

FOREWORD

This report has been prepared for the 2012 Bucharest Ministerial Conference – the first such event since the launch of the European Higher Education Area in 2010. This conference is taking place at a difficult time for Europe, with unemployment reaching record levels in many parts of the continent, and youth unemployment being a particular concern. It is a timely moment to ask how the Bologna Process in higher education can help in finding solutions to the crisis, and to assess progress after a decade of effort in implementing reforms.

First of all, as the report shows, the Bologna Process has achieved remarkable results over its first decade, driving positive change in European higher education. The foundations of the European Higher Education Area are now in place, enabling better quality education with greater opportunities for mobility for all. The Bologna Process is a European success story of which we should be proud.

However, there is much more to be done. Precisely because we are living through a time of crisis, I am convinced that now is the moment to step up both the pace and the direction of change.

The Bologna Process has provided a framework for common efforts to reform and modernise our higher education systems. We now need to ensure that our efforts deliver real benefits on the ground, to students, to staff, to the economy and to society more widely. We must strive for continued improvement in quality, stimulate mobility, ensure the relevance for our labour markets of the higher education offered, and above all we must significantly develop opportunities for greater numbers of students to access higher education.

Why is this agenda so important? Firstly, Europe needs more graduates. Future jobs are going to require people with more and better skills, and if we wish to be competitive on the global stage, we need to pursue a common agenda to implement the full range of reforms that have been agreed to compete in a global knowledge economy. This is what lies at the heart of the European Union's Europe 2020 strategy, and it is also vital for economic regeneration and sustainability of the wider continent of Europe. This strategy will be empty if education and higher education reform are not addressed seriously. Our citizens need to be able to develop their potential if our countries are to fulfil theirs.

This report delivers clear messages on the challenges ahead. It draws on authoritative qualitative and quantitative information from each country, combining the contributions of all formerly separate stocktaking organisations (Eurydice, Eurostat, Eurostudent) under the guidance of the Bologna Follow Up Group in a single report. I think the result is a great success. The clear, comparative view of how higher education reforms and modernisation have been addressed at national level provides material

that will be used in our higher education debates across Europe well beyond the Bucharest Ministerial Conference.

The Conference marks a defining moment in the Bologna Process - moving from intergovernmental agreements, from sometimes hasty system adaptations and reactions, to sound and comparable implementation. We will continue to work together to achieve our common objectives.

The road to follow laid down in the Bucharest Ministerial Communiqué needs to be followed throughout the European Higher Education Area. I can promise the full support of the European Commission on this journey.

Androulla Vassiliou

Commissioner responsible for
Education, Culture, Multilingualism and Youth

INTRODUCTION

The Bologna context

The Bologna Declaration was signed in 1999 by 29 European ministers responsible for higher education. This set in motion the most significant European cooperation process ever to take place in the field of higher education. Reforms have now affected countries within and beyond Europe, and the number of official signatory countries has risen to 47 with Kazakhstan the most recent state to join (Budapest/Vienna 2010).

The Bologna process 1999 – 2009

Mobility of students and teachers	Mobility of students, teachers, researchers and administrative staff	Social dimension of mobility	Portability of loans and grants Improvement of mobility data	Attention to visa and work permits	Challenges of visa and work permits, pension systems and recognition	Benchmark of 20 % by 2020 for student mobility
A common two-cycle degree system	Easily readable and comparable degrees	Fair recognition Development of recognised Joint degrees	Inclusion of doctoral level as third cycle	FQ-EHEA adopted National Qualifications Frameworks launched	National Qualifications Frameworks by 2010	National Qualifications Frameworks by 2012
		Social dimension	Equal access	Reinforcement of the social dimension	Commitment to produce national action plans with effective monitoring	National targets for the social dimension to be measured by 2020
		Lifelong learning (LLL)	Alignment of national LLL policies Recognition of Prior Learning (RPL)	Flexible learning paths in higher education	Role of higher education in LLL Partnerships to improve employability	LLL as a public responsibility requiring strong partnerships Call to work on employability
Use of credits	A system of credits (ECTS)	ECTS and Diploma Supplement (DS)	ECTS for credit accumulation		Need for coherent use of tools and recognition practices	Continuing implementation of Bologna tools
	European cooperation in quality assurance	Cooperation between quality assurance and recognition professionals	Quality assurance at institutional, national and European level	European Standards and Guidelines for quality assurance adopted	Creation of the European Quality Assurance Register (EQAR)	Quality as an overarching focus for EHEA
Europe of Knowledge	European dimensions in higher education	Attractiveness of the European Higher Education Area	Links between higher education and research areas	International cooperation on the basis of values and sustainable development	Strategy to improve the global dimension of the Bologna process adopted	Enhance global policy dialogue through Bologna Policy Fora
1998	1999	2001	2003	2005	2007	2009
Sorbonne Declaration	Bologna Declaration	Prague Communiqué	Berlin Communiqué	Bergen Communiqué	London Communiqué	Leuven/Louvain-la-Neuve Communiqué

The chart outlines the main milestones of the Ministerial Conferences within the Bologna process up to 2009. It illustrates that several main themes can be followed throughout the first decade. These include a common degree system, a European system of credits, mobility, cooperation in quality assurance, national qualifications frameworks, lifelong learning, employability and the social dimension of higher education.

The Leuven Communiqué (2009) sets the agenda for the new decade, with a new target for mobility in 2020, and clear goals for the other main action lines. These goals and objectives are all addressed in the report, and the combined analysis across the seven chapters aims to present a picture of the current reality of the European Higher Education Area.

Report Outline

This integrated report has been prepared for the European Ministerial Conference in Bucharest, Romania, on 26-27 April 2012.

The report describes the state of implementation of the Bologna Process in 2012 from various perspectives and with data collected in 2011. It provides both qualitative information and statistical data and covers all main aspects of higher education reforms aiming at a well-functioning European Higher Education Area.

The report has been developed as a fully collaborative exercise between the Bologna Follow-up Group (BFUG) and Eurostat, Eurostudent and Eurydice, commonly referred to within the process as "the data collectors".

Qualitative information was gathered through a questionnaire addressed to BFUG members which was submitted, after consultation with all relevant national actors, by the Bologna representatives in 45 countries between January and May 2011. Information for the Former Yugoslav Republic of Macedonia and Russia is partial due to non completion of the questionnaire. The questionnaire covered all topics addressed in this report with the exception of mobility. Information on mobility was gathered by the BFUG Mobility Working Group, in cooperation with the data collectors in autumn 2010. The reason for this earlier collection is that the information was required to enable the mobility working group to elaborate a strategy for mobility in the EHEA.

The report is based mainly on official information about legislation, regulations and national policies, which is complemented by statistical data collected by Eurostat and survey data from the European student population provided by Eurostudent. Eurostat data is extracted from the UOE, LFS and EU-SILC data collections. Moreover, Eurostat undertook a specific data collection for the Bologna countries that are not part of regular data gathering exercises. Eurostudent data is taken from the Eurostudent IV dataset which is analysed in detail in Eurostudent, 2011 Social and Economic Conditions of Student Life in Europe.

The work of the data collectors has been overseen by the Bologna Follow - up Group, and specifically by a working group established to guide all aspects of this reporting process. The group has been co-chaired by Germain Dondelinger (Luxembourg) and Andrejs Rauhvargers (Latvia). Close collaboration has also been established with the BFUG working groups on mobility, social dimension, international openness, qualifications frameworks and recognition. Contact was not developed with the Working Group responsible for monitoring Transparency Tools as it was agreed that this topic was beyond the scope of the report.

The report is divided into seven thematic chapters that each has an introduction presenting the relevance of the topic in the Bologna process, the work of BFUG working groups, and an outline of the chapter contents.

1. CONTEXT OF THE EUROPEAN HIGHER EDUCATION AREA

The 47 countries in the European Higher Education Area (EHEA) have to implement policies in very different contexts. This first chapter of the report sets the scene for the coming comparison showing the differences in countries that are united in the EHEA. It provides an understanding of the different structures, sizes and conditions under which higher education institutions function.

Chapter outline

The structure of the chapter is the following. First, it looks at the size of the student population in the EHEA countries as well as the changes in the number of students enrolled in tertiary education between 2003/04 and 2008/09. It also examines whether demographic projections are taken into account in higher education steering documents. Second, the chapter categorises higher education institutions and shows the diversity in the different countries. Finally, it compares the level of public expenditure on higher education in the EHEA, as well as its changes before and after the economic crisis.

1.1. Student population

The size of the student population is very diverse in the 47 countries of the EHEA. Total numbers shown in Figure 1.1 vary between 754 in Liechtenstein and 9.909.160 in Russia (academic year 2008/09). Russia alone takes up more than 25 % of the student population of the whole EHEA, while students from the five countries with the highest number of tertiary education students (Russia, Turkey, the Ukraine, Germany, and the United Kingdom) represent more than 50 %. France, Poland, Italy and Spain also have more than 1.500.000 students, while there are less than 200.000 students in 14 countries (out of those where data is available). This illustrates well the diversity of contexts within the EHEA.

Figure 1.1: Number of students enrolled in tertiary education by ISCED level, academic year 2008/09

Number	RU	UA	PL	TR	IT	UK	FR	ES	RO	NL	SE	CZ	HU
ISCED 5A	7 513 119	2 364 541	2 096 200	2 013 638	1 966 014	1 806 862	1 548 740	1 472 132	1 069 723	609 868	377 191	360 029	358 445
ISCED 5B	2 244 125	399 332	21 304	874 697	6 300	526 667	552 397	251 491	573	885	25 478	32 638	32 323
ISCED 6	151 916	34 820	32 494	35 946	39 399	81 693	71 718	77 211	27 892	7 749	19 911	24 906	6 911
	PT	FI	AT	BG	AL	SK	NO	BE	DK	CH	LT	AZ	IE
ISCED 5A	357 325	275 777	258 519	242 574	111 516	222 519	211 095	205 507	198 786	165 680	146 422	142 903	126 794
ISCED 5B	398	122	31 160	27 724	8 725	2 061	1 258	207 207	28 725	48 732	61 383	35 644	48 494
ISCED 6	15 279	20 792	18 471	3 949	1 054	10 417	6 929	12 505	7 063	19 076	2 939	1 729	7 321
	AM	MD	LV	HR	SI	MK	EE	CY	IS	MT	DE	LI	
ISCED 5A	121 444	116 084	102 211	92 230	76 318	62 836	42 915	17 451	16 312	9 650	1 998 060	724	
ISCED 5B	31 803	17 205	21 124	43 737	36 079	2 135	23 019	13 092	325	628	440 540	:	
ISCED 6	1 392	1 858	2 025	3 102	1 994	229	2 465	443	282	74	:	30	

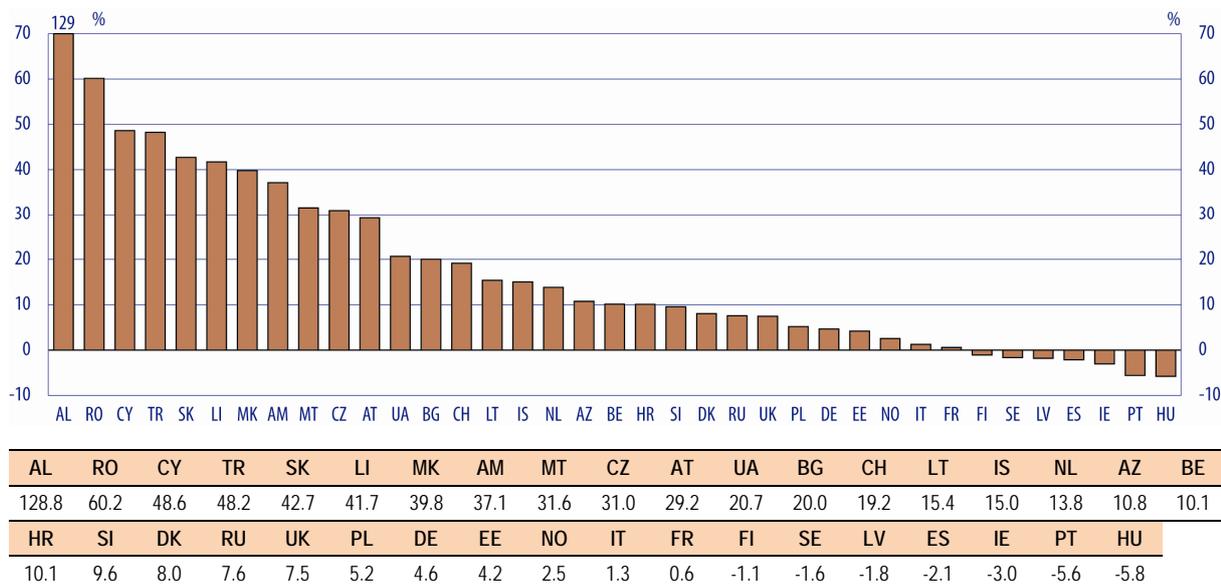
Notes: Reference year for Albania is 2009/10.

Source: Eurostat, UOE and additional collection for the other EHEA countries

Concerning the change in the total student population between 2003/04 and 2008/09, the picture remains rather mixed (see Figure 1.2). There was a slight decline in student numbers in seven countries in these five years, while the number of students grew considerably in Albania, Romania,

Cyprus and Turkey also registered an increase of more than 40 %. In general, student population increased by more than 10 % in half of the EHEA countries in this period.

Figure 1.2: Change in the total number of students enrolled in tertiary education between 2003/04 and 2008/09

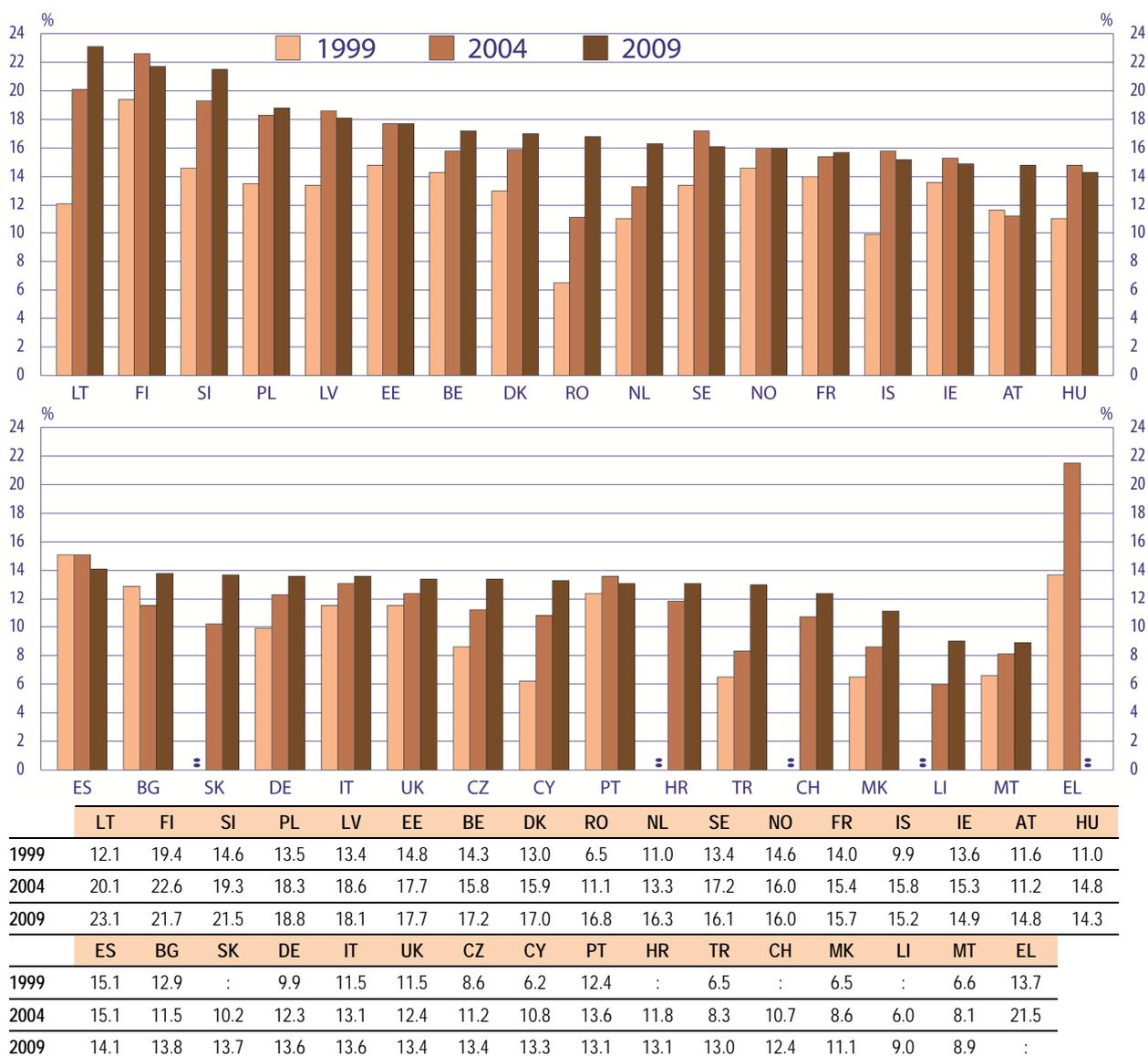


Notes: Albania: from 2003/04 to 2009/10.

Source: Eurostat, UOE and additional collection for the other EHEA countries

Certainly, changes in the student population depend on many factors, for example on demographic changes. Therefore, trends in participation rates – measuring the number of students as a proportion of the relevant population – need to be examined as well. Such trends confirm the above findings concerning the growth in student numbers. As Figure 1.3 shows, participation has increased by a third across all countries, reflecting the continuing move towards the "massification" of higher education. Growth in participation rates, however, is uneven across countries. In countries with the highest absolute growth in student numbers, the participation rates have also increased in the 18-34 age group by more than 50 %. A number of other countries experienced a more uneven development, hitting a peak in the mid-2000s and having slightly decreasing higher education participation since then. Yet, only Spain exhibits a continuous decrease in participation rates throughout the decade.

Figure 1.3: Enrolment in tertiary education for the 18-34 years old (% of the total population), 1999-2009

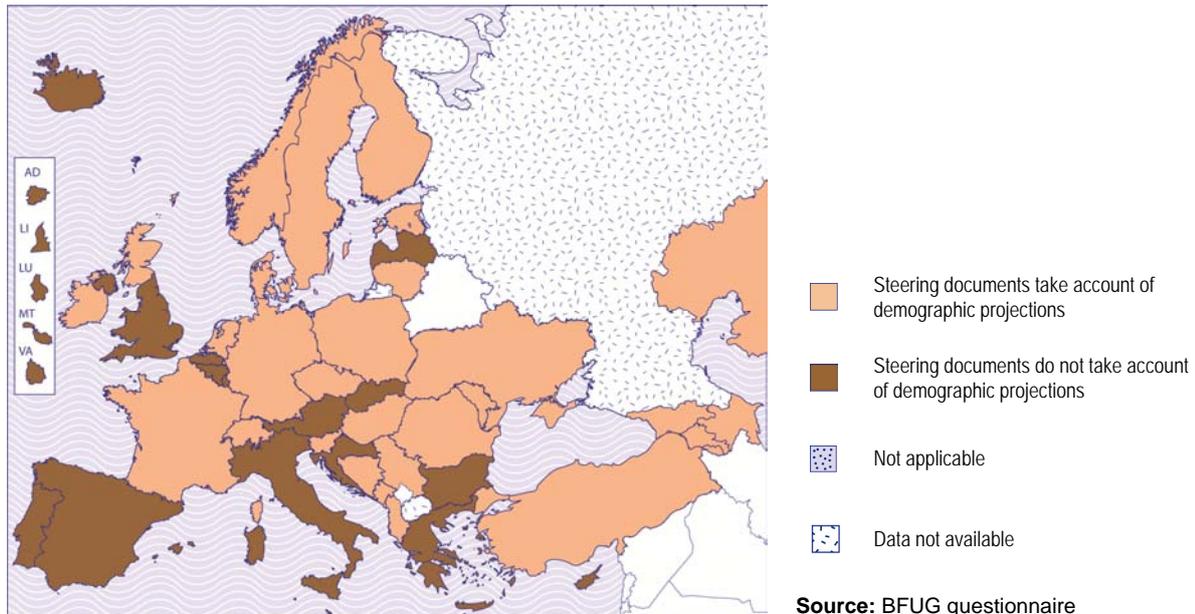


Notes: Data are sorted by enrolment in tertiary education in 2009

Source: Eurostat, UOE data collection

Demographic changes and the varying number of students also have to be taken into consideration when designing higher education policies and goals. Figure 1.4 shows that in around 60 % of countries, steering documents for higher education explicitly take account of demographic projections. On the one hand, many countries are concerned about the decreasing number of young people and how such changes will affect higher education participation and funding. On the other hand, several countries prepare for the increasing skills needs of an ageing population and the entry of non-traditional learners into higher education.

Figure 1.4: Demographic projections in steering documents for higher education policy, 2010/11



1.2. Higher education institutions

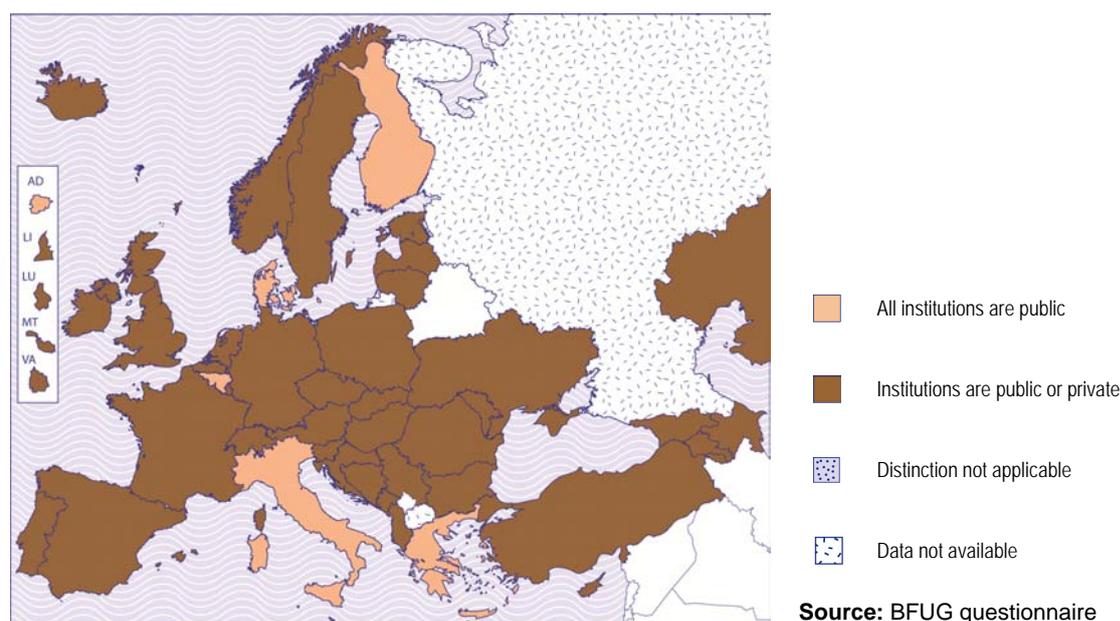
The type and number of higher education institutions (HEIs) also vary among the EHEA countries. HEIs can be academically or professionally oriented; can be publicly or privately founded and funded; or there might be other distinctions applied in a given country context.

First, higher education institutions can be academically and professionally oriented. However, this distinction is increasingly not clear-cut. In many countries, old differences between academically and professionally oriented institutions still exist formally, but – partly due to the Bologna process – actual differences are diminishing or have ceased to exist altogether. For example, in many cases, both academically and professionally oriented institutions can offer academic and professional programmes. This also means that while there might be a (formal) distinction between the institutions, there are no differences between the degrees awarded. In other cases, there might be no distinction between institutions, but there could still be a difference between the orientations of the study programmes. Therefore, it is very difficult to create a clear typology of countries along this dimension. For this reason, such a typology is not included in this report.

A second possible distinction to be made is between public and private higher education institutions. This distinction refers mainly to the source of funding: whether HEIs are financed primarily from public or private sources (for a detailed definition, see the Glossary). This also means that privately founded HEIs funded mainly by the state or from public sources are considered as public institutions here.

Figure 1.5 shows in which countries the distinction between public and private institutions applies. As the figure shows, there are both public and private HEIs in the vast majority of the EHEA countries. However, the weight of private institutions within a country might differ. Whereas some countries have more private institutions than public ones, in several others the number of private institutions is fairly small in comparison to public HEIs. All institutions are considered public in six education systems (Andorra, Belgium (French-speaking Community), Denmark, Greece, Finland and Italy).

Figure 1.5: Types of HEIs: public or private (source of funding), 2010/11



1.3. Public expenditure on higher education

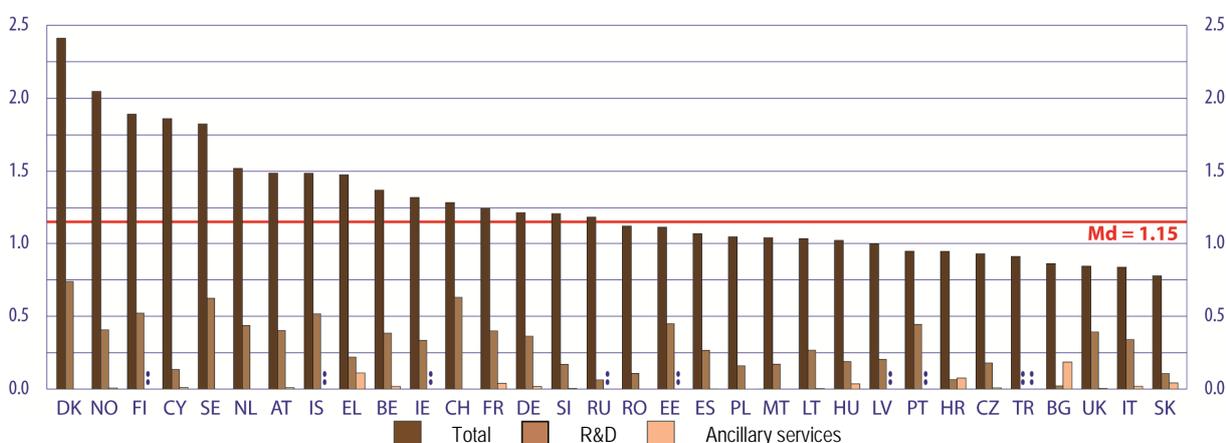
Since European higher education institutions are funded predominantly by public sources, it is also interesting to compare public expenditure on higher education in the EHEA. This section is devoted to such a comparison based on Eurostat indicators. Alone, none of the indicators presented below can provide a sufficient basis for comparing EHEA countries; but taken together they provide a broad overview of similarities and differences. It has to be noted, however, that since the latest available data in the UOE (UNESCO-UIS/OECD/Eurostat) data collection is from 2008, these indicators do not yet reflect the effects of the economic crisis, although it has had a significant impact on the levels of public funding (see EACEA/Eurydice, 2011b). For this reason, additional data compiled in accordance with the classification on COFOG (Classification of the Functions of Government)¹ will be examined towards the end of this section.

¹ For details on COFOG, please consult the manual on COFOG statistics (Eurostat, 2011a).

One indicator of public spending on tertiary education is the public expenditure per GDP ratio. This indicator "represents the share of available income generated in an economy which is allocated to higher education" (Eurostat & Eurostudent 2009, p. 75). As Figure 1.6 shows, in 2008, annual public expenditure on higher education was highest in Denmark and Norway in comparison to the countries' GDP (more than 2 %). This annual public expenditure was the lowest in Slovakia (0.78 % of GDP). The EHEA median spending on higher education is 1.15 % of the GDP.

Together with the total public expenditure, Figure 1.6 also depicts direct expenditure designated for ancillary services and for R&D activities. Direct expenditure on ancillary services is a rather minor part of the total expenditure in all countries, while R&D spending can take up almost half of the total expenditure on tertiary education, as it does so in Switzerland (49 %), Portugal (47 %) and the United Kingdom (46 %). In countries where R&D spending is high, the share of core education spending is lower (core education spending is the part of total expenditure that remains after subtracting expenditure on ancillary services and R&D).

Figure 1.6: Annual public expenditure on tertiary education as a % of GDP, 2008



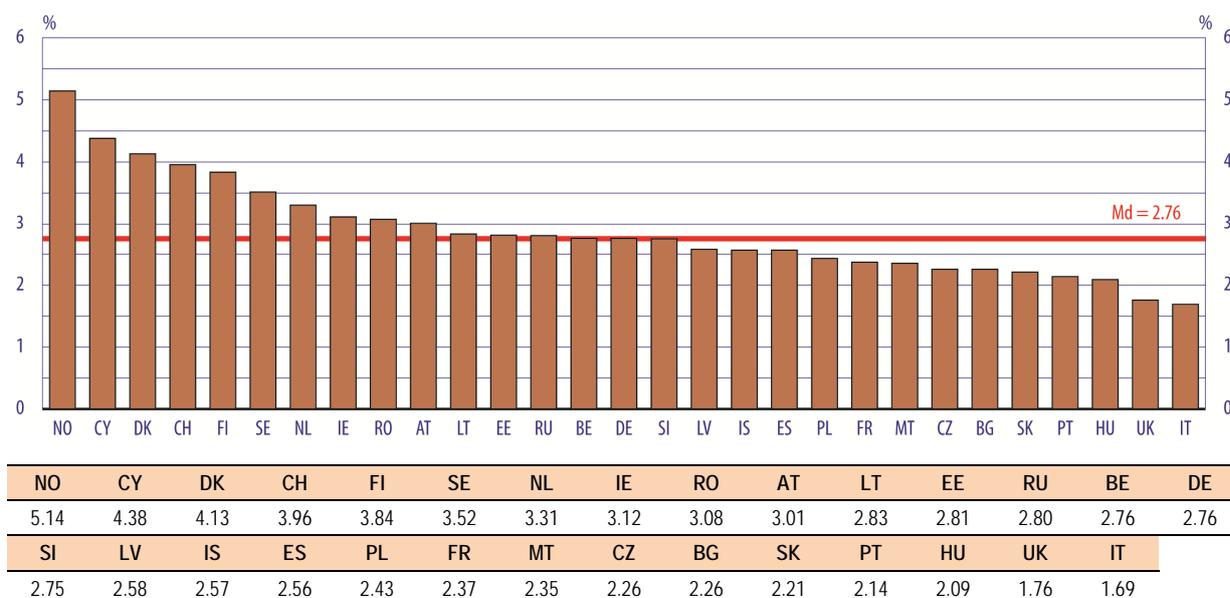
	DK	NO	FI	CY	SE	NL	AT	IS	EL	BE	IE	CH	FR	DE	SI	RU
Total	2.41	2.05	1.89	1.86	1.82	1.52	1.49	1.49	1.48	1.37	1.32	1.29	1.25	1.22	1.21	1.18
R&D	0.74	0.41	0.52	0.14	0.62	0.44	0.40	0.52	0.22	0.38	0.33	0.63	0.40	0.36	0.17	0.06
Ancillary services		0.01	:	0.01			0.01	:	0.11	0.02	:		0.04	0.02	0.00	:
	RO	EE	ES	PL	MT	LT	HU	LV	PT	HR	CZ	TR	BG	UK	IT	SK
Total	1.12	1.11	1.07	1.04	1.04	1.03	1.02	1.00	0.95	0.94	0.93	0.91	0.86	0.84	0.84	0.78
R&D	0.11	0.45	0.27	0.16	0.17	0.27	0.19	0.20	0.44	0.06	0.18	:	0.02	0.39	0.34	0.11
Ancillary services		:	0.00	0.00		0.00	0.04	:	:	0.08	0.01	:	0.19	0.00	0.02	0.04

Notes: Russia: 2009; Romania; Turkey: 2006; Greece: 2005

Source: Eurostat (UOE data collection)

Public expenditure on higher education can also be compared to other national expenditure. Figure 1.7 shows annual public expenditure allocated to tertiary education as a percentage of total public expenditure. The countries with the highest share of tertiary education spending are Norway (5.14 %), Cyprus (4.38 %) and Denmark (4.13 %), while the countries where the smallest percentage of the budget is allocated to higher education in comparison to other countries are Italy (1.69 %) and the United Kingdom (1.76 %). The median spending on tertiary education in the EHEA is 2.76 % of the budget.

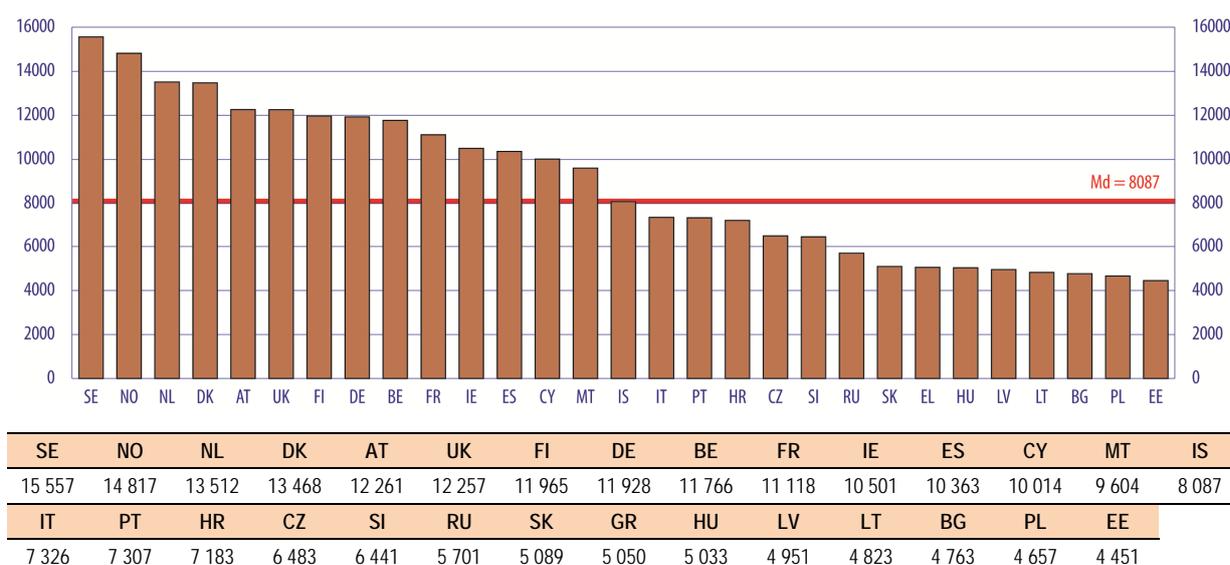
Figure 1.7: Annual public expenditure on tertiary education as a % of total public expenditure, 2008



Notes: Russia: 2009; Romania: 2007; Greece: 2005

Source: Eurostat, (UOE data collection)

Figure 1.8: Annual public expenditure on tertiary educational institutions per full-time equivalent student in Euros PPS, 2008



Notes: Russia: 2009; Ireland: 2007; Hungary: 2006; Greece: 2005

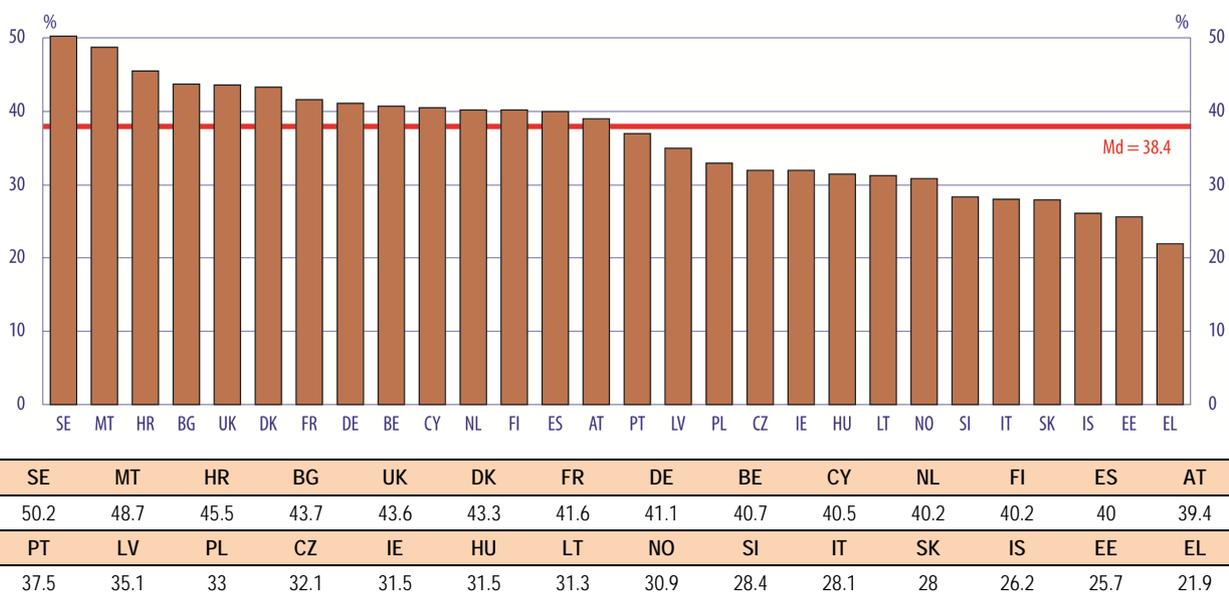
Source: Eurostat (UOE data collection)

A third indicator of public spending on tertiary education is the annual total expenditure on tertiary educational institutions per full-time equivalent (FTE) student. This indicator "reflects the financial investment of a country in relation to the size of the student population" (Eurostat & Eurostudent 2009, p. 77). According to Figure 1.8, the annual total expenditure per full-time equivalent student is the highest in Sweden, Norway, the Netherlands and Denmark (more than 13000 PPS Euros), and the lowest in Latvia, Lithuania, Bulgaria, Poland and Estonia (less than 5000 PPS Euros). The median value for the EHEA is 8087 PPS Euros.

However, these data have to be interpreted with caution. The information indicates a positive relationship between the expenditure per student ratio and a country's wealth (measured as GDP per

capita). One way of controlling for such differences in wealth is to look at the expenditure per student ratio relative to the GDP per capita (both in PPS Euros). As Figure 1.9 reveals, while the picture does not change for some countries (for example, Sweden still appears to be spending the most per FTE student), a few low-GDP countries (e.g. Croatia and Bulgaria) make a more substantial financial effort in comparison to their wealth than other countries with a higher GDP per capita.

Figure 1.9: Annual public expenditure on tertiary educational institutions per full-time equivalent student in Euros PPS relative to the GDP per inhabitant in Euros PPS, 2008



Notes: Calculation based on provisional GDP per capita values for Greece.

Source: Eurostat

Nevertheless, these indicators only show a static comparison between countries for the year 2008. In order to get a more comprehensive picture on public expenditure on tertiary education, we should also examine its changes over time in the different countries. This is all the more important in light of the recent economic crisis. The Eurydice report on the *Modernisation of Higher Education in Europe* shows that several countries introduced budgetary cuts from 2008/09 to 2009/10. These cuts were the most severe in Ireland, Latvia and Iceland (EACEA/Eurydice 2011b, p. 41). However, from 2009/10 to 2010/11, higher education spending increased in the majority of countries, partly due to the adoption of stimulus packages. Nevertheless, some countries, notably Greece, Ireland and Iceland made major budget cuts in that year (EACEA/Eurydice 2011b, p. 42).

Taking a cumulative approach (adding together all cuts from 2008 onwards), the European University Association (EUA) reports even more severe cuts in higher education budgets (EUA, 2011a). According to the report and the EUA website, major cuts have been felt in Greece, Italy, Ireland, Latvia, Hungary, the United Kingdom ⁽²⁾ and Iceland. In addition, several other countries have experienced at least moderate cuts (EUA 2011a, p. 2-4; EUA, 2011b).

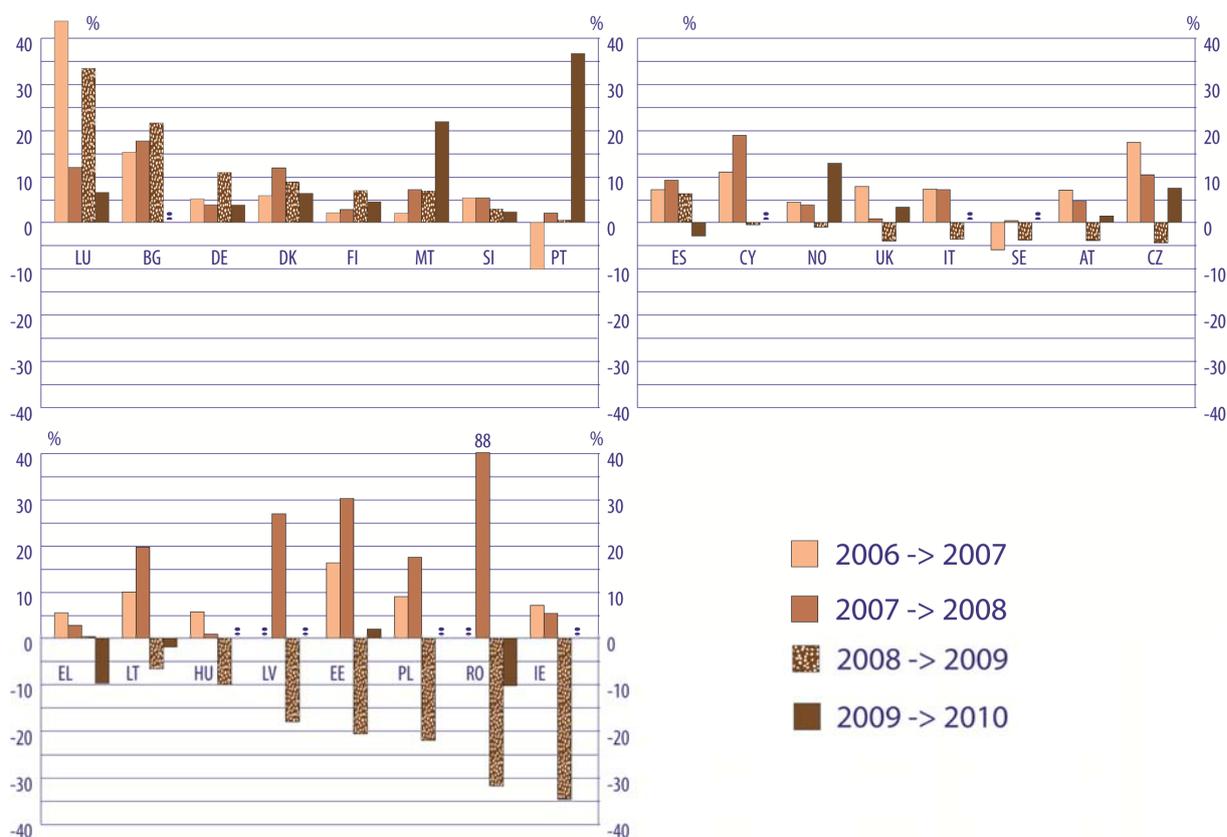
Nevertheless, having cuts in higher education budgets does not necessarily mean fewer resources in higher education. In some cases (e.g. in the United Kingdom), public expenditure is replaced by private contributions (e.g. from graduates by fees). Such reductions in public expenditure are different from expenditure cuts that do not involve any new, offsetting funding streams.

² Data is for the United Kingdom as a whole. However, there have been no budget cuts in Scotland.

Moreover, introducing budget cuts in higher education was not a uniform response to the crisis in Europe. For this reason, Figure 1.10 examines the changes in public expenditure in four yearly intervals (2006 to 2007, 2007 to 2008, 2008 to 2009, and where available, 2009 to 2010). Since no data is available for 2009 and 2010 in the UOE data collection, data compiled in accordance with the classification on COFOG were used for this analysis. Unfortunately, data is available for fewer countries in this database.

On Figure 1.10, countries are presented in three groups. In the first group of countries, there was no decrease in public expenditure on tertiary education after the crisis (neither from 2008 to 2009 nor from 2009 to 2010). Instead, public expenditure on tertiary education increased considerably in some of them in at least one of the post-crisis years, especially in Luxembourg, Bulgaria, Malta and Portugal (though in the latter case, there was a relatively large decrease before the crisis, from 2006 to 2007).

Figure 1.10: Yearly changes in the public expenditure on tertiary education between 2006 and 2010



	LU	BG	DE	DK	FI	MT	ES	SI	PT	EL	CY	NO
2006-2007	43.7	15.4	5.3	5.8	2.3	2.2	7.3	5.5	-10.1	5.6	11.1	4.6
2007-2008	12.1	17.8	4.1	12.1	3.0	7.3	9.3	5.5	2.2	2.9	19.0	4.3
2008-2009	33.5	21.7	11.0	9.4	7.1	7.0	6.4	3.1	0.5	0.3	-0.5	-0.9
2009-2010	6.7	:	3.7	6.5	4.7	22.0	-2.9	2.5	36.7	-9.7	:	12.7
	UK	IT	SE	AT	CZ	LT	HU	LV	EE	PL	RO	IE
2006-2007	-3.5	-3.6	-3.8	-3.9	-4.4	-6.6	-10.0	-18.5	-20.6	-22.0	-31.7	-34.6
2007-2008	7.6	7.4	-5.9	7.2	17.5	10.1	5.8	:	16.4	9.1	:	7.2
2008-2009	0.8	7.3	0.4	4.8	10.5	19.8	1.0	27.1	30.3	17.6	88.3	5.5
2009-2010	3.5	:	:	1.6	7.6	-1.9	:	:	2.1	:	-10.2	:

Notes: Calculation based on provisional values for Bulgaria (2000-2009), Greece (2001-2010), Spain (2007), Hungary (2000-2009) and Sweden (2001-2006).

Within each group, data are sorted by the degree of change between 2008 and 2009.

Source: Eurostat (COFOG)

In the second group of countries, while public expenditure on tertiary education decreased after 2008 (at least for one year), this was not larger than 5 % and/or was offset by an increase in the other post-crisis year.

Finally, public expenditure on tertiary education decreased considerably in the third group of countries. The decline was the biggest in Ireland (34.6 % from 2008 to 2009) and Romania (31.7 % from 2008 to 2009 and 10.2 % between 2009 and 2010). Nevertheless, public expenditure in Romania grew considerably before the crisis (88.3 % between 2007 and 2008), which can be partly explained by the significant increase in the student population (see Figure 1.2). Some other countries in this group also experienced a relatively high growth of tertiary education expenditure before the crisis.

These data illustrate well that countries have responded differently to the crisis and the following recession with regard to public expenditure on tertiary education. Nonetheless, the median change for the year between 2008 and 2009 was negative, showing a 2.2 % decline of public expenditure on tertiary education.

1.4. Conclusion

EHEA countries have to implement reforms in very different contexts. Student numbers vary enormously. In addition, while demographic changes are of concern to most countries, some face relatively big increases in the student population, which is decreasing in others. Such differences can have an impact on the main goals and the speed of higher education reform.

Differences also exist regarding the orientation and funding of higher education institutions. While all higher education institutions are funded primarily from public sources in some countries, there is a larger proportion of private institutions in others. In addition, levels of public expenditure also vary within the EHEA. Similarly, responses to the recent economic crisis also differ in the region: while public expenditure increased considerably in some countries after 2008, there have been significant budget cuts in others. Yet, the result of the crisis has been an overall decline in higher education expenditure.

2. DEGREES AND QUALIFICATIONS

The Bologna context

Adoption of a system of easily readable and comparable degrees with the aim of promoting European citizens employability and the international competitiveness of the European higher education system is among the core action lines of the Bologna Declaration itself. The Trends I report¹ prepared before the adoption of the Bologna Declaration in 1999 demonstrated the vast variety of higher education systems in Europe: bachelor-master systems in some countries; long (4-6 year) programmes leading to a diploma roughly equivalent to a master's degree in others; some systems having several levels not compatible with the bachelor-master systems. The main conclusion of the report, which was shared by the signatories of the Bologna Declaration, was that greater transparency and trust among higher education systems was needed if Europe's global attractiveness and competitiveness were to improve. Trends I also showed that there is a potential for convergence of European higher education systems to two cycles (bachelor-master) of a duration of 3-4 years and 1-2 years respectively with a pre-degree level existing in some countries.

The Bologna Declaration thus provides for the adoption of a system essentially based on two main cycles - undergraduate and graduate - and stipulates requirements for access to the second cycle: "Access to the second cycle shall require successful completion of first cycle studies, lasting a minimum of three years". Some countries had already adopted the two cycle structure by 2001 (Prague Communiqué, 2001). At their conference in Berlin in 2003 ministers concluded that comprehensive restructuring was under way and committed themselves to having at least started the implementation of the two cycle system by 2005 (Berlin Communiqué, 2003). Due to the importance of research as an integral part of higher education across Europe, ministers in Berlin also considered it necessary to go beyond the current focus on two main cycles of higher education and to include the doctoral level as the third cycle. Ministers also decided on the undertaking to elaborate an overarching framework of qualifications for the European Higher Education Area (EHEA), asking the BFUG to explore how the shorter higher education may be linked to the first cycle of a qualifications framework.

At the time of the 2005 Bergen conference of ministers, the Bologna degree system was being implemented on a large scale and more than half of the students were enrolled in two cycles in most countries. However there were still obstacles to access between cycles. While the following years saw some progress, the 2009 Stocktaking report nevertheless concluded that many first cycle graduates faced difficulties when seeking admission to the second cycle. Some of these difficulties were related to the reality that not all first cycle degrees provide direct access to the second cycle, and greater transparency was therefore recommended.

BFUG Working Groups on Qualification Frameworks and Recognition...

The Working Group on Qualifications Frameworks has a mandate to take forward and make recommendations on the main policy issues related to qualifications frameworks. Meanwhile, this report focuses on the progress made in establishing national qualifications frameworks. Close cooperation between the Reporting Working Group and the Qualifications Frameworks Working Group has ensured that these complementary tasks have been taken forward in a clear and coherent manner.

¹ Quote to Trends 1

The Recognition Working Group has the main purpose of following up on the recommendations of analysis of the national action plans on recognition with a view to make recognition of qualifications and credits more coherent across the EHEA, and to improve recognition with other parts of the world. Cooperation has been particularly easy to establish as Andrejs Rauhvargers, the Co-Chair of the Reporting Working Group is also the Chair of the Recognition Working Group and a co-author of this report.

Chapter outline

This chapter deals with the basic structures and tools of the Bologna Process and with recognition. The first section is devoted to the implementation of the three cycle degree structure. The second section covers the Bologna tools - National Qualifications Frameworks, ECTS, and Diploma Supplement. Section 3 covers the implementation of the Lisbon Recognition Convention.

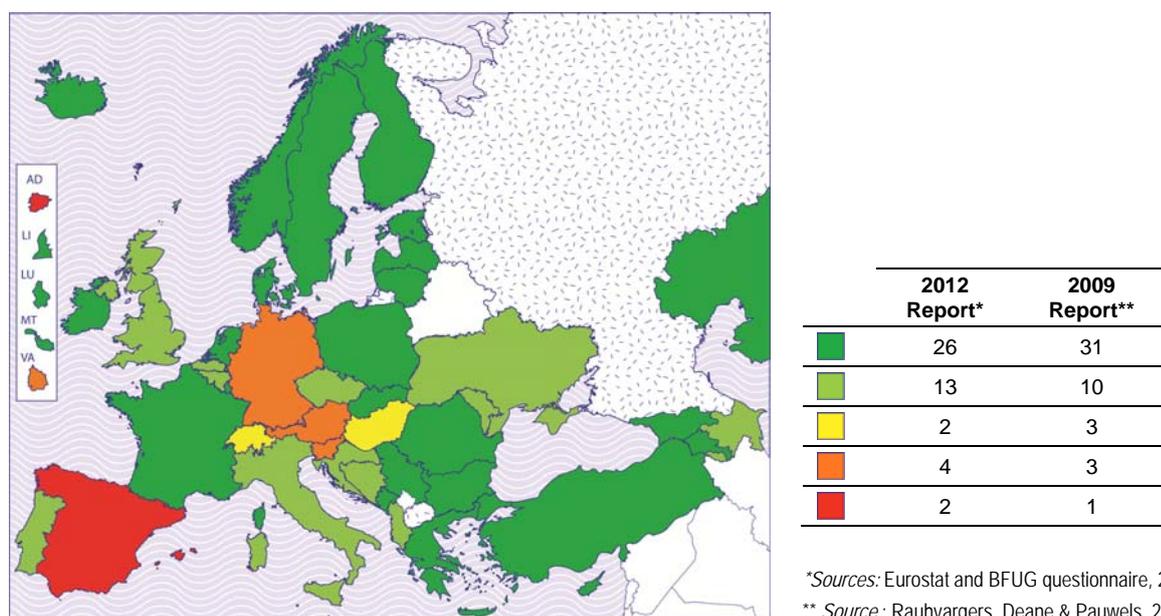
2.1. Bologna structures

2.1.1. Structure and implementation of first and second cycles (BA and MA)

The commitment to adopt easily readable and comparable degrees and to establish a two cycle system are mentioned as the two first action lines in the 1999 Bologna declaration originally signed by 29 countries and now being implemented in the 47 countries constituting the European Higher Education Area. The stage of implementation of the two cycles has been an important indicator in all the three Bologna Stocktaking exercises in 2005, 2007 and 2009 as well as in the Bologna Process Independent Assessment in 2010. The overarching qualifications framework for the EHEA adopted in 2005 sets credit ranges: 180-240 ECTS credits for the first cycle and 90-120 credits with the minimum requirement amounting at least 60 credits at second cycle level.

This section considers how successful the implementation of the two cycles has been, as well as the typical models of the two cycle system that have emerged. It also analyses the situation regarding access between Bologna cycles as well as implementation of the third cycle and linking the short studies to first Bologna cycle.

Figure 2.1: Scorecard Indicator n°1 on the stage of implementation of the first and second cycle, 2010/11



Scorecard categories

-  At least 90 % of all students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles
-  70-89 % of all students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles
-  50-69 % of all students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles
-  25-49 % of all students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles
-  less than 25 % students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles
OR
Legislation for a degree system in accordance with the Bologna principles has been adopted and is awaiting implementation

Indicator is defined as the share of students studying in the programmes belonging to the Bologna model (in %).

The above share of students was calculated from the (approximate) percentages of all students studying for a first and second degree enrolled in programmes outside the typical Bologna model, as well as the share of first cycle students who continue to study in a second cycle programme after graduation from the first cycle.

Source: Eurostat, with data reflecting the situation in 2009/10

Where Eurostat data was not available scores were **estimated** from results of the BFUG survey

Eurostat provides a single value for UK

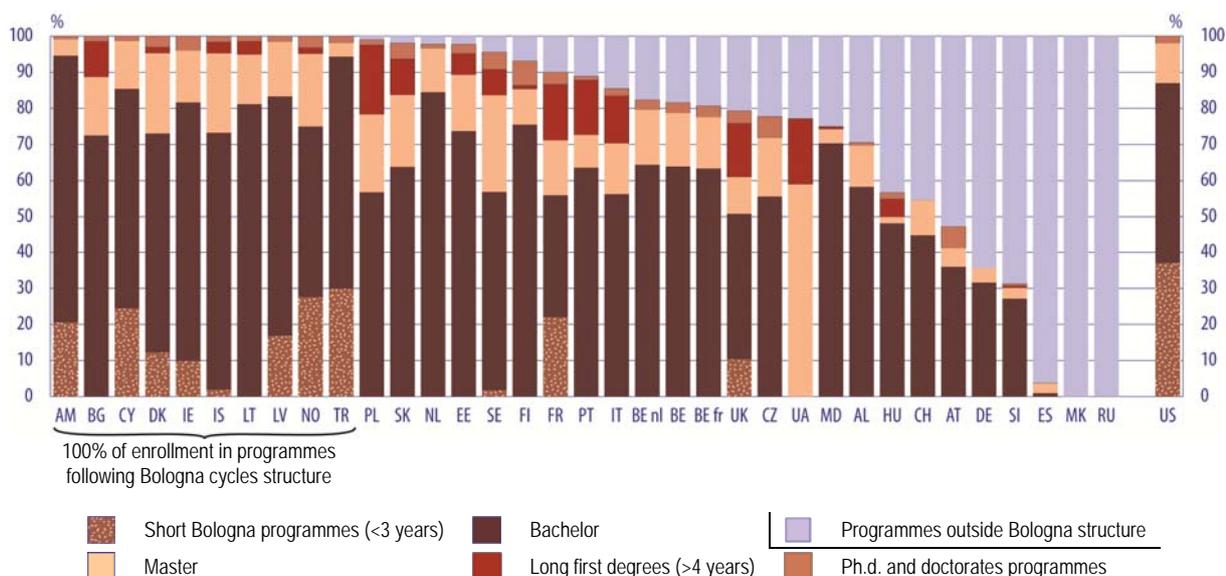
A first glance at the outcomes of this indicator in 2009 and 2012 suggests that the picture has hardly evolved. However, one important explanation for this apparent finding is that in 2009 country answers were based on progress in adoption of legislation introducing the Bologna model, whereas in 2012 the country distribution is based on statistical data showing the share of students actually studying in Bologna model programmes.

In just over half of the countries, the share of students studying in programmes corresponding to the Bologna two cycle system is more than 90 %, and between 70 – 89% in another quarter of the countries. At the same time nearly all countries still have integrated long programmes in those fields which prepare for regulated professions and for which the EU directive 2005/36/EC and/or national legislation requires 5-6 years of studies: medicine, dentistry, pharmacy, architecture and veterinary medicine and to a lesser extent engineering, law, theology, psychology teacher training. More rare examples are arts, sciences, and others. Although integrated long programmes have been kept, there has generally been an impact of the Bologna Process even here, with learning outcomes orientations being developed, and tools such as ECTS and the Diploma Supplement implemented.

In some countries, especially in Andorra and Spain, but also Austria, Germany, Slovenia and the Holy See, the share of students enrolled in programmes corresponding to the Bologna two-cycle system is relatively low. This is either because the legislative changes stipulating a transfer to Bologna structures were adopted relatively late, or the deadlines to set the reforms in practice were set relatively late. In these countries implementation of practical reforms has thus started relatively recently and it will still take some years for the students enrolled under the previous system to graduate.

² "All" = all students who could be involved in 2-cycle system i.e. NOT those in doctoral programmes and NOT those in short HE programmes. Students of ALL study fields are taken into account

Figure 2.2: Percentage of students enrolled in programmes following the Bologna 3 cycles structure, by cycle (academic year 2008/2009)



Source: Eurostat

Figure 2.2 illustrates that 10 of the 33 countries for which data is available had all students enrolled in programmes following the Bologna cycles structure. At the other extreme, 4 countries, Austria (47%), Germany (36%), Slovenia (31%) and Spain (4%) had less than half of their students following programmes within the Bologna cycles structure. In 2 countries, MK and RU, programmes were in 2008 still not following the Bologna degree structures.

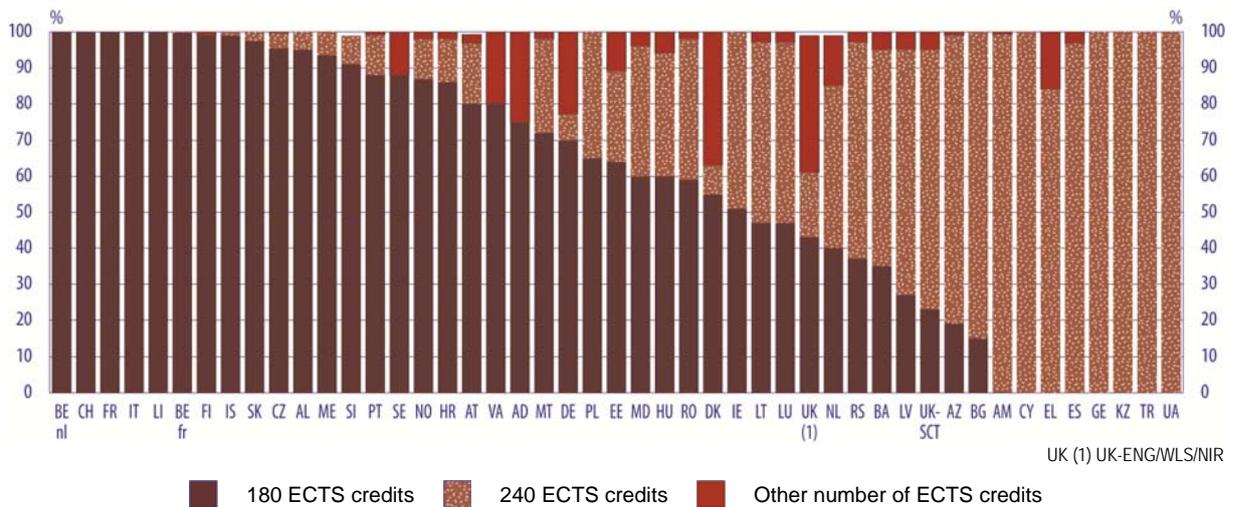
Short (less than 3 years) programmes existed in 11 countries, with enrolments representing between 2% (in Iceland and Sweden) and 30% (in Turkey) of total student numbers. This marks a very significant difference with the US system, where 37% of students were enrolled in programmes of less than 3 years.

In more than three quarters of the countries there are long programmes covering the first two cycles. The percentage of students enrolled in this type of programmes ranged from 1% in Finland and Moldova to 19% in Poland.

Most common models and typical credit ranges of ECTS in the first cycle

Figure 2.3 shows the share of programmes having a workload of 180 ECTS, 240 ECTS credits or another number of credits. Data on the share of students enrolled in these programmes have also been collected. They confirm the same trends and have therefore not been presented separately.

Figure 2.3: Share of first cycle programmes having workload 180 ECTS credits, 240 ECTS credits or other number of credits, academic year 2010/11



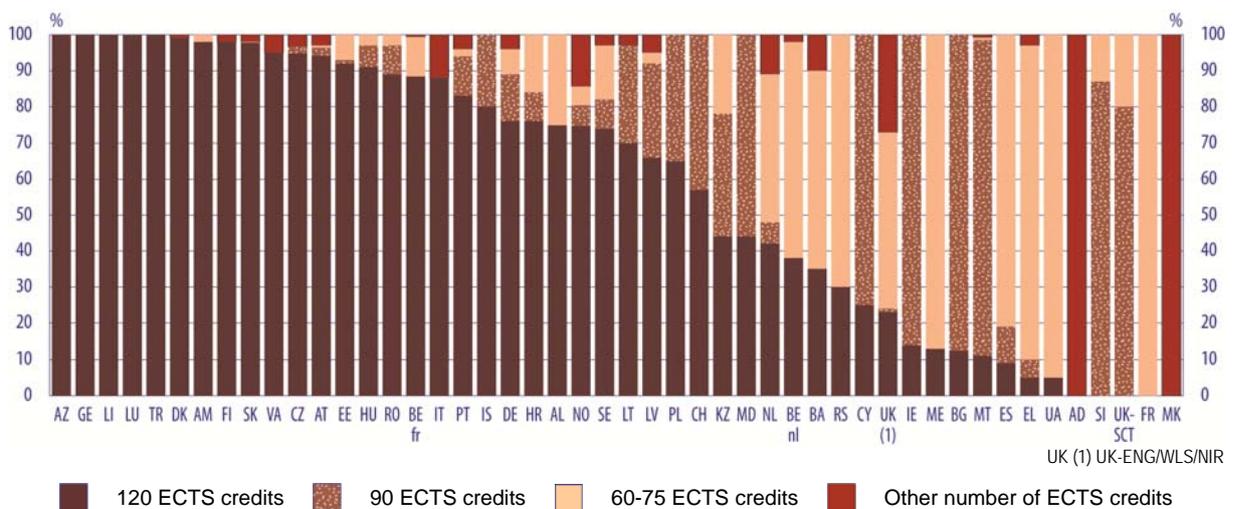
Source: BFUG questionnaire

There is no single model of first cycle programmes in the EHEA: most countries have a combination of 180 ECTS and 240 ECTS and another duration in the first cycle. A unique 180 ECTS bachelor model exists only in Belgium (Flemish Community), Switzerland, France, Italy and Liechtenstein. However but the 180 ECTS model dominates – with more than 75 % of programmes - in 15 more countries.

A unique 240 ECTS model is found in Armenia, Cyprus, Georgia, Kazakhstan, Turkey and Ukraine and is prevailing in more than 75 % of programmes in Azerbaijan, Bosnia-Herzegovina, Bulgaria, Greece, Spain and Latvia. The Netherlands should also be added to this group, because while the share of programmes of 240 ECTS programmes is around 45 %, the share of students in this model is 70 %.

Most common models and typical credit ranges of ECTS in the second cycle

Figure 2.4: Share of second cycle (master) programmes with workload 60-75, 90, 120 or other number of ECTS credits, academic year 2010/2011



Source: BFUG questionnaire

In the second cycle (Figure 2.4), the 120 ECTS model is by far the most widespread, being present in 40 countries. It is the sole model in Albania, Armenia, Azerbaijan, Liechtenstein, Luxembourg and Turkey, and is used in more than 75 % programmes in a further 17 countries. The 60-75 ECTS model is present in 27 countries. It is the sole model in France and dominates in a further 8 countries. The 90 ECTS model is less widespread: while it is present in 22 countries, in only five of them - Cyprus, Spain, Moldova, Ireland, Slovenia, and Scotland - does it represent at least 50 % of programmes. In 17 countries there are also programmes with a workload other than 60-75, 90 or 120 ECTS credits. However, with the exception of Andorra, these programmes do not exceed 10 % of provision. The above tendencies were also confirmed by the data on the shares of students enrolled in second cycle programmes.

There is no single model of both first and second cycle programmes in the EHEA: in the first cycle most countries have a combination of 180 ECTS and 240 ECTS and/or another duration. In the second cycle the most common model is 120 ECTS. The 180+120 ECTS credits ("3+2") model is therefore the most widespread, but a number of other combinations are also present in EHEA.

Programmes outside the typical Bologna models

31 countries confirm the existence of degree programmes outside the typical Bologna 180-240 ECTS first cycle model. Typically these are integrated/long programmes leading either to a first or a second cycle degree and which in some countries can still be better characterised by duration in years rather than credits. In most of these countries the programmes outside the Bologna first cycle model are in the fields of medicine, dentistry, veterinary medicine, nursing and midwifery and in most cases involve 1-8 % of the student population. In addition to the above fields of studies integrated programmes are also mentioned by small numbers of countries (between 2 and 7) in engineering, architecture, theology, teacher training, arts, law and pharmacy.

The typical length of integrated programmes leading to regulated professions is usually chosen according to the requirements of national legislation and the EU directive 2005/36/EC in the EU/EEA countries. In general it is 300-360 ECTS/5-6 years depending on the regulated profession in question. Some countries also mention shorter programmes which either prepare for certain professions or are intermediate qualifications in programmes leading to a first cycle degree. The length of such programmes can vary between 60 ECTS/1 year to 180 ECTS/3 years. The most common length of short cycle programmes seems to be 120 ECTS credits/2 years, as mentioned Andorra, Belgium (French Community), Denmark, Croatia, Norway and Sweden.

In some countries the percentages of students enrolled in integrated programmes are very high – 90 % in Spain, over 80 % in Andorra and Albania, and over 70 % in the Holy See.

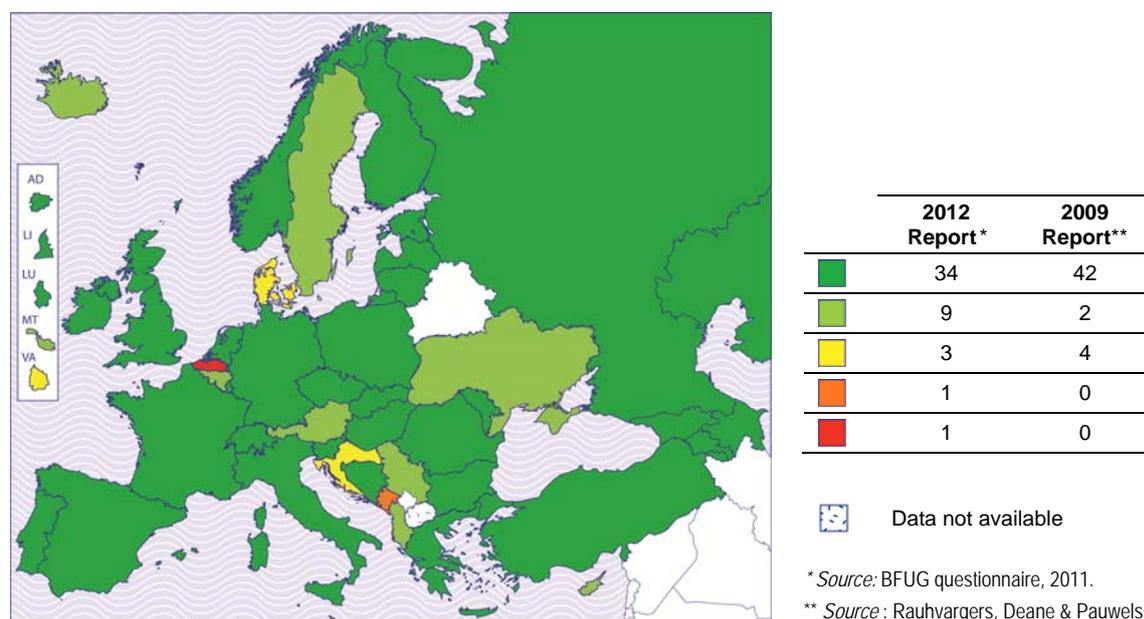
Deviation from the typical Bologna models also takes place in some cases where programmes leading to regulated professions are rearranged into first and second cycles. In those cases the combined length of the first and second cycle is usually chosen according to the requirements the particular professions. As a result, in Belgium, Bulgaria, Czech Republic, Denmark, Finland, Iceland, Luxembourg, Netherlands, Ukraine and the United Kingdom some second cycle programmes are longer than usual - up to 180 ECTS credits mainly in medicine, dentistry, pharmacy, veterinary medicine, architecture, law or theology.

Access to the next cycle

The Bologna Declaration emphasises that the first cycle degree is a requirement for access to the second cycle. In the Berlin Communique of 2003 ministers responsible for higher education clarified that "First cycle degrees should give access, in the sense of the Lisbon Recognition Convention, to

second cycle programmes. Second cycle degrees should give access to doctoral studies”. Yet, two years later in Bergen ministers admitted that, “there are still some obstacles to access between cycles” and in 2007 in London that, “efforts should concentrate in future on removing barriers to access and progression between cycles.”

Figure 2.5: Scorecard Indicator n°2 on access to the next cycle, academic year 2010/11 *



Scorecard categories

- All first cycle qualifications give access³ to second cycle programmes and all second cycle qualifications give access to at least one third cycle programme without major transitional problems⁴
- There are some (less than 25%) first cycle qualifications that do not give access to the second cycle, **or** some second cycle qualifications that do not give access the third cycle
- There are some (less than 25 %) first cycle qualifications that do not give access to the second cycle **and** some second cycle qualifications that do not give access to the third cycle
- A significant number (25 - 50 %) of first and/or second cycle qualifications do not give access to the next cycle
- Most (more than 50 %) first and/or second cycle qualifications do not give access to the next cycle **OR** there are no arrangements for access to the next cycle

Access to the next cycle is defined as the right of qualified candidates to apply and to be considered for admission (definition used in the Lisbon Recognition Convention). The indicator measures the percentage of first cycle programmes that give access to at least one second cycle programme. Scoring criteria are given in the table below.

Source: BFUG questionnaire

In the vast majority of countries all first cycle programmes theoretically give access to the second cycle. Yet, in 10 countries, there are either some (less than 25 %) first cycle qualifications that do not give access to the second cycle (Albania, Denmark, Montenegro, Sweden and Ukraine) or some second cycle qualifications that do not give access to the third cycle (Austria, Belgium (French Community), Cyprus, Iceland, Malta and Serbia). In Croatia and the Holy See less than 25 % qualifications do not give access both from first to second and from the second to the third cycle.

³ Access : the right of qualified candidates to apply and to be considered for admission (definition used in the Lisbon Recognition Convention)

⁴ Compensatory measures required for students coming from another study field will not be counted as “major transitional problems”

In Ireland, Malta and Lithuania a significant number (25 - 50 %) of first and/or second cycle qualifications do not give access to the next cycle. Finally, in Belgium (Flemish Community) more than 50 % first cycle qualifications do not provide access to the second cycle.

In the vast majority of countries all second cycle programmes qualify the graduates for direct access to third cycle studies. In 11 countries this is not the case for all second cycle programmes, but still for 75-100 %. In Ireland and Montenegro the share of such programmes is 50-75 %. In addition to second cycle graduates with master degrees, the holders of long integrated programme qualifications (300 and more ECTS credits) are also admitted.

Even if access is provided in the understanding of the Lisbon Recognition Convention, countries have mentioned several reasons why not all first cycle programmes give access to the second cycle. This is often related to a binary differentiation between "academic" and "professional" programmes. For instance, in Denmark a professional bachelor's programme may not be considered as preparation to any master programme and in that case there are bridging programmes to facilitate access to the second cycle. A similar situation can also be found in Lithuania. In Belgium (Flemish Community) only academic oriented bachelor programmes give direct access to second cycle programmes. Those finishing a professional oriented bachelor programme may apply to get access but have to do a bridging programme. In Ireland ordinary bachelor degrees do not provide automatic access to the second cycle, but there are progression routes from the Ordinary Bachelor Degree to the second cycle.

Regulation of progression between first and second cycle

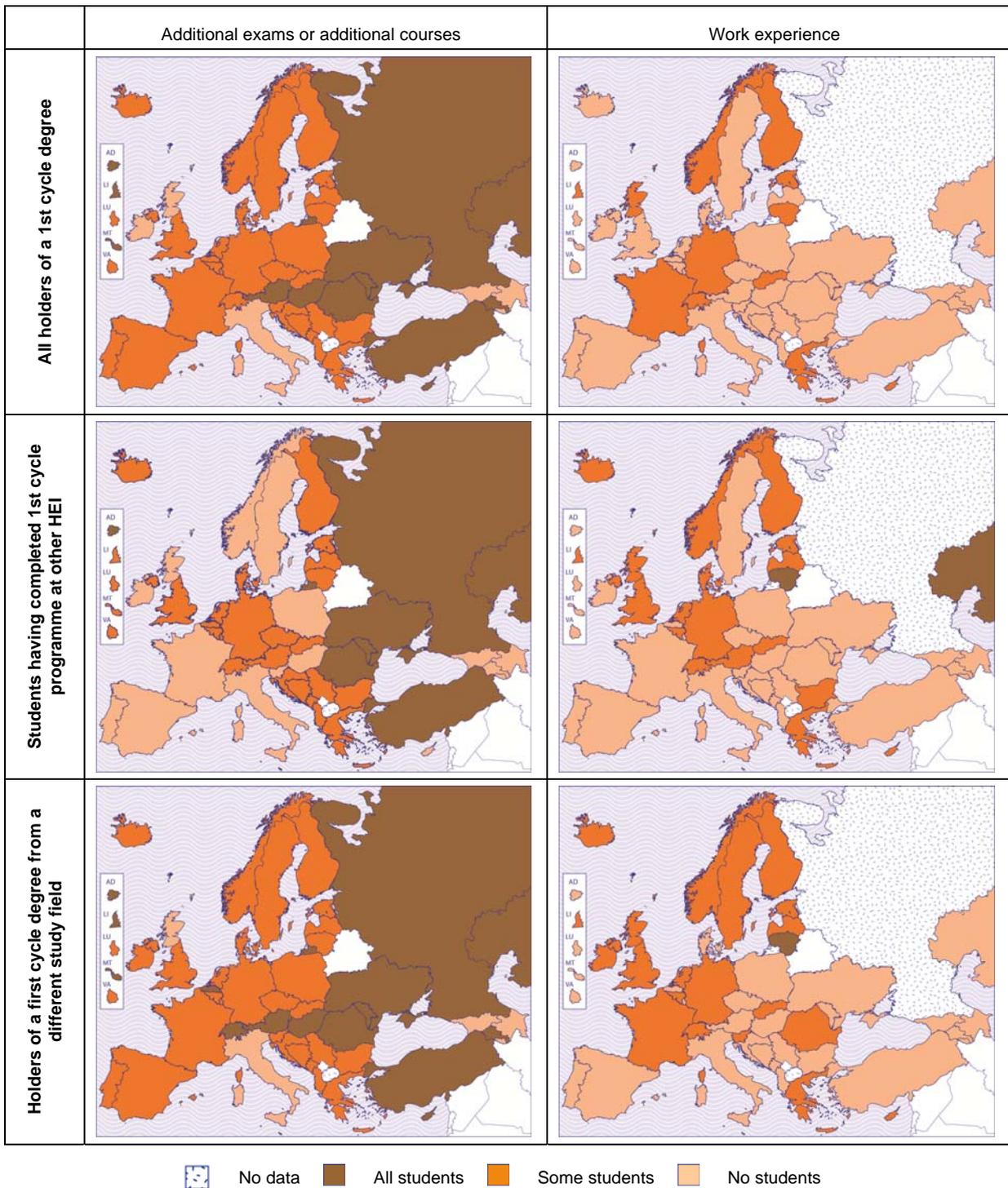
When it comes to practical measures, access to the next cycle may require sitting additional examinations, taking additional courses or having a mandatory work experience, see Figure 2.6.

Requirement to take additional examinations or courses. Despite the general tendency towards easier access to the next cycle, it is nevertheless commonplace to find additional courses or examinations being required of some or all students. In 10 countries all students have to sit entrance exams or to take additional courses even if they follow in the same field of studies. In a further 20 countries some students have to do so.

All or some holders of a first cycle degree from a different higher education institution seeking access to second cycle studies have to sit additional exams or complete courses in 21 higher education systems. Moreover in the vast majority of countries all or some holders of first cycle degrees in a different field of study have to take additional examinations or to complete additional courses. In countries with binary higher education systems such as Belgium, Denmark and the Netherlands bridging courses or examinations are seen as widening access to further studies. Here the learning outcomes of the professional first cycle degrees may not be suitable for a second cycle programme and thus a bridging system opens a learning path for those students.

Requirement to have work experience. The requirement to have work experience is less common than bridging measures. In more than half of the countries there is no requirement at all for work experience for access to second cycle studies. In 21 countries some applicants holding a first cycle degree from another higher education institution or in a different field of studies may be required to demonstrate previous work experience. In 13 countries higher education institutions may require work experience for entering particular programmes. Cyprus, Denmark, Germany and Romania specify that work experience is required only if the chosen master programmes are experience based (e.g. MBA). Estonia and Finland state that work experience is mainly required for admission to master's programmes at professional higher education institutions.

Figure 2.6: Requirement to sit exams or take additional courses for holders of a first cycle degree to access a second cycle programme, academic year 2010/11



Source: BFUG questionnaire

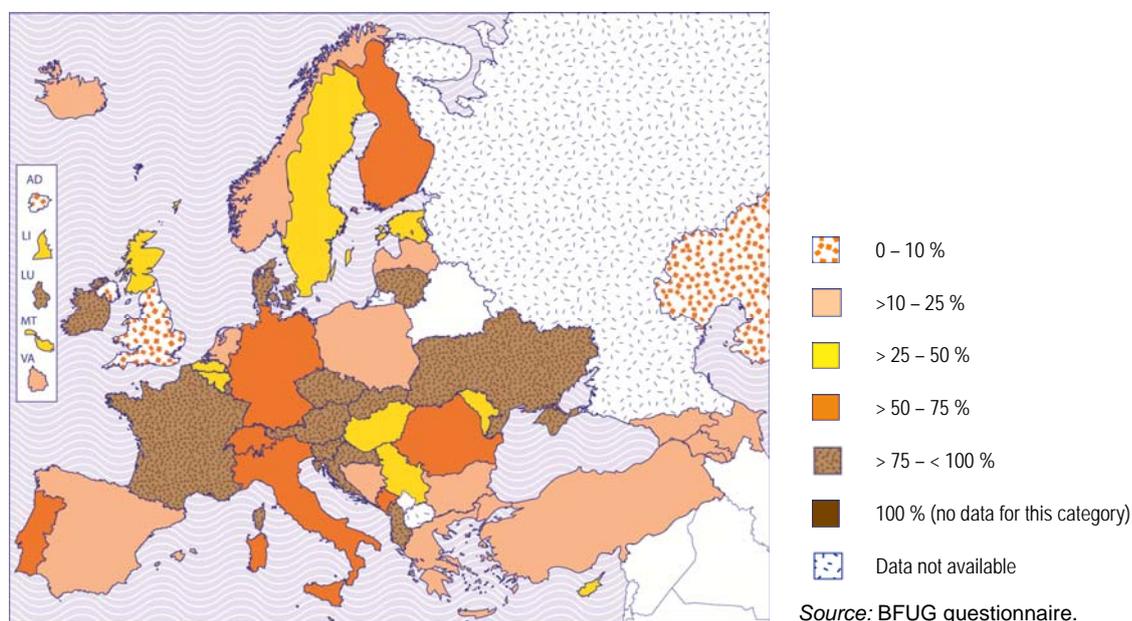
Share of first cycle graduates who actually continue their studies in the second cycle. The formal possibilities to access studies in the next cycle have been monitored by the BFUG since the first Stocktaking report in 2005. For the first time, this report also looks at actual numbers of students moving from the first to the second cycle. The shares of the holders of first cycle degrees that actually continue studies in the second cycle differ greatly - see Figure 2.7. While in the majority of countries either 10-24 % or 25-50 % continue their studies in the second cycle, in twelve systems the share is

between 75 - 100 %. The Czech Republic reports that this tendency has gone too far with every student going on to the second cycle.

At the other end of the spectrum Andorra, Kazakhstan and the United Kingdom (EWNI) report that 0 - 10 % students continue in the second cycle.

Some additional country comments are relevant to understand this picture more fully. In Andorra and Cyprus large cohorts of students take the second cycle abroad. Austria, Belgium (French Community) Germany, Estonia, Montenegro and Finland report that first cycle graduates from universities choose second cycle studies much more often than their counterparts from professional higher education institutions who tend to enter the labour market with their first degree. Other countries link the high share of students continuing in the second cycle with the fact that the labour market still does not properly accept bachelor graduates (Croatia) or with shrinking employment possibilities caused by the economic crisis (Italy).

Figure 2.7: Share of first cycle students continuing studies in a second cycle programme after graduation from the first cycle (within two years), academic year 2010/11



The results of the scorecard indicator for access shows that access issues are still alive. There are obstacles and additional requirements for access both between the first and second and the second and third cycles. However, it should be clarified at policy level whether the additional requirements for applicants with professional bachelor degrees seeking access to academic master programmes or vice versa should be seen as obstacles, or rather as widening access as some countries emphasize.

Although similar access requirements can be seen in most countries the actual cohorts of those going on to second cycle varies sharply- between 0-10 % students to 75-100 % students. Where there is a binary system, university bachelor degree holders more often go on to the second cycle.

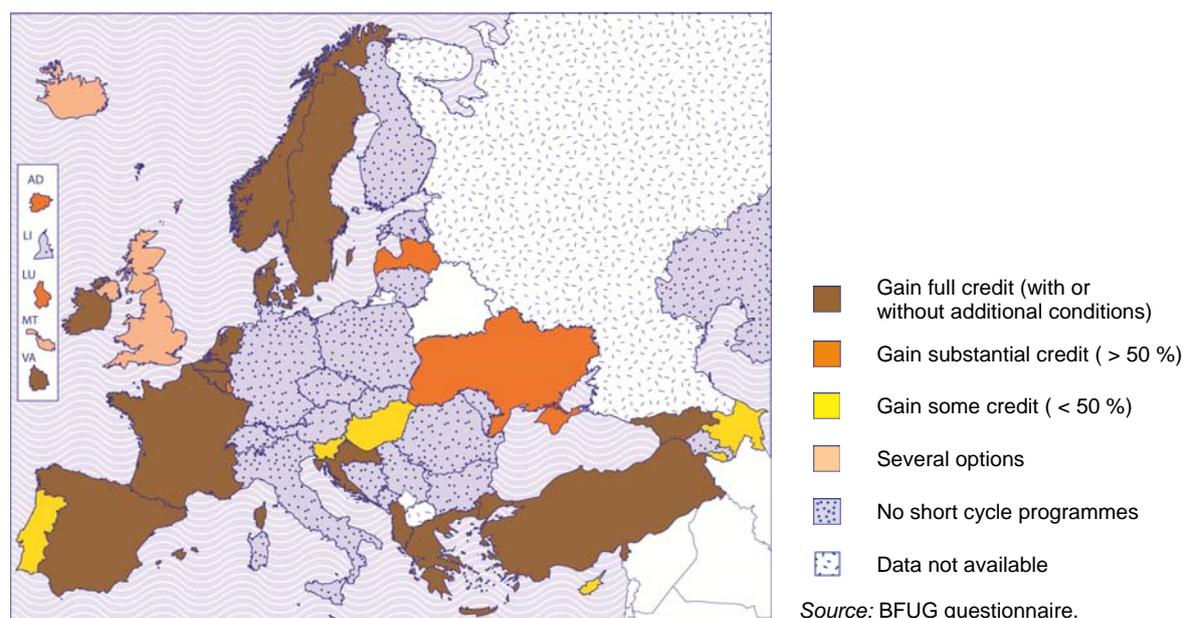
In some countries such as Poland and Spain, the small percentage of students continuing to the second cycle can be explained by the fact that admission to the Bologna two-cycle system actually started relatively recently.

2.1.2. Short-cycle Higher Education Programmes

In the 2003 Berlin Communiqué ministers asked for further exploration of, "whether and how shorter higher education may be linked to the first cycle of a qualifications framework for the EHEA" (Berlin Communiqué, 2003). Short programmes were accommodated in the EHEA Qualifications framework through additional provision for a short cycle within or linked to the first cycle. Overall short cycle programmes linked to the first cycle exist in around half of the countries. Most of those countries consider the short cycle programmes as part of higher education provision, with the exception of Azerbaijan, Cyprus, Greece, Portugal and Slovenia which consider these programmes as part of tertiary but not higher education.

When continuing studies in a first cycle programme, short cycle graduates can often gain full credit for their studies, see Figure 2.8. In some countries full credit is granted but only when continuing in professional first cycle programmes. In Norway and Sweden as well as in professional higher education programmes in Denmark, short studies are built into the first cycle while in Belgium (Flemish Community), Iceland, Latvia and the United Kingdom full credit is possible if there is agreement between the institution providing the short cycle programme and the institution where the bachelor programme is taught. In Iceland and the United Kingdom there are several kinds of short cycle programme with different possibilities for credit within the first cycle programme.

2.8: Gaining credits towards bachelor programme in the same field for previous short-cycle studies, academic year 2010/2011



2.1.3. Third cycle programmes

The estimated share of second cycle graduates who go on to studies in the third cycle is in most countries either in the interval of 5-10 % or 10-15 %. The smallest shares are 0,8 % in Malta and 3 % in Ukraine, and the highest shares reach over 20 % (Switzerland, Greece, Moldova and Serbia) and even over 30 % in the cases of Austria and France.

Ten countries report that there are also possibilities for holders of first cycle degrees to enter third cycle programmes. Selection is based on certain criteria and an individual decision is required. In most cases only 0-2.5 % of first cycle degree holders are actually admitted to third cycle programmes.

Doctoral studies for holders of first cycle degrees are often also longer, and Finland and Denmark report that the path may include acquiring a second cycle degree during the process.

In 9 countries all or most doctoral programmes are structured, while 14 countries characterize their situation as a mixture of structured programmes and traditional supervision-based independent research. The traditional model dominates in a further 10 countries. In Belgium (French Community) doctoral studies include 60 ECTS of research training sanctioned by a research certificate in addition to supervised research, while in Scotland one of the options for students is to develop the doctoral programme after a one-year taught master course.

Doctoral schools appear to have seen a rapid development across the European Higher Education Area and now exist in 30 countries. In many cases doctoral schools are organised for training doctoral students within one discipline or a group of related disciplines. In this way the individual specialisation of doctoral candidates in their subjects is accompanied by a cross-curricular study programme that aims to develop general competences. Two categories of doctoral schools exist in Belgium (French Community): Graduate Colleges which are discipline-specific, and Graduate Schools which are thematically structured.

