



Satisfaction of university graduates: What does it tell us?

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Abstract Is the satisfaction of university graduates explained by their pre-university background, by the nature and financial returns of the professional work in which they are now engaged, or by other factors? This paper seeks to provide some quick answers to this question. This study focuses on the relative impact of variables that have a direct and indirect effect on work satisfaction and satisfaction with the university's degree program. The data include measures of satisfaction of 587 graduates from two professional degree programs, psychology and teaching, who studied in three universities in Chile. Correlational and path analysis link graduates' satisfaction to family background, type of secondary school, employment in the public or private sector, and salary. The graduates' level of satisfaction was found to vary by degree program and level of university prestige but also by their current salary and satisfaction with the conditions of their employment. Expressions

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of satisfaction by graduates tell us as much about their jobs as they do about the quality of their university formation.

Keywords Graduate satisfaction · University prestige · Path analysis · Employment

University relationships with graduates are essential. They serve several purposes. First, graduates can influence the educational spending of future prospective students, or “consumers” as they are identified by the university’s marketing department (Senior et al., 2017; Thomas & Galambos, 2016; Wilkins et al., 2013). Testimonials from graduates provide material to improve the university’s public image and consequently their ability to attract applicants and donors. Tracing graduates can provide evidence useful for recruiting and fundraising (Ebert et al., 2017; Schomburg, 2014; Snijders et al., 2019).

Little is known about how Chilean graduates, once they are employed, perceive their university formation (Espinoza et al., 2024). Some studies have focused on graduates from the traditional professions, such as engineering or medicine (Caprara et al., 2006; Sears et al., 2017; Soto-Hernández & Díaz, 2018). As demand has saturated, interest has grown in other fields of study. Teaching had previously attracted mainly students from low-income families, but universalization of secondary education has attracted university students from higher-income families. Our previous work on graduates in psychology and teaching assessed the relationship between program satisfaction and work experience (Espinoza et al., 2019, 2022). The first paper showed that current employment experience influenced graduates’ retrospective evaluation of the university degree program. The second paper found that other factors influenced levels of satisfaction with the degree program. When we took these other factors into account, the relationship between job satisfaction and program satisfaction was reduced.

This article reports on responses to the same questionnaire by an enlarged sample of graduates. It focuses on the relative impact of variables that have a direct and indirect effect on work satisfaction and satisfaction with the university’s degree program. Is program satisfaction explained principally by graduates’ pre-university background, by the nature and financial returns of the professional work in which they are now engaged, or by other factors?

Literature review

Satisfaction with the university experience

Research in Spain (Beerli & Pérez, 2002), India (Thomas & Galambos, 2016), Lebanon (Azoury et al., 2013), Thailand (Kunanusorn & Puttawong, 2015), and Spain (Iriondo, 2022) has demonstrated that cognitive responses—for example, the perceived importance, value, or utility of an event or situation—precede the affective response of satisfaction. If we achieve what we were seeking, we feel good and are satisfied (Westbrook & Reilly, 1983).

Satisfaction is influenced also by direct experience. This was shown clearly by the 1998 Higher Education and Graduate Employment in Europe Study known as CHEERS. Researchers surveyed 3000 graduates from 11 European countries and Japan four years after graduation. The questionnaire asked their reaction to environmental factors, field of

study, and the usefulness of study (Murdoch, 2002). Graduates who were most satisfied with their course of study rated course content and nonacademic social aspects (e.g., relationships with other students) very highly (Vila et al., 2007). The most important factors were contacts with fellow students. Course content was less important but not insignificant (García-Aracil, 2009). Limited opportunities to participate in research projects and limited teaching materials and facilities (e.g., textbooks and labs) were major determinants of dissatisfaction. Their level of satisfaction with time spent at the university was influenced by their perceptions of the quality of programs as compared to current employment experiences (García-Aracil, 2009; Mora et al., 2007).

As noted above, satisfaction with one's university can differ from satisfaction with the degree program completed. One study asked 3600 graduates of public Spanish universities with degrees in five different fields whether they would repeat their studies in the same field, and in the same university (Luque & Doña, 2013). The intention to repeat in the same field was highly related to the graduates' assessment of the educational quality of their degree program, but not to their rating of the university. Satisfaction with the quality of services and facilities in the university predicted intention to repeat in the university but was not related to intention to repeat in the same field. The researchers have published two more studies, based on different samples of graduates, that reach the same conclusions (Doña & Luque, 2018; Luque & Doña, 2019). The authors concluded that satisfaction was a function of (characteristics of) the education received and of experiences in the labor market but did not mention factors that occurred prior to entering the university.

