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Working while studying in higher education: the impact of the economic crisis on academic and labour market success (preprint version)

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Summary

A thorough analysis of the phenomenon of combining working and studying among university students is made using data obtained from surveys of graduates carried out four years after finishing their degrees. First, the article revises the evolution of the phenomenon over the last ten years taking the *Catalan University Quality Assurance Agency (AQU)* labour market insertion surveys for 2005, 2008, 2011 and 2014 into account. Second, the 2008 and 2014 waves are compared to analyse the impact of the economic crisis. In this case, how combining working and studying affects academic results and labour market insertion is studied, in addition to whether or not differences occur according to the educational background of the family. The evolution shows how the numbers of students that combine work and study has increased, especially among those whose parents have a low educational level. Furthermore, this increase means that lower marks are obtained and there is a greater degree of inequality in labour market insertion, depending on the educational background of the family of origin. In general, the relationship between the different variables shows how combining working and studying has negative effects on marks, but positive effects on labour market insertion, especially if the experience of work while at university is related to the studies.

Keywords: working while studying, employment quality, educational background, educational outcomes, economic crisis.

Introduction

The diversification of student profiles as a result of educational expansion over the last decades is translated to both the sociodemographic characteristics of the students and to

the strategies they adopt to meet the challenges of the university experience. Some studies point to characteristics like gender, age, the socioeconomic background of the family and ethnicity as the factors that contribute most to this heterogenization of student profiles on an individual level (Ariño Villaroya, Hernández Pedreño, Llopis Goig, Tejerina Montañana, & Navarro Susaeta, 2008; González Monteagudo, 2010). Some of these characteristics translate to new ways of understanding the university experience and, as a consequence, to new ways of articulating and combining academic studies with other experiences or responsibilities. One of the most characteristic of these student responsibilities is working while studying.

One of the issues that has become especially important for European institutions recently is the need to increase student access to and participation in higher education and, more specifically, to foment participation among more vulnerable and under-represented groups with the aim of achieving a more inclusive and equitable participation (European Commission/EACEA/Eurydice, 2014). This concern has brought about a growing interest in the study of the life conditions of university students and how the institutional changes and university reforms that have been implemented have been able to modify these conditions and how they have been detrimental to them.

Parallel to the changes in higher education, other processes or dynamics that are external to the institution could be playing a fundamental role in shaping students' social conditions. The economic crisis in particular has had a major impact on the unemployment rate, which has gone from 7.95% at the beginning of the crisis (2007) to the current 23.79%, having peaked at almost 27% in 2013 (Spanish National Statistics Institute).

Apart from the high unemployment rate, the economic crisis has also brought about huge insecurity in the labour market, with a drastic decrease in the number of full-time jobs and permanent contracts. In the specific case of Spain there is a large number of students with involuntary part-time jobs; in other words, they work part-time because they have been unable to find a better work situation due to labour market insecurity (OCDE, 2013). All in all, this situation has affected young people particularly harshly.

Thus, within this context of economic crisis and the recent increase in university fees, analysing the new reality of university students and their participation in the institution of higher education has become fundamental. In this regard, this article aims to

contribute to the knowledge about the participation and life conditions of university students. Specifically, the incidence and evolution of the phenomenon of working while studying is explored, while at the same time the effect this has on educational outcomes and labour market entry is analysed.

The phenomenon of working while studying

Labour market differences at a European level, institutional university regulations, students' conceptions and articulation of their educational experience and the traditions of each higher education institution, among many others, are reflected in a differential affectation of working while studying in the different European countries, as shown in table 1.

Table 1. Employment rate during term time among students living with parents

Country	Employment rate
The Netherlands	79%
Germany	58%
Switzerland	57%
Austria	52%
France	40%
Italy	27%
Lithuania	22%

Source: Compiled by author from the Eurostudent V survey (2015)

Even though Spain did not participate in this wave of Eurostudent, data from the previous wave shows a percentage of students who combine work and study – including regular and occasional work - that just reaches 38% (Eurostudent IV, 2011), a figure that includes all students and not only those living with their parents. The ECOVIPEU survey carried out in Spain in 2013 (as compensation for not participating in Eurostudent V), however, shows that this percentage increases up to 46% (Finkel & Barañano, 2014).

