

THE EMPLOYMENT STATUS OF TERTIARY EDUCATION GRADUATES IN SPAIN: A EURO AREA COMPARISON

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The economic literature has often stressed that tertiary education lies behind cross-country differences — in terms of economic growth and the level and pace of productivity gains — and differences among individuals — as regards wages or the availability of job opportunities.¹ However, the ensuing benefits for various tertiary education qualification holders differ.² Furthermore, it may be that supply and demand for each specific qualification become decoupled. Indeed, in the case of Spain, some recent analyses have highlighted a notable mismatch between the most popular qualifications among students and those most sought-after by employers.³ The unemployment rate of Spanish tertiary education graduates aged 30-34 in 2018 approximately doubled that of their European peers. This poses the question of the extent to which this difference is because of the different specialisation of Spanish tertiary education graduates in terms of the qualifications they choose.

Charts 1 and 2 show the distribution of tertiary education students by field of specialisation for Spain and the euro area in 2006 and 2018. These two years are useful for analysing possible shifts in the latest period.

Both in Spain and the euro area, social sciences and law comprise the most common group of qualifications among individuals aged 30-34 with a tertiary education, accounting for around one-third of the total. This group is followed by the engineering and health-related fields. Despite these similar patterns, there are some differences between Spain and the euro area. Specifically, the share of tertiary education students studying education, information and communication technologies (ICTs), services and health-related fields is higher in Spain. Conversely, the share of degrees related to social sciences and law, engineering and the arts is lower in Spain. Moreover, these differences were far smaller in 2006,

meaning that this difference in the specialisation of Spanish tertiary students emerged after the 2008 global financial crisis. Since then, in Spain tertiary education graduates from the education, ICTs, services and health fields have increased at the expense of the social sciences and law, arts and humanities, and engineering and construction fields.

The distribution by field of specialisation also reveals important gender gaps. Men account for a large majority of engineering and ICTs tertiary graduates (see Charts 7 and 8). At the other end of the scale are health and education, where women represent more than two-thirds of total tertiary education graduates. These differences are very similar to those observed in the euro area in 2006 and 2018.

Consequently, the high unemployment rate of Spanish tertiary education graduates compared to the related euro area rate does not, ostensibly, seem to be due to the different field of specialisation. Indeed, the unemployment rate of Spanish tertiary graduates in 2018 was much higher for all qualifications, except for arts, humanities and languages (see Charts 3 and 4).

To more accurately determine the explanatory power of the different specialisation of individuals with a tertiary education in Spain, it is worth performing a simple hypothetical or counterfactual exercise. This involves calculating an employment rate for all individuals with a tertiary education in Spain drawing on the unemployment rates for each individual qualification and their observed distribution in the euro area (see Table 1). Comparing this dummy unemployment rate with the observed rate measures the extent to which the different tertiary education specialisation could be behind the differences observed relative to the unemployment rate in the euro

1 For the importance of tertiary education to economic growth, see, for example, J. Vandenbussche, P. Aghion, and C. Meghir (2006), "Growth, distance to frontier and composition of human capital", *Journal of Economic Growth*, 11(2), 97-127; P. Aghion and P.W. Howitt (2008), *The economics of growth*, MIT Press; and E.A. Hanushek (2016), "Will more higher education improve economic growth?". *Oxford Review of Economic Policy*, 32(4). From an individual standpoint, having a tertiary education qualification is also usually associated with better labour market outcomes. A summary of some of this literature can be found in P. Oreopoulos and U. Petronijevic (2013), "Making College Worth it: a Review of Research on the Returns to Higher Education", *NBER Working Paper* No. 19053.

2 By way of example, according to the Spanish Labour Force Survey (EPA by its Spanish initials), the average monthly wage received in 2018 by workers with tertiary education qualifications related to personal services, such as security or hospitality, was €2,063/month, compared with €2,934 in the case of engineering.