Research carried out in Ireland found that adopting modes of teaching and attention to noncognitive personal development of students (NCPD) is important for overall satisfaction with the university experience and formal disciplinary training. Whelan and McGuinness (2021, p. 2272) reported that "college satisfaction was highest among individuals who reported that the course was a good basis for enhancing their personal development, further learning on the job and the development of entrepreneurial skills". Five years after graduation, satisfaction levels were higher among graduates with some on-the-job learning experience and much higher among those with more NCPD. Interviews with 14,000 students at the University of Pisa in Italy resulted in the conclusion that the quality of services of the university had a profound impact on satisfaction (Masserini et al., 2019).

Retrospective feelings of satisfaction can therefore be influenced by graduates' current situation, independent of their university experience. In Spain, university image or prestige was deemed to be of secondary importance. Schlesinger et al. (2017) found that loyalty to the university depended not just on satisfaction with the student experience, but also on values and trust shared among alumni, and of course job qualities. Researchers in the Netherlands showed that increasing engagement of alumni in a university's life developed personal relationships which increased the alumni's loyalty to the university (Snijders et al., 2019). Nonmonetary involvement in university affairs increased their trust in benevolence and affective commitment to the institution.

Similarly, graduates' satisfaction with their field of study can vary independently of the perceived academic quality of the program. Prior research suggests that psychological factors, especially personality, can play an important part. If their work allows the graduates to act out their desired role or engage in favorite activities or focus on favorite ambitions, then they will be satisfied. A study covering employed graduates from 33 institutions in the United Kingdom asked their reasons for choosing their field of study (Chevalier, 2002). Men more frequently chose their field of study based on expected financial returns. Women appeared to be more risk-averse and chose their careers based on affinity and affiliative values. Men valued career development more than women, who preferred satisfaction.

Women were more satisfied with their career choices and less likely to express regret than men, even though in the same jobs they were paid 12 percent less than men.

A telephone survey in Colombia of graduates in the years 2013–2018 found that women held a higher opinion of the quality of their formation than did men (and also higher grade point averages) (Moreno-Gomez et al., 2022). Even today, a German study reports, women's choice of university field of study is not influenced by potential earnings (Finger et al., 2020). A recent French study compared male and female graduates of highly competitive secondary schools. Independent of their academic performance, girls were less likely to choose a science degree program (Landaud et al., 2018). On the other hand, women are more likely to opt for other higher-paying professions formerly dominated by men (Galos & Kulic, 2023). These preferences are held by women from well-educated and higher-income families. Women from less privileged families are more likely to pursue lower-income occupations. In both cases, women look for programs with high completion rates. Lower-income men, on the other hand, enter degree programs that promise higher incomes but with a lower completion rate.

Satisfaction with employment

Graduates' satisfaction with their university often is linked to current employment experiences, but other factors can moderate the level of satisfaction. A study in six European countries found that satisfaction varied widely both by field of study and occupations. Participants expressed satisfaction along several dimensions, including the prestige of the position, opportunities for learning, use of skills acquired in university and autonomy, as well as salary (Gajderowicz et al., 2014; Suleman & Figueiredo, 2020). Graduates can, therefore, express different levels of satisfaction although they have similar work experiences.

In many studies employment satisfaction is linked to salaries (Espinoza et al., 2024; Iriundo, 2022; Lee & Sabharwal, 2014). Salaries are mediated by a variety of other variables. As a consequence, there is wide variability in the factors that explain the employment satisfaction of different groups of workers. In many economies women with similar levels of education and experience and similar responsibilities are paid less than men (Francisconi & Parey, 2018; Bordon et al., 2020). In South Korea four-year college degrees do not always attract a higher wage premium than two-year college degrees, particularly for men from poorer family backgrounds. For females, by contrast, family background is still a strong predictor of earnings (Lee & Vignoles, 2022).

Levels of satisfaction with working conditions, financial returns, and personal fulfillment, however, are changing. The rapid growth of university enrollments, and in some countries of graduates, has changed the match between graduates' expectations and the current working conditions and salary levels. A survey of Spanish 2006–2007 public university graduates found women to be more satisfied with their university formation than were men even though women's salaries were less (Sanchez-Gelabert & Navarro-Cendegas, 2016). Similar results have been reported in studies in Norway (Mastekaasa & Smeby, 2008), Canada (Schweitzer et al., 2011), and Chile (Espinoza et al., 2019). By 2022, however, researchers in Colombia found that gender no long explained differences in satisfaction with salaries (Moreno-Gomez et al., 2022). In Argentina, on the other hand, there were no differences in employment satisfaction levels of men and women, but women were more satisfied with their salaries (DeSantis et al., 2021).

