

Valuation by Catalan graduates of the training received at university in relation to its utility in the workplace

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Abstract

This article examines the factors that influence graduate valuations of the education/training they received at university in terms of its utility or applicability in the workplace. Drawing on the 2014 survey conducted by the Agency for the Quality of the Catalan University System, among students that graduated in 2010, we test three hypotheses. The first states that graduate valuation of the training received at university in terms of its utility for the workplace is higher among those who are currently employed in high quality jobs; the second that this valuation is higher among graduates employed in higher occupational categories; and, the third, that higher valuations are given by individuals with better academic records. The methodology used to test the three hypotheses is based on both descriptive and econometric techniques that allow us to control for specific individual characteristics and specific characteristics of the degree subjects studied. Preliminary empirical results allow us to verify two of the three hypotheses. The main contribution of this paper is to provide some initial insights into a relationship not frequently examined in the literature and to offer some empirical evidence that counters the typical “matching” standpoint taken on the relationship between education/training and level of employment.

Keywords

Higher education; training valuation; labour insertion; university graduates

1. Introduction

This article examines the factors that influence graduate valuations of the education or training they received at university in terms of the satisfaction they derive from their work. The question under examination is highly complex, especially given that we are dealing with a subjective, self-report measure (i.e., the satisfaction derived) of the training/education received at higher education institutions in relation to the jobs being undertaken by recent graduates.

The question that concerns us is intimately connected with the broader analysis of “job satisfaction” and its determinants, an issue that has been addressed by many empirical studies conducted in countries around the world (see Gamero, 2003, and references therein for a review). Job or occupational satisfaction is not readily measured, nor are its principal determinants readily accounted for and explained. The complexity is in part attributable to the fact that we need to address the graduates’ particular working conditions, with special attention to the structural characteristics of the job (contract type and duration), the degree of match between the job and the graduate’s degree and salary, among others.

In this paper, therefore, we focus specifically on how recent graduates from Catalan universities value the training/education they received at university with respect to the work they are currently performing, a relationship that has not received direct attention in the broader literature examining job satisfaction.

Previous studies undertaken in Catalonia, based on an indicator developed by Mañé and Miravent (2007), found that a high percentage of graduates from Catalan universities, now in full-time employment, considered (interviews conducted in 2011) that they were appropriately educated for the job that they did (79.6%). At the same time, 13.6% believed they were over-educated, while the remaining 6.8% considered themselves to be mismatched. No significant differences were recorded in these responses by gender (see, Planas and Fachelli, 2010).

To gain insights into graduate valuations of the training received at university in relation with the satisfaction they derive from working, without overlooking the broader question of job satisfaction in general, it is useful to learn about the quality of the education received by graduates in higher education institutions and to determine whether the education provided enhances the welfare of individuals when working, which is, after all, very much part of the ultimate goal of the educational process.

Descriptive studies of the employability of graduates of Catalan universities have been undertaken by the Agency for the Quality of the Catalan University System (known as AQU) since 2001 via a survey conducted with more than 11,000 alumni. In this paper we draw on the results from AQU's latest survey (2014) conducted with students graduating in 2010.

We seek to test three hypotheses. The first concerns the current job being performed by the graduate and states that the graduates' valuation of the training received at university in terms of its utility for the workplace is higher among those graduates who enjoy higher "occupational quality" (see definition below). The second hypothesis states that this valuation is higher among those graduates that have a better "occupational category" (see definition below). Finally, the third hypothesis states that higher valuations of the training received and its utility for work are given by individuals with a higher "academic performance" (better academic records).

A multivariate statistical analysis is conducted to test the three hypotheses. Thus, in addition to contingency tables, we employ multiple linear regression models to compare the variables of interest (occupational quality, occupational position and academic performance) over a set of control variables deemed relevant for explaining the individual valuations: sex, age, educational level of parents and the time taken to complete the degree.

The rest of the paper is organized as follows. Section 2 briefly presents the theoretical framework underpinning the three empirical hypotheses tested. Section 3 presents the empirical model, describing both the methodology and the data sources.

Section 4 reports the main empirical results found on performing the estimations. Finally, Section 5 discusses these results and concludes.

2. Theoretical framework

As discussed above, the determinants of graduate valuations of the training/education received while completing their degree courses share obvious ties with the more general subject of worker job satisfaction. This broader assessment of individual job satisfaction incorporates factors from psychology and sociology, including, personality traits, personal relationships, recognition and prestige in the workplace, social support, health and environmental conditions, social protection and exercise of fundamental labour rights, which hinder its analysis and make constant reassessments necessary.

In this framework, the valuation of the training/education received in relation to the current job can be considered an important part of the assessment of job quality and as an aspect that needs to be evaluated from the perspective of employers and society in conjunction with the perception of the employee (International Labour Organization, 2004; Seashore, 1974).