3 Drawing on employability indicators by area of study (Table 17 of the U-Ranking 2020 project, F. Pérez and J. Aldás (2020), "U Ranking 2020: Synthetic Indicators of Spanish Universities" Fundación BBVA- IMIE 8th edition) there is practically no correlation (3%) between the distribution of the qualifications of tertiary education students who completed their studies in the 2013-2014 academic year and the rate of social security registrations in each field of education in 2018. Specifically, 30% of tertiary education students had chosen a degree that, on completion, had a lower rate of social security registrations than the average rate of 71% across the different fields of education.

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area.⁴ The result is that the unemployment rate of young Spanish tertiary education graduates would have been very similar, in 2006 and 2018, had the distribution by specialisation been the same as that observed for the euro area as a whole.

The gap between male and female tertiary education graduates' unemployment rates in Spain was 1.9 pp in 2006, 0.6 pp higher than in the euro area. In 2018, the gender gap in unemployment rates had fallen to 1.6 pp, 0.1 pp lower than in the euro area. The role of

Chart 1
TERTIARY-EDUCATED POPULATION AGED 30-34, BY QUALIFICATION, SPAIN AND EURO AREA. 2006

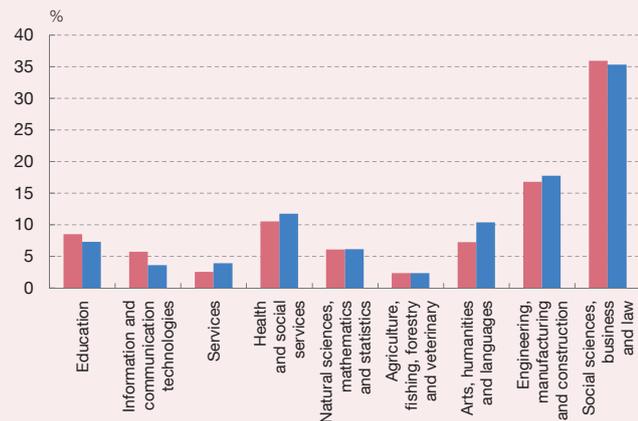


Chart 2
TERTIARY-EDUCATED POPULATION AGED 30-34, BY QUALIFICATION, SPAIN AND EURO AREA. 2018

