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Abstract

This paper aims to analyze the job satisfaction of recent graduates that have finished their studies at the School of Economic Sciences of the National University of Córdoba (SES-NUC). Firstly, we study the relationship between graduates' overall job satisfaction and different values of jobs. Secondly they analyze the relationship between each subdomain of job satisfaction and explanatory variables, which are related with individual characteristics, relationship statuses, personality traits, household context, human capital background, occupational context, institutional background, job status and job adequacy. Preliminary outcomes show that fives subdomains are positively associated with the probability of overall job satisfaction; their estimated coefficients are statistically significant. Subdomains are satisfaction with pay, fringe benefits, general work environment, intellectual challenge and the possibility of professional development. Besides, the econometric analysis shows that each subdomains is affected differently by individual characteristics, social and economic context, personality traits, occupational context, job status, among others. This result gives some support in applying the appropriate methodology of splitting overall job satisfaction into different dimensions in order to identify the sources of the values of job satisfaction differences.

JEL Codes: I23, I31 J44.
Keywords: job satisfaction, subdomains, economic sciences graduates, National University of Cordoba.

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I. Introduction

University Graduates' labor performance is of interest for several reasons. Firstly, it provides information to the universities about the employment possibilities of their graduates and the needs and characteristics that labor market demands. Secondly, the employment opportunities, conditions and characteristics of the employability of the recent graduates are an important signal for those who have to decide the university career. Thirdly, a systematic follow-up of graduate cohorts provides valuable information for the design of policies aimed at facilitating university-labor market transition. Fourthly, one aspect of labor performance is related with the job satisfaction of individuals; which is considered as an indicator of individuals' labor quality, due to the fact that is associated with their productivity and work environment, in which knowledge is shared and institutional communication and problem solving are favored (Trivellas *et al.*, 2015).

This paper analyzes the job satisfaction of graduates[1] that have finished their studies at the School of Economic Sciences of the National University of Córdoba (SES-NUC), during their first year in the labor market after graduation. The aim of this paper is twofold; firstly the study is focused on the relationship between graduates' general job satisfaction and different aspects of jobs, which are called the subdomains of job satisfaction; and secondly, the paper analyses the relationship between each subdomain of job satisfaction and explanatory variables, which are related with individual characteristics, relationship statuses, personality traits, household context, human capital background, occupational context, institutional background, job status and job adequacy.

The literature is vast, as the topic of job satisfaction is the concern of several disciplines, such as economics, psychology and sociology, it has followed different approaches. For instance, Van Praag and Ferrer–i-Carbonell (2008) investigate job satisfaction for the case of United Kingdom by splitting it into different values of job or subdomains. Particularly, they take into account the satisfaction with promotion prospects, total payment, relations with supervisor, job security, the opportunity to take initiative, satisfaction with the work itself and with the hours worked. Other authors follow a different strategy, some of them consider that job satisfaction and subdomains of job satisfaction are explained by a wide set of variables (for example, Gazioglua and Tanselb, 2006; Kaiser, 2007; Mora and Ferrer–i-Carbonell, 2009). Interestingly, by considering the subdomains of job satisfaction and a set of explanatory variables separately, one can identify the sources of the values of job satisfaction differences. Many studies have paid attention in explaining the job satisfaction gender gap. Also the analysis of the topic have taking into account different populations.

The School of Economic Sciences (SES) contributes approximately 10% of the total graduates of the National University of Córdoba (NUC). The study takes into account a sample of graduates that considers the three degrees of SES (i.e. Bachelor of Economics, Bachelor of Administration and Public Accountant); this sample is equivalent to 50% of the total graduates in each year. We use a dataset, which is still under development, in which individuals were interviewed at the time of their graduation and every three months thereafter on aspects related to their job performance.

The paper is structured as follows. Section II presents key predictions of labor satisfaction literature. Section III shows the econometric methodology, the data used and the outcomes of regressions. Finally, section IV gives the concluding remarks.

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[1] In this study the term Bachelor refers to the degree *Licenciatura* under the Argentine university system. The degree of *Licenciatura* corresponds to a five -year program which is equivalent to a Masters in the US and Europe. In Argentina the degree of Master is considered a Postgraduate degree.

II. Predictions of labor satisfaction literature

As Van Praag and Ferrer–i-Carbonell (2008) note, individuals assess different aspects of their life such as health condition, family situation, household and job statuses, leisure time, social life, among others, in order to look for their wellbeing. The evaluation mechanism of these different aspects, make an individual to change some situations so as to enhance her or his general satisfaction. Indeed, Clark *et al.* (2008) have pointed out that current happiness or satisfaction is a strong predictor of future behavior. One domain of general satisfaction with life, is job satisfaction and can be analyzed by considering different dimensional characteristics of job, for which individuals are more or less satisfied. These specific aspects of job, are called subdomains of job satisfaction.

The present paper is focused on the relationship between job satisfaction and its subdomains as well as on the relationship between each subdomain of job satisfaction and explanatory variables, which are related with individual characteristics, relationship statuses, personality traits, household context, human capital background, occupational context, institutional background, job status and job adequacy. As job satisfaction is the concern of several disciplines, such as economics, psychology and sociology, the literature is extremely rich and has followed different approaches. This section summarizes the main results of the theoretical and empirical literature.

As job satisfaction depends of several attributes of the job values, some authors have consider general job satisfaction as an aggregate with respect those job values or sub-domains. Van Praag and Ferrer–i-Carbonell (2008) investigate job satisfaction for the case of United Kingdom by splitting it into satisfaction with promotion prospects, total payment, relations with supervisor, job security, opportunity to take initiative, satisfaction with the work itself and with the hours worked. Using the British Household Panel Survey for years 1996-1997, the authors apply the probit ordinary least squares with individual random effect technique and find that general job satisfaction is positively and statistically significant affected by satisfaction with promotion, satisfaction with payment, satisfaction with supervisor, satisfaction with job security, satisfaction with work itself and satisfaction with hours worked. Moreover, when the authors estimate the level effects, they find that the content of the work itself, the payment and comfort with quality of supervision have the greater weights in explaining aggregate job satisfaction; possibility of promotion also has a relevant role.

Other studies follow a different strategy of analysis; some of them consider job satisfaction and subdomains of job satisfaction and look for explanatory variables that are related with the domain and each subdomain separately. By taking into account the subdomains of job satisfaction and a set of explanatory variables separately, one can identify the sources of the values of job satisfaction differences. For instance, Kaiser (2007) aims to test whether gender differences in job satisfaction are assignable to variations in labor market and welfare state regimes. The author studies gender-related differences in job satisfaction-positions for fourteen member countries of the European Union, taking into account the European Household Community Panel data and using the ordinary ordered-probit regression model. Dependent variables of the regression are overall job satisfaction and two subdomains, satisfaction with job security and numbers of working hours. Explanatory variables are sex, employment status, occupational background, institutional background, job status, job adequacy, number of jobs, income, household structure, number and age of children, marital status, education, unemployment history, respondent's age, state of health, time and country effects. The study involves the estimation of nine econometric specifications: three regressions that consider the level of satisfaction of the three categories for the whole sample as well as two regressions in each category of satisfaction that distinguish between genders. As Kaiser (2007) remarks, these job satisfaction categories are taken into account, as it may be difficult to interpret the results of the broad category overall job satisfaction without the reference points of more concrete job satisfaction categories.

In fact, some explanatory variables may impact on a specific subdomain of job satisfaction and may not have an influence on other subdomain or in overall job satisfaction. Gazioglua and Tanselb (2006) focus the analysis on four subdomains of job satisfaction by considering as dependent variables, satisfaction with influence over job, satisfaction with amount of pay, satisfaction with sense of achievement and satisfaction with respect from supervisors, and investigate their relationship with individual and job characteristics. They use data from Workplace Employee Relations Survey for year 1997 to investigate job satisfaction of British employees. As usual in the literature, the authors apply an ordered probit model.

