#EMPLOYABILITY

2021

WOMEN'S EMPLOYMENT OUTCOMES TWENTY YEARS AFTER FINISHING UNIVERSITY

AQU CATALUNYA

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BARCELONA, 2021

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First edition: June 2021

In collaboration with:

Generalitat de Catalunya
Institut Català de les Dones

Generalitat de Catalunya
Consell Interuniversitari de Catalunya

TABLE OF CONTENTS

FOREWORD

Employment outcome studies repeatedly show that qualifications have a key influence on the characteristics of access to the labour market, such as different employment rates and speeds, chances of ending up working in the public or private sector and wages, among others. As men and women are not randomly distributed by qualification (a phenomenon known as horizontal segmentation), attributing whether the gender differences detected in employment outcomes are attributable to qualification or direct or indirect inequalities is a complex issue.

This report analyses the quality of employment outcomes from a gender perspective twenty years after obtaining the equivalent of a university degree. This is the third study that AQU Catalunya has carried out to assess the differences between men and women in the labour market. In the first (AQU CATALUNYA, 2010), the differences were analysed three years after graduation and found many more similarities than differences: the degree studied and individual variability had a greater impact on employment outcomes than gender. These findings match other studies that show that differences between women in different occupations are more relevant than those between men and women within the same occupation (EUROFOUND, 2013). The second study from a gender perspective (AQU CATALUNYA, 2012) analysed differences ten years after graduation and by then more imbalances were detected (in working hours, pay and reasons for working part-time), but also fewer differences than might initially have been intuited. One of the hypotheses as to why the differences were less than expected was that phenomena such as the glass ceiling or wage discrimination had not yet appeared, since even ten years after graduation, few people were yet to become parents (only 40%).

This latest study, carried out twenty years after graduation, can definitively grasp the differences between men and women in the labour market, as three quarters of the respondents already have offspring, and can pinpoint the most decisive factors.

The main conclusions are as follows:

- Among people who have attained higher education, differences by gender in percentage employment, unemployment and inactivity tend to disappear. In other words, high investment in human capital reduces differences between men and women. Therefore, women's incorporation into university has led to an advance in equality in the labour market, although, as shown below, there are still differences.
- In this study, starting a family does not imply employment inactivity. Even among inactive people, the main cause is not family issues, but retirement or health reasons (for both men and women). However, this is clearly higher for women than for men.
- Once in the labour market, inequalities become apparent in terms of **type of working day**, **earnings** and **performing executive/management roles**. Part-time work is clearly feminised. Unsurprisingly, it is the most influential variable on wage earnings and its impact on earnings once a person leaves the labour market should not be forgotten. Moreover, in theoretical terms of human capital depreciation, it affects opportunities for promotion and taking up positions of responsibility.

- Men and women benefit equally from **work-life balance measures**, but there is clear segregation in such measures: women adopt the **shorter working day**, while men choose flexitime or working from home. A shorter working day, similar to part-time work, is a flexibility mechanism that can impact on success in employment.
- In the group of people in full-time employment, a **clear pay gap** and **glass ceiling** (lower percentage of women in positions of responsibility over other people) can be detected. In particular, the pay gap has worsened: three years after graduating, women's earnings were 86% those of their male peers, dropping to 82% after 20 years.
- Irrespective of the above factors, it should be noted that **qualifications** remain the factor with the biggest impact on pay inequalities.
- **Family structure** and **parenthood** are also relevant in partly explaining inequalities between male and female graduates.
- Added to the objective inequalities found in the labour market, which clearly affect women, is the fact that women are more vulnerable with regard to subjective issues, such as a more deeply rooted sense that **their time is inadequately distributed** between different areas of their lives and a perception of **greater discrimination in the labour market** due to gender when it comes to promotion.
- Finally, the experts that collaborated in the study give an assessment of the conclusions and highlight certain points of particular interest: higher education as a mechanism of equal opportunity, the importance of increasing efforts in a coeducational policy that enables informed choice and educational and professional pathways free of all gender convention, and, ultimately, greater flexibility in work-life balance measures, but on the premise of greater co-responsibility to build a more equal and just society for all.

Long-term actions and policies are needed to change this situation: measures to reverse gender stereotypes from an early age impact not only on career choices, but also on horizontal segregation in the labour market. Thus, it is important to transform cultural representations of what it means to be a man or woman and the professions associated with them, in order to disassociate professional fields from gender (e.g. caring for women and technology for men). In short, we need to promote co-education, work-life balance and co-responsibility and consolidate equal life expectations and life projects for women in our collective cultural beliefs. This is the only way to lay the foundations for a more equitable system that permits each individual's full educational and professional development.

This report would not have been possible without the valuable collaboration of the seven Catalan public universities, the Secretariat for Universities and the Catalan Women's Institute. We would also like to express our special thanks to the almost 3,000 people who answered the survey, without whom it would be impossible to progress in consolidating a gender perspective in employment outcome studies.

We hope this report will provide a major contribution to the study of the working conditions for male and female graduates from the Catalan university system, and we invite the academic community to analyse the data from this survey in greater depth. We also trust that the results we present here will serve to generate debate and help bring about improvements to Catalan university degree courses in terms of gender, to generate equal opportunities in the labour market.

Your interest is greatly appreciated.

Martí Casadesús Fa, director of AQU Catalunya

INTRODUCTION[1]

> Women and University Education

In recent decades, a phenomenon that has characterised university classrooms, widespread in all Western countries, is their feminisation. Figure 1 shows how larger numbers of women than men have increasingly chosen to study at university. Particularly striking is the sharp rise in student numbers just as the great recession hit (2008). This makes sense in terms of the reduced opportunity cost of studying associated with the crash. In addition, the disappearance of pre-Bologna degree and diploma courses and the switch to the new European Higher Education Area (EHEA) bachelor's degrees meant students with slower, longer university pathways, or who had stopped studying, took up their studies again to obtain the qualification that had been phased out. All this has resulted in greater investment in educational capital, more significantly so among women, leading to a change in the composition of degrees by gender, as shown below.

The Catalan university system (SUC) currently has 55% female students compared to 45% male, figures that reflect a general trend worldwide, where women have become the over-represented group in higher education, which was previously the case for men. According to UNESCO data, the gross enrolment ratio in higher education between 2000 and 2018 increased from 19% to 36% for men, and from 19% to 41% for women (UNESCO-IESALC, 2021).

Figure 1. Trend in the number of new male and female entrants to the Catalan university system[2]

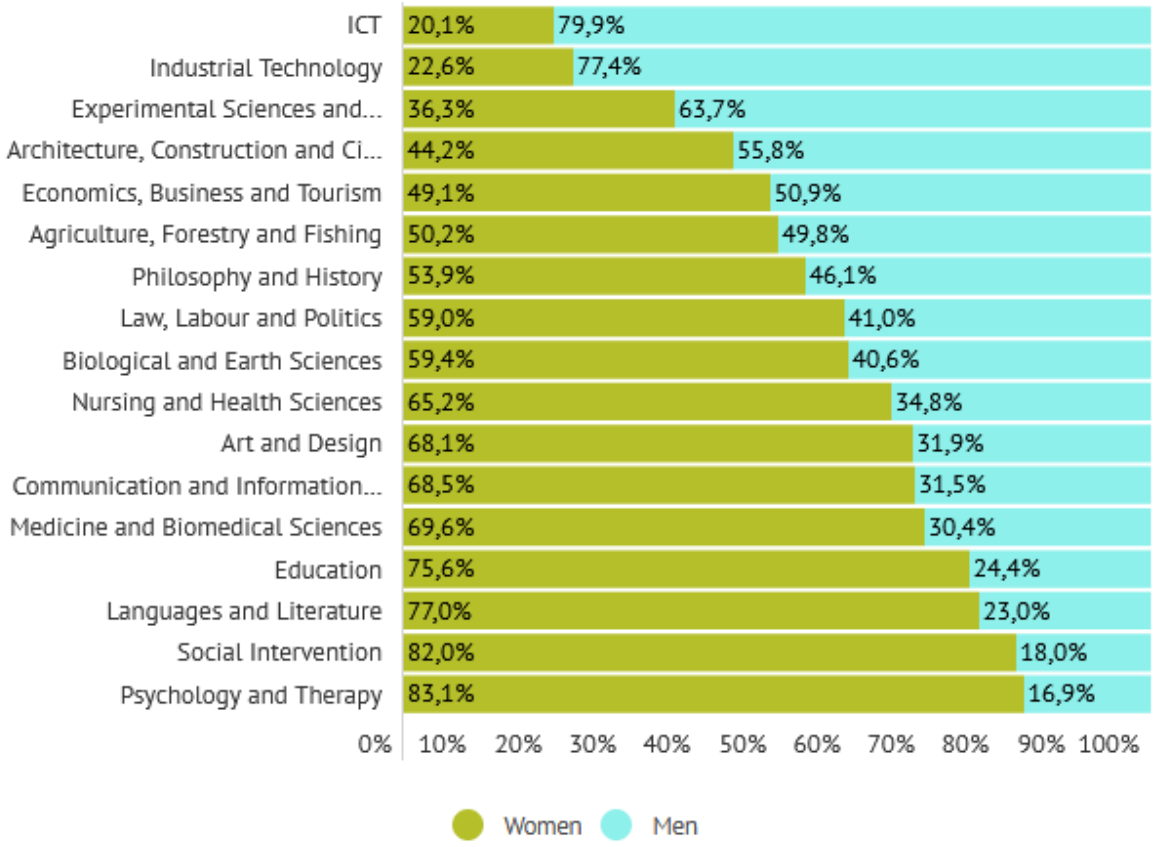
[1] The report does not include the transgender/non-binary gender category, as this was not foreseen in previous data, hence the results presented are binary (women and men). In this respect, throughout the study we refer to sex to speak of the data obtained, as this was the variable we asked about in approaching gender differences. And we use the term gender to speak from the perspective or, in general terms, of inequalities entailed in being a woman or man in our society.

[2] Registration data from UNEIX.

Analysis by subject shows that this greater access to university is not matched by a balanced distribution over the different subject areas. Men's and women's choices of studies are clearly differentiated and show strong horizontal segregation by field of knowledge. While the social sciences and health fields tend to be more feminised, experimental sciences and engineering are more male-dominated. Thus, although equal access to higher university studies helped increase women's employment opportunities, segmentation in the choice of studies suggests there is still a long way to go before equality of position in the labour market is achieved.

Figure 2 shows a clear gender bias by extended sub-field (according to the AQU Catalunya classification)[3] in SUC studies.

Figure 2. Distribution of male and female graduates by extended sub-field (2019)[4]



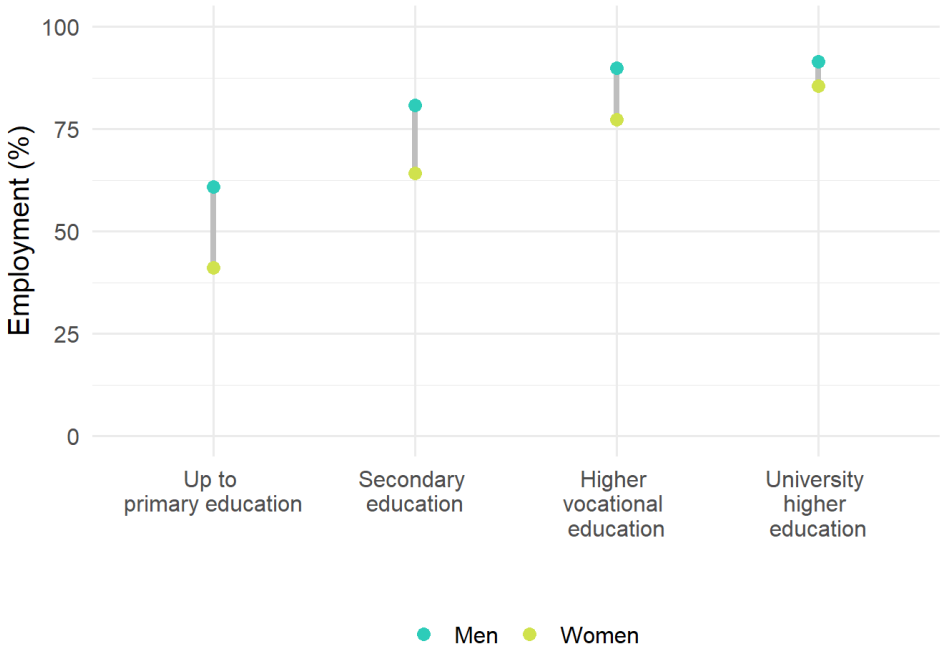
[3] See the Catalogue of degrees.