There is a vast literature examining the determinants of job satisfaction but there is a general consensus that, among other factors, it is dependent on the qualifications required to be appointed to the post, i.e., that the functions that have to be fulfilled in the job are in accordance with the qualifications required (for instance, holding a university degree). In general, and in line with AQU (2014), it would seem that workers express a higher level of satisfaction with jobs that require specific higher education qualifications and a lower level of satisfaction with jobs that do not require a university degree. The reason for this may well be the valuation that workers give of the training received at an institution of higher education and which is required to access those jobs that require a specific degree.

However, the literature examining the valuation of the training received in relation to the job held is far less abundant. In general, and apart from obvious individual

characteristics, the valuation of training/education with respect to occupation is considered to be determined via two main channels.

First, and in line with Richard Freeman's (1976) perspective that takes as its focus an individual's "job position", job satisfaction is intimately related with the ex ante achievement of the requirements needed to perform the tasks related to a job. Thus, more specialized job positions are associated with the specific skills that a worker must have acquired before taking up the position. In such instances, job satisfaction is very closely related to the acquisition of these skills and, hence, with the workers' valuation of the training/education received. Gargallo (2008), in reviewing studies undertaken from this perspective, discussed how worker satisfaction has been analysed from within various disciplines, including that of psychology (Argyle, 2001), sociology (Hodson, 1985; Kalleberg and Loscocco, 1983) and economics (Hamermesh, 1977, 2001). Olarte (2011) similarly examines the different perspectives adopted in studying factors that determine job satisfaction and concludes, in line with Ardouin *et al.* (2000), that the key determinants are having an intellectually stimulating job with fair rewards, favourable conditions of work and cooperative colleagues. Robbins (2004), likewise, highlights the importance of the attractiveness of the tasks performed, the associated rewards, relationships with colleagues, and the working conditions to which employees are exposed. To these Leal *et al.* (1999) stress the role played by wages, relationships with superiors and peers, and opportunities for promotion. Finally, García *et al.* (2005) identify four basic factors determining job satisfaction: personal fulfilment in employment, working conditions, interpersonal relations and remunerations.

Second, and in line with Pierre Naville (1956), the valuation of some jobs cannot be explained in terms of the "job position" but rather with regard to more general job "competences", i.e., workers' general knowledge, abilities, attitudes, and values that are useful in performing the specific tasks associated with a given job. In this framework, the valuation of the training/education received is more indirect given that education systems (at least in Spain) were not explicitly designed to promote these competences; hence,

while students may have acquired these skills, they are not always conscious of the corresponding learning processes, which makes it more difficult for workers to assess them in terms of their current job. In this instance, the main research approach involves examining the match between level of skills and job position (McGuinness, 2006; Sattiner, 1993), what this strand of the literature refers to as the “matching perspective”; that is, for every level of education there is a corresponding employment category. In what is clearly a normative assumption, the match corresponds to the optimal exchange between employers and employees in the labour market. There has been much criticism levelled at this approach because of its attempts to establish a direct relation between workers’ education and training and the requirements of a job position, without taking into account the role played by agents and institutions in that relationship (Raffe, 2001; Planas, 2014).

Within this context, and as pointed out above, we seek to determine if the evaluation of such training is dependent on occupational quality, occupational position and the academic performance of graduates. In the case of this last variable, we would expect graduates with a better academic record to present a better match with their jobs (i.e., training vs. tasks performed), since they would enjoy a wider range of employment opportunities. It is also possible that these “more skilled workers” are capable of more sophisticated assessments of the utility of their prior training in relation to their current work. A similar reasoning could be applied to the case of employment quality and occupational position. In principle, we would expect to find a relationship between better job positions and the evaluation that workers have of the training received at higher education institutions, if that training was the means that allowed them to take up a specific job or position. However, the answers to these questions lie in the data and, so, our aim here is to determine whether these relations hold for the graduates of Catalan universities.

3. Empirical model, methodology and data sources

3.1. Empirical model and methodology

The empirical counterpart of the aforementioned hypotheses can be expressed as follows:

$$Y_i = \alpha + \beta_1 \sum X_i + \beta_2 \sum Z_i + \varepsilon_i \quad (1)$$

where i refers to the individual graduates in our dataset and Y is our dependent variable accounting for the individual valuation of the training received in relation to its utility for the current job. X is the vector containing the study's three main variables, namely, variables accounting for the “*occupational quality*”, “*occupational category*” and “*academic performance*” of the graduates. Z is a set of individual control variables that include sex, age, parents' level of education, type of degree, degree duration and degree awarded/place of graduation. Finally ε is an error term that ideally should be i.i.d. distributed. Eq (1) is estimated using the traditional OLS technique. The qualitative variables in our model are codified as dummy variables. The R^2 informs us about the goodness-of-fit of each of the estimated models.

