

# **SUCCESSFUL JOB ENTRY INTO THE LABOUR MARKET FOR SENIOR GRADUATES: VARIABLES RELATED TO EMPLOYABILITY WITHIN THE ECONOMIC CRISIS**

**M.I. Beas Collado, J.R. Burriel Calvet**

*Careers Service. Universitat Jaume I de Castelló de la Plana (SPAIN)*

*Maribel.Beas@uji.es, Raul.Burriel@uji.es*

## **Abstract**

Job match is an important concept related to the quality of the employment: It implies education-employment fit and taking profit of those skills acquired during higher education studies. Also to study the situation of not working persons (unemployed and inactive persons) is interesting for career guidance. In a previous article we studied variables affecting employability for recent graduates in a positive economic context. As a further step the main aim is to explore the relationship between job match of graduates to the workplace, and work status (employed versus not working). This study aims to explore the relationship between job match/work status and situation and school-to-work transition, and also the characteristics of first job and current employment.

The study was conducted on a sample of 196 graduates from Universitat Jaume I of Castelló who finished their degrees in 2004 (5 years in the job market) 55.56% are women (average age 31 years old).

We studied differences between job-matched group and not job-matched group and also working and not-working group in key variables related to employability (such as socio-demographic variables, amount and typology of working experience, Successful job-search techniques for finding the current job, job-search intensity, self-efficacy, time to find their first job and time to find current job, typology of first employment, promotion prospects at current company, level of English, international mobility, ...)

The results show significant differences in the way job-matched and not job-matched graduates and workers and non-workers face the job search process for the current job. Further implications for career guidance are commented.

Keywords: job-matching, school-to-work transition, job search, first job, employability, successful job entry.

## **1 INTRODUCTION**

Since 2003, the Universitat Jaume I (UJI) Occupational Observatory (OO), forming part of the Careers Service (OIPEP), has been carrying out various studies monitoring the occupational integration of graduates from this university, among other types of study. The OO's main aims are to compile, generate and publicize relevant information about the occupational integration process of UJI graduates. As part of the OIPEP, the OO is responsible to the Vicerectorate for Students, Employment and Educational Innovation (VEOIE). The OIPEP aim is to incorporate added value into students' education, increasing their employability and preparing them to work in international environments. It is the UJI's main tool for developing employment policies directed towards student employability.

Knowing about students' routes to occupational integration should be useful not only for compiling a series of indicators about job finding or employment quality standards, but also for a full understanding of the process that leads to quality integration.

In these occupational integration monitoring studies with university leavers, it is important to focus on groups of graduates who have been in the job market for at least 2-3 years. In this way, occupational integration can be studied in professionals with a degree of experience of the job market, at the stage when they are stabilizing their professional career and getting away from the precarious employment of the period immediately following the end of their courses.

Meanwhile, the literature on occupational integration studies includes various employment quality indicators: objective ones such as level of remuneration or professional category, and other more subjective ones such as job satisfaction [1]. Among the measurements of employment quality we

should emphasize job matching, or the fit between educational level and the post occupied. Traditionally this has been the main concern when it comes to university graduates finding jobs – what is known as "over-qualification" [2]. In addition, this matching is translated into the fit between the competences developed during studies with those demanded by employers. Consequently, matching can be understood as an indicator both of the quality of the job found and the quality of university education.

In a previous study with a sample from 2006 [3] senior graduates we found significant differences in matching for graduates in terms of the sectors of production where they work, operational areas of the company, use of proactive job-search techniques. Also matching graduates showed higher rates of independence from their parents and geographical mobility, had more full-time jobs and were carrying out tasks with responsibility. Regarding incomes, matched graduates earn an average of € 6000 a year more than their non-matched counterparts. They are also more satisfied with all the aspects measured and showed much more professional self-efficacy.

The aim of this article is to explore the relationship between job match/work status, and also the characteristics of first job and current employment, in school-to-work transition context. We have used a sample of 2004 senior graduates during a crisis year, 2010, in Spain. We will compare these results with those in 2006, during an expansion period, to show how economic situation affects quality employment.

## **2 METHODOLOGY**

### **2.1 Participants and procedure**

The data for this study have been drawn from the Occupational Integration Survey regularly carried out by the OO [4]. This survey was carried out on a population of 1599 graduates from 26 degree courses, graduating in 2004 and asked in 2010 [5]. The field work took place from May to December 2006, through a combination of postal survey and web-form, and a sample of 196 valid responses was finally collected.