Therefore, although working while studying is still not a majority phenomenon in Spain, it is one that has increased in recent years. The percentage of students who have a job that is related to their degree, however, is comparable to the average in neighbouring

countries (Eurostudent IV, 2011). It must be said, though, that the phenomenon has been stagnating over the last few academic years as a result of the economic crisis, the introduction of the Bologna Process and the increase in fees for students who repeat credits, especially in the case of new students (Daza & Elias, 2016; Planas & Figueroa, 2015).

Beyond quantifying the phenomenon, however, what is vitally important is knowing why students decide to work and study at the same time and whether or not certain specific groups with more difficulties are most affected or if this is a general practice among all university students (Bean & Metzner, 1985; Ozga & Sukhnandan, 1998; Sanchez-Gelabert & Elias, 2017). One of the principle explanations for this phenomenon is that students need to combine work and study to meet the expense of a university degree and, therefore, those with less financial resources are most affected. Thus, young people from less privileged backgrounds work more hours and they do so out of financial need, while those from more privileged backgrounds work but less intensely, and they do so because they choose to and because they are seeking financial independence (Hovdhaugen, 2013; Triventi, 2014).

In the specific case of Spain, some research has suggested that the number of hours spent working varies according to the educational level and income of the family (Finkel & Barañano, 2014). In this regard, the authors state that as parental educational level rises, so does the percentage of university students who study full-time. The same happens with respect to the parents' level of income: the higher the family income, the more students who only study.

Given that working while studying is more common among specific groups – those with less cultural and economic capital – this phenomenon could become a new source of educational inequality for students from less privileged backgrounds. It is, therefore, in this respect that what follows is an analysis of the impact of working while studying on two aspects, one medium-term and one long-term: academic marks and future labour market insertion.

The impact of working while studying on academic performance

One of the paths that the debate on the consequences of working while studying has taken is that of measuring its impact on students' academic results. Many findings have

highlighted the negative consequences of working while studying and they express concern about how this phenomenon interferes in different aspects, like the difficulties in meeting university requirements (Humphrey, 2006; O'Toole, Stratton, & Wetzel, 2003): absenteeism (Soler Julve, 2013), trouble in the engagement process at university (Elias, Masjuan, & Sanchez-Gelabert, 2012), a greater likelihood of dropping out (Bozick, 2007; Staff & Mortimer, 2007); tiredness, shortage of time and few hours for recreation (Curtis & Williams, 2002).

The way the impact of working while studying has usually been measured has been to see if there is a correlation between the number of hours spent working and students' academic outcomes. The results of this research, however, are inconclusive and even contradictory (Riggert, Boyle, Petrosko, Ash, & Rude-Parkins, 2006). Some studies reveal a negative correlation between the number of hours worked and students' marks (Humphrey, 2006; Kulm & Cramer, 2006), while others find the opposite correlation: that the average marks are highest for the two extreme groups, in other words students who study full-time and those who work for more than 20 hours per week as well as study (Graham, 2006).

Some research even finds no significant relationship between these elements (Mounsey, Vandehey, & Diekhoff, 2013). However, Applegate & Daly (2006) qualify the relationship between the hours spent working and the marks obtained. They show that up to seven hours spent working a week has a positive impact on students' marks; above this threshold the advantage is marginal up to 20 hours; and above this threshold marks are shown to be negatively affected (Hovdhaugen, 2013; Roksa, 2010; Wang, Kong, Shan, & Vong, 2010).

More specifically, a shortage of time and the use of this time have been the most frequent complaints made by students who work while studying. The concern that working interferes with studying or results in lower marks are the most common reasons given by students for not working (Barke et al., 2000; Lucas & Lammont, 1998). More thorough research is required, however, to analyse the causes, as while some researchers attribute poor performance to the lack of time available for doing university assignments (Bozick, 2007; Staff & Mortimer, 2007), other researchers conclude that student performance is not affected – and sometimes even benefits – from working

while studying because these students are more skilled at time management (Elias, 2008; Goldrick-Rab, Harris, & Trostel, 2009).

Lastly, some authors (Hovdhaugen, 2013; Humphrey, 2006; Triventi, 2014) have concluded that the characteristics of the workplace and the hours spent working need to be explored as they are fundamental to understanding the effect of working on academic outcomes. Another element is whether or not the job is related to the degree studied (Graham, 2006) and, furthermore, neither must institutional factors and the characteristics of the degrees themselves be disregarded. The organization of educational programs (Darmody & Smyth, 2008), the timetables of the subjects, the teaching methodologies, the number of classroom hours and workload demands are some of the factors that make some degrees easier to combine with other external responsibilities, such as working (Elias et al., 2012).

