EMPLOYABILITY AND HIGHER EDUCATION IN PORTUGAL*

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Abstract

This paper summarizes the main findings of a research project commissioned by the Portuguese Higher Education Regulation Agency (A3ES). Six years after the general implementation of the Bologna Process in the Portuguese Higher Education system, this research stressed how employability of tertiary education graduates has evolved and how institutions have dealt with it. Three main subjects will be focused: a) the main trends in employability of tertiary education graduates, considering different statistical sources; b) an assessment of how Portuguese higher education institutions deal with the employability of their graduates, through a virtual ethnographic analysis of their websites and interviews with students, professors and board members of a few institutions; and c) a professional associations evaluation regarding the effects of Bologna process on employability, through a questionnaire to boards members.

Keywords: Employability; Higher Education; Bologna Process; Portugal; Entrepreneurship

^{*}Access to data from the Ministry of Education, the Labour Force Survey (National Statistical Office) and Personnel dataset (Ministry of Labour and Solidarity) is gratefully acknowledged. This article presents a summary of a research project whose final report is available at http://www.ics.ul.pt/publicacoes/workingpapers/wp2012/er2012_1.pdf.

1 INTRODUCTION

 $E_{\mathrm{to}}^{\mathrm{Mployability}}$ is a concept that has been increasingly used in connection to the reform of the European higher education system This concept refers to the quality or possibility of having a job, taken here in the lactu sensu of being an employee or self-employed. In this sense, employability also refers to entrepreneurship and the ability to create jobs, either for oneself and/or for others. Improvements in employability were one of the main goals of the Bologna Process. The assumption of such goal meant that higher education, in addition to providing general knowledge to their graduates, should be responsible for training individuals to enter the labour market. Therefore, the whole higher education system – universities and polytechnic institutes, public and private – should also be assessed based on the employability of their graduates. It has to be kept in mind that skills acquired at any education level will only be fully operational if those trained have the opportunity to apply those skills in the labour market, which sometimes is not possible, at least immediately. Six years past the adoption of the Bologna Process by the Portuguese higher education system it is important to evaluate to what extent such goal has been accomplished. Bellow we present some of the questions that have oriented the present study, and which were dealt with in different levels of analytical and empirical depth:

- Which were the implementation implications of the Bologna Process on the evolution of the number of graduates by cycle of studies (Bachelor of Science -BSc, Integrated Masters, Masters, and PhD) and by subsystem (universities, polytechnic institutions, public or private)?
- Which were the most affected working fields and industries, either positively or negatively, by the new organization of cycles of studies?
- Which were the consequences, when entering the labour market, of the generalized reduction in the number of schooling years of the first cycle in most fields of study?
- Which was the degree of mobility between institutions and between fields of study during the transitions between cycles?

¹See the official Bologna Process website (http://www.ond.vlaanderen.be/hogeronderwijs/bologna/actionlines/employability.htm). See also the European University Association reports: Trends V: Universities shaping the higher education area. EUA, 2007 (http://www.eua.be/fileadmin/user_upload/files/Publications/Final_Trends_Report__May_10.pdf); and Trends 2010: a decade of change in European higher education. EUA, 2010 (http://www.icde.org/filestore/News/2004-2010/2010/EUA2010.pdf).

- Which has been the percentage of students entering the labour market after completion of the first cycle?
- Are the skills provided at the end of the first cycle of higher education sufficient for a professional career?
- Which relationship exists between lifelong learning and career or wage improvements?
- How capable have been higher education institutions, in Portugal and Europe, to avoid the so called brain drain?
- Which strategies have been adopted by higher education institutions to promote employability among their graduates?
- How much relevance has been given to entrepreneurship as employability mechanism?
- How are professional bodies or associations related to higher education as to improve employability?
- How can cooperation and partnership mechanisms be established among professional bodies or associations and higher education institutions as to promote their mutual goals?
- Considering the relevance that employers give to labour market experience, how should this be introduced in the higher education training cycles?

