Third survey on graduate labour market outcomes in Catalonia

A first assessment

Survey commissioned by the boards of trustees of the seven public universities in Catalonia, the Catalan Open University (UOC) and the University of Vic.

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Agència per a la Qualitat del Sistema Universitari de Catalunya

Contents

Introduction

Surveys on the labour market outcomes of graduates from Catalan universities are a product of the interest shown by the boards of trustees of public universities in Catalonia in obtaining data and benchmarks on the subject. Surveys coordinated by AQU Catalunya have been carried out every three years since 2001.

Two private universities, the University of Vic and the Catalan Open University (UOC), participated in this third survey. Given its specific characteristics as a distance university, the results for the Catalan Open University (UOC) are given in a separate section.

Population and sample

Details are given below on the sample obtained, the response rate and the sampling error according to university and the total sampling error for the survey.

Table 1. Population and sample according to university

	Population	Sample obtained	Response rate	Sampling error
University of Barcelona	7,363	3,279	44.53%	1.27%
Autonomous University of Barcelona	4,759	2,605	54.74%	1.29%
Technical University of Catalonia (UPC)	3,594	1,694	47.13%	1.73%
Pompeu Fabra University	1,682	892	53.03%	2.25%
University of Girona	1,599	1,100	68.79%	1.65%
University of Lleida	1,411	975	69.10%	1.74%
Rovira i Virgili University	1,935	1,226	63.36%	1.69%
University of Vic	680	487	71.62%	2.37%
Total	**23,023**	**12,258**	**53.24%**	**0.61%**
UOC[1]	1,146	295	25.74%	5%

In total, 53% of those graduating in 2004 were included in the survey.[2]

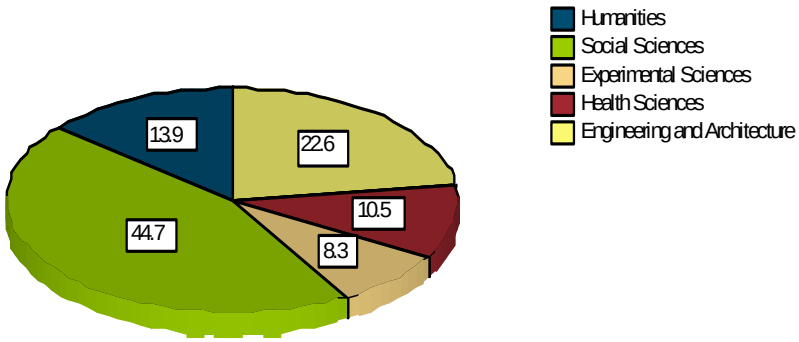
The survey specifications are given in Appendix I.

[1] A prior sample of graduates was taken by the Catalan Open University. No other sample was taken by any other university, other than the setting of the quota obtained according to degree programme and university with a sampling error of 8%.

[2] In the case of Medicine, the reference population was students who graduated in 2001, given that the transition to work for this career is longer: the studies cover a six-year period and, on completion, the majority prepare for an MIR entrance exam (which gives eligibility for a place on specialised training as a resident foundation doctor/medical intern).

Almost half of the graduates surveyed were in the Social Sciences, whereas the subject area with the least number of graduates was Experimental Sciences, with 8.3% (see figure 1).

Figure 1. Distribution of graduates according to subject area (%)



Job situation

- 93.5% of graduates were employed three years after completing their studies. The variation between disciplines was less than 6 per cent (95% for Health Sciences and Engineering and Architecture and 89% for Humanities).
- 3% of graduates were unemployed (6% for Humanities and 2% for Health Sciences and Engineering and Architecture).
- 88% of those employed were working full-time.

93.5% of graduates were working at the time the survey was made. The employment rate was 3% higher than in 2005 and 2001; the unemployment rate and the number of non-working were consequently lower (see table 2).

Table 2. Percentage of employed, unemployed and non-working graduates in the three overall studies on labour market outcomes at Catalan universities

	2001	2005	2008
Employed	90.2%	90.2 %	93.5%
Unemployed	8.1%	4.8%	3.1%
Non-working	1.7%	5.0%	3.4%

As was the case on the previous occasions when labour market outcomes were surveyed, there were several differences in the overall results according to the type of studies (see table 3):

- Health Sciences and Engineering and Architecture were the two subject areas with the highest employment rate (95%), with Humanities having the lowest (89%).
- Inversely, unemployment was highest in Humanities (6%) and lowest in Engineering and Architecture and Health Sciences (2%).
- The highest non-working (graduates not looking for work) percentage was in Experimental Sciences (7%) and lowest in Engineering and Architecture and Health Sciences (3%).

It is worth pointing out that 65% of non-working graduates came under this category because they were taking further studies (82% in the case of Experimental Sciences).

Table 3. Employed, unemployed and non-working graduates according to subject area

2008	N	Employed	Unemployed	Non-working
Humanities	1,704	89.4%	5.75%	4.81%
Social Sciences	5,474	94.15%	2.93%	2.92%
Experimental Sciences	1,015	90.44%	2.96%	6.60%
Health Sciences	1,293	95.28%	2.09%	2.63%
Engineering/Architecture	2,772	95.02%	2.35%	2.63%
Total	**12,258**	**93.51%**	**3.10%**	**3.39%**

In relation to 2005, there was an increase in the employment rate in all subject areas, with the greatest increase in Experimental Sciences, where there was a 7 per cent increase.

Table 4. Percentage of employed graduates in the 2008 survey compared to the 2005 survey

	Percentage employed 2005	Percentage employed 2008	Differential
Humanities	85.86	89.40	3.54
Social Sciences	90.96	94.15	3.19
Experimental Sciences	83.74	90.44	6.70
Health Sciences	93.83	95.28	1.45
Engineering/Architecture	92.38	95.02	2.64
Total	**90.20**	**93.51**	**3.31**

88% of graduates were working full-time (10,326 people), with a percentage ranging from 76% in Humanities to 95% in Engineering/Architecture.

Table 5. Percentage of full-time employment according to subject area

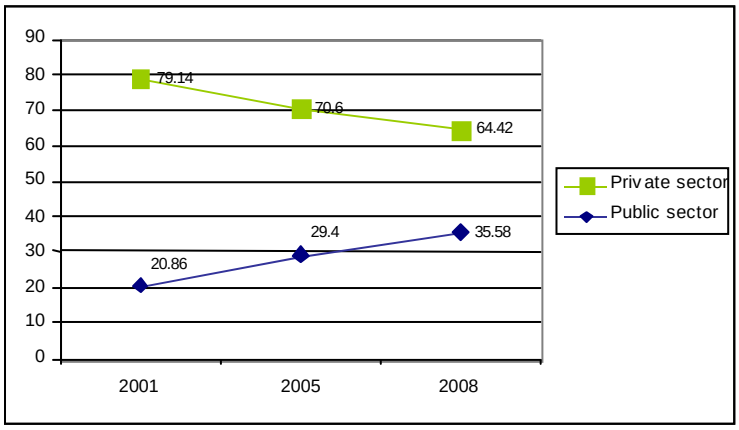
	N	Full-time	Others	Total
Humanities	1,600	75.75	24.25	100
Social Sciences	5,349	89.38	10.62	100
Experimental Sciences	838	88.19	11.81	100
Health Sciences	1,262	83.20	16.80	100
Engineering/Architecture	2,671	95.25	4.75	100
Total	**11,720**	**88.11**	**11.89**	**100**

Public and private sector

- 64.4% of employed graduates were working in the private sector.
- Recruitment in the public sector increased by 6 per cent compared to 2005. In relation to the 2005 data, the only two sectors of economic activity where there was a significant increase in the percentage were education and health.

Personnel recruitment in the public sector increased over the last three years from 29.4% of graduates in 2005 to 35.6% in 2008. Recruitment in the public sector increased[3] by 71% over the last ten years.

Figure 2. Recruitment in the public and private sectors



According to subject areas, involvement in the public sector ranged from 44% in Humanities to 19% in Engineering/Architecture.

[3] The increase was calculated according to $\Delta\% = \frac{\%_{2008} - \%_{2001}}{\%_{2001}}$

Table 6. Recruitment in the public and private sectors according to subject areas

	Sector		Total
	Public	Private	
Humanities	43.5%	56.5%	100%
Social Sciences	39.3%	60.7%	100%
Experimental Sciences	39.4%	60.6%	100%
Health Sciences	42.9%	57.1%	100%
Engineering/Architecture	18.7%	81.3%	100%
Total	**35.6%**	**64.4%**	**100%**

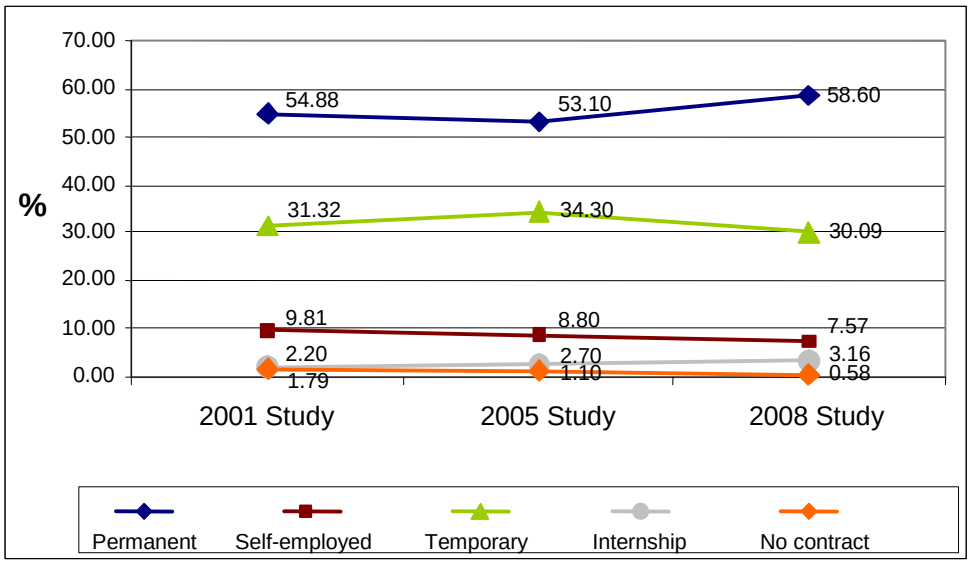
From a comparison between the two studies according to branch of economic activity, it can be deduced that this increase in recruitment in the public sector was due to the increase in the number of places in the education and health sectors, which saw an increase of 5 and 3 per cent respectively. These two sectors comprise more than 30% of all university graduates.