Moving on from the often inconclusive results of the above-mentioned studies, we will now present the aims of this study and the methodology used. It must be mentioned that analyses have been made that take institutional factors into account (public/private university and areas of study) and some specific interesting results have been obtained, although they are not included in this study due to lack of space. The general tendency for the results, however, is as explained below.

The impact of working while studying on labour market insertion

Another large theoretical corpus on the consequences of working while studying has focused on the impact this can have on future labour market insertion. Some of this research finds that working while studying has a positive effect on the employability of the student because experiences of work imply a development of interpersonal skills and career-advancement prospects (Humphrey, 2006), which means a better CV, making that individual stand out from his peers who have had no experience of work, thus making him more suited to employment (Curtis, 2007; Evans, Gbadamosi, & Richardson, 2014).

Other research concludes that those who work for more time while studying are employed for more months after finishing their degree (Gleason, 1993). The same author also concludes that the life conditions of students who work and study were better than those of their peers who worked less or who did not work while at university.

Some of the indicators that the author points to are that students with more experience work slightly more hours a week and they earn a better hourly rate. In the French context, Cahuzac & Giret (2001) also conclude that students who work have a salary advantage over students who have not worked at all and even over those who have done internships.

Following on from these findings, Häkkinen (2006) qualifies these results slightly, showing how students who work while studying find employment more quickly and earn a better salary after finishing university, but only during the first year. In this regard, if working while studying lengthens the time taken to finish the degree, the effect of the experience of work on earnings is much less and statistically insignificant.

In our context, the work of Masjuan, Troiano, Vivas, & Zaldívar (1996) concluded that the best strategy for students was to work in a job related to the degree because this type of participation in higher education is more advantageous for later entry into the labour market in comparison to students who only study.

Analytical strategy

Objectives

- To explore the phenomenon of working while studying among university students during their time at the institution and how this has evolved over the last ten years.
- To analyse the influence of the characteristics and conditions of work (work related to the degree studied or not and part-time or full-time) on the academic marks obtained by comparing the results between 2008 and 2014 and controlling for educational background.
- To analyse the influence of the characteristics and conditions of work (work related to the degree studied or not and part-time or full-time) on labour market insertion by comparing the results between 2008 and 2014, and controlling for educational background.

Sample

The data analysed are taken from the survey of the employment outcomes of the graduated population from Catalan universities by the Catalan University Quality

Assurance Agency (AQU) that has collated for the last fifteen years. Young university students are surveyed 4 years after graduating (directed at *alumni*) and they are asked different questions about their time at university and their experiences in the four years since finishing their degree. This survey includes 60% of university graduates, thus the results are representative for the different degrees and universities, with a sample error of 8%. The periodicity and scope of these surveys makes the AQU an international reference alongside the French and British systems.

In this article the questions that refer to experience of work both while studying (working while studying during the last 2 years of the degree) – as an independent variable – and work after graduating (labour market insertion) – as a dependent variable are analysed.

In the first two waves private universities were not taken into account. Then this population has been eliminated for our analysis. The Open University of Catalonia (UOC) was also excluded as the profile of students from this university was clearly different, which would skew the results.

Figure 1. Periods analysed, sample and changes that have occurred.

Analysis period	N	Changes occurred
2005 (graduated 2001)	11.456	P eriod of economic expansion
2008 (graduated 2004)	11.771	P eriod of economic expansion
2011 (graduated 2007)	11.843	Between pre- and post-economic crisis
2014 (graduated 2010)	11.807	P eriod of economic crisis

Source: Compiled by author

Figure 1 shows that 2008 and 2014 are the two periods to analyse as they are clearly different, allowing us to compare the situation prior to the economic crisis with later. Those surveyed in 2008 finished their degrees in 2004 and so the questions that refer to marks and working while studying refer to the 2002/03 and 2003/04 academic years and the questions that refer to labour market insertion refer to the period 2004-2008, clearly a period of economic expansion. Those surveyed in 2014 finished their degrees in 2010 and so the questions that refer to marks and working while studying refer to the 2008/09 and 2009/10 academic years and the questions that refer to labour market insertion refer to the period 2010-2014, clearly a period of economic crisis.