3.2. Data sources and variables

Our data are taken from the 2014 survey conducted by AQU Catalunya on the employability of graduates from Catalan universities. This, the latest survey available, interviews individuals that graduated in 2010 (more than 17,000 interviews conducted). We restricted the overall sample of individuals to those that graduated from public universities (84.1%), and focus our study specifically on students graduating in the degree in Public Administration (henceforth GAP) from the Law Faculty of the University of Barcelona (UB) (identified in the empirical model by ‘degree awarded/place of graduation’, see Table 1). Our sample includes those graduates that were working (both full and part-time) at the time of the survey.

Our dependent variable is the average score given by graduates when they were asked to evaluate the quality of a specific competence acquired at university (from 1 very low to 7 very high) in relation to its applicability to his/her job at the moment of answering the survey. The 14 competences are: “theoretical learning”; “practical learning”; “oral expression”; “written expression”; “teamwork”; “leadership”; “problem solving”; “decision-making”; “creativity”; “critical thinking”; “management skills”; “computing skills”; “languages” and “documentation skills”.

Table 1: Sample of Catalan graduates by degree awarded/place of graduation and in employment

Sample	Total		Employees	
	Frequency	Percentage	Frequency	Percentage
GAP (UB Law Fac.)	37	0.3	32	0.3
Law (UB Law Fac.)	114	0.9	98	0.9
Other degrees - UB Law Fac.	198	1.5	169	1.5
Other degrees - Rest of UB	3,076	23.3	2,545	23.0
All degrees - Rest of Public Unis. in Catalonia	9,755	74.0	8,239	74.3
Total	13,180	100	11,083	100

Source: Based on AQU (2014)

We work with three main variables. The first, the *index of occupational quality* (see Corominas *et al.*, 2007) summarizes the quality of the labour market outcomes of university graduates and combines the type and duration of the contract of employment, the salary, the match (suitability) between the graduate’s university studies and job, and job satisfaction in general. The index ranges between 0 and 100, with the lowest values reflecting a lower quality of labour market outcomes and the highest value representing a higher quality.

The second variable, *occupational category* (see Table 2), groups the nine categories making up the Spanish National Classification of Occupations (NCO) in three broad bands. These three occupational categories seek to group workers by overall skill level

(note that the NCO itself classifies occupation categories from more skilled to less skilled).

The third variable, *academic performance*, which originally comprised four categories (Honours, Excellent, Good and Pass) was regrouped into three by combining Honours and Excellent into a single group given the small number of students obtaining these two grades (see Table 3). Note, however, the variable *academic performance* is self-reported by the graduates, that is, it is not based on university records. As for the expected impact of this variable, Planas and Fachelli (2010) report that the entrance grade and the student's academic record present a very weak relationship with the graduates' mean assessment of their university education and the skills required in their job.

Table 2: Occupational categories based on skill level

Occupational Category	National Classification of Occupation Categories
Upper	1 Directors and managers
	2 Technicians and scientific professionals and intellectuals
Medium	3 Technicians; support professionals
	4 Accounting, administrative and other office employees
Lower	5 Service and sales workers
	6 Skilled agricultural, forestry and fishery workers
	7 Craftsmen and skilled workers in manufacturing industries and construction
	8 Plant and machine operators, and assemblers
	9 Elementary occupations

Source: Based on AQU and NCO.

In the case of the control variables, *sex*, *age* and *socio-economic background* (measured by parental education) are directly available from the dataset. The socio-economic background has been analysed for the Spanish case but there does not seem to be a statistically significant relationship between this variable and employability (see Carabaña and de la Fuente, 2015; Torrents y Fachelli, 2015; Fachelli, Torrents y Navarro-Cendejas, 2015, Navarro-Cendejas, 2013; Fachelli y Planas, 2014). Here, we analyse the impact of the graduates' socio-economic background on their assessment of the training

received at university in relation with the satisfaction derived from their work. *Degree length* was constructed by subtracting the initial year of matriculation from the year of graduation. The *degree awarded/place of graduation* variable differentiates, on the one hand, between the Degree in Public Administration (GAP) and the Law Degree (the graduates of which courses are the specific focus of this study) taught within the UB Law Faculty and, on the other, between all other degree courses taught at the UB Law Faculty, all other UB degrees and finally all other degrees taught within Catalonia's Public Universities.

Finally, and to test the robustness of our results we apply the same empirical model as that presented in Eq. (1) but change the dependent variable; that is, we take as our dependent variable the results of a more general question regarding the graduates' valuation of the education/training received but without linking this valuation to its utility in the actual job position occupied.