[4] Data from UNEIX.

> Women and employment outcomes by educational attainment[5]

After providing this overview of women's participation in the university system, we now need to analyse their transition to the labour market. Based on data from the Working Population Survey (LFS) for the first quarter of 2020, the percentages of employment, unemployment and inactivity among the persons surveyed[6] are analysed by gender and their level of education. This provides an initial impression of the return for university graduates in terms of positioning in the labour market, bearing in mind the greater volume of women in higher education.

Figure 3. Employed population aged 39-47[7] by educational attainment (2020)



[5] Source: National Institute of Statistics (INE).

[6] The term inactive refers to people who state they are not in paid employment nor looking for work.

[7] This age range has been selected to permit comparisons between the LFS data and those from the sample in the 2020 gender employment outcome survey, which includes people who graduated in the 2000-2001 academic year, i.e. 20 years on from obtaining their degree (median age = 42, Q1 = 41, Q3 = 44).

Figure 4. Unemployed population aged 39-47 by educational attainment (2020)

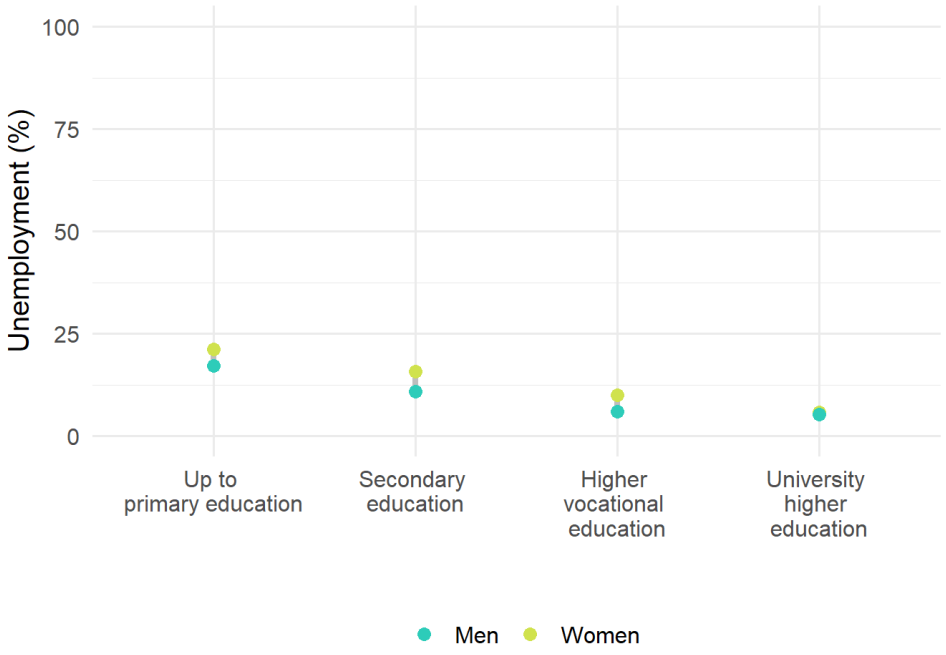
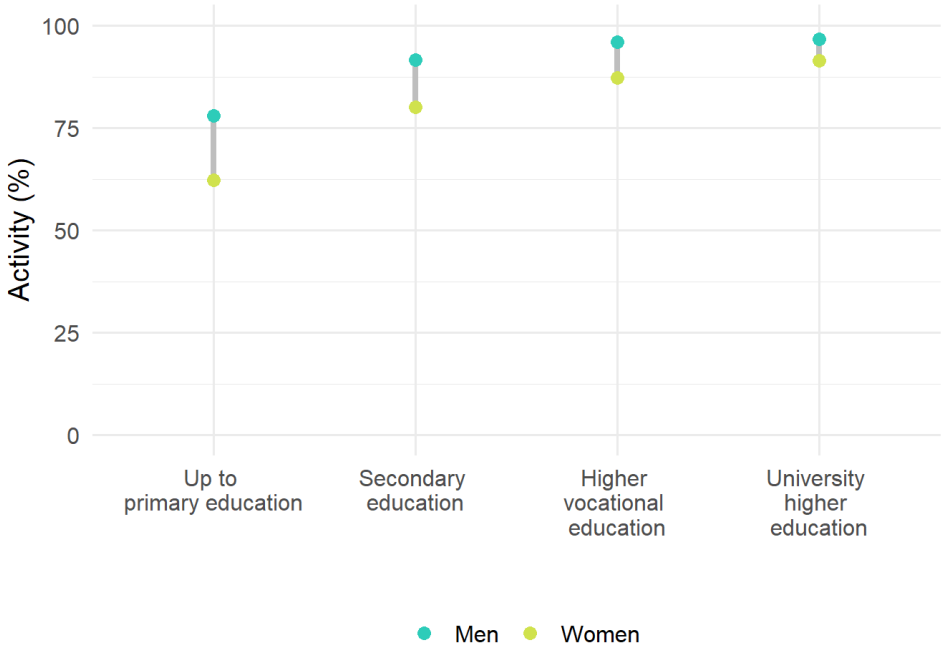


Figure 5. Active population aged 39-47 by educational attainment (2020)



The following conclusions can be drawn from the above figures:

a) The higher the level of education, the more people are active, the higher the percentage of employment and the lower the unemployment rate.

b) As educational attainment increases, gender differences in employment levels narrow (from 19.7% for those studying up to primary education to 5.8% for university graduates).

c) There are no differences in unemployment rates between men and women with university higher education.

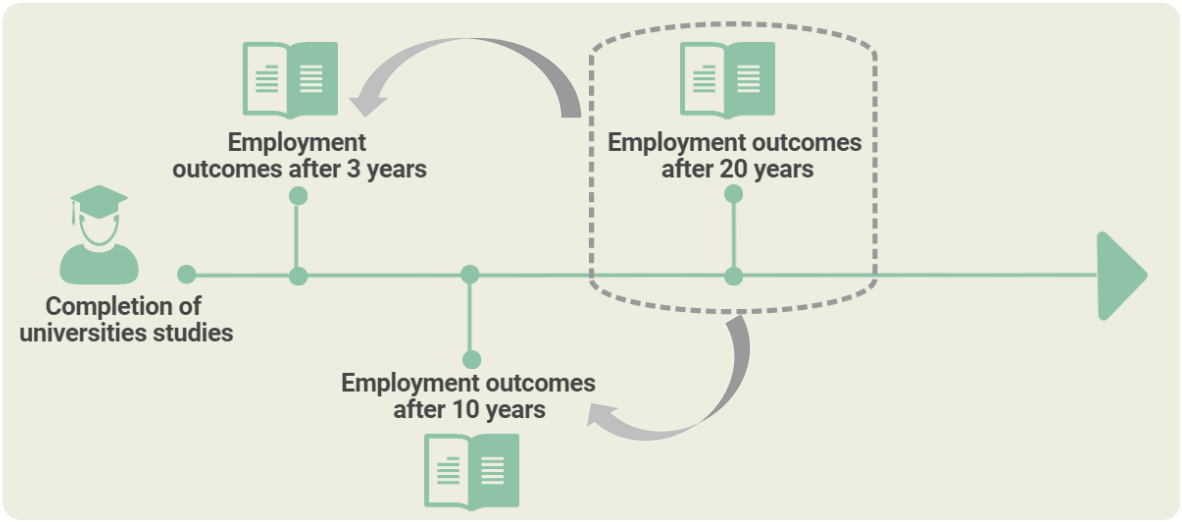
> Survey design 20 years after obtaining a university degree

This report is a summary of the analyses carried out on data collected from SUC graduates 20 years after graduating, by means of a **survey** on a number of different issues:

- **Factors related to employment**: number of people employed and unemployed, employment sector, job position.
- **Quality of employment**: job suitability, contractual stability, type of functions performed, earnings, type of working day, job satisfaction.
- **Family conditions and work-life balance measures**: family structure, dependants, hours spent at home and at work, measures adopted to balance work and home.
- **Elements of discrimination in the workplace**: criteria for promotion, wage discrimination.
- **Opportunities and willingness to perform certain tasks in the workplace**: taking on responsibilities, initiating projects, travelling and working away from home, among others.

The main aim is to study men and women's working conditions 20 years into their working lives. In order to capture the changes experienced over this period, the information is compared to data from the same cohort three years and, in some cases, ten years after graduation. The data therefore permit a longitudinal approach to the phenomenon of gender inequalities in employment outcomes.

Figure 6. Time frame of the study



SURVEY RESPONDENTS 20 YEARS AFTER GRADUATING

Figure 7. Personal and family characteristics of the respondents (2020)