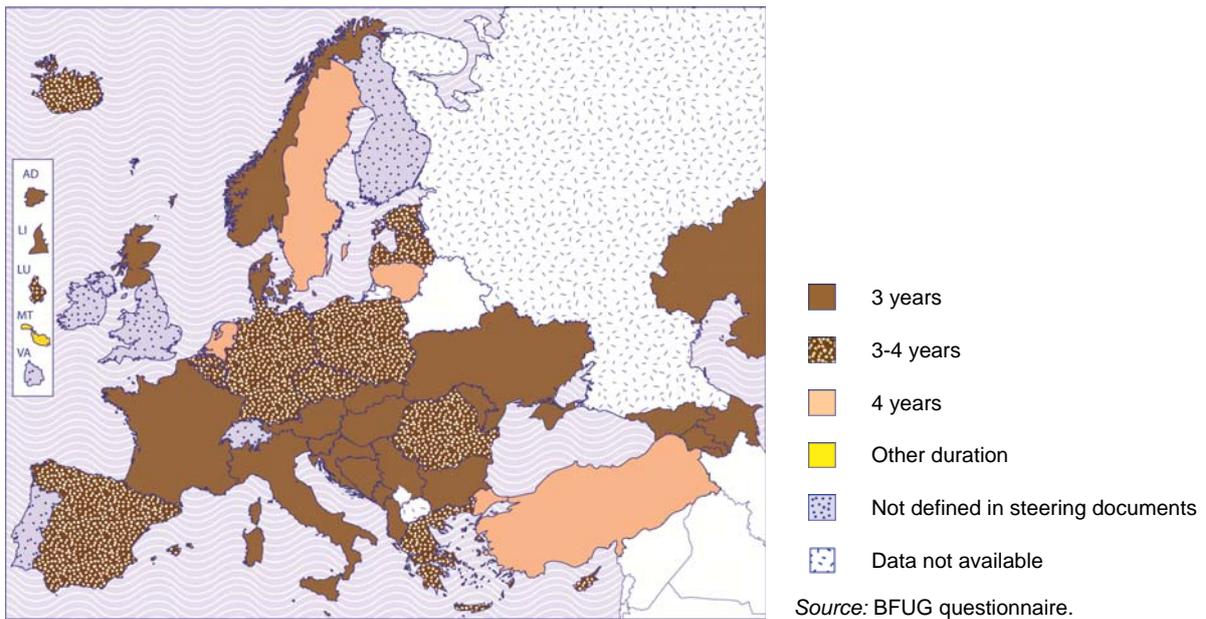
In Austria, another version of doctoral schools combines doctoral candidates who undertake research on a particular topic or theme and are trained by a team of scientists.

The Netherlands and Norway are examples of countries where large doctoral schools may be organised nationally in parallel with doctoral training at individual higher education institutions. In other countries doctoral schools are organised by universities themselves. In the United Kingdom (EWN) the main model is institution wide doctoral schools but in Scotland, depending on the size of the institution, doctoral schools may be either discipline-specific, or organised at faculty or institutional level. In several countries third cycle programmes may also lead to industrial or business-oriented doctoral degrees (Denmark), professional doctoral degrees (Ireland, Romania and the United Kingdom) or PhDs in the arts (Sweden). Azerbaijan has kept the two tier doctoral system where a second doctoral degree can be earned in 4-5 years of post-PhD research.

There is considerable overlap between the concepts “structured programme” and “doctoral school”, and the taxonomy is still evolving. However, evidence from the European University Association’s Council for Doctoral Education suggests that there is a large degree of common understanding that institutions need to engage actively in setting up programmes with structures beyond the traditional ‘master-apprentice’ model and that there is a need for additional coordinating, strategic units often subsumed under the term ‘doctoral schools’. Implementation and concepts may vary, but the overall goal of increased institutional responsibility for doctoral education is shared across the continent.

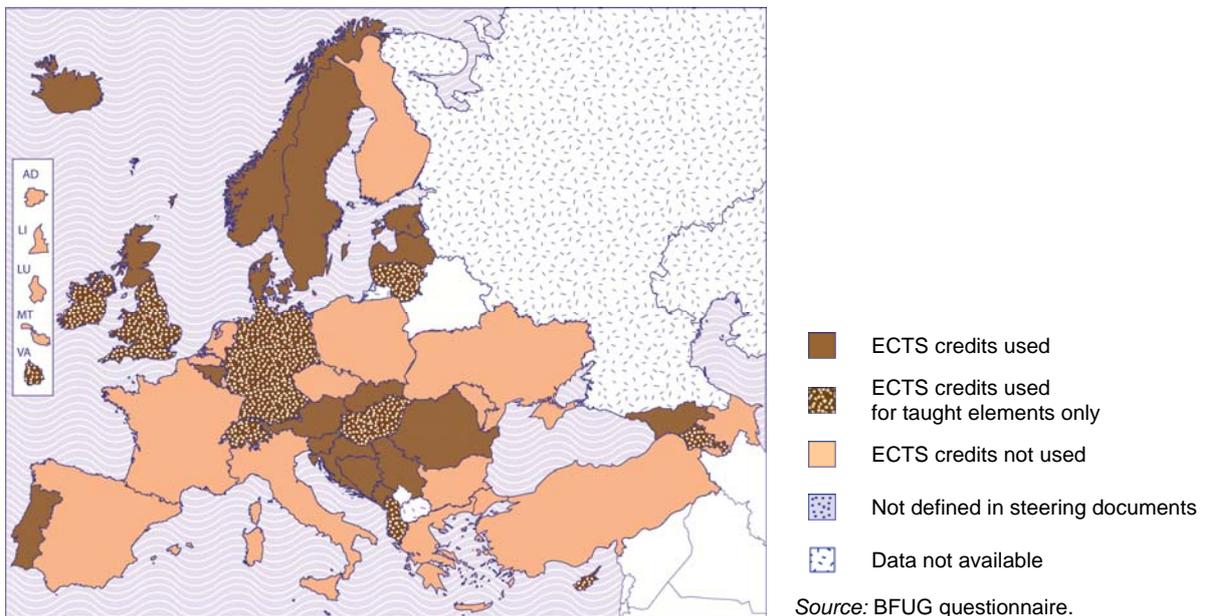
As shown in Figure 2.9, the most typical prescribed duration of full-time doctoral programmes is 3 years while in 8 countries it is 3-4 years. 4 countries make no attempt to define or regulate the length of doctoral studies. Actual duration is estimated to be between 3 and 4 years in most countries.

Figure 2.9: The length of full-time third cycle programmes defined in the national steering documents, academic year 2010/2011



All countries that have a qualifications frameworks include doctoral studies. The information submitted for this report also suggests that the use of ECTS in doctoral studies is growing over time. Currently 18 countries use ECTS for the whole doctoral studies (see Figure 2.10) and another 11 countries for taught courses only. 18 other countries do not require ECTS to be used in doctoral education.

Figure 2.10: Use of ECTS credits in doctoral programmes, academic year 2010/2011



Overall, the results suggest that the development of doctoral studies as the third cycle of studies is progressing. There are more countries where structured doctoral studies are the predominant model of doctoral training. Doctoral schools are being established at both institutional and in some countries also at national level and they follow no single model. Doctoral schools can be organised more as structures ensuring an organisational framework for structured doctoral studies (AT and IE, IT). Alternatively they may also be established to facilitate multidisciplinary studies, providing the

necessary transversal skills, and/or a platform for cooperation of doctoral students. A third possibility is that they are established to provide an overarching structure for taught courses in the third cycle.

2.1.4. Joint degrees and programmes

Already in their Prague communiqué in 2001 ministers called for an increase in degree curricula offered in partnership by institutions from different countries and leading to a recognized joint degree in order to promote the European dimension of higher education (Prague Communiqué, 2001). Programmes developed jointly by several universities from different countries and awarding joint degrees have the potential to stimulate developments in various Bologna action lines. For instance, joint degrees require joint curriculum development, joint quality assurance and joint decisions regarding mutual recognition of parts of programmes acquired at partner institutions. For joint programmes and joint degrees to be successful partner institutions can make use of the Bologna tools such as ECTS, Diploma supplement, qualifications frameworks and a learning outcomes orientation, thus also fostering the implementation of these tools⁵.

Several reports consider that the greatest problem is how to award joint degrees. One difficulty is that national legislation may not mention joint degrees at all. If this is the case, joint programmes and joint degrees have to fulfil all the same rules as standard programmes and qualifications, and the specific characteristics of joint programmes and degrees are not acknowledged. While institutions require autonomy to develop innovative joint programmes, the different procedures required for matters such as curriculum development and quality assurance need consideration and support at national level.

For this reason at their Berlin Conference in 2003 the ministers responsible for higher education stated that they agree to engage at the national level to remove legal obstacles to the establishment and recognition of such degrees and to actively support the development and adequate quality assurance of integrated curricula leading to joint degrees (Berlin Communiqué, 2003). Currently 35 countries report that their legislation allows both the establishment of joint programmes and the award of joint degrees. Armenia, Cyprus, Croatia and the Holy See report that legislation regarding joint degrees lacks clarity, in effect allowing joint programmes to operate but not allowing joint degrees to be awarded. In 8 countries, (Bulgaria, Switzerland, Finland, Ireland, Kazakhstan, Liechtenstein, Moldova and Ukraine) legislation doesn't address joint programmes or joint degrees at all, and this often leads to difficulties both in establishing joint programmes and awarding joint degrees in practice⁶.

Country estimates of the percentage of higher education institutions awarding joint degrees and involved in joint programmes are shown in Figures 2.11 and 2.12. The situation varies greatly in different countries. In five countries the share of institutions involved in joint programmes and awarding joint degrees is between 75 and 100 %.

At the other end of the scale are Andorra, Liechtenstein and Moldova where there are no joint programmes at all. A further 8 countries have only 0-5 % of their higher education institutions involved in joint programmes. In Cyprus, Finland, Liechtenstein and Latvia higher education institutions are involved in joint programmes but don't award joint degrees, although in LV legislation allows joint degrees to be awarded since August 2011.

In many countries participation in joint programmes is more widespread than the award of joint degrees. This tendency is observed even in countries where the percentage of higher education institutions involved in joint programmes is 50-75 %. Three countries - Latvia, the Netherlands and

⁵ Reference to EUA report on master degrees and joint degrees, 2002.

⁶ Ref to JD report

Kazakhstan - estimate the same number of graduates from joint programmes as those awarded joint degrees. At the same time in 6 countries report that there were no graduates from joint programmes in 2009/2010. The highest estimated shares of students in joint programmes and those graduating with a joint degree are in the Scotland and the Holy See – over 10 % - followed by Austria with 5-7,5 % and Bosnia Herzegovina, Spain, Luxembourg and Kazakhstan with 2,5-5 %.

Countries estimate that the most popular fields of study for joint programmes/degrees are mathematics and sciences, engineering and technologies as well as economics & business. Next come studies of world regions or countries, law, humanities, health sciences, education, plus culture and arts. Languages, social sciences, agriculture and forestry, as well as interdisciplinary programmes are also mentioned in this respect.

Figure 2.11: Estimated percentage of institutions that participate in joint programmes, academic year 2010/2011

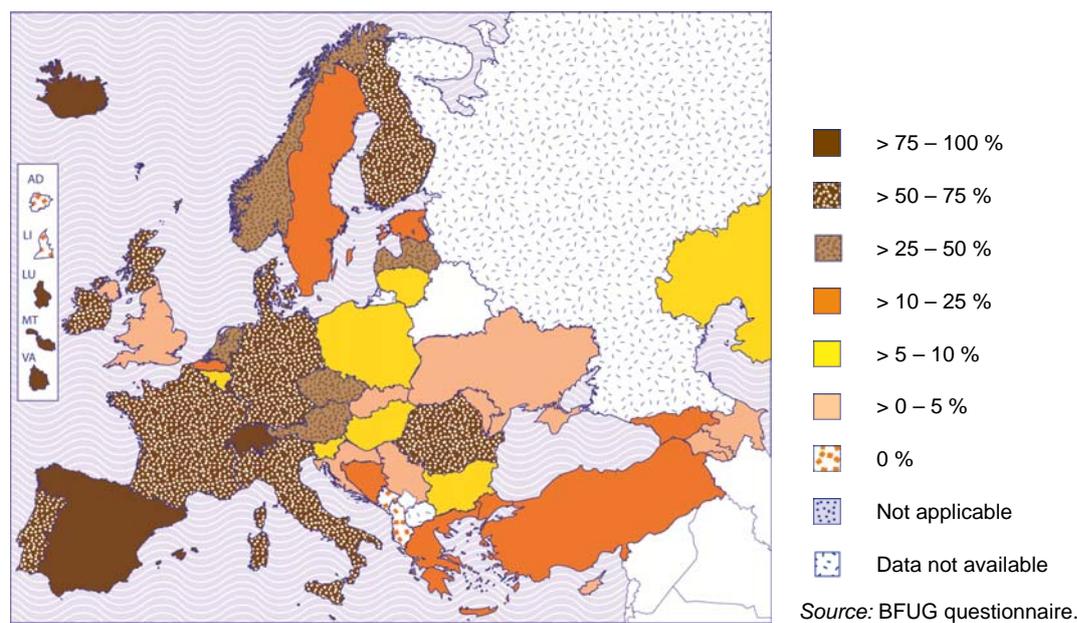
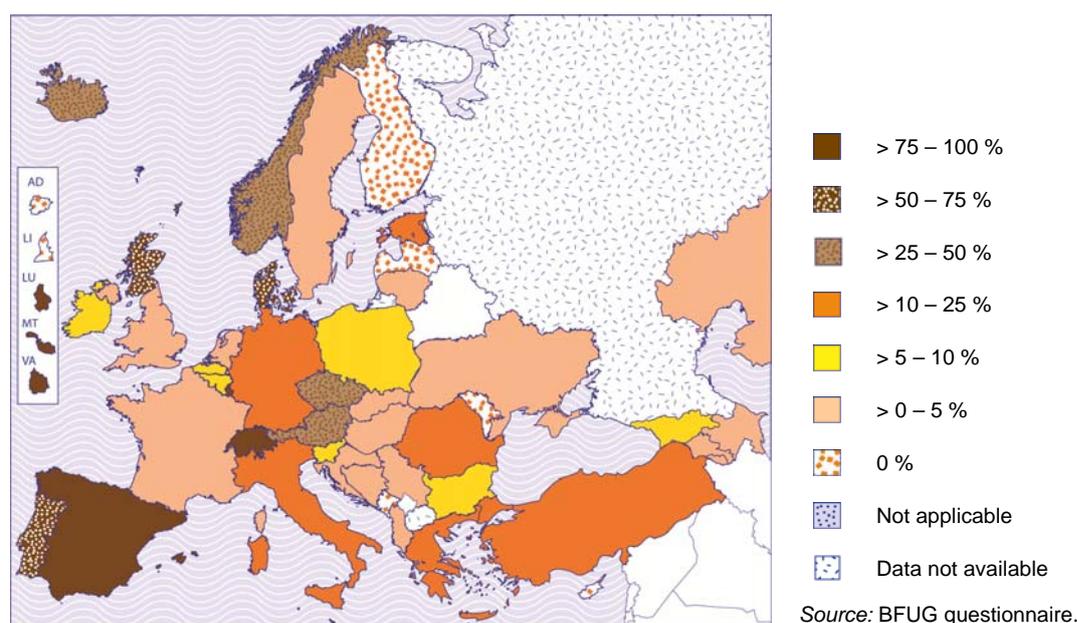


Figure 2.12: Estimated percentage of institutions that award joint degrees, academic year 2010/2011



The main conclusions are that more countries have reviewed their legislation in order to allow and encourage joint degrees and that more students are involved in joint programmes. However, students of joint programmes are not always awarded a joint degree.

Although reliable data to assess implementation of joint programmes and degrees is lacking, it appears that the picture across the EHEA is very uneven, with none or few institutions involved in some countries, while nearly all institutions may offer at least one joint programme in others.

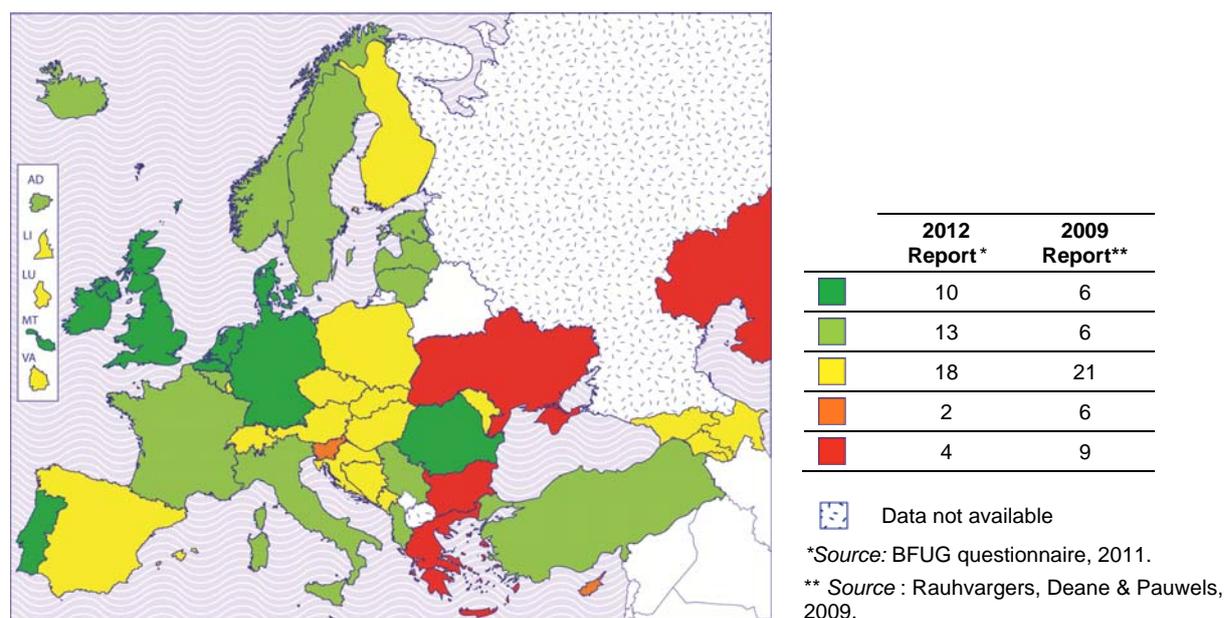
2.2. Bologna Tools

2.2.1. National qualifications frameworks

Qualifications frameworks came into the Bologna agenda between 2001 and 2003. At that time just a few qualifications frameworks existed in Europe – in Ireland, the UK-EWNI and UK-Sct and at an experimental phase in Denmark. Between 2001 and 2003 several Bologna policy seminars were organised on qualifications frameworks which concluded that establishing qualifications frameworks describing qualifications in terms of level, workload, learning outcomes, and profile should be useful both at national level and at the level of the EHEA. Qualifications frameworks had the potential to make higher education systems more transparent, providing common reference points for levels of qualifications, and also strengthening links between qualifications and learning outcomes.

In Berlin in 2003 ministers in their communiqué encouraged the member States “to elaborate a framework of comparable and compatible qualifications for their HEI systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile”. Ministers also undertook to elaborate an overarching framework of qualifications for the EHEA. Two years later in Bergen ministers adopted the overarching qualifications framework for the EHEA and committed themselves to elaborating national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010. However, due to the long time needed to carry out the change towards learning outcomes-based programmes and qualifications, as well as carrying out self-assessment procedures with the involvement of foreign experts, the 2010 deadline proved to be unrealistic. Ministers at Leuven/Louvain-la-Neuve in 2009, stated: “We aim at having them [i.e. NQFs] implemented and prepared for self-certification against the overarching Qualifications Framework for the EHEA by 2012” (Leuven/Louvain-La-Neuve Communiqué, 2009).

Figure 2.13: Scorecard Indicator n°3 on implementation of national qualifications frameworks, academic year 2010/2011 *



Scorecard categories

- Step 10: The Framework has self-certified its compatibility with the European Framework for Higher Education
- Steps 7-9:
 - 9. Qualifications have been included in the NQF,
 - 8. Study programmes have been re-designed on the basis of the learning outcomes included in the NQF,
 - 7. Implementation of the NQF has started with agreement on the roles and responsibilities of higher education institutions, quality assurance agency(ies) and other bodies
- Steps 5-6:
 - 6. The NQF has been adopted in legislation or in other high level policy fora
 - 5. Consultation / national discussion has taken place and the design of the NQF has been agreed by stakeholders
- Step 4: The level structure, level descriptors (learning outcomes), and credit ranges have been agreed
- Step 3:
 - The process of developing the NQF has been set up, with stakeholders identified and committee(s) established
 - Step 2. The purpose(s) of the NQF have been agreed and outlined
 - Step 1. Decision to start developing the NQF has been taken by the national body responsible for higher education and/or the minister

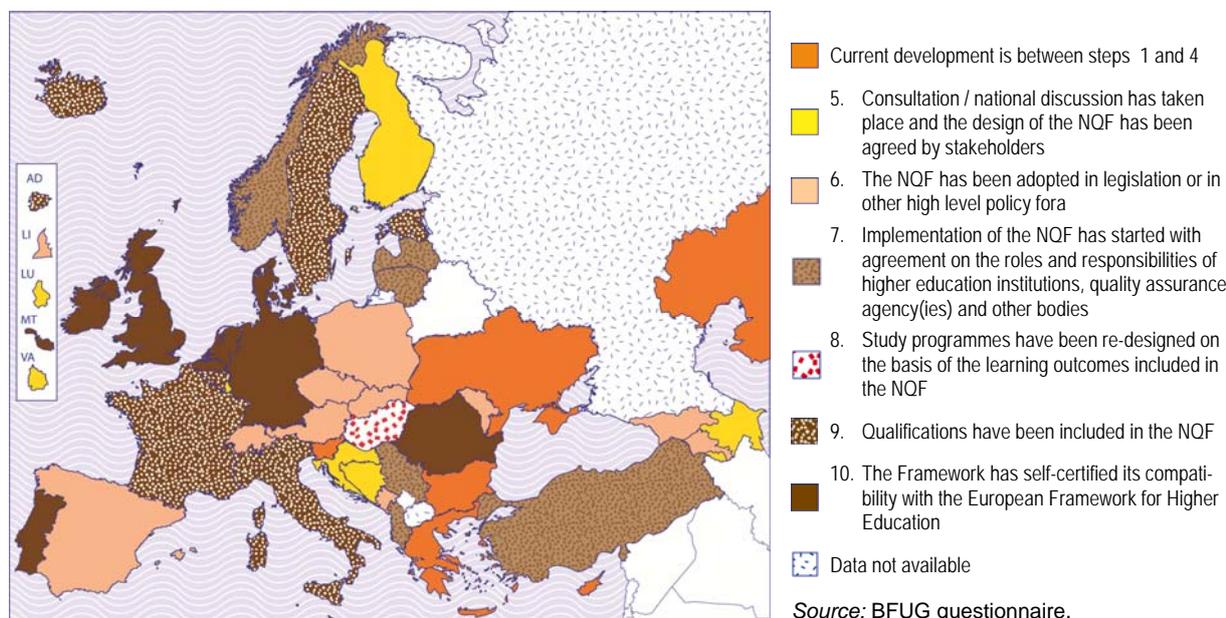
Indicator is defined as the current state in implementation of the national qualifications framework. The state of implementation was measured against the ten steps of implementation of NQF defined by the EHEA Qualifications frameworks working group (see below). To keep the same scoring criteria as in 2009 the 10 steps of NQF implementation are transformed into stocktaking scores as shown below.

Source: BFUG questionnaire

BE-nl, DE, DK, IE, NL, UK-ewni and UK-sct (**possibly IT, MT, Pt, RO**) have fulfilled all the 10 steps in implementation of qualifications frameworks. Another group of countries - AD, BE-fr, EE, FR, IS, SE have a good chance to join the first group in 2012. Those countries mainly have to complete the self-certification procedure. More effort is needed but still there are good chances for AL, LT, LV, NO, RS and TR to complete the process in 2012. In addition to the preceding group, they still have to complete the re-design of programmes on the basis of learning outcomes – and that will take more time and effort. The next group of countries – AM, AT, CH, CZ, ES, GE, LI, MD, ME, PL and SK have

adopted NQF in legislation or in other high level policy fora, but AZ, BA, FI, HR, LU, VA have so far completed the initial and fundamental discussions with all stakeholders. CY and SI have prepared and agreed the proposal on the level structure, level descriptors and credit ranges. BG, EL, KZ and UA are in the very first stages of implementation and have yet to draft and agree on the proposal of a NQF structure.

Figure 2.14: Progress in development of national Qualifications Frameworks according to the 10 steps, academic year 2010/2011



The main focus at the moment is clearly on fulfilling the steps required for a National Qualification Framework to be established. For many countries there is still a considerable amount of effort and work required to meet agreed commitments. Redesigning study programmes and linking them with learning outcomes takes time and effort, as does including qualifications in the qualifications framework and carrying out the final step of self-certification. However, even when these tasks are completed, the work will not end. As the EHEA qualifications framework working group has pointed out in its report "...making qualifications frameworks work in practice is considerably more challenging than developing the structures". The working group also points out that "Making the QF-EHEA work in practice will be one of the main challenges of the EHEA in the years to come and this challenge will be common to its 47 members".

2.2.2. ECTS, Learning Outcomes and Student Centred Learning

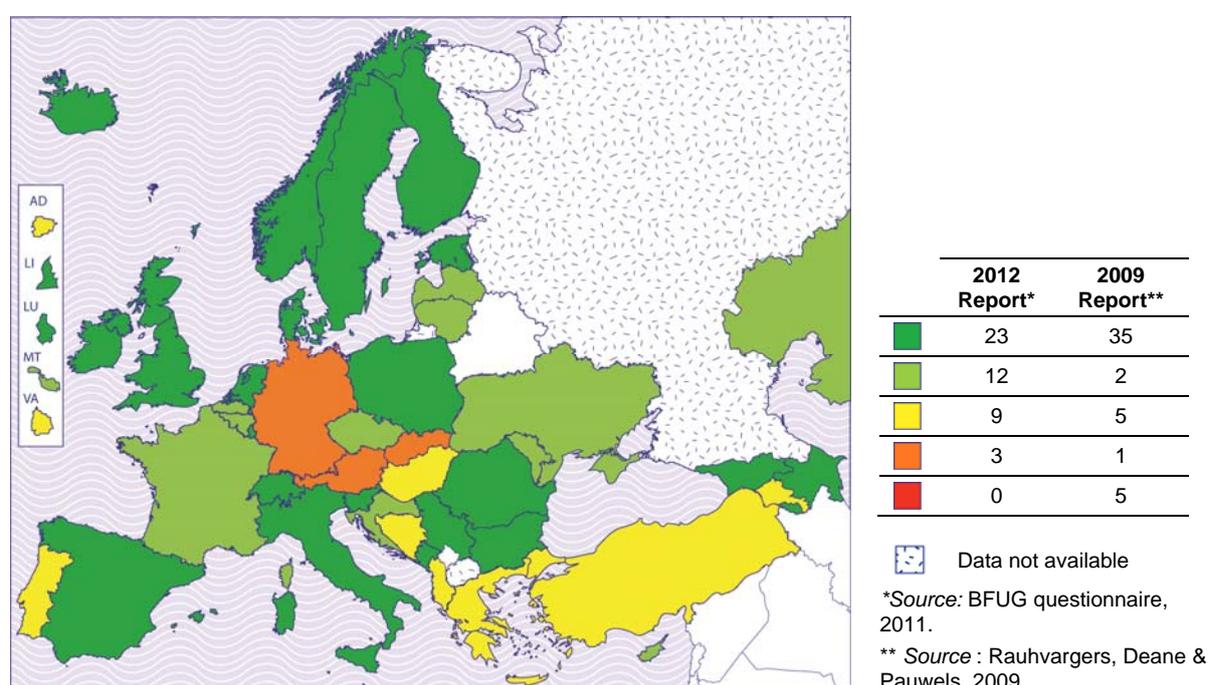
The European Credit Transfer and Accumulation System (ECTS) is a student-centred credit system based on the student workload required to achieve specified learning outcomes. It was originally set up in 1989 in order to facilitate the recognition of periods of study abroad. More recently, it has been developing into an accumulation system to be implemented in all programmes at institutional, regional, national and European levels. Credit accumulation i.e. the allocation of credit points to each component of a study programme and determining the total number of credits needed for completion of the programme, is a practice that is steadily developing across the EHEA.

ECTS was mentioned in the 1999 Bologna declaration in the context of credit transfer, "as a proper means of promoting the most widespread student mobility with a view to assign credits to foreign students". However, it also went beyond that "Credits could also be acquired in non-HEI contexts, including lifelong learning, provided they are recognised by the receiving Universities concerned". In

their Prague communiqué ministers sent a clear message that “a credit system such as the ECTS or one that is ECTS-compatible, providing both transferability and accumulation functions, is necessary” (Prague Communiqué, 2001). As of summer 2004 the revised “ECTS key features” state that ECTS credits are allocated on the basis of both workload and learning outcomes.

Proper implementation of ECTS is very important for reaching Bologna goals. Its use for accumulation makes programmes more transparent, and it facilitates the use of learning outcomes earned at another institution at home or abroad, but also those earned outside the system of formal education. Proper implementation of ECTS is one of the Bologna action lines that requires much effort. In the early stages the main challenge was the transformation of ECTS from a credit transfer system to a transfer and genuine accumulation system. Currently the most demanding issue is to link all programme components with learning outcomes. This is also reflected in the results of the Scorecard indicator on ECTS.

Figure 2.15: Scorecard Indicator n°8 on the stage of implementation of ECTS system, academic year 2010/2011*



Scorecard categories

- ECTS credits are allocated to all components of all HE programmes, enabling credit transfer and accumulation. ECTS credits are demonstrably linked with learning outcomes.
- ECTS credits are allocated to all components of more than 75 % of HE programmes, enabling credit transfer and accumulation AND ECTS credits are demonstrably linked with learning outcomes¹⁰
OR
Credits are allocated to all components of all HE programmes using a fully ECTS compatible credit system enabling credit transfer and accumulation AND credits are demonstrably linked with learning outcomes
- ECTS credits are allocated in 50-75 % of all HE programmes AND ECTS credits are demonstrably linked with learning outcomes **OR**
ECTS credits are allocated to all components of more than 75 % of HE programmes enabling credit transfer and accumulation, but ECTS credits are not yet linked with learning outcomes
- ECTS credits are allocated in at least 49 % of HE programmes **OR**
a national credit system is used which is not fully compatible with ECTS
- ECTS credits are allocated in less than 49 % of HE programmes **OR**
ECTS is used in all programmes but only for credit transfer

Source: BFUG questionnaire

Comparing the results to those of the 2009 stocktaking, in 2012 there are no countries where ECTS credits are allocated in less than 50 % of programmes and there are only 7 countries where ECTS is used for both credit transfer and accumulation in less than 75 % programmes. This means that implementation of ECTS as a transfer and accumulation system in the sense of quantifying students' work appears to be almost completed. However, this is not the case with regard to the task of linking credits with learning outcomes. Here the task has not been completed in a disturbingly large number of countries.

Figure 2.16: Share of programmes using ECTS credits for accumulation and transfer for all elements of study programmes, academic year 2010/2011

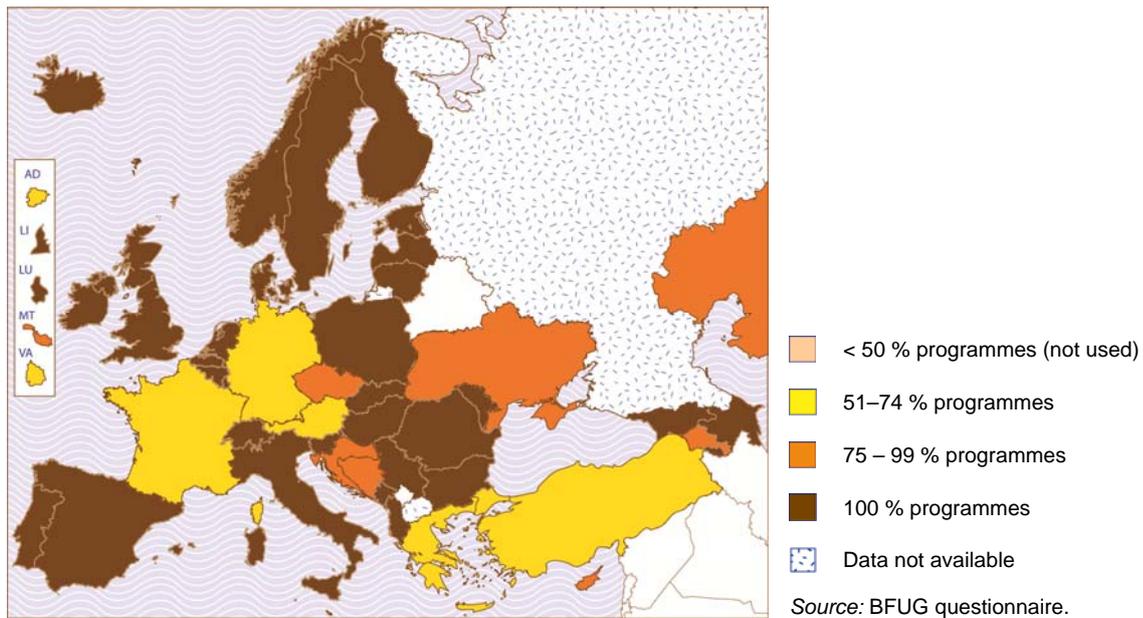
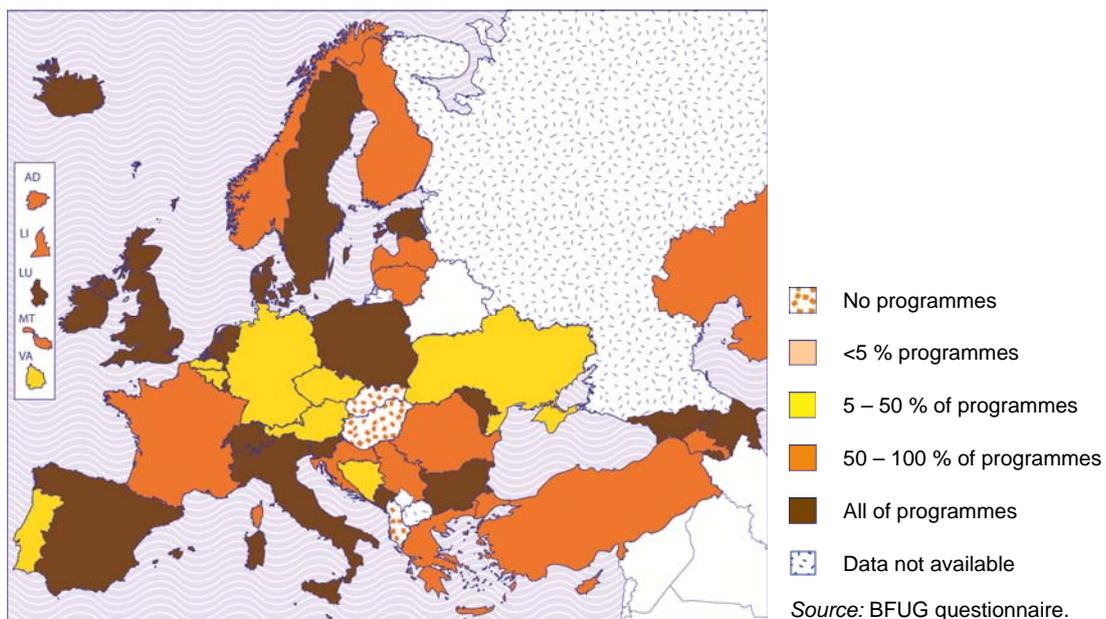


Figure 2.17: Extent to which ECTS credits are linked with learning outcomes in higher education programmes, academic year 2010/2011



Comparing the Figures 2.16 and 2.17 above shows that there is much work still to be done in linking all parts of programmes with learning outcomes. This has been implemented to a far lesser extent than the use of ECTS for credit transfer and accumulation. In 30 countries all programmes use ECTS

for credit transfer and accumulation, in 9 countries the same is true for more than 75 % of programmes but in 7 countries - AD, AT, DE, EL, FR, TR and VA ECTS credits are used for transfer and accumulation in 50 % - 74 % programmes (Figure 2.18).

It is the linking of credits with learning outcomes that hinders the full implementation of ECTS: only in 19 countries (Figure 2.17) are all parts of programmes comprehensively and systematically linked to learning outcomes while there are 7 countries - BA, BE-fr, BE-nl, CZ, DE, PT, UA and VA where all parts of programmes are linked with learning outcomes in less than 50 % of programmes. In 4 countries – AL, AT, HU and SK – parts of programmes are not linked to learning outcomes at all.

Credit allocation. Credit systems have evolved significantly in recent years. The main stages have been credit allocation on the basis of student-teacher contact hours, to allocation of credits on the basis of student workload, and now the trend is towards allocation of credits based on both student workload and learning outcomes.

The new approach means that credits are allocated on condition that the student has performed a certain quantified learning and can demonstrate the expected learning outcomes. The survey results show that in the majority of countries (24) higher education institutions allocate credits to students on the basis of a combination of workload and learning outcomes. AZ, MT, and UK-ewni and UK-Sct are systems where credits are awarded only on the basis of learning outcomes. Nine countries (AD, AT, BE-nl, CH, DE, DK, EL, LI and SK) allocate credits based on student workload only. The fact that some countries where components of programmes are linked with learning outcomes in all or most programmes (CH, DK, AD, and LI) allocate credits on the basis of workload only suggests that achieving the planned learning outcomes is *sine qua non*, while the number of credits is calculated on the basis of workload.

In most countries there is a certain measure of hours of student work per credit: in most countries it is within an interval between 25 and 30 hours. 4 countries (CZ, HR, NO and RO) do not have a prescribed measure of hours per credit but higher education institutions are nevertheless encouraged to use ECTS. In BA, LV, ME and TR the number of contact hours, which varies from 10 (BA) to a maximum of 13 (LV), is set in addition to the standard measure of student work. It should also be recognised that some countries that only recently started using credits have created credit systems that are suitable for credit accumulation. However, making them useful for credit transfer is still a challenge.

The main conclusions on the allocation of credits are the following. It is positive that no country allocates credits on the basis of contact hours only. However, there are a number of countries that still base credit allocation on student workload only – mainly because there are few programmes where all components are linked with learning outcomes. Overall, the implementation of ECTS as a transfer and accumulation system has gained ground, but making sense of the system in the context of a more learning outcomes-oriented approach remains a significant challenge.

Understanding and usage of learning outcomes

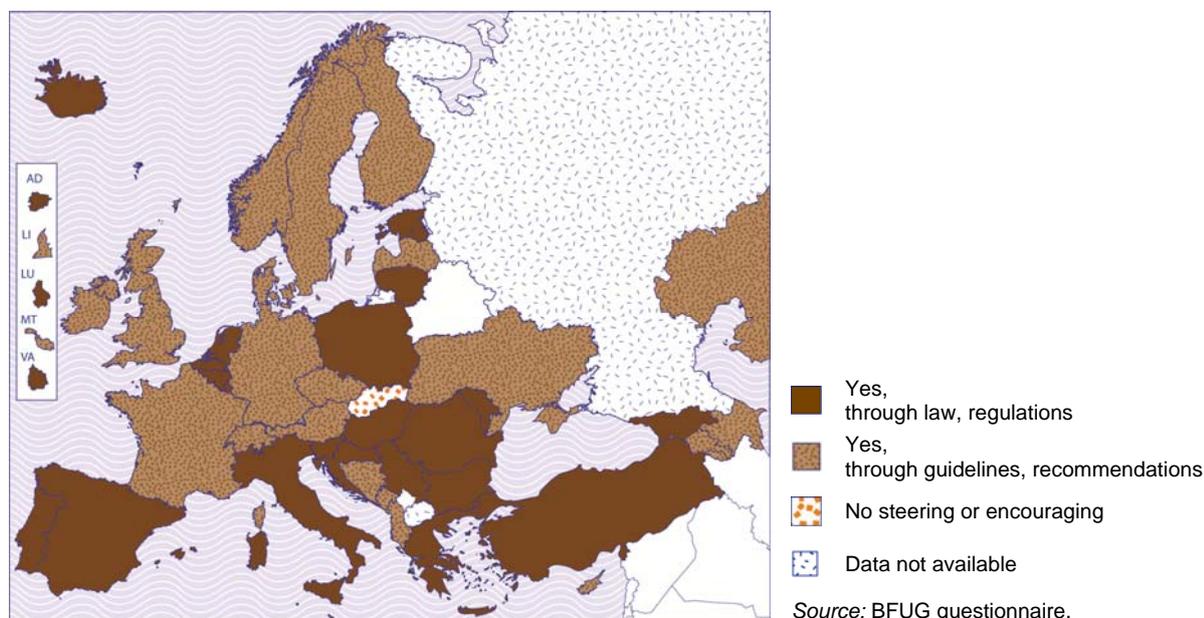
Definition of learning outcomes. Most countries follow two well-known and non-antagonistic patterns of definitions of learning outcomes. One comes from the EHEA overarching framework: “what the student is expected to know, understand and be able to do” (e.g. AD, AZ, BA, Be-Fr, CY, Fi, MT, TR, UK-end). The other is drawn from the EQF for LLL “knowledge, skills and competences” (e.g. DK, LV, ME, NO, SI). These definitions are then in some countries further sub-divided into more categories. There are some countries, however, that have not yet agreed upon a national definition of learning outcomes (e.g. CH, DE, LI, and NL). There are also other definitions which appear compatible with the two most common patterns, such as “Learning outcomes explicitly express knowledge, skills

and other abilities" (CZ), "knowledge, skills and attitudes" (EE, RS), "learning outcomes are knowledge and skills and corresponding autonomy and responsibility ..." (HR), "skills students are expected to have acquired" (SE), "knowledge, skills, or aptitudes" (UK-Sct), "skills and competences" (VA).

However, in some countries specific national definitions are used that are not necessarily compatible with the other more widely adopted definitions. Examples are, "general measurable results of learning process that allow HEIs to assess whether students have developed the required competences" (AM), "ability to demonstrate knowledge and/or skills, oral and written representation of the information from the course" (BG), "Learning outcome is a qualification acquired through successful completion of academic program" (GE), "listed core competencies in accordance with [...] the requirements [...] of professional competence" (KZ).

National steering towards use of learning outcomes for curriculum development and student assessment. Less than half (21) of the countries have made the use of learning outcomes in curriculum development compulsory through laws or regulations, and a further 24 countries encourage the use of learning outcomes through advisory measures. In 1 country (SK) policies do not encourage learning outcomes (see Figure 2.18).

Figure 2.18: Steering and/or encouraging use of learning outcomes in national policy, academic year 2010/2011



Steering or encouraging the use of learning outcomes through national policies is stipulated in legislation in 22 higher education systems, while 25⁷ encourage learning outcomes through guidelines or recommendations. In just 1 country (Slovakia) there is no central encouragement of learning outcomes at all. CZ and HR report that they are preparing major projects on this issue.

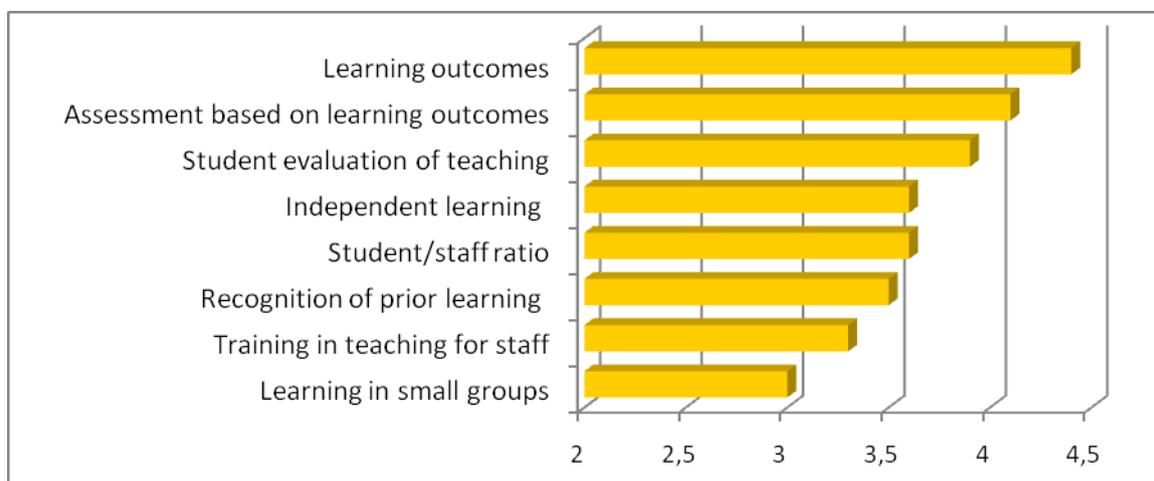
Implementation of ECTS, student - centred learning, qualifications frameworks, internal quality assurance within HEIs and other important action lines all depend on successful implementation of learning outcomes. At the same time these action lines take more time to implement properly than structural changes. The findings above suggest that those countries that choose not to make a learning outcomes approach compulsory through laws and regulations should step up their activities to encourage implementation of a learning outcomes approach.

⁷ AZ, BA, BE-fr, CH, CY, DE, FI, HR, IE, IT, KZ, LT, LU, MD, MT, PL, RO, SE, TR, UA, UK-eng, UK-sct, VA

Monitoring of the use of learning outcomes and assessment of student achievements by quality assurance procedures is in place in most countries, the exceptions being AZ, CH, BE-fr, BE-nl, SK and TR. Most countries which monitor the use of learning outcomes first refer to external quality assurance and particularly procedures for programme accreditation/approval. It seems that the most widely used model is a direct assessment of implementation of learning outcomes by external evaluators. BE (FR & NL), CZ and FI mention the involvement of internal QA procedures, with external monitoring in the form of an audit procedure while AM uses stakeholders' feedback.

Training programmes on student-centred learning/ learning outcomes are available in most countries. Seminars and conferences and/or staff consultations and training activities take place in 21 countries. A number of countries (AM, AZ, LV, PL, RS, UA) issue methodological guidance materials, while others (BE-nl, EE, ES, FI, HR, LT, RO, SE) have allocated national or EU funding for major projects. The support measures are often organized by national Bologna expert groups, ministries, rectors' conferences⁸ or QA or other agencies. Generally, attendance to the training on implementation of student-centred learning is voluntary, although in 12 countries – (AL, AT, BA, BE-fr, CZ, IE, IS, LV, MD, RO, TR, UK-ewni and UK-Sct) for some groups of staff attendance is mandatory. The staff for which the training is mandatory varies from country to country and it range from Deans, Directors of Graduate Schools, Bologna coordinators to quality officers at HEIs (TR), new lecturers, teaching fellows, or postdocs (UK-eng). In LV these topics are included in the compulsory training for all teaching positions below professorial level. Voluntary training in the use of learning outcomes is available for all staff in 16 countries and for some groups of staff in another 8 countries. However, in 7 countries (AD, AZ, BE-nl, EL, LU, PT and SK) there is no offer of training for implementation of learning outcomes/ student-centred learning.

Figure 2.19: Importance of elements of student-centred learning in the eyes of EHEA countries (of total score 5), academic year 2010/2011



Source: BFUG questionnaire

Training on the issues of student-centred learning/ learning outcomes is organised in majority countries, however the answers suggest that training mainly addresses institution leaders, quality officers, bologna coordinators and/or new or lower rank of teaching staff who may be obliged to attend such training. Yet, in one third of countries there is no training offer on LOs/ student-centred learning or such training is available only to some groups of staff which can be another reason of slow progress in action lines that are dependent on implementation of learning outcomes.

⁸ CH, DE, FR, LV, and NO

Countries were asked to score several elements of student-centred learning on a scale from 1 (not important) to 5, see Figure 2.19. The two most valued elements clearly are the learning outcomes and assessment based on learning outcomes. Student evaluation of teaching and independent learning come next. The least valued aspect is learning in small groups. Additionally, countries have emphasized the importance of more aspects that are essential for establishing genuine student-centred learning. The development of the student's ability to think critically and engage independently with the curriculum has been stressed, as well as the objective that students should genuinely participate in all aspects of academic life. Participation of students in research and development has also been stressed. Countries also point out that support services: academic and career guidance, tutoring, psychological counselling have an important role in building up student-centred learning and that this process also requires the different actors to be identified and their roles to be (re)defined.

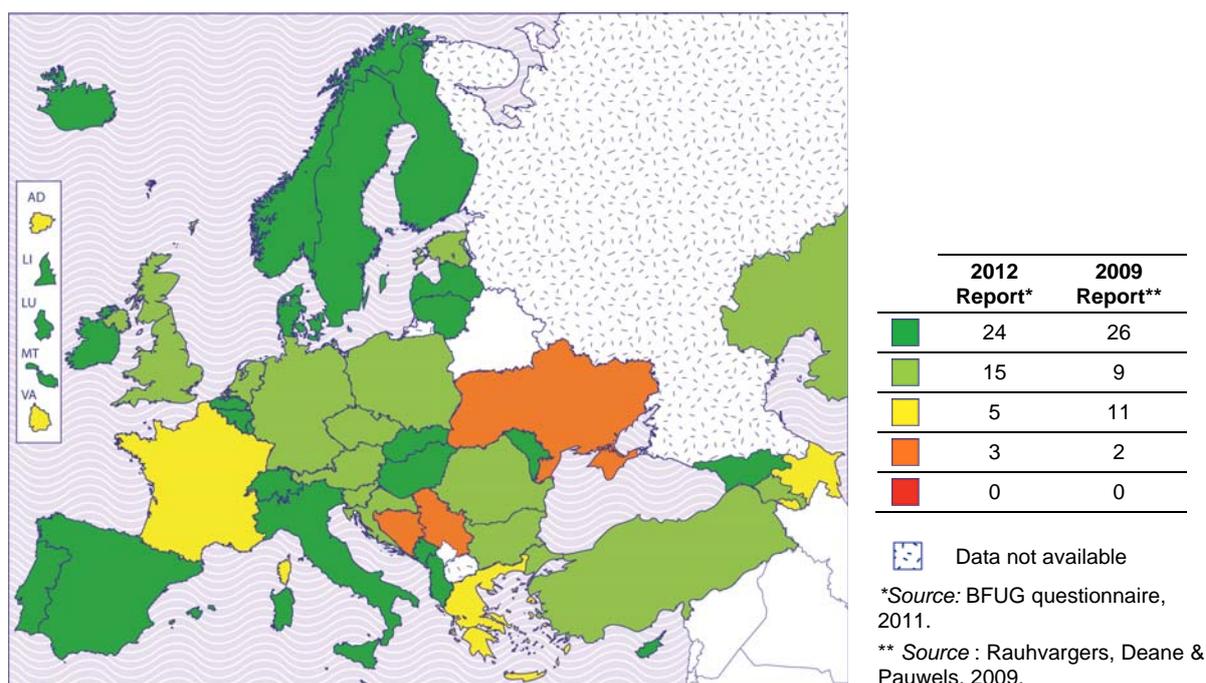
In conclusion, the vast majority of countries at least formally follow the definitions of learning outcomes used in the EHEA overarching qualifications framework or EQF for LLL while compatibility of some national definitions of learning outcomes with those two patterns could be questioned. The question still remains of how far those definitions are known, understood and actually applied in practice when it comes to individual HEI staff members who have to apply them for the courses they are delivering. In the majority of countries the introduction of a learning outcomes approach, especially regarding student assessment, is only encouraged through voluntary recommendations. While there are some countries where there is long experience of steering HEI by recommendations and guidelines, in others issuing a recommendation does not necessarily lead to immediate follow-up and that could be one reason why implementation of these issues is taking longer than might have been hoped for and expected. In most countries the use of learning outcomes for curriculum development is monitored directly by programme assessments in external quality assurance, while in fewer countries internal QA has the primary responsibility.

Countries consider that most important elements on the way to genuine student-centred learning are learning outcomes and outcomes-based assessment of student achievements. Genuine student-centred learning is a complex matter that is difficult to integrate into everyday higher education reality. It should comprise actions that ensure that students learn how to think critically, participate in all kinds of academic life, and are given more independence and responsibility.

2.2.3. Diploma Supplement

The Diploma Supplement was developed already in 1998 by a working group sponsored by Council of Europe, EU and UNESCO therefore it was taken up as a transparency tool already in the Bologna declaration in 1999.

Figure 2.20: Scorecard Indicator n°7 on the stage of implementation of the diploma supplement, academic year 2010/2011*



Scorecard categories

- Every graduate receives a Diploma Supplement in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language
 - automatically
 - free of charge
- Every graduate who requests it receives a Diploma Supplement in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language
 - free of charge
- A DS in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language is issued to some graduates OR in some programmes free of charge
- A DS in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language is issued to some graduates OR in some programmes for a fee
- Systematic issuing of DS in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language has not yet started

Indicator⁹ⁱ

Indicator measures the implementation of the Diploma Supplement against four criteria:

- 1) Diploma Supplement should be issued to every graduate
- 2) Diploma Supplement should be issued automatically,
- 3) Diploma Supplement should be issued in a widely spoken European language;
- 4) Diploma Supplement should be issued free of charge.

Quantitative data on issuing the DS. In addition to country scores in the Diplomas Supplement indicators (Fig 2.20 above), the data submitted by countries show that only in 24 countries is the DS issued automatically. In a further 23 countries either all Diploma supplements or those in the non-national language are only issued upon request. In AD, AZ, EL, FR, TR, and VA Diploma Supplements are not issued to all graduates and in BA, RS and UA the Diploma Supplement is issued for a fee that varies from 10 EUR in UA to 50-100 EUR in RS. In nearly all countries the DS is issued in national language(s) and English – the dominant “widely spoken European language”.

⁹ The criteria for the indicator on the implementation Diploma Supplement has not been changed since the Stocktaking exercise of the year 2007

National monitoring of the effectiveness of the DS. Only seven countries BE-fr, DE, IT, MD, ME, SE and SI report that they have launched studies to monitor how employers use DS and in Be-fr and DE the results of these studies are as yet unknown. SI and SE confirm that no more than 10 % of employers are aware of the Diploma Supplement and that they are not much interested in it. Meanwhile in MD employers wish to see a much more detailed DS although they appreciate the presence of learning outcomes listing generic and specific competences. As regards monitoring the use of DS in HEIs, less than half of the countries state that such monitoring takes place, and only FR, HR, RS and VA have provided any outcomes of such monitoring.

Lessons from the examples of Diploma Supplements. Only 14 countries (BA, BE(fr), CH, CZ, CY, DE, DK, EE, IE, IT, KZ, LV, MD, NO, VA) submitted a DS and two of those countries actually sent in a blank diploma supplement with a description of the national education system. The main shortcomings in the Diploma supplements submitted were the following. Some did not contain a description of the education system or only included a diagram without comments, or alternatively some description of the educational system but without a diagram. The format of all Diploma Supplements was the one approved by the Council of Europe, UNESCO and the European Commission. Less than half of the Diploma Supplements submitted provided the quality assurance status of the higher education institution which issued the qualification and/or administrated the studies. Only one third of Diploma Supplements mentioned what kind of access qualification was required as a prerequisite for access to the programme completed. In two thirds of the Diploma Supplements submitted, not only were Learning Outcomes not provided, but they were not even mentioned. However, in one third of the samples of Diploma Supplements there were attempts to provide the learning outcomes of the programme completed. Yet in most of these cases the formulations were in reality overall aims rather than real learning outcomes in the form of *“what the graduate knows, understands and is able to do”*.

The above shortcomings lead to the conclusion that Diploma Supplements are in many cases not prepared properly and hence do not provide the expected information to the users. Higher Education Institutions do not always follow the guidance for filling Diploma Supplement adopted by the Intergovernmental Committee of the Lisbon Recognition Convention in 2007¹⁰ and therefore a much wider dissemination of the *Diploma Supplement explanatory notes* as well as training of the appropriate staff is needed. The results also add strength to the conclusion that slow implementation of a learning outcomes approach is a hindrance for a number Bologna tasks and action lines.

2.3. Recognition of Qualifications

Recognition has been at the heart of the Bologna Process since its inception in the late 90s. Recognition can be considered both as an operational objective by itself and as an instrument to pursue other operational objectives, which would enable the full implementation of the EHEA. In the last two decades, various instruments have been developed, adopted and implemented at the European, national, regional and institutional level aiming at facilitating fair recognition of foreign qualifications and/or study periods abroad. As showed in the analysis of the 2007 National Action Plans for Recognition (NAPs), despite the signature and/or ratification of the LRC by all EHEA countries except EL, there are still legal problems to implement the principles of the LRC and its subsidiary texts in those countries that have not amended their legislation adopting the above principles. As illustrated in the analysis of the 2007 National Action Plans for Recognition (NAPs)¹¹, despite the signature and/or ratification of the LRC by most of the EHEA countries, there are still legal

¹⁰ See *Diploma Supplement explanatory notes* at e.g. http://ec.europa.eu/education/lifelong-learning-policy/doc/ds/ds_en.pdf

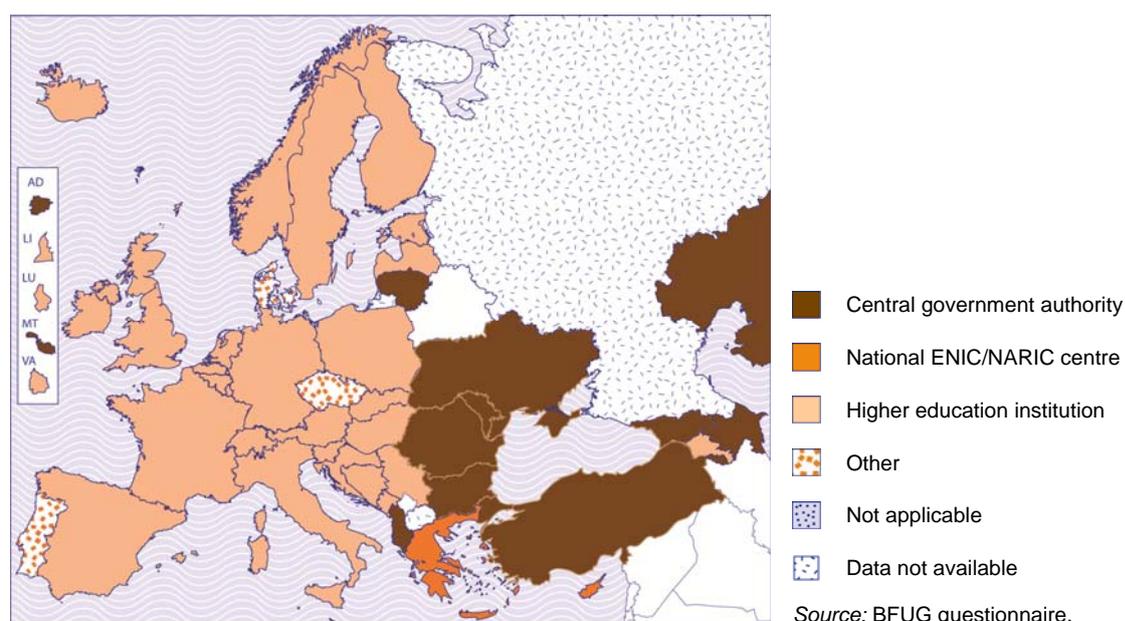
¹¹ The full version of the analysis of the 2007 NAPs for recognition is accessible here: http://www.ehea.info/Uploads/qualification/Analysis_of_2007_RecognitionNAPs.pdf.

problems in implementing the principles of the Lisbon Recognition Convention and its subsidiary texts in those countries that have not amended their legislation adopting the above principles. Ministers responsible for higher education in their Leuven/Louvain-la-Neuve Communiqué (Leuven/Louvain-La-Neuve Communiqué, 2009) asked the BFUG, “to follow-up on the recommendations of analysis of the national action plans on recognition” which was done by the EHEA Working Group of recognition, see final report¹².

The BFUG survey shows that higher education institutions take the final decisions on recognition of foreign qualifications for the purpose of further studies in the vast majority (30) of countries. Within this group recognition decisions are taken at the central level of the higher education institution in 15 countries, while in most other countries they are left to individual departments. This increases the risk that the staff taking recognition decisions may have less knowledge and experience in assessing foreign qualifications or credits

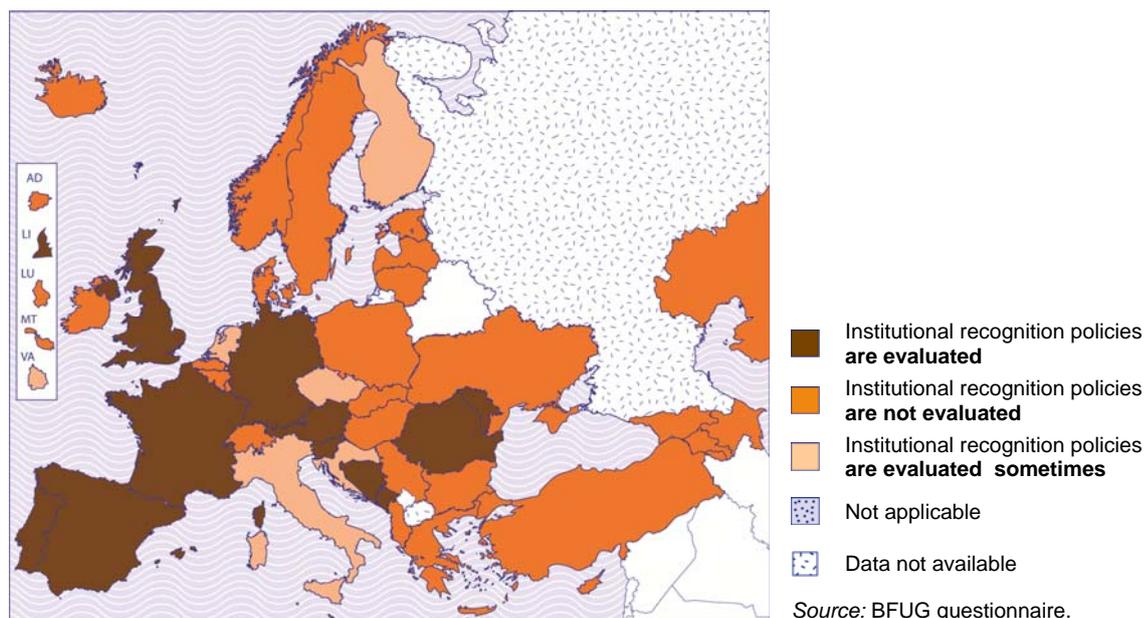
In two countries (CZ and DK) higher education institutions also have the main responsibility for the decision upon recognition. However, in DK the ENIC/NARIC centre may assess and certify compliance of qualifications for meeting general admission requirements. In CZ the ministry rather than the higher education institution takes decision on recognition in cases of the qualification coming from countries with which CZ has bilateral agreements on recognition. In 10 countries (AL, AZ, BG, GE, KZ, LT, MD, RO, TR, UA) decision taking for academic recognition of foreign qualifications is done by a central government authority, e.g. ministry (Figure 2.21). In Turkey the recognition decisions are taken by the Higher Education Council (YOK) without participation of higher education institutions. In at least 4 of these countries decisions on recognition are still made by national authorities without involving the ENIC and NARIC Centres and the higher education institutions. Such a practice may adversely impact on the institutional autonomy of higher education institutions and restrict their capacity to select and admit students according to their admission criteria. Decisions on academic recognition are made by the national ENIC/NARIC centre in 4 countries – AD, CY, EL, and MT.

Figure 2.21: Institution which makes final decisions on recognising foreign qualifications for academic purposes, academic year 2010/11



¹² Final Report of the EHEA Working Group of Recognition, http://www.aic.lv/bologna/Bologna/Bucharest_conf/Final_report_WG_Recognition.pdf

Figure 2.22: Evaluation of higher education institutions' recognition policy in external quality assurance processes, academic year 2010/11



The analysis of the 2007 National Action Plans for Recognition also indicated that some countries report problems in implementing the Lisbon Recognition Convention since the recognition decisions are taken by higher education institutions that are autonomous. Therefore the state cannot ensure that the principles of the Lisbon Recognition Convention are followed. While such statements are legally obsolete, it should be noted that 14 years after the adoption of the Lisbon Recognition Convention these countries have not managed to ensure that their institutional recognition procedures comply with the Convention. One good solution to this issue is making the recognition of qualifications in higher education institutions part of quality assurance processes. Quality assurance would then assess compliance with the Lisbon Recognition Convention. Involvement of quality assurance as a solution to this problem is logical because the quality of the recognition procedures used within a higher education institution can be covered by the internal QA system in the same way as any other academic or administrative procedure. Secondly, higher education institutions have accepted external and internal quality assurance and therefore introducing the Lisbon Recognition Convention principles through quality assurance, and especially through internal quality assurance, should be easier than through directive measures. Figure 2.22 shows that recognition policies are regularly evaluated by external quality assurance in only 12 countries while in the majority of countries (28) recognition at higher education institutions is not evaluated at all.

The EHEA Working Group on recognition suggests that countries should be encouraged to examine and, where necessary, amend national legislation so that it complies with the principles of the Lisbon Recognition Convention and its subsidiary legal texts by 2015. Ministers should set the 2015 ministerial conference as a deadline by which all countries should complete this task. To ensure implementation of the above principles in institutional recognition procedures of foreign qualifications and credits/periods of study gained abroad, higher education institutions and Quality Assurance Agencies should include compliance of the institutional recognition procedures with the legal framework of the Lisbon Recognition Convention in issues covered by both internal and external quality assurance.

ⁱ The criteria for the indicator on the Diploma Supplement has not been changed since the Stocktaking exercise of the year 2007.

3. QUALITY ASSURANCE

The Bologna context

The Bologna Declaration encouraged European co-operation in higher education quality assurance, with a view to developing comparable criteria and methodologies. Thus from the beginning of the process, there has always been a strong focus on quality. All subsequent Ministerial Communiqués have also paid attention to an evolving agenda in European quality assurance. At the Berlin summit in 2003, Ministers acknowledged that the primary responsibility for quality assurance lies with higher education institutions and agreed on the core elements national quality assurance systems should include by 2005, comprising: a definition of the responsibilities of the bodies and institutions involved; evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results; a system of accreditation, certification or comparable procedures, and international participation, co-operation and networking.

Two years later, at the Bergen meeting of May 2005, Ministers adopted the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG). These standards and guidelines are designed to be applicable to all higher education institutions and quality assurance agencies in Europe, and aim to promote mutual trust while respecting diverse national and institutional contexts and subject areas. In 2008 followed the establishment of the European Quality Assurance Register for Higher Education (EQAR). EQAR is a register of those agencies that substantially comply with the ESG. The 2009 Leuven/Louvain-la-Neuve Communiqué also stresses that Quality Assurance will remain a priority in a landscape where new tools, mechanisms and initiatives are increasingly being designed to provide information about higher education institutions.

Chapter outline

This chapter deals with the progress made to develop Quality Assurance systems across the European Higher Education Area and covers both external and internal Quality Assurance. The main focus of the chapter is on the extent to which quality assurance systems are following the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). It looks at the main distinctions in European quality assurance systems, as well as the development of trends towards greater internationalisation in quality assurance. The focus then shifts to other developments in external quality assurance, including the involvement of different key stakeholders. The last section is on developments in internal quality assurance systems.

3.1. External Quality Assurance

3.1.1. Character and Orientation of National Quality Assurance Systems

Quality assurance in higher education can be understood as policies, procedures and practices that are designed to achieve, maintain or enhance quality as it is understood in a specific context.

Since the Bologna Process was launched in 1999 there has been a rapid transformation of external quality assurance in Europe. Improving quality of higher education and establishing quality assurance systems has been a high priority for many if not all countries. The development of the European Higher Education Area can certainly be seen as a catalyst to this process with quality assurance clearly linked to establishing stakeholder confidence. The European Standards and Guidelines (ESG) for quality assurance were adopted in 2005, and this gave a boost to European cooperation in the domain. The European Quality Assurance Register for Higher Education (EQAR) was also established 2008, and by January 2012 28 agencies in 12 countries were listed on the Register. The countries where at least one agency is listed in EQAR are Austria, Bulgaria, Croatia, Denmark, Finland, France, Germany, Ireland, Netherlands, Romania, Spain and Switzerland.

Only a handful of countries had established clear external quality assurance systems prior to the Bologna process. Since the Bologna process was launched, however, 22 countries have established national agencies for quality assurance, with half of these being set up since 2005 (Eurydice 2010). In a few countries, such as Denmark, France and Italy, new agencies have replaced or built on existing agencies.

11 countries in the EHEA do not have established quality assurance agencies. These include those with a small higher education sector such as Andorra, Bosnia and Herzegovina, Liechtenstein, Luxembourg and Malta. However, in these countries, the small size of the sector does not mean that quality assurance is neglected, but rather that a different and more suitable approach may have been developed. In the case of Andorra, although responsibility rests with the government, the actual practice of external evaluation is carried out through using other national quality assurance agencies – most commonly the Spanish national agency (ANECA). Luxembourg has also developed a progressive approach of improvement-oriented evaluation that is both inclusive of stakeholders and extremely international in its orientation.

Although practically all Bologna countries have established some form of external quality assurance system, there are significant differences in the philosophy and approach behind systems. Despite the adoption of Common Standards and Guidelines for the EHEA, systems are indeed still quite diverse in their orientation.

One important distinction that can be drawn is whether the main focus of quality assurance is on institutions or programmes, or both. A second is whether or not the QA agency or national body is invested with the power to grant permission for institutions or programmes to operate. Although certain national system features make this reality more complex (for example, whether or not governments retain the power to issue degrees at central level), these orientations give a good general sense of the approach to quality assurance.

It is noteworthy that the vast majority of QA systems now focus on a combination of institutions and programmes (24) rather than on either programmes (7) or institutions (4). This picture suggests that QA systems are becoming more complex as they evolve.

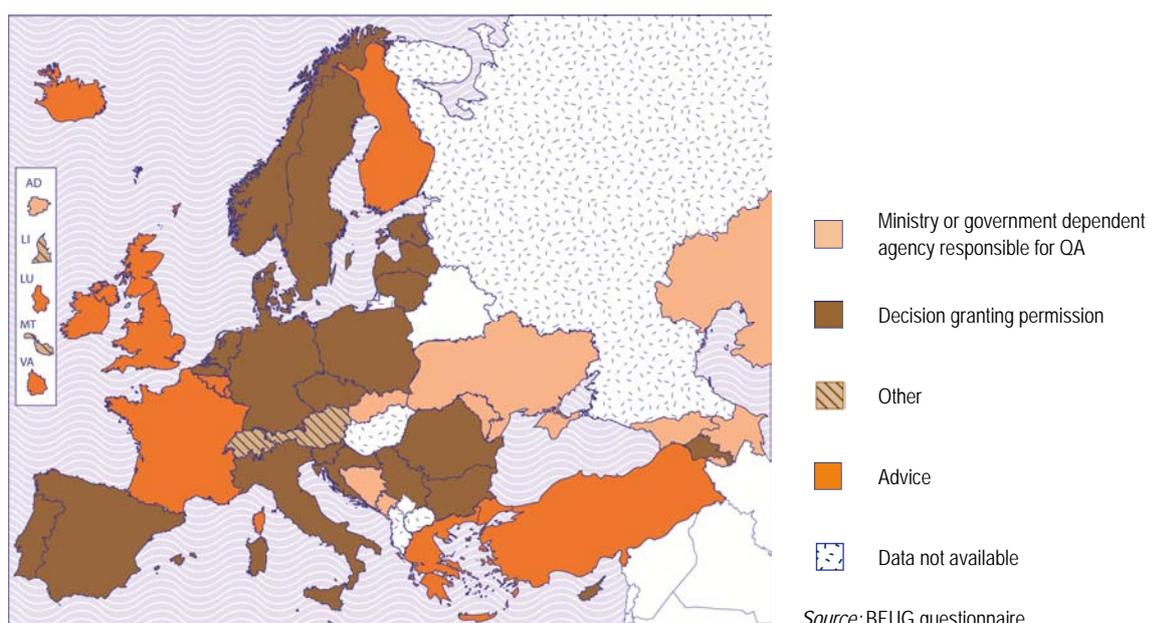
In systems where responsible QA bodies/agencies have the power to permit or refuse programmes and/or institutions to operate, or where they advise governments on such decisions, quality assurance can, in broad terms, be perceived as supervisory in character. In these cases it generally aims to ensure that minimum quality thresholds are met. Agencies may of course play other roles – including giving advice on the enhancement of quality. This is indeed specifically mentioned in a number of countries, but all these additional roles are likely to be subordinate to the decision of permitting programmes and/or institutions to operate.

In other systems, QA agencies report on institutions' management of quality, and although having 'only' an advisory role, aim to support quality enhancement. In such a construction, the primary emphasis is thus on empowering higher education institutions with responsibility for quality improvement. These are systems that will be more likely to use 'light touch' external quality assurance processes, aiming to ensure that necessary measures to improve quality have been established within institutions, and interfering less in the decision-making processes at institutional level.

The majority of systems across the EHEA are, using this categorisation, more supervisory in character. Indeed 21 systems have established agencies with decision-making powers - including countries where the agency makes a proposal for decision and the government is responsible for actual decision. 11 systems have agencies that are advisory and more enhancement-oriented in character. Four countries (Austria, Liechtenstein, Malta and Switzerland) point to a mixed situation, with different agencies having different orientations.

It is also interesting to note that not all the evaluations of "supervisory" agencies have an impact on the funding of institutions or programmes. Indeed, in 5 systems (Bulgaria, Cyprus, Germany, Liechtenstein and Poland) there is currently no impact of evaluation on funding, although in Poland recent legislative changes are set to alter this reality, with the possibility for additional funding to be granted to programmes considered to be of outstanding quality on the basis of quality assurance. Conversely, some of the enhancement-oriented agency evaluations may have an impact on funding. This is the case in Luxembourg, France and the United Kingdom.

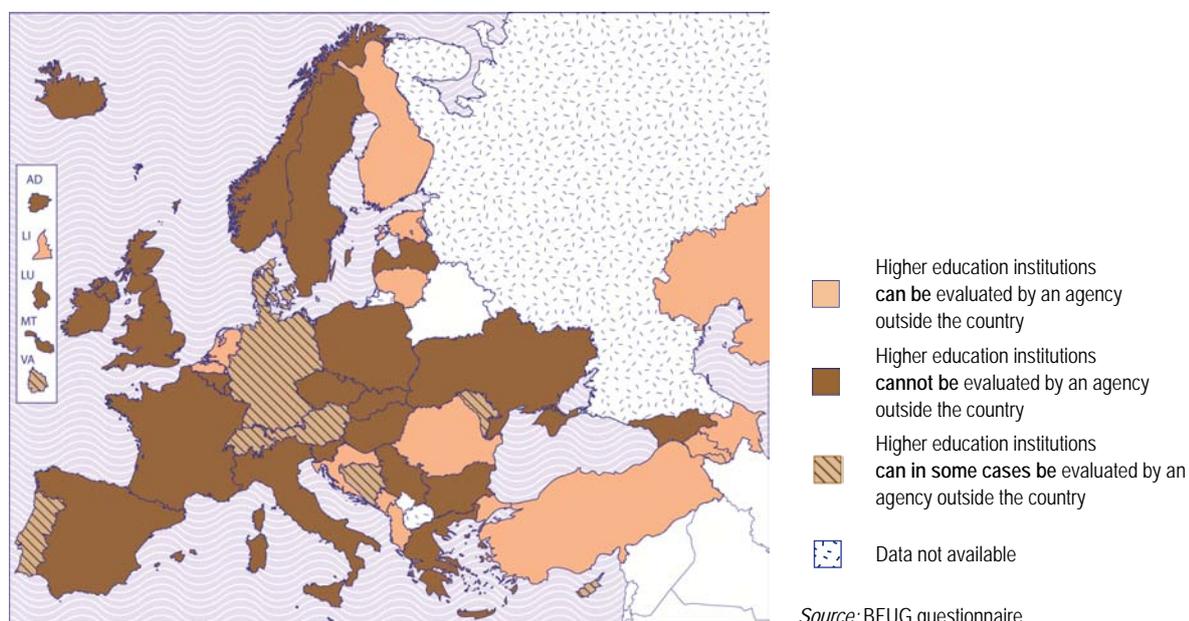
Figure 3.1: Main outcome of external evaluation by QA agency, 2010/11



3.1.2. Ability of Higher Education Institutions to be evaluated by non national Agencies

The European debate on quality assurance has stressed the importance of trust between systems. One significant measure of how far trust is developing, is whether governments enable higher education institutions to be evaluated by a quality assurance agency from another country when aware, for example that the agency works in full compliance with the European standards and Guidelines. This indeed is a significant purpose of the ESG, and also the principal reason for the establishment of the European Quality Assurance Register. However, as national responsibility for quality assurance could be seen to be challenged by such practices, it is by no means evident that evaluation from non national agencies will become commonplace in the EHEA, particularly in systems where the main outcome of quality assurance is a decision granting permission to institutions or programmes to operate. The issue may also perhaps be perceived differently by bigger and smaller higher education systems.

Figure 3.2: Ability for higher education institutions to be evaluated by an agency outside the country, 2010/11



14 national systems claim that all their higher education institutions are free to be evaluated by other national agencies instead of their own. A further 9 countries suggest that under certain conditions, some agencies are able to pursue this route. For Austria and Cyprus, public higher education institutions may use non national agencies, but private institutions cannot. In Denmark, higher education institutions can use non-national quality assurance agencies only in the cases of accreditation of joint programmes and Danish programmes abroad, while for German institutions the possibility also exists only for the evaluation and accreditation of joint programmes. Moldova and Spain point out that institutions are able to go through evaluation processes with other agencies, and may do so to gain prestige. However, this is only possible if they are first accredited by the national system. As this could be perceived more as a duplication of efforts rather than evidence of trust and cooperation across borders, these countries are shown in the map alongside those that are unable to be evaluated abroad.

Some higher education systems also point out that, even if their higher education institutions are unable to choose to be evaluated from an agency outside the country, they are free to seek accreditation for particular study fields by international accrediting organisations. There are also

examples of cooperation between national quality assurance agencies in evaluating higher education institutions and/or particular programmes.

It should also be noted, however, that this reality is changing very rapidly. Poland is an example where new legislation, in force since October 2011, now provides a basis for higher education institutions to be evaluated by international agencies, and for the outcomes to be taken into consideration by the national quality assurance system.

3.1.3. Evaluating national systems against ESG

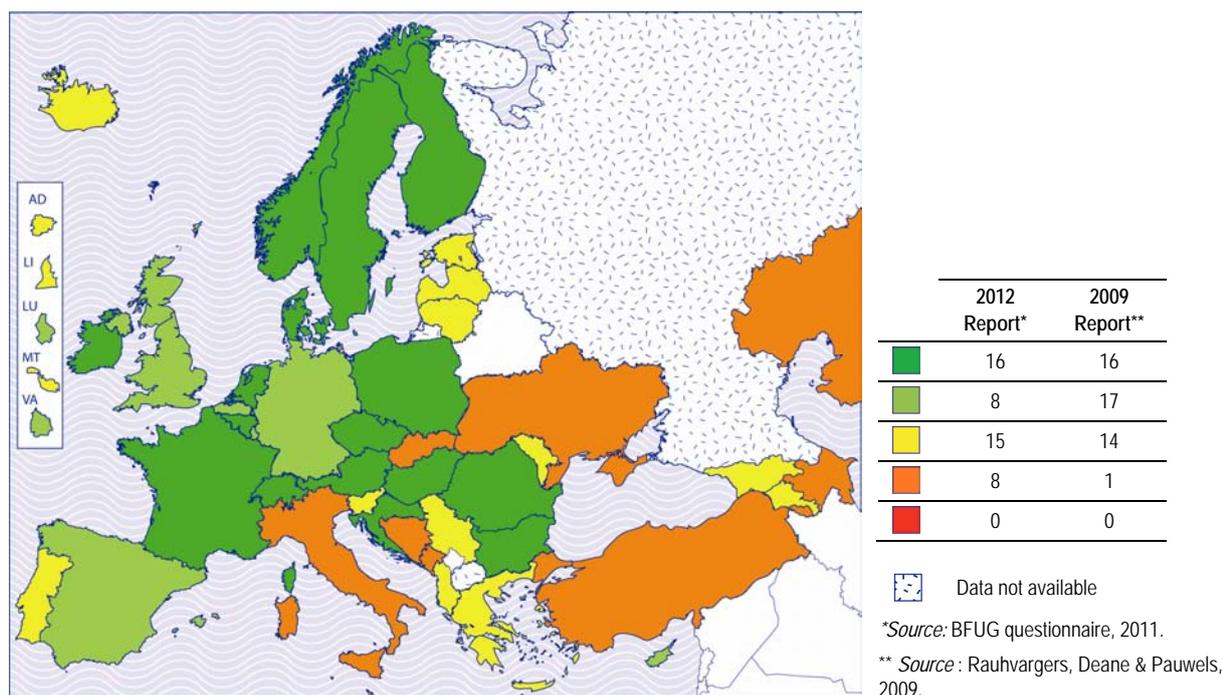
The European Standards and Guidelines for Quality Assurance (ESG) were developed by the so-called E4 Group (ENQA, (ESU, EUA and EURASHE), and were adopted in 2005 by the Ministers in Bergen (Norway). The standards and guidelines are designed to be applicable to all higher education institutions and quality assurance agencies in Europe, irrespective of their structure, function and size, and the national system in which they are located. The ESG do not include detailed "procedures" since institutional and agency procedures are an important part of their autonomy. Rather the ESG "recognise the primacy of national systems of higher education, the importance of institutional and agency autonomy within those national systems, and the particular requirements of different academic subjects."

They also reflect the statement of Ministers in the Berlin Communiqué (2003) that "consistent with the principle of institutional autonomy, the primary responsibility for quality assurance in higher education lies with each institution itself and this provides the basis for real accountability of the academic system within the national quality framework". In the standards and guidelines, therefore, an appropriate balance has been sought between the creation and development of internal quality cultures, and the role which external quality assurance procedures may play (ENQA 2005, p.11). Indeed the following principles outlined in the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) stress that Quality Assurance should focus on:

- the interests of students as well as employers and the society more generally in good quality higher education;
- the central importance of institutional autonomy, tempered by a recognition that this brings with it heavy responsibilities;
- the need for external quality assurance to be fit for its purpose and to place only an appropriate and necessary burden on institutions for the achievement of its objectives.

Three indicators on Quality Assurance are included in the EHEA Scorecard. Because a great deal of progress has been achieved in the development of quality assurance systems in the past decade, these indicators have been newly devised to reflect Ministerial agreement on the main issues for further development in quality assurance in the years to come. They focus on the stage of development of external quality assurance systems, the level of student participation in external quality assurance and the level of international participation in external quality assurance.

Figure 3.3: Scorecard indicator 4: Stage of development of external quality assurance system 2010/2011*



Indicator 4: Stage of development of external quality assurance

- A fully functioning quality assurance system is in operation nationwide. The QA agency/ies has/have been successfully evaluated against the European Standards and Guidelines in the EHEA. The QA system applies to all institutions and/or programmes and covers the following main issues:
 - teaching
 - student support services
 - internal quality assurance/management system
- A fully functioning quality assurance system is in operation nationwide. The QA agency/ies has/have been successfully evaluated against the European Standards and Guidelines in the EHEA. The QA system applies to all institutions and/or programmes and covers a subset of the main issues.
- A quality assurance system is in operation nationwide. The QA system has not been evaluated against the European Standards and Guidelines in the EHEA. The QA system applies to all institutions and/or programmes and covers teaching, research, student support services and internal quality assurance/management.

OR

A quality assurance system is in operation at the national level. The QA system has been successfully evaluated against the European Standards and Guidelines in the EHEA. The QA system applies to some institutions and/or programmes and covers subset of the main issues.
- A quality assurance system is in operation nationwide. The QA system has not been evaluated against the European Standards and Guidelines in the EHEA. The QA system applies to all institutions and/or programmes and covers a subset of the main issues.
- A quality assurance system is in operation nationwide. The QA system has not been evaluated against the European Standards and Guidelines in the EHEA. The QA system applies to some institutions and/or programmes and covers a subset of the main issues.

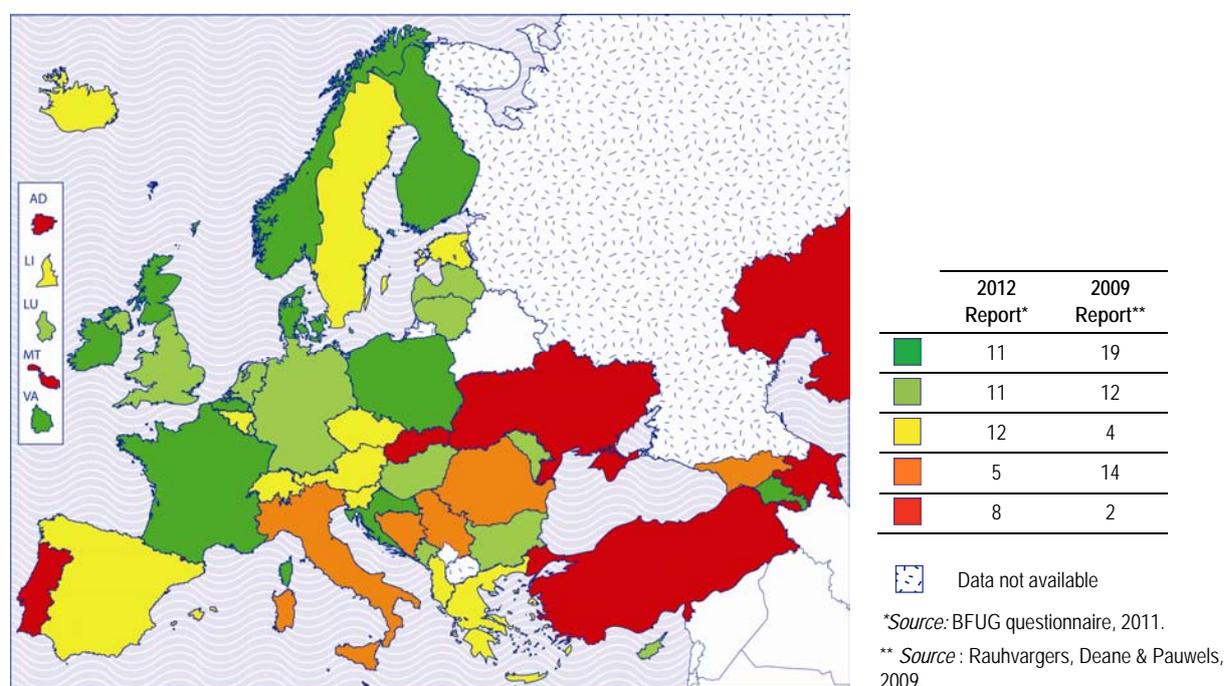
Indicator 4 focuses on the stage of development of external quality assurance systems. It combines elements assessing how comprehensive the system is, the range of key issues covered by the quality assurance system (teaching, student support and internal quality assurance), as well as whether or not the agencies or other responsible bodies in the system have been successfully evaluated against the European Standards and Guidelines. This process of evaluation is a requirement both for full membership of ENQA and for agencies that are listed in EQAR. The indicator is very demanding, and this itself is a reflection of how much progress has been made to the quality assurance landscape during the first decade of the Bologna Process.

Countries are spread among the top four categories. No countries are in the red zone, which indicates the absence of an adequate quality assurance system. 8 countries find themselves in the Orange zone. The countries in this category have established national quality assurance agencies or other bodies with responsibility for quality assurance, but these have not yet been evaluated against the European Standards and Guidelines. Moreover, the system does not cover all of the key Quality Assurance issues.

15 countries are in the Yellow zone. These are all countries that have a comprehensive quality assurance system in place, covering all priority aspects of Quality Assurance. However, their agencies have not yet been successfully evaluated against the European Standards and Guidelines.

8 countries are currently in the light green, and 16 in the green zone. In both cases, a comprehensive quality assurance system is in place, and it has been evaluated against the European Standards and Guidelines. The difference between these situations concerns the coverage of the Quality assurance systems, as one of the main elements of Quality Assurance is missing in the countries in the light green zone.