Job stability

- As a whole, almost 60% of graduates had a permanent contract and 30% had a temporary contract.
- The contractual relationship was more stable for those working full-time (88% of employed graduates), with 64% who were permanent and 29% who were temporary.
- 36% of graduates who were working part-time had a permanent contract and 52% had a temporary contract.

Almost 60% of employed graduates had a permanent contract (in the 2005 survey the corresponding figure was 53%); on the other hand, there was a slight drop in the percentage of temporary contracts. The increase in stability may be associated with the increased recruitment in the public sector.

Figure 3. Trends in contract status



According to subject area, job situation was most stable in Engineering/Architecture (66% of permanent contracts), with Humanities having the lowest number of permanent contracts (46%). There was an inverse situation with temporary contracts, with Humanities accounting for almost 40%, and Engineering/Architecture 21%.

Table 7. Type of contract

		Permanent	Self-employed	Temporary	Internship	No contract	Total
Humanities	1,675	46.15%	8.00%	39.76%	4.36%	1.73%	100%
Social Sciences	5,427	62.45%	5.36%	30.29%	1.36%	0.54%	100%
Experimental Sciences	977	47.90%	2.46%	35.31%	14.12%	0.20%	100%
Health Sciences	1,286	51.94%	12.83%	32.89%	1.79%	0.54%	100%
Engineering/ Architecture	2,747	65.53%	11.03%	20.60%	2.73%	0.11%	100%
Total	**12,112**	**58.60%**	**7.57%**	**30.09%**	**3.16%**	**0.58%**	**100%**

The subject areas with the highest number of self-employed graduates were Health Sciences and Engineering/Architecture, the two most professionally orientated disciplines. It is worth mentioning that the self-employed were concentrated in certain degree qualifications such as Dentistry (75% self-employed), Podiatry (76%), Architecture (73%) and Law (22%).

The subject area with the highest number of internships (in-house training) was Experimental Sciences, which is the most scientific and academically orientated disciple.

An analysis of contract type according to working hours (see table 8) shows that temporary contracts were much more frequent in part-time work than in full-time.

Table 8. Type of contract according to whether the job was full or part-time

		Type of contract				Total
		Permanent	Self-employed	Temporary	No contract	
Part-time	Humanities	27.6%	8.5%	58.7%	5.2%	100%
	Social Sciences	40.8%	7.7%	49.1%	2.4%	100%
	Experimental Sciences	31.3%	5.1%	63.6%		100%
	Health Sciences	36.8%	13.7%	48.6%	0.9%	100%
	Eng./Archit.	39.4%	22.8%	36.2%	1.6%	100%
	Total	**35.7%**	**10.0%**	**51.6%**	**2.7%**	**100%**
Full-time	Humanities	55.0%	8.2%	36.1%	0.7%	100%
	Social Sciences	66.0%	5.1%	28.5%	0.4%	100%
	Experimental Sciences	59.1%	2.6%	38.2%	0.1%	100%
	Health Sciences	56.0%	13.0%	30.5%	0.5%	100%
	Eng./Archit.	68.8%	10.8%	20.4%	0%	100%
	Total	**63.9%**	**7.5%**	**28.3%**	**0.3%**	**100%**

Education-job match

- 82.5% of employed graduates were required to have a university qualification for their job.
- 85% had a graduate-level job (whether a degree was a prerequisite for obtaining their job or not).

Two aspects are analysed in this section:

- Whether, in their current jobs, graduates needed their specific degree qualification, if they just needed to be a university degree holder or if there was no need for any university qualification.
- Whether, in their current jobs and irrespective of the essential qualifications for eligibility, their job responsibilities were specific to the qualifications that were required (to a specific degree qualification or graduate-level job responsibilities).

The combination of these two variables allows for the detection of both the highest level match (a specific degree qualification, and a degree-specific job) and highest mismatch (no degree qualification was necessary and a non-degree specific job), as well as intermediate situations.

Table 9. Match

	N	%
A specific degree was required and a degree-specific job **(highest match)**	7,567	62.5
A specific degree was required, but the job was non-degree-specific	600	5.0
A specific degree was required, and a graduate-level job	1,373	11.3
A university degree was required, but the job was non-graduate-level	446	3.7
No university degree was required, but the job was graduate-level	778	6.4
No university degree was required and a non-graduate-level job **(lowest match)**	1,348	11.1
Total	**12,112**	**100**

The following conclusions can be made from the figures:

- 83% required a university degree (either a specific degree or not) for their current job. This figure is higher than three years ago, when it was 75%.
- 63% come under the highest match category: a specific degree was required and their job was specific to their degree. This figure is higher than in 2005, when it was 59%. The figures show that, in the corresponding economic context, a formal degree qualification is a key factor in graduate labour market outcomes.

- Of the remaining 17%, 6% had a graduate-level job, although a degree qualification was not required for job eligibility.
- Overall, 85% had a graduate-level job,[4] irrespective of whether a university degree was a prerequisite or not for the current job.

Table 10. Match according to subject area

	Highest match[5]		Lowest match	
	N	%	N	%
Humanities	711	42.40	410	24.50
Social Sciences	3,379	62.30	619	11.40
Experimental Sciences	622	63.70	84	8.60
Health Sciences	1,103	85.80	40	3.10
Engineering/Architecture	1,752	63.80	195	7.1
Total	**7,567**	**62.50**	**1,348**	**11.10**

According to subject area, the situation of highest match ranges from between 86% in Health Sciences to 42% in Humanities. Inversely, the situation of lowest match ranges between 25% in Humanities and 3% in Health Sciences.

The high level of match in Health Sciences is explained to a great degree by the existence of regulations that control job admission.

There has been an improvement in the education-job match of university graduates since 2001 in the Social Sciences, Humanities and Experimental Sciences.[6]

[4] This percentage inclues the following categories: those required to have a specific degree, those required to have a university degree and who have a graduate-level job, and those not required to have a degree qualification but who have a graduate-level job.

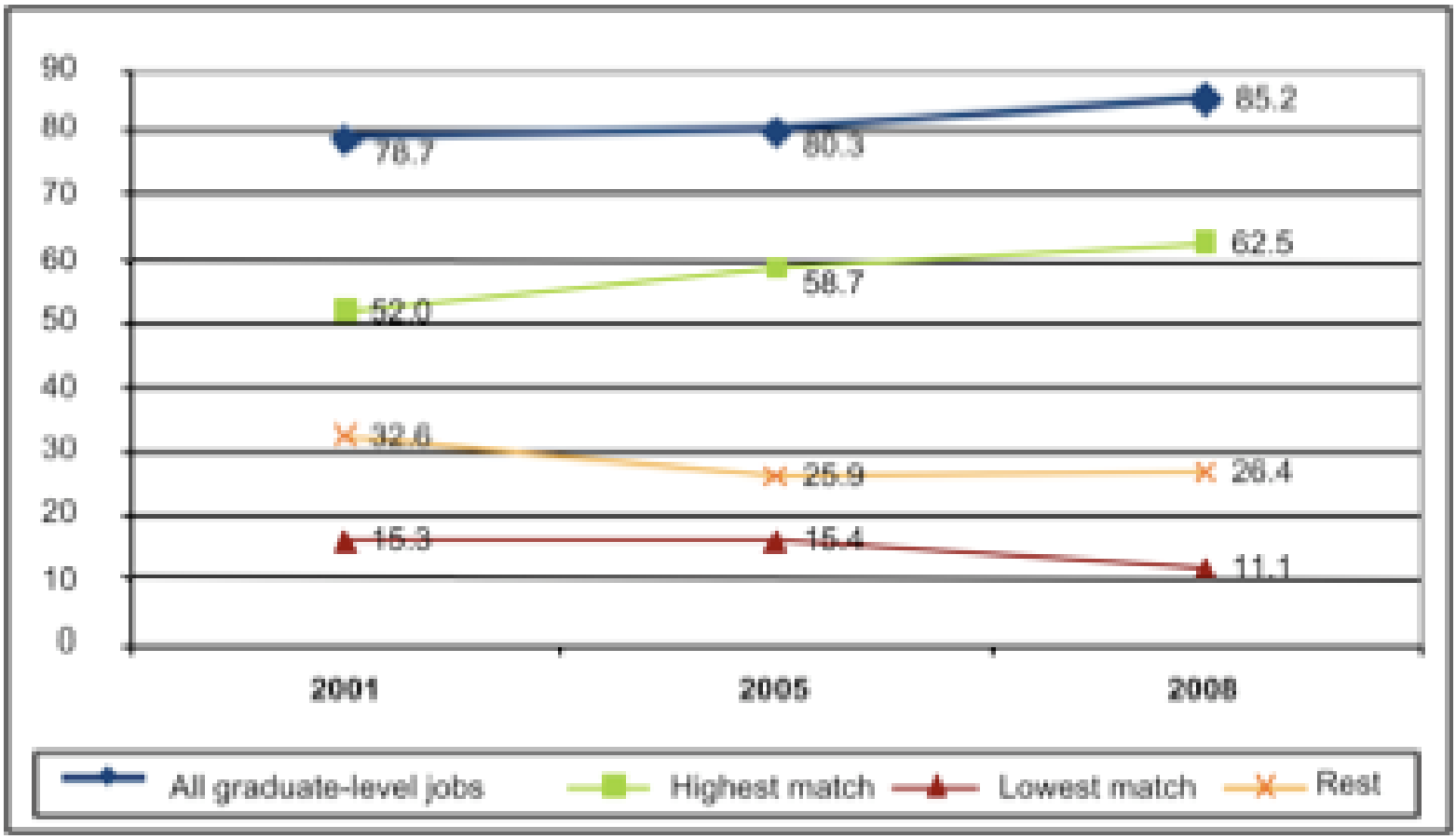
[5] Highest match is defined as being where, to obtain his/her current job, a graduate was required to have a specific degree and where the job calls for the same degree. Lowest match is defined as being when, to obtain his/her current job, a graduate was not required to be the holder of a formal qualification and where a graduate-level qualification was not required for the job. The variable percentages do not add up to 100 because the table only deals with two of the possible situations (highest and lowest match).