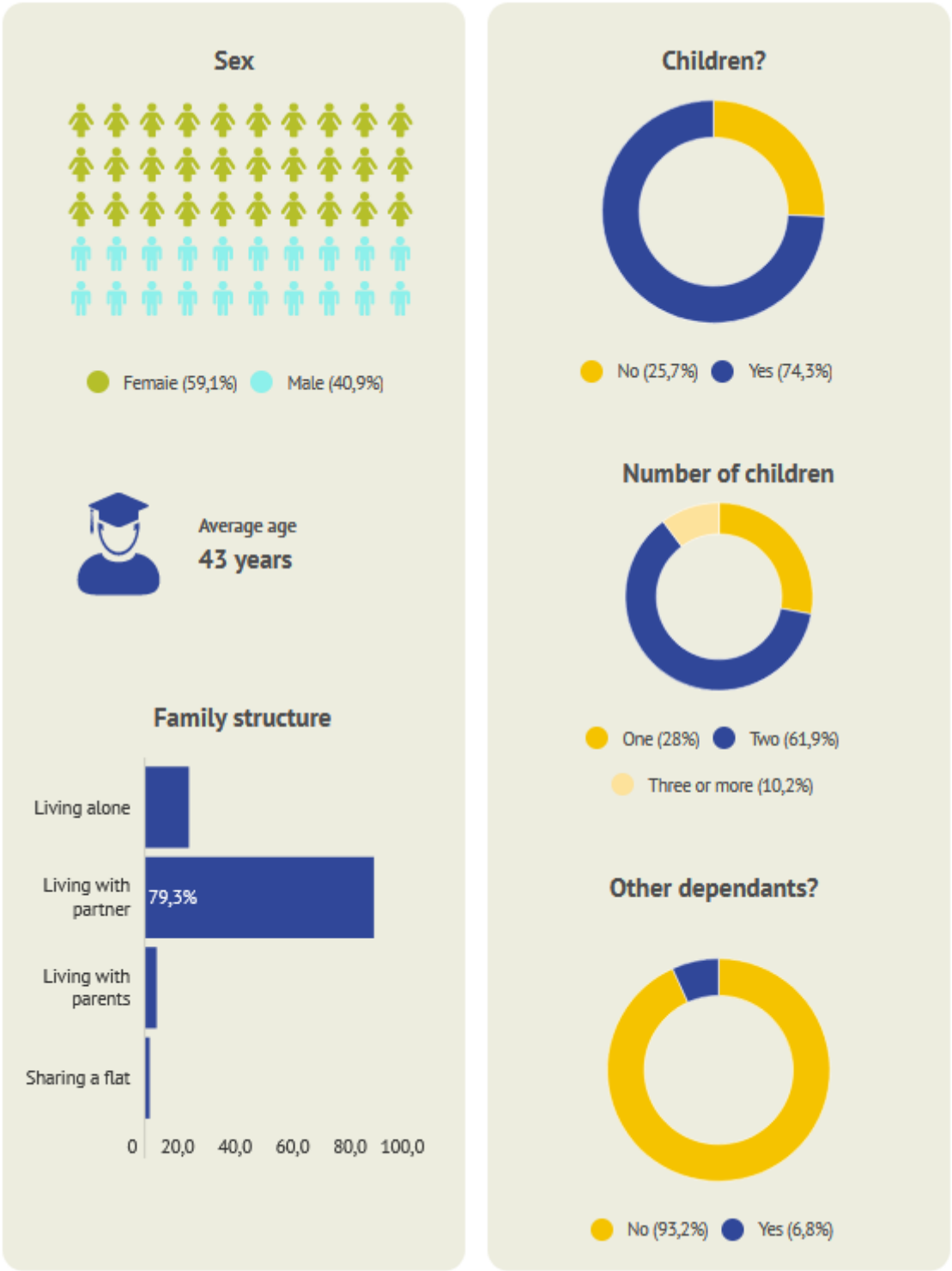
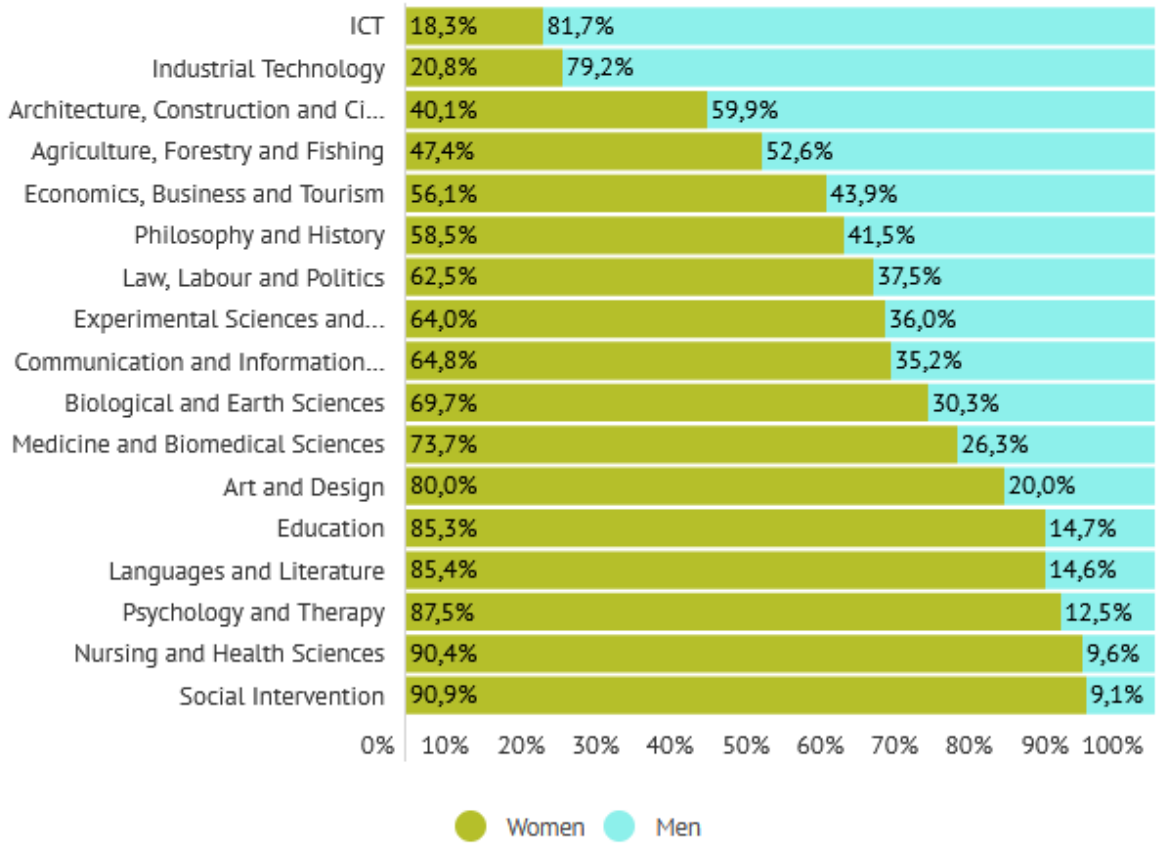


Figure 8. Distribution by extended sub-field among male and female respondents who graduated in 2001[8]



[8] Data from UNEIX.

TREND IN DIFFERENCES IN EMPLOYMENT OUTCOMES BETWEEN MEN AND WOMEN

> Graduate employment and inactivity

Figure 9. Trend in percentage employed population

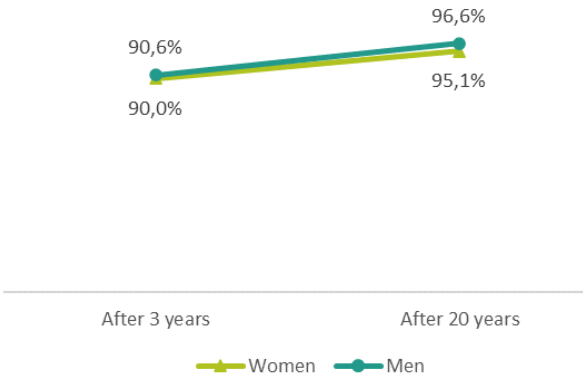


Figure 10. Trend in percentage of inactivity[9]

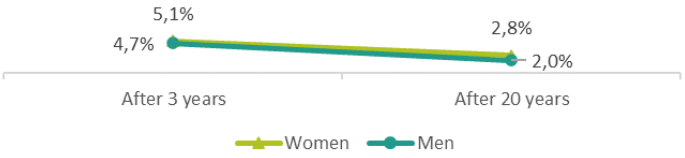
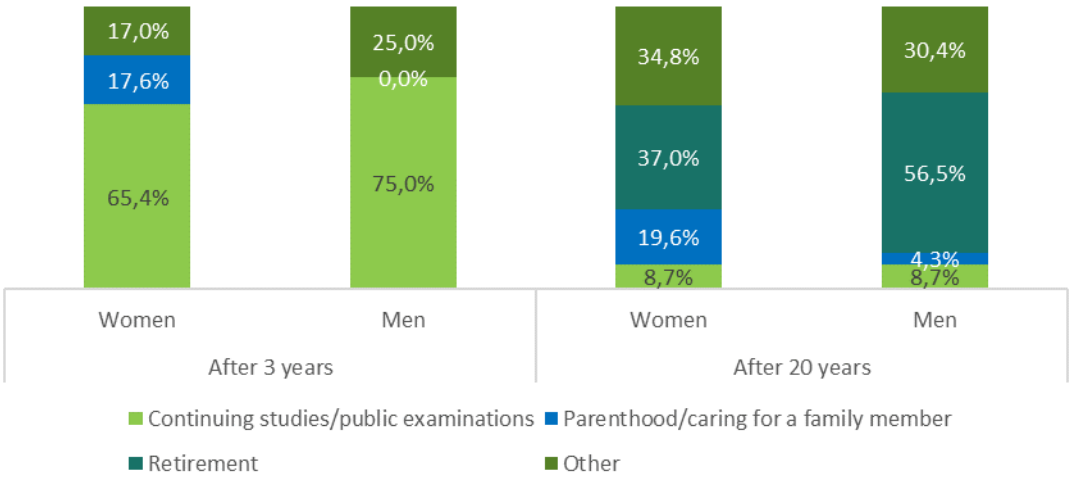


Figure 11. Trend in reasons for inactivity



Twenty years after graduation, employment levels have risen without their being any difference between genders, while there is almost no inactivity

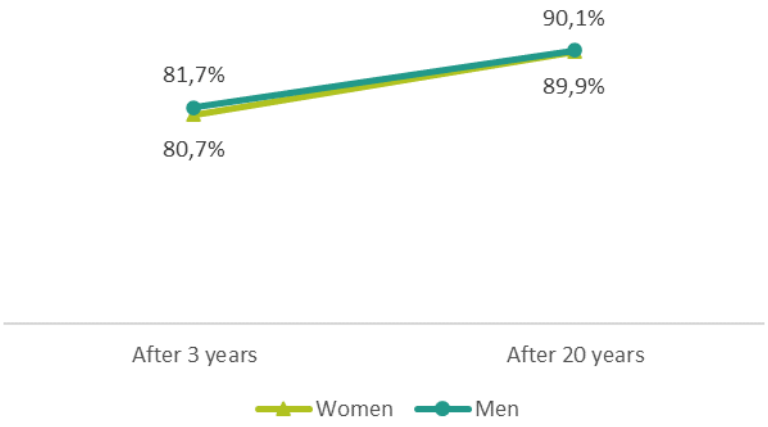
- Only 2% of men and 3% of women are inactive 20 years after graduation.

[9] The percentage of inactivity after three years represents a total of 565 people, dropping to 70 people after 20 years.

- Most of them are inactive due to retirement (57% for men and 37% for women) or other reasons, most of them health-related.
- Inactivity due to caring for a family member is more common for women (20%, *n* =9) than for men (4%, *n* =1).
- It is worth noting that choosing inactivity after three years to invest in educational capital or prepare for public examinations, where men outnumber women by 10%, marks a competitive advantage in terms of qualifications, which may have significant implications for gender inequality in future career prospects.

> Job suitability

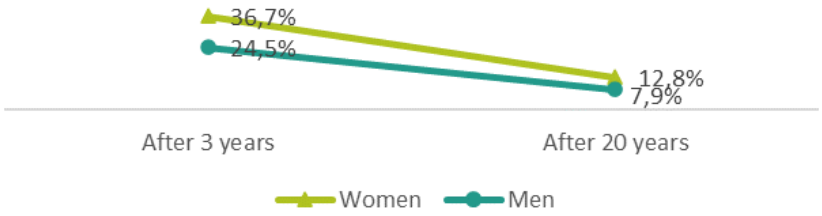
Figure 12. Trend in the performance of university-level functions in the workplace



The quality of employment outcomes increases over the years, and both men and women perform functions appropriate to their level of qualification

> Working conditions

Figure 13. Trend in temporary employment



Over the years, temporary employment, more frequent among women, decreases and the initial gap between men and women also narrows, although it still affects nearly twice as many women as men

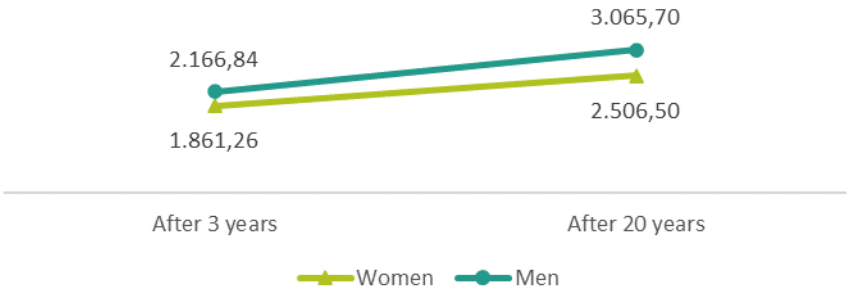
Figure. 14. Trend in part-time employment[10]

Twenty years after graduating, the number of women who opt for part-time work increases, and is three times higher than that of men.

- Although part-time work is already a feminised working condition from initial employment, as time in the labour market increases, and with it parenthood, even more women reduce their working hours without leaving their jobs and start working part-time.

[10] Due to lack of data from the same graduates three years after obtaining their degree, the data for this point in time come from the 2008 edition of the employment outcomes survey, which refers to 2004 graduates.

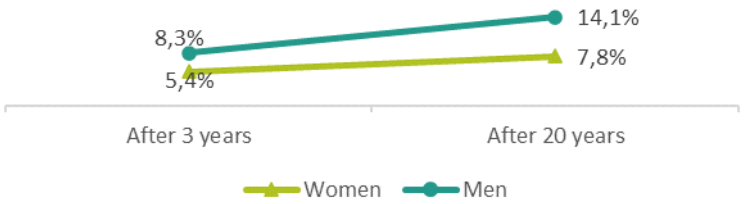
Figure 15. Trend in gross monthly earnings among the full-time employed



The wage gap between men and women increases over the years

- The wage gap exists at initial entry into the labour market and increases after 20 years.

Figure 16. Trend in the percentage of people self-employed.[11]



There are twice as many self-employed workers among men compared to women 20 years after graduation

- Entrepreneurship rises as professional experience increases, as it is more common after 20 years in the labour market than on initial entry.

[11] The number of self-employed people is calculated.