Studies of the topic considers different populations, while some researches comprise various countries, others focus the study on one country or in a particular group of the population. Mora and Ferrer–i-Carbonell (2009) take into account recent university graduates in Catalonia, Spain, to investigate gender differences in job satisfaction. Using the principal component analysis, the authors find that overall job satisfaction can explain only a maximum of 46.27% of the overall variability. Therefore, they disaggregate job satisfaction into five subdomains in order to obtain a better understanding of an individual satisfaction; i.e. satisfaction with work content, satisfaction with promotion possibilities, satisfaction with earnings, satisfaction with applicability of acquired knowledge and satisfaction with job security. They explain each subdomain as a function of individual characteristics, employment conditions, and education choices and attainments. Also, the five subdomains of job satisfaction are regressed with an ordered probit model.

What follows is a brief summary of some predictions between the expected job satisfaction and/or its subdomains and common explanatory variables that prevail in almost all the research reviewed here.

The literature finds a non-linear relationship between age and different values of job satisfaction. In general, young and older employees are more satisfied than middle-aged workers. As Gazioglua and Tanselb (2006) remark, young persons may feel satisfied because they have little experience of the labor market against which to judge their own work. With some years of experience, they may be able to better judge their work conditions; hence, satisfaction may drop during the middle ages. As individuals get older, aspirations may reduce as they realize that they face limited alternative choices and/or they may attach less importance to such ambitions; hence older workers report higher levels of job satisfaction than those reported by middle-aged workers. Also Van Praag and Ferrer–i-Carbonell (2008), Kaiser (2007) and Clark *et al.* (1996), among others, have found a U-shaped relationship between satisfaction and age.[2] Mora and Ferrer–i-Carbonell (2009) follow a different specification since they focus on young recent university graduates; however, they find a negative and statistically significant relationship between satisfaction with promotion possibilities and satisfaction with earnings and age.

A relevant number of studies have paid attention in explaining the job satisfaction gender gap. Mora and Ferrer–i-Carbonell (2009), Kaiser (2007), Souza-Poza and Souza Poza (2007) and Clark (1997) are some examples. Some researches provide empirical evidence that women are more satisfied with various aspects of their jobs compared to men. For instance, Gazioglua and Tanselb (2006) find that woman are more satisficed in their job with the four subdomains: influence over job, amount of pay, sense of achievement and respect from supervisors. Moreover, they find that the most men´s dissatisfactions is with respect to the amount of pay as compared to women. However, Kaiser (2007) shows evidence that in those countries of the EU in which market conditions are more favorable for women, there is not differences between genders in the reported level of job satisfaction. As the author remarks, the findings suggest that female labor market participation and gender-job satisfaction differences are due to different employment opportunities that are offered by different welfare state and labor market regimes and institutions. Also Clark (1997) finds that for young women, the better-educated, the professionals, women that are in male dominated workplaces and those whose mothers

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[2] See Clark *et al.* (1996) for other explanations.

had a professional background, the gender differential in job satisfaction disappears. Interestingly, Mora and Ferrer–i-Carbonell (2009), find a different result from some previous studies. The authors find, after controlling for working characteristics, that young and highly educated women experience either a lower or the same satisfaction with respect to the possibilities in promotion and the applicability of acquired knowledge.

As it is expected, there is a positive relationship between job satisfaction and some subdomains and the amount of payment. Gazioglua and Tanselb (2006) obtain positive and statistically significant coefficients for two subdomains of satisfaction, i.e. the influence over job and payment.[3] Also Kaiser (2007) finds a positive relationship for overall job satisfaction as well as for satisfaction with job security and with working hours. Van Praag and Ferrer–i-Carbonell (2008) evidence a positive relationship for two subdomains, i.e. satisfactions with promotion and payment, but a negative and statistically relationship for satisfaction with supervisor and job security. Mora and Ferrer–i-Carbonell (2009) consider intervals of wages; the intervals with lower wages present negative and statistically significant coefficients for satisfaction in work content, satisfaction with promotion possibilities and earnings, while intervals with higher wages present a positive and statistically coefficients for these subdomains.

Other key explanatories variables of job satisfaction are hour of work, type of contract and job training. Firstly, in accordance with economic theory, some studies corroborate that the hours of work are strongly and negatively related to satisfaction with the amount of pay. Van Praag and Ferrer–i-Carbonell (2008), Gazioglua and Tanselb (2006) are some examples. Interesting, Kaiser (2007) finds as the number of working hours increases, the overall level of satisfaction for women decreases; the author remarks that the direction of this relatively dissatisfaction may be associated to the dual workload of employment and household tasks. Secondly, there is some piece of evidence that self-employed individuals report higher overall job satisfaction compared to employees (Kaiser, 2007; Van Praag and Ferrer–i-Carbonell, 2008 and Mora and Ferrer–i-Carbonell, 2009). Nevertheless, these studies also show that self-employed workers also report a lower satisfaction with job security. Moreover, Kaiser (2007) finds a satisfaction gap as well in terms of satisfaction with the number of working hours for men and women in Europe. Thirdly, Gazioglua and Tanselb (2006) show that individuals who receive training job report higher levels of satisfaction. Notwithstanding, Mora and Ferrer–i-Carbonell (2009) find that for young graduates, doing further training is negatively related with the level of satisfaction reported with work content.

As the literature points out, job satisfaction and the different subdomains depend on a combination of objective employment conditions and a subjectively assessed job satisfaction. The next section presents several econometric specifications for which objective and subjective variables are in play. In particular, we follow the literature in using the econometric methodology and similar econometric specifications, which incorporate common explanatory variables. Besides, we introduce other explanatory variables that were not taking into account in the reviewed literature.

III. Econometric specifications

The first econometric specification introduces the relationship between overall job satisfaction and their subdomains. We follow the study of Van Praag and Ferrer-i-Carbonell (2004), which takes into account job satisfaction as an aggregate of the sub-domains. The equation (1) introduces 12 subdomains of satisfaction in the right hand side; they are payment, fringe

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[3] Some studies evidence a strong negative relationship between job satisfaction and a comparison income; which is measured in different manners. For example Clark (1996) analyses the job satisfaction of a person, conditional on own wage, to the wages of their partners and the average wage of other household members).

benefits, general work environment, supervisor, peers, subordinates, professional/intellectual challenge, job duties, stability in employment, possibility of professional development, proximity to the workplace and hours worked. The latent variable, general job satisfaction, GJS*, can be expressed as follows:

$$GJS^* = GJS(JSPay, SFBenef, JSGeneral\ Work\ Env, JSSuperv, JSPeers, JSSubordinates,$$
$$JSProfessional\ Challenge, JSResponsability, JSStability, JSProfDevelopment,$$

$$JSProximity,\ JSHoursWorked) + \epsilon \quad (1)$$

In order to analyze the importance of each sub-domain in the general job satisfaction, we use a discrete choice election model to estimate the chance that a graduate responds that her satisfaction level is located in the *ith* class of the latent variable (1). The survey used, includes the self-subjected report of graduates about job satisfaction at the time of their graduation and every three months thereafter. The questions about satisfaction level distinguish ten response categories among 1 (worst) to 10 (best); hence the most appropriate strategy to estimate (1) is a panel data ordered probit model with individual random effects:

$$\Pr(\mu_i < GJS^*) = \sum_{k=1}^{12} \beta_k\ SubD_k + \varepsilon < \mu_{i+1}$$

$$\Pr(\mu_i < GJS^*) = \Pr\left(\mu_i - \sum_{k=1}^{12} \beta_k\ SubD_k\right) < \varepsilon < \left(\mu_{i+1} - \sum_{k=1}^{12} \beta_k\ SubD_k\right), i = 1, \ldots, 10 \quad (2)$$

where the error term, ε, follows a standard normal distribution and $i = 1, \ldots, 10$ accounts for response categories.

The second econometric specification explains each subdomain of satisfaction in an orthodox manner by a number of measurable variables, which might have explanatory value, as the happiness economics literature suggests. We assume that the latent variable that represents the satisfaction with sub-domain *k* is affected by individuals' characteristics, social context, job characteristics, personality traits and values and perceptions about the job. In other words, the satisfaction in each job sub-domain constitutes a latent variable, which can be represented as follows:

$$JS_k^* = \beta'_{personal}x_{personal} + \beta'_{job}x_{job} + \beta'_{personality}x_{personality} + \beta'_{values}x_{values} + \varepsilon \quad (3)$$

Also, we estimate alternative ordered probit models with individual random effects to analyze the effect of earning, hours worked, occupational category among other variables on the probability a recent graduate be in the *ith* class of the *k* sub-domain of job satisfaction:

$$\Pr(\mu_i < JS_k^*) = \beta'_{personal}x_{personal} + \beta'_{job}x_{job} + \beta'_{personality}x_{personality} + \beta'_{values}x_{values} + \varepsilon < \mu_{i+1} \quad (4)$$

where $i = 1, \ldots, 10$ and $k = 1, \ldots, 12$.

