | 0.8 | 2.2 |  | 3.3 | 3.3 | 4.3 | 5.9 |
| DK | 7.9 | 6.5 | 7.3 | 8.4 | 7.7 | 7.2 | 9.0 | 2.9 | 3.1 | 3.2 | 3.7 | 3.8 | 4.1 | 4.8 |
| DE | 10.0 | 10.6 | 11.2 | 11.9 | 12.4 | 12.8 | 12.8 | 6.4 | 6.7 | 7.0 | 7.3 | 7.4 | 7.5 | 7.4 |
| EE | 1.8 | 1.2 | 0.8 | 2.7 | 1.9 | 1.9 | 3.2 | 1.8 | 1.1 | 0.8 | 2.3 | 1.6 | 1.7 | 2.8 |
| IE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EL |  |  |  | 2.5 | 2.6 | 2.6 | 3.6 |  |  |  | 2.4 | 2.4 | 2.4 | 3.1 |
| ES | 1.5 | 1.3 | 1.5 | 1.8 | 2.2 | 2.4 | 2.7 | 0.5 | 0.5 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 |
| FR | 8.2 | 8.8 | 9.9 | 12.8 | 12.8 | 12.8 | 14.6 | 2.6 | 2.7 | 2.7 | 3.2 | 2.9 | 2.8 | 2.9 |
| $1 T$ | 1.4 | 1.5 | 1.5 | 1.8 | 2.0 | 2.2 | 2.4 | 0.9 |  |  |  | 1.4 |  | 1.6 |
| CY | 7.3 | 6.2 | 7.4 | 7.5 | 7.0 | 7.0 | 7.8 | 6.0 | 6.0 | 5.3 | 6.2 | 5.4 | 6.9 | 7.7 |
| LV | 7.0 | 8.6 | 3.4 | 2.4 | 1.1 | 1.5 | 1.2 | 1.0 | 0.8 | 1.1 | 1.1 | 0.9 | 1.2 | 1.0 |
| LT | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 0.8 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.5 |
| LU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HU |  | 3.5 | 3.4 | 3.2 | 3.2 | 3.3 | 3.5 |  | 2.9 | 2.9 | 2.7 | 2.7 | 2.7 | 2.9 |
| MT | 5.6 | 5.3 | 5.8 | 5.6 | 6.3 | 7.2 | 7.7 | 2.7 | 3.6 | 4.7 | 3.1 | 3.0 | 3.2 | 3.2 |
| NL | 2.9 | 3.3 | 3.7 | 3.9 |  |  |  | 1.7 | 1.7 | 2.3 | 2.4 |  |  |  |
| AT | 12.9 | 12.9 | 14.1 | 14.9 |  |  |  |  | 11.1 | 12.4 | 13.1 |  |  |  |
| PL | 0.4 | 0.4 |  | 0.4 | 0.4 | 0.5 | 0.5 |  |  |  |  |  |  |  |
| PT | 3.0 | 3.7 |  | 3.9 | 4.1 | 4.5 | 4.6 | 0.6 | 0.7 |  | 0.7 | 0.7 | 0.8 | 0.9 |
| RO | 3.0 | 2.4 | 2.0 | 1.6 | 1.6 | 1.5 | 1.5 | 2.1 | 1.9 | 1.6 | 1.2 | 1.0 | 1.0 | 1.0 |
| SI | 1.0 | 1.2 | 1.2 | 1.2 | 1.3 | 1.5 | 1.6 | 1.0 | 1.1 | 1.1 | 1.1 | 1.3 | 1.4 | 1.5 |
| SK | 1.2 | 1.2 | 1.1 | 1.1 | 1.0 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 |
| FI | 2.1 | 2.3 | 2.4 | 2.5 | 2.6 | 2.8 | 2.9 | 1.1 | 1.2 | 1.3 | 1.4 | 1.4 | 1.5 | 1.5 |
| SE | 7.5 | 7.5 | 7.6 | 7.9 | 8.6 | 9.4 | 12.8 | 4.6 | 4.6 | 4.6 | 4.6 | 4.8 | 4.9 | 5.0 |
| UK | 13.4 | 13.5 | 12.5 | 14.1 | 15.6 | 16.3 | 18.3 | 6.9 | 6.8 | 5.8 | 5.8 | 5.7 | 5.7 | 7.1 |
| HR |  |  |  | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  | 0.5 | 0.5 | 0.5 | 0.4 |
| MK | 0.7 | 0.4 | 0.3 | 0.3 | 0.3 | 0.6 | 0.4 | 0.6 | 0.4 | 0.3 | 0.2 | 0.3 | 0.6 | 0.4 |
| TR | 2.0 | 1.3 | 1.2 | 0.9 | 1.0 | 1.1 | 1.3 | 1.2 | 0.7 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| IS | 4.5 | 4.4 | 4.2 | 4.5 | 3.4 | 3.3 | 4.6 | 3.6 | 3.6 | 3.4 | 3.7 | 2.6 | 2.5 | 3.6 |
| LI |  |  |  |  |  | 89.2 | 90.1 |  |  |  |  |  | 60.5 | 86.0 |
| No | 4.7 | 4.8 | 4.9 | 5.3 | 5.8 | 6.2 | 8.1 | 2.5 | 2.7 | 2.7 | 2.6 | 2.9 | 2.9 | 3.0 |
| CH |  |  | 18.4 | 19.0 | 19.4 | 19.6 | 19.8 |  |  | 14.5 | 14.8 | 15.0 | 15.2 | 15.5 |
| AD | 47.0 | 48.0 | 43.0 | 41.0 | 42.0 | 43.0 | 41.0 |  |  |  |  |  |  |  |
| AL | 1.7 | 1.6 |  | 1.1 | 0.9 |  |  |  |  |  |  |  |  |  |
| AM |  |  |  | 2.7 | 4.2 | 4.4 | 4.3 |  |  |  |  |  |  |  |
| AZ | 1.5 | 1.6 | 1.8 | 1.5 | 1.6 | 2.0 | 2.4 |  |  |  |  |  |  |  |
| BA 0.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GE | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.1 | 0.1 |  |  |  |  |  |  |  |
| MD | 1.9 | 2.5 | 2.7 | 2.1 | 2.1 | 1.7 | 1.3 |  |  |  |  |  |  |  |
| ME $\quad 3.0$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS | 3.7 | 4.0 | 3.7 | 3.0 | 3.0 | 3.0 | 2.9 | 3.7 | 4.0 | 3.6 | 3.0 | 2.9 | 3.0 | 2.9 |
| RU | 0.0 | 0.0 | 0.0 | 0.8 | 0.9 | 1.0 | 0.8 |  |  |  |  |  | 0.2 | 0.2 |
| UA | 1.0 | 0.9 | 0.8 | 0.8 | 0.8 | 1.1 | 1.2 |  |  |  |  |  |  |  |
| VA $\quad$ 隹 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AU | 12.5 | 13.9 | 17.7 | 18.7 | 16.6 | 20.2 |  |  |  |  |  |  |  |  |
| CA |  |  |  |  | 11.9 |  | 14.6 |  |  |  |  | 2.2 |  | 2.5 |
| NZ | 4.8 | 6.2 | 9.6 | 13.5 | 17.0 | 17.0 |  |  |  |  |  | 1.2 | 1.4 | 1.3 |
| JP us | 1.9 | 2.0 | 2.3 | 2.7 | 3.0 | 3.2 | 3.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| US | - | - | - | - |  |  |  |  |  |  |  |  |  |  |

Table C.2a,b: Percentage of graduates from abroad (non-citizens and prior education outside the country), ISCED 5A,-2004-2006

|  | Percentage of graduates from abroad, ISCED 5A, 2004-2006 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Non-citizens |  |  | Prior education outside the country |  |  |
|  | 2004 | 2005 | 2006 | 2004 | 2005 | 2006 |
| EU-27 | 9.39 | 9.77 | 11.28 |  |  |  |
| Bologna* | 2.73 | 3.51 | 3.78 |  |  |  |
| BE | 14.25 | 14.03 | 13.42 | 0.00 |  |  |
| BG | 2.97 | 3.29 | 2.90 |  |  |  |
| CZ | 2.27 | 3.73 | 5.03 |  |  |  |
| DK | 5.90 | 5.94 | 6.54 |  |  |  |
| DE | 8.57 | 9.41 | 9.86 | 5.76 | 7.74 | 8.29 |
| EE |  |  | 3.78 |  |  |  |
| IE |  |  |  |  |  |  |
| EL |  |  |  |  |  |  |
| ES |  |  |  |  |  |  |
| FR |  |  |  |  |  |  |
| IT | 1.46 | 1.49 |  |  |  |  |
| CY | 5.43 | 3.88 | 3.93 |  |  |  |
| LV |  |  |  |  |  |  |
| LT | 0.52 | 0.33 | 0.34 |  | 0.30 | 0.33 |
| LU |  |  |  |  |  |  |
| HU | 2.73 | 2.34 | 2.51 |  |  |  |
| MT |  |  |  |  | 0.00 | 0.00 |
| NL |  |  |  |  |  |  |
| AT | 9.69 | 10.42 | 10.66 | 9.51 | 9.36 | 9.05 |
| PL |  |  |  |  |  |  |
| PT | 2.69 | 2.94 | 2.88 |  |  |  |
| RO |  |  | 1.29 |  |  | 0.98 |
| SI | 0.70 | 0.84 | 1.15 |  |  |  |
| SK | 0.83 | 0.84 | 0.81 |  |  |  |
| FI |  | 3.07 | 2.41 |  | 3.23 | 3.42 |
| SE | 6.15 | 6.97 | 8.06 |  | 0.00 | 0.00 |
| UK | 19.93 | 19.98 | 21.60 |  |  |  |
| HR | 1.10 | 0.43 | 0.63 |  |  |  |
| MK | 0.33 | 0.26 | 0.25 |  | 0.02 |  |
| TR | 1.08 | 1.03 | 0.80 |  |  |  |
| IS | 1.67 | 2.33 | 2.46 |  |  |  |
| LI |  | 81.25 | 81.25 |  | 0.00 | 0.00 |
| NO | 4.72 | 5.15 | 5.54 |  |  |  |
| CH | 14.54 | 15.17 | 15.36 | 11.68 | 12.35 | 11.85 |
| AD |  | 47.00 | 45.00 |  |  |  |
| AL |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |
| AU |  | 27.65 | 28.25 |  |  |  |
| CA |  | 18.37 |  |  |  |  |
| NZ | 26.84 | 30.40 | 30.87 |  |  |  |
| JP |  |  |  |  |  |  |
| US | 5.96 |  |  |  |  |  |

[^27]Table C.3a: Students having been abroad, by educational level of parents, ISCED 5A - 2005-2008

|  | Students having been abroad, by educational level of parents, ISCED 5A - 2005-2008 |  |  |
| :---: | :---: | :---: | :---: |
|  | all students | low education | high education |
| BG | 5.1 | 3.6 | 11.0 |
| CZ |  |  |  |
| DE | 7.7 | 3.8 | 8.9 |
| EE |  |  |  |
| IE | 5.7 | 4.1 | 6.2 |
| ES | 4.3 | 3.4 | 7.1 |
| FR | 4.3 | 3.0 | 5.5 |
| IT | 2.5 | 1.1 | 4.8 |
| LV |  |  |  |
| LT |  |  |  |
| NL | 5.5 | 3.9 | 8.5 |
| AT | 7.9 | 9.2 | 8.5 |
| PT | 2.6 | 1.7 | 5.7 |
| RO | 2.0 | 1.2 | 3.7 |
| SI | 4.2 | 0.3 | 2.7 |
| SK | 2.4 |  | 1.5 |
| FI | 10.5 | 5.3 | 13.6 |
| SE | 6.4 | 3.7 | 7.3 |
| E/W |  |  |  |
| SCO |  |  |  |
| TR | 1.1 | 0.1 | 0.5 |
| NO |  |  |  |
| CH | 6.0 | 6.7 | 7.4 |