### **2.2 Variables**

#### **2.2.1 Matching**

This variable has been constructed based on the employment level given by the graduate [4]. The options management, middle management, higher grade specialist and middle grade specialist have been categorized as matching, while administrative worker, operative and others have been considered non-matching. A dichotomic variable has therefore been constructed.

#### **2.2.2 Work status**

This variable has been constructed based on the employment status, which contains different labour situations finally reduced to a dichotomic variable: employed and not-employed (including unemployed and inactive persons) [6].

#### **2.2.3 Socio-demographic variables**

These variables – sex and age – are always taken into account, but differences often appear on matters concerning occupational integration and the job market, such as salary.

#### **2.2.4 Mobility**

Some indicators in the Spanish job market show that mobility favours job finding [7], and the fact is that the best educated workers are precisely those showing greatest mobility [8]. This variable indicates whether those surveyed have experienced abroad stages, for learning or work reasons.

#### **2.2.5 Job-search intensity**

Shows how many different job-search techniques (JST) graduates have been implemented.

#### **2.2.6 Successful job-search techniques for finding the current job**

Choosing the appropriate JST is decisive for developing a professional career. A list of JSTs was used, on which the graduate had to mark the most successful one they had developed, when it came on finding a job, by the time of the survey. These JSTs were fitted into 5 categories [9]: 1) On-spec

application ("Contacting businesses on my own account"); 2) Family/acquaintances ("Using personal contacts"); 3) TEC ("Using a temporary employment company"); 4) Public offers ("Answering job advertisements"); and 5) Active registration ("Using a public employment agency").

### **2.2.7 Work experience**

Work experience is measured in months, distinguishing between related and not related with studies.

### **2.2.8 Time elapsed since obtaining current job**

This variable shows time in months from the end of the studies and the finding of the first job.

### **2.2.9 Job entry facilitators**

This variable collected opinions about importance about job entry of a set of different aspects. It is an adaptation from the organizational facilitators scale [10]. Graduates should be rate in a scale from 0 (nothing important) to 4 (very important).

### **2.2.10 Reasons to accept the first job**

This variable covers different reasons that people argued to explain why choosing a particular job (e.g. "It was the first who offered"; "It was a job I loved"; or "For the salary"). Respondents must to answer in a scale from 0 (nothing important) to 4 (very important).

### **2.2.11 Type of contract**

The type of contract held by the person surveyed in their current job has been coded in four categories: 1) Self-employed, 2) Indefinite, 3) Temporary and 4) Other types.

### **2.2.12 Working day**

The variable "working day" can take four values: 1) Full-time, 2) Part-time, 3) Shift work and 4) Other types.

### **2.2.13 Tasks with responsibility**

This variable is intended to show whether the person surveyed takes on tasks with responsibility in the job they do.

### **2.2.14 Promotion prospects**

This variable is intended to show whether the graduate have a chance of promotion at work.

### **2.2.15 Gross annual salary**

Average gross annual salary is included in this variable.

### **2.2.16 Type of company**

This variable difference companies between public sector, private sector and non-profit sector.

### **2.2.17 Company's economic activity**

The classification of economic activities includes primary sector, industry, construction and services.

### **2.2.18 Operational area of the company**

According to the OO's experience of previous studies [3], the operational areas of a company are divided into 4 different categories: production and services, marketing, administration and internal services and management.

### **2.2.19 Company size**

The company size has been collected asking about number of workers within the organisation.

### **2.2.20 Satisfaction with current job**

To evaluate job satisfaction, a composite scale has been used [11] made up of by four items assessing satisfaction with the content of the job (the tasks), with workmates, with the company or organization and with the salary. Respondents must answer in a scale from 0 (nothing satisfied) to 4 (very satisfied).

### 2.2.21 Work self-efficacy

Work self-efficacy has been measured using a scale [12] made up of five items with an answer scale from 0 (never) to 4 (always).

### 2.2.22 Foreign language (English)

Level of English acquired during the studies. Respondents must answer in a scale from 0 (nothing) to 4 (excellent).

### 2.2.23 Job competencies

This variable measure skills and abilities demanded by the actual job. It's measured by a scale from 0 (nothing) to 4 (very) [12].

## 3 RESULTS

Statistical analyses carried out. We will now show the main results in tables.

### 3.1 Descriptive

We will compare results regarding first and current job for 2006 and 2010 sample.

Unemployment rate in this sample is 9.8%, whereas in the previous study was 5.15%.

#### 3.1.1 Matching

Concerning the variable "matching" in the actual job, 77.36% of the sample at the time of answering the survey was doing a job that matched their level of studies. The table shows an increase since 2006, when it was 67.7%.