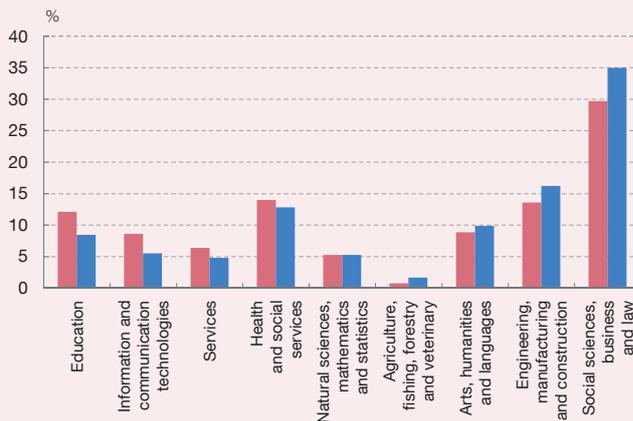


Chart 3
UNEMPLOYMENT RATE AMONG TERTIARY-EDUCATED POPULATION AGED 30-34, BY QUALIFICATION. 2006

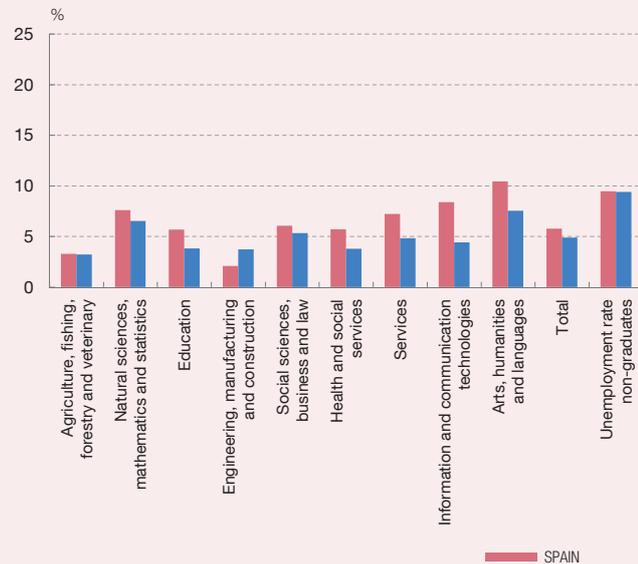
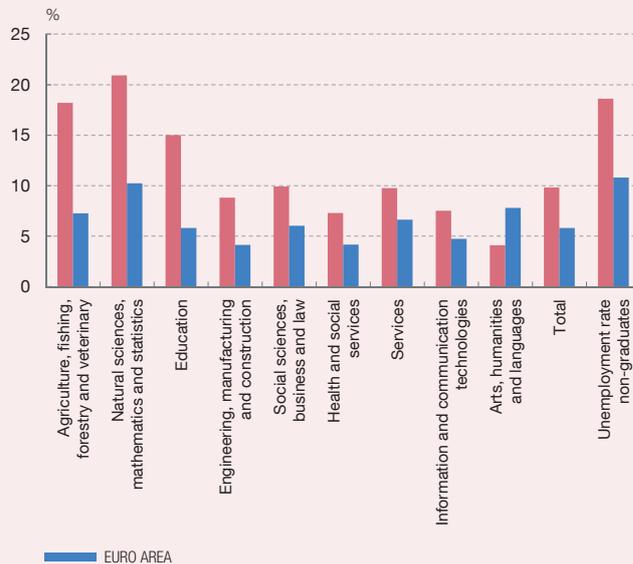


Chart 4
UNEMPLOYMENT RATE AMONG TERTIARY-EDUCATED POPULATION AGED 30-34, BY QUALIFICATION. 2018



SOURCE: Eurostat (Labour Force Survey).

4 The analysis disregards considerations such as the possible coverage of imbalances between domestic supply of tertiary education graduates and the related demand in each of the fields of specialisation via differing flows of immigrants with a tertiary education. In any event, there does not seem to be a clear correlation, by field, between foreign tertiary education graduates as a percentage of total graduates from that field and the differences in that qualification's weight within total qualifications compared with the euro area.

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specialisation is also different between the two years. Thus, in 2018, in the hypothetical case that distribution by qualification in Spain had been identical to that in the euro area, the male unemployment rate would have been higher and the female unemployment rate lower, closing the gender gap. Conversely, in 2006 the gender

gap between the unemployment rates in Spain was slightly higher when calculated with the euro area qualification distribution.

One measure of the quality of the tertiary education system is the proportion of graduates working in high-

