



#EMPLOYABILITY

# 2020

## ACCESS TO THE LABOUR MARKET FOR GRADUATES OF CATALAN UNIVERSITIES







**2020**

**ACCESS TO THE LABOUR  
MARKET FOR GRADUATES OF  
CATALAN UNIVERSITIES**

**BARCELONA, 2021**

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## INTRODUCTION

The aim of this study on access to the labour market is to provide data and insights on the employability of Catalan university Bachelor's degree graduates, in order to encourage reflection and make improvements to the study programmes run by Catalan universities.

This ambitious project – in its 7th edition in 2020 – is possible thanks to the engagement of the social councils of the Catalan public universities and other private universities. They view this study as a distinguishing trait, one that fosters their continuous improvement and brings them closer into line with the needs of society.

**The survey asks graduates about factors related to their employment** (whether they are employed or unemployed, what sector they work in, what title they hold), **the quality of their employment** (job fit, contractual stability, earnings, etc.) **and their satisfaction with the education they received** (the skills they acquired, their willingness to take the same study programme again, etc.).

More than 100,000 records have been produced over all seven editions of the study, meaning that **Catalonia has one of the largest, most comprehensive and representative databases in Europe**. In this edition, over 46% of the target population (graduates from the 2015/2016 academic year, except for those graduating in Medicine, who are from the 2012/2013 academic year) responded to the survey. This academic year still includes pre-EHEA degrees, although they account for only 9% of the total number of graduates in the system.

Summing up the content of this report, we may draw the following primary conclusions:

- > Employment rates and working conditions are improving in all areas of knowledge, but they are still not reaching the levels they were at before the 2008 crisis. It remains to be seen, however, what effect the current COVID-19 pandemic will have in the coming years.
- > The education-job fit is also improving; there is a significant increase in the number of people in high-skill jobs.
- > Income is increasing: more graduates are in the bracket of more than €2,000 per month and are the highest in the period analysed.
- > Working abroad, mainly in Europe, is a growing trend, although it is still a minority option, with only around 5% of graduates pursuing it.
- > University improves graduates' preparedness for the job market. The gap between the level of skills training and its level of usefulness has narrowed since 2017.
- > Today's universities improve graduate's employability. And, for the first time, practical training is no longer seen as deficient in university education.
- > Graduates' level of satisfaction with the education they received is remarkable, although it varies from one area of knowledge to another. The main reason for dissatisfaction is the lack of desired job opportunities.

This report is rounded out with invaluable data taken from the UNEIX Catalan university information system, which is coordinated by the Government of Catalonia's Secretariat for

## Access to the labour market for graduates of Catalan universities

Universities and Research, and with data from the Spanish National Statistics Institute, in order to offer points of comparison for our findings.

Your interest is greatly appreciated.

Martí Casadesús Fa, director of AQU Catalunya



## Nota 1

The findings presented in this report do not account for the impact of COVID-19 on the Spanish labour market. Rather, it outlines trends in terms of graduates' employment and satisfaction with the education they received on their study programmes.



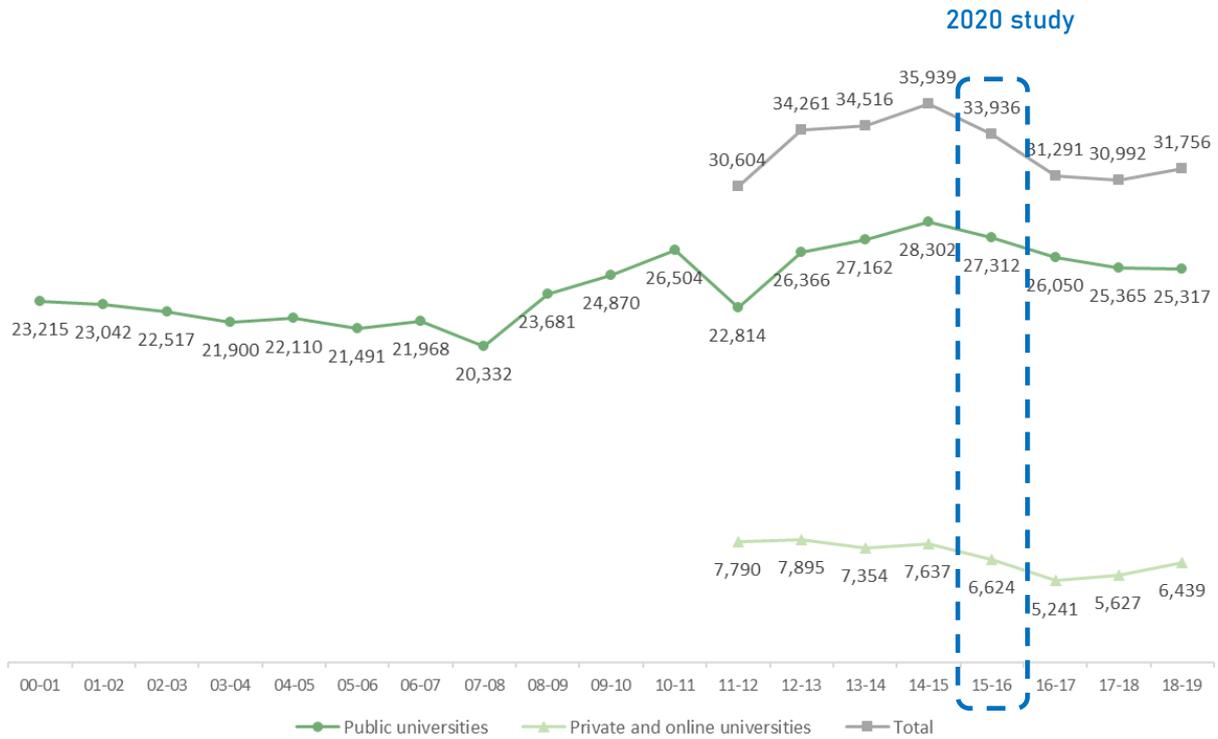
## Nota 2

The access to the labour market survey targets Catalan university graduates between three and four years after they complete their Bachelor's degree, in order to gather information on their employment situation once they are more settled in the labour market. For this reason, the target population for the current study are graduates from the 2015/2016 academic year (except for those who graduated in Medicine, who are from 2012/2013).

## POPULATION DATA ON CATALONIA

### > Trend in the graduate population in Catalonia

Figure 1. Trend in the graduate population, broken down by university type<sup>1</sup>



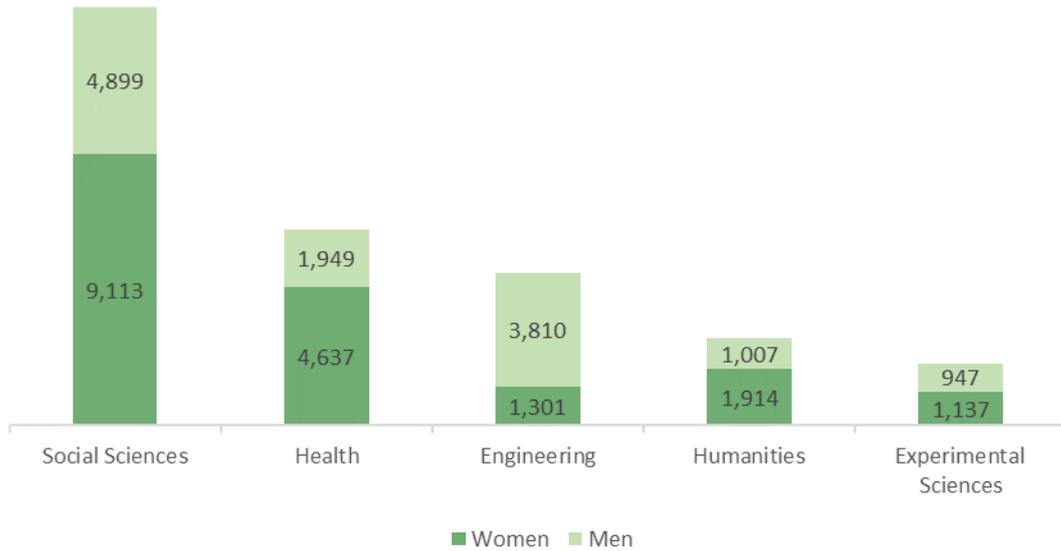
The drop in the number of individuals graduating from the Catalan university system has halted thanks to an increase in private university and online university graduates.

- > Approximately 8 out of 10 graduate from public universities, but the total number has stagnated at the 2017 level.

<sup>1</sup> UNEIX, which is the source of these figures, has collected comprehensive data from private universities and the online university since the 2010/2011 academic year. The affiliated centres are considered part of the university to which they are affiliated.

## > Graduate population, areas of knowledge and the Catalan university system

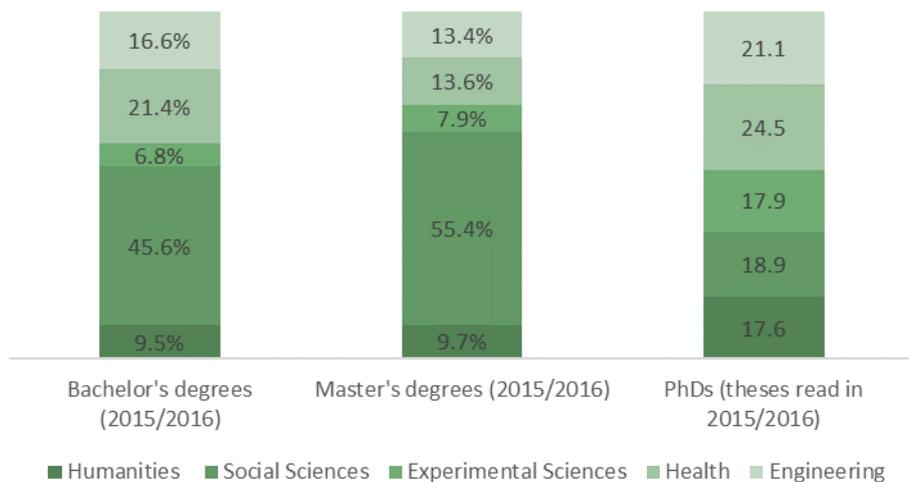
Figure 2. Graduate population by field of knowledge and sex



### Approximately 6 out of 10 graduates are women

- > Experimental Sciences and Humanities are the areas with the lowest number of graduates overall.

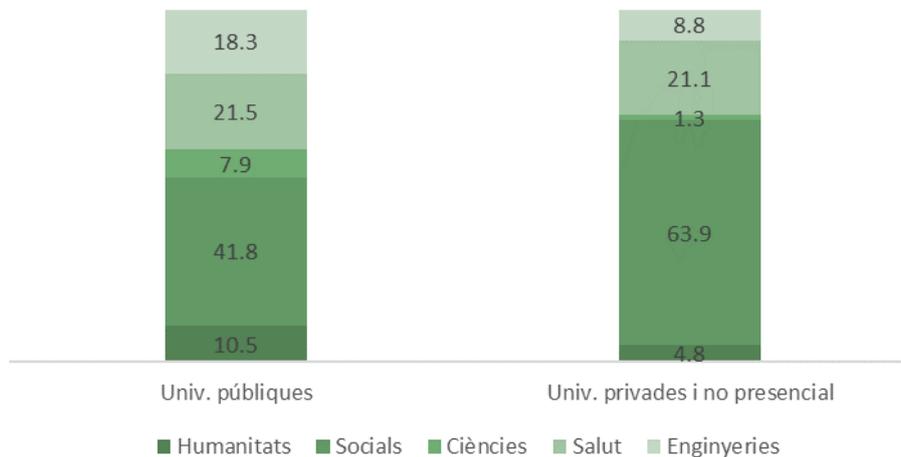
Figure 3. Population distribution by field of knowledge and education level



**Social Sciences is the field with the most Bachelor's and Master's degree graduates, but the same cannot be said for PhDs**

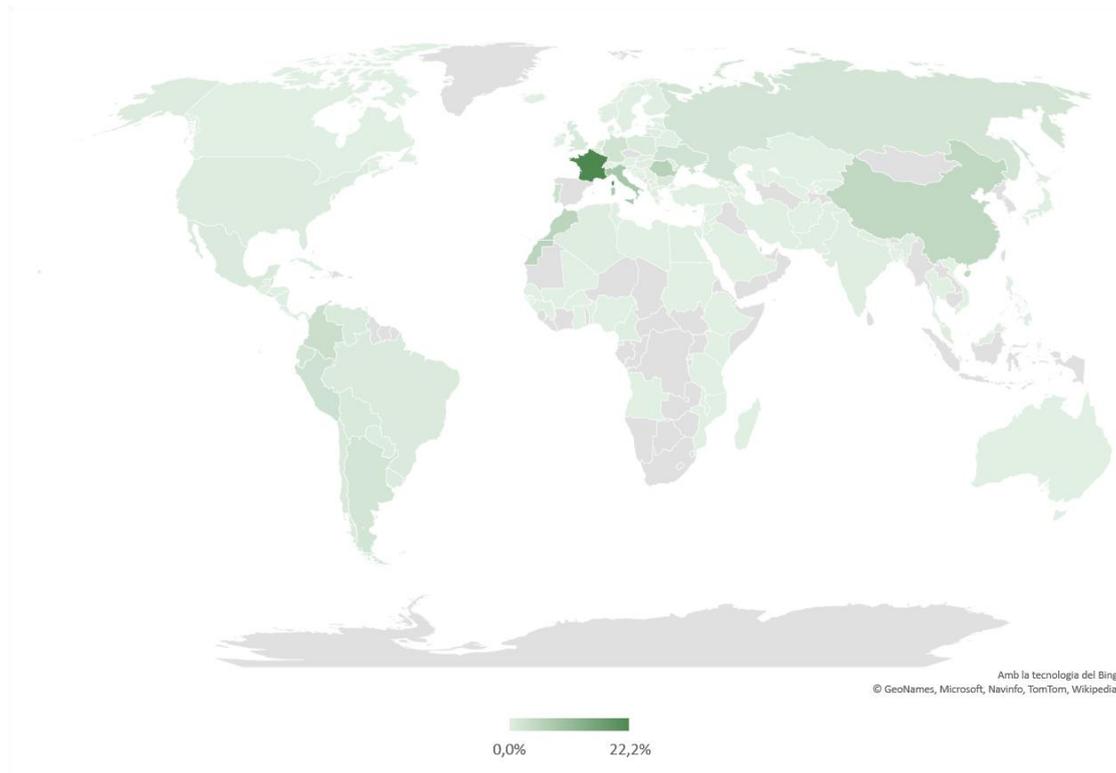
- > The population distribution by field of knowledge varies radically according to education level, especially with respect to PhDs. On the one hand, Master's degree and Bachelor's degree programmes display a similar distribution, although Social Sciences more greatly outweighs the other fields in the former (55% vs. 46%). On the other hand, PhD programmes display a much more homogeneous distribution: Social Sciences now accounts for 19% of all PhD graduates; meanwhile Health and Engineering show greater representation here than in the Bachelor's and Master's degrees, standing at 25% and 21%, respectively.

Figure 4. Graduate population by field of knowledge and university type



**Private universities have a greater percentage of graduates in the fields of Social Sciences and Health**

Figure 5. Foreign graduate population by country



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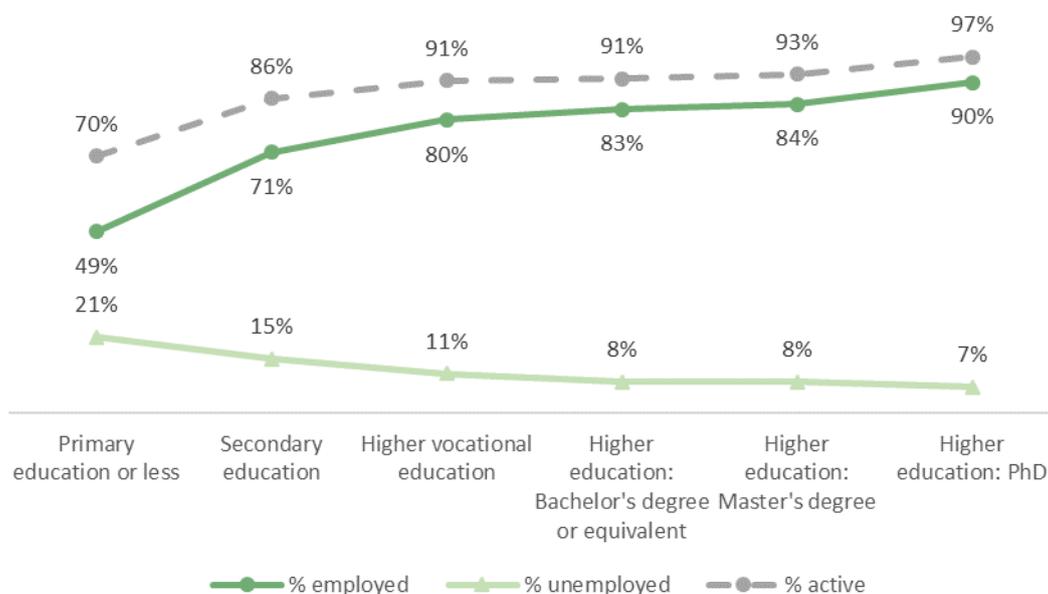
### The population of foreign graduates remains at 4.5%

- > Among these, 22% come from France, 8.6% from Andorra and 8.5% from Italy. The remainder come from more than 100 different countries.

