SPOTLIGHT ON:

Higher education and the graduate labour market in the Western Balkans

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In recent years, the Western Balkan countries have been badly affected by the spillover effects of recession in the Eurozone, and the economic recovery that is underway has been subject to a series of setbacks. Weak economic performance has been reflected in low employment rates, high levels of unemployment, and the attendant risk of a depreciation of the human capital of unemployed and inactive workers. The conventional wisdom is that structural reforms are a key element of the policies that are needed to support recovery, and upgrading labour force skills is an essential part of this process. A recent study carried out by the author and colleagues has sought to contribute to this debate by considering the contribution of higher education systems to upgrading labour force skills, analysing the problems facing higher education graduates in accessing the labour market, and the problems facing employers in dealing with skill gaps among their new graduate employees (Bartlett et al., 2016). The data used in the study were collected through a survey of recent HE graduates who had completed their studies since 2010 (4,602 respondents), and a survey among organisations that employ HE graduates (1,074 respondents). These two large-scale cross-country surveys were implemented from March to August 2015. Semi-structured interviews were carried out with HEI management staff, employers associations, ministries, trade unions, and EU Delegations. The project also assembled a database with details of all study programmes offered by all HEIs in the region. This article summarises the findings of the study.

1. The provision of higher education

Over the last two decades, the number of higher education institutions (HEIs) in the Western Balkans has increased in response to growing demand for higher education, especially in the early to mid-2000s when many new graduate-level jobs were created.³ There are now 240 active HEIs in the Western Balkans, or 1.3 HEIs per 100,000 of the population, delivering over five thousand study programmes - half at Bachelor level, and two-fifths at Master level. Almost one third of study programmes are delivered by private HEIs, which account for about three fifths of all HEIs in the region, though public HEIs remain dominant in terms of student enrolments. The Bologna reforms have succeeded in introducing the three-cycle system of study programmes in many HEIs, most commonly through three-year study programmes at "first cycle" level (Bachelor), although many HEIs still offer four-year study programmes. Almost half of "second cycle" study programmes (Master) are of two-year duration, but there are also many one-year and one-and-a-half year programmes. In Serbia, most HEIs have opted for the 4+1 model (GoRS, 2012: 103).⁴ Of 664 Bachelor level study programmes identified in the database, 37% are three-year programmes, while of 605 Master level programmes only 8% are two-year programmes (aligned with three-year bachelor programmes). This variety of solutions complicates the HE system. Students who complete a 3-year Bachelor degree but wish to continue studying at a university that offers a 1-year Master degree have to pass additional exams to obtain a full set of ECTS credits.⁵ The different ways of organising studies also create difficulties in obtaining reliable statistics on student enrolments and completion rates at different levels of higher education in Serbia.

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³ Higher education institutions (HEIs) include universities, faculties and a range of tertiary level colleges.

⁴ After the adoption of the Law on HE in 2005, there was uncertainty about the financial resources that would be available for the new MA study programmes at public HEIs. This led many HEIs to adopt the 4+1 model to be on the safe side (Interview, public HEI).

⁵ This problem is recognised in the Strategy for the Development of Education in Serbia until 2020 (2012, p. 103): "Having various possibilities for organising studies hampers the continuation of studies at the Master's level when students move from the 3+2 model to 4+1 and vice versa".

Table 1: HEIs in the Western Balkans, 2015

_	HEIs	Public HEIs	Private HEIs	HEls per 100,000 population
Albania	39	16	23	1.3
Bosnia and Herzegovina	47	10	37	1.2
Kosovo	41	12	29	2.2
Macedonia	16	5	11	0.8
Montenegro	12	1	11	2.1
Serbia	85	51	34	1.2
Western Balkans	240	95	145	1.3

Source: project database.

Student numbers have grown rapidly over the last decade as demand for higher education has increased. By 2015, about three quarters of a million students were registered to study at HEIs in the Western Balkans at all levels of study (see Graph 1). The increase in student numbers is now beginning to level off, except in Kosovo where growth continues.





Source: Country reports. Note: Note: Note: AL=Albania, BA= Bosnia and Herzegovina, XK= Kosovo, MK=the former Yugoslav Republic of Macedonia, ME=Montenegro, RS=Serbia and WB=Western Balkans as a whole. The data show the total number of students currently registered to study at all HEIs at all years within Bachelor programmes. Data for Albania are estimates based on the share of the total number of students enrolling in Bachelor studies; data for Kosovo for 2014-15 are estimated.