Table 1. First job matching.

	Frequency	Percentage
Yes	65	47,10
No	73	52,90
Total	138	100

Table 2. Current job matching.

	Frequency	Percentage
Yes	123	77,36
No	36	22,64
Total	159	100

#### 3.1.2 Work status

Concerning work status, 85.05% of the graduates surveyed are employed. This shows a slight decline compared to the previous data, which was 87.75%.

Table 3. Work status.

	Frequency	Percentage
Employed	165	85,05
Not working	29	14,95
Total	194	100

### 3.1.3 Socio-demographic variables

The majority of the sample consisted of women (55.56%), with an average age of approximately 31. While in the previous study women were 59.74% of the sample, and the average age was close 29 years old.

### 3.1.4 Mobility

The 20.51% of the participants in the study have done placements abroad, a clear increase respect the 14.35% in the previous paper.

Table 4. Abroad placements.

	Frequency	Percentage
Yes	40	20,51
No	155	79,50
Total	195	100

### 3.1.5 Job-search intensity

On average, the graduates surveyed were implemented 2 different JST.

Table 5. Job-search intensity

	N	Min.	Max.	Average	S.D.
Job-search intensity	174	1	8	2,01	1,50

### 3.1.6 Job-search techniques

The most successful JST for the first job were personal social networks (40.46%), followed by responses to advertisements (23.66%). They are differences for the current job, where the first JST were responses to advertisements (44.52%), and personal social networks were the second (29.45%).

Regarding the techniques to find current job, the most are applying for public or private jobs offered (40.25%) and using personal social networks (30.9%). TECs and signing up with public employment services show the lowest percentages (2.3% and 7.6%, respectively).

### 3.1.7 Work experience

On average, persons surveyed have 41 months of work experience not related to their studies, but 58 months of experience related.

### 3.1.8 Job entry facilitators

The participants of the study are rated as important aspects that contribute of their first employment to having a university degree (3.04); his personal effort (2.78); or having his specific degree (2.51). For the actual job, the most important facilitator were exactly the same and in the same order (3.46, 3.06 and 2.93 respectively).

### 3.1.9 Reasons to accept the first job

The main reasons argued by surveyed persons to accept the first job are the relation with the studies (2.59); was a job that he loved (2.54); or was the first job offered (2.29). These are the same reasons as in the previous study (2.40, 2.57 and 2.40, respectively).

### 3.1.10 Type of contract

For the first job, temporary contracts predominate (57.64%) and indefinite are the 15.97%. This situation is reversed for actual job, where indefinite contracts are 66.27% and temporary the 22.49%. In the current situation, self-employment represents 7.10%. In the previous study, for actual job, indefinite contracts were 66.70%, temporary 22.98% and self-employment 5.70%, so no differences were found.

### *3.1.11 Working day*

The majority of graduates in the sample work full-time (88.62%), similar that in previous publication, which was 87.20%. Between the first and actual job, the proportion of full-time graduates increases from 73.43%.

### *3.1.12 Tasks with responsibility*

84% of those surveyed assume tasks with responsibility in their job, the same value that in the previous study.

### *3.1.13 Gross annual salary*

The average gross annual salary in the sample is €23763 a year, almost 50% more (47.33%) than in the first job. And also this salary is above the gross salary measured in our previous study (€18168).

### *3.1.14 Company's economic activity*

The economic activity that occupies a greater proportion of graduates is the service sector, with the 81.10%.

### *3.1.15 Operational area of the company*

The operational areas where the subjects of the study are most frequently employed are administration and internal services (33.73%), production and services (31.95%) and other (21.30%).

### *3.1.16 Job satisfaction*

The surveys show a medium level of job satisfaction (2.86), although the graduates are more satisfied with aspects like workmates (3.21) or job content (3.13) than salary (2.55).

### *3.1.17 Work self-efficacy*

Overall, the graduates who are working show average/high levels of work self-efficacy (3.24 in average).

### *3.1.18 Foreign language (English)*

Regarding their level of English, graduates showed a medium level (2.34)

### *3.1.19 Job competencies*

Speaking about the level of job competencies, in a 0-4 scale, senior graduates show high level of competencies: 3.01 (instrumental competencies), 2.81 (interpersonal competencies), 3.08 (systemic competencies).

### *3.1.20 Other variables*

Other variables explored, with no significant differences been found: promotion prospects at current company, type of company (public vs. private), company size, company's geographical area of action, time elapsed to obtain first job.