Chart 5
TERTIARY-EDUCATED EMPLOYED POPULATION AGED 30-34 IN HIGH-SKILLED JOBS, BY QUALIFICATION. 2006

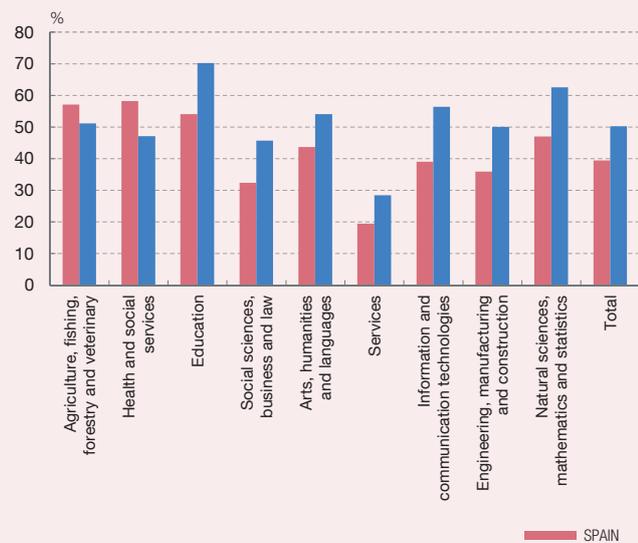


Chart 6
TERTIARY-EDUCATED EMPLOYED POPULATION AGED 30-34 IN HIGH-SKILLED JOBS, BY QUALIFICATION. 2018

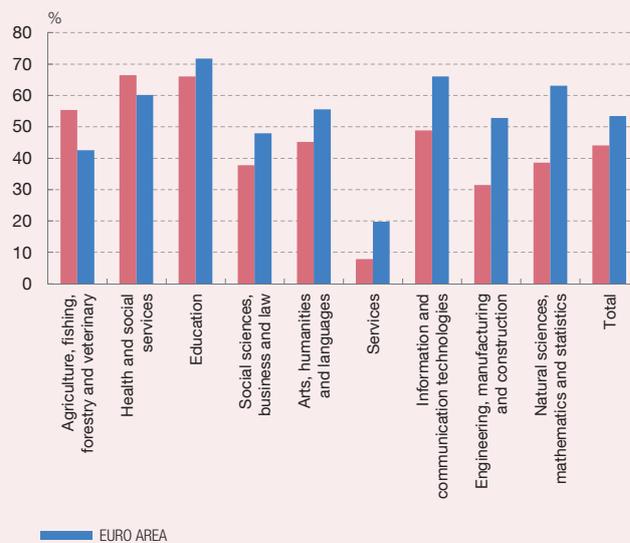


Chart 7
DIFFERENCE BETWEEN TERTIARY-EDUCATED MEN AND WOMEN AGED 30-34, BY QUALIFICATION. 2006

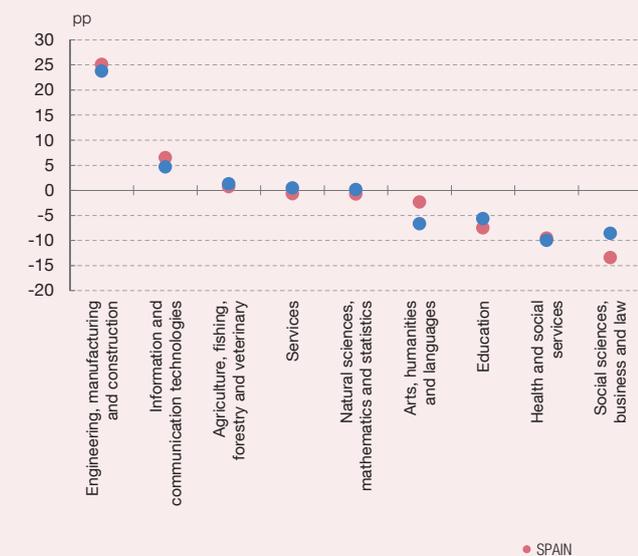
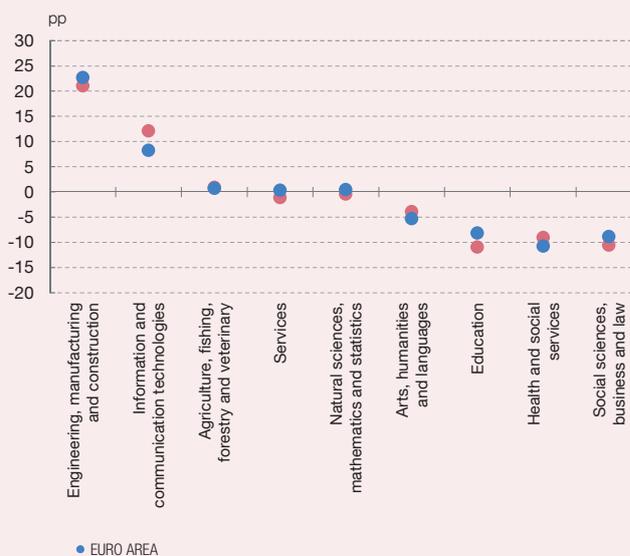


Chart 8
DIFFERENCE BETWEEN TERTIARY-EDUCATED MEN AND WOMEN AGED 30-34, BY QUALIFICATION. 2018



SOURCE: Eurostat (Labour Force Survey).