## SURVEY ON THE ACTIVE POPULATION IN SPAIN<sup>2</sup>

### > Access to the labour market according to education level

Figure 6. Percentage of the population that is employed or unemployed<sup>3</sup> according to education level (people aged 25 to 44 years – labour force survey, 1st quarter 2020)



### The higher the education level, the higher the employment

- > Having completed higher levels of (professional or university) education clearly enhances employment and employability, and also protects against unemployment.
- > According to the OECD, Spain is among the OECD countries where the percentage gap amongst the employed population<sup>4</sup>, when broken down by education level, is below average; i.e. the advantage provided by higher education in the Spanish labour market is lower than in other countries. Specifically, the employment gap between the highest and lowest educational attainment in Spain is 24 percentage points (pp), while the average stands at 27 pp for the OECD as a whole (OECD, 2019).

<sup>2</sup> Source: Spanish National Statistics Institute (INE). These results do not account for the effect of COVID-19 on the Spanish labour market, given that the interviews in the first quarter of the study were conducted in the first 13 weeks of the year.

<sup>3</sup> Each indicator is calculated with regard to the overall population in each education level.

<sup>4</sup> For the population aged 25 to 64 in 2018.

## > Trend in employment and unemployment rates

Figure 7. Trend in the employment rate according to education level (people aged 25 to 44 years – labour force survey, 1st quarter 2020)

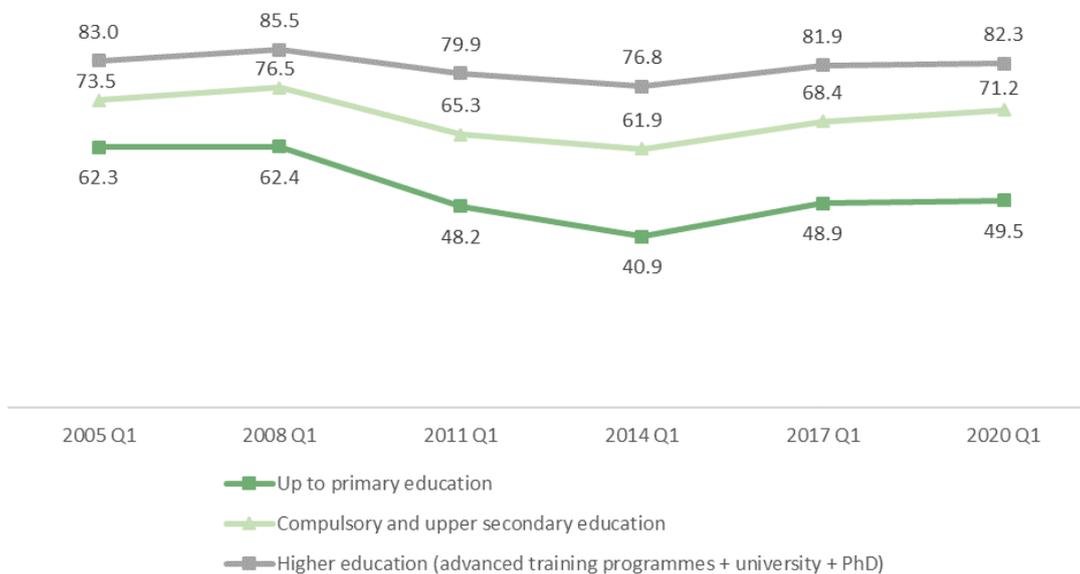
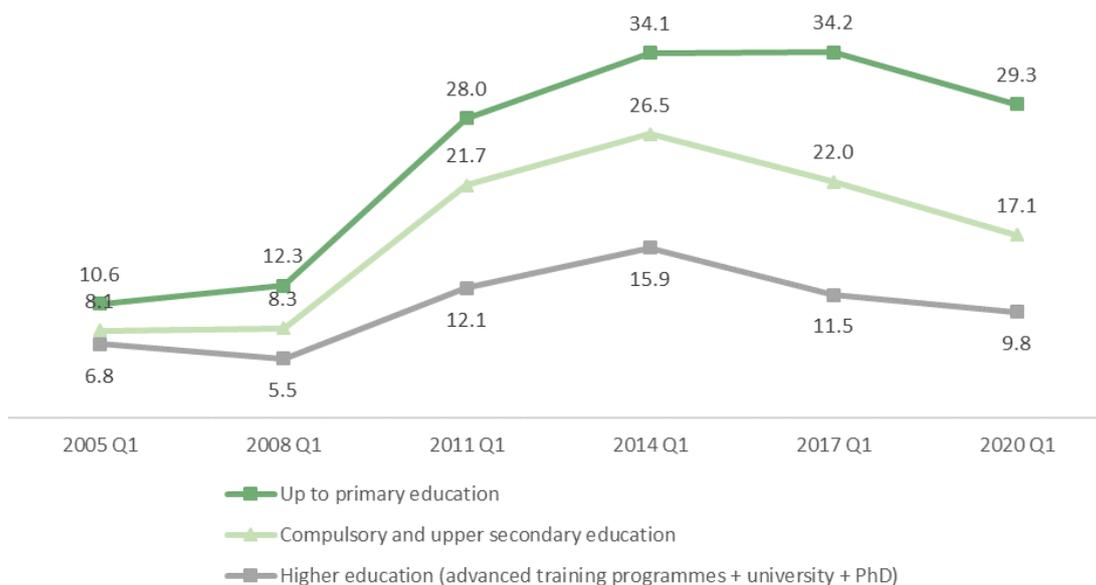


Figure 8. Trend in the unemployment rate<sup>5</sup> according to education level (people aged 25 to 44 years – labour force survey, 1st quarter 2020)



<sup>5</sup> Unemployment rate measured by the unemployed population as a proportion of the active population.

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The unemployment rate has improved significantly at all levels of education; the employment rate has also increased, albeit more modestly

- > The employment rate of people with higher education stands at 82.3% (0.4 pp higher than in 2017), while the unemployment rate is 9.8% (1.7 pp lower than in 2017).

## SURVEY ON ACCESS TO THE LABOUR MARKET THREE YEARS AFTER GRADUATION<sup>6</sup>

### > Employment

Figure 9. Trend in graduates' employment situation<sup>7</sup>

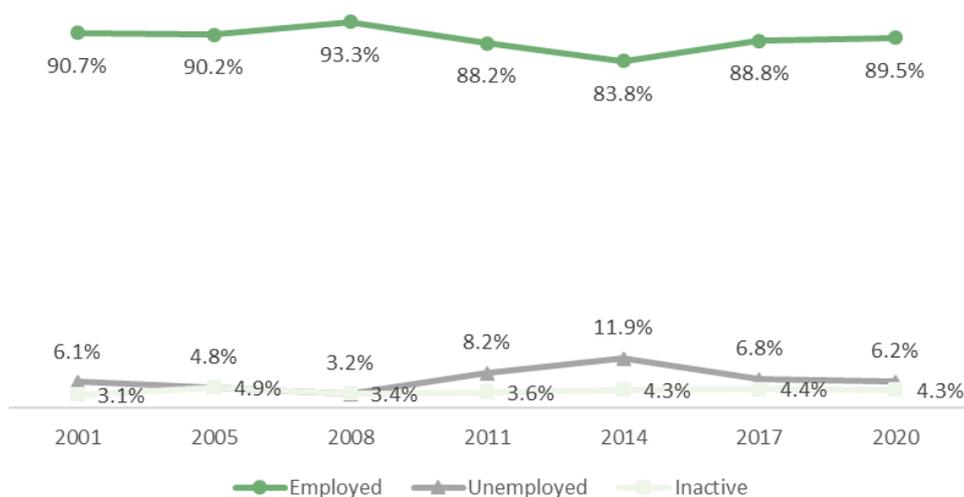


Table 1. Employment trend, broken down by field of knowledge (2008-2020)

	2008	2011	2014	2017	2020	Diff. 2020-2008	Diff. 2020-2014
<b>Humanities</b>	88.4%	81.0%	73.1%	81.6%	81.7%	-6.8 pp	+8.5 pp
<b>Social Sciences</b>	93.5%	89.5%	85.1%	89.5%	89.1%	-4.4 pp	+4 pp
<b>Experimental Sciences</b>	90.5%	86.3%	78.9%	84.3%	85.5%	-5.0 pp	+6.6 pp
<b>Health</b>	95.4%	90.3%	84.9%	88.5%	91.3%	-4.1 pp	+6.4 pp
<b>Engineering</b>	95.1%	88.0%	86.3%	92.9%	93.2%	-1.9 pp	+6.9 pp
<b>Total</b>	<b>93.3%</b>	<b>88.2%</b>	<b>83.8%</b>	<b>88.8%</b>	<b>89.5%</b>	<b>-3.8 pp</b>	<b>+5.6 pp</b>

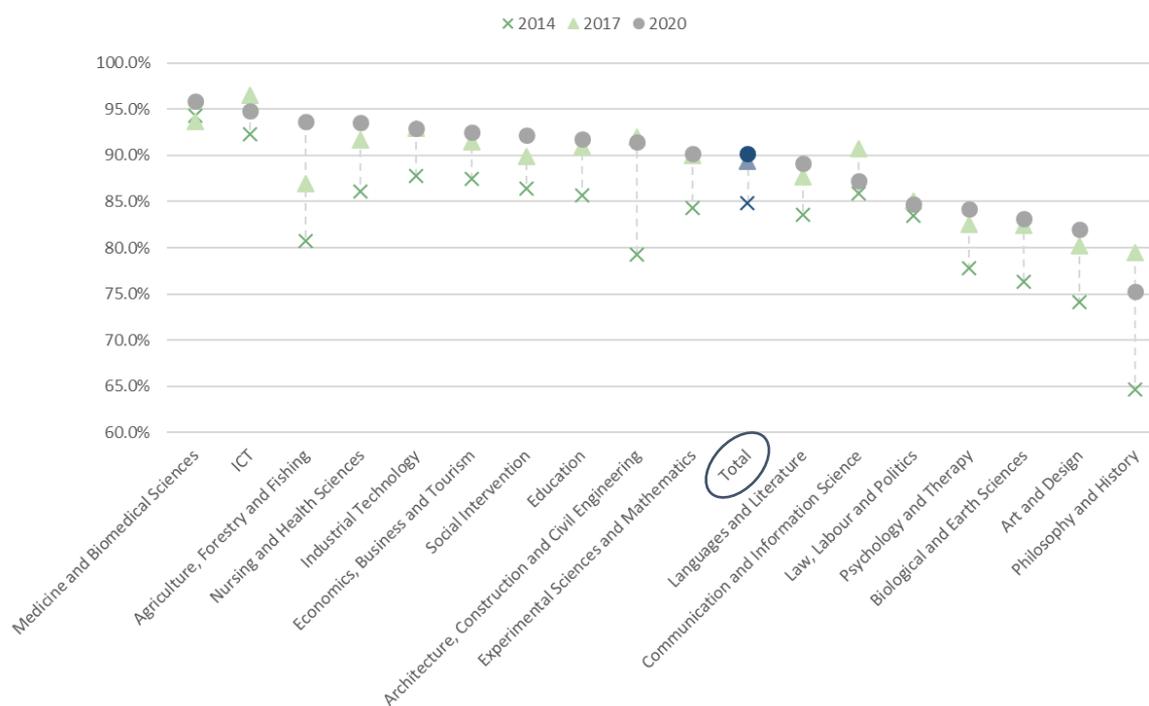
<sup>6</sup> Private universities were incorporated into the study on access to the labour market in 2011. As a result, all figures and tables showing trends with an edition prior to 2011 will only display information on the public university system. Contrarily, all figures and tables from 2020 and those showing trends between 2011 and 2020 will include data on the public and private university system.

<sup>7</sup> These results and those shown below do not account for the effect of COVID-19 on the Spanish labour market, as the fieldwork involved asking respondents about their employment situation in February 2020, just before the pandemic outbreak.

The employment rate among graduates continues on the rise and is currently only 4 pp away from the 2008 rate, despite increasing less from 2017 to 2020 than from 2014 to 2017

- > The increase in employment compared to the lowest point recorded in 2014 is higher in Humanities (8.5 pp) and Engineering (6.9 pp).
- > Although the employment levels prior to the economic crisis beginning in 2008 have not yet been reached, Engineering and Health have displayed the fastest recovery.

Figure 10. Employment trend, broken down by extended subfield (2014-2020)



Almost all subfields have experienced a rise in employment since 2014, although the rate of increase has slowed since 2017

- > Employment has only gone down since 2017 in five subfields, most notably Philosophy and History, and Communication and Information Studies.
- > Agriculture, Forestry and Fishery is, by far, the subfield exhibiting the most significant improvement in employment since 2017, reaching 93.7%.

## > Unemployment details

Figure 11. Importance of reasons for not finding work (out of 10)

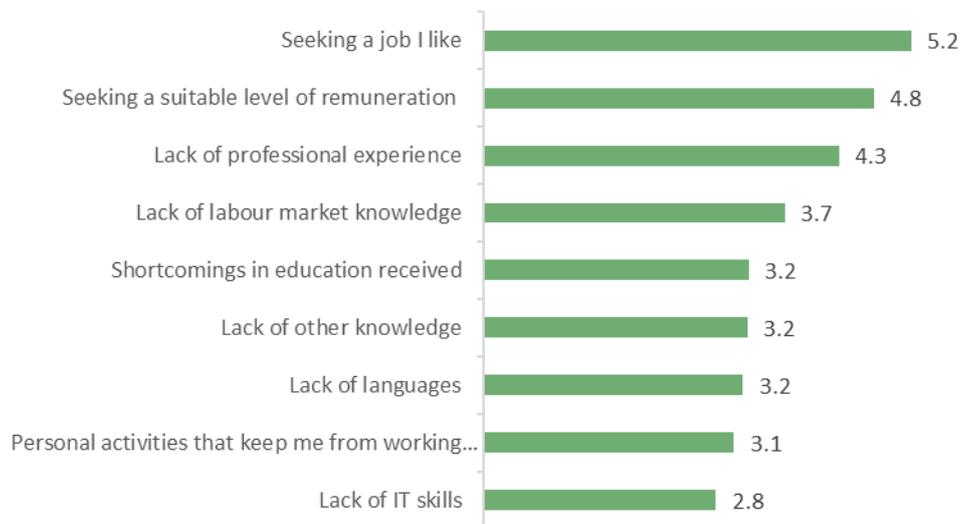
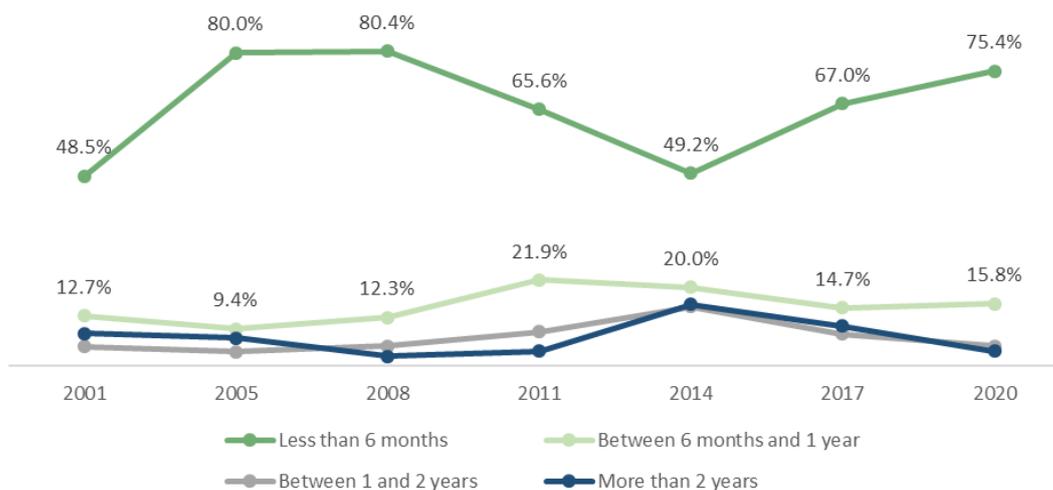


Figure 12. Time that graduates have been looking for work



### Long-term unemployment continues to fall, reaching percentage values below 4%

- > Between seven and eight graduates out of ten find work within six months.
- > As their main reasons for not finding work, the 6% of unemployed people point to not landing a job they like, not being offered an adequate salary and lacking professional experience.