Figure 3.4: Scorecard Indicator 5: Level of student participation in quality assurance, 2010/2011*



Indicator 5: Level of student participation in quality assurance

- In all quality assurance reviews, students participate at five levels:
 - In governance structures of national quality assurance agencies
 - As full members or observers in external review teams
 - In the preparation of self evaluation reports
 - In the decision making process for external reviews
 - In follow-up procedures
- Students participate at four of the five levels mentioned above
- Students participate at three of the five levels mentioned above
- Students participate at two of the five levels mentioned above
- Students cannot participate or participate at only one level mentioned
 - Above

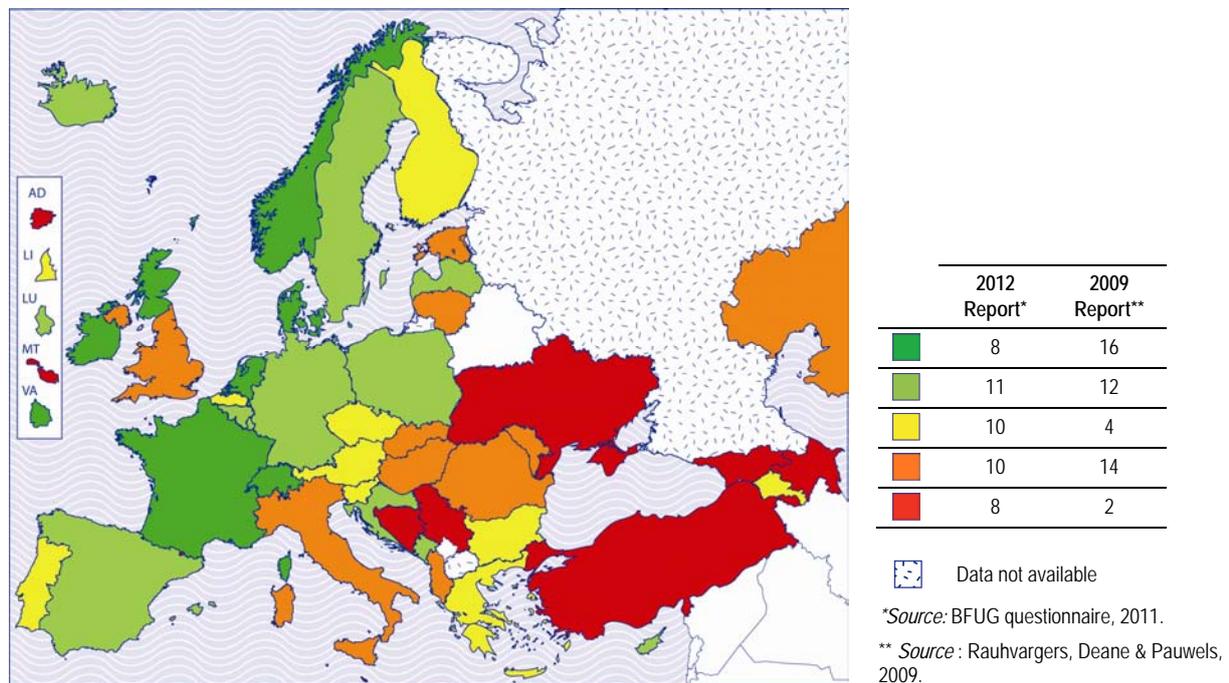
One of the striking characteristics of the development of quality assurance systems in Europe during the last decade has been the recognition of the importance of stakeholder participation, and in particular the importance of students as the key stakeholder group in higher education. The Bologna documentation recognises that students should be fully engaged in the improvement and enhancement of higher education and of their own learning experiences. The form of this engagement should be wide-ranging, involving students in all aspects of quality assurance systems. This indicator therefore focuses on student participation in governance structures, in review teams, in the preparation of self-evaluation reports, in decision-making processes and in follow-up procedures. These elements are given equal weight, as all are considered essential ways in which student voices and views should be heard and acted upon.

The overall results show that there is still considerable room for progress. Only eleven countries currently demonstrate that students systematically participate in all these aspects of Quality Assurance systems, although a sizeable number (11) indicate that students are involved in all but one of these areas. Among these countries, students are most commonly not involved in follow-up procedures.

A group of 12 countries are in the yellow zone, indicating that students are involved systematically in three out of the five areas. Here, in addition to the follow-up procedures, it is most common to find students not being involved in decision-making processes that result from evaluation.

5 countries are currently in the orange zone, with students being involved in two of the five identified areas. A further 8 countries are in the red zone, indicating that students are absent from all or all but one of the identified areas.

Figure 3.5: Scorecard indicator 6: Level of international participation in external quality assurance, 2011/2012*



Indicator 6 Level of international participation in quality assurance

- In all cases the following four aspects are met:
 - agencies are full members of ENQA and/or EQAR
 - international peers/expert participate in governance of national QA bodies
 - international peers/experts participate as members/observers in evaluation teams
 - international peers/experts participate in follow-up procedures
- Three of the four aspects are met
- Two of the four aspects are met
- One of the four aspects are met
- No international participation

As has been outlined in this chapter, the development of quality assurance since the Bologna Process began has been rapid, and there have been a number of major milestones in European cooperation. It might have been expected, therefore, that an indicator on the level of international participation in quality assurance would not prove to be particularly challenging to countries.

The results show otherwise. The distribution of countries is remarkably even, with 8 countries in the two most extreme categories - dark green and red - and either 10 or 11 countries in the three other categories. Countries outside the European Union fare slightly worse than those within on this indicator. This is largely a result of the first criterion – membership of ENQA/EQAR. Currently the membership of ENQA is largely drawn from within the European Union, and there are as yet no agencies from countries outside the European Union listed in EQAR.

3.1.4. Involvement of employers in QA

The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) highlight not only the importance of students and international peers in quality assurance, but also the role of other stakeholders – and in particular employers. Indeed the ESG specify that quality assurance of programmes and awards are expected to include "regular feedback from employers, labour market representatives and other relevant organisations."

The findings for this report indicate that employer involvement has become a feature of quality assurance in many systems. Indeed 28 countries state that there is a formal requirement for involvement of employers – whether in governance bodies or in external review teams. Among the 14 countries that state that there is no such formal requirement, it should not be assumed that there is no employer involvement. For example, the United Kingdom points out that the involvement of employers depends upon the orientation provided by higher education institution being evaluated. Thus in this case the principle of institutional autonomy is respected above formal requirements for employer involvement.

3.2. Internal Quality Assurance

This report, not having any direct input from higher education institutions themselves, can only give a limited picture regarding the state of development of internal quality assurance systems.

3.2.1. Formal Requirements for higher education institutions to establish internal Quality Assurance systems

Countries were asked to specify whether or not there are formal requirements on higher education institutions to establish internal quality assurance systems. It is interesting to see that this is the case in all but four national systems, and such requirements are most commonly embedded in higher education legislation.

The exceptions are Estonia, Slovakia, Ukraine and the United Kingdom. For Estonia and the United Kingdom, however, the answer is a reflection of the legal environment within which higher education institutions operate. Indeed while there is no formal legal requirement for institutions to establish internal QA systems, there are clear expectations laid out by the national Quality Assurance Agency.

3.2.2. Responsibility for the focus of internal Quality Assurance systems

The primary focus of internal quality assurance systems is, according to the information provided by countries, most commonly determined by higher education institutions themselves. However, a number of countries put the emphasis on other actors. Several countries, including Greece, Ireland, Italy, Spain, Switzerland and the UK point to the role of the Quality Assurance Agency in setting the priorities for external evaluation. These priorities then clearly have a major impact on how internal quality processes are organised.

Azerbaijan and Montenegro are the only countries to state that the Ministry is primarily responsible for determining the focus of internal quality assurance, although Montenegro points out that the Ministry acts upon the proposal of its higher education Council. Several other countries also point to the role of the Ministry in combination with other actors. This is the case for Georgia, Liechtenstein and Spain.

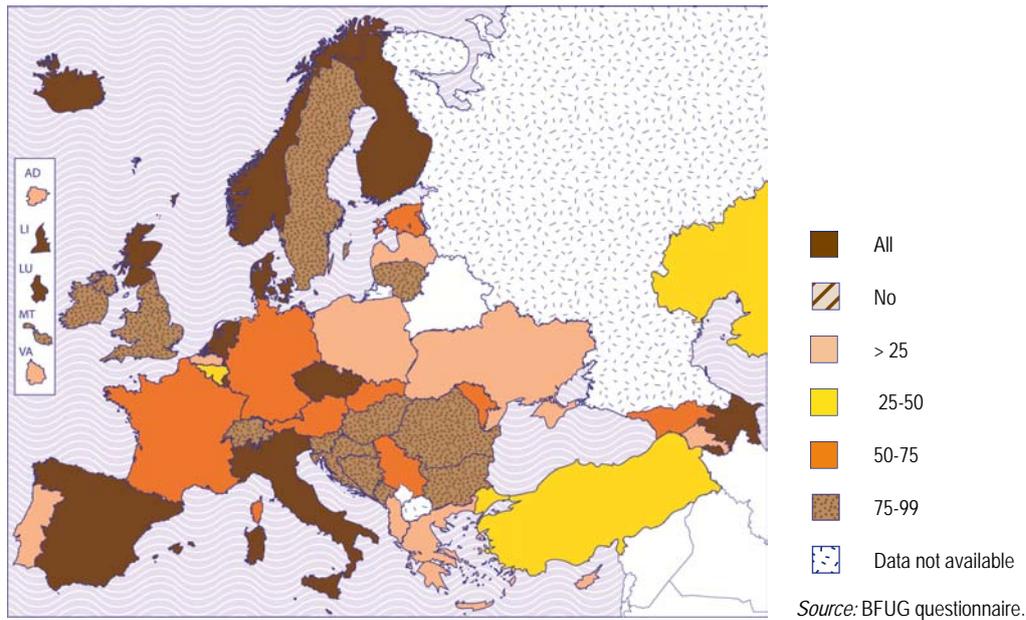
3.2.3. Institutional Strategies for continuous quality improvement

Many countries report very positive findings regarding the number of institutions that have published a strategy for continuous quality improvement in the past 5 years. Indeed 24 national systems consider this number to be in excess of 75% of their higher education institutions, with 12 systems claiming that all higher education institutions have published such a strategy.

There are, however, some systems at the other end of the spectrum. 9 national systems estimate that between 0 – 25% of institutions have published such a strategy. 3 systems estimate 25 – 50%, and 8 place the estimation between 50 and 75%.

Overall, if these data reflect national reality relatively closely, they suggest that higher education institutions have been making great efforts to develop strategies to improve quality in recent years.

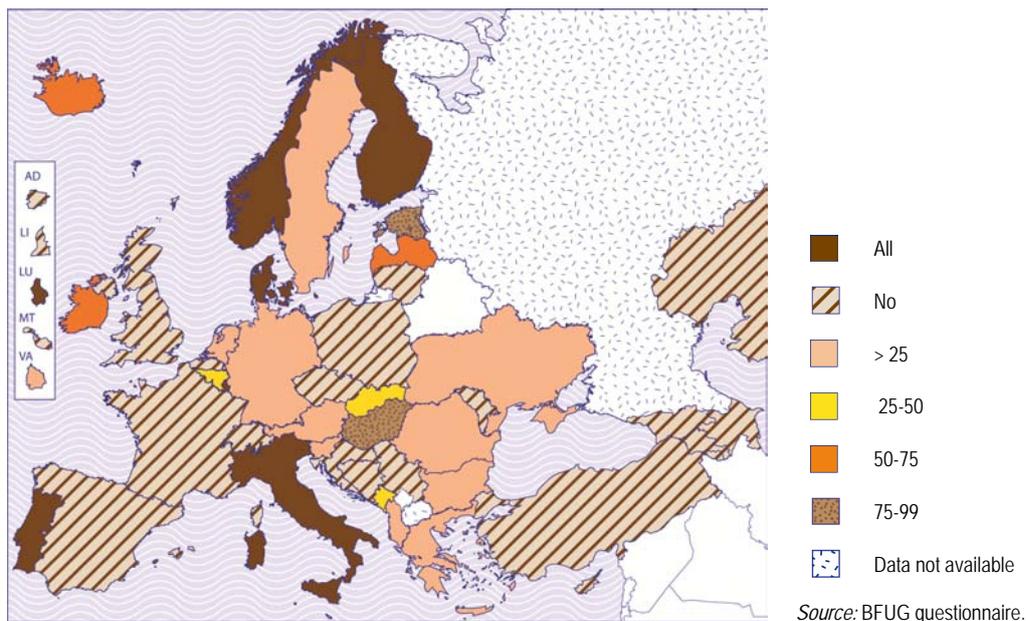
Figure 3.6: Publication of institutional strategies for continuous quality enhancement in past 5 years, 2010/11



3.2.4. Publication of critical and negative evaluation reports

The picture regarding the number of institutions that publish critical and negative outcomes of quality assurance is significantly different. Here by far the greatest number of countries (22) state that none of their institutions publish such reports, and a further 10 put the lowest percentage (1% – 25%). At the other extreme are a group of 6 countries that state that all of their institutions publish these reports. However, among this group is Italy that also reports that no external evaluations have yet taken place by the Quality Assurance Agency. So this finding remains hypothetical. Only 7 countries are in the categories ranging between 25 and 99%.

Figure 3.7: Publication of critical and negative outcomes by higher education institutions, 2010/11



The reason for the diversity of these findings is not clear, as countries have generally provided little supplementary explanation. However, it is likely that countries where all institutions publish critical

reports are either very open, transparent societies, or there is a requirement for institutions to publish evaluation reports – whether they are positive or critical.

Conclusions

This report provides strong evidence that the wave of quality assurance activity that gathered momentum after the launch of the Bologna Process in 1999 continues today. Despite the common Standards and Guidelines for the EHEA, systems nevertheless remain quite diverse in their orientation. The vast majority of QA systems now focus primarily on institutions rather than programmes. This suggests that while in the early stages of developing external QA systems the focus tends to be on programme evaluation, in time this often evolves to an institutional focus. A parallel shift has also taken place within the Bologna process, as the initial focus on governmental responsibility for QA evolved to the position expressed in the Berlin Ministerial Communiqué 2003 that the primary responsibility for Quality Assurance rests with higher education institutions themselves.

The scorecard indicators that have been used for this report reflect the main issues of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), and look forward towards 2020. While the outcomes confirm the impressive changes that have taken place in the landscape of higher education quality assurance since the Bologna process began, there is still considerable room for improvement. In particular stakeholder involvement in all relevant aspects of quality assurance is an accepted principle, but it is still far from being a commonplace reality. The report also shows that, despite the establishment of the European Quality Assurance Register, many countries remain reluctant to devolve responsibility for external quality assurance beyond national boundaries.

4. SOCIAL DIMENSION IN HIGHER EDUCATION

The Bologna context

In the Bologna process, the social dimension entered in the communiqués later than most other issues, in 2001. However, in the following years, it gained significant attention. In 2001, the Prague Communiqué concentrated on the inclusion of students and the need to make mobility opportunities available for all. In 2003 in Berlin, ministers focused more broadly on social cohesion of the student population and social and gender inequalities. In particular, they mentioned the need to remove obstacles related to students' social and economic background based on comparable data. These general and specific commitments to make higher education accessible to all were renewed in Bergen in 2005, emphasising the obligation of governments to help students from "socially disadvantaged groups" to get access.

Despite this repeated reference to the social dimension aspect of building the European Higher Education Area (EHEA), there was no precise and commonly accepted definition of the social dimension in higher education until 2007. In that year in London, the ministers agreed on a comprehensive definition and the goal to achieve. Accordingly, "the student body entering, participating in and completing higher education at all levels should reflect the diversity of our populations". Ministers also emphasised that "students [should be] able to complete their studies without obstacles related to their social and economic background" (London Communiqué, 2007). The 2007 report of the BFUG Working Group on the Social Dimension and Data on Mobility further clarified that the social dimension is understood as the process towards achieving this overarching goal (BFUG 2007, p.11). In other words, the social dimension is defined as a large sphere of activities where governments can enact policies.

In 2007, the ministers also agreed to report on the progress made on this trajectory and in 2009 decided to set measurable targets "for widening overall participation and increasing participation of under-represented groups" with a goal to achieve them by 2020 (Leuven/Louvain-La-Neuve Communiqué, 2009). Eurostudent and Eurostat (2009) also highlighted the need to have more comparative research on the social dimension of higher education based on recent data to be used by policy makers.

Based on this call for more precise and comparable data, which was also taken up by Ministers in the Leuven/Louvain-la-Neuve Communiqué, Eurydice examined the social dimension in the European Higher Education Area (EACEA/Eurydice 2010, 2011b) and concluded that significant changes in higher education systems have taken place, but challenges remain. In particular, very few countries have set specific targets related to the social dimension and a monitoring of the participation of underrepresented groups has not yet been developed to any significant degree. Eurydice reports also indicate that while special measures to assist specific groups based on socio-economic status, gender, disability, ethnicity, etc. exist in many countries, these are rarely a central element of higher education policy.

BFUG Working Group on the Social Dimension

Further support to the cooperation on the social dimension in higher education has been provided through the activities of the Working Group on the Social Dimension (2010-2012), which has been entrusted the responsibility to oversee the progress made by countries, define comparable indicators on the social dimension in higher education and collect examples of good practice in this area. The working group has also been exploring the possibility of creating a European Observatory on Social

Dimension of Higher Education. This chapter has benefitted greatly from close cooperation with the Working Group, whose members have provided advice both on the issues to be addressed as well as detailed comments on provisional drafts.

Chapter outline

Building on the previous reports and the outcomes of the Working Group on the Social Dimension, this chapter brings together available statistical information on student background and educational attainment with administrative data on the social dimension and funding of higher education in EHEA signatory countries. The chapter starts with an overview on higher education participation and attainment based on available background characteristics of students. On the one hand, these indicators set the context for further analyses of social dimension policies in higher education. On the other hand, they help to assess the achievement of goals set by the ministers. This mostly statistical section is followed by an analysis of different national approaches to widening participation in higher education. In particular, the focus lies on whether under-represented groups are expressly defined or whether there are other policy approaches to address the under-representation. Following this, the chapter looks at specific aspects of the social dimension in higher education as highlighted in the Bologna communiqués, namely alternative access routes targeting non-traditional learners and guidance and counselling services available to students during their studies. The chapter concludes with a look at the financial side of higher education by contrasting major costs charged to students (e.g. tuition fees) and data on student income via direct and indirect public student support, family support and self-financing through paid jobs. The aim is to examine whether funding systems are being oriented to support and stimulate the social dimension policy objective of widening participation.

4.1. Statistical information on the impact of students' background on their participation in and attainment of higher education

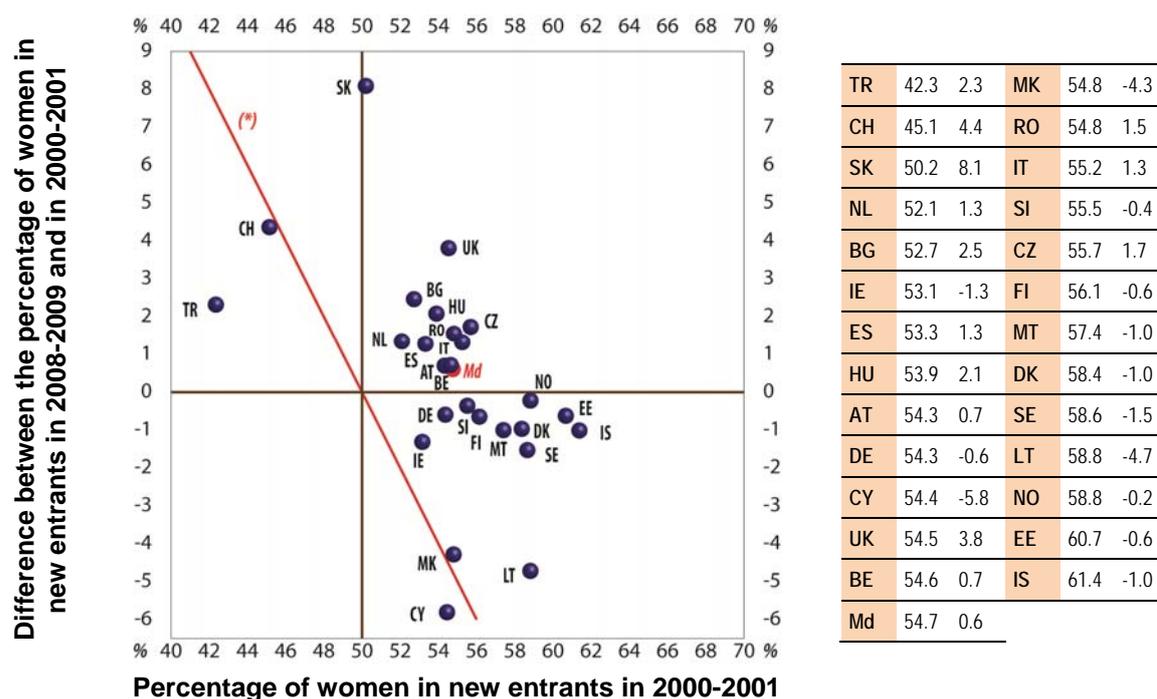
The need to expand higher education in a time where labour markets and the knowledge-based economy increasingly require higher education degrees has been reaffirmed by all signatory states repeatedly in the Bologna Communiqués and other international declarations. Chapter 1 of the present report has provided an overall picture of trends in participation in higher education showing the continuing move towards the “massification” of the higher education systems (see Figure 1.3). This section provides data on the participation and attainment of specific groups of the student population. The aim of these indicators is to set the context for further analyses of the social dimension in higher education.

4.1.1. Gender balance in higher education

Ministers agreed that those participating in higher education should reflect the composition of the overall population as closely as possible. One important indicator in this regard looks at the gender of students. Here, the historical trend is a reversal of the tendency for men to outnumber women in higher education.

Figure 4.1 shows that in the beginning of the first decade of the Bologna Process more women than men entered in higher education. This is reflected by the fact that, with the exception of Switzerland, all countries in the EHEA for which data is available were positioned to the right of the 50% vertical line. This development has continued throughout the decade in half of the countries. For those countries above the 0% horizontal line, the percentage of women in higher education has increased between 2000-2001 and 2008-2009.

Figure 4.1: Percentage of women in new entrants in tertiary education in 2000/2001 and variation from 2000/2001 to 2008/2009



(*) = Line where the difference in the percentage of women would exactly cover the gender gap

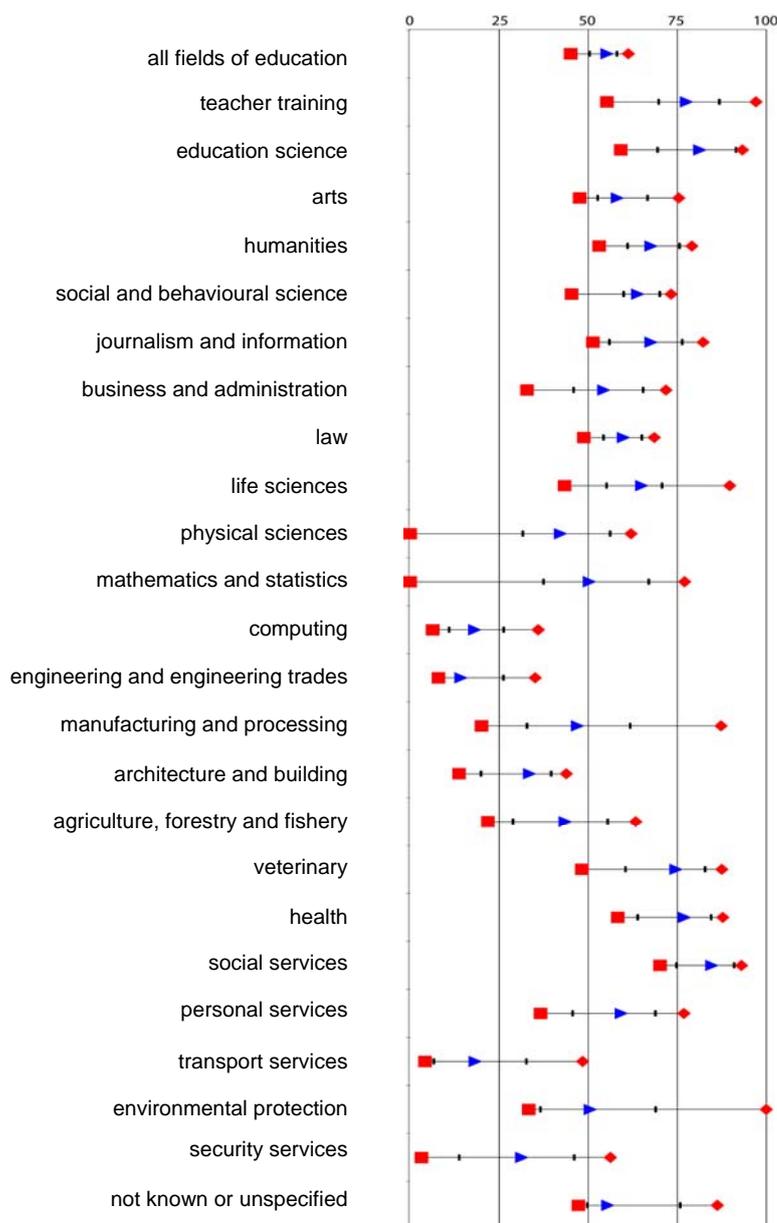
Notes: The value for 2000-2001 corresponds to the average level of the academic years 1999/2000 and 2000/2001, and the one for 2008-2009 the average of academic years 2007/2008 and 2008/2009.

Source: Eurostat, UOE.

Overall, the figure indicates that the gender parity imbalance has increased slightly during the first Bologna decade. However, divergent developments stand out. For example, out of the 37 countries for which data is available, in 12 countries, a higher percentage of women entered higher education in the beginning of the decade, but by 2009 the relationship had moved more towards gender balance. One country, Cyprus, has seen the picture completely turned upside down, and now has more men entering higher education than women. In Switzerland, fewer women than men entered higher education in the beginning of the decade (45,1 % in 2000/2001), but by 2009 parity was almost achieved. In contrast, in the Slovak Republic, the student population was balanced in the beginning of the decade (50,2 % female entrants), but by the end of the decade the country had the 4th highest percentage of women entering higher education.

The overrepresentation of women in higher education, however, needs to be further analysed. When looking at gender balances by study field, another picture emerges (Figure 4.2; based on data from 30 EHEA countries). Women dominate in the education field, in veterinary sciences and in health and welfare. Men, on the other hand, are predominant in computing, in engineering and engineering trades and in transport services. And while in mathematics and science, as well as in manufacturing and processing and environmental protection, the median is around 50%, the spread across countries is very wide.

Figure 4.2: Percentage of women in new entrants in tertiary education by field (median and 10/90 percentile), 2008/2009¹



Source: Eurostat, UOE.

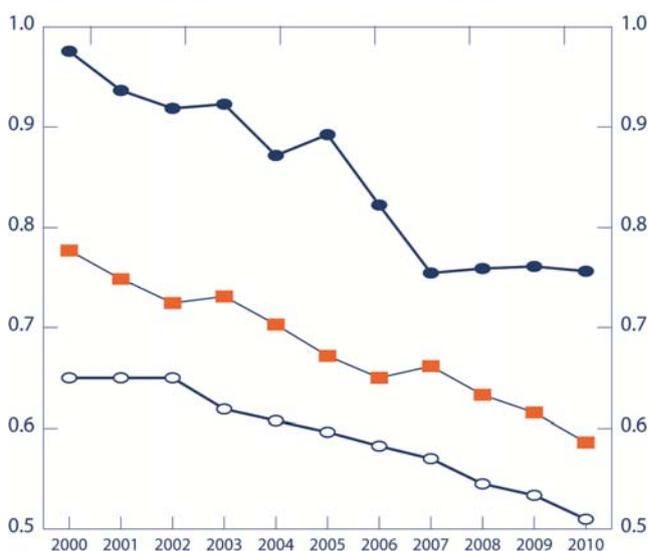
This indicator highlights that when looking at the importance of gender in higher education participation, taking a broad look across study fields does not yield sufficient information. While overall participation by women is higher, this picture needs to be adjusted by looking at particular study fields. Besides, a recent Eurydice study (Eurydice, 2009) also underlines the question of vertical segregation in higher education, showing that women are still slightly under-represented among doctoral graduates.

Building on the indicators on participation by gender, attainment by gender (Figure 4.3; based on data from 33 EHEA countries) supports the already reported findings: over the last decade, the chances for men to achieve tertiary education attainment have been decreasing compared to their

female counterparts. The figure shows that already in 2000, the odds ratios for men were lower than 1, which means that men had lower relative chances to attain higher education than women. Over the decade, chances of men have been progressively decreasing, reaching a median odds ratio of less than 0.6 by 2010. This is not to say that fewer men enrol in higher education, but that the overall balance is increasingly tilted towards women.

¹ Please note: graphical presentation of this figure will be improved in the coming period. (e.g. legend will be added; min, max values will be removed)

Figure 4.3: Attainment by gender: odds ratios of men over women to attain higher education, 2000-2010



	Percentile 25	P50	Percentile 75
	○	■	●
2000	0.65	0.78	0.98
2001	0.65	0.75	0.94
2002	0.65	0.72	0.92
2003	0.62	0.73	0.92
2004	0.61	0.70	0.87
2005	0.60	0.67	0.89
2006	0.58	0.65	0.82
2007	0.57	0.66	0.75
2008	0.55	0.63	0.76
2009	0.53	0.62	0.76
2010	0.51	0.59	0.76

Source: Eurostat, LFS.

The figure also shows that the spread between the countries where the odds ratio of men over women was the lowest (P25) and those where the odds for men and women were most similar (P75) have decreased. Yet, the development was – from a balance point of view – negative, as the countries in which the situation was the most balanced showed a much stronger decreasing odds ratio than the countries that already had a low odds ratio in 2000.

4.1.2. Migrants in higher education

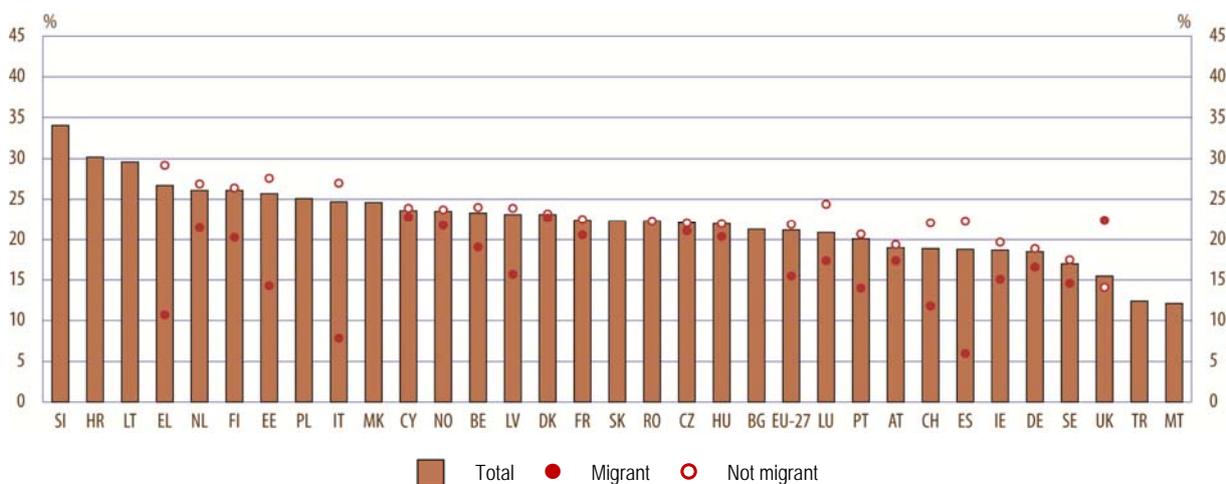
The integration of Europe and globalisation in general have led to increasing cross-border migration. In many countries, a significant share of the resident population does not have the citizenship of the country or was born abroad. This brings a further dimension of higher education to attention: migrant participation. In a European Higher Education Area that provides accessible higher education for all (Bergen Communiqué, 2005), migrants should constitute a share among the student population that is equal to their share in the population.

Figure 4.4 depicts the participation rates of migrants compared to non-migrants. Migrants here are defined as individuals for whom the country of birth is not the reference country. However, it is not possible to know whether an individual has been living in a country for a long time or whether s/he has come to a country only recently (e.g. for the purpose of study). As a result, participation rates for migrants include the international student population but, at the same time, do not include second-generation migrants born in the country of their studies. This highlights the difficulties of accurately evaluating migrant participation in higher education.

Data differentiating between migrants and non-migrants in higher education covering 22 countries show that in 18 countries, participation rates for migrants are lower than for non-migrants. In 12 of them this gap is larger than five percentage points, with Estonia (13 %), Greece (18.5 %), Spain (16.3%), Italy (19 %) and Switzerland (10.5 %) having the largest gaps. A second group of 4 countries (the Czech Republic, Denmark, Cyprus and Hungary) has the same (or very similar) participation rates for the two groups. In these countries, migrants are as likely to participate in higher education as non-migrants, thus reaching the goal ministers set themselves. The United Kingdom stands out among the countries as migrants show a much higher rate of participation than non-migrants (22.4 % v 14.1 %). This exceptional situation can be partially explained by the attractiveness of the UK higher education

system for international students as the figure on student inbound mobility illustrates (see Figure 7.1 in Chapter 7).

Figure 4.4: Participation rates in tertiary education among the migrant, non-migrant and total population, 2009



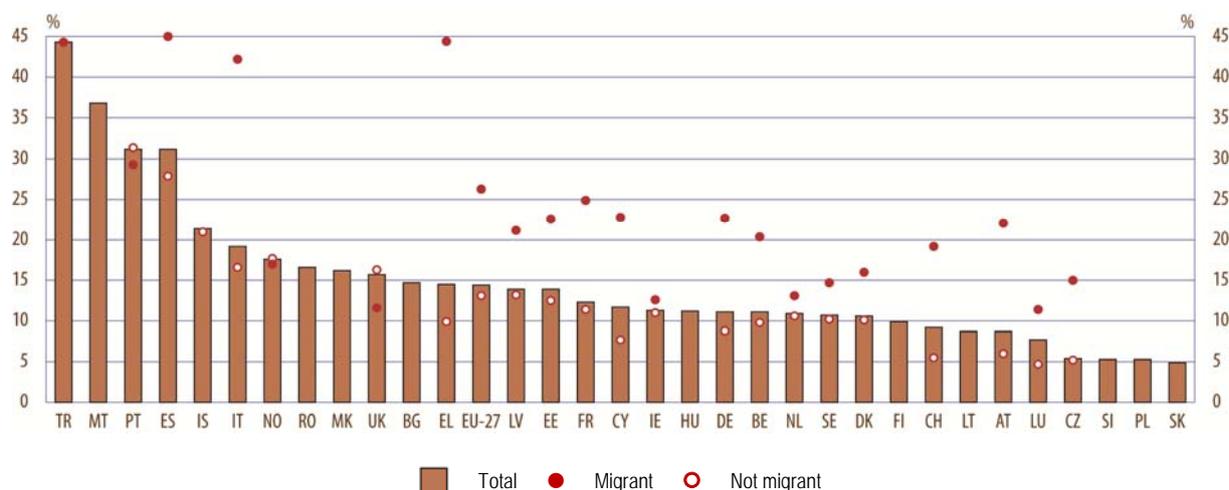
	SI	HR	LT	EL	NL	FI	EE	PL	IT	MK	CY	NO	BE	LV	DK	FR	SK
Total	34.1	30.2	29.6	26.7	26.1	26.1	25.7	25.1	24.7	24.6	23.6	23.5	23.3	23.1	23.1	22.4	22.3
Migrant	:	:	:	10.7	21.5	20.3	14.3	:	7.9	:	22.8	21.8	19.1	15.7	22.7	20.6	:
Not migrant	:	:	:	29.2	26.9	26.4	27.6	:	27	:	23.9	23.7	24	23.9	23.2	22.5	:
	RO	CZ	HU	BG	EU-27	LU	PT	AT	CH	ES	IE	DE	SE	UK	TR	MT	
Total	22.3	22.1	22	21.3	21.2	20.9	20.1	19	18.9	18.8	18.7	18.5	17	15.5	12.4	12.1	
Migrant	:	21.1	20.4	:	15.5	17.4	14	17.4	11.8	6	15.1	16.6	14.6	22.4	:	:	
Not migrant	22.3	22.1	22	:	21.9	24.4	20.7	19.4	22.1	22.3	19.7	18.9	17.5	14.1	:	:	

Note: Migrant is in this context a person for whom the country of birth is not the reference country (for more details see Glossary)

Source: Eurostat, LFS.

Figure 4.5 provides data on early school leaving and it allows the comparison between students with a migrant background and the non-migrant population. The figure shows that students belonging to the first category are much more likely to leave school early than those belonging to the second one. This means that the reasons for relatively low participation rates of migrants in higher education, are not (only) linked to access problems and admission to higher education, but can be found clearly at earlier education levels. For example, in countries having large gaps in higher education participation rates between migrants and non-migrants (Figure 4.4), data on early school leaving (Figure 4.5) also show that students with a migrant background are much more likely to leave school early than the non-migrant population. The picture is particularly striking for Greece (difference of 35.5 percentage points), Spain (difference of 17 percentage points) and Italy (difference of 25.6 percentage points). This indicates that measures to foster the participation of people with a migrant background must start much earlier than at the level of higher education.

Figure 4.5: Early school leavers as percentage of the migrant, non-migrant and total population, 2009



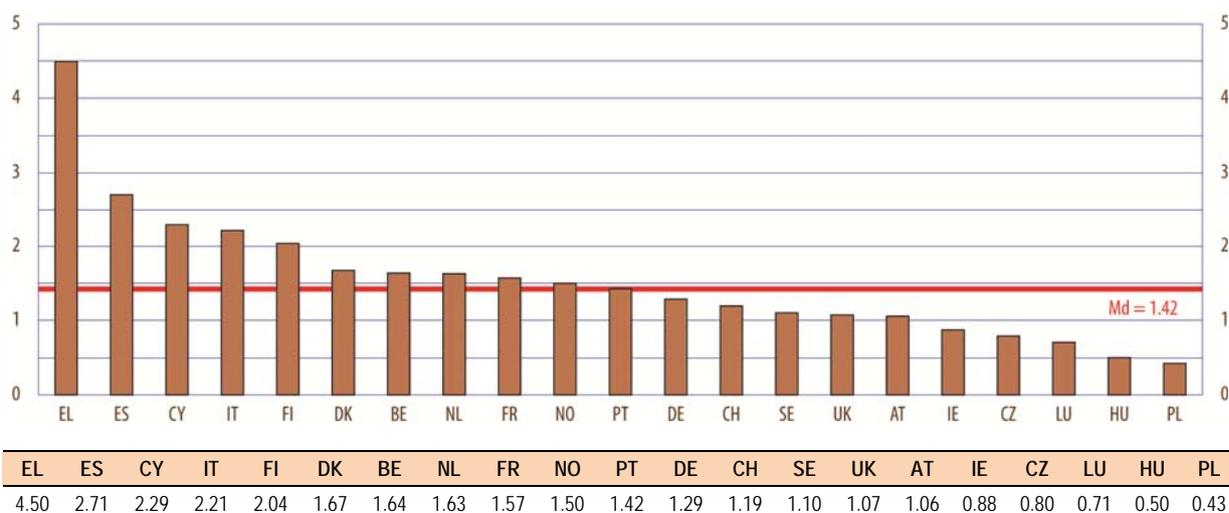
	TR	MT	PT	ES	IS	IT	NO	RO	MK	UK	BG	EL	EU-27	LV	EE	FR	CY
Total	44.3	36.8	31.2	31.2	21.4	19.2	17.6	16.6	16.2	15.7	14.7	14.5	14.4	13.9	13.9	12.3	11.7
Migrant	44.3	:	29.3	45.0	:	42.2	17.0	:	:	11.6	:	44.4	26.3	21.2	22.6	24.9	22.8
Not migrant	:	:	31.4	27.9	21.0	16.6	17.7	:	:	16.3	:	9.9	13.1	13.2	12.5	11.4	7.7

	IE	HU	DE	BE	NL	SE	DK	FI	CH	LT	AT	LU	CZ	SI	PL	SK
Total	11.3	11.2	11.1	11.1	10.9	10.7	10.6	9.9	9.2	8.7	8.7	7.7	5.4	5.3	5.3	4.9
Migrant	12.6	:	22.7	20.4	13.1	14.7	16.0	:	19.2	:	22.1	11.4	15.0	:	:	:
Not migrant	11.0	:	8.8	9.8	10.6	10.2	10.1	:	5.5	:	6.0	4.7	5.2	:	:	:

Source: Eurostat, LFS.

Figure 4.6 presents relative chances of non-migrants to attain higher education compared with the migrant population. It shows that in four countries - Greece, Spain, Cyprus, Italy and Finland - non-migrants have significantly higher chance to achieve a degree than migrants (the odds ratio is higher than 2). On the other hand, in Ireland, the Czech Republic, Luxembourg, Hungary and Poland, the odds ratio for non-migrants is less than 1, meaning that in these countries, migrants have higher relative chances to attain higher education than non-migrants.

Figure 4.6: Attainment by migrant status: odds ratios of non-migrants over migrants to attain higher education, 2009/2010



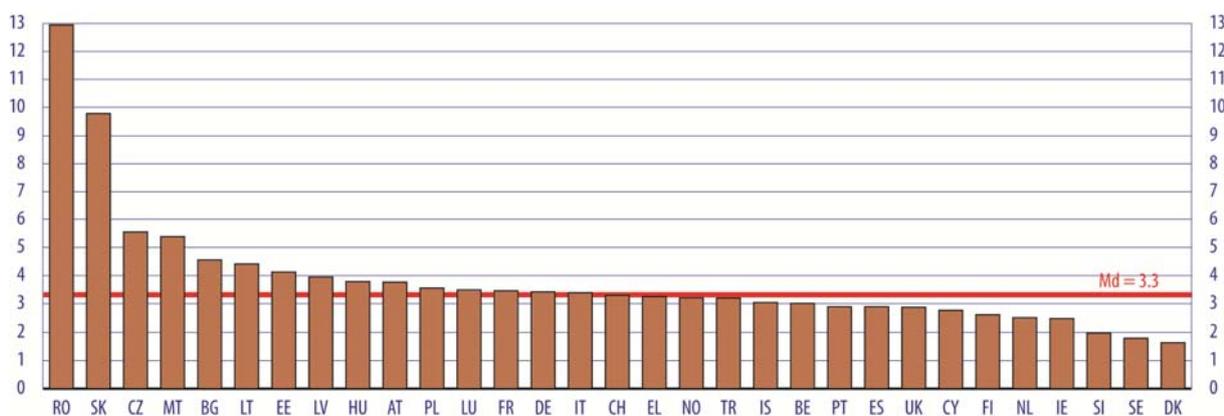
Source: Eurostat, LFS.

4.1.3. Influence of parental education on higher education attainment

One strong indicator for the fairness of a higher education system is to what extent educational attainment is passed down through generations. If the EHEA countries want to achieve their commitment made in the London communiqué that students should be able to complete their study regardless of their social and economic background, looking at the effect of parental educational attainment is crucial. It has been shown that the educational level of parents strongly influences educational attainment (e.g. Koucky, 2010), though data also show that this relationship has been diminishing (Eurostat/Eurostudent, 2009, p.67).

Figure 4.7 presents the odds ratios for attaining a higher education qualification, comparing students with highly educated parents (tertiary education) to students with medium educated parents (upper secondary or post-secondary non-tertiary education). It shows that in almost all countries the chances of people to attain tertiary education are strongly determined by their parents' educational background. In Denmark, Sweden or Slovenia the impact of parents' educational background is evident, but relatively weak. In most other EHEA countries, however, the relative chances for students with highly educated parents to attain higher education are between two and five times higher than for students whose parents have a medium educational level. In Slovakia and Romania, the relative chances are even higher, with the chances for children of highly educated persons being 10 and 13 times higher, respectively.

Figure 4.7: Attainment by educational background: odds ratios of students with highly educated parents (i.e. tertiary education) over students with medium educated parents (i.e. upper secondary and post-secondary non-tertiary education) to attain higher education, 2009/2010



RO	SK	CZ	MT	BG	LT	EE	LV	HU	AT	PL	LU	FR	DE	IT	CH
12.95	9.77	5.55	5.38	4.56	4.41	4.12	3.95	3.79	3.77	3.55	3.49	3.46	3.42	3.39	3.30
EL	NO	TR	IS	BE	PT	ES	UK	CY	FI	NL	IE	SI	SE	DK	
3.25	3.21	3.20	3.04	3.01	2.89	2.89	2.87	2.76	2.61	2.50	2.47	1.97	1.79	1.63	

Source: Eurostat, LFS-ad-hoc module 2009.

by Eurostudent data on educational background of students enrolled in higher education (Eurostudent, 2011). In particular, Eurostudent research identifies the higher education systems of Slovakia and Romania among socially exclusive systems, i.e. systems characterised by a significant under-representation of students with low educational background.

As Figures 4.6 and 4.7 use the same statistical approach, it is possible to compare the influence of migrant status on students' chances to achieve a higher education degree with the influence of parents' educational attainment. The comparison between the two indicators shows that while being a migrant in a significant number of countries does not limit the odds to obtain a higher education

degree, in no country, parents' educational background is irrelevant for higher education attainment. In other words, migration background does not influence students' chances to attain higher education as much as their parents' educational background.

*

Overall, the analysis of data on higher education participation and attainment indicates that the goal of providing equal chances for all in the EHEA has not yet been achieved. The following section will take a more detailed look at policy approaches countries use to expand access to and participation in higher education.

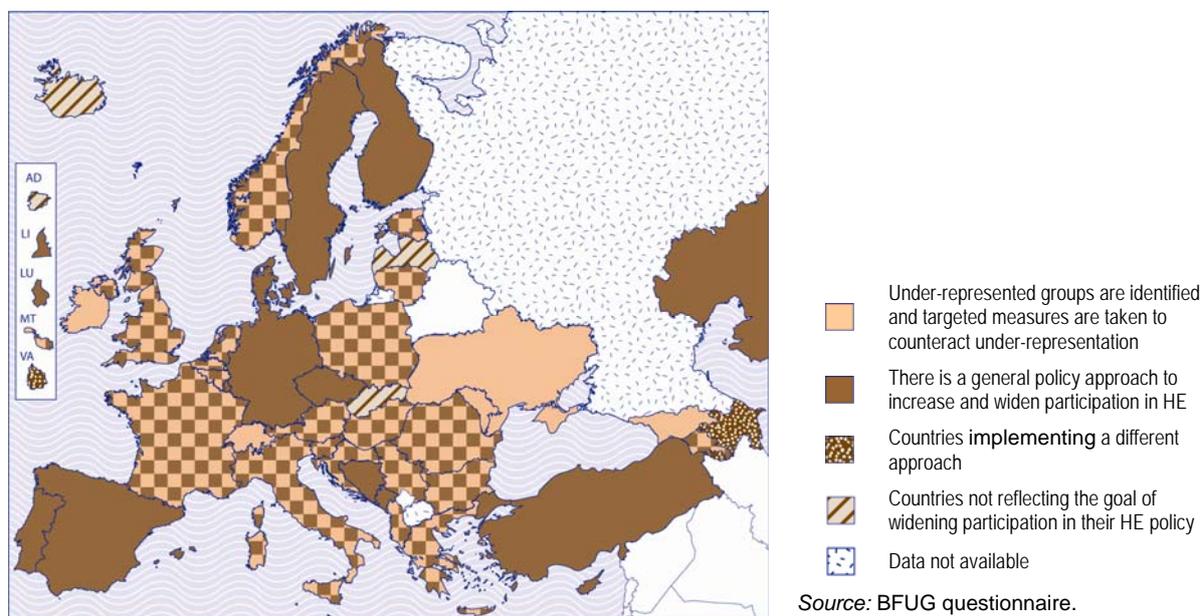
4.2. Policy approaches to widening access to and participation in higher education

Building on statistical data on background characteristics of students, this section provides an overview of national approaches to widening participation in higher education so that the diversity of the population is reflected. It presents an overview of policy measures countries adopt to reach this goal as well as monitoring mechanisms put in place. The objective is to gain an understanding of the different mechanism through which the goal of widening participation is addressed.

4.2.1. Overview of the main approaches

According to the reporting exercise, almost all EHEA countries work towards the goal of widening participation in higher education as laid down in the Bologna documents. Only four countries (Andorra, Iceland, Latvia and Slovakia) do not reflect this goal in their higher education policy.

Figure 4.8: National policy approaches to widening participation in higher education, 2010/2011



Approaches to widening access to higher education can take different forms. While most EHEA countries combine policy actions targeting all categories of students (i.e. general policy approach) with measures focusing on different under-represented groups, some countries concentrate only on one of these approaches. Two higher education systems – Azerbaijan and the Holy See – claim to work towards the goal of widening participation in higher education, but they report that their policy

approach can neither be described as general nor as targeted. Figure 4.8 provides an overview of the situation across the EHEA.

General policy approach

Higher education systems addressing the under-representation through a general policy approach commonly strive for creating an environment that provides equal opportunities for all to participate in higher education. It is expected that this will have a positive impact not only on the overall participation in higher education, but also on the number of students from disadvantaged groups. While the majority of EHEA countries combine general policy actions with targeted measures, 11 countries concentrate on the first approach. From the geographical perspective, general policy approach is quite common in the Nordic countries, as in three of them - Denmark, Finland and Sweden - it is the main mechanism to address the under-representation.

Several countries indicating general policy approach to widening participation refer to financial arrangements they have put in place (Belgium, Bulgaria, the Czech Republic, Croatia, Denmark, Finland, Italy, Luxembourg, Norway, Romania and Slovenia). These countries are commonly pointing out that the system of fees and financial support available for students are intended to allow all those interested in higher education to embark on studies at this level regardless of their socio-economic status or situation. More details on these aspects are provided in Section 4.4, which deals with higher education funding systems, relating the most important elements of national fee systems with student support.

Alongside financial measures, countries reporting general policy approach often make a reference to structural changes in their higher education systems. The aim of these measures is to adapt existing higher education provision so that the system would attract a wider range of societal groups, including groups that have been under-represented in the past. Such structural adaptation can be related to the introduction of new higher education programmes (Cyprus), including short-cycle programmes (Luxembourg) or professionally-oriented programmes (France). It can also be linked to the development of public vocational higher education institutions (Poland) or institutions focusing on flexible higher education provision (Italy). Besides, some countries report that their higher education systems have become more open towards the recognition of learning outcomes acquired outside formal learning contexts (France, Germany, Italy and Sweden), which can also be seen as an adjustment susceptible to enhance the participation in higher education.

Finally, efforts to achieve equity in higher education are sometimes complemented by actions in other parts of the education systems. These actions mainly take place at upper secondary level and can, for instance, include guidance and counselling services targeting upper secondary graduates (the Czech Republic, France and the Netherlands). Their aim is to ensure that pupils make informed choices about their further career and consider higher education as one of possible options. Preparatory programmes for higher education candidates (which are referred to by the Czech Republic) also fall under this category of measures.

Policy approaches targeting specific under-represented groups

Along with general policy approach, many EHEA countries have taken measures targeting specific under-represented groups. Five higher education systems (Switzerland, Georgia, Ireland, Moldova and Ukraine) concentrate on targeted measures, rather than general policy actions or the combination of both approaches.

Targeted actions can cover different categories of students. The BFUG reporting shows that students with disabilities are the most common group targeted by specific measures (around half of the EHEA countries are referring to this category of students). The aim is to adapt their study environment so

that they could integrate the higher education system on the same footing as other students. The second most common category of students targeted by specific measures is the category of those, whose socio-economical situation is likely to be a barrier to higher education studies (20 EHEA countries are referring to this category of students). Although the low socio-economical status is defined differently across countries, the measures most commonly focus on those from low-income families, families with low educational background or orphans. These students are often eligible for various forms of financial support, in particular grant and subsidies, aiming to compensate their economic handicap. In some systems (e.g. Scotland), students with low socio-economical status are also targeted by special guidance and counselling services as well as preparatory programmes aiming to improve their chances to enter higher education and succeed in it.

Several higher education systems formally identify other under-represented groups and target them by a range of policy actions (e.g. financial support schemes, special admission regimes and guidance and counselling services). These groups are defined on the basis of various criteria, including ethnicity and/or migrant status, gender, geography (rural versus urban areas and/or deprived versus wealthy areas) or age (mature versus typical HE students). Within these general categories, countries often express their specific national concerns. For instance, with regard to ethnicity/migrant status, Georgia pays particular attention to Azeri and Armenian students, whereas Croatia focuses on Roma students. It can also be noted that some countries define under-represented groups on the basis of criteria, which are closely related to their recent history. This applies to certain Balkans and East European countries (e.g. Armenia, Georgia and Moldova), where students or students whose parents participated in military conflicts are recognised as groups under-represented in higher education and targeted by special measures.

Quantitative targets

Regardless of the policy approach used to address the under-representation, only a few countries (e.g. Armenia, Austria, Ireland, Finland and Norway) refer to quantitative targets to be reached. In Ireland for instance, the National Action Plan for Equity of Access to Higher Education 2008-2013 sets very concrete objectives, stating that all socio-economic groups should have entry rates of at least 54 % by 2020, and mature students should comprise at least 20 % of total full-time entrants by 2013. In Finland, according to the Development Plan Education and Research 2007-2012, the share of immigrant students in higher education should correspond to their share in the entire population.

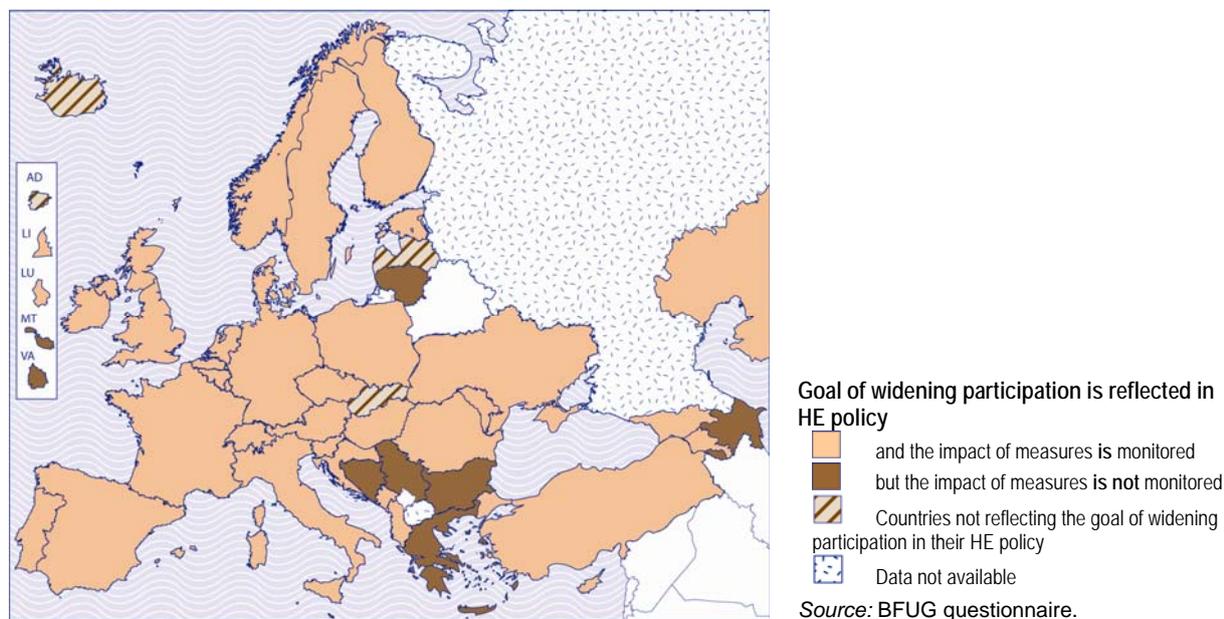
4.2.2. Monitoring

Most EHEA countries indicate that they have put in place systematic activities allowing them to monitor the composition of the student body according to different characteristics (e.g. gender, disability, age, social background, migrant status etc.), and therefore evaluate the effect of measures aiming to widen participation in higher education. These monitoring activities are often part of the regular national statistical monitoring and the outcomes are commonly published in statistical or research reports. A few countries state that they address the issue of widening participation through various policy initiatives, but they do not report any systematic monitoring activities that would allow them to evaluate the effect of these measures on the composition of the student body. Figure 4.9 summarises the situation across the EHEA.

Although the majority of countries have already put in place monitoring activities allowing them to capture the composition of the student body, the monitoring systems do not always cover all groups defined as under-represented and/or they do not allow capturing all relevant student characteristics. This is sometimes related to various legal constraints, in particular the fact that in some contexts it is legally forbidden to monitor certain aspects of the composition of the student body. For example in Estonia and Finland, it is impossible to collect data on ethnic and socio-economic background of students.

It should also be noted that the BFUG reporting does not always show a systematic relationship between monitoring activities and the actual impact of these activities on policy developments across the EHEA. In fact, only a few countries clearly indicate that data obtained through monitoring is systematically used as a reference for strategic planning of future policy initiatives. It therefore seems that the link between data gathering and policy development is yet to be straightened in the majority of EHEA countries.

Figure 4.9: Existence of monitoring activities allowing the evaluation of the effect of measures to increase participation in higher education, 2010/2011



4.3. Opening access routes to higher education and providing adequate student services

The objective to increase the number and diversity of the student population goes hand in hand with the need to create an institutional environment that values the recruitment of non-traditional learners and pays particular attention to student retention in the higher education system. This has been recognised by the ministers responsible for higher education who highlighted, within the London Communiqué (2007), that the social dimension in higher education should include efforts to create more flexible learning pathways into and within higher education as well as the provision of adequate student services. Similar references have been included in the Bergen and the Louvain/Louvain-la-Neuve Communiqués (2005 and 2009 respectively).

This section looks at specific aspects of the social dimension in higher education as highlighted within the Bologna Communiqués. It will first provide an overview of alternative access routes to higher education that can be used by prospective students who do not comply with traditional access requirements. The section then looks at services that are commonly available to students, in particular academic and career guidance and services of psychological counselling. Other measures referred to by the ministers, namely flexible learning pathways within higher education, will be examined in Chapter 6 on lifelong learning. Chapter 5 on outcomes and employability will look at policies targeting the completion of higher education studies and it will examine how different higher education systems address the problem of student under-performance and dropout.

4.3.1. Non-traditional access routes to higher education

Non-traditional (or alternative) access routes to higher education are commonly understood as access routes targeting higher education candidates who do not comply with traditional entry requirements. This is either because they followed a short upper secondary vocational path (i.e. a programme, which does not allow access to higher education) or because they abandoned initial education prior to the completion of upper secondary level. In the current policy context, promoting the idea that no talent should be left behind, the theme of non-traditional pathways into higher education gains particular attention. The objective is to extend admissions criteria so that all those who have a capacity to follow higher education studies would be provided with the opportunity to do so, regardless of their prior formal learning achievements.

Overview of the current situation

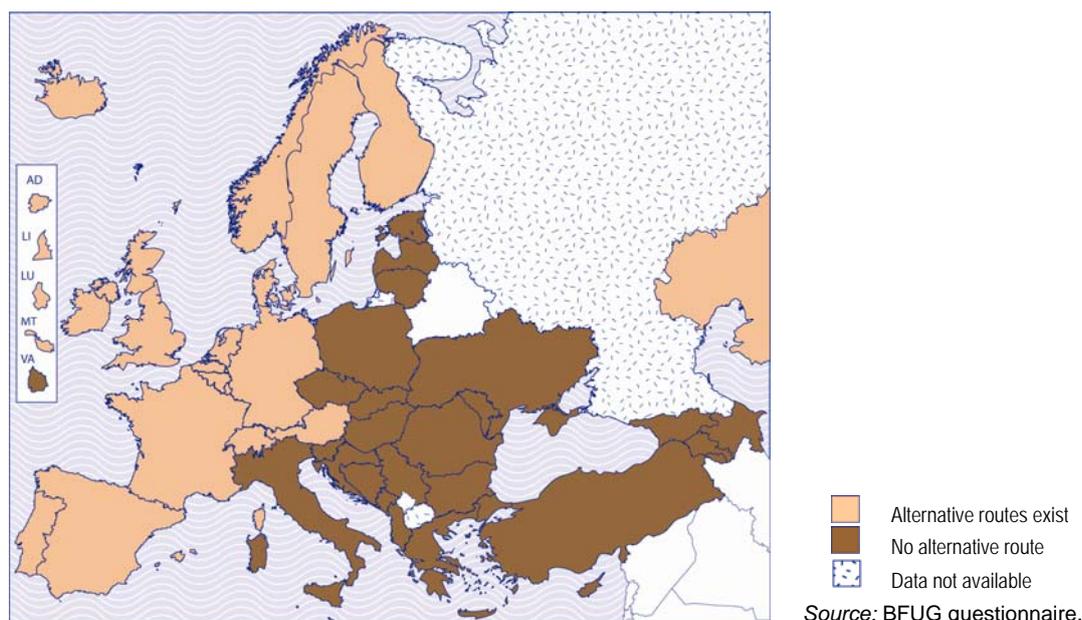
The analysis of alternative access routes to higher education must be carried out in close relation to the current structures of the upper secondary education systems. In fact, one of the most important characteristics of many upper secondary systems is the absence of a clear boundary between academic and vocational paths. This means that vocational upper secondary programmes often lead to a standard qualification allowing access to higher education studies. Overall, this can be seen as a positive trend that contributes to parity of esteem and equality of different educational choices and pathways. However, such permeability between general and vocational education does not yet exist in all countries. Alongside, several countries are characterised by relatively high proportion of early school leavers, i.e. pupils who abandoned upper secondary education prior to completing it (for country-specific information on early school leavers, see Figure 4.5).

Figure 4.10 provides an overview of the current situation in the European Higher Education Area with regard to alternative access routes to higher education. It classified the EHEA countries into two groups. The first one includes countries where the traditional upper secondary school leaving certificate (general or vocational) is not the only way to enter into higher education, and where at least one alternative path into higher education exists. The second group comprises countries where the standard upper secondary school leaving qualification remains the only way to embark on higher education studies².

The figure shows that out of 47 higher education systems for which data is available, 22 higher education systems have already established at least one alternative route to higher education, whereas in 25 systems the access to higher education is conditioned by the possession of the upper secondary school leaving certificate. Overall, the figure shows that the higher education systems in the countries of Western Europe are characterised by higher flexibility in terms of their entry qualification requirements than other EHEA countries.

² The second group includes a few countries (e.g. the Czech Republic, Slovenia and Turkey), where under exceptional circumstances, particularly talented higher education candidates who do not hold the upper secondary school leaving certificate can be granted access to higher education. However, as this concerns only exceptional cases and often only certain fields of study (e.g. arts programmes in the Czech Republic and Slovenia), these countries cannot be regarded as having a systematic provision of alternative entry routes into higher education. Alongside, the second group also includes countries where candidates without necessary qualifications can be admitted into higher education, but cannot be awarded a higher education degree if they do not complete their upper secondary studies (e.g. the Czech Republic and Ukraine).

Figure 4.10: Alternative routes to higher education for non-traditional candidates, 2010/11



Alternative entry to higher education can take different forms and can be based on a range of methods and approaches. Most commonly, alternative entry involves the recognition of the knowledge and skills that prospective non-traditional students acquired outside formal learning contexts (i.e. through various non-formal learning activities, professional experience, volunteering etc.). It can also involve the enlargement of the scope of higher education entry qualifications, which means that short vocational programmes (or other “non-traditional” programmes/qualifications) can also qualify for higher education entry. Besides, in some countries, candidates who lack the knowledge and skills necessary for higher education study are provided with the possibility to follow specific preparatory programmes allowing access to higher education. The following sub-sections provide more detailed information on different approaches that can be observed within the EHEA.

Recognition of the knowledge and skills acquired outside formal learning contexts

In countries, where alongside standard formal qualifications the admission to higher education can also be granted on the basis of the recognition of non-formal and informal learning, legislation most often refers explicitly to such possibility. Yet, legal frameworks regulate this option in different ways and to a different extent. In some countries, legislation refers to alternative access to higher education in a relatively open way, i.e. it does not refer to any specific categories of non-traditional learners or to any approaches to be used in alternative admission procedures (e.g. Finland and Sweden). Regulatory frameworks can also be more prescriptive and provide further details relating to various aspects, including the categories of learners who are eligible or methods and approaches that should be used when evaluating the knowledge and skills of non-traditional applicants (e.g. Germany and Spain). The United Kingdom represents a specific case, as there is no legislation referring to alternative entry into higher education, but higher education institutions commonly accept non-traditional candidates who do not comply with standard entry requirements. This is related to the fact that universities are autonomous institutions responsible for the quality of their qualifications and the recruitment of their student population. They can therefore set their own admission criteria and conditions. Nevertheless, at the national level, a support has been provided to boost the implementation of alternative entry routes into higher education: the Quality Assurance Agency for Higher Education (QAA) has published a code of practice, which specified a range of evidence that may be considered in judging the potential of a prospective non-traditional student. According to the document, the evidence might include all prior learning of candidates, including that achieved in the workplace.

Preparatory programmes for non-traditional higher education candidates

Alongside the recognition of prior non-formal and informal learning, some countries have put in place special preparatory programmes targeting non-traditional higher education candidates who need additional support in gaining the skills required for higher education study before they enter higher education. These programmes are primarily directed at learners who followed a short upper secondary programme not opening access to higher education or who left upper secondary education before completing it. They most often lead to a qualification that is recognised as an alternative to the upper secondary school leaving certificate. Provision of preparatory courses for non-traditional higher education candidates is relatively common in Ireland and all areas of the United Kingdom.

It should also be noted that in virtually all countries, there are possibilities for mature students who do not hold a necessary higher education entry qualification to follow programmes leading to the standard upper secondary school leaving certificate. These “second chance” programmes are often delivered under various flexible arrangements such as evening, part-time or distance courses. Despite the fact that this type of provision is not considered under Figure 4.10, it plays an important role in providing non-traditional learners with an opportunity to achieve a standard qualification allowing access to higher education studies.

Statistics and monitoring

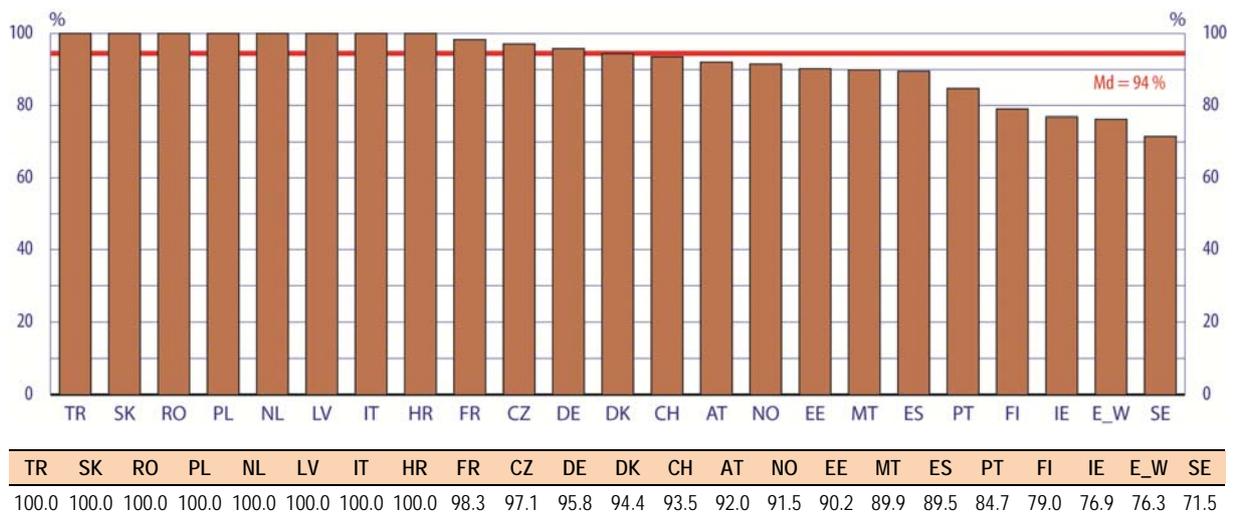
In addition to different approaches to alternative access to higher education, it is also important to examine the extent to which these alternative options are used in practice. However, countries reporting the existence of at least one alternative entry route to higher education are often unable to provide information on the proportion of students entering into the system on the basis of alternative admission procedures. It indicates that in the majority of countries this area is not subject to a regular system-wide monitoring.

Where quantitative data is available (i.e. where countries provided it within the BFUG reporting) alternative pathways into higher education do generally count only for up to 5 % of all entries. Only England reports significantly higher proportion of those who enter higher education through a non-traditional entry route (around 28 % of all entries).

The information provided by central authorities can be compared with recent Eurostudent research (Eurostudent, 2011), which allows to quantify the role of traditional and non-traditional entry routes³ in different higher education systems (Figure 4.11). The data covers 22 countries and is based on students’ responses to a question on the access route they have taken to enter higher education.

³ Within Eurostudent research, the following entry routes fall under the category of non-traditional/alternative entry routes: 1. Vocational training/work experience/Accreditation of prior learning (APR); 2. Special aptitude/entrance examinations; 3. Post-secondary non-tertiary education (for more details, see Eurostudent, 2011). The last category (i.e. post-secondary non-tertiary education) can explain some discrepancies between Figures 4.10, 4.11 and 4.12. These concern the cases of the Czech Republic and Estonia, where the upper secondary school leaving certificate is a necessary condition to enter higher education (i.e. no alternative route is indicated under Figure 4.10), but it is possible to achieve it through second chance programmes classified as post-secondary non-tertiary education (i.e. alternative routes indicated under Figures 4.11 and 4.12).

Figure 4.11: Students entering higher education through a regular route (upper secondary qualification) in %, 2009/10



Source: Eurostudent.

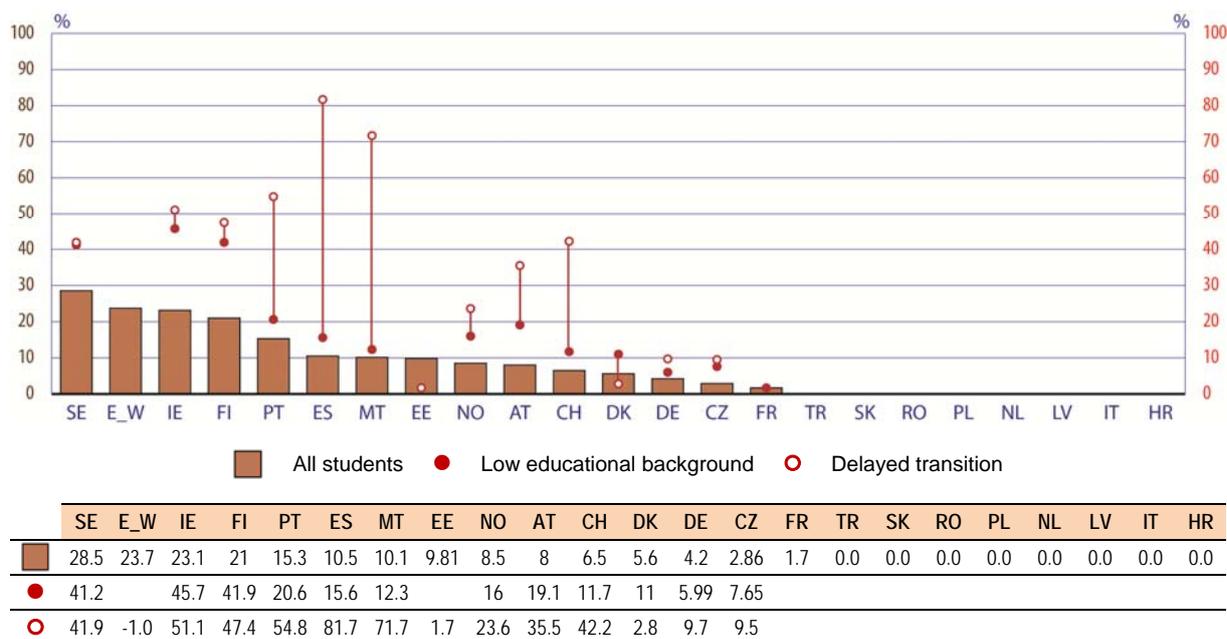
The figure shows that in Turkey, Slovakia, Italy, Poland, Croatia, Romania, Latvia and the Netherlands all students entering higher education are in the possession of the traditional upper secondary school leaving certificate. This confirms the information provided in Figure 4.10, which indicates that most of these countries do not provide any systematic possibilities to enter higher education without the standard upper secondary school leaving qualification. Only the Netherlands reports that non-traditional higher education candidates aged over 21 can be admitted to higher education on the basis of the recognition of prior learning. However, according to Eurostudent data, this possibility is rarely used in practice.

At the other end of the spectrum lie Finland, Ireland, the United Kingdom (England and Wales) and Sweden, where between 70% and 80% of higher education students enter the system through traditional access routes, whereas the rest of the student population takes an alternative entry pathway. The contextual information provided in the text above confirms that all these countries have already established at least one alternative access route to higher education, namely the access based on the recognition of the knowledge and skills acquired outside formal learning contexts (Finland, Ireland, the United Kingdom and Sweden) or preparatory courses for non-traditional higher education candidates (Ireland and the United Kingdom).

The majority of the 11 countries situated in the middle of the spectrum, namely France, Germany, Denmark, Austria, Norway, Malta, Spain and Portugal, report that they have a systematic policy approach to alternative entry routes for non-traditional learners (Figure 4.10). In these countries, alternative access routes represent between 2% and 15% of all admissions, which indicates that this option is being used in practice to different degrees.

Eurostudent research also provides information on characteristics of those entering higher education through non-traditional access routes (Figure 4.12).

Figure 4.12: Students entering higher education through alternative routes by education background and transition route in %, 2009/10



Source: Eurostudent.

Data reveals that students belonging to the category of delayed transition students (see Glossary; for further analysis of this category of students see also Chapter 6, Figure 6.15) and students characterised by a low education/social background (see Glossary) are those who often take non-traditional access routes. In Finland, Ireland and Sweden more than one in three students characterised by a low education/social background or delayed transition have taken an alternative access route to enter higher education. This confirms that the theme of alternative access to higher education ought to be seen as a key component of debates relating to the social dimension in higher education.

Prospective developments

With regard to future developments in the field of alternative entry into higher education, some countries see the establishment of their national qualification frameworks based on learning outcomes as a mean to enhance the development of alternative access routes to higher education. It is expected that the shift to clearly identified learning outcomes will support alternative entry pathways in two different ways: First, clearly identified knowledge, skills and competences needed for study at higher education level could allow the implementation of measures to recognise non-formal and informal learning as a part of standard admission procedures. Second, national qualification frameworks are also expected to clarify content of different national qualifications, which could allow certain “non-traditional” certificates and qualifications to be better understood and potentially accepted by higher education institutions as an alternative to a standard upper secondary school leaving certificate. The impact of the implementation of national qualification frameworks on alternative entry routes to higher education is therefore a theme to be followed within further analyses.

4.3.2. Student services

Student services provided within the higher education sector are commonly regarded as an integral part of the social dimension, as elements contributing to the quality of the student experience and to widening access to higher education. They can support prospective students before entry to higher education, contribute to students’ performance and success during their studies, and accompany

higher education graduates in their transition to the labour market. They are also crucial to achieve the goal to make higher education more inclusive, as the ministers acknowledged in their 2007 Communiqué.

Overview of the provision

While higher education institutions can offer multiple student services, the BFUG reporting exercise paid particular attention to three types of services, namely academic guidance services, career guidance services and services of psychological counselling. It intended to provide an overview of the extent to which these services are ensured by higher education institutions.

Available data indicates that both academic and career guidance are commonly available to students in the majority of countries. Only Andorra, Croatia, Montenegro and Ukraine indicate that these services are not included in the standard provision of higher education institutions, and in Bulgaria and Georgia, only career guidance is included. The provision of psychological counselling services seems to be slightly less common: only around two thirds of countries report that higher education institutions commonly provide these services to students. Yet, this could be related to the fact that psychological counselling is often ensured by external providers, rather than by higher education institutions themselves (for more details, see the information on the organisational aspects provided further in the text).

Apart from the above-mentioned services, around half of the countries provide information on other services that are commonly available to higher education students. They mainly include healthcare and accommodation services, as well as services related to sport, social and cultural activities of students.

Several higher education systems (Bosnia and Herzegovina, the Flemish Community of Belgium, the Czech Republic, Denmark, Croatia, Iceland, Ireland and Slovenia) provide specific student services for those with special needs, in particular students with disabilities. The aim of these services is to ensure that these students are provided with academic and career guidance adapted to their needs, and that they can follow their studies on the same footing as other students.

A few countries (e.g. Montenegro and the United Kingdom – Scotland) refer to the provision of academic and career guidance services targeting prospective higher education students, in particular upper secondary pupils. These services mainly take the form of various outreach activities/programmes aiming to enhance the motivation of learners to enter higher education and allow prospective students to make appropriate choices for their study career.

Organisational patterns

From the organisational perspective, student services provided by higher education institutions appear as a complex field. While a certain number of services are often ensured at the central level of higher education institutions, others may be provided by individual faculties or departments. For example in Slovenia, there are several central-level providers of student services, which are in charge of different aspects and areas of student life, including academic and career guidance, services related to accommodation, student mobility, leisure activities, etc. Alongside, individual faculties provide additional and more targeted academic and career guidance support to students. Similarly in the Czech Republic, student services are provided by special advisory units as well as by distinct departments, dean's offices, study offices etc.

Individual higher education institutions do not necessarily ensure the provision of all services available to their students. This applies in particular to health services or services of psychological counselling, which are often provided by external institutions. In Serbia, for instance, academic and career guidance are most often provided inside higher education institutions (e.g. in career guidance

centres), whereas services of psychological counselling are for the most part ensured by external providers, in particular medical centres and polyclinics.

Some countries have established independent legal entities responsible for the provision of various student services. This is the case in Norway, where student services fall under the responsibility of the Student Welfare Organisation and its 24 local branches. This organisation ensures services in the areas such as student accommodation, catering and health, as well as services related to sports, social and cultural activities of students. A similar situation can be observed in Germany, where the public institution “Studentenwerk” with branches all over the country, offers comparable services. Denmark has established a self-governing institution Student Counselling, which ensures the provision of psychological counselling.

Student services and legislative frameworks

Legislative frameworks address the provision of student services in different ways. While in some countries it is legally binding for higher education institutions to offer certain types of student services, in other instances such obligations do not exist. For example in the Czech Republic and Sweden, according to the Higher Education Acts, public higher education institutions are obliged to provide applicants, students and other persons with information and advisory services relating to higher education studies as well as to labour market opportunities for graduates. In Denmark, universities are legally obliged to offer special guidance for students who are at risk of dropping out. In Norway, according to the Act on Student Welfare Organisations, all higher education institutions are obliged to collaborate with the Student Welfare Organisation. The United Kingdom represents a different model: higher education institutions are not obliged to offer the provision of student services, given their institutional autonomy. However, the lack of explicit directives does not necessarily mean the absence of student services. Scotland for example reports that all Scottish higher education institutions offer academic and career guidance services as well as psychological counselling services, and many also provide comprehensive health services to students.

Funding of student services

Budgets of higher education institutions largely appear as the main source of funding of various student services. Yet, several countries also refer to other financial sources.

In countries such as the Czech Republic, Estonia, Finland and Slovenia, the European Social Fund seems to play an important role in the development of services available to higher education students. This is done either through projects focusing specifically on the provision of student services, or through initiatives having a wider scope, where student services represent only one area of action. The second case can be illustrated by the Estonian project “Primus”, which aims to support the quality development of higher education and increase the competitiveness of graduates. The project consists of six major action lines, one of them supporting 19 higher education institutions with the provision of student services.

Complementary funding can also come from various national-level funds. This is the case in Denmark, where student services are partly financed from the Globalisation Fund, which includes initiatives in the area of research, education, innovation and entrepreneurship. Besides, some universities have also received a special grant (in total DKK 10 million in 2009-2010) to test different career guidance initiatives.

In countries, where independent entities providing student services exist, these organisations are financed in various ways. For example in Norway, the Student Welfare Organisations are partly financed by compulsory students’ contributions and partly by the government, whereas in Denmark, the Student Counselling service is financed by the state.

4.4. Fees and Financial Support

Since 2001, as a part of debates related to the social dimension in higher education, the ministers have regularly reaffirmed the need to build higher education systems where students can complete studies without obstacles related to their social and economic background. It is in this context that the question of how higher education funding systems are structured and whether there is the balance between student fees and support available to students gains particular importance.

Issues of student fees and support are difficult to understand and compare accurately and clearly at European level. This is because national realities are complex and there are many dimensions to be considered. For example, the statement, "students pay fees in country x" may seem clear, but it lacks sufficient information to understand the system. Does the term "students" refer to all or some students? If some, what are the criteria that determine which students pay fees? How much do students pay, (the range of fees)? Are the fees paid upon enrolment or after graduation? Even if answers are provided to all of these questions, the information is still insufficient to understand and assess reality. The rest of the picture needs to be filled in with information on the student support system. Are students or their families able to access public financial support in the form of grants, loans or tax relief? If so, under what conditions and criteria?

This section therefore aims to show only some main patterns and approaches in national higher education systems, relating the most important elements of national fee systems with student support. It concentrates on publicly-funded higher education rather than on private sector provision. This can, however, only be an overview of such a complex topic, and more detailed information is needed from national sources.

4.4.1. Student Costs

The information on student expenses provides the first part of the picture of how higher education funding systems are structured and whether they support the social dimension in higher education.

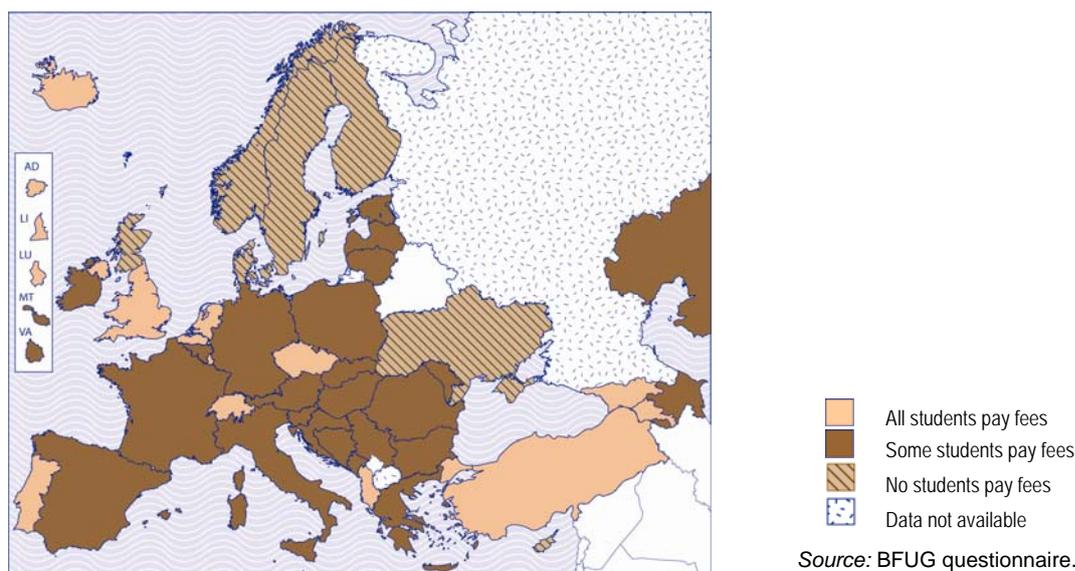
Figure 4.13 gives an overview of the prevalence of fees in the first cycle. No distinction is made here between different types of fees (tuition fees vs administrative fees, for example) as there are different practices regarding how fees are named in different countries. Thus, for example, an administrative fee in one system may be considered a tuition fee in another, or vice versa. Neither does this information take account of the amounts of fees charged. However, it does differentiate between countries where all students are charged fees and those where only some students are charged fees. In this map, the main reference is to home students and/or students who are considered under the same fee regime as home students (for example in European Union countries, students from other EU states).

Overall it is evident that across the European Higher Education Area fees are very commonly charged. Indeed only in 7 countries is the first cycle organised without recourse to fees. There is a clear cultural and geographical aspect to such no fee models, as these can be found to be predominantly a characteristic of Nordic systems.

For approximately half of the countries of the EHEA, fees are charged to some students. This implies that there is recourse to criteria for distinguishing fee-payers and non fee-payers in these countries.

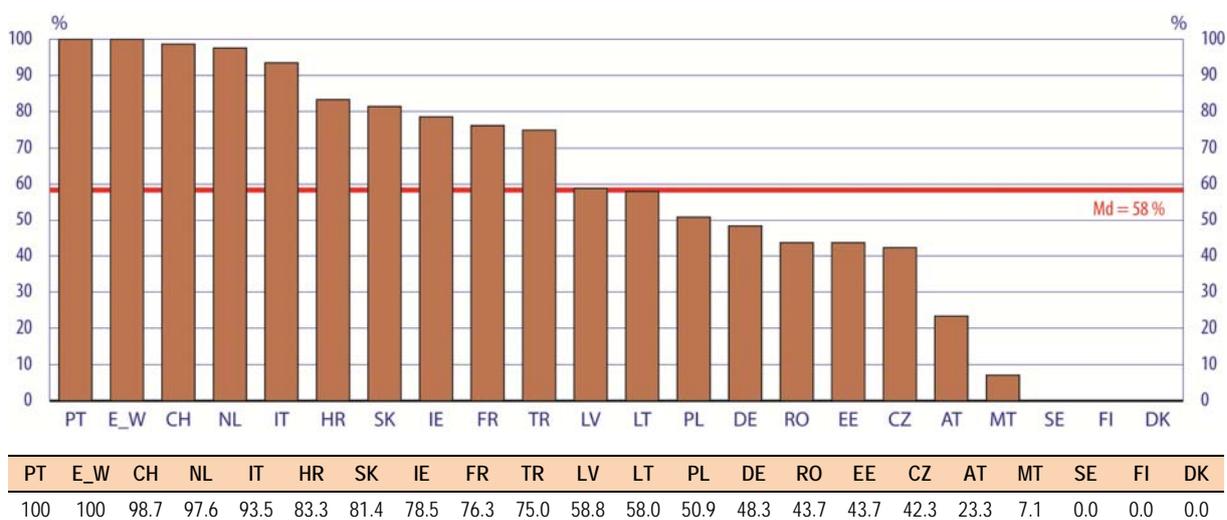
Meanwhile in 14 national systems all students are required to pay fees.

Figure 4.13: Prevalence of fees in the first cycle, 2010/11



Eurostudent information echoes these findings. Indeed, Figure 4.14 illustrates the great diversity between systems, and provides a more precise picture of the percentages of students paying fees in participating Eurostudent countries. All or practically all students can be found to pay fees in Italy, Netherlands, Portugal, Switzerland and the UK (England and Wales) while none pay fees in the Nordic countries. A further 6 countries have above 70% of fee-payers, while a further 7 have more than 40% of fee-payers. Apart from the fee-free Nordic countries, only Malta (7%) and Austria (23%) have low overall percentages of fee-payers.

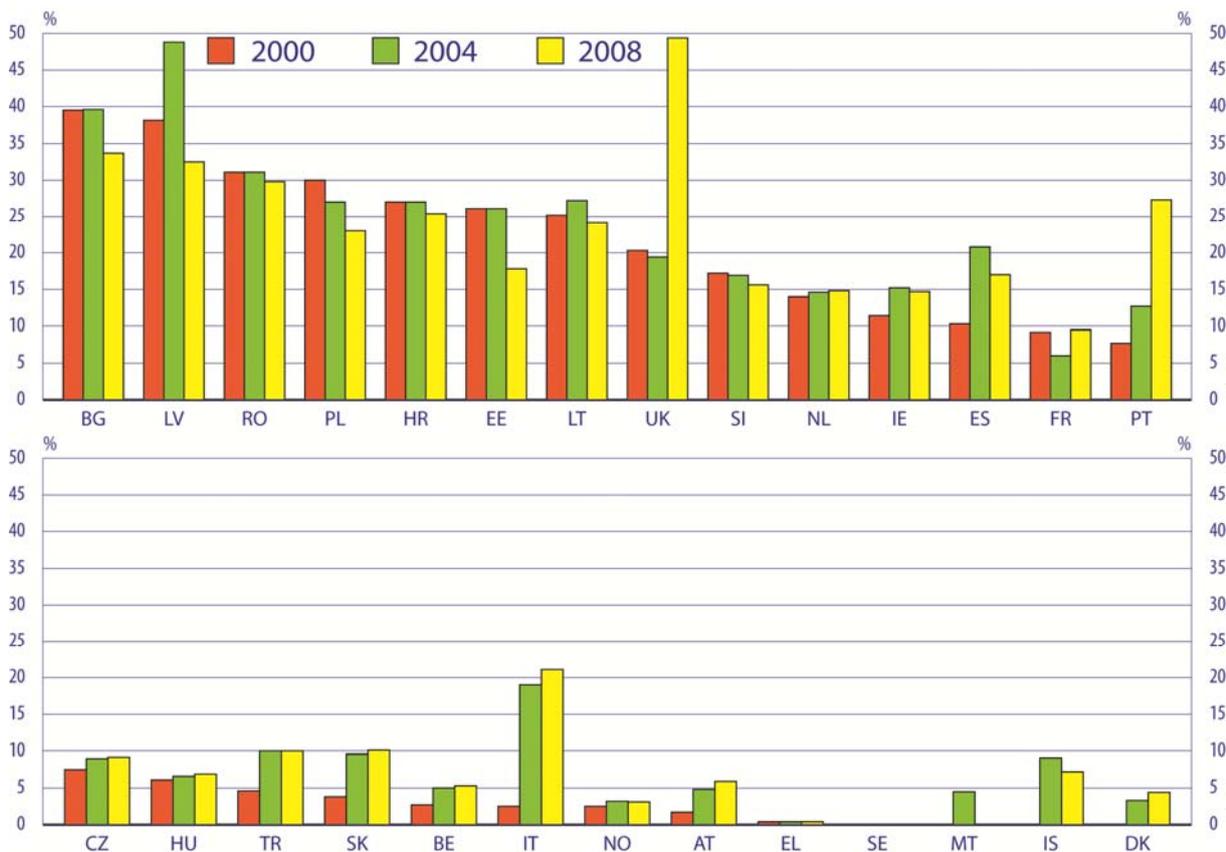
Figure 4.14: Share of Bachelor students who pay fees, 2010/11



Source: Eurostudent.