[6] From the two independent proportions, with a confidence level of 95%, the null hypothesis is rejected for these three subject areas.

Table 11. Percentage of graduates with a graduate-level job

	% 2001	% 2005	% 2008	% 2008 - % 2001
Humanities	59.1	64.9	70.2	11.1
Social Sciences	76.3	78.6	84.4	8.0
Experimental Sciences	74.0	78.9	85.7	11.7
Health Sciences	94.4	96.2	95.7	1.3
Engineering/Architecture	90.6	86.9	90.8	0.2
Total	**78.7**	**80.3**	**85.2**	**6.5**

The changing patterns of overall match



Annual income

- Almost 40% of graduates in full-time employment were earning more than €24,000 a year. Only 17% were earning less than €15,000 a year.[7]
- 66% of those earning less than €15,000 a year were working part-time.

As mentioned above, 88% of graduates were working full-time (9,737). As the type of working day has a clear effect on annual income, this group was selected in order to obtain a more accurate view of the income of university graduates.

Table 12. Gross annual income of full-time employed graduates

	N	%		
Less than 9,000 euros	149	1.53	Under €15,000	**16.76%**
Between 9,000 and 12,000 euros	444	4.56		
Between 12,000 and 15,000 euros	1,039	10.67		
Between 15,000 and 18,000 euros	1,274	13.08	Up to €24,000	**44.67%**
Between 18,000 and 24,000 euros	3,076	31.59		
Between 24,000 and 30,000 euros	2,135	21.93	Over €24,000	**38.57%**
Between 30,000 and 40,000 euros	1,171	12.03		
Over 40,000 euros	449	4.61		
Total	**9,737**[8]	**100**		**100%**

Table 13. Gross annual income according to subject area

	N	Humanities	Social Sciences	Experimental Sciences	Health Sciences	Eng./Arch.	Total
Under €15,000	1,632	31.60%	18.50%	17.32%	20.54%	4.94%	16.77%
Up to €24,000	4,350	48.25%	52.30%	47.62%	39.63%	29.86%	44.67%
More than €24,000	3,755	20.15%	29.20%	35.06%	39.83%	65.20%	38.56%

In Engineering/Architecture, 65% were in the highest income level, compared to 20% in Humanities. 5% of graduates of Engineering and Architecture were in the lowest income bracket, compared to 32% in Humanities.

[7] 88% of employed graduates were working full-time. Annual income was calculated on the basis of this group (9,737).

[8] 6% of the 10,326 people working full-time did not reveal their income.

Table 14 shows the average gross monthly income (x 12 monthly payments) according to subject area.[9]

Table 14. Average gross monthly income

Subject area	N	Average	Standard deviation
Humanities	1.063	1,576.51	503.63
Social Sciences	4,337	1,722.07	519.76
Experimental Sciences	692	1,781.25	543.12
Health Sciences	882	1,813.68	608.96
Engineering/Architecture	2,165	2,160.84	567.78
Total	**9,139**	**1,822.40**	**575.45**

Table 15 shows how gross annual income is clearly associated with the type of working day.

Table 15. Gross annual income according to full-time and part-time work

	Part-time	Full-time	N
Under €15,000	64.6%	16.8%	2,465
Up to €24,000	25.9%	44.6%	4,684
More than €24,000	9.5%	38.6%	3,878
Total	**100%**	**100%**	**11,027**

[9] For the calculations, the full-time employed group was selected. The average was calculated on the basis of the mean of the income intervals; as a result, the 1.53% from the lowest interval (less than €900) was eliminated, together with the 4.61% from the highest interval (over €40,000).

Current job satisfaction

- On a scale of 1 to 7, graduates gave a rating of 5.47 for general satisfaction with their current job.

In terms of the various aspects of work, job content was the most satisfactory, with the least satisfactory being the usefulness of knowledge acquired.

Table 16. Average levels of satisfaction

	Satisfaction with job content	Satisfaction with the prospects for improvement	Satisfaction with income level	Satisfaction with the usefulness of knowledge	General satisfaction with current job
Humanities	5.59	4.66	4.57	4.11	5.36
Social Sciences	5.76	5.11	4.81	4.53	5.57
Exp. Sciences	5.57	4.81	4.55	4.43	5.36
Health Sciences	5.77	5.01	4.63	4.97	5.55
Eng./Archit.	5.55	5.04	4.74	4.50	5.34
Total	**5.68**	**5.00**	**4.73**	**4.51**	**5.47**

Graduates with the highest level of satisfaction in general with their current job and job content were in Social Sciences and Health Sciences. Graduates in Social Sciences had the highest level of satisfaction in relation to the prospects for improvement and level of income, whereas graduates in Health Sciences had the highest level of satisfaction regarding the usefulness of knowledge.

Graduates in Humanities, Experimental Sciences and Engineering and Architecture were more critical, especially those in Humanities, which had the lowest levels of satisfaction regarding prospects for improvement, income level and usefulness of knowledge.

The calculation of mean satisfaction for the group of graduates with a graduate-level job (9,515 people out of a total of 11,402) shows a considerable increase in the mean for satisfaction with the usefulness of knowledge, with a slight increase in the mean for general satisfaction (see table 17). The subject area most affected by this selection is Humanities, where the percentage of people with a non-graduate-level job was highest.

Table 17. Mean satisfaction of the group of people with a job

	Satisfaction with job content	Satisfaction with the prospects for improvement	Satisfaction with income level	Satisfaction with the usefulness of knowledge	General satisfaction with current job
Humanities	5.84	4.84	4.75	4.67	5.59
Social Sciences	5.87	5.21	4.89	4.73	5.66
Experimental Sciences	5.71	4.89	4.60	4.67	5.43
Health Sciences	5.80	5.04	4.65	5.07	5.59
Engineering and Architecture	5.60	5.09	4.77	4.60	5.38
Total	**5.78**	**5.10**	**4.79**	**4.73**	**5.56**

The process of finding a job

Time taken to find the first job

- 40% of graduates already had a full or part-time job prior to completing their studies.
- 76% found employment within three months of completing their studies.
- 7% took more than a year to find their first job.

40% found their first job prior to completing their degree studies, with a corresponding figure of 29% for Experimental Sciences and 49% for Engineering and Architecture.

76% found employment within three months of completing their studies. Only 24% took more than three months, although this figure increased slightly over the period covered by the three studies (19% in the 2001 survey and 22.5% in 2005), meaning that there has been a slight increase in the time taken by graduates to find their first job.

Table 18. Time taken to find a job

	Frequency	Valid percentage
Had work before completing studies	4,884	40.4
Less than one month after completing studies	1,908	15.8
1 to 3 months after completing studies	2,345	19.4
4 to 6 months after completing studies	1,334	11.0
7 months to one year after completing studies	757	6.3
More than one year after completing studies	853	7.1
Total	**12,081**	**100**

Table 19. Time taken to find a job according to subject area

	Time taken to find first job (simplified)			Total
	Less than 3 months	Between 3 months and a year	More than a year	
Humanities	69.2%	19.4%	11.4%	100%
Social Sciences	74.5%	18.4%	7.1%	100%
Experimental Sciences	64.7%	26.4%	8.9%	100%
Health Sciences	78.5%	14.3%	7.2%	100%
Engineering/Architecture	84.2%	12.1%	3.7%	100%
Total	**75.6%**	**17.3%**	**7.1%**	**100%**

According to subject area (see table 19), the following aspects stand out:

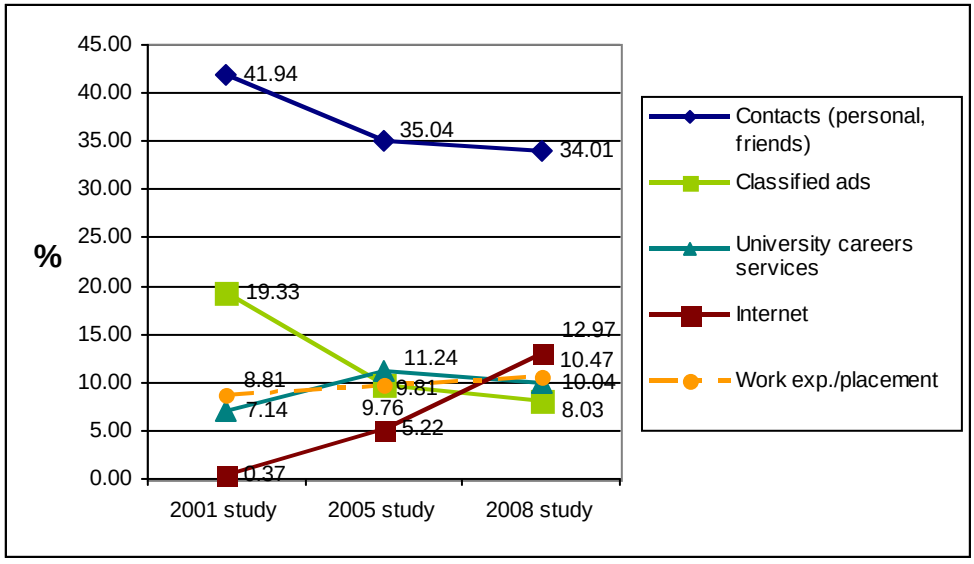
- Graduates in Experimental Sciences took more time to find employment that in other subject areas. This is coherent with the fact that students in this discipline are less inclined to combine studies and employment, and they therefore have no contact with the labour market prior to completing their studies.
- Graduates in Humanities had the highest figure for taking more than a year to find work.
- Engineering and Architecture was the subject area with the fastest level of gaining employment (insertion) in the labour market.

Access to the labour market

- The main way that graduates acquired a job was through personal contacts (34%).
- Internet (13%) was the second most important way to find employment.

The main way of gaining access to the labour market continued to be through personal contacts, with the Internet consolidating its position as the second most important.

Figure 4. Trends in the five main ways of finding a job



Personal contacts continue to be the main way that graduates find their first job (34%).

In relation to previous studies, the main change is the consolidation of the Internet (which is now the second most important way that graduates find a job) and the decrease in the importance of classified advertisements.

Combining studies and work

- 59% of graduates combined their studies with employment while still at university.

The combination of studies and work continues to predominate, accounting for 59% of all graduates.[10]

Table 20. Combining studies and work during the last two years of studies

	N	Work during university studies and the relationship between the job and studies					
		Full-time students	Part-time: related work	Part-time: non-related work	Full-time: related work	Full-time: non-related work	Total
Humanities	1,674	40.00%	14.90%	24.80%	6.50%	13.90%	100%
Social Sciences	5,423	37.90%	22.50%	14.70%	17.10%	7.70%	100%
Experimental Sciences	977	61.50%	10.80%	16.40%	6.70%	4.60%	100%
Health Sciences	1,284	52.60%	18.00%	12.90%	12.60%	3.80%	100%
Engineering/Architecture	2,747	33.90%	34.30%	7.90%	20.50%	3.40%	100%
Total	**12,105**	**40.70%**	**22.70%**	**14.50%**	**15.10%**	**6.90%**	**100%**

From an analysis of the figures, the main conclusions are as follows:

- 64% of graduates who worked during the last two years of studies (7,173) had jobs associated with their studies.
- Students in Experimental Sciences had the lowest level of combining studies and work: 62% of students were full-time, meaning that they had little contact with the labour market, and their transition to the labour market began on completion of their studies.
- 15% of graduates had already found a satisfactory full-time job in the last two years of their studies, prior to completion (ranging from 21% in Engineering and Architecture and 7% in Humanities and Experimental Sciences).
- 7% had a full-time job that was not associated with their studies (ranging from 14% in Humanities to 3% in Engineering and Architecture). Research into labour market outcomes has shown that persons who find themselves in this situation during their studies have difficulties in matching the knowledge they have acquired during their studies with the work that they do, probably because they are less inclined to change job once they graduate because they already have a full-time job.

[10] This figure was very similar in the 2005 survey (58.8%), whereas in the first survey (2001) the percentage of students who combined studies and work was clearly lower (40.5%). It would therefore appear that this trend has stabilised.

Only studying, or studying and working?

- The best strategy for acquiring a qualified job is to work during one's university studies in jobs that degree-related.
- Being a full-time student is no advantage in relation to the group of students who choose to look for a degree-related job during their university studies.

Overall, it appears that the poorest strategy for developing a qualified job is to work during studies in non-degree related jobs. 91% of graduates who worked during their studies in related jobs, at the time of the survey, were involved in graduate-level work, whereas this was the case in only 74% of those working in non-related jobs. Being a full-time student is no advantage in relation to the group of students who choose to look for degree-related jobs, although it is a better option than looking for non-degree related jobs.

Table 21. Work experience during university studies and quality of employment three years after graduation

		Graduate-level job	Non-graduate-level job	Total
Humanities	Full-time students	72.4%	27.6%	100%
	Related work	85.4%	14.6%	100%
	Non-related work	59.5%	40.5%	100%
	Total	**70.2%**	**29.8%**	**100%**
Social Sciences	Full-time students	85.2%	14.8%	100%
	Related work	88.7%	11.3%	100%
	Non-related work	75.4%	24.6%	100%
	Total	**84.4%**	**15.6%**	**100%**
Experimental Sciences	Full-time students	85.7%	14.3%	100%
	Related work	91.2%	8.8%	100%
	Non-related work	81.0%	19.0%	100%
	Total	**85.7%**	**14.3%**	**100%**
Health Sciences	Full-time students	95.9%	4.1%	100%
	Related work	98.5%	1.5%	100%
	Non-related work	90.2%	9.8%	100%
	Total	**95.7%**	**4.3%**	**100%**
Engineering and Architecture	Full-time students	89.3%	10.7%	100%
	Related work	93.1%	6.9%	100%
	Non-related work	84.5%	15.5%	100%
	Total	**90.8%**	**9.2%**	**100%**
Total	Full-time students	85.7%	14.3%	100%
	Related work	90.8%	9.2%	100%
	Non-related work	74.2%	25.8%	100%
	Total	**85.2%**	**14.8%**	**100%**

The comparative advantage of students who have worked during their studies in jobs related to their degree compared to those that are full-time students probably stems, on the one hand, from the fact that they already had work experience in their curriculum, and, on the other, that they had already begun to develop the network of personal contacts in their professional career, which is the number one way of gaining access to the labour market.

According to subject area, the following aspects stand out:

- Access to the labour market in Health Sciences is adequate irrespective of the strategy used during studies.
- It is in Humanities where strategy leads to greater differences in subsequent match: the number of graduates with a graduate-level job ranges from 85% who worked during their studies in degree-related jobs to 60% in non-degree-related jobs.

- In the other subject areas (Social Sciences, Experimental Sciences and Engineering and Architecture) the outcomes were those mentioned above on a general scale, but with smaller differences than in the case of Humanities.

Satisfaction with degree studies

- 74% of graduates would choose the same studies if they had to start over again.

74% of graduates would choose the same studies if they had to start over again. This figure is higher than in 2005 (71%). This improvement is logical if one considers that labour market outcomes are more positive in the 2008 survey, as can be seen from the higher employment and job stability rates. This figure ranges from 71% in Humanities (72% in Engineering and Architecture) to 80% in Health Sciences.

In relation to the 2005 survey, there was an increase in the number of graduates who would take the same degree, especially in Social Sciences, where there was an increase of 5%.

Table 22. Intention to repeat the same degree

		Would you take the same degree again?	
	N	Yes	No
Humanities	1,653	70.80%	29.20%
Social Sciences	5,365	75.30%	24.70%
Experimental Sciences	961	72.30%	27.70%
Health Sciences	1,272	80.30%	19.70%
Engineering and Architecture	2,691	71.8%	28.2%
Total	**11,942**	**74.20%**	**25.80%**

According to degree programmes, there were five in which more than 90% of those surveyed would take the same degree again. These have been grouped into two types, two professionally orientated degrees in Health Sciences and three Teacher Training degrees.

	N	% Yes
Dentistry	51	92
Medicine	273	91
Teacher - Pre-School (Infant)	336	95
Teacher - Physical Education	214	92
Teacher - Special Education	158	91

The figure in 2005 for teaching graduates who would repeat the same degree was below 80%. This increase may be due to the fact that, in recent years, graduates have become eligible for places in the public education system.

There were four degrees in which less than half of the graduates would take the same degree again if they had to start over again.

	N	% Yes
Telecommunications Technical Engineering (Electronic Systems)	79	49
Market Research and Techniques	33	48
Public Management and Administration	91	41
Tourism	76	38

Appendix II gives a table with the list of degree programmes ordered according to the intention to repeat the same degree.

In terms of the intention to repeat their studies at the same university, 86% of students would choose the same university if they had to start over again. The differences between subject areas are small and range from 83% in Humanities to 87% in Experimental Sciences and Health Sciences.

An appraisal of university studies and their usefulness in graduate employment

- The five most necessary skills required in a job were: problem solving, teamwork, decision-making, critical thinking and computer skills.
- Graduates assessed the level of theoretical training they received as 'good', and the level of practical training as merely 'sufficient'.
- The five skills where graduates proved to be most deficient in their job were: languages, computer skills, decision-making, problem solving and leadership.

According to subject area, graduates in Health Sciences were most satisfied with both the theoretical and practical training they received, whereas graduates in Humanities and Social Sciences were the most critical.

