

A faint, light gray graphic in the background consisting of several overlapping, slightly curved rectangular bars of varying lengths and orientations, creating a sense of movement or a stylized 'X' shape.

Reflex Country study

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1. Introduction

The aim of this report is to provide contextual information for the graduate survey. This information may be useful in two ways. First, the information provides a background against which the results from the graduate survey can be interpreted. Second, the information when included in the dataset itself allows for multi-level analyses. Throughout this report, we use generally data from the years 2000 to 2005 in line with the time most of the REFLEX respondents graduated and entered the labour market.

The report is divided into in three sections. Section 2 considers characteristics of the (higher) education system in the different countries. This information is based on OECD data as well as on the descriptions of the higher education systems as provided by the partners involved in this project. Section 3 considers the general economic conditions in the different countries and identifies some relevant structural and institutional factors of the labour market the graduates entered. Finally, in Section 4 we use the European Union Labour Force Survey to analyse for a selected group of countries the general pattern of labour market integration of school-leavers and the relative labour market position of higher education graduates.

The current report provides data for the following countries taking part in the REFLEX project: Austria, Belgium¹, Czech Republic, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Spain, Switzerland and the United Kingdom.

2. Higher education system

In this section, we provide a brief overview of some key characteristics of the (higher) education systems in the countries under consideration. The information is partially based on OECD data and partially, as indicated above, on information extracted from the individual country reports. For more detailed information, we refer the reader to these country reports.

Population in higher education

To start with, Table 1 shows the percentage of 15-19 and 20-29 year-olds in the total population. The number of young people in a population has its impact on both the renewal of labour force qualifications and the amount of resources a country has to invest in its educational system (OECD, 2000). In this sense, the share of 15-19 year-olds gives an indication of the size of the next youth cohort that reaches the age at which higher education is a possible career option. Table 1 indicates that there are only marginal differences with respect to the share of 15-19 year-olds in the countries participating in the REFLEX project. Generally speaking, around 7% of the people

1. For Belgium only the Flemish part of the country has joined the REFLEX project. However, we will in this report consider the whole of Belgium.

in these countries are between 15 and 19 years old. The differences between the countries are slightly larger if one considers the 20-29 year olds, the typical age-band for higher education. Whereas in Spain this group of young adults represents 17% of the whole population, in Finland the figure is only 12%. This means that Spanish, Czech and Italian young people meet relatively more competitors when entering the labour market than the young people in other countries.

Table 1

Percentage of people at the age of 15-19 and 20-29 in 1998 and percentage of people aged 25-34 with tertiary type A or advanced research programme degree in 2001.

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
% 15-19 year old	6	6	6	8	6	7	6	7	6	6	6	6	6
% 20-29 year old	14	13	13	16	13	17	12	14	15	15	14	14	14

Source: OECD, 2000.

Next, the proportion of higher education graduates (see Table 2) to the relevant age cohort is of importance, as it shows how competitive the environment is in which the REFLEX graduates live. We have to consider hereby that, according to the REFLEX graduate survey, the typical age of graduates is rather different in each country. Therefore, instead of using a common interval of e.g. 25-34 year olds in the year 2001 across the board, we use the ten-year interval with the highest frequency of age of graduates for each country². Secondly we also provide figures for 5B tertiary education graduates, as they compete on the same labour market and third, we provide figures for the total percentage of tertiary education graduates.

Table 2: Percentage of higher education graduates from the “REFLEX Generation” in each country (ISCED 5A and 5B)

Proportion of relevant 25-34 age group (%)	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
	2004	2006	2004	2006	2004	2006	2005	2006	2005	2006	2006	2004	2006
ISCED 5A	7	19	17	12	13	27	23	22	12	26	32	37	23
ISCED 5B	7	22	10	1	8	12	17	16	0	25	2	2	8
Total	14	41	27	13	21	39	40	38	12	52	34	39	31

Source, OECD, 2006a; Note: The “Reflex Generation” is defined by two criteria: typical age (ten years interval) of graduation and the Reflex Generation’s year of finishing the study programme. The OECD indicator of the percentage of people aged 25-34 with tertiary type A or advanced research programme degrees has been used, taking into account the corresponding time shift. (For example: for the “youngest” Reflex Generation in UK the percentage of people aged 25-34 with tertiary type A degree – as indicated in OECD EaG 2006 - is used; it is analogous for Czech graduates, who finished their studies latest of all countries; in contrast in Austria, Germany and Switzerland the Reflex Generation is defined by the percentage of people aged 25-34 in the year 2004, because they graduated as relatively older than graduates in other countries.)

2. Typical ten-year intervals for REFLEX graduates by the country: FR:20-29 year olds; CH, CZ, ES, NL, UK: 21-30 year olds; FI, IT, NO: 22-31 year olds; AT, DE: 23-32 year olds. As data for BE and JP are still not available, 2006 figures have been used instead (2006 is the most typical year for the rest of the countries).

With respect to ISCED 5A graduates, we see that the most advantageous situation is in Austria, Italy and the Czech Republic, where their proportion lies clearly below 20%. By comparison we see that in Norway and also the Netherlands approximately one third of the considered population holds a 5A degree. We should note that in Japan (25%) and in Belgium (22%) a considerable size of the population holds a ISCED 5B diploma. ISCED 5B graduates can certainly be seen as competitors to those who attained a 5A level degree. Finally, in Belgium (41%), Finland (40%) and Japan (52%) more than 40% of the population corresponding in age holds a tertiary education degree. In contrast to countries like Austria or the Czech Republic, attaining a tertiary education degree might in these countries provide a relative smaller comparative advantage.

Differentiation in higher education

Next, we look at whether the countries have a binary or a unitary higher education system (see Table 3) and whether there is a clear hierarchy with respect to the reputation of institutes or sectors. Even though the definitions for unitary/binary systems are not very consistent, and vary across the countries, we aim to draw a general distinction between the countries. We thereby consider whether higher education in a country can be divided between higher education taught at the relatively more scientifically oriented university sector and higher education taught at a more vocationally oriented higher education sector. Along these lines, Germany, the Netherlands, Austria, Finland, Norway, Belgium and Switzerland are generally classified as having a binary system. The vocationally oriented non-university systems in Finland, Austria and Switzerland are the result of recent higher education reforms in these countries. In the Czech Republic, the classification of tertiary education distinguishes between higher education (consisting of universities and non university HEI's) and tertiary vocational schools (not named higher education).

Table 3
Binary or Unitary Structure of Higher Education System

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Binary system	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	No

France, Japan and the United Kingdom do not have a binary system in the sense described above. However, their higher education systems are characterized by a differentiation in the prestige of higher education institutes (hierarchical differentiation). In France, a distinction can be made between higher education programmes at public universities and programmes at the 'elitist' Grande Écoles. Universities in general provide open access programmes. In contrast, Grande Écoles institutes, which provide courses in selective fields, have stringent admission procedures (e.g. admission quotas regulated by secondary school grades or special exams) and require participation in preparatory classes. Next, in France a strong sector of IUT and STS (about 15% of all tertiary graduates in the year 2000) exists, which offers ISCED 5B

programmes and distinctly show non-university characters. However, the majority of French students follow courses at universities.