Table 1. Detailed sub-fields in order of percentage self-employed

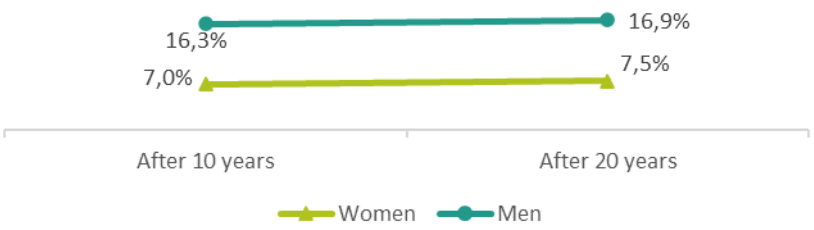
	Survey population		Women		Men	
	n	%	*n*	%	*n*	%
Law	30	10.1	13	9.8%	17	10.6%
Architecture	25	8.4	9	6.8%	16	9.9%
Business Administration	19	6.6	8	6.0%	12	7.5%
Building	19	6.6	4	3.0%	16	9.9%
Agriculture and Food Production	16	5.3	6	4.5%	9	5.6%
Healthcare	15	5.2	10	7.5%	5	3.1%
Medicine and Dentistry	12	4.2	9	6.8%	4	2.5%
Foreign Languages	12	4.0	10	7.5%	2	1.2%
Communication	11	3.6	6	4.5%	5	3.1%
Psychology	11	3.6	9	6.8%	1	0.6%
Industrial Engineering and Organisation	10	3.3	1	0.8%	8	5.0%

About 1 in 10 self-employed workers are in the field of law

- This is an employment option associated with the liberal professions, which also include architecture and medicine, with little gender difference.
- Gender differences occur in fields where entrepreneurship is more of a minority. Women show more entrepreneurship in the field of health, while men do so in engineering.

> Management functions

Figure 17. Trend in leadership/management functions in the workplace[12]



Executive/management functions are more common among men than among women 20 years after entering the labour market, and the percentages are the same as at 10 years after graduation

[12] No information is available for the same graduates three years after graduation. The comparison is between data collected 10 and 20 years after graduation from the sub-sample for which data are available: history, economics and business administration and management, medicine, chemical engineering and agricultural engineering. The volume of people with managerial responsibility is shown, excluding those who are self-employed.

Figure 18. Summary of employment trends 20 years after graduation

The level of **employment** remains equal between men and women 20 years after graduation, and **inactivity** is reduced to 2.5%.

In terms of **temporality** and **job matching**, as their career progresses, the gender gap narrows.

Part-time work, which is more prevalent among women, shows an increasing gender imbalance over the years.

Higher **gross monthly earnings** are more concentrated among men, and the gap widens with respect to women.

Entrepreneurship, although not very present, is masculinised and increases among men 20 years after graduation.

ANALYSIS OF THE MAIN INEQUALITIES BETWEEN MEN AND WOMEN IN THE LABOUR MARKET

The importance of educational attainment in explaining the main gender inequalities

Figure 19. Gender differences in key labour market indicators[13] [14]

	Executive/management responsibilities	Full time	Gross monthly earnings
Philosophy and History			M
Language and Literature			M
Economics, Business and Tourism	M	M	
Law, Labour and Politics	M	M	
Communication and Information Science			
Education		M	M
Biological and Earth Sciences	M		
Experimental Sciences and Mathematics	M	M	M
Nursing and Health Sciences			M
Psychology and Therapy			
Medicine and Biomedical Sciences			
Architecture, Construction and Civil Engineering	M	M	
Industrial Technology	M	M	
ICT	M	M	M
Agriculture, Forestry and Fishing		M	

The differences identified between men and women in the employment outcome indicators cannot be generalised to all the subject sub-fields

- The indicators showing the greatest differences in favour of men are: employment in executive/management positions, full-time work and gross monthly earnings.
- No gender differences are found in communication and documentation, psychology and therapy, or medicine and biomedical sciences.
- By sub-field, there were significant differences in earnings in only 6 out of the 15 sub-fields analysed, although all 6 were in favour of men.

[13] The table shows the result of the hypothesis test for the difference in population means between two groups (women v men for each sub-field) for the main indicators on employment outcome quality where differences between men and women were found. Self-employment is excluded from the analysis as the *n* is insufficient. We considered equality of population means as our main contrast or null hypothesis. The t-test is performed with a confidence interval of 95%. Cells marked with an M indicate a higher score for the men. For these indicators there is no cell with a higher score for women.

[14] No data are given in the fields of Arts and Design and Social Intervention due to the weakness of the sample obtained.

- However, it is worth examining whether the variability in the differences observed in each extended sub-field is still attributable to gender or whether it can be explained by the fact that there is a clear horizontal segregation in the choice of studies, as has already been shown.

Working hours, wages, sex and family

> Sex and family as an explanation for part-time employment[15]

Figure 20. Part-time employment by sex and age group 20 years after graduation[16]

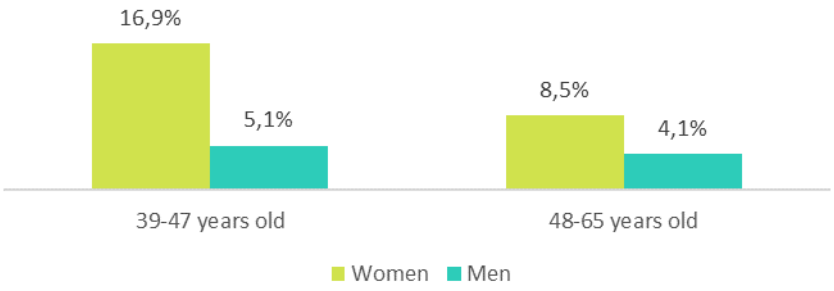
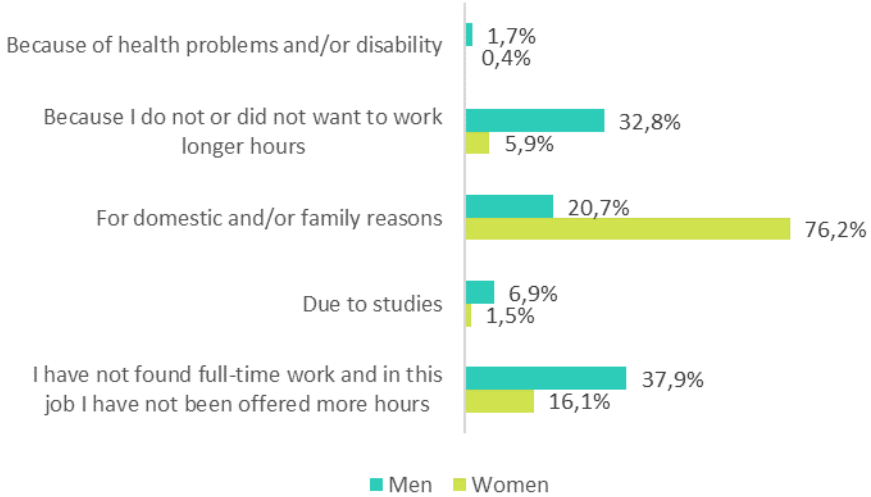


Figure 21. Primary reason for choosing part-time employment 20 years after graduation



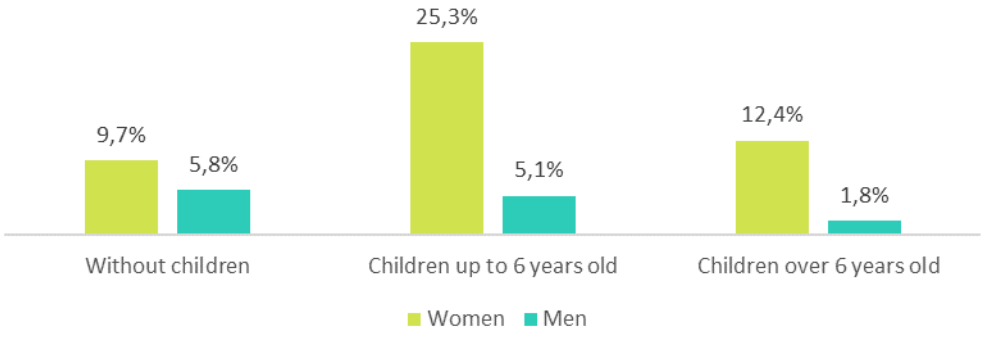
[15] No data for this variable are available from previous editions.

[16] The over-65 age group is not represented due to an insufficient sample.

Part-time employment is clearly feminised in the 39-47 age group, fully coinciding with parenthood[17]

- Domestic and/or family reasons are the main motives given for this employment choice for 3 out of 4 women. This may be indicative of how female university graduates with long academic or professional careers adapt their employment situation to a moment in their lives that coincides with motherhood.
- Part-time work has a double impact. Firstly, there is a direct one: the reduction in earnings that comes with fewer working hours. Secondly, according to the literature, it also has indirect effects: it is a decision that often involves women choosing jobs for which they are over-qualified (occupational downgrading), as not all jobs allow part-time work (CONNOLLY; GREGORY, 2008); it limits chances for promotion and career advancement; and it also has an impact on retirement pensions, exposing women to greater vulnerability in old age (PAZOS, 2013, 145).

Figure 22. Part-time employment among people living with a partner with and without children



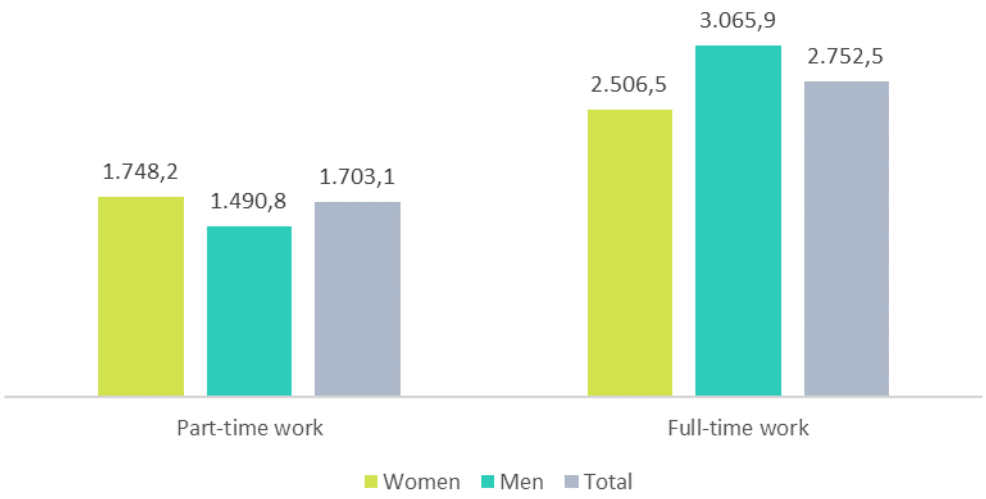
Having children makes women more likely to work part-time. Once children grow up, one sees that a proportion of women stop working part-time and return to full-time work

- This partial withdrawal from the labour market contrasts with differing practices among women in the Nordic countries: for instance, they are more likely to opt for complete career breaks during maternity as quality, longer-term childcare services are available. These behaviours must therefore be understood in the context of choices and decisions made based on available options. For a better understanding of this

[17] A statistically significant association between sex and part-time employment can be detected in the 39-47 age group (Pearson's $\chi 2$ test = 79.157, $df = 1$, $p < 0.001$).

phenomenon, it is important to consider different policy regimes redefined from a gender perspective, classifying countries according to policies aimed at incentivising women's return to the labour market, maternity/paternity leave, family support programmes and flexible working policies (EUROFOUND, 2016, 69).