IV. The empirical results

IV.1. Description of the data

The study here proposed requires very specific information, which for the case of Argentina is not available, at least from Official Statistical Offices. Because of this problem we were in the need to generate our own dataset, which besides requiring a great deal of effort, it also

demands an important amount of financial resources. In light of these restrictions the analysis is circumscribed to the case of the School of Economic Sciences of the National University of Córdoba (SES-NUC).

The SES-NUC contributes approximately 10% of the total graduates of the National University of Córdoba (NUC). In addition to be the oldest university of Argentina, is the second largest after the University of Buenos Aires. Also, the SES-NUC is the second most important in terms of the number of students, with an area of influence that includes not only the Province of Córdoba, where is located at its capital city, but also the center and the north-west of the country.

The study takes into account a sample of graduates that considers the three degrees of SES: Bachelor of Economics, Bachelor of Administration and Public Accountant; this sample is equivalent to 50% of the total graduates in each year. At the SES-NUC, each year approximately 750 students receive their undergrad diploma, in four graduation ceremonies. By large the main number of graduates corresponds to the degree of Accountancy, followed by Administration, and then a small number of BSc in Economics. Our samples cover those who registered for the third and fourth graduation ceremonies of 2016. Each graduate was surveyed first at the moment they registered for the graduation ceremony, and then four additional times every three months.[4] The main reason for choosing as the beginning of the survey the moment the graduates register for the ceremony was because it allowed making the survey compulsory, since it was included as a requisite by the SES-NUC. In the follow-up surveys we depended on the goodwill of the graduates to answer them. All surveys were carried-out online using the tool LimeSurvey.

The questionnaire contains different sections; the section for employees ask for the self-subjected report of overall job satisfaction as well as for the self-subjected report of 12 sub-domains of satisfaction or aspects of actual employment: payment, fringe benefits, general work environment, relationship with supervisor, peers and subordinates, professional/intellectual challenge, job duties, stability in employment, possibility of professional development, proximity to the workplace and hours worked. The questions about satisfaction distinguish ten response categories; number 1 accounts for the worst level of reported satisfaction while number 10 is for the best level. Also the survey contains information about individual characteristics, current and past job characteristics, among other information. All variables that are considered in the econometric analysis are taken for this survey.

Table 1: Sample sizes
and rates of permanence

	Sample 1	Sample 2
Size	158	164
Rates of permanence		
Base	100.0	100.0
Follow-up 1	90.5	88.4
Follow-up 2	69.6	69.5
Follow-up 3	67.1	65.2

Source: own.

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[4] The last follow-up surveys have already been carried out, but for lack of time they are not included into the analysis. Also, we are currently following two additional samples, with those who registered for the third and fourth graduation ceremonies of 2017. These samples would be completed between June and August 2018.

A well-known problem with longitudinal surveys is that of attrition of the original sample. However, even when our survey is not free from that problem, we manage to maintain quite large percentages of retention as it is shown in Tables 1 and 2.

Table 2: Patterns of attrition

Surveys with responses				N° Cases		
Base	Follow-up 1	Follow-up 2	Follow-up 3	Sample 1	Sample 2	TOTAL
yes	yes	yes	Yes	86	87	53.7%
yes	yes	yes		16	17	
yes	yes		Yes	12	11	21.1%
yes		yes	Yes	5	7	
yes	yes			29	30	
yes		yes		3	3	21.7%
yes			Yes	3	2	
Yes				4	7	3.4%

Source: own.

Table 3: Working experience before graduating (*)

a) Type of experience	%
Yes	73.9
Yes: related to the area of study	55.3
b) For those with experience related to the area of study	
- Did you apply the knowledge acquired in the University?	
Yes	51.4
Yes, but partially	48.6
- Time dedicated to work during time as student	
Less than 6 months	7.9
From 6 months to less than 12 months	11.2
From 1 year to less than 2 years	26.4
2 or more years	54.5

(*) Excluding jobs, if any, at the moment of registering for graduation.
Source: own.

Unlike the situation in most developed countries, in Argentina a large percentage of students attending university start working before they graduate. The main reason for this behavior is the lack of enough funding to support their studies, but also as a mean to gaining experience for when they finish their studies and need to enter into the labor market. This pattern emerges clearly when looking at Table 3.

The fact that a large percentage of university students begin to work before graduating implies that the question of the transition from university to the labor market needs to be addressed from different dimensions to those usually present in studies concentrating in developed countries. In these cases, studies are usually oriented to analyze the determinants that explain the time elapsed from graduation to first employment. However, in our case we also need to look at different dimensions of the quality of that transition, such as matching among the

knowledge required by the job and those obtained at the university, insertion in the formal labor market and job satisfaction, the central topic of this study.

Regarding job satisfaction, we can see from Table 4 that the declared levels are relatively high, with an overall satisfaction between 7.1 and 7.4, in a scale from 1 to 10. However, it emerges clearly the lower levels associated to the monetary dimensions and the possibilities of professional development, systematically being at the bottom of the different dimensions, but showing a positive tendency over time. The highest satisfaction values are assigned to those reflecting inter-personal interactions (relation with peers, subordinates and superiors).

Table 4: Evolution of job satisfaction (*)

Dimensions of labor satisfaction	Base	Follow-up 1	Follow-up 2	Follow-up 3
General	7.1	7.2	7.3	7.4
Monetary income	6.0	6.4	6.7	6.7
Extra "salary" benefits	5.0	5.2	5.5	5.6
General atmosphere at work	7.8	7.7	7.8	7.9
Relation with superiors	8.0	8.1	8.2	8.1
Relation with peers	8.6	8.5	8.5	8.5
Relation with subordinates	7.9	8.0	8.0	8.1
Intellectual and / or professional challenges	7.1	7.1	7.2	7.2
Responsibilities / Hierarchy	7.0	7.3	7.5	7.2
Labor stability in employment	7.6	7.9	7.9	7.9
Possibilities of professional development	6.7	6.9	6.8	7.0
Proximity to residence address	6.8	7.0	7.0	7.1
Weekly hours of work	7.0	7.1	6.9	7.1

(*) Scale 1 (lowest) to 10 (highest).
Source: own.

In terms of the matching between the knowledge acquired during the university and those required by the job, the results are also relatively good, but it still is possible observe a somehow important mismatch.

As shown in Table 5, around one third of jobs do not require a university degree, while the average level of match between acquired and required skills is between 5.5 and 6.3, and for the use in the job of the knowledge acquired in the university is between 6.1 and 6.7 (see Table 6).

Table 5: Share of jobs
do not require a university degree

Survey	%
Base	31.8
Follow-up 1	38.0
Follow-up 2	33.5
Follow-up 3	34.7

Source: own.

Table 6: Correspondences between skills
and use of acquired knowledge

Survey	Correspondence between acquired and required skills (*)	Use of knowledge acquired in University (*)
Base	5.5	6.5
Follow-up 1	5.7	6.5
Follow-up 2	5.7	6.3
Follow-up 3	6.0	6.7

(*) Scale 1 (lowest) to 10 (highest).
Source: own.

Finally, and now limiting the analysis to those who declared their labor status as salaried labor, between 78% and 90% declared their labor employment relationship was permanent (see Table 7), with this proportion increasing since the beginning of the survey. With regards to the different benefits associated to the job, a large proportion declare to have them (see Table 8), with the lowest figures corresponding to Retirement contributions paid by the employer and the largest one to paid vacation. These figures are considerably above the overall values for the working population in Argentina.

Table 7: Share of permanent contracts
among salaried employees

Survey	%
Base	78.0
Follow-up 1	84.3
Follow-up 2	82.1
Follow-up 3	90.3

Source: own.