The fact that the Bologna Process, which introduced both structural changes (eliminating short-cycle courses of three years) and methodological changes (more

student-centred pedagogy), started to be implemented in Spain in 2010 must be mentioned. The implementation of this process and its requirement for a greater physical presence on the part of the student at the university has been analysed elsewhere (Elias, Masjuan, & Sanchez-Gelabert, 2012), and as the authors conclude working while studying has become more and more difficult, especially if the job is full-time. This process, then, has complicated the life conditions of students further and has made meeting the requirements of the academic institution even more difficult. This article, however, does not analyse the impact of Bologna because the graduates who were surveyed in 2014 had not experienced these reforms. The 2018 wave would have to be analysed to see the effects of this process.

In summary, the analytical strategy used in this article is the comparison of the 2008 and 2014 waves as this gives us the opportunity to explore the situations pre- and post-economic crisis disassociated from the changes brought about by the Bologna Process.

Measures

DEPENDENT VARIABLES

Marks: Categorical variable with the values *passed*, *notable* and *excellent* and *distinction*. Students were asked which of these marks predominated in their academic record¹.

The Employment Quality Index (EQI). The EQI is constructed with both objective indicators (type and length of contract, salary and suitability of employment to educational level) as well as subjective ones (general level of job satisfaction). This indicator is used recurrently in research on labour market insertion and it allows a comparison with other contexts to be made (Corominas Rovira, Villar Hoz, Saurina Canals, & Fàbregas Alcaire, 2012).

INDEPENDENT VARIABLES

Working while studying: Questions were asked about work during the last two years of the degree. This variable presents the following values: *studying full-time with some intermittent work*, *studying and a related part-time job*, *studying and a non-related part-time job*, *studying and a related full-time job* and, finally, *studying and a non-related full-time job*.

¹ For 2014 we were also able to obtain the objective mark, the average of the academic record and there was shown to be a high correlation between the subjective and objective marks.

Family Educational Background: Three categories were considered: both parents with no education or no primary level education, one of the two parents with a medium level education and, finally, both parents with a university level education.

Results

The first objective was to analyse how the phenomenon of working while studying has evolved among Catalan university undergraduates. Over the last years, universities have undergone a series of changes at different levels (university reforms, economic crisis, demography, etc.) that may have created a new panorama with new ways of understanding the university experience.

To achieve this aim, the last four databases compiled by the AQU, which cover the last 10 years (2005, 2008, 2011 and 2014)², were analysed. A first descriptive analysis (figure 2) shows that there has been a progressive increment in the number of students who also work and that the life conditions of university students have varied over this time period. There was a drop of almost 9 percentual points, from 41.2% in 2005 to 32.5% in 2014, for undergraduates who only studied or who had some complementary jobs during their time at university, while the comparative analysis between 2008 and 2014 revealed how the numbers of students who worked while studying increased from 59% to 67%.

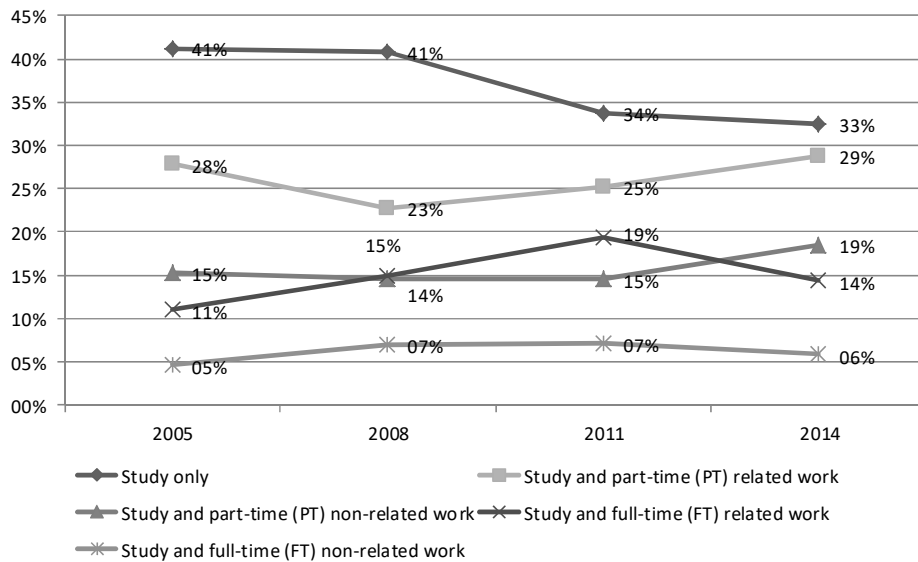
A change in trend was also detected in the last wave, with the number of full-time jobs decreasing and the number of part-time ones increasing, a phenomenon that is basically due to the severity of the economic crisis, which has made finding work more difficult and has brought about an increase in the number of part-time contracts (OECD, 2013).

