

HARALD SCHOMBURG

**EMPLOYABILITY AND MOBILITY OF BACHELOR
GRADUATES: THE FINDINGS OF GRADUATE
SURVEYS IN TEN EUROPEAN COUNTRIES ON
THE ASSESSMENT OF THE IMPACT OF THE
BOLOGNA REFORM**

INTRODUCTION

In this analysis of graduate surveys undertaken in recent years in ten European countries, we examine the findings which can be considered as valuable for the response to key questions regarding the impact of the Bologna reform: What is the situation of “mobility” and “employability” after some ten years of efforts to establish a convergent system of study programmes and degrees?

In the introductory chapter of this volume, it was pointed out that surveys of recent graduates are most useful to provide information regarding four respects of mobility and graduate employment and work in Europe with respect to the Bologna Process. They are formulated here as questions:

- What share of students in each country have had the *experience of studying a least for some period in another country* or of other study-related experience in their course of study up to graduation and possibly transition to employment?
- What share of students has been professionally mobile across borders in their early professional career?
- What rate of Bachelor graduates – all Bachelors or possibly those from university programmes as compared to those from other programmes and institutions – *transfers to employment* after the award of the Bachelor degree, and how many *continue their studies*?
- How far is the *professional success* of Bachelor graduates – again possibly from different types of programmes and institutions – soon after graduation similar, or how far does it differ from that of Master graduates and of graduates from old and new single-cycle programmes? How far do the differences observed correspond the levels of educational attainments, or indicate a different degree of “success”?

Obviously, graduate surveys are a valuable tool to examine certain aspects of mobility and graduate employment and work in the Bologna Process. However, as it was pointed out in the introductory chapter of this volume, an overview of the findings of recent graduate surveys has its *limitations* as far as an overall assessment of the “mobility” and “employability” impact of the Bologna Reform is concerned:

- First, only a *time series-analysis* would help to analyse changes with regard to mobility and graduate employment. However, as most country reports in this comparative study only provide detailed information about recent graduates, changes over time were taken up only in passing.

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- Second, graduate surveys are the best way of measuring temporary outward mobility. Other approaches are more suitable to measure *outward diploma mobility* (i.e. mobility for the whole study programme up to a diploma or a degree) and mobility from other continents.
- Third, graduate surveys that analyse the mobility and employment of former students can measure both mobility and employment at certain points in time, but they provide only limited information on the *causes*.
- Fourth, graduate surveys have some *endemic methodological weaknesses*, e.g. limited response rates and possible differences in the composition of findings between the respondents and non-respondents. They do not take into account the impact of the new study programmes on students who discontinue their studies before graduation. Standardised questionnaires comprise questions and categories of responses which do not mirror the complexity of facts and views.

Finally, it was pointed out in the introductory chapter that there was no recent comparative graduate survey that comprised a large number of European countries. The two major comparative surveys addressed graduates from the mid-1990s and thus only reflect the impact of study provisions and conditions prior to the Bologna Reform. Therefore, this comparative analysis had to draw from national graduate surveys. 10 European countries were considered where conditions were fulfilled: national studies were available and the Bologna reform had progressed considerably. Thus, one of its major challenges is to identify similarities and differences amidst the diversity of themes addressed and methods employed in the surveys and the stages of progression of the Bologna Process. It should be stressed that this study primarily addresses Bachelor graduates and that comparisons are often made with Master graduates and with those of other programmes leading to Master-equivalent degrees. No reference is made to the employment of doctoral degree holders.

THE INFORMATION PROVIDED BY THE GRADUATE SURVEYS IN THE 10 COUNTRIES

Surveys were conducted between 2007 and 2010 in all 10 countries; hence, some analyse results from earlier surveys. Most country reports *comprise graduate cohorts* between the academic year 2006/07 and the calendar year 2009; only the French country report is based on an earlier cohort, i.e. those graduating in 2004 (see [table 1](#)). The surveys vary substantially *concerning the graduation year*:

- six months after graduation in Norway and the United Kingdom,
- between one and two years after graduation in Austria, Germany, Hungary, Italy and the Netherlands,
- between three and five years after graduation in France, in two older surveys in the Czech Republic, and in the second, follow-up survey in the United Kingdom, and
- over various years in the most recent survey in the Czech Republic.

In some countries, *more than a single cohort of graduates* was addressed for different reasons. There were cases where a data set comprised more than a single

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cohort; this method was used to increase the absolute number of graduates within the data set (Austria, Germany and the Netherlands); in other cases, some relevant thematic areas were in other surveys than the key survey presented in the country report (Austria, Czech Republic and Italy); in other cases, reference to surveys from different years provided the opportunity to undertake a time-series analysis in selected thematic areas (Czech Republic, France and the United Kingdom).

Table 1. Graduate Surveys in Selected European Countries

Country	Conducted in Year(s)	Graduation Year(s)	Timing (After graduation)
AT Austria	2010	2007-2008	1½ – 2½ years
CZ Czech Republic I	2006	2001-2002	4-5 years
CZ Czech Republic II	2010	2005-2006	4-5 years
CZ Czech Republic III	2007-2008	•	(up to 59 years old)
DE Germany	2009-2010	2007-2008	1½ years
FR France	2007	2004	3 years
HU Hungary	2009	2008	1 year
IT Italy	2008 (2009)	2007 (2008)	1 year
NL The Netherlands	2004-2008	2002/03-2006/07	1-2 years
NO Norway	2007	2007	6 months
PL Poland	2007	1998-2005	2-9 years
UK United Kingdom I	2008	2007/2008	6 months
UK United Kingdom II	2008	2004/05	3½ years

Figures are based on country reports of this volume.