Until 1992, universities and polytechnics provided higher education in the United Kingdom. With the implementation of the 'Further and Higher Education Act 1992', all higher education institutes in England and Wales that satisfy the prescribed criteria were allowed to apply for permission to include the word 'university' in their titles. Even though these changes rendered a distinction between education programmes taught at 'old universities' and 'new universities' (the former polytechnics) officially redundant, there continues to be a clear hierarchy with respect to the reputation of institutes (see e.g. the yearly published Sunday Times League Tables). Old universities continue to dominate the top half of the League Table. Besides universities, higher education colleges (approximately 9% of all graduates in the year 2000) offer higher education courses, and also around 11% of the graduates attain a degree from a further education college (FEC).

In Japan, stratification of the higher education sector is observed in particular between the public and private universities, and stems from the historical development of these two sectors in the late nineteenth century. It also served the development of the Japanese system of national elite sector and private mass sector after the Second World War. Moreover, even in the sector of public institutions a sharp hierarchy has been built in by the priority of differential investments according to the historical order of establishment. In other words, the ranking of universities is very common in the Japanese society.

Finally, in Italy and Spain there is neither a significant non-university higher education system nor a clear hierarchy with respect to reputation.

Stratification and Selectivity

Next, we briefly consider the question of whether the education systems are stratified or selective. Stratification, in the sense of differentiation into types or streams of education, generally takes place in secondary education but might sometimes also be taken up in higher education. We use different indicators for the stratification (see Table 4). First, we report on the first age at which selection into different educational streams takes place. Second, we report on the proportion of upper secondary education graduates to the total population at the typical age of graduation by programme destination (to higher education – ISCED 3A, or to other forms of tertiary education as in Austria, Germany and Switzerland – ISCED 3B). The figures in Table 4 show that differentiation into different types or streams of education takes place very early in Austria, Germany (in both countries at the age of 10), in the Czech Republic at the age of 11 and in Belgium and the Netherlands at the age of 12. By contrast, no formal differentiation takes place up until the age of 16 in countries like Finland, Norway or Spain. Next, we see that in Finland and the Netherlands almost 90% of upper secondary education graduates are prepared for direct entry to tertiary education 5A.

On the contrary, in Austria and Switzerland, less than a quarter of upper secondary education graduates are eligible for the direct entry to tertiary 5A and approximately 50% of graduates are eligible for direct entry to tertiary 5B, which allows some 70% of graduates to proceed to some kind of tertiary education. Generally, the most selective systems from this point of view are in Spain and the Czech Republic where less than 50% of upper secondary education graduates are able to enter any kind of tertiary education.

Table 4
Structural features of school systems across REFLEX countries 2003

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
First age for selection ^a	10	12	15	11	10	16	16	15	14	15	12	16	--
ISCED 3A designed to prepare for direct entry to tertiary 5A (%) ^b	17	61	23	48	34	43	89	54	67	70	87	70	m
ISCED 3B designed to prepare for direct entry to tertiary 5B (%) ^b	52		47		60			10	1				m
PISA variable ^a	1.21	0.94	0.16	0.73	-0.15	-0.43	-0.90	1.15	-0.03	-0.22	1.60	-0.88	-0.91
Selectivity of HE	No	Noc	No	Yes	No	Yes	Yes	Yesa	No	Yes	No	No	Yesb

Sources: ^aOECD, 2004, ^bOECD, 2000; **Note:** ^a only for Grande Ecoles; ^b in particular for 'old' universities, ^c Exceptions are engineering and different studies in health sciences where entrance exams are required.

Next, we report on an indicator (PISA variable) constructed from various measures of stratification which includes not only standardised indices of the first age of selection, but also the number of school types or distinct educational programmes available to 15-years-olds, the proportion of grade repeaters at the different levels, and the proportion of 15-years-old enrolled in programmes that give access to vocational studies at the next programme level or direct access to the labour market³. High values indicate highly differentiated/stratified system of education. Low values represent unselective system where pupils' chances are well balanced (all OECD countries average is = 0). According to the figures presented in particular Austria, France and the Netherlands have a selective system whereas, Spain, Finland, Japan, Norway and the United Kingdom have an unselective system.

Finally, we give an overall indication on the entry selection to higher education. With respect to the selectivity of the higher education system (i.e. entrance requirements), we see that Spanish graduates of secondary education have to pass a national entrance exam if they wish to enter long-cycle university programmes. Allocation to particular programmes takes place on the basis of their exam results. Similarly, we find that in Japan entrance exams and grades of secondary education are considered very important selection criteria when entering higher education institutes. Entrance to public universities in the Czech Republic is also conditioned by entrance procedures. The individual higher education institute is thereby fully responsible for the form and content of these procedures. The majority of entrance procedures include a kind of

3. For more details see, OECD 2004, pages 261-264.

entrance examination, mainly due to the fact that demand for higher education still is higher than supply of study places. In France, universities generally provide open access programmes to graduates of upper secondary education. In contrast, institutes of the French Grande Écoles system have stringent admission procedures and require participation in preparatory classes. In the United Kingdom, in theory, the minimum entry requirement for an Honours degree is two A Levels or equivalent. However, higher education institutes are responsible for setting their own admissions criteria and usually ask for much higher requirements to be set for some courses. This holds in particular for courses that are in high demand and/or are offered by prestigious institutes. As most of these prestigious institutes belong to the so-called ‘old universities’, we can conclude that selectivity is particularly prevalent in the ‘old university’ sector. Higher education in all other participating countries is generally open to all graduates of upper secondary education. However, there may be differences between non-university and university programmes (e.g. in Germany and the Netherlands entrance to university programmes requires graduation from a higher form of upper secondary education than entrance to Fachhochschule or HBO programmes) and for courses that are in high demand student quotas or entrance exam requirements might be set.

Finally, in some countries and some HEI’s, quite rigorous selection is carried out during the first one to two study years. The general complexity of these very different selection processes in higher education systems brings us to this conclusion: As all diverse selection affect the proportion of the population in the relevant age group that has attained tertiary education, the percentage of people aged 25-34 with tertiary education (see Table 2) is - after all - perhaps the most adequate indicator of selectivity of higher/tertiary education systems.

Expenditures on higher education

To end this section, we provide figures on expenditures on higher education (Table 5), figures on the annual expenditure per student relative to GDP per capital (Table 6), figures on the annual expenditure per student 1998 in US dollars converted using PPPs (Table 7) and figures on expenditures on research and development (Table 8)

Table 5
Expenditure (public and private) on HE as % of GDP (reference year 1999)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
% of GDP	1.5	m	1.2	0.9	1.1	1.1	1.8	1.1	0.8	1.0	1.3	1.5	1.1

Source: OECD, 2002; **Note:** m: data not available.