Table 3: Explanatory variables

Independent Variables	Control Variables
Index of Occupational Quality (Numerical)	Sex (male - female) Age (years) Educational level of parents
Occupational Category	<i>Primary</i> <i>Secondary</i> <i>Higher</i>
<i>Upper</i> <i>Medium</i> <i>Lower</i>	Time taken to graduate (in years) Degree awarded/Place of graduation
Academic Performance	<i>GAP Degree - UB Law Fac.</i> <i>Law Degree - UB Law Fac.</i> <i>Other degrees - UB Law Fac.</i> <i>Other degrees - Rest of UB</i> <i>All degrees - Rest of Public Unis in Catalonia</i>
<i>Pass</i> <i>Good</i> <i>Excellent and Honours</i>	

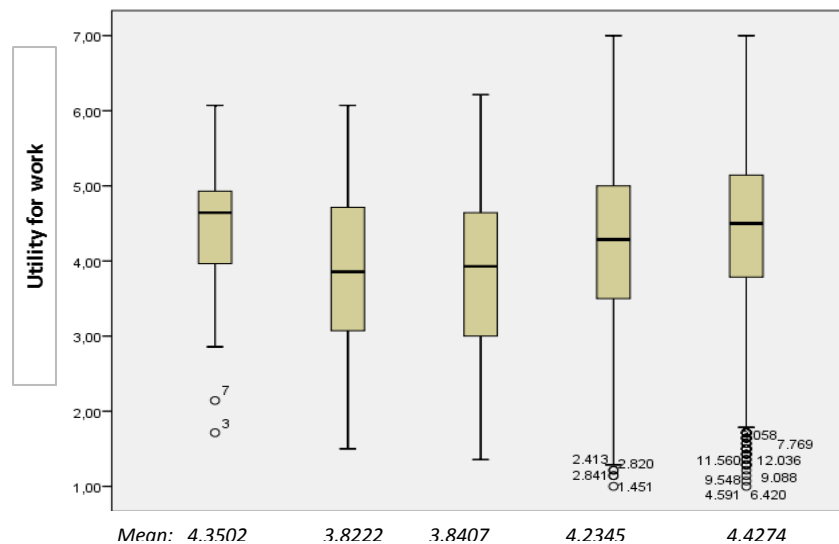
4. Results

4.1. Descriptive analysis

First, we undertake a descriptive or exploratory analysis of the dependent variable: the assessment made by graduates of the training received during higher education with respect to its usefulness for their work. We also describe the main explanatory variables of this assessment by focusing on the *degree awarded/place of graduation*, which proves of particular interest.

The average assessment of the usefulness of the set of tools received in higher education in relation to the tasks performed in the current job is 4.36 (on a scale with a maximum value of 7; that is 6.62 on a decimal scale). This can be interpreted as an acceptable outcome but one that falls well short of the standard of excellence expected from higher education institutions (see Figure 1). On average, the assessment given by GAP graduates coincides with the overall mean, while the UB's Law graduates are the ones that value most highly the skills taught at university in relation to the jobs they now perform.

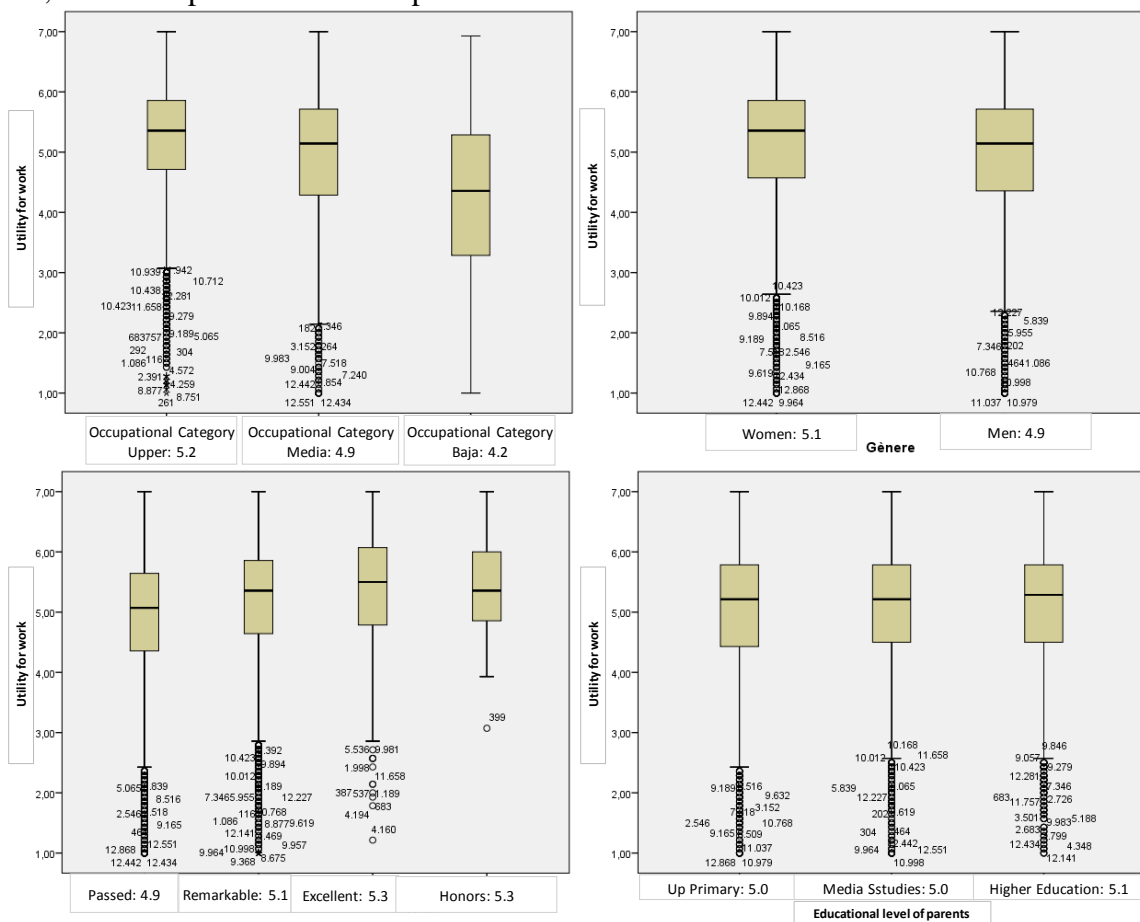
Figure 1: Assessment of the applicability of knowledge to work by degree awarded/place of graduation.