## > Employment sector

Figure 13. Employment trend the public sector



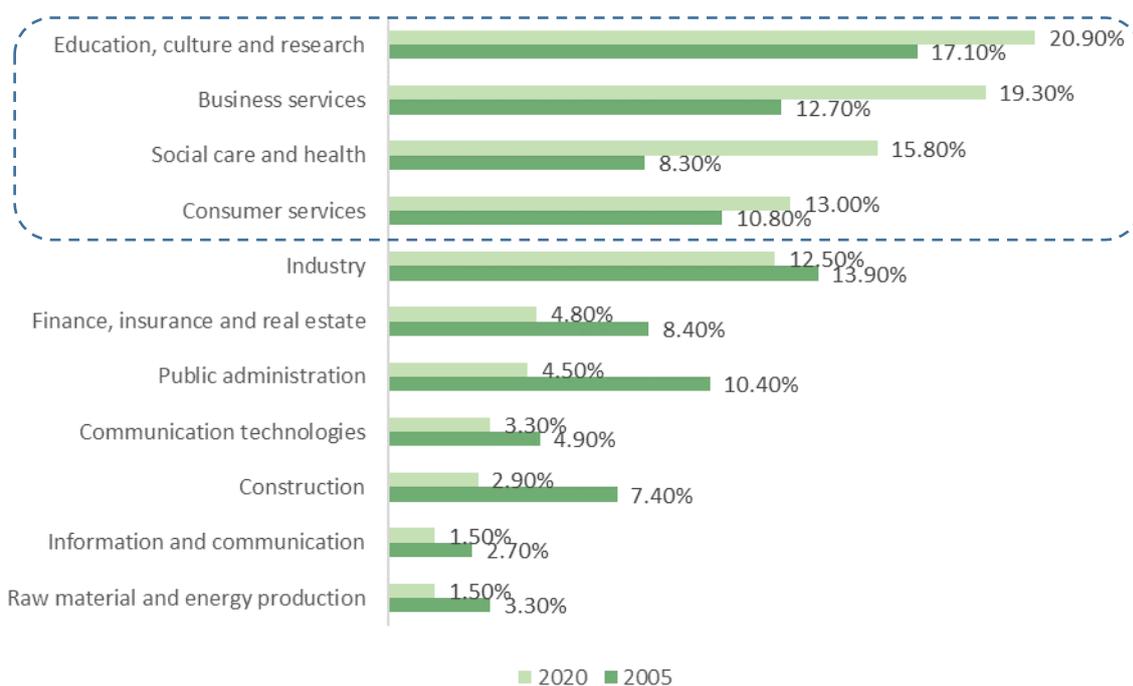
Table 2. The six subfields displaying the steepest employment growth in the public sector (2017-2020)

	2017	2020	Difference
Language and Literature	27.7%	37.1%	+9.4%
Social Intervention	27.5%	31.9%	+4.4%
Experimental Sciences and Mathematics	29.2%	33.0%	+3.8%
Art and Design	6.9%	10.3%	+3.4%
Economics, Business and Tourism	6.5%	9.6%	+3.1%
Law, Labour and Politics	20.3%	23.4%	+3.1%

### Slight increase in employment in the public sector, marking a growing trend since 2014

- > This increase in the percentage of people employed in the public sector (reaching almost 26%) is due to the increase in absolute numbers of employees in this sector; meanwhile, the number of employees in the private sector remains steady.
- > Employment in the public sector has experienced a rise in most subfields, reaching a maximum increase of almost 10% in Languages and Literatures.

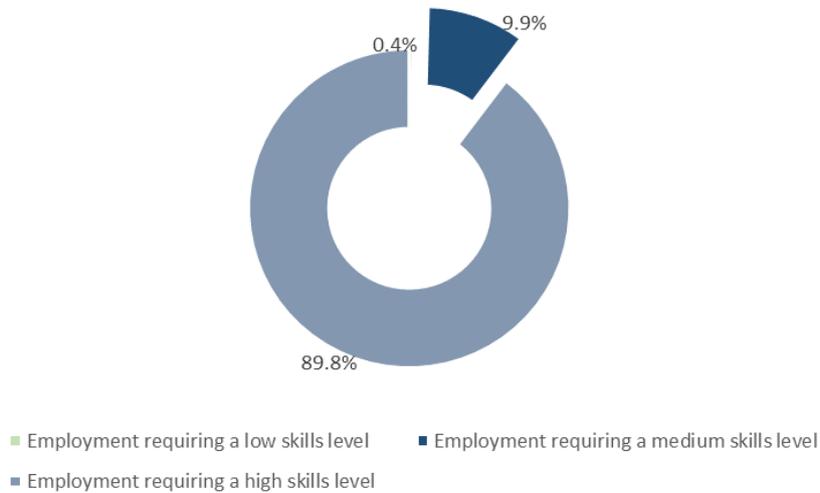
Figure 14. Trend in employment branches (2005-2020)



Education, culture and research; business services; social care and health; and consumer services are the only branches showing growth over the 2005-2020 period

- > The remaining branches have dwindled, occupying about 5 pp less in certain cases, such as construction and public administration.

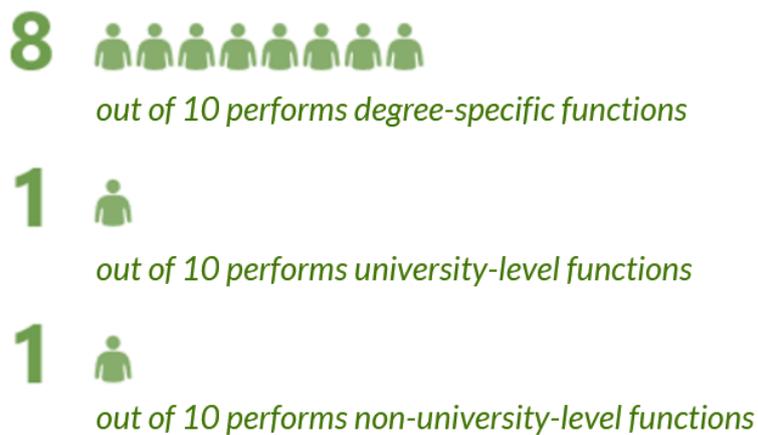
Figure 15. Level of skills linked to employment according to the National Employment Classification (CNO-11) <sup>8</sup>



Approximately nine out of ten graduates are employed in jobs requiring a high skills level. There is an increase of almost 13 pp compared to 2017

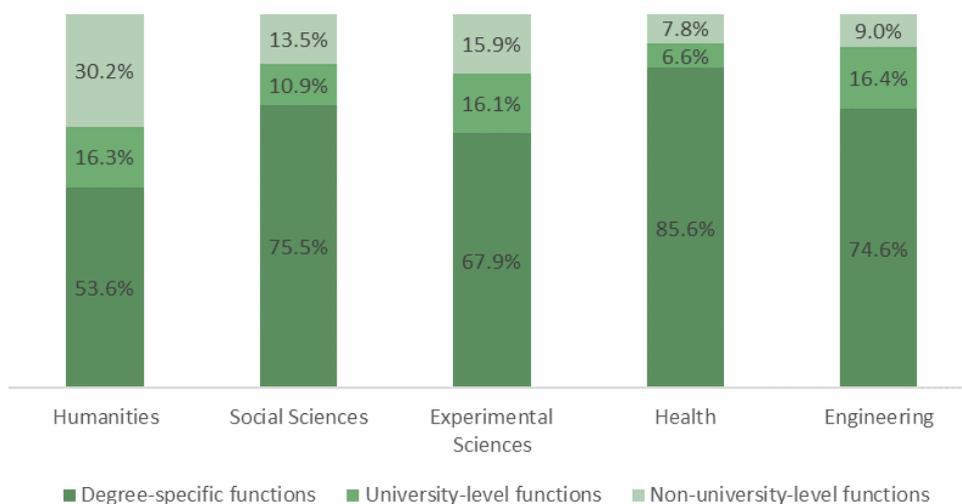
## > Job suitability

Figure 16. Suitability of functions at work in 2020



<sup>8</sup> Employment groups 1 to 3 in the CNO-11 are in the employment category involving a high skills level; the groups from 4 to 8 call for a medium skills level; and lastly, group 9 comprises the employment category requiring a low skills level.

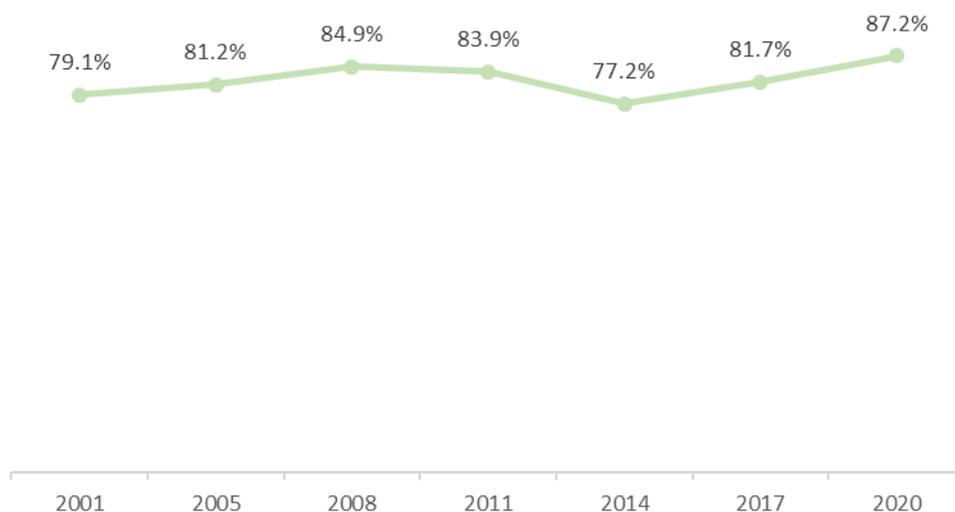
Figure 17. Suitability of functions at work according to educational field in 2020



Approximately nine out of ten graduates carry out university-level functions

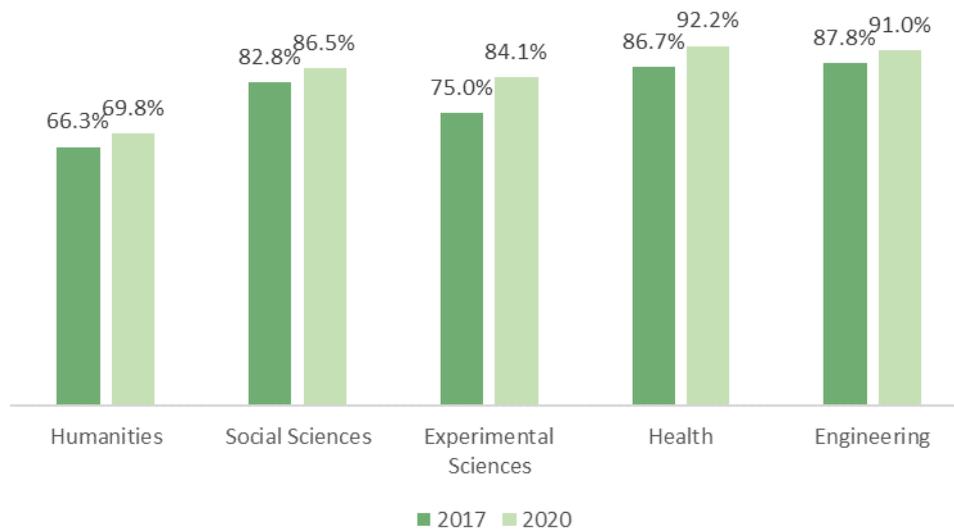
- > Roughly eight out of ten perform functions specific to the study programme they completed, with figures highest in the field of Health, followed by Social Sciences and Engineering.
- > In the fields of Health and Engineering there are fewer people performing non-university-level functions at work, while in Humanities this figure is nearly a third.

Figure 18. Trend in the percentage of employed people performing university-level functions<sup>9</sup>



<sup>9</sup>Methodological note: in order to make the comparison with editions prior to 2017 possible, the old-model variable 'Functions performed in the workplace' is taken as a reference; for descriptions from 2017 onwards, the revised variable of the new model is used.

Figure 19. Trend in the percentage of graduates performing university-level functions, broken down by field of knowledge

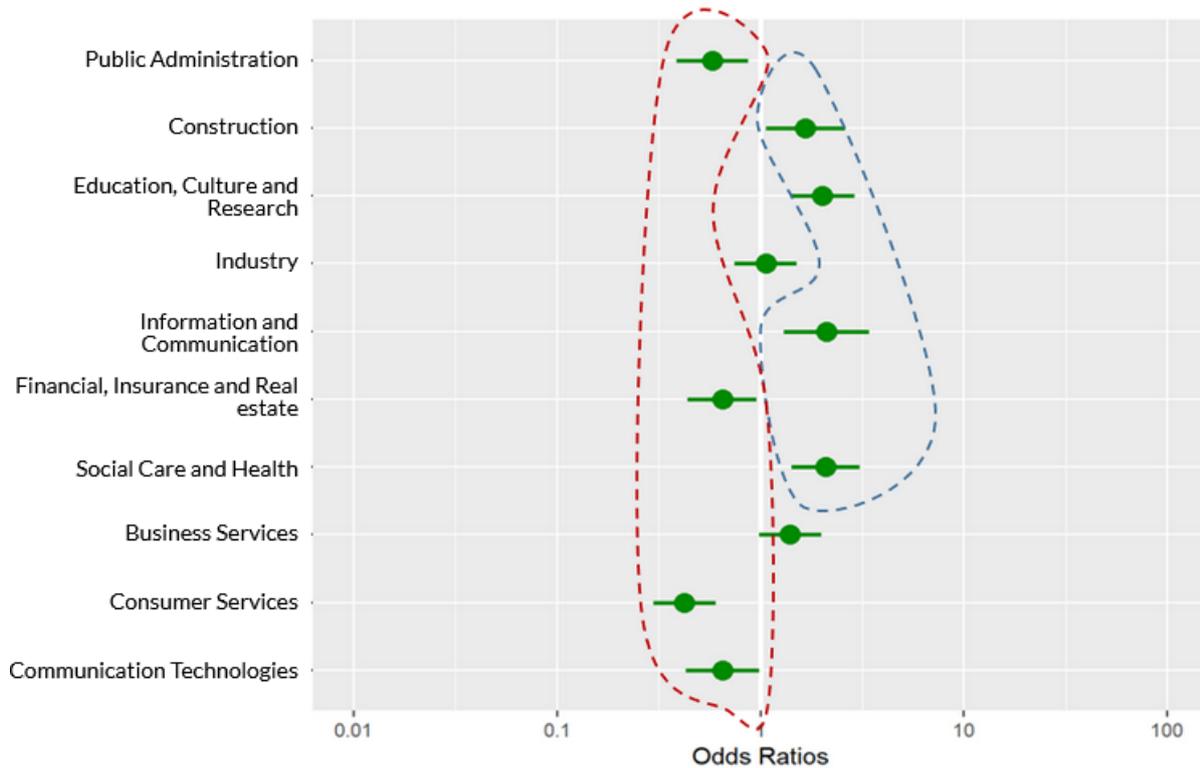


**The percentage of employed people performing university-level functions has reached heights not before seen in the period of analysis**

- > Indeed, nearly nine out of ten perform university-level functions.
- > This increase occurs in all areas, ranging from 3 to 4 pp in Engineering, Humanities and Social Sciences, and from 5 to 9 pp in all others.