Almost half of students in the region, on average, enrol in Humanities, Social Science, Business, and Law (HSS) subjects (compared to only 43% in the EU-28), while 24% enrol in Science, Technology, Engineering and Mathematics (STEM) subjects (compared to 23% in the EU-28). In Serbia, a relatively lower proportion (40%) of students enrol in HSS study fields⁶ and a relatively higher proportion (30%) of students enrol in STEM subjects.⁷ This likely reflects the relatively higher demand for graduates in engineering and science fields in Serbia than in other Western Balkan countries. In the Western Balkans as a whole, most students enrol in public HEIs, but about one fifth of students enrol in private HEIs, not much different to the situation in the EU. In the 2013-14 academic year about 220,000 students were newly enrolled, while fewer than 116,000 students completed their study programmes, giving an overall "completion ratio" of only 53% across the region, similar to the lowest completion rates in the European Higher Education Area (found in Italy and Hungary).

It has been widely observed that HEIs in post-socialist countries typically fail to respond sufficiently to labour market changes through curricula reform or the adoption of new teaching methods. Many HEIs practice traditional modes of teaching and use out-dated curricula, and those who try to introduce change are often perceived as a threat to established structures. Due to poor teaching methods, many HE graduates lack skills that are relevant to the needs of the labour market (Sondergaard and Murthi et al., 2012).

⁶ Within this total, 83% of students completed HSS study fields at private HEIs, compared to 36% at public HEIs.

⁷ Within this total, 6% of students completed STEM study fields at private HEIs, compared to 33% at public HEIs.

The graduate survey shows that graduates in the Western Balkans are only moderately satisfied with the quality of higher education they receive. Those lucky enough to be taught in small classes and to have access to an internship or work experience during studies report significantly higher levels of satisfaction with the quality of their higher education. Many graduates consider that their job prospects would have been improved by better teaching methods, a more relevant curriculum and by having better qualified professors. They also consider that HEIs make too little use of analytical and problem-solving teaching methods.



Graph 2: Whether improvements in teaching methods are needed to improve job prospects, by ownership of HEIs

Source: Graduate survey. Note: AL= Albania, BA= Bosnia and Herzegovina, XK= Kosovo, MK = The former Yugoslav Republic of Macedonia, ME = Montenegro, RS = Serbia. The question is scored on a scale 1="no improvement needed" to 5 = "very much improvement needed". Differences between public and private HEIs are statistically significant at 1% level, N=3,758.

Graduates hold a strong view that teaching methods should be improved and that this would improve their job prospects (see Graph 2). In Albania and Kosovo the greatest improvement is considered necessary at private HEIs. In recognition of their failings, the Albanian government has recently closed down many poorly performing private HEIs, and similar measures may be needed in Kosovo too. Elsewhere in the region, graduates consider that the greatest need for improved teaching methods is in public HEIs.

In the employer survey, respondents were asked their opinions about the most useful modes of teaching and learning. In their opinion the most useful teaching methods are internship and work placement, which scored 4.5 on a scale from 1 = "not at all important" to 5 = "very important", followed by problem solving and creative thinking teaching methods (scoring 4.4). Classes in small groups (3.9) are thought by employers to be more useful than lectures in large groups (2.7). Rote learning of facts is considered by employers to be of little value (2.0) in imparting the skills needed by business.

2. Transition from higher education to the labour market

The countries in the Western Balkan region have among the highest unemployment rates in Europe (see Table 2). Having a higher education provides some protection against unemployment: the average graduate unemployment rate in the Western Balkans was 16.2%, almost eight percentage points below the general unemployment rate. However, the graduate survey shows that the unemployment rate among *recent* graduates was 37.1% for the region as a whole, ranging from as high as 50.7% in Kosovo to a low, but still alarming unemployment rate of 25.9% in Montenegro. This indicates the extremely difficult prospects facing new HE graduates in labour markets in the region.