Table 8: Benefits among salaried employees

Survey	13th wage	Paid vacation	Health insurance	Job leave	Retirement contributions
Base	83.0	87.0	73.5	78.5	69.1
Follow-up 1	86.2	86.7	76.2	78.6	71.0
Follow-up 2	84.6	88.3	79.0	82.7	77.8
Follow-up 3	85.4	90.3	80.6	86.1	77.1

Source: own.

In Annex 1, Table A1 presents the definitions of the covariates included in the estimates of the model.

IV.2. The econometric outcomes

This section introduces firstly the estimation of equation (2). Table 9 presents estimated coefficients of breakdown job satisfaction. The estimation of equation (2) considers variables that act as control, which are not statistically significant in this first specification. The

econometric outcomes show that the probability of the recent graduates in being satisfied with the job increases with the following values or subdomains of job satisfaction: pay, fringe benefits, general work environment, professional/intellectual challenge and possibility of professional development. As it was mentioned above, the study will analyze in more detail those five sub-domains that present a positive and statistical significant estimated coefficient.

Table 9: Overall job satisfaction explained by subdomains (ordered probit)

	Estimate	Standard error	z-ratio	P>|z|
Satisfaction with pay***	0.2164571	0.0397188	5.45	0.000
Satisfaction with fringe benefits**	0.0580381	0.0278399	2.08	0.037
Satisfaction with general work environment***	0.1642927	0.0492211	3.34	0.001
Satisfaction with supervisor	0.0657434	0.055189	1.19	0.234
Satisfaction with peers	0.0835528	0.0702982	1.19	0.235
Satisfaction with subordinates	0.0261389	0.0547637	0.48	0.633
Satisfaction with professional/intellectual challenge***	0.2043281	0.0506418	4.03	0.000
Satisfaction with job duties	0.0221682	0.0448944	0.49	0.621
Satisfaction with stability in employment	-0.0087139	0.0364171	-0.24	0.811
Satisfaction with possibility of professional development**	0.0862991	0.0418122	2.06	0.039
Satisfaction with proximity to workplace	0.0321037	0.0265082	1.21	0.226
Satisfaction with hours worked	0.0321424	0.0303319	1.06	0.289
Base	-0.1017706	0.155263	-0.66	0.512
Follow-up 1	-0.1320562	0.1527553	-0.86	0.387
Follow-up 2	-0.1026053	0.1590594	-0.65	0.519
Independent	0.1197122	0.2218111	0.54	0.589
Public sector	-0.2487756	0.2165007	-1.15	0.251
Average marks	-0.0079814	0.0618751	-0.13	0.897
Attitude to risk_Health	-0.0534892	0.0361468	-1.48	0.139
Attitude to risk_Education	0.0286041	0.0430172	0.66	0.506
Attitude to risk_Work	0.029053	0.0511449	0.57	0.570
Attitude to risk_Personal finance	-0.0155577	0.0410381	-0.38	0.705
/cut1	1.763808	0.7282882	2.42	0.015
/cut2	2.277561	0.6558935	3.47	0.001
/cut3	3.211901	0.6109941	5.26	0.000
/cut4	4.059212	0.6044104	6.72	0.000
/cut5	5.145203	0.6139497	8.38	0.000
/cut6	5.997907	0.6289031	9.54	0.000
/cut7	7.003702	0.6509938	10.76	0.000
/cut8	8.627553	0.6940392	12.43	0.000
/cut9	9.608568	0.7172976	13.4	0.000
Number of observations	479			
Number of individuals	221			
$\sigma^2 u$	0.4827754	0.1487754		
Log likelihood = -690.26452				
Wald chi2(22) = 237.86	Prob > chi2	= 0.0000		

Table 10: General job satisfaction (ordered probit)

	Estimate	Standard error	z-ratio	P>|z|
Year of birth	0.0157112	0.0535292	0.290	0.769
Single	0.9713178	0.6533833	1.490	0.137
Married	0.6758557	0.6304182	1.070	0.284
Woman	0.0389458	0.153351	0.250	0.800
Years in college	0.0119359	0.0506466	0.240	0.814
Working and searching***	-0.74563	0.1189992	-6.27	0.000
Pay/earnings***	0.039501	0.0131961	2.990	0.003
Base	-0.117912	0.138495	-0.85	0.395
Follow-up 1	0.0247744	0.1280398	0.190	0.847
Follow-up 2	0.0749321	0.1255217	0.600	0.551
Independent	0.2196117	0.2058423	1.070	0.286
Public sector	0.1536499	0.2172521	0.710	0.479
Accountant *	0.7749165	0.465284	1.670	0.096
Administration	0.5148568	0.4809122	1.070	0.284
Average marks	-0.040265	0.0728724	-0.55	0.581
Studies abroad	-0.051548	0.5635576	-0.09	0.927
English_exc	0.1484717	0.2470499	0.600	0.548
English_vg	-0.035364	0.1715261	-0.21	0.837
English_g	-0.075360	0.1391767	-0.54	0.588
Other language	0.0746494	0.1774469	0.420	0.674
Software 1	-0.083239	0.1274156	-0.65	0.514
Software 2*	0.2009015	0.1209625	1.660	0.097
Software 3	-0.048344	0.1419225	-0.34	0.733
Software 4	-0.090065	0.0568869	-1.58	0.113
Software 5	0.0664954	0.0651447	1.020	0.307
Software 6	-0.021038	0.057822	-0.36	0.716
Other studies (college)	0.124844	0.2020143	0.620	0.537
Post-graduate studies	-0.275169	0.3219112	-0.85	0.393
Working_student	-0.066205	0.1651275	-0.40	0.688
Formal qualification required*	-0.131947	0.0736355	-1.79	0.073
Training time needed	0.0957038	0.0825954	1.160	0.247
Qualifications adequacy***	0.1143155	0.0282987	4.040	0.000
Application knowledge College***	0.2594738	0.0335312	7.740	0.000
Formal employee	-0.049191	0.1609336	-0.31	0.760
Size_org2	0.1917959	0.1838411	1.040	0.297
Size_org3	0.1128652	0.2337112	0.480	0.629
Size_org4	0.1816695	0.226075	0.800	0.422
Broadcast media**	0.3657707	0.1470118	2.490	0.013
University_job	0.0988697	0.1902137	0.520	0.603
Staff consultant**	0.3703812	0.1694429	2.190	0.029
Interview	-0.168656	0.1493255	-1.13	0.259
Colleagues	0.0592095	0.1800387	0.330	0.742
Academic_recom	0.5075124	0.3307771	1.530	0.125
Competition	0.0893832	0.2466612	0.360	0.717
Internship	0.0777837	0.2304224	0.340	0.736
Personal actions	0.1198738	0.1586335	0.760	0.45
Networking	-0.078700	0.151976	-0.52	0.605
Hours worked***	-0.152028	0.0431751	-3.52	0.000
Good pay	0.0859752	0.1788636	0.480	0.631
Flexibility	0.2108566	0.1822359	1.160	0.247
Independent work	-0.073098	0.2881977	-0.25	0.8
Stability	0.0771054	0.165259	0.470	0.641
Professional development	0.0584998	0.1885576	0.310	0.756
Work environment	-0.025941	0.1636253	-0.16	0.874
Compatibility with family	-0.083627	0.1919656	-0.44	0.663
Close relationship	0.2532771	0.1962498	1.290	0.197
Travelling	-0.168251	0.2246878	-0.75	0.454
Attitude to risk_Education	-0.019531	0.0375825	-0.52	0.603
Attitude to risk_Work	0.0450001	0.0479414	0.940	0.348
Attitude to risk_Personal finance	0.0273181	0.0393558	0.690	0.488
People in charge	0.0745637	0.1408788	0.530	0.597
Father_sup_inc	-0.128763	0.2028079	-0.63	0.525
Father_sup_c	-0.150895	0.2212982	-0.68	0.495
Mother_sup_inc***	0.5818026	0.2258207	2.580	0.01
Mother_sup_c***	0.6016465	0.2280394	2.640	0.008
Number of observations	783			
Number of individuals	279			
$\sigma^2 u$	0.6881491	0.1371307		
Log likelihood	-690.26452			
Wald chi2(65)	294.89	Prob > chi2 = 0.0000		

Table 10 shows the estimates of the econometric specification that takes into account that general job satisfaction depends on individual characteristics, relationship status, social and economic situation, personality traits, occupational context, job status, among others.

