

EDUCATIONAL (MIS) MATCH FROM A GENDER PERSPECTIVE: UNIVERSITY AND EMPLOYMENT

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INTRODUCTION

In most of the university students, there exists a close relationship between the educational levels of the workforce and the jobs performed by these groups. This correspondence between education and employment levels is because most jobs are defined according to some educational requirements which tend to coincide with the levels of formal education. Thus, less skilled jobs (manual) are performed primarily by individuals who have, at most, a basic education. On the other hand, most skilled jobs are filled by people with a university degree.

But unfortunately it does not always happen that way. Thus, in the context of our research, it is important to note that to talk of a smooth transition it is not only important that the graduates find a job soon after completing their studies -rapid transition to first significant employment (see Albert et al., 2003) -, but also that there was a proper fit between the skills obtained and the conditions of employment. It is therefore important to assess whether the training provided by the University is adequate to perform the professional work required by graduates.

From the foundation established by Freeman (1976) and Duncan and Hoffman (1981), the phenomenon of overeducation has been discussed in various developed countries. A summary of the literature can be found in Hartog (2000) and Groot and Maassen van den Brink (2000). In Spain, using the work of Alba (1993), several authors have analyzed the significance of this phenomenon for the Spanish economy.

Although it is true that overeducation is a widespread phenomenon it does not mean that none education does not have economic value to individuals. For example,

the study of Verdugo and Verdugo (1989) is evidence that overeducated workers earn less than workers who are properly allocated than the undereducated. Moreover, and as is clear from their findings, the performance of the education is determined largely by the characteristics of the job. On average, over-educated workers earn 13 percent less than those who are evenly distributed, while undereducated workers earn 10 percent or more.

But overeducation does not only affect the salary, since it directly affects job satisfaction: the over-educated workers tend to feel dissatisfied. Indirectly, through this state of dissatisfaction, overeducation leads to: 1) situations of less effort in the post and, consequently, lower individual productivity, 2) a worsening of physical and mental health of the worker, 3) adverse behavior in the workplace such as absenteeism and turnover.

The existence of individuals with a level of formal education that does not fit-for-by defector excess or defect- to that required by their jobs has led researchers to try to measure the magnitude of the phenomenon, to study its causes and implement solutions (publics and privates).

According to Rumberger (1981) there is overeducation if: a) the pecuniary performance for a particular level of schooling, falls below its record high, b) an individual's expectations, concerning the benefits of investment in education, are not met once in the labor market, and c) individuals in the labor force working in jobs that do not make full use of their education.

But how can we determine whether a worker is overeducated? In principle, we should determine the education required by the position where he is working and compare it with the formal education he has. There are two main methods of empirical approaches to measure this phenomenon.

The *objective method* to analyze the educational mismatch is to set the educational requirements of jobs from some objective determination by the description of the job. For example, Groot (1993) estimated the number of years of overeducation as effective education minus the average years of education plus relevant work level

standard deviation.

On the other hand, the *subjective method* is to ask workers directly about the relationship between their education and the education required in their work. Using surveys, workers are silent on the years of education that are necessary to perform tasks properly, and report, on the educational level they have. This method allows measuring overeducation and undereducated as the difference between years of education possessed and those required in the opinion of the worker.

Of the various methods available to measure the educational mismatch, we have opted for the subjective-see Garcia-Serrano and Malo (1996) and Aguilar (2002) for the Spanish case. This method, although the responses may include some emotional charge, has the advantage that the employee knows his job well.

Therefore, the research presented in this paper, has been based on the sample generated from an investigation whose primary objective was to analyze the determinants of educational (mis) match of university students in their first job, particularly for students who have completed qualifications in the Economic Area at the University of Seville.

METHODS

In this regard, we have counted on the views of the main users of the University Service (3 years/5 years degree and universities graduates), namely, with a population of 982 university students (40.3% males and 59.7% females), aged between 27 and 30 years (the majority), who completed their studies during the academic year (2004-05). The information analyzed in this study has been primarily from questionnaires filled out by the undergraduate students, four years after completing their studies, which received a response rate of 21%, a rate acceptable considering the length of the questionnaire, the data collection instrument used in this study.

RESULTS

Key information for the study of education and employment adjustment is provided by question 24 of the questionnaire, which asked the respondents to respond to the next item -in relation to the first work performed as a graduate-: *"In relation to knowledge (theoretical / practical) obtained from University studies (choose only one option):*

- 1. Are adequate for the job required*
- 2. Are higher than those needed for the job*
- 3. Are lower than those needed for the job*
- 4. Are not related at all with the job"*

In the first case we have individuals well matched to their jobs; the second case, overeducated individuals, in the third case, undereducated individuals, and finally mismatched individuals.

Table 1 shows the percentage distribution of possible educational (mis) match found for the study sample with respect to the first job and current employment of graduates. In general, we see a shift to overeducation graduates in their first job (35%) to well-trained graduates of the university system in the current job (35%). However, even four years after completion of studies, there continues to be a mismatch, either excess (26%), default (25%) or performing work unrelated to studies (13 %). In short, for both jobs, the percentage of situations of lack of education and employment matching exceeds the percentage of educational setting situations.

Table 1. Educational (mis) match for graduates (percentages).

	FIRST JOB	CURRENT EMPLOYMENT
Good match	24,9	35,4
Overeducated	34,7	25,9
Undereducated	21,4	25,3
Maladjustment	19,1	13,3
Total	100,0	100,0

Source: Authors.

Table 2. Educational (mis) match. Graduates without previous work experience (percentages).