Figure 23. Wage differentials by working hours



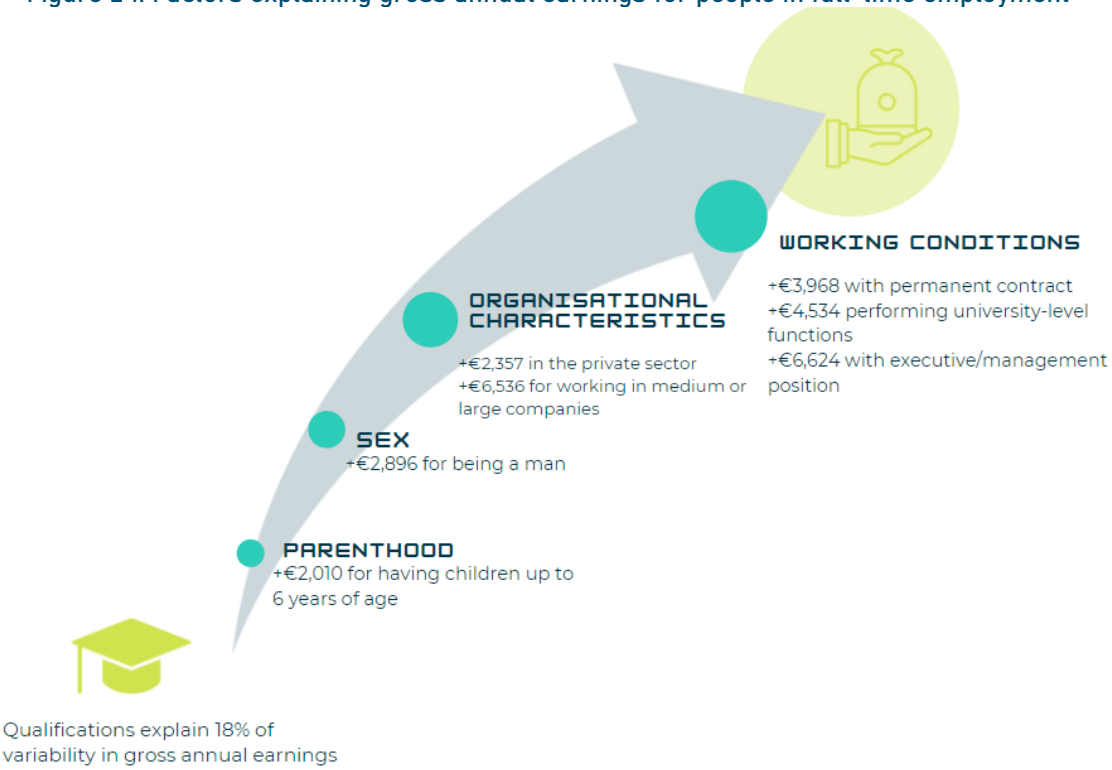
Working hours are strongly associated with earnings: the more hours worked, the higher the earnings[18]

- While women earn slightly more than men in part-time work, the wage gap between men over women increases in full-time work.

[18] Wage earnings show significant differences between part-time and full-time workers (Mann-Whitney U = 648,312.5, p <0.001).

> Studies, sex, family and organisation in explaining the pay gap

Figure 24. Factors explaining gross annual earnings for people in full-time employment[19]



The variance in gross annual earnings is largely explained by qualifications

- Being male influences higher earnings, regardless of qualifications, although the impact is smaller than the qualification itself (see Figure 25).
- Similarly, the type of organisation (medium-sized or large company and private sector) and working conditions (permanent contract, performing university-level functions and having an executive/management position) are aspects that provide the greatest increase in earnings.
- Irrespective of sex, the model also indicates that having children up to 6 years of age is related to an increase in earnings. This result is the opposite of the hypothesis whereby parenthood is a disadvantage in terms of earnings, at least among the graduate population (see Figure 26).

[19] A multilevel linear model was generated to analyse the difference between men and women in gross annual earnings with qualifications as a random effect and explained by: age, parenthood, company sector, company size, executive/management positions, type of contract and functions performed at work. The variance explained by the set of variables introduced as fixed effects is 11%.

Figure 25. Gross annual earnings of full-time men and women by extended sub-field[20]

The pay gap in favour of men persists 20 years after graduation [21]

- Wage differentials favour men in all cases, except for the sub-field of agriculture, forestry and fishing. There is a notable wage gap in nursing and health, followed by ICT and experimental sciences and mathematics.

[20] Data are not shown for the arts and design and social intervention sub-fields, due to an insufficient sample of men and women.

[21] Analysis of variance (ANOVA) of earnings in different subjects for women and for men indicates an $F = 6.389$, $p < 0.000$ and an $F = 3.030$, $p < 0.000$, respectively. The higher F value for women indicates that they have a greater difference in average earnings across groups (study groupings) than men and, therefore, the choice of degree has a greater impact on future earnings.

Table 2. Distribution by branch of occupation of the full-time employed population with degrees in the nursing and health sub-field, and average gross monthly earnings by branch

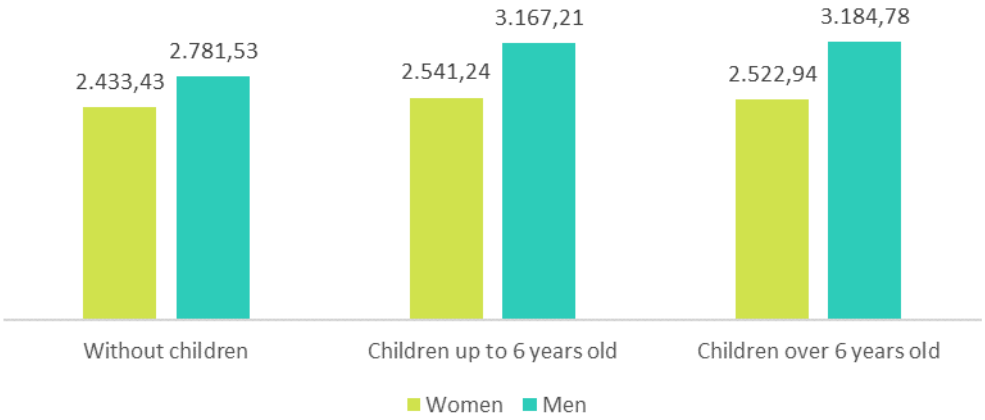
	n		%		Average gross monthly earnings within the branch	
	Women	Men	Women	Men	Women	Men
Industry	1	2	1.1%	11.1%	3,088.2	3,303.9
Consumer services	6	3	6.7%	16.7%	2,350.6	2,898.2
Business services	1	0	1.1%	0.0%	2,554.4	3,013.5
Public administration	1	3	1.1%	16.7%	2,542.2	2,921.9
Education, culture and	5	0	5.6%	0.0%	2,124.9	2,653.0
Social care and health	75	10	84.3%	55.6%	2,528.8	3,217.3
Total	*89*	*18*	*100.0%*	*100.0%*	*2,498.3*	*3,058.5*

The wage gap observed in the nursing and health sub-field is mainly explained by the economic sector of employment

- Approximately 8 out of 10 women are employed in social care and health, while this proportion drops to 5 out of 10 for men. The other half of the male population are employed in economic sectors, such as industry, consumer services or public administration.
- Average wages by branch show that, in all branches, men have a higher wage level than women working in the health and social care branch (€2,528.8).[22]

[22] In this specific case, upon examining the position held by these men who, despite working in the same sector, earn approximately €500 more, it was observed that 59% of them have some form of responsibility, compared to 46% of the women.

Figure 26. Gross monthly earnings among the full-time employed population with and without children



Having children doubles the wage gap between men and women

- Women without children who work full-time earn 87% of the wages of their male counterparts, while this drops to 80% if they have children.
- One also sees that having children correlates with higher wages for both men and women.

> Sex and family as an explanation of the glass ceiling[23]

Figure 27. Factors in inequality in assuming positions of responsibility over other people[24]

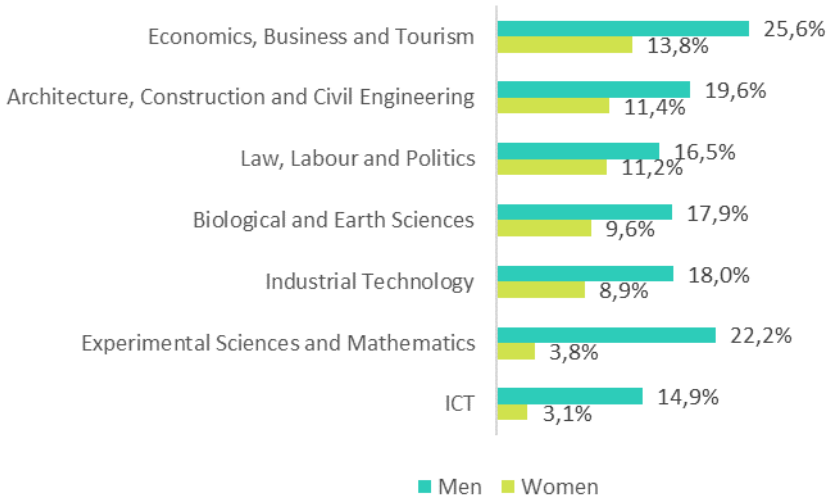
Women in general, people with no children and those in public sector are less likely to occupy positions of responsibility over other people

- In this case, qualifications do not explain achieving such positions; it has more to do with personal and characteristics.

[23] Self-employed people have not been included.

[24] In this case, a logistic model was constructed to analyse the difference in the chances of men and women reaching a position of responsibility over other people (considering only employed persons) explained by: age, parenthood, company sector (public/private) and company size. This dependent variable was chosen for two reasons: firstly, because there is a gap in wages between those with responsibility and those without, and, secondly, because this captures a broader business reality, in small, medium and large companies (with more middle and fewer senior management posts).

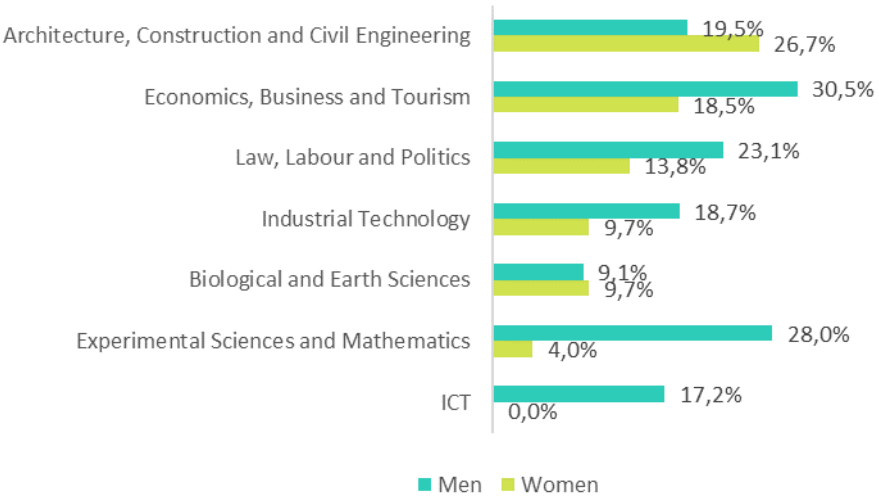
Figure 28. Executive/management positions by extended sub-field where differences have been found



The opportunity of holding executive/management roles predominates in men

- The sub-fields with the highest glass ceilings are experimental sciences and mathematics, ICT, and economics, business and tourism. These include both strongly male-dominated degree groups (e.g. ICT) and others with a balance of male and female graduates.

Figure 29. Executive/management positions among full-time employees in the private sector[25] by extended sub-fields where differences were found



[25] Only the private sector is analysed as it offers more opportunities for reaching executive/management positions.

In the private sector, where there are greater opportunities for reaching executive/management positions, there is still a certain glass ceiling

- However, in architecture, construction and civil engineering, and life and earth sciences, the glass ceiling disappears and women obtain executive/management positions at the same level as men.
- But the glass ceiling remains where the greatest differences are detected (ICT, economics, business and tourism, and experimental sciences and mathematics).