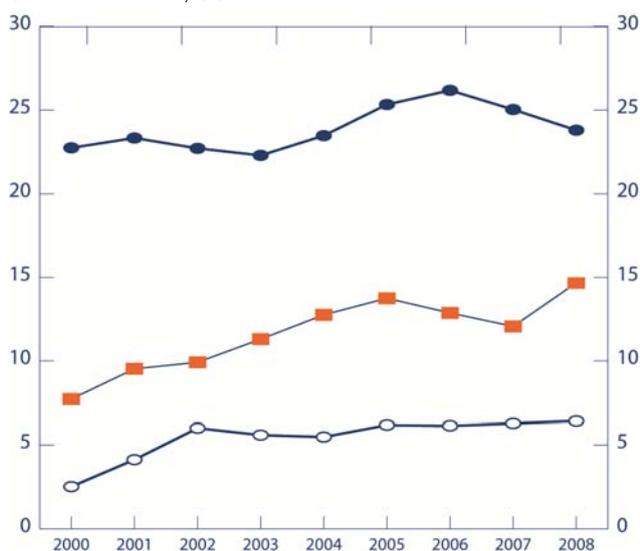
Differences in approaches to fees are also reflected in Eurostat information on the share of household funding in total expenditure of higher education institutions (Figure 4.15). Across the countries for which data is available, there has been a steady overall increase in this percentage between 2000 and 2008 with the median value reaching nearly 15%. However, this trend is far from uniform and a considerable number of countries show a static or decreasing share of expenditure on higher education. The country differences are therefore striking. There is a significant group of countries (13) where the share of household expenditure remains less than 10% in 2008. A further 6 countries lie between 10 – 20% with the same number lying between 20 – 30%. The countries with the most significant share of household expenditure are the United Kingdom (49%), Bulgaria (33%) and Latvia (32%).

Figure 4.15: Share of household funding in total expenditure of higher education institutions (2000, 2004, 2008)



	BG	LV	RO	PL	HR	EE	LT	UK	SI	NL	IE	ES	FR	PT
2000	39.5	38.2	31.1	30.3	26.9	26.1	25.2	20.3	17.2	14.0	11.4	10.3	9.2	7.7
2004	39.6	48.8	31.1	27.1	26.9	26.1	27.2	19.4	16.9	14.6	15.2	20.8	6.0	12.7
2008	33.7	32.5	29.8	23.5	25.4	17.8	24.1	49.4	15.6	14.8	14.7	17.0	9.5	27.3
	CZ	HU	TR	SK	BE	IT	NO	AT	EL	SE	MT	IS	DK	
2000	7.5	6.1	4.6	3.8	2.7	2.5	2.5	1.7	0.4	0.0	0.0	0.0	0.0	
2004	9.0	6.6	10.0	9.6	5.0	19.0	3.2	4.8	0.4	0.0	4.5	9.1	3.3	
2008	9.2	6.9	10.0	10.1	5.3	21.1	3.1	5.9	0.4	0.0	0.0	7.2	4.4	

Source: Eurostat, UOE



%	Percentile 25	Median	Percentile 75
2000	2.5	7.7	22.7
2001	4.1	9.5	23.3
2002	6.0	9.9	22.7
2003	5.6	11.3	22.3
2004	5.5	12.7	23.5
2005	6.2	13.7	25.3
2006	6.1	12.9	26.2
2007	6.3	12.1	25.0
2008	6.4	14.7	23.8

Source: Eurostat, LFS

WHO PAYS FEES?

While it is clear that there are major system differences in terms of the prevalence of fees, it is also true that there are considerable differences in the criteria used to determine which students pay fees, and how much they pay.

In some countries financial considerations (economic condition of students) are used as criteria for charging fees. In others academic performance criteria are used as a means of distinguishing who pays fees and/or the level of fees paid. In Slovenia it is the status of students that determines whether or not they pay fees: part-time students pay, while full-time students do not.

However, the majority of countries use a combination of criteria. Latvia, Lithuania and Hungary combine criteria based on academic performance with those based on the type of study programme. Both the Belgian French-speaking and Flemish communities combine financial criteria related to the economic conditions of students with criteria linked to the type of study programme. Meanwhile, France combines financial criteria with academic performance. Cyprus and Spain combine financial criteria both with academic performance and the type of study programme. For Cyprus, however, it should be borne in mind that in the first cycle Cypriot and EU students studying at public higher education institutions do not pay fees. In the case of Spain, however, the decision of whether or not a student pays fees is determined only by financial criteria related to the family. Other criteria are then used in relation to the amount of fees paid. In the Czech Republic, Poland and Slovakia higher education institutions are free to set their own fees for programmes taught in a foreign language. In the Czech Republic this is also the case for charges to students who extend the expected length of studies beyond more than an academic year. However in all other cases, fees are limited to admission charges. In Latvia, although fees are charged to a majority of students, fees per credit for programmes taught in a foreign language are generally higher than those for programmes taught in the national language.

The impact of fees upon individual students depends on a number of factors. The level of fees is a significant issue, although fee levels affect students differently according to their particular economic situation. Moreover public authorities are also able to alleviate the impact of fees through the design of the support systems.

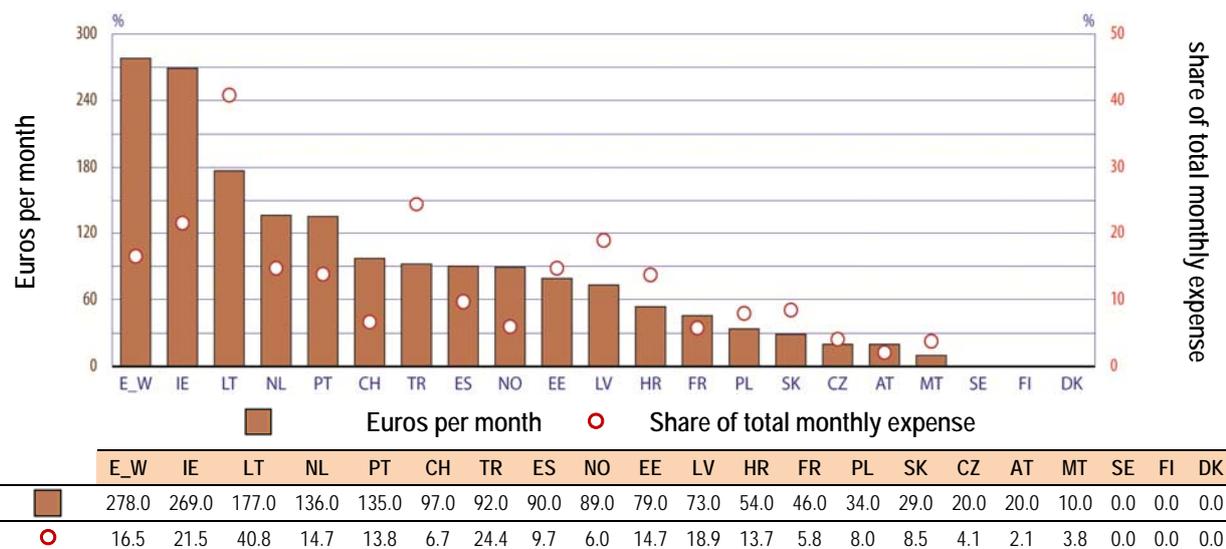
Figure 4.16 shows that in the majority of Eurostudent countries that are charging tuition fees for Bachelor students, the average fee is below €100 per month. High absolute amounts of fees are charged in England/Wales, Ireland, and Lithuania, where the monthly values range from over €170 to almost €280. In Denmark, Finland, and Sweden, Bachelor students study free of charge.

The relative meaning of fees expressed as share of students' total monthly expenditure varies greatly between the countries. Bachelor students have to dedicate less than 10% of total expenditure on fees in half of the countries.

In one group of countries – Ireland, Turkey, and Lithuania – the share of fees roughly ranges between 1/5 and 2/5 of the students' total monthly expenses. Along with accommodation costs, this, therefore, determines a large chunk of the students' budget.

Besides the 3 Scandinavian countries which waive fees completely, in 3 other countries – the Czech Republic, Malta, and Austria – the relative impact of fees is rather low (below 5% of monthly expenditure).

Figure 4.16: Monthly fees as a share of total monthly expenditure for bachelor students not living with parents, 2009/2010



Source: Eurostudent.

These country clusters do not, however, remain intact, when one further element of the design of fee schemes is taken into consideration. That is the question of how many students actually have to pay fees. In Italy, Turkey, Ireland, England/Wales, the Netherlands, Portugal, Croatia, the Slovak Republic, Switzerland, and France, at least 75% or more of the Bachelor students are subject to paying fees. In Italy, England/Wales, the Netherlands, Portugal, and Switzerland, it is practically 100%.

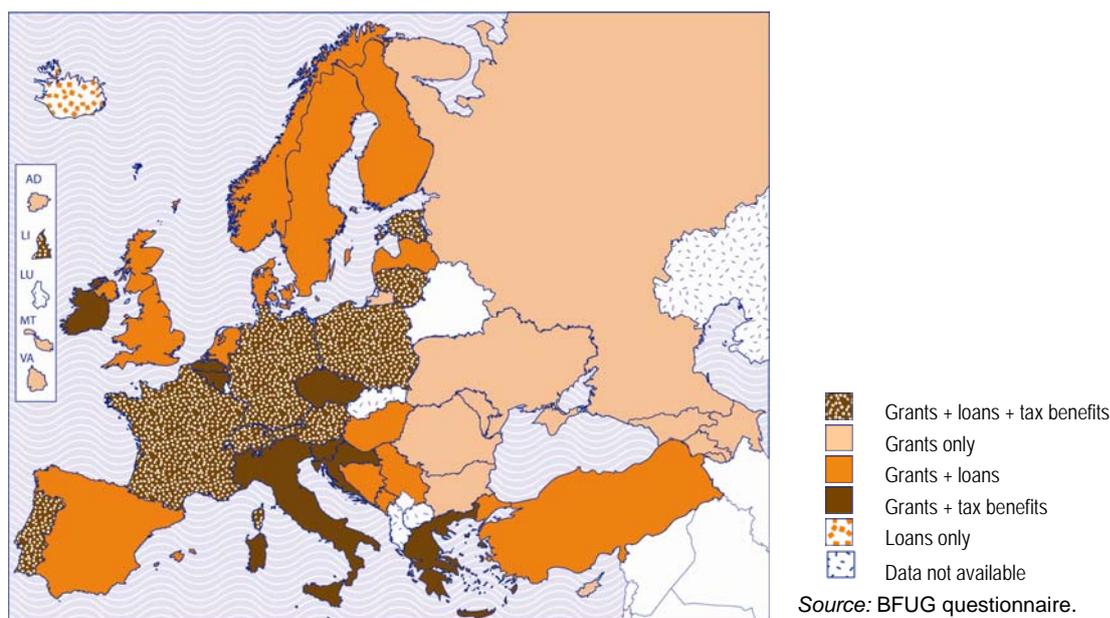
4.4.2. Student Income and Public Support

Fees should not be considered in isolation of information about student support and student income. Indeed it is only when information on fees and support is combined that an accurate picture of the national system can be ascertained from a student perspective.

Figure 4.17 shows the main forms of student support used across the EHEA. Here it is interesting to see that the main patterns of support indicate some significant geographical and cultural differences. 12 systems have grants as the main source of student support, and it is interesting that the great majority of these systems are located in Central and Eastern Europe. Loans are often an important feature of support, but only in the case of Iceland are they the primary, exclusive form. More commonly they are found to operate in conjunction with grants, as is the case in 14 systems. In some systems, such as the French Community of Belgium, the actual take-up of loans is so small that they cannot be considered as a main feature of student support.

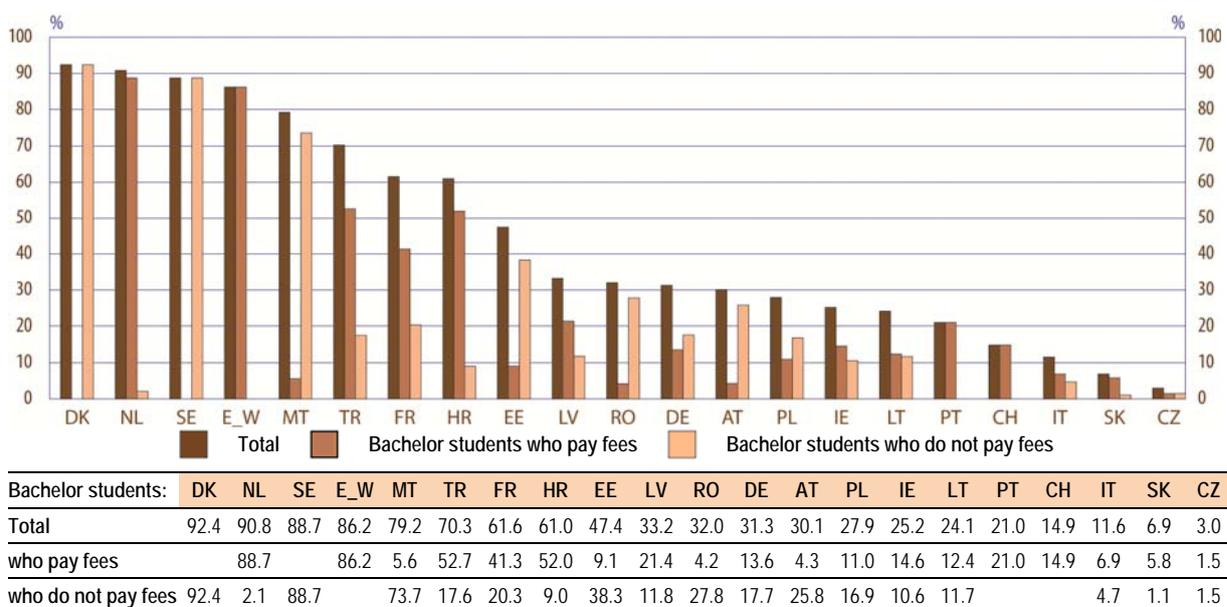
Support is not only channelled to students in the form of grants and loans, however. Tax benefits for parents also play a significant role in many countries. Indeed in 8 countries tax benefits for parents are combined with grants for students as the main form of support, while in a further 9 countries loans are also part of the combination.

Figure 4.17: Main forms of student support, 2010/2011



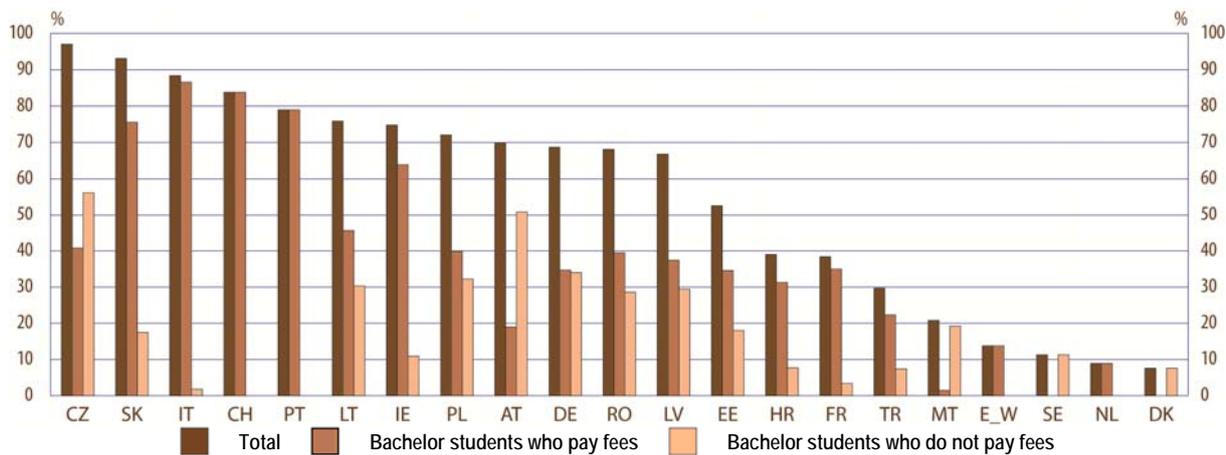
Eurostudent information (Figures 4.18 and 4.19) enables a picture to emerge of how those in receipt of student support may or may not be affected by tuition fees. Some noteworthy issues can be seen. Firstly it is striking that in a number of countries the likelihood of paying tuition fees is not greatly affected by receiving public funding. This is the case in the Netherlands, France, Croatia, Germany, Latvia, Poland and Portugal, as well as in the Nordic countries that are not concerned by fees. However, in Estonia, Romania and Austria students who do not pay fees are much more likely to receive public support. These findings should also be seen in relation to information from the BFUG questionnaire that shows that in many countries the most significant criteria for distinguishing which students pay fees are the mode of study, type of study programme or field of study chosen rather than to social characteristics of the student population.

Figure 4.18: Percentage of fee-payers among recipients of public support, 2009/2010



Source: Eurostudent.

Figure 4.19: Percentage of fee-payers among non recipients of public support, 2009/2010



	CZ	SK	IT	CH	PT	HR	LT	IE	PL	AT	DE	RO	LV	EE	FR	TR	MT	E_W	SE	NL	DK
Total	97.0	93.1	88.4	83.8	79.0	75.9	74.8	72.1	69.9	68.7	68.1	66.8	52.6	39.0	38.4	29.7	20.8	13.8	11.3	8.9	7.6
who pay fees	40.8	75.6	86.6	83.8	79.0	45.6	63.9	39.9	19.0	34.7	39.5	37.4	31.3	35.0	22.3	1.5	13.8			8.9	
who do not pay fees	56.2	17.5	1.8			30.3	10.9	32.2	50.9	34.0	28.6	29.4	18.0	7.7	3.4	7.4	19.2			11.3	7.6

Source: Eurostudent.

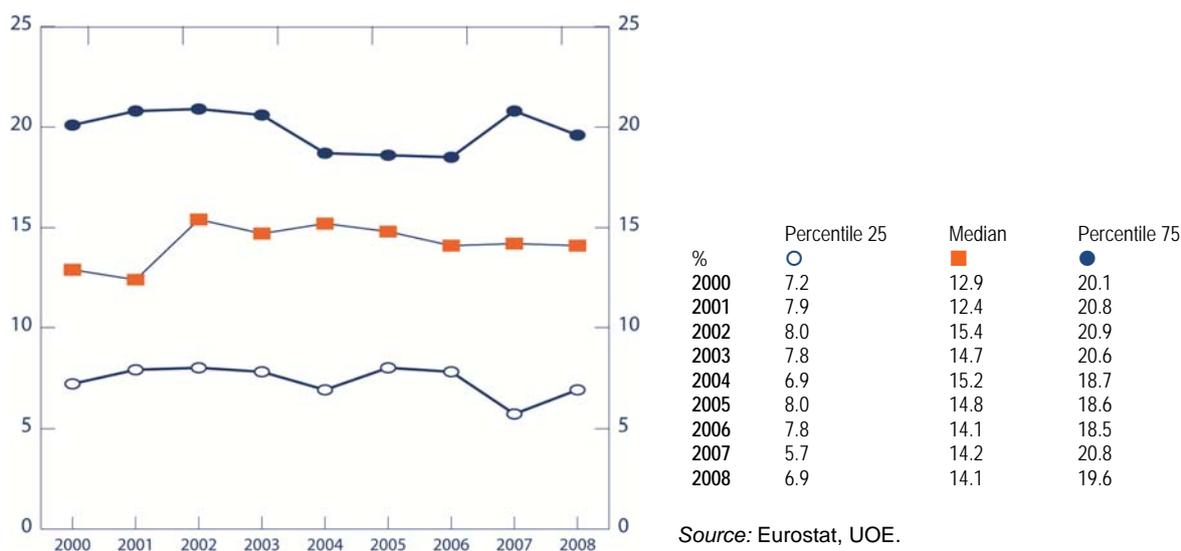
The quality and strength of the student support system is directly related to the amount of money made available through the public budget. Figure 4.20 presents the evolution of the student support budget between 2000 and 2008 showing the amount of money countries provide as public financial aid to students as a percentage of the overall higher education budget.

Figure 4.20: Support to students as a percentage of public expenditure on education (2000, 2004, 2008)



	DK	MT	SE	NO	SI	LV	NL	IS	IT	LT	FI	BE	MK	DE	AT	UK
2000	38.9	35.2	29.5	28.6	25.6	24.9	24.4	21.9	18.3	17.6	16.9	16.3	16.3	14.0	13.6	12.9
2004	30.3		28.2	40.8	23.7	15.2	25.1	22.2	16.7	17.5	16.7	15.7	13.8	17.9	18.1	23.9
2008	28.4	0.1	25.4	44.1	23.2	7.1	28.9	22.5	20.2	14.1	14.7	13.2	13.8	18.9	17.4	31.2
	IE	HU	BG	CZ	ES	TR	FR	PT	EE	EL	HR	SK	CH	PL	RO	
2000	12.4	11.1	10.1	8.6	8.5	7.9	7.8	6.7	5.9	5.8	4.3	3.8	0.8	0.5	0.0	
2004	14.8	15.8	10.8	5.8	7.8	19.3	8.0	5.4	6.6	5.2	3.3	10.7	2.2	0.4	7.2	
2008	12.7	14.3	6.7	4.9	9.9	16.9	7.4	14.9	7.4	1.4	3.1	17.5	2.1	1.5	3.0	

Source: Eurostat, UOE.



Source: Eurostat, UOE.

While the median level of investment in student support has increased slightly - from 12.9 % to 14.1 % – there was a significant increase between 2001 and 2002, and since then a small downward trend. More significantly there are very divergent underlying patterns and realities within European countries. Overall, three relatively balanced groups of countries can be identified. There are those where a significant increase in the share of money allocated to the student financial system has taken place. This is the reality for Germany, Hungary, Portugal, Slovakia, the United Kingdom, Norway and Turkey.

The second group of countries is where the share of investment in financial aid has changed little between 2000 and 2008. This is the case for Estonia, Ireland, Spain, France, Italy, Poland, Finland and Iceland. There are also countries where a downward trend can be observed, such as Bulgaria, Czech Republic, Denmark, Greece, Latvia, Lithuania, Romania, Slovenia and Sweden.

Irrespective of these three national trends, however, very significant differences can be perceived in the percentage of the higher education budget devoted to student support. The percentage ranges from as high as 44% for Norway to as low as 1.5% for Poland. The countries that invest most – above 15% - as a percentage of the higher education budget on the student support system are Norway, the United Kingdom, Denmark and the Netherlands. The countries that invest least – less than 5 % - as a percentage of the higher education budget are Poland, Romania, the Czech Republic, Croatia and Switzerland. While these figures also need to be considered in relation to the size of the overall higher education budget, it is clear that they signify major differences in student support across Europe.

Another aspect to be noted is the countries where changes have been significant. The United Kingdom stands out as the country with the most significant increase, moving from 12.9% in 2000 to more than 30 % by 2008. Norway, already starting at a high percentage of investment in 2000 (29%) also moved upwards by 15% to reach 44%. Denmark appears as a mirror image of Norway, starting at

39% in 2000 and ending at 28% in 2007 – a position that nevertheless still maintains Denmark among the countries investing most in student support. However, the most dramatic fall in financing is in Latvia – from 24.9% in 2000 to 5.1% in 2007. As Latvia was later to suffer the most severe higher education budget cuts as a consequence of the financial and economic crisis (see Chapter 2) this fall in student aid funding earlier in the decade is therefore highly significant. The Czech Republic, although cutting "only" 4.4% during the first 8 years of the decade did so from a low starting point of 8.6% in 2000. Thus in reality this fall is also highly significant, and likely to have made a major impact.

Information on forms of student support therefore needs to be considered in relation to these levels of funding, and in relation to the question of how effectively efforts are made to target funding.

WHO RECEIVES FINANCIAL SUPPORT?

The philosophical question that underlies the choices made by countries is the nature of a fair system of student financial support. Clearly there are a number of aspects to be considered. Firstly, should available resources be spread as widely as possible, but with the general consequence of reducing the impact of such support? Or should a minority group or groups – however the criteria for membership are constituted - receive a more significant share of the resources? If it is decided that resources should be targeted to increase their impact, which students should qualify for support? In terms of the social dimension is it fairer and more effective to target support on the basis of financial need? Or to what extent should those who perform well in their studies be rewarded by financial support? Does such funding reinforce social inequity by rewarding students who are already socially advantaged at the expense of those who may have equal potential, but are unable to develop it through social and financial disadvantage? Whether as the result of implicit or explicit debate, national systems of student support all take position in relation to these questions.

Criteria for Awarding Grants

Denmark, Finland and Sweden have a system of universal grants for full-time students provided that certain basic requirements of study performance are met. Therefore in these countries no criteria are required. For all other countries the main question is whether grants are provided on the basis of financial need or academic performance, or a combination of these two main criteria.

The largest share of countries combine the two criteria, providing some grants on the basis of financial need and others on the basis of academic performance. Estonia combines criteria based on the course or field of study with merit.

A small group of countries, consisting of Belgium (both Flemish and French communities), Ireland, Netherlands, Finland, the United Kingdom, Liechtenstein and Norway, provide grants on the basis of financial need only, although it may be a requirement that students progress in order to continue receiving grants.

Criteria for awarding loans

It is noticeable that whereas universal grants are available only in Denmark, Finland and Sweden, loans are available to all students in 12 national systems (Belgium (German Community), Denmark, Germany, France, Lithuania, Hungary, Netherlands, Slovakia, Finland, Sweden, and Norway), although in Hungary students over 40 are not eligible. In the case of France, very few students actually take out a student loan.

One significant difference between grants and loans is reflected in the finding that need-based criteria are relevant in nearly all national systems for grant allocation, but only considered in 2 national loan systems – the French-speaking Community of Belgium and Poland). Thus when finance is offered in

the form of loans, and is to be paid back by students, it is generally more widely available to the student population.

Meanwhile in Bulgaria, Spain, the UK and Iceland eligibility for loans depends on criteria related to the particular type of study programme. In Spain, loans are limited to new second cycle master programmes, while in the UK the student loan system is designed for students in the first cycle. In some countries, such as Estonia and Slovakia, only full time students are able to benefit from student loans.

Tax benefits and other support

Tax benefits and other financial allocations to parents of students can also play a significant role in a number of European countries. Such information does not, however, concern those students who are themselves parents.

Belgium, Czech Republic, France, Germany, Greece, Austria, Poland, Slovenia and Slovakia provide both tax benefits for parents, and other financial allocations to parents. In a further 7 countries Estonia, Ireland, Italy, Latvia, Lithuania, the Netherlands and Liechtenstein parents of students in higher education also receive tax benefits, but are not able to claim additional financial allocations. Thus in all these countries support to families rather than to individual students is a significant aspect of the system.

This contrasts with the picture in the remaining systems where there are neither tax benefits nor other financial entitlements for parents. In the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) this reality is clearly central to the cultural understanding of higher education as a provision for independent adult students.

However, the Nordic countries are by no means the only countries where there is no tax or financial benefits for parents. This is also the reality in two of the larger members of the EU (Spain and all parts of the UK) in a number of central and eastern European countries (Bulgaria, Hungary, Romania) as well as in Cyprus, Malta and Turkey.

Student Perceptions of Sufficiency of Funding

While countries may have their own system to provide different degrees of financial support to different students, students are in the best position to judge the sufficiency of the funding support that they receive. In this respect Eurostudent is able to highlight differences in perception.

Figure 4.21 shows the assessment of students who are not living with parents with a dependency upon a certain income source. Dependency means that the respective income source amounts to more than 50% of the students' total income. The focus of the analysis is on the 3 main components for funding of students: parental support, students' earnings from gainful employment and public support.

The average satisfaction figures for the different components already tell a story: Whilst on average 48% of students depending on parental support assess their financial situation as (very) satisfying, 47% of students dependent on paid employment and 37% of students with a dependency on state support do so. The same picture is drawn if the focus is set on the share of (very) dissatisfied students.

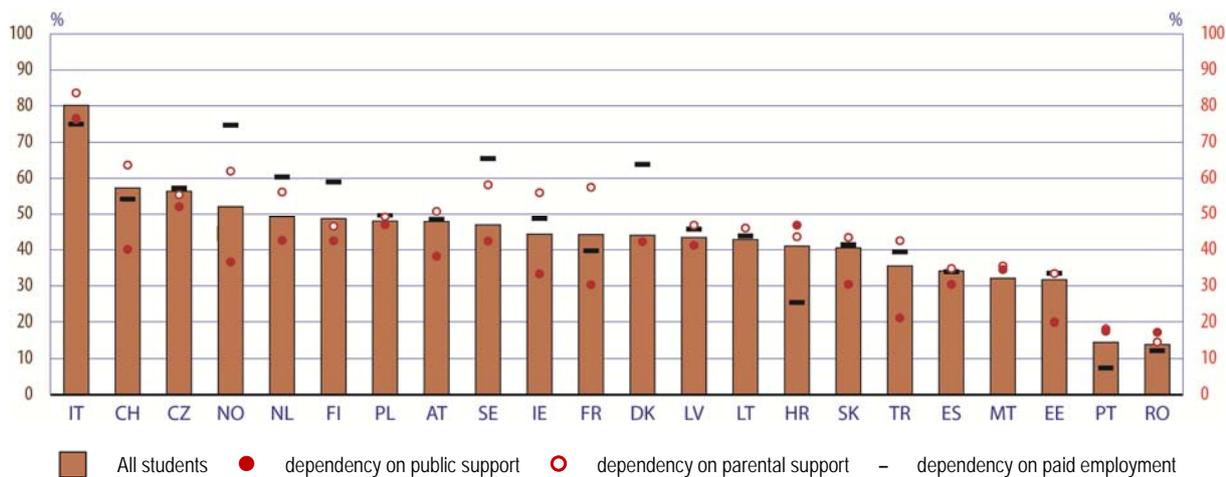
Concentrating on the highest shares of satisfaction by source, 3 country cluster become apparent: There are 9 countries where a majority of students who are depending on parental support are (very) satisfied with their financial situation: Italy, Switzerland, the Czech Republic, Norway, the Netherlands, Austria, Sweden, Ireland, and France.

Dependency on paid employment is considered by a majority of students as (very) satisfying in countries with older students, but not exclusively so; this refers to Italy, Switzerland, the Czech Republic, Norway, the Netherlands, Finland, Sweden, and Denmark.

When public support is the dominant source of income for students, only in Italy and the Czech Republic do more than 50% of the depending students (strongly) agree that this income source provides sufficient means.

Figure 4.21: Students' assessment of sufficiency of funding to cover monthly costs by finance-related characteristics – students not living with parents, 2009/10

Students with a dependency on a specific income source with (strong) agreement in %



	IT	CH	CZ	NO	NL	FI	PL	AT	SE	IE	FR	DK	LV	LT	HR	SK	TR	ES	MT	EE	PT	RO
All students	80.1	57.3	56.4	52.1	49.2	48.6	47.9	47.8	46.9	44.3	44.2	44.0	43.4	42.8	41.0	40.5	35.5	34.1	32.1	31.7	14.5	13.9
Public support	76.5	40.1	52.1	36.6	42.6	42.5	46.9	38.2	42.4	33.3	30.3	42.2	41.2	-1.0	46.8	30.4	21.1	30.4	34.5	20.0	17.6	17.3
Parental support	83.6	63.7	55.4	62.0	56.2	46.5	49.2	50.8	58.2	56.0	57.5	-1.0	46.8	46.0	43.6	43.4	42.5	34.8	35.5	33.4	18.2	14.6
Apaid employment	75.1	54.2	57.3	74.8	60.4	59	49.6	48.4	65.5	48.7	39.7	63.9	45.7	43.8	25.4	41.4	39.4	33.9	-1	33.5	7.4	12.2

Source: Eurostudent.

Conclusion

Starting from the analysis of statistical data on the participation of different societal groups in higher education, this chapter has examined the social dimension of higher education looking at policy approaches through which the EHEA countries address the under-representation.

Available data on higher education participation and attainment show that the goal of providing equal chances for all has not yet been achieved. This does not mean that no progress has been made, but it is rather that there are still areas where supplementary effort is needed. In particular, parental educational still strongly influences chances to achieve a higher education degree and, in many countries, the migratory background also limits the odds to study at this educational level. Yet, a positive point is that almost all EHEA countries claim to work towards increasing and widening participation in higher education. Most of them address this issue through the combination of a general policy approach with measures targeting specific under-represented groups. Policy actions through which the under-representation is addressed take a variety of forms. They often include financial support measures, special admission regimes, outreach programmes as well as the provision of guidance and counselling services. However, the effect of these policy actions is not always monitored and even if the monitoring takes place, its impact on the policy development is not always visible.

Within their discussions on the social dimension of higher education, the ministers have agreed to pay particular attention to selected areas of action. Alternative access routes to higher education have been identified as one of these areas. According to the results of the BFUG reporting, alternative access to higher education, which most often takes form of the recognition of prior learning, currently exists in less than half of the Bologna countries. In the rest of the countries, access to higher education is conditioned by the possession of an upper secondary school-leaving certificate. From the geographical perspective, the countries of Western Europe are characterised by higher flexibility in terms of their entry qualification requirements than other EHEA countries. However, in order to accurately evaluate the situation of each country, it is necessary to take into account a range of factors, including the rate of early school leaving as well as the question of qualification outcomes of upper secondary education.

Another theme integrated in the discussions on the social dimension of higher education – the theme of student services - appears as a complex field characterised by heterogeneity of arrangements, both at national and cross-national levels. It is therefore difficult to provide a comprehensive picture of this area in a comparative international perspective. The information collected in the framework of the BFUG reporting indicates that in most EHEA countries, higher education institutions ensure provision of a relatively wide range of student services. Yet, the reporting does not allow to fully evaluate the extent to which these services are accessible to all students and the degree of their relevance with regard to different student needs.

Finally, the analysis looked at the main patterns of higher education funding systems, relating the most important elements of national fee systems with student support. The objective was to examine whether funding systems are being oriented to support and stimulate the social dimension policy objective of widening participation. However as so many factors need to be considered for each particular country, it is difficult to draw clear conclusions on this matter. The results indicate that the diversity of fees and support systems is the most striking characteristic of higher education systems across the EHEA. The realities vary from situations where no students pay fees and all receive support to situations where all students pay fees and few receive support. Moreover, the levels of fees and support are also extremely diverse across different countries. Although the analysis does not provide a complete picture on this complex topic, it is evident that the way higher education funding systems are structured is likely to be having a significant impact on the social dimension of higher education.

Overall, the chapter shows that in many EHEA countries, there are already measures in place to address the under-representation of particular societal groups in higher education. The question however remains as to whether national higher education policy gives sufficient priority to these issues, and to what degree policy is responsive to the results achieved by particular measures.

5. EFFECTIVE OUTCOMES AND EMPLOYABILITY

This chapter discusses data and policies on effective outcomes in higher education. The concept of effective outcomes can be measured through analysis of two main factors: first, higher education attainment and completion rates and second, the labour market prospects of graduates (Eurostat & Eurostudent, 2009). This latter is usually grasped by the concept of "employability".

The Bologna context

Within the Bologna Process, employability is understood as "the ability to gain initial meaningful employment, or to become self-employed, to maintain employment, and to be able to move around within the labour market" (Working Group on Employability 2009, p. 5). In this context, the role of higher education is "to equip students with the knowledge, skills and competences that they need in the workplace and that employers require; and to ensure that people have more opportunities to maintain or renew those skills and attributes throughout their working lives" (Working Group on Employability 2009, p. 5).

Employability has been one of the central goals of the Bologna Process from the very beginning, which resulted from a concern about graduate unemployment and was also related to the emergence of a European labour market (at least within the European Union). The London Communiqué in 2007 asked the BFUG to consider how to improve employability in relation to the different cycles and in the context of lifelong learning (London Communiqué, 2007). This was done by the Employability Working Group (Working Group on Employability, 2009). Taking up some of the recommendations of the working group report, the Leuven/Louvain-la-Neuve Communiqué in 2009 emphasised the need for a "close cooperation between governments, higher education institutions, social partners and students" in "maintaining and renewing a skilled workforce" (Leuven/Louvain-la-Neuve Communiqué, 2009). The Communiqué highlighted that higher education institutions should be more responsive to employers' needs, and also emphasised the importance of work placements and on-the-job training. The objective of enhancing employability was also underlined by the Budapest-Vienna Declaration (2010).

Chapter outline

The structure of this chapter is the following. First, it looks at the main output of the higher education system: the number of tertiary education graduates. In doing so, the chapter compares tertiary education attainment levels across the EHEA. In addition, it presents information on higher education completion as well as on national policies for improving the current situation. The chapter then turns to data relevant for assessing the labour market prospects of graduates. Keeping in mind the conceptual limitations of measuring employability, the chapter first looks at unemployment ratios of higher education graduates in comparison to those with lower levels of education. Furthermore, the chapter examines the annual gross income of workers by education attainment in order to evaluate the private returns of obtaining a higher education qualification. Finally, the chapter discusses qualification mismatches.

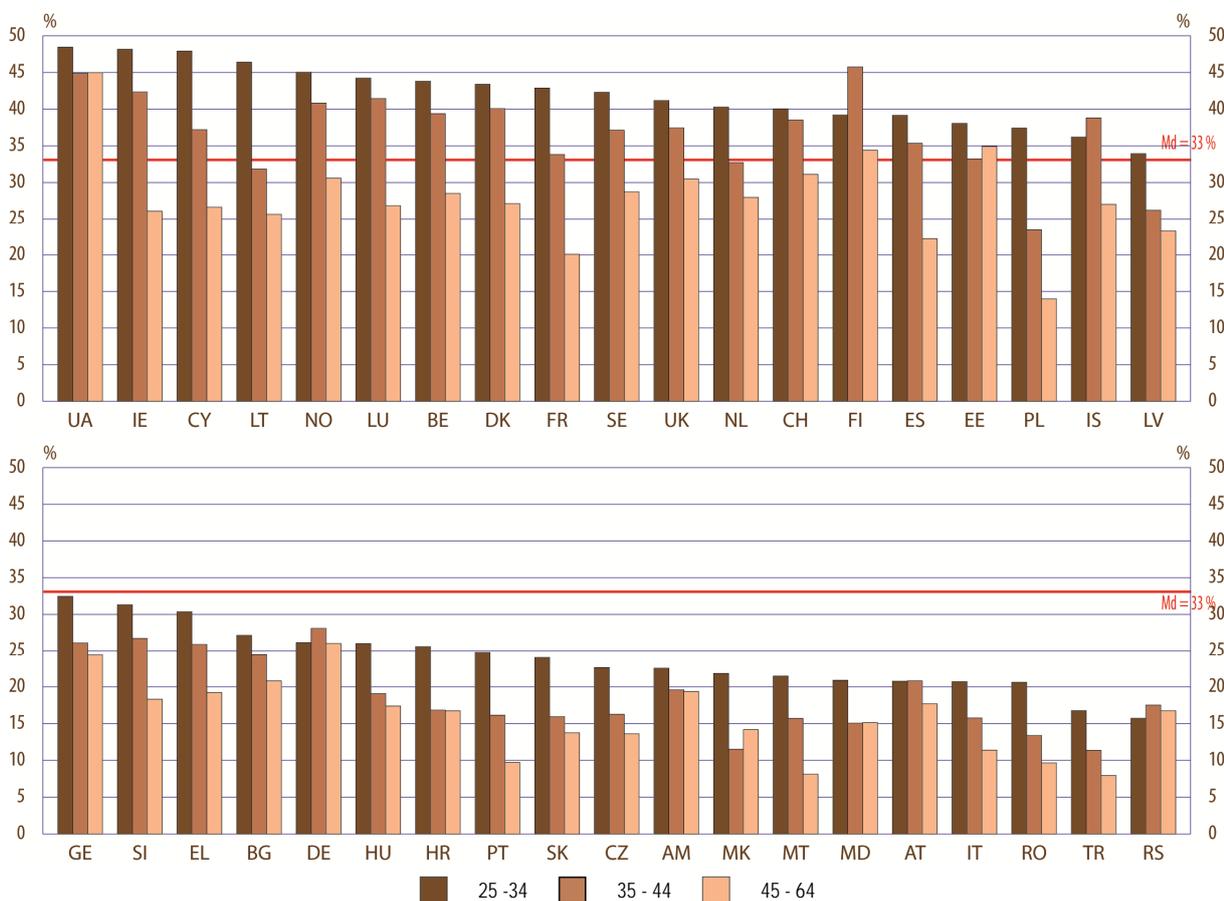
5.1. Higher education output: higher education attainment levels

An important indicator of higher education output is the share of the population having obtained a higher education qualification. Figure 5.1 shows the percentage of persons with higher education across the EHEA. In general, attainment levels are higher in younger age groups. The Bologna median value for the 25-34 age group is 33.2 %, while it is 26.5 % for the 35-44 year olds and 21.5 % for the 45-64 age group. This indicates that an increasing percentage of the population is getting a higher education degree. There are exceptions to this rule, however. In Germany, Finland, Iceland and Serbia, there are more people with a higher education qualification among the 35-44 year olds than within the younger, 25-34 age group. This can be linked to differences in the average age of entering higher education.

Among the 25-34 year olds, higher education attainment is the highest in the Ukraine (48.4 %), Ireland (48.2 %) and Cyprus (47.9 %); and the lowest in Turkey (16.8 %) and Serbia (15.7 %). Within the 35-44 age group, the percentage of persons with tertiary education is the highest in Finland (45.6 %), the Ukraine and Ireland; and the lowest in the former Yugoslav Republic of Macedonia (11.5 %) and Turkey (11.4 %). Finally, within the oldest, 45-64 age group, it is the Ukraine, Estonia and Finland with the highest tertiary education attainment levels, and Malta and Turkey with the lowest ones.

Regarding the gender balance, Chapter 4 showed that more women than men finish higher education. Moreover, the chances of men to achieve tertiary education attainment have been decreasing compared to their female counterparts (see Figure 4.4).

Figure 5.1: Percentage of persons with higher education, by age group, 2010



	UA	IE	CY	LT	NO	LU	BE	DK	FR	SE	UK	NL	CH	FI	ES	EE	PL	IS	LV
25 - 34	48.4	48.2	47.9	46.4	45.0	44.2	43.8	43.4	42.9	42.3	41.2	40.3	40.1	39.2	39.2	38.0	37.4	36.2	33.9
35 - 44	44.9	42.3	37.2	31.8	40.8	41.4	39.4	40.1	33.8	37.1	37.5	32.7	38.5	45.8	35.3	33.1	23.4	38.8	26.2
45 - 64	45.0	26.1	26.6	25.7	30.6	26.8	28.5	27.1	20.1	28.7	30.5	28.0	31.1	34.4	22.2	34.9	14.0	27.0	23.3
	GE	SI	EL	BG	DE	HU	HR	PT	SK	CZ	AM	MK	MT	MD	AT	IT	RO	TR	RS
25 - 34	32.5	31.3	30.4	27.1	26.1	26.0	25.6	24.8	24.0	22.6	22.5	21.8	21.5	20.9	20.8	20.7	20.6	16.8	15.7
35 - 44	26.1	26.7	25.9	24.4	28.1	19.1	16.8	16.2	15.9	16.3	19.6	11.5	15.7	15.1	20.8	15.8	13.4	11.4	17.5
45 - 64	24.3	18.3	19.2	20.8	26.0	17.4	16.7	9.7	13.7	13.6	19.4	14.2	8.1	15.1	17.7	11.4	9.7	7.9	16.7

Notes: Data for the Ukraine refer to 2009.
Data for Malta and Croatia lack reliability due to small sample size.
Data are sorted by attainment levels in the 25-34 age group.

Source: Eurostat, Labour Force Survey (LFS)

5.2. Completion rates and policies for improvement

Another indicator of higher education output is higher education completion, that is, whether students who enter higher education actually finish it. In the past decade, concerns over the level of completion rates have increased in a number of EHEA countries. They are linked to a series of other developments like an increased focus on accountability as well as the need for greater efficiency in resource allocation and spending. It is also closely linked to the issue of equitable access to higher education, as non-completion affects a high number of disadvantaged students.

Non-completion in higher education can be influenced by a number of factors related to the higher education institution and the individual student. They can range from inability to cope with the demands of the programme, the wrong choice of courses, the poor quality of student experience to dissatisfaction with aspects of institutional provision (Yorke & Longden, 2004, 2008). Often various factors act in combination.

This section discusses the current situation regarding non-completion in countries of the EHEA, and examines national policy approaches aiming to improve the effective outcomes of higher education systems. Because data on actual completion rates are available only for a small number of countries (sixteen), the difference between entry rates and graduation rates is also used as auxiliary information. Policy approaches are presented at the end of this section.

5.2.1. Completion rates

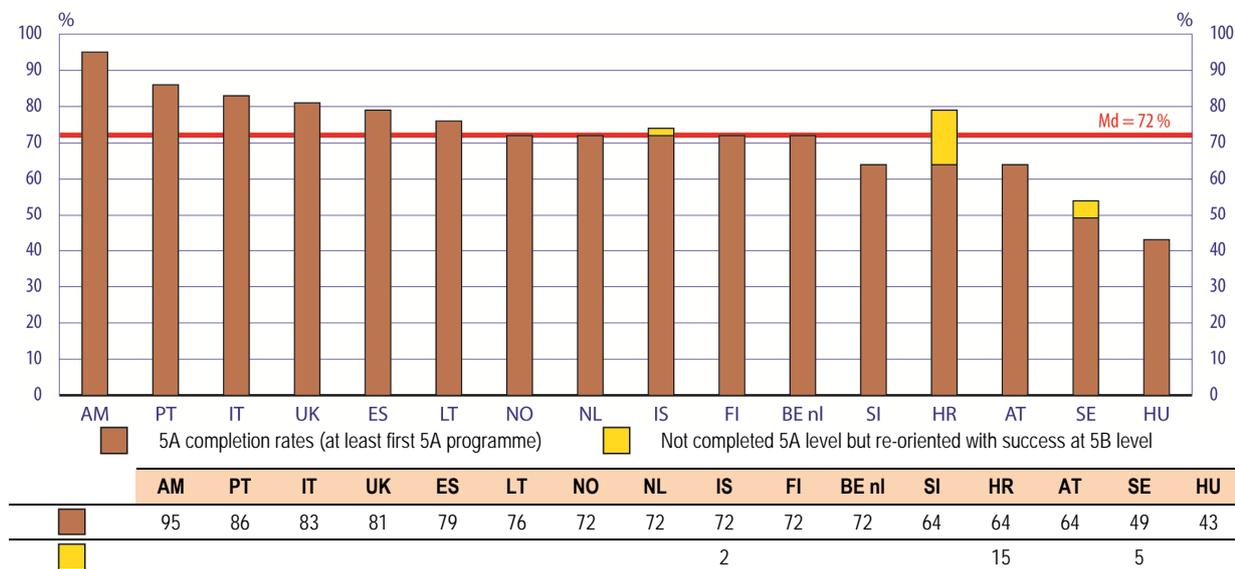
Completion rates show the percentage of higher education entrants who have successfully completed at least a first programme at ISCED 5A level. This indicator measures how effective the higher education system is in turning entrants into successful graduates. Completion rates are calculated based on two main methods. First, in some countries, higher education entrants of a given year are followed until all have dropped out or graduated (Eurostat & Eurostudent 2009, p. 122). Second, in other countries, the number of graduates in a given year is divided by the number of new entrants in the appropriate number of years before (Ibid., p. 123).

Developing a methodology for the indicator on completion rates is still in progress and data availability is limited. For the year 2008, data is available for sixteen countries of the EHEA only. For being able to make stronger conclusions, more efforts should be taken to collect comparable data and define suitable indicators.

Nevertheless, this section presents available data on completion, which will be complemented by data on entry and graduation in section 5.2.2. As Figure 5.2 shows, for countries where data is available, the median completion rate is 72 %. The completion rate is the highest in Armenia (95 %). More than 60 % of higher education entrants are graduating in almost all countries, with two exceptions. These

two countries with the lowest completion rate are Hungary (43 %) and Sweden (49 %); in Sweden, however, another 5 % of entrants are successfully reoriented towards an ISCED 5B level programme. Reorientation is quite considerable also in Croatia: in this country, above the 64 % completion rate, 15 % of higher education entrants are successfully reoriented to ISCED 5B level.

Figure 5.2: Completion rates for ISCED 5A (%), 2008



Notes: Cross-section cohort: Portugal, the United Kingdom, Lithuania, Belgium (Flemish Community), Norway, Austria, Hungary; True cohort: Italy, Spain, Finland, Iceland, the Netherlands, Croatia, Sweden; Method unknown: Armenia, Slovenia

Source: Eurostat, UOE ad-hoc module on completion rates

5.2.2. Entry and graduation rates

In order to grasp higher education completion, another possibility is to compare entry rates and graduation rates. While such a comparison is not a strict measure of educational progress (e.g. due to the difference in the length of first-cycle programmes within and across countries), it can be used as auxiliary information to assess educational outcomes. Intuitively, in order to register high educational attainment, high entrance rates need to be translated into high graduation rates (Eurostat & Eurostudent 2009, p. 120).

Net entry rates and net graduation rates are available for more countries. These rates were computed as the sum of entry rates and graduation rates, respectively, by single year of age, through every single age. The entry and graduation rates for a particular year of age, or an age range, are the ratio between the number of new entrants and graduates (first degree in the education level), respectively, of that age and the population size of the same age (for details on the calculation of the actual indicators, see the Glossary).

Figures 5.3 and 5.4 show net entry rates and net graduation rates as well as the difference between these two indicators at ISCED level 5A and 5B for the 2008/2009 academic year. In this academic year, the net entry rate was more than 60 % in half of the EHEA countries at ISCED level 5A, while the median net graduation rate was 36.2 %. The difference between the two indicators was more than 20.8 percentage points in half of the countries. The respective median levels at ISCED level 5B were 18.5 % (net entry rate), 8.5 % (net graduation rate) and 8 percentage points (difference).

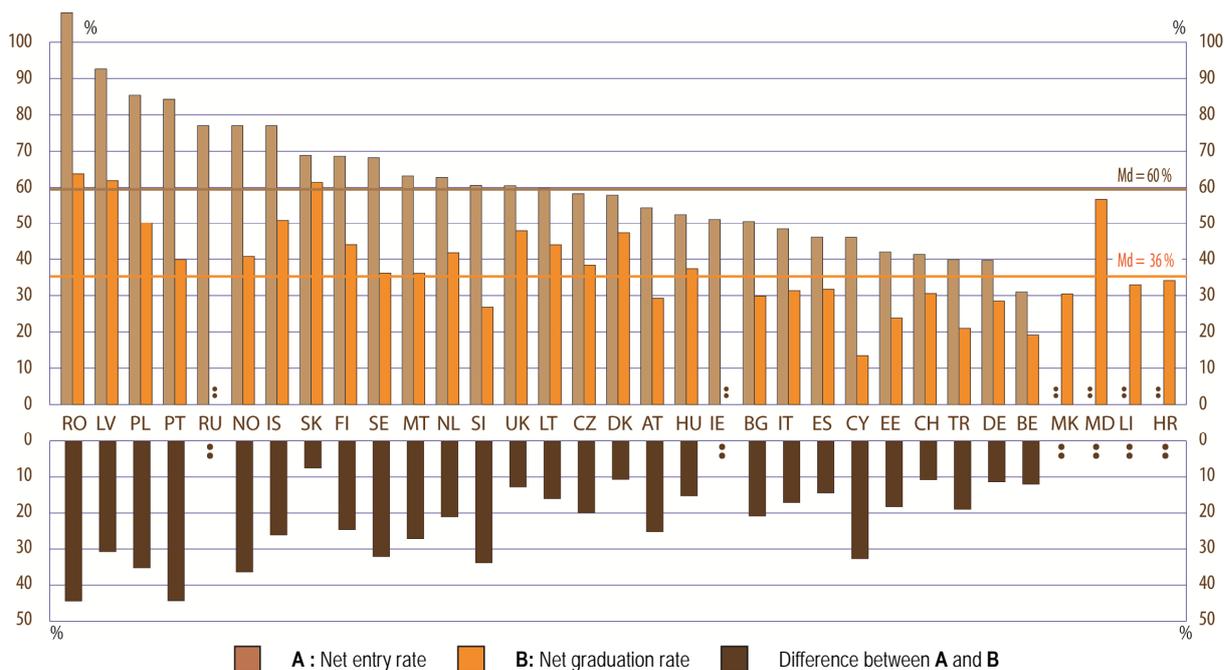
The highest net entry rates in the EHEA at ISCED level 5A for the 2008 / 2009 academic year were observed in Romania, Latvia, Poland and Portugal, all countries having more than 80 % of net entry rate.

The same countries were also amongst those with the highest differences between the net entry rate and the net graduation rate. Romania and Portugal had both a difference around 45 percentage points between the entry rate and the graduation rate. However, these large differences do not necessarily signal a large drop-out rate in these countries. In fact, as can be seen in Figure 5.2, the completion rate in Portugal is the second highest amongst the countries for which data is available. There is a time lag between entrance in higher education and graduation. In these two countries the net entry rate was increasing consistently (from 44 % in 2002 to 108 % in 2009 for Romania and from 53 % in 2006 to 84 % in 2009 for Portugal), and it takes some years for this increase in the entry rates to be reflected in the graduation rates.¹

The country with the lowest gap between the net entry rate and the net graduation rate at ISCED level 5A was Slovakia, which with an entry rate slightly over the median had one of the highest graduation rates.

At ISCED level 5B, the countries with the largest gap between net entry rates and net graduation rates were Germany, Cyprus and the United Kingdom.

Figure 5.3: Net entry rate and net graduation rate (%), ISCED level 5A, academic year 2008 / 2009



¹ The large increase of the entry rates in Romania also explains its net entry rate of more than 100%. The net entry rate is a good approximation to the probability of entering in higher education when the entry levels are relatively stable over time. However, when they increase significantly – as they have in Romania – the large number of late entrants, who did not enter in the previous years, increase the net entry rate.

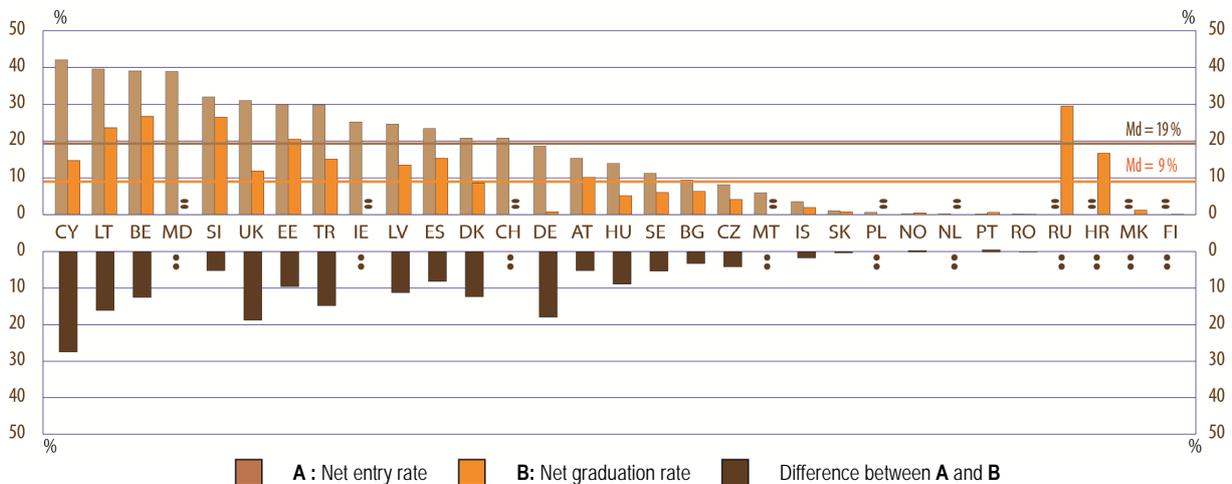
	RO	LV	PL	PT	RU	NO	IS	SK	FI	SE	MT	NL	SI	UK	LT	CZ	DK
A	108.1	92.6	85.4	84.3	77.4	77.0	77.0	68.8	68.6	68.2	63.2	62.8	60.6	60.5	59.9	58.3	57.9
B	63.8	61.9	50.2	40.0	:	40.7	51.0	61.4	44.0	36.2	36.1	41.8	26.8	47.8	44.0	38.4	47.3
A - B	44.4	30.6	35.2	44.3	:	36.3	26.0	7.4	24.6	32.0	27.1	21.0	33.7	12.7	15.9	19.9	10.6

	AT	HU	IE	BG	IT	ES	CY	EE	CH	TR	DE	BE	MK	MD	LI	HR
A	54.4	52.5	51.2	50.6	48.4	46.1	46.0	42.0	41.3	39.9	39.7	31.0	:	:	:	:
B	29.3	37.4	:	29.9	31.4	31.7	13.4	23.8	30.5	21.0	28.5	19.1	30.4	56.7	33.0	34.1
A - B	25.1	15.2	:	20.8	17.0	14.4	32.6	18.2	10.7	18.9	11.3	11.9	:	:	:	:

Notes: Data are sorted by net entry rates (where available).

Source: Eurostat, UOE data collection

Figure 5.4: Net entry rate and net graduation rate, ISCED level 5B (%), academic year 2008 / 2009



	CY	LT	BE	MD	SI	UK	EE	TR	IE	LV	ES	DK	CH	DE	AT	HU
A	42.1	39.6	39.1	38.9	31.6	30.5	29.9	29.8	25.2	24.6	23.4	20.8	20.8	18.6	15.3	13.9
B	14.7	23.6	26.7	:	26.5	11.8	20.5	15.1	:	13.5	15.3	8.5	:	0.8	10.1	5.1
A - B	27.4	16.0	12.4	:	5.1	18.7	9.5	14.7	:	11.2	8.1	12.3	:	17.9	5.1	8.8

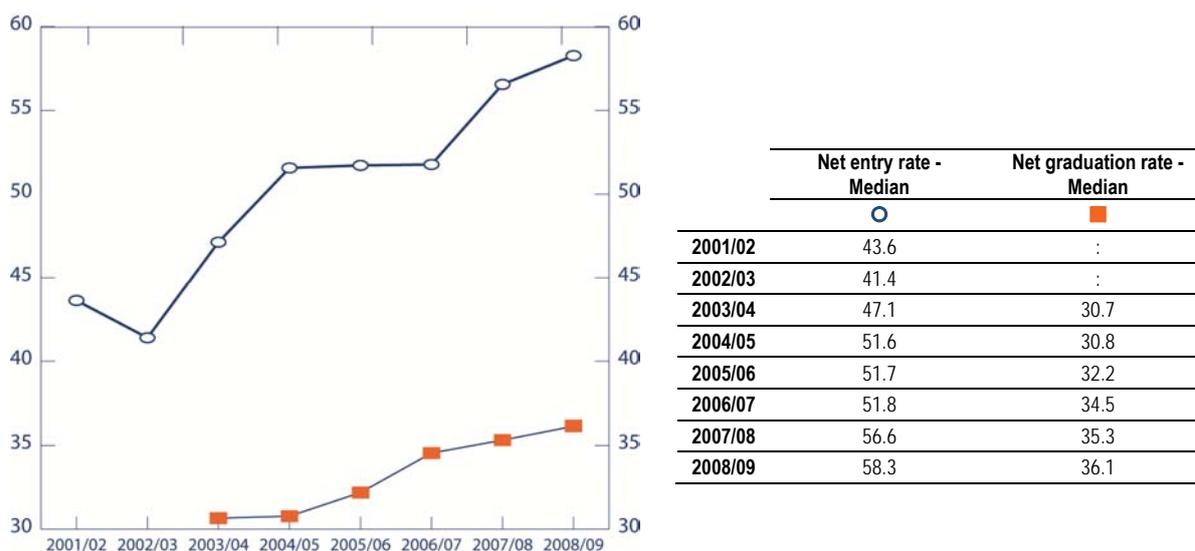
	SE	BG	CZ	MT	IS	SK	PL	NO	NL	PT	RO	RU	HR	MK	FI
A	11.2	9.4	8.1	5.9	3.5	1.0	0.6	0.2	0.2	0.1	0.1	:	:	:	:
B	6.0	6.3	4.1	:	1.9	0.7	:	0.5	:	0.6	0.1	29.5	16.6	1.1	0.1
A - B	5.2	3.2	4.0	:	1.6	0.2	:	-0.3	:	-0.5	0.0	:	:	:	:

Notes: Data are sorted by net entry rates (where available).

Source: Eurostat, UOE data collection

Figure 5.5 depicts the median net entry rate and the median net graduation rate at ISCED level 5A by academic year, from 2001 / 2002 to 2008 / 2009. The median net entry rate at ISCED level 5A increased significantly in the EHEA for most of the first decade of the 21st century, from around 44 % to around 58 %. The median net graduation rate at ISCED level 5A also increased between the academic years 2003 / 2004 and 2008 / 2009, although at a slightly lower pace, from around 30 % to around 36 %. As a result, the gap between the median entry rate and the median graduation rate at ISCED level 5A has increased from 16 percentage points to 22 percentage points.

Figure 5.5: Net entry rate and net graduation rate, ISCED level 5A (%), by academic year



Notes: Net entry rate median excludes Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Georgia, the Holy See, Kazakhstan, Lithuania, Luxembourg, Montenegro, Moldova, Russia and the Ukraine.

Net graduation rate median excludes Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, France, Georgia, the Holy See, Ireland, Kazakhstan, Luxembourg, Montenegro, Moldova, Russia and the Ukraine.

Source: Eurostat, UOE data collection

5.2.3. Policies for improving completion rates

Although the majority of the EHEA countries claim to have put in place policies to increase the level of completion of studies, there is a great variety in the scope and content of enacted measures.

Most commonly, countries report that a number of broad policy measures, although not directly targeting the increase of completion rates, are expected to contribute to the improvement of these rates. Measures that aim to promote flexible learning paths, improve student support, recognise periods of study in another higher education institution, including abroad, increase the quality of teaching and others can positively affect completion rates.

A minority of countries (Denmark, Finland, Norway, the United Kingdom (Scotland)) have adopted comprehensive national strategies that address a range of factors for non-completion. Such strategies combine initiatives at both national and institutional level and include incentives for institutions and students. Furthermore, these measures are supplemented by well developed monitoring mechanisms.

Initiatives focus on the financing of institutions and the organisation of studies. They can include a funding formula that take into account whether students have completed a Bachelor or Master programme within the prescribed study period. Moreover institutions can be required to follow-up on students that are at risk of drop out, to strengthen study guidance, student advising and flexible

learning paths. In addition, data on completion rates is included in the annual reports of institutions to the Ministry and is used to calculate the public grant for the following year.

The student support system can also have arrangements that support and encourage the timely and successful completion of studies.

Some countries report that they implement several of the above types of policy measure. Others (Armenia, Georgia, Moldova, Montenegro, Portugal, Turkey) focus on a single measure such as facilitating the transfer between programmes, repeating a course, or being able to return to higher education.

Incentives for higher education institutions

In order to encourage higher education institutions to work towards increasing completion rates, governments use a variety of steering mechanisms. Incentives for higher education institutions to improve student completion rates are usually financial in nature. In a minority of countries (Austria, Belgium (Flemish Community), Denmark, Germany, the Netherlands, Norway, Sweden, the Czech Republic, Finland, Italy, Iceland, the United Kingdom (Scotland)), public budget allocations depend in part on student completion rates. Numbers of completed credit points, student participation rates in examinations and/or statistics of awarded degrees are included in the funding formulas and/or dedicated funds.

Financial incentives to improve completion rates can target both institutions and individual students. HEIs can receive funding per student and per credit that students achieve. Therefore, there is an interest from the HEIs' side to support students in advancing through their studies. Student grant and loan systems can also be linked to how many credits the student achieves every year.

Quality assurance measures

In a minority of countries, completion rates are also considered as one of the criteria in external quality assurance procedures (Albania, Cyprus, Denmark, Liechtenstein, Latvia, Luxembourg, Italy, Poland, Slovenia the United Kingdom (Scotland)) and in the accreditation of programmes (Moldova, Slovenia, the United Kingdom (Scotland)).

Academic and personal support to students

Factors such as the wrong choice of course or subject, poor preparation and lack of readiness and commitment are commonly stated reasons for non-completion of studies. However, in a number of countries, academic guidance services, career guidance services, mentoring and psychological counselling are commonly provided (see Chapter on Social Dimension).

Recognising the fact that experience during the first year of higher education has a great impact on student completion rates, several countries have put in place special measures that concentrate on pre-admission and first year counselling and support. In some cases, these measures are specifically targeting socially disadvantaged groups or students in specific academic fields.

In France, the Plan for "Success in Bachelor's programmes" aims to raise the graduation rate from Bachelor programmes to 50 per cent by 2012. Active guidance aims to address the difficulties that some students might have in accessing relevant information.

In the United Kingdom (England), institutions are encouraged to provide clear, comparable information about their courses and thus help students to make better informed choices, which should help reduce the number who 'drop out' because they have chosen the wrong course or did not realise what higher education would entail.

In Ireland, the National Strategy for Higher Education to 2030 recommends the inclusion of induction and preparation programmes in the first-year curriculum, as well as more broad-based courses with more interdisciplinary learning opportunities. In addition, specific measures are implemented to improve progression levels in ICT/technology disciplines.

Monitoring of completion rates

Designing and implementing effective policies on completion rates needs to be supported by well-developed monitoring and reporting at both national and institutional levels.

All countries, except Georgia, Ireland and Turkey, report that completion rates are monitored at national and/or institutional levels. Data is used for the preparation of annual statistical reports, efficiency analyses, admission planning and dialogues with the stakeholders.

Completion rates are often considered important for the reputation of the individual HEI and the publication of data at institutional level can offer an incentive to improve completion rates. This is a practice reported by France, England and Switzerland.

In a minority of countries completion rates are used as one of the indicators in the framework of accountability requirements. In Denmark, each higher education institution has set a goal for completion rates in a contract with the Minister of Science, Innovation and Higher Education or the Ministry of Education which is supervised based on the data for student completion rates.

A recent retention project in the United Kingdom (Scotland) shows that all institutions have developed sophisticated information management systems which enable them to monitor, collect and analyse data on student retention. They have also developed very good reporting mechanisms and are able to integrate reporting on retention into their senior management and academic quality processes.

Countries also report that information on completion is used to inform policy and funding priorities. However, concrete examples of reports and analyses and the way they have impacted policy formulation are rare.

In Ireland, a study of Progression in Irish Higher Education was undertaken by the Higher Education Authority in 2010 and presents empirical evidence relating to the issue of progression through higher education. The report is intended as a reference document that will serve to inform policy and the development of interventions to improve rates of completion and graduation².

In the United Kingdom (Scotland), a new policy on targeted funding has been developed as a result of the analysis of previous results. All institutions will continue to receive funding aimed at improving retention but those institutions which recruit large numbers of students from the most deprived neighbourhoods will receive additional funding and will be asked to complete Outcome agreements, showing how they intend to use the funding and the retention outcomes they would anticipate that the funding will then achieve.

To sum up, it appears that in the EHEA a common understanding of the coverage and elements of completion policies has yet to emerge. Across countries policy approaches range from systematic and coherent efforts to address the issue to isolated, small scale projects, or the absence of any type of targeted measures. An important reason for the differences in approaches could be the level of public and government concerns over the issue and the related actual situation (see sections 5.2.1 and 5.2.2).

² See: <http://www.heai.ie/en/node/1386>

5.3. Graduates on the labour market: unemployment and transition from education to work

This section analyses graduates' labour market situation in the EHEA countries. As was mentioned above, according to the conceptualisation of the Employability Working Group, one aspect of employability is tertiary education graduates' ability to gain initial (and meaningful) employment. Following this definition, looking at the unemployment ratios of tertiary education graduates can be a good starting point, since these ratios can give indications about the labour market prospects of educated young people.

However, this approach to measuring employability is not without limitations. Employment and unemployment do not only depend on the quality of education young people receive. On the one hand, changes in the general state of the economy and the labour market are the most important determinants of job opportunities. On the other hand, there are many factors that influence the employment prospects of an individual, which means that not all graduates who received the same education have similar labour market opportunities. Such factors include the mode of study (full-time or part-time), the students' location and mobility, graduates' previous work experience as well as their age, gender, ethnicity or social class (Harvey 2001, p. 103). Regarding the last set of factors, the discriminatory practices graduates might face on the labour market are often overlooked by employability discussions (Morley, 2001).

These issues also highlight the difficulties of trying to measure the contribution of higher education institutions in raising graduates' employment prospects (Harvey, 2001; Little, 2001). Due to the fact that gaining meaningful employment depends on a variety of independent factors, using graduate employment and unemployment rates or ratios as indicators for higher education institutions' ability to enhance their graduates' employability might be misleading. Alternative measures include employability audits examining students' competences or graduate satisfaction surveys mapping graduates' satisfaction with their jobs after graduation (Harvey, 2001). While employability audits are based on a different conceptualisation of employability³, graduate satisfaction surveys can be useful tools if one aims to measure the "meaningful" part of the above definition (Harvey, 2001). There exist a few comparative graduate surveys⁴ dealing with job satisfaction in Europe. Their results inform discussions in sections 5.4 and 5.5.

Besides these conceptual problems, data availability also poses limitations to analysing the employability of graduates. For example, despite the fact that the employability of bachelor graduates is of concern in some countries, it is not possible to analyse the employability of first- and second-cycle graduates separately due to data unavailability.

For these reasons, this report relies on graduate unemployment ratio as the main indicator for graduates' employment prospects. In addition, an indicator on the average length of transition from education to work is included in this section. Furthermore, in order to grasp the fact that the currently used definition of employability includes graduates' ability to find a *meaningful* job, in sections 5.4 and 5.5, the report will use indicators on graduates' income and qualification mismatch as proxies for job quality. According to graduate surveys, both of these variables influence graduates' job satisfaction (Støren & Arnesen, 2011).

³ Using employability audits to construct indicators of employability assumes that employability is defined as a set of competences that graduates acquire and that employers find necessary for a given job (Harvey, 2001).

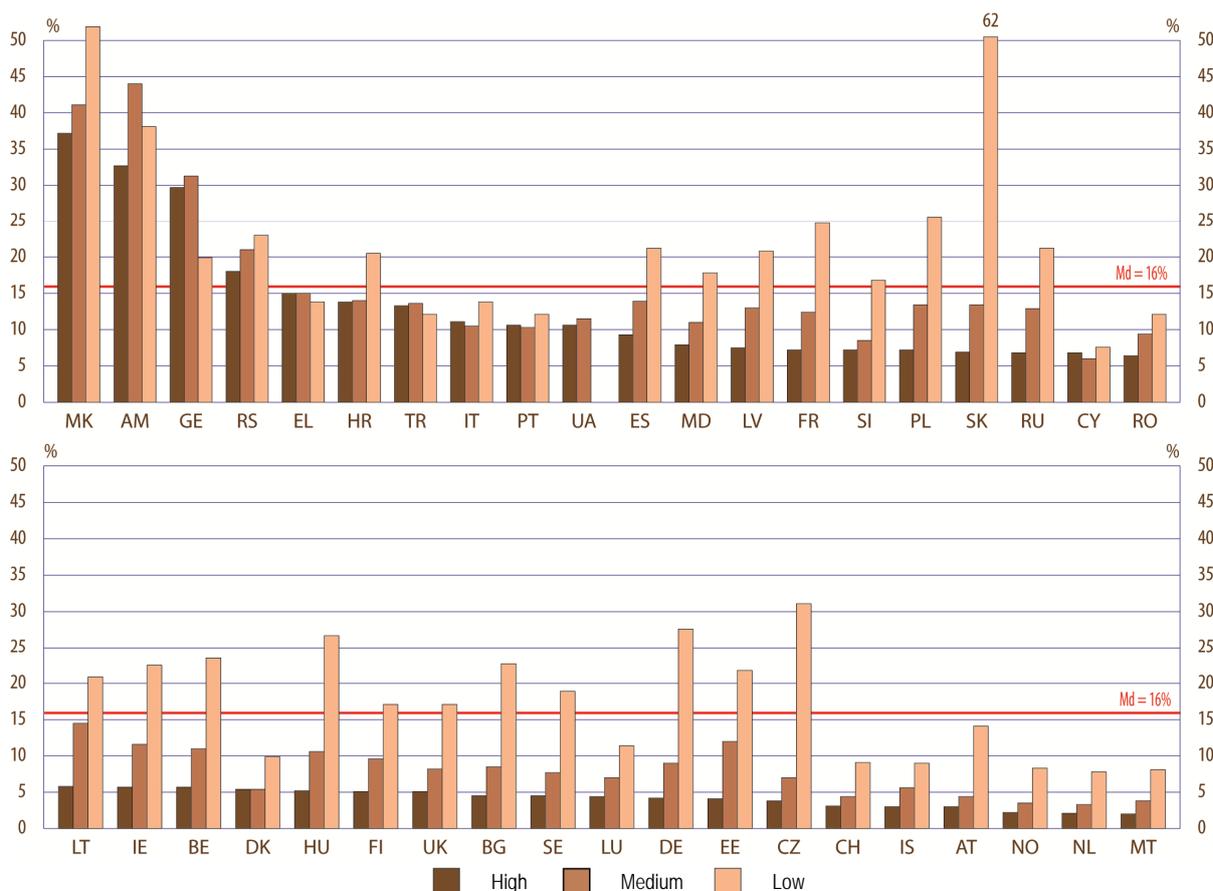
⁴ Such comparative graduate surveys include the CHEERS project, conducted between 1998 and 2000 covering twelve countries (Schomburg & Teichler, 2006; Teichler, 2007); the REFLEX project, conducted in 2005-2006 covering sixteen countries (Allen & van der Velden, 2011); and the HEGESCO project, conducted two to three years after REFLEX following its methodology in five additional countries (Allen, Pavlin & van der Velden, 2011).

Unemployment ratios provide valuable information on the relative value of tertiary education degrees. Figure 5.6 shows the unemployment ratio of people aged 20-34 by educational attainment level. Due to the small size of yearly samples, only the average of the years 2006-2010 can be presented. This does not make it possible to analyse the employment prospects of graduates in light of recent economic changes.

On average, the higher the level of education, the lower the unemployment ratio of young people is. In half of the EHEA countries, the unemployment ratio of young people with low educational attainment (ISCED 0-2) is higher than 16 %. This median ratio is 10 % for the medium educated (ISCED 3-4) and only 6 % for young people with a tertiary qualification (ISCED 5-6).

The biggest gap between the unemployment ratios of young people with low and high educational attainment is in the Czech Republic (31 % vs. 4 %) and Slovakia (62 % vs. 7 %), followed by Germany (28 % vs. 4 %). These are the countries where gaining a higher education degree improves young people's labour market prospects the most. In contrast, countries where there is practically no difference between unemployment ratios for the low and high skilled are Cyprus, Portugal, Greece and Turkey. Interestingly, in the latter two countries, the unemployment ratio of highly educated young people is even higher than that of the low educated. This is also the case in Georgia, to a much greater extent (the unemployment ratio is 20% for the low educated, 31% for the medium educated and 30% for the highly educated).

Figure 5.6: Unemployment ratio of people aged 20-34 by educational attainment level (%), average 2006-2010



	MK	AM	GE	RS	EL	HR	TR	IT	PT	UA	ES	MD	LV	FR	SI	PL	SK	RU	CY	RO
High	37.2	32.7	29.7	18.0	15.2	13.8	13.3	11.1	10.6	10.6	9.3	7.9	7.5	7.2	7.2	7.2	6.9	6.8	6.8	6.4
Medium	41.1	44.0	31.3	20.9	14.8	14.0	13.6	10.5	10.3	11.5	13.9	11.0	13.0	12.4	8.5	13.4	13.4	12.9	6.0	9.4
Low	51.9	38.1	19.9	23.0	13.8	20.5	12.1	13.8	12.1		21.2	17.8	20.8	24.7	16.8	25.6	61.7	21.2	7.6	12.1
	LT	IE	BE	DK	HU	FI	UK	BG	SE	LU	DE	EE	CZ	CH	IS	AT	NO	NL	MT	
High	5.8	5.7	5.7	5.4	5.2	5.1	5.1	4.5	4.5	4.4	4.2	4.1	3.8	3.1	3.0	3.0	2.2	2.1	2.0	
Medium	14.5	11.6	11.0	5.4	10.6	9.6	8.2	8.5	7.7	7.0	9.0	12.0	7.0	4.4	5.6	4.4	3.5	3.3	3.8	
Low	20.9	22.5	23.5	9.9	26.7	17.1	17.1	22.7	18.9	11.4	27.6	21.8	31.1	9.1	9.0	14.1	8.3	7.8	8.1	

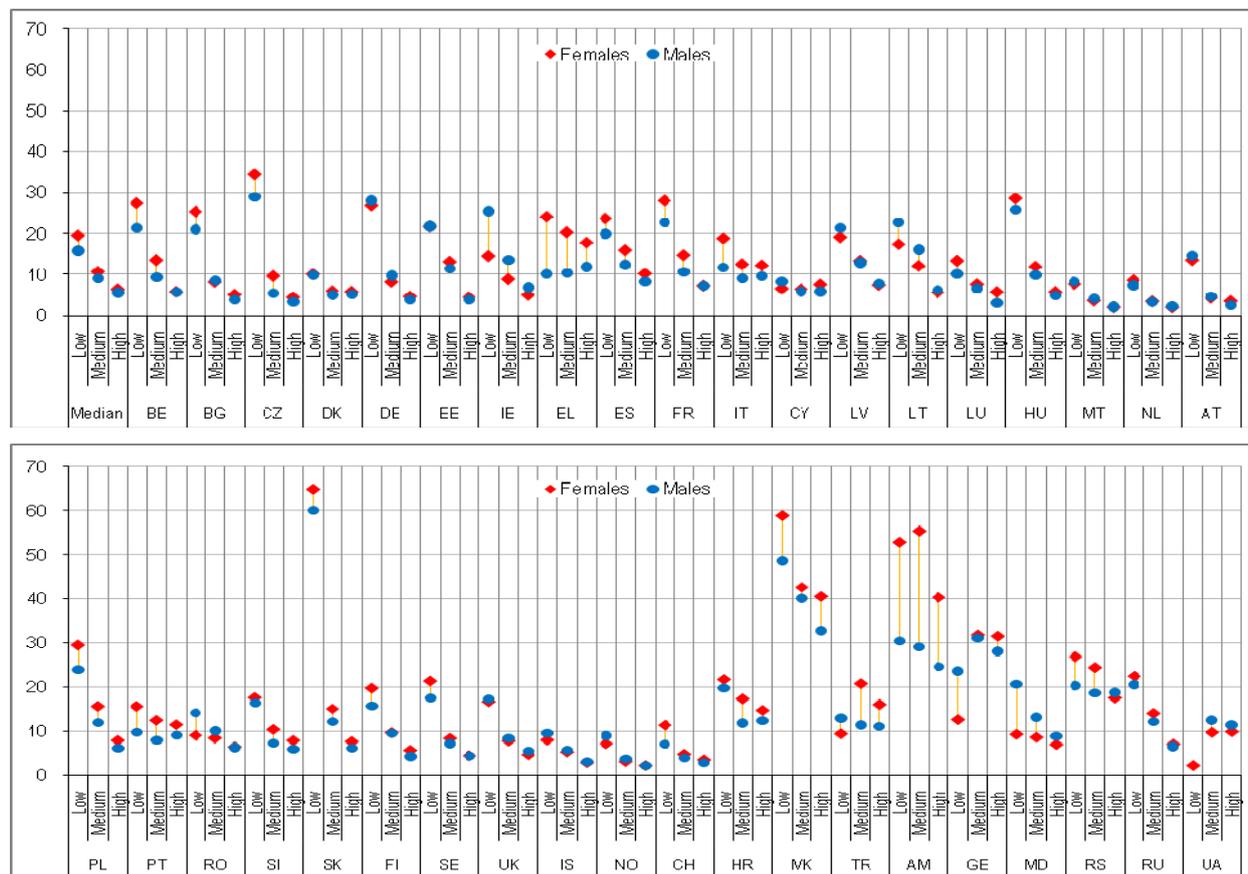
Notes: Data refers to 2010 in Georgia and Ukraine. For this reason, the Bologna median does not include these two countries.

Data are based on small sample size in most medium and small countries.

Data are sorted by the unemployment ratio of the highly educated.

Source: Eurostat, Labour Force Survey (LFS)

Figure 5.7: Unemployment ratio of people aged 20-34 by educational attainment level and by sex (%), average 2006-2010



Notes: Data refer to 2010 in Georgia and Ukraine. For this reason, the Bologna median does not include these two countries.

Data are based on small sample size in most medium and small countries. Breakdowns by gender lack reliability for the same reason in Ireland, the Czech Republic, Slovakia, Switzerland and the former Yugoslav Republic of Macedonia.

Source: Eurostat, Labour Force Survey (LFS)

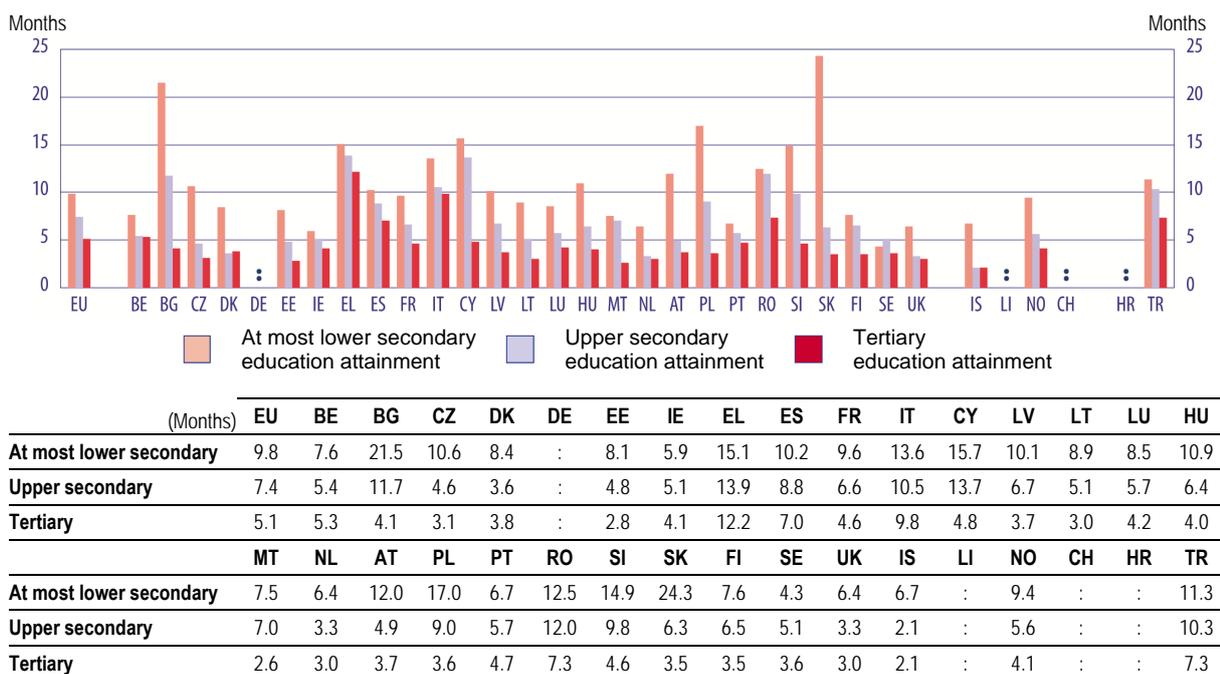
Nevertheless, as Figure 5.7 shows, the picture can be different for women and men. In the case of Greece and Turkey, for example, where there are no big differences among the unemployment ratios of people with different educational backgrounds, differences exist in the case of women. In both countries, the unemployment ratio for women is higher than that of men. However, in Greece, obtaining a higher qualification reduces the probability of unemployment for women (the female unemployment ratio of low educated women is 24 % vs. the 18 % of the highly educated). In Turkey, it is medium educated women who are in the worst situation in terms of unemployment prospects, while the unemployment ratio is the lowest for women with low educational background.

In general, the higher the level of education, the smaller the gender differences are. While the median unemployment ratio is the same for highly educated women and men in the EHEA, it is 1.17 more for women than for men among the medium educated (11 % vs. 9 %) and 1.25 more for women among the low educated (20 % vs. 16 %). So on average, obtaining a higher qualification improves women's employment prospects even more than that of men. The countries where this is not true, thus where there are relatively big differences between men and women among the low educated with male unemployment ratios being higher than female unemployment ratios are Ireland, Moldova and Georgia. However, the gender gap is reduced in the highest education category also in these countries. In Georgia however, as was discussed above, while the differences between men and women are smaller among the highly educated, the unemployment ratio is higher for them than for the low educated. The biggest differences between the unemployment ratios of women and men, regardless of educational attainment, are in Armenia.

Another way of comparing the employment perspectives of young people with different educational attainment levels is to examine the average lengths of transition from education to work (Figure 5.8). The duration of this transition period is defined as the difference between the date when leaving formal education for the last time and the date when starting the first job of at least 3 months (EACEA/Eurydice 2012, p. 179). As was described in *Key Data on Education in Europe 2012*, in all countries, people with high educational attainment find their first job position faster than the group of people with only secondary education (EACEA/Eurydice 2012, p. 178). This means that higher educational attainment does not only reduce the chances of unemployment, but also implies shorter search periods. Differences in the average length of transition between people with low and high educational attainment are the biggest in Slovakia, Bulgaria and Poland.

Among the highly educated, the average transition from education to work was the longest in Greece (12.2 months) and Italy (9.8 months) in 2009. The shortest average search periods were registered in Iceland, (2.1 months), Malta (2.6 months) and Estonia (2.8 months).

Figure 5.8: Average length of transition from education to work by educational attainment level, 2009



Notes: The duration of the transition from education to work is calculated as the difference between the date when leaving formal education for the last time and the date when starting the first job of at least 3 months. Results refer to people who had a first significant job. The indicator is calculated by dividing the number of employed people within age group 25-64 years having attained a specific level of education, by the total population of the same age group.

Most results are based on responses of people who left formal education within the last 5 years to avoid recall problems on dates of transition events. This is particularly the case for the United Kingdom where the rate of no answers to the 'date of first job' was significantly high beyond that threshold. The 5-year period also appears to be the most appropriate threshold value given the sample size per country. In some countries, compulsory military or community service contributes to a longer average duration of transition. This is the specially the case for Bulgaria (1.2 months), Greece (4.3 months), Cyprus (2.6 months) and Austria (1.5 months). Other countries have either few or no people in these cases.

Source: Eurostat, Labour Force Survey (LFS) ad-hoc module

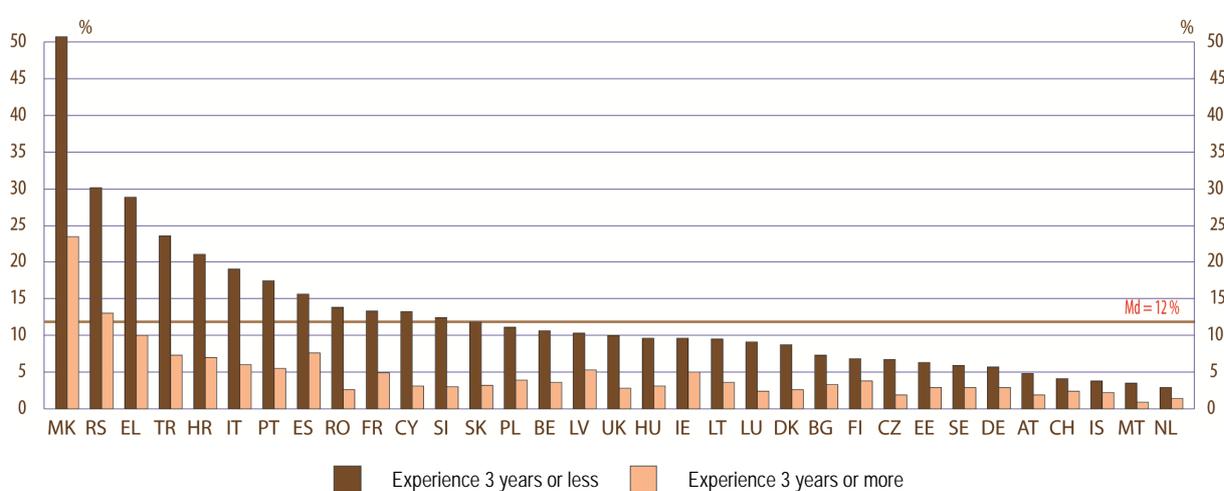
Besides making the comparison among young people with different educational attainment levels, one can also take a closer look at differences among the highly educated. Figure 5.9 depicts the unemployment ratio of tertiary education graduates aged 20-34 by the number of years since graduation (again the average of the years 2006-2010). The graph differentiates between young people who graduated three years or less before data collection ($\leq 3Y$) and those whose graduation was more than 3 years before data collection ($> 3Y$). This indicator captures the labour market entry prospects of recent graduates in comparison to the employment situation of more experienced young people.