Table C.3b,c: Main barriers to studying abroad, (in general and by parents' educational level), ISCED 5A - 2005-2008

| Main barriers to studying abroad, ISCED 5A - 2005-2008 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Very) Strong influence factor for students, who have not been abroad |  |  |  |  |  | (Very) Strong influence factor for students, who have not been abroad and who study engineering |  |  |  |  | (Very) Strong influence factor for students with low education backgrounds (up to low secondary sch ool certificate), who have not been abroad |  |  |  |  |
|  | lack of language competency | insufficient support of mobility in home country | insufficient support of mobility in host country | financial insecurities | lack of individual motivation | lack of language competency | insufficient support of mobility in home country | insufficient support of mobility in host country | financial insecurities | lack of individual motivation | lack of language competency | insufficient support of mobility in home country | insufficient support of mobility in host country | financial insecurities | lack of individual motivation |
| BG | 37.3 | 23.2 | 13.5 | 32.5 | 29.7 | 25.3 | 23.7 | 26.9 | 32.2 | 25.6 | 36.0 | 34.4 | 56.0 | 49.0 | 32.0 |
| Cz | 35.4 | 55.6 | 36.7 | 65.5 | 60.5 | 33.6 | 55.8 | 34.4 | 62.8 | 54.8 | 38.8 | 53.1 | 33.0 | 68.4 | 57.3 |
| DE | 22.9 | 56.7 | 11.1 | 68.6 | 54.2 | 23.4 | 53.7 | 10.4 | 65.3 | 51.3 | 23.4 | 53.9 | 11.9 | 80.0 | 57.1 |
| EE | 22.3 | 62.8 | 35.2 | 80.7 | 52.0 | 26.7 | 74.5 | 28.5 | 83.8 | 53.0 | 42.9 | 54.2 | 31.0 | 79.1 | 66.5 |
| IE | 40.3 | 48.0 | 24.0 | 57.5 | 53.7 | 28.9 | 43.0 | 25.8 | 58.6 | 41.4 | 40.6 | 48.7 | 24.9 | 61.4 | 55.1 |
| ES | 47.1 | 45.5 | 24.5 | 64.2 | 46.6 | 42.9 | 42.3 | 24.1 | 63.3 | 42.0 | 48.4 | 44.7 | 25.7 | 69.7 | 55.1 |
| FR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { IT } \\ & \text { LV } \\ & \text { LT } \end{aligned}$ | 11.2 | 24.1 | 15.7 | 26.9 | 16.3 | 9.8 | 22.4 | 13.5 | 24.5 | 13.9 | 13.0 | 30.6 | 19.5 | 36.2 | 16.4 |
| NL | 10.4 | 49.4 | 5.2 | 29.4 | 47.7 | 10.1 | 51.5 | 5.2 | 27.1 | 43.0 | 10.2 | 43.2 | 2.8 | 31.3 | 52.3 |
| at | 8.6 | 35.2 | 5.6 | 34.6 | 32.5 | 10.1 | 47.6 | 4.6 | 56.4 | 26.4 | 9.8 | 45.1 | 4.2 | 71.3 | 49.5 |
| PT | 22.7 | 55.3 | 24.0 | 54.8 | 53.3 | 9.8 | 22.4 | 13.5 | 24.5 | 13.9 | 28.0 | 56.8 | 25.6 | 58.0 | 54.2 |
| $\begin{gathered} \text { RO } \\ \text { SI } \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sk FI | 37.4 | 65.4 | 47.6 | 68.3 | 48.5 | 34.2 | 59.2 | 43.5 | 70.1 | 48.1 | n.d. | n.d. | n.d. | n.d. | n.d. |
| SE |  |  |  |  |  |  |  |  |  |  | 14.7 | 39.1 | n.d. | 55.4 | n.d. |
| $\begin{aligned} & \text { E/W } \\ & \text { sco } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TR | 46.6 | 69.0 | 68.9 | 82.5 | 29.6 | 32.7 | 63.6 | 62.6 | 76.0 | 23.8 | 55.4 | 70.1 | 72.1 | 86.0 | 28.7 |
| No |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CH | 12.0 | 45.0 | n.d. | 57.0 | 24.0 | 17.0 | 40.0 | n.d. | 51.0 | 18.0 | 17.0 | 46.0 | n.d. | 73.0 | 27.0 |

Table C.4a,b: Teacher mobility in the framework of the Erasmus programme: total number of stays abroad, by home and host country, as a percentage of total number of teachers and academic staff, ISCED 5-$6-2001 / 06$

|  | Teacher mobility in the framework of the Erasmus programme: total number of stays abroad, by home and host country, as a percentage of total number of academics and academic staff, ISCED 5-6 - 2001-2006 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Incoming Erasmus teachers |  |  |  |  |  | Outgoing Erasmus teachers |  |  |  |  |  |
|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| EU-27 | 1.5 | 1.7 | 1.7 | 1.9 | 2.0 | 2.1 | 1.5 | 1.7 | 1.7 | 1.8 | 1.9 | 2.1 |
| BE | 3.0 | 3.8 | 3.7 | 4.0 | 4.6 | 4.9 | 4.6 | 4.9 | 4.8 | 4.9 | 4.9 | 5.5 |
| BG |  |  |  | 1.4 | 1.4 | 1.9 |  |  |  | 2.0 | 2.2 | 2.5 |
| CZ | 2.6 | 2.8 | 3.1 | 3.4 | 4.6 | 5.6 | 4.4 | 5.2 | 6.3 | 6.2 | 7.8 | 8.8 |
| DK |  |  |  |  |  |  |  |  |  |  |  |  |
| DE | 1.1 | 1.3 | 1.3 | 1.3 | 1.5 | 1.6 | 1.2 | 1.2 | 1.4 | 1.3 | 1.4 | 1.6 |
| EE | 1.3 |  | 2.3 | 2.5 |  |  | 1.8 |  | 1.7 | 1.9 |  |  |
| IE | 2.1 | 2.2 | 2.1 | 2.0 | 2.2 | 2.5 | 1.4 | 1.5 | 1.5 | 1.4 | 1.9 | 2.0 |
| EL |  |  |  | 2.7 | 2.9 | 2.7 |  |  |  | 1.6 | 2.0 | 2.0 |
| ES | 1.2 | 1.4 | 1.3 | 1.4 | 1.5 | 1.6 | 1.3 | 1.3 | 1.4 | 1.6 | 1.7 | 1.9 |
| FR | 1.5 | 1.6 | 1.6 | 1.7 | 1.7 | 2.2 | 1.3 | 1.5 | 1.5 | 1.6 | 1.6 | 2.0 |
| IT | 1.6 | 1.9 | 1.9 | 2.0 | 2.0 | 2.2 | 1.0 | 1.2 | 1.0 | 1.1 | 1.2 | 1.2 |
| CY |  | 4.2 | 3.3 | 3.7 | 4.5 | 4.9 |  | 2.5 | 1.6 | 2.0 | 3.3 | 4.2 |
| LV | 1.0 | 1.5 | 2.2 | 2.6 | 3.6 | 6.1 | 0.8 | 1.1 | 1.5 | 2.1 | 4.3 | 5.3 |
| LT |  | 1.5 | 1.9 | 2.3 | 3.4 | 4.6 |  | 2.4 | 3.2 | 4.2 | 5.6 | 6.8 |
| LU |  |  |  |  |  |  |  |  |  |  |  |  |
| HU | 2.0 | 2.2 | 2.4 | 2.2 | 2.8 | 3.2 | 2.5 | 2.7 | 1.8 | 2.2 | 2.5 | 3.1 |
| MT |  | 2.9 | 6.4 | 14.8 | 8.8 | 12.6 |  | 7.1 | 7.5 | 7.5 | 8.5 | 9.3 |
| NL | 1.4 | 1.4 | 1.5 | 1.4 | 1.6 | 1.8 | 1.7 | 1.8 | 2.0 | 1.9 | 1.8 | 1.9 |
| AT | 2.7 | 3.0 | 3.1 | 3.7 | 4.3 | 4.0 | 2.7 | 3.3 | 3.6 | 4.1 | 4.3 | 3.9 |
| PL | 0.6 |  | 0.7 |  | 1.0 | 1.3 | 0.8 |  | 1.0 |  | 1.4 | 1.7 |
| PT |  |  | 2.2 | 2.8 | 3.3 | 3.6 |  |  | 1.6 | 1.9 | 2.0 | 2.3 |
| RO | 1.7 | 1.8 | 2.0 | 2.1 | 2.3 | 2.4 | 2.1 | 2.6 | 2.4 | 2.7 | 2.6 | 3.1 |
| SI | 3.1 | 3.4 | 3.4 | 3.4 | 4.7 | 5.4 | 2.9 | 3.1 | 3.1 | 2.3 | 4.3 | 4.1 |
| SK | 0.7 | 0.8 | 0.9 | 1.2 | 2.1 | 3.8 | 1.1 | 1.1 | 1.1 | 1.2 | 2.6 | 3.3 |
| FI | 5.6 | 5.2 | 5.8 | 6.2 | 6.8 |  | 4.6 | 4.2 | 4.6 | 5.3 | 5.5 |  |
| SE | 1.5 | 1.4 | 1.5 | 1.4 | 1.5 | 1.7 | 1.4 | 1.2 | 1.3 | 1.5 | 1.5 | 1.6 |
| UK | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 | 1.3 | 1.5 | 1.6 | 1.5 | 1.4 | 1.4 | 1.4 |
| TR |  |  |  |  | 0.3 | 0.5 |  |  |  |  | 0.4 | 0.7 |
| IS | 2.6 | 2.9 | 2.9 | 3.7 | 3.8 | 4.1 | 2.2 | 3.0 | 2.9 | 4.6 | 4.4 | 4.1 |
| LI |  |  |  |  |  |  |  |  |  |  |  |  |
| NO |  |  | 1.4 | 1.5 |  | 2.0 |  |  | 1.8 | 1.9 |  | 2.0 |

## D. Effective outcomes and employability

Table D.1a: Percentage of persons with tertiary education, by sex and age (25-34, 35-44, 45-64) — 2007

|  | Percentage of persons with tertiary education, by sex and age (25-34, 35-44, 45-64), 2007 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25-34 |  |  | 35-44 |  |  | 45-64 |  |  |
|  | Total | Female | Male | Total | Female | Male | Total | Female | Male |
| EU-27 | 30.2 | 33.7 | 26.8 | 24.9 | 25.5 | 24.2 | 19.5 | 17.8 | 21.3 |
| Bologna* | 30.0 | 32.7 | 24.2 | 25.3 | 25.5 | 22.4 | 20.3 | 18.3 | 20.6 |
| BE | 41.3 | 47.0 | 35.8 | 35.5 | 38.8 | 32.3 | 25.6 | 24.4 | 26.8 |
| BG | 24.9 | 32.0 | 18.2 | 23.0 | 27.3 | 18.7 | 20.9 | 24.5 | 16.9 |
| CZ | 15.5 | 17.0 | 14.0 | 14.3 | 12.8 | 15.7 | 12.4 | 10.0 | 14.9 |
| DK | 40.1 | 44.0 | 36.2 | 34.1 | 36.8 | 31.6 | 27.3 | 28.7 | 26.0 |
| DE | 23.6 | 24.3 | 22.9 | 26.3 | 22.8 | 29.6 | 24.6 | 19.1 | 30.1 |
| EE | 34.5 | 42.9 | 26.3 | 33.5 | 42.7 | 23.8 | 32.2 | 36.4 | 27.1 |
| IE | 44.3 | 50.9 | 37.8 | 34.8 | 37.1 | 32.6 | 22.1 | 22.0 | 22.2 |
| EL | 27.1 | 30.1 | 24.2 | 25.3 | 25.8 | 24.9 | 16.9 | 13.4 | 20.6 |
| ES | 40.2 | 45.0 | 35.8 | 32.2 | 34.4 | 30.2 | 20.0 | 16.6 | 23.6 |
| FR | 41.5 | 46.1 | 36.8 | 28.7 | 30.5 | 26.8 | 18.3 | 17.9 | 18.7 |
| IT | 18.9 | 22.9 | 14.8 | 14.0 | 15.4 | 12.7 | 10.4 | 9.9 | 11.0 |
| CY | 47.0 | 52.3 | 41.7 | 35.2 | 34.5 | 36.0 | 22.9 | 21.1 | 24.8 |
| LV | 26.3 | 32.7 | 20.0 | 22.9 | 28.3 | 17.3 | 20.3 | 23.5 | 16.5 |
| LT | 38.9 | 45.3 | 32.6 | 28.1 | 33.6 | 22.4 | 23.9 | 26.4 | 21.0 |
| LU | 35.7 | 39.8 | 31.7 | 27.3 | 25.2 | 29.5 | 20.7 | 16.9 | 24.6 |
| HU | 22.0 | 26.2 | 17.9 | 17.8 | 20.4 | 15.2 | 15.9 | 15.6 | 16.2 |
| MT | 22.5 | 25.0 | 20.1 | 11.5 | 9.0 | 13.9 | 7.9 | 6.6 | 9.2 |
| NL | 36.7 | 38.8 | 34.7 | 31.0 | 29.7 | 32.3 | 27.9 | 23.0 | 32.7 |
| AT | 18.9 | 19.2 | 18.6 | 19.1 | 16.1 | 22.1 | 15.9 | 11.8 | 20.2 |
| PL | 30.0 | 35.9 | 24.2 | 17.7 | 21.2 | 14.1 | 12.6 | 13.2 | 11.9 |
| PT | 21.4 | 27.8 | 15.1 | 13.6 | 16.5 | 10.6 | 9.0 | 9.3 | 8.7 |
| RO | 16.6 | 17.7 | 15.6 | 10.1 | 10.3 | 9.9 | 10.1 | 8.5 | 11.8 |
| SI | 30.1 | 40.3 | 20.4 | 22.6 | 25.5 | 19.9 | 17.8 | 18.3 | 17.2 |
| SK | 17.5 | 19.9 | 15.1 | 13.1 | 13.4 | 12.8 | 13.2 | 12.2 | 14.2 |
| FI | 38.8 | 46.9 | 31.1 | 41.3 | 50.4 | 32.5 | 31.8 | 34.6 | 29.1 |
| SE | 39.9 | 45.8 | 34.3 | 31.0 | 36.4 | 25.8 | 27.4 | 31.1 | 23.7 |
| UK | 37.9 | 39.4 | 36.3 | 32.7 | 32.8 | 32.7 | 28.4 | 28.2 | 28.5 |
| HR | 18.3 | 23.4 | 13.6 | 15.7 | 16.5 | 14.9 | 15.7 | 14.0 | 17.4 |
| MK |  |  |  |  |  |  |  |  |  |
| TR | 12.9 | 11.1 | 14.8 | 8.8 | 6.4 | 11.0 | 7.0 | 4.1 | 9.9 |
| IS | 32.5 | 36.8 | 28.5 | 36.4 | 41.4 | 31.7 | 25.4 | 25.8 | 25.0 |
| LI |  |  |  |  |  |  |  |  |  |
| NO | 41.7 | 49.4 | 34.2 | 37.0 | 41.5 | 32.6 | 28.8 | 29.2 | 28.5 |
| CH | 35.0 | 31.0 | 38.9 | 33.8 | 24.9 | 43.1 | 28.0 | 18.3 | 37.6 |
| AD |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |
| AM | 22.5 | 24.2 | 20.9 | 19.6 | 19.5 | 19.8 | 19.4 | 18.8 | 20.0 |
|  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  |
| MD | 20.9 | 23.5 | 18.3 | 15.1 | 17.0 | 13.0 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| RS | 15.7 | 18.9 | 12.8 | 17.5 | 20.4 | 14.5 |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |

