

JOB OPPORTUNITIES AND SUPPLY AND DEMAND MISMATCHES FOR PLACES ON VOCATIONAL TRAINING COURSES

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In recent years, Spanish firms have become increasingly concerned about the need to adapt workers' human capital to the requirements of constantly evolving jobs. According to the Business Environment Module of the Business Confidence Indicator, the percentage of Spanish firms considering this factor to be of medium or high importance for their activity increased by 8 percentage points (pp) between 2013 and 2019 (the largest increase for all the aspects analysed), to 28.5% of all the survey respondents (see Chart 1).

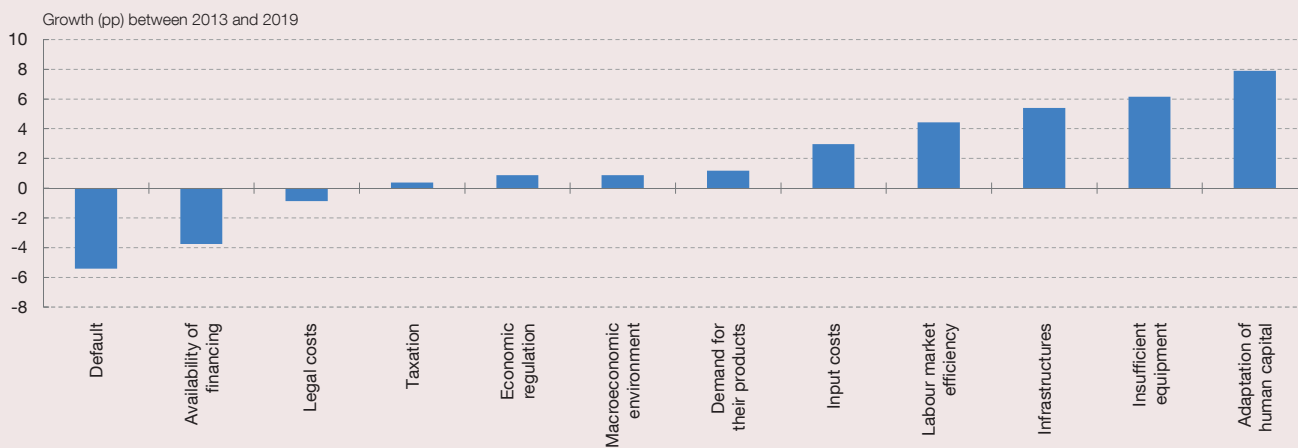
In a setting like the present one, in which the Spanish economy, along with many other European economies, is facing increasing digitalisation of economic activity, potentially far-reaching changes in its sectoral composition (not only as a result of the COVID-19 pandemic, but also, for example, of the transition to a more sustainable economy) and marked population ageing, it is particularly important for the human capital of Spain's workers and employers to be constantly increased and updated. Addressing this challenge requires ambitious economic

policy action in highly diverse areas, notably including a comprehensive review of all areas of the Spanish education system and, in particular, university education and vocational training.¹

In the area of vocational training, the focus of this box, the Organic Vocational Training Bill is currently before Parliament.² Broadly speaking, this draft legislation seeks to transform the vocational training system in Spain, by creating a single system of vocational training for students, the employed and the unemployed, to foster training opportunities throughout working lives, the accreditation of skills, and cooperation between training centres, universities and the workplace.

At the same time, the Recovery, Transformation and Resilience Plan presented by the Spanish government on 30 April to the European authorities within the framework of the Next Generation EU (NGEU) programme envisages investment of €254 million over the coming years to provide 200,000 additional vocational training places in

Chart 1
GREAT OR MEDIUM IMPORTANCE FOR DOING BUSINESS AND GROWING (% OF FIRMS)



SOURCE: INE.

NOTE: The data are from the Business Environment Module of the INE's Business Confidence Indicator. The chart depicts the changes in the sum of the percentage of firms that attach great or medium importance to these factors (the remainder attach little importance to them).

1 For further details on the importance of this challenge in terms of its bearing on the outlook for the Spanish economy in coming years and on the various economic policy measures that it may be advisable to adopt, see P. Hernández de Cos (2020), "The main post-pandemic challenges for the Spanish economy. Appearance before the Parliamentary Committee for the Economic and Social Reconstruction of Spain after COVID-19/Congress of Deputies – 23 June 2020", *Occasional Paper No 2024*, Banco de España.