1.1 State of the art

Answers to these and other questions have been given in several studies carried out in Portugal. Some of these were academic analysis and essays in areas like economics, psychology, and labour and education sociology. Others were enquiries and reports produced by offices of higher education institutions, using internal primary data or secondary data collected from national sources on careers and labour market entrance of their graduates². It is worth mentioning the attention devoted to this question by the Higher Education Graduates Observatory (Observatório de Diplomados do Ensino Superior – ODES), which was created in 1998 and later had its competences redeployed to other departments of the higher education ministry. Diagnoses carried out by ODES are still used as reference in this research field (ODES, 2002). Despite the attention devoted to this

²At the end of the article we present a list of references to relevant bibliography that was used for the preparation of the report referred to in footnote *

topic, a fuzzy perception of this phenomenon prevails in the public opinion, and analyses relying on prejudice, or less rigorous empirical validation, are frequent. The impact of some 'catastrophic thesis' (Chaves, Morais & Nunes, 2009) or statements, not based on relevant evidence on the general perception on higher education institutions, can be quite harmful and detrimental to positive initiatives. It can also restrain the implementation of needed changes. Hence it seems relevant to make efforts and pursue this area of study to obtain further and deeper evidence on the evolution of employability of higher education graduates in Portugal. This study does not aim to perform an assessment of the Portuguese case in comparison to the experiences of other countries, but it naturally takes into account the research carried elsewhere and the findings of relevant European research projects in topics related to employability and cooperation between higher education institutions and firms³. These studies allow us to understand how these topics have been dealt with in other countries, how those countries have defined the required skills to a successful entry and participation in the labour market, and how those skills are fully explored and appropriated by active participation in the market. Surveys conducted in several countries are of great relevance to the establishment of guidelines for a progressive adaptation of educational systems to meet the target of, ideally, employability of higher education graduates. Another topic that is widely covered in those studies is the central role higher education institutions play in setting an agenda of cooperation with firms and professional associations or bodies. Such cooperation ensures that the training provided to their graduates is adequate to labour market needs, promotes an entrepreneurial spirit, ensures the transfer of research results to the market and provides lifelong learning opportunities. By focusing on the need to motivate and improve the dialogue between higher education institutions and firms, those studies stress the relevance of adjusting curricula to labour market and society, by involving business representatives, namely those located in regions proximate to higher education institutions and in the definition of skills provided throughout the training cycles. It is also important to follow up the debate taking place in the Bologna Process monitoring and assessment groups. The increasing perception of employability as a goal

³See: Project University - Enterprise cooperation (http://www.eu.daad.de/eu/university-enterprise-cooperation/07405.html); project DOC-CAREERS (http://www.eua.be/eua-work-and-policy-area/research-and-innovation/doctoral-education/doc-careers-ii/); project HEGESCO, 2009, Higher education as a generator of strategic competences (http://www.hegesco.org/content/view/36/108/); and project Employability and entrepreneurship. Tuning universities and enterprises, 2007 (http://eacea.ec.europa.eu/llp/project_reports/documents/erasmus/erasmus_2007_progress_reports/emhe/employabilityandentrepreneurshiptuninguniversities&enterprises.pdf)

to be achieved by the European Higher Education Area (Report Trends V, 2007, page 32) seems to be related to the increased perception of the difficulties in meeting the target of ensuring employability at the end of the first cycle of higher education (Report Trends 2010, page 7). Thus, a good part of the reforming intentions associated to the Bologna Process, are seriously at stake, at a time education officials are increasingly challenged to pursue and take all the necessary measures to improve employability indicators, particularly at the end of the first cycle. In one of the several reports produced between 2007 and 2009⁴ the task-force on employability, created as part of the Bologna Follow-up Group, stressed several issues to be kept in mind as a reference for the Portuguese case. Its main ideas were:

- The increasing number of graduates during the 80's and 90's has originated a surplus of graduates entering the labour market;
- Employability of BSc graduates is a difficult issue in some countries. There is a generalized perception, both among employers and graduates, that skills acquired are not always adequate to a successful participation in the labour market;
- Employers highly value labour market experience and as such young graduates, with at least some working experience, tend to be preferred when applying for a job;
- Employers consider that higher education institutions are not doing everything they can, or should do, to ensure a good preparation of their graduates for the professional life;
- Some employers and some higher education institutions have not much experience of cooperation, namely on the definition of relevant curricula.