In most studies, level of earnings has been related to graduates' satisfaction, which in turn is related to university selectivity and prestige (Broecke, 2012). In Russia, graduates from the most selective institutions receive wages that are 23 percent higher

than those given to graduates from the least selective university (Roshchin & Rudakov, 2016). In Canada, university selectivity has a wage premium of 7 percent (Milla, 2018).

Contrary results were found by Coelho and Liu, who studied the relative importance of university selectivity, field of study, and economic sector on wages in the United States. In their research the field of study (and therefore graduates' occupation) was more closely related to salary than was their university (Coelho & Liu, 2017). Different research found that, controlling for field of study, university selectivity had a strong correlation with wages four and ten years after graduation. The relationship was moderated, however, by gender, parents' income, achievement test performance, and sector of the economy in which employed (Witteveen & Attewell, 2017). On the other hand, in South Korea, university prestige correlated highly with wages, but was not related to satisfaction (Jung & Lee, 2016). Among graduates of eight prestigious universities in Australia, the impact of selectivity is slight, as is the impact of field of study. Most important is the sector of the economy in which the graduate is employed (Birch et al., 2009).

Research questions suggested by prior research

Events and experiences in the family influence what a student experiences in secondary school, which in turn influences what they experience in the university. Satisfaction with the university is affected by the interaction between characteristics of the institution and those of the individual students. This is a dynamic process. As events in each stage can vary in intensity, the relative contribution to satisfaction with the outcome can vary widely. A student's choice of a university degree program may be related to their family background or gender, their academic ability and social experiences in secondary school, or the quality and prestige of the university attended. Once in the university, however, current experiences can change their perspectives.

The field of study influences what employment will be pursued on graduation, but then graduates compare their current situation with what they had imagined their professional life would be like. One comparison is between the knowledge and skills taught in the degree program, and the presumed demands of the graduate's occupational position. A second is between the salary or wages expected given the field of study and current earnings. These and other comparisons define the work satisfaction of the graduate. When asked to reflect on their prior university experience, the graduates' assessment of their university formation will be conditioned by their current situation.

To explore these possibilities further, we developed the following hypotheses:

- (1) Salary has the largest effect on employment satisfaction.
- (2) Satisfaction with the current level of employment affects the retrospective assessment of the graduate's university degree program.
- (3) The size of the effect of university prestige on degree program satisfaction is influenced by the level of work satisfaction.
- (4) Mother's education has a direct effect on university degree satisfaction.
- (5) The size of the effect of work satisfaction on satisfaction with the university degree program depends on the graduate's gender.

Methods

Sample

The universe for this study was 1242 graduates receiving degrees in psychology, or in teaching (grades 1–8) from three Chilean universities in the 2012–2016 period. All participants were chosen randomly until there was a sample large enough to ensure a 95 percent confidence level at significance level of 5 percent and a margin of error of 3.0 percent. Those selected were contacted by email inviting their participation. Those who did not accept the invitation were randomly replaced. The differences in the number of cases for each university are a function of enrollment size.

This procedure was carried out twice. The first occurred during September 2015, to select 266 graduates from 2012 to 2014. The analyses of that group appear in the first two, now published, studies (Espinoza & McGinn, 2018; Espinoza et al., 2019). The second group was sampled in December 2017, yielding 321 more graduates from 2015 to 2016.

The two degree programs award graduates a professional license after completing four to five years of a specified curriculum. These two programs were until recently among the most popular degree programs in Chile (CNED, 2021). In recent years the number of new enrollees in teaching has declined but remained steady in psychology.

The three universities are located in Santiago. Two of the universities are private; one is public. One of the universities can be considered highly prestigious (HP). It is ranked among the top 10 of Chile's 60 universities, and among the top 1200 in international rankings (Times Higher Education, 2019). The university we have labeled MP (Moderately Prestigious) ranks just below the top one-third of universities in Chile. The LP (Less Prestigious) university is in the bottom half of the national rankings.