All authors of the country reports selected surveys which provide information on a relatively *recent cohort of Bachelor graduates*. All ten country reports provide information on *university Bachelor graduates*. But there are problems in comparing their whereabouts and professional success:

- The surveys on graduates in Italy and the United Kingdom address only Bachelor graduates whose degree was awarded by a university. In Italy, nearly all Bachelor titles are awarded by universities, and in the United Kingdom, few are awarded by other institutions.
- For the Czech Republic, Hungary and Poland, the surveys present findings for all Bachelor graduates and therefore do not make a distinction between those graduating from universities and those graduating from other higher education institutions; this is based on the assumption that differences according to institutional type no longer play an important role.
- In the report on graduates from institutions in Norway, Bachelor graduates from universities are included, but only some from other higher education institutions.
- In the country reports on France and the Netherlands, information on all themes addressed is provided as regards Bachelor graduates from the vocational sector

(vocational Bachelors and HBO Bachelors respectively), but only limited information as regards Bachelors from the general university sector.

Finally, the Bachelor graduates are consistently sub-divided in three country reports: in the Austrian and German country reports between graduates from universities on the one hand and those from Fachhochschulen (universities of applied sciences) on the other, and in the country report on the United Kingdom between those graduating from full-time programmes and those graduating from part-time programmes.

The definitions of *other degrees comprised in the analysis* vary between countries. Information on Master graduates is provided in almost all country reports; yet, there are limits as far as comparability is concerned: in some cases, information on all Master graduates is provided, whereas in others they are subdivided according to type of higher education institution. In the case of France and partly of the Czech Republic, there is no clear separation between Master-type degrees and traditional single-cycle degrees. Most countries provide information on graduates from single-cycle degrees; they are differentiated in some cases between traditional degrees (divided into traditional university degrees and degrees from other higher education institutions) and new single-cycle degrees, whereas this distinction is not made in other cases; moreover, some country reports address special disciplinary groups (notably engineering). Finally, reference is made in exceptional cases to short-cycle diploma holders or even secondary school leavers.

Even if information is provided on graduates from Bachelor, Master and – new and old – single-cycle programmes, a comparison of their professional success is difficult: the composition of graduates by field of study tends to vary between these groups – notably because the introduction of the two-cycle structure varied in some countries by field of study and because study programmes in some fields of study with favourable employment opportunities – e.g. medicine – are not transformed into two-cycle programmes.

It must also be pointed out that *not all the surveys* addressed in the country reports of this volume *are based on a representative sample* of all those graduating in the respective country at Bachelor and Master level:

- In France and the Netherlands, Bachelors who continue their studies are not included.
- In Germany, Hungary and Italy, the survey addressed a large number of higher education institutions that were willing to cooperate in the survey and were not selected through a stratified sampling.
- In France and the United Kingdom, foreign graduates or graduates living abroad were not surveyed.
- In some cases, some small sub-groups (e.g. graduates from private institutions, from teacher colleges) were either excluded from the survey or were included in the survey but disregarded in the analysis.
- In most country reports, however, such limitations do not call into question the validity of the data.

Finally, it should be pointed out that, although the purpose of the comparative analysis was not to compare the changes in graduates' mobility and employment over time, a

time series analysis was sometimes undertaken regarding some thematic areas. This held true for the reports on the Czech Republic, France, Italy and the United Kingdom.

THE BOLOGNA CHALLENGE FOR CHANGE IN THE DEGREE STRUCTURE

As already pointed out in the introductory chapters, we note *five different types of structural changes or structural continuity of study programmes* that may be linked differently to types of higher education institutions – i.e. five types in ten countries:

- (1) Substitution of a more or less unitary system (only universities, almost only long study programmes) by a two-cycle system within a single institutional type: Italy.
- (2) Substitution of a two-institution type system with single-cycle study programmes (longer programmes at universities and shorter programmes at other higher education institutions) by a two-cycle system with Master programmes in both institutional types: Austria, Germany, Hungary and the Czech Republic, where first steps towards a two-cycle structure were already undertaken prior to the Bologna Declaration.
- (3) Substitution of the same model as above (two-institution type system by single-cycle study programmes of different lengths) by a two-cycle (Bachelor-Master) system by Master programmes at one type of institution (universities) and only Bachelor programmes at other higher education institutions: the Netherlands.
- (4) Substitution of a system of long study programmes at universities in a broad range of fields and short study programmes at universities as well as in a limited number of fields by a two-cycle system in a broad range of fields: France, Norway and Poland. In the case of France, a new vocational bachelor degree was added to which most students move after the award of a two-year diploma programme to a third-year vocational Bachelor programme. In Norway, two types of short study programmes existed previously: programmes for certain fields of study (notably humanities and natural sciences) at universities and study programmes in most fields of study provided by other higher education institutions.
- (5) Continuation of a traditional two-cycle structure: United Kingdom.

