Structural Indicators on Graduate Employability in Europe – 2016
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This publication is based on a chapter in the Eurydice report *Structural Indicators for Monitoring Education and Training Systems in Europe 2016*. The report, which was published in November 2016, provides background information to the *Education and Training Monitor 2016*. It examines education structures, policies and reforms in five key areas:

1. Early childhood education and care
2. Achievement in basic skills
3. Early leaving from education and training
4. Higher education
5. Graduate employability

The following chapter is re-printed as a separate publication to draw attention to the specific policy area of graduate employability and to reach those who are interested in policy issues in this field.

The information covers 40 European education and training systems. It has been collected through a questionnaire completed by national experts and representatives of the *Eurydice Network*.

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This document is published by the Education, Audiovisual and Culture Executive Agency (EACEA, Education and Youth Policy Analysis).

Please cite this publication as:


This document is also available on the Internet (http://eacea.ec.europa.eu/eurydice).

Text completed in October 2016.


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INTRODUCTION

Employability plays a central role in the Europe 2020 strategy as well as in the Education and Training 2020 (‘ET 2020’) (1) and higher education modernisation strategies (European Commission, 2011). Within the ET 2020 strategy, the Council of the European Union adopted a benchmark on graduate employability in 2012 (2). According to this benchmark, ‘by 2020, the share of employed graduates (20-34 year-olds) having left education and training no more than three years before the reference year should be at least 82 %’ (3). In this context, the term ‘graduates’ refers not only to those finishing higher education (HE) but also to those graduating with upper secondary or post-secondary, non-tertiary qualifications. Public authorities and higher education institutions (HEIs) have a major role to play in achieving this goal.

European Commission policy stresses the role of higher education in equipping graduates with the knowledge and transferable core competences they need to succeed in high-skill occupations. It also underlines the importance of involving employers in the design and delivery of higher education programmes, and ensuring that programmes include an element of practical work experience. Furthermore, the monitoring of graduates’ career development by HEIs has also been identified as crucial in increasing the relevance of programmes (European Commission, 2011). The employability of graduates is also an important issue in the European Commission’s New Skills Agenda for Europe (4), which proposes various actions to improve the skills of graduates to meet labour market needs.

The issues being addressed therefore extend beyond the simple monitoring of graduate employment rates. At a time where the economic crisis has had a very significant impact on youth unemployment, there are many areas of action which can help countries regain ground, and support young people in finding employment. The proposed selection of structural indicators is an illustration of the broad range of policy measures that can help improve graduate employability.

In the context of this exercise, many structural indicators could be considered relevant, and the formulation, development and use of indicators for this purpose is challenging. In the 2016 data collection, the chosen structural indicators describe the following issues related to publicly funded higher education institutions and publicly subsidised private institutions with over 50 % public funding:

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(3) Ibid., p. 10.
(4) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions: A New Skills Agenda for Europe, COM (2016) 381 final, 10.6.2016.
Though the benchmark on graduate employability concerns both higher education graduates and those with upper secondary or post-secondary, non-tertiary qualifications, the indicators selected for this exercise are related to *higher education graduates only*. The information presented in this section is also limited in terms of scope; further details on these policy areas can be found in the *Modernisation of Higher Education in Europe: Access, Retention and Employability* report (European Commission/EACEA/Eurydice, 2014, 2015a) as well as in the *Bologna Process implementation Report* (European Commission/EACEA/Eurydice, 2015b).

1. **USE OF REGULAR LABOUR MARKET FORECASTING**

The first indicator linked to graduate employability concerns **labour market forecasting**. This process involves

estimating the expected future number of jobs available in an economy [in the medium or long term] and their particular skill or qualification requirements (demand). Skills needs forecasts are complemented by forecasts of the number of people (supply) with particular skills. The comparison of demand and supply can indicate potential imbalances or skill mismatches in future labour markets (Cedefop 2012, pp. 11-12).

This indicator looks specifically at whether:

1) Countries carry out regular labour market forecasting;

2) Educational authorities and recognised stakeholders make systematic use of information from labour market forecasts through established mechanisms.