Table 23. Appraisal of the level of theoretical and practical training

	Theoretical training		Practical training	
	Scale from 1 to 7	Scale from 0 to 10[11]	Scale from 1 to 7	Scale from 0 to 10
Humanities	4.68	6.13	3.49	4.15
Social Sciences	4.69	6.15	4.00	5.00
Experimental Sciences	4.93	6.55	4.39	5.65
Health Sciences	5.13	6.88	4.74	6.23
Eng./Archit.	4.73	6.22	3.93	4.88
Total	**4.76**	**6.27**	**4.02**	**5.03**

The five most necessary skills required in the graduates' current job (see table 24) were: problem solving, teamwork, decision-making, critical thinking and computer skills.

The least necessary, although still important (more than 5 on a scale of 0 to 10), were languages, practical and theoretical training, leadership and creativity.

[11] The scale, which for technical reasons ranges from 1 to 7, can be easily converted into more usual academic values (0 to 10) by applying the following formula: $\left(\frac{x-1}{6}\right)*10$

Table 24. Ranking of skills necessary for the job according to a university or non-university job

	Graduate-level job		Non-graduate-level job		Total
Usefulness of:	**Scale from 1 to 7**	**Scale from 0 to 10**	**Scale from 1 to 7**	**Scale from 0 to 10**	
Problem-solving	5.42	7.37	4.69	6.15	5.31
Team work	5.38	7.30	4.53	5.88	5.25
Decision-making	5.32	7.20	4.50	5.83	5.20
Critical thinking	5.16	6.93	4.26	5.43	5.03
Computer skills	5.14	6.90	4.52	5.87	5.05
Written expression	5.08	6.80	4.28	5.47	4.96
Oral expression	4.98	6.63	4.15	5.25	4.86
Skills in documentation	4.97	6.62	4.01	5.02	4.83
Administration	4.79	6.32	4.16	5.27	4.70
Creativity	4.74	6.23	3.81	4.68	4.60
Leadership	4.5	5.83	3.75	4.58	4.39
Theoretical training	4.46	5.77	3.05	3.42	4.25
Practical training	4.46	5.77	3.10	3.50	4.26
Languages	4.16	5.27	3.57	4.28	4.08

What is the level of preparation by the universities in relation to these skills?

- The skills where students were most deficient were: languages, computer skills, decision making, problem solving and leadership
- Of these particular skills, decision making, problem solving and computer skills form part of the skills assessed as being most necessary for the job.
- There was only a moderate surplus for theoretical training (0.38), which ranged between 0.59 in Experimental Sciences (many are involved in teaching) and 0.22 in Health Sciences.
- Skills in which students were least deficient, and where university education was therefore more appropriate, were practical training, documentation, critical thinking and written expression, which, in short, and together with theoretical training, are the skills most associated with an academic education.

Table 25. Training deficit

	Humanities	Social Sciences	Experimental Sciences	Health Sciences	Engineering/Architecture	Total
Technical training	0.52	0.31	0.59	0.22	0.44	0.38
Practical training	-0.43	-0.41	0.08	-0.26	-0.34	-0.34
Written communication	-0.19	-0.46	-0.84	-0.50	-0.85	-0.56
Oral communication	-0.68	-0.78	-1.07	-0.90	-1.04	-0.87
Team work	-0.79	-0.55	-0.8	-0.74	-0.69	-0.65
Leadership	-0.91	-0.84	-1.10	-0.81	-1.38	-0.99
Problem solving	-1.19	-1.06	-0.94	-1.09	-0.91	-1.03
Decision-making	-1.22	-1.11	-1.29	-1.25	-1.42	-1.23
Critical thinking	-0.11	-0.49	-0.68	-0.80	-0.79	-0.57
Creativity	-0.67	-0.83	-1.04	-0.76	-0.77	-0.8
Administration	-1.01	-0.8	-1.14	-0.93	-1.21	-0.97
Documentation	-0.28	-0.49	-0.75	-0.75	-0.57	-0.54
Languages	-1.02	-1.17	-2.17	-1.45	-1.90	-1.45
Computer skills	-1.79	-1.37	-1.30	-1.49	-0.95	-1.32

NB: The deficit was calculated by subtracting the mean for each skill necessary in the current job from the mean for the rating of the level of training received at university for this skill. Only the group of graduates with a job requiring graduate-level skills (85% of the sample) is included. The three skills with the highest deficit in each subject area and the total are shaded.

Further studies

- Three-quarters of students continued with training or studies after completing their degree.

The majority of graduates who continued studying either took a Master's programme (26%) or a specialised course (21%). 13% took another undergraduate degree, and 6.5% took a PhD programme.

According to subject area, the following is worthy of mention:

- Graduates in Engineering and Architecture were the least likely to continue studying (more than a third undertook no further studies or training in the three years after graduation). This could be due to both the fact that the duration of these programmes is longer than others, and because labour market outcomes are more suitable than in other subject areas.
- Health Sciences had the highest number of graduates taking further studies. It was also the subject area where more students chose to take either a Master's or another post-graduate programme.
- Experimental Sciences had the highest number of students taking a PhD programme (22.4% compared to 2% in Social Sciences).

Table 26. Further studies

	Further studies						
	No	**Yes, a specialised course**	**Yes, an undergraduate degree**	**Yes, un postgraduate or Master's programme**	**Yes, a PhD**	**Yes, other**	**Total**
Humanities	22.0%	19.4%	11.8%	26.1%	11.5%	9.2%	100%
Social Sciences	26.9%	22.2%	16.4%	24.2%	2.4%	8.0%	100%
Experimental Sciences	21.1%	17.9%	7.3%	27.2%	22.4%	4.1%	100%
Health Sciences	16.3%	28.5%	4.7%	36.5%	9.5%	4.5%	100%
Engineering/Architecture	33.8%	19.2%	14.0%	22.5%	4.8%	5.8%	100%
Total	**26.2%**	**21.4%**	**13.2%**	**25.6%**	**6.5%**	**7.0%**	**100%**

Mobility

- One third of graduates had an experience with mobility.
- Mobility during studies has hardly undergone any increase over the last three years

One third of graduates (33%) had an experience with mobility. This figure, which was slightly lower than in the previous survey (35%), is divided into similar parts between mobility because of studies and job-related reasons.

According to subject area, Social Sciences had the lowest mobility index (25%) and Engineering and Architecture the highest (42%).

Table 27. Mobility

	Mobility				Total
	No	Yes, during studies	Yes, job-related	Studies and work	
Humanities	58.5%	21.4%	10.5%	9.6%	100%
Social Sciences	75.4%	10.8%	8.8%	5.0%	100%
Experimental Sciences	58.1%	15.9%	15.8%	10.2%	100%
Health Sciences	69.8%	12.0%	11.4%	6.8%	100%
Engineering/Architecture	57.5%	13.3%	20.0%	9.2%	100%
Total	**67.0%**	**13.4%**	**12.4%**	**7.2%**	**100%**

The figures for mobility are practically the same as those in the 2005 survey: mobility during studies (Erasmus, Séneca) only increased slightly from 12.8% in 2005 to 13.4% in 2008). Job-related mobility went down from 14.3% in 2005 to 12.4% in 2008).

Unemployment

- 3% of graduates were unemployed.
- 79% of unemployed graduates had been looking for work for less than six months.

Out of the 12,258 graduates that were included in the survey, 380 were unemployed, i.e. not employed and looking for work. As seen in the section on "Job situation", unemployment was highest in Humanities (6%) and lowest in Engineering and Architecture and Health Sciences (2%).

As shown in table 28, 79% of graduates (300) had been looking for work for less than six months. There were only 30 people who had been looking for work for longer than a year, 10 of whom stated that they had been looking for work for more than two years.

Table 28. Time spent by graduates looking for work

	N	Time				Total
		Less than 6 months	Between 6 months and 1 year	Between 1 and 2 year	Over 2 years	
Humanities	98	71.40%	16.30%	6.10%	6.11%	100%
Social Sciences	160	81.10%	13.80%	3.80%	1.30%	100%
Experimental Sciences	30	80.00%	16.70%	3.30%	0%	100%
Health Sciences	27	70.40%	14.80%	14.80%	0%	100%
Engineering/Architecture	65	87.70%	4.60%	4.60%	3.10%	100%
Total	380	78.90%	13.20%	5.30%	2.60%	100%

Unemployment among graduates was lower than in 2005 (3.1% compared to 4.8%). In addition, the figure for people who had been looking for work for more than six months was also lower than in the 2005 survey (31% compared to 47%).

The three main reasons why graduates did not find work were:

- They did not find a job with an adequate salary level (an average of 5.16 on a scale of 1 to 7).
- They did not find a job that they liked (5.07).
- The lack of professional practice (4.14).

Gender and labour market outcomes

- 61% of university graduates were female.
- Only 10% of female graduates took degrees in Engineering and Architecture, compared to 43% of male graduates. Bearing in mind that this is the subject area with the most favourable labour market outcomes, gender equality policies should begin much earlier than the start of university studies and they need to enhance careers guidance measures at times such as when choices in career pathway are made in secondary education, when a choice has to be made between different subjects, etc.
- There is no gender difference in terms of job situation.
- There were gender differences in terms of gross annual income (in favour of male graduates) and job stability (again in favour of male graduates).
- The differences between male and female graduates did not apply to all degrees/subject areas.

61% of graduates in 2005 were female.

There was a difference between the degree subjects taken by male and female students. As can be seen from table 29, the distribution of male and female students according to subject area was different. Among female graduates, Social Sciences was the discipline with the highest number of graduates, whereas for male students it was Engineering and Architecture. Female students were in the majority in all subject areas (more than 60%) apart from Engineering and Architecture, where female students only accounted for 27% of the total number of graduates.

If the expectation is to achieve a more balanced distribution between male and female students across university studies (i.e. more female students in Engineering and Architecture, and more male students in teaching or nursing, for example), these measures should be put into place at times like the choice of course pathway in secondary education.