As mentioned previously, the analytical strategy of this article is to compare the 2008 and the 2014 waves because these allow for the analysis of the consequences of the economic crisis. Figure 2 shows that there was a change in trend with respect to the decreasing number of students who studied full-time, which had been detected in 2011. Some authors, however, have shown that this increase in the number of students who work while studying has been less pronounced in the last few years, and some researchers have even shown that the percentage of students who work and study has

²It is worth pointing out that the databases of the AQU survey university graduates who are asked about their experience of work in the 2 years prior to graduating. Therefore, the profile of the students surveyed are those who did actually graduate. All of the students that work while studying could have had greater difficulties and may not still be at university, having dropped out. Despite being an interesting research objective, the data used does not allow us to contrast this effect.

lowered in some institutions for new students currently starting university (2014-15 academic year) (Daza & Elias, 2015).

Figure 2. Percentages of participation among undergraduates in the public system during the last two years of their degree (2005-2014)



Finally, if this relationship is controlled by the educational background of the family (table 2), it can be seen that working while studying is most prevalent among the offspring of parents with primary level studies, with the percentage for this group increasing by almost 10 points, from 64% to 73%. At the same time, the effect of educational background polarises with the number of hours spent working: In 2014 there were even more students whose parents had a low educational level working full-time, while those with highly educated parents did not work or did so part-time.

The adjusted residuals shown in table 2 illustrate this relationship, which polarizes between one wave and the other. For students with parents with a low educational level their relationship with full-time jobs intensified between 2008 and 2014, especially for related jobs (the adjusted residuals goes from 5.5 to 12.1). The intensity of the relationship between the students who only studied and related part-time jobs decreases. These relationships of variables are precisely the inverse for students with parents with a high educational level, for example the adjusted residuals for students who only studied went from 7.3 to 10.2 between 2008 and 2014 (even though the general tendency in all cases was a decrease in the number of students who did not work).

Table 2. Type of work-study combination according to parental educational level. Wave 2008 and 2014.

		<i>Both primary level</i>		<i>One or both medium level</i>		<i>Both university level</i>	
		<i>2008</i>	<i>2014</i>	<i>2008</i>	<i>2014</i>	<i>2008</i>	<i>2014</i>
<i>Study only</i>	%	36%	27%	42%	33%	49%	40%
	<i>Adj. Resid.</i>	-8.1	-10.3	3.1	1.4	7.3	10.2
<i>Study and part-time (PT) related work</i>	%	22%	27%	24%	31%	21%	31%
	<i>Adj. Resid.</i>	-2.0	-5.5	2.9	3.2	-1.4	2.5
<i>Study and full-time (FT) related work</i>	%	17%	20%	14%	14%	14%	10%
	<i>Adj. Resid.</i>	5.5	12.1	-4.4	-4.1	-1.5	-8.9
<i>Study and part-time (PT) non-related</i>	%	1%	18%	15%	18%	11%	15%
	<i>Adj. Resid.</i>	1.1	2.0	1.4	1.4	-3.8	-4.1
<i>Study and full-time (FT) non-related</i>	%	10%	8%	5%	4%	4%	3%
	<i>Adj. Resid.</i>	9.7	10.0	-6.6	-5.2	-4.4	-5.1

Sig. P>0.00

Source: Compiled by author

This reveals that life conditions for the more disadvantaged groups have worsened, which could mean that the offspring of families with less resources need to contribute to the family economy. It must be remembered, however, that work is difficult to find in a context where the youth unemployment rate is 45% and jobs are mostly insecure. Therefore, even though there are different effects that could act simultaneously and may counter each other, we can conclude that there is an increase in the number of university students who work while studying, especially among those from families with a lower educational background.

IMPACT ON ACADEMIC OUTCOMES: THE ACADEMIC RECORD (MARKS)

To achieve the second objective, the influence of work conditions (related or non-related work and full-time and part-time) on the marks obtained during the degree was analysed. The results shown in tables 3 and 4 point out that marks do not vary much according working while studying, but there are several relationships that are significant and the tables are also significant according to the chi-square test.