2 See *Proyecto de Ley Orgánica de Ordenación e Integración de la Formación Profesional* (available in Spanish only).

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Spain.³ When deciding how these new places, and indeed existing ones, should be distributed between the current qualifications and, possibly, certain new qualifications that may be designed to better respond to the changing needs of firms, a highly detailed analysis of such present and future needs and of the contribution of all the groups involved is required.

With a view to contributing to this analysis, this box documents, first, the extent to which the different vocational training qualifications currently available offer their graduates different prospects in terms of labour market participation. Second, based on the cut-off mark for admission to each of these programmes, it explores whether there is any significant mismatch between the supply of and demand for places for any of the qualifications that offer better job opportunities.

The first four columns of Table 1 show, for each of the intermediate and higher vocational training course groups, different metrics that proxy the job prospects of their graduates. In particular, based on information provided by the Ministry of Education, the first column presents, for each qualification, the mean social security registration rate⁴ in March 2019 of the cohort of students who graduated in 2014-2015.⁵ The second column reports the same registration information, but as the average for the period 2015-2019.⁶ The data in the third and fourth columns are taken from the Survey on the Transition from Education/Training to Labour Market Insertion conducted by the Spanish National Statistics Institute in 2019. The third column indicates the percentage of graduates in each qualification in 2013 and 2014 who were employed at the time of the survey (between September 2019 and

January 2020),⁷ while the fourth column shows the unemployment rate for each qualification, constructed as the ratio of graduates who report being unemployed to those who report being active in the labour market (employed or unemployed).

For purposes of clarity, each of the four indicators in Table 1 appears shaded when it outperforms the median. Thus, the intermediate vocational training qualifications that appear to offer their graduates better job opportunities are mechanical manufacturing, installation and maintenance, transport and vehicle maintenance, electricity and electronics, and health care. Among the higher vocational training course groups, the qualifications with the best job opportunity indicators in relative terms are mechanical manufacturing, installation and maintenance, IT and communications, transport and vehicle maintenance, electricity and electronics, chemistry, food industries, and commerce and marketing.

Subsequently, to analyse possible problems in the supply of and demand for places, and to relate them to the previous measures of job opportunities by course group, the information on the admission cut-off mark⁸ for each vocational training qualification in the 2020-2021 academic year (fifth column in Table 1) was used. Intuitively, the supply of places for qualifications with the highest cut-off marks will be relatively lower compared with existing demand.⁹

In keeping with this criterion, Table 1 shows that the supply and demand mismatch is particularly severe in two intermediate vocational training course groups that offer better job prospects for their graduates: transport and vehicle maintenance, and health care. Indeed, these two

3 See *Strategic Plan for Vocational Training* (available in Spanish only), Project 20 of the Recovery, Transformation and Resilience Plan.

4 Registration means events that involve starting to pay social security contributions, excluding events associated with subsidies, unemployment benefits, discontinuation of activity benefits for the self-employed, special agreements with Social Security, periods of inactivity and other registration events not considered by Social Security as an employment spell.

5 Although data are available for a more recent cohort (2015-2016), these remain provisional and have relatively low coverage.

6 The first/second/third/fourth year of social security registration for the 2014-2015 cohort corresponds to the average registration rate on each day of March 2016/2017/2018/2019.

7 Employment includes non-remunerated work for a family company or business and paid traineeships or internships as part of a dual vocational training programme.

8 Information provided by Observatorio Educaedu and referring to all vocational training centres in the provinces of the Andalusia, Aragon, Canary Islands, Castile-La Mancha, Castile-Leon, Galicia, Murcia, Navarre and Valencia regions. The cut-off mark considered for admission to intermediate vocational training is via lower secondary education, whereas for higher vocational training it is via higher secondary education. In both cases these are the most common access routes.

9 An econometric analysis by qualification, training centre and province shows that the cut-off mark for a qualification tends to be lower in those provinces where that qualification is offered by a larger number of training centres (i.e. where supply is higher).