As a consequence of varied structures before the Bologna Declaration and varied approaches within the Bologna Process, we note now a variety of patterns of study programmes and degrees:

- (1) As regards (first-cycle) Bachelor programmes, a single type of Bachelor graduates seems to have emerged de jure or de facto in Italy, Poland and the United Kingdom. In contrast, two types have been created de jure or de facto in Austria, the Czech Republic, France, Germany, Hungary, the Netherlands and Norway. Hence, the university Bachelor graduates are viewed as a partly new or completely new type of graduate and the other Bachelor graduates are viewed as successors of the graduates from the previous short study programmes at other higher education institutions.
- (2) As regards (second-cycle) Master programmes, the country reports on Austria and Germany present a division by institutional type, although more refined and

overlapping typologies exist in these countries. The presentation of this “division” by institution is based on the observation that university Master graduates are sometimes seen by the labour market as successors of those from traditional university programmes, whereas the Master graduates from the other higher education institutions tend to be viewed as new type of graduates.

- (3) As regards long single-cycle programmes, we see that the two-cycle structure was not established in all fields of study. There are single-cycle long study programmes in all countries in which the two-cycle structure was introduced in the framework of the Bologna Process as the dominant pattern. In some instances, traditional programmes persist which will probably be phased out over time. But in all countries, efforts often led to decisions to keep single-cycle programmes in selected fields of study: most frequently in medical fields, but also in some other fields. Most country reports do not delineate traditional and new single-cycle programmes; the terms “traditional study programmes” and “single-cycle programmes” are not clearly distinguished in the country reports.

The authors of the Bologna Declaration of 1999 had obviously expected complications in the implementation of Bachelor programmes in universities and therefore had stressed that: “The degree awarded after the first cycle shall also be relevant to the European labour market”.

In comparing the ten country reports, we note that the introduction of the university degree posed the *strongest challenge* in those countries where no short programmes existed previously in universities but did in other higher education institutions and where now, as a consequence of the Bologna reform, Bachelor programmes in universities co-exist with Bachelor programmes in other types of higher education institutions. This holds true most clearly in *Austria and Germany*. Here, the central questions are: Do university Bachelor graduates continue to study after the award of the Bachelor degree more often than other Bachelors, and are they less successful professionally? And: How does the professional success of university Bachelor graduates differ from that of Master graduates?

The *challenge is less striking* if some short programmes had already existed and/or if there is no clear division between university Bachelor programmes and Bachelor programmes from other types of higher education institutions (or in the case of France between general and vocational Bachelors). This can be observed for seven of the ten countries addressed in this comparative analysis. Here, the question is: What share of Bachelor graduates continues their studies? But either this share cannot be compared with respective shares of other Bachelor graduates because such a comparison group does not exist, or the difference between the professional success of university Bachelor graduates and other Bachelor graduates is likely to be smaller because there was already a tradition of transfer to employment on the part of university short-programme graduates prior to the Bologna Process. Therefore, more attention or at least the same degree of attention is paid to the second question.

MOBILITY

Graduate surveys in nine of the ten countries addressed in this comparative analysis provided some information on the share of graduates who had been *outward mobile* to another country or other countries *during their course of study*. There are problems, though, in the comparability of data because some countries report mobility for the purpose of study, others mobility for the purpose of study and other study-related activities, and others make a distinction between study and other study-related activities. Moreover, definitions of study abroad vary according to the minimum duration between two weeks and a whole semester. These differences have enormous implications: for example, it seems justified to assume that the share of those going abroad for a period of study and/or other study-related activities is about twice as high as that of those going abroad only for the purpose of study.

Table 2 provides an overview of the share that had been temporarily outward mobile for the purpose of study, whereby as a rule study abroad for at least one semester is referred to. Three findings are worth mentioning:

- The share of those studying temporarily abroad during the course of study *varies substantially by country*. In three countries – the Netherlands, Austria and Norway – the target set in the Bologna Process in 2009 – i.e. a quota of 20 per cent in the year 2020 – is already reached or exceeded for Bachelor graduates. In Germany, it is about 15 per cent. One can argue that the 20 per cent target is already reached in Germany if one takes into consideration the transition from Bachelor to Master programmes and those German graduates who had studied abroad for their whole study period. In the other countries – Czech Republic, France, Italy, Poland and the United Kingdom – the share of Bachelor graduates having spent a study period abroad is only about 5 per cent or less. Even if one takes into consideration the factor above with respect to Germany, the share of mobile students is still clearly below the Bologna target for the year 2020.
- In most countries where information is available for university Bachelors and Bachelors from other institutions and programmes, mobility among university Bachelor is higher, but the difference is remarkably small.
- The data provided in the country reports do not allow us to establish whether mobility in the framework of the new Bachelor-Master system is higher than in the long single-cycle system. This is not only because there are differences in the composition of fields, but also because it is not specified whether the data refer only to the Master stage or to the whole study period.