The three universities vary in their degree of selectivity, which varies directly with their prestige. Selection is based in part on a national test of knowledge of the secondary school curriculum (Test of University Selection, or PSU), which predicts university grades in the first year of enrollment (Pearson, 2013). Test scores average 510 and have a standard deviation of 110. The HP university only admits students who score 600 or higher on the PSU. The MP university was one of the first of the new private universities opened after 1980. A minimum of 475 points on the PSU is required for admission. Students entering the MP had average scores of 550. The LP university, which closed permanently in December 2019, was private. LP graduates between 2012 and 2014 had taken an admission examination applied by the university, but all were selected. Their average PSU score was below 500 (Table 1).

Data

In September 2015 and December 2017, a questionnaire was administered to the 587 participants (of the 1242 graduates) who had graduated between 2012 and 2016. The questionnaire had three parts. The first section asked about the university and degree program attended, year of graduation, gender, residence, mother's education level, and the type of secondary school attended (municipal or public, private subsidized, or private fee-based).

The second section included questions concerning employment: how long it had taken the graduate to find a job, the type of work obtained, whether the position was in the public or private sector, and the salary received. The third section of the questionnaire presented

Table 1 Obtained sample of cases by university and program
Source: Authors' elaboration.

University	Program	Population	Number of cases	Proportion in sample (% of total)
Less Prestigious University (LP)	Psychology	209	74	35.4
	Teaching	175	81	46.3
Moderately Prestigious University (MP)	Psychology	231	93	40.3
	Teaching	154	86	55.8
Highly Prestigious University (HP)	Psychology	306	132	43.1
	Teaching	167	121	72.5
	Total	1242	587	35.4

26 Likert-type items that solicited the graduate's expression of satisfaction with different aspects of the degree program. Ten descriptive statements dealt with the content and teaching of courses; eight were about the formational quality of the program as it affected the graduate; four described the facilities provided in the program; and four referred to connections between the program and its content, and the world of work.

Variables

The graduate's degree program was represented by two variables: Psychologists and Teachers. Mother's Education was represented by an ordinal variable ranging from only primary education to complete university studies. We constructed variables to represent the three types of secondary schools that graduates had attended: Municipal, Subsidized-Private, and fee-charging Private. The three universities were assigned a rank based on their level of selectivity, scored from 1 (lower) to 3 (higher). About 56 percent of the Psychologists were employed in the public sector, while almost 60 percent of the Teaching graduates were working in private (both subsidized and fee-charging) schools. Not all the graduates were working full-time. Based on the number of hours worked per week, we calculated a full-time salary equivalent.

The questionnaire included three questions about satisfaction with current employment. One asked the graduate's opinion of match between the content and requirement level of the degree program and the job. Two other questions asked about conditions on the job, salary, and whether the job situation made it possible for graduates to see themselves as professionals. We combined the three variables to form a scale, Work Satisfaction, with a relatively low alpha reliability coefficient of 0.60. Scores on Work Satisfaction were significantly higher for Teachers than Psychologists (one-way ANOVA, $F = 17.295$, $p = 0.000$).

We submitted the 26 attitudinal items evaluating the graduate's degree program to a primary component factor analysis (PCA). The PCA indicated two major factors that together explained 58 percent of the variance, and two lesser factors that together explained 9 percent more of the total variance. The factor analysis had a Kaiser–Meyer–Olkin sampling accuracy of 0.958, and a Bartlett Sphericity score significant at 0.000.

We combined the items included in the factors to make four scales, five of the items appearing in two scales. The scales measured satisfaction with curriculum and teaching