[^28]Table D.1b: Percentage of persons with tertiary education aged 25-39, by field of study and sex-2007

|  | Percentage of graduates aged 25-39 with tertiary education, by field of study and sex, 2007 Total (Females + Males) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher training and education science | Humanities, (foreign) languages and arts | Social sciences, business and law | Sciences, mathematics and computing | Engineering, manufacturing and construction | Agriculture and veterinary | Health and welfare | Services |
| EU-27 | 73.2 | 64.5 | 49.7 | 64.5 | 22.7 | 27.5 | 53.7 | 19.4 |
| Bologna* | 90.7 | 62.1 | 53.9 | 73.1 | 26.0 | 25.0 | 59.3 | 18.7 |
| BE | 95.2 | 76.6 | 69.1 | 84.5 | 28.7 | 45.5 | 72.2 | 18.6 |
| BG | 99.9 | 83.1 | 78.0 | 91.0 | 14.5 | 18.1 | 96.8 | 31.7 |
| CZ | 76.4 | 41.7 | 21.7 | 66.8 | 7.1 | 12.7 | 32.9 | 6.4 |
| DK | 100.0 | 68.2 | 40.1 | 47.1 | 31.0 | 35.4 | 69.8 | 26.4 |
| DE | 69.1 | 54.8 | 27.5 | 75.5 | 21.4 | 31.3 | 36.1 | 13.2 |
| EE | 82.1 | 94.0 | 77.8 | 88.1 | 28.8 | 24.3 | 79.6 | 29.4 |
| IE |  |  |  |  |  |  |  |  |
| EL | 91.7 | 66.4 | 66.9 | 56.7 | 35.3 | 79.4 | 61.3 | 45.2 |
| ES | 95.0 | 93.1 | 82.5 | 96.2 | 66.7 | 81.2 | 77.7 | 62.1 |
| FR | 98.5 | 63.0 | 54.6 | 65.6 | 29.2 | 29.1 | 59.3 | 35.0 |
| $1 T$ | 15.5 | 44.1 | 32.2 | 24.1 | 20.9 | 22.8 | 71.9 | 12.1 |
| CY | 98.4 | 56.1 | 50.9 | 80.6 | 33.7 |  | 94.9 | 69.2 |
| LV | 90.7 | 60.6 | 76.9 | 81.2 | 18.0 | 24.1 | 29.4 | 17.5 |
| LT | 92.9 | 94.6 | 81.9 | 88.2 | 30.0 | 32.6 | 82.3 | 20.3 |
| LU | 76.7 | 60.2 | 53.0 | 62.0 | 31.2 |  | 38.1 | 8.7 |
| HU | 97.5 | 61.8 | 35.4 | 66.2 | 9.1 | 29.1 | 32.7 | 14.4 |
| MT | 97.4 |  | 87.6 | 84.4 | 26.0 |  | 81.5 | 18.4 |
| NL | 74.0 | 69.7 | 53.9 | 67.6 | 24.0 | 25.6 | 45.7 | 18.7 |
| AT | 76.0 | 56.2 | 22.3 | 73.1 | 16.7 | 21.8 | 34.7 | 10.5 |
| PL | 94.9 | 91.5 | 60.5 | 69.4 | 10.1 | 14.0 | 36.0 | 5.6 |
| PT | 86.7 | 27.8 | 52.9 | 37.5 | 60.2 | 57.7 | 76.8 | 48.2 |
| RO | 55.4 | 47.5 | 63.3 | 41.3 | 6.6 | 8.7 | 33.7 | 17.7 |
| SI | 86.5 | 62.1 | 45.6 | 94.8 | 15.5 | 23.7 | 51.8 | 17.5 |
| SK | 79.1 | 64.9 | 27.7 | 60.8 | 7.2 | 13.9 | 31.2 | 8.2 |
| FI | 98.9 | 68.6 | 73.9 | 89.0 | 36.3 | 24.5 | 62.2 | 24.1 |
| SE | 87.8 | 47.8 | 49.5 | 77.1 | 33.5 | 18.3 | 53.2 | 24.0 |
| UK | 85.8 | 88.5 | 71.1 | 88.0 | 50.9 | 59.4 | 63.7 | 24.3 |
| HR | 93.5 | 65.1 | 27.3 | 50.4 | 10.0 | 28.3 | 38.5 | 8.0 |
| MK |  |  |  |  |  |  |  |  |
| TR | 83.9 | 33.7 | 66.5 | 86.5 | 31.2 | 96.8 | 73.4 | 40.4 |
| is |  |  |  |  |  |  |  |  |
| LI |  |  |  |  |  |  |  |  |
| No | 96.5 | 35.7 | 63.3 | 60.3 | 25.1 | 23.7 | 68.5 | 36.4 |
| CH | 67.9 | 58.4 | 44.4 | 90.0 | 31.0 | 32.1 | 47.8 | 26.2 |
| AD |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |
| RS | 92.2 |  | 34.0 | 16.0 | 8.3 | 9.6 | 23.4 | 12.5 |
| UA |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

|  | Percentage of graduates aged 25-39 with tertiary education, by field of study and sex, 2007 Females |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher training and education science | Humanities, (foreign) languages and arts | Social sciences, business and law | Sciences, mathematics and computing | Engineering, manufacturing and construction | Agriculture and veterinary | Health and welfare | Services |
| EU-27 | 70.1 | 66.0 | 45.3 | 63.0 | 22.8 | 30.3 | 49.9 | 16.2 |
| Bologna* | 89.7 | 66.3 | 51.4 | 70.7 | 30.6 | 29.1 | 54.3 | 16.1 |
| BE | 95.0 | 80.4 | 64.4 | 87.6 | 37.3 |  | 69.0 | 16.1 |
| BG | 99.9 | 86.9 | 73.9 | 91.3 | 17.5 | 28.4 | 97.2 | 31.6 |
| CZ | 71.2 | 38.7 | 15.5 | 56.7 | 5.9 | 10.1 | 28.1 | 4.3 |
| DK | 100.0 | 69.5 | 33.3 | 40.4 | 53.4 | 40.5 | 66.6 | 9.1 |
| DE | 62.4 | 58.2 | 21.4 | 74.5 | 25.5 | 31.1 | 31.5 | 11.2 |
| EE | 80.6 | 92.8 | 74.1 |  | 31.5 | 31.5 | 80.7 | 27.3 |
| IE |  |  |  |  |  |  |  |  |
| EL | 90.0 | 71.5 | 61.7 | 54.0 | 64.4 | 77.7 | 54.3 | 22.0 |
| ES | 94.0 | 94.7 | 80.1 | 97.2 | 83.1 | 93.0 | 75.9 | 58.4 |
| FR | 98.3 | 64.7 | 51.4 | 65.2 | 39.8 | 43.6 | 55.6 | 29.9 |
| $1 T$ | 15.7 | 46.5 | 30.2 | 29.9 | 34.8 | 35.2 | 69.3 | 10.8 |
| CY | 97.9 | 57.2 | 50.3 | 81.2 | 47.1 |  | 93.5 | 66.6 |
| LV | 89.7 | 56.6 | 73.0 |  | 19.4 | 25.1 | 30.1 | 11.2 |
| LT | 92.2 | 95.4 | 76.8 | 85.7 | 30.7 | 34.5 | 80.7 | 18.7 |
| LU | 74.9 | 65.4 | 46.0 |  |  |  | 32.3 | 7.3 |
| HU | 97.2 | 66.3 | 30.2 | 63.3 | 9.7 | 33.7 | 27.7 | 10.8 |
| MT | 98.3 |  | 83.0 | 91.3 |  |  | 82.2 | 13.5 |
| NL | 76.4 | 73.6 | 50.6 | 65.6 | 18.4 | 26.8 | 42.5 | 14.2 |
| AT | 73.9 | 57.3 | 18.3 | 70.7 | 15.7 | 21.5 | 31.0 | 7.6 |
| PL | 95.0 | 92.4 | 54.4 | 67.6 | 10.7 | 16.2 | 31.5 | 4.0 |
| PT | 89.0 | 32.2 | 56.1 | 45.2 | 81.0 |  | 79.5 | 45.9 |
| RO | 50.7 | 46.5 | 59.7 | 35.9 | 4.7 | 7.7 | 29.6 | 12.8 |
| SI | 86.7 | 67.8 | 44.7 | 94.0 | 20.3 | 29.1 | 51.9 | 17.5 |
| SK | 75.1 | 70.4 | 21.2 | 54.6 | 5.6 | 13.7 | 26.7 | 4.9 |
| FI | 98.6 | 75.3 | 75.6 | 89.9 | 47.0 |  | 61.3 | 22.5 |
| SE | 89.7 | 49.9 | 48.2 | 74.4 | 60.3 | 29.0 | 52.1 | 17.0 |
| UK | 84.4 | 91.0 | 66.7 | 88.1 | 74.7 | 71.8 | 60.2 | 20.6 |
| HR | 94.1 | 67.6 | 25.7 | 46.5 | 13.1 | 13.1 | 38.0 | 3.1 |
| MK |  |  |  |  |  |  |  |  |
| TR | 71.9 | 35.4 | 62.2 | 85.2 | 42.3 | 98.1 | 73.0 | 60.6 |
| is |  |  |  |  |  |  |  |  |
| LI |  |  |  |  |  |  |  |  |
| No | 96.8 | 56.0 | 57.4 | 56.1 |  |  | 65.3 | 27.2 |
| CH | 63.5 | 57.6 | 31.6 | 87.7 | 30.6 |  | 41.6 | 22.5 |
| AD |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |
| RS | 95.0 |  | 29.1 |  | 9.9 | 14.7 | 21.7 | 10.3 |
| RU |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |

[^29]|  | Percentage of graduates aged 25-39 with tertiary education, by field of study and sex, 2007 Males |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher training and education science | Humanities, (foreign) languages and arts | Social sciences, business and law | Sciences, mathematics and computing | Engineering, manufacturing and construction | Agriculture and veterinary | Health and welfare | Services |
| EU-27 | 86.0 | 61.6 | 57.9 | 65.5 | 22.7 | 25.8 | 71.1 | 24.2 |
| Bologna* | 95.3 | 54.6 | 63.2 | 75.9 | 25.2 | 22.8 | 75.0 | 26.3 |
| BE | 95.9 | 70.7 | 77.0 | 82.9 | 26.9 | 39.5 | 86.4 | 23.1 |
| BG | 100.0 | 76.2 | 87.7 | 90.7 | 13.0 | 15.0 | 95.6 | 31.7 |
| Cz | 95.4 | 46.2 | 44.0 | 73.9 | 7.4 | 15.2 | 75.7 | 8.7 |
| DK | 100.0 | 65.8 | 49.3 | 50.1 | 26.9 | 33.1 | 89.9 | 42.9 |
| DE | 88.8 | 48.6 | 39.6 | 75.9 | 20.8 | 31.5 | 57.1 | 16.4 |
| EE | 100.0 | 97.4 | 90.5 | 91.6 | 27.7 | 18.1 |  | 31.5 |
| IE EL |  | 50.1 | 75.2 | 59.2 | 30.5 | 80.8 | 80.4 | 62.7 |
| Es | 99.0 | 90.5 | 87.2 | 95.5 | 64.6 | 76.7 | 84.5 | 72.0 |
| FR | 99.0 | 59.2 | 61.3 | 65.9 | 27.6 | 24.1 | 80.6 | 43.4 |
| $1{ }^{19}$ | 13.1 | 37.4 | 35.4 | 19.2 | 18.4 | 17.8 | 79.5 | 13.7 |
| Cr |  | 52.9 | 51.9 | 80.2 | 30.8 |  | 98.7 | 71.4 |
| Lv | 98.3 |  | 86.2 | 92.1 | 17.6 | 22.8 |  | 28.7 |
| LT | 96.8 | 91.5 | 94.1 | 90.6 | 29.7 | 31.1 | 93.7 | 22.6 |
| Lu | 82.9 |  | 63.2 | 63.7 | 26.5 |  |  | 10.2 |
| HU | 98.7 | 54.4 | 53.2 | 67.2 | 9.0 | 26.2 | 64.0 | 19.2 |
| мт | 95.3 |  | 92.3 | 82.3 | 21.3 |  |  |  |
| NL | 67.4 | 64.8 | 57.2 | 68.3 | 25.2 | 25.0 | 60.2 | 25.8 |
| ${ }^{\text {at }}$ | 86.0 | 54.6 | 31.8 | 74.4 | 16.8 | 22.0 | 51.7 | 17.3 |
| PL | 94.6 | 89.2 | 76.3 | 70.8 | 9.9 | 12.3 | 59.7 | 8.6 |
| ${ }^{\text {PT }}$ | 78.5 | 19.2 | 48.0 | 29.9 | 52.9 |  | 68.3 | 51.3 |
| RO | 71.8 | 49.6 | 70.5 | 46.8 | 7.9 | 9.5 | 52.7 | 19.2 |
| sı |  | 51.5 | 47.7 | 95.3 | 14.2 | 19.5 | 51.3 | 17.6 |
| sk | 95.3 | 57.3 | 60.2 | 67.2 | 7.8 | 14.0 | 69.2 | 12.8 |
| FI |  |  | 70.2 | 88.2 | 34.6 | 22.7 |  | 26.8 |
| SE | 81.9 | 44.9 | 51.4 | 79.0 | 29.3 | 11.1 | 58.9 | 31.6 |
| UK | 91.6 | 85.3 | 77.2 | 87.9 | 48.0 | 51.5 | 79.9 | 30.0 |
| HR |  |  | 33.4 |  | 8.9 | 40.1 |  | 11.7 |
| $\begin{aligned} & \mathrm{MK} \\ & \mathrm{TR} \end{aligned}$ | 978 | 323 |  |  |  |  |  |  |
| is |  |  |  |  |  |  |  |  |
| ı |  |  |  |  |  |  |  |  |
| No | 95.9 | 24.9 | 72.7 | 63.5 | 21.9 | 19.6 | 84.2 | 43.1 |
| CH | 77.4 | 59.7 | 63.9 | 90.8 | 31.1 | 32.9 | 74.0 | 31.6 |
| AD |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |
| Az |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |
| ${ }^{\text {RS }}$ |  |  | 45.7 |  | 7.7 | 4.7 |  | 14.1 |
| RU |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