Table 2. *Periods Abroad during the Course of Study of Graduates from selected European Countries (per cent)*

Country	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
<i>AT Austria</i>									
Study	16	22	18	•	•	•	22	23	22
Various activities	24	33	27	•	•	•	37	40	37
<i>CZ Czech Republic</i>									
Study	•	•	6	•	•	18	•	•	•
Work	•	•	6	•	•	15	•	•	•
<i>DE Germany</i>									
Study	16	14	•	17	9	•	19	9	•
Various activities	28	27	•	35	22	•	37	20	•
<i>FR France</i>									
Study	6	2	•	12	22	•	11	•	•
Various activities	20	22	•	29	54	•	32	•	•
<i>IT Italy</i>									
Study	5	•	5	15	•	15	10	•	10
<i>NL The Netherlands</i>									
Study	28	21	•	28	•	28	35	16	•
<i>NO Norway</i>									
Study	20	•	•	25	•	•	•	•	•
<i>PL Poland</i>									
Study	•	•	2	•	•	3	•	•	3
<i>UK United Kingdom</i>									
Study	4	•	•	•	•	•	•	•	•

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

Information on *employment abroad after graduation* provided in the country reports is less comprehensive (e.g. only on six countries) and less homogeneous than that on mobility during the course of study. Table 3 shows that the share of those working abroad at the time of the survey ranged from less than five per cent to less than ten per cent among Bachelor graduates; the respective share is slightly higher among Master graduates. Altogether, the number of persons graduating in the framework of the Bachelor-Master structure who work abroad after graduation seems to be higher than that of persons graduating from long single-cycle programmes. Among the six countries, international graduate mobility is least frequent in Poland.

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 Table 3. *Employment Abroad after Graduation of Graduates from selected European Countries (per cent)*

	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
<i>AT Austria</i>									
Since Graduation	12	12	12	•	•	•	20	22	20
Currently	9	9	9	•	•	•	11	8	11
<i>CZ Czech Republic</i>									
Not specified	•	•	10	•	•	11	•	•	•
<i>DE Germany</i>									
Since graduation	6	13	•	20	23	•	12	12	•
Currently	7	8	•	11	8	•	5	4	•
<i>NL The Netherlands</i>									
Currently	5	3	•	7	•	7	4	2	•
<i>PL Poland</i>									
More than one trip abroad	•	•	3	•	•	2	•	•	2
<i>UK United Kingdom</i>									
Currently	7	•	•	•	•	•	•	•	•

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

GRADUATES' WHEREABOUTS

When the new cycle-structure of study programmes was agreed upon in the Bologna Declaration as a target for Europe, most actors and experts assumed that less than half of all Bachelor graduates would continue their studies. This reflected the experience of countries with a long tradition of Bachelor programmes and degrees (e.g. United Kingdom, the U.S. and Australia) where no more than about 40 per cent of Bachelor graduates obtain a Master or another corresponding degree. However, one assumed from the beginning that the transition rate to Master study would be higher among Bachelor graduates from universities/academic programmes than among those from other higher education institutions/vocational programmes.

The most recent data show that only slightly less than 20 per cent of Bachelor graduates in the United Kingdom continue their studies immediately after graduation. Almost the same proportion embarks on further study or on programmes of professional training within the subsequent years; the overall rate within the first four years after graduation is about 40 per cent. This comparative study shows (see [table 4](#)) that the *rate of further study and training* of university Bachelor graduates

is very high in a number of countries: about three quarters in France (estimate of general Bachelors), Germany (university Bachelors), Norway (university Bachelors), the Czech Republic (even among all Bachelor graduates) and Austria (68 per cent university Bachelors). This seems to be true for the Netherlands as well, although no precise data are available.

Table 4. Whereabouts of Bachelor Graduates from selected European Countries

Country	Total Employment	Solely Employment	Employment + Study	Solely Study	Total Study
<i>AT Austria</i>					
University	56	26	28	40	68
Fachhochschule	66	42	23	31	54
<i>CZ Czech Republic-2008</i> (6-12 months after)					
	•	•	•	•	72
<i>DE Germany</i>					
University	45	18	24	51	75
Fachhochschule	71	52	17	24	41
<i>HU Hungary</i>					
	65	39	16	28	44
<i>IT Italy</i>					
	46	31	15	42	57
<i>NL The Netherlands</i>					
HBO	89	73	16	7	23
<i>NO Norway</i>					
University	62	23	39	34	73
<i>UK United Kingdom</i>					
Full-time study	71	63	8	15	23
Part-time study	82	67	15	6	21

Figures are based on country reports of this volume.

But there are countries where the percentage of university graduates who continue their studies is lower: 57 per cent in Italy and 44 per cent in Hungary (all Bachelors). Obviously, this rate is lower among Bachelors from other higher education institutions or vocational Bachelor programmes. The graduate surveys provide rates for Dutch HBO Bachelor graduates (23 per cent), German Fachhochschule Bachelor graduates (41 per cent) and Austrian Fachhochschule Bachelor graduates (54 per cent).

It is very difficult, however, to estimate the rate of Master graduates at this historical time for four reasons:

- In most countries, it is not feasible to compare current numbers of Master graduates with the number of Bachelor graduates a few years before because the share of persons having gone through the new Bachelor-structure from the first

year of study up to Master degree is still very small (e.g. persons of the 2002/03 or 2003/04 beginner student cohorts or even earlier).

- Some Bachelor graduates embark on further study only a few years after graduation. They are therefore not counted as embarking on further study in graduate surveys undertaken soon after graduation.
- The graduate surveys comprise Bachelor graduates as continuing study, some of whom have chosen a type of study or training which does not lead to an advanced level such as a Master.
- The information for the respective rate of Master awards is valid only years after the award of Bachelor degrees because some Master students may drop out.
- We do not yet know the share of Bachelor graduates who are employed and embark on further study concurrently that will continue study up to a Master degree.