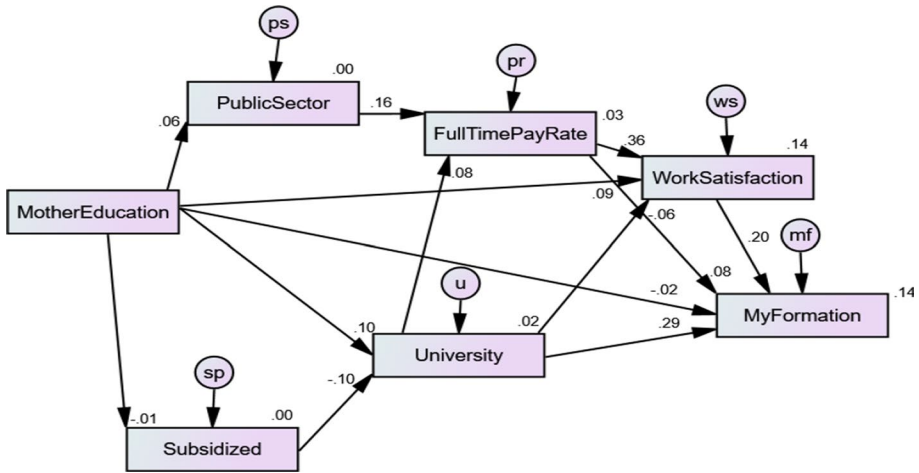


Figure 1 Path analysis for psychologists

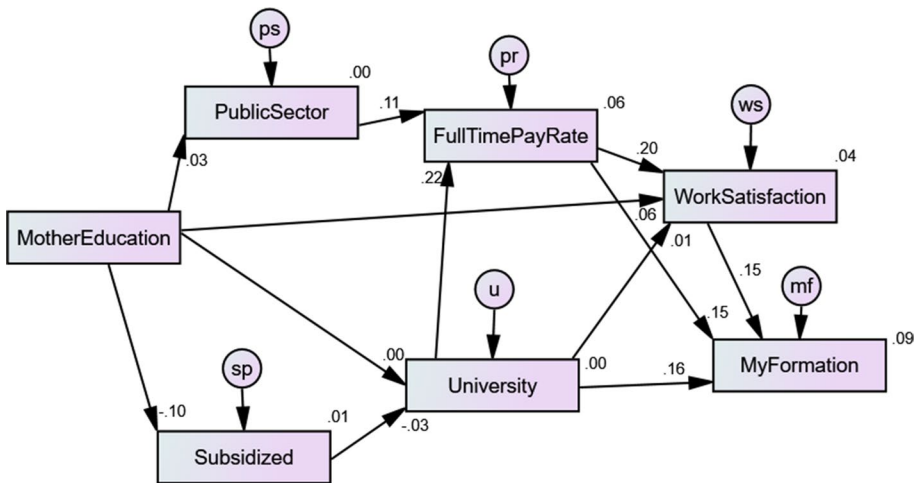


Figure 2 Path analysis for teachers

(11 items), level of professional formation (11 items), program and university facilities (4 items), and program linkages with employers (5 items).

Finally, we constructed a path model that represents our understanding of the sequence in which the phenomena measured by the variables occurred in real time. Path analysis is similar to multiple regression but allows for the detection and estimation of direct and indirect relationships between variables that would not appear in linear multiple regression (In'nami & Koizumi, 2013).

Figures 1 and 2 below represent our conception of the sequence of variables with one-directional arrows. For example, Mother's Education occurred before any of the other variables. The university in which a graduate was educated could be influenced

in part by the mother's level of education, and the type of secondary school attended, but not the other way around. Salary rates vary by sector and may be influenced by the university in which a job candidate studied but could not have influenced the choice of which university to attend. MyFormation (graduate's opinion of the level of professional formation attained) is the dependent variable. The numbers at the heads of the arrows are coefficients representing the size of the effect the prior variable has on the receiving variable. A coefficient of .06 means that an increase of 1 unit in the score of the prior variable would increase the score of the receiving variable by 6 percent.

All analyses, including the path analysis, were carried out using SPSS Statistics 26 and AMOS 25.

Results

Table 2 compares the distribution of female and male graduates in three types of secondary schools, arranged by the education level their mothers reached. Previous research has indicated that women seek different objectives in their employment than do men, and often choose different occupations. Men are more likely to pursue financial rewards from their work, while women more often have affiliative interests (Chevalier, 2002). Our study reflects that difference. Women are 56 percent of the total number of tertiary education graduates in Chile, but 73 percent of the two professions included in the study, both of which are considered "caring professions". The graduates' values are partially shaped by their parents, who also determine where they attend secondary school.

Male and female graduates were more likely to have attended a subsidized private than a municipal or fee-charging private secondary school. The proportion of students in Chile who attended subsidized private schools increased notably from their inception in the 1980s. About one-third of the subsidized schools in Chile are associated with a church or social justice organization and located in lower socioeconomic status (SES) neighborhoods. Public secondary schools in Chile at one time enrolled 75 percent of all students; at present they enroll about 40 percent. The proportion attending private fee-charging schools has remained constant over time, at between 10 and 15 percent.

Table 2 Distribution of university graduates by gender, maximum level of mother's education, and secondary school attended

Source: Authors' elaboration.