The highest level of expenditure on higher education as a percentage of GDP in 1998 is found in Finland (1.8%), followed by Austria and Norway (both 1.5%). Italy (0.8) and the Czech Republic (0.9) are the only countries with a figure below 1%. All other countries spend between 1% and 1.2% of their GDP on higher education. However, a problem involved with the indicator ‘Expenditure on HE as % of GDP’ is that it

is strongly influenced by the size of higher education system and does not reflect the real level investment per student. We therefore provide in Table 6 figures on the “Annual expenditure on educational institutions per student”, which is related both to the GDP per capita (converted to US dollars equivalent using PPP) and to the number of students. This way of calculating can eliminate differences due to variation of participation in higher education and can better show investments per student in each country.

Table 6

Annual expenditure per student relative to GDP per capita 1998 (expenditure on tertiary public and private educational institutions, type 5B, 5A and 6)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Expenditure per student to GDP per capita (%)	48	27	61	43	41	30	34	34	28	41	44	42	45

Source: OECD, 2001^c

The indicator “Annual expenditure per student relative to GDP per capita” reflects very well differences in faculty salaries as compared to overall wage level within the country (based on the overall economic level of the country). Faculty salaries usually exceed 50% of all current HE expenditures. Although we prefer to relate the expenditure to GDP per capita (because it better takes into account the situation in each country) we also use another indicator “Expenditure in US dollars converted using PPP (purchasing power parity)”. This indicator takes into account better that part of costs that is (in contrast to wages) analogous or at least similar in all countries (e.g. computers, educational tools, utilities and materials). The OECD mean annual expenditure per student in 1998 is 8612 US dollars.

Table 7

Annual expenditure per student 1998 in US dollars converted using PPPs (expenditure on tertiary public and private educational institutions, type 5B, 5A and 6)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Expenditure per student (USD in PPPs)	11279	6597	16537	5584	9481	5038	7327	7226	6295	9871	10757	10918	9699
Expenditure per student as % of OECD mean	126%	74%	184%	62%	106%	56%	82%	81%	70%	110%	120%	122%	108%

Source: OECD, 2001^c

Switzerland holds an exceptional position among other countries, because it (as the only country) by far exceeds 50% of the indicator “Annual expenditure per student relative to GDP per capita” in 1998, and also the indicator “Annual expenditure per student 1998 in US dollars converted using PPPs” is by far the highest. The annual expenditure per student is under 30% of GDP per capita in Belgium and Italy, but in US dollars converted using PPPs it is higher than that in Spain or the Czech Republic.

Finally, we report on the expenditure on research and development. Table 8 shows that in Finland these account for 3.2% of the GDP and in Japan for 2.9%. In contrast, research and development expenditures are less than 1% of GDP in Spain and 1% in Italy.

Table 8
Expenditure on research and development as % of GDP (reference year 1999)

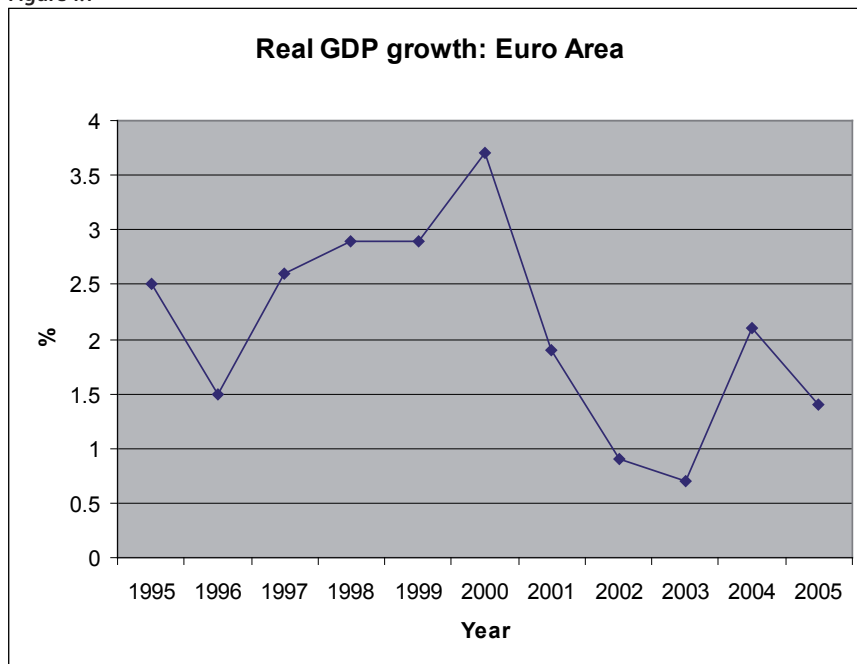
	AT	BE	CZ	FI	FR	DE	IT	JP	NL	NO	ES	CH	UK
% of GDP	1.9	2.0	1.2	3.2	2.2	2.4	1.0	2.9	2.0	1.7	0.9	2.6 ^a	1.9

Source: OECD, 2003; Note: ^a 2000 instead of 1999

3. General economic conditions

In this section, we provide some background information with respect to the labour market the REFLEX graduates entered. To start with, Figure 1 shows the real GDP growth in the Euro Area between 1995 and 2005.

Figure 1.1



Source: OECD, 2006b

The picture emerging from Figure 1 is that of a strong economy in the final years of the last millennium, with a top of a growth rate of 3.7% in the year 2000, a sharp drop of the growth rates in the first three years of the new millennium and finally a

recovering economy in the years 2004 and 2005. Most of the “REFLEX graduates” will thus have entered the labour market just before the economies slowed down. However, we have to keep in mind that indications of the slowdown were already visible in the second half of the year 2000.

Table 9 provides information on the real GDP growth rates for the REFLEX countries for the same period. The figures for Japan indicate that the economic downturn started in this country earlier than in most of the European countries. Moreover, we see that, even though the Spanish economy slowed down at the beginning of the new Millennium, Spain continued to have growth rates of around 3%, which is significantly higher than the EU average at that moment of time. Comparably, the United Kingdom seemed to have suffered less and the Czech Republic figures indicate a very short slowdown in 2002 with a strong recovery in the years thereafter.