Source: Based on AQU (2014).

Figure 2 presents the assessment of the applicability of knowledge received in university with respect to the job occupied by *degree awarded/place of graduation*.

Figure 2: Assessment of the applicability of knowledge to work by occupational category, sex, academic performance and parental level of education.



Source: Based on AQU (2014).

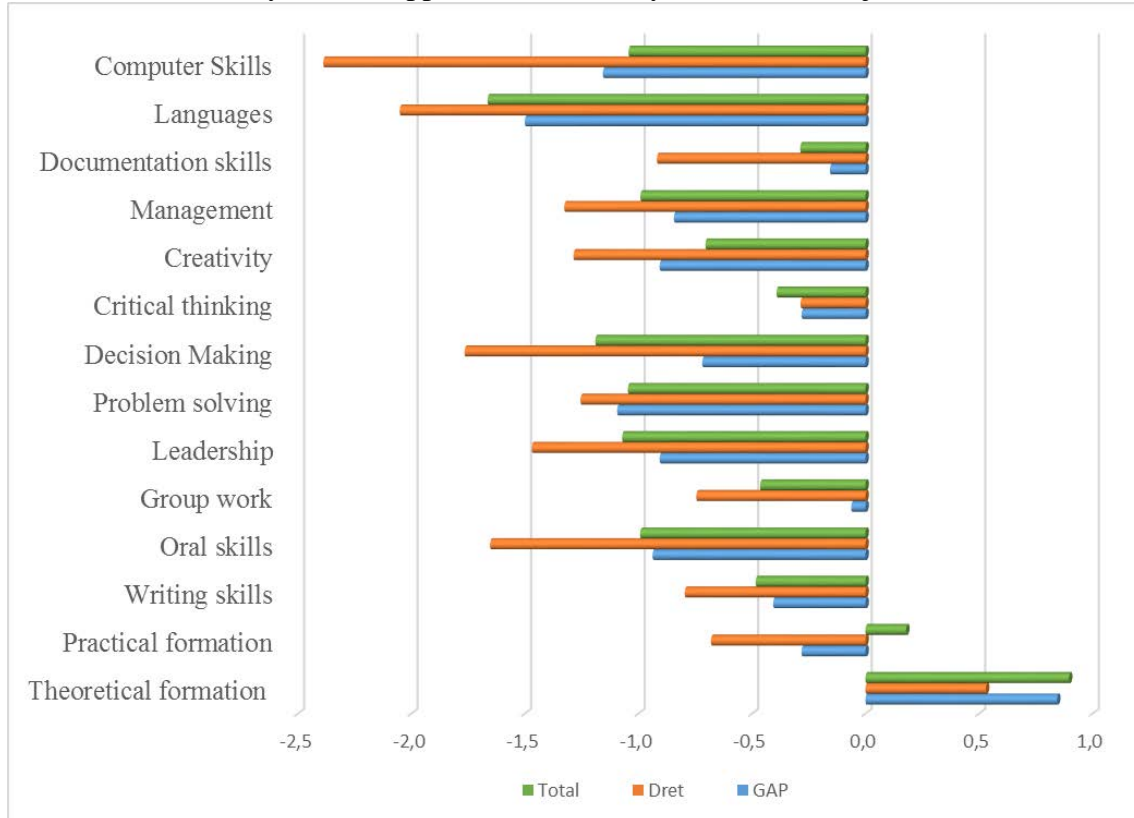
When testing the alternative dependent variable (that is, the assessment of university training), on average, we obtain higher scores: 5.0 (or 7.14 on a decimal scale) (see

Figure A1 in the appendix). In this case, the GAP and Law graduates valuation of the knowledge received is on the average as well as the other degrees analysed.

Figure 3 directly compares the two dependent variables and plots the difference for each specific competence (that is, the difference between the graduates' valuation of each component of training received at university and the appraisal of its utility for the current job).