	Unemployment rate, total (a)	Unemployment rate of all HE graduates (a)	Unemployment rate of recent HE graduates (b)
Albania	17.5	17.2	27.7
Bosnia	27.7	18.4	40.1
Kosovo	35.3	14.7	50.7
Macedonia	26.1	21.4	37.2
Montenegro	17.6	10.3	25.9
Serbia	19.4	15.0	42.4
Western Balkans	23.9	16.2	37.1
EU-28	9.4	5.6	n/a

Sc age group, and for EU-28 are for the 15-74 age group (Eurostat variable code lfsa_urgaed).

HE graduates in the Western Balkans face a precarious transition to stable employment. The graduate survey shows that currently employed graduates take nine months to find their first job. On average, they have held two different jobs since leaving their HEI and 57% have experienced at least one period of unemployment since entering the labour market. Currently unemployed graduates have a worse experience, having on average been unemployed for one year and four months, while one half has held at least one job; on average they took seven months to find their first job. These data reveal that the transition from HEI to the labour market is far from being a smooth process for many graduates.

A major barrier facing students in their transition from higher education to the labour market is their lack of work experience. In a competitive market employers often prefer graduates with work experience, which handicaps graduates who have not had any work experience during their studies. More than half of employers believe that previous work experience is important to them in graduate recruitment decisions. The graduate survey shows that graduates with work experience are more likely to find a job, and one well matched to their level of qualification, than graduates without any work experience. Various initiatives in the region to introduce internships during studies have often failed due to a lack of willingness by private employers to offer internships to final year students.





In searching for a job when they exit the HE system, graduates receive relatively little support from formal career guidance institutions either within or outside their HEI. Consequently graduates are more reliant on their friends or family to assist in their job search, a factor that hinders a level playing field in the job market and promotes clientelism and nepotism in graduate recruitment. The graduate survey shows that, throughout the Western Balkans, the family is the main source of assistance in finding a job, closely followed by friends (see Graph 3). This highlights the importance of personal connections, and to a certain extent, nepotism, in the job search process. In contrast, assistance from graduates' professors or careers services at HEIs or from public or private employment agencies is extremely low.

Some HEIs in the Western Balkans have a career centre that aims to provide information to students and graduates about suitable careers and internships. Some career centres provide training in writing a CV, organise trial interviews with companies, organise career days and job fairs. However, most HEIs fail to monitor the effectiveness of their career centres, or identify which of their activities are most effective in helping graduates find a job. This suggests that the activities of career centres should be upgraded and monitored so that HEIs can become more aware of their successes and failures in order to better assist their students find a job upon graduation.

Graduates' transition to the labour market is hindered by a low level of cooperation between HEIs and employers in relation to curriculum design and recruitment. Few employers discuss curricula with HEIs on a regular basis. Yet, most employers say that such cooperation would improve the matching of graduates to the job. This suggests that there is a role for public policy to provide incentives and support for improved HEI-business cooperation over recruitment since this could provide gains to both parties that they are unwilling or unable to achieve by themselves.

3. Graduate skill gaps

About one third of employers are dissatisfied with the skills of their new graduate recruits, although employers in high technology industries and employers that cooperate relatively more with HEIs tend to be more satisfied with the skills of graduates than others. Most employers perceive graduates' interactive skills, such as decision-making skills, analytical skills, team working skills, and planning and organisational skills to be relatively weak, and graduate skill gaps are correspondingly high in these areas. Such skills are often neglected in HE systems where traditional teaching methods emphasise rote learning rather than student-centred approaches. The employer survey shows that employers think that HEIs could better support the development of interactive skills among graduates by modernising their teaching methods, using small interactive class groups rather than large anonymous lecture rooms for more of the teaching than is currently practiced, and adopting practical problem solving approaches rather than purely theoretical learning. In addition, all types of skill gaps are expected to increase in the future, as technological development is likely to outstrip the ability of HE systems as currently configured to adapt to changing labour market needs.

The limited possibilities that students have to engage in internships or relevant work experience during their studies also create obstacles to graduate employment. Employers frequently complain about the skills of HE graduates, emphasising their lack of work experience, practical knowledge and even lack of motivation to find a job in certain cases. The employer survey shows that 52% of employers in the Western Balkans attach "a lot" or "very much" importance to having previous work experience when making a decision to recruit a new graduate. Having some work experience is therefore important for HE graduates' labour market outcomes. This view is supported by the findings from the graduate survey, which shows that 55% of respondents who had at least some work experience held a job, compared to 46% of those who had had no work experience (p<0.01).⁸ Work experience (or internship) hold a job that is well matched to their level of qualification, only 40% of those with no work experience hold a job that is well matched in this sense (p<0.01).

