Getting Skills Right

Spain

OECD

Getting Skills Right: Spain

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Foreword

Across countries, tackling skill mismatch and skill shortages is a major challenge for labour market and training policies in the context of rapid and substantial changes in skill needs. In most countries, a substantial share of employers complain that they cannot find workers with the skills that their businesses require. At the same time, many graduates face difficulties in finding job opportunities matching their qualifications.

In light of this challenge, OECD has undertaken an ambitious programme of work on how to achieve a better alignment or skill supply and skill demand, with a focus on: i) understanding how countries collect and use information on skill needs; ii) investigating cost-effective training and labour market policies to tackle skill mismatch and shortages; iii) studying the incentives of training providers and participants to respond to changing skill needs; and iv) setting up a database of skill needs indicators.

This work builds on the extensive programme of work of the OECD in the area of skills, including the OECD Skill Strategy and its follow up national implementation strategies, the Survey of Adult Skills (PIAAC) and its rich analyses in the areas of skills mismatch, vocational education and training and work-based learning.

This policy review is one of a series on skill imbalances aiming to identify international best practice in addressing skill imbalances in order to minimise the associated costs to individuals, enterprises and economies. The review involves an in-depth assessment of the country's skills system, leading to a set of policy recommendations backed by analysis and input from country stakeholders.

The work on this report was carried out by Katharine Mullock from the Skills and Employability Division of the Directorate for Employment, Labour and Social Affairs under the supervision of Glenda Quintini (team manager on skills) and Mark Keese (Head of the Skills and Employability Division). The report has benefited from helpful comments provided by Stefano Scarpetta (Director for Employment, Labour and Social Affairs) and staff at the JPMorgan Chase Foundation.

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ACRONYMS AND ABBREVIATIONS

ALMP	Active labour market policies
ANECA	National Association of Quality Assessment and Accreditation
CJE	Spanish Youth Council
EEAE	Spanish Strategy for Employment Activation
FP Dual	Dual model of work-based vocational education and training in the education system
IC4	*Industria Conectada 4.0*
ICT	Information and communications technology
INE	Institute of National Statistics
INQUAL	National Institute of Qualifications
MECD	Ministry of Education, Culture and Sports
MEYSS	Ministry of Employment and Social Security
NEET	Not in employment, education or training
PAE	*Programa de Activación para el Empleo*
PES	Public employment service
PIAAC	OECD Survey of Adult Skills
PISA	OECD Programme for International Students Assessment
PREPARA	Professional Requalification Programme
QEDU	What to study and where in university? web tool
R&D	Research and development
RAI	*Renta Activa de Inserción*
RPL	Recognition of prior learning
SAA	Skill anticipation and assessment
SEPE	Spain public employment service
SME	Small and medium-sized enterprises
STEM	Science, technology, engineering, and mathematics
VET	Vocational education and training
YG	Youth Guarantee

Summary and key recommendations

Skills demands are more polarised in Spain than in many other OECD countries, with a high share of Spanish jobs requiring either very low levels of education or very high levels of education. The share of all jobs requiring only a primary education is higher in Spain (25%) than in any other OECD country; however, the supply of low-educated workers exceeds demand. The collapse of the construction sector during the economic crisis pushed many low-educated workers into unemployment, and these workers now comprise the largest share of the long-term unemployed. The *OECD Skills for Jobs Database* points to surpluses in knowledge of manufacturing and production, and in manual skills. At the same time, shortage pressure is evident in basic skills and abilities related to numeracy and literacy, as well as higher-level cognitive skills and abilities, like reasoning, systems skills and complex problem solving.

Spain also faces high over-qualification and field-of-study mismatch. Rising educational attainment has created a large supply of highly-qualified adults, but many of them are working in jobs for which they are over-qualified. Just over a third of adults are in jobs unrelated to their field of study in school, reflecting, among other factors, low incentives on the part of students and training institutions to respond to labour market signals. When combined with over-qualification, as it is in Spain, field-of-study mismatch of this kind can be costly for individuals and society, as it results in lower job satisfaction, lower wages, and lost investment in human capital. High field-of-study mismatch also means that firms may have trouble finding the skills they need, despite a large supply of educated candidates.