## > Economic branches with the highest levels of graduates performing degree-specific functions

Figure 20. Economic branches with the highest levels of graduates performing degree-specific functions at work (2020)<sup>10</sup>



--- Economic branches in which graduates have a higher likelihood of performing degree-specific functions, taking raw materials and energy production as a reference category.

--- Economic branches in which graduates have a lower likelihood of performing degree-specific functions, taking raw materials and energy production as a reference category.

<sup>10</sup> Results of the multilevel model estimate for all employed graduates, controlling by sex, age, company sector (public/private) and detailed subfield. Being older and working in the private sector significantly reduces the likelihood of performing degree-specific functions. Dichotomous dependent variable: performing degree-specific functions. The whole model explains 25% of the variability of the responses.

## WORKING CONDITIONS

### > Job stability

Figure 21. Trend in contract types

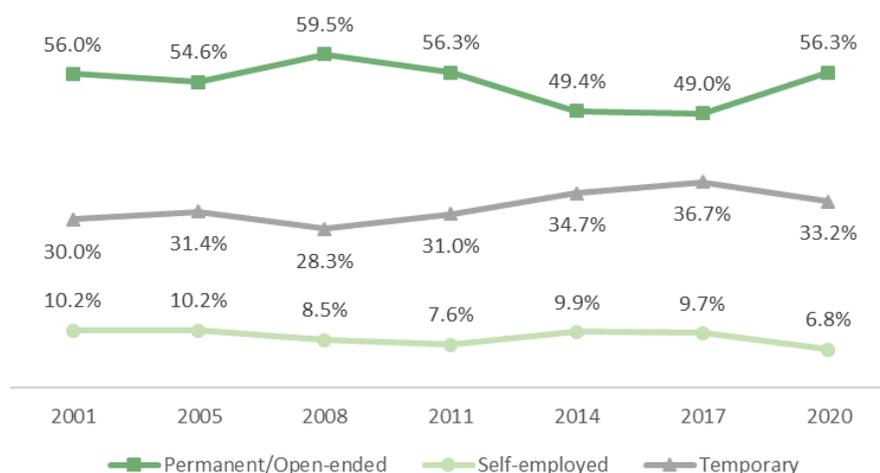


Table 3. Contract type according to educational field in 2020

	Permanent/Open-ended	Temporary	Self-employed	Intern	No written contract
Humanities	46.1%	40.1%	9.3%	3.7%	0.8%
Social Sciences	58.3%	33.7%	5.5%	2.1%	0.5%
Experimental Sciences	46.4%	39.3%	2.4%	11.4%	0.4%
Health	42.5%	41.8%	12.8%	2.2%	0.7%
Engineering	71.0%	16.3%	10.3%	2.1%	0.3%
<b>Total</b>	<b>56.2%</b>	<b>32.3%</b>	<b>8.1%</b>	<b>2.9%</b>	<b>0.5%</b>

### Job stability is up and short-term contracts are down

- > The current percentage of open-ended contracts falls short of the highest peak in this regard, in 2008, by only 3 pp.
- > Just over half the graduates have a permanent contract three years after completing their studies.
- > Over half the contracts in Engineering and Social Sciences are permanent (71 and 58.3%, respectively). In the remaining fields, this figure ranges from 42 to 47%.
- > There seem to be more self-employed individuals in Health, Engineering and Humanities, in that order; meanwhile, interns are concentrated in Experimental Sciences (11.4%) as fundamental human capital in research.

## > Full-time or part-time contract

Figure 22. Trend in graduates working full time

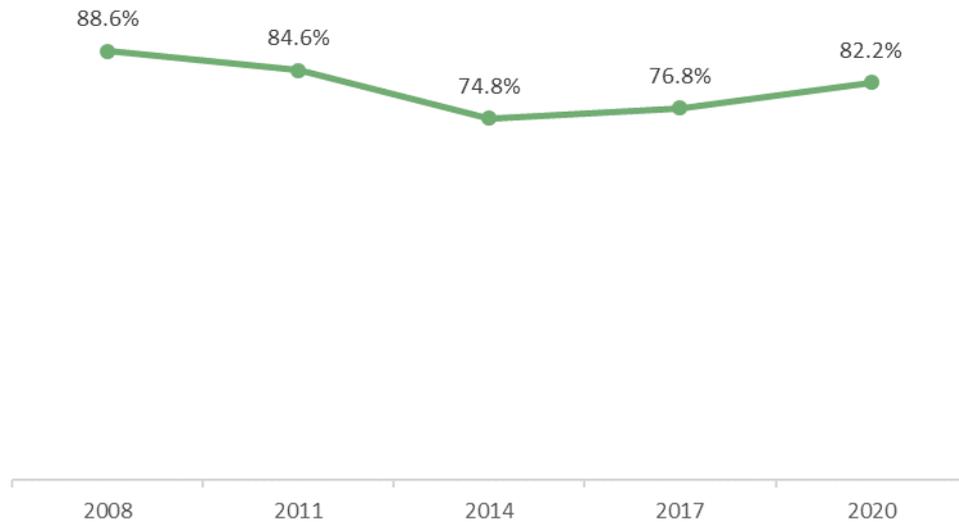


Figure 23. Percentage of graduates working full time, broken down by area of knowledge (2020)

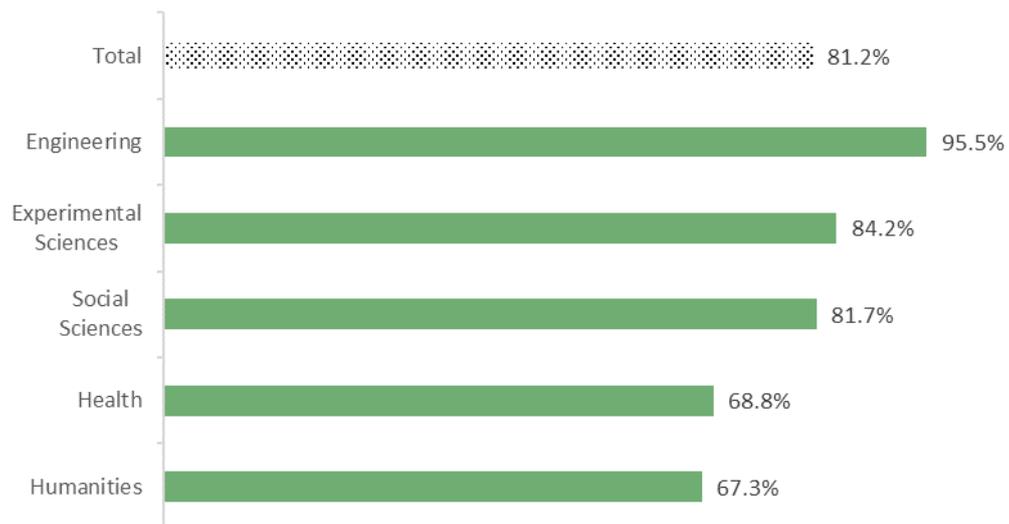
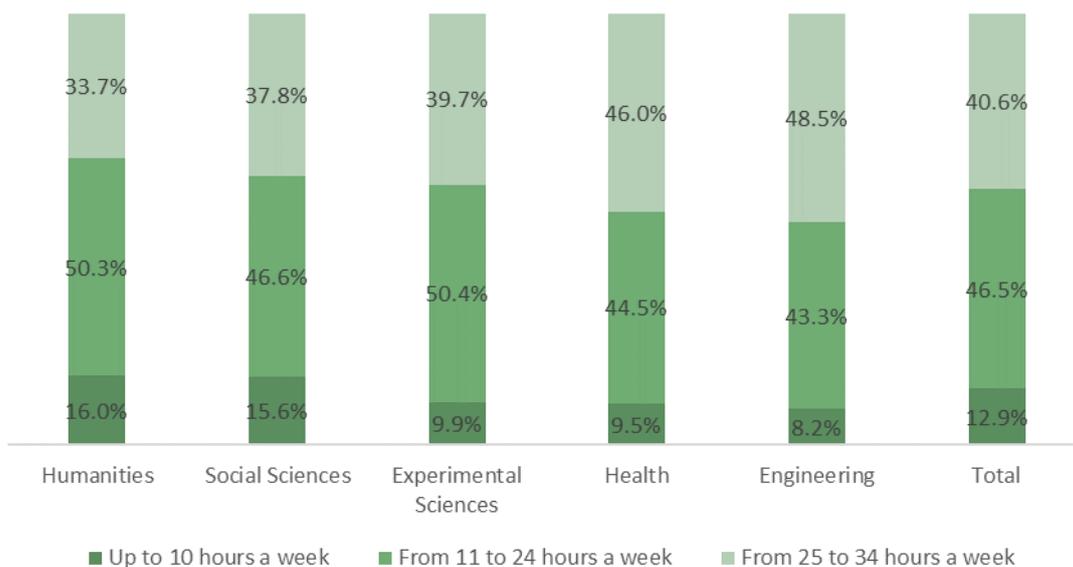


Figure 24. Percentage of graduates working part time, broken down by number of hours and area of knowledge



### Roughly eight out of ten recent graduates work full time

- > Bouncing back from the crisis-driven nosedive beginning in 2008, full-time employment is now undergoing an upward trend.
- > Despite differences in full-time employment from one area of knowledge to the next, the range has narrowed, with the highest proportion in Engineering (95.5%) and the lowest in Humanities (67.3%).
- > As for graduates working part time, the percent ranges for contracts of 11 to 24 hours a week and for those of 25 to 34 a week are lower, especially due to the upsurge in contracts of the latter type.

## > Salary

Figure 25. Trend in the gross monthly salary of full-time employees

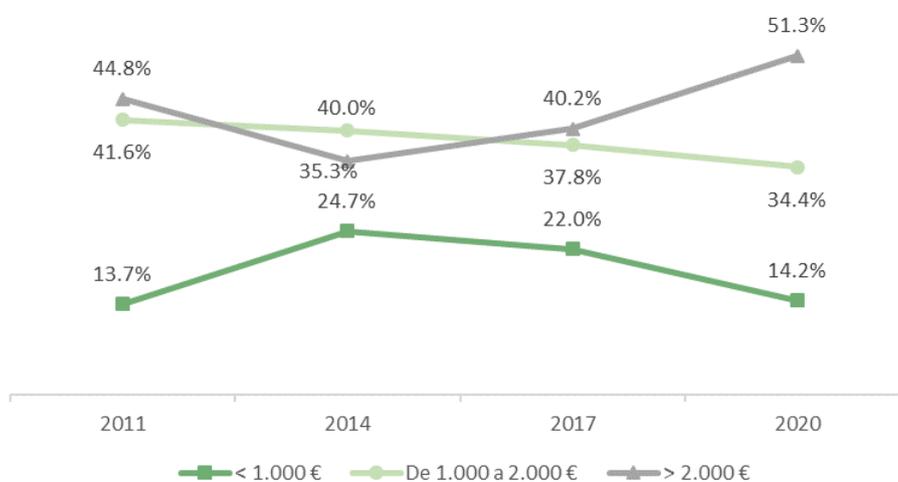
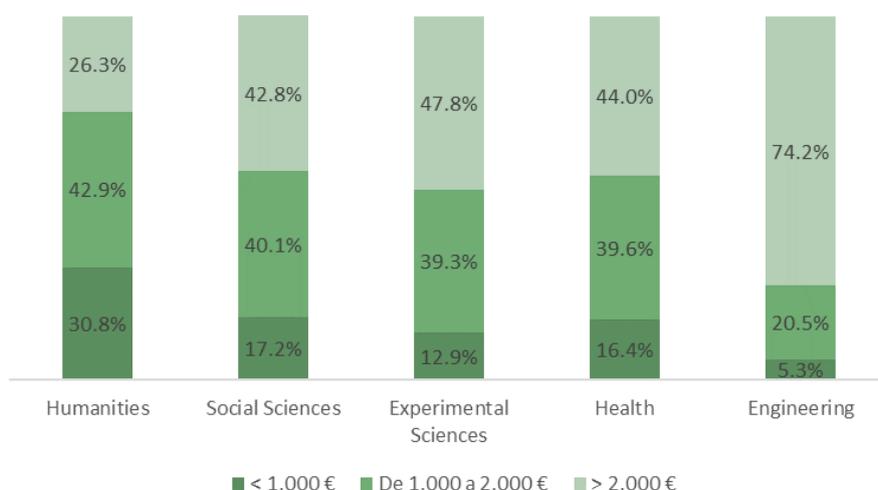


Figure 26. Gross monthly salary of full-time employees, broken down by field of knowledge (2020)



### Full-time graduates enjoy higher salaries

- > The percentage of graduates working full time and earning a salary of over €2,000 is up by 10 pp. The figures for 2020 are the highest within the entire period of analysis.
- > Engineering continues to outperform the other fields in terms of pay, with three out of four people enjoying a gross monthly salary of over €2,000; trailing behind are Experimental Sciences, Health and Social Sciences, where this percentage ranges from 43 to 48%.
- > In the field of Humanities, 30% earn less than €1,000 per month, and only one in four fall into the over €2,000 bracket.

## > Job satisfaction

Figure 27. Job satisfaction in 2020 (out of 10)



Figure 28. Job satisfaction in 2020, broken down by field of knowledge (out of 10)

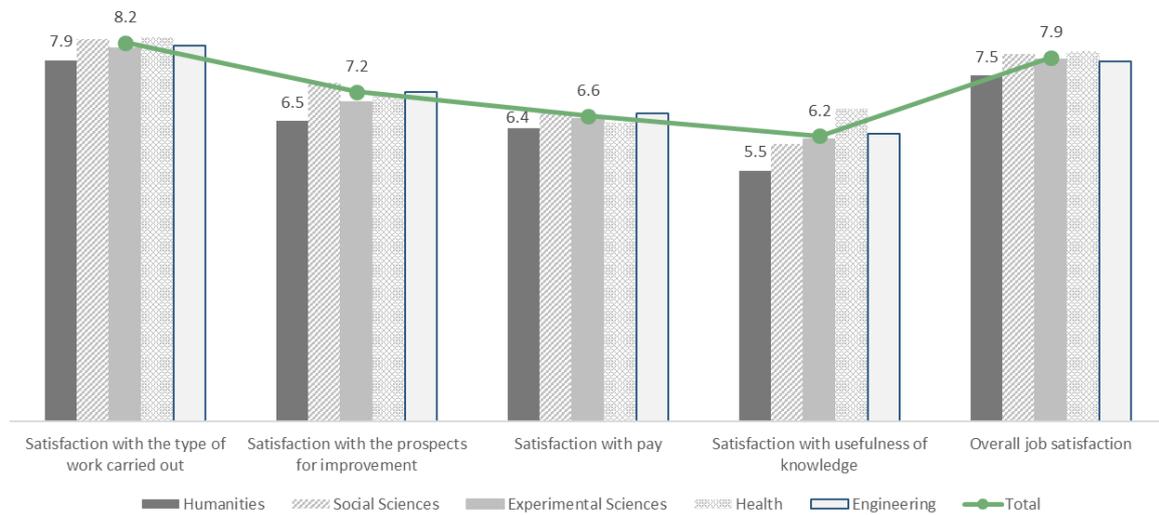
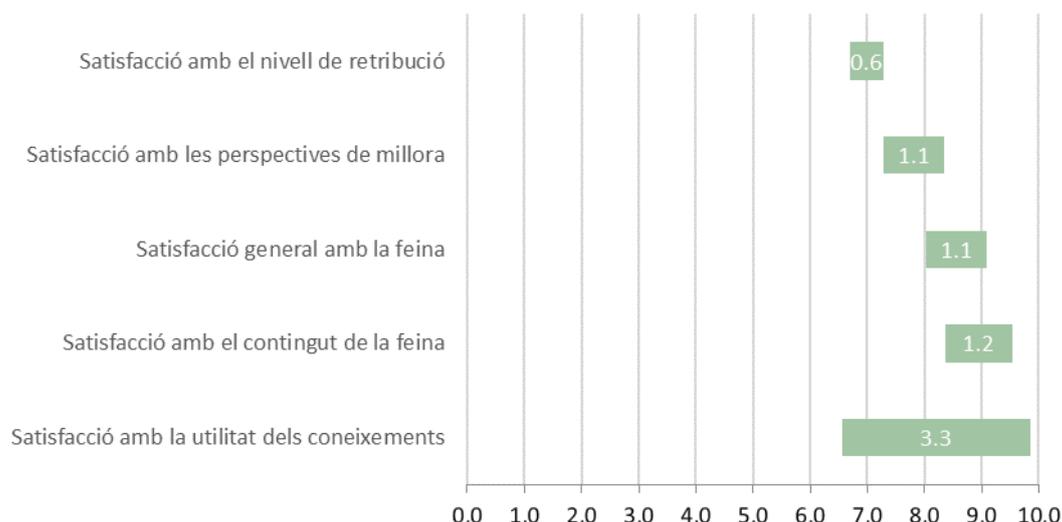


Figure 29. Increase in job satisfaction when performing university-level functions compared to those who do not (out of 10)



### Overall job satisfaction is noteworthy (7.9)

- > The highest rate of satisfaction goes to the type of work carried out, standing at 8.2.
- > Graduates in the field of Humanities display a substantially lower rate of job satisfaction than in other fields in all the items under analysis, except for the level of pay, which, despite being lower, does not present a great distance. Overall satisfaction in Humanities is 7.5, while the highest figure, at 8.0, belongs to Health.
- > Satisfaction is substantially higher among graduates with jobs that fit their level of education (i.e. they perform university-level functions). This holds true for all the items, most especially usefulness of knowledge. And, in this case, the field of Humanities moves up, presenting a level of satisfaction very similar to other fields. In other words, despite the fact that employment is lower among Humanities graduates, for those who do land a job performing university-level functions, satisfaction is on a par with other areas.