Overall, the unemployment ratio of recent graduates is considerably higher than that of more experienced young people. In half of the EHEA countries, the unemployment ratio of recent graduates is higher than 11.7 %, which is more than three times more than the median ratio for young people three or more years after graduation (3.4 %). Countries with the largest gap between recent graduates and those with more experience are Cyprus (13.2 % and 3.1 %), Romania (13.8 % and 2.6 %) and Slovenia (12.4 % and 3 %); while countries with the smallest gap are Finland (6.8 % and 3.8 %), Iceland (3.8 % and 2.2 %) and Switzerland (4.1 % and 2.4 %).

This discrepancy between recent graduates and more experienced young people is relatively similar in the case of women and men (see Figure 5.10 depicting unemployment ratios for women and men separately). In approximately two thirds of the countries where data is available, the gap is slightly bigger in the case of men than in the case of women.

In sum, these data show that while obtaining a tertiary qualification improves the employability of young people in most countries, recent graduates face difficulties in the labour market. This conclusion again highlights problems concerning the evaluation of higher education institutions' performance based on unemployment indicators. One potential way to interpret these data is that employers value factors such as work experience in their employment decisions. These factors are clearly outside higher education institutions' control. Nevertheless, one can also argue that including work placements in higher education programmes might help to change current unemployment patterns.

Figure 5.9: Unemployment ratio of tertiary education graduates aged 20-34, by the number of years since graduation (%), average 2006-2010



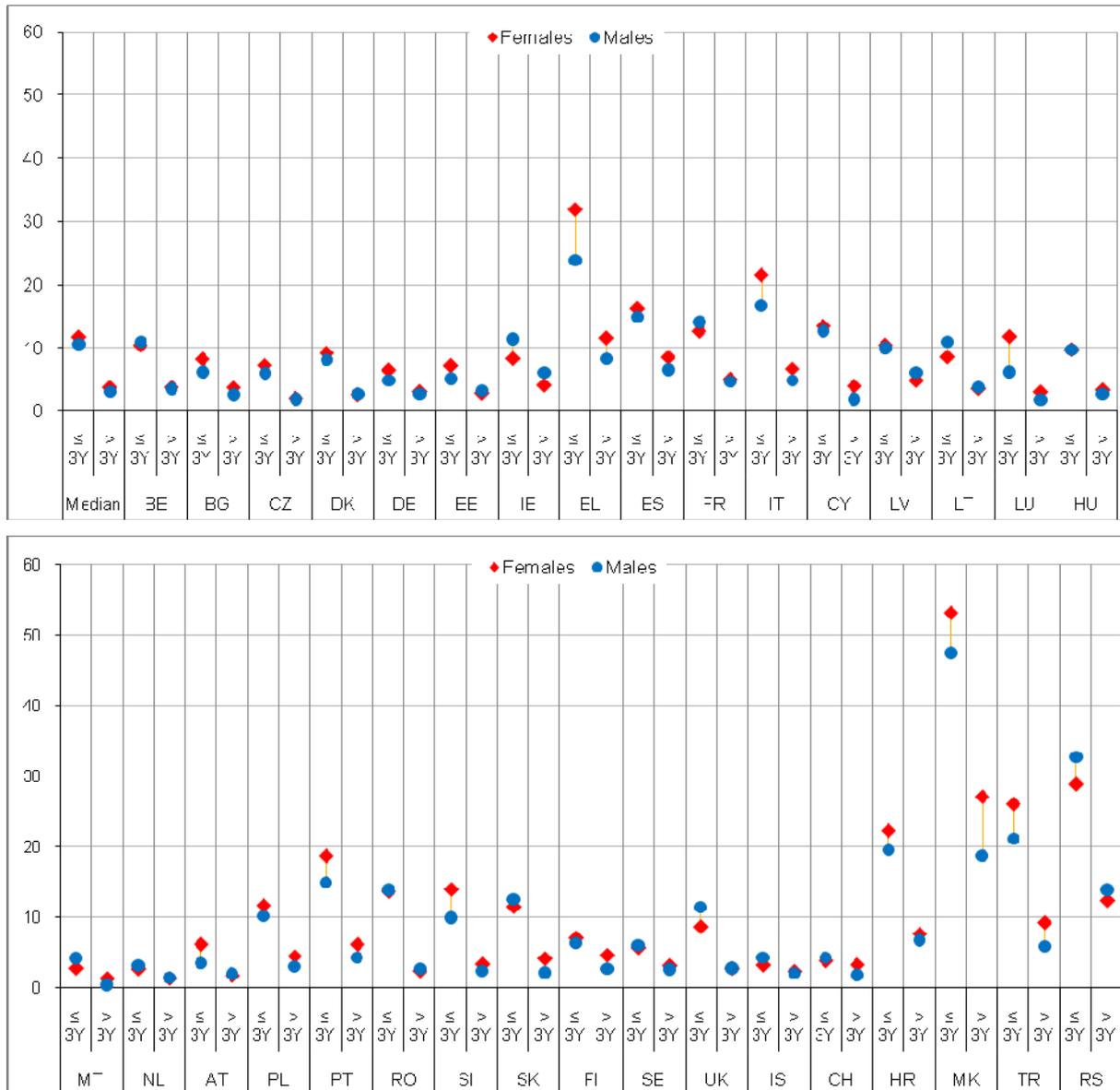
	MK	RS	EL	TR	HR	IT	PT	ES	RO	FR	CY	SI	SK	PL	BE	LV	UK
3 years or less	50.7	30.2	28.9	23.5	21.3	19.5	17.4	15.6	13.8	13.3	13.2	12.4	11.8	11.1	10.6	10.3	10.0
4 years or more	23.4	13.0	10.0	7.3	7.3	6.0	5.5	7.6	2.6	4.9	3.1	3.0	3.2	3.9	3.6	5.3	2.8
	HU	IE	LT	LU	DK	BG	FI	CZ	EE	SE	DE	AT	CH	IS	MT	NL	
3 years or less	9.6	9.6	9.5	9.1	8.7	7.3	6.8	6.7	6.3	5.9	5.7	4.8	4.1	3.8	3.5	2.9	
4 years or more	3.1	5.0	3.6	2.4	2.6	3.3	3.8	1.9	2.9	2.9	2.9	1.9	2.4	2.2	0.9	1.4	

Notes: Data are based on small sample size in most medium and small countries.

Data are sorted by the unemployment ratio of recent graduates (graduated 3 years or less before data collection).

Source: Eurostat, Labour Force Survey (LFS)

Figure 5.10: Unemployment ratio of tertiary education graduates aged 20-34, by the number of years since graduation and by sex (%), average 2006-2010



Notes: Data are based on small sample size in most medium and small countries.

Source: Eurostat, Labour Force Survey (LFS)

5.4. Private returns on education: income and educational attainment

The expected income of people with tertiary qualifications forms part of discussions on graduates' labour market prospects. The assumption is that higher educational attainment – and thus higher levels of investment in education – should be compensated by better paid jobs after graduation. Following the above concept of employability, the definition of a "meaningful" job may include the income (seen as the economic reward) that is received for it. Graduate surveys indeed find a positive relationship between wages and job satisfaction (see e.g. Støren & Arnesen, 2011). Nevertheless, using income-based indicators for measuring employability have similar limitations as indicators on employment and unemployment.

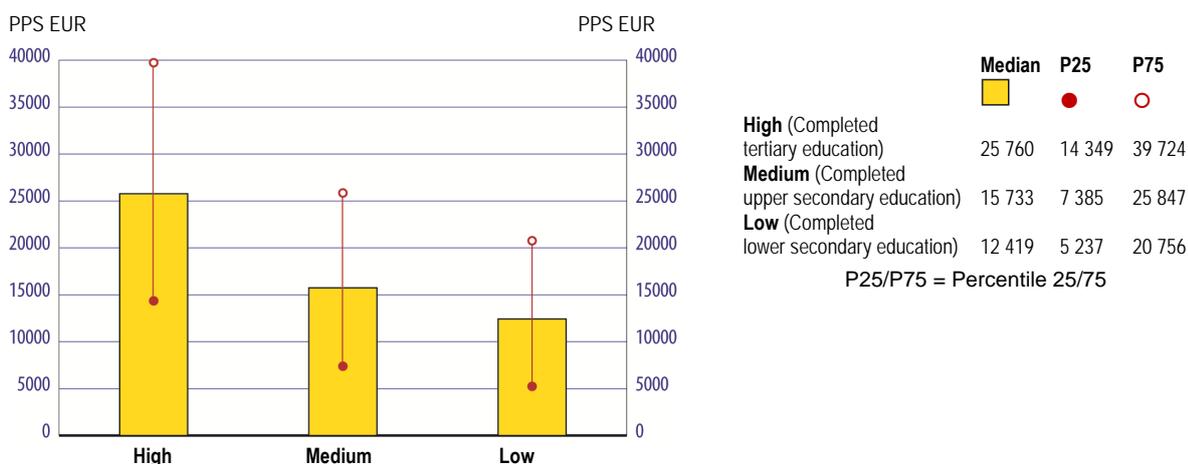
The assumption about the relationship between educational attainment and income generally holds true in the EHEA, though the extent of returns on education varies across countries. Figure 5.11 shows the median, the 25 % percentile and the 75 % percentile of workers in the EHEA by educational attainment, confirming the added value of receiving a higher education qualification. Completing tertiary education has a significant impact on gross income. In 2010, the median income of those with tertiary education was the double of those who only completed lower education and 60 % higher than that of those only completing upper secondary. For those with tertiary education only 25 % had an annual gross income of less than 15 000 Euros in Purchasing Power Standard (PPS) (25 % percentile), while half earned at least 26 000 (median) and 25 % earned more than 40 000 (75 % percentile).

However, tertiary education is not a guarantee for higher income. 25 % of those who completed only lower secondary levels of education earned more than 20 000 Euros PPS, while 25 % of those who completed tertiary education earned less than 15 000. Such differences in wages can be potentially linked to the fact that not all tertiary graduates are occupying jobs that require a tertiary qualification (see section 5.5).

Figure 5.12 depicts percentage differences between the median annual gross income of workers with tertiary and with lower levels of education by country. In 2010, in every country the median gross income of those who completed tertiary education was higher than of those who completed only upper secondary or lower secondary education.

The effect of completing tertiary education instead of upper secondary on the median income ranged from around 20 % in Sweden and Denmark to 100 % in Portugal, Lithuania and Latvia. Differences between the median earnings of people with tertiary and primary education are even more diverse. The countries with the smallest differences (around 60 %) are Belgium and France, while in Switzerland the median income of workers with tertiary qualifications is more than 300 % of those who completed only the primary level of education. Such a high percentage indicates a very high premium on gaining a tertiary education degree.

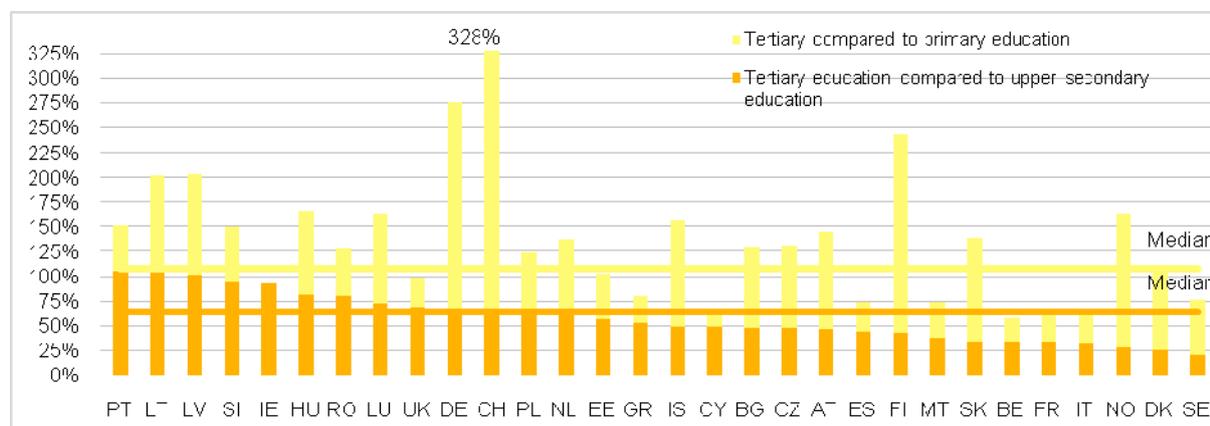
Figure 5.11: Median, 25 % percentile and 75 % percentile of annual gross income of employees in the EHEA by educational attainment, in PPS EUR, 2010



Notes: Excludes Albania, Andorra, Armenia, Azerbaijan, Bosnia-Herzegovina, Croatia, Georgia, Kazakhstan, Liechtenstein, Moldova, Montenegro, Russian Federation, Serbia, the former Yugoslav Republic of Macedonia, Turkey and Ukraine.

Source: Eurostat, EU-SILC (Statistics on Income and Living conditions)

Figure 5.12: Percentage difference between median annual gross income of employees with tertiary education and with a lower level of education, 2010



Notes: Data refer to 2009 for Cyprus and Ireland.

Data are sorted by percentage differences between the median annual gross income of workers with tertiary education and with upper secondary education.

Source: Eurostat, EU-SILC (Statistics on Income and Living conditions)

5.5. Higher education qualifications and labour market demand: qualification mismatches

Tertiary education graduates do not only have to find a (well-paying) job after graduation, but ideally they have to find a "meaningful" one that matches their knowledge and skills acquired through education. If there is an imperfect matching between educational attainment and the educational requirements of an occupation, we are dealing with the phenomenon of skills (or qualification) mismatch. The most commonly referred mismatch is vertical mismatch, in which case there is a discrepancy between the acquired and required **level** of education or skills (Cedefop 2010, p. 13). According to graduate surveys, being vertically mismatched has a strong negative influence on job satisfaction (Støren & Arnesen, 2011).

Vertical mismatch at the individual level can take the form of overeducation or undereducation. Overeducation can be the most easily grasped as overqualification: an individual is overqualified if he or she has a higher qualification than what the job requires (Cedefop 2010, p. 13). Conversely, underqualification refers to having a lower qualification than what is required by a given job (Ibid.). Certainly, there might be a discrepancy between an individual's qualification level and his or her skills and abilities to perform certain jobs. This means that overeducation can also be only formal (Ibid.). In other words, it is possible that an individual has formally too high qualifications and at the same his or her actual competences match the job requirements. Nevertheless, examining overqualification rates (i.e. the proportion of people working in occupations for which their qualification is too high) can be a useful starting point when one attempts to evaluate tertiary education based on employability criteria.

The phenomenon that tertiary education graduates take up jobs requiring lower qualifications can occur for different reasons. First, it might indicate that tertiary education institutions were not able to match employment needs by providing graduates with the necessary skills (see Allen & de Weert, 2007). In this case, employability-enhancing measures can contribute to decreasing overqualification rates. However, as was discussed in section 5.3, there are many other factors influencing qualification mismatches that are outside higher education institutions' control. For example, there might not be enough jobs demanding higher qualifications for the amount of tertiary graduates. This phenomenon can be referred to as skills surplus⁵ and might be reduced by fostering innovation as well as via labour market forecasting and examining the relationship between the education system and labour market needs. Or else, graduates might not find or get the matching jobs due to labour market imperfections or discrimination. Different overqualification rates for women and men or for the foreign born and natives⁶ can indicate such problems, especially in comparison with participation rates. In this case, adequate policy responses concentrate mainly on the labour market.

This section looks at overqualification rates defined as the percentage of young people with tertiary education occupying a post not regarded as necessitating a tertiary qualification (ISCO occupation level 4 to 9). Relying on such an indicator has many limitations, however. First of all, assigning a fixed educational level to a given occupational category is relatively rigid and cannot adapt fast to the changing world of work. It also overlooks differences within the same occupation category (van der Velden & van Smoorenburg 1997, p. 1). For these reasons – while having its own caveats – self-assessment is found to be a more accurate measurement of vertical mismatch than methods based on occupational classifications (van der Velden & van Smoorenburg, 1997). In addition, even if one tries to measure vertical mismatch based on occupational classifications, a more detailed job-category

⁵ Skills surplus occurs "when the supply of people with a particular skill exceeds the demand for it" (Cedefop 2010, p. 13).

⁶ Based on data from 2009, Eurostat (2011b, p. 76) concludes that "in the age group 20-64, the overqualification rate of foreign born persons in the EU is much higher than the overqualification rate of the total population (33% to 21%)".

list is needed than the 9-level scale used in this report (Koucký & Zelenka, 2011). Nevertheless, such an indicator can serve as a starting point for further analysis.

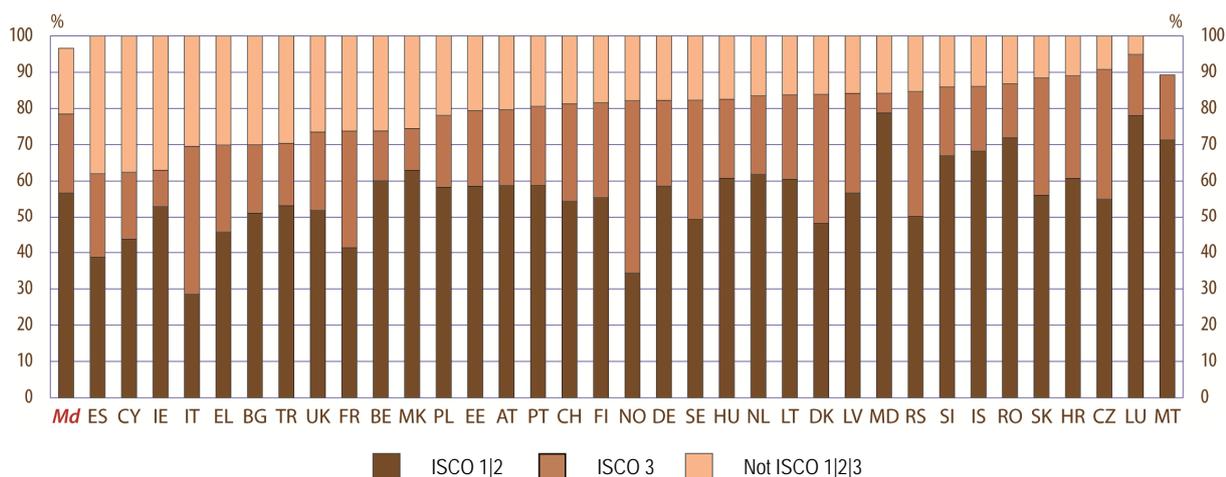
Based on data from 2010, Figure 5.13 shows the percentage of people aged 25-34 who are employed in occupations usually requiring tertiary qualifications (ISCO 1, 2 and 3) and those who are not. Data is not available for the whole EHEA. In countries where data is available, roughly one fifth (20.6 %) of young people with tertiary education can be regarded as overqualified for the job they occupy, thus are employed in occupations not requiring tertiary qualifications. This percentage remained quite stable between 2000 and 2010, despite the growing participation rates and the "massification" of higher education (see Chapter 1). This suggests that overqualification rates are influenced more by labour market structures and innovation than by the growing number of students. The median overqualification rate is available is 17.8 %.

Among the countries for which data is available, there are six with an overqualification rate around or above 30 %: Bulgaria (30 %), Greece (30.1 %), Italy (30.4 %), Ireland (37 %), Cyprus (37.6 %) and Spain (38 %). The seven countries with overqualification rates under 15 % are Slovenia (14.1 %), Iceland (13.9 %), Romania (13.2 %), Slovakia (11.6 %), Croatia (11 %), the Czech Republic (9.2 %) and Luxembourg (5.1 %).

On average, among young people with tertiary qualifications occupying ISCO 1, 2 or 3 posts, one third is employed in ISCO 3 jobs and two thirds have jobs in the highest, ISCO 1 and 2 categories. This means that overall, around half (56 %) of young people with tertiary qualifications are employed in ISCO 1 and 2 posts in the EHEA. The median rate for those employed in ISCO 1 and 2 posts is 56.7 %.

Countries with the lowest share of people with ISCO 3 posts are Belgium, Ireland, Romania, the former Yugoslav Republic of Macedonia and Moldova. There are two countries where more young people have ISCO 3 jobs than ISCO 1 and 2: Italy and Norway.

Figure 5.13: Percentage of people with tertiary education (ISCED 5-6) 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 or 3 (2010)



	MD	ES	CY	IE	IT	EL	BG	TR	UK	FR	BE	MK	PL	EE	AT	PT	CH	FI
ISCO 1 2	56.7	38.7	43.7	53.0	28.5	45.7	51.2	53.2	51.9	41.3	60.1	63.0	58.3	58.6	58.8	58.7	54.4	55.5
ISCO 3	21.7	23.3	18.8	10.0	41.0	24.3	18.8	17.2	21.6	32.4	13.7	11.5	19.8	20.8	20.9	21.9	26.8	26.2
Not ISCO 1 2 3	18.1	38.0	37.6	37.0	30.4	30.1	30.0	29.6	26.5	26.2	26.2	25.5	21.9	20.6	20.4	19.4	18.7	18.4
	NO	DE	SE	HU	NL	LT	DK	LV	MD	RS	SI	IS	RO	SK	HR	CZ	LU	MT
ISCO 1 2	34.4	58.6	49.3	60.8	61.9	60.5	48.0	56.7	78.8	50.3	67.0	68.3	71.9	56.1	60.8	55.0	78.0	71.4
ISCO 3	47.8	23.6	33.0	21.7	21.7	23.2	35.9	27.4	5.5	34.4	18.9	17.9	14.9	32.3	28.3	35.8	16.9	17.9
Not ISCO 1 2 3	17.8	17.8	17.7	17.5	16.5	16.3	16.1	15.8	15.8	15.3	14.1	13.9	13.2	11.6	11.0	9.2	5.1	:

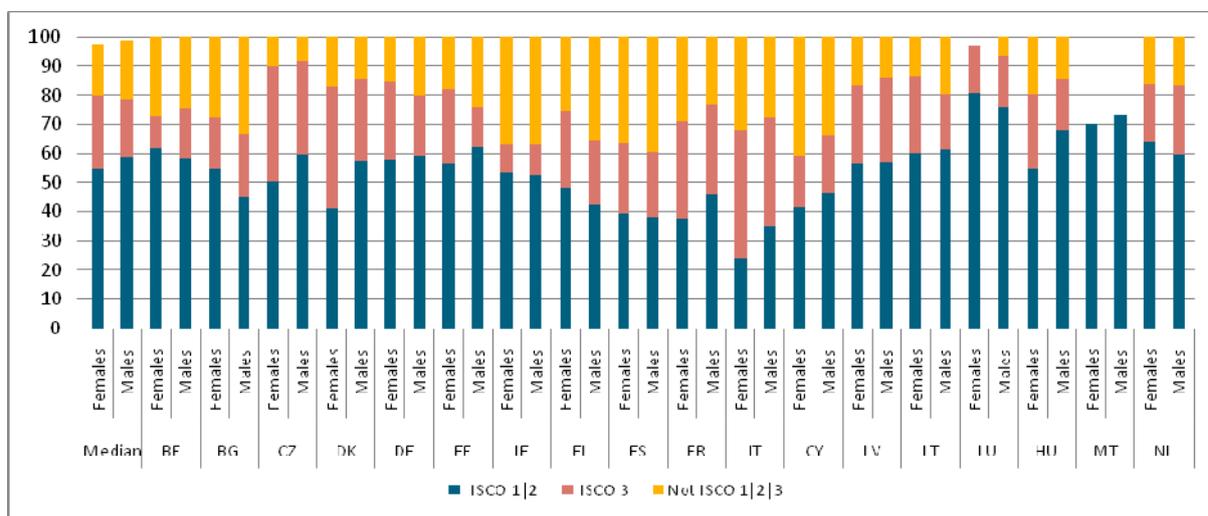
Notes: Data for Luxembourg, Malta, Slovenia, Croatia and the former Yugoslav Republic of Macedonia lack reliability due to small sample size. Certain results are not published for Luxembourg, Malta and Iceland due to very low sample size.

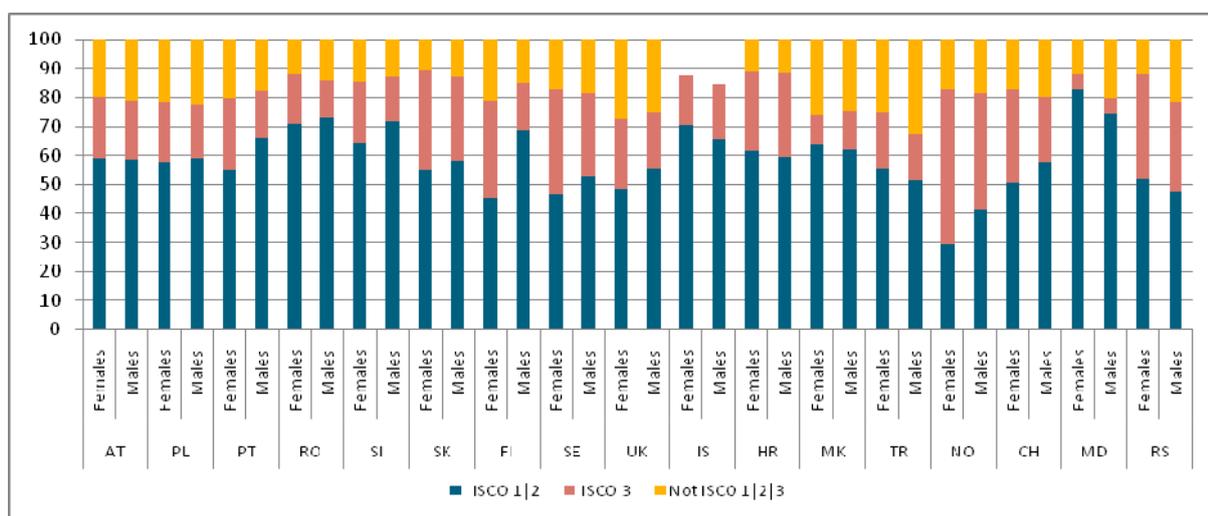
Data are sorted by the percentage of people not working in ISCO 1, 2 or 3.

Source: Eurostat, Labour Force Survey (LFS)

There are no big differences between female and male overqualification rates (see Figure 5.14). On average, women are slightly more likely to take up jobs under the level of their qualifications, but countries differ a lot in this regard. For example, in Moldova and Russia, young men are almost twice as likely to be overqualified than women, while in Finland and Hungary, young women are around 1.4 more in this situation.

Figure 5.14: Percentage of people with tertiary education (ISCED 5-6) 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 or 3, by sex (2010)





Notes: Data for Luxembourg, Malta, Slovenia, Croatia and the former Yugoslav Republic of Macedonia lack reliability due to small sample size. Certain results are not published for Luxembourg, Malta and Iceland due to very low sample size.

Source: Eurostat, Labour Force Survey (LFS)

Figure 5.15 depicts vertical mismatch by the field of study of tertiary education graduates. Due to insufficient yearly data, the figure shows the average of the years 2006-2010. Data shows that young people with a qualification in "services"⁷ are the most likely to take up jobs under their qualification level. On average, almost half (47.7 %) of young people are overqualified in this field. Among the countries where data is available, Greece and Cyprus are the countries with the highest overqualification rate in services, with over three quarters of young people occupying posts below their qualification level (76.2 % in Greece and 81.5 % in Cyprus). The overqualification rate in services is the lowest in the Czech Republic, but it is also 29.8 %.

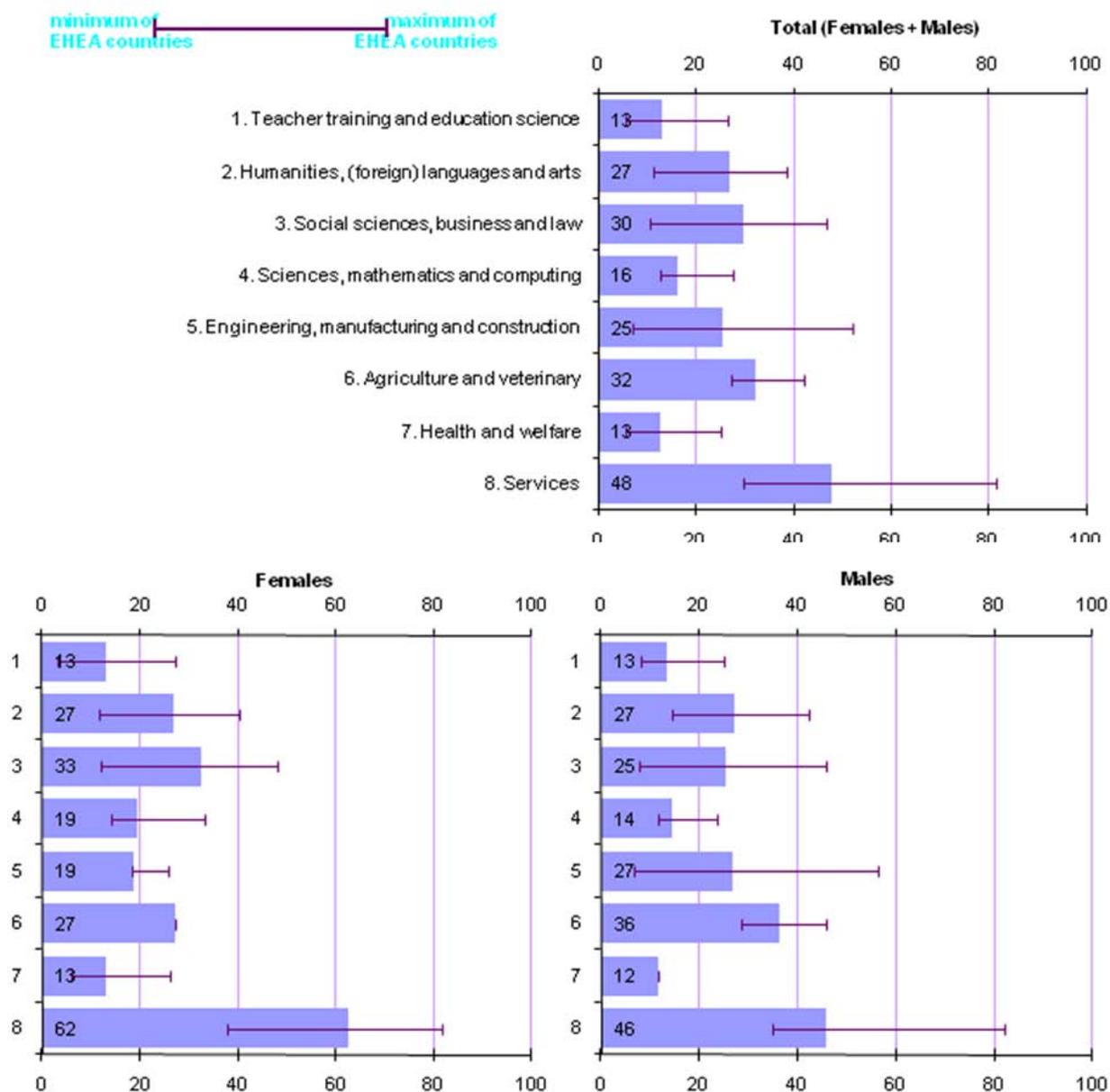
Study fields with the lowest overqualification rates are teacher training and education science (13.1 %) and health and welfare (12.8 %). Again, countries differ: overqualification rates in teacher training and education science range from 5.7 % (Turkey) to 26.6 % (Spain); in health and welfare from 5.5 % (Czech Republic) to 25.1 % (Spain). However, it has to be stressed again that data is not available for all countries in all study fields.

General trends are similar in the case of women and men, though women are more likely to be overqualified in the services field, as well as in social sciences, business and law and in the field of sciences, mathematics and computing. There is a higher vertical mismatch for men in the fields of engineering, manufacturing and construction as well as after agricultural and veterinary studies. In engineering, manufacturing and construction, the range of overqualification rates is much broader in the case of men than in the case of women. While overqualification rates for men in this sector are relatively low in the Czech Republic (6.8 %), more than half of men are overqualified in Spain (56.4 %).

In sum, there are large differences between countries and study fields regarding graduates' abilities to find jobs matching their qualification level. However, limitations of the figures stemming from potential discrepancies between qualifications and skills levels as well as from the reliance on ISCO classifications have to be kept in mind. More in-depth analyses are required to investigate the extent of vertical mismatch and the reasons behind country and study field differences.

⁷ "Services" include a wide range of occupations from restaurant and tourism to defence and military services (for more details, see the ISCED classification for fields of education, e.g. Andersson & Olsson, 1999).

Figure 5.15: Percentage of people aged 25-34 with tertiary education (ISCED 5-6) who are vertically mismatched (not in ISCO 1, 2 or 3) by field of study and sex, average 2006-2010



Notes: Figure will be updated to include the median.

Source: Eurostat, Labour Force Survey (LFS)

5.6. Conclusion

Raising attainment and completion rates and improving graduate employability continue to be a challenge in the EHEA. However, limits in measuring employability and gaps in data availability hinder the comparison of the current situation.

Within the EHEA, an increasing proportion of the population is obtaining a higher education qualification. Regarding higher education completion, data availability is limited and the methodology of developing a suitable indicator is still in progress. For 2009, completion rates are available for only 16 countries, for which the median rate is 72 %. Available data point towards differences between systems. The diversity of the current situation is confirmed by statistical information on net entry and graduation rates. Moreover, although the majority of the EHEA countries report to have put in place policies to increase completion levels, there is a great variety in the scope and content of enacted measures. Only a small minority of countries have adopted comprehensive national strategies that address a range of factors for non-completion. Such strategies combine initiatives at both national and institutional level and include incentives for institutions and students. Furthermore, these measures have been supplemented by well-developed monitoring mechanisms. Other countries report that broad policy initiatives, although not directly targeting the increase of completion rates, are expected to contribute to the improvement of these rates. In other cases there are either only isolated, small-scale projects or no targeted measures to tackle this problem.

Although the notion of "employability" is widely used in policy debate, there are problems in defining the indicators that can reliably show whether the situation is improving or worsening. Instead, data usually reflect the labour market situation for higher education graduates in relation to people with lower educational attainment levels. Statistical information on unemployment ratios shows that while obtaining a tertiary qualification improves the employment prospects of young people in most countries, recent graduates can face difficulties entering the labour market. In half of the EHEA countries, the unemployment ratio of recent graduates is higher than 11.7 %, which is more than three times the median rate for young people three or more years after graduation. Furthermore, around 20 percent of graduates can be regarded as overqualified for the job in which they are employed, with "services" graduates being the most likely to be in this situation. This percentage has remained stable between 2000 and 2010, suggesting that overqualification rates are influenced more by labour market structures and innovation than by the growing number of students. This also highlights difficulties in evaluating the impact of employability policies, as changes in the general state of the economy is an important determinant of the availability and quality of job opportunities.

6. LIFELONG LEARNING

The Bologna context

Lifelong learning has been on the Bologna process agenda from the very beginning and gained particular prominence with the Prague Communiqué in 2001, which stated that

Lifelong learning is an essential element of the European Higher Education Area. In the future Europe, built upon a knowledge-based society and economy, lifelong learning strategies are necessary to face the challenges of competitiveness and the use of new technologies and to improve social cohesion, equal opportunities and the quality of life (Prague Communiqué 2001, p. 2).

In the succeeding communiqués, higher education ministers returned to the theme of lifelong learning and highlighted various areas that contribute to building the culture of lifelong learning in the EHEA. They underlined the necessity to enhance the development of flexible learning pathways, to create opportunities for the recognition of prior learning, to establish national qualifications frameworks and to build closer cooperation between higher education institutions and various external partners, including employers.

In 2008, on request of French authorities, the European University Association (EUA) elaborated the European Universities' Charter on Lifelong Learning (EUA, 2008), written in a form of ten commitments from universities and ten commitments from governments in addressing the implementation of lifelong learning. The document was prepared on the basis of extensive consultation with EUA member universities, Rectors' Conferences and a wide range of European higher education stakeholder organisations. The commitments cover various aspects of lifelong learning, in particular the need to ensure the provision of flexible, relevant and innovative programmes targeting diversified student population and the need to establish systems for the recognition of all forms of prior learning. The Charter also refers to the necessity to reinforce structured dialogue between higher education institutions and a range of stakeholders at different levels.

The contribution of the Charter has been acknowledged by the Leuven/Louvain-la-Neuve Communiqué (2009), which recognises the link between lifelong learning and the widening participation agenda and calls for policies supporting lifelong learning through adequate organisational structures and funding mechanisms. The Communiqué also intends to further specify the concept of lifelong learning, stating that

Lifelong learning involves obtaining qualifications, extending knowledge and understanding, gaining new skills and competences or enriching personal growth. Lifelong learning implies that qualifications may be obtained through flexible learning paths, including part-time studies, as well as work-based routes (Leuven/Louvain-la-Neuve Communiqué 2009, p. 3).

Chapter outline

Based on policy priorities identified within the above-mentioned documents, this chapter aims to examine selected aspects of lifelong learning in the higher education sector. To achieve this objective, the chapter first looks at how different countries understand and interpret the concept of lifelong learning in higher education. It then examines the extent to which lifelong learning has become a recognised mission of higher education institutions as well as financial arrangements in place to promote lifelong learning provision. A substantial part of the chapter is dedicated to the theme of flexible modes of delivery of higher education programmes, with a specific focus on part-time higher education studies. This part is followed by the analysis of the extent to which higher education

institutions across the EHEA offer possibilities for the recognition of prior non-formal and informal learning. Taking into account the information provided in all sections of the chapter, the final part looks at how successful different higher education systems are in attracting non-traditional learners to participate in formal higher education programmes.

The reader should be aware that other chapters of the report also provide information closely related to the theme of lifelong learning in higher education. Therefore, the content of this chapter should be complemented with the information provided in other parts of the report, in particular Chapter 4 on the social dimension in higher education and Chapter 5 on higher education outcomes and employability.

6.1. National understanding of the concept of lifelong learning

The European Universities' Charter on Lifelong Learning recognises that "the terminology of lifelong learning embraces many concepts [...] and is subject to considerable local, regional and national interpretation" (EUA 2008, p. 3). This calls for the investigation of how different EHEA countries understand and interpret the concept of lifelong learning within their respective higher education systems.

The results of the BFUG reporting exercise show that while in the majority of EHEA countries steering documents related to higher education refer to lifelong learning, they do not necessarily provide a definition of this term. Where such definition exists, it often has a very broad character, referring to learning 'from cradle to grave' or to all learning activities undertaken by individuals throughout their lives, be they formal, non-formal or informal. A good example of this is the United Kingdom - Scotland strategy adopted in 2007: Skills for Scotland – a Lifelong Skills Strategy.

It is only when countries start to report on the main forms of lifelong learning provision in which higher education institutions are involved that certain cross-national differences emerge. These differences mainly relate to the range of provision individual countries associate with lifelong learning in higher education. While some types of provision are referred to by virtually all countries, others are less frequently or rarely mentioned.

The provision most strongly associated with lifelong learning in higher education includes non-formal courses for individuals offered by higher education institutions alongside their formal degree programmes. Virtually all EHEA countries are referring to this type of provision, although they may use various expressions to describe it, including 'short-term further education courses' (Finland), 'courses outside the academic degree scheme/study programmes' (Serbia and the Holy See) or 'courses for personal development' (the United Kingdom – England, Wales and Northern Ireland).

Alongside non-degree courses for individuals, a significant proportion of EHEA countries refer to degree programmes provided under various arrangements different from traditional full-time schemes. Here, countries make a reference to flexible higher education studies, part-time programmes, open learning, distance learning, e-learning, external studies, evening or week-end courses etc. Yet, there are some countries, which do not make a reference to this type of provision, even if their systems provide a possibility for students to register with a formal status other than the status of a full-time student. This concerns countries such as Armenia, Latvia, Moldova, Romania, Slovakia and the Holy See (see Figure 6.2), and it could indicate that these countries do not include formal higher education programmes provided under flexible arrangements in their national concept of lifelong learning in higher education.

With regard to the two types of provision described above, i.e. non-formal courses for individuals and degree programmes provided under flexible arrangements, it is important to note that the boundary between them can sometimes be blurred. This is in particular the case in countries, where individuals

can follow distinct modules or courses of degree programmes, without necessarily being regular students of these programmes. Such a possibility already exists in many EHEA countries.

Another type of provision frequently seen as lifelong learning in higher education is the area of continuing and professionally-oriented upgrading of already achieved higher education qualifications. With regard to this type of provision, several countries make a direct reference to continuing professional development of those working in regulated professions (e.g. teachers, medical doctors etc.).

While all the above-mentioned types of higher education provision are referred to by at least half of EHEA countries, and can therefore be regarded as the most common components of lifelong learning in higher education, certain activities are mentioned by a less significant number of countries. For example, despite the policy importance accorded to the theme of the recognition of prior learning, only a few countries (Belgium, Switzerland, Estonia, France, Iceland, Italy, Luxembourg, Montenegro, the Netherlands and Portugal), expressly refer to this type of activities. The information provided in Section 6.5, which examines the level of development of the recognition of prior learning across the EHEA, can partly explain why the number of countries referring to this type of provision is still quite low.

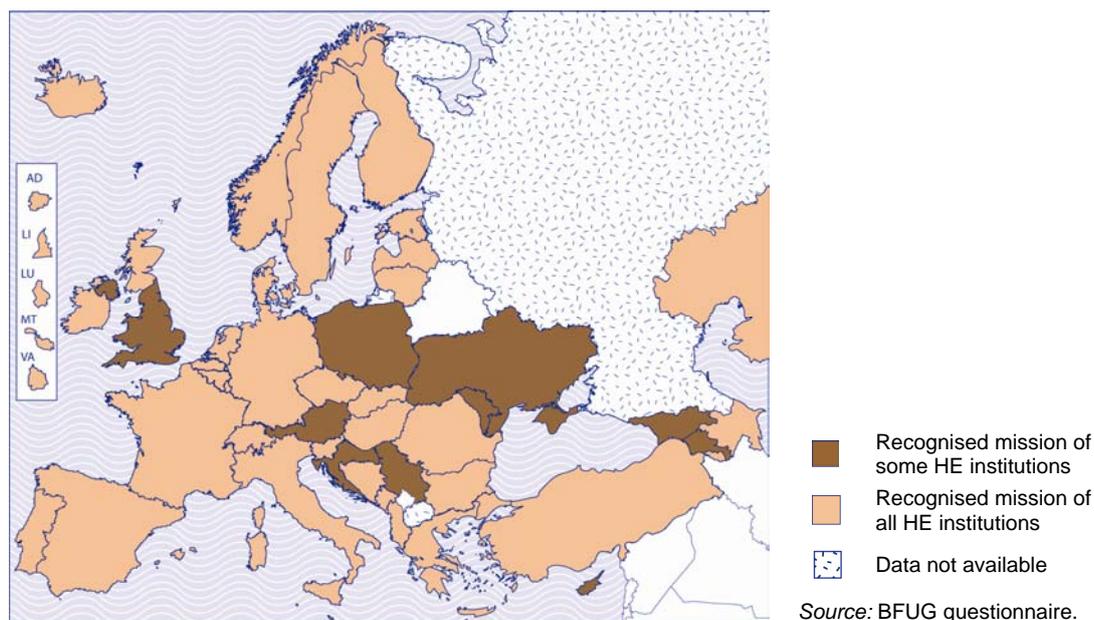
Other types of activities which are referred only by a limited number of countries include tailor-made provision for industry/companies and other external partners (Germany, Hungary, Italy, Moldova, Malta, the Netherlands, Slovenia and the United Kingdom – Scotland), provision of public lectures, seminars, conferences, round tables and workshops (Austria, Liechtenstein, Moldova, Slovenia and the United Kingdom), targeted guidance and counselling services (France, Ukraine and the United Kingdom - Scotland), access provision to attract non-traditional learners (Portugal and the United Kingdom) and the possibility for the general public to use various higher education resources, including higher education libraries (Estonia and Ukraine). Although this does not mean that these activities exist only in the countries listed above, it could indicate that they are not always thought of as the elements of lifelong learning in higher education.

Overall, lifelong learning in higher education appears as a fragmented concept, as a mosaic of different types of learning provision, where the number of elements included in the mosaic varies from one country to another. While in some countries, a wide range of higher education activities are viewed in the light of their contribution to lifelong learning, in other instances, the list of lifelong learning provision in which higher education institutions are commonly involved is still relatively short.

6.2. Lifelong learning as a recognised mission of higher education institutions

The central position of lifelong learning in policy debates is reflected by the fact that in more than three-quarters of EHEA countries, lifelong learning is a recognised mission of all higher education institutions. In the rest of the EHEA countries, namely Armenia, Austria, Cyprus, Georgia, Croatia, Moldova, Poland, Serbia, Ukraine and the United Kingdom (England, Wales and Northern Ireland), it is a recognised mission of at least some higher education institutions (see Figure 6.1). Countries classified in the second category commonly point out that higher education institutions have a certain degree of autonomy in this regard and can decide whether and to what extent they will include lifelong learning in their mission statement.

Figure 6.1: Lifelong learning as a recognised mission of higher education institutions, 2010/2011



Regardless of whether lifelong learning is a recognised mission of all higher education institutions or only of some of them, several countries point out considerable cross-institutional variations in the extent to which lifelong learning has been implemented. This means that while in the case of some institutions lifelong learning appears as the main mission (e.g. institutions focusing on the provision of flexible higher education programmes such as open universities), in other instances, activity flows relating to lifelong learning might be less significant. In this context, Norway provides an interesting example, indicating that while in 2010 the average share of students studying under flexible arrangements was 6,3 %, some higher education institutions had up to 40 % of students on the flexible offer.

Higher education institutions can also specialise in certain types of lifelong learning activities, whereas other elements of lifelong learning might not be included in their offer. For example in Austria, the Fachhochschule sector (i.e. professionally-oriented higher education sector) is characterised by a considerable share of flexible programmes (nearly 50 % of study programmes take a form of evening classes), but the provision of alternative access routes based on the recognition of prior learning is still very limited in this sector. Another example is provided by Lithuania, where some higher education institutions have been involved in projects related to the recognition of prior learning, whereas a few other institutions have a well-established provision of courses targeting the continuing professional development of teachers and trainers.

The majority of EHEA countries do not identify any legal restrictions that could prevent higher education institutions to offer lifelong learning provision or services. Only a few countries refer to legal constraints related to different segments of lifelong learning in higher education. Such constraints include the lack of regulations on the recognition of prior learning (Latvia), the impossibility to propose degree programmes under flexible arrangements (Serbia), restrictions related to the registration of participants in separate modules of degree programmes (the Netherlands) or the impossibility for institutions of professional higher education to offer the second cycle studies (Denmark).

6.3. Financing lifelong learning

From the policy perspective, the information on financial arrangements related to lifelong learning is commonly regarded as an area of particular interest. However, virtually all comparative analyses covering this field highlight that this theme is particularly difficult to cover (for example EACEA/Eurydice, 2010). This is, to a certain extent, a result of a lack of conceptual clarity regarding lifelong learning, which means that depending on the context, the concept can refer to a larger or narrower range of higher education provision. The second difficulty relates to the fact that lifelong learning in higher education commonly involves diverse funding sources and it is often difficult to identify the relative contribution of each individual source.

The BFUG reporting exercise shows that when describing how lifelong learning is financed, countries often refer to different types of higher education provision, specifying financial arrangements related to each type. Most commonly, a distinction is being made between programmes leading to higher education degrees, including programmes provided under various flexible arrangements, and non-degree higher education provision. While the first type of provision is often partially or completely covered from the public budget, in the case of the second type, the contribution from the public budget is generally less significant. Nevertheless, certain types of non-degree programmes (e.g. continuing professional development of those working in regulated professions, courses for the unemployed, programmes targeting retired citizens etc.) are commonly financed/co-financed from public resources.

In around two-thirds of EHEA countries, higher education institutions do not dispose of a public budget earmarked specifically for lifelong learning. This means that resources for lifelong learning come from general budgets of higher education institutions, these means being often combined with other financial resources. In 15 higher education systems (out of 47 for which data is available), there are budgets earmarked specifically for lifelong learning, but these financial resources are sometimes targeted towards particular types of lifelong learning provision. This is the case in the Czech Republic, where the lifelong learning budget is intending to finance universities of the third age, or in Georgia and Slovenia, where it is commonly used to cover in-service training of teachers and trainers.

Apart from general or special budgets of higher education institutions, other public resources contribute to financing lifelong learning in higher education. These include resources from EU structural funds, resources from ministries other than those responsible for higher education and means allocated in the framework of various projects/programmes, be they national, regional or local. Public financial support can also take an indirect form, in particular through tax incentives targeting individuals taking part in lifelong learning activities.

Only a very few countries are able to quantify the degree to which lifelong learning provision in higher education is financed from public sources. Where the information on the degree of public funding is available, it varies significantly from one country to another, which may be partly related to different understandings of the concept of lifelong learning in higher education. While Romania and Bosnia and Herzegovina state, respectively, that public funding of lifelong learning in higher education is nil or only very modest, the Netherlands estimates that around 16 % of lifelong learning provision is funded from the public budget, and France and Hungary evaluate this amount to around 30 %. Austria and Norway report higher level of public funding. The first country evaluates its proportion to 85 %, while the second one indicates that most funding for lifelong learning comes from the public budget. Malta and Iceland are the only countries reporting that lifelong learning in higher education is fully publically funded.

Private investment in lifelong learning in higher education directly depends on the extent of public funding. Where private investment is requested, it is most often made by participants themselves. Yet,

it can also be made by their employers, in particular, if the employer has requested the employee to undertake the programme in question, or, if there are any specific local or sectoral arrangements between employers and employees with regard to continuing education and training. Besides, lifelong learning can also be financed or co-financed from collective funds, to which employers make contributions. This is the case in France and Spain, where legislation obliges companies to contribute to the cost of continuing education and training through mandatory contributions, which depend on the type of company and the number of employees. Financial resources collected can be used to finance various education and training schemes and can also provide support for individuals taking part in higher education provision.

The list of different sources that are used to finance lifelong learning in higher education can be completed by means earned by higher education institutions themselves. Despite the fact that Latvia is the only country referring to this source, it is likely that there are other countries, where it is legally possible for higher education institutions to finance or co-finance lifelong learning with the resources they have earned either through the provision of various services or through private donations.

6.4. Promoting flexible delivery of higher education programmes

In a larger sense, flexibility in higher education refers to different ways of enabling individuals to follow educational paths adapted to their needs. This section focuses on one aspect of flexibility in higher education, namely flexible modes of delivery of higher education programmes. As shown in Section 6.2, a significant proportion of EHEA countries see this type of provision as one of the key elements of lifelong learning in higher education.

The present section is divided into four sub-sections. The first one concentrates on different policy approaches to flexible provision of higher education studies. It is followed by a sub-section focusing on the extent to which higher education systems provide formal student statuses other than full-time and the impact of these alternative statuses on study conditions of students. The third part looks at the extent to which higher education institutions ensure the provision of part-time studies, while the last part examines the degree of student participation in this type of study.

6.4.1. Policy approaches targeting flexible delivery of higher education programmes

One of the objectives of the BFUG reporting was to examine whether and to what extent policies in different EHEA countries promote flexible delivery of higher education programmes. According to the information provided by central authorities, in virtually all EHEA systems (43 out of 47 for which data is available), there are policies promoting flexible higher education provision. Yet, countries see their policy support in very different perspectives and are referring to diverse types of policy actions.

Several countries, or regions within countries (Armenia, Azerbaijan, Bosnia and Herzegovina, the French Community of Belgium, Bulgaria, the Czech Republic, Georgia, Greece, Croatia, Portugal, Romania, Serbia and Slovenia), associate their policy support with legal frameworks, which create preconditions for the implementation of flexible higher education studies. This commonly means that legislation expressly enables higher education institutions to provide programmes under flexible study arrangements and/or it enables students to spread their courses over a longer period than the duration of traditional full-time studies.

Some countries (Andorra, Austria, Cyprus, Finland, the Netherlands and Portugal) see their policy support in close relation to those higher education institutions that pay particular attention to flexible studies. Finland for instance reports that Polytechnics (i.e. vocational higher education institutions) commonly offer e-learning possibilities as well as possibilities of evening or week-end tuition. Norway also partly belongs to this group. Although the country does not refer to any institution(s) that would focus on the provision of flexible studies, it has established an agency under the Ministry of Education and Research (Norway Opening Universities) dedicated to the promotion of flexible courses and study programmes at Norwegian higher education institutions.

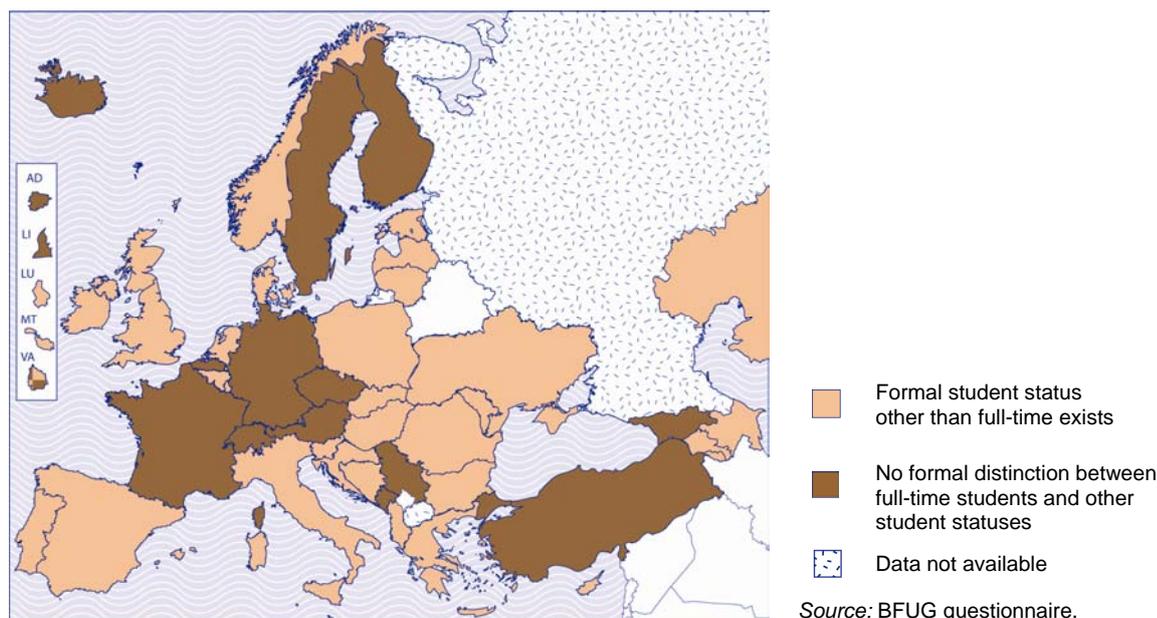
Among other policy initiatives promoting flexibility, countries refer to the implementation of the recognition of prior learning (Denmark, the Flemish Community of Belgium and Luxembourg), modularisation of higher education programmes (Germany, Ireland, Liechtenstein and Luxembourg) and the implementation of ECTS (Albania and Switzerland). Besides, some central authorities point out financial arrangements related to flexible higher education programmes, in particular the fact that full-time students and those following flexible studies are treated equally in terms of student fees and/or student financial support (for more details see Section 6.4.2, Figure 6.3).

Finally, a few countries make a reference to their strategic policy documents, which include an explicit reference to the policy objective to enhance flexible higher education provision and possibilities for students to engage in flexible studies. Such documents exist in Estonia (Higher Education Strategy 2006-2015), Ireland (The National Strategy for Higher Education to 2030), Slovenia (Master Plan for Higher Education 2011-2020) and Scotland (Letter of Guidance of the Scottish Government to the Scottish Funding Council (SFC, 2011)).

6.4.2. Studying in higher education with a formal status other than the status of a full-time student

Alongside the status of a full-time student, the majority of countries formally recognise at least one additional student status. Figure 6.2 provides a picture of the situation across the EHEA. It shows that out of 47 higher education systems for which data is available, in around two-thirds there is an official student status other than the status of a full-time student. In the remaining higher education systems, a variety of situations can be observed. In most of them, there is only one official student status - i.e. the status of "student" - without any further distinctions. In other instances, there might be several formal student statuses, but the distinction is not based on the dichotomy "full-time student status" – "alternative student status" (e.g. in the Czech Republic, legislation distinguished between "on-site", "distance" and "combined" studies). The Holy See represents a special case, as its higher education institutions are mainly located outside its own territory and therefore they follow diverse patterns in terms of the provision of alternative student statuses.

Figure 6.2: Existence of a formal student status other than the status of a full-time student, 2010/2011



In countries formally distinguishing between full-time students and students with other statuses, the most common alternative student status is the status of a part-time student. Yet, countries that formally recognise a part-time student status, do not necessarily define it in the same way.

Most commonly, the definition of a part-time student status is based on the workload of students, often measured in ECTS credit points. Where this concept is being used, part-time students are generally defined as those who achieve less than 60 ECTS credits per academic year and/or less than 30 ECTS credits per semester (e.g. Ireland and Malta). There are also variations, such as in Cyprus, where part-time students are expected to achieve less than 25 credit points per semester, or in Luxembourg, where they are expected to register only for 15-20 ECTS credits per semester.

The workload of part-time students can also be expressed in study hours/weeks, rather than in ECTS credit points. This is the case in the United Kingdom (England, Wales and Northern Ireland), where a part-time student is a student who does not fall under the category of a full-time student, and where studying full-time means studying at least 21 hours per week for at least 24 weeks per year.

In Scotland and Latvia, the definition of a part-time student combines the two above-mentioned approaches, which means that it refers to credit points as well as to hours dedicated to higher education studies. In Scotland, part-time students are defined as those studying for less than 120 SCQF credits (60 ECTS), less than 24 weeks a year, and less than an average of 21 hours a week. In Latvia, they are defined as students, who are expected to achieve less than 40 LV credits (60 ECTS) per year and their study workload is expected to be less than 40 hours a week.

Although Estonia also founds its definition on the student workload, it defines part-time students in terms of the percentage of the workload of full-timers. It is expected that part-time students cumulatively complete less than 75 % of the annual study load of full-time students.

In a few countries (e.g. Bulgaria, Hungary and Moldova), the definition of part-time students does not refer to the workload of students, but to their limited direct participation in study sessions. This means that part-time students should in principle achieve the same number of credits as full-time students, but they are expected to dedicate more time to self-study activities.

Several countries participating in the BFUG reporting exercise state that the status of a part-time student exists within their respective higher education systems, but they do not supply its definition. Two of these countries (Italy and Poland) indicate that steering documents related to higher education

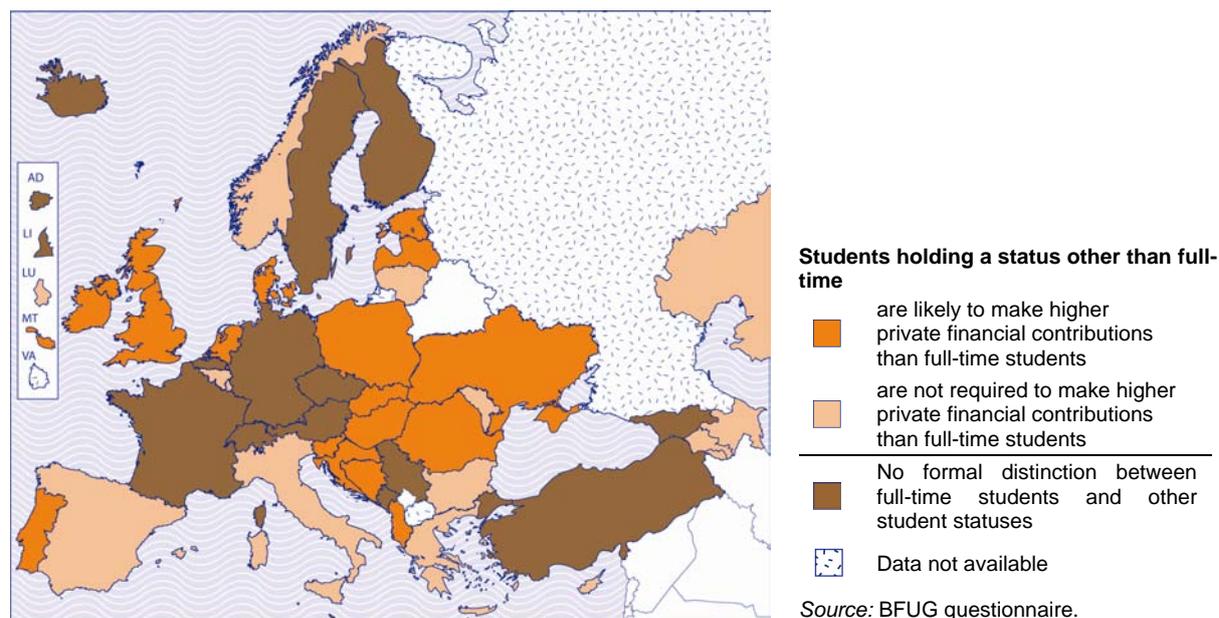
expressly refer to the possibility to offer part-time studies, but it is up to individual higher education institutions to define requirements related to the part-time student status. It is likely that this also applies to other countries, where the formal part-time status exists, but no definition is provided.

Even if the status of a part-time student is the most common student status other than full-time, there are also countries referring to other student statuses, including the status of an external student (Slovakia and Ukraine) or distance learning student (Bulgaria, Hungary and Ukraine). Besides, in some countries, there are more than two formal student statuses. For example in the Netherlands, alongside full-time and part-time student status, there is also a dual student status, covering those who combine studies with a work experience in a related field.

Denmark and the French Community of Belgium represent rather specific cases, as their distinction between different student statuses refers to the existence of different higher education sub-systems. The first country refers to students studying within the system of professional higher education for adults, whereas the French Community of Belgium refers to students following studies within the sub-system of Education for Social Advancement (i.e. a sub-system targeting mature students).

Formal status other than full-time often has an influence on the conditions under which students follow their studies, in particular on financial aspects related to studies. This includes tuition fees, grants, loans or other financial subsidies students might be eligible for. Figure 6.3 provides an overview of the situation in the EHEA.

Figure 6.3: Impact of formal student status on financial arrangements related to higher education studies, 2010/2011



In several countries (Albania, Bosnia and Herzegovina, Croatia, Estonia, Denmark, Hungary, Ireland, Latvia, Malta, Poland, Portugal, Romania, Slovenia, Slovakia, Ukraine and the United Kingdom), part-time studies are likely to be related to higher private financial investment than full-time studies. This expectation can be expressed in various ways, directly or indirectly. For example, in Slovenia and the United Kingdom, tuition fees related to part-time studies are unregulated and can be set by higher education institutions themselves, whereas tuition fees related to full-time studies are centrally regulated. Similarly in Estonia, part-time students are not expressly required to pay higher fees, but as there are only a very few state-funded places for this category of students, they often have to cover their tuition expenses. In Ireland, part-time students are not eligible to participate in the Free Fees Initiative, which provides that tuition fees are paid for full-time students.

Student support is another area where differences between full-time and part-time students can be observed. For example in Ireland, Latvia and the Netherlands, part-time students are not eligible for student grants and scholarships, and in Malta, only certain categories of part-time students are eligible for this type of support. Hungary reports that contrary to full-time student, part-time students cannot apply for need-based student support. In Croatia, those studying part-time do not have the right to many student benefits, including subsidized board and lodging, and health insurance, while in Estonia, part-time students cannot take out student loans. Although the United Kingdom offers financial support to both full-time and part-time students, each category of students is covered by a different financial support scheme.

Some countries or regions within countries (Armenia, Azerbaijan, the French Community of Belgium, Bulgaria, Cyprus, Spain, Greece, Italy, Kazakhstan, Lithuania, Luxembourg, Moldova and Norway) indicate that there is no difference between full-time and part-time studies in terms of fees and financial support. Depending on the country-specific definition of part-time students (see the information provided at the beginning of this section) this can have different meanings. In countries, where part-time students are expected to achieve a less significant number of credits per academic year than full-time students, fees and support are calculated in relation to students' workload, i.e. if students take fewer credits, they pay lower fees and are eligible for lower amount of financial support (e.g. in Italy and Lithuania). In countries, where full-time and part-time student are expected to achieve the same number of credits, fees and support are the same for both categories of students (e.g. in Bulgaria and Moldova).

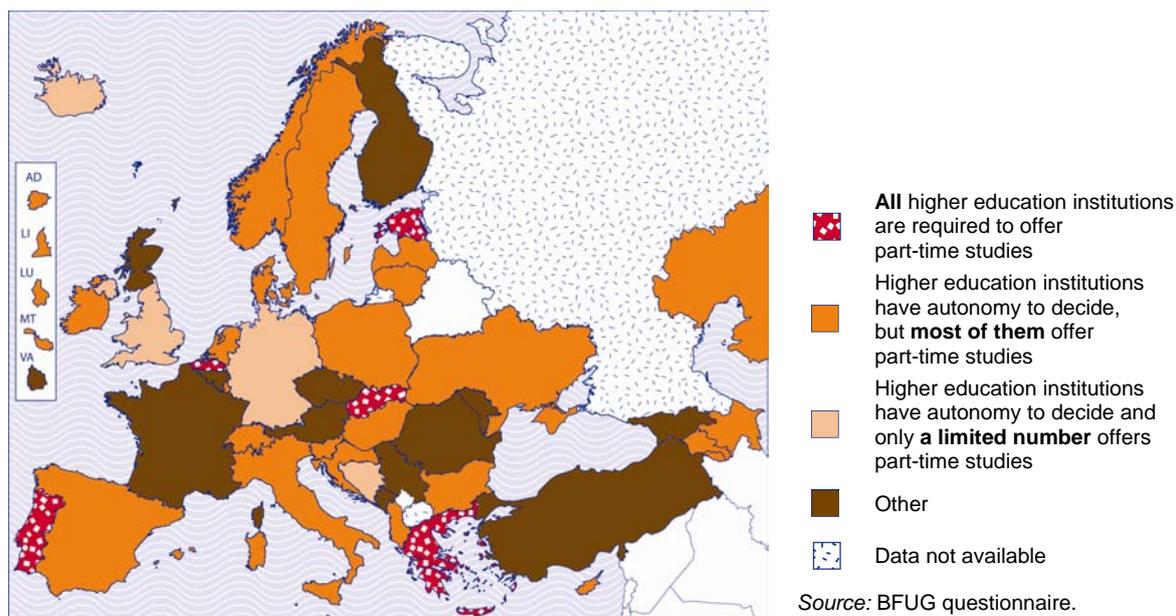
Among countries where part-time students are likely to make higher private financial contribution than full-time students, only two countries – Ireland and Slovenia – indicate that they are considering a reform of the system in favour of part-time students. In Ireland, the National Strategy for Higher Education recommends that disincentives to part-time studies are removed, while in Slovenia, the Master Plan for Higher Education 2011-2020 includes a policy intention to abandon tuition fees for part-time studies.

6.4.3. Provision of part-time studies by higher education institutions

In many EHEA countries, higher education institutions have autonomy to decide whether they will offer studies other than full-time (see Figure 6.4). Most of these countries specify that the majority of higher education institutions offer part-time studies, whereas four countries (Bosnia and Herzegovina, Germany, Iceland and the United Kingdom - England, Wales and Northern Ireland) indicate that only a limited number of institutions offer this type of study. Belgium (the Flemish Community), Estonia, Greece, Portugal and Slovakia are the only countries reporting that all higher education institutions are required to offer part-time studies.

When comparing Figures 6.2 and 6.4, the reader can note that seven countries with no formal distinction between full-time student status and other student statuses, namely Andorra, Belgium - the Flemish Community, Switzerland, Germany, Iceland, Liechtenstein and Sweden, indicate the extent to which higher education institutions ensure part-time provision. The contextual information provided by some of these countries allows better understanding of their situation. For example, in the Flemish Community of Belgium, there is no part-time student status, but all higher education institutions are required to offer flexible study pathways allowing students to take less than 60 ECTS per academic year. Germany indicates that even if there is no formal part-time status, higher education institutions have autonomy to offer part-time studies and several Landers have adopted legal regulations covering this type of study.

Figure 6.4: Provision of part-time studies by higher education institutions, 2010/2011



The category “other” refers to those situations, which cannot be described using the pre-defined categorisation. In Moldova for instance, the extent to which part-time studies are offered is defined annually by the Ministry of Education, depending on the labour market requirements. Consequently, the degree of part-time provision changes from one year to another. In the French Community of Belgium, the part-time provision depends on the higher education sub-sector. All programmes organised within the sub-sector of Education for Social Advancement (i.e. a sub-sector targeting mature students) are part-time programmes, whereas with regard to traditional higher education, part-time programmes are offered by the majority of institutions. In Scotland, higher education institutions are not expressly required to offer part-time studies, but all of them do so.

The above-mentioned category is also indicated by several countries with no formal status of part-time studies and/or part-time students (the Czech Republic, Austria, Finland, France, Georgia, Montenegro, Serbia and Turkey; see also Figure 6.2). Yet, as already mentioned in previous parts of this section, the absence of a formal part-time status does not necessarily mean that higher education institutions do not ensure flexible provision. In this context, Montenegro reports that higher education institutions commonly offer possibilities for students to apply for a limited number of credits and follow de facto part-time studies. A similar situation is indicated by Finland, in which case, it is also confirmed by Figure 6.9 in Section 6.4.4., showing that around 25 % of higher education students in this country are low intensity students (i.e. students who dedicate only up to 20 hours a week to their studies). In the Czech Republic, higher education legislation does not refer to full-time and/or part-time studies, but it refers to “on-site”, “distance” and “combined studies”. This means that legislation makes a direct reference to flexible studies, but uses a slightly different conceptualisation. Higher education institutions commonly offer distance or combined study programmes.

6.4.4. Statistical data on student participation in part-time studies

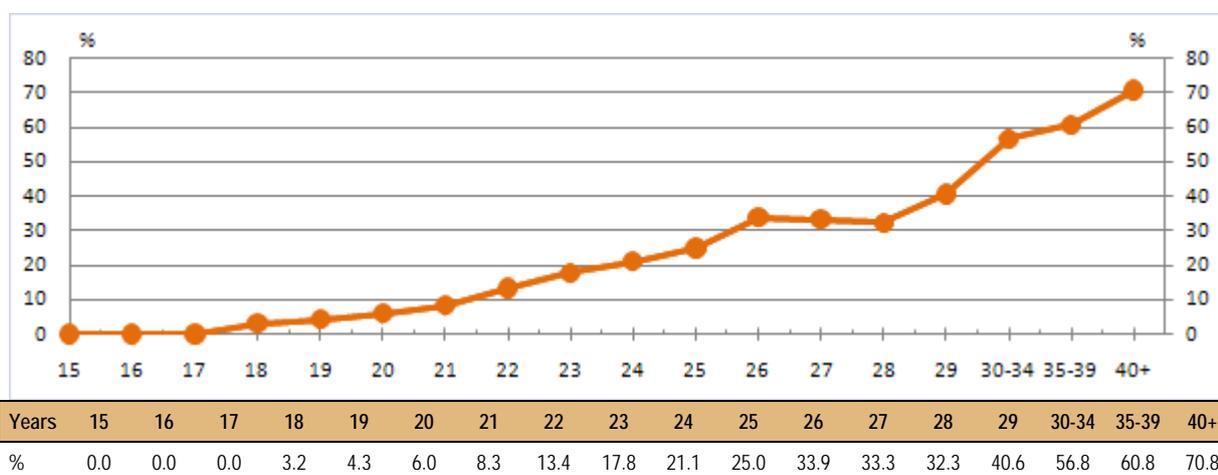
The information on the extent to which higher education institutions ensure the provision of flexible study options (Section 6.4.3) can be complemented with data on the participation of students in part-time provision. The participation levels are examined through two different data sets, which represent two different approaches to part-time studies. First, they are assessed through administrative data

(UOE data collection); second, they are evaluated through students' self-reported assessments of their formal status and study intensity (Eurostudent research).

According to the operational definition used within the UOE data collection, an individual is regarded as a part-time student if he/she is taking an educational programme that requires less than 75 % of a full-time study load. Despite some limitations of this operational definition¹, the UOE data collection allows to evaluate various aspects of the participation in part-time studies.

Figure 6.5, based on the data from 32 countries, clearly indicates that age is a significant factor in students' decision to pursue their studies on the part-time basis, and that older students are much more likely to study part-time than younger ones. In median terms, less than 10 % of students at the typical age of entrance into higher education choose studying part-time, whereas the share of part-timers in the late 20's is situated between 30 and 40 %. After students have reached their 30's, it is even more likely that they will study part-time (more than 50 % study part-time) and among those who are older than 40, only one third will choose a full-time study mode.

Figure 6.5: Median of the percentage of students studying part-time in tertiary education, by age, 2008/2009



Source: Eurostat, UOE.

Figure 6.6 provides information on the situation in individual countries for which data are available, showing the participation in part-time studies of those aged 21 (representing the category of “traditional” higher education students²) and those aged between 30 and 34 (representing the category of “mature students”). For all countries, the figure confirms that the older the students are, the more likely they are to study part-time. The figure also shows that in countries such as Belgium, Finland, Latvia, Lithuania, Poland, Romania and Sweden, even “traditional” higher education students often choose part-time studies (at least 20 % chose this mode of study).

In the majority of countries, participation in part-time studies is at least three times higher for those aged between 30 and 34 than for those aged 21. Only in Belgium, Estonia, Lithuania, Norway, Poland, Romania and Sweden, the participation levels of the two age categories are slightly more balanced, but the participation of older students in part-time studies is always at least two times higher than the

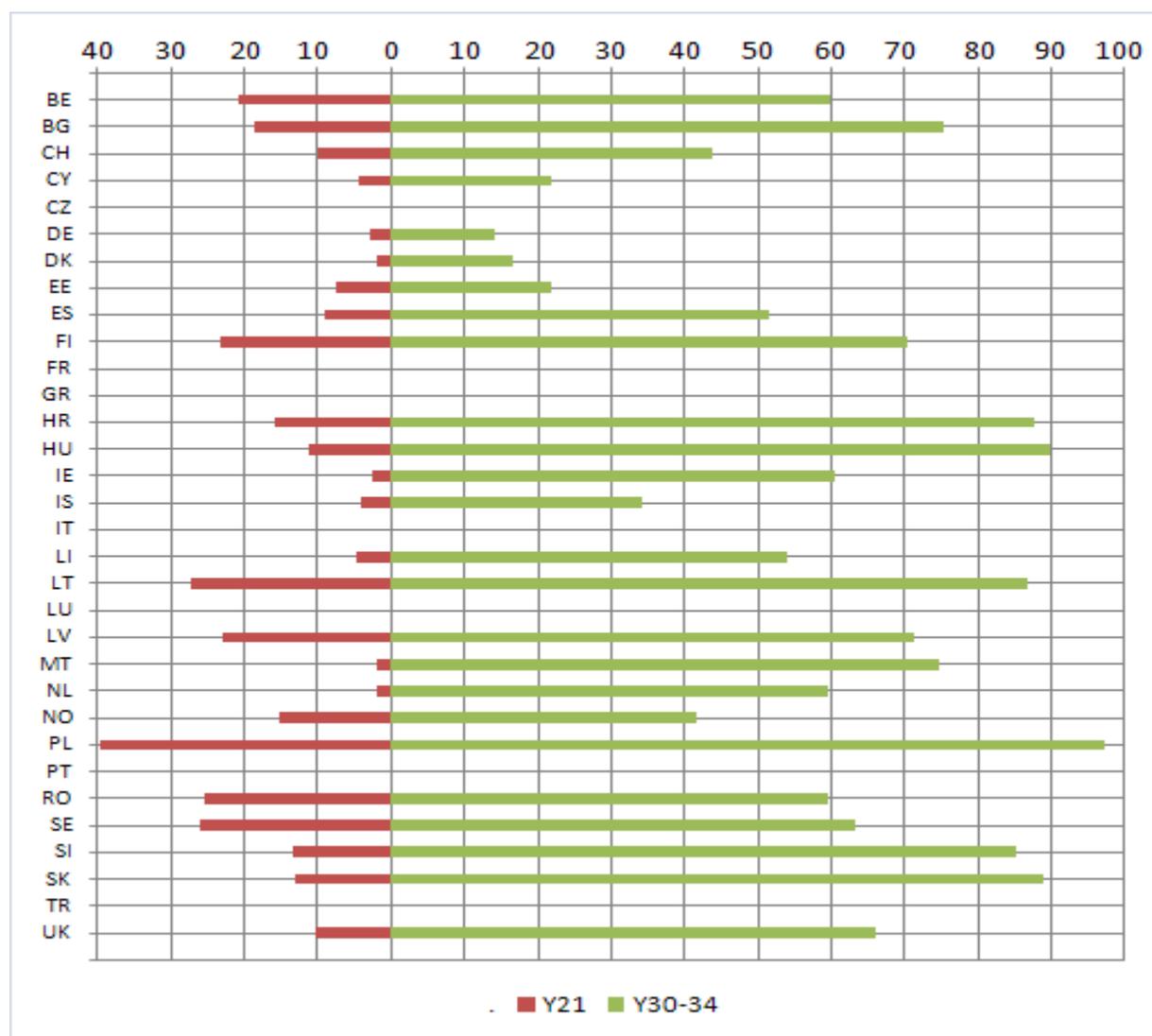
¹ Countries may to some extent differ in the way they measure the study load of students. Ideally, the study load should be measured in terms of the academic value or progress, but it can also be measured in terms of the time/resource commitment or time in classroom. The national data available to countries tends to dictate which of these methods countries use to categorise students as full-time or part-time (UNESCO/OECD/Eurostat, 2010).

² Note: In some countries, “traditional” higher education students are slightly older than in the majority of other countries. For example, in Denmark and Sweden, the most common starting age for 1st cycle students is above the age of 21 (EACEA/Eurydice, 2010).

participation of those aged 21. In six countries – Croatia, Hungary, Lithuania, Poland, Slovakia and Slovenia - more than 80 % of higher education students aged 30-34 are part-timers.

On the other end of the spectrum, there is a group of seven countries (the Czech Republic, France, Greece, Italy, Luxembourg, Portugal and Turkey) where, regardless of the age of students, the participation in part-time studies is nil or negligible. Figure 6.2 in Section 6.4.2 indicates that some of these countries offer a formal student status other than full-time (Greece, Italy, Portugal and Luxembourg), whereas in other instances, there is no formal distinction between full-time students and students with other statuses (the Czech Republic, France and Turkey).

Figure 6.6: Percentage of students studying part-time, by country and by age, 2008/2009



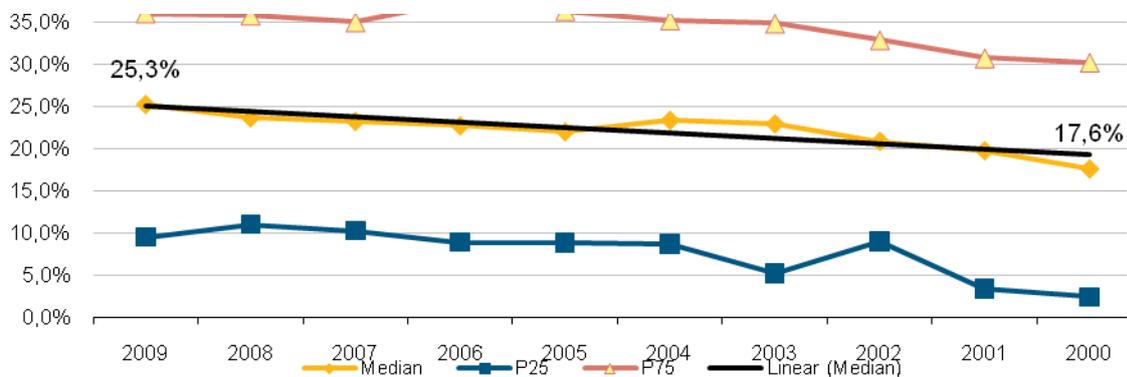
(%)	BE	BG	CH	CY	CZ	DE	DK	EE	ES	FI	FR	GR	HR	HU	IE	IS
Y21	20.7	18.5	10.1	4.6	0.0	2.8	1.9	7.7	9.0	23.4	0.0	0.0	15.8	11.3	2.6	4.2
Y30-34	59.8	75.4	43.8	21.9	0.0	14.2	16.6	21.8	51.4	70.4	0.0	0.0	87.6	89.8	60.6	34.1
	IT	LI	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK	TR	UK
Y21	0.0	4.7	27.3	0.0	23.1	1.8	2.1	15.2	39.8	0.0	25.5	26.0	13.4	13.1	0.0	10.3
Y30-34	0.0	54.1	86.8	0.0	71.4	74.7	59.4	41.6	97.2	0.0	59.6	63.1	85.2	89.1	0.0	65.9

Source: Eurostat, UOE.

The trend data covering all age categories show that between 2000 and 2009, in median terms, part-time study has increased from 17.6 % to 25.3 % (Figure 6.7). This increase has been the result of a higher take up of part-time study in the majority of countries considered (18 out of 34 for which data is

available). Only in eight countries, the participation in part-time studies has decreased. In some of them, the participation was below the average already in the beginning of the decade (Austria, the Czech Republic, the Netherlands, Estonia and Malta), whereas others had part-time levels above the average (Hungary and the United Kingdom).

Figure 6.7: Median of the percentage of students studying part-time, by year, 2000-2009³



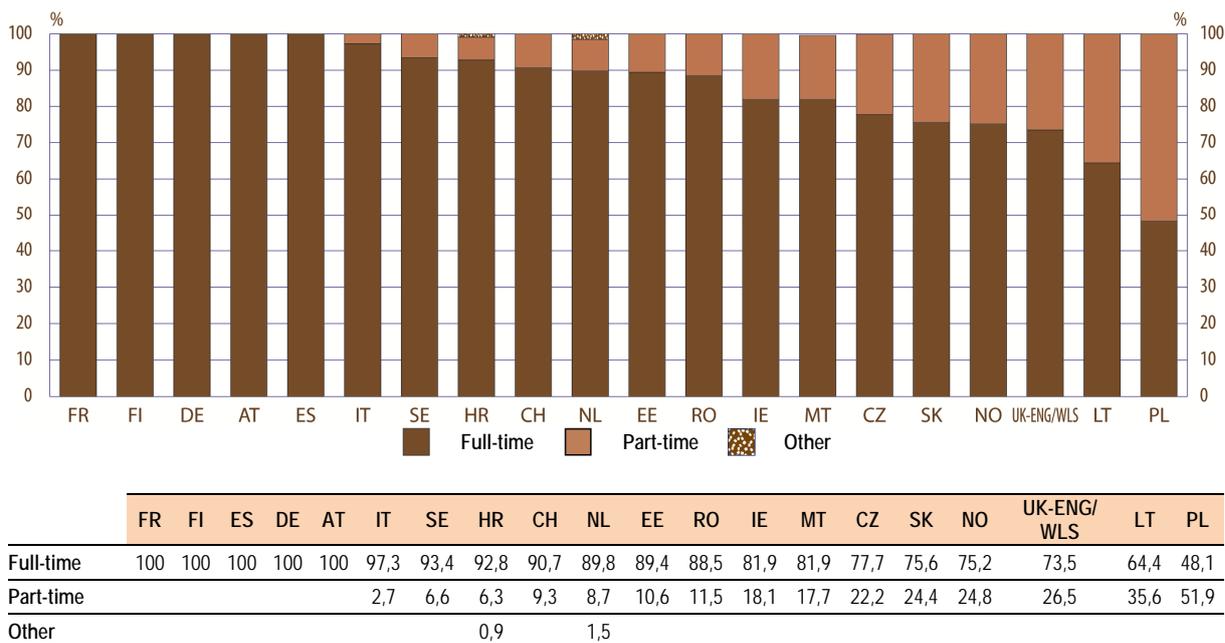
Source: Eurostat, UOE.

Compared to the UOE data collection, Eurostudent research looks at the participation of students in part-time studies in a different perspective. Instead of using an operational definition of part-time studies/students, it takes into account the self-declaration of students regarding their formal student status (see the Glossary). Data covering 20 EHEA countries indicate that on average, regardless of age, 18,5 % of students have a formal part-time status.

Looking at the situation in individual countries, some significant cross-country differences in the proportion of students who report themselves as studying with a formal part-time status can be observed (Figure 6.8). In Poland, every second student has a formal part-time status, and in Norway, the United Kingdom (England and Wales) and Lithuania, at least one in four students is formally a part-timer. On the other end lie five countries – Austria, Spain, France, Finland and Germany - where the proportion of those formally registered as part-timers is nil. Contextual data provided in Section 6.4.2 (see Figure 6.2) confirm that in all these countries except Spain, there is no formal distinction between full-time and part-time students. It is also interesting to note that in Croatia and the Netherlands, a small proportion of students (between 1 % and 2 %) are registered with a formal status other than full-time or part-time. In the Netherlands, these students are likely to be those who follow dual higher education studies (for more details see Section 6.4.2).

³ Please note : graphical presentation of this figure will be improved in the coming period (e.g. it will start with 2000)

Figure 6.8: Students by formal status of enrolment (self-reported) in %, 2009/2010

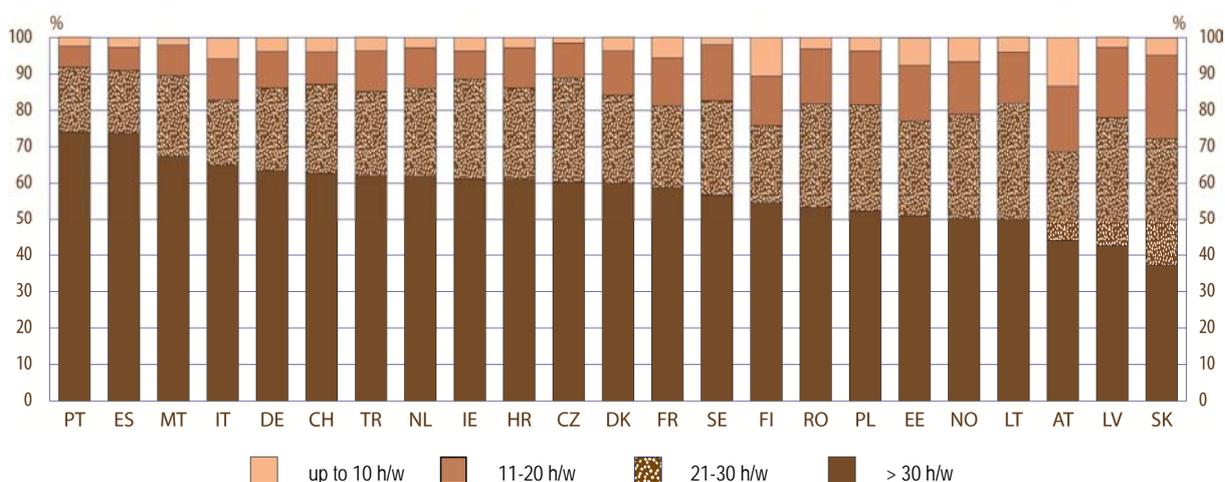


Source: Eurostudent.

Eurostudent research also allows the evaluation of the relationship between the formal student status and the number of hours students spend during a typical week on study-related activities, i.e. taught courses and personal study.

Figure 6.9 looks at a typical study week of students who consider themselves as having a full-time status in their respective national system. It shows that in each country under consideration, a majority of full-time students (69 % or more) declare that they dedicate more than 20 hours a week to their study-related activities. More than half of these students even devote over 30 hours a week to their studies. Yet, in some countries, a significant proportion of full-time students indicate that they only dedicate up to 20 hours a week to studies. This applies in particular to Austria, Slovakia and Finland, where at least one out of four full-time students is characterised by relatively low study intensity. Taking into account the situation in all countries, on average, 17 % of students holding an official status of a full-time student declare that they do not spend more than 20 hours a week on study-related activities. Therefore, in terms of their study intensity, these students can be regarded as de facto part-time students.