Spain produces information to assess its skill needs, but this data is used relatively little in policy making. To effectively respond to skill imbalances, accurate and timely information is needed about the skills currently in demand and those forecasted to be in demand in the coming years. In Spain, the Occupations Observatory produces a list of high-demand occupations that is distributed to career counsellors. Both the Institute of National Statistics (INE) and the Ministry of Education, Culture and Sports (MECD) publish information about the labour market outcomes of graduates by programme of study to inform human capital investment. The Ministry of Employment and Social Security (MEYSS) also polls employers about their training needs and intentions to recruit.

Some policy initiatives are bearing fruit. Government and other stakeholders have undertaken a number of actions to bring skill supply in line with demand. A single Spain-wide job portal, *Empléate*, was introduced to improve the matching of skill demand and supply. The recent reform to the professional training system (*Ley 30/2015)* could introduce more competition in the use of public training funds for both workers and the unemployed, though the reform is not yet operational. A string of policies aimed at activating the long-term unemployed were introduced since the crisis, but services have been poorly targeted. The dual model of work-based training that was introduced in 2012 in the education system (FP Dual) should succeed in improving the school-to-work transition for young people, provided that more employers offer work placements. Finally, *Industria Conectada 4.0* is a promising new initiative to promote the adoption of digital technologies among Spanish

firms which could reduce over-qualification by boosting the demand for higher-level skills and qualifications.

But more could be done to better activate skills. Notwithstanding Spain's recent policy initiatives, it continues to face challenges in activating surplus skills and fully utilising the skills of employed workers. Despite high and persistent unemployment, Spain spends relatively little on training and job search assistance for the unemployed. Public employment service workers are overburdened and unable to target services to the needs of different types of jobseekers, and poor co-ordination between national and regional governments jeopardises the effectiveness of these services. Low basic skills among adults hurt their employability and not enough lifelong learning options are available to assist them. Training institutions could also be more responsive to labour market demand. In light of these challenges, a number of recommendations are made. These include recommendations to assign a body to co-ordinate the aggregation of skill needs data across levels of government and to conduct rigorous evaluations of skills policies; to focus publicly-subsidised training for the employed and unemployed to skills and qualifications which are in high demand; and to expand opportunities for adults to engage in lifelong learning. Doing so should promote a better matching of skill supply with skill demand, and lead to lower unemployment and higher productivity and growth.

Key recommendations for Spain are listed in the box below, and more detailed recommendations are provided in Chapter 4.

Key recommendations

Better target training for the unemployed

- Given scarce public resources and persistently high long-term unemployment, follow through with plans to introduce a statistical profiling tool to improve the targeting of public employment services. The Spanish Government should consider taking the lead to make the initial investment in the profiling tool and encourage its use on a regional basis.
- Consider creating a body responsible for co-ordinating active labour market policies (ALMP) across the national and regional levels of administration. This body could also be responsible for the evaluation of ALMPs, which should be done more systematically and rigorously. Spain's public employment service (SEPE) should also collect and publish precise data on the types of training that jobseekers receive, in order to assess whether this training meets employers' skill needs.
- The use of hiring subsidies should be reduced, and targeted to employing youth and the long-term unemployed. This would free up resources for subsidies to cover necessary training provision to help overcome skill deficiencies among jobseekers, making them more employable over the longer term.
- The use of the new training vouchers for the unemployed (not yet operational) should be targeted to accredited institutions and focused on skills in demand, for example, based on the Occupations Observatory's list of occupations, qualifications and skills in high demand. For best outcomes, training vouchers should be paired with tailored information, advice and guidance.

Improve career guidance in secondary school

- To improve the quality of career guidance services, set minimum requirements for career guidance services within secondary school which should include repeated interactions with employers. Provide career guidance counsellors with regular training to ensure they are well-informed about labour market opportunities and skills in demand.

Key recommendations *(cont.)*

- Online information about the requirements and labour market outcomes of qualifications should be better integrated and made more user-friendly to students and guidance counsellors. Expand longitudinal study of labour market outcomes of university graduates to include vocational graduates, and update web portals with this information.