Despite its limitations (see European Commission/EACEA/Eurydice, 2014), labour market forecasting is a common way of anticipating labour market needs in terms of the demand and supply of skills. This process is usually carried out in order to help different stakeholders – employees, employers, students and parents, social partners, and policy makers – to take informed decisions and appropriate actions with respect to the labour market. On the one hand, labour market forecasting can inform policy planning relating to, for example, the planning and design of study programmes, determining the number of state-funded places, or the allocation of public funding. On the other hand, guidance and information services can use labour market information to guide (potential) students towards fields in which there are skills shortages. Labour market forecasting is usually conducted according to occupation and qualification levels (Cedefop, 2012). Regular labour market forecasting is conducted repeatedly, at regular intervals.

As Figure 1a shows, in the majority of education systems (23), labour market forecasting is conducted regularly.
Ad hoc forecasting takes place in 16 education systems. Labour market forecasting is not conducted in Belgium (German-speaking Community), Croatia or Serbia. Nevertheless, in Serbia, a survey addressing future labour market needs is conducted regularly among employers.

While labour market forecasting is conducted in almost all countries, only around half of the countries conducting these forecasts take the results into account in higher education planning at central level (Figure 1b). In Latvia, Lithuania, Finland, the United Kingdom (Scotland), Norway, Montenegro and the former Yugoslav Republic of Macedonia, labour market information is used to determine enrolment quotas or the number of state-funded places in some or all fields of higher education. In Belgium (French Community), France (5), Poland, Portugal, Romania and Sweden, the forecasts are taken into account when setting up or accrediting new study programmes, and/or when adapting the content of

(5) In France, this is limited to professionally-oriented programmes.
existing programmes to labour market needs. Some countries also reported that labour market forecasts are used to identify priority areas for additional funding (e.g. in Bulgaria and Ireland). Nevertheless, while central authorities do not always use labour market information systematically, higher education institutions (sometimes in cooperation with central authorities) can still use them in planning programmes or career guidance provision (e.g. in Belgium (Flemish Community) and Estonia).

**Recent policy developments**

Establishing regular labour market forecasting is becoming a priority in an increasing number of countries, and there have been some recent developments:

In **Greece**, an Action Plan for labour market forecasting was drafted by the Ministry of Labour and the National Institute of Labour and Human Resources in May 2015. It was approved by the European Commission on 15 May 2015 and implementation started immediately. The Ministry of Labour is the supervising body for the project and the National Institute of Labour and Human Resources is responsible for its implementation. Social partners, regional authorities and other ministries and institutes are collaborating on the project. Based on the Action Plan, a permanent mechanism has been established that produces results twice a year on the dynamism of sectors and occupations and skill mismatches. Results were produced in June 2015 and December 2015. As part of this mechanism, a team of expert administrative personnel has been assembled at the Ministry of Education, Research and Religious Affairs, which is responsible for setting the inflow data as well as the outflow data for the entire Greek educational system, and for detecting and forecasting problems in youth employability.

**2. INVOLVEMENT OF EMPLOYERS IN EXTERNAL QUALITY ASSURANCE (QA) PROCEDURES**

Consulting or involving employers, employers’ organisations and business representatives in the planning, development and evaluation of higher education programmes is a direct and more decentralised method of ensuring that the needs of the labour market are reflected in higher education provision. Employers and business representatives are aware of the skills graduates need when entering the labour market, involving them in the quality assurance process is therefore a way of using this knowledge for the benefit of higher education institutions, and encourages institutions to be responsive to the needs of the labour market.

Higher education institutions in the European Higher Education Area usually monitor the employment outcomes of their graduates as part of their quality assurance procedures. However, some countries have introduced other procedures to ensure that institutions meet standards of performance with respect to graduate employability. For example, in some countries, employability criteria form part of performance agreements between education authorities and higher education institutions. Elsewhere, higher education institutions’ performance with respect to employability affects the level of funding they receive (see European Commission/EACEA/Eurydice, 2015a).