Figure 6.9: Full-time students by hours spent on study-related activities in a typical week in %, 2009/2010



	PT	ES	MT	IT	DE	CH	TR	NL	IE	HR	CZ	DK	FR	SE	FI	RO	PL	EE	NO	LT	AT	LV	SK
up to 10 h/w	2.4	2.7	1.9	5.7	3.8	3.9	3.7	2.8	3.7	2.8	1.5	3.7	5.7	1.9	10.6	3.1	3.7	7.5	6.6	4.1	13.3	2.8	4.7
11-20 h/w	5.8	6.2	8.4	11.3	10.0	8.9	11.2	11.2	7.7	11.0	9.6	12.2	13.1	15.4	13.6	15.1	14.8	15.3	14.4	14.1	18.1	19.3	23.0
21-30 h/w	18.0	17.4	22.2	18.1	22.8	24.5	23.2	24.1	27.5	25.2	28.7	24.2	22.5	26.0	21.2	28.5	29.2	26.1	28.8	31.9	24.6	35.5	35.0
> 30 h/w	73.9	73.7	67.4	64.8	63.4	62.7	62.0	61.9	61.1	61.0	60.2	60.0	58.8	56.7	54.6	53.3	52.3	51.0	50.2	50.0	44.0	42.5	37.2

Source: Eurostudent.

Besides the study intensity of full-time students, Eurostudent research also looks at the study intensity of those studying part-time. It shows that while the overall study intensity of students having a formal part-time status is lower than that of full-time students, a certain proportion of part-timers are characterised by high study intensity (i.e. these students can be regarded as de facto full-time students). The proportion of these students is particularly high in Poland, Croatia and Switzerland (for more details, see Eurostudent, 2011).

Overall, different indicators presented in this section show that the participation of students in part-time studies can be approached from different angles of perspective. While each individual approach has some limitations and disadvantages, brought together, they allow better understanding of the phenomena of part-time studies. These indicators also illustrate that cross-country comparisons of flexible modes of study in higher education should be carried out with caution, taking into account the complexity of this subject matter.

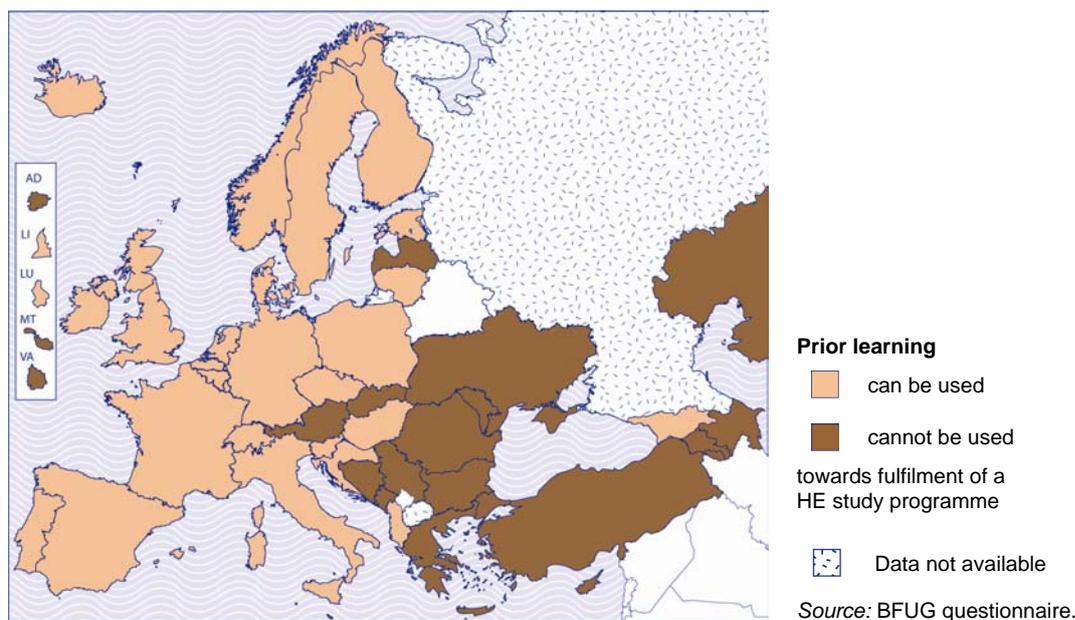
6.5. Recognising prior non-formal and informal learning

The establishment of systems for the recognition of all forms of prior learning has become one of the central themes not only in the higher education sector, but also in all other sectors of education and training. Along with the recognition of prior formal learning, which commonly takes place in all countries, particular emphasis is being put on the need to enhance the recognition of the knowledge and skills gained through non-formal and informal learning. This type of the recognition is the main focus of the present section.

From the learner's perspective, the recognition of prior non-formal and informal learning is most commonly undertaken with one of the following objectives: to gain admission to a higher education programme or to progress in higher education studies. The chapter on the social dimension of higher education (Chapter 4, Figure 4.10) has examined the extent to which the recognition of prior learning can be used for admission to higher education. It has shown that out of 47 higher education systems for which data is available, 22 systems provide a possibility of an alternative access to higher education, and such access is most often based on the recognition of prior non-formal and informal learning.

The recognition of prior learning for progression in higher education studies implies that learners can be exempt from certain higher education courses if they demonstrate that they already possess the knowledge and skills related to these parts of study. Figure 6.10 provides a mapping of this area. It shows that out of 47 higher education systems for which data is available, in 28 systems prior non-formal and informal learning can be taken into account towards the completion of higher education studies. This suggests that the recognition of prior learning for progression in higher education studies is possible in a slightly higher number of countries than the recognition for admission to higher education. Contextual information provided by countries also indicates that regulations often specify the extent to which the recognition of prior learning can contribute to the fulfilment of higher education programme requirements. This means that the recognition of prior learning most commonly leads only to a limited number of credits and rarely to a complete award of a higher education qualification.

Figure 6.10: Recognition of prior learning for progression in higher education studies, 2010/2011



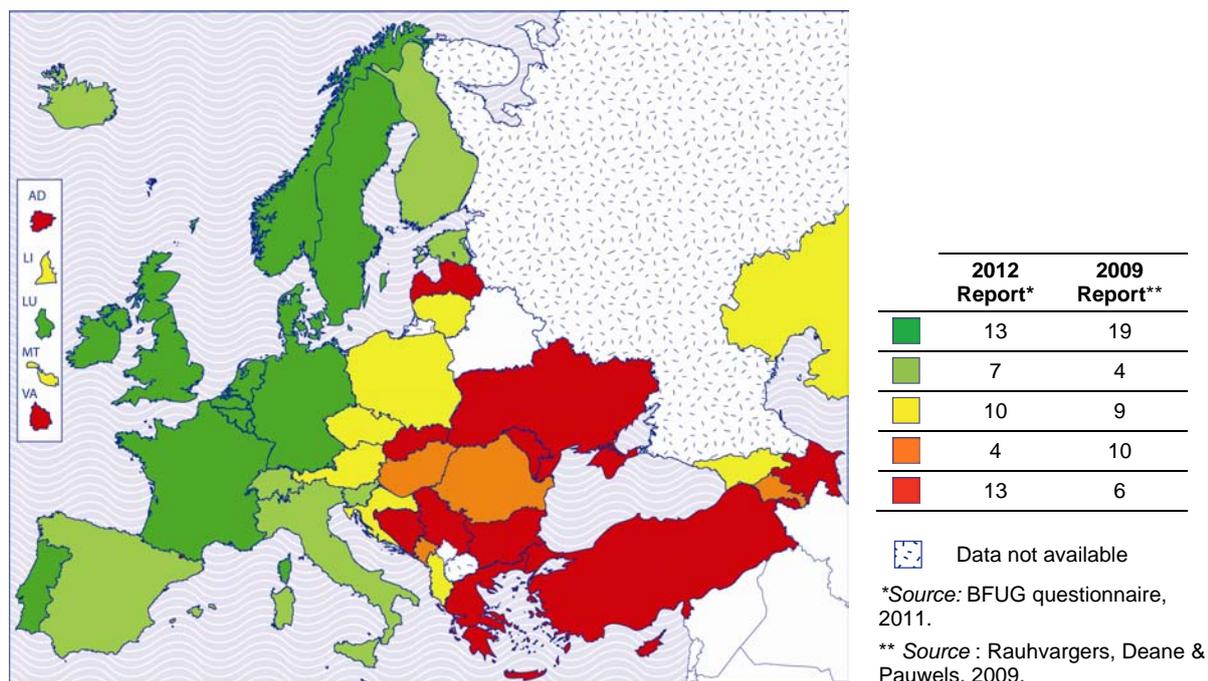
The two above-mentioned dimensions of the recognition of prior learning are brought together under the scorecard indicator covering this theme (see Figure 6.11). The indicator was introduced in 2007 and re-examined in 2009. The current version takes into account the extent to which the two types of the recognition are possible within different EHEA systems as well as the extent to which they are used in practice.

Out of 47 higher education systems for which data is available, the indicator identifies a group of thirteen higher education systems (dark green), where according to centrally established procedures, guidelines or policies, the recognition of prior non-formal and informal learning can be used for access to higher education as well as for progression in higher education studies. In these countries, the recognition of prior learning is a standard practice in the majority of higher education institutions. Seven higher education systems (light green) have also reached a relatively high level of development in this field. Yet, in these higher education systems, the recognition of prior learning is either not yet a common practice in the majority of institutions or, if it is a common practice, it cannot be used both for access to higher education and for progression in higher education studies. In ten higher education systems (yellow), the recognition of prior learning can be used either only for access to higher education or only for progression in higher education studies. In any case, it is still not very widespread. This group also includes countries, where the recognition of prior learning might be used for access as well as for progression, but it is not underpinned by any centrally established guidelines or policies. The following category (orange) applies to four countries that have not yet developed any systematic approach to the recognition of prior learning, but report some progression in this field (e.g. preparation of steering documents). Finally, thirteen EHEA countries (red) have not yet commenced any systematic activities related to the recognition of prior learning in the higher education sector.

Overall, the most recent BFUG data collection confirms the results of the 2007 and 2009 reporting exercises, which indicated that in the majority of EHEA countries, the recognition of prior learning was at an early stage of development or had not yet started (Rauhvargers, Deane & Pauwels, 2009). Compared to the previous editions, the current scorecard indicator on the recognition of prior learning looks even more pessimistic. This is mainly because the focus of the reporting was on the recognition of prior non-formal and informal learning. The present indicator shows that a large proportion of EHEA countries are situated at the two extremities of the spectrum: either they already have a well established system of the recognition of prior learning or they have not yet started their activities in this field. A relatively small number of countries are situated at intermediary stages. This could mean that

despite the policy attention accorded to the theme of the recognition of prior learning, only very little developments are taking place across the EHEA.

Figure 6.11: Scorecard Indicator n°9 on the recognition of prior learning, 2010/2011*



Scorecard categories

- There are nationally established procedures, guidelines or policy for assessment and recognition of prior learning as a basis for 1) access to higher education programmes, and 2) allocation of credits towards a qualification and/or exemption from some programme requirements, AND these procedures are demonstrably applied in practice.
- There are nationally established procedures, guidelines or policy for assessment and recognition of prior learning as a basis for 1) access to higher education programmes, and 2) allocation of credits towards a qualification and/or exemption from some programme requirements, BUT these procedures are not demonstrably applied in practice.
 OR
 There are nationally established procedures, guidelines or policy EITHER for 1) OR for 2) (see above), AND these procedures are demonstrably applied in practice.
- There are nationally established procedures, guidelines or policy EITHER for 1) OR for 2) (see above), BUT these procedures are not demonstrably applied in practice.
 OR
 There are no specific procedures/national guidelines or policy for assessment of prior learning, but procedures for recognition of prior learning are in operation at some higher education institutions or study programmes.
- Implementation of recognition of prior learning is in a pilot phase at some higher education institutions
 OR
 Work at drawing up procedures/national guidelines or policy for recognition of prior learning has started.
- No procedures for recognition of prior learning are in place EITHER at the national OR at the institutional/programme level.

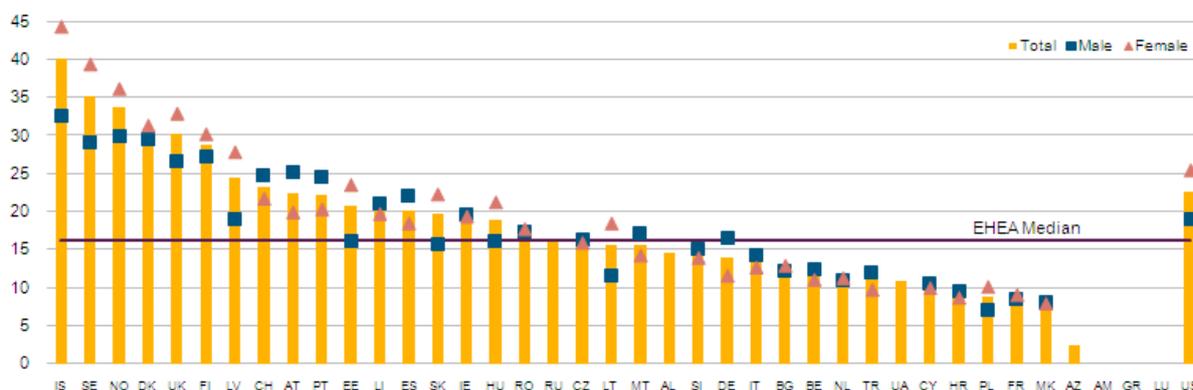
6.6. Participation of mature students and delayed transition students in formal higher education provision

While the preceding sections have been primarily devoted to different policy approaches to lifelong learning across the EHEA, the present section intends to assess how successful the higher education systems are in attracting “lifelong learners”. Although there is no perfect measure that would fully cover this area, available data on the participation of mature students (Eurostat) and delayed transition students (Eurostudent) can be used as a proxy to evaluate the degree to which different higher education systems have already established a culture of lifelong learning.

Eurostat data on students aged 30 and over enrolled in higher education show that during the academic year 2008/2009, the median level of the percentage of these students in formal higher education programmes was 16 % (see Figure 6.12). However, across 36 countries for which data is available, situations vary significantly. The lowest participation rate is registered in Azerbaijan, where mature students represent only around 2 % of the total student population. It is also relatively low in Croatia, Poland, France and the Former Yugoslav Republic of Macedonia, where only up to 10 % of students enrolled in the system are mature students. On the other end of the spectrum lie the Nordic countries and the United Kingdom, where mature students represent around one third of the total student population (between 29 % and 40 %). However, it must be noted that in the Nordic countries, “typical” higher education student are generally slightly older than in the majority of other EHEA countries. For example in Sweden, the most common starting age for 1st cycle tertiary education is the age of 22 and in Finland, it is situated between 20 and 24 years (EACEA/Eurydice, 2010).

Data on the gender distribution covering 32 countries indicate that in seven countries with the highest participation levels (i.e. the Nordic countries, the United Kingdom and Latvia), the share of older students is higher among women than among men. The most significant gender gap can be observed in Sweden, Iceland and Latvia, where the share for female mature students is around 10 percentage points higher than for male students. Profiles of other EHEA countries for which data is available are more diverse. In around half of them, the participation rate of men and women is balanced, whereas in other cases there is a gender gap either in favour of men or women. However, where a gender gap exists, it generally does not exceed 5 percentage points.

Figure 6.12: Percentage of students enrolled in tertiary education, total and by gender, 30 or more years old, 2008/2009⁴



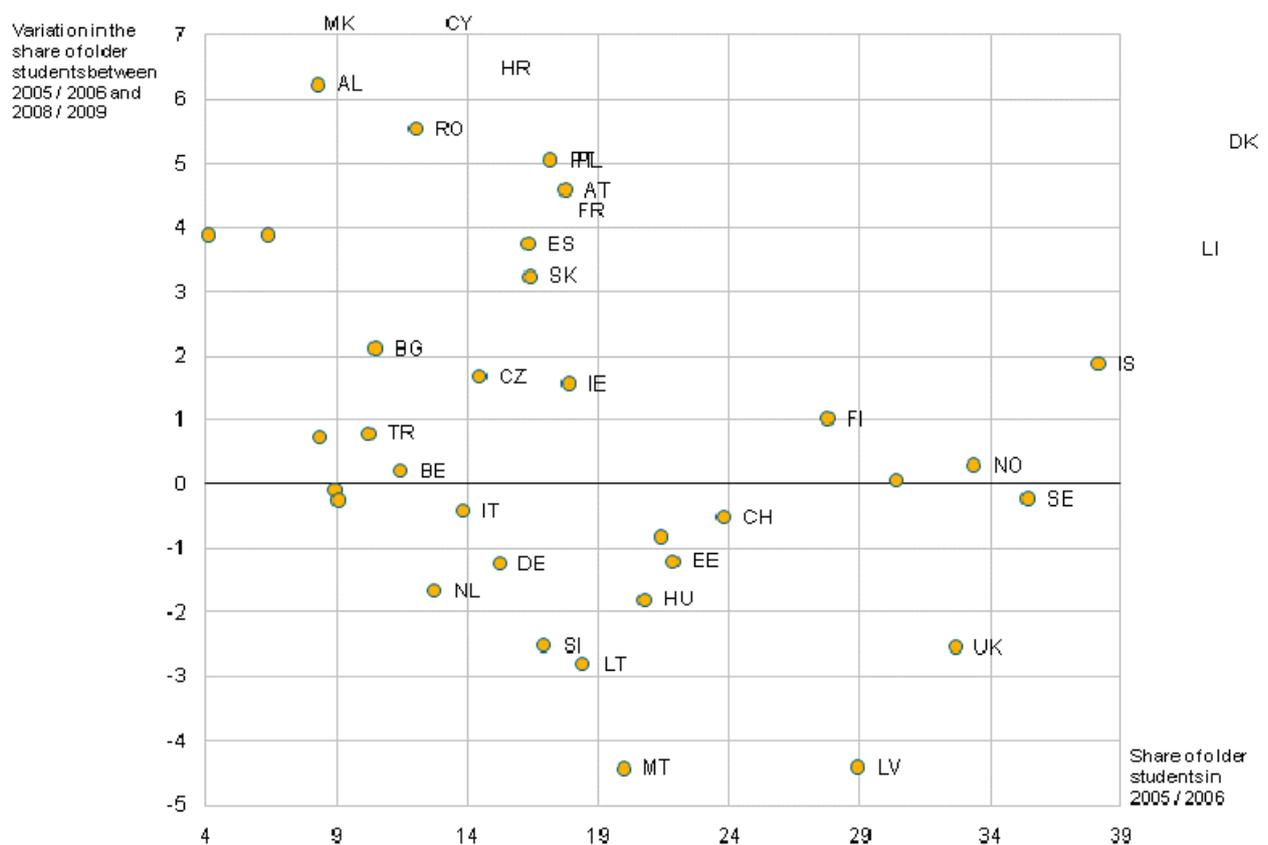
Source: Eurostat, UOE.

⁴ Please note : graphical presentation of this figure will be improved in the coming period

Figure 6.13 allows a country-level evaluation of the variation in the participation of mature students between 2005/2006 and 2008/2009. The figure indicates that out of 32 countries for which data is available, 17 countries registered an increase in the participation of this category of students (see countries above the horizontal line). The most important augmentation - between 3 and 6 percentage points - was registered in Albania, Austria, Cyprus, the Former Yugoslav Republic of Macedonia, Portugal, Romania, Slovakia and Spain. Among these countries, the Former Yugoslav Republic of Macedonia, Cyprus and Albania represent the most interesting cases, as their participation rate was in 2005/2006 among the lowest (4 %, 6 % and 8 %, respectively) and it significantly improved by 2008/2009 (by around 4 percentage points in the first two countries and 6 percentage points in Albania).

On the other hand, there are 15 countries in which the proportion of mature students in higher education decreased. The most significant decrease was recorded in Latvia and Malta (around 4 percentage points), and in the United Kingdom, Slovenia and Lithuania (around 3 percentage points). A few countries characterised by relatively low participation in 2005/2006 (e.g. France and Poland), registered a further decrease. However, in some of these countries, the decrease was not very significant (only up to 0,5 percentage points).

Figure 6.13: Percentage of students enrolled in tertiary education, 30 or more years old, in 2005/2006 and variation from 2005/2006 to 2008/2009⁵



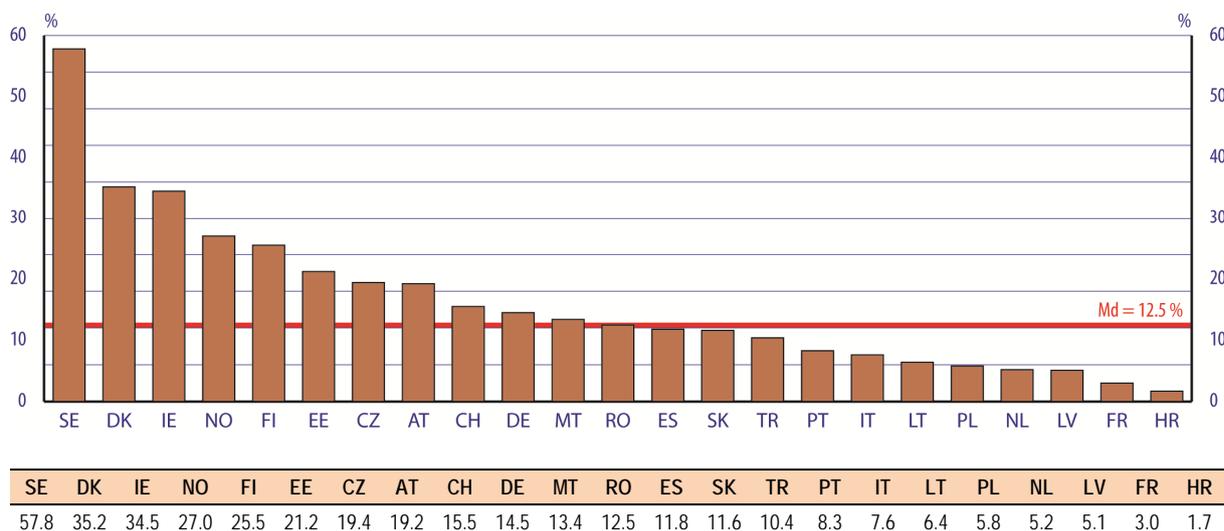
Source: Eurostat, UOE.

The extent to which higher education systems provide lifelong learning opportunities can also be examined through the level of participation of delayed transitions students, i.e. students who have delayed their transition between upper secondary and higher education by at least 2 years (see also

⁵ Please note : graphical presentation of this figure will be improved in the coming period

the Glossary). Available Eurostudent data covering 23 countries indicate (Figure 6.14) that the highest share of these students can be found in the Nordic countries and Ireland, where they represent at least 25 % of the overall student population. Among these countries, Sweden counts a particularly high proportion of delayed transition students (almost 60 % of the student population). On the other end of the spectrum lie Croatia and France, where delayed transition student represent, respectively, only 1,7 % and 3 % of the total student population.

Figure 6.14: Share of delayed transition students in the student population, 2009/2010



Source: Eurostudent.

Overall, these data show that in some EHEA countries, it is relatively common for students to enter higher education after a certain period spent outside the education systems, whereas in other countries, there is a small probability that those who did not embark on studies immediately (or almost immediately) after the completion of upper secondary education would enter the system later in life. This could indicate that countries in the first group have already adapted their higher education systems to the needs and expectations of “lifelong learners”.

Conclusion

This chapter looked at six interlinked aspects of lifelong learning in higher education. First, it examined how the concept of lifelong learning is understood and interpreted across the EHEA, to what extent lifelong learning has become a recognised mission of higher education institutions and what sources contribute to its financing. The chapter then paid attention to two distinct elements of lifelong learning in higher education, namely flexible delivery of higher education programmes and the recognition of prior learning. The final section looked at how successful different higher education systems are in attracting mature students and delayed transition students to participate in formal higher education programmes.

The analysis has shown that cross-country differences in the understanding of lifelong learning in higher education are difficult to capture. This is partly related to the fact that only in a few countries steering documents covering higher education include a definition of lifelong learning. Where such definition exists, it often has a very broad character, which does not allow a full understanding of how lifelong learning in higher education is viewed and what activities fall under its concept. However, cross-national differences emerge when comparing the main forms of lifelong learning in which higher education institutions are commonly involved. While in some countries, lifelong learning in higher education embraces a wide range of activities, in others, the list is still relatively limited. This could

indicate that apart from promoting lifelong learning as a concept of its own right, more policy attention could be provided to the promotion of activities, which are still rarely seen as a part of lifelong learning provision (e.g. tailor-made provision for industry/companies and other external partners, targeted guidance and counselling services, access provision to attract non-traditional learners, the possibility for the general public to use various higher education resources).

Despite conceptual differences in understanding lifelong learning, in most EHEA countries, lifelong learning has already become a recognised mission of all higher education institutions. Yet, activity flows in this field often vary from one institution to another. Besides, higher education institutions sometimes specialise in certain lifelong learning activities, whereas other elements of lifelong learning are not included in their offer. This can have various reasons, including specific legal constraints such as the lack of regulations on the recognition of prior learning or the impossibility for higher education institutions to provide formal higher education programmes under flexible arrangements.

From a financial perspective, lifelong learning in higher education commonly involves diverse sources. Higher education institutions rarely dispose of specifically earmarked budgets to cover their lifelong learning provision. Most commonly, institutions finance lifelong learning activities from their general budgets, which are often combined with other financial means. Comparable data on the extent to which lifelong learning is financed from public sources is difficult to obtain. To achieve a cross-country comparability in this field it would be necessary to develop a robust methodology that would include an operational definition of lifelong learning in higher education.

With regard to distinct elements of lifelong learning in higher education, the analysis has shown that most EHEA countries recognise the need to enhance flexible delivery of higher education programmes and they address this issue through various policy actions. Around two-thirds of countries have established an official student status other than the status of a full-time student. However, studying with a formal status other than full-time often requires higher private financial investment than studying under traditional arrangements. Therefore, the existence of alternative student statuses needs to be seen in close relation to financial arrangements that apply to each category of students. It can also be noted that the absence of an alternative student status does not necessarily mean the impossibility for students to follow their studies in a flexible way.

Data on the participation of students in part-time studies indicate that mature students are those who are the most likely to study part-time. Flexible delivery of higher education programmes and lifelong learning therefore appear as two interlinked thematic areas. The analysis also shows that cross-country comparisons related to alternative modes of study should be carried out with caution, taking into account conceptual complexity of this field.

Another element of lifelong learning in higher education - the recognition of prior learning - has been followed by a separate scorecard indicator since 2007. The main focus of the present indicator was the recognition of prior non-formal and informal learning. Similarly to previous editions, the analysis looked at two different aspects of the recognition of prior learning: access to higher education and progression in higher education studies. In addition, the indicator examined the extent to which the recognition of prior learning has become a common practice within the higher education sector. The results show that a large proportion of EHEA countries are situated at the two extremities of the spectrum: either they already have a well established system of the recognition of prior learning or they have not yet started their activities in this field. A relatively small number of countries are situated at intermediary stages, which could indicate that despite the policy attention accorded to the theme, only very little developments are taking place across the EHEA.

Finally, while policy approaches to lifelong learning in higher education differ from one country to another, the degree of participation of non-traditional learners (in particular mature students and delayed transition students) in formal higher education programmes can be used as a proxy to

evaluate how successful different higher education systems are in the implementation of a culture of lifelong learning. The report shows that countries have very different profiles in terms of participation levels of non-traditional students in higher education. While in some of them, mature students and/or delayed transition students represent a significant proportion of the total student population, in other instances, the proportion of these students is relatively low. Alongside, countries also show different evolution patterns between academic years 2005/2006 and 2008/2009: In around half of them the proportion of mature students in formal higher education programmes increased, whereas in another half it decreased. It therefore appears that the EHEA countries are addressing the establishment of a culture of lifelong learning with very different degrees of intensity. The European Higher Education Area - as an inclusive area for learners of all ages - is yet to be created.

7. MOBILITY

The Bologna context

Mobility has always been at the heart of the Bologna process. It has been conceived both as a transversal action to complement the original action lines of the process, and as a key instrument to develop the European Higher Education Area. As explained in the Berlin Communiqué (2003), mobility embraces several different dimensions - political, social, economic, as well as academic and cultural¹. The promotion of student and staff mobility has been reiterated in all Ministerial communiqués, and in their 2009 meeting in Leuven/Louvain-la-Neuve, the Ministers gave a new boost to mobility in the form of a target to be reached by the EHEA countries: "*In 2020, at least 20 % of those graduating in the European Higher Education Area should have had a study or training period abroad*" (Leuven/Louvain-la-Neuve Communiqué 2009).

The EHEA mobility target was set before available statistical data was able to express clearly the quantity of mobile students in Europe and in the world. Indeed the process of gathering the statistics required to measure progress towards the 20 % mobility target has been a topic of major discussion since 2009. The target includes the two major forms of mobility: degree mobility, whereby a student takes a full degree programme in another country, and credit mobility whereby a part of a student's study programme is undertaken in another country. The required revisions to statistical definitions to capture degree mobility accurately have now been agreed, and the first statistical collection was made by Eurostat in 2010. These data should now start to be available yearly. However, the definitions for the required credit mobility statistics have not yet been finalised, and the sources of data will also need to be developed. Eurostat has initiated this process and during 2011 a task-force including experts from national statistical institutes discussed the required methodological developments. Assuming that progress is smooth, the required statistics on credit mobility should start to be available from 2013.

The second half of the first Bologna decade saw a shift in the way the value of mobility was described in the Bologna process, with increasing attention on the importance of mobility for employability. Not only was mobility being valued for the academic and cultural benefits that it brings, but also for its benefits to the European labour market. This aspect of mobility had previously been in the margins of policy discussion, despite being outlined in the Attali report that prepared the 1998 Sorbonne Declaration. Nevertheless, the two most recent communiqués have each dedicated one paragraph explicitly to employability in the context of an increasingly inter-connected European and global labour market. Thus mobility is perceived as a means of widening knowledge and skills of students and staff and better preparing them for employment in the twenty-first century.

The Bologna Ministerial Communiqués have also given attention to the obstacles preventing mobility, naming those which emerge most frequently. Indeed, these have to be eliminated or greatly reduced in order to support and promote mobility on a larger scale.

Mobility is also closely linked to the attractiveness of higher education institutions and is a main tool of internationalisation. Internationalisation of higher education institutions in Europe has been stressed in the Bologna process, and the decade has seen many higher education institutions taking forward their implementation strategies in this area. It is also worth mentioning that one of the innovative features of internationalisation during the last decade has been the creation of an international environment at home institutions for those who for one reason or another cannot pursue a study period abroad. The institution can provide courses taught in English or other foreign languages for domestic students and facilitate more interaction with students from abroad in an increasingly multi-cultural environment.

BFUG Working Group on Mobility

The BFUG established a working group on mobility at its meeting in Stockholm on 28/29 September in 2009. Its main task was to draft a Mobility Strategy for the EHEA which is to be adopted at the Ministerial Conference in Bucharest in April 2012. The Strategy focuses on the importance of mobility and internationalisation in higher education, and outlines key action required by the EHEA countries to pave the way for more high quality mobility exchanges and fewer obstacles across the continent.

BFUG Working Group on International Openness

The BFUG also continued to support a working group on International Openness to take forward the recommendations of the 2009 report "The European Higher Education Area (EHEA) in a global context: Report on overall developments at the European, national and institutional levels". The working group has set up the Information and Promotion Network (IPN) which aims at enhancing an international promotion of the EHEA as well as the promotion of national higher education systems in a European context. One of the IPN's outcomes is a report based on a survey which focused on international marketing, i.e. activities that are aimed at attracting international students and thus at increasing incoming mobility to the EHEA. In this respect, different channels of providing information about the EHEA as well as the ways of building ties across borders and organisations have been proposed.²

This chapter has benefited from close co-operation with both working groups mentioned above. In particular, one of the main sources of information for this chapter – the BFUG mobility questionnaire – was developed by the Mobility Working Group.

Chapter outline

This chapter aims to give an overview of the progress EHEA countries have made so far. The chapter first looks at the main different types of mobility. Statistical data on incoming and outward mobility show the main trends in mobility flows of students from the EHEA and the rest of the world studying in one of the EHEA countries, as well as students who are nationals of one country and graduate in a different country within the EHEA. A substantial part of this chapter is dedicated to obstacles and measures adopted to foster student mobility. The last section encompasses staff mobility and, attempts to identify the main obstacles and measures in place.

7.1. Types of mobility

Although the Leuven/Louvain-la-Neuve Communiqué sets a concrete target for mobility, it does not provide definitions and refers only to "a study or training period abroad" (Ibid). "Types" of mobility are mentioned only in general terms, as Ministers call upon each country to increase mobility and "to diversify its types and scope".

These types of mobility have been taken forward and defined in the context of discussions on statistical indicators at European level. The definitions used in this report have been formulated by Eurostat in the context of its work on the measurement of mobility targets within the Bologna process.

The most important distinction for student mobility from a statistical point of view, as well as for policy making, is between degree and credit mobility. Degree mobility is a long-term form of mobility which aims at the acquisition of a whole degree or certificate in the country of destination. Credit mobility is a short-term form of mobility - usually a maximum of one year - aiming at the acquisition of credits in a

¹ See: http://www.ehea.info/Uploads/Declarations/Berlin_Communique1.pdf

² See: <http://www.ehea.info/Uploads/presentations/IPN%20Survey%20Report%2025%20March%202011.pdf>

foreign institution in the framework of on-going studies at the home institution. Thus the student typically begins a programme in the home institution, moves to another institution for an agreed part of the programme, and then returns to the home institution in order to finish the programme.

While information on degree mobility should be tracked in administrative statistics, credit mobility data is more difficult to collect. The only credit mobility data systematically collected is through programmes such as Erasmus. However, even if all programme information data are put together, it is clear that a number of students will not appear in statistics. In particular "free-mover" students who are not mobile within an organised programme will not be tracked.

Another important distinction of mobility types is linked to mobility flows commonly addressed as incoming and outward mobility. Incoming mobility refers to the country of destination – the country where the student moves in order to study - and is usually measured by the ratio between the mobile students studying in the country and the total number of students studying in the country. The incoming mobility rate may be considered as an indicator of the attractiveness of the country as a destination for international students.

Outward mobility refers to the country of origin – the country from where the student moves. While for many students this will be identical to the country of the student's nationality, it is more accurate to consider the country of permanent/prior residence or prior education. It can be measured by the ratio between the number of students from the country of origin and the total student population of the country of origin. The outward mobility rate may be considered as an indicator of a pro-active policy for students to acquire international experience (particularly for credit mobility). However, it may also be an indicator of possible insufficiencies in the country of origin (particularly for degree mobility).

While degree and credit mobility are the main forms of mobility under consideration in this report, other forms should not be forgotten. Mobility encompasses a wide range of short-term provision such as internships/work placements, research stays, summer schools, language courses and voluntary work. Statistical data on these types of mobility are, however, not collected at European level.

7.2. Student mobility flows

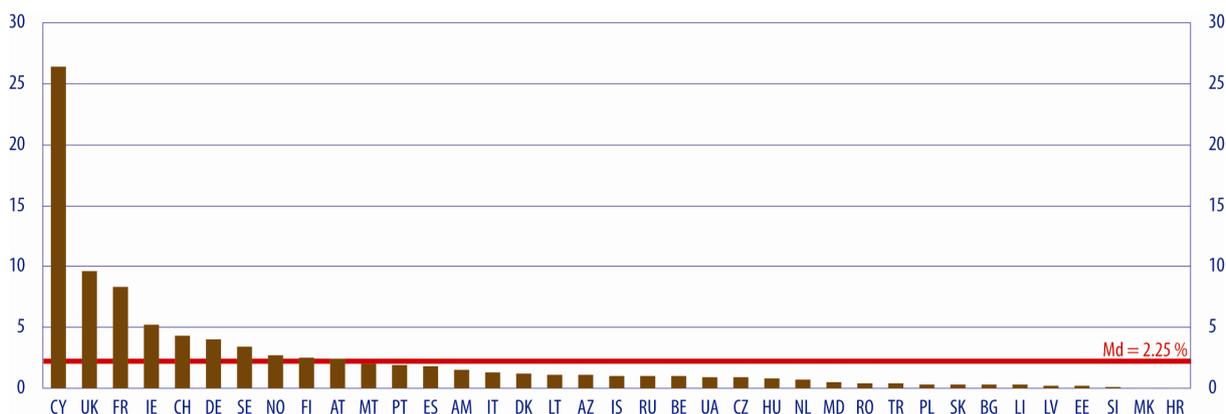
Mobility in Europe should not, and cannot, be separated from trends at global level. Even when the focus is on European countries, mobility flows from other continents to Europe as well as flows of European students worldwide form a significant part of the picture. Overall, three main student mobility flows can be distinguished:

- degree mobility flows from outside the EHEA to the EHEA
- degree mobility flows from inside the EHEA to outside the EHEA
- degree and credit mobility flows within the EHEA

7.2.1. Degree mobility flows from outside the EHEA to the EHEA

Figure 7.1 depicts the incoming degree mobility rate to EHEA countries, showing mobile students from the whole world, but excluding the EHEA countries, studying in the country as a percentage of the total number of students enrolled.

Figure 7.1: Incoming degree mobility rate – tertiary education mobile students from outside the EHEA studying in the country as a percentage of the total number of students enrolled, by country of destination, 2008/09



Notes: Data refer to foreign students (student with the citizenship of a foreign country) instead of mobile students (student who moved to the country in order to study) for the following countries: France, Ireland, Norway, Finland, Austria, Malta, Armenia, Italy, Azerbaijan, Russia, Ukraine, Czech Republic, Moldova, Turkey, Poland, Latvia and Macedonia.

EHEA aggregate excludes the following countries of destination: Albania, Andorra, Azerbaijan, Bosnia and Herzegovina, Georgia, Montenegro, Serbia and Holy See.

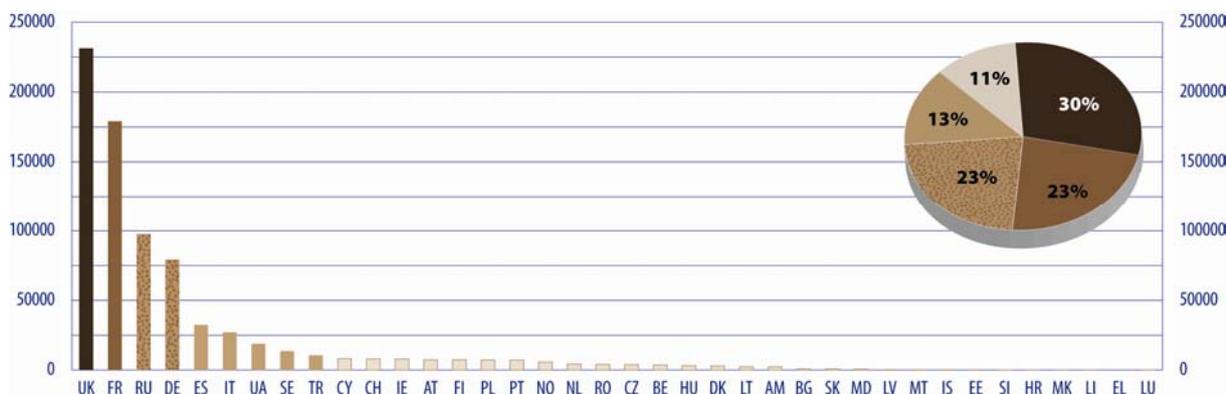
ISCED level 6 excluded for the following countries: Armenia and Germany.

Source: Eurostat (UOE data collection)

Only four countries, namely Cyprus, the United Kingdom, France and Ireland reach more than 5 %. These countries thus seem to be the most attractive countries for students coming from outside the EHEA. At the other end of the spectrum, seventeen countries reach less than 1 %. The average of all countries is 2.25 %.

Although from this figure a number of countries appear to have a low rate of incoming mobility from outside the EHEA, the size of the country and the overall volume of students also needs to be considered. Indeed a very different picture emerges when looking at the distribution of incoming mobile students by country of destination (see Figure 7.2). Four countries - the United Kingdom, France, Russia and Germany - attract 76 % of all students from outside the EHEA.

Figure 7.2: Distribution of incoming degree tertiary education mobile students from abroad from outside the EHEA by country of destination – 2008/09



Notes: Data refer to foreign students instead of mobile students for the following countries: France, Ireland, Norway, Finland, Austria, Malta, Armenia, Italy, Azerbaijan, Russia, Ukraine, Czech Republic, Moldova, Turkey, Poland, Latvia and Macedonia.

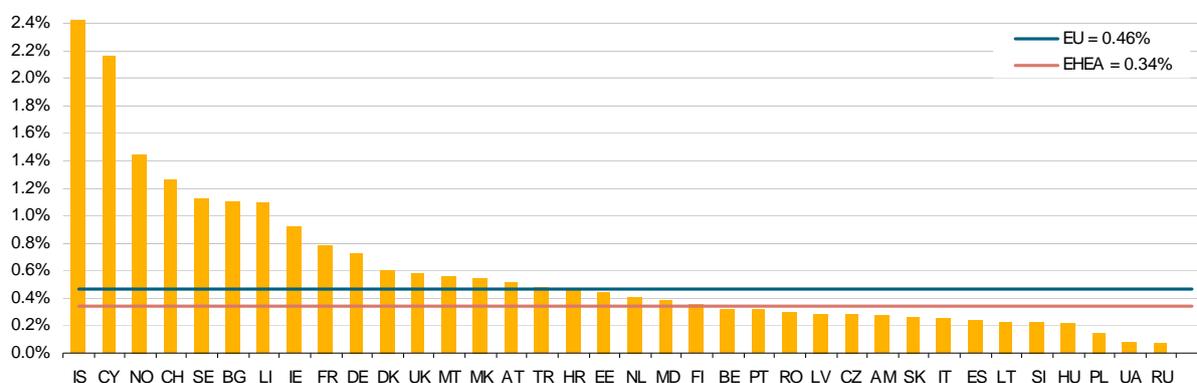
ISCED level 6 excluded for the following countries: Armenia and Germany.

Source: Eurostat (UOE data collection)

7.2.2. Degree mobility flows from inside the EHEA to outside the EHEA

The outward degree mobility rate shows mobile students that graduated abroad as a percentage of the total number of students graduating in the country of origin.

Figure 7.3: Outward degree mobility rate – tertiary education students from a country of the EHEA studying abroad outside the EHEA as a percentage of the total number of students of the same country of origin, 2008/09



Notes: Destinations outside of the EHEA considered are Australia, New Zealand, Canada, United States and Japan.

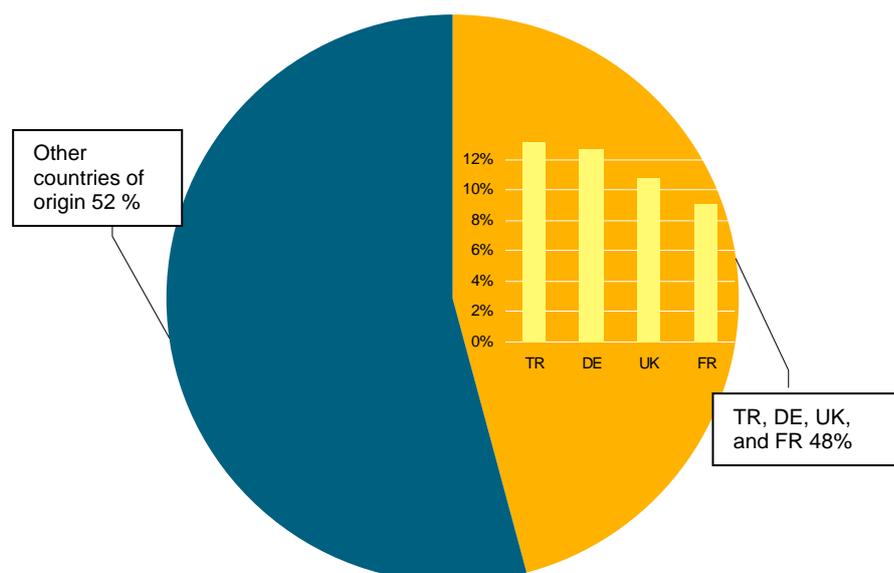
Data refer to foreign students instead of mobile students for the following country of destination: Japan.

ISCED level 6 excluded for the following countries: Armenia and Germany.

Source: Eurostat (UOE data collection)

The rate is highest in the small states of Iceland and Cyprus reaching slightly more than 2 % (see Figure 7.3). These countries are followed by Norway, Sweden, Liechtenstein, Switzerland and Bulgaria where the range is from 1 % to 2 %. The average of the countries reaches only 0.34 %.

Figure 7.4: Distribution of outward degree tertiary education students from the EHEA to abroad outside the EHEA by country of origin, 2008/09



Notes: Destinations outside of the EHEA considered are Australia, New Zealand, Canada, United States and Japan.

Data refer to foreign students instead of mobile students for the following country of destination: Japan.

ISCED level 6 excluded for the following countries: Armenia and Germany.

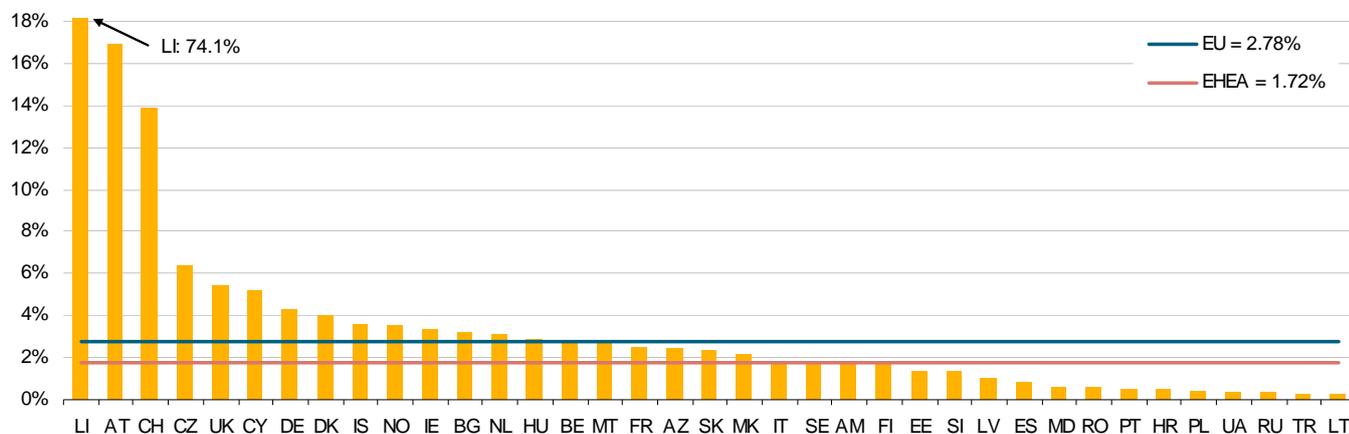
Source: Eurostat (UOE data collection)

When the information is analysed in relation to the country of origin, four countries can be seen to provide a very significant proportion of the students studying abroad outside the EHEA. These are Turkey, Germany, the United Kingdom and France (see Figure 7.4). Students from these four countries present almost half of all outward mobile students from the EHEA studying outside the area.

7.2.3. Degree and credit mobility flows within the EHEA

It is important to keep in mind that mobility is currently a relatively minor phenomenon and does not reach significant values compared to the total numbers of students enrolled in higher education. Based on Eurostat data, the average number of students studying in the EHEA coming from any country from abroad (i.e. incoming mobility from outside the EHEA plus incoming mobility from inside the EHEA) reaches slightly less than 4 % (Figure 7.1 and 7.5).

Figure 7.5: Incoming degree mobility rate – tertiary education mobile students from abroad from inside the EHEA studying in the country as a percentage of the total number of students enrolled, 2008/09



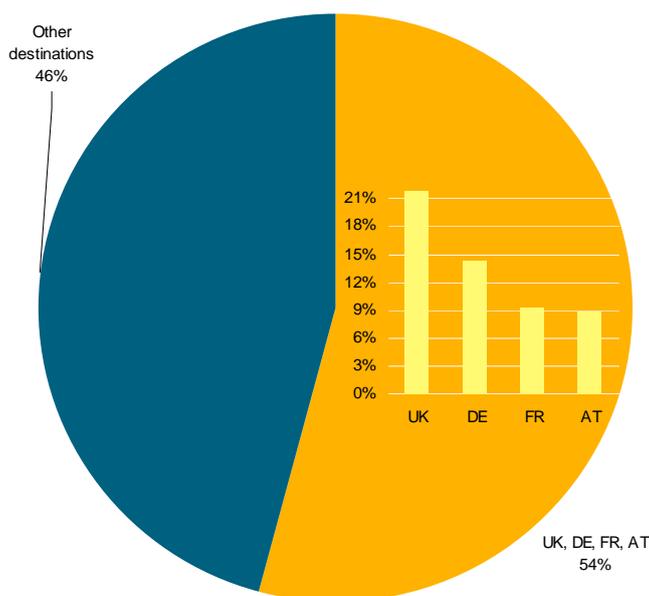
Notes: Data refer to foreign students instead of mobile students for the following countries: France, Ireland, Norway, Finland, Austria, Malta, Armenia, Italy, Azerbaijan, Russia, Ukraine, Czech Republic, Moldova, Turkey, Poland, Latvia and Macedonia.

ISCED level 6 excluded for the following countries: Armenia and Germany.

Source: Eurostat (UOE data collection)

The majority of countries reporting on total mobility flows record more outward than incoming students. South and east European countries tend to have more outward mobility, while west European countries have more incoming students. The incoming mobility rate in the EHEA (see Figure 7.5) shows mobile students from abroad studying in the country as a percentage of the total number of students enrolled in that country. Switzerland, Austria and Liechtenstein have the highest incoming mobility rate in the EHEA ranging from 13.91 % to 74.1 %. All other countries show levels below 10 % out of which all but three (Czech Republic, United Kingdom and Cyprus) are below 5 %. The average is 1.72 %.

Figure 7.6: Distribution of incoming degree tertiary education mobile students from abroad from inside the EHEA by country of destination, 2008/09



Notes: Data refer to foreign students instead of mobile students for the following countries: France, Ireland, Norway, Finland, Austria, Malta, Armenia, Italy, Azerbaijan, Russia, Ukraine, Czech Republic, Moldova, Turkey, Poland, Latvia and Macedonia.

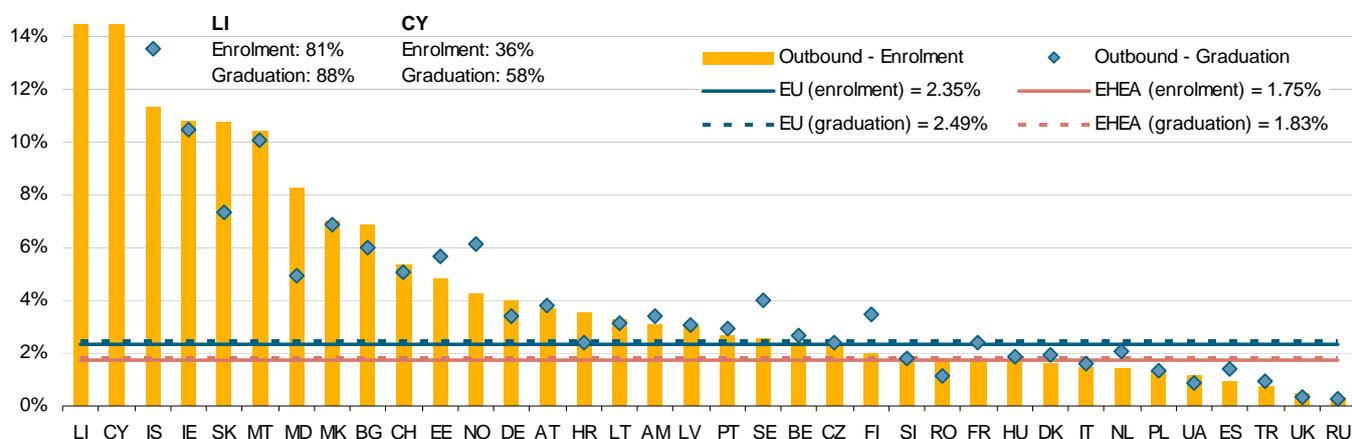
ISCED level 6 excluded for the following countries: Armenia and Germany.

Source: Eurostat (UOE data collection)

Figure 7.6 presents the distribution of incoming degree mobile students from inside the EHEA. It shows that more than half of all incoming students from inside the EHEA choose the United Kingdom, Germany, France and Austria as their study destination.

Figure 7.7 depicts students from a country of the EHEA studying abroad inside the EHEA as a percentage of the total number of students of the same country of origin. The graduation values included in the graph are important for evaluation of progress towards the Bologna 20% benchmark.

Figure 7.7: Outward degree mobility rate – tertiary education students from a country of the EHEA studying abroad (enrolment) or graduating (graduation) inside the EHEA as a percentage of the total number of students of the same country of origin, 2008/09



Notes: The following destinations inside the EHEA were not included: Albania, Andorra, Azerbaijan, Bosnia and Herzegovina, Georgia, Montenegro, Serbia and Holy See.

For outward mobility in terms of enrolment, data refer to foreign students instead of mobile students for the following countries of destination: France, Ireland, Norway, Finland, Austria, Malta, Armenia, Italy, Azerbaijan, Russia, Ukraine, Czech Republic, Moldova, Turkey, Poland, Latvia and Macedonia.

For outward mobility in terms of graduation, data refer to foreign students instead of mobile students for the following countries of destination: Belgium, Bulgaria, Czech Republic, Greece, France, Italy, Latvia, Malta, Poland, Portugal, Finland, Turkey, Iceland, Lichtenstein, Armenia, Azerbaijan, Georgia and Russia.

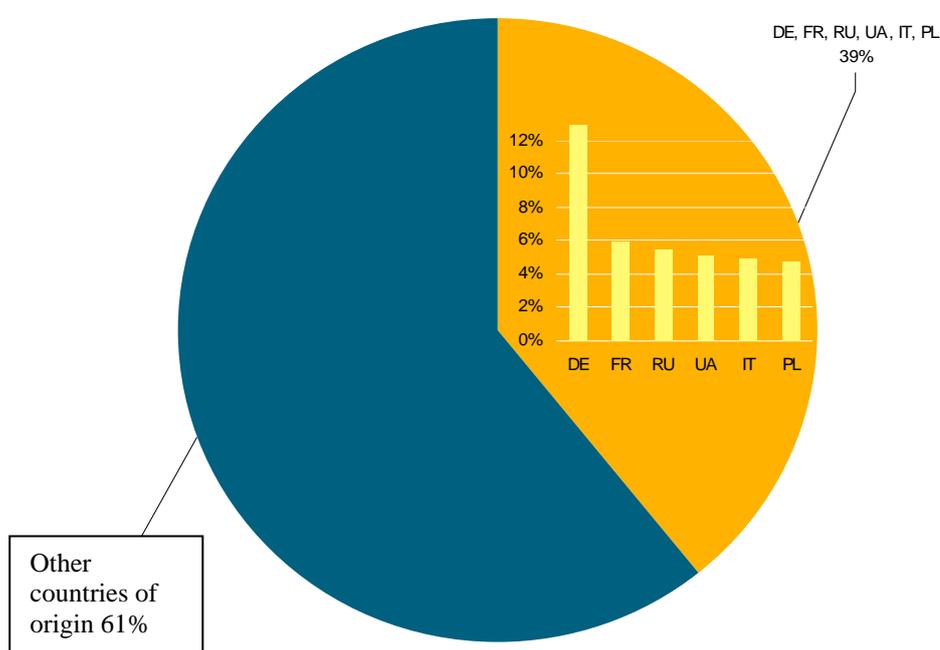
ISCED level 6 excluded for the following countries: Armenia and Germany.

Source: Eurostat (UOE data collection)

Apart from Cyprus and Liechtenstein with outward degree mobility rates of graduates of more than 50%, Iceland, Ireland, Slovakia and Malta have the highest values, between 10 % and 14 % (see Figure 7.7). The vast majority of EHEA countries, however, reach values of less than 5 %. Based on these data from academic year 2008/09, the average is 1.83 %.

Figure 7.8 presents information on outward degree mobility to another EHEA country from the perspective of the country of origin.

Figure 7.8: Distribution of outward degree tertiary education mobile students from the EHEA to abroad inside the EHEA (enrolment) by country of origin, 2008/09



Notes: The following destinations inside the EHEA were not included: Albania, Andorra, Azerbaijan, Bosnia and Herzegovina, Georgia, Montenegro, Serbia and Holy See.

Data refer to foreign students instead of mobile students for the following countries of origin: France, Ireland, Norway, Finland, Austria, Malta, Armenia, Italy, Azerbaijan, Russia, Ukraine, Czech Republic, Moldova, Turkey, Poland, Latvia and Macedonia.

ISCED level 6 excluded for the following countries: Armenia and Germany.

Source: Eurostat (UOE data collection)

The greatest share of EHEA students enrolled for a degree study in another EHEA country come from Germany, and this is followed by France, Russia, Ukraine, Italy and Poland (see Figure 7.8).

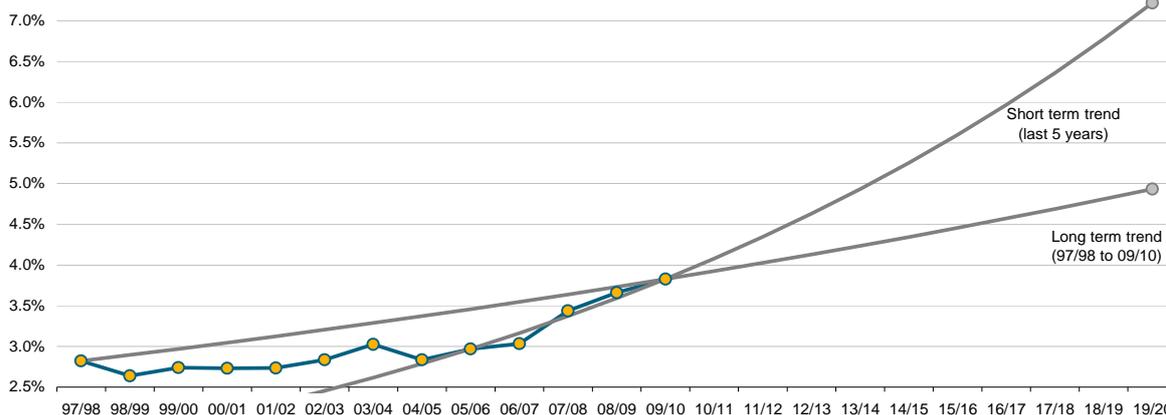
All the figures so far concern degree mobility, and thus there is a significant gap in relation to information on credit mobility. Indeed the only significant source of data concerning credit mobility is currently the Erasmus programme, which is undoubtedly the most widely used instrument of European credit mobility. Nevertheless not all EHEA countries are able to participate in Erasmus and hence there may be many imbalances in credit mobility as a consequence.

The absolute numbers of students abroad under Erasmus have continuously grown since the conception of the programme. Erasmus student exchange in the academic year 2009/10 increased by 7.4 % (European Commission 2011, p.4). If this trend continues, the Erasmus target of three million students, since the beginning of the programme in 1987/88, by the end of academic year 2012/13 will be reached (Ibid).

Figure 7.9 shows how the Erasmus programme can contribute to the 20 % benchmark by 2020. The chances that a higher education student goes abroad within the framework of the Erasmus programme (in a country participating in Erasmus) have in general increased significantly from 1998 to 2010. If the long-term trend is kept, it should reach around 5 % in 2020. This is the most conservative trend. If the trend of the last years (short-term trend) continues, it may reach 7 % in 2020. However, it is necessary to recognise that some aspects of the fluctuations and progress in the past years are due to structural and organisational changes of the Erasmus programme.

Figure 7.9: Ratio students participating in Erasmus / Enrolment over 4 academic years

(Chances that a student has been abroad under Erasmus if s/he spends 4 years in higher education)



Notes:

- Long-term trend calculated based on the average yearly growth rate of the ratio between 1997/1998 and 2009/2010.
- Short-term trend calculated based on the average yearly growth rate of the ratio between 2005/2006 and 2009/2010.

Source: Eurostat.

7.2.4. Balanced vs. imbalanced mobility

The London Communiqué³ was the first one in the Bologna process to highlight more equitably balanced mobility within the EHEA, and thus turned attention to mobility flows across the EHEA. The aspiration of more balanced mobility was reinforced by the Leuven/Louvain-la-Neuve Communiqué which states that mobility should lead to a more balanced flow of incoming and outward students across the EHEA.

Statistical background

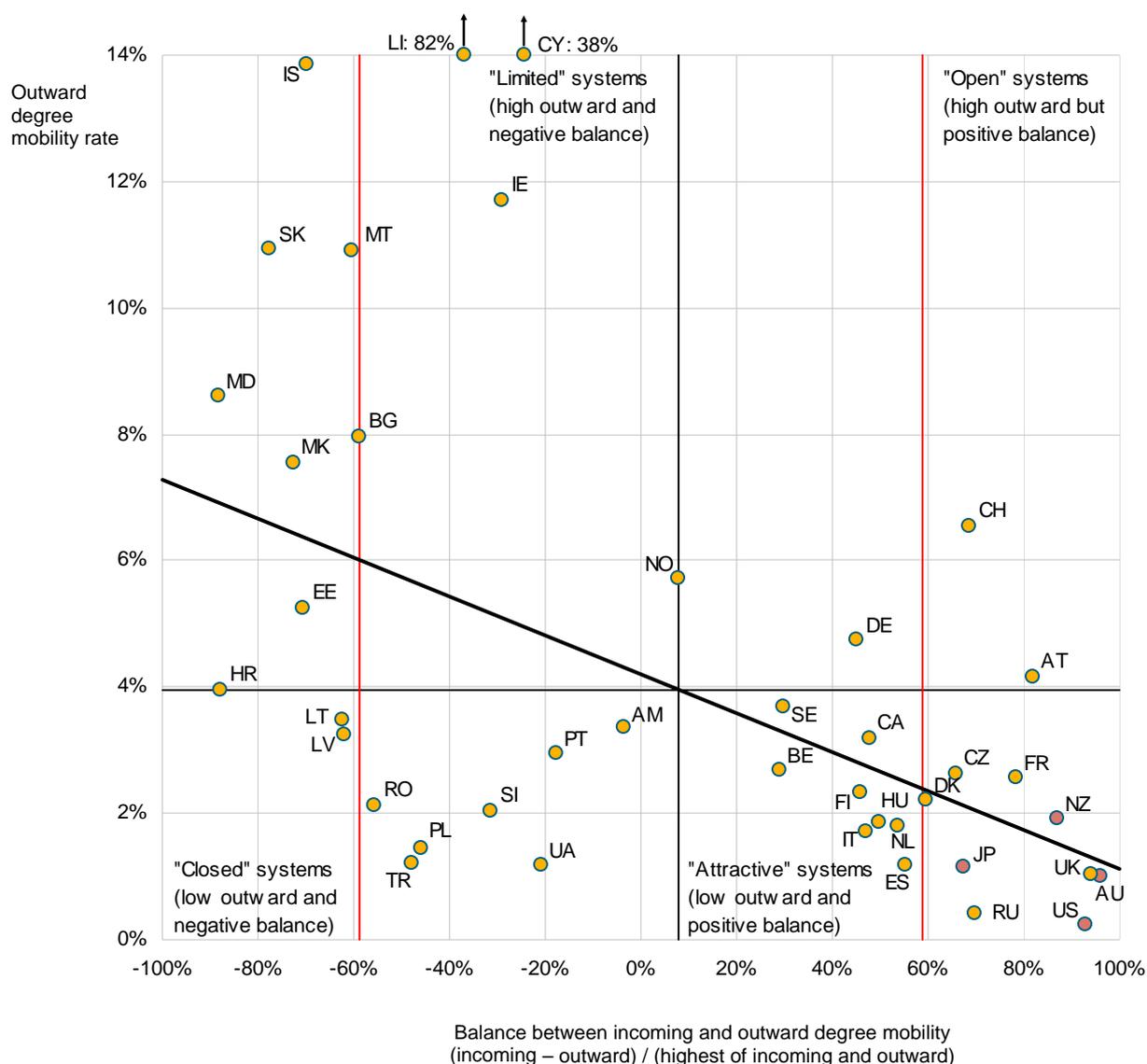
While the notion of balanced mobility may appear intuitively to be desirable, reality in this area is complex. For example, low incoming and low outward mobility rates would be balanced – but the reality would not be positive - assuming that mobility is considered to be positive. High incoming and high outward mobility rates would also be balanced, but without knowing more about the populations involved in the mobility flows and in the reasons for these flows, it is impossible to assess their desirability. This section demonstrates the balance between outward and incoming mobility flows and identifies four types of mobility systems.

An interesting comparison can be made between incoming and outward mobility in the EHEA (see Figures 7.5 and 7.7). Overall, the differences are highest in Cyprus and Austria (30.59 %, 13.30 % respectively) followed by Iceland, Ireland, Liechtenstein, Malta, Moldova, Slovakia and Switzerland

³ See: http://www.ehea.info/Uploads/Declarations/London_Communique18May2007.pdf

(ranging from 6 to 9 %). In all these countries, with the exception of Austria and Switzerland, the difference is in favour of outward mobility. At the other end of the scale are countries with very balanced rates of European incoming and outward mobility flows. Belgium, Finland, France, Germany, Italy, Norway, Poland, Romania, Slovenia, Spain, Sweden, Turkey and Ukraine have a difference of less than 1 %. The mobility flows in these countries can therefore be considered to be balanced – but only if only mobility within the EHEA is the only form of mobility taken into account. Indeed the flows are not necessarily balanced between specific countries or regions. The general tendency is towards east-west imbalances where incoming students come predominantly from eastern or southern Europe and outward students head towards western or northern Europe.

Figure 7.10: Balance as a measure of the attractiveness of the education system of the country at tertiary education level (mobility flows including EHEA and outside EHEA), 2008/09



Notes: Data refer to foreign students instead of mobile students for the following countries: France, Ireland, Norway, Finland, Austria, Malta, Armenia, Italy, Azerbaijan, Russia, Ukraine, Czech Republic, Moldova, Turkey, Poland, Latvia, Macedonia and Japan.

Destinations of mobility considered are the EHEA (except Albania, Andorra, Azerbaijan, Bosnia and Herzegovina, Georgia, Montenegro, Serbia and Holy See), Australia, New Zealand, United States and Japan.

ISCED level 6 excluded for the following countries: Armenia and Germany.

Regression line and averages computed excluding Liechtenstein and Cyprus (which were considered outliers).

Source: Eurostat (UOE data collection)

Guide to the chart:

Chart plots balance against outward mobility.

Dots represent countries.

Countries more to the right have a high imbalance towards incoming, countries more to the left have a high imbalance towards outward and countries closer to the middle are balanced.

Countries up in the chart have high levels of outward mobility and countries down in the chart have low levels of outward mobility.

Negative balance means that outbound mobility is higher than inbound mobility.

Positive balance means that inbound mobility is higher than outbound mobility.

The most balanced countries (defined as the more balanced 50 % among the countries where data is available) are between the two vertical red lines.

The vertical black line represents the average of the balance and the horizontal black line represents the average of outward mobility rate (countries un-weighted). The crossing point of the two black lines marks the centre of the cloud of country dots.

Thick black line: countries above the line show a level of outward mobility higher than what one would expect given their balance; countries below the line show a level of outward mobility lower than what one would expect given their balance.

The chart in Figure 7.10 is split into four quadrants with the following characteristics:

The bottom right quadrant includes countries with relatively low outward mobility and an excess of incoming over outward mobility. These countries can be characterised as highly attractive.

The upper right quadrant includes countries with an excess of incoming over outward mobility, indicating that they are attractive, but at the same time they indicate a relatively high outward mobility. These countries can therefore be characterised as "open" with a relatively high number of students going abroad to study but even more students coming from abroad.

The upper left quadrant includes countries with relatively high outward mobility and an excess of outward over incoming mobility; for whatever reasons these education systems appear to lack the capacity to attract students while significant numbers of students leave to study in other systems. They can therefore be characterised as "limited" systems.

The lower left quadrant includes countries with a relatively low levels of outward mobility and rates of incoming mobility that are even lower; the education systems in this quadrant are not attractive compared to other European countries, and students do not seem to have the same opportunities to go abroad as in other countries. Thus the systems here can be characterised as "closed".

On the basis of this data, currently only four countries have higher education systems that can be considered as open – Austria, Germany, Norway and Switzerland. Two of these countries, Germany and Norway, manage to have both an open and a balanced system.

When considering the most balanced countries (between -60 and 60 %), 16 have an outward mobility rate that is below the EHEA average.

National perceptions of balanced mobility

As there is no definition of balanced mobility at European level, countries were asked whether they have such a definition in their national steering documents. Around half of the countries have a definition or a common understanding of balanced mobility, defining it as a number of incoming and outward mobile students "approximately the same" or even more strictly as, "the same". Turkey has even given a numerical expression to the concept, and considers mobility as balanced if the difference between incoming and outward students is within 15 %.

It is also true that a country might be aware of some imbalances and may consider this positively. High rates of incoming mobility may be perceived favourably for a national education system and economy. The reasons range from additional income to higher education institutions to declining numbers in the

working age population and hence desirable influx of highly skilled people. Outward mobility may also be considered positively too - strengthening links to other countries and preparing graduates for the European and global market place.

While mobility between two particular countries might be balanced, overall mobility is in general usually imbalanced. Indeed 34 higher educational systems report that they consider their mobility flows as not balanced. Yet only eleven countries address this issue consciously through a mobility strategy or higher education action plan. In these cases, they acknowledge the need of more balanced mobility and they primarily declare the necessity of additional funding, strengthening language skills and increasing motivation for students to be mobile.

The EHEA countries also reported more specifically whether there are significant imbalances with particular countries, regions or continents. As many as 35 educational systems indicate this phenomenon. Armenia identifies the EHEA and the USA as the main regions for outward mobility while the Middle East and India are the sources of incoming students; Norway sees the USA, Australia and the United Kingdom as the main destinations for outward students while Russia, Germany and France are the main countries providing incoming mobility. Similarly, Cypriot students head towards Greece and the United Kingdom, while incoming students come from Bangladesh, Pakistan, Sri Lanka, India and China. Overall, significant imbalances with countries of other continents are observed with outward mobility flows predominantly heading towards the USA, and incoming mobility flows coming from Asia, and in particular China and India, as well as the Middle East. Thus the east-west flows that can be identified within the EHEA are echoed by east to west global mobility flows.

7.3. Measures to promote and support student mobility

Countries across the EHEA take various measures in order to enable and foster student mobility. These include the adoption of programmes at European, national and institutional level. Financial support measures, including ensuring the portability of student support, are a significant challenge for many countries. There is also a strong focus on identifying and removing obstacles to mobility.

7.3.1. Programmes at European level

Firstly, it is important to point out that European policy on mobility is pursued through a number of different programmes and measures – rather than through a single instrument or programme. While Erasmus is the most significant instrument for the countries participating in the Lifelong Learning Programme, the Tempus and Erasmus Mundus programmes create conditions for mobility in non-EU EHEA countries - although the scope of eligible countries for these programmes extends beyond the EHEA. The sub-regional exchange programme CEEPUS also supports student mobility and cooperation between universities in central, eastern and south-eastern Europe. Similarly, the Nordic-Baltic programme NordPlus with a higher education sub-programme supports cooperation and networking in that region, and provides mobility grants for students.

European programmes are a valuable source of information and usually the only form of cross-national monitoring and reporting on mobility. As mentioned in the *Focus on Higher Education* (Eurydice 2010), these programmes give a great boost to national action to promote mobility, which is very often built around European programmes.

7.3.2. Programmes and strategies at national level

Mobility is usually a part of internationalisation strategies and initiatives for higher education. When it comes to conceptual documents at national level, half of the countries in the EHEA report that they

have a national strategy or action plan to foster mobility. Moreover, a number of countries adopt steering documents highlighting an issue of quality in the field of mobility and some launch separate programmes implementing financial support measures to stimulate mobility.

An interactive bottom-up approach of drafting a national strategy can be found in Finland. Over 1 200 respondents shared their views on internationalisation of higher education institutions via web-based open consultation. In addition, six thematic workshops have been organised where a total of 130 experts participated.

The majority of countries that have a national strategy or action plan prioritise particular geographical regions for student mobility. Most often it is the EHEA, and this is followed by USA, Canada and Asia. While the majority specifies a geographical region, a few countries stipulate particular countries or sub-geographical areas for privileged cooperation on student mobility. For instance Denmark focuses on China and the USA, Austria on the EHEA, but highlighting the countries of Central and Eastern Europe in particular. Similarly, Slovenia focuses on the western Balkan countries and the Mediterranean area. It is also interesting to note that some countries may have a different focus for ingoing and outward mobility. Thus one geographical region may be privileged for students who want to study abroad while students from a different region may be targeted for incoming mobility.

A vast majority of countries with national strategies or action plans monitor their impact or at least certain aspects of their strategies. Monitoring is mainly undertaken by ministries and other central authorities on an annual basis and is often based on reports of higher education institutions. At the same time, even if student mobility is monitored, it is difficult to ascertain whether the changes in mobility flows are due to specific measures or external factors such as the financial crisis.

While around half of the countries claim to have a national level strategy, almost all countries report that their higher education institutions have mobility strategies. Thus institutional strategies may or may not relate to the national level. Some countries suggest that national strategy can serve as an impetus and support to institutional strategy.

7.3.3. Target setting

On the whole, less than half of the countries in the EHEA stipulate specific mobility targets. On the other hand, when looking only at countries with national strategies or actions plans, around three quarters set a target for at least one type of mobility.

The agreed target of at least 20 % of those graduating in the EHEA having a study or training period abroad as formulated by Leuven/Louvain-la-Neuve Communiqué is often mentioned by those countries that state their targets for different forms of outward mobility. Only Austria, Germany and the Netherlands set more ambitious targets. Germany set a target for all forms of mobility, namely credit and degree mobility. The target should reach 50 % of higher education institution graduates staying abroad of which at least 20 % shall study at least one semester at a foreign institution. Austria and the Netherlands set the targets in credit mobility. In the case of Austria, it is 50 % of graduates by 2020. The Netherlands stipulates the range of 17 to 25 % by 2013.

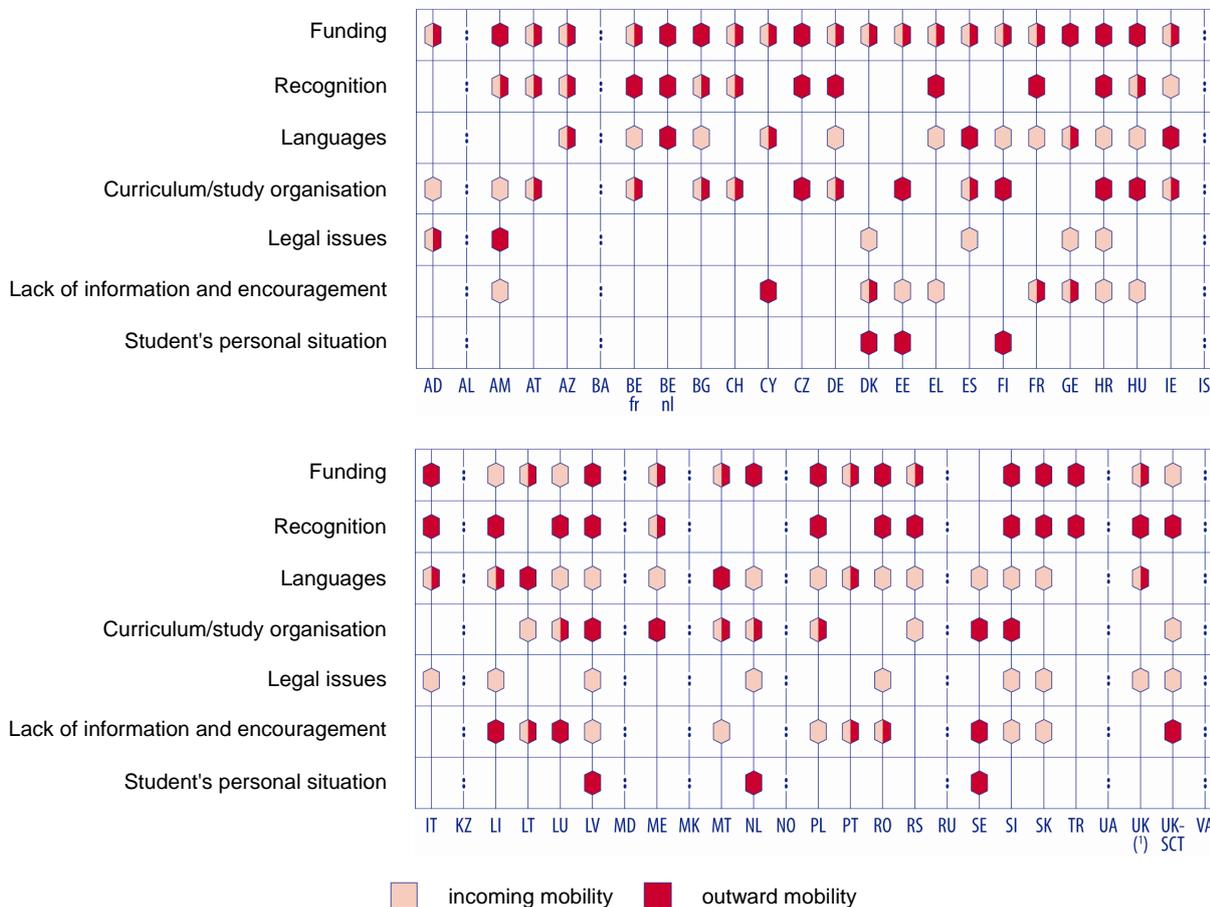
The majority of targets are linked to a mid-term horizon of 2015, although the range is between 2011 and 2020. Target differences in cycles appear mainly with respect to third cycle students.

7.3.4. Obstacles to student mobility

In order to assist in their efforts to reach the targets and foster mobility, countries, based on BFUG reporting, have identified the most important obstacles that they perceive towards mobility. Funding dominates for outward mobility, and is the second most commonly cited for incoming mobility. This

concern is equally spread across EHEA countries. A lack of support services and accommodation for international students is also commonly expressed, as well as immigration and visa difficulties. The issues for outward mobility differ slightly. Apart from bureaucratic and organisational difficulties, students' personal situations such as leaving family, friends and work place, are commonly mentioned.

Figure 7.11: Obstacles to student mobility, 2010/11



Source: BFUG questionnaire.

For both incoming and outward mobility approximately the same number of countries mention curriculum/study organisation and a lack of information and encouragement as obstacles to student mobility. However, significant differences can be observed when looking at issues such as recognition and languages. Difficulties with recognition of mobility periods are mentioned by only six countries for incoming mobility, but by 23 countries in connection with outward mobility. 25 countries identify insufficient knowledge of language by incoming students whereas only twelve countries do so for outward mobility.

These findings suggest that there is a tendency for countries to see their own systems and students more positively than those elsewhere. Thus these perceptions on mobility obstacles might not reflect reality objectively (recognition may well be a problem for students wishing to enter the system, as well as for those wishing to go abroad, for example), but rather provide a picture of how attitudes to "nationals" and "foreigners" are also critical in addressing mobility obstacles.

Countries have also reported whether some obstacles as identified above are particularly relevant for a specific study cycle, field of study and type of mobility. The majority of countries highlight persisting difficulties with recognition and overloaded study programmes which often prevent students being able to take advantage of opportunities to study abroad. This phenomenon is most commonly reported within bachelor programmes, where re-designed curricula often do not provide space for mobility

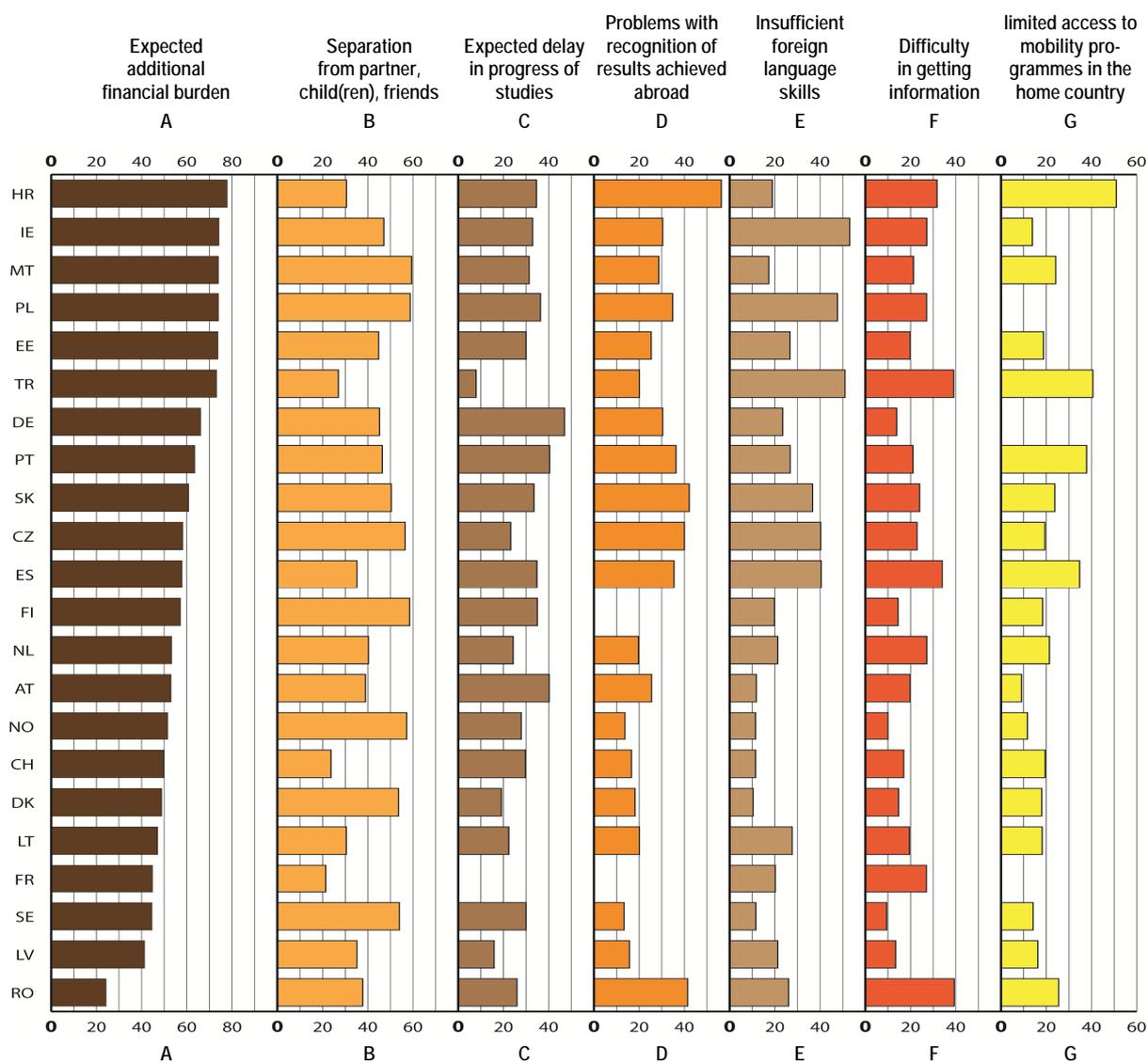
windows. Regarding various fields of studies, medical and natural sciences, law, architecture and engineering appear in many countries to be more challenged in promoting mobility. When comparing credit and degree mobility, the most common concern for credit mobility lies in recognition, while the most relevant obstacle of degree mobility is funding. The second most significant challenge for both is often language.

Countries in the EHEA implement a range of measures in order to foster mobility and tackle these obstacles. Some obstacles such as the re-organisation of programmes and strengthening of information provision can be perhaps addressed more easily – provided that there is the will to do so. On the other hand, funding, improving language skills, recognition and legal issues might be more difficult to tackle as they require either increased financial means or further dialogue and coordination among various stakeholders at national or European level.

Obstacles as reported by the countries above present only a part of the picture. The Eurostudent survey (Eurostudent 2011) shows obstacles (see Figure 7.12) as perceived by students when considering enrolment abroad (outward mobility), and these findings complement country reporting in a very interesting way. The obstacle ranked in both cases in first place is funding. However, the second most common obstacle identified by the Eurostudent survey is a separation from family and friends, an obstacle ranked among the least significant by the reporting countries. Moreover, while countries highlight recognition as the second most significant obstacle, this was ranked "only" in fourth place by students. Curricula, study organisation and delay of studies is ranked identically in third place by countries and students. Insufficient skills in foreign languages also scored fifth in both cases. The difficulty in getting information is considered in sixth place by students, but is ranked higher – in fourth place - by country experts.

Thus both countries and students give a similar priority to funding, study organisation and languages. On the other hand, country experts highlight formal obstacles such as recognition and information provision more significantly than students, who instead point to factors related to their personal situation.

Figure 7.12: Share of students who have not been enrolled abroad considering certain issues as (big) obstacles to enrolment abroad (in %), 2009/10



	HR	IE	MT	PL	EE	TR	DE	PT	SK	CZ	ES	FI	NL	AT	NO	CH	DK	LT	FR	SE	LV	RO
A	77.8	74.2	74.0	74.0	73.7	73.2	66.1	63.5	60.8	58.2	57.9	57.2	53.3	53.0	51.5	49.8	48.9	47.1	44.8	44.6	41.3	24.3
B	30.6	47.1	59.4	58.8	44.8	27.0	45.2	46.4	50.4	56.5	35.2	58.5	40.3	39.0	57.2	23.7	53.6	30.5	21.4	54.0	35.2	37.8
C	34.6	32.9	31.4	36.4	30.0	7.9	47.0	40.4	33.5	23.2	34.8	35.0	24.3	40.2	27.9	29.7	19.1	22.4	0.0	30.0	15.9	26.0
D	56.3	30.4	28.7	34.8	25.3	20.1	30.4	36.3	42.1	40.0	35.4	0.0	19.7	25.5	13.7	16.6	18.2	20.1	0.0	13.3	15.7	41.4
E	18.9	53.1	17.3	47.7	26.7	51.0	23.5	26.8	36.7	40.3	40.5	19.8	21.3	11.8	11.5	11.5	10.4	27.7	20.2	11.6	21.3	26.1
F	31.7	27.2	21.3	27.1	19.8	39.1	13.9	21.1	24.0	22.9	34.0	14.5	27.2	19.8	10.0	17.0	14.7	19.5	27.0	9.4	13.4	39.3
G	51.0	13.9	24.2	0.0	18.8	40.6	0.0	37.8	23.8	19.4	34.8	18.4	21.4	9.1	11.7	19.5	18.0	18.2	0.0	14.2	16.3	25.5

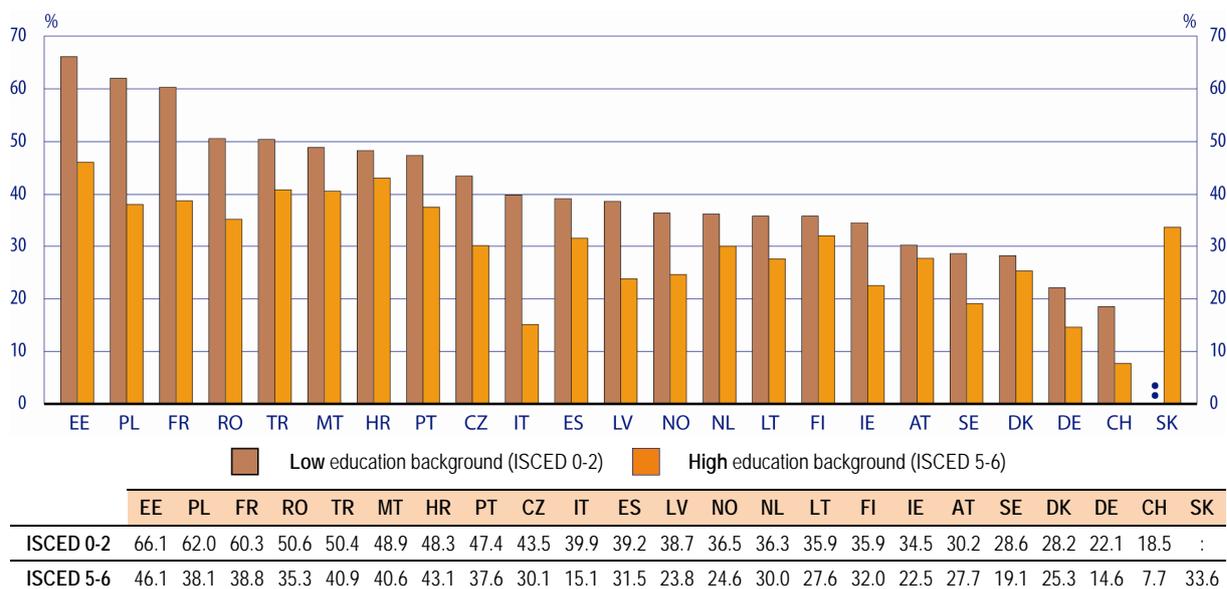
Notes: Too few cases for expected delay in progress of studies: France. Too few cases for problems with recognition of results achieved abroad: Finland, France. Too few cases for limited access to mobility programmes in the home country: France.