Table 9
Real GDP growth rates (Percentage change from previous year)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
1995	2.6	2.4	0.4	5.9	2.0	2.8	4.0	1.8	2.9	1.9	3.0	4.4	2.9
1996	2.6	1.1	0.5	4.2	1.0	2.4	3.6	1.0	0.6	2.6	3.0	5.3	2.8
1997	2.2	3.5	1.9	-0.7	1.9	3.9	6.1	2.1	2.0	1.4	3.8	5.2	3.0
1998	3.7	1.7	2.8	-0.8	1.8	4.5	5.2	3.3	1.3	-1.8	4.3	2.6	3.3
1999	3.7	3.3	1.3	1.3	1.9	4.7	3.9	3.0	1.9	-0.2	4.0	2.1	3.0
2000	2.8	3.9	3.6	3.7	3.5	5.0	5.3	4.0	3.8	2.9	3.5	2.8	3.8
2001	0.6	0.7	1.0	2.5	1.4	3.6	2.5	1.8	1.7	0.4	1.4	2.7	2.4
2002	0.5	1.4	0.3	1.9	0.0	2.7	1.6	1.1	0.3	0.1	0.1	1.1	2.1
2003	0.8	1.0	-0.2	3.6	-0.2	3.0	1.9	1.1	0.1	1.8	0.3	1.1	2.7
2004	2.3	2.7	2.3	4.2	0.8	3.2	3.3	2.0	0.9	2.3	2.0	3.1	3.3
2005	2.6	1.5	1.9	6.1	1.1	3.5	3.0	1.2	0.1	2.7	1.5	2.3	1.9
2006	3.2	2.9	3.0	6.2	2.6	3.7	5.0	2.1	1.8	2.8	3.0	2.4	2.6

Source: OECD, 2006^b

To continue, we turn to the employment situation in the REFLEX countries. Table 10 reports on the unemployment rates between 1995 and 2006.

For the year 2000, Table 10 shows that the highest unemployment rates are found in the Mediterranean countries, namely in Spain with 10.8%, in Italy with 10.2% and in France with 9.4%. A similarly high unemployment rate is found in Finland (9.8%), In Western Europe, Belgium (6.9%) and Germany (6.8%) have the highest unemployment rate, followed by the United Kingdom with 5.5%. The lowest rates are found in the Netherlands (3.0%) and in Switzerland (2.5%),

Table 10
Unemployment rates (as a percentage of the labour force)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
1995	5.3	9.7	3.3	4.1	7.1	18.7	16.7	11.5	11.3	3.1	6.8	4.9	8.6
1996	5.6	9.5	3.8	3.9	7.7	17.5	15.9	12.1	11.3	3.4	6.3	4.8	8.1
1997	5.6	9.2	4.0	4.8	8.6	16.3	12.7	12.1	11.4	3.4	5.4	4.0	7.0
1998	5.7	9.3	3.4	6.5	8.1	14.6	11.4	11.5	11.5	4.1	4.2	3.2	6.2
1999	5.2	8.5	2.9	8.8	7.5	12.2	10.3	10.8	11.1	4.7	3.5	3.2	6.0
2000	4.6	6.9	2.5	8.8	6.8	10.8	9.8	9.4	10.2	4.7	3.0	3.4	5.5
2001	4.7	6.6	2.5	8.2	6.9	10.1	9.2	8.7	9.2	5.0	2.5	3.5	5.1
2002	5.4	7.5	3.1	7.3	7.6	11.0	9.1	9.0	8.7	5.4	2.9	3.9	5.2
2003	5.6	8.2	4.1	7.8	8.7	11.0	9.1	9.8	8.6	5.3	4.1	4.5	5.0
2004	5.7	8.4	4.2	8.3	9.2	10.5	8.9	10.0	8.1	4.7	4.9	4.5	4.7
2005	5.8	8.4	4.3	8.0	9.1	9.2	8.4	9.9	7.8	4.4	5.0	4.6	4.8
2006	5.5	8.6	3.9	7.3	8.0	8.4	7.8	9.1	7.1	4.2	4.9	3.6	5.5

Source: OECD, 2006^b

Next, Table 11 reports on the youth unemployment rate (i.e. the unemployment rate among 15-24 year olds). We see that a similar pattern emerges. Youth unemployment rates are very high in Italy (31.5%), Spain (25.5%), Finland (21.6), France (20.7%), Czech Republic (17%) and Belgium (15.2%). Relatively low rates, but still higher than the general unemployment rates, are found in Switzerland (4.8%), the Netherlands (5.3%) and Austria (6.3%). With the exception of Germany (ratio of youth unemployment to general unemployment of 0.95), we see that in all countries the youth unemployment rate is higher than the general unemployment rate. The ratio of youth unemployment to general unemployment varies from 1.3 in Austria to 2.9 in Italy and Norway. Moreover, Table 11 reports on long term unemployment. In Belgium, Czech Republic, France, Germany, Italy and Spain more than 50% of the unemployed have been in this situation for 6 months or longer. In Italy, this applies to three out of four of the unemployed. Moreover, in Belgium, Germany and Italy more than 50% of the unemployed are still unemployed after 12 months. In contrast, long term unemployment is relatively rare in Norway, where only 16% of the unemployed still haven't found work after 6 months, and only 5% are still unemployed after 12 months. In the other countries, approximately 40-50% of the unemployed are unemployed for 6 months or longer and approximately 28-40% are unemployed for 12 months or longer.

Table 11
Unemployment (in %): year 2000

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Youth unemployment													
15-24 year old unemployment rate	6.3	15.2	4.8	17	7.7	25.5	21.6	20.7	31.5	9.2	5.3	10.2	11.8
Ratio youth unemployment / general unemployment	1.3	2.3	1.8	1.9	0.95	1.8	2.2	2.0	2.9	1.8	2.0	2.9	2.1
Long term unemployment													
% of unemployed out of work for 6 months or longer	43.8	71.8	46.6	69.9	67.6	64.8	46.5	61.9	75.3	46.9	46.5	16.3	43.2
% of unemployed out of work for 12 months or longer	28.4	53.3	29.1	48.8	51.5	47.6	29	42.5	60.8	25.5	32.7	5.0	28

Source: OECD, 2001^a

Next we have a closer look at the employment rates and the unemployment rates of persons with a higher education degree. Table 12 reports on the employment rates between 2000 and 2004 and Table 13 reports on the unemployment rates.

Table 12
Trends in employment rates by educational attainment (tertiary education, 2000-2004)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
2000	87	85	91	87	83	80	84	83	81	79	86	90	88
2001	86	84	91	88	83	81	85	84	82	80	86	90	88
2002	86	84	91	87	84	81	85	83	82	79	87	89	88
2003	85	84	90	86	83	82	85	82	m	79	m	89	88
2004	82	84	90	86	83	82	85	82	82	m	86	89	89

Source: OECD, 2006^b; Note: m indicates missing.

Table 13
Trends in unemployment rates by educational attainment (tertiary education, 2000-2004)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
2000	1.6	2.7	c	2.5	4.2	9.5	4.7	5.1	5.9	3.5	1.9	1.9	2.1
2001	1.5	2.7	1.3	2.0	4.2	6.9	4.4	4.8	5.3	3.1	1.2	1.7	2.0
2002	1.9	3.5	2.2	1.8	4.5	7.7	4.5	5.2	5.3	3.8	2.1	2.1	2.4
2003	2.0	3.5	2.9	2.0	5.2	7.7	4.3	6.1	m	3.7	m	2.5	2.4
2004	2.9	3.9	2.8	2.0	5.5	7.3	4.7	6.1	4.8	m	2.8	2.4	2.2

Source: OECD, 2006^b; Note: c indicates too small a sample to provide reliable estimates. m indicates missing. Due to incomplete data, some averages have not been calculated. Break in Austrian time series is due to a change in survey methodology from 2003 to 2004.