The second indicator developed for this exercise shows whether employers are required to be involved in quality assurance procedures in higher education. Under such regulations, a distinction is sometimes made between professional and academic strands, with employer involvement being more common in professionally-oriented programmes. Since this indicator aims to cover all higher education programmes, only regulations applicable to all HEIs are taken into account.

As Figure 2 depicts, employers are involved in external QA procedures in the majority of education systems.
Moreover, this is usually because they are required to participate. There are four countries (seven education systems) where employers are normally involved in external QA without it being a requirement: The Czech Republic, Germany, Ireland and the United Kingdom. Employers do not participate in quality assurance procedures in 11 education systems.

In most countries there are no differences between ‘academic’ and ‘professional’ strands in the requirements for external quality assurance. However, in France and Poland for example, employers are more directly involved in the professional than academic strand. In Portugal, it is required in more programmes in professional higher education than academic strands.

Recent policy developments

In Greece, the system of academic certification of the curricula of HEIs developed by the Hellenic Quality Assurance & Accreditation Agency (HQA) is based on the participation of the social partners (representatives of professional/scientific organisations and students of HEIs), and experts from abroad. The system involves external assessment by a team of experts of HEIs from abroad with compulsory participation of representatives of professional organisations or chambers of commerce, especially for the professions protected by law. However, this system is not yet fully operational.

3. REQUIREMENTS OR INCENTIVES FOR STUDENT WORK PLACEMENTS

In the context of employability, an important role of higher education institutions is to provide graduates with the skills that will enable them to find jobs after graduation. One common way to ensure that graduates gain the necessary competences is to include work placements as part of higher education programmes. Data from both European comparative studies and national reports show that students who participated in practical training before graduation are more likely to find jobs than their counterparts without relevant work experience (see e.g. Blackwell et al., 2001; Garrouste and Rodrigues, 2012; Mason, Williams and Cranmer, 2009; van der Velden and Allen, 2011). Thomas and Jones (2007) also emphasise the importance of work experience for non-traditional learners. Therefore, it is important to examine whether there are systems in place (by means of regulations or incentives) to extend the provision for structured work placements or practical training as part of higher education programmes.
The term ‘work placement’ refers to two types of experience in a working environment. Firstly, it is the placement of students in supervised work settings (e.g. through internships) so they can apply the knowledge and skills learned during their studies. Secondly, it refers to a period of voluntary work (also referred to as ‘student-community engagement’) that is intended to allow students to become familiar with the working environment in general, whilst also conveying some benefit to the community (Bourner and Millican, 2011). This second type of placement should also be integrated into tertiary programmes in order to have a positive impact on graduate employability (Ibid.).

The following indicators show whether public authorities in European countries have taken steps to improve graduate employability by ensuring that higher education institutions include work placements/practical experience as part of their education programmes. Figure 3a examines requirements and Figure 3b looks at incentives (financial or other) given to institutions.

**Figure 3a: Requirements to include work placements/practical training in higher education programmes, 2015/16**

![Map showing requirements to include work placements/practical training in higher education programmes, 2015/16](source)

**Figure 3b: Incentives to include work placements/practical training in higher education programmes, 2015/16**

![Map showing incentives to include work placements/practical training in higher education programmes, 2015/16](source)
The strongest regulatory approaches require higher education institutions to include work placements in all study programmes. Figure 3a shows that there are requirements for work placements in 26 countries for some institutions, and in seven countries for all institutions. For example, in Belgium (German-speaking Community), Estonia and Spain, work placements are regarded as integral parts of all higher education programmes. However, in Estonia, the requirement for a minimum proportion of a programme to be allocated to work placement applies only to professional higher education (15%). In Lithuania and Romania, all first cycle students are required to undergo practical training. Montenegro has also recently introduced this requirement for all first cycle students and students in professional programmes. In addition, as part of the accreditation process for new study programmes, higher education institutions are obliged to conclude cooperation agreements with businesses to ensure practical training for students.

In the European Union (EU), Directive 2005/36/EC (amended by Directive 2013/55/EC) on the recognition of professional qualifications (6) regulates the embedding of practical training into certain, professionally oriented programmes of study (e.g. for medical or pharmaceutical studies). However, in most countries, beyond these regulated professions, higher education institutions are generally free to decide whether to include such structured work experiences in their programmes.