Regarding the Portuguese context, as said before, we are dealing with a subject suffering from a lot of prejudice, and motivating speculation, by the public opinion. Recently the topic increased its relevance as the Portuguese higher education institutions had to consider course's employability when setting the number of places available, from the academic year of 2012/2013 on (Ordination from the Secretary of State of Higher Education, 11th of June 2012). In addition the current economic crisis has made it more difficult for higher education graduates to find a job and has increased the number of unemployed graduates. This has augmented the pressure on

 $^{^4} See: http://www.ond.vlaanderen.be/hogeronderwijs/bologna/\\ BolognaSeminars/documents/Luxembourg/Luxembourg_Seminar_Employability_WG_update.pdf$

higher education institutions to conceive strategies for the improvement of its employability, as well as making them more publically exposed. Furthermore, it seems that employability is becoming a relevant criteria and motivational factor towards the choices of students with respect to cycles and fields of study. At the same time, it is emerging as a key element for the curricula renovations made by higher education institutions in order to attract new students.

1.2 Scope and methods

Employability is seen in this study as resulting from a set of choices and options regarding skills and experiences more or less valued by the labour market, a social process which involves multiple actors, being students, higher education institutions and employers the most relevant ones. Taking this into account, it is important to clarify and go deeper in the concept of employability in its multiple analytical dimensions:

- Individual employability the ability of an individual to find and to keep a job, which depends not only on the reputation and quality of his skills, but also on other biographical factors, such as informal or non-formal training, or family and personal networks, or other sorts of social capital;
- Institutional employability the ability of an institution to increase the probability of their graduates to find a job given its reputation, the reputation of the training it provides, and its capacity to cooperate with professional bodies and the labour market itself;
- Contextual employability the better or worse adaptation, due to external events, of specific degrees or fields of study to the needs of the market in specific times, industries, and territories that affect the action of individuals and institutions.

In order to reach this project's goals, several secondary information sources were identified and systematized. Additionally, different data collection techniques were chosen, as to give an account of the multiple dimensions of the employability phenomena. In order to complete the statistical identification of the main trends in employability of Portuguese graduates we analysed: data from the Ministry of Education and Science (Higher Education Registration of Enrolled Students and Graduates – RAIDES –GPEARI, 2011) regarding the number of graduates and crossing their individual characteristics with some institutional characteristics, educational level and attended courses; data from the Portuguese Labour Force

Survey (developed by the Statistical National Institute – INE), addressing mobility within the labour market, which allowed us to understand, for example, the labour market entry movements; the Personnel dataset (from the ex- Ministry of Labour and Social Security), used to identify and analyze higher education graduates' labour market situation; finally, the (un)employment data (collected from the employment services of the Employment and Professional Training Institute – IEFP) to assess the number of graduates registered as unemployed, their training institutions and areas of study. Regarding the attitudes of higher education institutions towards employability, we performed an analysis of their website. This virtual ethnography (Jones, 1999) allowed us to quantitatively analyse the online contents of the entire scope of higher education institutions? websites, somehow clarifying their level of commitment to employability issues. Additionally, a series of interviews were conducted: on the one hand, with some key informants (board representatives, students, alumni and head of employability and entrepreneurship offices) within the higher educational system, allowing us to gather their perceptions and attitudes towards employability issues; on the other hand, with some of the main professional associations, giving us the opportunity to better understand how do these entities interact and cooperate to promote the employability of higher education graduates. At the end of the paper we will present some conclusions and recommendations.