Table D.2a,b: Gross graduation rate and net entry rate, ISCED 5A — 2000-2006

|  | Gross graduation rates, ISCED 5A |  |  |  |  |  |  | Net entry rates, ISCED 5A |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| EU-27 |  |  |  | 33.0 | 30.8 | 32.2 | 32.5 | 38.7 | 40.7 | 42.6 | 42.1 | 48.4 | 48.7 | 50.0 |
| Bologna* | 24.2 | 28.5 | 24.9 | 28.0 | 31.6 | 30.8 | 33.6 | 35.6 | 39.0 | 38.3 | 38.7 | 42.3 | 45.7 | 46.2 |
| BE |  |  |  |  |  |  |  |  | 31.4 | 31.4 | 32.0 | 32.9 | 31.4 | 23.3 |
| BG | 17.4 | 16.2 | 24.9 | 18.9 | 24.3 | 23.3 | 23.1 | 35.9 | 31.6 | 32.6 | 34.1 | 34.8 | 36.0 | 37.5 |
| CZ | 13.8 | 14.1 | 15.2 | 17.0 | 19.7 | 24.8 | 31.0 | 23.7 | 29.8 | 29.0 | 28.8 | 35.3 | 38.5 | 45.3 |
| DK | 37.9 | 46.4 |  | 43.1 | 46.3 | 50.6 | 49.4 | 25.6 | 40.0 | 45.2 | 48.5 | 50.4 | 50.9 | 52.6 |
| DE | 19.3 | 19.0 | 19.2 | 19.5 | 20.6 | 20.5 | 21.4 | 29.3 | 31.5 | 34.0 | 34.6 | 36.4 | 35.0 | 34.3 |
| EE |  |  |  | 21.0 | 21.3 |  |  |  |  |  |  |  |  | 37.1 |
| IE | 43.6 | 30.5 | 33.0 | 36.9 | 38.2 | 38.3 | 40.2 | 31.1 | 38.0 | 38.3 | 39.7 | 42.4 | 43.4 | 38.8 |
| EL |  |  |  |  |  | 24.5 | 20.0 |  |  |  |  | 33.0 | 42.4 | 46.2 |
| ES |  |  |  | 30.6 | 31.1 | 30.8 | 31.1 | 45.1 | 45.1 | 47.5 | 43.9 | 42.2 | 41.2 | 41.6 |
| FR | 24.2 | 24.3 |  | 25.4 |  |  |  |  | 36.0 | 36.9 | 37.0 |  |  |  |
| $1 T$ | 18.3 | 20.5 | 24.3 | 32.1 | 35.5 | 41.8 | 39.5 |  | 43.9 | 50.4 |  | 55.4 | 54.3 | 54.1 |
| CY |  |  |  |  |  |  |  | 6.7 | 7.1 | 7.3 | 8.3 | 8.1 | 8.4 | 10.8 |
| Lv | 14.2 | 28.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| LT |  |  |  | 31.0 | 33.9 | 39.7 | 44.2 | 39.2 | 44.4 | 48.1 | 49.5 | 50.9 | 46.7 | 47.5 |
| LU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HU |  |  |  |  | 26.9 | 30.0 | 28.2 | 56.7 | 50.4 | 55.1 | 60.9 | 59.7 | 59.9 | 58.2 |
| MT | 35.0 | 19.8 | 22.1 | 23.1 |  | 25.7 |  | 26.8 | 25.0 | 26.8 | 31.3 | 26.0 | 45.5 | 38.0 |
| NL |  |  |  |  | 40.7 | 44.1 | 44.8 | 47.6 | 50.2 | 49.4 | 47.8 | 52.0 | 54.9 | 54.7 |
| AT | 16.3 | 18.1 | 17.8 | 18.4 | 19.5 | 20.5 | 22.1 | 32.4 | 33.0 | 30.2 | 33.4 | 35.9 | 35.8 | 38.5 |
| PL |  | 38.5 | 42.3 | 43.5 | 44.3 | 44.9 | 45.3 |  |  |  |  | 65.0 | 71.0 | 73.2 |
| PT |  |  |  |  | 32.1 | 32.6 | 33.6 |  |  |  |  |  |  | 47.1 |
| RO |  |  |  |  |  |  |  |  | 42.4 | 42.0 | 39.8 | 49.3 | 49.2 | 59.3 |
| SI |  |  |  | 18.5 | 19.4 | 17.7 | 20.6 | 26.6 | 30.9 | 35.3 | 35.1 | 36.8 | 39.2 | 44.3 |
| SK |  |  | 22.9 | 25.1 | 27.0 | 29.4 | 33.7 | 35.3 | 38.0 | 40.5 | 37.6 | 41.2 | 51.7 | 58.9 |
| FI | 39.7 | 43.5 | 47.1 | 47.2 |  | 46.7 | 46.3 | 63.0 | 63.3 | 62.8 | 65.1 | 63.7 | 64.2 | 65.7 |
| SE | 30.5 | 31.3 | 33.4 | 35.1 | 37.5 | 41.2 | 44.1 | 55.2 | 57.2 | 61.9 | 65.2 | 65.0 | 64.4 | 64.7 |
| UK |  | 40.7 | 36.6 | 37.8 | 39.1 | 40.5 | 40.7 | 42.8 | 42.5 | 44.0 | 43.6 | 46.6 | 46.0 | 50.4 |
| HR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MK |  |  |  |  | 14.2 | 15.4 | 17.6 |  |  |  |  |  |  |  |
| TR |  |  |  | 10.4 |  | 10.9 | 15.0 | 20.1 | 19.6 | 21.6 | 22.8 | 24.8 | 26.2 | 30.0 |
| Is | 34.5 | 39.5 | 40.9 | 43.1 | 50.0 | 54.5 | 60.6 | 55.7 | 50.1 | 57.3 | 65.5 | 61.3 | 58.1 | 62.9 |
| LI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No |  |  | 41.1 | 37.6 | 43.3 | 42.7 | 44.6 | 50.4 | 51.3 |  | 56.1 | 57.4 | 64.8 | 57.7 |
| CH |  |  | 21.8 | 20.9 | 25.6 | 28.7 | 31.0 |  |  | 31.2 | 34.1 | 34.7 | 32.9 | 33.8 |
| AD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AM | 18.8 | 19.3 | 18.7 | 20.3 | 20.8 | 22.5 | 25.4 |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  | 25.7 |  |  |  | 29.3 |
| MD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UA | 39.3 | 42.8 | 50.1 | 56.8 | 39.5 | 47.4 | 53.9 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NZ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| JP | 31.3 | 30.4 | 30.9 | 31.6 | 33.0 | 34.1 | 36.7 |  |  |  |  |  |  | 42.7 |
| us | 33.1 |  | 48.4 | 34.4 | 35.0 | 34.5 | 35.4 |  |  | 56.5 | 59.0 | 59.4 | 55.2 | 56.7 |

* 'Bologna' refers to the unweighted median of Bologna countries

Table D.2c: Survival rates, ISCED 5A, 5B and 6, by programme duration- 2004

|  | Tertiary education survival rates, 2004 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ISCED 5A |  |  |  |  | ISCED 5B |  |  |  |  | ISCED 6 |
|  | First degree |  |  |  | First-time 5A, 1 st and 2 nd degree (unduplicated) | First qualification |  |  |  | First-time 5B, 1 st and 2nd qualification (unduplicated) | Ph.D/ <br> Doctor's degrees |
|  | Total | $\begin{gathered} 3 \text { to }<5 \\ \text { years } \\ \hline \end{gathered}$ | 5 to 6 years | More than 6 years |  | Total | $\begin{gathered} 2 \text { to }<3 \\ \text { years } \\ \hline \end{gathered}$ | $3 \text { to }<5$ years | 5 or more years |  |  |
| EU-27 |  | : | : | : | : | : |  | - | - | : | : |
| BE | 74.2 | 75.1 | 71.4 | 81.5 |  | 85.0 |  | 85.0 |  |  | : |
| BG | 80.0 | 80.0 | - | - | : | 71.0 |  | 71.0 |  | - | 30.4 |
| CZ |  |  | : | : | : | : |  |  |  | : | : |
| DK |  |  | : | : | : | : |  |  |  | : | : |
| DE | 73.1 | 92.3 | 64.5 | - | 73.1 | 78.8 | 86.5 | 72. | - | 78.8 | : |
| EE | 51.6 | 54.4 | 30.6 | - | 33.2 | 59.4 | - | 59.4 | - | : | 56.5 |
| EL | 79.3 | 78.3 | 82.9 | : | 73.5 | 97.8 |  | 97.8 |  | 97.8 | : |
| ES | 73.9 | 71.3 | 76.1 | - | 68.8 | 78.8 | 78.8 |  | - | 78.8 | : |
| FR | 78.8 | 74.6 | 90.8 | - | - | 79.2 | 80.0 | 72.7 | - | : | : |
| IE | 83.5 | : | : | : |  | 69.4 |  |  |  |  | : |
| IT | 87.9 | : | : | - | 90.0 | : |  |  | - | : | 87.9 |
| CY | 86.1 | 86.1 | - | - |  | 48.7 | 45.0 | 52.8 | - |  | 65.0 |
| LV |  | : | : | : | : | : |  |  |  | . | : |
| LT | 72.9 | 71.1 | 98.6 | - | 72.9 | 95.0 |  | 95.0 | - | 95.0 | 63.0 |
| LU |  | : | : | : |  | : |  |  |  |  | : |
| HU |  |  | : | : |  | : |  |  |  |  | : |
| MT | 87.0 | 95.7 | 53.7 | - | 66.6 | 80.0 |  | 80.0 | - | 80.0 | : |
| NL | 75.6 | 75.6 | : | : | 75.6 | - | - |  | - | - | : |
| AT | 65.0 | 101.3 | 59.0 | - | 65.0 | : |  |  |  | : | : |
| PL |  |  | - | : |  | : |  |  |  |  | : |
| PT | 67.6 | 62.1 | 71.6 | - | 67.6 | 58.0 |  | 58.0 |  | 58.0 | 65.2 |
| SI | 62.6 | 61.9 | 67.1 | - |  | 61.8 | 71.8 | 59.2 | - | : | : |
| SK |  | : | : | - |  | 77.0 | 79.6 | 69.5 |  | 77.0 | : |
| RO |  | : | : | - |  | : | : |  |  |  | : |
| FI |  | : | : | - | 70.7 | : |  |  | - | : | : |
| SE | 60.4 | : | : | - |  | 67.9 |  |  |  |  | : |
| UK | 77.7 | 77.6 | 84.3 | 52.8 | 79.0 | 52.9 | . |  | : | : | 70.0 |
| HR |  | : | : | : |  | : |  |  |  |  | : |
| TR | 43.7 | 43.7 | : | - |  | 42.5 | 42.5 |  | - | : | 42.0 |
| MK | 52.2 | 50.1 | 61.3 | - | : | 38.4 | 38.4 |  | - | : | : |
| IS |  | : | : | : |  | : |  |  |  |  | : |
| LI |  | : | : | : | : | : |  |  |  | : | : |
| NO |  |  | : | : | : | : |  |  |  | : | : |
| CH | : | 71.3 | 68.3 | : | : | : | : |  |  | : | : |
| AL |  | : | : | : | : | : | : |  |  | : | : |