The figures in Table 13 indicate that higher education graduates in the labour force, which form the target population of the REFLEX project, have on average a significantly lower probability of being unemployed. With the exception of Spain, where the unemployment rate comes close to the general unemployment ratio (the ratio of HE unemployment to general unemployment is 0.88), the ratio between higher education graduate unemployment rate and general unemployment rate varies some-

where between 0.28 (Czech Republic) and 0.75 (Japan). Next, Table 13 also indicates that the trends in higher education unemployment differs between the countries. While it is fluctuating in Japan and France, we see for example a steady growth in Germany and a decreasing trend in Italy.

Besides the unemployment situation in a country, part-time, temporary and self-employment can be seen as further important labour market indicators (see Table 14). The exceptional situation of the Netherlands, where roughly one out of three employees works part-time, is well known. In contrast, part-time employment is rare in the Czech Republic (3%) and Spain (7.8%). Whereas part-time employment is minimal in Spain, temporary contracts are an important factor (32.5% of the employees has a temporary contract in Spain). In contrast this holds for only 7% of the employees in the United Kingdom, 8% in Austria and the Czech Republic and 9% in Belgium. Finally, non-agricultural self-employment is well established in the Mediterranean countries (22.7% in Italy and 17.6% in Spain), whereas only 5.4% of the Norwegian employees are self-employed and a similar low figure (7.4%) is found in Austria.

Table 14

Part-time, temporary and self-employment work (as % of employment): year 2000

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Part-time	12.2	19.0	24.4	3.3	17.6	7.8	10.4	14.2	12.2	23.1	32.1	20.3	9.0
Temporary	8.1	9.0	11.0	8.1	12.5	32.5	17.5	14.2	10.0	12.5	13.5	9.0	7.0
Non-agricultural self-employment ^a	7.4	13.9	M	13.2	9.4	17.6	10.0	8.2	22.7	9.7	9.7	5.4	11.4

Source: OECD, 2001^b; **Note** ^afigures for 1998; M: data not available.

Next, we consider the industrial composition in the countries under consideration. Table 15 shows the percentage of the labour force that works in a particular sector. Not surprisingly, the sector 'community, social and personal services' is the largest sector in all but one country. The exception is the Czech Republic, where 'manufacturing' with 29% of persons employed forms the largest sector. Besides these two sectors, the 'wholesale and retail trade; restaurants and hotels' sector is significant. With the exception of the Czech Republic (5%), we further see that the 'agriculture, hunting, forestry and fishing' sector employs no more than 3% of the labour force in any country.

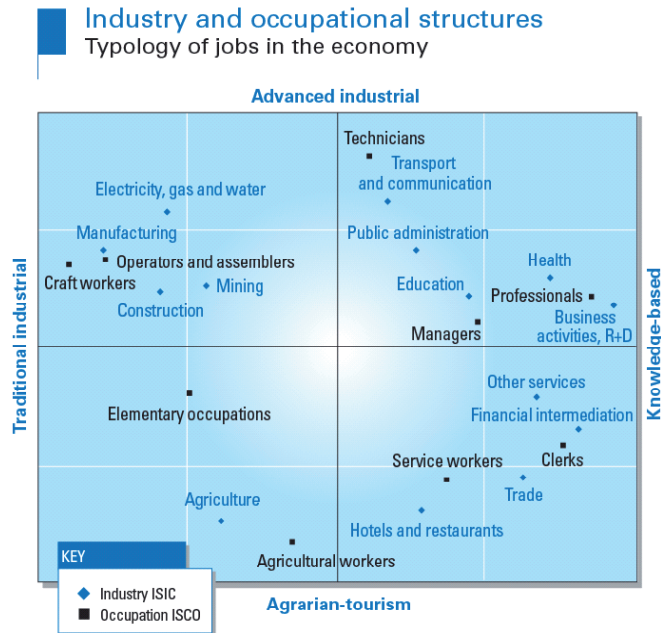
Table 15
% of persons employed by sector

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Agriculture, hunting, forestry and fishing	1	1	--	5	1	3	2	2	3	1	2	1	1
Mining and quarrying	0	0	--	2	0	0	0	--	0	0	0	1	0
Manufacturing	19	18	--	29	22	21	22	16	25	21	15	14	15
Electricity, gas and water supply	1	1	--	2	1	1	1	1	1	1	1	1	0
Construction	8	6	--	7	7	11	6	6	5	10	6	5	5
Wholesale and retail trade; Restaurants and Hotels	21	15	--	15	19	18	16	16	15	19	21	17	24
Transport, Insurance, Real Estate and Business Services	8	7	--	8	6	5	7	6	5	7	6	9	6
Finance, Insurance, Real Estate and Business Services	14	14	--	9	14	10	11	17	12	10	20	12	19
Community, Social and Personal Services	28	37	--	23	29	31	35	35	33	31	29	39	30

Source: OECD, 2001^b

Continuing, we turn to other ways of analysing and evaluating industry and occupation structures of employment in each REFLEX country (for an extended discussion of the following points, see Koucky, 2006). The further analysis of the development of employment structures in the EU countries (and their regions) and in other OECD countries during the last two-three decades is based on the matrix of 15 groups of sectors (ISIC rev.3) and 9 groups of professions (ISCO 98). It indicates four basic types of industry and occupation structure of employment and jobs (see Figure 2). 1) An agrarian-tourism type, strongly oriented to agricultural activities carried out by farmers and unqualified labourers, however closely linked with accommodation and catering and trade and with operational and administrative occupations. 2) A traditional industrial type covering manufacturing and construction industries and relying on occupations of qualified workers and on unqualified labour. 3) An advanced industrial type covering industry and transport together with gradually established public administration and some other services, and specialised occupations. 4) A knowledge-based type based particularly on services, with a strong position of diverse business services including research and development (R+D) and of public services as education and health service; among occupations professionals and managers come to the fore. Each type is characterised not only by a different job structure but also by quite different demands on education and qualification of the labour force.

Figure 2

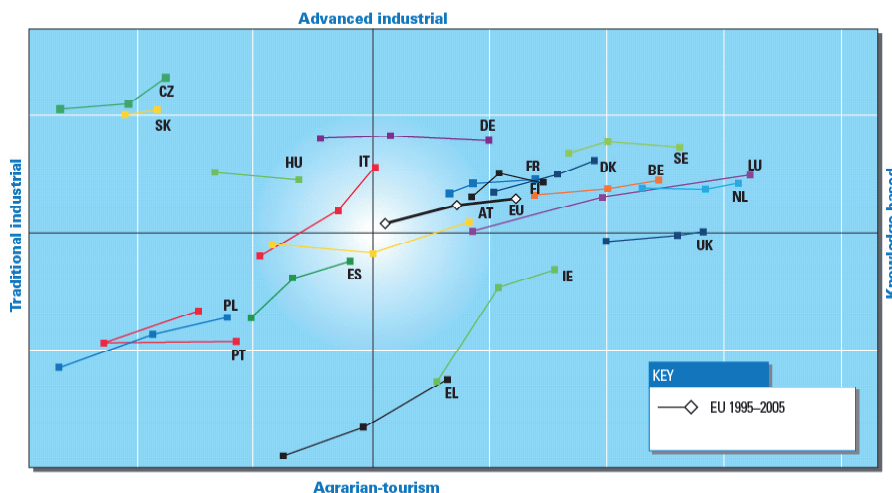


Source: Koucky, 2006.