This comparison highlights certain deficits in university training if we consider that the use of each of the competences in the workplace should afford the graduates with a certain degree of satisfaction. However, this “mismatch indicator” may be called in to question on the grounds that the training provided at university may pursue multiple objectives, including the general education and personal development of individuals in all areas of life, and that labour skills constitute just one of the many areas that higher education should consider. However, the negative values reported in Figure 3 can be seen as identifying deficits in university education/training if we restrict our interpretation solely to the demands of the labour market (see Table A1 for the specific values reported in Figure 3 for each competence and category and for degree awarded/place of graduation).

Figure 3: Difference between the graduates' valuation of each component of training received at university and the appraisal of its utility for the current job.



Source: Based on AQU (2014).

Interestingly the results presented by the GAP graduates and the values recorded by those graduating at all other Catalan public universities are similar; that is, deficits (negative values) in general with the exception (although not significant) of documentation skills, teamwork and theoretical learning. This means that graduates only consider their level of competence in these first two skills as being adequate for the work they currently undertake. Most notably it is the UB's Law graduates that report the greatest deficits across the whole skill set with a marked "mismatch" in their valuations of computing skills, languages, decision-making and oral expression.

4.2. Regression analysis

The regression analyses presented in this section allow us to examine our findings in greater depth. Specifically they enable us identify more precisely the impact of our main variables of interest (“*occupational quality*”, “*occupational category*” and “*academic performance*”) while controlling for a set of other potential determinants of the valuation made by graduates of their training in relation to its applicability to their current jobs (see Table 4).¹ The final sample comprises the valuations of 8,813 graduates and the goodness of fit of the proposed model is around 20%. The results for the three main variables of interest are statistically significant.

The *index of occupational quality*, as developed by Corominas *et al.* (2007), has a positive impact, showing that the higher the occupational quality, the higher the graduates value the education/training received at university. The *occupational category* also presents a positive point estimate when the lower category is taken as our reference. This suggests that a higher *occupational category* is associated with a higher valuation of the adequacy of the training received for the tasks performed at work. Finally, *academic performance* presents a positive impact: graduates with a better (self-reported) academic performance value more highly the education/training they received in relation to their current position.

As for the other control variables, we find that the *socio-economic background* of recent graduates (measured by their parents’ level of education) does not seem to affect the valuations given; that is, it would seem that the valuation is independent of family background. Meanwhile, the variables of *age* and *degree length* present a negative impact, indicating that younger graduates and graduates who made short degrees (or taking fewer years to complete their degree) value less the education/training received from the university in relation to the tasks they now perform in the workplace.

¹ In the appendix we present (in Table A2) and analyse the results when our dependent variable is the valuation of the training/education received at the university.

Table 4: Multiple linear regression: testing the model of analysis.

Dependent variable: assessing the training received in connection with the utility for working	Coefficients Unstandardized		Coefficients typified	Beta * R Pearson (in %)	t	Sig.
	B	Stand. error	Beta			
Independent Variables						
Constant	3,606	,076			47,199	0,000
Occupational quality index (Numerical)	,019	,001	,358	14,0	34,302	,000
Occupational Category: Low (*)						
<i>Upper</i>	,504	,039	,217	4,9	13,019	,000
<i>Medium</i>	,394	,041	,153	-1,3	9,620	,000
Academic Performance: Approved (*)						
<i>Excellent and Honors remarkable</i>	,238 ,146	,066 ,022	,035 ,068	,1 ,6	3,587 6,672	,000 ,000
Control Variables						
Sex: Male (*)	,229	,022	,104	,8	10,564	,000
Age (years)	-,008	,002	-,039	,2	-3,731	,000
Educational level of parents: Up Primary (*)						
<i>Media studies</i>	,031	,026	,013	,0	1,196	,232
<i>Higher Education</i>	,016	,025	,007	,0	,638	,523
Career length (in years)	-,018	,004	-,044	,3	-4,167	,000
Place of graduation: Public Rest (*)						
<i>GAP Degree</i>	-,025	,177	-,001	,0	-,142	,887
<i>Law Degree</i>	-,180	,106	-,016	,0	-1,696	,090
<i>Rest degrees of Law (UB)</i>	-,518	,085	-,059	,5	-6,071	,000
<i>Other degrees of UB</i>	-,090	,024	-,036	,1	-3,668	,000

Cases number 8813
R² 20,2%
R²_{adjust} 20,1%
Standard error 0,96607

(*) Reference category of independent variables

Source: Based on AQU (2014).

In the case of the variable capturing *degree awarded/place of graduation*, we find that the valuations of the GAP and Law graduates from the UB Law Faculty do not differ from those of the reference category (i.e., all other graduates from Catalonia's public universities excluding the UB). However, in general, graduates in other degree courses offered at the UB Law Faculty and graduates in other degree courses offered at the UB show a lower (and statistically significant) appreciation of the utility of their training to their current jobs.