	Female	Municipal	Subsidized	Private	N*	%
University graduate	10.3%	13.6%	41.3%	69	17.2	
Some university	20.5	26.2	26.1	109	42.0	
Secondary graduate	29.0	34.3	17.4	137	25.2	
Complete primary	40.2	25.9	15.3	124	15.6	
N	107	286	46	439		
<i>Male</i>						
University graduate	30.0	25.8	38.1	40	14.6	
Some university	22.0	19.6	14.3	45	32.8	
Secondary graduate	32.0	19.7	38.1	32	23.4	
Complete primary	16.0	34.9	9.5	20	29.2	
N	50	66	21	137		

*Missing values for 9 cases

Male graduates with mothers who have less education were more likely to have attended fee-charging private schools. Women whose mothers are better educated, with incomplete and complete tertiary-level education, were slightly more likely than men to have attended a municipal school. Research in other countries has found that parents are more willing to spend on education for their sons than for their daughters (Bharadwaj et al., 2015). In Chile both gender and mother's education make a significant contribution to differences in secondary attendance, with gender most important. The difference in secondary attendance between male and female students is statistically significant ($\chi^2 = 31.40, p < 0.000$), as is the difference between mothers with different levels of education ($\chi^2 = 12.21, p = 0.002$).

As anticipated, gender was also related to career choice. All the Teaching graduates worked directly helping others (i.e., students), but one-third of the Psychologists worked as personnel officers in government or private sector offices. Men were more likely than women to have opted to study psychology (69% as compared to 57%, $\chi^2 = 6.52, p = 0.010$). The relationship between gender, mother's education, and career choice was not linear. Psychology was more frequently chosen by those graduates whose mothers had moderate levels of education, more than primary but not complete university. Teaching was more frequently chosen by graduates whose mothers had only primary schooling or who were university graduates. This difference was significant for women but not for men.

Which university graduates attended was not, however, explained by their gender or mother's education. There was no significant relationship between these two variables and the university attended, nor was there a significant relationship between the university attended by graduates and the type of secondary school they attended (Table 3).

The salaries that graduates received were not related to their gender, mother's education, or secondary school attended, but were related to their field of study in the university. Graduates of the HP university were paid more than graduates of the other two (one way ANOVA, $F = 8.33, p = 0.000$).

The big difference in salaries was between Psychologists and Teachers. As expected, Psychologists earned much more than Teachers ($F = 13.59, p = 0.000$). About 40 percent of the Psychologists worked in the private sector, some in clinics, others as personnel or human resources officers in private firms. Public sector Psychologists in Chile are employed in government clinics or in schools. On average, Psychologists earn more than Teachers in the public sector but not in the private sector. In addition, there was a significant difference in salary for public as compared to private sector employees ($F = 15.88, p = 0.000$), but it benefited only Psychologists.

Table 3 Distribution of universities in which graduates enrolled, by secondary school attended
Source: Authors' elaboration.

Secondary	Lower prestige U (%)	Moderate prestige U (%)	Higher prestige U (%)	%	N*
Municipal	25.8	30.2	44.0	100.0	159
Subsidized private	34.1	24.7	41.2	100.0	352
Fee-charging private	20.9	26.9	52.2	100.0	67
N	153	175	250		578

$\chi^2 = 7.56, p = 0.109$.

*Missing values for 9 cases

How do these differences affect the perceived match of the academic formation with work requirements, and with work satisfaction? There was no significant relation between gender, mother's education, type of school, or university and work satisfaction. However, the two types of graduates differed in some ways in their responses to questions about their work. Teachers were more satisfied with their autonomy, working conditions, and the fit between their university formation and their job's requirements ($F = 17.295, p = 0.000$).

These results suggest that the work experiences of Teachers differed significantly from that of Psychologists. If so, then we might expect that graduates in the two professions also differed in the satisfaction they express for their degree program. We lacked the data to determine whether differences in reactions of the two groups of graduates can be explained by variations in the actual quality of their programs or universities or in their expectations. We can, however, see if differences in their retrospective evaluation of their program could be explained by the effect of other variables.

A path analysis model of determinants of satisfaction

To construct the path model, we computed multiple correlations between the program satisfaction scores and the independent variables. These correlations appear in Table 4. We have separated Psychologists from Teachers. For the Psychologists, the mean satisfaction scores were slightly positive (above the midpoint of 2.5) for the first two measures of satisfaction with the four dimensions of the degree program, Curriculum and Teaching, and MyFormation. Satisfaction was less for Facilities and Links with Work. Scores for the Teachers were slightly higher on all four scales.

Table 4 results indicate that the level of satisfaction of Psychologists with the curriculum and teaching experienced in the university was not related to their gender, mother's education, secondary school, or university attended, salary, or location of work. Only Work Satisfaction was significantly correlated with their satisfaction with Curriculum and Teaching. The other three measures of program satisfaction, their personal Formation, Facilities, and Links with Work, were significantly related to University Prestige, Salary, and Work Satisfaction.