One major surprising finding is the high number of Bachelor graduates in some countries who choose *concurrent employment and further study*. This holds true for almost 40 per cent of university Bachelor graduates in Norway, more than a quarter in Austria, about a quarter in Germany and almost one fifth in some other countries. There is little information about their motives and prospects: How many enrol while being primarily interested in a job search? How many want to study and see employment as a means of funding their studies? How many have opted for both in order to delay the choice between studying up to a higher level and transfer to employment? Other options might also play a role.

As expected, the *overall employment rate* (i.e. including concurrent study) is highest among Bachelor graduates from other higher education institutions (82 per cent in the Netherlands). But there are variations: The employment rates of Bachelor graduates from these institutions and from universities differ moderately in Austria, but more strongly in Germany and even more strongly in the Netherlands. The overall employment rate of university Bachelor graduates is between 40 per cent and 50 per cent in these three countries, hence the share of those solely employed varies by between about one third and two-thirds, and more than 60 per cent in Norway, where almost two-thirds study alongside their job. In comparison, over 70 per cent of university graduates begin to work, while only a small minority study at the same time.

The risk of *being unemployed* after graduation cannot be well established with this comparative study on university graduates. Surveys undertaken six months or one year after graduation quote unemployment rates ranging from 5 per cent in Norway to 14 per cent in Poland and 15 per cent in Hungary. But these figures refer predominantly to unemployment during the first year. This can be illustrated by time series data available in the Czech Republic: The unemployment rate of 2007 Bachelor graduates was 10 per cent six months after graduation, 4 per cent one year after graduation and 2 per cent two years after graduation. As many surveys addressed in this comparative study were undertaken quite soon after graduation, it is not possible to estimate unemployment rates of Bachelor graduates in Europe beyond the search stage.

There were hardly any data on differences in employment rates soon after graduation between Bachelor graduates from universities and those from other higher education institutions: In Germany, the unemployment rate among university Bachelor graduates surveyed about 1½ years after graduation (2 per cent) was lower than among those from other higher education institutions (4 per cent); in Austria, the situation was the opposite about 1½ to 2½ years after graduation: 2 per cent as compared to 1 per cent.

EMPLOYMENT CONDITIONS AND LINKS BETWEEN STUDY AND WORK

In various countries included in this comparative analysis, four themes of employment and work success are addressed for which the criteria of success are the same for Bachelor and Master graduates: whether they have an unlimited contract, whether they are employed full-time or part-time and the links between study and work both vertically and horizontally.

One must bear in mind that the data are likely to give a less favourable impression of the professional success of Bachelor graduates from the outset. First, the Bachelor has not been introduced – varying by country – in some fields where graduates' professional success tends to be high (notably medicine). Second, the data on Bachelor graduates in some countries include those who both study and are employed; many of those have only opted for temporary employment (in other countries only those Bachelor graduates who study solely in order to avoid such a distortion are included). Third, a comparison between Bachelor graduates from universities and those from other higher education institutions must take into account that there are more graduates from universities than from other higher education institutions whose field of study is not geared to certain professional areas.

Information on *full-time versus part-time employment* is available for five countries (see [table 5](#)). In Norway, the data are distorted by the fact that university Bachelors who study and work are included. Among the other countries, the full-time ratio among university Bachelor graduates is 8 per cent lower on average than among Bachelors from other types of higher education institutions or from vocational programmes. It is also 7 per cent lower on average than among university Masters and 4 per cent lower than among graduates from long single-cycle programmes. The Bachelor graduates from other higher education institutions, in contrast, are not employed full-time to a lesser extent than those from their reference groups.

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 Table 5. Full-time Employment of Graduates from selected European Countries
(per cent of employed graduates)

	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
AT Austria	65	83	73	•	•	•	79	91	82
DE Germany	85	90	•	91	91	•	85	92	•
FR France	79	96	•	90	98	•	85	•	•
NL The Netherlands	78	65	•	81	•	81	76	59	•
NO Norway	30	•	•	•	•	85	•	•	•

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

According to the information provided for seven countries, there is no difference between the university Bachelors and their reference groups as far as the share of those employed on *unlimited contracts* is concerned. In some countries, it is similar, as is shown in [table 6](#). In Germany, we note more short-term employment both of university Bachelor graduates and other Bachelor graduates both in comparison to their reference groups at Master level and to those with traditional degrees. In contrast, university Bachelor graduates in the Netherlands are more often permanently employed than university Master graduates and single-cycle university graduates.

 Table 6. Unlimited-term Contracts of Graduates from selected European Countries
(per cent of employed graduates)

	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
AT Austria	80	86	82	•	•	•	77	90	80
DE Germany	55	66	•	68	85	•	65	75	•
FR France	70	80	•	77	91	•	71	•	•
IT Italy	49	•	49	•	•	•	•	•	•
NL The Netherlands	63	63	•	52	•	52	50	66	•
NO Norway	50	•	•	•	•	60	•	•	•
PL Poland	•	•	45	•	•	52	•	•	52

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

Concerning the *links between the level of education and the position of the graduates*, we note a relatively high number of graduates who state that their position matches their level of educational attainment or is even higher. This proportion is about three quarters among university Bachelor graduates and higher among Bachelor graduates from other higher education institutions where only those graduates who are employed full-time are included. In those cases, the share of university Bachelor graduates who consider themselves as appropriately employed is almost identical to the respective quota among university Master graduates, but almost 10 per cent lower on average than among university graduates from single-cycle long programmes. Among the Bachelor graduates from other higher education institutions or from vocational programmes, the proportion of those who consider themselves as appropriately employed is slightly higher in most cases than among university Bachelor graduates, and it only slightly lower on average than among graduates from traditional programme at other higher education institutions (see [table 7](#)).