Table 3. Marks on the academic record according to working while studying. Wave 2008.

		<i>Study only</i>	<i>Study & PT Related</i>	<i>Study & FT Related</i>	<i>Study & PT Non- related</i>	<i>Study & FT Non- related</i>	<i>Total</i>
<i>Pass (5-6.99)</i>	%	43%	44%	47%	49%	50%	45%
	Adj. Resid.	-3.7	-1.6	1.4	3.3	3.1	
<i>Notable (7-8.99)</i>	%	52%	52%	48%	48%	45%	50%
	Adj. Resid.	3.2	2.0	-2.2	-2.3	-3.2	
<i>Excellent and distinction (+ 9)</i>	%	5%	4%	5%	3%	5%	5%
	Adj. Resid.	1.1	-1.1	1.9	-2.5	.4	

Sig. P>0.00

Source: Compiled by author

Table 4. Marks on the academic record according to working while studying. Wave 2014.

		<i>Study only</i>	<i>Study & PT Related</i>	<i>Study & FT Related</i>	<i>Study & PT Non-related</i>	<i>Study & FT Non- related</i>	<i>Total</i>
<i>Pass (5-6.99)</i>	%	40%	45%	51%	46%	47%	45%
	Adj. Resid.	-6.5	.4	5.9	1.4	1.1	
<i>Notable (7-8.99)</i>	%	56%	52%	46%	52%	50%	52%
	Adj. Resid.	5.6	-.4	-5.3	-.9	-1.2	
<i>Excellent and distinction (+ 9)</i>	%	5%	3%	2%	2%	3%	3%
	Adj. Resid.	2.4	.1	-1.7	-1.6	-1.2	

Sig. P>0.00

Source: Compiled by author

Regarding working while studying, the best marks are obtained by students who study full-time (more notables and excellents). The variability found shows how the marks are affected if we take the characteristics of the job into account. Hence, the marks are lower for students who have full-time jobs that are not related to their degree. These results concur with those of other researchers (Hovdhaugen, 2013; Humphrey, 2006; Triventi, 2014) and they relate the amount of time that students can dedicate to studying with their final marks.

At an interpretative level the fact that the marks average goes down as more time is spent working seems perfectly plausible as the number of hours the student can spend studying decreases. However, as mentioned in the theoretical references, some authors sustain that students who also work are more efficient and strategic (Graham, 2006; Goldrick-Rab, Harris, & Trostel, 2009).

Those that got the lowest marks (pass), however, in the 2008 wave were the undergraduates that had full-time non-related jobs and in the 2014 wave it was those

that had full-time related jobs. This slight variation could be explained by the fact that within a context of more difficult conditions in the job market students that have a job that is related to their degree prefer to concentrate more on their job than on getting good marks to ensure that they keep the job, thus guaranteeing insertion into the labour market in the area of their studies.

The basis of this explanation is the centrality of work in students' lives, concurring with the research that sustains that students who work while they are studying for their degrees consider their jobs to be central and they focus their efforts there (Oliver, 2006), possibly causing them to devalue their studies (Curtis & Shani, 2002). This explanation would take on even greater importance within a context where finding work is difficult. In other words, faced with worsening conditions in the labour market students who only studied would focus more on their degree and getting better marks, while those who worked as well (especially in related jobs) would focus their efforts more on their job and, as a result, their academic record would suffer.

Within the second objective, these relationships must be considered in relation to family educational background. In 2008 the relationship between the three variables was significant for full-time students. Thus, students from families with a lower educational level clearly got lower marks than those from families with higher educational levels, which was reflected in the number of passes and excellents.

In the case of the 2014 wave, the relationship between the three variables was significant in the same way as described above for students who worked part-time in a related job while studying. A possible explanation for this could be that as conditions have worsened as a result of the economic crisis students have found that they need to work to cope financially with this new situation. What with conditions in the job market also having become more insecure, it seems that the most viable option (to minimise the risks) would be to combine studying with a part-time job.

Last, whether or not the experiences of working while studying for a degree have a long-term impact on future labour market insertion is analysed (objective 3). In this case, as the EQI is a continuous variable, a variance analysis (ANOVA) is performed. In general, as figure 3 shows, when students work in a related job while studying for their degree their future job quality is better than when they work in a non-related job.