The estimated coefficients indicates that the probability of being satisfied with the current job depends on certain occupational context and the way that job was obtained. Interestingly, personal attributes does not seem to impact on such probability, but family background play a role. The estimated coefficient for level of education of the recent graduates´ mother, is positive and statistically significant at 1%; which means that graduates whose mothers have concluded secondary or university level of studies are more likely to be satisfied in general with their current job. Also, as Table 10 indicates, the higher the job adequacy the higher the probability of being satisfied is. The effects of working in a job that requires a college degree and specifically a graduate in Economic Sciences, are positive and statistically significant. Besides, graduates that are employed but are searching another job, have less probability of being satisfied than those who are employed but are not looking for another job. The analysis also take into account different access of the current job. The estimated coefficients show that the probability of being satisfied in the actual position increases when such jobs have been obtained by searching in broadcast media and through a staff consultant.

In accordance with the literature, we find that two explanatory variables impact on the graduates' probability of being satisfied, the pay and the hour of work. Firstly, Table 10 shows that the impact of nominal pay is positive and statistically significant at 1%. Secondly, the number of hours worked presents a negative association with the level of satisfaction; the coefficient is negative and statistically significant at 1%.

As it was mentioned previously, many variables may impact differently on some values of job satisfaction. In order to get more insights about the effects on these values, we disaggregate overall job satisfaction into five sub-domains. We focus on the analysis of these values because of their estimated coefficients were statistically significant and with the expected sign in regression (2). Table 11 presents the results of five ordered probit models. As it shows, the probability of being satisfied with the pay is associated positively with the level of pay, being women, working in the public sector and being independent professional (in opposite to employees). As expected, those graduates who declare that were employed but at the same time they were looking another job, present a lower probability of being satisfied with the pay in their current job.

Also, there is a negative relationship between the probability of being satisfied with the pay, and the number of hours worked and the fact of being well training in particular and professional software. These results may suggest that graduates with the mentioned characteristics do not feel themselves valued for their employers or are overqualified. On the contrary, those individuals who have a job who requires longer periods of training and the application of knowledge and abilities acquired in college in the field of economic sciences, have higher probability of being satisfied. It is relevant to remark that time control variables resulted significant and positively associated with the probability of being satisfied with the pay, suggesting that after graduation the level of satisfaction was decreasing.

Table 11 shows that the outcomes that emerge from regressing the level of satisfaction with fringe benefits and satisfaction with pay as dependent variables, are similar.

Table 11: Subdomains of job satisfaction (ordered probit)

	Satisfaction with pay				Satisfaction with fringe benefits			
	Estimate	Standard error	z-ratio	P>|z|	Estimate	Standard error	z-ratio	P>|z|
year of birth	0.02366	0.05308	0.450	0.656	0.06487	0.04820	1.350	0.178
Single	0.69883	0.66883	1.040	0.296	0.53250	0.65998	0.810	0.420
Married	0.63660	0.64962	0.980	0.327	0.27423	0.63786	0.430	0.667
Woman	**0.34947****	0.15079	2.320	0.020	-0.0389	0.13943	-0.28	0.780
years in college	0.00855	0.04967	0.170	0.863	**0.0906****	0.04548	1.990	0.046
working and searching	**-0.4801*****	0.11594	-4.14	0.000	**-0.433*****	0.1166	-3.72	0.000
pay/earnings	**0.15019*****	0.01372	10.95	0.000	**0.07079*****	0.01278	5.540	0.000
Base	**0.31706****	0.13556	2.340	0.019	0.06379	0.13714	0.470	0.642
Follow-up 1	**0.40990*****	0.12545	3.270	0.001	0.14603	0.12641	1.160	0.248
Follow-up 2	**0.35466*****	0.12282	2.890	0.004	0.18186	0.12596	1.440	0.149
Independent	**0.51652*****	0.20140	2.560	0.010	**0.5330*****	0.20155	2.640	0.008
Public sector	**0.41566***	0.21358	1.950	0.052	0.08502	0.20536	0.410	0.679
Accountant	-0.3063	0.45794	-0.67	0.504	0.00420	0.43020	0.010	0.992
Administration	-0.3678	0.47371	-0.78	0.437	0.24810	0.44526	0.560	0.577
Average marks	0.04775	0.07476	0.640	0.523	**0.14701****	0.06732	2.180	0.029
Studies abroad	0.37632	0.55453	0.680	0.497	-0.7414	0.52756	-1.41	0.160
English_exc	0.00142	0.24094	0.010	0.995	0.21958	0.23343	0.940	0.347
English_vg	-0.0241	0.16868	-0.14	0.886	0.09078	0.16383	0.550	0.580
English_g	-0.0702	0.13560	-0.52	0.604	-0.0241	0.13538	-0.18	0.859
Other language	-0.1844	0.17261	-1.07	0.285	-0.0126	0.16620	-0.08	0.940
Software 1	**-0.2577****	0.12536	-2.06	0.040	-0.170	0.12077	-1.47	0.143
Software 2	0.12693	0.11736	1.080	0.279	0.08283	0.11211	0.740	0.460
Software 3	-0.0375	0.13878	-0.27	0.787	0.01201	0.13713	0.090	0.930
Software 4	0.00012	0.05552	0.000	0.998	-0.0235	0.05265	-0.45	0.655
Software 5	0.03321	0.06376	0.520	0.602	0.01423	0.06055	0.230	0.814
Software 6	0.03716	0.05660	0.660	0.511	0.05348	0.05431	0.980	0.325
Other studies (college)	-0.2227	0.19465	-1.14	0.253	0.00613	0.19712	0.030	0.975
Post-graduate studies	0.21650	0.31601	0.690	0.493	**-0.5068***	0.30644	-1.65	0.098
Working_student	-0.0668	0.16174	-0.41	0.679	-0.0113	0.15151	-0.07	0.940
Formal qualification required	-0.1124	0.07181	-1.57	0.117	0.01694	0.07253	0.230	0.815
Training time needed	**-0.1482***	0.08074	-1.84	0.066	-0.0638	0.08106	-0.79	0.431
Qualifications adequacy	**0.05531****	0.02726	2.030	0.042	**0.0589****	0.02767	2.130	0.033
Application knowledge College	0.05024	0.03171	1.580	0.113	**0.05441***	0.03131	1.740	0.082
Formal employee	-0.0165	0.15789	-0.10	0.917	**0.7171*****	0.16030	4.470	0.000
Size_org2	-0.2070	0.17702	-1.17	0.242	**-0.4378****	0.17691	-2.47	0.013
Size_org3	-0.0156	0.22725	-0.07	0.945	-0.1125	0.22376	-0.50	0.615
Size_org4	-0.0467	0.21763	-0.21	0.830	-0.1920	0.21244	-0.90	0.366
Broadcast media	0.11786	0.14240	0.830	0.408	-0.1916	0.14112	-1.36	0.175
University_job	-0.1531	0.18548	-0.83	0.409	-0.0603	0.18346	-0.33	0.742
Staff consultant	0.02546	0.16378	0.160	0.876	0.21849	0.15997	1.370	0.172
Interview	-0.1270	0.14674	-0.87	0.387	0.01107	0.14417	0.080	0.939
Colleagues	-0.0865	0.17547	-0.49	0.622	0.14018	0.17241	0.810	0.416
Academic_recom	0.22265	0.31215	0.710	0.476	-0.0074	0.30160	-0.02	0.980
Competition	-0.2993	0.24147	-1.24	0.215	0.12897	0.23818	0.540	0.588
Internship	0.09358	0.22415	0.420	0.676	0.28909	0.21881	1.320	0.186
Personal actions	-0.0563	0.15376	-0.37	0.714	-0.0441	0.15537	-0.28	0.777
Networking	**0.24833***	0.14928	1.660	0.096	-0.0578	0.14898	-0.39	0.698
Hours worked	**-0.1182*****	0.04160	-2.84	0.004	-0.0067	0.04236	-0.16	0.874
Good pay	0.23317	0.17663	1.320	0.187	0.08407	0.16486	0.510	0.610
Flexibility	0.10388	0.17915	0.580	0.562	0.25362	0.16677	1.520	0.128
Independent work	-0.3585	0.28182	-1.27	0.203	-0.2604	0.25525	-1.02	0.308
Stability	-0.0777	0.16271	-0.48	0.633	0.17135	0.15088	1.140	0.256
Professional development	-0.1865	0.18546	-1.01	0.315	0.10718	0.17200	0.620	0.533
Work environment	-0.2254	0.16089	-1.40	0.162	0.10717	0.14887	0.720	0.472
Compatibility with family	0.02001	0.18927	0.110	0.916	0.04907	0.17791	0.280	0.783
Close relationship	-0.0643	0.19246	-0.33	0.738	-0.1086	0.17757	-0.61	0.541
Travelling	**0.37027***	0.22080	1.680	0.094	0.26417	0.20418	1.290	0.196
Attitude to risk_Education	-0.0019	0.03699	-0.05	0.959	0.05151	0.03368	1.530	0.126
Attitude to risk_Work	-0.0127	0.04705	-0.27	0.788	-0.0132	0.04296	-0.31	0.759
Attitude to risk_Personal financ.	**0.07229****	0.03894	1.86	0.063	0.02627	0.03580	0.730	0.463
People in charge	-0.1751	0.13548	-1.29	0.196	-0.2069	0.12768	-1.62	0.105
Father_sup_inc	-0.0906	0.19942	-0.45	0.650	0.13950	0.18918	0.740	0.461
Father_sup_c	0.02448	0.21755	0.110	0.910	0.33579	0.20636	1.630	0.104
Mother_sup_inc	**0.36538***	0.22160	1.650	0.099	0.04021	0.20619	0.200	0.845
Mother_sup_c	0.29923	0.22513	1.330	0.184	0.05876	0.20892	0.280	0.779
Number of observations	784				746			
Number of individuals	278				273			
$\sigma^2 u$	0.67142	0.13108			0.47088	0.106		
Log likelihood	-1412.5				-1508.1			
Wald chi2(65)	264.83	Prob > chi2	=	0.0000	202.25	Prob > chi2	=	0.0000