Table 7. Strong Vertical Link between Level of Educational Attainment and Position among Graduates from selected European Countries (per cent of employed graduates)

	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
AT Austria	77	83	80	•	•	•	86	88	87
CZ Czech Republic	•	•	84	•	•	87	•	•	•
DE Germany	75	81	•	78	85	•	82	86	•
FR France	55	40	•	82	88	•	97	•	•
IT Italy	80	•	80	•	•	•	•	•	•
NL The Netherlands	47	81	•	64	•	64	64	78	•
NO Norway	37	•	•	•	•	58	•	•	•
PL Poland	60	•	•	•	•	•	•	•	•

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

In order to identify the horizontal links between study and work, graduates in various countries were asked to state the extent to which they use the competences they have acquired during their studies in their job. Considerable use is stated on average by more than half the employed Bachelors, but the respective percentage varies between only 35 per cent of solely employed university Bachelor graduates in Germany and 81 per cent of all Bachelor graduates in Poland. In some countries, the rate of strong horizontal links between study and work is similar between Bachelor graduates and those from Master programmes and traditional programmes: in Austria, the Czech Republic, Italy and Poland as well as in the case of Bachelor graduates from other higher education institutions in the Netherlands. In other countries, Bachelor graduates more rarely perceive a close link between

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study and work than graduates from Master programmes and traditional programmes: in Germany and Hungary as well as university Bachelor graduates in Norway and the Netherlands (see [table 8](#)).

Table 8. Strong Horizontal Link between Study and Work Assignments among Graduates from selected European Countries (per cent of employed graduates)

	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
AT Austria	48	51	49	•	•	•	47	54	49
CZ Czech Republic	•	•	65	•	•	67	•	•	•
DE Germany	35	48	•	56	64	•	50	51	•
HU Hungary	•	•	61	•	•	•	76	59	•
IT Italy	40	•	40	•	•	•	•	•	•
NL The Netherlands	54	62	•	66	•	66	66	64	•
NO Norway	65	•	•	•	•	87	•	•	•
PL Poland	•	•	82	•	•	83	•	•	83

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

INCOME AND OCCUPATIONAL GROUP

Given the general conditions of an educational meritocracy, we can expect that those who graduate with a higher degree transfer more often to the highest categories of the occupational hierarchy and have a higher income than those who transfer to employment with a lower level degree. In this respect, occupation and income of graduates systematically differ from the four categories of professional success discussed above. However, all the issues of a possible over-estimation of the employment problems of Bachelor graduates or notably university Bachelor graduates stated above hold true here as well.

It does not come as a surprise to note that in most of the six countries for which the respective information is available a substantially higher share of Master graduates and graduates from traditional university programmes is employed in *managerial and professional occupations* and, a substantially lower share is employed as *associate professionals*. To illustrate this with the example of France: Only about one sixth of Bachelor graduates (both from general and vocational programmes) is employed as managers and professionals, compared to about 60 per cent and about 90 per cent of the graduates from the different categories of Master and single-cycle long programmes. In contrast, about two-thirds of the former but less than one third of the latter are semi-professionals. The respective figures for the UK are 36 per cent and 73 per cent (see [table 9](#)). In Hungary, bachelor graduates are even

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as frequently active as managers and professionals as graduates from traditional university programmes (62 per cent each).

Table 9. Graduates in Managerial/Professional Position and in Associate Professional Position among Graduates from selected European Countries (per cent of employed graduates)

	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
<i>CZ Czech Republic</i>									
Managerial/Prof. Position	•	•	31	•	•	60	•	•	•
Associate Prof. Position	•	•	52	•	•	34	•	•	•
<i>FR France</i>									
Managerial/Prof. Position	17	15	•	63	81	•	91	•	•
Associate Prof. Position	64	67	•	29	15	•	7	•	•
<i>HU Hungary</i>									
Managerial/Prof. Position	•	•	62	•	•	•	62	58	•
Associate Prof. Position	•	•	29	•	•	•	31	34	•
<i>NL The Netherlands</i>									
Managerial/Prof. Position	57	52	•	71	•	71	71	52	•
Associate Prof. Position	11	22	•	10	•	10	9	23	•
<i>NO Norway</i>									
Managerial/Prof. Position	27	•	•	•	•	75	•	•	•
Associate Prof. Position	11	•	•	•	•	13	•	•	•
<i>UK United Kingdom</i>									
Managerial/Prof. Position	36	•	•	73	•	•	•	•	•
Associate Prof. Position	30	•	•	18	•	•	•	•	•

Prof. = Professional

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

Two cases that are distinct from most countries must be cited. In the Netherlands, Bachelor graduates are also less often employed as managers and professionals than graduates from Master programmes and traditional university programmes, but even among the former more than half are managers or professionals (57 per cent of university Bachelor graduates and 52 per cent of Bachelor graduates from other higher education institutions). In Hungary, Bachelor graduates are as frequently employed as managers and professionals as those from traditional university programmes (62 per cent each).