## > Occupational quality index (OQI)<sup>11</sup>

Figure 30. OQI by field of knowledge in 2020 (maximum and minimum detailed subfield in each field)

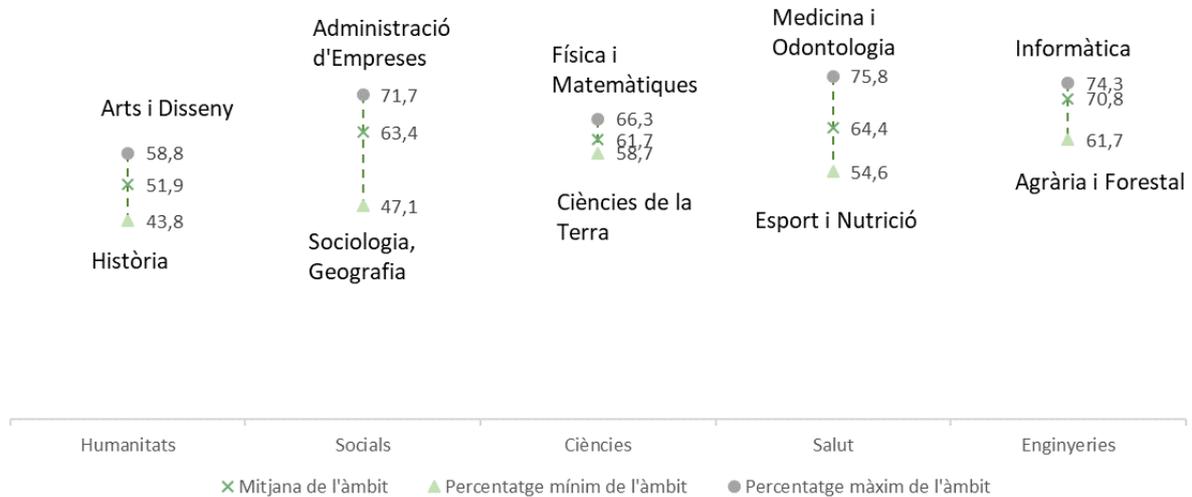
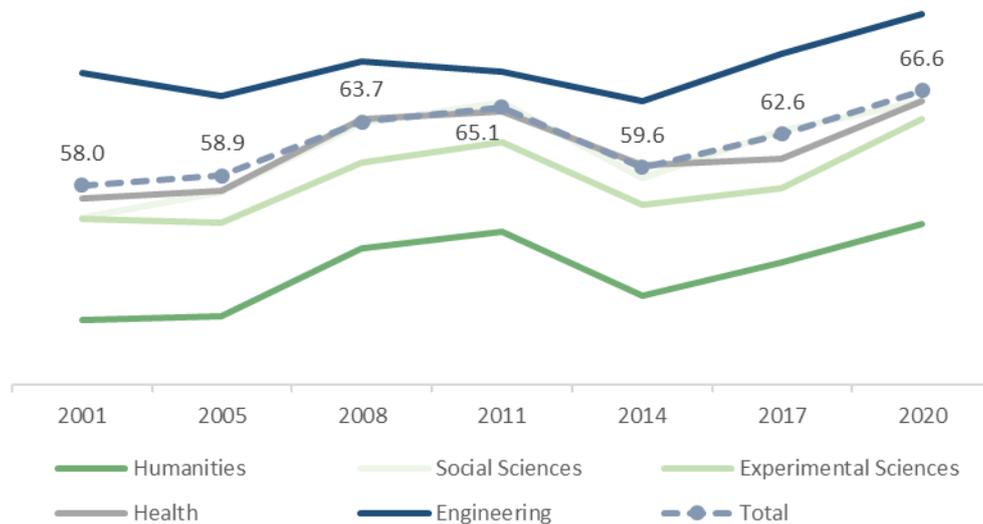


Figure 31. Trend in the OQI, broken down by field of knowledge



<sup>11</sup> The occupational quality index (OQI) is based on different indicators: contract, job satisfaction, salary and suitability. The value range is from 0 to 100; the higher the rating, the better the occupational quality experienced. For further details, refer to Corominas et al. (2012).

---

### Occupational quality continues to improve

- > The OQI indicator is up by between 3 and 4 pp from 2017 in all fields.
- > Looking at each detailed subfield, the minimum and maximum OQI is up in all fields. Social Sciences and Health display wider internal differences, while in other areas the dispersion between subfields is much lower.
- > The maximum and minimum figures for 2020 are the highest within the entire period of analysis.

## THE JOB SEEKING PROCESS

### > Time taken to access the labour market

Figure 32. Time taken to find the first job in 2020



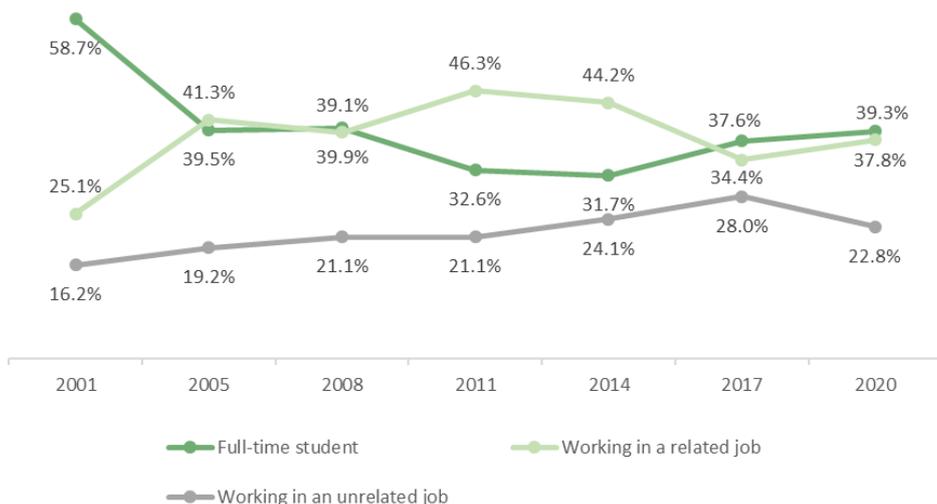
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Seven out of ten graduates join the workforce within three months of obtaining their qualification

> Only one in ten takes more than a year to find work.

## > Trend in combining study and work

Figure 33. Trend in student profile when it comes to combining study and work



Slight increase in the percentage of full-time students, which just barely exceeds that of graduates who combine study with a related job.

- > Graduates who combine study with unrelated jobs account for the main percentage drop in this regard.

## > Pathway to work

Figure 34. Main pathways to work

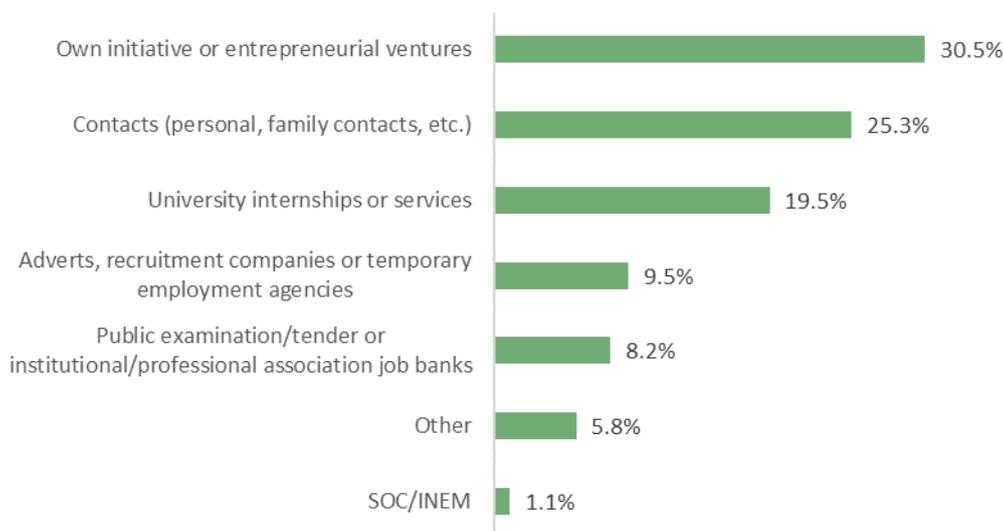
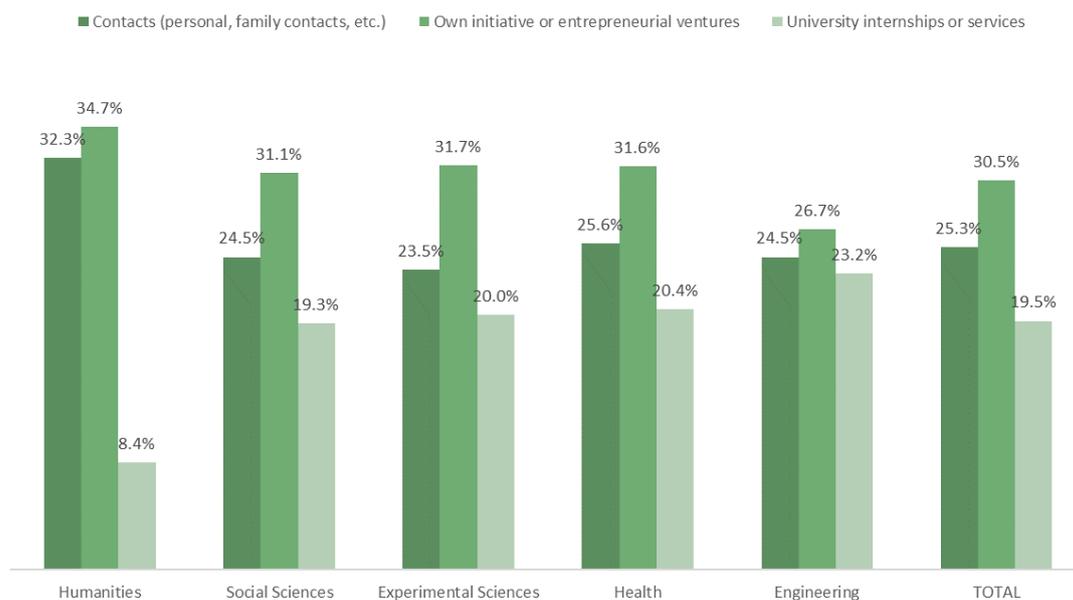


Figure 35. The three most important pathways to work, broken down by field of knowledge



### After graduation, students' main pathways to work are sending out CVs on their own initiative and personal contacts

- > University training placements or services also play a relevant role: one in five graduates follow this route to find work.
- > However, there are slight differences between areas of knowledge: while university training placements or services are significantly relevant in Engineering, personal contacts and initiative take their place in Humanities.

## MOBILITY

### > Location of recent graduates' jobs

Figure 36. Job location (2020)

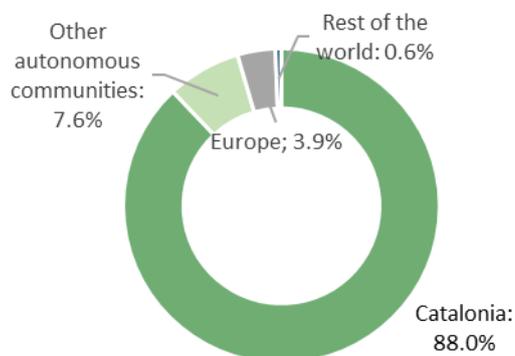


Figure 37. Trend in the percentage of graduates working abroad

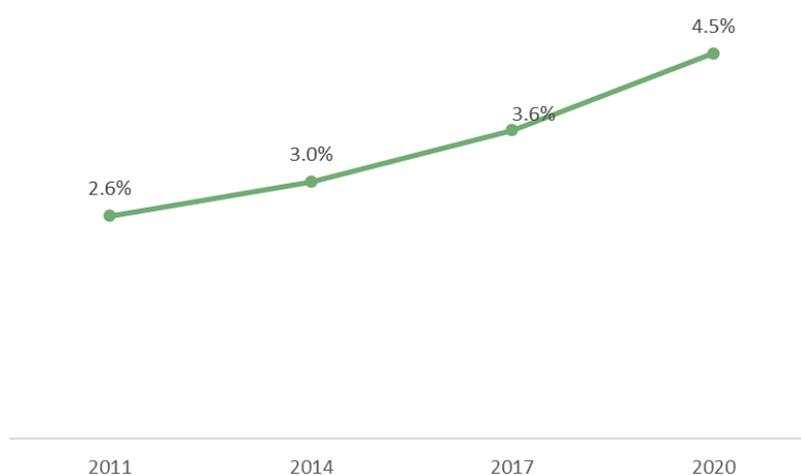


Table 4. Trend in the percentage of graduates working abroad, broken down by field of knowledge

	2011	2014	2017	2020	Diff. 2020-2011
<b>Humanities</b>	5.2%	5.1%	4.9%	3.4%	-1.8 pp
<b>Social Sciences</b>	2.1%	1.9%	2.5%	3.4%	+1.3 pp
<b>Experimental Sciences</b>	2.0%	3.9%	5.2%	8.5%	+6.5 pp
<b>Health</b>	1.8%	2.4%	3.3%	4.8%	+3.0 pp
<b>Engineering</b>	3.2%	4.8%	4.9%	5.3%	+2.1 pp
<b>Total</b>	2.6%	3.0%	3.6%	4.5%	+1.9 pp

Figure 38. Destination continent of graduates going to work abroad (2020)



**Slight increase of graduates deciding to work abroad compared to 2017, although it remains a minority option**

- > Emigration has risen most in the field of Experimental Sciences, although it is also up in the other fields as well, except Humanities, where it has decreased significantly (from 5.2% in 2011 to 3.4% in 2020).
- > Most graduates choosing to go abroad remain in Europe, especially in the fields of Health and Engineering. Meanwhile, substantial percentages of Humanities and Social Sciences graduates emigrate to Africa.