Expand vocational education and training

- Encourage greater firm participation in FP Dual programmes by providing technical support to small firms in the organisation and implementation of training.

Ensure quality and relevance of higher education

- Expand performance-based funding in higher education in order to promote a stronger response of training institutions to the needs of the labour market. This should improve the matching of skills of graduates with labour market skill needs.
- Consider offering bursaries to students pursuing degrees in areas of skill shortages, based on the Occupations Observatory's list of occupations in high demand, for example.

Promote lifelong learning

- To ensure that the professional training levy goes towards addressing skill needs, consider earmarking a share of levy funding for development of skills in high demand (e.g. based on the Annual Labour Survey).
- Introduce financial incentives for lifelong learning opportunities that are linked to individuals rather than to jobs. Consider tying the Training Account (*Cuenta Formación*) to a system of vouchers (similar to the training vouchers for the unemployed) to allow individuals to upskill and retrain as skill demand changes. More training credits could be provided for those skills and occupations that are in shortage.
- Make provision of basic skills training for adults more flexible in order to encourage higher participation, e.g. could be offered outside of the formal education system, or in a format compatible with work schedules.
- Allow employers to use professional training levy funds to validate in-demand skills acquired on the job through recognition of prior learning.

Enhance use of skill needs data in policy making

- Assign a body, possibly Fundación Estatal or the Occupations Observatory, to co-ordinate the collection of skill needs data across levels of government and to champion the use of such data in policy making. This co-ordinating body could also ensure that skill needs data are distributed widely to all relevant stakeholders.

Strengthen demand for higher-level skills

- Stimulate demand for higher-level skills through investment in R&D and industrial policy. Evaluate Industria Conectada 4.0 and expand if successful at spurring digital investment, growth and productivity.
- Strengthen entrepreneurial and managerial skills of employers so that they can take advantage of the digital revolution and create demand for higher-level skills. Improve skills utilisation by encouraging employers to adopt High-Performance Workplace Practices.

Chapter 1

Key drivers of skills demand and supply in Spain

Skills imbalances are driven by structural and cyclical factors that shape the demand for and supply of skills. For instance, economic growth, changes in the composition of economic output and broad-based trends like globalisation, technological advancement and demographic change are all important macroeconomic factors influencing the demand for skills. On the other hand, the supply of skills is affected by labour market trends, migration, and skills and education outcomes. This chapter discusses factors influencing the demand and supply of skills in Spain, and describes the current state of skills imbalances.