In six of the eight countries for which respective information is available university Bachelor graduates or all Bachelors (if no distinction is made according to

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institutional types) have a clearly lower *income* on average than Master graduates and graduates from long single-cycle programmes. But this difference varies strikingly from about 10 per cent less (in Austria and Poland) to about 30 per cent less (in France and Hungary). In contrast, university Bachelor graduates in Italy and the Netherlands earn as much or even slightly more on average than their reference groups with a higher degree (see [table 10](#)).

*Table 10. Gross Income of Graduates from selected European Countries
(in Euro; arithmetic mean of employed graduates)*

	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
AT Austria (monthly)	2,358	2,748	2,532	•	•	•	2,641	2,888	2,705
DE Germany (monthly)	2,448	2,817	2,718	3,012	3,743	3,346	3,070	3,037	3,053
FR France (net monthly)	1,368	1,575	•	1,904	2,313	•	2,383	•	•
HU Hungary (annual)	•	•	8,884	•	•	•	11,958	9,327	•
IT Italy (net monthly)	1,109	•	1,109	1,057	•	1,057	1,110	•	1,110
NL The Netherlands	2,589	2,040	•	2,439	•	2,439	2,476	1,938	•
NO Norway (annual)	38,259	45,228	•	•	•	•	46,012	•	•
PL Poland (net hourly)	•	•	2,23	•	•	2,40	•	•	2,38

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

In four countries a distinction is made between the income of university Bachelor graduates and that of Bachelor graduates from other higher education institutions or vocational programmes. In three of these countries (Austria, Germany and France), university Bachelor graduates earn more than 10 per cent less on average than other Bachelor graduates (mainly because of the different compositions of fields of study), but in the Netherlands, the other Bachelor graduates earn about 20 per cent less than university Bachelor graduates.

Information on the income of graduates from other higher education institutions both with a Bachelor degree and a traditional degree is available for only three countries. In Austria and the Netherlands, the average income between these two groups does not differ substantially. In Germany, however, Bachelor graduates from other higher education institutions earn 7 per cent less on average than those from traditional programmes of these institutions because most Bachelor programmes are about one year shorter than the traditional programmes at Fachhochschulen.

SATISFACTION

Finally, the proportion of those who are globally satisfied with their job is quite high. There are differences by countries, with an average rate of satisfaction above 80 per cent in France and Hungary, above 70 per cent in Austria and the Czech Republic, and above 60 per cent in Germany and the Netherlands (see [table 11](#)).

Table 11. High Overall Job Satisfaction of Graduates from selected European Countries (per cent of employed graduates)

	Bachelor graduates			Master graduates			Single-cycle/ traditional degrees		
	Univ.	Other HEIs	All	Univ.	Other HEIs	All	Univ.	Other HEIs	All
AT Austria	71	73	72	•	•	•	73	78	74
CZ Czech Republic	•	•	73	•	•	71	•	•	•
DE Germany	63	69	•	66	65	•	66	67	•
FR France	76	82	•	82	88	•	97	•	•
HU Hungary	•	•	81	•	•	•	84	79	•
NL The Netherlands	63	65	•	70	•	70	69	64	•
NO Norway	48	•	•	•	•	74	•	•	•

Univ. = University

Other HEIs = Other Higher Education Institutions (e.g. Fachhochschulen, Grandes Écoles etc.)

Figures are based on country reports of this volume.

Altogether, the rates of satisfaction do not vary substantially according to level of degree and type of institutions. The clearly higher rate of satisfied Master graduates as compared to Bachelor graduates in Norway could be due to the fact that the figure for Bachelor graduates includes those who study and work and therefore take on temporary jobs to fund their subsequent study.

CONCLUSION

This comparative analysis of the professional situation of Bachelor graduates from 10 European countries can be viewed as an early, almost premature snapshot. It refers on average to 2007 graduates and to their first two years after graduation. If we wanted to have information on cohorts where most students have already started their studies in a Bachelor-Master system and if we wanted to include graduates who had moved to Master studies a few years after the award of the Bachelor degree, we would have to wait until about the year 2015. But this account in the year 2010 also provides very interesting information.

In looking at countries with a long tradition of Bachelor and Master degrees one could have expected that only a minority of Bachelor graduates would opt for further study. But this comparative study shows that most Bachelor graduates in the countries that have recently introduced a cycle-system of study programmes and

degrees continue to study after the award of the Bachelor degree. In various countries, this rate is about three quarters among university Bachelor graduates. Certainly, a mix of warnings by university professors about an incompleteness of Bachelor study at universities, half-hearted curricular reforms, cautious views by employers and uncertainties and high aspirations by students has led to such high rates of further study.

A look at the transition from Bachelor study to employment, however, shows that employment after the Bachelor award is by no means rare even among university Bachelor graduates: about half on average are employed. As one might expect, this proportion is higher among Bachelor graduates from other institutions of higher education, but the difference between Bachelors of the two types of institutions (where they exist) is great in some countries and small in others. How can high rates of further study and high rates of transition to employment among university Master graduates co-exist? The interesting answer to this question is: varying by country between about one third and about two-thirds of those who are employed study concurrently. We do not know the extent to which Bachelor graduates postpone their decision to make a choice, work to fund their studies or intend to be both professionally active in an appropriate position and with a close link to study, competences and work tasks as well as pursuing study to a higher degree level.