2 Main trends in employability of tertiary education graduates

One of this study's first steps was to bring together different statistical sources in order to get a clearer picture of the employability of higher education graduates. We considered the period from 2002 to 2009 or 2010 (depending on the statistical source).

We found out that the last decade was characterized by a general increase in the number of graduates, mainly due to a raise in the number of graduates from public institutions. The first cycle of higher education clearly became the most frequent level of education achieved, but during the last few years, after the adoption of the Bologna Process, there has been a huge increase in the number of graduates with a master's degree. This result seems to point to the fact that the second cycle is increasingly seen as a "natural" stage of the schooling process, either to improve employability or to avoid unemployment. The distribution of graduates by fields of study has changed considerably, also suggesting that candidates are sensitive to information made available about those fields, namely the employability

levels associated with each field.

Regarding the trajectory of graduates, the analysis shows a trend towards students moving directly from one cycle to the next. Such result is not entirely in accordance with the initial intentions of the Bologna Process, which considered students to experience spells of labour market participation in between cycles to be an advantage. We also found out that, even if with there is some variation across fields of study, a large majority of students stay in the same field for their second and third level education. Moreover, around 50% of students enrolled in the second or third cycle attend the same higher education institution where they concluded the previous cycle. These results suggest a pattern of low mobility both across fields of study and across institutions.

With respect to labour market entrance, considering the Personnel dataset, we found out that higher education graduates represented an increasing share of those entering the market each year, from around 14% in 2002 to 24% in 2009. This suggests a trend of education improvement among younger generations when entering the labour market. We also found that graduates, with master's or PhD degrees have increased their weight among those entering the labour market each year, confirming the trend of continuous academic trajectory over cycles of education without spells of labour market participation. Among those entering the labour market with higher education, there is a significant change in the distribution across fields of study.

Considering geographic distribution, metropolitan areas continue to absorb the majority (over 50%) of higher education graduates, but its share has declined slightly, signalling the spread of more skilled labour force to other parts of the country. Services are responsible for hiring the majority of higher education graduates that enter the labour market, especially business activities and health and social activities. Larger firms are more likely to hire higher education graduates but it deserves mentioning that 50% of the PhD holders entering the labour market are hired by companies with less than 50 employees, 26% of which are micro-companies with 0 to 9 employees, suggesting some entrepreneurial ability of those with higher levels of education.

We also found evidence of a wage premium associated with higher schooling when entering the labour market. This premium exhibited a significant reduction during the decade in analysis, mostly for BSc's, since masters and PhD's have kept a relatively stable wage premium among those entering the labour market. The wage premium is quite different across fields of study.

Those that complete further education after spells of participation in the labour market are rewarded both in terms of careers and wages, according to evidence found of more promotions and higher wage increases due to this additional schooling.

The analysis of the unemployment incidence among higher education graduates, considering those registered at the employment services shows that there has been an increase in the number of registered unemployed graduates. That absolute increase, however, is not translated into an increase in the share of higher education graduates on total unemployment, which remains relatively stable. In fact, given that the share of higher education graduates remained basically stable, the absolute increase is no more than the impact of both the general increase of unemployment and the increase in the number of higher education graduates.

However, we found a relevant change in the distribution of higher education graduates registered as unemployed across fields of study. The analysis of an indicator of employability, built by the Ministry of Education and Science for each pair institution-degree – measuring the relationship between the number of graduates and the number of graduates registered as unemployed –, also revealed a great variability, showing that there are different levels of suitability of skills taught in different institutions and fields of study, when considering the needs of the labour market.

The analysis of the unemployment incidence among higher education graduates with less than 40 years, based on data from the Labour Force Survey (INE), shows that besides an increase in the unemployment rate among those graduated in the last few years, the increase is substantially lower than the one experienced by non-graduates. Among higher education graduates the unemployment rates are higher for those with lower levels, suggesting that further cycles of higher education are seen as providing additional relevant skills for the labour market, improving employability. We also found a significant variation of unemployment rates across fields of study.