Table 11: Subdomains of job satisfaction (ordered probit)

	Satisfaction with work environment				Satisfaction with professional/intellectual challenge				Satisfaction with possibilities of professional development			
	Estimate	Std. error	z-ratio	P>|z|	Estimate	Std. error	z-ratio	P>|z|	Estimate	Std. error	z-ratio	P>|z|
year of birth	0.0737	0.0641	1.15	0.25	-0.0205	0.0509	-0.40	0.686	0.0116	0.0599	0.190	0.846
Single	0.7037	0.6792	1.04	0.3	0.2670	0.6285	0.420	0.671	0.5438	0.6641	0.820	0.413
Married	0.7295	0.6486	1.12	0.261	0.3052	0.6068	0.500	0.615	0.2661	0.6369	0.420	0.676
Woman	-0.0510	0.1864	-0.27	0.784	0.0556	0.1465	0.380	0.705	0.0238	0.1729	0.140	0.891
years in college	0.0471	0.0610	0.77	0.441	-0.0365	0.0480	-0.76	0.447	0.0106	0.0568	0.190	0.852
working and searching	-0.374***	0.1260	-2.97	0.003	-0.607***	0.1169	-5.19	0.000	-0.9076***	0.1246	-7.28	0.000
pay/earnings	0.0156	0.0146	1.07	0.284	0.0304**	0.0129	2.370	0.018	0.0156	0.0141	1.110	0.269
Base	0.0878	0.1471	0.6	0.551	0.2525*	0.1372	1.840	0.066	0.0302	0.1420	0.210	0.832
Follow-up 1	0.0222	0.1335	0.17	0.868	0.1616	0.1268	1.270	0.203	0.1043	0.1310	0.800	0.426
Follow-up 2	-0.0032	0.1291	-0.03	0.98	0.2512**	0.1256	2.000	0.045	0.0016	0.1269	0.010	0.990
Independent	0.2590	0.2268	1.14	0.253	0.2571	0.2034	1.260	0.206	0.5477**	0.2213	2.480	0.013
Public sector	0.0723	0.2445	0.3	0.767	0.1003	0.2104	0.480	0.634	0.0922	0.2350	0.390	0.695
Accountant	-1.1599**	0.5525	-2.1	0.036	0.4535	0.4453	1.020	0.308	-0.5398	0.5158	-1.05	0.295
Administration	-1.3201**	0.5736	-2.3	0.021	-0.0188	0.4605	-0.04	0.967	-1.1022**	0.5358	-2.06	0.040
Average marks	0.0775	0.0876	0.88	0.377	-0.0143	0.0697	-0.20	0.838	-0.0179	0.0818	-0.22	0.827
Studies abroad	-0.5027	0.6796	-0.74	0.459	-0.3605	0.5343	-0.67	0.500	-0.1289	0.6285	-0.21	0.838
English_exc	0.2013	0.2803	0.72	0.473	0.0635	0.2396	0.270	0.791	0.2740	0.2684	1.020	0.307
English_vg	-0.0608	0.1899	-0.32	0.749	0.0059	0.1677	0.040	0.972	-0.0683	0.1848	-0.37	0.712
English_g	0.1731	0.1515	1.14	0.253	-0.2286*	0.1370	-1.67	0.095	-0.3432**	0.1472	-2.33	0.020
Other language	-0.0726	0.1945	-0.37	0.709	0.3254*	0.1747	1.860	0.062	0.0692	0.1916	0.360	0.718
Software 1	0.1018	0.1454	0.7	0.484	-0.1046	0.1253	-0.83	0.404	0.0431	0.1394	0.310	0.757
Software 2	0.0144	0.1391	0.1	0.918	0.0072	0.1174	0.060	0.951	-0.0223	0.1319	-0.17	0.865
Software 3	-0.2274	0.1545	-1.47	0.141	-0.1639	0.1374	-1.19	0.233	-0.3714**	0.1516	-2.45	0.014
Software 4	0.0027	0.0651	0.04	0.967	-0.0616	0.0550	-1.12	0.262	-0.0405	0.0621	-0.65	0.514
Software 5	0.1011	0.0733	1.38	0.168	0.1536**	0.0634	2.420	0.015	0.0295	0.0704	0.420	0.675
Software 6	0.0581	0.0656	0.89	0.376	0.0327	0.0568	0.580	0.565	0.1173*	0.0620	1.890	0.059
Other studies (college)	-0.1106	0.2194	-0.5	0.614	0.0919	0.1936	0.470	0.635	0.0667	0.2100	0.320	0.751
Post-graduate studies	-0.1906	0.3502	-0.54	0.586	-0.594*	0.3135	-1.89	0.058	-0.6206*	0.3413	-1.820	0.069
Working_student	-0.0260	0.2006	-0.13	0.897	-0.1106	0.1574	-0.70	0.482	0.0297	0.1854	0.160	0.873
Formal qualification required	0.1356*	0.0785	1.73	0.084	-0.2968***	0.0731	-4.05	0.000	-0.3118***	0.0772	-4.04	0.000
Training time needed	0.0150	0.0894	0.17	0.867	0.2432***	0.0809	3.010	0.003	0.3304***	0.0865	3.820	0.000
Qualifications adequacy	0.0666**	0.0300	2.22	0.027	0.0919***	0.0278	3.300	0.001	0.0852***	0.0297	2.870	0.004
Application knowledge College	0.1546***	0.0355	4.36	0.000	0.2755***	0.0332	8.290	0.000	0.1526***	0.0347	4.400	0.000
Formal employee	0.0792	0.1771	0.45	0.655	0.1006	0.1566	0.640	0.521	-0.0802	0.1718	-0.47	0.641
Size_org2	-0.2399	0.2024	-1.19	0.236	0.0851	0.1761	0.480	0.629	-0.1825	0.1935	-0.94	0.346
Size_org3	-0.1281	0.2596	-0.49	0.622	-0.0251	0.2284	-0.11	0.913	-0.0266	0.2507	-0.11	0.915
Size_org4	-0.1573	0.2489	-0.63	0.527	-0.3478	0.2154	-1.61	0.106	-0.0264	0.2410	-0.11	0.913
Broadcast media	0.0163	0.1580	0.1	0.918	0.0596	0.1437	0.410	0.678	-0.1134	0.1537	-0.74	0.461
University_job	0.0666	0.2025	0.33	0.742	-0.0475	0.1856	-0.26	0.798	0.1014	0.1960	0.520	0.605
Staff consultant	0.0743	0.1806	0.41	0.681	0.1227	0.1656	0.740	0.459	0.3107*	0.1757	1.770	0.077
Interview	-0.0990	0.1611	-0.61	0.539	0.0821	0.1466	0.560	0.575	-0.2472	0.1568	-1.58	0.115
Colleagues	0.2014	0.1955	1.03	0.303	0.0880	0.1773	0.500	0.620	0.2365	0.1880	1.260	0.208
Academic_recom	-0.8428**	0.3415	-2.47	0.014	-0.1898	0.3082	-0.62	0.538	-0.4771	0.3397	-1.40	0.160
Competition	0.2850	0.2637	1.08	0.28	0.3050	0.2435	1.250	0.210	-0.0778	0.2599	-0.30	0.765
Internship	-0.2231	0.2522	-0.88	0.376	0.0947	0.2268	0.420	0.676	-0.0216	0.2441	-0.09	0.929
Personal actions	0.0053	0.1696	0.03	0.975	0.3178**	0.1575	2.020	0.044	0.1475	0.1647	0.900	0.371
Networking	-0.3270*	0.1672	-1.96	0.051	-0.1115	0.1498	-0.74	0.457	-0.2045	0.1616	-1.27	0.206
Hours worked	-0.1336***	0.0459	-2.91	0.004	0.0215	0.0420	0.510	0.608	-0.0104	0.0445	-0.23	0.815
Good pay	-0.0694	0.2170	-0.32	0.749	0.0871	0.1704	0.510	0.609	-0.0553	0.2032	-0.27	0.786
Flexibility	0.2883	0.2212	1.3	0.192	0.0594	0.1739	0.340	0.733	0.2755	0.2059	1.340	0.181
Independent work	0.2781	0.3494	0.8	0.426	0.1862	0.2742	0.680	0.497	-0.2097	0.3270	-0.64	0.521
Stability	0.3727*	0.2007	1.86	0.063	0.1214	0.1572	0.770	0.440	0.4412**	0.1870	2.360	0.018
Professional development	0.3284	0.2297	1.43	0.153	-0.0874	0.1790	-0.49	0.625	-0.0759	0.2126	-0.36	0.721
Work environment	-0.1214	0.1984	-0.61	0.54	0.2957*	0.1556	1.900	0.057	0.2010	0.1848	1.090	0.277
Compatibility with family	-0.2670	0.2342	-1.14	0.254	0.2446	0.1836	1.330	0.183	0.2526	0.2182	1.160	0.247
Close relationship	-0.0445	0.2388	-0.19	0.852	0.0490	0.1870	0.260	0.793	-0.1421	0.2225	-0.64	0.523
Travelling	-0.2575	0.2728	-0.94	0.345	0.1776	0.2131	0.830	0.405	0.2987	0.2525	1.180	0.237
Attitude to risk_Education	-0.0185	0.0462	-0.4	0.688	-0.0460	0.0363	-1.27	0.205	-0.0885**	0.0426	-2.08	0.038
Attitude to risk_Work	0.0722	0.0585	1.23	0.218	0.1426***	0.0464	3.070	0.002	0.1595***	0.0546	2.920	0.003
Attitude to risk_Personal finance	0.0262	0.0480	0.55	0.584	0.0397	0.0379	1.050	0.294	0.0282	0.0447	0.630	0.529
People in charge	-0.1183	0.1584	-0.75	0.455	-0.0926	0.1321	-0.70	0.484	-0.1488	0.1487	-1.00	0.317
Father_sup_inc	-0.0115	0.2451	-0.05	0.963	-0.3140	0.1941	-1.62	0.106	-0.4101*	0.2294	-1.79	0.074
Father_sup_c	-0.1961	0.2680	-0.73	0.464	0.0303	0.2126	0.140	0.887	0.0733	0.2505	0.290	0.770
Mother_sup_inc	0.1253	0.2727	0.46	0.646	0.524**	0.2146	2.440	0.015	0.3540	0.2542	1.390	0.164
Mother_sup_c	0.2271	0.2742	0.83	0.408	0.457**	0.2174	2.100	0.036	0.2390	0.2564	0.930	0.351
Number of observations	774				777				772			
Number of individuals	279				279				278			
$\sigma^2 u$	1.2156	0.21			0.5853	0.116			0.9919	0.171		
Log likelihood	-1271				-1304				-1380			
Wald chi2(65)	119.99	Prob > chi2=0.0000			366.77	Prob > chi2 = 0.0000			308.53	Prob > chi2 = 0.0000		