In order to compare the professional success of Bachelor graduates with that of Master graduates and those from single-cycle programmes, it is appropriate to include only those professionally active Bachelor graduates who do not study concurrently. In fact, some country reports analyse the professional success of those Bachelor graduates who are only employed.

Given the usual relationships between level of educational attainment and level of employment in economically advanced countries shaped by principles of education meritocracy, one could expect from the outset that most Bachelor graduates would be employed as associate professionals while most Master graduates would be employed as managers and professionals. Also one could have expected that the Bachelor graduates earned about 10-20 per cent less than the Master graduates.

Actually, the average across the nine European countries in which the Bachelor-Master structure of study programmes and degrees was recently introduced fits this expectation. Most striking, however, is the enormous variety between countries. The difference in income of Bachelor graduates and graduates from university Master programmes and long single-cycle programmes ranges from about 30 per cent less to a slightly higher income. There are cases where employment in professional and managerial positions varies dramatically according the level of degree. And there are cases where the many graduates from Master programmes or long single-cycle programmes work as associate professionals or where most Bachelor graduates are employed as managers and professionals.

Altogether, we note that the professional success of Bachelor graduates in the Central and Eastern European countries – the Czech Republic, Hungary and Poland – differs to a lesser extent from that of the Master graduates and the graduates from long single-cycle programmes than in Western European countries. This might be a consequence of the fact that rates of highly qualified persons among the labour

force have been lower in the former countries for a long time and that the Bachelor graduates fill a gap caused by traditional shortage. However, as the enrolment rates have increased substantially in these countries in recent years, this favourable situation of Bachelor graduates in Central and Eastern European countries might fade in the near future.

If the new Bachelor-Master system was fully accepted by all groups of actors involved, one could expect that Bachelor graduates would not differ much from Master graduates or graduates from long single-cycle programmes with respect to employments conditions such as full-time study and permanent employment. Also, one would not expect any difference in the extent to which they perceive holding a position that matches their degree level and the extent to which they note a close link between the substance of their study and their competences and job requirements .

Actually, we note again an enormous diversity by country and the patterns are not consistent according to these four measures of professional success. We note many instances where university Bachelor graduates perceive professional success as frequently as graduates from higher-level programmes. But some differences underscore problems on the part of the university Bachelor graduates: For example, only 35 per cent of the Bachelor graduates from German universities report a high use on the job of their competences acquired in the course of study, compared to about 50 per cent or more of the other categories of graduates. The data show even more striking differences of this kind in some respects in Norway, but this might be due in some cases to the fact that some of Norwegian findings include all employed Bachelor graduates (i.e. including those who are employed and studying). On average, the data for university Bachelors seem 5-10 per cent less favourable than those for graduates with higher degrees. This difference shows that the university Bachelor has not become a fully normal phenomenon in the labour market. But the professional success of Bachelor graduates and among them university Bachelor graduates is more favourable than one can assume on the basis of the public discourse where negative assessments are widespread.

The employed Bachelor graduates obviously do not rate the situation negatively. A high degree of overall job satisfaction varies between countries by about 60 per cent and more than 80 per cent, whereby the ratings of the Bachelor graduates and of university Bachelor graduates hardly differ from those of other categories of graduates in their respective country.

As pointed out in the introduction, educational statistics are the most frequently employed sources to discuss mobility in framework of the Bologna Process. This holds true, even though the available statistics for students have enormous weaknesses: Often attention is paid to nationality rather than to mobility for the purpose of study. Moreover, the available international statistical data are almost useless with respect to temporary mobility – the most important issue of intra-European mobility in the Bologna Process.

Graduate surveys, however, are the best possible source to measure the fulfilment of a mobility target set in the Bologna Process; graduate surveys can establish what proportion of (eventually graduating) students have been abroad at least once

for a period of study. Actually, this comparative analysis has shown an enormous range in this respect: In some countries the Bologna target for the year 2020 – that 20 per cent have studied abroad during their course of study – had already been surpassed more than 10 years earlier. In other countries, this rate is still below five per cent.

Finally, graduate surveys can gather information about professional mobility abroad after graduation. This is not explicitly expressed in the Bologna Process, but it has played a substantial role in the context of EU policies. Past analyses of labour market statistics have suggested that less than five per cent of degree holders in Europe are employed abroad. This comparative study does not suggest that these rates have substantially increased in recent years.

All these findings must be reported with caution. This study addresses only ten countries because the number of European countries where conceptually and methodologically satisfying national graduate surveys have been undertaken recently is limited. Also multi-country surveys have not been undertaken for recent graduate cohorts. The surveys undertaken in the 10 countries differ so much from each other that comparability was quite a challenge for this comparative study. As this comparative study demonstrates both the potentials of comparative graduate surveys and the current limitations, we can hope that it will have a mobilising effect for methodological improvement, for increasing the similarity among the national graduate surveys, for establishing national graduate surveys in more European countries or to move – surveys of that kind in the past have addressed those graduating around the mid-1990s and around the year 2000 – towards the establishment of a regular European graduate survey. We hope that better surveys will enable experts to undertake a more solid comparative analysis around 2015 when the impact of the Bologna Reform on graduate employment and work as well as on mobility during the course of study and after graduation can be fully explored.