Overall, the *index of occupational quality* and *occupational category* explain most of the variance in our dataset with regards the valuation of education/training in relation to its utility for work. These two variables account for 18% of the overall variance (the

index of occupational quality explaining 14% and the *occupational category* explaining 4%).

5. Discussion and conclusions

We have constructed a model that seeks to account for graduate valuations of the education/training they received at university in terms of its utility in the workplace. In so doing, we analysed the responses of 13,180 graduates from Catalan universities (interviewed during the first quarter of 2014) and who were working at the time of the survey (84%).

The average valuation provided by the interviewees for the training/education received with respect to the job they are currently performing is 4.36 on a scale with a maximum of 7. On average, the assessment given by GAP graduates coincides with this overall mean, while the UB's Law graduates are the ones that value most lower the skills taught at university in relation to the jobs they now perform.

The regression analysis confirms the descriptive findings and we observe that two variables explain most of the variance of our dependent variable (the graduate valuation of the training/education received at university in relation to their current job). These two variables are the "*index of occupational quality*" and the "*occupational category*" of graduates. Thus, the results indicate, on the one hand, that the better the contract, salary and match between training and employment conditions, the higher the valuation graduates give of their training/education. On the other hand, graduates occupying the upper occupational categories in terms of job skills value their training/education more than those in lower categories.

Our results also show that women have, in general, a more positive valuation of the knowledge received at university in relation to their work, and that the highest valuations are given by those women with the best academic records.

The graduates who made shorter degrees give lower valuations to the education/training received, which could be linked to the duration of the degree, a variable that shows a negative relationship with our dependent variable.

In contrast, we find no differences in valuations when considering the educational level of parents. This result is interesting and shows further evidence that university graduates are becoming increasingly independent of the influence of their social origins as their education level increases (i.e., the higher their educational level, the weaker the influence of parental status).

The *degree awarded/place of graduation* variable shows that graduates from the UB's Faculty of Law, except for those graduating in GAP and Law itself, and all other UB graduates report a slightly lower valuation of their training than that reported by graduates from Catalonia's other public universities. Here, it might be interesting to examine the influence of social class, an issue not explicitly addressed here, but one that should be addressed in future work.

In short, given that the most important variables are the *index of occupational quality* and *occupational category*, we might summarise the findings of this study in the following sentence: "Tell me what work you perform and I will tell you how you value the applied skills you acquired at university".

The theoretical contribution of this paper can be summarized as follows: on the one hand, we contribute detailed information and empirical estimates to a subject rarely discussed in the specialized literature, which tends to focus much more on questions of job satisfaction or the match between training and employment; on the other hand, by examining the match between graduate competences and employment, we are able to offer more than a purely technocratic vision of this issue and provide evidence that contradicts the purely "matching" approach. More specifically we, first, incorporate the institutional element into our empirical estimation by introducing the specific assessments that graduates offer of the institution at which they studied. Second, we include an assessment of the "educational market" that comprises a variety of agents, and

which is typically overlooked from the matching perspective. Third, we deal with two elements that are often confused and account for questions of both training supply (received in a specific institution) and labour supply characteristics (measured by the actual job positions held by the graduates), while we also include a link between the two elements by valuing the training received in relation to the specific applicability of these competences to the work done by the graduates at the time of answering the survey.

In terms of education policy, these results are of obvious relevance because, generally speaking, graduates value positively their own past efforts, at the same time as they value positively the specific tools available to them in terms of the knowledge and skills that their university provided them with. Moreover, this assessment has been carried out not within the field of higher education but within the labour market, and it clearly points to the positive impact of universities on the job satisfaction of graduates in terms of the valuation given to the training/education received in higher education institutions.

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Appendix

Figure A1: Assessment of the knowledge received from higher education institutions by degree awarded/place of graduation. (All graduates)

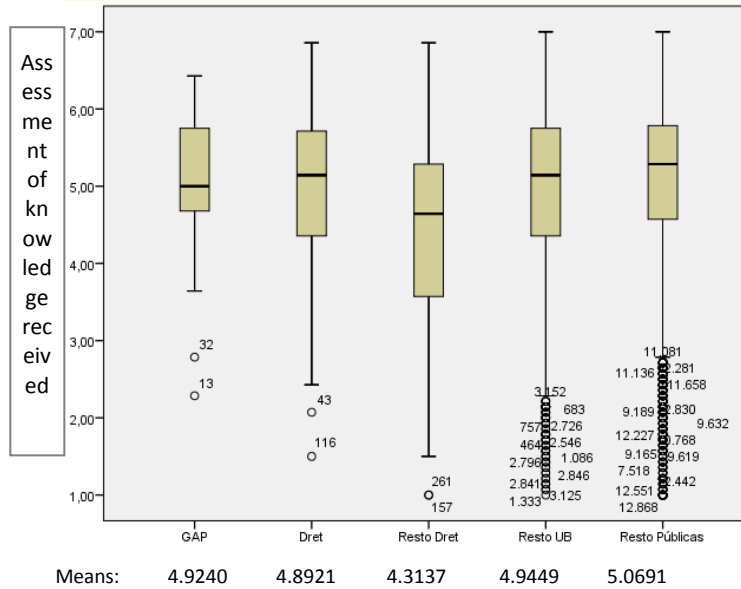


Table A1: Difference between the valuation of the education/training received (in general) and the education/training received with respect to its utility in the workplace.