	FIRST JOB	CURRENT EMPLOYMENT
Good match	28,4	37,3
Overeducated	29,9	28,8
Undereducated	23,9	25,4
Maladjustment	17,9	8,5
Total	100,0	100,0

Source: Authors.

However, if you want to evaluate properly the possible mismatch between the education and productive system, it is interesting to examine the responses to this item made by the students that combine studies and work and, hence, have no work experience after finishing their university studies degree. Table 2 shows the results obtained in this case. As noted, these trends are maintained. However, the reduction in the percentage of graduates who perform work unrelated to their studies is surprising, especially in relation to current employment (8.5%).

Summary . Characteristics of the Educational Match

- There is a large educational gap in employment, even after four years.
- There is a shift from overeducation in the first to adequacy in the current employment.
- In addressing the graduates without previous work experience, reduces the percentage of graduates who perform work unrelated to their studies is reduced, especially in the current job

But what explains the education-job match after graduation? In order to understand the determinants of *educational (mis) match*, it is necessary to consider, simultaneously, the variables for the graduates and their jobs to help us to explain this phenomenon. An appropriate econometric model is the multinomial logit model. In this type of alternative model the response variable indicates the belonging of the observations to a certain group without incorporating ordinal data. In our case, there are four possibilities that cannot be ordered, well matched, overqualified, underqualified and mismatched ($j = 0, 1, 2, 3$). The phenomenon of educational mismatch for the Spanish case and using the econometric methodology, has been studied, among others, by Alba (1993), García-Montalvo (1995), García-Serrano and Malo (1996a) and Gil Jurado (1999).

According to the results of the econometric estimation (marginal effects). First, the estimated model tells us that, all else equal, males have a higher probability of being overqualified and females underqualified or completely mismatched in their first jobs.

Secondly, according to the econometric analysis carried out, the probability of being overqualified is explained by the average grades obtained during university: the higher the grade, the greater the probability of being overeducated (or overqualified). This finding is consistent if one takes into account that we use a subjective measure of overeducation: the best students are the most knowledgeable (perhaps theoretical) and therefore, other things being equal may tend to classify themselves as overqualified.

Third, the duration of first unemployment significantly affects the pairing: the educational setting is more likely for those graduates who were between two and nine months looking for their first job. This is quite logical, since they did not take the first job that presented itself, neither did they let opportunities, resulting in a deterioration of human capital and self-esteem -.

Regarding the job characteristics, the good match is more likely for graduates working in the financial sector and less if they work in the public sector or in unskilled jobs in the private sector. Interestingly, the likelihood of adjustment to have a permanent contract is also reduced, probably because the graduates offset the disutility of the inadequacy of the post with the utility that brings them stability in the job.

Its part, overeducation is more likely if one works in administrative and less, if one works as a commercial or for a consulting firm. By contrast, underqualified occurs more frequently in the consulting industry and when the worker has a permanent contract, evidence supporting the hypothesis of compensation disutility. However, undereducated is less likely while working for the public sector.

Finally, in line with previous evidence, those surveyed graduates working in the financial sector or performing administrative functions, which are basically considered over-educated, have a lower probability of being mismatched. This probability increases, however, the respondents employed by the private sector in low-level jobs. The situation would not have been so bad if they had been, at least, overeducated, because, as claimed by the "theory of occupational mobility" (Rosen, 1972; Sicherman and Galor, 1990), overeducation is a temporary imbalance in the work market because the overeducated workers, are easily promoted within the same company (internal mobility) or moved to higher level jobs in other companies (external mobility).

DISCUSSION

The interest of this profession, like others, for issues such as educational (mis) match already has a tradition among economists and educational workers. In this paper we have analyzed the determinants of educational (mis)match of a particular group of young graduates: economists who completed their studies in the academic year 2004/2005 at the University of Seville. Our empirical analysis implemented from our micro database suggests the following conclusions.

Our work, in line with the literature that has addressed the issue in Spain, again confirms that educational mismatch is particularly important for economists in our sample. Known studies for several countries indicate that the level of overqualification is between 25% and 30%, while the underqualified affect about 15% of employed, see Hartog (2000). In our study, the percentage of overqualified and underqualified in the first job is 34.7% and 21.4% respectively. However, at this point it is essential to characterize whether these educational mismatches are permanent or transitory. Considering this issue, our survey provides evidence on the evolution of these imbalances. Thus, we see a transfer of graduates with overeducation in the first job, to well-trained graduates in the current job. However, even four years after completion of studies, there is still a level school mismatch (only 35.4% of graduates are considered adequate in the current job set).

Our results confirm that there is a differential impact by gender in the educational imbalance (men have a higher probability of being overqualified and women, to be underqualified and totally mismatched). In addition, the higher average grade student, the greater the probability of being overqualified. On the other hand, the educational setting is more likely for those graduates who were between two and nine months looking for their first job.

Regarding job characteristics or job positions the following evidence has been found: 1) the good match is more likely for graduates working in the financial sector and less for employees in the private sector in low-level jobs; 2) over-education is more likely if ones works in administrative tasks and less if you work for a consulting firm; underqualification is more probably in the consulting sector.

But particularly striking is that a significant percentage of graduates work in positions where they do not use their university studies at all. The smooth transition from the university education system to the world of employment requires that graduates hold a post based on their qualifications; otherwise, there is a misallocation of

public resources for higher education. Therefore, there is a problem shared between the labor market and the university education system. The latter, insert fully into the final stage in the process of European University convergence (Bologna), now more than ever has the opportunity and responsibility to correct its lack of foresight and low permeability to the demands of society (including, of course, its two major stakeholders: students and the society in which they will provide their skilled labor services).

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