Figure 3 shows the relative position of employment and its change until now in each of EU-19 country. Although the match is never perfect, the profile of industry and occupational structures of every country at a given time more or less approximate one of the above types. Greece (especially its islands) and also some parts of Poland, Portugal and Spain are close to the **agrarian-tourism** type but partly come also under the **traditional industrial** type, as do Hungary and Slovakia do. The **advanced industrial** type is represented today most distinctly by the Czech Republic, also by Germany and to some extent by Scandinavian countries which are already nearing the **knowledge-based** type (especially Sweden), represented particularly by Benelux countries and the United Kingdom. Other European countries are not showing such a distinct affinity. Profiles of individual countries change in time, as does their position in relation to the four basic types, the direction of changes roughly corresponding to both above-mentioned trends. Almost all REFLEX countries are heading for or approaching the knowledge-based economy.

Figure 3

Industry and occupational structures Job profiles in EU countries 1995–2005



Source: Koucky, 2006.

Based on a more detailed analysis of industry and occupational structures of the world of work, we now look at a newly developed **concept of qualification requirements** (for an extended discussion of the following points, see Koucky, 2006). The concept combines two relatively independent lines of approach, which also helps to reduce possible mistakes or deformations. While the first line is traditionally based on the education level attained by the person who holds the job, and uses data from ELFS and ESS (European Social Survey), the second one aims at job characteristics employing commonly used approaches – International Socio-Economic Index of Occupational Status (ISEI), Skill needs indicator of duration of “required education or vocational schooling” on jobs from ESS (European Social Survey), U.S. complexity of work (O*NET) and a combination of some other approaches including job assessments by experts. The combination of the above-mentioned approaches made it possible to construct a final 9-point scale of qualification requirements for each of 60 groups of professions in EU countries in 1995-2005. The resulting indicator of overall labour market qualification requirements attains values between 1 (the lowest qualification assessment) and 9 (the highest qualification assessment). It is weighted by the representation of particular profession on the labour market in each country and each period (see Table 16 and Table 17).

Qualification requirements have been increasing in most countries; in a long-term perspective, they are highest in the Netherlands and Belgium. Moreover, the results

show that the gap between the overall population and HE graduates is closing; HE graduates are working in occupations with relatively lower qualification requirements than 5 years ago.

Table 16

Qualification requirements of the overall employed population and of those who attained tertiary education (2000)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Population	4.65	5.00	m	4.68	4.82	4.51	5.02	4.74	4.67	m	5.09	m	5.05
ISCED 5+6	6.24	6.36	m	6.64	6.06	5.87	6.34	6.17	6.66	m	6.51	M	6.44

Source: Koucky, 2006.

Table 17

Qualification requirements of the overall employment and of those who attained tertiary education (2005)

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Population	4.68	5.05	m	4.69	4.83	4.48	4.85	4.74	4.69	m	5.03	m	4.87
ISCED 5+6	6.07	6.30	m	6.54	6.10	5.73	6.06	6.09	6.50	m	6.37	m	6.05

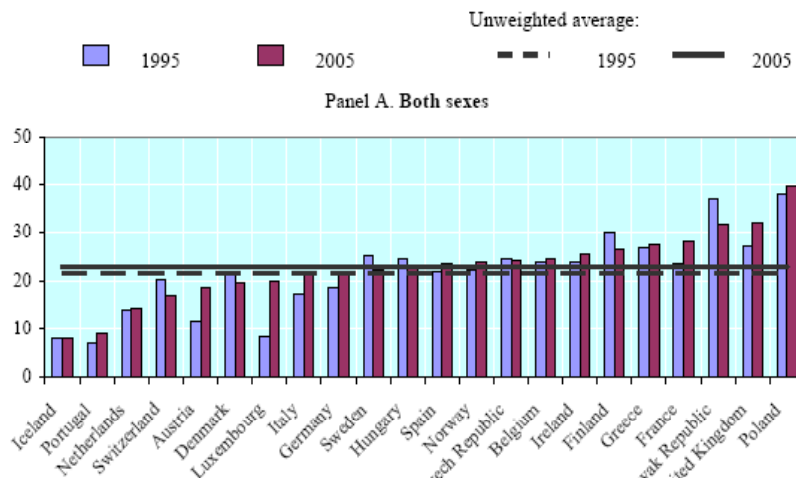
Source: Koucky, 2006.

A further policy concern is the risk that a growing number of young people may be performing jobs which require far fewer skills than those they acquired in initial education – so-called “over-education” (for an extended discussion of the following points, see Koucky, 2006). This phenomenon may reflect the expansion of higher education systems and the incapacity of labour markets in some countries to absorb the increasing number of new graduates.

However, there is little evidence with which the possible extent of over-education might be established. Employing the same methodology as used by OECD in the past- whereby the level of schooling needed in different jobs is defined for 22 OECD Europe countries for which data are available – Figure 4 shows that in Poland, the Slovak Republic and the United Kingdom more than 30% of 15-28 year olds are overeducated. At the other extreme, Portugal and Iceland are found to have the lowest over-education rate, with less than 10% of youth overeducated according to this indicator. In addition, Figure 4 shows that over-education rates have increased over the past decade in 15 out of the 22 countries and in some countries – notably Luxembourg, Austria, the United Kingdom and France – the increase has been considerable. Finally, although the level of over-education in countries with apprenticeship systems – notably, Austria, Denmark, Germany and Switzerland – is relatively low, these countries are still closer to the average than to the best.

Figure 4
Over-education rate ^a, 1995-2005 ^b

Percentage of youth aged 15-28 not in education who are estimated to be "over-educated"



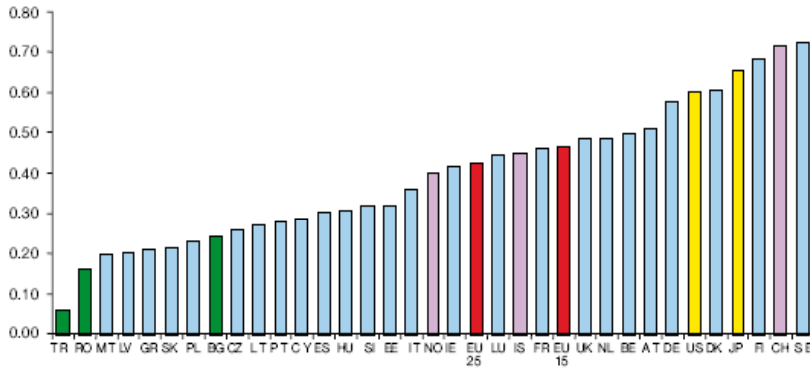
a) Young people are classified as over-educated if they hold a qualification that is higher than the qualification required in their occupation. Following this methodology the following individuals will be classified as over-educated: those who have completed tertiary education but are working in an occupation that requires a medium or low qualification; those who have completed upper secondary education only but are working in an occupation that requires a low qualification.

b) 1995-2004 for Luxembourg; 1996-2005 for Germany, the Netherlands, Norway and Switzerland; 1997-2005 for Finland, Hungary and Sweden; 1999-2005 for Iceland and the United Kingdom; 2001-2005 for Poland; and 2002-2005 for the Czech Republic and the Slovak Republic.