## SATISFACTION WITH THE STUDY PROGRAMME

### > Willingness to take the same study programme again

Figure 39. Willingness to take the same programme again, broken down by field of knowledge (2020)

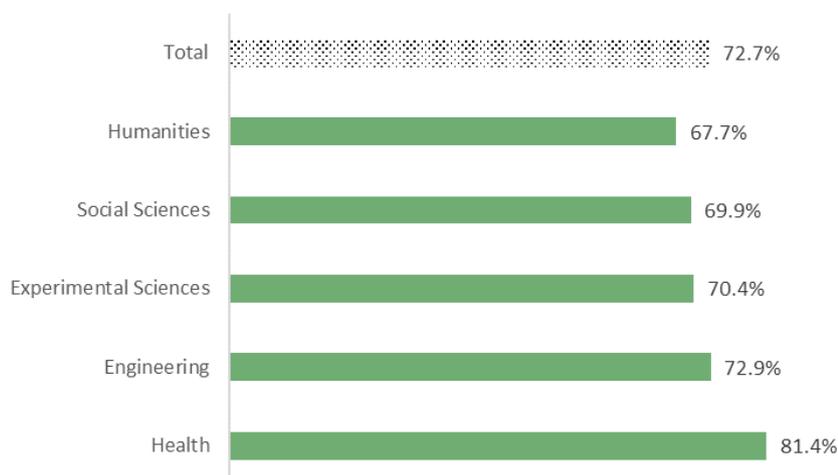


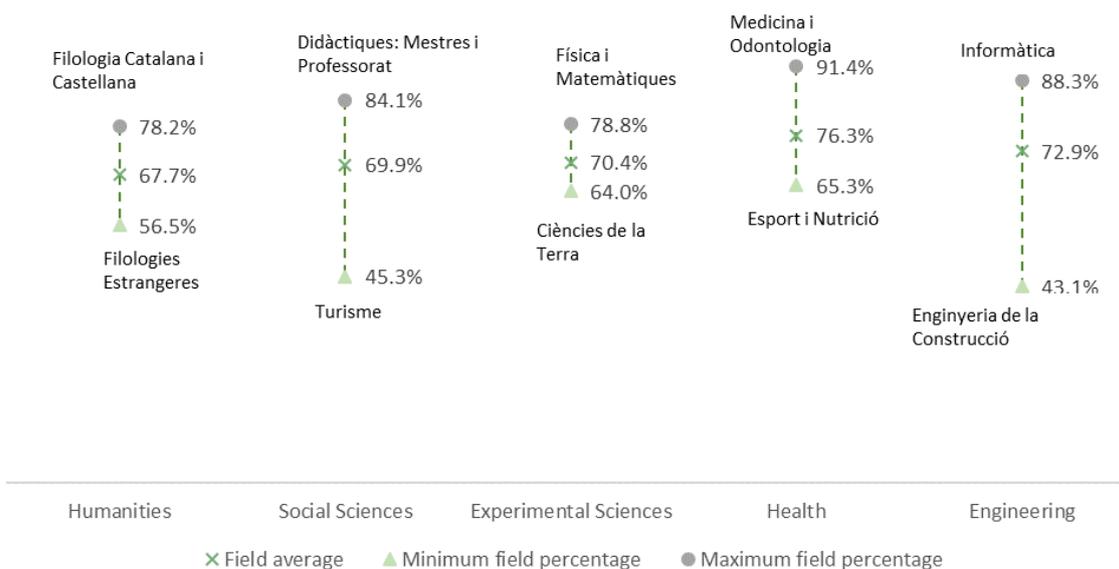
Table 5. Trend in willingness to take the same study programme again, broken down by field of knowledge

	2011	2014	2017	2020	Diff. 2020-2011
<b>Humanities</b>	73.6%	72.2%	68.2%	67.7%	-5.9 pp
<b>Social Sciences</b>	72.8%	68.6%	68.8%	69.9%	-2.9 pp
<b>Experimental Sciences</b>	72.9%	69.2%	69.5%	70.4%	-2.5 pp
<b>Health</b>	81.6%	82.3%	80.2%	81.4%	-0.2 pp
<b>Engineering</b>	68.9%	69.5%	69.5%	72.9%	+4.0 pp

### Nearly three out of four recent graduates would choose the same study programme again

- > Highest satisfaction goes to Health, where 81.4% of graduates would be willing to take the same study programme again; meanwhile, Humanities graduates are the least pleased (67.7%).
- > The only field to see an increase in the percentage of graduates willing to take the same study programme again throughout the period of analysis is Engineering. This percentage has held steady over time in Health, while decreasing in the remaining fields, most sharply in Humanities.

Figure 40. Willingness to take the same study programme again in 2020, broken down by field of knowledge (maximum and minimum detailed subfield in each field)

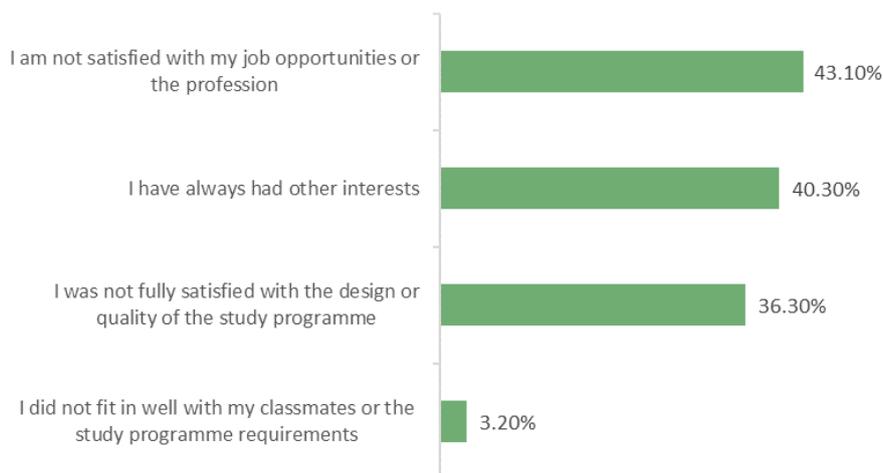


### Substantial intra-field variation with respect to graduates' willingness to take the same study programme again

- > The difference between subfields is higher compared to 2017, with a difference of up to 8 pp in the field of Health. This difference is only lower in Experimental Sciences.

### > Reasons not to take the same study programme again

Figure 41. Main reasons not to take the same study programme again (2020)



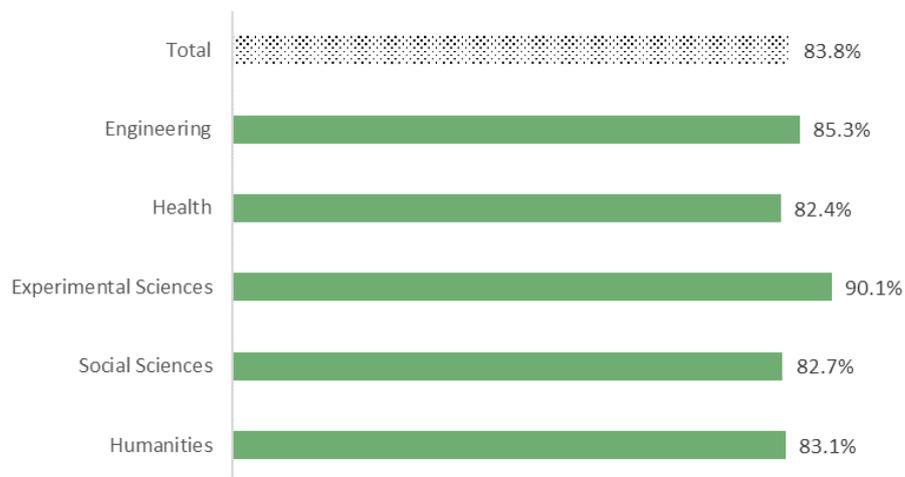
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**Dissatisfaction with job opportunities is the main reason that would lead graduates not to choose the same programme again**

- > A change in interests and the quality/design of the study programme come in second and third, respectively, as reasons not to take the same study programme again.

**> Willing to enrol at the same university again**

Figure 42. Willing to enrol at the same university again, broken down by field of knowledge (2020)



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**Graduates in the field of Experimental Sciences are the most satisfied with their university**

- > In general, between eight and nine people out of ten would re-enrol at the university where they studied, a figure not unlike those found in previous editions.

## QUALITY OF EDUCATION

### > Level of education and its usefulness at work

Figure 43. Satisfaction with the level of education provided in the study programme (of all graduates) and its usefulness at work (only for those performing university-level functions) in 2020 (out of 10)

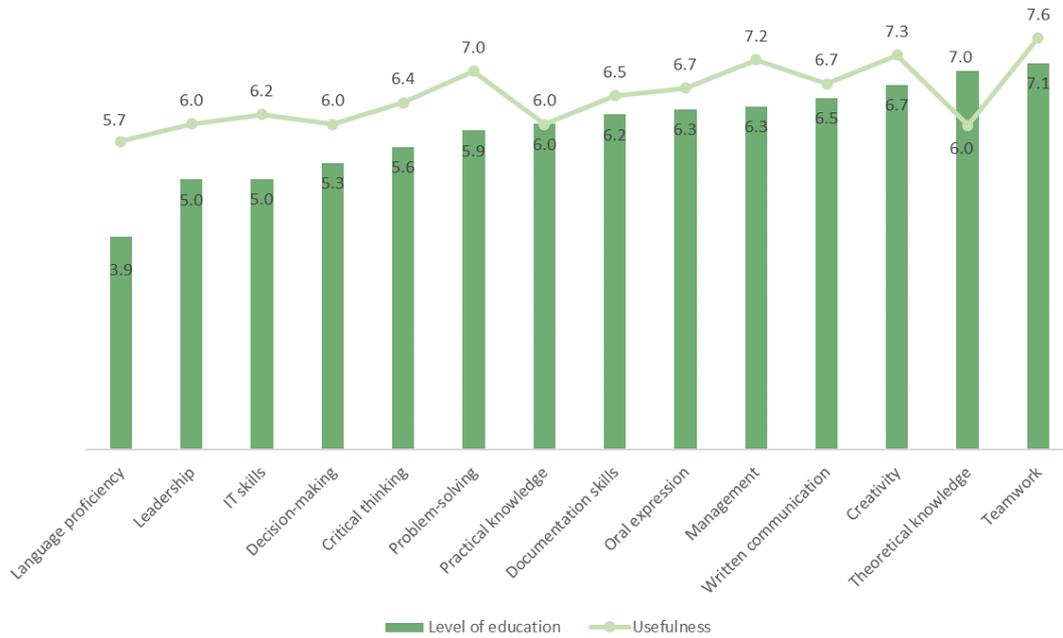
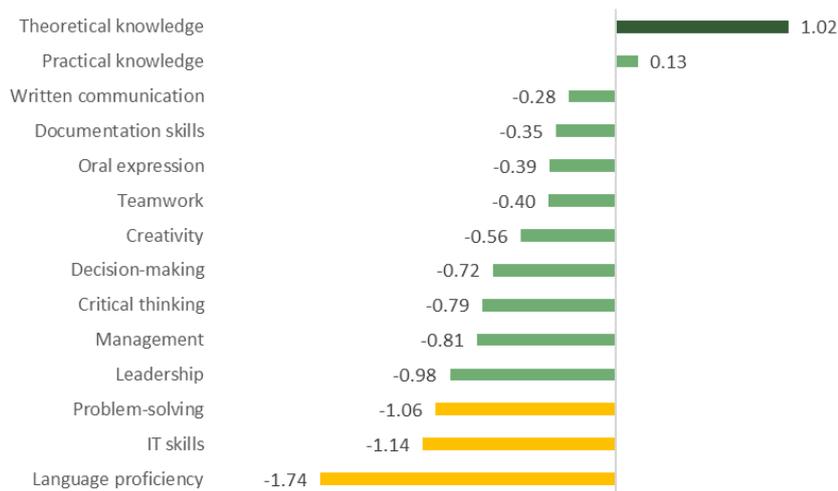


Figure 44. Education surplus or deficit in 2020<sup>12</sup>



<sup>12</sup> This is the result of calculating the difference between the rating of the education received, by skill, considering all the graduates interviewed, and its usefulness in the workplace (only among graduates performing university-level functions).

## Teamwork, creativity, management and problem-solving are the most useful skills in the workplace

- > The universities have improved their ability to prepare students for the job market. The distance between graduates' rating of their skills education and its level of usefulness in the workplace has narrowed with respect to 2017.
- > Education is not yet up to par in terms of honing language proficiency, despite it still being a useful workplace skill. Contrarily, the level of theoretical knowledge taught exceeds its usefulness in the world of work.
- > It should be noted that, for the first time, the level of practical knowledge is in line with workplace needs. In general, the gap between skills acquisition and usefulness has narrowed. Language proficiency, IT skills and problem-solving are the skills where room for improvement is greatest.

## > Quality of skills education

Table 6. Trend in graduates' satisfaction with their cross-disciplinary skills education (out of 10)

	2011	2014	2017	2020	Diff. 2020-2011
<b>Teamwork</b>	6.4	6.9	6.8	7.1	+0.7
<b>Theoretical knowledge</b>	6.8	6.9	6.8	7.0	+0.2
<b>Creativity</b>	6.2	6.4	6.5	6.7	+0.5
<b>Written communication</b>	5.9	6.2	6.3	6.5	+0.6
<b>Management</b>	5.8	6.1	6.1	6.3	+0.5
<b>Oral expression</b>	5.4	5.7	5.9	6.3	+0.9
<b>Documentation skills</b>	5.7	6.0	5.9	6.2	+0.5
<b>Practical knowledge</b>	5.4	5.4	5.6	6.0	+0.6
<b>Problem-solving</b>	5.3	5.8	5.8	5.9	+0.6
<b>Critical thinking</b>	5.3	5.7	5.4	5.6	+0.3
<b>Decision-making</b>	5.0	5.3	5.2	5.3	+0.3
<b>IT skills</b>	4.7	5.1	4.9	5.0	+0.3
<b>Leadership</b>	4.3	4.7	5.0	5.0	+0.7
<b>Language proficiency</b>	2.5	3.1	3.7	3.9	+1.4

## Universities have continued to up their game in terms of honing students' cross-disciplinary skills

- > Teamwork and theoretical knowledge top the ranking of best-honed skills in 2020, followed by creativity and written communication.
- > However, the skills having experienced the most significant improvement since 2011 are language proficiency, oral expression, leadership and teamwork.

Table 7. Improvement in the level of cross-disciplinary skills education, broken down by field of knowledge (2011-2020)

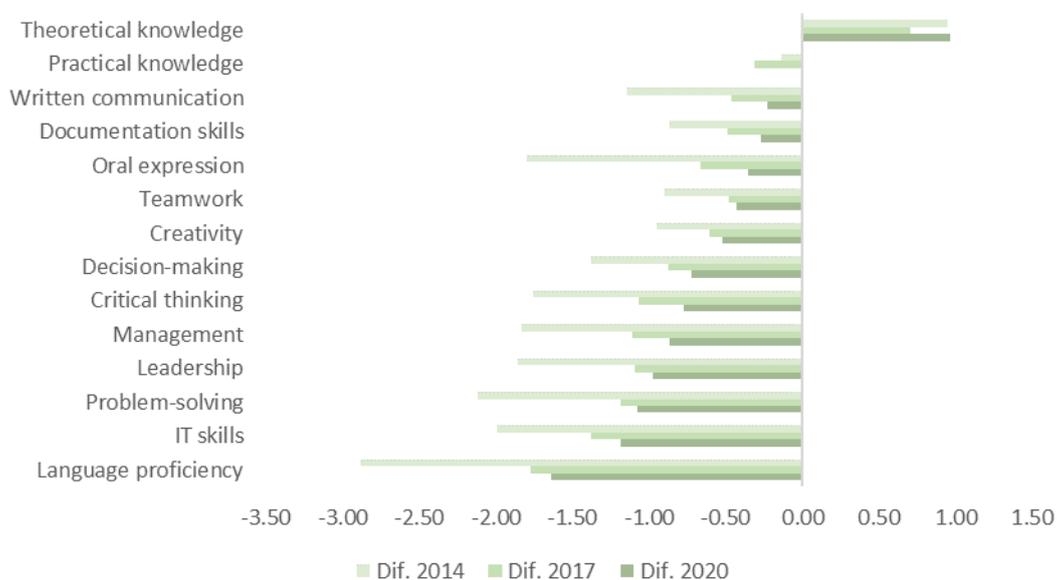
	Humanities	Social Sciences	Experimental Sciences	Health	Engineering
Theoretical knowledge	0.3	0.1	0.3	0.3	0.0
Practical knowledge	0.4	0.8	0.6	0.7	0.2
Oral expression	0.9	0.8	1.2	0.9	0.8
Written communication	0.4	0.5	1.2	0.7	0.6
Teamwork	0.8	0.7	0.9	0.7	0.6
Leadership	0.7	0.6	0.8	0.8	0.6
Management	0.3	0.4	0.6	0.7	0.7
Problem-solving	0.5	0.4	0.7	0.7	0.6
Decision-making	0.1	0.3	0.4	0.5	0.1
Creativity	0.3	0.3	0.7	0.8	0.5
Critical thinking	0.2	0.3	0.4	0.3	0.2
IT skills	0.5	0.1	0.7	0.8	0.2
Language proficiency	0.7	1.6	1.9	1.6	1.2
Documentation skills	0.5	0.4	0.6	0.7	0.3

### Experimental Sciences and Health are the fields showing the best improvement trend in education

- > In Experimental Sciences, language proficiency, oral expression and written communication have seen the steepest improvement. The same can be said of language proficiency and oral expression in the field of Health.
- > In other fields, improvement is concentrated in oral expression and language proficiency as well.