Table 29. Distribution of graduates according to discipline and gender (figures for the graduate population)

		Frequency	Valid percentage
Male	Humanities	923	10.2
	Social Sciences	3,214	35.4
	Experimental Sciences	637	7.0
	Health Sciences	525	5.8
	Engineering and Architecture	3,779	41.6
	Total	**9,078**	**100**
Female	Humanities	1,977	14.2
	Social Sciences	7,583	54.4
	Experimental Sciences	1,076	7.7
	Health Sciences	1,902	13.6
	Engineering and Architecture	1,407	10.1
	Total	**13,945**	**100**

Gender and job situation

There were no differences in terms of employment rates, apart from in Social Sciences, where the percentage of unemployed males graduates was higher than that of female graduates (3.8% as to 2.6%).

Table 30. Gender and job situation

		Job situation			Total
	Gender	Employed	Unemployed	Non-active	
Humanities	Female	89.1%	5.8%	5.1%	100%
	Male	90.1%	5.6%	4.3%	100%
	Total	**89.4%**	**5.8%**	**4.8%**	**100%**
Social Sciences	Female	94.5%	2.6%	2.9%	100%
	Male	93.2%	3.8%	3.0%	100%
	Total	**94.2%**	**2.9%**	**2.9%**	**100%**
Experimental Sciences	Female	89.3%	3.4%	7.3%	100%
	Male	92.2%	2.3%	5.5%	100%
	Total	**90.4%**	**3.0%**	**6.6%**	**100%**
Health Sciences	Female	95.3%	2.1%	2.6%	100%
	Male	95.1%	2.0%	2.9%	100%
	Total	**95.3%**	**2.1%**	**2.6%**	**100%**
Engineering and Architecture	Female	93.8%	2.7%	3.5%	100%
	Male	95.5%	2.2%	2.3%	100%
	Total	**95.0%**	**2.4%**	**2.6%**	**100%**

Gender differences in salary

In Humanities there are no salary differences. Moderate differences do exist in Experimental Sciences and Engineering and Architecture, and there are important differences in Social Sciences and Health Sciences. There was a higher percentage of female graduates earning less than €15,000 and a higher percentage of those earning more than €24,000 among male graduates.

When a distinction is made in Social Sciences and Health Sciences between short cycle and long cycle degrees, however, the differences are smaller, although they do continue to exist. One needs to consider that there are certain general degree programmes that tend to be chosen by female students, such as Nursing and Teaching degrees, with average salaries that are lower than long cycle degrees taken by more male students.

Table 31. Gender and salary differences

		Annual income (simplified)			Total
	Gender	**Under €15,000**	**Up to €24,000**	**Over €24,000**	
Humanities	Female	32.3%	48.7%	19.0%	100%
	Male	30.2%	47.3%	22.5%	100%
	Total	**31.6%**	**48.3%**	**20.1%**	**100%**
Social Sciences	Female	21.1%	55.5%	23.4%	100%
	Male	12.5%	44.6%	42.9%	100%
	Total	**18.5%**	**52.3%**	**29.2%**	**100%**
Experimental Sciences	Female	19.8%	50.9%	29.3%	100%
	Male	13.5%	42.5%	44.0%	100%
	Total	**17.3%**	**47.6%**	**35.1%**	**100%**
Health Sciences	Female	22.2%	40.9%	36.9%	100%
	Male	14.0%	34.5%	51.5%	100%
	Total	**20.6%**	**39.6%**	**39.8%**	**100%**
Engineering and Architecture	Female	8.9%	35.1%	56.0%	100%
	Male	3.6%	28.0%	68.4%	100%
	Total	**4.9%**	**29.9%**	**65.2%**	**100%**

Gender and contract stability

There were no significant differences in terms of type of contract in Humanities and Health Sciences. In Experimental Sciences, the only difference was that there was a higher proportion of self-employed male graduates than female graduates.

More permanent contracts among male graduates than female were only to be found in Engineering and Architecture and Social Sciences (8% and 4%, respectively). As a result, jobs here were of a more temporary and precarious nature among female graduates than male graduates.

Table 32. Gender and contract type

	Gender	Contract type					Total
		Permanent	**Self-employed**	**Temporary**	**Intern-ship**	**No contract**	
Humanities	Female	46.1%	7.3%	41.8%	3.5%	1.3%	100%
	Male	46.1%	9.5%	35.4%	6.3%	2.7%	100%
	Total	**46.1%**	**8.0%**	**39.8%**	**4.4%**	**1.7%**	**100%**
Social Sciences	Female	61.2%	4.1%	32.8%	1.4%	0.5%	100%
	Male	65.3%	8.5%	24.1%	1.4%	0.7%	100%
	Total	**62.4%**	**5.4%**	**30.3%**	**1.4%**	**0.5%**	**100%**
Experimental Sciences	Female	47.9%	1.2%	38.0%	12.7%	0.2%	100%
	Male	47.9%	4.4%	31.2%	16.2%	0.3%	100%
	Total	**47.9%**	**2.5%**	**35.3%**	**14.1%**	**0.2%**	**100%**
Health Sciences	Female	52.0%	12.3%	33.6%	1.6%	0.5%	100%
	Male	51.9%	15.2%	29.6%	2.5%	0.8%	100%
	Total	**51.9%**	**12.8%**	**32.9%**	**1.8%**	**0.6%**	**100%**
Engineering and Architecture	Female	58.8%	10.4%	27.6%	2.9%	0.3%	100%
	Male	67.9%	11.3%	18.1%	2.7%	0%	100%
	Total	**65.5%**	**11.0%**	**20.6%**	**2.7%**	**0.2%**	**100%**

Labour market outcomes at the Open University (UOC), consolidation and professional advancement

- A total of 295 graduates were surveyed at the UOC, a figure with a sampling error of 5%. The sampling error increases considerably when the sample is broken down into disciplines (Humanities, Social Sciences and Engineering and Architecture).
- Students at the UOC are different to students at campus-based universities, which is shown by the fact that almost two thirds (61%) had completed previous degree programmes when starting their studies at UOC, and almost 90% worked full-time during their studies
- Rates for employment (98%), stability (80% with a permanent contract) and high salaries (only 8% earned less than €15,000 a year and 27% earned more than €40,000 a year) showed that, more than being in a situation of transition to the labour market, this is a mature group of graduates that is in a process of consolidation and advancement in terms of professional career
- A high percentage of graduates from the UOC have graduate-level jobs (the percentage ranged from 85% for those with a university degree prior to studying at the UOC to 77% for those taking their first degree at the UOC). Nevertheless, few graduates had a degree-specific job obtained at the UOC (18%).
- 87.3% would take the same degree programme again, and 95.6% would choose the UOC again if they had the opportunity.
- The fact that they were graduates who were already working while taking university studies and many of them had previous degrees makes it difficult to assess the added value of the Open University in terms of labour market outcomes.

Population and sample

In total just over one quarter of all graduates from the UOC in 2004 were included in the survey.[12]

Table 33. Population and sample of the UOC according to discipline

Subject area	Population	Sample obtained	Population response rate	Sampling error
Humanities	54	14	25.93%	23.22%
Social Sciences	906	226	24.94%	5.77%
Engineering/Architecture	186	55	29.57%	11.35%
Total	**1,146**	**295**	**25.74%**	**5.02%**

As shown in table 33, three quarters of the total took degrees in Social Sciences (226), 19% in Engineering and Architecture (55) and only 5% in Humanities (14).

The figures for participation did not allow for a statistically reliable analysis of Humanities (see sampling error), whereas this was possible with Engineering and Architecture and especially Social Sciences, which was the best represented subject area.

Open University students compared to campus-based university students

More than half the UOC graduates took second cycle degrees. This means that they were either degree holders already or they had already completed a first cycle programme when they started their studies at the UOC.

On the other hand, only 12% of graduates from campus-based universities came from second cycle degrees. These figures signal a fundamental difference that clearly influences the results of the survey: in the case of graduates from the UOC, the analysis is one of second and not first-time labour market outcomes.

[12] As seen from table 1 for the other universities, the sample obtained is nearly half of the number of graduates for the whole year and the sampling error is considerably lower.

Table 34. Distribution of the sample for the UOC and students from campus-based universities according to the degree qualification obtained

	UOC		Campus-based university students	
	Frequency	**%**	**Frequency**	**%**
3-yr general degrees (*diplomatura*)/technical engineering	115	39%	4,993	40.9%
4-yr Bachelor/Engineering BsC.	30	10.2%	5,739	47%
Second cycle	150	50.8%	1,471	121%
Total	**295**	**100%**	**12,203***	**100%**

* Lack of information on 55 entries

In terms of university entry (see table 35), 84% of students at campus-based universities entered via customary channels (higher secondary school certificate or *batxillerat*, and vocational training), whereas only 22% of students at the UOC entered this way. On the other hand, 61% at the UOC already had a previous degree, whereas the corresponding figure at campus-based universities was only 3%.

Table 35. Level of studies on entry to the UOC compared to other universities

	UOC		Campus-based university students	
	Frequency	**%**	**Frequency**	**%**
Batxillerat/higher secondary school certificate, FP/vocational training, COU/university preparatory course, etc.	65	22.03%	7,775	84.28%
Unfinished studies	43	14.58%	1,053	11.42%
Diplomatura/general degree, honours degree	179	60.68%	306	3.32%
Over 25	8	2.71%	90	0.98%
Total	**295**	**100%**	**9,224***	**100%**

* Lack of information on form of entry in 3,034 entries out of the total sample (12,258)

It should be pointed out that, of the graduates who already held a formal qualification on entry to the UOC, 79% had a general degree (*diplomatura*), a figure which is coherent with the fact that, out of the 14 degree programmes that form part of this survey, seven (7) are second cycle degrees. For this group, the UOC could be a means of gaining promotion at work, especially if their work is in the public sector.