The Teachers' level of satisfaction with their university program was negatively associated with their mother's level of education. The correlations were significant with respect to Curriculum and Teaching, My Formation, and Links with Work. Teachers with better-educated mothers were more critical of their university experience. University prestige was related to satisfaction with formation and links with employers, but not to curriculum and teaching or facilities. Salary was related to all four satisfaction measures, and Work Satisfaction to three, excluding Facilities.

Using previous research findings as a guide, we constructed one model to compare the two professions. The patterns of relationships between variables related to work and program satisfaction are displayed separately for Psychologists and Teachers in Figures 1 and 2. The arrows or vectors are meant to convey temporal directionality, not causality, as in fact all the variables were measured at the same point in time.

The numbers near the heads of the arrows are standardized regression coefficients (or effect sizes). In Figure 1, Mother's Education has a coefficient of 0.09 on Work Satisfaction, and -0.02 on My Formation. The selectivity level of the university the Psychology graduate attended has a standardized regression coefficient of 0.29 on My Formation and 0.02 on Work Satisfaction. Note that Mother's Education has an insignificant negative direct effect on My Formation (-0.02) but a direct effect size of 0.10 on university, which

Table 4 Correlations between variables, means and standard deviations

Variables	Fem.	Mo. ed.	Sub.	Mun.	Univ.	Pub.	Sal.	Work	Curr. Tchg.	ProgSat	Facil.	N	Mean, %	S.D.
<i>Psychologists</i>														
1. Female 0,1												352	72.4%	
2. Mother's education 1-6	-.056											352	2.61	.97
3. Subsidized Secondary 0,1	.123*	-.015										352	56.3%	
4. Municipal 0,1	-.073	-.097	NA									352	26.7%	
5. University prestige 1-3	.133*	.102	-.101	.053								352	2.19	.83
6. Public sector 0,1	-.050	.061	-.006	.072	165**							330	56.8%	
7. Salary 1-5	-.023	.061	-.052	.074	.094	.105						330	2.93	.78
8. Work satisfaction 1-5	-.027	.096	.062	-.005	-.012	-.089	.365**					318	2.51	.76
9. Curriculum teaching 1-4	.003	.001	.020	.019	-.069	.058	.080	.173**				310	2.95	.60
10. My formation 1-4	.064	.036	-.043	.063	.298**	.104	.151*	.243**	.821**			265	3.02	.62
11. Facilities 1-4	-.039	.001	-.007	.045	-.294**	-.050	.137*	.136*	.526**	.351**		327	2.41	.68
12. Links with work 1-4	.075	.057	-.048	.065	.088	.145*	.212**	.331**	.691**	.691**	.427**	281	2.52	.62
<i>Teachers</i>														
1. Female 0,1												235	81.7%	
2. Mother's education 1-6	-.191**											235	2.22	.95
3. Subsidized Secondary 0,1	.166*	-.104										235	65.5%	
4. Municipal 0,1	-.175**	-.044	NA									235	27.7%	
5. University prestige 1-3	.055	.002	-.027	.023								235	2.03	.86
6. Public sector 0,1	-.073	.032	-.028	.100	.021							217	41.3%	
7. Salary 1-5	-.053	-.035	-.060	.112	.245**	.099						217	2.68	.61
8. Work satisfaction 1-5	-.005	.060	.061	-.039	.058	.164*	.195**					215	2.74	.72
9. Curriculum teaching 1-4	.080	-.169**	.172*	.018	.111	.078	.149*	.108				211	3.16	.78
10. My formation 1-4	-.063	-.157*	.084	-.053	.201**	.065	.202**	.195*	.943**			180	3.08	.84
11. Facilities 1-4	-.156*	-.083	-.072	.093	-.013	.106	.169*	.064	.715**	.780**		220	2.91	.89
12. Links with work 1-4	.009	-.136*	.102	-.115	.160*	.105	.164*	.316**	.766**	.828**	.602**	189	2.85	.82

*P = .050, **P = .01. N: missing cases excluded pairwise

Table 5 Goodness of fit statistics for psychologists and teachers

Source: Authors' elaboration.

	Chi-square		CFI	RMSEA
	F test	p		
<i>Psychologists</i>				
WS →MF	14.067	.242	.969	.021
<i>Teachers</i>				
WS →MF	31.051	.003	.536	.049

in turn affects My Formation. The number on the upper right corner of the variable rectangle is the squared regression coefficient for all the independent variables connected to it. The model accounts for 14 percent of total variance in scores on My Formation and 14 percent of variance in scores on Work Satisfaction.