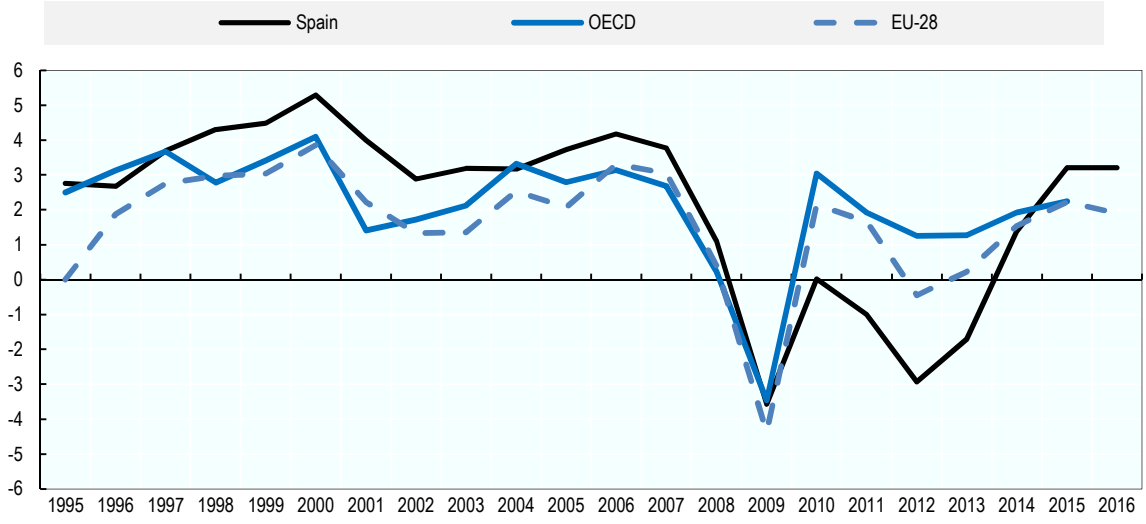
Key economic trends

Economic growth influences the demand for skills, and in Spain, the economy is growing strongly as a result of supportive monetary policy, low oil prices, fiscal stimulus and the depreciation of the euro (OECD, 2017a). GDP growth picked up in 2014 to reach 3.2% in 2016, surpassing both the OECD and EU averages (Figure 1.1). As a result, unemployment has started to decline, though it remains very high (Figure 1.2), especially for youth and the low-skilled, and long-term unemployment has not yet declined.

Labour productivity, which is closely related to how well skills are allocated in the workplace, has grown quite a bit in recent years to reach the OECD average. Labour productivity has been historically low in Spain due to rigid labour market regulation, lack of competition, overreliance on temporary workers, and poor sectoral allocation of resources (Cardoso, 2012). Spain's business sector is characterised by a high share of low productivity micro-enterprises and small enterprises, which have a harder time than large firms in overcoming labour market rigidities. But labour market reforms introduced in 2012 reduced labour market rigidities by making firing employees less costly for employers, and analysis suggests that the reform has brought about wage moderation and labour flexibility which led to higher job creation (Domenéch et al., 2016) and possibly enhanced productivity by improving the allocation of skills in the workplace (OECD, 2014a).

Figure 1.1. GDP volume growth, Spain, European Union and OECD, 1995-2016

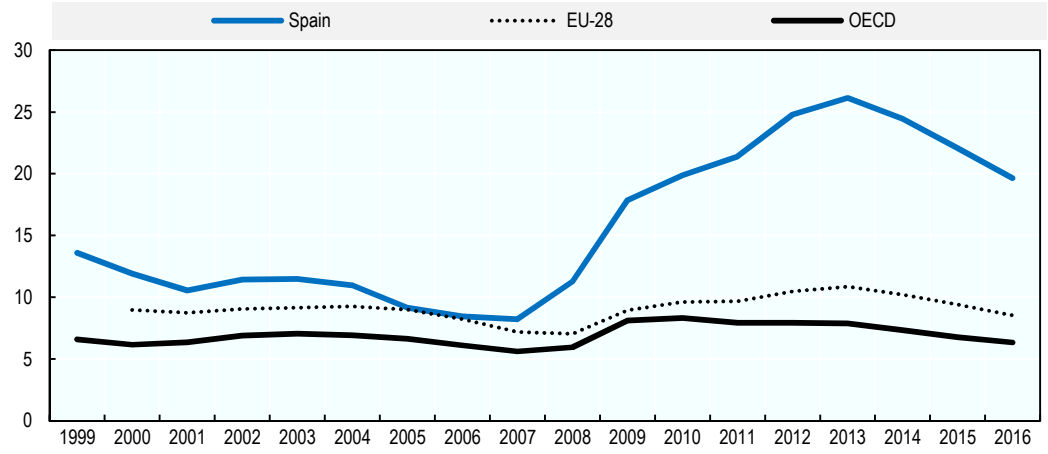
Real GDP growth rate (%)



Source: *OECD National Accounts Database*.

Figure 1.2. Unemployment rate, Spain, EU-28 and OECD, 1999-2016

Harmonised unemployment rate (%)



Note: Harmonised unemployment rates define the unemployed as people of working age who are without work, are available for work, and have taken specific steps to find work. The uniform application of this definition results in estimates of unemployment rates that are more internationally comparable than estimates based on national definitions of unemployment. This indicator is measured in numbers of unemployed people as a percentage of the labour force and it is seasonally adjusted. The labour force is defined as the total number of unemployed people plus those in civilian employment

Source: OECD Short-Term Labour Market Statistics.