Figure 30. Executive/management positions among full-time employees in the private sector, with and without children, for the extended sub-fields with the greatest differences

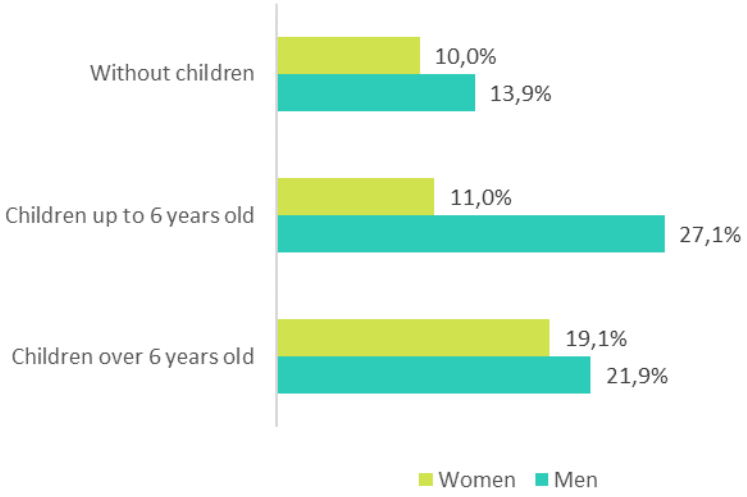


Figure 31. Executive/management positions with the same working conditions (full-time employees in the private sector for the extended sub-areas with the greatest differences) with children up to 6 years of age and not adopting the work-life balance measure of the shorter working day

The arrival of parenthood aggravates the imbalance between men and women in the exercise of executive/management functions

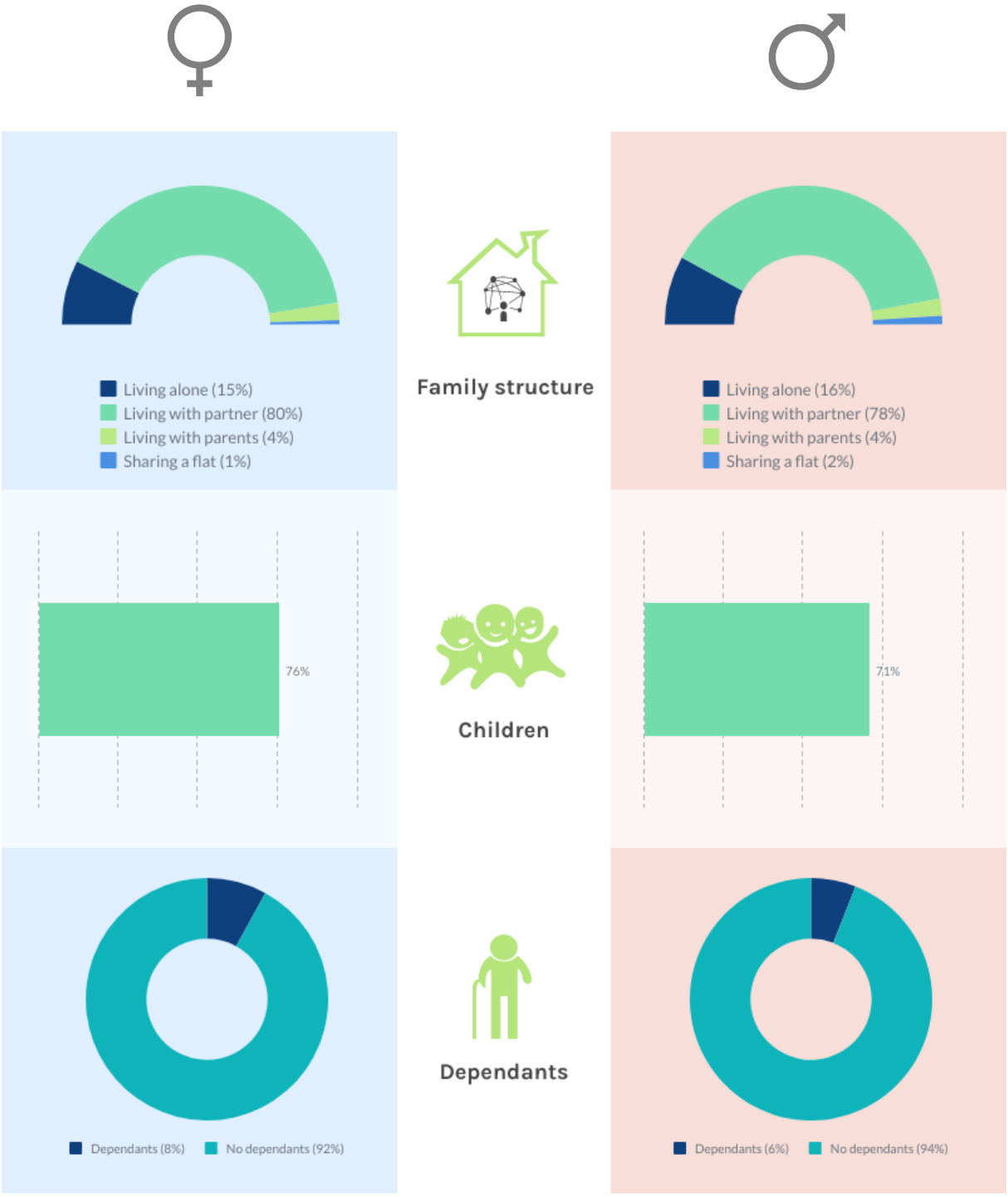
- Among people with children who have not adopted the shorter working day, and therefore spend the same amount of time on work, the gender gap is smaller, but still 8%.[26]

[26] Despite the difference in percentage points, Pearson's chi-square test shows no statistically significant association between sex and holding positions when comparing men and women in the same working conditions and family situations.

FAMILY AND WORK

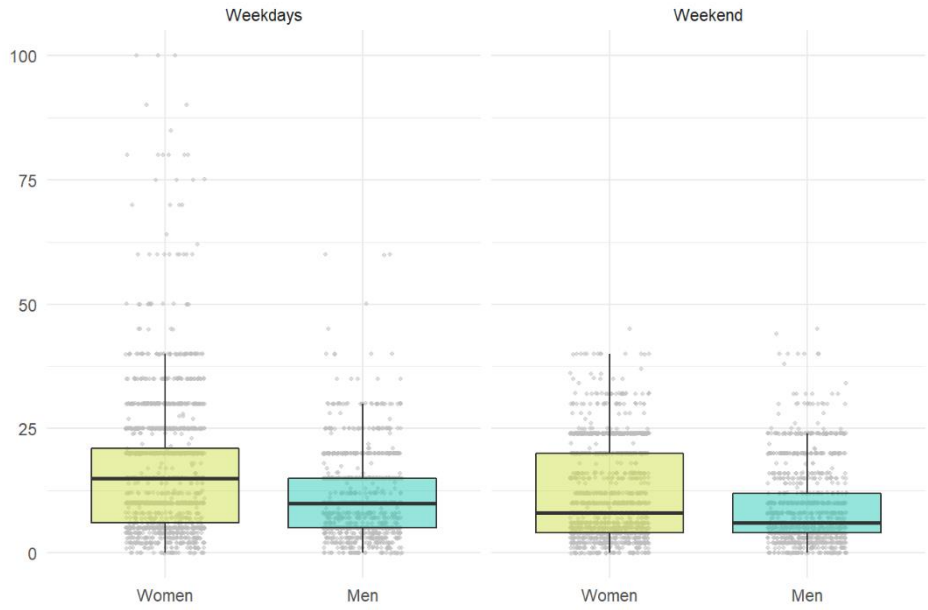
> Family characteristics

Figure 32. Main family characteristics among the respondents



> Working hours in the home

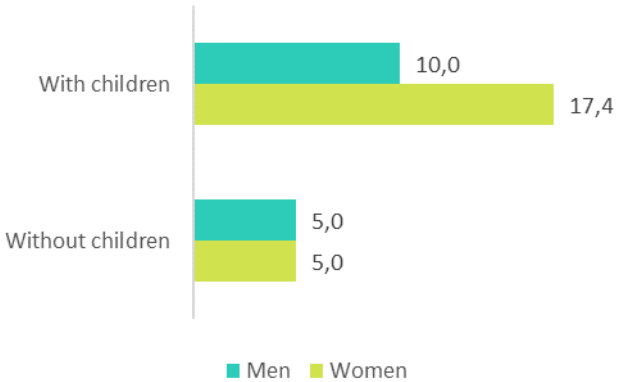
Figure 33. Hours spent on house and care work



Women spend more time on house and care work than men and the sexual division of labour is reproduced in the higher education group

- Time spent on house and care work is more imbalanced during the week than at the weekend, although the difference between the sexes is maintained in the latter. The median values for hours spent on the home during the week is 15 hours for women and 10 hours for men. At the weekend the values are 10 and 6 hours, respectively.

Figure 34. Hours spent on housework during the week, with and without children (median)

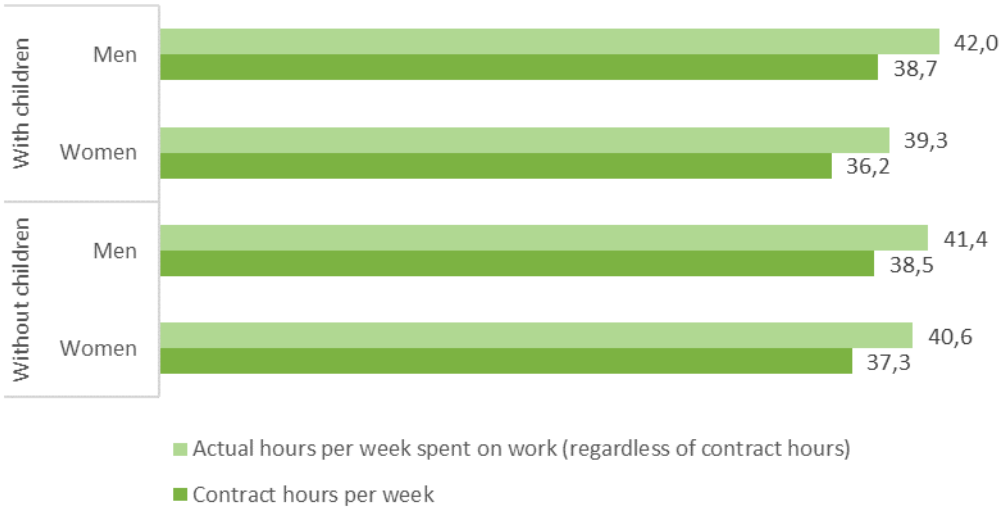


The arrival of children involves a significant increase in hours spent on the home, which falls more heavily on women than on men

- Women with children triple the number of hours spent on the home during the week, while men in the same situation double their hours.

> Work-life balance and sex

Figure 35. Hours per week contracted and actual hours per week spent at work, with and without children

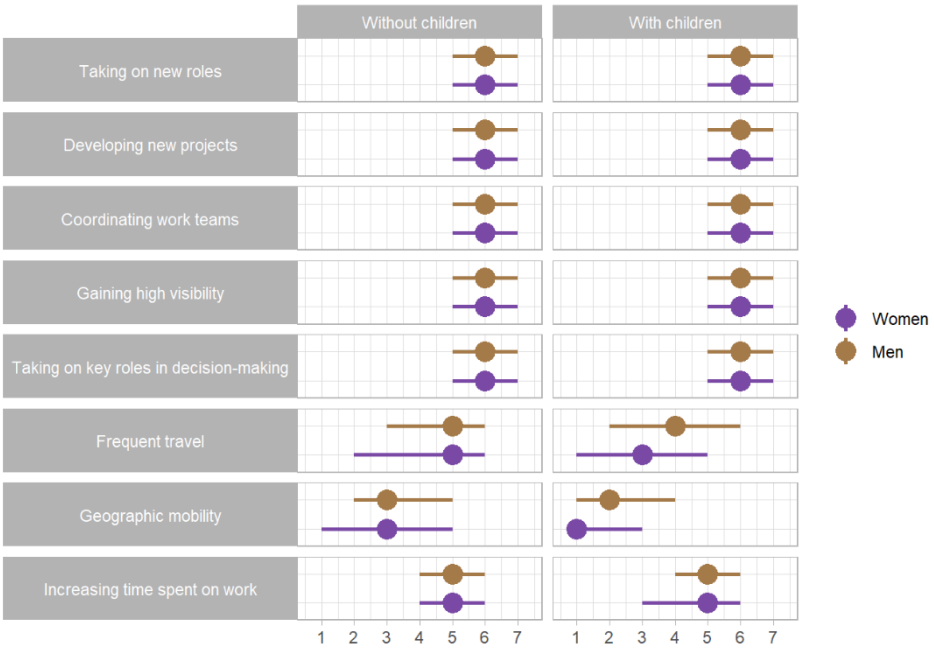


Among men, having children correlates with an increase in the number of contracted work hours and time spent on work, while in women there is a decrease[27]

- Parenthood clearly increases the gap between contract hours and actual hours' work between men and women. Women reduce contract and actual working hours on having children, irrespective of the field, while men increase and exceed actual working hours compared to not having children. This can have a major impact on inequalities in future career advancement by sex.

[27] Time distribution, in terms of both contract hours and actual time spent working, shows significant differences between men and women (Mann-Whitney U = 660.181, p <0.001).