Regarding the migration of graduates, another issue that has deserved some attention, we found evidence of an increase in the number of graduates that declare working abroad, being that increase common to the different cycles of higher education.

3 How tertiary education institutions promote the employability of their graduates

As we have seen, tertiary education institutions are facing a continuous increase in the number of higher education graduates at different educational levels. It is, therefore, expectable that institutions develop competitive strategies to attract an increasing demand of students. The employability

levels assigned to those courses are an element of that strategy, as observed through our website analyses of all Portuguese higher education institutions (with the exception of military institutions).

The virtual ethnography analysis of the institutions' websites clearly reveals the importance employability issues have assumed. Only 9% of all websites consulted do not refer employability related issues, either directly or indirectly. Nevertheless, only a minority of around 20% of all institutions are in the top level of an index of commitment and visibility built to assess attitudes towards employability (top level meaning that the institution holds and includes in its homepage references to offices dealing with both employability and entrepreneurship; for a detailed analysis cf. the research report mentioned in the opening page of this article). This means that only a minority of institutions evidence, in their websites, a real effort and a strong commitment in the promotion of employability or entrepreneurial activity of their graduates.

That commitment seems to be greater in universities than in polytechnic institutions. It also deserves mentioning that, among those institutions in the top level of this index, private higher education institutions are the ones exhibiting a greater commitment in the promotion of the employability of their graduates (in the website). This extra effort from private institutions can be interpreted as an attempt to counteract the trend of stabilization in the number of graduates in these institutions, which contrasts with the increase tendency in public institutions, signalling an orientation of demand towards public institutions.

Private institutions also seem to provide more information about their employability offices', presenting more detailed information about their activities and initiatives. This more intense activity of private institutions may be related to a perception of a lower recognition and credibility of private institutions in the public opinion, somehow requiring extra effort to ensure employability of their graduates.

On the other hand, public institutions, namely universities, are the ones that seem to be more committed to promoting entrepreneurial strategies towards employability. In any case it is clear that employability associated with entrepreneurship is still a second option compared to promoting wage-earning opportunities.

In general, we noticed that employability and entrepreneurship offices do not provide much information on opportunities of international mobility (this issue is mainly addressed by other units within the same institutions). They also present little information about monitoring or follow up of their graduates' employability. For instance, these offices do not present evidence of studying the local, regional or national labour market needs, an issue quite relevant especially outside major metropolitan areas. Furthermore,

they do not seem to have information about the careers of their graduates, a fact that limits the adoption of efficient strategies to promote employability.

The interviews conducted with officials and students from higher education institutions allowed us to register the existence of a significant difference between the image provided by the websites and the perception of its utility by the recipients.

From the interviews it is also clear that the effort of higher education institutions to promote the employability of their graduates reinforces and demonstrates the concern to promote demand and ensure a regular flow of entry.

It is also relevant that for both higher education officials and student representatives, employability is a target difficult to achieve at the end of the first cycle of higher education. Opinion corroborated by voices of most professional associations interviewed.

Finally, it is important to stress that the critical assessment by student representatives and alumni on how institutions provide information and prepare students to enter the labour market, is not constant over their academic lives. Apparently students become aware or concerned with employability related issues only a few months before they finish their degrees.

The cooperation experiences between higher education institutions and professional bodies and associations in order to promote employability are either few or very weak, according to the interviews we carried out with some of those associations. Even if they recognize a progressive adaptation of the curricula to labour market needs, and the good general quality of higher education graduates (being theses graduates autonomous and able to easily adapt to new circumstances and challenges), those professional associations and bodies stress the relevance and need of a reinforced dialogue and concerted action with higher education institutions in order to improve the quality, capabilities and employability of young graduates.