Spain's economy is more geared towards lower-skilled labour than other European countries. As in other OECD countries, economic activity and employment in Spain have gradually shifted away from agriculture and manufacturing and towards services. Since 1995, employment growth in Spain has been concentrated among high-skill occupations (e.g. managers, professionals and technical occupations), while the share of employment in middle-skill occupations (e.g. clerks, craft and related trades workers and plant and machine operators and assemblers) has declined. However, while the share of employed workers in high-skill occupations is rising, Spain still employs a higher share of workers in low-skill occupations (e.g. service workers, elementary occupations) compared with other European countries, and a lower share work in high-skill managerial, professional or technical occupations (Eurostat Database, Employment and Unemployment, Labour Force Survey). The construction sector boom during the early 2000s created strong demand for low-skilled labour, many of whom became unemployed when the sector collapsed during the crisis. Real value added generated by the construction sector fell from 11% in 2008 to 5.5% in 2015, while employment in this sector fell from 13% of workers to only 6% (OECD, 2017a). Despite the collapse of the construction sector which had been a large employer of low-skilled labour, Spain's economy is still more geared towards low-skilled labour than neighbouring countries.

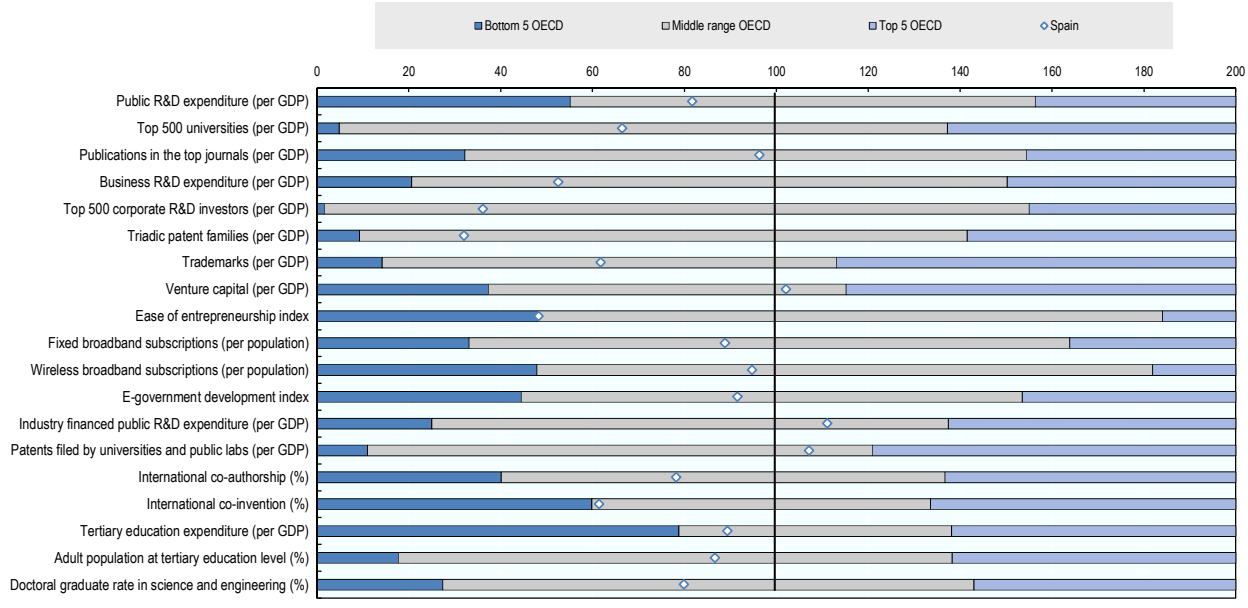
Several other indicators point to weak demand for higher-level skills in Spain. Only 7.1% of Spain's manufactured exports can be classified as high-technology exports, a figure much lower than the average among high-income countries (17.9%; see World Bank Database), and indicative of weak demand for higher-level skills in the export manufacturing sector. Spain invests relatively little in research and development (R&D), spending only 1.22%[1] of gross domestic expenditure on R&D activities in 2015, below the EU average of 2.03% and well below top-spending countries, such as Sweden (3.26%), Austria (3.07%), and Denmark (3.03%) (Eurostat, Gross domestic expenditure on R&D –

GERD). Spain also performs at or below the median on most science and innovation indicators (Figure 1.3), including the doctoral graduate rate in science and engineering, fixed broadband subscriptions, and ease of entrepreneurship.