## **3.2 Contrast of averages and distributions**

In the case of continuous or scale variables, averages have been compared between the matching and non-matching groups using a *t*-test for independent samples. For each variable, the degrees of freedom and the value of the *t*-test statistic are shown. Only the variables showing differences between averages that are significant or very close to being significant are commented.

In the case of category variables, chi-square comparisons have been carried out. For each variable, the degrees of freedom and the value of the chi-square statistic are shown. Only variables that have shown statistically significant differences in category distribution are commented.

As has already been mentioned, no statistically significant differences have been found in the distribution of the following variables between the matching and non-matching groups and work status: sex, age, job search intensity, time elapsed since obtaining current job, type of contract, working day, company variables (type, economic activity, operational area, size).

In the next paragraphs we will in depth to the variables showing significant differences.

### 3.2.1 Results related with matching

Statistically significant difference were found [ $\chi^2(1) = 14.471$ ,  $p < 0,000$ ] in the level of responsibility tasks comparing matching and non-matching group. 91.74% of matching persons have responsibilities in their job, against the 66.67% of no matching persons.

About gross salary in actual job, statistically significant difference [ $t(64.59) = 4.249$ ,  $p < 0,000$ ] were found between matching graduates (€25,161.46 in average) and not-matching (€18,909.38). Not matching graduates earned 25% less wage. By contrast, no differences were found in the first job.

As for the results concerning job satisfaction, statistically significant difference appears in tasks [ $t(155) = 2.370$ ,  $p < 0.05$ ] and salary [ $t(137) = 2.604$ ,  $p < 0.05$ ], favourable to matching graduates.

Also we have found statistically significant differences in reasons to accept the first job between matching and not-matching graduates. Those who developed non-matching tasks have a trend to accept the first job they were offered [ $t(108) = -2.179$ ,  $p < 0.05$ ], whereas those who developed matching tasks choose the job "because they loved it" [ $t(105) = 1.894$ ,  $p = 0.06$  close to statistical signification].

When graduates were asked about their job entry facilitators to the first job, we found statistical differences between matching and non-matching group: having a university degree [ $t(37.24) = 2.642$ ,  $p < 0,05$ ], having an specific degree [ $t(106) = 3.161$ ,  $p < 0.01$ ], the academic records [ $t(106) = 2.185$ ,  $p < 0.05$ ], placements during the degree [ $t(108) = 1.943$ ,  $p = 0.054$  close statistical significance], foreign languages competences [ $t(106) = 2.370$ ,  $p < 0.05$ ].

Speaking about the difference in the level of job competencies at the current job, between matching and non-matching group, we found differences in average of level of competences [ $t(44.976) = 2.742$ ,  $p < 0.01$ ], Instrumental competencies [ $t(43.425) = 2.876$ ,  $p < 0.01$ ], Systemic competencies [ $t(156) = 2.527$ ,  $p < 0.05$ ]. However, no statistical differences were found in interpersonal competences.

The fact of spending periods abroad for placements or studies, have a relationship with job matching [ $\chi^2(1) = 3.373$ ,  $p = 0.066$  seems to be close to statistical significance].

### 3.2.2 Results related with work status

Being working is related with successful JST for the first job, as we found statistical differences in this variable between working group and non-working group [ $\chi^2(4) = 11.627$ ,  $p < 0.05$ ].

Moreover, working group have more months of work related experience than non-working group [ $t(161) = 2.507$ ,  $p < 0.05$ ].

Also we have found statistical significant differences in reasons to accept the first job between working and non-working graduates. Those who did not work at the moment to be interviewed have a trend to do not accept jobs which implies changing their residence [ $t(135) = -2.065$ ,  $p < 0.05$ ].

About job entry facilitators, people not working have a trend to explain their current situation to the economic cycle [ $t(136) = -2.136$ ,  $p < 0.05$ ] and the bad luck [ $t(137) = -2.086$ ,  $p < 0.05$ ], whereas people working explain their situation because of intern factors -to be prepare to take risks and to take the initiative [ $t(138) = 1.895$ ,  $p = 0.060$  close to statistical significance]-, and also to participate in student unions and charity organisations and  $t(133) = 2.069$ ,  $p < 0,05$

Finally, those who are working at the moment have spend more periods abroad than those who are not working [ $t(170) = 6.085$ ,  $p < 0,00$ ].