Difference between valuations	GAP	Law	Other degrees in the Law Fac.	Rest of UB	Rest of Public Unis.	Total
Theoretical learning	0.8438	0.5306	1.4107	0.8905	0.8922	0.8963
Practical learning	-0.2813	-0.6804	0.0602	0.0012	0.2483	0.1791
Written expression	-0.4063	-0.7959	-0.4881	-0.4026	-0.5050	-0.4836
Oral expression	-0.9375	-1.6531	-0.9461	-1.0323	-0.9734	-0.9924
Teamwork	-0.0625	-0.7449	-0.4615	-0.6412	-0.4075	-0.4640
Leadership	-0.9063	-1.4694	-0.7679	-1.1115	-1.0611	-1.0714
Problem solving	-1.0938	-1.2551	-1.0000	-1.1727	-1.0057	-1.0464
Decision-making	-0.7188	-1.7653	-0.9394	-1.2080	-1.1840	-1.1896
Critical thinking	-0.2813	-0.2857	0.1024	-0.3496	-0.4158	-0.3912
Creativity	-0.9063	-1.2857	-0.4671	-0.7297	-0.6936	-0.7043
Management skills	-0.8438	-1.3265	-1.0419	-1.0146	-0.9795	-0.9911
Documentation skills	-0.1563	-0.9184	-0.2410	-0.2361	-0.2968	-0.2871
Languages	-1.5000	-2.0510	-1.5298	-1.6682	-1.6618	-1.6642
Computing Skills	-1.1563	-2.3878	-1.6488	-1.3057	-0.9334	-1.0433

Table A2: Multiple linear regression: testing training received at university.

Dependent variable: training received at university	Unstandardized coefficients		Coefficients typified	t	Sig.
	B	Stand. error	Beta		
Independent Variables					
Constant	4.364	.080		54.610	0.00
Occupational Quality Index (Numerical)	.005	.001	.093	8.226	.000
Occupational Category: Lower (*)					
<i>Upper</i>	-.244	.040	-.109	-6.029	.000
<i>Medium</i>	-.142	.043	-.057	-3.326	.001
Academic Performance: Pass (*)					
<i>Excellent and Honours</i>	.044	.069	.007	.636	.525
<i>Good</i>	.124	.023	.060	5.389	.000
Control Variables					
Sex: Male (*)	.232	.023	.109	10.222	.000
Age (years)	.001	.002	.005	.479	.632
Educational level of parents: Primary (*)					
<i>Secondary</i>	.035	.027	.015	1.267	.205
<i>Higher</i>	-.089	.026	-.041	-3.418	.001
Career length (in years)	-.045	.005	-.115	-9.953	.000
Place of graduation: Rest Public (*)					
<i>GAP Degree</i>	-.104	.186	-.006	-.561	.575
<i>Law Degree</i>	-.466	.111	-.044	-4.199	.000
<i>Other degrees – UB Law Fac.</i>	-.637	.089	-.075	-7.129	.000
<i>Other UB degrees</i>	-.176	.026	-.073	-6.913	.000

Number of cases

8,817

R²

5.4%

R² adjust

5.3%

Standard error

1.01140

(*) Reference category of independent variables

Regarding the results reported in Table A2 the goodness of fit of the model is very low at around 5%. The results for the three main variables of interest are statistically significant except in the case of academic performance classed as *Excellent and Honours*.

The *index of occupational quality* has a positive impact, but the *occupational category* presents the expected opposite tendency. Finally, *academic performance* also presents a positive estimate: graduates with a good (self-report) academic record value more highly the education/training they received at university.

As for the other control variables, we find that *socio-economic background* of recent graduates (measured by their parents' level of education) only affects the valuation when the parents have completed studies of higher education. *Age* is not significant and *degree length* presents a negative impact: graduates who made shorter degrees value less the education/training received at university. In the case of the variable capturing *degree awarded/place of graduation*, we observe that GAP graduate valuations do not differ from those of the reference category (i.e., all other graduates from Catalonia's public universities excluding the UB). In contrast, the graduates from the rest of places show a lower valuation.

It is perhaps worth stressing that when graduates are asked to value the education they received at university, they might understand this in a more global sense and so assess many elements including their own performance, the expertise of teachers, their family's socioeconomic situation at that time, etc., whereas when asked to value the applicability of this knowledge to their current job, the focus is much more specific. In this sense, when responding to the more general question the current job and all its characteristics are irrelevant in the graduates' valuation of the training received.