Figure 36. Level of willingness to perform certain roles or actions in the workplace, with and without children (scale from 1 = non-existent to 7 = very high)[28]



In general terms, there are no differences in the willingness of men and women to carry out certain functions in the workplace, except when it comes to travel and geographical mobility, where women show a greater spread in the response

- Parenthood does not affect availability to carry out certain functions or actions (5 out of the 8 indicated), regardless of sex.
- However, differences do appear in both sexes with regard to availability to travel frequently for work, work away from home or increase their time spent on work once children come along. Women's willingness to travel is less than that of men: 1 rating point in terms of travel or geographical mobility. In relation to increasing time spent on work, although the average is similar for men and women, women's response shows greater variability: they range from an average 5 to 3 in some cases.

[28] The graph shows the median (the midpoint value among respondents) for each item and the 25% and 75% values.

Figure 37. Adoption of work-life balance measures

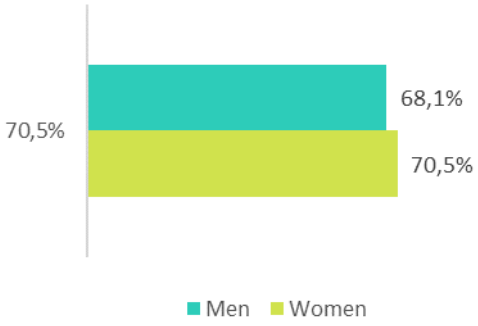
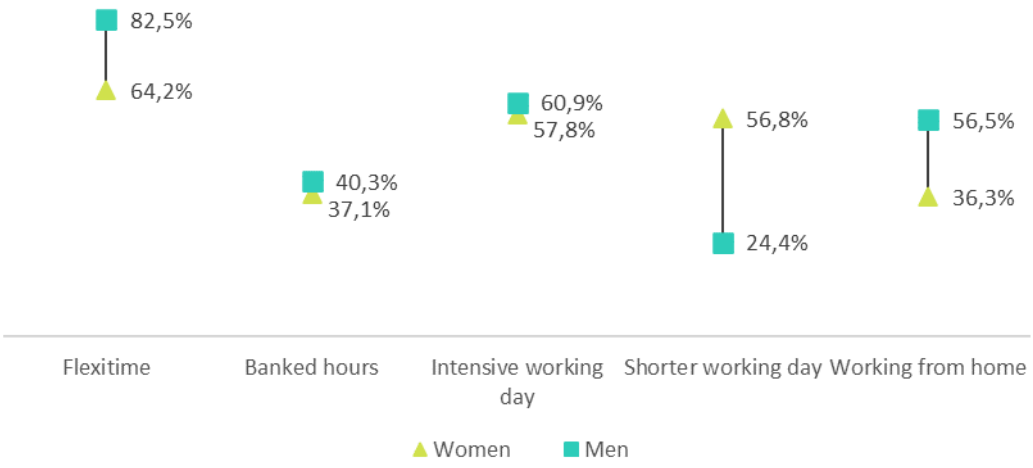


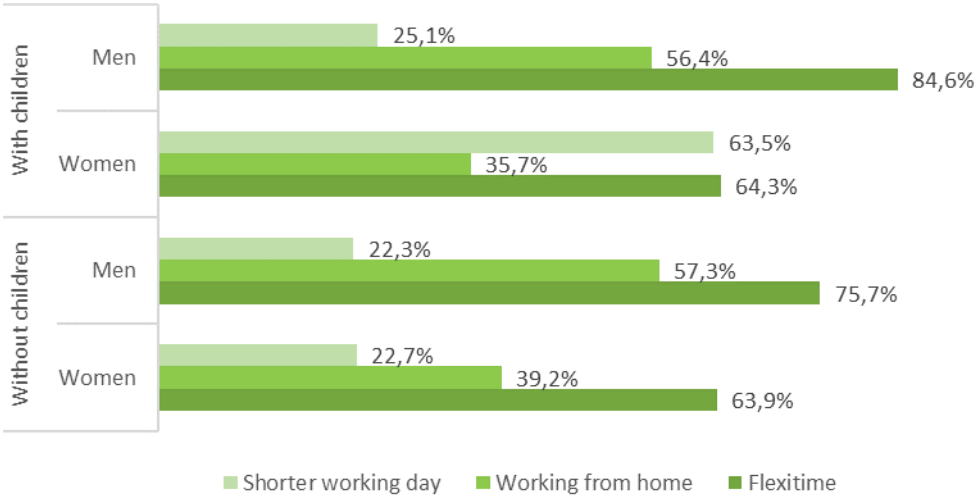
Figure 38. Types of work-life balance measures adopted



Regardless of sex, 7 out of 10 people surveyed make use of work-life balance measures offered by their company, but there are differences in the type of measure adopted

- The most frequently used work-life balance measure is flexitime, while the least used is the shorter working day.
- Men make significant use of flexitime and working from home, while a significantly greater number of women adopt the shorter working day. This implies a reduction in pay and working hours, which is mainly borne by women.

Figure 39. Work-life balance measures with greater imbalance, with and without children.

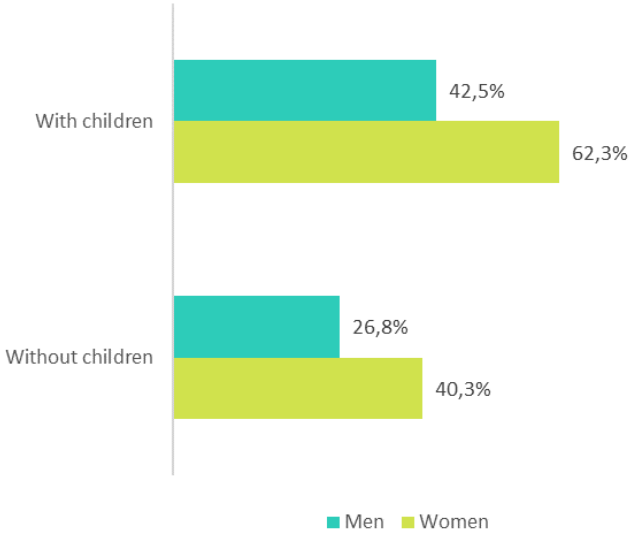


Gender segregation in the choice of work-life balance measures becomes a reality with parenthood.

- If they have children, 8 out of 10 men opt for flexitime, while women choose equally between the shorter working day and flexitime.

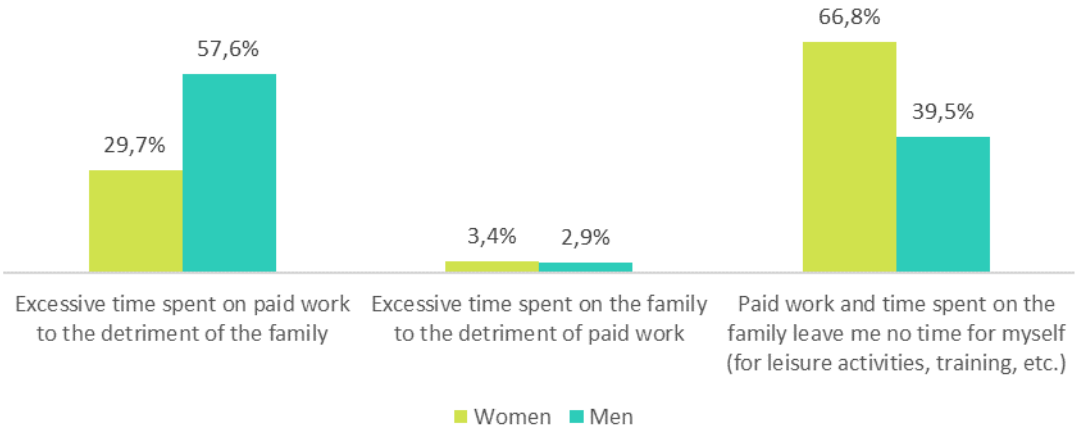
> Conflicts between work and family life[29]

Figure 40. Perception of imbalance in time spent on family, work and self, with and without children



The perception of a lack of balance between time spent on work, family and self is more frequent in women, and is accentuated with the arrival of children

Figure 41. Primary reason for the perceived imbalance in time spent on family, work and self



[29] In this section we analyse those respondents who answered negatively to the following question in the survey: Do you think that the distribution between the time spent on paid work, care and family tasks is adequate for you?

Different reasons for imbalance in time distribution between men and women

- Sixty-seven per cent of women state lacking time for themselves as the main reason, while 58% of men consider that it is excessive time spent on work that leaves them with no time for the family.

> Direct discrimination

Figure 42. Discrimination in recruitment processes by asking the interviewees whether they have a partner or plan to have children

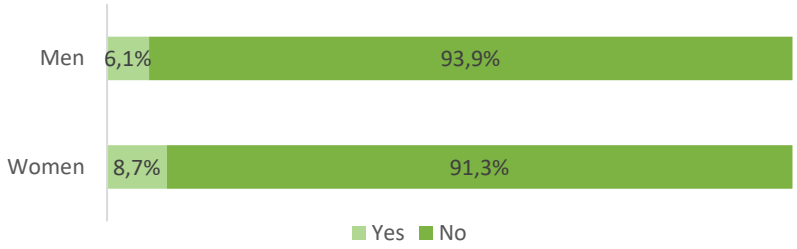


Figure 43. Use of equal standards based on professional competence of staff in line for promotion

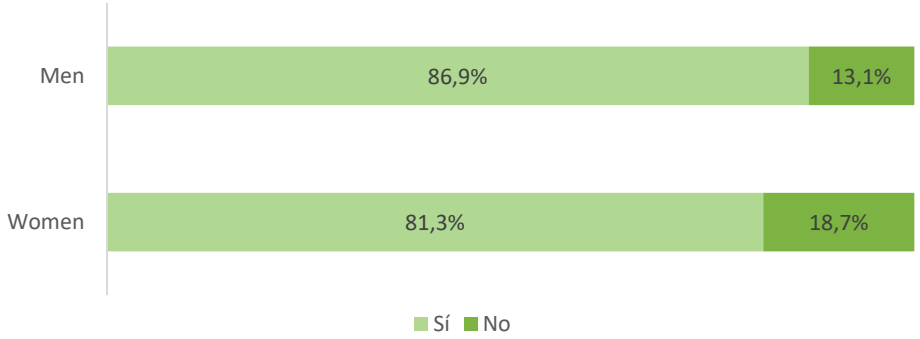
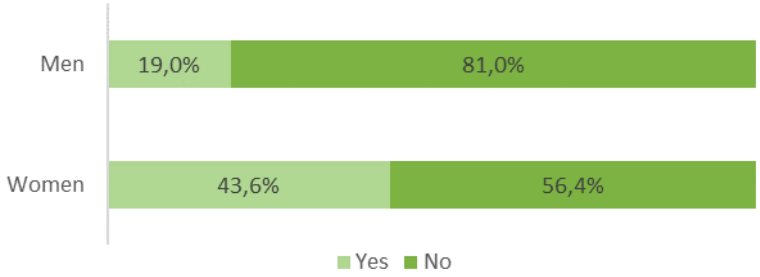


Figure 44. Discrimination in promotion processes due to considering that the standards used depend on the person's sex or gender (by those people who consider that the standards are not equal)



Discrimination in the workplace is perceived to a much more significant degree by women than by men[30]

- Approximately 4 out of 10 women consider the criteria for promotion to be gendered. But only 2 out of 10 men also admit this.

[30] A statistically significant association between sex and perception of discrimination was detected in promotion processes (Pearson's X2 = 22.700, *df* = 1, *p* <0.001).