Only 5% of graduates at the UOC were full-time students. From the available data, it is difficult to assess, for the remaining 95%, the degree to which the UOC has led to an improvement in terms of labour market outcomes.

69% were already working in a job related to the UOC course they were taking two years prior to completing their studies.

Table 36. Combination of studies and work at the UOC compared to other universities

	UOC		Campus-based university students	
	Frequency	**%**	**Frequency**	**%**
Full-time studies or the occasional job	14	4.8%	4,932	40.7%
Studies and part-time related work	13	4.4%	2,750	22.7%
Studies and part-time non-related work	6	2.0%	1,756	14.5%
Studies and full-time related work	203	69%	1,828	15.2%
Studies and full-time non-related work	58	19.7%	839	6.9%
Total	**294**	**100%**	**12,105**	**100%**

In summary, the fact that students at the UOC are actively involved in the labour market during their studies (95%), are taking second cycle studies (51%) and already have a previous degree (61%), means that the labour market outcomes are not comparable with those at campus-based universities. In addition, it is difficult to assess the degree to which the UOC has resulted in added value in terms of labour market outcomes.

Student views on added value

Graduates of the UOC considered that their studies helped them in terms of professional advancement in general (7.47 on a scale of 0 to 10). The aspect in which their education was most specifically useful was in the opportunities to change jobs, whereas the aspect that was least useful was that of increasing self-employment opportunities.

Table 37. Graduates' appraisal of the level to which university studies contributed to their professional advancement

	N	Mean on a scale of 1 to 7	Mean on a scale of 0 to 10
Opportunities for gaining access to the labour market	294	4.68	6.13
Job stability	294	4.54	5.90
Change of responsibilities at work	294	4.72	6.20
Opportunities to change company	294	4.95	6.58
Opportunities for self-employment	294	4.34	5.57
Improvement to salary	294	4.55	5.92
Professional improvement in general	294	5.48	7.47

Job situation and contract

98% of those surveyed at the UOC were employed (bear in mind that 95% already had a job in the last two years of their studies).

Table 38. Employed, unemployed and non-working

	2008
Employed	98.0%
Unemployed	0.7%
Non-working	1.3%

80% of graduates at the UOC had permanent contracts. There were no differences according to whether graduates already had a previous qualification or not.

Table 39. Distribution according to type of contract.

	Frequency	%
Permanent	236	80.3%
Self-employed	31	10.5%
Temporary	26	8.8%
Internship	1	0.4%
Total	**294**	**100%**
Not applicable	1	
Total	**295**	

92.2% of graduates from the UOC were working full-time.

Public and private sector

62.6% of graduates from the UOC were working in the private sector. This figure is higher for the group without a previous degree when starting at the UOC (84%) than those with a previous degree (49%).

This would suggest that, for the group with a previous degree and working for the Administration, a degree from the UOC is a means of professional promotion (rising from category *B* to category *A*, through a second cycle whereby a Bachelor-equivalent qualification can be obtained).

Table 40. Public and private recruitment according to disciple

Level of studies	N	Sector		Total
		Public	Private	
(Dipl.) /4-yr. Bachelor /3-yr Ind. Eng. and 4-6 yr. Ind. Eng.	179	51.4% (92)	48.6% (87)	100%
Other	115	15.7% (18)	84.3% (97)	100%
Total	**294**	**37.4% (110)**	**62.6% (184)**	**100%**

Education-job match

82% of graduates had a graduate-level job, ranging from 85% for graduates who already had a previous university degree to 77% whose UOC degree was their first.

18% of graduates from the UOC had a job specific to their UOC degree. This figure ranged from 23% for the group of graduates whose UOC degree was their first university degree to 16% for those who were already graduates.

Table 41. Education-job match according to the level of studies at the time of admission to the UOC

Level of studies	N	Specific UOC degree and a job specific to the degree **(highest match)**	University degree and a degree-specific job	University degree and a non-degree specific job	No university degree and a degree-specific job	No university degree and a non-degree specific job	Total
(Dipl.) /4-yr. Bachelor /3-yr Ind. Eng. and 4-6 yr. Ind. Eng.	179	15.6% (28)	62.6% (112)	10.1% (18)	6.7% (12)	5.0% (9)	100%
Others	115	23.5% (27)	18.3% (21)	2.6% (3)	34.7% (40)	20.9% (24)	100%
Total	**294**	**18.7% (55)**	**45.2% (133)**	**7.2% (21)**	**17.7% (52)**	**11.2% (33)**	**100%**

Annual income

Out of those that were full-time employed, only 6.5% were earning an annual gross salary of less than €15,000, 15.6% were earning between €15.000 and €24.000, and 78% were earning more than €24,000.

One should bear in mind that 95% of graduates were already working during their studies.

Table 42. Gross annual income of those employed full-time

	Frequency	%
Less than 9,000 euros	2	0.8%
Between 9,000 and 12,000 euros	9	3.4%
Between 12,000 and 15,000 euros	6	2.3%
Between 15,000 and 18,000 euros	11	4.2%
Between 18,000 and 24,000 euros	30	11.4%
Between 24,000 and 30,000 euros	57	21.6%
Between 30,000 and 40,000 euros	77	29.1%
Over 40,000 euros	72	27.2%
Total	**264**	**100%**

Satisfaction with the degree studied

87.3% would take the same degree again and 95.6% would repeat at the same university.

Table 43. Intention to repeat the same degree according to discipline

Discipline	N	Would you repeat the same degree?		Total
		No	Yes	
Humanities	14	7.1% (1)	92.9% (13)	100.0%
Social Sciences	225	12.9% (29)	87.1% (196)	100.0%
Engineering and Architecture	53	13.2% (7)	86.8% (46)	100.0%
Total	**292**	**12.7% (37)**	**87.3% (255)**	**100.0%**

Appraisal of university studies and their usefulness for graduate employment

Table 44. Appraisal of the level of technical and practical training

		Technical training	Practical training
Humanities	Mean	5.50	4.71
	N	14	14
	Stand. dev.	1.160	1.590
Social Sciences	Mean	5.40	4.82
	N	226	226
	Stand. dev.	1.076	1.371
Engineering and Architecture	Mean	5.59	5.20
	N	54	54
	Stand. dev.	0.880	1.035
Total	**Mean**	**5.44**	**4.89**
	N	**294**	**294**
	Stand. dev.	**1.046**	**1.331**

Appendix I. Survey specifications

Field-work carried out by: DYM, market research.

Population	Graduates completing their studies in 2004 (2003-2004 academic year). In the case of Medicine, due to a much longer period for graduates to enter the labour market, the graduation year used was the 2000-2001 academic year. No graduates were included from non-recognised (university-specific) programmes or affiliated institutions.
Sample	Calculations were made to obtain the necessary sample with a sampling error per degree and university no greater than 8%. In practice, this meant phoning all the population of degrees with few graduates (less than 40 graduates) and, for the other degree programmes, carrying out the interviews once the set sample was obtained. In the case of the Catalan Open University, the sample to be interviewed was set with an overall sampling error for each university of 5%.
Period	The survey was carried out between 16 January and 13 March 2008.
Time of phone calls	Between 10 am and 9 pm, plus one hour Saturday mornings.
Back office	All the codes for branch of economic activity were checked, using open code.
Average time	The average duration of each call was 15 minutes with graduates who were working; 16 minutes with graduates who were not working at the time of the interview, but who had worked after completing their studies; and 6 minutes with graduates who had not worked since graduating.
Type of calls	A total number of 132,519 telephone calls were made, with an average of four calls per interview. 55% of the interviews were made by regular/land line telephone (6,692) and 45% to mobile/cell phones (5,465). There were 101 interviews with people abroad.

Call-based entries: final result There were 23,023 entries in the initial database.

Total interviews	N	%
Interview complete	12,258	53.24
No more calls because quota complete	4,779	20.76
Telephone non-existent or incorrect	3,894	16.91
Postponed	986	4.28
Refused to take the survey	599	2.60
Exceeded the limit for the number of calls (no answer after 15 calls)	454	1.97
Interview cancelled	45	0.20
Postponed and no reply	8	0.03
Total	**23,023**	**100**

Appendix II. Degree programmes and the percentage of students who would repeat

List of degree programmes in order according to the percentage of graduates who would repeat the same programme if they had to start over again[13]

Degree programme	(f)	Percentage who would repeat the same degree	Percentage sampling error
Dipl.[14] Teacher - Pre-School (Infant)	336	95.24	3.23
Ll.[15] Dentistry	51	92.16	7.08
Dipl. Teacher – Physical Education	214	92.06	3.85
Ll. Medicine	273	91.21	4.43
Dipl. Teacher – Special Education	158	91.14	4.56
Eng.[16] Industrial Organisation	58	87.93	7.79
Dipl. Teacher – Foreign Languages	103	87.38	5.86
Arq.[17] Architecture	127	85.83	7.16
Arq. Tècn.[18] Technical Architecture	167	85.63	6.07
Eng. Tècn.[19] Industrial Technology (Mechanics)	142	85.21	5.42
Dipl. Teacher - Music Education	138	84.78	4.41
Ll. Mathematics	77	84.42	6.06
Eng. Tècn. Agricultural Technology (Horticulture, Fruiticulture and Gardening)	19	84.21	8.01
Dipl. Librarianship and Documentation	69	84.06	7.67
Ll. Pharmacy	135	83.70	6.53
Dipl. Nursing	293	83.62	3.84
Eng. Industrial Engineering	182	83.52	5.78
Dipl. Teacher – Primary Education	239	82.85	3.58
Ll. Catalan Philology	115	82.61	4.44
Dipl. Physiotherapy	131	82.44	5.05
Eng. Tècn. Industrial Engineering (Electricity	66	81.82	6.85
Ll. Geology	54	81.48	7.72
Eng. Civil Engineering	70	81.43	7.63
Ll. Humanities	83	80.72	6.50
Eng. Tècn. Technical Engineering – Public Works	64	79.69	7.26

[13] Thirty-two (32) degree programmes with a sampling error of more than 10% were eliminated from the list of programmes.