## > Skills acquisition on Bachelor's degrees today versus on pre-Bologna degrees

Figure 45. Trend in skills acquisition surplus or deficit when comparing EHEA Bachelor's degrees and pre-Bologna degrees<sup>13</sup>



### Universities in the post-Bologna era improve graduates' employability. And, for the first time, practical training is no longer found lacking in university education

- > The comparison between the 2014, 2017 and 2020 editions shows the quality of education in the university system prior to the Bologna Plan (the people surveyed in 2014 were students of the old degrees and diplomas) in relation to the education designed for the system through the Bologna Process.
- > The 2020 results show a diminishing gap between the level of education provided and the usefulness of the skills acquired in the labour market: this gap is currently between -1.5 and 0 for all skills. The only exception is theoretical knowledge, of which there is always an excess; this gap has widened slightly since 2017.
- > However, there is still a substantial deficit in language proficiency and IT skills.

<sup>13</sup> This is analysed only for graduates who perform university-level functions at work, and in 2017 and 2020 only graduates of EHEA degrees (in 2017 they account for 52% of the sample and in 2020, 91%).

> Further studies

Figure 46. Trend in pursuing further studies, broken down by programme type

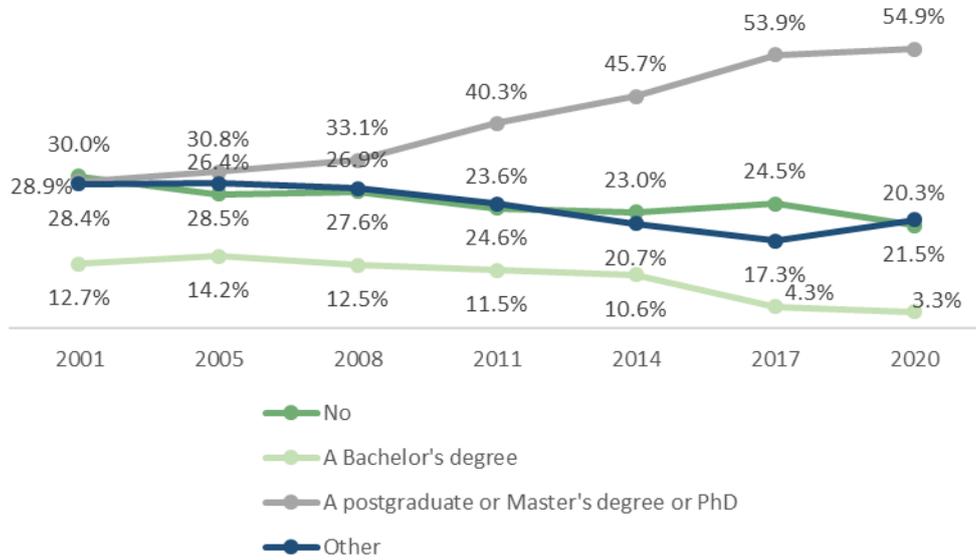


Figure 47. Further studies, broken down by field of study (2020)

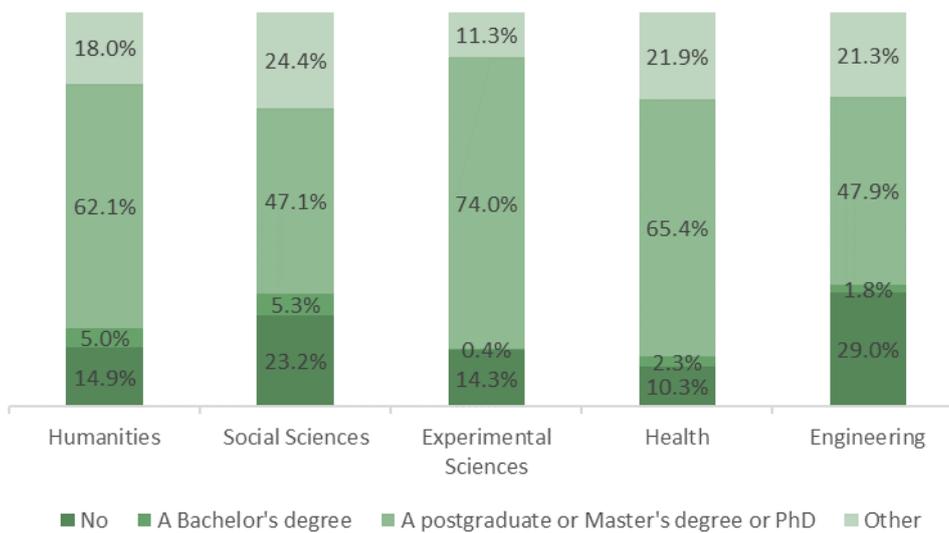
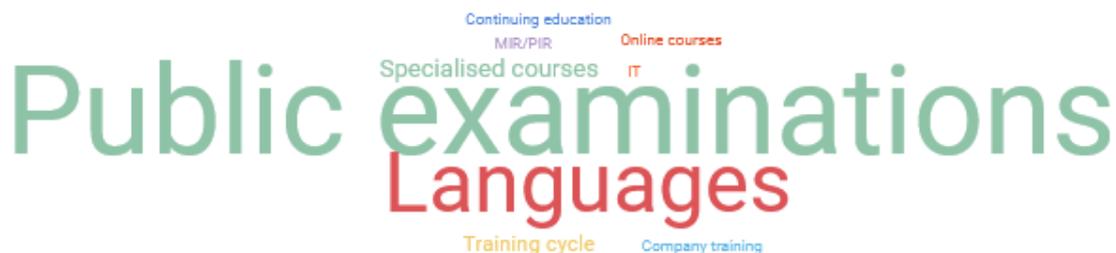


Figure 48. Programmes most frequently mentioned in the "other" category<sup>14</sup>



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### More and more recent graduates are pursuing further studies

- > More than half opt for second- or third-cycle education (postgraduate, master's or doctoral degree), a figure showing little change since 2017.
- > Graduates in the fields of Social Sciences and Engineering are less likely to pursue further studies; indeed, nearly a fourth and a third, respectively, do not.
- > The field of Experimental Sciences displays the largest proportion of graduates choosing to pursue a postgraduate degree, a master's degree or a PhD (3 out of 4).

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<sup>14</sup> Answers collected directly from the survey, without refining the variable.

## CHARACTERISATION OF ACADEMIC SUBFIELDS

### > Access to the labour market comparison, broken down by subfield

Table 8. Comparison of the main employment and quality indicators, by extended subfield (2020)<sup>15</sup>

	% employed	% performing university-level functions	% working full-time	% on a permanent contract	% with earnings above €2,000/month	Occupational quality index	% that would take the same study programme again
Philosophy and History	Red	Red	Red	Red	Red	Red	Yellow
Languages and Literature	Yellow	Red	Red	Red	Red	Red	Red
Art and Design	Red	Red	Red	Yellow	Red	Red	Yellow
Economics, Business and Tourism	Green	Green	Green	Green	Green	Green	Red
Law, Labour and Politics	Red	Red	Yellow	Yellow	Red	Red	Red
Communication and Information Science	Red	Red	Yellow	Yellow	Red	Red	Red
Education	Yellow	Green	Red	Red	Red	Red	Green
Social Intervention	Yellow	Green	Yellow	Yellow	Red	Yellow	Yellow
Biological and Earth Sciences	Red	Red	Red	Red	Red	Red	Red
Experimental Sciences and Mathematics	Yellow	Yellow	Red	Yellow	Green	Yellow	Green
Nursing and Health Sciences	Green	Green	Red	Red	Red	Green	Green
Psychology and Therapy	Red	Red	Red	Red	Red	Red	Yellow
Medicine and Biomedical Sciences	Green	Green	Yellow	Red	Green	Green	Green
Architecture, Construction and Civil Engineering	Yellow	Green	Green	Red	Green	Green	Red
Industrial Technology	Green	Green	Green	Green	Green	Green	Yellow
ICT	Green	Green	Green	Green	Green	Green	Green
Agriculture, Forestry and Fishing	Green	Green	Green	Green	Yellow	Green	Yellow

The subfields of Industrial Technology and ICT, belonging to Engineering, obtain the best results

> In contrast, the subfields of Humanities display the worst indicators.

<sup>15</sup> The indicator represents the result of hypothesis testing for the difference of population means between two groups (the specific subfield vs. the remainder). We considered equality of population means as our main contrast or null hypothesis. The t-test is performed with a confidence interval of 95%. Absences of difference are shown in yellow, higher scores for the subfield in green and lower scores for the subfield in red.

## > Occupational quality index (OQI)

Table 9. List of subfields from highest to lowest average OQI for 2020

	Average OQI
Medicine and Dentistry	75.8
Computer Science	74.3
Industrial Engineering and Organisation	72.3
Mechanical Engineering and Industrial Design	72.0
Telecommunications	71.8
Aerospace Engineering	71.7
Business Administration	71.7
Electronic and Automation Engineering	71.5
Marine Engineering	70.9
Economics	70.3
Chemical and Materials Engineering	69.5
Architecture	68.9
Pharmacy and Biomedicine	68.7
Building	68.6
Civil Engineering	68.5
Law	66.9
Healthcare	66.5
Physics and Mathematics	66.3
Veterinary Science and Food Production	65.9
Construction Engineering	65.4
Chemistry	65.4
Nursing	64.8
Labour and Security	62.4
Tourism	61.7
Agriculture and Forestry	61.7
Communication	61.3
Therapy and Rehabilitation	61.0
Social Education and Work	60.7
Information Science	60.0
Biological Sciences	59.1
Art and Design	58.8
Earth Sciences	58.7
Catalan and Spanish Philology	58.6
Linguistics and Classical and Comparative Studies	58.1
Political Science	57.4

Pedagogy and Educational Psychology	57.2
Teaching: Education and Teacher Training	56.4
Psychology	55.6
Foreign Languages	55.3
Sport and Nutrition	54.6
Sociology and Geography	47.1
Philosophy and Humanities	47.0
Fine Arts	43.8
History	43.8

## > Willingness to take the same study programme again

Table 10. List of subfields from highest to lowest proportion of graduates who would take the same study programme again (2020)

	Yes
Medicine and Dentistry	91.4%
Nursing	89.9%
Computer Science	88.3%
Teaching: Education and Teacher Training	84.1%
Healthcare	82.5%
Physics and Mathematics	78.8%
Catalan and Spanish Philology	78.2%
Law	77.9%
Aerospace Engineering	77.2%
Chemistry	76.3%
Pharmacy and Biomedicine	76.3%
Philosophy and Humanities	75.4%
Art and Design	74.8%
Psychology	74.5%
Therapy and Rehabilitation	74.5%
Industrial Engineering and Organisation	73.7%
Chemical and Materials Engineering	73.1%
Social Education and Work	72.3%
Telecommunications	72.2%
Electronic and Automation Engineering	71.5%
Business Administration	71.2%
Marine Engineering	71.2%
Architecture	71.0%
Mechanical Engineering and Industrial Design	70.6%
Economics	69.6%
Agriculture and Forestry	69.6%
Veterinary Science and Food Production	68.0%
History	67.3%
Biological Sciences	66.7%

Linguistics and Classical and Comparative Studies	66.0%
Building	66.0%
Sport and Nutrition	65.3%
Earth Sciences	64.0%
Sociology and Geography	63.0%
Labour and Security	61.6%
Civil Engineering	60.4%
Fine Arts	60.2%
Political Science	59.6%
Communication	58.0%
Foreign Languages	56.5%
Pedagogy and Educational Psychology	54.2%
Information Science	52.6%
Tourism	45.3%
Construction Engineering	43.1%

## ACCESS TO THE LABOUR MARKET COMPARISON BY GENDER

Table 11. Comparison of each subfield according to the graduates' gender (2020)<sup>16</sup>

	% employed	% performing university-level functions	% working full-time	% on a permanent contract	% with earnings above €2,000/month	Occupational quality index	% that would take the same study programme again
Philosophy and History	W		M				M
Language and Literature							
Art and Design					M		
Economics, Business and Tourism				W	M	M	
Law, Labour and Politics		W			M		
Communication and Information Science			W	W			M
Education					M		
Social Intervention		M	M	M	M	M	
Biological and Earth sciences		W					
Experimental Sciences and Mathematics						W	
Nursing and Health Sciences		W	W	M		W	W

<sup>16</sup> The indicator represents the result of hypothesis testing for the difference of population means between two groups (women vs. men for each subfield). We considered equality of population means as our main contrast or null hypothesis. The t-test is performed with a confidence interval of 95%. Blue indicates a higher score for women and pink indicates a higher score for men.

Psychology and Therapy	W			W			
Medicine and Biomedical Sciences					M	M	
Architecture, Construction and Civil Engineering		W			M		
Industrial Technology	M	W	M		M		
ICT							M
Agriculture, Forestry and Fishing	W						

### Gender differences persist

- > 31% of the gaps are significant, meaning gender-based employment differences remain among graduates, although to a lesser degree than in 2017 (36%).
- > 18% of the employment condition-related gaps favour men, and 15% favour women. The gaps appear to be balanced in this regard, except in terms of income, where the scales are tipped in favour of men across the board, thus proving the existence of a gender pay gap in all fields of knowledge.
- > The gaps vary in most of the subfields, except for Social Intervention, where men present better indicators than women in most respects.

## ONLINE UNIVERSITY

### > Graduate profile

Table 12. Trend in the characteristics of online university graduates

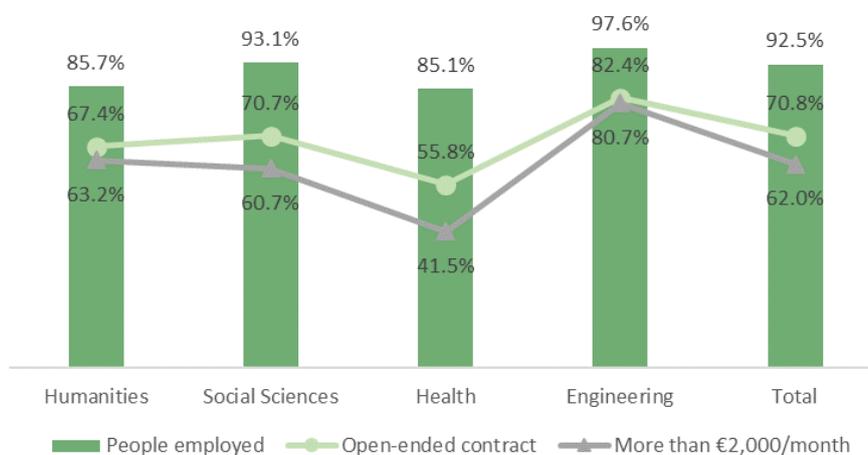
	2011	2014	2017	2020
Age at time of survey	39.2 years	40.9 years	40.5 years	40.5 years
<b>Entrance qualification</b>				
Already in possession of a higher education qualification (three-year or four-year degree)	61.4%	60.7%	56.0%	46.0%
Incomplete university studies	14.8%	14.9%	13.0%	10.2%
Upper secondary school education, vocational training, University Orientation Course (COU)...	16.0%	14.4%	18.5%	26.1%
Entrance exam for over 25s	2.7%	4.6%	4.8%	6.5%
University entrance exams (PAU)	5.1%	5.4%	7.8%	11.2%
<b>Employment history</b>				
Full-time student	3.5%	2.4%	3.7%	6.2%
Working in a related job	62.6%	63.7%	58.1%	51.3%
Working in an unrelated job	34.0%	33.9%	38.2%	42.5%

## Graduates of online university degrees are older and have previous studies

- > The mean age of online graduates at the time of the survey is 40 years, while the same figure for graduates of traditional universities is 29.
- > Just over half the online graduates surveyed went through some traditional university education before pursuing their online studies.
- > The figures also point to some changes in the online graduate group. The trend shows an increase in the percentage of people who pursue online degrees after taking the university entrance exams or completing post-compulsory education, and who, therefore, consider this education pathway an alternative to traditional university studies.
- > The characteristics of this group condition the figures presented below and the comparison with graduates of traditional universities.