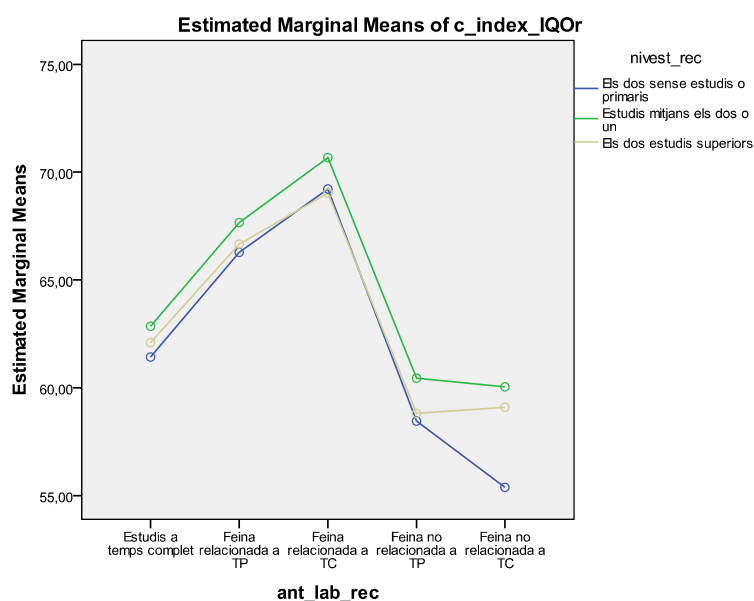
Table 5. ANOVA results for the 2008 wave

Tests of Between-Subjects Effects					
Dependent Variable: EQI					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	154220,083 ^a	14	11015,720	37,169	,000
Intercept	1,685E7	1	1,685E7	56858,236	,000
Working while studying	89374,651	4	22343,663	75,392	,000
Parental educational level	3366,684	2	1683,342	5,680	,003
Working while studying*	2016,893	8	252,112	,851	,558
Parental educational level					
Error	3044886,284	10274	296,368		
Total	4,458E7	10289			
Corrected Total	3199106,367	10288			

R Squared = ,048 (Adjusted R Squared = ,047)

Source: Compiled by author

Figure 3. ANOVA diagram of working while studying according to the educational background of the family. Wave 2008.



Source: Compiled by author

The eta squared allows us to conclude that in both 2008 and 2014 the two independent variables analysed, parental educational level and combining study and work, have an impact on labour market insertion (EQI) and that work experience while studying has the greatest impact. Similarly, in neither of the two waves is there an interactive effect between the two variables.

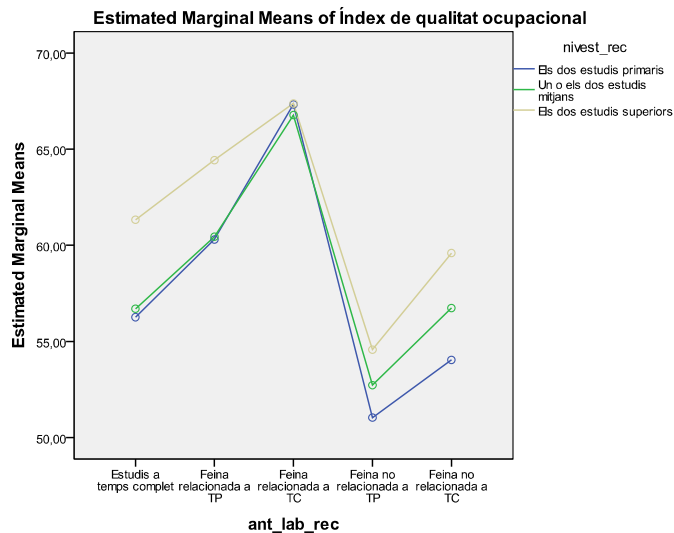
Table 6. ANOVA results for the 2014 wave

Tests of Between-Subjects Effects					
Dependent Variable: EQI					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	280593.928 ^a	14	20042,423	48,370	,000
Intercept	2,237E7	1	2,237E7	53983,905	,000
Working while studying	190837,804	4	47709,451	115,141	,000
Parental educational level	11994,832	2	5997,416	14,474	,000
Working while studying * Parental educational level	5913,123	8	739,140	1,784	,075
Error	5011660,999	12095	414,358		
Total	4,796E7	12110			
Corrected Total	5292254,927	12109			

a. R Squared = ,053 (Adjusted R Squared = ,052)

Source: Compiled by author

Figure 4. ANOVA diagram of working while studying according to the educational level of the family. Wave 2014.