[14] *Diplomatura*, or 3-year programme.

[15] *Llicenciatura*, or 4-year programme.

[16] 4-year Engineering programme.

[17] 4-year Architecture programme.

[18] 3-year Architecture programme.

[19] 3-year Engineering programme.

Ll. Business Administration and Management	526	79.66	3.24
Dipl. Social Education	224	79.46	4.02
Eng. Forest Engineering	67	79.10	7.12
Ll. Philosophy	105	79.05	5.94
Ll. Social and Cultural Anthropology	89	78.65	5.86
Ll. Biochemistry	60	78.33	6.96
Ll. Law	478	76.57	3.43
Ll. Psychopedagogy	165	76.36	4.04
Eng. Agricultural Engineering	101	75.25	5.97
Ll. Documentation	60	75	7.08
Ll. Psychology	268	75	4.81
Ll. Economics	289	74.74	4.09
Ll. Biology	269	74.72	4.17
Dipl. Podiatry	42	73.81	7.82
Ll. English Philology	125	73.60	5.11
Ll. Journalism	139	73.38	6.35
Eng. Tècn. Telecommunications Technical Engineering (Electronic Systems)	52	73.08	7.33
Ll. Labour Sciences	104	73.08	4.86
Ll. Food Science and Technology	81	72.84	6.45
Ll. Sociology	103	72.82	5.98
Eng. Tècn. Telecommunications Engineering (Telematics)	36	72.22	9.12
Ll. History	252	72.22	4.26
Ll. Physics	77	71.43	6.40
Ll. Political Science and Administration	154	71.43	4.87
Ll. Environmental Science	107	71.03	4.79
Eng. Tècn. Computer Systems	158	70.89	4.42
Eng. Electronics	51	70.59	8.14
Dipl. Social Work	126	69.84	4.85
Eng. Computer Science	221	69.68	4.06
Ll. Spanish Philology	138	69.57	4.98
Dipl. Occupational Therapy	26	69.23	7.84
Dipl. Human Nutrition and Dietetics	38	68.42	6.70
Dipl. Business Management	666	68.32	2.85
Ll. French Philology	22	68.18	9.85
Ll. Fine Art	113	68.14	7.11
Eng. Tècn. Forest Engineering (Forest Resources)	42	66.67	8.18
Ll. Veterinary Science	75	65.33	7.53
Eng. Chemistry	133	64.66	5.07
Ll. Classics/Philology	14	64.29	9.56
Dipl. Optics and Optometry	84	64.29	6.61
Eng. Tècn. Industrial Technology (Industrial Electronics)	156	64.10	4.89
Ll. Geography	142	62.68	4.77
Ll. Chemistry	214	62.62	4.09
Ll. History of Art	135	62.22	5.30
Eng. Tècn. Computer Science and Administration	160	61.88	4.38
Dipl. Labour Relations	305	61.31	3.93
Eng. Tècn. Industrial Technology (Industrial	138	60.87	4.69

Chemistry)			
Ll. Pedagogy	170	60.00	4.87
Ll. Audio-visual Communication	101	59.41	5.97
Eng. Telecommunications	120	59.17	6.89
Dipl. Statistics	42	57.14	9.04
Ll. Translating and Interpreting	208	55.77	4.47
Eng. Tècn. Agricultural Technology (Food and Agro-Industries)	72	54.17	6.01
Dipl. Logopedics (Speech Therapy)	43	53.49	8.34
Eng. Tècn. Telecommunications (Electronic Systems)	79	49.37	6.48
Ll. Market Research and Techniques	33	48.48	8.40
Dipl. Public Management and Administration	81	40.74	6.00
Dipl. Tourism	56	39.29	6.76

Appendix III. Occupational Quality Index

The Occupational Quality Index was developed by a research group led by Dr. E. Corominas (2007).[20] It incorporates four of the most important aspects for defining the quality of employment: the type of contract, salary, education-job match and job satisfaction.

The Occupational Quality Index is defined as follows:

$$\text{Occupational Quality Index} = f\,[(C + R + A) * S] * 100$$

where *C* stands for the type of contract, *R* the salary, *A* the education-job match, and *S* job satisfaction.

The following table shows the results for this index according to each degree programme in Catalonia. 32 degree programmes with a sampling error of more than 10% were eliminated.

Degree programme	Mean	St. dev.	Percentage sampling error
Engineering: Industrial Organisation	79.73	11.38	7.79
Dentistry	76.26	12.12	7.08
Civil Engineering	75.17	12.56	7.63
Technical Architecture	74.02	13.61	6.07
Architecture	73.74	10.95	7.16
3 yr. degree Public Works	73.2	14.16	7.26
Industrial Engineering	72.76	14.43	5.78
Chemical Engineering	71.42	13.27	5.07
Geological Engineering	71.42	13.55	4.43
Optics i Optometry	70.84	10.07	6.61
Podiatry	70.42	11.27	7.82
Engineering: Computer Science	70.17	16.63	4.06
Electronics Engineering	70.1	12.97	8.14
Industrial Technology (Mechanics)	69.79	14.25	5.42
Teacher – Foreign Languages	69.7	13.48	5.86
Pharmacy	69.59	11.62	6.53
Teacher – Primary Education	69.42	12.02	3.58
Business Administration and Management	69.13	15.82	3.24
Telecommunications Engineering	69.04	15.02	6.89
Industrial Technology (Electricity)	68.86	13.62	6.85
Forests	68.25	12.03	7.12
Computer Systems Technology	67.99	15.84	4.42
Telecommunications Technology (Telematics)	67.82	10.86	9.12

[20] E. Corominas et al. “El mercat laboral qualificat i la qualitat de l’ocupació”. A: A. Serra Ramoneda (ed.). *Educació superior i treball a Catalunya: Anàlisi dels factors d’inserció laboral*. Barcelona: AQU Catalunya, 2007 (pp. 95-153).

Economics	67.68	16.53	4.09
Labour Science	67.67	18.61	4.86
Teacher – Pre-School Education	66.52	13.01	3.23
Law	66.45	16.48	3.43
Psychopedagogy	66.38	14.25	4.04
Industrial Technology (Electronics)	66.34	16.21	4.89
Computer Science and Administration	65.9	15.73	4.38
Market Research and Techniques	65.86	17.45	8.4
Agricultural Engineering	65.23	17.18	5.97
Telecommunications Technology (Electronic Systems)	65.06	15.65	6.48
Telecommunications Technology (Telecommunications Systems)	64.89	16.53	7.33
Social and Cultural Anthropology	63.54	17.98	5.86
Teacher - Special Education	63.48	13.63	4.56
Nursing	63.45	14.14	3.84
Teacher - Music Education	63.43	14.66	4.41
Documentation	63.33	18.35	7.08
Business Studies	63.32	18.05	2.85
Teacher - Physical Education	63.27	13.89	3.85
Agricultural Technology (Horticulture, Fruiticulture and Gardening)	63.14	16.01	8.01
Chemistry	63.03	16.22	4.09
Biochemistry	62.69	12.57	6.96
Mathematics	62.49	15.28	6.06
Statistics	62.29	14.76	9.04
Agricultural Technology (Food and Agro-Industries)	61.74	15.01	6.01
Geology	61.46	18.25	7.72
Food Science and Technology	61.29	16.63	6.45
Physiotherapy	60.75	14.39	5.05
Industrial Technology (Industrial Chemistry)	60.73	19.56	4.69
Translating and Interpreting	60.46	17.98	6.06
Occupational Therapy	60.32	16.49	7.84
Labour Relations	60.21	19.21	3.93
Pedagogy	60.07	17.53	4.87
Journalism	59.81	16.42	6.35
Veterinary Science	59.26	13.7	7.53
Social Education	58.68	14.6	4.02
Environmental Science	58.47	16.91	4.79
French Philology	58.33	17.96	9.85
English Philology	58.17	18.18	5.11
Translating and Interpreting (English)	58.12	21.02	8.69
Physics	57.97	17.7	6.4
Social Work	57.96	16.91	4.85
Political Science	57.63	20.57	4.87
Biology	56.7	18.19	4.17
Humanities	56.61	19.89	6.5

Catalan Philology	56.39	14.12	4.44
Public Management and Administration	56.07	19.67	6
Human Nutrition and Dietetics	55.9	19.13	6.7
Logopedics	55.58	19.79	8.34
Agricultural Technology (Forest Resources)	55.36	21.29	8.18
Psychology	55.27	16.56	4.81
Classical Philology	54.51	13.77	9.56
Spanish Philology	54.17	19.51	4.98
Sociology	53.91	19.11	5.98
Librarianship and Documentation	53.62	17.8	7.67
Audio-visual Communication	52.44	19.9	5.97
Tourism	52.07	18.26	6.76
Geography	50.06	20.01	4.77
Fine Art	47.45	20.26	7.11
History	46.71	20.63	4.26
Philosophy	45.93	22.58	5.94
History of Art	45.17	20.95	5.3