Note: CH, 2007 data

Table D.3a: Unemployment rate of graduates aged 20-34, by sex and educational attainment (low, medium, high) - 2003-2007 cumulated

|  | Unemployment rate of graduates aged 20-34, by sex and educational attainment (low, medium, high), 2003-2007 cumulated |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Low |  | Medium |  |  | High |  |  |
|  | Total | Female | Male | Total | Female | Male | Total | Female | Male |
| EU-27 | 16.3 | 19.2 | 14.7 | 10.9 | 11.9 | 10.1 | 7.0 | 7.7 | 6.2 |
| Bologna* | 16.4 | 18.9 | 15.9 | 9.6 | 10.6 | 8.7 | 5.7 | 6.2 | 5.3 |
| BE | 23.6 | 29.0 | 20.6 | 11.7 | 14.4 | 9.7 | 6.6 | 6.3 | 6.9 |
| BG | 28.6 | 29.5 | 28.1 | 10.8 | 11.2 | 10.6 | 6.7 | 7.4 | 5.6 |
| CZ | 34.2 | 38.4 | 31.5 | 8.0 | 10.8 | 6.1 | 3.3 | 4.2 | 2.6 |
| DK | 8.8 | 9.7 | 8.1 | 5.0 | 5.9 | 4.3 | 5.6 | 6.1 | 5.1 |
| DE | 22.2 | 20.6 | 23.3 | 9.8 | 8.3 | 11.0 | 4.6 | 5.1 | 4.2 |
| EE | 16.9 | 18.2 | 16.3 | 9.1 | 11.3 | 7.6 | 4.2 | 4.0 | 4.5 |
| IE | 12.4 | 11.6 | 12.7 | 4.9 | 4.9 | 4.9 | 3.4 | 3.2 | 3.5 |
| EL |  |  |  |  |  |  |  |  |  |
| ES | 13.7 | 20.1 | 10.3 | 11.8 | 15.0 | 9.0 | 10.2 | 11.8 | 8.2 |
| FR | 21.7 | 25.7 | 19.4 | 11.1 | 13.7 | 9.1 | 7.5 | 7.5 | 7.4 |
| IT | 13.7 | 19.6 | 11.1 | 11.1 | 13.2 | 9.2 | 12.8 | 14.0 | 11.1 |
| CY | 7.3 | 8.5 | 6.7 | 5.4 | 5.6 | 5.2 | 5.8 | 6.6 | 4.6 |
| LV | 15.9 | 18.3 | 15.0 | 8.9 | 10.3 | 7.8 | 4.5 | 4.8 | 3.9 |
| LT | 15.6 | 14.1 | 16.3 | 10.3 | 10.6 | 10.1 | 5.2 | 5.0 | 5.5 |
| LU | 9.4 | 10.7 | 8.6 | 5.2 | 6.5 | 4.2 | 5.0 | 6.0 | 4.0 |
| HU | 19.6 | 21.0 | 18.9 | 8.1 | 9.5 | 7.3 | 4.1 | 4.5 | 3.7 |
| MT | 9.8 | 9.4 | 10.0 | 4.3 | 5.0 | 3.8 | 3.5 | 3.5 | 3.6 |
| NL | 7.6 | 9.1 | 6.8 | 3.7 | 4.0 | 3.5 | 2.5 | 2.2 | 2.8 |
| AT | 13.9 | 13.3 | 14.5 | 4.6 | 4.8 | 4.5 | 3.8 | 4.1 | 3.5 |
| PL | 39.5 | 44.3 | 37.1 | 22.3 | 25.5 | 20.0 | 10.1 | 11.2 | 8.5 |
| PT | 9.7 | 12.5 | 7.7 | 9.4 | 10.6 | 8.0 | 10.7 | 11.4 | 9.4 |
| RO | 12.6 | 9.9 | 14.4 | 10.0 | 9.0 | 10.7 | 6.4 | 6.7 | 6.1 |
| SI | 17.1 | 19.8 | 15.7 | 8.8 | 11.4 | 6.8 | 5.7 | 6.3 | 4.6 |
| SK | 67.2 | 67.6 | 67.0 | 15.8 | 17.9 | 14.3 | 7.1 | 8.3 | 5.8 |
| FI | 18.2 | 22.5 | 16.2 | 10.8 | 11.7 | 10.2 | 4.8 | 5.6 | 3.7 |
| SE | 19.8 | 21.6 | 18.7 | 8.8 | 9.3 | 8.4 | 6.1 | 5.9 | 6.4 |
| UK | 11.9 | 11.2 | 12.3 | 5.9 | 5.7 | 6.1 | 3.6 | 3.4 | 3.9 |
| HR | 23.5 | 26.6 | 21.6 | 17.4 | 20.6 | 15.1 | 14.4 | 15.1 | 13.2 |
| MK |  |  |  |  |  |  |  |  |  |
| TR | 10.1 | 7.6 | 10.9 | 12.3 | 19.3 | 10.2 | 11.9 | 14.7 | 10.0 |
| IS | 4.9 | 4.9 | 4.9 | 3.7 | 4.4 | 3.1 | 1.8 | 2.0 | 1.6 |
| LI |  |  |  |  |  |  |  |  |  |
| NO | 9.9 | 9.5 | 10.1 | 5.3 | 5.5 | 5.2 | 3.5 | 3.2 | 4.0 |
| CH |  |  |  |  |  |  |  |  |  |
| AD |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |
| AM | 38.1 | 52.8 | 30.5 | 44.0 | 55.3 | 29.1 | 32.7 | 40.3 | 24.6 |
| AZ |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  |
| MD | 17.8 | 9.3 | 20.7 | 11.0 | 8.6 | 13.2 | 7.9 | 7.0 | 8.9 |
| ME |  |  |  |  |  |  |  |  |  |
| RS | 23.0 | 26.9 | 20.3 | 20.9 | 24.4 | 18.6 | 18.0 | 17.5 | 18.8 |
| RU | 21.2 | 22.5 | 20.6 | 12.9 | 14.1 | 12.2 | 6.8 | 7.1 | 6.5 |
| UA |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

Table D.3b: Unemployment rate of tertiary education graduates aged 20-34, by sex and number of years since graduation - 2003-2007 cumulated

|  | Unemployment rate of tertiary education graduates aged 20-34, by gender and number of years since graduation ( $0-2,3$ and more), 2003-2007 cumulated |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-2 |  |  | 3+ |  |  |
|  | Total | Females | Males | Total | Females | Males |
| EU-27 | 13.0 | 13.9 | 11.9 | 4.7 | 5.3 | 4.1 |
| Bologna* | 11.3 | 11.4 | 9.4 | 3.4 | 3.6 | 2.8 |
| BE | 13.7 | 12.5 | 15.2 | 3.8 | 3.8 | 3.8 |
| BG | 13.3 | 14.3 | 11.7 | 4.8 | 5.4 | 3.8 |
| CZ | 7.3 | 7.4 | 7.1 | 1.4 | 1.7 | 1.2 |
| DK | 10.5 | 11.4 | 9.4 | 2.9 | 3.1 | 2.6 |
| DE | 6.4 | 7.4 | 5.6 | 3.7 | 3.9 | 3.5 |
| EE | 4.9 | 4.1 | 6.4 | 3.3 | 3.2 | 3.5 |
| IE | 9.0 | 8.8 | 9.3 | 2.8 | 2.8 | 2.8 |
| EL | 31.9 | 37.3 | 22.3 | 11.0 | 13.2 | 8.4 |
| ES | 19.5 | 21.5 | 16.9 | 7.6 | 9.3 | 5.6 |
| FR | 15.4 | 15.0 | 15.9 | 5.5 | 5.8 | 5.3 |
| IT | 25.0 | 27.3 | 21.9 | 6.6 | 7.5 | 5.3 |
| CY | 13.5 | 14.1 | 12.6 | 3.5 | 4.5 | 2.1 |
| LV | 6.8 | 6.5 | 7.3 | 3.0 | 3.3 | 2.7 |
| LT | 7.9 | 7.5 | 8.4 | 3.6 | 3.5 | 3.8 |
| LU | 12.1 | 14.6 | 9.3 | 2.8 | 2.9 | 2.6 |
| HU | 10.0 | 10.4 | 9.5 | 2.3 | 2.4 | 2.1 |
| MT | 5.4 | 3.4 | 7.9 | 1.6 | 2.0 | 1.1 |
| NL | 3.8 | 3.2 | 4.4 | 1.7 | 1.6 | 1.8 |
| AT | 6.3 | 7.8 | 4.8 | 2.4 | 2.3 | 2.5 |
| PL | 14.9 | 16.1 | 12.9 | 4.6 | 5.2 | 3.8 |
| PT | 19.8 | 21.4 | 16.8 | 6.5 | 6.9 | 5.6 |
| RO | 16.2 | 16.7 | 15.5 | 2.9 | 2.9 | 2.8 |
| SI | 12.3 | 13.1 | 10.8 | 2.9 | 3.5 | 1.6 |
| SK | 14.6 | 15.8 | 13.0 | 3.5 | 4.3 | 2.8 |
| FI | 6.9 | 7.7 | 5.8 | 3.7 | 4.4 | 2.7 |
| SE | 7.2 | 7.1 | 7.4 | 3.0 | 3.2 | 2.8 |
| UK | 8.0 | 7.3 | 8.8 | 2.3 | 2.2 | 2.5 |
| HR | 26.9 | 28.5 | 24.1 | 8.3 | 7.9 | 9.0 |
| MK |  |  |  |  |  |  |
| TR | 24.3 | 26.8 | 22.2 | 7.5 | 9.3 | 6.3 |
| IS | 2.0 | 2.2 | 1.7 | 2.2 | 2.1 | 2.3 |
| LI $\quad$ l ${ }^{\text {L }}$ |  |  |  |  |  |  |
| NO |  |  |  |  |  |  |
| CH | 5.5 | 6.2 | 5.0 | 3.2 | 4.2 | 2.5 |
| AD |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |
| RS | 30.2 |  |  | 13.0 | 12.4 | 13.9 |
| RU $\quad \square$ |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |

[^30]Table D.3c: Unemployment rate of tertiary education graduates, by field of study and age - 2003-2007 cumulated

|  | Unemployment rate of tertiary education graduates aged 20-34, by field of study, 2003-2007 cumulated |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher training and education science | Humanities, (foreign) languages and arts | Social sciences, business and law | Sciences, mathematics and computing | Engineering, manufacturing and construction | Agriculture and veterinary | Health and welfare | Services |
| EU-27 | 6.2 | 9.7 | 7.4 | 7.4 | 5.4 | 7.6 | 4.4 | 7.6 |
| Bologna* | 3.9 | 8.1 | 5.6 | 5.7 | 5.1 | 6.1 | 3.5 | 5.2 |
| BE | 5.7 | 11.8 | 7.2 | 6.1 | 5.2 | 8.0 | 3.5 | 7.6 |
| BG | 9.7 | 8.1 | 6.7 | 5.9 | 5.5 | 11.1 | 4.4 | 5.3 |
| Cz | 4.3 | 3.4 | 2.3 | 3.5 | 2.9 | 3.4 | 2.6 | 2.3 |
| DK | 3.9 | 11.2 | 5.6 | 7.3 | 5.4 | 1.8 | 3.4 | 3.4 |
| DE | 3.9 | 7.3 | 4.2 | 5.5 | 4.6 | 3.5 | 4.2 | 4.4 |
| EE | 3.3 | 4.4 | 4.4 | 2.1 | 5.1 | 9.9 | 1.6 | 4.6 |
| IE | 3.6 | 5.7 | 2.8 | 4.1 | 3.1 | 4.2 | 1.8 | 4.1 |
| EL | 15.9 | 18.9 | 14.7 | 15.5 | 10.9 | 20.7 | 17.0 | 8.1 |
| ES | 12.0 | 15.6 | 10.6 | 11.1 | 6.2 | 13.7 | 8.9 | 12.9 |
| FR | 2.0 | 10.8 | 8.4 | 7.0 | 6.1 | 5.8 | 3.0 | 8.9 |
| ${ }^{1 T}$ | 11.8 | 17.7 | 13.8 | 12.6 | 9.2 | 14.5 | 6.1 | 14.6 |
| Cr | 3.9 | 10.7 | 5.2 | 10.0 | 2.3 | 5.1 | 6.2 | 3.8 |
| Lv | 2.9 | 4.6 | 5.0 | 3.7 | 6.3 | 2.4 | 3.3 | 3.1 |
| Lt | 4.4 | 5.7 | 5.1 | 4.4 | 3.9 | 6.4 | 2.4 | 5.4 |
| LU | 3.5 | 7.6 | 5.1 | 5.6 | 4.3 | 4.0 | 5.6 | 3.3 |
| HU | 4.4 | 4.5 | 4.1 | 4.6 | 2.8 | 6.1 | 2.0 | 6.0 |
| MT | 1.3 | 10.9 | 4.4 | 4.0 | 2.8 |  | 2.1 | 2.7 |
| NL | 1.4 | 4.1 | 2.3 | 3.3 | 2.5 | 2.0 | 1.8 | 1.7 |
| At | 2.9 | 7.4 | 4.3 | 4.9 | 2.6 | 1.1 | 2.8 | 5.1 |
| PL | 10.2 | 10.0 | 9.2 | 10.2 | 6.3 | 9.6 | 6.4 | 12.7 |
| PT | 14.0 | 14.4 | 9.9 | 11.5 | 8.6 | 8.4 | 7.3 | 12.3 |
| RO | 3.3 | 6.3 | 7.1 | 7.4 | 6.0 | 4.5 | 5.1 | 4.8 |
| SI | 6.0 | 8.6 | 6.4 | 2.8 | 3.8 | 6.9 | 4.1 | 7.5 |
| Sk | 6.4 | 8.9 | 7.3 | 8.1 | 6.1 | 11.2 | 4.2 | 8.8 |
| FI | 3.4 | 9.0 | 6.0 | 6.5 | 3.2 | 4.1 | 3.5 | 4.4 |
| SE | 4.1 | 11.3 | 6.9 | 10.3 | 6.3 | 7.9 | 3.4 | 4.5 |
| UK | 2.5 | 4.9 | 3.7 | 4.4 | 2.8 | 3.3 | 2.0 | 4.2 |
| HR | 16.4 | 11.8 | 15.6 | 9.8 | 9.1 | 16.4 | 9.4 | 18.9 |
| мк |  |  |  |  |  |  |  |  |
| TR | 7.7 | 12.8 | 13.6 | 16.2 | 12.9 | 14.5 | 4.4 | 14.3 |
| is | 1.2 | 2.6 | 2.4 | 2.3 | 1.3 | 0.0 | 1.0 | 5.4 |
| L |  |  |  |  |  |  |  |  |
| No | 2.0 | 4.3 | 2.5 | 3.3 | 3.4 | 6.4 | 1.2 | 1.7 |
| CH | 2.3 | 5.5 | 4.4 | 4.8 | 3.2 | 2.9 | 2.1 | 6.5 |
| AD |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |
| Az |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |
| ${ }^{\text {RS }}$ | 6.7 | 7.2 | 20.0 |  | 20.8 |  |  |  |
| RU |  |  |  |  |  |  |  |  |
| UA VA |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