Nevertheless, some countries make the inclusion of work placements compulsory for certain types of institutions. For example, in Denmark, practical training is required at Business Academies and University Colleges for first cycle students. Similar regulations exist in Greece (regarding Technological Educational Institutions), in Austria (regarding Fachhochschulen (Universities of Applied Sciences)), in Malta (in the Malta College of Arts, Science and Technology) and in Finland (for first cycle Polytechnic degrees). In other countries, practical training is required for certain degree types (e.g. for professionally-oriented and/or short-cycle programmes, as in Latvia, Luxembourg, Poland, Portugal and Slovenia).

Apart from using a regulatory framework, education authorities in some countries also use financial incentives to encourage institutions to include work placements as part of study programmes by funding the costs of these placements either in full or in part. Figure 4b shows that in five countries, there are incentives for all institutions, and in 11 countries for some institutions.

Recent policy developments:

Work placements and on-the-job training have been growing in importance in recent years. The latest developments have taken place in Romania and Montenegro, and plans also exist in Malta to introduce work-based learning in higher education. In addition, France and Lithuania passed laws in 2014 to create better conditions for young people to gain practical work experience.

In Italy, the legislative decree No. 81/2015 (Article 45) regulates higher education level and research apprenticeships leading to university degrees, including research doctorates and higher technical education certificates. This measure is considered useful as it strengthens the links between the training system and work.

In Romania, Law No. 9 adopted on 7 January 2015 (complementing Law 258 of 2007 on the practical placements of students) ensures that organisers of work placements, education units and institutions benefit from additional funds, equivalent to 5 % of the annual allowance for each pupil or student. This funding is provided by the Ministry of National Education and Scientific Research for the specialisations in which practical training is a mandatory curriculum requirement.

In Montenegro, under the new Law on Higher Education (Official Gazette of Montenegro, 44/2014) adopted in October 2014, practical work experience became compulsory for all first cycle students as well as for students of professionally-oriented programmes. Practical knowledge, skills and competences can be acquired either in an institution’s laboratories or workshops or through on-the-job training.

4. **AVAILABILITY OF CAREER GUIDANCE TO HIGHER EDUCATION STUDENTS**

Besides practical training, career guidance is another way to provide students with labour-market relevant skills. Career guidance services can help students acquire the job-hunting skills they need to find work. Career guidance is regarded as particularly important for non-traditional learners, especially if it is provided throughout their course of study, not only in their last year(s).

Indicator 4 therefore looks at whether career guidance is available to all home (7) students in higher education institutions throughout their course of study. Career guidance refers to services and activities intended to support students in making educational, training and occupational choices and to help them manage their careers (OECD 2004, p. 10). Career guidance is regarded as being available if students are able to access the services throughout their course of study (from entering tertiary education until the completion of studies). However, it does not necessarily mean they have used the services. Information on the proportion of students actually using these services is, in fact, limited.

As with previous indicators, requirements and practices may differ between the professional and academic strands of higher education. The same approach will therefore be used: where differences exist, the requirements and practices applying to both strands are considered.

Figure 4a shows the availability of career guidance services across Europe. As the figure depicts, career guidance services are available to all students in higher education institutions throughout their course of study in the vast majority of education systems. These services are available only to some students in Latvia and Serbia. In Latvia, in the institutions which have career guidance centres (they do not exist in all higher education institutions) the services are available to all students. In Belgium (German-speaking Community), career guidance services are available only to students in the year before they graduate. There are no career guidance services available in higher education institutions in Croatia and Bosnia and Herzegovina.

**Figure 4a: Availability of career guidance services within higher education institutions, 2015/16**

![Map showing availability of career guidance services across Europe](Source: Eurydice.)

In addition to the career guidance services within higher education institutions, students may also have access to external career services. However, since links between internal and external services are rare, students might find this difficult due to lack of information. External guidance services exist in

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(7) Home students are students that are either nationals of a country or are treated in the same manner from a legal perspective (e.g. EU citizens studying in another EU Member State).
more than half of all education systems, and in most cases they are, in principle, accessible to all higher education students (see Figure 4b). External services are available to some students only in Bulgaria, Latvia and Romania.