The goodness of fit of path analysis models is usually evaluated with three different statistics: the chi-square, the Comparative Fit Index (CFI), and the Root Mean Square of Error of Approximation (RMSEA) (Hooper et al., 2008; Peugh & Feldon, 2020). Table 5 summarizes the results of the fit tests for Psychologists and Teachers. A high chi-square indicates badness of fit, so a p above 0.05 is to be preferred. The CFI should be above .9, and the RMSEA between .02 and .07. Table 5 indicates that the Psychologists model meets all three tests, and the Teachers model meets only one test.

Figures 1 and 2 present the results for the two sets of graduates. The model for Psychologists accounts for 14 percent of variance in scores on WorkSatisfaction and 14 percent of variance in scores on MyFormation. WorkSatisfaction is determined principally (.38) by the FullTimePayRate. Satisfaction with the degree program is influenced slightly by PayRate (.08). University Selectivity has a significant impact (.29). Working in the public sector is associated with higher salaries (.16) but has no effect on any of the other variables. Similarly, Mother's Education and attending a Subsidized secondary have little or no influence on the other variables.

The model for Teachers accounts for 7 percent of the variance in MyFormation and 6 percent of WorkSatisfaction (Figure 1). WorkSatisfaction is affected most (0.19) by Full-TimePayRate. PayRate also has an impact (.18) on satisfaction with the degree program (MyFormation), as does University (.16). Note that University has an effect on Pay (.21) and those salaries are higher in the public sector.

Discussion and conclusions

For both Psychologists and Teachers, the FullTimePayRate (Salary) is significantly related to satisfaction with the formational results of the university degree program. Work satisfaction influences the level of retrospective satisfaction with the degree program. This is supported for both Psychologists and Teachers.

There was no evidence that the level of satisfaction with current employment is related to the selectivity of universities. For Psychologists, university selectivity is insignificantly related to work satisfaction. On the other hand, graduates of selective universities have a higher opinion of their degree program (0.29). A similar but more modest relationship holds for Teachers. This confirms the results of our earlier study (Espinoza et al., 2019, 2022) that the graduates' satisfaction with their university is biased by selectivity.

There is no significant relationship between mother's education and satisfaction with the degree program. There is no evidence that gender affects the level of satisfaction with the degree program.

It is likely that graduates in the two professions had different origins. The data suggest that Teachers were more likely to have been raised by mothers with lower levels of education, and to have attended subsidized private schools, probably those of lower quality. Psychologists were more likely to have mothers with relatively higher levels of education. These factors could have influenced the students' sense of self-efficacy and therefore their choice of what to study in the university (Schweitzer et al., 2011; Tang et al., 2008), as well as their likelihood of being admitted into a more selective university. There is, however, no evidence that it affected their response to either their university training or their current employment.

The Teaching graduates from the selective university were offered more attractive salaries than graduates from the less-selective universities. Other studies have shown that both university selectivity and field of study influence graduates' earnings (Dale & Krueger, 2011; Eide et al., 2015; Iriondo, 2022; Ma & Savas, 2014). In public schools, teacher salaries are uniform. It may be that teaching graduates from more prestigious universities more easily find work in expensive private schools.

These results support an argument that the assessments university graduates make of the quality of their university training are influenced by their current situation. Once employed, their perception (or memory) of their university formation is altered to be consistent with their current experiences. That modification may be slight or radical, depending on the immediate situation. What we call satisfaction is a sentiment or feeling that varies according to prior experiences and the current context. Satisfaction is predictable only if we can predetermine prior experience and the current context. This is not possible, as universities are complex organizations: each faculty or degree program has its own admission standards, rules, curriculum, professors, and facilities.

Students enter the university from a wide variety of backgrounds, with the consequence that graduates can vary widely, in ability and in expectations of how the world will regard them. Graduates and employers differ as to what skills are required (Lisá et al., 2019). Students arrive with a variety of expectations, experience a variety of situations during their degree program, and encounter more variety on entering the labor market (Jusoh et al., 2011). Scores on tests yield averages, but they are aggregates of dissimilar elements.

The results we obtained in this study differ in significant ways from those found in two earlier studies, although we included the same universities, degree programs, and professions. With a larger sample of graduates, our results were less striking statistically but sufficiently definitive enough to establish the limited validity of our first set of conclusions, as well as the present set. Satisfaction is a pleasant emotion, but we cannot be sure what a measure of satisfaction tells us.

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