|  | Unemployment rate of tertiary education graduates aged 35-44, by field of study, 2003-2007 cumulated |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher training and education science | Humanities, (foreign) languages and arts | Social sciences, business and law | Sciences, mathematics and computing | Engineering, manufacturing and construction | Agriculture and veterinary | Health and welfare | Services |
| EU-27 | 2.7 | 5.1 | 3.8 | 3.5 | 3.0 | 2.9 | 2.1 | 4.3 |
| Bologna* | 1.9 | 3.6 | 2.9 | 2.9 | 2.8 | 3.0 | 1.7 | 2.9 |
| BE | 1.9 | 5.5 | 3.8 | 2.7 | 2.1 | 2.2 | 1.7 | 6.3 |
| BG | 4.5 | 5.3 | 3.2 | 2.9 | 3.6 | 2.0 | 1.8 | 4.9 |
| CZ | 0.8 | 1.0 | 1.6 | 1.5 | 1.2 | 3.6 | 1.8 | 2.4 |
| DK | 2.3 | 6.8 | 3.0 | 6.2 | 3.1 | 2.8 | 2.1 | 2.9 |
| DE | 3.4 | 5.2 | 3.4 | 4.0 | 3.8 | 3.0 | 3.1 | 4.2 |
| EE | 5.2 | 1.3 | 4.7 | 2.8 | 4.2 | 5.7 | 0.8 | 5.3 |
| IE | 1.4 | 2.2 | 1.8 | 3.0 | 2.0 | 1.1 | 1.1 | 2.8 |
| EL | 2.8 | 5.7 | 5.2 | 3.1 | 4.0 | 8.0 | 3.3 | 2.8 |
| Es | 4.5 | 6.5 | 5.8 | 4.9 | 3.2 | 3.8 | 4.5 | 6.2 |
| FR | 1.0 | 8.1 | 5.7 | 5.1 | 3.4 | 2.5 | 1.8 | 8.3 |
| IT | 3.6 | 4.0 | 2.8 | 2.4 | 1.9 | 1.6 | 1.5 | 2.4 |
| CY | 1.8 | 3.4 | 1.9 | 1.7 | 2.9 |  | 1.7 | 3.7 |
| Lv | 1.7 | 2.1 | 3.0 | 4.5 | 3.7 | 1.2 | 1.2 | 5.1 |
| LT | 3.9 | 3.9 | 2.4 | 2.5 | 3.7 | 1.7 | 3.1 | 5.3 |
| LU | 1.3 | 3.8 | 3.0 | 2.3 | 3.1 | 3.1 | 3.3 | 2.5 |
| Hu | 1.8 | 2.7 | 1.8 | 3.6 | 1.2 | 1.2 | 0.3 | 2.9 |
| MT | 2.0 | 0.6 | 1.2 | 2.8 | 0.0 |  | 0.0 | 7.4 |
| NL | 1.6 | 3.9 | 2.2 | 2.8 | 1.9 | 3.4 | 1.5 | 2.4 |
| ${ }^{\text {at }}$ | 1.7 | 2.7 | 2.9 | 3.8 | 2.2 | 1.5 | 1.2 | 3.1 |
| PL | 1.4 | 4.6 | 2.8 | 3.4 | 2.8 | 0.8 | 0.7 | 4.4 |
| PT | 2.3 | 4.9 | 5.4 | 2.4 | 3.2 | 3.3 | 0.3 | 3.8 |
| RO | 1.3 | 1.4 | 2.4 | 1.3 | 1.7 | 3.1 | 1.7 | 1.3 |
| SI | 2.2 | 2.6 | 1.8 | 0.6 | 0.9 | 0.8 | 3.1 | 2.0 |
| SK | 2.4 | 2.5 | 4.1 | 5.3 | 1.7 | 5.8 | 1.9 | 3.2 |
| FI | 1.5 | 5.8 | 4.6 | 4.9 | 3.1 | 4.6 | 2.1 | 2.8 |
| SE | 2.6 | 9.3 | 5.0 | 5.7 | 4.2 | 3.8 | 1.9 | 3.0 |
| UK | 2.0 | 3.1 | 2.2 | 2.1 | 1.9 | 1.3 | 1.2 | 2.8 |
| HR | 3.2 | 7.0 | 4.8 | 4.4 | 5.2 | 4.2 | 0.9 | 2.1 |
| мк |  |  |  |  |  |  |  |  |
| TR | 1.0 | 3.2 | 4.0 | 2.2 | 4.1 | 4.8 | 0.7 | 2.0 |
| is | 0.6 | 0.6 | 1.9 | 2.8 | 1.1 |  | 0.2 | 1.5 |
| $\mathrm{LI}^{\prime}$ |  |  |  |  |  |  |  |  |
| No | 1.5 | 2.5 | 2.0 | 3.1 | 1.3 | 3.5 | 0.6 | 0.7 |
| Сн | 3.3 | 2.6 | 2.6 | 2.5 | 1.9 | 1.2 | 2.6 | 2.8 |
| AD |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |
| Az |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

* 'Bologna' refers to the unweighted median of Bologna countries

Table D.4a: Annual gross income (cash and non-cash) of workers (family workers excluded) in PPS EUR, by educational attainment - 2006

|  | Annual gross income (cash and non-cash) of workers (family workers excluded), in EUR PPS, by educational attainment (low, medium, high), 2006 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High |  |  | Medium |  |  | Low |  |  |
|  | median | P25 | P75 | median | P25 | P75 | median | P25 | P75 |
| EU-25 | 25178 | 14369 | 38571 | 15428 | 7254 | 25192 | 12349 | 5194 | 20576 |
| Bologna* | 24695 | 16801 | 34781 | 16687 | 8771 | 23167 | 12208 | 3636 | 19843 |
| BE | 30276 | 23100 | 40583 | 23653 | 16554 | 30221 | 21047 | 13882 | 27273 |
| BG |  |  |  |  |  |  |  |  |  |
| CZ | 15051 | 11356 | 20960 | 9505 | 6713 | 12718 | 5706 | 3762 | 8056 |
| DK | 30280 | 21318 | 38216 | 24498 | 14073 | 31065 | 15879 | 3077 | 25799 |
| DE | 33371 | 19744 | 44953 | 20484 | 9412 | 30396 | 7138 | 3141 | 18457 |
| EE | 9512 | 6110 | 15040 | 6820 | 4389 | 10362 | 5016 | 3055 | 7653 |
| IE | 28885 | 17927 | 44502 | 15827 | 7219 | 25157 | 15246 | 7262 | 25873 |
| EL |  |  |  |  |  |  |  |  |  |
| ES | 22195 | 13799 | 32430 | 15419 | 9988 | 22342 | 13383 | 8423 | 18644 |
| FR | 23298 | 15625 | 34157 | 17390 | 11393 | 23132 | 15767 | 8322 | 21260 |
| IT |  |  |  |  |  |  |  |  |  |
| CY | 13909 | 8554 | 20863 | 9022 | 5183 | 13561 | 7989 | 4822 | 12054 |
| LV |  |  |  |  |  |  |  |  |  |
| LT | 10080 | 6166 | 14552 | 5274 | 3481 | 8286 | 3563 | 1639 | 5795 |
| LU | 51278 | 33023 | 78155 | 32166 | 20845 | 47700 | 20915 | 14860 | 30271 |
| HU | 14021 | 9347 | 19673 | 7031 | 4715 | 10298 | 4963 | 2482 | 6972 |
| MT | 10970 | 8702 | 13605 | 8528 | 6526 | 10761 | 6932 | 5283 | 8702 |
| NL | 32169 | 18774 | 47781 | 20227 | 8771 | 30592 | 13645 | 3636 | 26652 |
| AT | 31032 | 20913 | 43946 | 21587 | 13492 | 29683 | 12208 | 6091 | 19843 |
| PL | 12543 | 7991 | 19065 | 7254 | 4583 | 10936 | 5012 | 2418 | 7443 |
| PT |  |  |  |  |  |  |  |  |  |
| RO |  |  |  |  |  |  |  |  |  |
| SI | 29252 | 17933 | 38501 | 14268 | 7381 | 20004 | 8990 | 1305 | 12937 |
| SK | 9397 | 6968 | 12451 | 6907 | 4746 | 8769 | 4229 | 940 | 5638 |
| FI | 24695 | 16801 | 34781 | 16687 | 7008 | 23167 | 10466 | 1593 | 20618 |
| SE | 22651 | 11076 | 31205 | 19104 | 9200 | 25482 | 14739 | 1715 | 22515 |
| UK | 30856 | 19305 | 45269 | 20206 | 11614 | 30856 | 17382 | 9360 | 26742 |
| HR |  |  |  |  |  |  |  |  |  |
| MK |  |  |  |  |  |  |  |  |  |
| TR |  |  |  |  |  |  |  |  |  |
| IS | 33208 | 22419 | 49145 | 22762 | 10983 | 34482 | 14616 | 6257 | 25831 |
| LI |  |  |  |  |  |  |  |  |  |
| NO | 31010 | 16955 | 40613 | 24734 | 10224 | 33386 | 12214 | 2457 | 25126 |
| CH |  |  |  |  |  |  |  |  |  |
| AD |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

Table D.4b: Annual gross income (cash and non-cash) of workers (family workers excluded) with tertiary education in PPS EUR, by sex - 2006

|  | Annual gross income (cash and non-cash) of workers (family workers excluded) with tertiary education, in EUR PPS, by sex, 2006 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  |  | Females |  |  | Males |  |  |
|  | median | P25 | P75 | median | P25 | P75 | median | P25 | P75 |
| EU-25 | 25178 | 14369 | 38571 | 20595 | 11652 | 30856 | 31801 | 19055 | 45898 |
| Bologna* | 24695 | 16801 | 34781 | 21846 | 13406 | 28422 | 30778 | 20667 | 42957 |
| BE | 30276 | 23100 | 40583 | 26530 | 20136 | 34118 | 35779 | 27032 | 48330 |
| BG |  |  |  |  |  |  |  |  |  |
| CZ | 15051 | 11356 | 20960 | 13072 | 9734 | 16218 | 17902 | 13341 | 24753 |
| DK | 30280 | 21318 | 38216 | 27872 | 19940 | 33509 | 34856 | 25461 | 45654 |
| DE | 33371 | 19744 | 44953 | 24428 | 13053 | 35253 | 38407 | 27630 | 51058 |
| EE | 9512 | 6110 | 15040 | 8321 | 5259 | 12063 | 12539 | 7811 | 19615 |
| IE | 28885 | 17927 | 44502 | 24123 | 14530 | 38198 | 36440 | 21743 | 55063 |
| EL |  |  |  |  |  |  |  |  |  |
| ES | 22195 | 13799 | 32430 | 19096 | 11383 | 27966 | 25450 | 16857 | 36511 |
| FR | 23298 | 15625 | 34157 | 20864 | 13406 | 27905 | 27597 | 18329 | 41255 |
| IT |  |  |  |  |  |  |  |  |  |
| CY | 13909 | 8554 | 20863 | 11289 | 6926 | 17733 | 16227 | 11011 | 24108 |
| LV |  |  |  |  |  |  |  |  |  |
| LT | 10080 | 6166 | 14552 | 8737 | 5598 | 12830 | 12180 | 6961 | 17554 |
| LU | 51278 | 33023 | 78155 | 42090 | 25648 | 56048 | 65588 | 44031 | 95401 |
| HU | 14021 | 9347 | 19673 | 12780 | 8682 | 17205 | 16730 | 10739 | 22827 |
| MT | 10970 | 8702 | 13605 | 10030 | 8052 | 11602 | 11979 | 9393 | 15827 |
| NL | 32169 | 18774 | 47781 | 23617 | 14129 | 34069 | 42284 | 26821 | 57362 |
| AT | 31032 | 20913 | 43946 | 24286 | 15404 | 35113 | 35704 | 26409 | 51270 |
| PL | 12543 | 7991 | 19065 | 11672 | 7584 | 16676 | 14376 | 8972 | 22824 |
| PT |  |  |  |  |  |  |  |  |  |
| RO |  |  |  |  |  |  |  |  |  |
| SI | 29252 | 17933 | 38501 | 27848 | 16673 | 35041 | 31280 | 20667 | 44082 |
| SK | 9397 | 6968 | 12451 | 8457 | 5779 | 10572 | 10627 | 7698 | 14208 |
| FI | 24695 | 16801 | 34781 | 21846 | 14397 | 28422 | 30778 | 20877 | 42957 |
| SE | 22651 | 11076 | 31205 | 20144 | 8966 | 26672 | 27731 | 15812 | 37485 |
| UK | 30856 | 19305 | 45269 | 24685 | 15428 | 37542 | 36751 | 24685 | 53999 |
| HR |  |  |  |  |  |  |  |  |  |
| MK |  |  |  |  |  |  |  |  |  |
| TR |  |  |  |  |  |  |  |  |  |
| IS | 33208 | 22419 | 49145 | 27987 | 19413 | 37160 | 46374 | 31455 | 63629 |
| LI |  |  |  |  |  |  |  |  |  |
| NO | 31010 | 16955 | 40613 | 27063 | 14495 | 34528 | 37299 | 24377 | 49246 |
| CH |  |  |  |  |  |  |  |  |  |
| AD |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