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skilled jobs.⁵ The share of young Spanish tertiary education graduates working in high-skilled jobs is lower than in the euro area (see Charts 5 and 6). However, in this case, the differences are much smaller than in the unemployment rate. Furthermore, they are uneven across fields of specialisation. Thus, in Spain in 2018 there was a

higher proportion of skilled workers in agriculture and health, with the difference attributable to men in the case of the former and to women in the latter, while in the rest of the fields the shares were lower than those of the euro area. In 2006 the situation was similar, with somewhat lower shares of skilled workers from all degrees. The

Table 1
UNEMPLOYMENT RATES FOR TERTIARY-EDUCATED POPULATION AGED 30-34. SPAIN AND THE EURO AREA

	2006			2018		
	Spain (%)	Unemployment rates in Spain, distribution by euro area qualification (a) (%)	Euro area (%)	Spain (%)	Unemployment rates in Spain, distribution by euro area qualification (a) (%)	Euro area (%)
All	5.7	5.8	4.9	9.8	9.8	5.8
Men	4.8	4.6	4.2	8.9	9.7	4.9
Women	6.7	6.7	5.5	10.5	9.8	6.6

SOURCE: Eurostat (Labour Force Survey).

a The unemployment rates in Spain are weighted by labour force qualification in the euro area.

Table 2
PROPORTION OF TERTIARY-EDUCATED EMPLOYED POPULATION AGED 30-34, IN HIGH-SKILLED JOBS (a). SPAIN AND EURO AREA

	2006			2018		
	Spain (%)	% of employed persons in high-skilled jobs in Spain, distribution by euro area qualification (b) (%)	Euro area (%)	Spain (%)	% of employed persons in high-skilled jobs in Spain, distribution by euro area qualification (b) (%)	Euro area (%)
All	39.4	39.8	50.2	44.0	42.8	53.4
Men	39.0	39.2	51.8	40.4	40.2	54.3
Women	39.7	40.9	48.6	46.8	45.4	52.6

SOURCE: Eurostat (Labour Force Survey).

a High-skilled jobs are occupations 1 and 2 of the International Standard Classification of Occupations (ISCO): 1 -Managers; 2 -Middle management and professionals.

b The proportion of employed persons in high-skilled jobs in Spain is weighted by qualification of employed persons in the euro area.

5 In this analysis, high-skilled jobs are associated with Major Groups 1 and 2 of the International Standard Classification of Occupations: 1 - Managers; 2 - Professionals.

relative improvement between 2006 and 2018 is fundamentally due to women, without the different specialisation playing an important role in the gap with Europe, as is shown in Table 2, which constructs a dummy rate of tertiary education graduates in high-skilled jobs, calculated in a similar fashion to the dummy unemployment rate. Were the distribution across degrees to match the European one, the share of skilled workers among young tertiary education graduates would be very similar (slightly higher in 2006 and slightly lower in 2018).

The evidence set out suggests that the greater incidence of unemployment among Spanish tertiary education

graduates is not due to a qualification choice skewed more towards those with fewer employment opportunities than in the euro area as a whole. Conversely, the on-average less skilled jobs performed by young Spanish tertiary education graduates suggests that their higher level of unemployment compared with their euro area peers may be due to, among other factors, poorer-quality tertiary education. Likewise, we cannot rule out the presence of structural characteristics of the economy constraining the labour market's ability to appropriately absorb the flows of new tertiary education graduates.