**Figure 4b: Availability of external career guidance services, 2015/16**

Source: Eurydice.

5. **USE OF REGULAR GRADUATE TRACKING SURVEYS**

Graduate tracking surveys seek to track the employment destinations and early careers of higher education graduates (Schomburg, 2003). Relying on the self-assessment of graduates, these surveys are valuable tools for evaluating graduate employability. They not only provide the means to measure the percentage of graduates finding employment after graduation, but they are also able to describe the quality of jobs, the time it took to find a job, graduates' job satisfaction, and the match between graduates' skills and job requirements (see Teichler, 2011). Furthermore, based on graduate surveys, it is possible to conduct analyses on the relative impact of graduates' individual characteristics and the higher education programme they attended (Ibid.). In this way, these surveys are useful tools for a multi-dimensional evaluation of employability in higher education, particularly when there are established mechanisms by which both education authorities and HEIs can make use of the information gathered. Graduate tracking is also an action in the European Commission’s New Skills Agenda, which proposes an initiative on tertiary graduate tracking in 2017 to support Member States in improving information on how graduates progress on the labour market (8).

Figure 5a shows the nature and availability of graduate tracking surveys across Europe. As the figure depicts, regular graduate surveys are conducted at national and/or regional level in the majority of the education systems covered. In Belgium (French Community) and Lithuania, there are both regular and ad hoc surveys. Only ad hoc graduate surveys take place in six education systems (the Czech Republic, Croatia, Latvia, Malta, Austria and Romania), while only institutional surveys are conducted in nine systems (Greece, Cyprus, Luxembourg, Portugal, Slovenia, Bosnia and Herzegovina, Iceland, Serbia and Turkey). However, institutional surveys may be widespread and the data may also be used by education authorities. There are no graduate surveys in the former Yugoslav Republic of Macedonia.

(8) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions: A New Skills Agenda for Europe, COM (2016) 381 final, 10.6.2016.
While graduate tracking surveys are conducted in nearly every country, only 16 education systems make systematic efforts to use the information collected (see Figure 5b). Graduate surveys are most often used in quality assurance procedures. Alternatively, graduate surveys can be used to make employability-related information on higher education study programmes accessible to the public. This can inform current and future students on their potential career prospects.

Most systems for graduate tracking have been in place for many years, but one recent development can be reported.

**Recent policy developments:**

Lithuania started working on the new student tracking tool from 2015/16, and from the 2016/17 school year the new survey, popularly called ‘professional qualification mapping’, will be carried out regularly.
GLOSSARY

Key definitions

**Education and career guidance** refers to a service seeking to provide pupils and students with information as well as to develop their decision-making and other skills important for managing their educational and/or career choices. It may also include psycho-social work or counselling to help students, in particular those at risk of early leaving, in their progression through education and training. Education and career guidance may be part of the curriculum (included in official steering documents), offered through a formally established in-school guidance service, and/or provided through an external guidance service, i.e. outside of schools.

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REFERENCES


Structural Indicators on Graduate Employability in Europe – 2016

This publication presents some structural indicators on graduate employability in 40 European education and training systems. It examines whether countries use regular labour market forecasting to improve the employability of graduates; moreover, other indicators include the involvement of employers in external quality assurance procedures, requirements or incentives given for student work placements; the availability of career guidance services, and the use of regular graduate tracking surveys. The publication is based on a chapter in the Eurydice report Structural Indicators for Monitoring Education and Training Systems in Europe 2016.

The Eurydice Network’s task is to understand and explain how Europe’s different education systems are organised and how they work. The network provides descriptions of national education systems, comparative studies devoted to specific topics, indicators and statistics. All Eurydice publications are available free of charge on the Eurydice website or in print upon request. Through its work, Eurydice aims to promote understanding, cooperation, trust and mobility at European and international levels. The network consists of national units located in European countries and is co-ordinated by the EU Education, Audiovisual and Culture Executive Agency. For more information about Eurydice, see http://ec.europa.eu/eurydice.