Table D.5a: Proportion of people with tertiary education aged 25-34 and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO 3 (technicians and associate professionals) and not in ISCO 1/213, by sex - 2007

|  | Proportion of people with tertiary education aged 25-34 and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO3 (technicians and associate professionals)and not in ISCO1\|2|3, by sex, 2007 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  |  | Females |  |  | Males |  |  |
|  | ISCO $1 / 2$ | ISCO 3 | Not ISCO $1 / 2 \mid 3$ | ISCO 1\|2 | ISCO 3 | Not ISCO 1/2\|3 | ISCO 1/2 | ISCO 3 | Not ISCO 1\|2|3 |
| EU-27 | 50.5 | 24.5 | 24.9 | 48.3 | 26.4 | 25.3 | 53.0 | 22.5 | 24.5 |
| Bologna* | 55.2 | 21.8 | 18.4 | 54.5 | 24.1 | 17.0 | 57.1 | 19.2 | 19.9 |
| BE | 60.2 | 15.1 | 24.7 | 61.5 | 13.1 | 25.4 | 58.6 | 17.5 | 23.9 |
| BG | 54.2 | 17.4 | 28.4 | 55.0 | 17.3 | 27.7 | 52.9 | 17.7 | 29.4 |
| CZ | 60.3 | 32.1 | 7.6 | 57.8 | 33.5 | 8.7 | 62.4 | 31.0 | 6.6 |
| DK | 46.7 | 37.6 | 15.8 | 37.8 | 47.2 | 15.0 | 56.7 | 26.6 | 16.7 |
| DE | 58.4 | 22.0 | 19.5 | 54.5 | 27.6 | 17.9 | 62.2 | 16.7 | 21.0 |
| EE | 53.5 | 26.0 | 20.5 | 50.5 | 30.4 | 19.1 | 57.8 | 19.8 | 22.3 |
| IE | 51.2 | 11.1 | 37.7 | 52.1 | 11.5 | 36.4 | 50.0 | 10.7 | 39.2 |
| EL | 51.9 | 20.5 | 27.6 | 54.2 | 22.2 | 23.6 | 49.4 | 18.6 | 32.0 |
| ES | 35.4 | 22.6 | 42.0 | 37.7 | 21.9 | 40.4 | 33.0 | 23.3 | 43.7 |
| FR | 40.2 | 33.1 | 26.7 | 35.0 | 35.4 | 29.6 | 46.3 | 30.5 | 23.2 |
| IT | 41.7 | 36.8 | 21.5 | 37.3 | 39.1 | 23.6 | 47.7 | 33.6 | 18.6 |
| CY | 45.0 | 18.6 | 36.4 | 44.1 | 14.9 | 41.0 | 46.1 | 23.1 | 30.7 |
| LV | 53.2 | 30.7 | 16.1 | 51.8 | 33.0 | 15.2 | 55.2 | 27.4 | 17.4 |
| LT | 56.0 | 18.5 | 25.5 | 56.2 | 23.9 | 20.0 | 55.8 | 11.4 | 32.8 |
| LU | 85.6 | 10.8 | 3.5 | 82.6 | 12.0 | 5.4 | 89.2 | 9.4 | 1.4 |
| HU | 65.5 | 20.2 | 14.3 | 63.2 | 21.9 | 14.9 | 68.2 | 18.2 | 13.6 |
| MT | 72.4 | 18.2 | 9.4 | 72.7 | 17.7 | 9.5 | 72.1 | 18.6 | 9.2 |
| NL | 63.3 | 21.5 | 15.2 | 64.2 | 20.9 | 14.8 | 62.4 | 22.1 | 15.6 |
| AT | 58.7 | 19.6 | 21.7 | 57.5 | 25.6 | 16.9 | 59.7 | 14.1 | 26.2 |
| PL | 61.8 | 17.4 | 20.8 | 60.6 | 18.1 | 21.3 | 63.5 | 16.5 | 20.0 |
| PT | 55.7 | 23.3 | 21.0 | 53.6 | 24.3 | 22.1 | 59.4 | 21.6 | 19.0 |
| RO | 73.0 | 15.5 | 11.5 | 72.3 | 17.4 | 10.3 | 73.7 | 13.5 | 12.8 |
| SI | 69.3 | 19.9 | 10.8 | 68.1 | 20.9 | 11.0 | 71.3 | 18.2 | 10.5 |
| SK | 54.8 | 32.9 | 12.3 | 54.5 | 33.3 | 12.2 | 55.1 | 32.5 | 12.4 |
| FI | 55.2 | 27.2 | 17.6 | 45.4 | 35.3 | 19.3 | 67.4 | 17.1 | 15.5 |
| SE | 51.6 | 30.5 | 17.9 | 48.8 | 34.1 | 17.1 | 55.1 | 26.0 | 18.9 |
| UK | 52.1 | 23.4 | 24.6 | 48.3 | 24.7 | 27.0 | 55.9 | 22.0 | 22.1 |
| HR | 55.1 | 28.3 | 16.6 | 58.4 | 27.0 | 14.6 | 49.9 | 30.3 | 19.8 |
| MK |  |  |  |  |  |  |  |  |  |
| TR | 54.1 | 17.8 | 28.1 | 57.5 | 18.6 | 23.9 | 52.2 | 17.4 | 30.4 |
| IS |  |  |  |  |  |  |  |  |  |
| LI |  |  |  |  |  |  |  |  |  |
| NO | 29.8 | 52.6 | 17.6 | 24.8 | 59.0 | 16.2 | 36.5 | 44.1 | 19.5 |
| CH | 55.2 | 26.0 | 18.8 | 51.7 | 31.4 | 16.9 | 57.5 | 22.3 | 20.2 |
| AD |  |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |  |
| MD | 78.8 | 5.5 | 15.8 | 82.9 | 5.4 | 11.7 | 74.2 | 5.6 | 20.3 |
| ME |  |  |  |  |  |  |  |  |  |
| RS | 50.3 | 34.4 | 15.3 | 51.8 | 36.5 | 11.7 | 47.6 | 30.8 | 21.7 |
| RU | 76.4 | 10.0 | 13.6 | 77.8 | 10.5 | 11.7 | 74.7 | 9.5 | 15.9 |
| UA |  |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |  |

[^31]Table D.5c: Proportion of people aged 25-34 with tertiary education being vertically mismatched, by field of study and sex — 2007

|  | Percentage of vertically mismatched (not in ISCO 1, 2, or 3) employees with tertiary education aged 25-34, by field of study and sex, 2003-2007 cumulated. Total (Males + Females) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher training and education science | Humanities, (foreign) languages and arts | Social sciences, business and law | Sciences, mathematics and computing | Engineering, manufacturing and construction | Agriculture and veterinary | Health and welfare | Services |
| EU-27 | 12.8 | 25.1 | 28.8 | 15.8 | 25.7 | 37.9 | 11.8 | 49.2 |
| Bologna* | 10.3 | 17.6 | 21.1 | 13.7 | 16.3 | 30.7 | 7.1 | 46.7 |
| BE | 10.2 | 32.1 | 37.8 | 16.5 | 19.4 | 34.1 | 9.6 | 55.4 |
| BG | 23.4 | 25.1 | 26.6 | 21.9 | 36.5 | 26.2 | 11.3 | 54.6 |
| CZ | 5.8 | 7.4 | 9.6 | 4.0 | 4.9 | 8.8 | 5.2 | 28.8 |
| DK | 6.4 | 32.5 | 18.1 | 13.3 | 14.1 | 48.2 | 3.8 | 51.7 |
| DE | 8.0 | 16.7 | 21.4 | 6.3 | 30.3 | 46.5 | 10.9 | 57.4 |
| EE | 4.7 | 13.0 | 21.0 | 19.1 | 32.4 | 56.1 | 6.8 | 47.6 |
| IE | 12.0 | 35.6 | 35.5 | 27.8 | 30.4 | 33.3 | 17.2 | 61.1 |
| EL | 17.5 | 21.1 | 27.7 | 14.4 | 23.2 | 36.1 | 14.5 | 73.8 |
| ES | 28.0 | 36.7 | 44.1 | 27.8 | 50.3 | 36.1 | 26.9 | 64.8 |
| FR | 3.2 | 26.5 | 35.2 | 13.1 | 20.7 | 52.4 | 4.7 | 39.0 |
| IT | 20.3 | 30.0 | 29.7 | 16.9 | 10.0 | 20.7 | 8.9 | 27.8 |
| CY | 15.2 | 27.2 | 39.0 | 19.2 | 30.7 | 38.1 | 19.6 | 85.0 |
| LV | 14.5 | 12.9 | 14.2 | 19.1 | 20.6 | 24.7 | 1.5 | 18.8 |
| LT | 14.4 | 13.8 | 24.8 | 17.0 | 48.7 | 58.4 | 6.9 | 60.2 |
| LU | 0.9 | 6.2 | 4.7 | 4.0 | 4.2 | 12.8 | 5.0 | 19.7 |
| HU | 10.6 | 7.6 | 14.3 | 8.3 | 8.4 | 21.3 | 8.5 | 43.3 |
| MT | 1.3 | 8.8 | 12.6 | 4.1 | 2.9 | 29.0 | 2.8 | 27.7 |
| NL | 10.5 | 19.5 | 16.1 | 8.1 | 12.8 | 22.9 | 9.8 | 33.2 |
| AT | 10.3 | 17.7 | 18.4 | 14.0 | 34.0 | 49.9 | 6.3 | 50.1 |
| PL | 13.7 | 14.0 | 24.3 | 17.5 | 18.0 | 27.2 | 5.8 | 38.5 |
| PT | 11.9 | 27.5 | 24.3 | 13.0 | 12.5 | 21.7 | 7.8 | 44.7 |
| RO | 6.4 | 8.0 | 12.8 | 12.2 | 11.5 | 17.6 | 3.3 | 33.1 |
| SI | 2.1 | 6.6 | 10.7 | 2.8 | 7.3 | 27.0 | 2.6 | 23.4 |
| SK | 7.7 | 8.9 | 14.7 | 8.8 | 11.6 | 26.6 | 4.2 | 37.1 |
| FI | 4.3 | 16.5 | 31.4 | 6.1 | 10.2 | 41.0 | 9.9 | 58.4 |
| SE | 9.2 | 34.1 | 20.9 | 19.6 | 14.6 | 29.4 | 10.4 | 47.6 |
| UK | 13.3 | 26.6 | 25.7 | 16.1 | 23.5 | 39.3 | 17.1 | 46.1 |
| HR | 7.9 | 6.8 | 21.3 | 7.2 | 13.6 | 28.5 | 3.4 | 21.4 |
| MK |  |  |  |  |  |  |  |  |
| TR | 5.8 | 11.7 | 42.9 | 19.1 | 31.5 | 31.9 | 4.5 | 59.1 |
| IS | 5.3 | 26.8 | 17.4 | 12.8 | 12.7 | 33.1 | 2.6 | 47.3 |
| LI |  |  |  |  |  |  |  |  |
| No | 12.4 | $26.7$ | $16.3$ | 18.9 | 13.1 | 27.1 | 7.2 | 37.3 |
| CH | 10.5 | $17.6$ | 18.0 | 6.6 | 22.7 | 54.9 | 9.8 | 47.4 |
| AD |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |
| VA |  |  |  |  |  |  |  |  |