Source: Compiled by author

In both 2008 and 2014, as figures 4 and 6 show, jobs with a better labour market outcome (a higher EQI) appear amongst those who worked in a related job while

studying, especially if it was a full-time job. On the contrary, students who did a non-related part-time job had worse labour market outcomes. A decrease in EQI was also detected between 2008 (59.4) and 2014 (63.4), probably due to the change in the global economic situation, which went from economic growth in the 2008 wave to economic crisis in the 2014 wave.

The comparison of the two contexts (2008 and 2014) also illustrates differences in job quality according to students' social backgrounds. For those who did not work while studying, job quality worsened for the offspring of parents with a primary or secondary level education. This was not the case for students whose parents had a higher level education: Their EQI remained constant, as can be seen on the left-hand side of figure 6 for the 2014 wave. This change in trend with respect to the 2008 wave (figure 4) can be interpreted to mean that within a context of poor labour market conditions the family social capital bears a positive weight, resulting in the offspring of parents with higher educational levels having a clear advantage over other graduates when it comes to finding work. In fact, students were asked in the same survey how they accessed their first job and an increase in the number of graduates who found work through friends and family (in other words family social capital) was observed between the two waves, rising from 34% to 39% respectively.

Finally, the changes observed among students who worked in a related full-time job while studying could be explained by the centrality of work. In other words, within a context of increasing insecurity of working conditions, students who have a job that is related to their degree in the two years prior to graduation focus on their job in order to guarantee a better future labour market insertion.

Conclusions

The university institution has undergone a series of changes over the last decades which have created a new university model and brought about an increase in the number and diversity of students and personal experiences. While these changes are beginning to crystallise, increasing amounts of research is being conducted to find out exactly what changes have taken place and what the new configurations of students and the repercussions of these changes are. This article aims to contribute to the research on the participation of university students by analysing the evolution of working while studying and its impact on academic and labour market success.

A new panorama has been drawn in Catalan universities over the last ten years: there has been a decrease in the traditional profile of the student who studies full-time and does not work and an increase - from 59% to 67% between the 2005 and the 2014 surveys - in the number of students who work while studying (remember that these surveys refer to the years 2001-2002 and 2009-10, respectively). Furthermore, since the beginning of the economic crisis a particular increase in the number of students with part-time jobs was detected.

Regarding the impact of working while studying on academic performance, in general it seems that there is little disparity between the marks obtained and the situation of graduates with regards to work. However, significant differences can be seen in the sense that students who only study have the greatest advantage regarding good marks, while students who also work full-time in a related job have the greatest disadvantage.

Having a related job is the situation that contributes most positively to EQI and, clearly, having a non-related job contributes most negatively. Therefore, the patterns for the effect of whether or not the job is related differ according to whether we are referring to academic success or to labour insertion success: academically, having a related job is clearly disadvantageous, whereas for future labour insertion is it clearly an advantage.

Last, in relation to the educational level of the family, what affects students' academic records most is working while studying (studying only and studying and working part-time in a related job are the situations related to the best marks) and also parental educational level (better marks are obtained by students whose parents have a higher level education). Regarding labour market insertion, those with parents with a higher level education again have the best outcomes, with figures that differ significantly from the rest of their peers. Furthermore, changes were detected between the pre- and post-crisis situations: coming from a family with a high educational level is clearly an advantage for students when it comes to labour market insertion.

Even though this first professional socialisation process has a negative impact on marks when the job is full-time, it actually has positive repercussions on future job quality. As the EQI shows, better scores were obtained by those who had a related job while they studied for their degree. Obviously, these students developed and acquired specific skills and made contacts in the workplace which contributed to improving their labour market outcomes.

The importance of the role of the institution was also detected, both in the sense of the type of educational centre and the areas of knowledge. This aspect should be analysed more thoroughly because institutional dynamics have consequences for both the profile of students they attract and for the impacts on life conditions and student outcomes.

At an institutional level, then, it is clear that mechanisms and specific support structures are needed for this profile of student. A wider and more effective offer of hybrid face-to-face/distance learning degrees, the incorporation of assistance services on virtual platforms and more accessible academic personnel. (Applegate & Daly, 2006). Several studies also suggest structures to minimise the academic penalisation of working while studying, such as more timetable choices, advice and tutorials for this group of student-workers and a more flexible educational experience (curricular design, evaluation, flexibility (Barron & Anastasiadou, 2009).

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