The employers survey asked about the importance of different types of skills for business activity and the skills that graduates actually have. The difference between the importance of the *desired* skills and graduates' *actual* skills provides a measure of the current skill gap among graduate employees. Skill gaps in the Western Balkans are plotted in Figure 10, which shows that they are found in all dimensions of skills.⁹ The analysis distinguishes between "cogniti-

⁸ The terminology "p<0.01" indicates that the probability that the differences in proportions observed in the sample do not represent true differences in the underlying population is less than 1%.

⁹ We refer to a distinction between "cognitive" and "interactive" skills, rather than the commonly used terms "hard" and "soft" skills as more accurate descriptors of the different classes of skills involved. This terminology is proposed in Green (2013: 23-24).



Graph 4: Graduate skill gaps in the Western Balkans

ve" and "interactive" skills. Cognitive skills include numeracy, literacy, foreign language skills, computer skills, and sector-specific skills (e.g. engineering skills); interactive skills include communication skills, analytical and problem solving skills, ability to adapt to and act in new situations, decision-making skills, team working skills, and planning and organisational skills.

Graph 4 reveals relatively high skill gaps in interactive skills such as planning and organisational skills, decision-making skills, analytical and problem-solving skills and adaptability. All types of skill gaps are expected to increase in the future (i.e. over the three years following the survey, up to 2018). The greatest expected increase in skill gaps is in foreign language and decision-making skills. All this points to deficiencies in the quality of HE systems, especially in relation to teaching interactive skills.

The general pattern is that (i) current interactive skill gaps are greater than current cognitive skill gaps, (ii) future expected skill gaps of all types are greater than current skill gaps (i.e. the problem is expected to become

greater over time) and (iii) future interactive skill gaps are expected to be greater than future cognitive skill gaps. Graduates' skill gaps of all types seem to be large and growing in relation to employer needs. The problem is more serious in relation to interactive skill gaps than cognitive skill gaps, reflecting the emphasis among HEIs on imparting theoretical knowledge, rather than the practical knowledge that might better assist the graduates in their future careers. The policy implication is that HEIs should restructure their learning pathways so that a larger proportion of student time is spent on developing their interactive skills. This needs to be built into the curricula in cooperation with employers so that HEIs provide a new mix of skills, more appropriate to the changing labour markets. This should not imply a reduction in HE quality, rather a greater appreciation of the role of interactive skills as a key feature of modern graduate jobs.

These findings reflect research carried out elsewhere in Europe, where interactive skills are becoming increasingly important for graduate employability. Such skills can rarely be compensated by high grades or by a relevant study field, since such achievements may be outweighed by the negative effect of poor interpersonal skills on work teams and organisational goals (Humburg et al., 2013). A number of "employability" initiatives have been developed in EU countries to address this issue and improve the provision of interactive skills of graduates. The most common initiatives include co-design of curricula between HEIs and employers, project-based learning, sandwich courses¹⁰ and placement periods as well as exchange of staff between academia and business.

4. Skill mismatch

Skill mismatch¹¹ is widespread in market economies (McGuiness, 2006). "Vertical skill mismatch" refers to a situation in which an employee has a qualification either above or below the skill level necessary to carry out the job. Skill mismatch is important for the economy as a whole as well as for the individuals concerned, since there is strong evidence that there is an inverse relationship between skill mismatch and productivity levels at the country level (McGowan and Andrews, 2015). Vertical mismatch has been widely reported in post-socialist economies where newly created jobs typically require different skills to those that have been destroyed during the transition (Lamo

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¹⁰ A "sandwich course" is an undergraduate programmes during which spells of work experience outside the HEI in a company are a mandatory part of the curriculum. Such work experience can be for an entire academic year for example as the third year of a four-year Bachelor programme or for shorter spells depending on the course content and objectives.

¹¹ It should be noted that much of the discussion of skill mismatch is really framed within the context of "qualification mismatch". However, the term "skill mismatch" is commonly used throughout the literature, where "qualifications" is taken as a proxy for "skills". The OECD has recently begun to carry out skill surveys that get around this problem. In our graduate survey, for vertical mismatch we ask whether the qualifications of the graduate match the skills needed by the job, in order to pin down the "skill" aspect of the issue.

and Messina, 2010). Vertical mismatch is costly to individuals, as over-educated graduates typically earn lower wages relative to the earnings they could expect if they were employed in a job requiring their level of qualification (McGuiness, 2006). Vertical mismatch seems to be more persistent in transition countries than in more developed countries (Kiersztyn, 2013).