Specifically regarding the achievement of goals foreseen by the Bologna Process, our study raises some concerns about the capacity of ensuring employability at the end of each higher education cycle, in any subsystem, particularly the universities' subsystem. Consistently with the conclusions of experts from the Bologna Follow-up Group, we consider that ensuring employability at the end of the first cycle of higher education is a goal difficult to achieve, not only due to some mismatch between provided skills and labour market needs, but also due to the lack of ambition and motivation of first cycle graduates to immediately enter the labour market. It is possible that the current economic and financial crisis is conditioning the employability perceptions and is generating changes in the labour market entrance patterns. But strictly considering the perspective of

meeting the flagship goal of the Bologna Process, the conclusions we have reached are not very positive and justify revisiting some very ambitious expectations.

4 Follow-up recommendations

Although the main goal of this study is to assess and diagnose the major issues related to the employability of Portuguese higher education graduates, the reached results allow us to make some recommendations. Hence, we believe that some attention should be devoted to the following topics:

- From the statistical analysis carried out it becomes clear the relevance of the access to good quality data enabling researchers to properly assess employability of higher education graduates. Notwithstanding the recent advances, namely in RAIDES dataset (collected by the Directorate-General of Education and Science Statistics) and the studies carried out (by the same department) on higher education graduates' unemployment, there are still many aspects deserving further improvements to ensure better assessment and enable the design of better policies. For instance, in order to analyse students' mobility and trajectories, it would be helpful to have (in RAIDES) either personal identifiers or retrospective questions.
- The Directorate-General of Education and Science Statistics has made an important effort to create an employability indicator for each degree-institution pair, using a common procedure. Even if this effort should be acknowledged, some important shortcomings subsist and a great care must be taken when using it to support decisions such as places available. In fact, the number of higher education graduates registered in employment services is administrative information that depends on individual decisions of whether to register. Also, the concept of unemployment used in the indicator it is not the same used in labour force statistics. Moreover the indicator does not say anything on whether graduates are employed in areas related to their fields of study or interests. Thus, it is very important to carry on the efforts to produce a common and universally used employability indicator to support public policies.
- Concerning the improvement in higher education institutions performance, it seems necessary to find a better articulation among the different offices and services dealing with employability related issues. Besides reduction in costs and effort, this rationalization will ensure an effective improvement in the management of information

provided in higher education institutions' websites as well as a better assessment of its impact on potential recipients.

- Aiming at an improvement in performance, it is also important to adequately monitor graduates' employability as to continuously adapt the institutions' offer to the labour market needs. In that sense it is considered desirable to promote a better and more effective partnership between students' unions, alumni associations and institutions' services and offices, ensuring improved information contents and employment offers to new graduates.
- Considering that self-employment is increasingly an alternative to wage earning, higher education institutions should provide more entrepreneurship related courses in their curricula, either compulsory or optional. It is also important to increase awareness of best practices and benchmarks to develop entrepreneurship related skills.
- The relationship between higher education institutions and professional associations and bodies should be strengthened. It would allow graduates new experiences of training in a practical context, namely through curricular practice periods. The reinforcement of these partnerships ensures that students are provided with both general and technical skills becoming better equipped to face challenges in the labour market. In a context of great economic and professional uncertainty, exploring these opportunities enriches and diversifies the educational trajectories.
- The availability expressed by professional bodies and associations to reinforce the partnership with higher education institutions (widely stressed in the interviews), may be quite helpful to the reorganization and rationalization of higher educational offer at different cycles and also to the update and revise the curricula, in order to ensure skills' recognition, both nationally and internationally. This may contribute to achieve several goals usually stated when referring to employability, either at the individual, institutional or context levels. Thinking about employability promotion strategies today requires continuous and permanent answers to the needs of a dynamic and globalized labour market and to a continuously changing business structure. Only then it is possible to avoid a quick obsolescence of technical ant theoretical skills and to assess the effectiveness of a long, specialized educational process that should not be separated from the professional context.

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