Source: OECD calculations based on the OECD, 2006^c

Another characteristic of the labour market that is crucial for HE graduates' employment is the level of innovation in the country. The European Innovation Strategy (EIS) 2005 proposes a strengthened methodology and a revised list of 26 indicators. The EIS distinguishes between five key dimensions of innovation (innovation drivers, knowledge creation, innovation and entrepreneurship, applications, IPR), which provide further insights into the relative innovation strengths and weaknesses of European countries. Each country has its own agenda; however recent evidence suggests that an even performance on all dimensions is a positive driver for a strong overall innovation performance. This suggests, in particular for countries lagging behind, that policy would be more effective in improving overall innovation performance rather than on making further improvements in areas of strengths only. The following figure shows the Summary Innovative Index (SII). A higher value indicates a more innovative environment. Table 18 shows the Summary Innovation Index for the REFLEX countries.

Figure 5
The 2005 Summary Innovation Index (SII)



Source: European Commission, 2006.

Table 18
Summary Innovation Index

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
2005	0,51	0,5	0,71	0,26	0,58	0,3	0,68	0,46	0,36	0,65	0,48	0,4	0,48

Source: European Commission, 2006.

The figures confirm that Sweden, Finland and Switzerland are the European innovation leaders, followed by Germany and Denmark. Although most of the new Member States are engaged in the catching-up process, their slow pace is unlikely to allow for short-term convergence in Europe. In addition, should trends for the 25 Member States remain stable, the innovation gap between Europe and the US will not close, principally due to lower European performance in terms of patenting activity, ICT investments and education levels.

To end this section, we look at indicators with respect to the strictness of employment protection legislation in the late 1990s. Table 19 reports on three OECD indicators (OECD, 1999), as well as on an overall indicator consisting of the weighted average of the three individual indicators⁴. All indexes range from 0 to 6, with higher values representing stricter regulations. The first indicator ‘regular employment’ measures broadly three areas that were identified as being indicative of the strictness of dismissal protection, namely (a) procedural inconveniences which an employer faces when trying to dismiss an employee, (b) notice and severance pay provisions in case of dismissal and (c) prevailing standards of and penalties for unfair dismissal. The second indicator ‘temporary employment’ covers regulations (restrictions) for fixed-term

4. For more information on these three indicators and the precise weighting procedure, please see OECD 1999.

contracts and temporary work agencies. Finally, the indicator ‘collective dismissal’ covers (a) the size of the redundancy which is required to trigger the application of the collective dismissal regulation, (b) additional notification requirements, (c) additional delays (days) involved and (d) other special costs involved for the employer in case of a collective dismissal.

With respect to the ‘regular employment’, the Netherlands with a score of 3.1 is the country under consideration with the most stringent regulations, while the regulations in the United Kingdom (0.8) are the least stringent ones.

Table 19
Indicators of the strictness of employment protection legislation in the late 1990s

	AT	BE	CH	CZ	DE	ES	FI	FR	IT	JP	NL	NO	UK
Regular employment	2.6	1.5	1.2	2.8	2.8	2.6	2.1	2.3	2.8	2.7	3.1	2.4	0.8
Temporary employment	1.8	2.8	0.9	0.5	2.3	3.5	1.9	3.6	3.8	2.1	1.2	2.8	0.3
Collective dismissals	3.3	4.1	3.9	4.3	3.1	3.1	2.4	2.1	4.1	1.5	2.8	2.8	2.9
Overall EPL strictness	2.3	2.5	1.5	2.1	2.6	3.1	2.1	2.8	3.4	2.3	2.2	2.6	0.9

Source: OECD, 1999.

Considering ‘temporary employment’, Italy (3.8), France (3.6) and Spain (3.5) have the most stringent regulations. Again, the United Kingdom (0.3) and Switzerland (0.9) score lowest. Interestingly, Switzerland, which scores second lowest on the first two indicators, scores after Belgium (4.1) second highest with respect to ‘collective dismissals’. With respect to this indicator, Japan (1.5) and France (2.1) score lowest. Overall, the employment protection legislation strictness is highest in Italy (3.4) and Spain (3.1) The United Kingdom (0.9) is the most liberal country, followed by Switzerland (1.5). In the latter country, this low overall score reflects the low scores on ‘regular employment’ and ‘temporary employment’.

4. ELFS analyses

To conclude the report, we present three analyses, based on the European Union Labour Force Survey (ELFS) data. These analyses address the general pattern of labour market integration of school-leavers and the relative labour market position of higher education graduates compared to the position of school-leavers from other educational levels within each of the selected countries. The selected countries are those that were members of the European Union in the year 2000. The first analysis looks at the probability of being unemployed, the second at the probability of having a temporary contract, and the third analysis concerns occupational prestige. For all analyses, we select school-leavers belonging to the active 15-29 year old labour force (ILO definition). To increase the number of cases, we pooled the ELFS data of 2000 with the ELFS data of 2001. Moreover, to get comparable groups with respect to labour market experience, we selected graduates from ISCED education levels 0-2

(including ISCED level 3 short) who were between 15 and 24 years old and graduates from ISCED education levels 3-6 who were between 20 and 29 years old⁵. As independent variables, we included dummies for gender, educational level and a dummy for the 2001 cohort.

Table 20 reports on the estimates with respect to the probability of being unemployed. We see that in Germany and the United Kingdom male graduates are more likely to be unemployed (although this is only significant at 10% level in the UK). This contrasts with the situation in the Mediterranean countries, where female graduates were much more likely to be unemployed than males. Finally, in Belgium, the Netherlands, Austria and Finland no significant gender difference is found. Considering differences between higher education graduates and other school-leavers, we see that in all countries school-leavers from the lowest ISCED levels have significantly higher probabilities of being unemployed in the first years after graduation. The difference with respect to higher education graduates seems to be highest in Finland and the United Kingdom and smallest in the Mediterranean countries. A different picture emerges when comparing higher education graduates to school-leavers from ISCED levels 3 and 4. Whereas in Germany, Finland and the United Kingdom school-leavers from ISCED levels 3 and 4 have a greater probability of being unemployed, no significant difference is found in Belgium, France, Italy, the Netherlands and Austria. In Spain, school-leavers from ISCED levels 3 and 4 even have a higher probability of finding work than higher education graduates. Finally, in France, Italy and the United Kingdom school-leavers interviewed in 2001 were less likely to be unemployed than those interviewed in 2000.