## > Employment details

Figure 49. Graduates who are employed, have a permanent contract and earn a salary of €2,000/month or more, broken down by field of knowledge (2020)

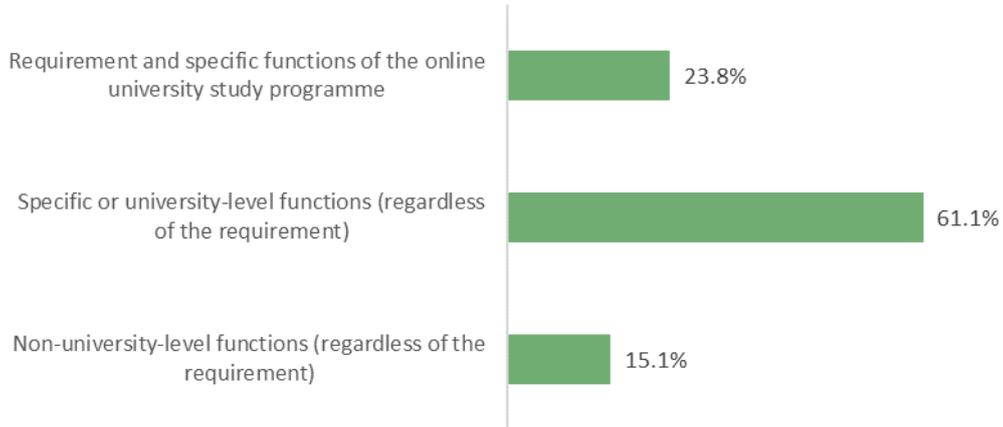


## Employment, job stability and salaries have higher values than for graduates of traditional universities

- > The exception occurs in the field of Health, where the indicators are lower than in traditional universities. It must be said, however, that in the online university this field only comprises Psychology.

## > Suitability of the study programme for work

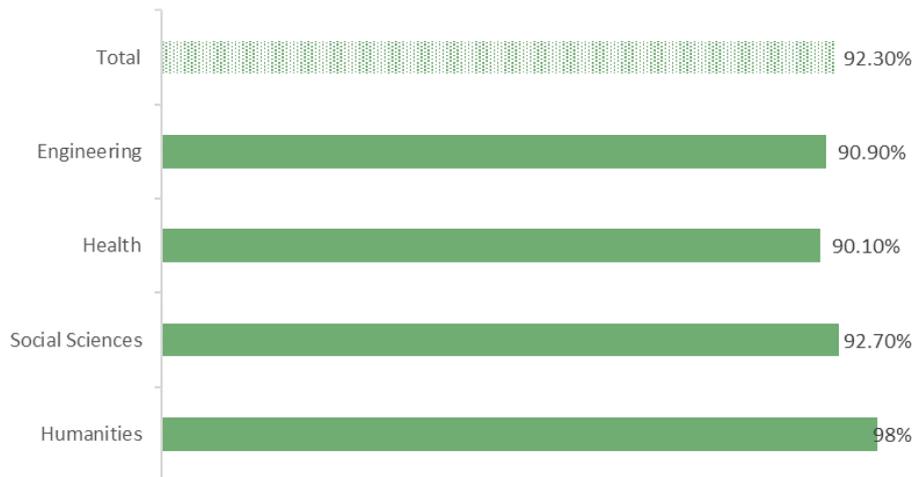
Figure 50. Suitability of the study programme for work in 2020



Nearly one out of four graduates needed the qualification they earned at the online university for their job and, in addition, performs degree-specific functions

## > Willingness to take the same study programme again

Figure 51. Willingness to take the same study programme again, broken down by field of knowledge (2020)

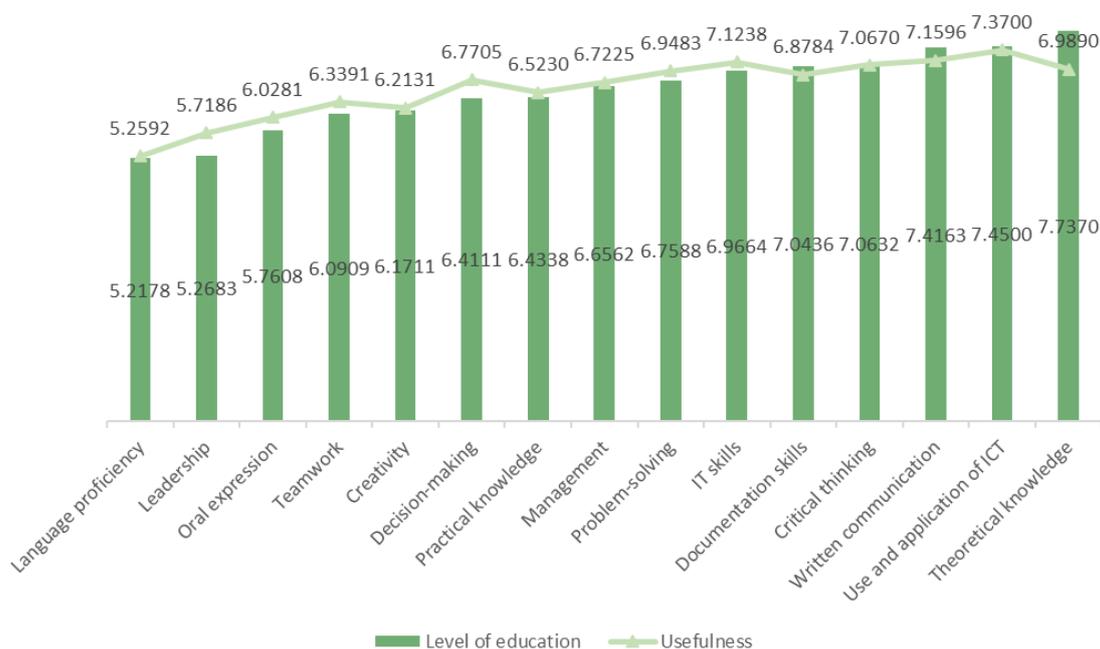


**The online university greatly outshines the traditional universities in terms of graduate satisfaction**

- > Roughly nine out of ten graduates of the online university would take the same study programme again. This figure is highest in Humanities, where nearly all students would take the same programme again.

**> Level of education and its usefulness at work**

Figure 52. Satisfaction with the level of cross-disciplinary skills education provided (of all graduates) and its usefulness at work (only for those performing university-level functions) in 2020 (out of 10)



**Keen balance between the level of skills education received and its usefulness in the workplace**

- > Theoretical knowledge, the use and application of ICT and written communication are the skills rated highest.
- > As in traditional universities, language proficiency is rated the lowest, although according to graduates the level of education received appears to suit its usefulness on the job.
- > The education-usefulness gaps are generally very narrow, except with regard to decision-making, which, despite being rated as highly useful in the workplace, is not so well honed on university study programmes.

## COMPARISON BETWEEN HIGHER EDUCATION LEVELS

### > Results according to the level of higher education

Figure 53. Employment, full-time work and gross monthly salary, broken down by higher education level (2020)

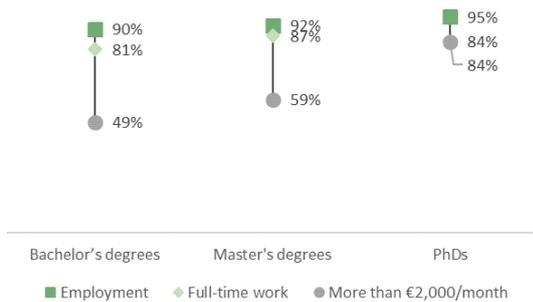


Figure 54. Functions performed at work, broken down by level of education reached (2020)

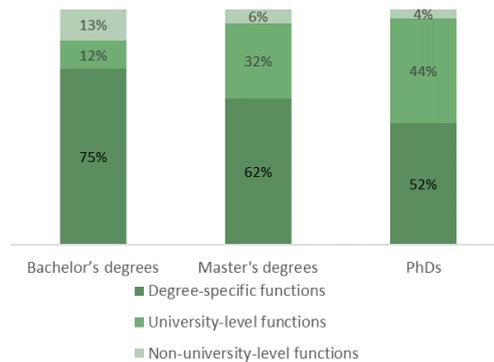
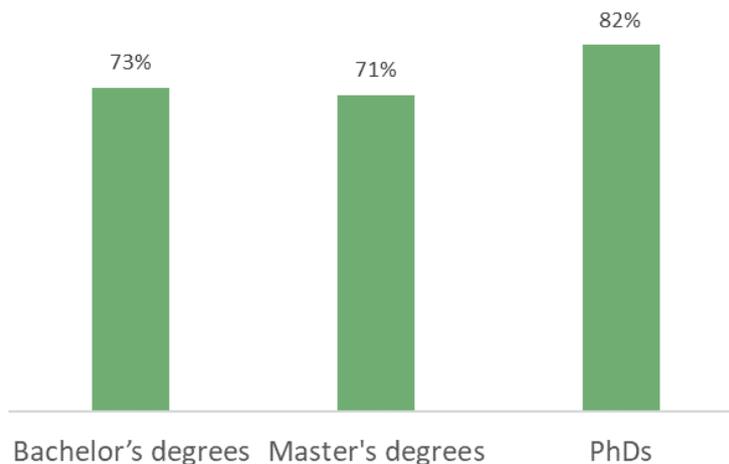


Figure 55. Percentage of graduates who would take the same study programme again, broken down by level of education reached (2020)



### The higher the education level, the better the employment indicators

- > This holds true for employment, gross monthly salary and the functions performed at work. In the last regard, while at higher levels we find smaller proportions of graduates performing degree-specific functions, those performing non-university-level functions are nearly non-existent.
- > Similar proportions of graduates are satisfied with their Bachelor's degrees and Master's degrees, although this figure rises considerably for PhDs.

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## DATA SHEET

### Survey of Bachelor's degree graduates<sup>17</sup>

<b>Population</b>	People who graduated from an official study programme in the 2015/2016 academic year
<b>Survey period</b>	From 16/01/2020 to 12/06/2020. In order to prevent the effects of the COVID-19 health crisis from distorting the data, after the outbreak respondents were asked about their employment situation in February 2020.
<b>Average time taken</b>	If they work: 10'55"
<b>Participating universities</b>	UB, UAB, UPC, UPF, URL, UdL, UdG, URV, UOC, UVic-UCC, UIC, UAO CEU and 39 affiliated centres

### Population data and sample of Bachelor's degree graduates

<b>PUBLIC UNIVERSITIES</b>	<b>Population</b>	<b>Contactable population</b>	<b>Sample</b>	<b>Response rate</b>	<b>Sampling error</b>
University of Barcelona (UB)	7,329	7,308	3,221	44.1%	1.29%
Autonomous University of Barcelona (UAB)	4,780	4,773	2,333	48.9%	1.45%
Technical University of Catalonia (UPC)	4,924	4,904	2,081	42.4%	1.63%
Pompeu Fabra University (UPF)	1,799	1,798	837	46.6%	2.48%
University of Girona (UdG)	1,705	1,704	865	50.8%	2.34%
University of Lleida (UdL)	1,400	1,391	680	48.9%	2.69%
Rovira i Virgili University (URV)	1,978	1,975	996	50.4%	2.19%
<b>Total</b>	<b>23,915</b>	<b>23,853</b>	<b>11,013</b>	<b>46.2%</b>	<b>0.69%</b>

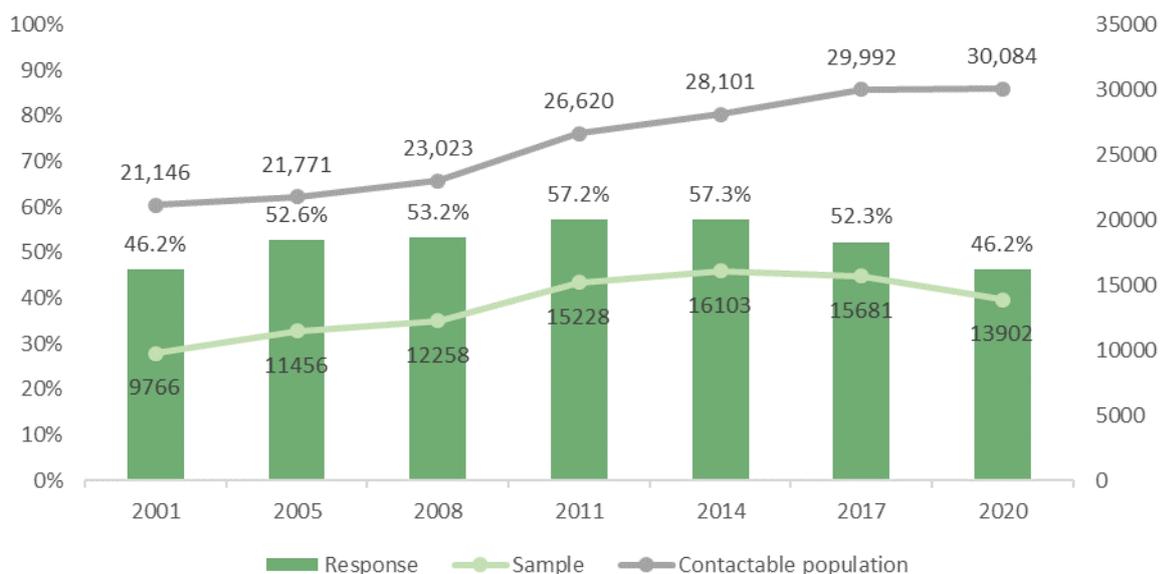
<b>PRIVATE UNIVERSITIES</b>	<b>Population</b>	<b>Contactable population</b>	<b>Sample</b>	<b>Response rate</b>	<b>Sampling error</b>
University of Vic - Central University of Catalonia (UVic-UCC)	922	922	402	43.6%	3.67%
Ramon Llull University (URL)	1,997	1,984	752	37.9%	2.82%
International University of Catalonia (UIC)	569	508	193	38.0%	5.56%
Abat Oliba CEU University (UAO CEU)	256	251	127	50.6%	6.12%
<b>Total</b>	<b>3,744</b>	<b>3,665</b>	<b>1,474</b>	<b>40.2%</b>	<b>1.97%</b>

Affiliated centres (with either a public or private university)	2,577	2,566	1,415	55.1%	1.75%
<b>STUDY TOTAL</b>	<b>30,236</b>	<b>30,084</b>	<b>13,902</b>	<b>46.2%</b>	<b>0.61%</b>

<sup>17</sup> The data presented in this report are weighted according to stratified sampling by detailed subfield and sampling unit.

## Access to the labour market for graduates of Catalan universities



### Survey of Bachelor's degree graduates of the online university<sup>18</sup>

<b>Population</b>	People who graduated from an official study programme in the 2015/2016 academic year
<b>Survey period</b>	From 02/03/2020 to 19/05/2020. In order to prevent the effects of the COVID-19 health crisis from distorting the data, after the outbreak respondents were asked about their employment situation in February 2020.
<b>Average time taken</b>	If they work: 12'33"

ONLINE UNIVERSITY	Population	Contactable population	Sample	Response rate	Sampling error
Open University of Catalonia (UOC)	2,308	2,291	947	41.03%	2.44%

<sup>18</sup> The data presented in this report are weighted according to stratified sampling by detailed subfield and sampling unit.

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