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Table 1
JOB OPPORTUNITIES AND CUT-OFF MARKS FOR INTERMEDIATE AND HIGHER VOCATIONAL TRAINING, BY TRAINING COURSE GROUP

	Intermediate vocational training					Higher vocational training				
	(a)	(b)	(c)	(d)	Cut-off mark (admission via lower secondary education)	(a)	(b)	(c)	(d)	Cut-off mark (admission via higher secondary education)
Median	62.6	50.5	72.5	17.4	5.4	64.7	54.2	78.8	12.7	5.6
Training course group										
Mechanical manufacturing	76.8	65.6	83.7	11.1	5.2	81.8	76.5	88.0	8.9	5.3
Installation and maintenance	75.6	61.8	87.3	9.3	5.0	80.5	74.9	89.4	7.4	5.0
Transport and vehicle maintenance	75.4	61.0	83.8	9.7	5.4	76.6	66.4	83.5	10.0	5.8
Electricity and electronics	68.6	52.8	77.4	13.3	5.0	75.3	66.0	87.2	7.7	5.5
Wood, furniture and cork	67.6	54.2	74.0	19.3	5.0	74.0	64.4	86.1	8.0	5.0
Health care	66.1	56.4	78.8	11.8	6.1	73.3	65.4	79.9	12.7	6.5
Hair and beauty	64.2	51.3	70.9	19.5	5.6	70.7	59.2	81.3	10.4	5.6
Hospitality and tourism	64.1	54.5	70.8	19.5	5.0	68.5	56.7	83.2	12.5	5.3
Agriculture	62.8	47.0	77.4	13.5	5.0					
Chemistry	62.6	48.9	67.9	21.9	5.7	66.6	56.1	78.8	14.3	5.3
Socio-cultural and community services	62.4	50.4	68.4	21.5	5.7	64.8	56.9	77.3	15.4	5.7
Food industries	61.5	50.5	71.4	17.4	5.0	64.7	54.2	84.0	10.0	5.7
IT and communications	60.2	39.5	73.6	14.6	6.0	63.5	52.4	77.0	14.0	5.0
Administration and management	59.8	43.6	68.9	22.3	5.0	62.4	53.4	76.4	14.7	5.0
Physical and sports activities	59.0	41.5	63.0	21.2	6.3					
Shipping and fisheries	59.0	50.8	79.1	14.1	5.3	62.0	51.6	78.3	13.9	6.1
Commerce and marketing	57.0	43.7	63.1	24.9	5.5	61.6	52.8	73.9	19.9	5.8
Graphic arts	54.6	40.5	72.5	20.0	5.7					
Image and sound	45.9	31.3	71.8	17.4	6.3	61.5	50.1	78.8	14.9	5.5
						60.9	47.7	73.8	13.5	5.0
						59.4	52.4	81.2	11.4	5.6
						59.2	49.9	75.2	10.9	6.5
						57.5	44.0	74.6	18.9	5.7
						56.1	48.2	74.7	13.5	7.1

SOURCES: Labour market integration of vocational training graduates (Ministerio de Educación y Formación Profesional and Tesorería General de la Seguridad Social), Survey on the Transition from Education/Training to Labour Market Insertion (INE) and Observatorio Educaedu.

- a Mean social security registration rate in March 2019 for the cohort graduating in 2014-2015.
b Average of the mean social security registration rate in March 2015, 2016, 2017, 2018 and 2019 for the cohort graduating in 2014-2015.
c Employment rate at the time of the survey, between September 2019 and January 2020, for the cohort graduating in 2013-2014.
d Unemployment rate at the time of the survey, between September 2019 and January 2020, for the cohort graduating in 2013-2014.

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qualifications have a median lower secondary education cut-off mark of 5.4 or higher, which is the median cut-off mark for all qualifications. In the case of higher vocational training, there is also a relative scarcity of places in IT and communications, chemistry, energy and water, and commerce and marketing, four of the qualifications with better job opportunities.

In short, the box shows, first, that the job prospects that vocational training courses offer their graduates differ widely. It also shows that the cut-off mark for access to

some of the qualifications with better job opportunities is particularly high. Insofar as a higher cut-off mark can be associated with a relatively short supply of public training places, given the level of student demand, it seems that the number of available places should be increased selectively in certain qualifications that are of particular interest to employers. This is especially relevant now considering that, under the framework of the NGEU programme, 200,000 new vocational training places are expected to be made available in Spain in the coming years.