Source: Eurostudent.

While funding is commonly highlighted as the most significant obstacle to mobility, Eurostudent findings also show that the financial burden plays a different role according to the social background of students. Figure 7.13 shows that in all surveyed countries, the share of students from low parental education background who consider financial insecurities as an obstacle is higher compared to those from high parental education background. The differences in perception of this obstacle among the

two groups of students are particularly visible in the cases of Italy and Poland while Austria, Denmark and Finland show the smallest differences.

Figure 7.13: Students who have not been enrolled abroad considering financial insecurities as (big) obstacle to an enrolment abroad by social background, 2009/10



Notes: The category 'financial insecurities' is an aggregate of the following items: expected additional financial burden, loss of opportunities to earn money, loss of social benefits, problems with accommodation in the home country.

Source: Eurostudent.

Although almost all countries identified obstacles to incoming and outward mobility, only around half of the EHEA countries have prepared specific reports and surveys analysing obstacles to student mobility. Thus there is still considerable room for action at national level to support research to understand these phenomena in greater detail.

7.3.5. Financial measures to support student mobility

As the most common obstacle identified was funding, financial measures encompassing grants and scholarships as well as loans shall be analysed in more detail. Less than half of the countries implement financial support measures in the form of loans for outward students in credit and degree mobility and only a few do so for incoming students. More financial support measures to foster mobility can be observed in the field of grants and scholarships. However, the situation differs slightly between credit and degree mobility. Around two thirds of countries provide grants and scholarships for both outward and incoming students for degree mobility.

In contrast, the difference between grants and scholarships for incoming students (21 higher education systems) and outward students (30 higher education systems) in credit mobility arrangements is higher. However, some scholarships are targeted only to certain programmes prioritising a number of countries or study fields. Indeed, a few countries or, more specifically, higher education institutions conclude bilateral agreements with their counterparts abroad, and provide funding to foster student mobility. It is also important to stress that no financial instrument at European or national level, be it a loan or a grant, has yet been designed specifically to foster mobility across the EHEA.

An important issue linked to grants and scholarships is their portability. This is a particularly important measure for promotion of mobility and is mentioned throughout the Bologna process. The concept of

portability shows whether students who study in a higher education institution in another country can use their grant or loan under the same conditions as at a home institution. Based on information from reporting countries, almost half of them enable students to do so, while other countries allow such a practice for either credit or degree mobility. Only five countries – Bosnia-Herzegovina, Georgia, Hungary, Ireland and Lithuania - admit that it is not the case for either of the two main types of mobility.

Portability is, however, often subject to restrictions. These are related to specific countries or their groupings (for instance EU, EEA, EHEA) and programmes. Countries with grants and scholarships restricted to specific programmes often mention European and national mobility programmes. Other restrictions concern accreditation of programmes and/or whether the study programme is offered in the home country, or whether it falls under a priority area. Only Croatia, Cyprus, Finland, Liechtenstein, Luxembourg, Norway and Switzerland report that they impose no restrictions on students who receive a grant or scholarship abroad.

The last measure mentioned by countries for supporting mobility is additional funding to higher education institutions to create conditions for promoting mobility, or to reward institutions that support mobility. In some case, this may be done by including a mobility element in funding formulas. Several countries also include subsidies for transportation, accommodation and canteens among their supporting measures.

7.3.6. Other measures to support student mobility

Other measures are linked to other obstacles of student mobility as presented in Figure 7.11. Recognition continues to be perceived as a significant barrier halting student mobility, and thus an issue in need of improved practice. However no specific measures have been mentioned by reporting countries.

Language competency is an ultimate pre-condition for studying abroad and thus often one of the main obstacles. Consequently, around one third of countries outlines provision of language courses for outward and incoming students, and developing curricula/programmes in English or other foreign language including joint degrees. Despite an increasing offer, the situation for credit and degree mobility differs to some extent. Teaching in a widely spoken foreign language might be sufficient for a period of credit mobility, but often knowledge of the language of instruction for the whole period of study may be required for degree mobility. This poses the question of which language the degree programme or its vast majority is taught and whether the student has a sound knowledge of this language. To this end, the Norwegian example shows that a country might support learning languages by providing financial measures in a form of a state loan to spend an extra semester to learn the language and culture of the country prior to the studies abroad.

In spite of introducing and enlarging programmes in foreign languages, studies at higher education institutions in a language different to the official language of the country might fall under restrictions. This can be the case when, based on national legislation, higher education institutions are allowed to organise only a certain percentage of learning activities in a foreign language. Joint programmes might however be exceptions from this rule.

Support services, including the provision of better information on mobility programmes, need to be continuously strengthened. Several countries have launched campaigns with the aim of motivating students to study abroad. Additionally, former Erasmus students as well as incoming students may be engaged to help in promotion activities.

Finally, a number of countries mention persisting legal issues including visa arrangements. Dialogue with the authorities concerned aims to improve conditions of mainly incoming non-EU students.

7.3.7. Monitoring

Not all the countries that adopt programmes or measures to tackle obstacles to student mobility monitor their effects. Even those that undertake monitoring do so often in the framework of general statistical monitoring or they focus only on certain vertical or horizontal student mobility issues. For instance, they monitor recognition, update statistics on financial measures or prepare overarching Erasmus reports summarising various mobility indicators together. Hence, monitoring tends to be focused on reporting on European mobility programmes and often does not extend into a comprehensive national framework.

7.4. Staff mobility

All Bologna communiqués mention mobility of staff together with student mobility. The Leuven/Louvain-La-Neuve communiqué dedicates a paragraph to staff mobility when setting out goals for the decade 2010 – 2020. It mentions teachers, researchers and other staff⁴ outlining the value of staff mobility and the necessity to attract highly qualified staff to higher education institutions. In addition, it highlights the obstacles related to access and portability of social security rights.

7.4.1. Concept

Discussions on staff mobility at European level are ongoing but difficult. The concept of staff mobility is not defined at European level, and can cover many forms and purposes. It is therefore important to be precise in defining and formulating policy objectives, as well as in defining the information required for different purposes. Currently European statistical data is limited to information collected within some European programmes (e.g. Erasmus staff exchanges) and more widespread operational definitions have yet to be developed. Statistical data are therefore extremely limited.

At national level, all but three countries – Belgium (Flemish Community), France and Slovakia - include staff mobility in higher education in a national strategy or action plan. Nonetheless, only six countries include quantitative targets for staff mobility. The quantitative expression can have a form of a percentage of incoming and outward lecturers/teachers and research staff either per year, or with respect to a certain target year (2015), as in the case of Lithuania and Finland. Slovenia sets a goal of at least 10 % by 2020 and Estonia 3 % of foreign academic staff with a further target of at least 10 % of doctoral graduates of other than Estonian origin by 2015. Romania targets an increase of 5 % of outward staff under Erasmus per year and Spain 50 % more mobile staff than in 2008 by 2015.

Overall, however, it seems that staff mobility appears rather as a general declaration without specific targets to be reached. Hence countries identify priority areas, set a goal and follow developments in a particular sphere. Concerning indicators at European level, Eurostat monitors mobility of teachers and academic staff only in the framework of the Erasmus programme.

7.4.2. Obstacles and measures to staff mobility

As almost all countries mention support to staff mobility in their conceptual documents, but only a small percentage of staff is actually mobile, more attention needs to be focused on identifying and removing obstacles. Based on information provided by reporting countries, one third of educational systems are informed by surveys or research about obstacles to staff mobility. Three large categories of obstacles can be identified, namely language knowledge, legal issues and personal situation.

⁴ See: http://www.ehea.info/Uploads/Declarations/Leuven_Louvain-la-Neuve_Communique%C3%A9_April_2009.pdf

The most common obstacle identified is a language barrier for both incoming and outward staff mobility. The other most reported reasons halting mobility are linked to a range of legal difficulties stemming often from a lack of cooperation at European level or persisting problems in real-life situations in spite of a legal basis on the matter concerned. This mostly concerns differences between social security systems. Furthermore, legal issues include double taxation in certain countries along with immigration restrictions and the difficulty to obtain visas - as reported by some non-EU countries. The third group of obstacles concerns personal and family situations, such as a lack of support services for a spouse and children or a separation from them in case they do not follow the partner/parent for a period of mobility. Additionally, a lack of motivation and clear paths for career development as well as heavy workloads at home institutions were also referred to. Last but not least, insufficient funding opportunities and lack of information are also among the reasons reported as a hindrance to staff mobility.

Less than a half of the EHEA countries report any measures to tackle obstacles to staff mobility – indicating that this is still an issue to be taken forward in the future. The measures encompass the following issues: funding, information provision, working conditions, immigration policy and language courses.

Countries such as the Czech Republic and Finland stress the autonomy of higher education institutions in adopting appropriate measures to foster staff mobility, and thus shift a large part of responsibility to institutional level. Nonetheless, they highlight funding mechanisms adopted at central level to support mobility of researchers. A starting point for mobility is comprehensive information provision for employees interested to make use of opportunities to work abroad. The provision of information is, according to the reporting countries, generally insufficient. Yet, some countries have taken some initiatives in this area designing online platforms and networks for the academic world (e.g. Euraxess, Imwas and Kisswin in Germany).

After the initial stage of obtaining appropriate information on mobility and individual exchange programmes, the next stage is to check concrete working conditions, including social security provision in the chosen country. Knowledge on the portability of social security rights is insufficient, and several countries try to provide more detailed information and advice on these topics for both incoming and outgoing staff.

While social security issues are faced by both EU and non-EU staff, immigration and visa policy often acts as a barrier specifically to non-EU staff. Higher education institutions continue their dialogue with public authorities regarding immigration policy and some countries have already adopted measures lessening immigration restrictions for non-EU researchers and/or have regular reviews of such matters. Thorough implementation of the EU Scientific Visa Directive and its two accompanying recommendations (the so-called Scientific Visa Package)⁵ is an important step forward. It facilitates short and long stays (less than or more than three months) of researchers from third countries in the EU Member States for the purpose of scientific research.

Once obtaining all necessary information on mobility opportunities and related legal conditions, the issue of language remains. There are higher education institutions that provide foreign language courses for their outward staff and others that offer language courses for incoming staff. Nevertheless, while some countries highlight provision and financing of language courses as a challenge, others, such as Hungary, consider that language learning is a personal responsibility. Another aspect concerning languages is national legislation that may impose rules on the use of the official language. Poland points to the problem of a lack of courses taught in a foreign language at higher education institutions - thus limiting incoming staff mobility to countries with a knowledge of the official language of the country.

⁵ See: <http://ec.europa.eu/euraxess/index.cfm/services/scientificVisa>

While a relatively low number of countries implement measures to tackle and remove obstacles to staff mobility, even fewer countries monitor the effects of these measures. Those that do tend to undertake such monitoring in the framework of annual statistical data collection or publish reports on national and European mobility programmes such as Erasmus.

Conclusion

In order to step up action to promote mobility, a benchmark of 20 % of graduated students has been set and the first steps have been taken to monitor progress. The collection of statistical data is an ongoing process and this report reveals the first findings for degree mobility. However, more work on statistical definitions and more comprehensive collection of information is still required - particularly on credit mobility.

Currently, all but three countries show an incoming degree mobility rate of less than 10 % in the European Higher Education Area. The majority of countries have values below 5 %. This is also true concerning outward degree mobility rates of graduates inside the EHEA. The average for this mobility flow is currently slightly below 2 %. As these figures are related only to degree mobility, statistical information on credit mobility has to be added and taken into consideration when assessing progress towards the 20 % benchmark. The current projection of short-term trends in the framework of the Erasmus programme anticipates 7 % by 2020, while other sources of reliable credit mobility data still need to be identified.

When looking at mobility flows worldwide, the students studying in the EHEA coming from any country abroad reaches less than 4 % of the total number of students in the EHEA. Meanwhile the percentage of EHEA students studying for a degree outside the EHEA is, in relative terms, very small indeed. The upcoming mobility strategy for the EHEA "Mobility for Better Learning" sets a goal of 5 % of all students enrolled in the EHEA with prior qualification outside the EHEA. Currently, the average of incoming mobile students from outside the EHEA is 2.25 %.

The reporting also reveals that flows typically follow east-west patterns both in European and global terms. In the EHEA, south and east Europe tend to have more outward students and west and north European countries more incoming students. Hardly any country can claim to have genuinely balanced mobility and even when flows reach similar numbers, the countries sending and receiving students differs significantly.

The main reasons that prevent students from benefitting from mobility periods abroad have been identified by reporting countries and Eurostudent information. However, many countries lack a clear strategy and measures to change the situation. Similarly, monitoring mechanisms are also absent in many parts of Europe.

Although staff mobility is mentioned in all Bologna communiqués the situation, comparing to student mobility, is less clear. It is thus firstly important to agree on the scope and definition(s) of staff mobility. Currently, only a few countries set quantitative targets towards staff mobility. Based on data available from the Erasmus programme, incoming staff mobility affects relatively low numbers of staff. Better monitoring and tackling of identified obstacles is also essential if countries are to foster staff mobility across Europe.

REFERENCES

Allen, J. & de Weert, E., 2007. What Do Educational Mismatches Tell Us About Skill Mismatches? A Cross-country Analysis. *European Journal of Education*, 42(1), pp. 59-73.

Allen, J. & van der Velden, R. eds., 2011. *The Flexible Professional in the Knowledge Society: New Challenges for Higher Education*, Higher Education Dynamics, 35. Dordrecht: Springer.

Allen, J., Pavlin, S. & van der Velden, R. eds., 2011. *Competencies and Early Labour Market Careers of Higher Education Graduates in Europe*. Ljubljana: University of Ljubljana, Faculty of Social Sciences.

Andersson, R. & Olsson, A-K., 1999. *Fields of Education and Training. Manual*. [pdf] Available at: http://www.gpeari.mctes.pt/archive/doc/Fields_of_Education_and_Training_eurostat1999.pdf [Accessed: 26 September 2011].

Bergen Communiqué, 2005. *The European Higher Education Area - Achieving the Goals*. Communiqué of the Conference of European Ministers Responsible for Higher Education, Bergen, 19-20 May 2005. [pdf] Available at: http://www.ehea.info/Uploads/Declarations/Bergen_Communique1.pdf [Accessed 13 September 2011].

Berlin Communiqué, 2003. *Realising the European Higher Education Area*. Communiqué of the Conference of Ministers responsible for Higher Education in Berlin on 19 September 2003. [pdf] Available at: http://www.ehea.info/Uploads/Declarations/Berlin_Communique1.pdf [Accessed 13 September 2011].

BFUG (Bologna Process Working Group on Social Dimension and Data on Mobility of Staff and Students in Participating Countries), 2007. *Key issues for the European Higher Education Area – Social Dimension and Mobility*. Stockholm: Government Offices of Sweden. [pdf] Available at: <http://www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/WGR2007/Socialdimensionandmobilityreport.pdf> [Accessed 3 October 2011].

Bologna Declaration, 1999. *The Bologna Declaration of 19 June 1999*. [pdf] Available at: http://www.ehea.info/Uploads/Declarations/BOLOGNA_DECLARATION1.pdf [Accessed 13 September 2011].

Budapest-Vienna Declaration, 2010. *Budapest-Vienna Declaration on the European Higher Education Area*, March 12, 2010. [pdf] Available at: http://www.ehea.info/Uploads/Declarations/Budapest-Vienna_Declaration.pdf [Accessed 24 October 2011].

Cedefop, 2008. *Terminology of European education and training policy. A selection of 100 key terms*. Luxembourg: Office for Official Publications of the European Communities.

Cedefop, 2010. *The skill matching challenge. Analysing skill mismatch and policy implications*. Luxembourg: Publications Office of the European Union.

EACEA/Eurydice, 2009. *Gender Differences in Educational Outcomes: Study on the Measures Taken and the Current Situation in Europe*. Brussels: EACEA P9 Eurydice.

EACEA/Eurydice, 2010. *Focus on Higher Education in Europe. The Impact of the Bologna Process*. Brussels: EACEA P9 Eurydice.

EACEA/Eurydice, 2011a. *Adults in Formal Education: Policies and Practice in Europe*. Brussels: EACEA P9 Eurydice.

- EACEA/Eurydice, 2011b. *Modernisation of Higher Education in Europe: Funding and the Social Dimension*. Brussels: EACEA P9 Eurydice.
- EACEA/Eurydice, 2012. *Key Data on Education in Europe 2012*. Brussels: EACEA P9 Eurydice.
- ENQA (European Association for Quality Assurance in Higher Education), 2005. *Standards and Guidelines for Quality Assurance in the European Higher Education Area*. ENQA: Helsinki.
- EUA (European University Association), 2008. *European Universities' Charter on Lifelong Learning*. Brussels: EUA.
- EUA, 2011a. *Impact of the economic crisis on European universities. Update: First semester 2011*. [pdf] Available at: http://www.eua.be/Libraries/Governance_Autonomy_Funding/Economic_monitoring_June2011.sflb.aspx [Accessed 16 November 2011].
- EUA, 2011b. *EUA's monitoring of the impact of the economic crisis on public funding for universities in Europe*. [Online] Available at: <http://www.eua.be/eua-work-and-policy-area/governance-autonomy-and-funding/public-funding-observatory.aspx> [Accessed 16 November 2011].
- European Commission 2011. *Erasmus – Facts, Figures & Trends. The European Union support for student and staff exchanges and university cooperation in 2009/2010*. [pdf] Available at: http://ec.europa.eu/education/pub/pdf/higher/erasmus0910_en.pdf [Accessed 29 August 2011].
- European Commission 2010. *Lifelong Learning Programme. The Erasmus Programme 2008/2009. A Statistical Overview*. [pdf] Available at: <http://ec.europa.eu/education/erasmus/doc/stat/report0809.pdf> [Accessed 29 August 2011].
- Eurostat, 2011a. *Manual on sources and methods for the compilation of COFOG Statistics. Classification of the Functions of Government (COFOG)*. Luxembourg: Publications Office of the European Union.
- Eurostat, 2011b. *Indicators of Immigrant Integration. A Pilot Study*. Eurostat Methodologies and Working Papers. Luxembourg: Publications Office of the European Union.
- Eurostat, 2012a. *Glossary: Full-time equivalent (FTE)* [Online] Available at: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:Full-time_equivalent [Accessed: 6 January 2012].
- Eurostat, 2012a. *Glossary: Unemployment* [Online] Available at: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:Unemployment_rate [Accessed: 16 February 2012].
- Eurostat & Eurostudent, 2009. *The Bologna Process in Higher Education in Europe. Key indicators on the social dimension and mobility*. Luxembourg: Office for Official Publications of the European Communities.
- Eurostudent, 2008. *Social and Economic Conditions of Student Life in Europe*. Bielefeld: W. Bertelsmann [pdf] Available at: http://www.eurostudent.eu/download_files/documents/Synopsis_of_Indicators_EIII.pdf [Accessed: 6 January 2012].
- Eurostudent, 2011. *Social and Economic Conditions of Student Life in Europe* [pdf] Available at: <http://www.eurostudent.eu/results/reports> [Accessed 13 September 2011].
- Eurydice, 2007. *Key Data on Higher Education in Europe*. Brussels: Eurydice.

Free Dictionary, 2012a. *Tax credit*. [Online] Available at: <http://www.thefreedictionary.com/tax+credit> [Accessed: 6 January 2012].

Free Dictionary, 2012b. *Psychological counselling*. [Online] Available at: <http://www.thefreedictionary.com/Psychological+counselling> [Accessed: 6 January 2012].

Harvey, L., 2001. Defining and Measuring Employability. *Quality in Higher Education*, 7(2), pp. 97-109.

Koucký J., Bartušek, A. and Kovařovic, J., 2009. *Who is more equal? Access to tertiary education in Europe*. Prague: Education Policy Centre, Faculty of Education, Charles University.

Koucký, J., Bartušek, A. & Kovařovic, J., 2010. *Who gets a degree? Access to tertiary education in Europe 1950-2009*. Prague: Education Policy Centre, Faculty of Education, Charles University.

Koucký, J. & Zelenka, M., 2011. *Employability and the Position of Higher Education Graduates in the Labour Market*. Prague: Education Policy Centre, Faculty of Education, Charles University.

Langworthy, M., Shear, L., Means, B., Gallagher, L. & House, A., 2009. *ITL Research Design*. [pdf] Available at: http://www.itlresearch.com/images/stories/reports/ITL_Research_design_29_Sept_09.pdf [Accessed: 6 January 2012].

Leuven/Louvain-La-Neuve Communiqué, 2009. *The Bologna Process 2020 – The European Higher Education Area in the new decade*. Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009. [pdf] Available at: http://www.ehea.info/Uploads/Declarations/Leuven_Louvain-la-Neuve_Communicu%C3%A9_April_2009.pdf [Accessed 3 October 2011].

Little, B., 2001. Reading between the lines of graduate employment. *Quality in Higher Education*, 7(2), pp. 121-129.

London Communiqué, 2007. *Towards the European Higher Education Area: responding to challenges in a globalised world*. [Online] Available at: http://www.ehea.info/Uploads/Declarations/London_Communique18May2007.pdf [Accessed 3 October 2011].

Morley, L., 2001. Producing New Workers: quality, equality and employability in higher education. *Quality in Higher Education*, 7(2), pp. 131-138.

OECD (Organisation for Economic Co-operation and Development), 2003. *Net graduation rates*. [Online] Available at: <http://stats.oecd.org/glossary/detail.asp?ID=5391> [Accessed: 6 October 2011].

OECD, 2004. *Career guidance. A handbook for policy-makers*. OECD: Paris

Prague Communiqué, 2001. *Towards the European Higher Education Area*. Communiqué of the meeting of European Ministers in charge of Higher Education in Prague on May 19th 2001. [pdf] Available at: http://www.ehea.info/Uploads/Declarations/PRAGUE_COMMUNIQUE.pdf [Accessed 13 September 2011].

Rauhvargers, A., Deane, C. & Pauwels, W., 2009. *Bologna Progress Stocktaking Report*. [pdf] Available at: http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/Stocktaking_report_2009_FINAL.pdf [Accessed 13 September 2011].

Salmi, J. & Hauptman, A.M., 2006. *Innovations in Tertiary Education Financing: A Comparative Evaluation of Allocation Mechanisms*. Education Working Paper Series, Number 4. Washington: Human Development Network, Education Sector World Bank Group. [pdf] Available at: http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079956815/Innovations_TertiaryEd_Financing.pdf [Accessed: 6 January 2012].

Schomburg, H. & Teichler, U. eds., 2006. *Higher Education and Graduate Employment in Europe: Results from Graduates Surveys from Twelve Countries*, Higher Education Dynamics, 15. Dordrecht: Springer.

Støren, L.A. & Arnesen, C.Å., 2011. Winners and Losers. In: J. Allen & R. van der Velden, eds. *The Flexible Professional in the Knowledge Society: New Challenges for Higher Education*, Higher Education Dynamics, 35. Dordrecht: Springer, pp. 199-240.

Tauch, C. & Rauhvargers, A., 2002. *Survey on Master Degrees and Joint Degrees in Europe*. Brussels: EUA. [pdf] Available at: http://www.eua.be/eua/jsp/en/upload/Survey_Master_Joint_degrees_en.1068806054837.pdf [Accessed: 6 January 2012].

Teichler, U. ed., 2007. *Careers of University Graduates: Views and Experiences in Comparative Perspectives*, Higher Education Dynamics, 17. Dordrecht: Springer.

UNESCO (United Nations Educational, Scientific and Cultural Organization)/OECD/ Eurostat, 2010. *UOE data collection on education systems. Volume 1: concepts, definitions and classifications*. Montreal, Paris, Luxembourg: UNESCO, OECD, Eurostat.

Working Group on Employability, 2009. *Report to Ministers, Bologna Conference, Leuven/Louvain-la Neuve 28-29 April 2009*. [pdf] Available at: http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/2009_employability_WG_report.pdf [Accessed: 6 October 2011].

Yorke, M. & Longden, B., 2004. *Retention and Student Success in Higher Education*. Maidenhead, UK: Society for Research into Higher Education and Open University.

Yorke, M. & Longden, B., 2008. *The First Year Experience of Higher Education in the UK*. York: Higher Education Academy. Available at: <http://www.heacademy.ac.uk/assets/documents/resources/publications/FYEFinalReport.pdf> [Accessed: 7 October 2011].

van der Velden, R.K.W. & van Smoorenburg, M.S.M., 1997. *The Measurement of Overeducation and Undereducation: Self-Report vs. Job-Analyst Method*. ROA Working Paper ROA-RM-1997/2E. Maastricht: Research Centre for Education and the Labour Market, Faculty of Economics and Business Administration, Maastricht University.

Wikipedia, 2012a. *Socioeconomic status*. [Online] Available at: http://en.wikipedia.org/wiki/Socioeconomic_status [Accessed: 6 January 2012].

Wikipedia, 2012b. *Median*. [Online] Available at: <http://en.wikipedia.org/wiki/Median> [Accessed: 6 January 2012].

Wikipedia, 2012c. *Odds ratio*. [Online] Available at: http://en.wikipedia.org/wiki/Odds_ratio [Accessed: 6 January 2012].

Wikipedia, 2012d. *Fiscal policy*. [Online] Available at: http://en.wikipedia.org/wiki/Fiscal_policy [Accessed: 6 January 2012].

GLOSSARY

A. General terms

Academic guidance services

Services aimed at students with the goal to raise academic achievement and to support students with challenges related to study organisation.

Bologna Follow-up Group (BFUG)

The Bologna Follow-Up Group consists of ministerial representatives of all 47 Bologna signatory countries and the European Commission as full members. Consultative members include the Council of Europe, the European University Association (EUA), the European Students' Union (ESU), the European Association of Quality Assurance in Higher Education (ENQA), the European Association of Institutions in Higher Education (EURASHE), the UNESCO European Centre for Higher Education (UNESCO-CEPES), Business Europe (formerly known as UNICE) and Education International. The BFUG is convened at least twice a year and is chaired by the EU Presidency, with the host country of the next (biennial) conference of education ministers as vice-chair. The role of the BFUG is to follow up on the recommendations made at the ministerial conferences and on the general implementation of all issues covered in the Ministerial Communiqués. In addition, the BFUG produces a work programme which includes a series of conferences and other activities related to the Bologna process. A Board, also chaired by the EU Presidency with the next host country as vice-chair, prepares the agendas for the BFUG and monitors progress between BFUG meetings. Overall follow-up is supported by a Secretariat which is provided by the country/countries hosting the following ministerial conference. For further information, visit <http://www.ehea.info/>

Career guidance services

Career guidance refers to services and activities intended to assist individuals, of any age and at any point throughout their lives, to make educational, training and occupational choices and to manage their careers (OECD 2004, p.10).

Credit mobility

Credit mobility is a short-term form of mobility - usually a maximum of one year - aiming at the acquisition of credits in a foreign institution in the framework of on-going studies at the home institution.

Degree mobility

Degree mobility is a long-term form of mobility which aims at the acquisition of a whole degree or certificate in the country of destination.

Diploma Supplement (DS)

A document attached to a higher education diploma that aims to improve international transparency and facilitate academic and professional recognition of qualifications. Developed by the European Commission, the Council of Europe and UNESCO-CEPES, the DS consists of eight sections¹ describing in a widely spoken European language the nature, level, context, content and status of the studies that were pursued and successfully completed. The DS provides additional information on the national higher education system concerned, so that the qualification is considered in relation to its own educational context (EACEA/Eurydice 2010, p.150).

European Association for Quality Assurance in Higher Education (ENQA)

The association of quality assurance agencies in the European Higher Education Area was set up in 2000. It aims to disseminate information, experiences and good practices in the field of quality assurance in higher education. Membership of the association is open to quality assurance agencies in the signatory states of the Bologna declaration. Full membership of ENQA represents recognition that an agency complies with the European Standards and Guidelines for quality assurance in higher education. Compliance with these standards is checked every five years through an independent review. For more information, visit <http://www.enqa.eu/about.lasso>

European Credit Transfer and Accumulation System (ECTS)

A student-centred credit system based on the student workload required to achieve specified learning outcomes. ESTC was originally set up in 1989 in order to facilitate the recognition of periods of study abroad. More recently, it has been developing into an accumulation system to be implemented in all programmes at institutional, regional, national and European levels (EACEA/Eurydice 2010, p.150). Further information can be obtained from the ECTS Users Guide published by the European Commission: http://ec.europa.eu/education/lifelong-learning-policy/doc48_en.htm.

European Higher Education Area (EHEA)

The European Higher Education Area (EHEA) was launched along with the Bologna Process' decade anniversary, in March 2010, during the Budapest-Vienna Ministerial Conference. As the main objective of the Bologna Process since its inception in 1999, the EHEA was meant to ensure more comparable, compatible and coherent systems of higher education in Europe. Between 1999 and 2010, all the efforts of the Bologna Process members were targeted to creating the European Higher Education Area, that became reality with the Budapest-Vienna Declaration of March, 2010. For more information, visit <http://www.ehea.info/>

European Qualifications Framework (EQF)

The European Qualifications Framework is a common European reference framework which enables European countries to link their qualifications systems to one another. It was adopted by the European Parliament and Council on 23 April 2008. The EQF uses eight reference levels based on learning outcomes that are defined in terms of knowledge, skills and competences. It shifts the focus from input

¹ Specifically these sections cover information on the holder of the qualification, the identity of the qualification, its level, its function, the contents and results gained, additional information, the national higher education system concerned and the certification of the DS.

(lengths of a learning experience, type of institution) to what a person holding a particular qualification actually knows and is able to do. For further information, see http://ec.europa.eu/education/lifelong-learning-policy/doc44_en.htm#doc

European Quality Assurance Register for Higher Education (EQAR)

The Register aims at increasing transparency of quality assurance in higher education across Europe. It has been founded in 2008 by the European Association for Quality Assurance in Higher Education (ENQA), the European Students' Union (ESU), the European University Association and the European Association of Institutions in Higher Education (EURASHE). EQAR publishes and manages a list of quality assurance agencies that substantially comply with the European Standards and Guidelines for Quality Assurance (ESG) to provide clear and reliable information on quality assurance agencies operating in Europe. For more information, visit <http://www.eqar.eu/>

European Standards and Guidelines (ESG)

European standards and guidelines are an agreed set of standards and guidelines for quality assurance in European higher education. They are available at: http://www.eqar.eu/fileadmin/documents/e4/050221_ENQA_report.pdf

External quality assurance

External quality assurance refers to the process of evaluation or audit of a higher education programme or institution undertaken by a specialised body outside the institution. Typically the body may be a quality assurance or accreditation agency, or an ad hoc panel of experts and peers constituted by the responsible Ministry. The evaluation will involve the collection of data, information and evidence for assessment against agreed standards.

Grant (public) / Scholarship (public)

Non-repayable public aid given to students (Salmi and Hauptman 2006, p. 30).

Fees/contributions

Any sum of money paid by students with which they formally and compulsorily contribute to the costs of their higher education. This may include, but is not restricted to e.g. a registration fee, tuition fees, graduation fees etc.

Formal learning

Formal learning is "learning that occurs in an organised and structured environment (i.e. in an education or training institution or on the job) and is explicitly designated as learning (in terms of objectives, time and resources). Formal learning is intentional from the learner's point of view. It typically leads to validation and certification" (Cedefop 2008, p. 85).

Flexibility

Refers to measures through which the provision of higher education is made more flexible. The idea behind this concept is to open up higher education to more people and to increase adaptability to the multiple life worlds in modern societies.

Higher education institution

Any institution providing services in the field of higher education, as defined by national law. This includes private and public higher education institutions, irrespective of the composition of funding and management bodies.

Incoming mobility

Incoming mobility refers to students that moved to a specified country in order to study.

Informal learning

Informal learning is "learning resulting from daily activities related to work, family or leisure. It is not organised or structured in terms of objectives, time or learning's support. Informal learning is in most cases unintentional from the learner's perspective" (Cedefop 2008, p. 133).

Internal quality assurance

Internal quality assurance refers to the processes involved in assuring and/or improving the quality of defined areas of activity within higher education institutions. Typically it involves the systematic collection and analysis of administrative data, as well as the feedback of students, lecturers, other staff and external stakeholders.

Joint degree

Joint degrees are normally awarded after study programmes that correspond to all or at least some of the following characteristics:

- the programmes are developed and/or approved jointly by several institutions;
- students from each participating institution study parts of the programme at other institutions;
- the students' stays at the participating institutions are of comparable length;
- periods of study and exams passed at the partner institution(s) are recognised fully and automatically;
- professors of each participating institution also teach at the other institutions, work out the curriculum jointly and form joint commissions for admission and examinations;
- after completion of the full programme, the student either obtains the national degrees of each participating institution or a degree (in fact usually an unofficial "certificate" or "diploma") awarded jointly by them (Tauch & Rauhvargers 2002, p.29).

Joint programme

Joint programmes are usually inter-institutional arrangements among higher education institutions leading to a → joint degree. Parts of joint programmes undertaken by students at partner institutions are recognised automatically. The same is true for joint degrees.

Lisbon Recognition Convention

The Convention on the Recognition of Qualifications concerning Higher Education in the European Region was developed by the Council of Europe and UNESCO and adopted in 1997 in Lisbon. It aims to ensure that holders of a qualification from one European country have that qualification recognised in another. For more information, visit:

http://www.coe.int/t/dg4/highereducation/Recognition/LRC_en.asp

Loan

Repayable financial aid. Student loan models may differ in many aspects, such as in their repayment plans, the level of subsidy, the expenses covered, eligibility rules, etc. A loan is subsidised when the government bears a part of the costs. This can take the form of a government guarantee, when student loans are guaranteed or insured against the risk of default and loss by the government (Salmi and Hauptman 2006, p. 43).

National Qualifications Framework (higher education)

The single description, at national level or a particular level of an education system, which clarifies and explains the relationship between higher education qualifications. National qualifications frameworks are internationally understood and clearly describe all qualifications and other learning achievements in higher education and relate them coherently to each other.

Non-formal learning

Non-formal learning is defined as "learning which is embedded in planned activities not explicitly designed as learning (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner's point of view" (Cedefop 2008, p. 93).

Outward mobility

Outward mobility refers to students that moved out of a country in order to study elsewhere.

Psychological counselling services

The treatment of mental and emotional problems through the use of psychological techniques (The Free Dictionary, 2012b).

Public higher education institution

With this term we refer to higher education institutions directly or indirectly administered by a public education authority. Public higher education institutions thus include two categories of institution as defined by the UOE data collection manual: 'public institution', i.e. an institution directly managed by a

government agency/authority or by a governing body, most of whose members are either appointed by a public authority or elected by public franchise, and: 'government-dependent private higher education institution', i.e. an institution controlled/managed by a non-governmental organisation or where the governing board consists of members not selected by a public agency but receiving 50 percent or more of its core funding from government agencies or whose teaching personnel are paid by a government agency – either directly or through government (UNESCO, OECD and Eurostat 2009, pp. 34-35).

Routes into higher education

Formal routes to enter into higher education, i.e. the formal steps necessary to acquire the necessary formal access requirements for higher education. Questions of selection or acceptance into a programme are not part of the definition.

Quality assurance agency

A body established by public authorities with responsibility for external quality assurance. Agencies are intended to play a strong role in ensuring accountability of higher education institutions and may have specific objectives and developmental roles regarding enhancing quality.

Short cycle

Higher education degree programmes of less than 180 ECTS leading to a degree that is recognised at a lower level than a qualification at the end of the first cycle.

Socio-economic status

A combined economic and sociological measure of an individual's or family's economic and social position relative to others, based on income, education, and occupation. When analyzing a family's socio-economic status, the household income earners' education and occupation are examined, as well as combined income, versus with an individual, when their own attributes are assessed (Wikipedia, 2012a). Parents' educational attainment is often taken as a proxy measure for socio-economic status (Koucký, Bartušek and Kovařovic 2009, p. 14-16; Eurostudent 2008, p. 56-59).

Stimulus package

Government spending package on a wide variety of things, from the military and police to services like education and healthcare, as well as transfer payments such as welfare benefits with the goal to cushion the impact of economic recession and to stimulate economic recovery (Wikipedia, 2012d).

Student-centred learning

Student-centred pedagogy provides learning opportunities that are shaped by the needs and interests of the students. Using this approach, students are active learners, and instructors work to facilitate student learning (Langworthy et al. 2009, p. 30).

Tax benefits

Tax relief of any kind, not limited to income tax. → Tax credit and → Tax deduction

Tax credit

Tax relief given through the reduction of taxes to be paid. This is usually a direct reduction in tax liability, not dependent on the taxpayer's tax bracket (The Free Dictionary 2012a).

Tax deduction / Lump sum tax deduction / Expenses based tax deduction

Tax relief given through the reduction of taxable income. One form of tax deduction is lump sum tax deduction or tax allowance, when a defined proportion of a person's income is not subject to tax. This can potentially alter the taxpayer's tax bracket, since it allows the person to receive a certain income free of tax, which means that only the income above this sum counts as taxable. Another form of tax deduction is when certain expenses (e.g. interest paid on loans, education expenses etc.) can be deducted from the taxable income.

Vertical segregation

Vertical segregation refers to the phenomenon that while women outnumber men amongst higher education graduates, they are slightly under-represented at doctoral level, and there are even fewer women amongst higher ranking academic staff in universities. Thus, vertical segregation refers to the under-representation of women at higher levels of the professional hierarchy.

B. Statistical terms

Annual gross income (Figures 5.11 and 5.12)

Will be completed in cooperation with Eurostat

Average length of transition from education to work (Figure 5.8)

The duration of the transition from education to work is calculated as the difference between the date when leaving formal education for the last time and the date when starting the first job of at least 3 months. Results refer to people who had a first significant job. The indicator is calculated by dividing the number of employed people within age group 25-64 years having attained a specific level of education, by the total population of the same age group (Eurydice 2012, p. 179).

Most results are based on responses of people who left formal education within the last 5 years to avoid recall problems on dates of transition events. This is particularly the case for the United Kingdom where the rate of no answers to the 'date of first job' was significantly high beyond that threshold. The 5-year period also appears to be the most appropriate threshold value given the sample size per country. In some countries, compulsory military or community service contributes to a longer average duration of transition. This is the specially the case for Bulgaria (1.2 months), Greece (4.3 months), Cyprus (2.6 months) and Austria (1.5 months). Other countries have either few or no people in these cases (Ibid.).

Completion rate (Figure 5.2)

Completion rates show the percentage of higher education entrants who have successfully completed at least a first programme at ISCED 5A level. This indicator measures how effective the higher education system is in turning entrants into successful graduates. Completion rates are calculated based on two main methods. First, in some countries, higher education entrants of a given year are followed until all have dropped out or graduated (Eurostat & Eurostudent 2009, p. 122). Second, in other countries, the number of graduates in a given year is divided by the number of new entrants in the appropriate number of years before (Ibid., p. 123)

Delayed transition students (Figures 4.13 and 6.15)

Delayed transition is a characteristic used to define a type of student, who entered the higher education sector for the first time at a later stage in his/her life. This new focus group has been developed in order to capture a group of students on which a lot of policy focus is being laid. All students, whose delay between receiving HE entrance qualification at school and entering HE for the first time amounts to more than 2 years are considered delayed transition students. All students, whose delay was less than 2 years, but whose entry qualification was obtained outside the normal school system are also considered delayed transition students (Eurostudent 2011, p. 220)

Entrants/New entrants (Figures 4.2 and 4.3)

An entrant is a student who is enrolled into a programme during the current reference period but who was not enrolled in that programme during the previous reference year. Entrants can be either new

entrants (never been included in the enrolment statistics at that level of education) or re-entrants (had been included some year prior to the preceding reference year).

All data on students enrolled, entrants, new entrants, and graduates include foreign and international/mobile students. Non-citizen students who are enrolling for the first time in the country for which the data are being collected are counted as new entrants, regardless of their previous education in other countries (Eurostat & Eurostudent 2009, p. 243).

Educational attainment (Figures 4.4, 4.7, 4.8, 5.6, 5.7, 5.8 and 5.11)

Educational attainment refers to the highest level of education successfully completed. Indicators using the International Standard Classification of Education (ISCED), version 1997, often distinguish between low, medium and high educational attainment. These categories are compiled as follows:

- Low educational attainment corresponds to pre-primary, primary and lower secondary education (ISCED levels 0, 1, 2);
- Medium educational attainment corresponds to upper secondary and post-secondary non-tertiary education (ISCED levels 3 and 4);
- High educational attainment corresponds to tertiary education (ISCED levels 5 and 6). (Eurostat).

Expenditure on tertiary education (Figures 1.6, 1.7, 1.8, 1.9 and 1.10)

Will be completed in cooperation with Eurostat

Formal student status (Eurostudent) (Figure 6.8)

In the framework of Eurostudent research, formal status of enrolment is any student modus which is officially registered and recognized as such by the state's order and/or higher education institution in the respective country. It may contain the categories full-time, part-time and other. A full-time/part-time student is a student who formally holds the respective status irrespective of the weekly number of hours spent on study-related activities (taught studies + personal study time). Any deviations from the two categories should be placed in the response category 'other', but only if the rule of mutual exclusiveness of response categories is observed (Eurostudent, 2011).

Full-time equivalent student (Figure 1.8)

A full-time equivalent (FTE) is a unit to measure students in a way that makes them comparable although they may study a different number of hours per week. The unit is obtained by comparing a student's average number of hours studied to the average number of hours of a full-time student. A full-time student is therefore counted as one FTE, while a part-time student gets a score in proportion to the hours he or she studies (Eurostat, 2012a).

Incoming mobility rate

Incoming mobility rate refers to mobile students from abroad studying in the country as a percentage of the total number of students enrolled.

International Standard Classification of Education (ISCED 1997)

The International Standard Classification of Education (ISCED) was designed by UNESCO in the 1970s and aims to offer a set of criteria suitable for compiling statistics on education internationally. The current version is from 1997 and a new version will be developed for 2011.

ISCED 97 levels are as follows:

- **ISCED 0: Pre-primary education**

Pre-primary education is defined as the initial stage of organised instruction. It is school- or centre-based and is designed for children aged at least 3 years.

- **ISCED 1: Primary education**

This level begins between 5 and 7 years of age, is compulsory in all countries and generally lasts from four to six years.

- **ISCED 2: Lower secondary education**

It continues the basic programmes of the primary level, although teaching is typically more subject-focused. Usually, the end of this level coincides with the end of compulsory education.

- **ISCED 3: Upper secondary education**

This level generally begins at the end of compulsory education. The entrance age is typically 15 or 16 years. Entrance qualifications (end of compulsory education) and other minimum entry requirements are usually needed. Instruction is often more subject-oriented than at ISCED level 2. The typical duration of ISCED level 3 varies from two to five years.

- **ISCED 4: Post-secondary non-tertiary education**

These programmes straddle the boundary between upper secondary and tertiary education. They serve to broaden the knowledge of ISCED level 3 graduates. Typical examples are programmes designed to prepare pupils for studies at level 5 or programmes designed to prepare pupils for direct labour market entry.

- **ISCED 5: Tertiary education (first stage)**

Entry to these programmes normally requires the successful completion of ISCED levels 3 or 4. ISCED level 5 includes tertiary programmes with an academic orientation which are largely theoretically based (ISCED 5A) and tertiary programmes with an occupational orientation which are typically shorter than the academic programmes and designed for entry to the employment market (ISCED 5B). Only ISCED 5A programmes give access to doctoral programmes at ISCED level 6.

- **ISCED 6: Tertiary education (second stage)**

This level is reserved for tertiary programmes that lead directly to the award of an advanced research qualification (e.g. a doctorate).

International Standard Classification of Occupations (ISCO) (Figures 5.13, 5.14 and 5.15)

ISCO is a tool for organizing jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. The first version of ISCO was adopted in 1957 by the Ninth International

Conference of Labour Statisticians (ICLS). The second version, ISCO-68 was adopted in 1966 and the third version, ISCO-88, in 1987. Though ISCO-88 was updated in December 2007 (ISCO-08), this report uses the classification of the ISCO-88 version, which defines the following major groups:

1. Legislators, senior officials and managers
2. Professionals
3. Technicians and associate professionals
4. Clerks
5. Service workers and shop and market sales workers
6. Skilled agricultural and fishery workers
7. Craft and related trades workers
8. Plant and machine operators and assemblers
9. Elementary occupations
0. Armed forces

For more details, visit: <http://www.ilo.org/public/english/bureau/stat/isco/>

Will be completed in cooperation with Eurostat

Low education/social background (Eurostudent) (Figure 4.13)

Socio-economic background of a student due to his/her parents' social standing. The parents' social standing is approximated by their highest educational qualification according to ISCED-97-code. The highest educational attainment of either the father or the mother is taken into account. The ISCED levels 0, 1 and 2 are considered as low qualification background (Eurostudent 2011, p. 219).

Median

In statistics, median is described as the numerical value separating the higher half of a sample from the lower half. The median of a finite list of numbers can be found by arranging all the observations from lowest value to highest value and picking the middle one (Wikipedia, 2012b). In this report, the EHEA median refers to the median of values among the EHEA countries where data is available.

Migrant

Will be completed in cooperation with Eurostat

Net entry rate (Figures 5.3, 5.4 and 5.5)

The entry rate for a particular year of age, or an age range, is the ratio between the number of new entrants (first degree in the education level) of that age and the population size of the same age. Net entry rates are computed as the sum of the entry rates, by single year of age, through every single age. The indicators here were computed as the sum of net entry rates for single ages from 14 to 29 years and for the age groups 30-34 years, 35-39 years and 40 years and over. For new entrants where data are only available by age group (e.g. 30-34, 35-39), the entry rates are multiplied by the number of years covered by the age group before being added to the other single-age entry rates. As regards the age group "40 and over", the denominator is the 35-39 age group, and the result is also multiplied by 5 before adding up.

Net graduation rate (Figures 5.3, 5.4 and 5.5)

The graduation rate for a particular year of age, or an age range, is the ratio between the number of new graduates (first degree in the education level) of that age and the population size of the same age. Net graduation rates are computed as the sum of the graduation rates by single year of age, through every single age. The indicators here were computed as the sum of net graduation rates for single ages from 14 to 29 years and for the age groups 30-34 years, 35-39 years and 40 years and over. For graduates where data are only available by age group (e.g. 30-34, 35-39), the graduation rates are multiplied by the number of years covered by the age group before being added to the other single-age graduation rates. As regards the age group "40 and over", the denominator is the 35-39 age group, and the result is also multiplied by 5 before adding up.

Odds ratio (Figures 4.4, 4.7 and 4.8)

The odds ratio is the ratio of the odds of an event occurring in one group to the odds of it occurring in another group. An odds ratio of 1 indicates that the condition or event under study is equally likely to occur in both groups. An odds ratio greater than 1 indicates that the condition or event is more likely to occur in the first group. And an odds ratio less than 1 indicates that the condition or event is less likely to occur in the first group. The odds ratio is calculated the following way (probabilities of the event in each of the groups are p_1 (first group) and p_2 (second group)): $(p_1/(1-p_1))/(p_2/(1-p_2))$ (Wikipedia, 2012c).

Outward mobility rate

Outward mobility rate refers to students from a country of origin studying abroad as a percentage of the total number of students of the same country of origin.

Participation rate in tertiary education (Figure 1.3)

Refers to a subset of a particular group of the population enrolled in tertiary education, as a percentage of that particular group.

Percentile

The percentile X (with $X \geq 0$ and ≤ 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 (Eurostat & Eurostudent 2009, p. 129).

Purchasing power parity (PPP)

A currency conversion rate which converts economic indicators expressed in a national currency into an artificial common currency that equalises the purchasing power of different national currencies. In other words, PPP eliminates the differences in price levels between countries in the process of conversion to an artificial common currency, called Purchasing Power Standard (PPS).

Purchasing power standard (PPS) (Figures 1.8, 1.9 and 5.11)

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). 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.

Unemployment rate and unemployment ratio (Figures 5.6, 5.7, 5.9 and 5.10)

An unemployed person is defined by Eurostat, according to the guidelines of the International Labour Organization, as:

- someone aged 15 to 74 (in Italy, Spain, the United Kingdom, Iceland, Norway: 16 to 74 years);
- without work during the reference week;
- available to start work within the next two weeks (or has already found a job to start within the next three months);
- actively having sought employment at some time during the last four weeks.

The *unemployment rate* is the number of people unemployed as a percentage of the labour force (Eurostat, 2012b).

The *unemployment ratio* – used in this report – is the number of people unemployed as a percentage of the total population.

Vertical mismatch (Figure 5.15)

Refers to a situation in which the level of education or skills is less or more than the required level of education or skills (Cedefop 2010, p. 13).

Workers (Figures 5.11 and 5.12)

Will be completed in cooperation with Eurostat

METHODOLOGICAL NOTES

Statistical sources

UOE data collection on education and training systems (UOE)

The UNESCO Institute for Statistics (UIS-UNESCO), the Organisation for Economic Co-operation and Development (OECD) and the Statistical Office of the European Union (EUROSTAT) jointly provide internationally comparable data on key aspects of education and training systems through the annual UOE data collection.

For tertiary education the collection covers entrants (input), enrolments (stock) and graduates (output). Data on education expenditure and personnel is also provided. The data are broken down by educational level (using ISCED 1997), as well as by sex, age, sector and field of education. Separate tables provide information on mobile and foreign students and graduates by country of origin (as well as by level, sex and field of education).

Data for more than 60 participating countries are provided to the international organisations via an electronic questionnaire. They use a common methodology, definitions, classifications, coverage as well as criteria for quality-controlling the data. UIS-UNESCO collects comparable data from the rest of the world (at a less detailed level). Data cover the totality of the specified populations and are mainly derived from administrative sources used at national level.

UOE indicators and data available at (including metadata):

<http://epp.eurostat.ec.europa.eu/portal/page/portal/education/introduction>;

<http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/database>.

Methodology:

http://circa.europa.eu/Public/irc/dsis/edtcslibrary?l=/public/unesco_collection&vm=detailed&sb=Title.

EU Labour Force Survey (EU-LFS)

The Labour Force Survey (LFS) is a quarterly household sample survey carried out in the Member States of the European Union, Candidate Countries and EFTA countries (except Lichtenstein). It is the main source of information about the situation and trends on the labour market in the European Union. The definitions of employment and unemployment, as well as other survey characteristics follow the definitions and recommendations of the International Labour Organisation (ILO). In addition, harmonisation is achieved through adherence to common principles of questionnaire construction, unemployment definition and common definitions of main variables and reply categories.

The data can be broken down along many dimensions including age, sex, educational attainment, and distinctions between permanent/temporary and full-time/part-time employment.

The LFS sample size is about 1.5 million people every quarter. The sampling rates in each country vary between 0.2 % and 3.3 %. The LFS has become a continuous quarterly survey. Initially, from 1983, its results covered one quarter per year only (usually in spring), but from 1998 to 2005 it

underwent a transition to a continuous survey – interviews are distributed across all weeks of the year – designed to give reliable quarterly results.

EU LFS education indicators and data are available at (including metadata):

<http://epp.eurostat.ec.europa.eu/portal/page/portal/education/introduction>;
<http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/database>.

Methodology:

http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_ifs/methodology/definitions.

EU-Statistics on Income and Living Conditions (EU-SILC)

EU-SILC (Community Statistics on Income and Living Conditions) is a data collection which has become the reference source for statistics on income and poverty at EU-level. Both cross-sectional (data pertaining to a given year) and longitudinal (pertaining to changes over a four-year period) data are collected in a harmonised way across all EU Member States plus Croatia, Iceland, Norway, Switzerland and Turkey.

EU-SILC does not rely on a common questionnaire or a survey but on a harmonised “framework”. The latter defines the lists of target primary (annual) and secondary (every four years or less frequently) variables to be transmitted to Eurostat; common guidelines and procedures; common concepts (household and income) and classifications aimed at maximising comparability of the information produced.

The minimum size of the sample of the overall population which is surveyed every year is for the cross-sectional data operation: about 130,000 households and 270,000 persons.

The reference population in EU-SILC includes all private households and their current members residing in the territory of the countries at the time of data collection. Persons living in collective households and in institutions are generally excluded from the target population.

All household members are surveyed, but only those aged 16 and more are interviewed.

EU-SILC indicators and data available at (including metadata)

http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/introduction.

Methodology

http://circa.europa.eu/Public/irc/dsis/eusilc/library?l=/guidelines_questionnaire/operation_guidelines_4/silc065_version/_EN_1.0_&a=d.

Eurostudent IV survey

Reference year: the most recent available data between X and Y (will be completed by Eurostudent).

Sample unit: National or resident students at an ISCED 5A level of education.

Coverage: X EU members (will be completed by Eurostudent) (UK separated into England/Wales and Scotland), plus Norway, Turkey and Switzerland.

Description:

The purpose of Eurostudent is to provide comparative data on the so-called 'social dimension' of higher education in Europe. It is the product of a network of academics and representatives of ministries responsible for higher education in 22 countries. The dataset attempts to describe a student's learning biography from entry into a higher education system, to study conditions during studies, and finally to exit from the higher education system. A fourth element is temporary mobility, which is also strongly dependent on study conditions. Due to the fact that the surveys carried out within the project collate responses from a cross-section of students during their study period, it is not possible to know anything about their graduation. However, the dataset does include topics likely to have implications on graduation (e.g. time budget for students).

The first Eurostudent reports were based on already existing national surveys which covered the same topics, but otherwise differed in methodological approach. Although this is true for the third round of Eurostudent in a minority of cases, the Eurostudent study remains the product of a decentralised network. Therefore, the network coordinators have adopted an output harmonisation approach for the execution of the study. A harmonised list of variables and indicators, together with their related definitions, has been established. These indicator definitions require the use of the set of core questions to ensure consistency between collected data (31 core questions). Methodological guidelines provide additional guidance on the target population, sampling frames, sampling design, survey instruments, etc. that should be respected in the national survey methods.

The survey is restricted to students who are:

1. studying at ISCED level 5A
2. nationals or permanent residents

The survey does include all students enrolled at higher education institutions studying at ISCED level 5A. This comprises both students in their first degree and those in their second degree or continuing programmes (e.g. master's degree). Students in ISCED level 5B (practically oriented/occupationally specific) and ISCED level 6 (doctorate students) are not included.

Methodological notes will be completed in the coming period

THE DAVID HUME INSTITUTE



Further Education, the Scottish Labour Market and the Wider Economy

October 2012

Hume Occasional Paper No. 94

The David Hume Institute
26 Forth Street
Edinburgh EH1 3LH

© The David Hume Institute 2012

ISBN 1 870482 39-4

Further Education, the Scottish Labour Market and the Wider Economy

Kristinn Hermannsson

Ewart Keep

Patrizio Lecca

Jeremy Peat

Lesley Sutton

J Kim Swales

October 2012

Contents

Foreword

Overview by <i>Jeremy Peat</i>	1
Scottish FE – The Sector in Context <i>Lesley Sutton</i>	5
How much does a single graduation cohort from further education colleges contribute to the supply-side of the host regional economy? A micro-macro simulation for the case of Scotland	15
<i>Kristinn Hermannsson Patrizio Lecca and J Kim Swales- Fraser of Allander Institute, Department of Economics, University of Strathclyde</i>	
Further Education- the Role of Incentives	29
<i>Ewart J Keep</i>	

Foreword

At the Institute we were delighted when John Henderson, who heads up Scotland's Colleges, approached us to carry out some research on the role of the college sector within the Scottish labour market and wider economy. I am also grateful to some Trustees for support throughout the project.

Lesley Sutton, our Research Manager, and I planned our proposition for John Henderson. We determined that the work should be in three major parts – Lesley tackling the task of describing and analysing the sector per se; followed by an input from the Fraser of Allander Institute at Strathclyde University on the returns to the wider economy from FE; and then more of a 'think piece' by Ewart Keep from the University of Cardiff, who is also a long term adviser on skills to the Scottish Funding Council. This format found favour and Ewart and Kim Swales at the FAI agreed to work with us. We are most grateful to them. The completed papers are now attached, along with my covering note which attempts to pull out some of the key findings from the different papers.

We are most grateful to staff at Scotland's Colleges and the Scottish Funding Council for their assistance with the provision of data and other information. But of course they bear no responsibility for the end product.

This set of papers will be given wide dissemination and we hope that the analysis and discussion they contain, along with further consideration of their implications, can make a positive and constructive contribution to the continuing policy debate. Continuing development of Scotland's labour force in terms of skills and potential productivity is critical to continuing and growing competitiveness and hence wider economic success. FE colleges clearly have a major role to play in this context. In addition the work of the college sector can assist efforts to reduce disparities of achievement and welfare between households in Scotland. We hope that these papers, and the debate that they generate, will in some small way help the sector to further develop its contribution in terms of both economic growth and the reduction of disparities.

In conclusion allow me to stress, as I must always do, that the David Hume Institute as a charity and as an organisation determined to retain its reputation for independence and objectivity has no views with regard to the policy implications of these papers. We seek to inform and stimulate the policy debate and once more thank Scotland's Colleges for giving us the opportunity to contribute in this important area. It is perhaps of particular importance to stress this point for this set of papers, as they are emerging while a debate continues regarding finance for further education in the years ahead. We take no stance on that debate but hope in some small way to enable participants to be better informed.

Jeremy Peat
Director
David Hume Institute

October 2012

Further Education, the Scottish Labour Market and the Wider Economy – Overview

Jeremy Peat

Introduction

The purpose of this brief paper is to bring together some of the material contained in the three substantive sections that follow, and to draw out a number of conclusions and themes that we believe merit attention. As emphasised in the Foreword, the David Hume Institute has no views of its own, and hence as Director what follows are my thoughts and any implicit or explicit views are my own rather than the Institute's.

The Backcloth

It is generally, perhaps universally, accepted that human capital is a key component of Scotland's assets. To many our human capital is one of our great strengths. If we are to succeed in the challenging economic world that now exists, and doubtless will continue to exist post recession, then we need to make the most of this asset. The strength of Scotland's human capital reflects the strengths of our education and training institutions and also the policies of successive governments – plus also the willingness of employers to provide appropriate training and skills development in situ or externally and of individuals to take up training that is on offer. Colleges, i.e. the Further Education sector, are an integral part of the Scottish story, of such success in terms of human capital that we can claim. They play a major role alongside schools, universities and other vocational trainers.

Indeed colleges can be seen as playing a crucial role at various stages of the process of enhancing our human capital, working alongside other players in the provision of routes from school to work or to further training or to university; and also in further skill development in mid-career, often in conjunction with employers. They are also major players in the process of trying to move young people (in particular) from unemployment to work; the key player in the drive to offer 'opportunities for all'.

It is clear from Lesley Sutton's paper that employers value the work of colleges, and that local relationships can be a critical feature of the success of colleges in fulfilling the needs of employers – to the benefit of those seeking jobs. If the benefits to employers and those receiving training are to be sustainable, rather than short term, then it is important that these links be maintained, indeed enhanced, even while the structure of the college sector may be changing. It is also of interest to note that training in an FE institution, especially when employer engagement/contact is involved, may increase the number of folk contemplating moving into self-employment, which should also be of benefit to the Scottish economy.

One other key feature of the college sector is that it can and does cater to a diverse student base in a flexible manner. Nearly 99% of students are from Scotland, with the gender balance 46% male and 54% female – as compared to 51%/49% in secondary schools. FE caters for a higher proportion of (Scottish) ethnic minority and disabled students than is the case with HE. There is also a much wider spread of ages – from the relatively young to 60+ - indicative of the range of functions fulfilled within FE institutions. Similarly FE permits a wide range of learning models – with only 23.5% full-time and others part-time or on a day release basis or at weekends or in the evenings. Finally, so far as diversity is concerned, 25% of total FE students came from those areas within Scotland where the most deprived 20% of the population live. The equivalent for HE is 14%.

Finance and Benefits

As with so many other economies, Scotland is at present facing real constraints on the public finances. With the overall budget declining significantly in real terms, the pressures have been felt in many sectors, not least Further Education. All the indications are that funding for FE, at least for teaching, has been declining in recent years, most certainly in real terms. This decline has been in part offset by efficiency improvements across the sector, but has also inevitably led to increasing pressure on both quality and numbers. Further, our reading of the data is that funding per head per year for FE is somewhat lower than for secondary education and markedly lower than for HE. Also, whereas HE institutions obtain significant funds from research sources and overseas, etc. activities, FE institutions are dependent to a large extent on public funding. The decision in the recent draft Budget to allocate some extra funds to FE is welcome, but according to Scotland's Colleges the funds for college teaching received from Government will still be substantially lower in 2013/14 than in 2012/13. The challenge faced by the sector, at a time when there is both a commitment to provide opportunities for those young people not in education, employment or training and a need to continuously 'up-skill' Scotland's workforce, is self-evident.

Against this financial backcloth, the college sector is undergoing its most significant change since incorporation; a governance review is in a pre legislative stage; a regionalisation agenda is creating merged and federated institutions and outcomes are now the driver for funding, with regionally negotiated outcome agreements between colleges and the Scottish Funding Council.

The evidence from the paper prepared by our friends at the Fraser of Allander Institute is that gaining a qualification from a college results in benefits for the wider economy as well as for the individual. In economic jargon there are positive externalities, spill-over benefits for the rest of the economy. We will not attempt to summarise the FAI methodology, but this is explained carefully in their chapter, where there is also a full explanation of the data used. However, we calculate on the basis of their work that, taken over an eight year period, the enhancement to their skills that colleges impart to their students increases Scottish GDP by approximately 1%, or £1.2 billion. This is more than the value of the output of the mechanical engineering or transport equipment sectors and almost on a par with the food processing industry.

The Gaps that Remain; and the Role of Incentives

It would appear that we do best at providing people with the skills that they need to perform more highly skilled jobs, the kind that need degrees or HNDs or modern apprentice qualifications. We are less successful at preparing for work people to undertake the plentiful and important jobs that demand somewhat lower levels of skills and more limited qualifications. We are also less good at making the most of those at lower skill levels, both in terms of their productivity in a job initially and in their development over time. People in lower skilled and lower paid jobs both receive less training in advance of deployment and limited training and development in situ. The scope for upwards progression appears less marked than in some other comparator economies. This, along with the apparent fact that many 'mid-tier' posts have tended to be filled by graduates, even though these jobs do not necessarily require graduate-level skills, may constrain the opportunities for those starting at lower levels of responsibility and pay developing and advancing to the levels their potential should permit.

To some extent these issues can be tackled on the supply side of skills, by colleges, etc., preferably in collaboration with employers. There is always scope to increase ‘employability’ and to encourage skill development and utilisation. There is clearly a case for regularly re-visiting course and curriculum design and the role of qualifications in moving from one level of employment to another.

Continuing improvement in these areas can increase the incentives to study and develop abilities and qualifications, in the expectation that this will lead to career progression, better pay and greater job satisfaction.

But there may well be greater scope for productive action – related to enhanced incentivisation - on the demand side of the learning and labour market. Are there ways in which policy can influence, directly or via employers, the incentives to develop their skills that are faced by those at the lower end of the market? This issue is one addressed in the final section of this report, prepared by Ewart Keep. We found his reflections on the role of incentives exceptionally thought-provoking and certainly highly challenging.

Keep distinguishes between internal and external incentives. The former are ‘generated inside the education and training system, and create and sustain positive attitudes towards the act of learning itself and towards progression within each student or trainee’. The latter are ‘created in external wider society and within the labour market, and the rewards they give rise to are external to the learning process itself.’ These will include wages, status, career progression, family praise and the pleasure in wider spheres of life that can flow from ‘applying new skills, knowledge and expertise’. Such incentives may not be readily influenced by public policies.

Keep also suggests that incentives do not work in the same way for all people. As economists we expect people to consider education choices in FE and HE in terms of the expected pecuniary and non-pecuniary returns on investment. We generally note that different people will have different attitudes to risk; but we should consider whether there are other important ways in which incentives do and do not work. The Keep paper is suggesting, as we read it, that those at lower income levels and with lower skills will tend to have a more inelastic demand for training and education. In non-technical terms, they are less likely than those at higher income levels, other things remaining equal, to elect for more education and training; and their employers are less likely to offer it to them. If this is correct then this lesser impact of incentives will work to limit social mobility via enhanced skills and additional training.

Some Conclusions

Study of these thought provoking papers leads us to some tentative conclusions, or perhaps we should say that these essays identify areas for further consideration in the context of evidence-based policy making: -

The college sector is a critical component of Scotland’s education system, contributing in particular to opportunities for a much more diverse group of people – by age, ethnicity and social status – than HE. This matters both to achieve maximum benefits for Scotland from skill development for all and in efforts to reduce disparities within Scotland’s population. At the same time the college sector does deliver strong economic returns across the economy. The external benefits are of substance and the total impact on Gross Domestic Product is most certainly non-negligible.

4 *Further Education, the Scottish Labour Market and the Wider Economy*

However, the impact of FE and other forms of education and training supply may be constrained by the possibility that ‘normal’ incentive mechanisms, based on expected impact on earnings, status, etc., may not work as well at lower income levels as is the case at higher incomes. This may reduce the demand for skill development below the level that is optimal for individuals and for Scotland.

Colleges can work to offset this impact by enhancing internal incentives; by making sure that actual and potential trainees fully understand the benefits which can flow from further training and by working – with employers and others – to show that the potential benefits are real and of substance.

The college sector and others may wish to reflect, with employers, how the latter might make better use of the skills of those in and joining their workforce? How might they open up opportunities to progress for those with potential, and hence encourage them to develop their skills and potential via training, externally and on-the-job?

Government should be working not just to maximise the benefits to the economy from the scarce resources available across the education sector, but to facilitate the workings of incentive mechanisms (oiling the wheels of the labour market) in close co-operation with colleges, other institutions and employers.

In this context the local links of employers are important, as are relations with employer and employee organisations and bodies such as Scottish Enterprise and Skills Development Scotland.

Scottish FE – The Sector in Context

Lesley Sutton

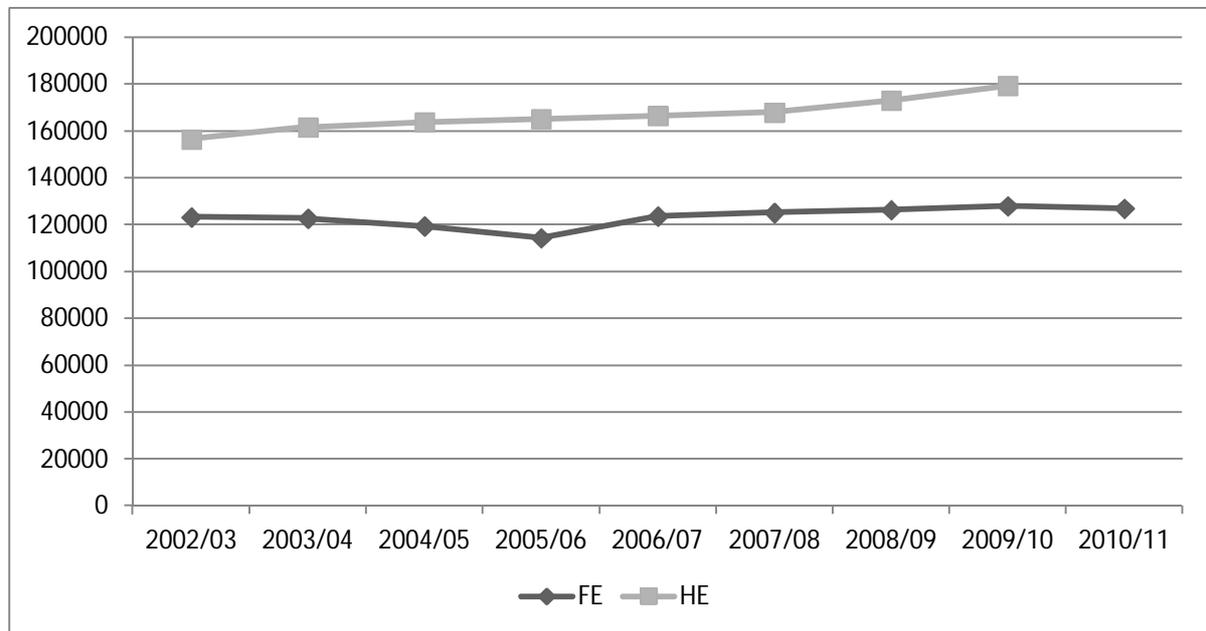
Student Numbers

In 2010/11, according to the Scottish Funding Council (SFC) Infact database, there were a total of 314,585 students studying at Scottish FE colleges - a FTE total of 126,939¹. This compares with a full-time equivalent (FTE) number of HE students of 179,349 in 2009/10, the latest year for which HE data is available².

The number of FE students declined sharply over the period 2000 to 11 – by 16.1%. Comparing FE student numbers with those of HE over the period 2000/01 to 2009/10, it can be seen that the number of FE students fell by 4.7% compared to a 25.5% increase in HE students over the same period. However, focussing purely on overall student numbers does not provide a fully accurate picture of **activity** at FECs as there has been an increase in the number of full-time students over the period. SUMs (student units of measurement) equate to 40 hours of student learning time and these are used to drive funding to the colleges. These are only available from the period 2005/6 to 2010/11 and have generally increased annually over this time, albeit declining by just under 1% in 2010/11.

It would be useful to compare this activity level with HE but there are no equivalent data for the HE sector. The best proxy is FTE student numbers. Figure 1 shows the number of FTE FE and HE students over the period 2002/03 to 2010/11 (the HE data goes out to 2010). Over the period 2002-03 to 2009-10, FE FTE student numbers rose by 3.9% compared with a 14.7% increase for HE. It has not been possible to compare FE student numbers with those from other parts of the UK due to the differences in the way the data are compiled.

Figure 1: FE and HE FTE student numbers 2002 to 2010/11



Source: Infact database and Scottish Government

¹ This number refers to the total number of students studying at FECs regardless of their mode of attendance. It also includes students studying HE courses at FE institutions. The data will be quoted on this basis unless otherwise stated.

² This is the number of students studying at HEIs. It excludes the number of HE students studying at FE colleges.

Student Profile

The **gender** split of FE students is 46% male to 54% female, compared with a secondary school split of 51% male to 49% female. In HE this predominance of females is even more marked with 43% male and 57% female students.

The **ethnic** profile of FE students is broadly similar to that of Scottish schools (see Table 1), whilst HE institutions show a higher proportion of ethnic students. This is due to HEIs having a greater proportion of overseas students. Whilst the country of domicile for just under 99% of FE students is noted as Scotland, the comparable figure for HE students is 70.4%, increasing to 83% for those whose country of domicile is the UK. Thus, 17% of HEI students are from overseas. The ethnic profile of the universities is different to that of the schools and colleges, reflecting the high proportion of overseas students, with the greatest proportion of ethnic students at HEIs coming from China and India (20% of all overseas students studying at Scottish universities are from China and India) as compared with FECs and schools where the largest share of ethnic students originate from Pakistan.

Whilst 12% of FE students are noted as having a **disability**, the equivalent figure for HE is 7.3%. The school data does not correlate well with that for FE and HE.

Table 1: Ethnicity of students at Scottish FECs 2010/11 and HEIs 2009/10 (%)

Ethnicity	Schools	FE	HE
White	87.6	86.5	82.1
Non-White	4.9	5.1	10.2
Other white (Polish, Irish etc)	5.2		
Not disclosed/unknown	2.3	8.4	7.6

Source: Infact database and Scottish Government

The **age profile** of FE and HE students is shown in Table 2. The FE groupings have been amalgamated to allow comparison with the HE sector. From this it can be seen that the college sector has a wider spread of age groups in attendance and has a significantly higher proportion of aged 60+ students than the HE sector. The HE sector is fairly concentrated in the 19-24 age band. Table 2 also highlights that 17.5% of students in the college sector are of school age. **We show later in this report that the data suggests that schools receive higher per capita public funding than that received by FECs. The FECs do not receive the higher level of funding for their under 16 students.**

Recent reports have suggested that there is an increasing share of 16-24 year olds who are unemployed. In July 2012 the youth unemployment rate in Scotland and the UK was 20.8%. Given that many of these young people will have few, if any, qualifications it is clear that there is a role to be played by FECs to provide vocational courses to help these young people into employment. Indeed this role has been emphasised in the Budget papers for 2013/14. Additionally, at the opposite end of the age scale, the Scottish Government has a commitment to Lifelong Learning. The greater flexibility in mode of attendance (covered in the next point), slightly higher prevalence of aged 60+ students and wider range of vocational courses suggests that FECs are best placed to facilitate many aspects of Lifelong Learning.

Table 2: Age distribution of FE and HE students (%)

Age Group	FE	HE
Under 16	17.5	
16-18	20.5	15.1
19-24	17.6	43.8
25-60	39.8	39.3
60+	4.5	1.8

Source: Infact database and Scottish Government

When looking at **mode of attendance** it is clear that FE has considerable flexibility with courses running on a full-time, part-time, day release, weekend and evening basis. Only 23.5% of FE students study on a full-time basis (2010/11) compared with 73.4% of HE students. Over the period 2005/06 to 2009/10 the category 'flexible learning' within FE increased by 302% (mainly due to a re-categorisation of a number of differing part-time modes of learning), whilst the number of students studying full-time rose by 21.6%.

Looking at poverty, the HE and FE data are not entirely comparable but this is an important and topical issue so it is worth considering the data as it is presented for the institutions. This shows that, as for ethnicity, the poverty profile of FE students is generally similar to that of schools – 25% of **total** FE students were from areas where the 20% most deprived of the population reside compared to 21% for school attendees. 14% of FEC students were from the areas where the 20% most affluent households live compared with 19% for schools (all 2010-11). The HE data is provided in terms of '**percentage of entrants from deprived areas**'. This shows only 15% of entrants falling into this category in 2009-10 (7.6% for the 'Ancient' universities).

The key conclusion to the above analysis is that Further Education Colleges contain a broader mix of students in terms of age, they have a higher proportion of disabled, and students from poorer backgrounds than at HE and a more flexible learning route for their students suggesting that FECs play an important role in promoting social inclusion.

Education Funding

Public spending per head on education varies across the education sub-sectors as shown in Table 3. The data shown for HE and FE is from the Scottish Funding Council 'Facts and Figures' document 2012³ which provides data on FE and HE income and funding. We have calculated the funding per head using the **funding** data from this document and FTE student numbers (EU students have been included as they are eligible for funded places). The school data is from the 'Detailed Analysis of General Fund Revenue Expenditure' produced by the Scottish Government. The data are from different sources and, therefore, are **indicative** of the public spend per head for each sub-sector. For example, the school data is derived from revenue spending by the government and may, thus, be an under-estimate as capital spending on schools is excluded, whilst it is included in FE and HE funding.

³ Facts and Figures, 2012, Scottish Funding Council.

Table 3: Spending per Head and Total Spend on Education Sub-Sectors 2009/10

Sub-Sector	'Spend' per Head (£)	Total 'Spend' £m
Pre-primary	3,438	316
Primary	4,901	1,790
Secondary	6,562	1,975
FE funding from SFC	5,281	749
HE funding from SFC	12,381	2,783

Source: Facts and Figures 2012, Scottish Funding Council and the Scottish Government

From Table 3 it is clear that spending per head escalates over the spectrum from pre-primary to HE. Interestingly, more is spent on secondary education per head than the equivalent spend in FE, whilst HE funding per head is over 50% more than that of FE. If the data are fully comparable, then a key question here is whether or not the returns to education reflect the equivalent spend per head.

Funding for FECs fell by 22.5% in real terms over the period 2009/10 to 2011/12. The decline in HE funding over the same period was 19.9%.

FE and HE Income

Government funding constitutes a large part of colleges' and universities' income but both sets of institutions also earn income from other sources. Income to the FE colleges in 2009/10 was shown as £749m (£5,281per head) whilst for HE total income in 2009/10 was £2,783m (£12,381 per head). The real terms (i.e. adjusted for inflation) rise in income for the colleges was 2.3% over the three year period from 2007 to 2010, whilst for HEIs this was 8%. This larger increase for HEIs appears to have been driven by a large increase in 'tuition fees/education contracts'. (FECs experienced a marginal real terms decline in this category of income over the same period). However, given that the funding data is more up-to-date, income growth is likely to decline going forward from the years noted here which are the latest available.

The breakdown of total income by its component categories is shown in Table 4 (opposite). The equivalent figures are also shown for HE.

Table 4: Breakdown of FE and HE income 2009/10 (% of total)

	Further Education	Higher Education
SFC grant	73.2 (548m)	39.0 (1084m)
Tuition fees/education contracts	15.2 (114m)	22.6 (628m)
Research grants and contracts	0.3 (2m)	21.2 (590)
Other income	11.1 (83m)	16.3 (455m)
Endowment and investment income	0.3 (2m)	0.9 (26m)

Source: Facts and Figures 2012, Scottish Funding Council

From Table 4 it is clear that FE is considerably more reliant on the SFC grant than HE. This grant constitutes 73.2% of FEC income compared with only 39% of total HE income. These figures are sector averages and some individual colleges are less reliant on the SFC grant. Additionally, the HE sector earns 21.2% of its total income from research compared with only 0.3% for FE. This is unsurprising given the differing nature of the two types of institutions. This large research element to HE income suggests that the public funding figure for the HEIs may be underestimated as much of this research income will be funded through research councils which themselves are funded from public money. The impact of this is shown by the discrepancy in the funding per head and income per head data for HE.

Table 5 shows HESA (Higher Education Statistics Agency) data on spend per head on HE across the countries of the UK (the data for FE in other parts of the UK do not correspond sufficiently with that for Scotland to allow a meaningful comparison). The data shows that spend per head on HE is lowest in Wales, whilst in Scotland it is some £3,000 + higher than both Wales and Northern Ireland. The fact that Scottish HEIs tend to offer four year honours degree courses means that an honours degree in Scotland could cost £51,697 compared to £32,654 in England, although the relatively large number of medical schools in Scotland could be inflating the Scottish spend per head. Note, however, that the spend per head corresponds with the income version of ‘spend’ per head for Scotland highlighted above.

Table 5: Public Spending per Head on Higher Education for UK Countries 2010/11

Country	Spend per Head (£)
Scotland	12,924.2
England	10,884.7
Northern Ireland	9,742.7
Wales	9,485.6

Source: HESA website 2012

Table 6 shows OECD (Organisation for Economic Co-operation and Development) comparisons of spending per head as a percentage of GDP on education for a selection of OECD countries as well as an OECD average. The data appears to be available only for 'tertiary' education which comprises both further and higher education. Despite its limitations it can be seen from Table 6 that both the US and Germany spend 1% of GDP on tertiary education compared with 0.6% in the UK, which is just above the OECD average. Unfortunately, the data for China is not comparable with that of the other countries and is therefore not included.

It appears that the Scottish Government is investing significantly in HE, possibly to bring it closer into line with other advanced economies. However, given the constraints on public spending overall and its commitment to 'free' education, other areas of public sector funding e.g. the college sector may not receive the same level of investment.

Table 6: Public Spending on Higher Education for OEDC Countries (% of GDP) 2008

Country	Spend per Head as % of GDP
UK	0.6
US	1.0
Germany	1.0
Japan	0.5
OECD average	0.5

Source: OECD website

Success of Students

The SFC College Performance Indicators show the degree to which FE and HE students successfully complete courses. This is shown in Table 7. From the table it can be seen that the proportion of successful students is slightly higher in Higher Education than in FE, whilst the drop-out rate in FE is slightly above that for HE. **However, given both the higher income level per capita for HE and the fact that 63.1% of FE students have no qualifications on entry, one would expect the disparity in success rates to be significantly higher. A further factor to consider here is the lower level of funding per head awarded for FE students compared to secondary school pupils.**

Table 7: Success of FE and HE Students 2010/11 %

	Further Education	Higher Education
Successful	62	67
Successfully finished course irrespective of result	73	80
Drop-out rate	27	20
Withdrew before funding qualifying date	10	6

Source: College Performance Indicators 2010/11, Scottish Funding Council

FE and Enterprise

Scottish Government data for March 2011 suggest that 13.6% of Scottish business enterprises are sole proprietors. The comparable figure for the UK as a whole is 23.3%. There has long been concern about the lack of entrepreneurial activity in Scotland and this is partly reflected in these statistics. VAT/PAYE statistics confirm this differential. In 2010 there were 36 VAT/PAYE registrations per 10,000 resident adults in Scotland compared with 46 in the UK as a whole. Of the UK regions, only Northern Ireland, Wales and the North East of England showed a lower rate of business formation. When considering start-up business activity, there is often a tendency to think of electronics, computing and alternative energy companies. However, Scottish Government Statistics on Scottish Corporate activity suggests that there are a very wide range of sectors which have a high proportion of businesses with no employees, i.e. single person enterprises. This is shown in Table 8 where, rather than showing sectors with small numbers of companies, we have highlighted those sectors comprising in excess of 4,000 companies.

Table 8: Number of Registered Enterprises in Scotland by Industry and % with 0 employees, March 2011

Industry	Number of Enterprises	% with 0 employees
Crop and animal production, hunting and related service activities	14,750	55.9
Specialised construction activities	12,355	36.0
Architectural and engineering activities	8,570	57.9
Activities of head offices; management consultancy activities	6,430	66.6
Wholesale trade excluding motor vehicles and motorcycles	5,855	35.4
Computer programming, consultancy and related activities	5,260	64.8
Real estate activities	4,515	45.8
Construction of buildings	4,455	38.6
Wholesale and retail trade. Motor vehicle and motorcycle repair	4,335	30.4

Source: Scottish Government, Scottish Corporate Sector Statistics, March 2011

Table 8 shows that there are many avenues open to people with skills to become self-employed or start their own business. Many of the sectors shown here utilise skills which are taught at FE colleges e.g. computing, construction, business management and engineering. A recent survey undertaken by Carnegie UK 'Enterprising Minds' highlighted that FECs have an important role to play in encouraging students to consider starting a business or becoming self-employed. The survey was carried out throughout the UK and the following of the key findings are relevant here:

- Students in Wales and Northern Ireland were rated as more 'pro-enterprise' than their Scottish and English counterparts and were more confident that enterprise had been incorporated into their educational experience.

- Where students were involved in an enterprise activity or event in college, a substantial majority found it useful and those respondents who had undertaken this sort of activity as part of their course were more likely to consider setting up a business or working self-employed.
- When thinking about what colleges could do to improve enterprise education, the largest proportion of students would like more opportunities to interact with successful business people and social entrepreneurs on campus.

This is of particular interest in Scotland given low business formation rates.

FE links with local business

Further education colleges have a significant role to play in their local economies and communities. At their best they will engage with local businesses to ensure that their curriculum reflects local business training needs as well as the needs of the users of the college and the community at large. Examples of this is are college senior management personnel sitting on economic, education and skills bodies in their areas and colleges ensuring that they have successful partnerships with their local businesses allowing them to secure both work placements for their students and suitable employment at the end of their courses. This type of partnership also allows the colleges to keep up-to-date with changing industry regulations. The question then is whether or not the colleges are successful in fulfilling this role.

The SFC recently published a report 'Evaluation of the Developing Employer Engagement Programme and the Knowledge Transfer Grant' covering the period 2009 to 2011. This surveyed 240 companies over three years to examine the impact of the Developing Employer Engagement Programme (DEEP) and Knowledge Transfer Grant (KTG) initiatives on their businesses. Of those surveyed 32% had 250+ employees in Scotland, 21% had 50-249, 23% had 10-49 and 25% employed 1-9 people. The greatest proportion of employers had well established relationships with colleges. The results of this exercise are noted below:

- Employer perceptions of colleges were mostly positive.
- The programmes under evaluation resulted in a significant impact on the Scottish economy in terms of jobs, increased turnover for businesses and generating gross value added (GVA).
- Employers who work with FECs value the relationship and the services they receive from the colleges.
- The positive effects of the programmes were likely to be sustainable over the longer term and have the potential for further development.

Conclusions

The key conclusions to be drawn from this overview of the further education sector are that further education colleges perform a valuable role in the Scottish economy through their links with business and the community at large. They also have a role to play in promoting enterprise within Scotland. FECs have a broad mix of students in terms of age, ethnicity, disability and academic ability, have a highly flexible mode of attendance and a broad offering of subjects ranging from hairdressing to engineering and also levels of study (it should not be forgotten that the colleges also have a higher education function). More than half of those enrolled have no qualifications and many are from disadvantaged backgrounds.

Thus, at a time when youth unemployment is averaging 20%, the FECs play a considerable role in helping youngsters into work.

It is hard to quantify the impact of this on the public finances. Focussing on this segment of attendees at FECs, however, ignores the fact that, at the opposite end of the age scale, there are a significant proportion of older people undertaking college courses. Thus, the colleges are also promoting Lifelong Learning – an important policy objective of the Scottish Government.

In terms of funding, it appears that the colleges obtain significantly less public funding per head than the universities and also less than secondary schools. Despite this (and the lack of qualifications that many of their students have on entry), the success rate of the colleges is only slightly lower than that of the HEIs. Clearly, this is an aggregate picture of the sector and inevitably some colleges will be more successful than others. However, this overview highlights that the college sector makes a significant contribution to the Scottish economy.

References

Scottish Funding Council Infact Database

Scottish Funding Council Website: <http://www.sfc.ac.uk/statistics/statistics.aspx>

Scottish Government, March 2011, 'Lifelong learning series: Higher Education Students and Qualifiers at Scottish Institutions 2009-10'

Scottish Government Budget, June 2012, 'Summary Statistics for attainment, leaver destinations and healthy living,' No.2:2012.

Scottish Government, February 2012, 'Scottish Local Government Financial Statistics 2010-11 Annexe F'

Scottish Funding Council, 'College Performance Indicators 2010-11'

Scottish Funding Council, 'Facts and Figures'

Metcalf, J, 2012. 'Enterprising Minds: Enterprise, further education and the UK economy', Carnegie UK

Office for National Statistics, 'Business Registrations'

Office for National Statistics, October 2011, 'UK Business: Activity, Size and Location 2011'

Scottish Funding Council, 2012, 'Evaluation of the Developing Employer Engagement Programme and Knowledge Transfer Grant'

Scottish Funding Council, May 2012, Forth Valley College: A Report by HM Inspectors on behalf of the Scottish Funding Council'

Scottish Government, March 2011, 'Scottish Corporate Sector Statistic'

HESA Website:

http://www.hesa.ac.uk/index.php?option=com_content&task=view&id=1900&Itemid=239

OECD Website: <http://stats.oecd.org/Index.aspx>

Scottish Government, 2012, 'Detailed Analysis of General Fund Revenue Expenditure'

How much does a single graduation cohort from further education colleges contribute to the supply-side of the host regional economy? A micro-macro simulation for the case of Scotland

Kristinn Hermannsson, Patrizio Lecca and J Kim Swales

1 Introduction

This note aims to address the question of how much a single year's graduation cohort from Further Education Colleges (FECs) in Scotland contributes to its host regional economy. More specifically, we focus on how FECs stimulate the productive capacity (supply side) of their host regional economy through increasing the skills of the workforce. The production of human capital, embodied in its graduates, is a crucial dimension of the activity of any educational institution. Furthermore, a wealth of evidence suggests that formal education is positively associated with success in the labour market as reflected in wages and employment probabilities (Blundell et al, 2005; Checchi, 2006, Harmon and Walker, 2003; Psacharopoulos and Patrinos 2004, Walker and Zhu 2007). Although there is a significant body of evidence that explores the labour market benefits of education, less emphasis has been placed on understanding how this is transmitted through the wider economy. In our opinion, understanding the economic contribution of the skills developed in FECs is an important step towards understanding the overall economic impact of FECs and education more generally. In particular, as the case for the regional benefits of education institutions has often been stated through somewhat less central features of their mission, such as expenditure impacts and knowledge exchange. Those issues are undoubtedly important, especially at the local level. However, the contribution of education to skills and in turn the impact of skills on the wider economy is a crucial feature of education institutions. Furthermore, it represents a potentially very important contributor to the macroeconomy through its stimulation of the host economy's supply side, such as demonstrated for higher education in Hermannsson et al (2010).

We are mindful that valuing the economic contribution of education is not straightforward as education impacts society and the economy through a variety of channels¹. These impact channels range from the personal and pecuniary to the social and intangible – everything from personal income and economic growth to the very characteristics of the society in which we live. In this analysis we focus on the productivity enhancing qualities of education and how this benefits formal market based production activities as captured in national accounts aggregates such as GDP. That is, we abstract from the various non-monetary benefits of education to its recipient as well as the monetary and non-monetary impacts of education on wider society². These wider impact channels are potentially very important (Hermannsson et al, 2012). However, as yet these are less well understood and the lack of evidence would mean that any wider analysis for FECs in Scotland along these lines would inevitably be speculative, in the absence of significant primary data collection.