|  | Percentage of vertically mismatched (not in ISCO 1, 2, or 3) employees with tertiary education aged 25-34, by field of study and sex, 2003-2007 cumulated. Females |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher training and education science | Humanities, (foreign) languages and arts | Social sciences, business and law | Sciences, mathematics and computing | Engineering, manufacturing and construction | Agriculture and veterinary | Health and welfare | Services |
| EU-27 | 12.5 | 25.3 | 32.5 | 18.0 | 19.0 | 27.5 | 12.3 | 51.5 |
| Bologna* | 9.3 | 19.5 | 22.8 | 15.9 | 16.1 | 27.9 | 6.9 | 43.0 |
| BE | 9.9 | 35.2 | 42.1 | 19.7 | 23.8 | 27.9 | 10.1 | 61.3 |
| BG | 21.2 | 24.0 | 27.6 | 25.0 | 45.6 | 34.8 | 10.4 | 52.9 |
| CZ | 4.3 | 5.3 | 13.7 | 3.8 | 5.5 | 8.0 | 6.6 | 21.9 |
| DK | 6.5 | 34.4 | 22.6 | 22.6 | 15.5 | 28.2 | 3.7 | 36.3 |
| DE | 8.1 | 17.3 | 22.6 | 7.9 | 18.8 | 23.4 | 10.9 | 61.4 |
| EE | 5.3 | 11.3 | 23.8 | 31.7 | 43.0 | 55.7 | 6.5 | 38.1 |
| IE | 12.0 | 36.3 | 40.1 | 28.2 | 21.2 | 37.0 | 16.8 | 57.8 |
| EL | 17.0 | 19.5 | 28.5 | 16.1 | 15.7 | 34.3 | 16.3 | 60.6 |
| ES | 27.5 | 35.2 | 47.9 | 31.6 | 25.3 | 18.9 | 28.1 | 66.9 |
| FR | 3.2 | 26.1 | 40.7 | 14.3 | 17.3 | 37.2 | 4.9 | 43.7 |
| IT | 19.7 | 29.5 | 32.3 | 17.7 | 12.1 | 19.8 | 8.5 | 23.0 |
| CY | 16.4 | 29.7 | 47.7 | 30.6 | 24.3 | 26.7 | 20.4 | 88.1 |
| Lv | 13.4 | 15.3 | 16.8 | 22.0 | 24.6 | 28.1 | 1.9 | 13.7 |
| LT | 14.4 | 12.6 | 26.2 | 17.4 | 50.5 | 52.8 | 7.0 | 59.5 |
| LU | 1.0 | 8.0 | 5.5 | 8.6 | 6.8 | 13.0 | 6.1 | 25.7 |
| HU | 10.4 | 9.9 | 15.7 | 9.2 | 13.2 | 30.1 | 9.0 | 33.0 |
| MT | 1.9 | 12.1 | 13.6 | 4.0 |  |  | 2.6 | 33.4 |
| NL | 8.7 | 21.1 | 17.2 | 9.4 | 12.1 | 25.5 | 10.1 | 34.7 |
| AT | 9.9 | 20.6 | 21.5 | 15.6 | 22.4 | 36.1 | 5.8 | 54.6 |
| PL | 11.4 | 14.0 | 25.5 | 16.6 | 16.1 | 27.4 | 5.7 | 38.2 |
| PT | 10.4 | 31.1 | 26.3 | 11.6 | 12.8 | 17.8 | 8.4 | 46.6 |
| RO | 6.1 | 8.4 | 10.7 | 11.4 | 12.4 | 17.1 | 3.1 | 21.9 |
| SI | 1.5 | 5.7 | 11.2 | 3.9 | 11.7 | 24.9 | 2.8 | 26.3 |
| SK | 6.5 | 10.3 | 16.7 | 10.8 | 14.3 | 42.5 | 3.2 | 31.8 |
| FI | 4.3 | 18.2 | 35.8 | 8.7 | 12.1 | 29.3 | 9.5 | 53.3 |
| SE | 7.8 | 33.4 | 21.7 | 19.9 | 12.3 | 21.7 | 9.7 | 47.1 |
| UK | 14.6 | 28.1 | 30.0 | 18.6 | 18.5 | 26.5 | 19.2 | 53.2 |
| HR | 6.4 | 3.9 | 22.5 | 8.6 | 15.3 | 51.1 | 3.1 | 28.0 |
| MK |  |  |  |  |  |  |  |  |
| TR | 3.1 | 11.9 | 46.0 | 15.6 | 25.0 | 33.2 | 3.1 | 49.0 |
| IS | 4.9 | 32.9 | 23.0 | 19.3 | 28.1 | 24.7 | 2.9 | 54.9 |
| LI |  |  |  |  |  |  |  |  |
| No | 12.1 | 32.5 | 17.0 | 17.8 | 9.0 | 6.6 | 6.8 | 37.4 |
| CH | 10.3 | 19.4 | 20.7 | 6.1 | 19.4 | 32.9 | 8.8 | 42.3 |
| AD |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

|  | Percentage of vertically mismatched (not in ISCO 1, 2, or 3) employees with tertiary education aged 25-34, by field of study and sex, 2003-2007 cumulated. Males |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher training and education science | Humanities, (foreign) languages and arts | Social sciences, business and law | Sciences, mathematics and computing | Engineering, manufacturing and construction | Agriculture and veterinary | Health and welfare | Services |
| EU-27 | 13.7 | 24.7 | 23.6 | 14.5 | 27.2 | 44.1 | 10.3 | 47.2 |
| Bologna* | 11.4 | 16.4 | 19.2 | 13.0 | 16.8 | 33.7 | 7.6 | 42.7 |
| BE | 11.5 | 26.5 | 31.9 | 14.6 | 18.3 | 36.7 | 8.3 | 47.5 |
| BG | 35.5 | 27.6 | 24.7 | 17.6 | 31.5 | 19.7 | 15.0 | 55.5 |
| CZ | 8.7 | 10.0 | 5.5 | 4.1 | 4.8 | 9.2 | 1.2 | 32.8 |
| DK | 6.0 | 28.9 | 14.2 | 10.0 | 13.6 | 57.6 | 4.5 | 54.7 |
| DE | 7.6 | 15.8 | 20.3 | 5.7 | 32.6 | 58.8 | 10.8 | 53.5 |
| EE |  | 15.3 | 15.8 | 12.9 | 28.0 | 56.4 | 8.8 | 54.4 |
| IE | 11.8 | 34.2 | 28.9 | 27.4 | 31.5 | 32.3 | 18.8 | 65.3 |
| EL | 20.3 | 28.2 | 26.6 | 13.4 | 26.0 | 37.2 | 11.4 | 78.4 |
| ES | 29.7 | 38.8 | 37.9 | 25.4 | 54.6 | 45.7 | 23.0 | 61.5 |
| FR | 3.0 | 27.3 | 25.7 | 12.4 | 21.3 | 58.8 | 3.8 | 34.1 |
| IT | 25.9 | 31.7 | 26.4 | 15.9 | 9.2 | 21.4 | 9.8 | 33.0 |
| CY | 11.0 | 20.6 | 27.4 | 12.9 | 32.4 | 40.7 | 17.8 | 83.2 |
| LV | 21.5 | 7.1 | 9.7 | 16.8 | 19.2 | 22.8 |  | 21.2 |
| LT | 14.6 | 17.0 | 21.8 | 16.6 | 48.1 | 60.8 | 6.6 | 60.7 |
| LU | 0.8 | 1.4 | 4.1 | 2.6 | 3.4 | 12.6 | 2.5 | 15.7 |
| HU | 11.3 | 3.8 | 12.3 | 8.0 | 7.3 | 15.7 | 6.8 | 49.9 |
| MT |  | 4.5 | 11.6 | 4.1 | 3.5 | 29.0 | 3.1 | 24.5 |
| NL | 16.1 | 17.3 | 15.1 | 7.6 | 12.9 | 21.4 | 9.0 | 32.0 |
| AT | 11.8 | 12.5 | 14.5 | 13.3 | 36.0 | 55.4 | 7.6 | 44.1 |
| PL | 21.6 | 14.0 | 22.1 | 18.1 | 18.4 | 26.9 | 6.2 | 38.8 |
| PT | 18.4 | 18.3 | 20.6 | 15.0 | 12.4 | 29.3 | 5.6 | 41.4 |
| RO | 7.3 | 7.1 | 16.1 | 13.0 | 11.1 | 17.8 | 3.9 | 34.7 |
| SI | 7.1 | 10.6 | 9.6 | 2.1 | 5.7 | 29.2 | 1.8 | 20.7 |
| SK | 11.3 | 7.1 | 12.1 | 7.5 | 11.0 | 18.6 | 6.4 | 38.3 |
| FI | 4.6 | 10.8 | 22.7 | 4.0 | 9.8 | 47.7 | 12.1 | 66.4 |
| SE | 14.3 | 35.3 | 19.7 | 19.5 | 15.3 | 36.5 | 12.9 | 47.9 |
| UK | 8.8 | 24.5 | 20.9 | 14.8 | 24.4 | 50.1 | 9.9 | 39.3 |
| HR | 21.2 | 13.0 | 18.6 | 6.0 | 12.8 | 17.1 | 4.5 | 19.5 |
| MK |  |  |  |  |  |  |  |  |
| TR | 7.8 | 11.6 | 41.2 | 21.0 | 33.2 | 31.3 | 6.8 | 64.0 |
| IS | 8.4 | 17.1 | 12.3 | 9.3 | 10.2 | 35.4 | 1.6 | 9.5 |
| LI |  |  |  |  |  |  |  |  |
| No | 13.1 | 20.9 | 15.5 | 19.6 | 14.1 | 35.2 | 9.3 | 37.2 |
| CH | 10.9 | 14.3 | 16.2 | 6.7 | 23.2 | 61.3 | 12.0 | 51.5 |
| AD |  |  |  |  |  |  |  |  |
| AL |  |  |  |  |  |  |  |  |
| AM |  |  |  |  |  |  |  |  |
| AZ |  |  |  |  |  |  |  |  |
| BA |  |  |  |  |  |  |  |  |
| GE |  |  |  |  |  |  |  |  |
| MD |  |  |  |  |  |  |  |  |
| ME |  |  |  |  |  |  |  |  |
| RS |  |  |  |  |  |  |  |  |
| RU |  |  |  |  |  |  |  |  |
| UA |  |  |  |  |  |  |  |  |

* 'Bologna' refers to the unweighted median of Bologna countries

Table D.5d: Qualifications mismatch as reported by employed graduates with more or less 5 years of experience since leaving higher education, by type of mismatch (horizontal, vertical, or both), ISCED 5A second degree - 2005

|  | Qualifications mismatch as self-reported by employed graduates with more or less 5 years of experience since leaving higher education, by type of mismatch (horizontal, vertical, or both), ISCED 5 A second degree ( 5 years or more providing direct access to doctorate), 2005 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Exact match | Horizontal + vertical mismatch | Vertical mismatch | Horizontal mismatch |
| BE | 71 | 7 | 13 | 8 |
| CZ | 80 | 4 | 6 | 10 |
| DE | 77 | 5 | 10 | 7 |
| EE | 63 | 6 | 24 | 6 |
| ES | 66 | 13 | 18 | 3 |
| FR | 76 | 4 | 10 | 10 |
| IT | 73 | 8 | 11 | 8 |
| NL | 66 | 8 | 17 | 9 |
| ${ }^{\text {at }}$ | 79 | 5 | 5 | 10 |
| FI | 83 | 4 | 7 | 6 |
| UK | 49 | 18 | 27 | 6 |
| No | 79 | 5 | 13 | 3 |
| CH | 83 | 5 | 4 | 7 |

Source: Reflex, 2005


[^0]:    ${ }^{(1)}$ Website: http://epp.eurostat.ec.europa.eu
    ${ }^{(2)}$ Website: http://www.his.de/

[^1]:    ${ }^{(1)}$ See: http://www.dcsf.gov.uk/londonbologna/uploads/documents/Socialdimensionandmobilityreport.pdf.

[^2]:    ${ }^{22}$ London communiqué, 2007, paragraph 3.4.
    ${ }^{(3)}$ See Bologna Working Programme 2007-2009. Members: Luxembourg (chair), Eurostat, Eurostudent, Eurydice, DG EAC, Education International, the European Student's association, the European University Association, the Academic cooperation Association, Bosnia-Herzegovina, Croatia, France, Germany, Hungary, Italy, Latvia, Switzerland and the United Kingdom.

[^3]:    ${ }^{(4)}$ For more information on this classification system please refer to the methodological part of the annex.

[^4]:    ${ }^{55}$ For a description of the sources, please refer to the methodological part of the annex.

[^5]:    ${ }^{(2)}$ Eurydice - Eurostat: Key data on higher education - 2007.

[^6]:    Source: Eurostat, UOE

[^7]:    ${ }^{(3)}$ London Communiqué 2007

[^8]:    Source: Eurostudent III.

[^9]:    Source: Eurostudent, 2008, "Social and Economic Conditions of Student Life in Europe".

[^10]:    ${ }^{(4)}$ Eurydice－Eurostat，＂Key data on higher education＂， 2007.

[^11]:    Note: The Bologna median is very sensitive to coverage differences from one year to the next: in 2005 were introduced Estonia, Romania and Croatia with relatively high values. This explains the sharp increase observed in 2005.

    Source: Eurostat, UOE.

[^12]:    ${ }^{(1)}$ Bertoncini, Y. (2008). Le soutien de l'État à la mobilité européenne des jeunes: un rôle plus que subsidiaire. La note de veille, 116, 1-6.

[^13]:    ${ }^{(2)}$ The Czech Republic in 2000 and 2002, Ireland in 2000-2006, Greece in 2000-2003, Italy in 2001-2003 and 2005, Cyprus in 2000, Lithuania in 2000-2004, Luxembourg in 2000-2006, Austria in 2000 and 2004-2006 - Austria where German students accounted for $15 \%$ of all foreign students enrolled in 2003 Poland in 2000-2006, Portugal in 2002, and Liechtenstein in 2000-2004.

[^14]:    ${ }^{(3)}$ See Eurostudent National Profiles on: http://www.eurostudent.eu/publications

[^15]:    - (Very) Strong influence factor for students, who have not been abroad

[^16]:    Source: Eurostudent III.

[^17]:    ${ }^{1}$ Rogot, E, Sorlie, P. D., \& Johnson, N. J. (1992). Life Expectancy by Employment Status, Income, and Education in the National Longitudinal Mortality Study. Public Health Reports, 107 (4), 457-461.

[^18]:    Note: Gross graduation rate for EU-27: only 18 countries in 2004, 20 in 2005, 19 in 2006.

[^19]:    * 'Bologna' refers to the unweighted median of Bologna countries

[^20]:    * 'Bologna' refers to the unweighted median of Bologna countries

[^21]:    * 'Bologna' indicator refers to the unweighted median of Bologna countries

[^22]:    * 'Bologna' indicator refers to the unweighted median of Bologna countries

[^23]:    * 'Bologna' indicator refers to the unweighted median of Bologna countries

[^24]:    Note: Amounts rounded to the nearest 10 Euros

[^25]:    * 'Bologna' indicator refers to the unweighted median of Bologna countries

[^26]:    * 'Bologna' refers to the unweighted median of Bologna countries

[^27]:    * 'Bologna' refers to the unweighted median of Bologna countries

[^28]:    * 'Bologna' refers to the unweighted median of Bologna countries

[^29]:    * 'Bologna' refers to the unweighted median of Bologna countries

[^30]:    * 'Bologna' refers to the unweighted median of Bologna countries

[^31]:    * 'Bologna' refers to the unweighted median of Bologna countries