However, some points are important to highlight; firstly, formal employees, whom perceive social and health insurance from their employers, present higher probabilities of achieving higher levels of satisfaction with fringe benefits; secondly, students, which present a good performance in their academic records and good average marks in the college, are more likely to be satisfied with fringe benefits; and thirdly, recent graduates that spend more time in finishing their academic degree present higher chances of being satisfied with fringe benefits. These results suggest that those graduates, who devoted time to working and extended their study time might have been encouraged by extra-wage benefits.

The probability of being satisfied with the general work environment is positively associated with job adequacy and inversely related to the state of searching another occupation and the hours worked. Accountancy graduates and business graduates have lower probability of achieving higher levels of satisfaction than those of economics graduates. It is worth mentioning that those graduates that obtained their job by means of an academic recommendation or by family or friend connections, present a negative effect on the level of satisfaction with work environments, which might suggest the idea that they may be working in places where did not choose themselves.

The results also show that the probability of being satisfied with the professional and/or academic challenge involved in the current job, is positively associated with pay and the job adequacy. Moreover, recent graduates who declare to be in jobs that require university qualifications, demand longer training periods and specific degree in Economic Sciences, have higher probability of achieving higher levels of satisfaction with the professional and /or academic challenge involved. Besides, the estimated coefficient associated to the variable "taking postgraduate courses" is negative and statistically significant. This finding might suggest that recent graduates are taking into account their current job as temporary to the extent that they allow them to study. The estimations also show that graduates, which obtained their job by personal actions are more likely to be satisfied with the professional and /or academic challenge involved. This outcome may indicate that individuals may feel comfortable with their job selection. Like in estimation of overall job satisfaction, recent graduates whose mothers concluded high school or university courses have more chances of being satisfied with the professional and/or academic challenge involved, with respect to those graduates whose mothers only have primary school or did not achieve secondary level. This result might indicate the impact of social background; the sons and daughters of educated mothers may have access to better jobs or better advices. As in the case of satisfaction with pay, the temporal effects are positive and statistically significant, which indicates that the perception of quality job is decreasing. Individuals who declare to be willing in taking more risks in their job, have more chances of being more satisfied with the challenge of the job.

Finally, the satisfaction with professional perspectives is positively and statistically significant affected by job adequacy and jobs suitable to the level and field of knowledge. Individuals who are trying to change job have less probability of being satisfied with the professional perspective in comparison to others. Also, graduates in administration perceive less probability of being satisfied with possibilities of development with respect to accountants and economists. The probability of being satisfied with possibilities of development is higher in case of self-employee as compared to employees. Graduates who declare being well trained in Systems Applications Products software (SAP) may be more optimistic than the rest, while individuals who manage well the Regression Analysis of Time Series program (Rats) seem to be more pessimistic. It is noticeable that graduates who declare have good knowledge of English present less probability of being satisfied than those who declare bad o regular and very good or excellent level. Being a son or a daughter of a father with poor level of formal education diminishes the chances of being more satisfied with professional perspectives. Also graduates who value stability

in work as desirable and those who are willing to take risks in the job, present higher probabilities of achieving higher levels of satisfaction with the professional perspective.

V. Concluding remarks

The aim of the study is to analyze recent graduates' job satisfaction. We find that general job satisfaction constitute a wide dimension, which include different relevant aspects. It is interesting to note, that graduates take into account this values at the moment of reporting the level of satisfaction with their job. The most relevant sub-domains of job satisfaction are related to monetary and remunerative aspects; in fact estimated coefficients of satisfactions with pay and fringe benefits are statistically in explaining the level of general job satisfaction. Also the general work environment and the professional and intellectual challenge of the work are valued. The last significant sub-domain is related to the future: the recent graduates tend to be happier when they perceive good chances of professional development. This outcome might suggest that they value the present and future times, as well as they need to be comfortable not only with earnings, but also with the intellectual challenge and the interpersonal relationships.