## 4 CONCLUSIONS

Even during economic crisis, having a university degree is an edge for young people, the level of job matching is high (77,36%) and the unemployment rate is low, comparing general population in Spain (21.52%)[13] and Castelló (26.30%)[14]. Regarding economic crisis effect, we found an increase of unemployment rate, but we did not find a poorer situation of job conditions. This fact seems to point that those posts that were destroyed during economic crisis employed graduates with a worst labour contract conditions. Those who had good fit education-job have maintained their job during 2010. Comparing our study in 2006, the proportion of leavers doing placement abroad has been increased from 14 to 20%, and probably this trend will be continue in the next future.

On the other hand, it is important to take into account the proactive behaviour in the job search process, as is related to future quality jobs. Moreover, a passive attitude in job search of first employment acceptance is negative for a job entry in a quality job.

We have found that some features that can be controlled by the graduates affect positively to employability: the specific university degree, international mobility, previous labour experience related with studies.

Successful job entry profile have consequences in quality of the job place: job satisfaction, exercise of tasks which implies responsibility, a challenging level of job competencies and more salary income

These results have a practical implication in vocational guidance and university employment promotion policies, even during this negative economic context.

In further research we will focus on increasing the size of the sample and going further in causal statistical analysis.

## REFERENCES

- [1] Serra, A. (ed.). (2007). Educació superior i treball a Catalunya: Anàlisi dels factors d'inserció laboral. 368 pp. Barcelona: Agència per a la Qualitat del Sistema Universitari de Catalunya (AQU).
- [2] García-Montalvo, J. & Peiró, J.M. (2001). Capital Humano. El mercado laboral de los jóvenes. 215 pp. València: Institut Valencià d'Investigacions Econòmiques-Fundació Bancaixa. València: IVIE-Fundació Bancaixa.
- [3] Burriel, J.R. & Beas, M.I. (2010) Job matching in recent graduates: How to achieve quality employment. INTED2010 Proceedings, pp. 5501-5512. València: International Association of Technology, Education and Development.
- [4] Burriel, R. & Beas, M.I. (2008). El procedimiento de análisis de la inserción laboral de los graduados: una propuesta de modelo longitudinal. I Jornadas Nacionales de Estudios Universitarios Proceedings. Castelló de la Plana: Publicacions de la Universitat Jaume I [CD-ROM].
- [5] Observatori Ocupacional. La inserció laboral a la Universitat Jaume I. Enquesta d'Inserció Laboral de Seguiment 2004-2010. Paper awaiting publication. Castelló de la Plana: Universitat Jaume I.
- [6] Wozowczyk, M. & Massarelli, N. (2011). European Union Labour Force Survey – Annual results 2010. Brussels: Eurostat. Retrieved from: <http://ec.europa.eu/eurostat>
- [7] Romero, M. & González-Quijano, J.E. (2009). El 70% de los empleados que cambian su zona geográfica de residencia consiguen empleo. Nota de alerta mensual de la AGETT, no. 78. Retrieved from <http://www.aggett.com>.
- [8] González-Quijano, J.E. (2007). Aumenta la movilidad geográfica laboral en España, manteniéndose los polos tradicionales de atracción de trabajadores. Nota de alerta mensual AGETT, no. 51. Retrieved from <http://www.aggett.com>.
- [9] Beas, M.I.; Llorens, S. & Cifre, E. (2000). Patrones de estrategias de búsqueda de empleo en estudiantes de la Universitat Jaume I. Fòrum de Recerca (5). Retrieved from <http://www.uji.es/bin/publ/edicions/jfi5/patrones.pdf>
- [10] Burriel, J.R.; Aranz, M. and Grau, R. (2003). Obstacles i facilitadors organitzacionals: elaboració d'un qüestionari per a empleats del sector turístic de Nicaragua. Fòrum de Recerca (8). Retrieved from <http://www.uji.es/bin/publ/edicions/jfi8/psi/27.pdf>
- [11] WONT (Work and New Technology team) (1999). Propiedades psicométricas del cuestionario CET (Cuestionario de Experiencias en el Trabajo). Unpublished internal document. Universitat Jaume I.
- [12] Burriel, R. & Beas, M.I. (2004). Autoeficàcia i satisfacció laboral dels titulats de la UJI i la seua relació amb les experiències durant els estudis. Fòrum de Recerca (9). Retrieved from <http://www.uji.es/bin/publ/edicions/jfi9/psi/7.pdf>



- [13] Instituto Nacional de Estadística (2011). Encuesta de Población Activa. Retrieved from <http://www.ine.es>
- [14] Institut Valencià d'Estadística (2011). Enquesta de Població Activa. Retrieved from <http://www.ive.es>