The graduate survey showed that only 48% of graduates are in a vertically well-matched job, while 37% are overqualified and 15% under-qualified (see Graph 5). Under-qualification is as serious a concern as over-qualification. Among graduates who studied in the broad field of *Information & Communication Technologies* as many as 30% are under-qualified in relation to the skills needed by their job. This is a worrying finding, suggesting that HE systems fail to impart the skills needed in a key field contributing to high value-added employment.





Source: Graduate survey. Note: AL=Albania, BA= Bosnia and Herzegovina, XK= Kosovo, MK=the former Yugoslav Republic of Macedonia, ME=Montenegro, RS=Serbia and WB=Western Balkans as a whole

Having a well-matched job has implications for earnings. The graduate survey shows that graduates who are well matched have higher initial earnings than those who are mismatched, with median monthly earnings of \notin 300, compared to \notin 250 for over-qualified graduates and \notin 240 for under-qualified graduates. The differences persist, but narrow somewhat as graduates sort themselves into better-matched subsequent jobs: for the current job, well-matched graduates have median monthly earnings of \notin 400, compared to \notin 370 for over-qualified graduates and \notin 350 for under-qualified graduates.¹² The differences in earnings may be a measure of the productivity gap between well-matched and poorly matched graduates, and therefore of the potential gain from ensuring that the matching process works more efficiently for HE graduates. In addition, graduates whose first job is not well matched are more likely to become unemployed or to drop out of the labour market than others.

Several factors affect the likelihood of a graduate achieving a good match on the labour market. Having above average performance at HEI, studying in small class groups, being exposed to teaching methods that use problem solving and creative thinking methods, having an internship or work experience during studies, receiving support from professors or from the pubic employment service all increase the likelihood of finding a well matched job. A major cause of mismatch is the overall lack of jobs, which provides an incentive for graduates to take up any job that is available. Yet simply increasing the number of jobs without tackling the underlying causes of mismatch, improving skill attainment and raising the quality of HE provision is unlikely to secure a more effective utilisation of the available human capital.

¹² Other studies of skill mismatch in transition countries also find a wage penalty associated with over-qualification, see e.g. Lamo and Messina (2010).

5. Conclusions – reforms of HE systems are badly needed

The findings of the research cast a worrying perspective on the ability of higher education systems in the Western Balkans to deliver the qualified personnel that are needed to support future economic growth. The higher education systems produce too many graduates relative to the needs of the labour market, leading to high graduate unemployment rates throughout the region. There is an oversupply of graduates from most study fields but especially from *Business, Administration & Law.* Many students drop out of studies leading to a low completion rate; of those students who do graduate many face the prospect of unemployment; of those who do find a job, many are in jobs that are not matched to their level of qualification, reducing their wages and job prospects in relation to graduates in well-matched jobs. With an overall completion ratio across the region of 53%, an employment rate of recent graduates of 52% and a matching rate of vertically well-matched graduates of 48%, it could be said that the internal efficiency of the combined higher education and labour market systems (the HE-LM system) is just 13%.¹³ In other words, of every hundred new students entering the higher education systems in any one year, it can be expected that only thirteen will eventually graduate and find a well-matched job. In order for the higher education systems to make a better contribution to building human capital and to the competitiveness and growth of the region's economies, significant reforms of higher education systems and graduate labour markets are needed, while better cooperation between employers and HEIs should be encouraged.

Overall, the research findings suggest that further measures need to be taken to ease graduates' transition to the labour market. For example, HEI-business cooperation should be increased in order to ensure that there is a better match between the skills of the graduates and the needs of employers; graduate career guidance services should be better developed; more opportunities should be provided for higher education students to gain work experience before entering the labour market after graduation; teaching methods within higher education systems should be modernised to provide graduates with more interactive skills; and on-the-job post-graduate training opportunities should be made more widely available in coordination with employers' training policies.

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¹³ The efficiency of the HE-LM system can be assessed as the product of these three proportions: $0.53 \times 0.52 \times 0.48 = 0.13$.

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