Among the main determinants of job satisfaction, adequacy is always significant. Also, being employed and performing tasks related to the field of study and in positions compatible with a Bachelor degree, are valued positively by the respondents. Interestingly, individuals for which their position demands more time for training and requires higher formal qualifications, are more likely to reach higher levels of satisfaction. Similarly, those who apply the knowledge acquired in the university and feel they have the appropriate qualifications have more chances to be satisfied with their job. Higher incomes and less hours worked are also crucial to explain the graduates' happiness with their job. In regards to the socioeconomic background, the evidence suggests that parents' level of education matter to explain higher levels of satisfaction. It is relevant to note, that the means for which graduates obtain the job play a role; the probability of being more satisfied increases for those graduates that obtained their actual the job by means of their own actions, while it decreases for those individuals that obtained job by means of family or academic actions.

Also, the econometric analysis evidences that there are some variables that seem to be irrelevant in explaining the job satisfaction of the recent graduates. The probability of being more satisfied is not significantly affected by having a very good performance as student, labor experience and skills in foreign languages. This is the first study that aims to explain job satisfaction of recent graduates of the School of Economic Sciences of the National University of Córdoba; these outcome are preliminary, hence future investigation is needed in order to analyze the effect of explanatory variables more deeply.

Finally, it is important to remark that individuals value the formation and the resources acquired in the college; the probability of being satisfied with job increases with these aspects. This is not a minor result in a context of a university, which is totally financed by public resources.

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ANNEX 1

Table A.1: Variable definitions

Variable	Obs	Mean	Std. Dev.	Min	Max	Definition
Age	322	28.16	4.86	60	24	Age in years
Persons_charge	322	0.17	0.55	0	4	Persons/relatives in his economic charge
Year_beginning	322	2007	5.05	1976	2013	Year of admission to university
Marks	322	5.33	1.19	2.63	9.18	Marks (0 - 10)
Accountant	322	0.77	0.42	0	1	Graduate in Accountant=1
Administration	322	0.20	0.40	0	1	Graduate in Administration=1
Economics	322	0.03	0.18	0	1	Graduate in Economics=1
Single	322	0.85	0.35	0	1	single=1
Woman	322	0.60	0.49	0	1	Woman=1 otherwise=0
Married	322	0.14	0.35	0	1	Married/Cohabitation=1 otherwise=0
Working	322	0.83	0.38	0	1	Working at the graduation=1 otherwise=0
Working and searching for	322	0.31	0.46	0	1	Working at the graduation and searching for another job=1 otherwise=0
Working and not searching for	322	0.52	0.50	0	1	Working at the graduation and not searching for another job=1 otherwise=0
Industry	321	0.12	0.33	0	1	Working in the industrial sector=1 otherwise=0
Commerce	321	0.28	0.45	0	1	Working in the commercial sector=1 otherwise=0
Services	321	0.37	0.48	0	1	Working in the services sector=1 otherwise=0
Studies abroad	322	0.02	0.16	0	1	She did university studied abroad
English_excellent	322	0.11	0.31	0	1	She/He declares excellent English level=1
English_very good	322	0.26	0.44	0	1	She/He declares very good English level=1
English_good	322	0.37	0.48	0	1	She/He declares good English level=1
Other language_exc	322	0.06	0.24	0	1	She/He declares excellent level in another language=1
Other language_very good	322	0.13	0.34	0	1	She/He declares excellent or very good level in another language=1
Software 1	322	1.11	0.41	1	4	Knowledge of Stata: 1 (no) to 5 (excellent)
Software 2	322	1.20	0.59	1	5	Knowledge of R: 1 (no) to 5 (excellent)
Software 3	322	1.06	0.37	1	5	Knowledge of Rats: 1 (no) to 5 (excellent)
Software 4	322	1.75	1.12	1	5	Knowledge of Tango: 1 (no) to 5 (excellent)
Software 5	322	1.48	0.96	1	5	Knowledge of Bejerman: 1 (no) to 5 (excellent)
Software 6	322	1.54	1.00	1	5	Knowledge of SAP: 1 (no) to 5 (excellent)
Other degree studies	322	0.11	0.32	0	1	She/He did other university studies=1
Studying_postgraduate	322	0.02	0.14	0	1	She/He is doing postgraduate courses=1
working_student	322	0.74	0.44	0	1	She/He worked as was a college student=1
working_student_SES	322	0.55	0.50	0	1	She/He worked as was a college student in something related to Economic Sciences=1

Variable	N	Mean	Std	Min	Max	Description
formal employee	267	0.56	0.50	0	1	She/He has is a registered employee=1
Public secto	291	0.09	0.29	0	1	She/He is working in the Public sector=1
Private sector	265	0.76	0.43	0	1	She/He is working in the private sector=1
Independent profesional	267	0.16	0.37	0	1	She/He is an independent professional=1
Size_org 1	264	0.23	0.42	0	1	Organization size of current job: 1-5 persons =1
Size_org 2	264	0.29	0.45	0	1	Organization size of current job: 6-20 persons =1
Size_org 3	264	0.12	0.32	0	1	Organization size of current job: 21-50 persons =1
Size_org 4	264	0.37	0.48	0	1	Organization size of current job: more than 51 persons =1
Father high school incomplete	321	0.23	0.42	0	1	Father´s maximum level of studies: secondary level incomplete=1
Father high school complete	321	0.40	0.49	0	1	Father´s maximum level of studies: secondary level complete=1
Father College complete	322	0.38	0.49	0	1	Father´s maximum level of studies: university level complete=1
Mother high school incomplete	322	0.20	0.40	0	1	Mother´s maximum level of studies: secondary level incomplete=1
Mother high school complete	322	0.28	0.45	0	1	Mother´s maximum level of studies: secondary level complete=1
Mother College complete	322	0.52	0.50	0	1	Mother´s maximum level of studies: university level complete=1
Family_friends	267	0.55	0.50	0	1	She/He learnt about current job by family/friends=1
Media	267	0.17	0.38	0	1	She/He learnt about current job in the media=1
University	267	0.13	0.34	0	1	She/He learnt about current job in the College=1
Labor consultants	267	0.14	0.35	0	1	She/He learnt about current job through labor consultants=1
Interview	267	0.60	0.49	0	1	She/He got his current job through an interview=1
Colleagues	267	0.09	0.29	0	1	She/He got his current job through colleagues recommendation=1
Academic_recom	267	0.02	0.15	0	1	She/He got his current job through academic recommendation=1
Competitions	267	0.06	0.24	0	1	She/He got his current job through a contest=1
Internship	267	0.09	0.28	0	1	She/He got his current job through an internship=1
Personal actions	267	0.18	0.38	0	1	She/He got his current job through personal actions=1
Networking	267	0.26	0.44	0	1	She/He got his current job through networking=1
Attitude to risk_Health	322	3.67	2.51	1	10	Attitude to risk (Health): 1 (not willing) to 10 (totally willing)
Attitude to risk_Education	322	6.21	2.56	1	10	Attitude to risk (Education): 1 (not willing) to 10 (totally willing)
Attitude to risk_Work	322	6.93	2.21	1	10	Attitude to risk (Work): 1 (not willing) to 10 (totally willing)
Attitude to risk_Personal finance	322	5.96	2.32	1	10	Attitude to risk (Personal Finance): 1 (not willing) to 10 (totally willing)
Formal qualification required	267	2.37	0.80	1	4	Formal qualification required: 1(Postgraduation) 2(Bachelor) 3(Superior No University) 4(No Superior or University degree needed)
Training time needed	267	2.95	0.73	1	4	Training time needed: 1(days) 2 (weeks) 3 (months) 4 (years)
Qualifications adequacy	267	5.48	2.47	1	10	Adequacy College training/Job requirements: 1(worst perception) to 10 (best perception)
Application knowledge College	267	6.50	2.34	1	10	Application knowledge College: 1 (worst perception) to 10 (best perception)