The methodology adopted here is based on the “micro to macro” approach illustrated for the impact of higher education graduates in Scotland by Hermannsson et al (2010) and is similar to that of Giesecke and Madden (2006).

¹ For a discussion of the overall economic impacts of higher education in Scotland see Hermannsson and Swales (2010).

² For a discussion of these points we refer to McMahon (2004, 2009) and for estimates of the wider impacts of higher education see: Hermannsson et al (2012).

We identify the supply-side transmission mechanisms that operate at the micro/meso-level, use the available evidence to specify and calibrate the appropriate shocks, and then simulate their system-wide impact through a regional economic model. In practice this involves drawing on evidence on wage premia by level of education.

The change in wage associated with attaining a given educational qualification is taken as indicative of the productivity enhancing effects of education³. Once the labour productivity increase attributable to the 2011 FEC graduation cohort has been determined we use the AMOS Computable General Equilibrium (CGE) model for Scotland to simulate the economy-wide impact of this productivity benefit over the economic life of this student cohort. In the next section we explain how the productivity impact of the 2011 FEC graduation cohort is determined. The third section briefly outlines the AMOS modelling framework. The fourth section presents our simulation results and the fifth section offers brief conclusions.

2 The 2011 FEC graduation cohort and its productivity impact

In order to determine the productivity impact of the 2011 cohort of graduates from Scottish FECs we need to know the number of graduates from each level of qualification and the wage premia associated with each level. The data on the number and breakdown of qualifications were provided by Lesley Sutton of the David Hume Institute and for the graduate wage premia we draw on the work of Walker and Zhu (2007a, b). The classification of qualification is based on the Scottish Vocational Qualifications and National Vocational Qualifications (SVQ/NVQ). Although these standard classifications were developed for vocational qualifications, labour market researchers have established conventions as to equivalent ranking of academic qualifications. These are shown in [Table 1](#).

Table 1 Examples of SVQ/NVQ Levels. Source: Walker & Zhu (2007b)

SVQ/NVQ level	Academic qualification	Vocations qualification
5	PhD, Masters degree	PGCE, Non-masters postgraduate qualifications
4	Undergraduate degree	HNC/HND
3	2+ A-levels/3+Highers	OND, ONC
2	5+ GCSEs at A-C, 'O' Grades, Credit Standard Grade	GSVQ/NVQ intermediate, RSA diploma
1	<5 GCSE, General Standard Grade	BTEC, SCOTVEC first or general cert

³ In effect we assume factors get paid their marginal product. A variety of reasons have been raised for questioning this in the case of the labour market. A prime example is the view that education signals innate ability rather than cultivates it. Hermansson et al (2010) discuss these issues in detail and find the marginal productivity assumption to be a reasonable on balance.

Table 2 below reveals the number of students completing qualifications from Scottish FECs in 2011, broken down by the classification of those qualifications.

Of those 76,152 students completing some form of qualification from FECs, 32,071 completed a qualification that represents an interval on the NVQ scale, 36,136 completed qualifications that do not raise their formal status on the NVQ scale⁴ and 7,945 completed programmes not leading to a recognised qualification. These non-NVQ qualifications are undoubtedly of value in the labour market in their own right (and furthermore in personal life and for wider society). However, evidence on their incremental impact on labour productivity is not available. Often the role of these qualifications is to grant access to, or prepare students for, more advanced courses. We therefore treat these non-NVQ qualifications as intermediate steps towards final outputs (qualifications on the NVQ scale) and therefore ignore them in order to avoid double counting.

Table 2 Number of students successfully completing a course 2010-11, split by academic/vocational study and aggregated to NVQ level (source: DHI).

Classification	FTE Academic	FTE Vocational	All students FTE
NVQ 5	8	26	34
NVQ4	484	16,829	17,313
NVQ3	1,498	5,768	7,266
NVQ2	2,551	3,854	6,406
NVQ1	167	886	1,053
Other	13,072	23,064	36,136
No qualification		7,945	7,945
	17,780	58,372	76,152

In order to value the economic benefit of achieving each increment on the NVQ scale we draw on micro-econometric evidence on the wage premia by qualification found in Walker and Zhu (2007a,b). Walker & Zhu (2007a,b) pool ten years of data from the Labour Force Surveys in 1996-2005 to construct a large enough sample to estimate wage premia by qualification level at a regional level within Great Britain.

⁴ These are: Highest level of study (unit) Advanced Higher; Highest level of study (unit) Higher; Highest level of study (unit) Intermediate 2; Highest level of study (unit) Intermediate 1; Highest level of study (unit) Access; Other Non-Advanced Certificate or equivalent; Other Non-Advanced Diploma or equivalent; National Units alone (formerly National Certificate modules); Any other recognised qualification.

Their broad findings are in line with other work in the field; qualifications increase the likelihood of employment and more qualified workers generally earn higher wages. For both men and women they find the impact of qualifications on wage premia broadly similar in Scotland to that experienced across Great Britain.

Table 3 Hourly wage premium of vocational and academic qualifications in Scotland.
Source: Walker & Zhu (2007b), own calculations.

Vocational wage premium	Male	Male [cumulative]	Female	Female [cumulative]	Average	Average [cumulative]
None	0%	0%	0%	0%	0%	0%
Level 1	9%	9%	11%	11%	10%	10%
Level 2	7%	16%	9%	20%	8%	18%
Level 3	19%	35%	9%	29%	14%	32%
Level 4	17%	52%	23%	52%	20%	52%
Above level 4	30%	82%	29%	81%	30%	82%

Academic wage premium	Male	Male [cumulative]	Female	Female [cumulative]	Average	Average [cumulative]
None	0%	0%	0%	0%	0%	0%
Level 1	17%	17%	18%	18%	18%	18%
Level 2	12%	29%	12%	30%	12%	30%
Level 3	19%	48%	13%	43%	16%	46%
Level 4	31%	79%	34%	77%	33%	78%
Above level 4	12%	91%	13%	90%	13%	91%

As is evident from [Table 3](#) Walker & Zhu (2007a, b) find strong wage premia effects for both vocational and academic qualifications in the Scottish labour market. Overall the academic qualifications yield a higher wage premia but what is also noteworthy is how the structure of the wage premia by levels of qualification differs between vocational and academic qualifications. The marginal effect of low level vocational qualifications is modest vis-à-vis low level academic qualifications, whereas the additional wage premia gained by postgraduate academic study is relatively small. From a human capital perspective these findings may not be surprising if the amount of schooling behind these education levels is examined. For example, in Scotland a Level 4 undergraduate degree typically takes four years to complete, whereas the common duration for masters' degrees is 12 months, so the wage premia earned per effective duration of study (and therefore also the return to education) should be broadly similar between Level 4 and Level 5. Walker & Zhu (2007a, b) report their results separately for each gender. For our analysis we use a simple average of the two, and therefore implicitly adopt the assumption that the gender balance is equal within each increment of the NVQ scale.

Following Hermannsson et al (2010) we use the evidence of the comparative constancy of the graduate wage premium in recent UK history to motivate an important simplifying assumption: that we treat human capital as homogenous. Therefore, the difference between graduates and non-graduates is simply the quantity of human capital that these two groups possess on average. This approach allows us to treat the labour market as unified, and so avoid a number of complexities. Graduates and non-graduates are treated like perfect substitutes; "as if" it simply takes more non-graduates to perform the same task as graduates. In this setup each worker contributes varying amount of "efficiency units" of labour to the production process, depending on his/her skill level.

We set the efficiency units of those with no qualification to 1 and then use the evidence of the wage premium to inflate the efficiency units of each worker in accordance with his or her skill level. For example a worker with a level 1 vocational qualification contributes 1.1 efficiency units, someone with level 2 qualification 1.18 and so on. The efficiency units of each type of worker are presented in table 4 below.

Table 4 Efficiency units of workers with different qualifications.

Qualification	Vocational	Academic
None	1	1
Level 1	1.10	1.18
Level 2	1.18	1.30
Level 3	1.32	1.46
Level 4	1.52	1.78
Above level 4	1.82	1.91

Based on this it is possible to calculate the efficiency units the FEC graduates bring to the labour market. However, in this case we are only interested in the extent to which their efficiency units have increased as a result of the FEC course they have completed. That is we want to focus on the additional skills provided by the particular course and not the skills already possessed by that worker, for example skills gained at school. Under this approach we assume that a student completing a level 3 academic degree adds 0.26 efficiency units to his or her human capital, that is the difference between the efficiency units associated with a level 3 qualification and a level 2 qualification ($1.46 - 1.30 = 0.26$).⁵

We begin by calculating the additional efficiency units brought to the labour market by each of the graduates, as identified in [Table 2](#). These are then aggregated to produce the result that, assuming that none emigrates, the 2011 Scottish FEC graduation cohort contributes 5,311 additional efficiency units to the labour market. This is detailed in [Table 5](#) below.

Table 5 Estimated increase in efficiency units of labour contained in the cohort of 2011 Scottish FEC graduates.

	FTE Academic	FTE Vocational	Total
NVQ 5	1	8	9
NVQ4	157	3,366	3,523
NVQ3	240	808	1,047
NVQ2	306	308	615
NVQ1	29	89	118
Total	733	4,578	5,311

This number is of limited value in isolation. More usefully, if we estimate the efficiency units of labour contained in the entire working age population, then we can calculate the percentage increase in effective labour supply generated by this cohort of FEC students.

⁵ This assumes that the qualification completed is the student's highest qualification. That is to say, we don't take into account the fact that students might be studying for a qualification of a lower grade than they presently hold.

Drawing on the Annual Population Survey (APS), it is possible to obtain the number of those between the age of 16 and 64 (which we take to be the working age) and their NVQ skill level⁶.

Using the wage premia as reported in Walker and Zhu (2007) we calculate the efficiency units of labour contained in each individual and add these up. According to the APS there were 3,378,700 individuals aged 16-64 in Scotland in 2011. This population could supply 4,560,838 efficiency units of labour, which suggest that the average number of efficiency units of labour per working age Scot is 1.35 (4,560,838/3,378,700). Using this figure as a denominator we find that our 2011 graduation cohort has increased the amount of available efficiency units of labour by 0.12% ($5,311 / 4,560,838 = 0.0012$). We then use the AMOS CGE model to simulate how this increase in skills in the labour market impacts the macroeconomy of Scotland.

3 The AMOS CGE model of Scotland

To simulate the system-wide impact of the increased human capital in Scotland we employ AMOS. This is a computable general equilibrium (CGE) modelling framework parameterised on data from Scotland.⁷ Essentially, this is a fully specified, empirical implementation of a regional, inter-temporal, general equilibrium variant of the Layard, Nickell and Jackman (1991, 2005) model. It has three domestic transactor groups, namely the household sector, corporations and government; and four major components of final demand: consumption, investment, government expenditure and exports. The model has 25 industrial sectors.

In this version of the model, consumption and investment decisions reflect inter-temporal optimization with perfect foresight (Lecca et al, 2010, 2011). In the period-by-period simulations each period is taken to be a year. This is the period used in the econometric work used to parameterise the behavioural relationships. Real government expenditure is exogenous. The demand for Scottish Rest of the UK (RUK) and Rest of the World (ROW) exports is determined via conventional export demand functions where the price elasticity of demand is set at 2.0. Imports are obtained through an Armington link (Armington, 1969) and therefore relative-price sensitive with trade substitution elasticities of 2.0 (Gibson, 1990). We do not explicitly model financial flows, our assumption being that Scotland is a price-taker in financial markets.

It is assumed that production takes place in perfectly competitive industries using multi-level production functions. This means that in every time period all commodity markets are in equilibrium, with price equal to the marginal cost of production. Value-added is produced using capital and labour via standard production function formulations so that, in general, factor substitution occurs in response to changes in relative factor-prices.

⁶ This is based on several simplifying assumptions. The APS is accessed via the NOMIS (formerly known as the National Online Manpower Information System) data portal of the Office for National Statistics (ONS) and reveals results that are aggregated to avoid disclosure. For this reason NVQ4 and NVQ5 qualifications are lumped together. Therefore we have to abstract from the role of NVQ5 qualifications in the skills base. Furthermore, the APS does not distinguish between academic and vocational qualifications. Therefore we use average wage premia, thereby assuming that within each skill increment academic and vocational qualifications are in equal measure. Furthermore, those with 'Other qualifications' (6% of population) and those for which information is not available (5% of the population) are treated as those with no qualification. On balance this is likely to understate the skills base and thereby overstate the marginal impact of the 2011 FEC graduation cohort. However, the magnitude of this bias is unlikely to be large, perhaps of the order of magnitude of approximately 3%.

⁷ AMOS is an acronym for *A Macro-micro Model Of Scotland*.

Constant elasticity of substitution (CES) technology is adopted here with elasticities of substitution of 0.3 (Harris, 1989). In each industry intermediate purchases are modelled as the demand for a composite commodity with fixed (Leontief) coefficients. These are substitutable for imported commodities via an Armington link, which is sensitive to relative prices.

The composite input then combines with value-added (capital and labour) in the production of each sector's gross output. Cost minimisation drives the industry cost functions and the factor demand functions.

In the simulations reported in this paper, the labour market is characterised by a regional bargaining function, in which the bargained real wage is inversely related to the unemployment rate. The bargaining function is parameterised using the regional econometric work reported in Layard, Nickell and Jackman (1991, 2005). Population is taken to be fixed implying that the inter-regional migration function is turned off. Detailed discussion of the model and underlying algebraic structure are available in Harrigan et al (1991) for the myopic variant and in Lecca et al (2010, 2011) for the inter-temporal version of AMOS. The model is calibrated to a Social Accounting Matrix (SAM) for 2006.

It is important to recognise that, in the simulations reported in Section 4, the only exogenous change that is introduced into the model is the increased labour productivity due to the increased number of workers with FEC-qualifications in the labour force. The results should therefore be interpreted as deviations from what would have occurred if labour force productivity had remained unchanged. For simplicity, we make the standard assumption in the CGE literature that in the base period the economy is in a long-run steady-state equilibrium. That is to say, if there are no changes in the exogenous variables in the model, the simulated economy would simply reproduce the base values for every period.

4 Simulation results

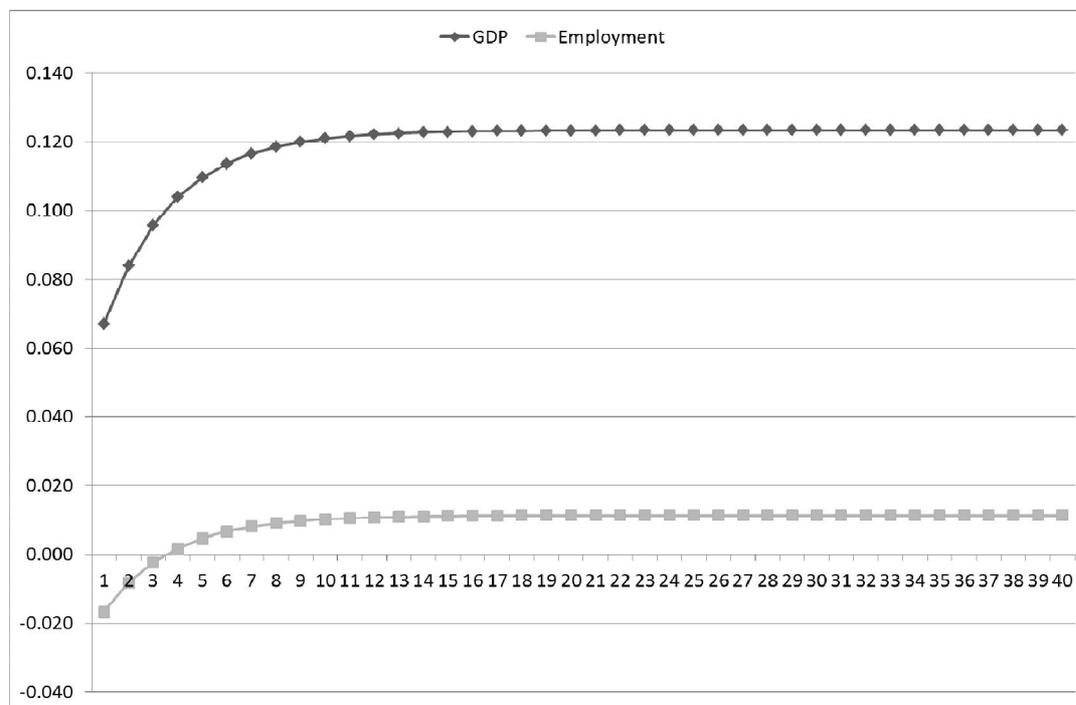
As reported in Section 2 the direct impact of the 2011 cohort of graduates from FECs in Scotland is to increase labour productivity by 0.12%. To simulate the impact of such an economic disturbance we introduce a 0.12% step increase to labour efficiency in all sectors of the economy and maintain this for 40 periods. That is to say, the shock enters at time 0 and then we trace subsequent adjustments in the economy over 40 periods. A summary of short and long run impacts on key economic variables is provided in [Table 6](#) ~~Table 6~~ opposite.

Table 6 Impact of a 0.12% increase in labour productivity (% changes from base).

	Short-run	Long-run
GDP	0.067	0.123
Consumer Price Index	-0.020	-0.038
Unemployment Rate	0.265	-0.176
Total Employment	-0.017	0.011
Nominal Gross Wage	-0.050	-0.018
Real Gross Wage	-0.030	0.020
Replacement cost of capital	-0.020	-0.037
Households Consumption	0.013	0.029
Investment	0.216	0.109
Capital Stock	0.000	0.109
Export RUK	0.054	0.127
Export ROW	0.060	0.128

The first implication of this labour productivity shock is that every inputted unit of labour can now produce 0.12% more output (other things being equal). The corollary of which is that with the existing choice of production techniques, for every unit of output 0.12% less labour inputs are needed. The immediate impact is an increase in GDP and a downward pressure on prices but a reduction in employment. This triggers further adjustments in the economy. Lower prices improve competitiveness vis-à-vis trading partners, which in turn stimulates export growth. Increased labour productivity stimulates the return to capital, which in turn leads to an increase in investments. Exports and investments serve to boost GDP and employment, which has regained base level (and more) by period 4. Positive employment impacts then trigger further stimulus to GDP through increases in household consumption.

Figure 1 The impact on Scottish GDP and employment of an increase in labour efficiency generated by one year's output from Scottish Further Education Colleges (% change from base year values).



The long run path of adjustment for GDP and employment is illustrated in Figure 1.

As we can see impacts converge to long run steady states quite fast, reflecting the forward looking behavioural assumptions of the model. By period 3 GDP has reached 78% of its period 40 value, in period 5 this is at 89% and 98% by period 10.⁸

On balance, it is clear that the increase in skills in the labour market provides a significant macroeconomic stimulus to the Scottish economy. Based on this modelling approach the 2011 cohort of graduates from FECs can be attributed with a 0.123% increase in the long run level of Scottish GDP⁹.

Furthermore, it should be noted that in addition to the positive economic stimulus from increasing the skills of some workers, this can have redistributive implications as well.

⁸ The relatively lower effects on economic activity in the short run are driven by the assumption that we introduce an unannounced efficiency shock into an economy taken to be initially in long-run equilibrium. This is as though the output of the Scottish FECs has been doubled, unexpectedly, for one year. Therefore the economy takes some time to adjust to this unanticipated supply-side shock. The long-run impacts are a better measure of the continuing impact of one year's output from a stable FE system.

⁹ Note that the competitiveness effect is conditional on our assumption that labour efficiency is improving in Scotland relative to the rest of the UK (RUK) and the rest of the World (ROW). If other regions are experiencing similar increases in productivity, the competitiveness advantages would, of course be muted (but would be offsetting what would otherwise be a decline in Scottish competitiveness).

Although distribution is not modelled explicitly in this simulation it is possible to get some feel for what is happening. In the long run the real wage rises by 0.02%; this however, is less than the increase in labour supply (0.12%) Therefore, it is clear that for those workers that are not increasing their skills (offering more efficiency units of labour in the market), their overall wage gets squeezed as a consequence.

However, in practice, the role of FECs is often to provide training for those at the lower end of the skills spectrum and therefore the skills provided by the FECs can be seen as offsetting some of the competitive disadvantage incurred by non-graduate workers as HE participation has increased. It is clear however, that those workers that are not investing in human capital are ever more disadvantaged as skill level of the labour supply increases.¹⁰

5 Conclusions

In the present research we have attempted to identify the supply-side impact of one year's output from the Scottish Further Education Colleges (FECs). The impact has been captured solely through the increase in human capital. This study does not consider any demand-side impacts of the expenditures of FECs and their employees, or wider supply-side effects as suggested by authors such as McMahon (2004, 2009). The modelled impact on GDP and employment is significant and continues over the whole time period that the cohort is in the labour force. The increase in human capital has a positive effect on competitiveness and therefore exports and investment.

Acknowledgments:

This work is being carried out under impetus from the David Hume Institute in Edinburgh (which is currently leading a multi-faceted policy dialogue about the role of further education in Scotland) but draws on know-how obtained from earlier work on higher education within the Fraser of Allander Institute, under support from the four regional funding councils of the UK and the Economic and Social Research Council.

¹⁰ On the other hand, Scotland is competing with other regions and nations around the world so that a relative reduction of skills in the Scottish labour market vis-à-vis competitor countries is likely to negatively impact its terms of trade.

References

- Armington P, 1969, "A theory of Demand for Products Distinguished by Place of Production" *IMF Staff Papers* **16** 159-178
- Blundell R, Dearden L and Sianesi B 2005 "Evaluating the effect of education on earnings: models, methods and results from the National Child Development Survey" *Journal of the Royal Statistical Society A* **168** 473-512
- Checchi D, 2006, "The Economics of Education: Human Capital, Family Background and Inequality" (Cambridge: Cambridge University Press)
- Gibson H, 1990, "Export Competitiveness and UK Sales of Scottish Manufacturers", Paper delivered to the Scottish Economists Conference, the Burn.
- Giesecke J and Madden J, 2006, "CGE evaluation of a university's effects on a regional economy: an integrated assessment of expenditure and knowledge impacts" *Review of Urban & Regional Development Studies* 18 229-251.
- Harmon C and Walker I, 2003, "The Returns to Education: Microeconomics" *Journal of Economic Surveys* **17** 115-153
- Harrigan F, McGregor P, Perman R, Swales K and Yin YP, 1991, "AMOS: A Macro-Micro Model of Scotland" *Economic Modelling* **8** 424-479.
- Harris R, 1989, "The growth and structure of the UK regional economy 1963-1985" (Aldershot, Avebury).
- Hermannsson K and Swales K, 2010, " Capturing the Overall Economic Impact of HEIs" Report commissioned by the Tripartite Advisory Group (TAG) on higher education in Scotland. <http://www.scotland.gov.uk/Publications/2010/11/09155629/0>
- Hermannsson, K., Lecca, P., Lisenkova, K., McGregor, P. & Swales, K. (2010). The Importance of Graduates to the Scottish Economy: A "Micro-to-Macro" Approach, *Strathclyde Discussion Papers in Economics*, 10-26.
- Hermannsson, K., Lecca, P., Lisenkova, K., McGregor, P. & Swales, K. (2012). The system-wide impacts of the external benefits to higher education on the Scottish economy: An exploratory "micro-to-macro" approach. *Strathclyde Discussion Papers in Economics*, 12-04.
- Layard R, Nickell S and Jackman R, 1991, "Unemployment: Macroeconomic Performance and the Labour Market" (Oxford University Press, Oxford)
- Layard R, Nickell S and Jackman R, 2005, "Unemployment: Macroeconomic Performance and the Labour Market 2nd edition" (Oxford University Press, Oxford)
- Lecca P, McGregor P G and Swales J K, 2010, "Balanced budget government spending in a small open regional economy" *Strathclyde Discussion Paper in Economics*, 10-20, Glasgow, University of Strathclyde

Lecca P, McGregor P G and Swales J K, 2011, "Forward-looking versus myopic regional computable general equilibrium models: how significant is the distinction?" Strathclyde Discussion Paper in Economics, 11-33, Glasgow, University of Strathclyde

McMahon, W.W. (2004). The Social and External Benefits of Education. In Geraint, J. & Johnes. J. (eds.) *International Handbook on the Economics of Education*. Cheltenham: Edward Elgar.

McMahon, W.W. (2009). *Higher Learning, Greater Good: The Private & Social Benefits of Higher Education*. Baltimore: John Hopkins University Press.

Psacharopoulos G. and Patrinos H A, 2004, "Human Capital and Rates of Return" *International Handbook on the Economics of Education* Eds Johnes G and Johnes J (Cheltenham: Edward Elgar)

Walker I and Zhu Y, 2007, "The Labour Market Effects of Qualifications", Futureskills Scotland Research Series <http://www.scotland.gov.uk/Resource/Doc/919/0065442.pdf>

Walker, I. & Zhu, Y. (2007a). The Labour Market Effects of Qualifications: Technical Report. Futureskills Scotland - Research Series. Retrieved from the World Wide Web: <http://www.scotland.gov.uk/Resource/Doc/919/0065442.pdf>

Walker, I. & Zhu, Y. (2007b). The Labour Market Effects of Qualifications: Summary Report. Futureskills Scotland - Research Series. Retrieved from the World Wide Web: <http://www.scotland.gov.uk/Resource/Doc/919/0065443.pdf>

Further Education- the Role of Incentives

Professor Ewart J Keep

Introduction

Education and training (E&T) policy has a number of over-arching goals. Among them is a desire to ensure that as many as is possible benefit from learning and skills. High levels of participation in post-compulsory E&T, both in terms of initial E&T for job entry and continuing lifelong learning, have been policy goals in Scotland for a long time. In particular, there has been a growing stress on the need to upskill adult workers at the lower end of the labour market as a means of helping ensure that they do not become trapped in low paid, dead end employment. Plainly colleges alongside other E&T providers are expected to play a major role in delivering this desired outcome.

A second aim of policy is to ensure that there is an appropriate and efficient balance between different forms of E&T provision - in terms of this paper, the balance which might exist between colleges, universities and the apprenticeship route (and combinations thereof). In seeking to secure these two objectives, the incentives to learn play a key role in determining how policy plays out, and who chooses to learn and who does not. These individual choices, at aggregate level, determine whether aspirations and targets for participation and achievement are met or not.

As this paper will argue, some of the key tensions and difficulties that Scotland faces around E&T policy stem from the structure and strength of the incentives to learn, particularly for those who are not heading towards higher education and who are liable to find themselves working in the bottom half of the occupational and earnings spectrum, in other words precisely those post-compulsory learners whose needs are liable to be catered for by colleges. For many of these individuals, it will be argued, the incentives on offer do not always support the policy objectives that have been set, and this creates major difficulties for those who provide E&T. Moreover, the evidence explored below suggests that the solution to some of these problems lies, at least in part, outside the control of E&T institutions.

The Incentives to Learn

What makes individuals want to learn? Plainly the answer to this question has a central role to play in ensuring that skills policy functions as intended, and that colleges and other providers can recruit and retain students. In the past, the incentives to learn have been conceived of in a very fragmented way, with, for example, labour economists concentrating on the wage premia that higher levels of qualification attract; and educationalists focusing on the ways in which curriculum, pedagogy and assessment can motivate or de-motivate learners (see Keep, 2009 for a fuller analysis of the various schools of thought on incentives).

This paper deploys an integrated typology of the different incentives to learn, and also a framework for their analysis that has been elaborated by the author elsewhere (Keep 2009). The section that follows tries to summarise the key points of this framework.

Incentive Generation

The various incentives to invest time, energy, and money in learning are generated through two sets of forces:

1. The *Pull* of opportunities, both to learn and to then utilise that learning, either for personal pleasure (intrinsic reward), to benefit others (altruistic reward), or for tangible gain through some form of paid employment; and
2. The *Push* of resources, expectations and social relationships, which enable and sustain learning. These might include systems of student financial support, but also much wider social forces, such as parents who are supportive of learning and provide their offspring with opportunities to learn.

These push and pull factors will singly or in conjunction give rise to incentives of varying strength that will in turn impact upon and motivate different individuals to act in different ways. There are two main types of incentive:

- *Type 1 (internal) incentives* are generated inside the E&T system, and create and sustain positive attitudes towards the act of learning itself and towards progression within each student or trainee. In other words, many Type 1 incentives produce, or are the result of, intrinsic rewards generated through the act of learning.
- *Type 2 (external) incentives* are created in wider society and within the labour market, and the rewards they give rise to are external to the learning process itself.

The strength of the effects being induced will vary within and between Types 1 and 2. Wiseman, Roe and Hawkins (2008) provide a useful overview of how existing research identifies and charts the various elements of Type 1 and 2 incentives.

Type 2 incentives are usually structurally embedded in and mediated through the fabric of society, the labour market and wider economic structures. This, coupled with the interaction between the economic and social dimensions, often makes Type 2 incentives relatively powerful and long-lasting compared to many Type 1 incentives. The following illustrate the different forms that Type 1 and 2 incentives can take:

Examples of Type 1 (internal) Incentives

- Curriculum design and pedagogy fashioned to enhance the intrinsic pleasure and satisfaction derived from the act of learning.
- Assessment systems that are designed to encourage further participation rather than ration access to next level of learning (i.e. formative rather than summative assessment).
- Opportunities for progression in E&T that are relatively 'open' and are not tightly rationed, and where the assumption is that progression is the norm.
- Institutional cultures within, for example colleges, which nurture potential and celebrate achievement.

These kinds of Type 1 incentive are plainly amenable to influence and improvement by institutions that provide learning. Moreover, current educational reforms in Scotland under the *Curriculum for Excellence* banner are designed to produce a curriculum and assessment 'offer' that enhances the incentives for young people to engage in learning.

Examples of Type 2 (external) Incentives

- Wage returns that accrue to particular types and levels of qualification.
- Other benefits associated with securing higher status/higher qualification entry professions and occupations (e.g. intrinsic job interest, opportunities to travel, etc).
- Career progression and promotion opportunities accessible within particular occupational labour markets and within individual organisations.
- Social status attendant on particular qualifications, occupations and career pathways, and the earnings they generate.
- Cultural expectations within society, or particular ethnic or class-based segments thereof, concerning the value of learning and qualifications, including parental pressure upon young people to do well in education.
- Labour market regulation that makes the acquisition of certain levels and types of qualification and learning experience a prerequisite for access to particular jobs/occupations.
- For adult learners there are also a wide-ranging series of non-economic benefits that relate to satisfaction and enjoyment in family life and sporting, cultural, political, and voluntary activities that can be gained through applying new skills, knowledge and expertise. These matter in terms of levels of adult lifelong learning.

As can readily be seen, unlike Type 1 incentives, many Type 2 incentives are the result of wider societal forces and also of the way in which the labour market is structured. As such they are much harder for learning providers, such as colleges, to influence or change.

Policy Assumptions Concerning Incentives

Having seen the different forms that the incentives to learn might take, the issue then becomes what assumptions policy makers have adopted in relation to the pattern and strength of these incentives for learners in Scotland. Put very simply, the main weaknesses have been two-fold. First, a tendency to assume that the incentives are uniformly strong and positive across pretty much the entire labour market and learner population (actual and potential), and second, and relatedly, a failure to understand the implications of the relatively complex and uncertain articulation between learning and wages and employment at the lower end of the labour market. Policy makers (and many educational researchers) have tended to assume that people will generally want to learn, that the incentives these individuals face will normally encourage them to do so, and failure to engage in learning is hence often the result, not of weak incentives, but of barriers that stand in the way of engagement in learning. While the existence of serious barriers to learning are not disputed – for example, lack of time in busy adult lives, lack of childcare, fear of failure, and inability to finance the cost of taking a course (see Spielhofer et al, 2010) – even if all of these were removed, it is not clear, as we shall see, whether investing time and energy in work-related learning will always pay off.

In adopting an assumption about the labour market's ability to create a strong blanket incentive effect, policy has often been driven by a relatively simple reading of human capital theory and a belief that certification is what the labour market values, a belief bolstered by the burgeoning literature on the average wage premia attached to the attainment of particular types and levels of qualification (see Keep, 2009). The result is firm assumption that achievement of a qualification will result in a more or less direct labour market effect in terms of an increased chance of being employed and achieving wage gains.

Vignoles argues the chain of causation predicted by an economic textbook thus:

Economic theory tells us that, in the long run, wages broadly reflect productivity. An individual's productivity in turn reflects some combination of their own attributes and skills (human capital), and their ability to put these skills to maximum effect through the use of machinery and technology (physical capital). As such, gaining new skills is one of the key ways in which individuals can raise their wages and living standards.(2012: 5)

Adopting this as an operating principle, a key organising 'equation' for E&T policy across the UK has been:

E&T participation=achievement=qualification=skill=productivity gain=wages

Although this reads simply and elegantly on the pages of a textbook, the problem is that in the real world, each equals sign requires qualification. The relationships are not as absolute or as direct as simple theory suggests. For instance, participation does not always produce achievement as students can fail or drop out, and the link between skills, productivity and wages is massively more complex and subject to influence by a wider range of forces and structural arrangements than this simple formulation suggests (Keep, Mayhew and Payne, 2006; Grugulis and Stoyanova, 2011). In other words, uncertainty enters the equation, and that uncertainty has significant implications for how different individuals will perceive and respond to a pattern of incentives to learn that is far more complex and patchy than many like to assume.

This complex relationship is determined by the interaction between:

- an individual's skills, knowledge and competences (and the ability of qualifications to act as a proxy for them);
- the shape of the labour market and the pattern of opportunities therein, including how jobs are designed and progression opportunities structured;
- how and to what extent the labour market is regulated; and
- how skills are deployed within the productive process.

If we want policy to work as intended, and to have a realistic appreciation of what it can and cannot be expected to achieve, we require a clear and relatively sophisticated understanding of the pattern of incentives and how this impacts on demand for learning among different groups of potential learner.

What will be explored below is whether there is the possibility that the interaction of these different factors tends to set up mutually re-enforcing (virtuous and vicious) circles of causation. It will be suggested that there is in effect an incentives gradient, with powerful and relatively certain incentives available for those aiming for jobs at the very top end of the labour market; and at the other end of the jobs hierarchy, extremely weak, patchy, complex and conditional incentives; with various gradations in between. For those institutions that provide E&T to individuals destined for the lower end of the labour market, this can cause significant problems.

Problems

The characteristics of good jobs and less good jobs

It is important to recognise from the outset that an individual's intended and actual point of entry and subsequent trajectory within the labour market will impact on their incentives to engage in learning. Occupations carry with them very different learning requirements and opportunities, and on the whole jobs at the top of the occupational hierarchy both require and entail more learning than those closer to the bottom. Thus the evidence suggests that strong, positive incentives tend to cluster around higher status, higher paid work. Such jobs are usually more intrinsically interesting, with learning embedded in work routines and the variety and challenge of the tasks to be undertaken (Eraut and Hirsh, 2007), they provide opportunities to develop a career with multiple steps for progression and further development, and they have a higher social status. They often also demand that employees undertake continuing professional development (CPD) and training in order to remain employed and to progress within the profession or company (Sargent and Aldridge 2002).

In marked contrast, low paid employment is often highly repetitive, offers less pleasant working conditions, with limited discretion and intrinsic interest, providing few incentives for further E&T and few real opportunities for progression (Lloyd, Mason and Mayhew, 2008; Lawton 2009). Low paid workers often see limited point in training, since it is outside their experience, their employer does not require higher skills and the opportunities to progress are circumscribed (Crowder and Pupynin 1993). Furthermore, the role of prior education and training and qualifications in accessing such employment is often patchy and weak (Spilsbury and Lane 2000; Jackson et al, 2002; Bunt, McAndrews and Kuechel, 2005; Newton et al, 2005; Bates, Gifford and Johnson, 2008).

The features of work organised within an occupational hierarchy of this type mean that managerial and professional workers are likely to be offered considerable opportunities to acquire new skills or enhance existing capacities, whereas young people (Ball, Macrae and Maguire, 1999) and adult workers in lower end occupations are much less likely to receive this kind of investment from their employer (Leitch Review 2005 & 2006). Although this situation has given rise to much official anguish among policymakers in the UK, it should be noted that a broadly similar pattern (though less steeply graded) of access to adult training appears across much of the developed world, including the Scandinavian countries that are otherwise regarded as the poster children of lifelong learning. Moreover, in distributing training opportunities in this way, employers may well be acting entirely rationally, given how work is currently organised and jobs designed. They are giving additional skills to those workers whose job roles demand it, and where the employees have the discretion available to them to deploy new skills to productive advantage. Growing the skills of those at the bottom of the hierarchy may be seen as a waste of time and money if there is no intention to grow the jobs in ways that allow new skills to be used to further organisational performance.

With these general points stated, we can now turn to a more detailed examination of why jobs at the lower end of the occupational spectrum may not generate strong incentives to learn. Several, inter-related factors are at work.

Weak occupational identities and their impact on skill requirements

Compared to their counterparts in mainland Europe, many UK employers tend to conceive of jobs, and the range of tasks and roles that the workers occupying them need to perform, in very narrow ways (Brockmann, Clarke and Winch, 2011).

This problem is particularly acute for non-professional work, and there is some evidence that it even encompasses lower level management positions in sectors such as retailing and cafes (Grugulis, Bozkurt and Clegg, 2010; Lloyd and Payne, forthcoming).

In the UK, European models of ‘occupation’ and ‘occupational identity’ really only pertains within a limited sub-set of employment at the upper end of the labour market (Brockmann, Clarke and Winch, 2011). In other countries, the general rule is that the hairdresser, carpenter or nurse are accorded far more responsibility to plan, carry out, and control his or her own work, and the system of qualifications and training reflect this reality.

Research conducted in UK call centres, hospitals, hotels, food processing and retail on low skill, low wage work suggests that employers and employees regard positions at the lower end of the organisational and occupational hierarchy as slots with job tasks attached to them, and workers are recruited to perform this specific job, which in turn can be reduced to a bundle of fairly closely defined tasks or competences (Lloyd, Mason and Mayhew, 2008). For example, one meat-processing worker described his job as:

My job is doing this: I have to bend down – I have five or six hundred pieces to do, have to bend down six hundred times, pick it up six hundred times, put it in the machine six hundred times. All six hundred times, take it out, pick it up, turn it around, clip it six hundred times. Pick it up; put it in another container six hundred times. (James and Lloyd 2008: 231).

This model of work organisation and job design leads to a narrow conception of vocational skill and the type of vocational E&T necessary to create it. These narrow conceptions are the, in turn, reflected in the way many lower level vocational qualifications (VQs) have been designed. It is to this issue that we now turn.

Problems with vocational qualifications

When the UK nations adopted the idea of competence-based vocational VQs in the mid-1980s, one of the key assumptions underlying the adoption of this model of VQ design was that it would help afford employers a greater say in the design of VQs and allow them to tailor qualifications in ways that allowed them to accurately reflected their real skill needs. The idea was laudable in conception, but ignored the cultural problems of weak or non-existent notions of occupation and the structural features of job design that were (and still are) to be found in many lower end jobs. In a system where the specification of VQs mirrored current employer needs as defined by a set of task-specific competences, the danger was that in some sectors and occupational groups, the result would be thin, narrow and shallow bundles of competences.

This danger was compounded by the tendency for the qualifications to be specified on the basis of the lowest common denominator that employers in an industry could agree upon. Rather than represent the needs of the leading edge employer, a substantial proportion of National Vocational Qualifications/Scottish Vocational Qualifications (S/NVQ) ended up reflecting what the least demanding employer with a seat at the table was willing to countenance.

Moreover, in many instances, the vocational qualification (and the course of learning that is associated with it) is focused only on preparing the individual to undertake that particular job, with little wider learning that might form a basis for future learning or for labour market progression, such as to supervisory levels. The absence of a strong element of general academic learning within vocational qualifications across the UK is a factor that marks our VQs out as being distinct from those found in many other developed countries (Green, 1998; Brockman, Clarke and Winch, 2011). In other nations, the assumption is that VQs, especially those being offered to young entrants to the labour market, must be able to provide a platform of wider learning that helps bolster occupationally specific knowledge, allows the individual to participate as a worker and as a citizen, and helps support lifelong learning. The absence of this in the UK has significant implications for the ability of many of our VQs to support progression, particularly if that progression necessitates a return to academic learning. Thus progression from vocational courses and apprenticeship into higher education (HE) is often problematic (Pring et al, 2009; Seddon, 2005; Fuller and Unwin, 2012).

The other major difficulty with the incentives on offer from studying some forms of VQ, particularly S/NVQs is that the wage gains resultant upon possessing such a qualification at Level 2 are often poor, and sometimes nil or even negative (Dearden *et al.* 2000; Wolf, Jenkins and Vignoles, 2006, Jenkins, Greenwood and Vignoles, 2007). The latest evidence, covering the whole of the UK, confirms the gloomy picture on lower level VQs, especially S/NVQs at Level 2 (London Economics, 2011a).

The low percentage figures that represent some average wage gains from Level 2 VQs are all the weaker as signals that investment in gaining them is worthwhile because of the fact that many such wage calculations rely on comparisons between those with a Level 2 qualification and those with no qualifications at all. Twenty years ago such comparisons made reasonable sense – there were a large number of adult workers with no qualifications at all, covering a range of people in very different jobs (e.g. many older craft workers, like plumbers and fitters, would not hold anything that we now would regard as a formal qualification as the apprenticeship system often did not rely on certification to prove someone was a ‘skilled’ worker). Today the situation is very different. The number of workers with no qualifications is much lower, and for young people at least, leaving education with absolutely no qualifications is simply a proxy for someone with serious problems (learning difficulties, mental illness, disorganised lifestyle, family problems, carer responsibilities, substance abuse, etc....). Therefore the fact that someone with a Level 2 is liable to earn more (and be more likely to be employed) than someone with no qualifications at all comes as no more of a surprise (and is no more useful as a piece of information) than that on average a four legged horse will tend to run somewhat faster than a three legged horse. Interestingly, the wage and employment gain effects between someone with a Level 2 and a Level 1 qualification are quite small (DfES/DWP, 2006), so what matters is having some qualifications rather than none.

There is not space here to go in detail into why returns to many lower level VQs are so poor, but one obvious, though frequently ignored point, is that for skills to secure a premium in the labour market they need to be relatively scarce. As Professor Alison Wolf noted in her review of VQs for young people in England, “other things being equal, high returns to a particular form of qualification mean high demand for, or short supply of, the skills and qualities to which it attests.” (Wolf, 2011: 31). In other words, for skill to imbue individuals with bargaining power within the labour market, what is required is a seller’s rather than a buyer’s market.

This fundamental understanding that it is the relative scarcity of a given skill that imparts its holders with bargaining power has long been known (for example, see Phelps Brown, 1962), but has frequently been ignored or forgotten by policy makers. As will be discussed in more detail below, what evidence we have suggests that in many instances individuals are facing a labour market where there is an over not under-supply of skills, and where therefore they are competing with many other, similarly or better qualified applicants for the job opening. They are thus in position to bargain up wages, and an abundant supply of labour may well mean the employer feels no need to raise wages.

Against this backdrop, the wage boost associated with acquiring qualifications rises with the level of the qualification (Vignoles and Powdthavee 2006). Therefore the financial incentives to obtain higher level qualifications are stronger than for lower level qualifications. Moreover, the wage returns to vocational qualifications are generally lower than those to academic qualifications at every level (as is the case in the vast bulk of developed economies), and there is considerable variation of returns to different types of vocational qualification at the same level. Scottish/National Vocational Qualifications (S/NVQs) usually fare significantly less well than other offerings, such as City and Guilds (Dearden, McIntosh and Sianesi, 2004; Jenkins, Greenwood and Vignoles, 2007; McIntosh and Garrett 2009; London Economics, 2011a). Moreover, the age and gender of the learner also have a significant impact on the scale and certainty of any wage gains. The result is a very complex picture, which makes it hard for potential students to be certain what the returns will be.

Second, the way in which these wage premia are reported by researchers and subsequently deployed by policy makers, tends to focus almost exclusively on figures that provide the average return. Unfortunately, averages can be very misleading. For example, we know that in England whereas the average return to a degree has held up fairly well, the dispersion around this average has increased (Green and Zhu, 2008; London Economics, 2011b), and many sorts of courses (modern languages, humanities, and sociology) show either no or negative returns relative to people with just A levels – though this is very heavily influenced by gender of student, class of degree, and institution. Overall, the dispersion of wages within the group at any given qualification level is often larger than that between the average points for different qualification levels. Averages therefore help disguise the risk that some students may end up with a much worse return than the average and possibly no return at all. Insofar as public policy stresses average returns as a means of cajoling individuals to invest and participate in learning, it may be (wittingly or unwittingly) misleading potential learners.

Overall, the key message is that for those whose abilities, circumstances and options point them towards lower level (especially Level 2 VQs of certain types):

...evidence suggests that returns to accredited training at the lowest levels of qualification tend to be relatively low. This is likely to influence low-skilled individuals' decisions to invest in skills development...policy needs to address the finding that the financial returns to learning/skills/qualifications appear to be lower and less certain among lower-skilled and lower-qualified groups.(Johnson et al, 2009: vi-viii)

Indeed, given the wage returns on some lower level vocational awards it could be argued that current overall levels of participation in E&T are actually higher than a rational response to the labour market incentives would dictate (Keep, 2005).

Weak and limited labour market regulation

Labour law remains a largely un-devolved issue within the UK – power and responsibility reside in Westminster and Whitehall and not with the devolved administrations in Wales, Scotland and Northern Ireland – and the UK government is still keen to trumpet the fact that it aims to possess one of the least regulated and therefore ‘flexible’ labour markets in the developed world (H M Treasury, 2011).

One result of this policy which has major consequences for the pattern of incentives to invest in skills is that the coverage of licence to practice (LtP) requirements in the UK labour market remains low compared to that in many other developed countries (for example, the USA at state level, Canada, Australia, Germany, and Austria). LtP is where the acquisition of a certain type and level of qualification is a pre-requisite for being able to undertake certain kinds of work. In its strong form, holding particular qualifications is a legal requirement of those who wish to practice the trade or profession in question. In the UK doctors, nurses, dentists, solicitors, accountants, engineers, airline pilots, gas fitters and heavy goods vehicle drivers are examples of areas that are covered by LtP). In some other countries it covers a much wider range of occupations.

As a result of the restricted reach of LtP in the UK, the overall strength of Type 2 incentives to acquiring qualifications in order to enter various occupations is greater in these other countries and may explain why many OECD member states have a higher stock of qualifications at particular levels (usually Level 3) in their workforces than do we (Keep, 2005). This outcome may have little to do with underlying efficacy of their E&T systems or the Type 1 incentives they generate, it simply reflects the impact of stronger Type 2 incentives created via LtP regulation in the labour market. Plainly, LtP regulation provides what might be termed an absolute incentive to learn, in that it creates an unavoidable requirement to follow a particular course of learning and/or acquire a particular qualification (Keep, 2009). Its relative absence across large swathes of the UK labour market helps explain why the hold that qualifications have on the recruitment process in many sectors and occupations at the lower end of the labour market, such as retailing and hospitality, is limited or non-existent (Keep and James, 2010).

Recruitment and selection

For there to be strong incentives to engage in formalised learning, it would be necessary for the labour market to be structured and regulated in such a way that qualifications have a strong hold over recruitment and selection decisions across the entire occupational spectrum. Furthermore, lower level qualifications should either be an essential pre-requisite for gaining employment in a particular sector or job, or to generate significant positive wage premia for those holding them. Unfortunately, in the lower reaches of the UK labour market this is often not the case.

The hold that a large raft of lower level vocational qualifications (VQs) have upon the recruitment and selection process is weak, patchy and limited, often because many of the social and generic ‘skills’ that employers are looking for are uncertified and because the formal skill levels needed in many lower end jobs are so limited (see Spilsbury and Lane 2000; Miller, Acutt and Kelly, 2002; Jackson et al. 2002; Bunt, McAndrews and Kuechel, 2005; Newton et al, 2005; Bates, Gifford and Johnson, 2008; Shury et al, 2008; UKCES, 2012). For an overview of what is known about recruitment and selection in the UK, see Keep and James, 2010).

The widespread use of informal methods of recruitment and selection, such as word of mouth recommendation, further serves to weaken the role and impact of qualifications (Keep and James 2010; UKCES, 2012).

Limited Opportunities for Progression

There is a strong assumption within policy that learners can use upskilling as a passport out of lowly paid employment, and that they can work their way up the labour market through a combination of effort and skill enhancement. The possibilities this offers to individuals to better their lot is assumed to be a major incentive to engage in learning.

There are two key aspects to making this a reality. One is the provision of appropriate learning opportunities, and colleges and universities have played a major role in seeking to make this happen. The second factor is, unfortunately, outside the control of E&T providers. It concerns the type and scale of the opportunities that exist for individuals to secure progression, with their current employer or elsewhere in the wider labour market.

Although we have limited knowledge about progression out of low paid employment in the UK, the available data does not give rise to great optimism. The research suggests that opportunities for progression are often limited in terms of the proportion of the workforce who can hope to move up the job ladder (Grimshaw et al, 2002; Lloyd, Mason and Mayhew, 2008; Lloyd and Mayhew, 2010), and that the scale of the career and wage benefits that such upward mobility gives rise to can be quite small as workers are often able to only move one or two rungs up the occupational ladder (Atkinson and Williams 2003; Green, Poston and Germen, 2004; Hoggart et al, 2006; Lloyd and Payne, 2012).

This reflects the partial attenuation of internal labour markets (ILMs) (Grimshaw et al, 2002), the increasing use of agency workers (Lloyd, Mason and Mayhew, 2008), and the flattening of hierarchies within the individual firm. These problems are being exacerbated by the downward cascade of graduate labour (Brown, Hesketh and Williams, 2003; Boden and Nedeva 2010), which is starting to occupy many of the first line supervisory roles that, in times past, shop floor workers could have aspired to fill by moving upwards (Keep and Mayhew 2004; James and Lloyd 2008).

Moreover, insofar as workers at the lower end of the labour market do contrive to move up the job and pay ladder, the role played within this process by qualifications often appears to be limited (Cheung and McKay, 2010; Lloyd and Mayhew, 2010; Lloyd and Payne, 2012).

We also know that at the lowest reaches of the labour market there are major issues around the instability and casualisation of employment for many workers, which means that they cycle between low-paid work and no work (Metcalf and Dhudwar, 2010), and are rarely able to progress towards better remunerated and more secure employment. UKCES have recently produced two very helpful reports that show that this does not have to be the case, and that employers can provide internal labour markets and progression and learning opportunities for lower paid workers that can help lift them off the bottom rungs of the employment ladder (see Policy Research Institute/International Centre for Guidance Studies, 2012a&b). The problem is finding the means through which public policy can support the spread of such good practice (a point returned to below).

Overview

To summarise, the situation outlined above acts in the following way:

- Within a hierarchical labour market, shallow, narrow or non-existent notions of occupation at the lower end of the jobs spectrum, interact with
- Narrow job design and lack of discretion, leading to
- Limited and often narrow requirements for skill, with little or no general education, leading to
- VQs that in some cases mirror the above and represent little more than bundles of low level task-specific competence, leading to
- A limited wage premium for those holding these qualifications, which coupled with
- Recruitment and selection policies and practices that often afford a limited role to qualifications, coupled with
- A frequent lack of significant progression opportunities
- Results in weak, patchy, and uncertain incentives to engage in learning.

Each of these elements, on their own, would be sufficient to cause problems. Acting in concert, as a mutually reinforcing matrix of forces, they produce powerful reasons why many individuals perceive that the incentives to learn are weak, and hence conclude that it is not worth their while to invest (time, energy and money) in either initial or continuing vocational E&T. Johnson et al in their overview of individuals' willingness to engage in learning, conclude that:

Major surveys have consistently found that career progression and accessing better-paid jobs are key motivators for people (including lower skilled workers) participating in learning and training. Yet there is evidence that undertaking lower level vocational training offers few immediate returns to the individual in terms of higher wages. If this remains the case, there may be little rational incentive for lower skilled workers to participate in such forms of training. Of course, entry-level adult learning may act as a first step towards further skills development activities that carry a higher wage premium, but there is a need to ensure that such progression routes are clearly articulated, and that even the most basic skills provision is clearly linked to improved job performance and/or opportunities for progression. In the more immediate term, it is also essential that the qualifications system offers vocational awards that can deliver a wage premium for successful training completers. (Johnson et al, 2009: 55).

The consequences and how to deal with them

The picture painted above is not an entirely happy one. In England, the chief response to it by policy makers has either been to ignore it, or to insist that educational reforms that seek to boost Type 1 incentives will, on their own, be sufficient to transform attitudes to learning and with them resultant outcomes. Scotland is set on a somewhat different and more sensible course, but problems still abound.

What follows tries to tease out the implications of weak and uncertain Type 2 incentives and to explore what can be done about them (and by whom it should be done).

Complexity, uncertainty and risk

The structures outlined above work in ways that mean the pattern and strength of the incentives acting on learning decisions is potentially complex and uncertain, perhaps dauntingly so (see for example, Jenkins, Greenwood and Vignoles, 2007). For instance, as noted above, the labour market impacts of the acquisition of a particular qualification often vary according to:

- The age of the learner;
- Their gender;
- The level of qualification;
- Subject and occupation (if any) to which it is related;
- Type of qualification/awarding body;
- The status and standing of both the learning provider and the institution or body providing the education or training; and
- Who pays for it – low level VQs paid for by the individual's employer appear to generate higher returns than those funded from other sources.

Moreover, adding to the complexity and uncertainty is the fact that it is participation in learning that imposes costs and requires investment, and participation is no guarantee of actual achievement. A student or trainee can participate in learning but not achieve the desired outcome or qualification (see, for example, Villeneuve-Smith, Marshall and Munoz, 2007: 6). In such cases the investment made may be either totally or partially wasted. English policymakers have suffered from an unhealthy tendency to slide from participation to achievement as though the one more or less guarantees the other (see, for instance, DfES 2007; DCSF/DIUS 2008).

As previously noted, there is an incentives gradient or spectrum, and whereas high level qualifications taken in elite institutions produce relatively high and certain employment and wage effects, whereas by contrast for those students following courses at the lower end of the vocational route face some of the weakest, most complex and patchiest returns. They are also often the students whose personal resources in terms of knowledge of the system, savings or access to other sources of funding and social networks within the labour market that might help ensure they obtain employment are the weakest.

There is a body of research that suggests that those whose financial resources are limited tend, on the whole, to be more risk averse than those with higher levels of resources (see Atkinson et al, 2006). This conclusion is offered some support by recent research by McQuaid et al (2012), which probes the motivators and barriers to learning for low wage/skill employees using a 'stated preference' experiment to test out intentions to learn. It shows that people's attitudes towards training are generally positive and that they have realistic expectations of their current jobs and the training that it provides.

The bad news is that to motivate them to invest significant amounts of time and money in a whole qualification there would need to be the promise of significant and reasonably certain wage gains – in other words precisely the outcome that is either sometimes not on offer, or relatively uncertain.

Over-qualification and mismatch

Why are wage gains associated with (and therefore the incentives to acquire) some lower level VQs so uncertain and weak? There are many reasons, but one that has already been noted is that for skills to impart power and substantial wage gains in the labour market, relative scarcity is a pre-requisite. Unfortunately, what we know about the overall match between job and the skills they require across the UK (demand for skills), and what skills and qualifications the workforce currently holds (the supply of skills), suggests that levels of over-qualification and mismatch have been increasing over time. Felstead et al. (2007), using data from the Skills Survey suggest that across the UK workforce the proportion of workers who felt they held qualifications at levels above those needed to obtain or undertake their current job had increased from 29.3 per cent in 1986 to 39.6 per cent ten years later. Sutherland (2009) produces even more depressing figures using data from the 2004 Workplace Employment Relations Survey (WERS). He suggests that slightly more than half of the workers in the WERS sample felt that their skills (rather than simply qualifications) were either ‘much higher’ (21. per cent) or a ‘bit higher’ (32.6 per cent) than those needed to do their present job. These figures may point to another set of negative incentives that are acting on individuals when they think about up-skilling, though Sutherland reports that workers at the lower end of the wage distribution were slightly less likely to believe themselves over-skilled for their current work.

Besides these large aggregate level problems, the UK Commission on Employment and Skills (UKCES) has noted that at the top end of the UK labour market the supply of highly skilled workers has been outstripping the levels of increasing demand for such labour for some time and that the dangers of mismatch are increasing (UKCES, 2009).

Taken together, these findings are lead indicators of potential imbalances between the number of skilled jobs and skilled people; between the skills available and those in demand – which, in turn, may result in ‘over-skilling’ or ‘under-employment’ of skilled workers.

(UKCES, 2009: 9)

These aggregate level mismatches between supply and demand, are reflected by what we know about the fit between qualification level and job for younger workers:

...the proportion of degree-qualified 24-29 year olds in the UK who are working in jobs that do not require this qualification is 26 per cent....compared to an OECD average of 23 per cent....This also occurs at intermediate level, but the extent is far lower (12 per cent)....despite lower mismatch levels than at graduate level, when we look internationally the UK has the second highest rate of under-employment at intermediate level in the OECD. Of 30 countries, only Spain has a higher level.

(UKCES, 2011: 20)

Plainly in an era when governments across all four UK nations have been seeking to increase levels of participation and achievement in post-compulsory learning (for both initial and continuing training), the fact that at some levels and in some sectors demand for more skills has not kept pace with supply is a major problem. Moreover, it is a problem whose causes appear to be deeply embedded within the structure of our labour market and economy, and reflects fundamental choices about how many UK firms seek to compete, to organise production, and design jobs (Keep, Mayhew and Payne, 2006; Keep and Mayhew, 2010). As Francis Green (2009: 17) notes:

Unfortunately, Britain has long been caught in a low-qualification trap, which means that British employers tend to be less likely than in most other countries to require their recruits to be educated beyond the compulsory school leaving age. Among European countries, only in Spain, Portugal and Turkey is there a greater proportion of jobs requiring no education beyond compulsory school. There is some way to go before British employers place similar demands on the education system as are placed in the major competing regions in Europe.

This picture of mismatch and over-qualification has worrying implications for the incentives to learn.

It makes investment riskier and less certain because it enlarges the pool of potential applicants for certain types of job so that the supply of qualified labour outstrips the number of job openings, and for those workers who do not gain employment appropriate to their qualifications, trading down in the jobs market is the likely outcome. Being over-qualified, certainly for graduates, also seems to have a long-term scarring effect on wage levels, and also reduces job satisfaction (Green and Zhu, 2007).

Concerns about this situation have been most keenly felt in Scotland, where the government has noted that there are major problems with the shape and strength of demand for skills, and with how skills are and are not utilised within the productive process. Solutions encompass economic development, business improvement and attempts to encourage better skill utilisation (for example, through the Scottish Funding Council's skill utilisation projects). The first steps have been taken, but it will be a long and hard road to travel, and large scale results will take time to occur.

Raising aspirations

One of the tasks given by policy makers to E&T providers, including colleges and universities, is to raise the career and hence the educational aspirations of those coming to learning from less advantaged backgrounds. The aim is to ensure that people can move out of badly paid work, and that inter-generational social mobility will rise. Given the current structure of incentives, there are several problems with this kind of approach.

First, it assumes that workers are in low paid work at least in part because of their lack of aspiration or ambition (as witnessed by their lack of skills). Unfortunately, leaving aside the fact that many of the low paid are not necessarily all that low skilled or qualified (Lloyd, Mason and Mayhew, 2008; Lloyd and Mayhew, 2010), the culture that policy wishes to change is rooted not necessarily in some form of self-defeatism on the part of the low paid, but rather within the structural features of the labour market, and nature and distribution of the job opportunities that are actually open to them (Gutman and Ackerman, 2008).

Work by Green, Postern and Germen (2006) shows very clearly that in unequal societies and labour markets strong positive incentives – particularly of Type 2, but also of Type 1 – will not be distributed equitably, and that those on the lower rungs of the occupational ladder will tend to face weak or non-existent incentives to learn.

Research on career aspirations and attitudes towards education in deprived communities suggests that far from there being universally low aspirations, “the proportion of young people hoping for work – both ideally and realistically – in the top three SOC (Standard Occupational Classification) categories is far higher than the current workforce can support” (St Clair and Benjamin, 2011: 512). What tends to result is that, in the face of limited opportunities and a potentially realistic calculation about the chances of succeeding in any competition for access to these, aspirations are adjusted downwards, or as Gutman and Ackerman put it:

Aspirations begin to be shaped early in a child’s life, but are modified by experience and the environment. Aspirations tend to decline as children mature, in response to their growing understanding of the world and what is possible, and to constraints imposed by previous choices and achievements. (2008: i)

Moreover, as with the problem mentioned earlier of conflating participation with achievement, it is dangerous to assume a simple, linear relationship between aspiration and educational achievement. Thus Chowdry, Crawford and Goodman (2009) demonstrate that aspirations (on the part of pupil and/or parent) do not always feed through into either participation patterns or achievement.

These problems are sometimes made more acute by the fact that in parts of the UK there is evidence that the geographical pattern of well-paid and low-paid jobs is polarising, and that low paid work is sometimes tending to cluster within particular localities (Green and Owen, 2006). In some communities, a significant proportion of the employment opportunities that are available may be low paid, casualised and insecure, locking families into a low pay/no pay cycle and recurrent poverty (see Metcalf and Dhudwar, 2010; Tomlinson and Walker, 2010; McQuaid, Fuertes and Richard, 2010; McQuaid, Fuertes and Richard, 2010; Shildrick et al, 2010; Ray et al, 2010). For young people and workers who live in such areas and communities, the incentives to learn are lessened (Gutman and Ackerman, 2008; Wiseman, Roe and Hawkins, 2008), unless people are willing to contemplate moving to where opportunities for better work can be found. Given these problems, successful culture change is unlikely to be brought about simply by colleges and other providers being positive about the benefits of learning, it will also necessitate efforts to change the material incentives that individual workers face, and for that to occur labour market reform may be required. The key change is liable to be improved job quality, less casualisation and higher pay.

There is also the question of whether improved skills can get everyone out of the large number of low paid jobs that exist (at present around 22 per cent of the entire workforce, and nearly one in three of all jobs occupied by female workers – Lloyd, Mason and Mayhew, 2008). Policies based on raising aspirations sometimes fall into the trap of assuming that the supply of better-paid jobs will automatically expand if the supply of better-qualified workers rises. The presumption appears to be that either low paid, dead-end work would vanish if all workers were more skilled, or that it would simply become a short-term way-station on the path to better things for those workers who passed through such employment.

Given what we know about levels of over-qualification and of progression out of low paid work, the realism of these beliefs is open to doubt. In other words, with a sufficiently large expenditure of public money, you can train away lowly skilled (or more often lowly qualified) stocks of labour, but you cannot train away the significant number of low-paid, dead end jobs that our labour market offers.

As a result, exhortation by politicians (of all parties in the UK) around the need to transform the educational and career aspirations of lower socio-economic groups is problematic in that even if everyone aspired to be middle class and well-paid, the reality – for the foreseeable future – is that about a quarter of all jobs in the UK labour market will remain low paid and difficult to progress out of (UKCES 2010: 6). As a result, simply trying to change aspiration will be difficult and may not achieve all that much in the longer term, unless it is coupled with wider changes to the structure of opportunity (Goldthorpe and Jackson 2007; Hickman 2009; Harris 2010) and embraces wider regulation and structuring of the labour market and the employment relations that take place within it (see Bosch, Gautie and Mayhew, 2010).

Problems and issues for E&T providers

Colleges and other E&T providers can reasonably be expected to address issues to do with enhancing the strength and certainty of many Type 1 incentives. For example, they can make learning more interesting through a relevant curriculum and through forms of teaching that engage students. *Curriculum for Excellence* appears to offer a sound foundation for seeking to enhance Type 1 incentives in Scotland and it is important that it should succeed. It is also vital that everyone recognises that the full effects of any changes in the incentives to learn that might result from *Curriculum for Excellence* will take quite a while to show through. One of the greatest problems with E&T reform across the UK has been a tendency to expect miraculous transformations over very short time scales. Shifting and strengthening Type 1 incentives is liable to take time as perceptions gradually improve in response to changes made.

When we come to consider Type 2 incentives, which are certainly at least as important as Type 1, and it could be argued are liable to have a stronger lasting effect on student choice and motivation (Keep, 2009), it is extremely hard to see how colleges or anyone else within the E&T system can do all that much to alter the demand side, and change how the labour market currently operates. E&T providers sometimes find themselves trying to sell the benefits of learning in the face of, rather than because of, the incentives that are coming from the labour market. This is particularly so when providers such as colleges are located in areas where the labour market is depressed, where the range of job opportunities is skewed towards less well paying and less secure employment, and where a significant proportion of the students (actual and prospective) are liable to be drawn from deprived communities. In these circumstances ‘making the case that skills pay’ can often be an uphill battle.

One way in which public policy is starting to address this issue, albeit it indirectly, is through the continuing development of apprenticeships as a route that offers opportunities for combining learning and earning. Unlike England, Scotland has been relatively successful at boosting the number of apprenticeship places for young people (as opposed to existing adult workers aged 25 and above, which is where expansion in England has been concentrated), and Scotland has also succeeded in creating a far higher proportion of apprenticeships at Level 3 (i.e. craft and intermediate level) rather than Level 2.

Given plans for further expansion, the structure of E&T provision for young people is undergoing a fundamental shift, with apprenticeship opening up as a substantive and important route that has strong appeal for different groups of young people. This change has major long-term implications for colleges, universities and employers, not least in terms of fashioning new routes from apprenticeship into higher education, such as the pioneering engineering apprenticeship (MA2MA) project being piloted by Forth Valley College. International experience suggests that a strong and credible work-based route for initial vocational learning is likely to improve participation and achievement rates as it offers strong incentives to learn (both Type 1 and Type 2).

Another way in which policy has sought to try and compensate for inadequate or uncertain Type 2 incentives for young people has been an increasing use of various forms of public subsidy to supplement or act in lieu of the Type 2 incentives generated by other actors. Education Maintenance Allowances (EMAs), abolished in England but still operating in Scotland, are an example. Such subsidy-based incentives, generated within the E&T system and funded by government can be labelled Type 1b incentives.

A third avenue for trying to counteract weak positive signals to learners from parts of the labour market is better quality and more readily available information, advice and guidance (IAG) on what openings are available in the local, regional and national labour markets. The creation by Skills Development Scotland of the ‘My World of Work’ website and web-based careers information tools is an impressive example of what can be achieved. However, it by no means offers a magic solution. The prospects on offer have to be presented honestly and realistically, something which does not always happen when the providers of IAG have a vested interest in greater participation in particular types of learning (see Keep, 2009 for some worrying examples of an awarding body presenting [intentionally or unintentionally] misleading information on the wage returns to certain VQs). Indeed, a case could be made that were prospective students fully aware of the current levels of over-qualification and qualification mismatch, the sometimes limited returns liable to accrue to lower level VQs, and range of employment that these qualifications provide conditional access to, levels of participation might in some instances be liable to fall.

Implications for broader policy

Given that E&T providers can reasonably be expected to only tackle one half of the problem of weak incentives (those pertaining to Type 1 incentives), it is incumbent upon policy makers to understand and acknowledge this, and also to shoulder the burden of responsibility for trying to address at least some of the weaknesses with Type 2 incentives. Unless and until this is done, levels of participation and achievement in Scotland are not going to be world class (or anything like it), social mobility will remain limited, and public investment in creating skills will not reap its full benefits in terms of economic growth and productivity gains.

In the UK, there has grown up over the last thirty years or so a policy tradition that the shape of the labour market and the levels of job quality (and the distribution thereof) across the economy is best treated as a given, determined very largely by inexorable economic forces with which government cannot interfere, except at the very margins. In other countries, not last those in Scandinavia, different views prevail, and it is seen as a legitimate and realistic goal for public policy to seek to influence the quality of work across a variety of dimensions (low pay, health and safety, quality of working life, opportunities for employee ‘voice’, etc).

It is often forgotten that at EU-level the current policy mantra is one of ‘more **AND** better jobs’. Given current concerns over unemployment, particularly youth unemployment and the growing ranks of the NEET population, creating more jobs really matters. However, better jobs are not a frivolous or optional ambition. Without them, large swathes of the Scottish working population will be condemned to low pay (and the need for in-work benefits to top their wages up at taxpayers’ expense), to poor working conditions and various forms of stress related illness, to limited or non-existent opportunities for progression, and in many instances to seeing the skills they have laboured to acquire poor used or not used at all. Moreover, the E&T system will, because of the problems discussed above with many forms of Type 2 incentive, struggle to persuade significant numbers of young people and adults to participate and achieve to anything like their true full potential.

The Scottish Government has, via its Skills Strategy, already acknowledged that the nation’s skills problems extend beyond the supply of skill and encompass weak and patchy demand, and also deficient utilisation of skills already created.

Policies on skills utilisation and the suite of skill utilisation projects funded via the Scottish Funding Council and delivered by colleges and universities; demonstrate what could be done to start to help employers improve how they deploy skills within very different workplaces. However, there are arguably broader questions about what ideas (and actions) Scottish public policy may wish to adopt on the nature and quality of work and the employment relationship in the longer term.

At present, legislation on employment relations and the regulation of the labour market, along with other employment issues, is an undeveloped area of policy. However, this only really applies to legislation. There is nothing to stop the Scottish administration from arriving at a view about what needs to be aspired to by way of job quality, progression opportunities and the like, and for them to pursue these goals by all means short of legislative compulsion – not least through economic development and business improvement initiatives. For example, this paper has highlighted problems concerned with the way recruitment and selection activities are being conducted and around the lack of progression opportunities for lower paid workers. UKCES and others have suggested ways in which employer practice in these areas could be improved in order to benefit younger labour market entrants and people trapped in casualised, low paid work. The key issue is how public policy might help to ensure the widespread take-up of these examples of good practice.

REFERENCES

- Atkinson, A., McKay, S., Kempson, E., and Collard, S. 2006. Levels of financial capability in the UK: Results of a baseline survey, London: Financial Services Authority.
- Atkinson, J., and Williams, M. 2003. ‘Employer Perspectives on the Recruitment, Retention and Advancement of Low-paid, Low-status Employees’, *Cabinet Office Occasional Papers Series* No. 2, London: Cabinet Office.
- Ball, S., Macrae, S., and Maguire, M. 1999. ‘Young lives, diverse choices and imagined futures in an education and training market’, *International Journal of Inclusive Education*, Vol. 3, No. 3, 195-224.
- Bates, P., Gifford, J., and Johnson, C. 2008. *Recruitment and Training Among Large National Employers – Final Report*, Coventry: Learning and Skills Council.
- Boden, R., and Nedeava, M. 2010. ‘Employing discourse: universities and graduate ‘employability’’, *Journal of Education Policy* Vol, 25, No. 1, 37-54.
- Bosch, G., Mayhew, K., and Gautié, J. 2010. ‘Industrial relations, legal regulations and wage setting’, in Gautié, J., and Schmitt, J. (eds.), *Low Wage Work in the Wealthy World*, New York: Russell Sage Foundation, 91-146.
- Brockmann, M., Clarke, L., and Winch, C. (eds.). 2011. *Knowledge, Skills and Competence in the European Labour Market – What’s in a vocational qualification?*, Abingdon: Routledge.
- Brown, P., Hesketh, A., and Williams, S. 2003. ‘Employability in a knowledge-driven economy’, *Journal of Education and Work* Vol. 16, No. 2, 107-26.
- Brown, P., and Tannock, S. 2009. ‘Education, meritocracy and the global war for talent’, *Journal of Education Policy* Vol. 24, No. 4, 377-392.
- Bunt, K., McAndrew, F., and Kuechel, A. 2005. *Jobcentre Plus Employer (Market View) Survey 2004*, London: Department for Work and Pensions.
- Cheung, S.Y., and McKay, S. 2010. ‘Training and progression in the labour market’, DWP Research Report No. 680, London: Department for Work and Pensions.
- Chowdry, H., Crawford, C., and Goodman, A. 2009. ‘Drivers and Barriers to Educational Success – evidence from the Longitudinal Study of Young People in England’, DCSF Research Report DCSF-RR 102, London: Department for Children, Schools and Families.
- Crawford, C., Duckworth, K., Vignoles, A., and Wyness, G. 2012. ‘Young people’s education and labour market choices aged 16/17 to 18/19’, DfE Research Report DFE-RR182, London: Department for Education.
- Crowder, M., and Pupynin, K. 1993. ‘The motivation to train’, Sheffield: Employment Department, (mimeo).
- Dearden, L., McIntosh, S., Myck, M., and Vignoles, A. 2000. ‘The returns to academic, vocational and basic skills in Britain’, DfEE Research Report RR 192, Nottingham: Department for Education and Employment.
- Dearden, L., McGranahan, L., and Sianesi, B. 2004. ‘An in-depth analysis of the returns to National Vocational Qualifications obtained at Level 2’, London: London School of Economics, Centre for the Economics of Education.
- Department for Children, Schools and Families/Department for Innovation, Universities and Skills, 2008. *Raising Expectations: enabling the system to deliver*, Cm 7348, London: The Stationery Office.
- Department for Education and Skills. 2007. *Raising Expectations: staying on in education and training post-16*, Cm 7065, London: The Stationery Office.

- Department for Education and skills/Department for Work and Pensions. 2006. DfES and DWP Shared Evidence Base – The Role of Skills in the Labour Market, Nottingham: DfES.
- Eraut, M., and Hirsh, W. 2007. ‘The Significance of Workplace Learning for Individuals, Groups and Organisations’, SKOPE Monograph No. 9, Cardiff; Cardiff University, SKOPE.
- Felstead, A., Gallie, D., Green, F., and Zhou, Y. 2007. *Skills at Work, 1986 to 2006*, Oxford: University of Oxford, SKOPE.
- Fuller, A., and Unwin, L. 2012 ‘Banging on the Door of the University: The Complexities of Progression from Apprenticeships and Other Vocational Programmes in England’, SKOPE Monograph No. 14, Cardiff: Cardiff University, SKOPE.
- Goldthorpe, J., and Jackson, M. 2007. ‘Intergenerational class mobility in contemporary Britain: political concerns and empirical findings’, *British Journal of Sociology*, Vol. 58, 526-546.
- Gospel, H., and Lewis, P. A. forthcoming, 2010. ‘Who cares about skills? The Impact and limits of statutory regulation on qualifications and skills in social care’, SKOPE Research Paper No. 89, Cardiff: Cardiff University, SKOPE.
- Green, A. 1998. ‘Core Skills, Key Skills and General Culture: In Search of a Common Foundation for Vocational Education’, *Evaluation and Research in Education*, Vol. 12, No. 1, 23-43.
- Green, A., and Owen, D. 2006. *The geography of poor skills and access to work*, York: Joseph Rowntree Foundation.
- Green, A; Poston, J., and Germen, J. 2006. *Education, Equality and Social Cohesion*, London: Palgrave Macmillan.
- Green, E., Moore, J., Easton, H., and Heggie, J. 2004. ‘Barriers to Women’s Employment and Progression in the Labour Market of the North East of England’, Middlesborough: University of Teesside, CSPR (mimeo).
- Green, F. 2009. ‘Job Quality in Britain’, UKCES Praxis Paper No. 1, London: UK Commission for Employment and Skills.
- Green, F., and Zhu, 2008. ‘Overqualification, job dissatisfaction, and increasing dispersion in the returns to graduate education’, Department of Economics Discussion Paper KDPE 0803, Canterbury: University of Kent, Department of Economics.
- Grimshaw, D., Benon, H., Rubery, J., and Ward, K. 2002. ‘The restructuring of career paths in large service sector organizations: ‘delaying’, upskilling and polarisation’, *The Sociological Review*, Vol. 50, No. 1, 89-115.
- Grugulis, I., Bozkurt, O., and Clegg, J. 2010. ‘No place to hide?’ The realities of leadership in UK supermarkets’, SKOPE Research Paper No. 91, Cardiff: Cardiff University, SKOPE.
- Grugulis, I., and Stovanova, D. 2011. ‘Skills and performance’, *British Journal of Industrial Relations*, Vol. 49, Issue 3, 515-536.
- Gutman, L. M., and Akerman, R. 2008. ‘Determinants of aspirations’, Centre for the Research on the Wider Benefits of Learning Research Report No. 27, London: Institute of Education, CRWBL
- Harris, J. 2010. ‘The trouble with the A word’, *The Guardian*, 25 January, page 28.
- Hickman, R. 2009. *In Pursuit of Egalitarianism – and why social mobility cannot get us there*, London: Compass.
- H M Treasury. 2011. *Autumn Statement 2011 – protecting the economy*, London: HMT.
- Hoggart, L., Campbell-Barr, V., Ray, K., and Vegeris, S. 2006. *Staying in work and moving up: evidence from the UK Employment Retention and Advancement (ERA) demonstration*, DWP Research Report No. 381, London: Department of Work and Pensions.

- Jackson, M., Goldthorpe, J., and Mills, C. 2002. 'Education, Employers and Class Mobility', paper prepared for the Oxford meeting of the International Sociology Association, Research Committee 28, April.
- James, S., and Lloyd, C. 2008. 'Supply Chain Pressures and Migrant Workers: Deteriorating Job Quality in the United Kingdom Food-Processing Industry', in Lloyd, C., Mason, G., and Mayhew, K. (eds.), *Low-Wage Work in the United Kingdom*, New York: Russell Sage Foundation, 211-246.
- Jenkins, A., Greenwood, C., and Vignoles, A. 2007. *The Returns to Qualifications in England: Updating the Evidence Base on Level 2 and Level 3 Vocational Qualifications*, London: London School of Economics, Centre for the Economics of Education.
- Johnson, S., Sawicki, S, Pearson, C., Lindsay, C., McQuaid, R. W., and Dutton, M. 2009. 'Employee Demand for Skills: A Review of Evidence and Policy', UKCES Evidence Report 3, London: UK Commission for Employment and Skills.
- Keep, E. 2005. 'Reflections on the Curious Absence of Employers, Labour Market Incentives and Labour Market Regulation in English 14-19 Policy: First Signs of a Change in Directions?', *Journal of Education Policy*, Vol. 20, No. 5, 533-553.
- Keep, E. 2009. 'Internal and External Incentives to Engage in Education and Training – a Framework for Analysing the Forces Acting on Individuals', SKOPE Monograph No. 12, Cardiff: Cardiff University, SKOPE.
- Keep, E., and James, S. 2010. 'Recruitment and selection – A review of extant research and some thoughts on its implications for education and training policy', SKOPE Research Paper No. 88, Cardiff: Cardiff University, SKOPE.
- Keep, E., and Mayhew, K. 2004. 'The economic and distributional implications of current policies on higher education', *Oxford Review of Economic Policy*, Vol. 20, No. 2, 298-314.
- Keep, E., and Mayhew, K. 2010. 'Moving Beyond Skills as a Social and Economic Panacea?', *Work, Employment and Society*.
- Keep, E., Mayhew, K. and Payne, J. 2006. 'From skills revolution to productivity miracle – not as easy as it sounds?', *Oxford Review of Economic Policy*, Vol. 22, No.4, 539-559.
- Lawton, K. 2009. *Nice work if you can get it*. London: Institute of Public Policy Research
- Leitch Review of Skills. 2005. *Skills in the UK: The Long Term Challenge, Interim Report*, London: H M Treasury.
- Leitch Review of Skills. 2006. *Prosperity for all in the global economy – world class skills. Final Report*, London: H M Treasury.
- Lloyd, C., Mason, G., and Mayhew, K. (eds.) 2008. *Low-Wage Work in the United Kingdom*, New York: Russell Sage Foundation.
- Lloyd, C., and Mayhew, K. 2010. 'Skills: the answer to low wage work?', *Industrial Relations Journal*, Vol. 41, Issue 5, 429-445.
- Lloyd, C., and Payne, J. 2012. 'Flat whites: who gets progression in the UK café sector?', *Industrial Relations Journal*, Vol. 43, No. 1., 38-52.
- Lloyd, C., and Payne, J. forthcoming. 'It's all hands on, even for management': managerial work in the UK café sector', *Human Relations*.
- London Economics. 2011a. 'Returns to Intermediate and Low Level Vocational Qualifications', BIS Research Paper Number 53, London: Department for Business Innovation and Skills.
- London Economics. 2011b. 'The Returns to Higher education Qualifications', BIS Research Paper No. 45, London: Department for Business Innovation and Skills.

- McIntosh, S., and Garrett, R. 2009. 'The Economic Value of Intermediate Vocational Education and Qualifications', UKCES Evidence Report 11, London: UK Commission for Employment and Skills.
- McQuaid, R., Fuertes, V., and Richard, A. 2010. *How can parents escape from recurrent poverty?*, York: Joseph Rowntree Foundation.
- McQuaid, R., Raeside, R., Canduela, J., Egdell, V., and Lindsay, C. 2012. 'Engaging low skilled employees in workplace learning', UKCES Evidence Report 43, Wath-upon-Deerne: UK Commission for Employment and Skills.
- Metcalf, H., and Dhudwar, A. 2010. *Employers' role in the low-pay/no-pay cycle*, York: Joseph Rowntree Foundation.
- Miller, L., Acutt, B., and Kellie, D. 2002. 'Minimum and preferred entry qualifications and training provision for British workers', *International Journal of Training and Development*, Vol. 6, No. 3, 163-182.
- Newton, B., Hurstfield, J., Miller, L., Page, R., and Ackroyd, K. 2005. 'What employers look for when recruiting the unemployed and inactive: skills, characteristics and qualifications', DWP Research Report No. 295, London: Department for Work and Pensions.
- Phelps Brown, H. 1962. *The Economics of Labour*, London: Yale University Press.
- Policy Research Institute/International Centre for Guidance Studies. 2012a. *Employer practice in progressing low-paid staff*, Wath-upon-Deerne: UKCES.
- Policy Research Institute/International Centre for Guidance Studies. 2012b. *Employer practice in progressing low-paid staff: Case studies*, Wath-upon-Deerne: UKCES.
- Pring, R., Hayward, G., Hodgson, A., Johnson, J., Keep, E., Oancea, A., Rees, G., Spours, K., and Wilde, S. 2009. *Education for All – The Future of Education and Training for 14-19 year olds*, Abingdon: Routledge.
- Ray, K., Hoggart, L., Vegeris, S., and Taylor, R. 2010. *Work, poverty and benefit cycling*, York: Joseph Rowntree Foundation.
- Sargent, N., and Aldridge, F. 2002. *Adult learning and social division – a persistent pattern*, Leicester: NIACE.
- Seddon, V. 2005. *An Analysis of the Progression of Advanced Apprentices to Higher Education in England*, Bolton: UVAC.
- Shildrick, T., MacDonald, R., Webster, C., and Garthwaite, K. 2010. *The role of the low-pay, no-pay cycle in recurrent poverty*, York: Joseph Rowntree Foundation.
- Shury, J., Davies, B., Riley, T., and Stansfield, C. 2008. *Skills for the Workplace: Employer Perspectives*, Evidence Report 1, Wath-upon-Deerne: UK Commission for Employment and Skills.
- Spilsbury, M., and Lane, K. 2000. *Skill Needs and Recruitment Practices in Central London*, London: FOCUS Central London.
- Spielhofer, T., Golden, S., Evans, K., Marshall, H., Mundy, E., Pomati, M., and Styles, B. 2010. 'Barriers to participation in education and training', *DfE Research Report DFE-RR009*, London: Department for Education.
- St Clair, R., and Benjamin, A. 2011. 'Performing desires: the dilemma of aspirations and educational attainment', *British Educational Research Journal*, Vol. 37, No. 3, 501-518.
- Sutherland, J. 2009. 'Skills and training in Great Britain: further evidence', *Education and Training*, Vol. 51, No. 7, 541-554.
- Tomlinson, M., and Walker, R. 2010. *Recurrent poverty: the impact of family and labour market changes*, York: Joseph Rowntree Foundation.

- UK Commission for Employment and Skills. 2009. *Ambition 2020 – World Class Skills and Jobs for the UK*, London: UKCES.
- UK Commission for Employment and Skills. 2010. *Skills for Jobs: Today and Tomorrow. The National Strategic Skills Audit for England 2010, Volume 1: Key Findings*, London: UKCES.
- UK Commission for Employment and Skills. 2011. *The Youth Inquiry: Employers’ perspectives on tackling youth unemployment*, Wath-upon-Deerne: UKCES.
- UK Commission for Employment and Skills. 2012. *The Youth Employment Challenge*, Wath-upon-Deerne: UKCES.
- Vignoles, A. 2012. *Up-skilling the middle*, London: Resolution Foundation.
- Vignoles, A., and Powdthavee, N. 2006. ‘Using returns to education to understand sector skill needs’, in Porter, S., and Campbell, M. (eds.), *Skills and Economic Performance*, London: Caspian Publishing, 133-156.
- Villeneuve-Smith, F., Marshall, L., and Munoz, S. 2007. *Raising the leaving learning age – are the public convinced? A survey of parents and teenagers*, London: Learning and Skills Network.
- Wiseman, J., Roe, P., and Hawkins, J. 2008. *Audit of Factors Affecting Participation and Achievement in Learning*, Coventry: Learning and Skills Council.
- Wolf, A. 2011. *Review of Vocational Education – The Wolf Report*, London: Department for Education.
- Wolf, A., Jenkins, A., and Vignoles, A. 2006. ‘Certifying the workforce: economic imperative or failed social policy?’, *Journal of Education Policy*, Vol. 21, No. 5, 535-565.

The David Hume Institute

The David Hume Institute was registered in January 1985 as a company limited by guarantee: its registration number in Scotland is 91239. It is recognised as a Charity by the Inland Revenue.

The objects of the Institute are to promote discourse and research on economic and legal aspects of public policy. The Institute has no political affiliations.

The Hume Occasional Paper series presents papers by members of the Institute, by those who have lectured to it and by those who have contributed to "in-house" projects. A list of recent Occasional Papers follows:

87 *Re-Shaping the Public Finances*

Jim Gallagher, Jeremy Peat, Anton Muscatelli, Robert W Black, David Bell, Richard Kerley, David Hume, Kal Osmani, Eddie Frizzell, John Aldridge

88 *Scotland in Europe*

Andrew Scott, Rory O'Donnell, Ulf Sverdrup, Toby Archer

89 *Executive Pay – a career perspective*

Brian G M Main

90 *Higher Education in Scotland: a critical topic*

David Bell, Anthony Cohen, Andrew Cubie, Ian Diamond, James Fraser, Jim Gallagher, Alan Langlands, Chris Masters, Gavin McCrone, Iain McMillan, Andrew Miller, Anton Muscatelli, Teresa Rees, Joan Stringer, Stewart Sutherland

91 *Dialogues Concerning the Banking Crisis*

Rt Hon Alistair Darling

92 *Performance Differences Across Local Authorities*

Lesley Sutton

93 *Public Sector Remuneration in Scotland*

David Bell, Stephen Boyd, Alex Bryson, Bob Elliott, Eddie Frizzell, Alastair Hatchett, Bill Howat, David Lonsdale, Jeremy Peat, David Watt.

THE DAVID HUME INSTITUTE

HONORARY PRESIDENT

The Rt Hon Lord Steel of Aikwood KT KBE (2010-)

HONORARY VICE-PRESIDENTS

Professor James Buchanan, Nobel Laureate in Economics

Ms Frances Cairncross CBE

Baroness Margaret Ford

Professor Francesco Forte

Mr. Allan Massie

BOARD OF TRUSTEES

Professor Alan Alexander, OBE, FRSE

Mr Stephen Boyle

Ms Kyla Brand

Professor Alice Brown, CBE, FRSE, FRSA, AcSS, Cipfa (Hon)

Mr Jo Elliot

Hon Lord Hodge

Professor Charlie Jeffery

Dr Ken Lyall

Professor Hector MacQueen (Chairman), FRSE

Professor Donald MacRae, OBE, FRSE

Professor Anton Muscatelli, FRSE, AcSS

Mr Ian Ritchie, CBE, FEng, FRSE

Professor Dame Joan Stringer, CBE, FRSE

Mr Andrew Welsh

Mr David Wilson

HONORARY TRUSTEES

Mrs Catherine Blight

Sir Ian Byatt

Sir Gerald Elliot, FRSE

Miss Eileen Mackay, CB, FRSE

Professor Sir Alan Peacock, DSC, FBA, FRSE

Sir John Shaw, CBE, FRSE

DIRECTOR

Professor Jeremy A Peat, OBE, FRSE,

REGISTERED OFFICE (Registered in Scotland No. 91239)

26 Forth Street, Edinburgh,

EH1 3LH

Tel (0131) 550 3746

Scottish Charity Number SC009579

Email: enquiries@davidhumeinstitute.com

Website www.davidhumeinstitute.com