In Table 21, we report on the analysis of the probability of having a permanent contract versus the probability of having a temporary contract. In six out of nine countries male school-leavers are more likely to have a permanent contract⁶. The exceptions are Germany, where female school-leavers are more likely to have a permanent contract and Spain and the United Kingdom, where no significant gender difference is found. With respect to differences between school-leavers from different education levels, we see that with the exception of Austria, school-leavers from the lowest educational levels have a significantly lower probability of having a permanent contract than higher education graduates. In Austria no significant difference between the lowest educational level and the highest educational level is found. Again, a more diverse picture emerges when comparing higher education graduates with school-leavers from ISCED levels 3 and 4. In Germany, Italy, the Netherlands, Austria and the United Kingdom, school-leavers from ISCED levels 3 and 4 are more likely to

5. In doing so, we impart a relative disadvantage to higher education graduates, in the sense that their labour market experience will on average be shortest. School-leavers from ISCED level 0-2 enter the labour market on average at 15-16 years of age, and school-leavers from ISCED level 3 at 18-22 years of age. Hence, these school-leavers could have up to 9 years of work experience. In contrast, higher education graduates on average enter the labour market at approximately 25 years of age, so their work experience is limited to 4 years at most.

6. In Austria the gender difference is only significant on a 10% level.

have a permanent contract than higher education graduates (although the effect is only significant at 10% level in the Netherlands). In Belgium and Spain no difference between the two groups is found and in France higher education graduates are more likely to have a permanent contract. Finally, no differences were found in any of the countries between respondents in the year 2000 and respondents in the year 2001.

To end this section, Table 22 reports on a regression analysis that aims to explain variance in the International Socio-Economic Index (ISEI).⁷ With the exception of France, we find that in all countries male school-leavers possess occupations with a lower ISEI (although in the Netherlands this effect is only significant at 10% level). This effect can mainly be related to the fact that male school-leavers are relatively more likely to work in blue-collar occupations, which are ranked lower on the ISEI than the white-collar occupations females typically work in. With respect to the effects of education level, the results are as expected: the higher the educational level, the higher the ISEI score. Whereas in most countries the impact of graduating from higher education relative to ISCED level 0-2 is comparable, there is a significantly higher impact in Austria. Although on average school-leavers from ISCED level 3 possess lower status occupations than higher education graduates in all countries, the differences seem to be smallest in France, Italy and the Netherlands and highest in Germany and Austria.⁸ Finally, we see that in Italy and the United Kingdom respondents surveyed in the year 2001 hold occupations with a lower ISEI score than respondents surveyed in the year 2000 (although this effect is only significant at 10% level in Italy).

7. The ISEI can be conceived of as measuring the attributes of occupations that convert a person's education into income. Accordingly, ISEI scores were generated by an optimal scaling procedure in which scores were assigned to occupational unit groups in such a way as to maximise the indirect effect of education on income through occupation and to minimise the direct effect of education on income, net of occupation (with both effects net of age) (see Ganzeboom & Treiman, 2003).

8. This may be related to the earlier finding that Austria has relatively few higher education graduates.

Table 20
Logit estimation on the probability of being unemployed

	BE	DE	ES	FR	IT	NL	AT	FI	UK									
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.									
Constant	-2.562***	0.271	-3.260***	0.170	-1.011***	0.067	-2.073***	0.090	-1.062***	0.098	-3.909***	0.325	-3.724***	1.064	-2.668***	0.398	-3.512***	0.129
Gender:																		
male	-0.259	0.162	0.239***	0.067	-0.633***	0.058	-0.388***	0.062	-0.337***	0.053	-0.217	0.176	0.009	0.224	-0.244	0.151	0.138*	0.073
ISCED5-7	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
ISCED0-2	1.701***	0.288	0.832***	0.172	0.274***	0.076	1.232***	0.093	0.431***	0.102	1.390***	0.327	1.356	1.078	2.494***	0.406	2.148***	0.129
ISCED3	0.172	0.267	0.415**	0.168	-0.167***	0.074	0.131	0.097	0.067	0.099	0.285	0.348	0.622	1.070	1.113***	0.401	0.694***	0.131
Year 2001	0.083	0.161	-0.003	0.066	-0.068	0.056	-0.166***	0.061	-0.175***	0.052	-0.175	0.176	-0.065	0.224	-0.116	0.150	-0.158**	0.072

Data: ELFS 2000; **Note:** For Finland no data on the occupation is available. Switzerland and Norway as non EU members are neglected.

Table 21
Logit estimation on the probability of having a permanent contract

	BE	DE	ES	FR	IT	NL	AT	UK								
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.								
Constant	1.182***	0.203	0.902***	0.086	-0.112	0.070	0.988***	0.072	0.577***	0.114	1.400***	0.139	1.293***	0.465	1.857***	0.077
Gender: male	0.692***	0.144	-0.194***	0.055	0.066	0.058	0.231***	0.055	0.163**	0.071	0.253**	0.113	0.331*	0.196	0.061	0.066
ISCED5-7	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
ISCED0-2	-0.614**	0.271	-0.288***	0.103	-0.735***	0.080	-1.014***	0.080	0.673***	0.122	-0.658***	0.152	-0.808	0.498	-0.263***	0.088
ISCED3	0.110	0.199	0.971***	0.083	0.068	0.073	-0.231***	0.074	0.635***	0.113	0.264*	0.145	1.201**	0.478	0.572***	0.078
Year 2001	0.037	0.141	0.009	0.055	0.092	0.057	0.071	0.054	0.125	0.070	0.024	0.112	-0.075	0.199	-0.041	0.066

Data: ELFS 2000; **Note:** For Finland no data on the occupation is available. Switzerland and Norway as non EU members are neglected.

Table 22
OLS regression on ISEI

	BE	DE	ES	FR	IT	NL	AT	UK								
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.								
Constant	62.541***	1.218	64.908***	0.439	57.110***	0.385	57.289***	0.352	59.883***	0.521	60.063***	0.648	71.212***	2.087	59.686***	0.326
Gender: male	-2.202**	1.038	-2.633***	0.239	-1.586***	0.314	-0.045	0.276	-1.298***	0.292	-0.954*	0.521	-3.985***	0.653	-0.632**	0.263
ISCED5-7	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
ISCED0-2	-29.030***	2.869	-29.265***	0.566	-25.461***	0.429	-24.118***	0.402	-24.340***	0.543	-24.650***	0.755	-36.414***	2.332	-24.716***	0.404
ISCED3	-20.751***	1.146	-23.044***	0.426	-17.284***	0.404	-14.074***	0.354	-14.365***	0.513	-16.064***	0.648	-28.177***	2.105	-16.144***	0.316
Year 2001	-0.091	1.034	0.011	0.239	0.442	0.305	-0.115	0.273	-0.478*	0.288	0.541	0.520	1.226*	0.660	-1.236***	0.261

Source: ELFS 2000; **Note:** For Finland no data on the occupation is available. Switzerland and Norway as non EU members are neglected.

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