CONCLUSIONS

Work environment

- **Levels of employment, unemployment and inactivity improve and become more equal between men and women**. This marks a difference compared to groups with lower qualifications, where greater inequalities by sex are found. Twenty years on, education continues to act as an element for upward social mobility and, above all, as a mechanism for equalising opportunities in terms of gender. These same results already appeared in the first study (AQU CATALUNYA, 2010), suggesting a change in trend with regard to the bread-winner model, in which the man is ultimately responsible for the family economy.[31]
- The small initial differences between men and women in terms of **temporary contracts and job suitability disappear** as careers progress.
- However, three major differences between men and women in the employment outcomes can be identified, all of which are closely linked to parenthood:

  a) **Part-time work**. Part-time employment is a very feminised reality, and linked wholly to the care of dependants, since 20 years after graduation it coincides with parenthood. While the part-time option is already more widely adopted among women 3 years after obtaining their degree, 20 years later it increases significantly, while it decreases among men. Women adopt it mainly for family reasons; in contrast, men's motives are diverse, with family reasons being least common.

  b) **The glass ceiling**. The increase in the percentage of women's employment and activity has not been matched in their promotion to positions of responsibility: this is the so-called glass ceiling. Men. people with children and those working in the private sector or more likely to take up such positions, regardless of their qualifications.

  c) **The pay gap**. When analysing the factors that explain the pay gap among university graduates, the results show that the gender pay imbalance described in the literature, without differentiating in educational attainment, loses relevance in the case of university graduates and only accounts for a very low percentage of variability in salaries. The subject studied plays a more important role. In other words, the difference in earnings between men and women is partly caused by the choice of degree, controlling for existing horizontal segregation. The remaining variability in earnings is mainly explained by the individual's working conditions (permanent contract, performing university-level functions and having a management position) and the type of organisation (working in a medium-sized or large company and in the private sector). Finally, in terms of the family dimension produced by parenthood, having children up to 6 years of age coincides with a slight upward variation in earnings, although very small. This result indicates that the

[31] A sociological model based on differentiated role assignment whereby men are assigned the role of head of the household and the main income provider and women the role of housewife and secondary income provider or non-provider (*Women and Work Glossary*, 2007).

decision to start a family is made when a certain threshold is reached in the working and economic conditions of the family nucleus.

- Finally, besides the fact that there may be other invisible forms of discrimination, women perceive more direct discrimination than their male colleagues (in a job interview or promotion), although 20% of men say that there is gender discrimination in promotion processes.

Family environment

- The burden of time spent on tasks carried out in the personal and family sphere shows the persistence of **sexual division in domestic and family labour**. Women spend more time on household tasks than men. And after having children, despite the fact that male graduates increase their time spent on the home, the time gap in hours widens.
- This unequal behaviour in the private family sphere translates into different **work-life balance strategies by sex** when it comes to parenthood. In general terms, when there are no children, working hours, contract hours and willingness to travel or work away from home are very similar for both sexes. However, with the arrival of offspring, women cut back on contract hours and significantly reduce their willingness to do anything that involves going away or being absent for a few days.
- These different strategies can also be observed when it comes to adopting **work-life balance measures within the company**. Although men and women take equal advantage of these types of measures, women are more likely to adopt the shorter working day, which involves a reduction in salary and other indirect effects on their chances of getting certain jobs, promotions or advancement. Men choose alternatives such as flexitime and working from home.

EPILOGUE BY THE WORKING GROUP: CONSIDERATIONS REGARDING THE CONCLUSIONS[32]

The study highlights a number of points of particular interest:

- Gender equality between male and female university graduates is better than among the rest of the population, especially in terms of male and female participation in the labour market. Investment in educational capital continues to benefit equal opportunities.
- It is worth noting that insofar as differences can partly be explained by degree subject studied, more work is needed to encourage a more informed choice of studies so that young people are not directed towards careers that reinforce gender roles, in which women are traditionally assigned care and education-based tasks and men more physical and manipulative activities. Campaigns to promote STEM studies among girls are a good example, but there is also a need to promote feminised careers such as education or nursing among boys. Only through the daily presence of a diversity of gender roles in all areas of education will there be a transformation in children's and young people's perceptions, so that career options are not determined by traditional gender conventions. Work needs to continue towards a more inclusive co-educational policy for women and promoting a more equitable culture, open to new horizons for professional projects that are not defined in masculine or feminine terms. Thus the content of curricula, narratives and spaces within the school must be transformed, placing value and promoting the most female- and male-associated attitudes and behaviours, regardless of sex. All of this involves intervening in the different agents of socialisation and carrying out a profound analysis of actions aimed at changing this reality.
- Although progress has been made by companies to establish work-life balance measures, more work is needed to ensure these measures do not become a means of reproducing inequalities. Feminisation of the shorter working day is indicative of the work-place perpetuation of a sexual division already existing in the private sphere. Greater flexibility is required to help balance work and family life without this meaning a reduction in salary and working hours only for women, with all the direct implications this has for their future careers.
- Greater co-responsibility in household and care work is the basis of a fair and equal society, for both men and women, where both enjoy the same work opportunities, but also quality family spaces free of conflict in how to distribute their time. Considering co-responsibility as an individual matter that falls within the scope of family negotiations ignores the structural inequalities and constraints under which men and women make decisions. Co-responsibility must consider the existing welfare system from a critical gender perspective that analyses the role played by employment policies aimed at expanding women's participation in the labour market, programmes and measures

[32] In drawing up this study, AQU Catalunya enlisted the help of three experts to substantiate the structure of the report and the interpretation of the results.

aimed at caring for children and vulnerable people, paternity/maternity leave policies and measures for flexible working and balancing work and family life (Eurofound, 2016: 70-71). Thus it should ensure current legislation does not help generate statistical gender discrimination, as some studies point out with respect to certain types of paternity leave (López, 2021).

- Last but not least, it must be stressed that all these changes have to be accompanied by deeper transformations in the cultural patterns around us in our daily lives. Such changes are slow, extremely complex, yet necessary, and require the involvement of the whole of society: schools, the media, companies, families and the world of politics.

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Mary Nash
Helena Troiano Gomà

BIBLIOGRAPHY

AQU CATALUNYA (2010) *Gènere i inserció laboral del col·lectiu universitari*. Barcelona: Agència per a la Qualitat del Sistema Universitari de Catalunya.

AQU CATALUNYA (2012) *Gènere i inserció laboral. Dones i homes deu anys després de graduar-se, iguals o diferents?* Barcelona: Agència per a la Qualitat del Sistema Universitari de Catalunya.

CONNOLLY, S.; GREGORY, M. (2009) The part-time pay penalty: earnings trajectories of British women. *Oxford Economic Papers*, 61, i76-i97.

DIRECCIÓ GENERAL D'IGUALTAT D'OPORTUNITATS EN EL TREBALL (2007) *Recull de termes Dones i Treball*. Barcelona: Government of Catalonia, Ministry of Employment.

Encuesta de población activa. Primer trimestre 2020. Instituto Nacional de Estadística (INE).

EUROFOUND (2013) *Women, men and working conditions in Europe*. Luxemburg: Publications Office of the European Union.

EUROFOUND (2016) *The gender employment gap: challenges and solutions*. Luxemburg: European Foundation for the Improving of Living and Working Conditions.

PAZOS MORÁN, M. (2013) *Desiguales por ley. Las políticas públicas contra la igualdad de género*. Madrid: Los Libros de la Catarata.

UNESCO-IESALC (2021) Mujeres en la educación superior: ¿la ventaja femenina ha puesto fin a las desigualdades de género? (viewed on: 1 June 2021).

DATA SHEET

Table 3. Survey respondents 20 years after graduation[33]

Population	People who graduated in the 2000-2001 academic year, except for Medicine graduates (1998-1999 academic year).
Survey period	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.
Average time taken	If working: 11' 36'' If not currently working: 9' 16'' If they have never worked: 4' 36''
Participating universities[34]	University of Barcelona (UB), Universitat Autònoma de Barcelona (UAB), Universitat Politècnica de Catalunya BarcelonaTech (UPC), Pompeu Fabra University (UPF), University of Lleida (UdL), University of Girona (UdG), Universitat Rovira i Virgili (URV)

Table 4. Population and sample data for graduates 20 years after obtaining the qualification equivalent to a university degree, by extended sub-field

	Population	Sample	Response rate	Sampling error
101 Philosophy and History	601	188	31.3%	5.9%
102 Languages and Literature	640	178	27.8%	6.2%
103 Arts and Design	18	5	27.8%	38.3%
201 Economics, Business and Tourism	1,405	337	24.0%	4.7%
202 Law, Labour and Politics	1,240	283	22.8%	5.1%
203 Communication and Documentation	353	105	29.7%	8.0%
204 Education	1,263	333	26.4%	4.6%
205 Social Intervention	197	55	27.9%	11.2%
301 Biological and Earth Sciences	420	119	28.3%	7.6%
302 Experimental Sciences and Mathematics	362	114	31.5%	7.6%
401 Nursing and Health	394	114	28.9%	7.7%
402 Psychology and Therapy	400	112	28.0%	7.9%

[33] The data presented in this report are weighted for stratified sampling by extended sub-field and sampling unit.

[34] The universities that took part in the first gender survey in 2010, and whose population has been monitored over the last 20 years.

403 Medicine and Biomedical Sciences	432	95	22.0%	8.9%
501 Architecture, Construction and Civil Engineering	523	137	26.2%	7.2%
502 Industrial Technologies	1,044	322	30.8%	4.5%
503 ICT	683	180	26.4%	6.3%
504 Agriculture, Forestry and Fishing	526	175	33.3%	6.1%
Total	10,501	2,852	27.2%	1.6%

Table 5. Sample of graduates by gender and extended sub-field (2020)

	Women	Men	Total	% women	% men
101 Philosophy and History	110	78	188	58.5%	41.5%
102 Languages and Literature	152	26	178	85.4%	14.6%
103 Arts and Design	4	1	5	80.0%	20.0%
201 Economics, Business and Tourism	189	148	337	56.1%	43.9%
202 Law, Labour and Politics	177	106	283	62.5%	37.5%
203 Communication and Documentation	68	37	105	64.8%	35.2%
204 Education	284	49	333	85.3%	14.7%
205 Social Intervention	50	5	55	90.9%	9.1%
301 Biological and Earth Sciences	83	36	119	69.7%	30.3%
302 Experimental Sciences and Mathematics	73	41	114	64.0%	36.0%
401 Nursing and Health	103	11	114	90.4%	9.6%
402 Psychology and Therapy	98	14	112	87.5%	12.5%
403 Medicine and Biomedical Sciences	70	25	95	73.7%	26.3%
501 Architecture, Construction and Civil Engineering	55	82	137	40.1%	59.9%
502 Industrial Technologies	67	255	322	20.8%	79.2%
503 ICT	33	147	180	18.3%	81.7%
504 Agriculture, Forestry and Fishing	83	92	175	47.4%	52.6%
Total	1,699	1,153	2,852	59.6%	40.4%

Table 6. Mixed linear model to explain the annual gross earnings of full-time employees

Predictors	Coefficients	SE	*p*
(Intercept)	14,797.36	1,304.9	< 0.001
Sex: men	2,896.03	540.48	< 0.001
Age bracket: 48-65 years old	-128.26	822.96	0.876
Age bracket: more than 65 years	189.83	2,514.38	0.94
Children up to 6 years old	2,010.08	613.38	0.001
Children over 6 years old	1,057.83	600.19	0.078

Number of employees: medium-sized and large	6,536	818.42	< 0.001
Activity: private	2,357.13	557.94	< 0.001
Permanent contract: yes	3,967.73	664.46	< 0.001
Functions performed in the workplace: university-level functions	4,533.78	793.25	< 0.001
Executive/management responsibilities: yes	6,623.64	664.35	< 0.001
Random effects			
σ2		132099790.2	
τ00 programme		29046454.77	
ICC		0.18	
N programme		83	
Observations		2,460	
Marginal R^2 / Conditional R^2		0.109 / 0.270	
AIC		52,970.089	

Table 7. Logistic model to explain the assumption of positions of responsibility over other people

Predictors	OR	SE	*p*
(Intercept)	0.51	0.83	0.422
Sex: men	2.1	0.16	< 0.001
Age	1.01	0.02	0.584
Activity: private	1.58	0.15	0.002
Full-time work: yes	2.05	0.22	0.001
Shorter working day: yes	1.25	0.16	0.172
Number of employees: medium-sized and large	0.38	0.28	0.001
Parenthood: yes	1.73	0.18	0.002
Random effects			
σ2		3.29	
τ00 programme		0.08	
ICC		0.02	
N programme		78	
Observations		999	
Marginal R^2 / Conditional R^2		0.102 / 0.122	
AIC		1,250.758	

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Agència per a la Qualitat del Sistema Universitari de Catalunya
July 2021 - AQU-36-2021


AQU CATALUNYA