On the other hand, in terms of educational qualifications, demand is highly polarised in Spain, with many jobs requiring high-level qualifications and many requiring low-level qualifications. About 37% of workers are in jobs that require a tertiary education (i.e. any type of post-secondary education, whether in university or vocational education), which is on par with other OECD countries (Figure 1.4). This is somewhat at odds with evidence from other indicators of the low demand for high-level skills and could indicate the existence of significant qualification inflation by which the minimum credentials required for a given job are inflated, bringing about a simultaneous devaluation of diplomas and degrees. More in line with the evidence presented above, Spain also has the highest demand for workers with only a primary education or less across OECD countries (25%), pointing to strong demand for lower-level qualifications. This remains the case despite employment losses during the recession favouring workers with low-level qualifications: between 2007 and 2013, more than half of workers who had not passed primary education lost their jobs, while employment for those with higher education increased by 2% (MEYSS, 2015). However, even though the demand for low-level qualifications is higher in Spain than in other countries, the supply of adults with low-level qualifications far exceeds the demand (43% of adults have less than an upper secondary education, while 25% of jobs require this level of education).

Figure 1.3. Comparative performance of national science and innovation systems, Spain and OECD, 2014

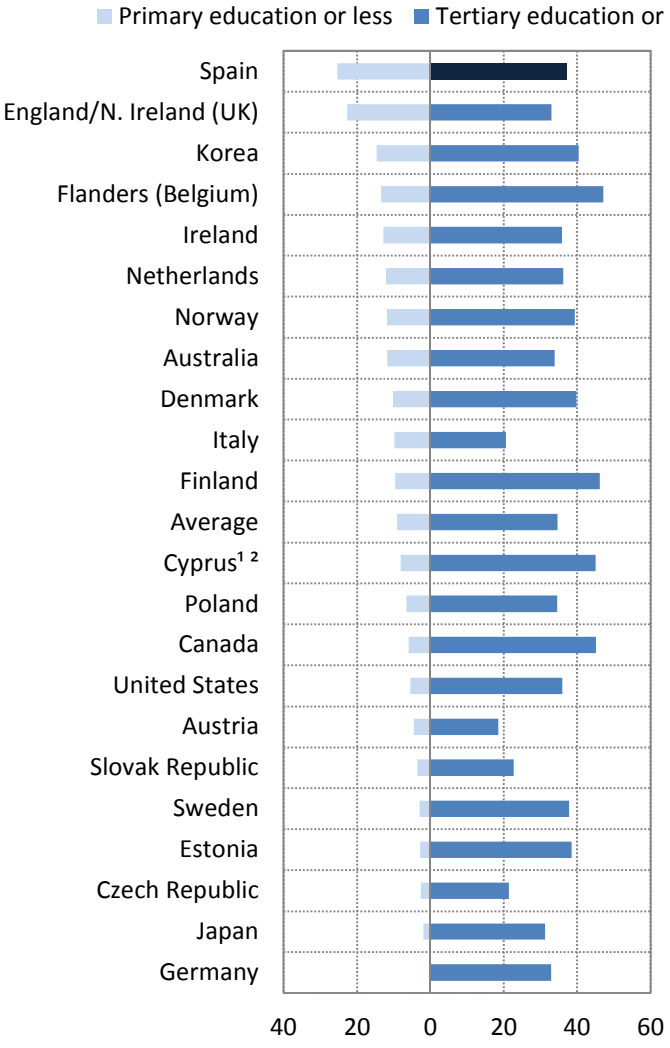
Normalised index of performance relative to the median values in the OECD area (Index median = 100)



Source: Science Technology and Innovation Country Profile for Spain 2014.

Figure 1.4. Polarised demand for high and lower-level qualifications in Spain

Percentage of workers in jobs requiring primary education (ISCED-1) or less and in jobs requiring tertiary education (ISCED-5 or higher)



Note: Required education is the qualification the worker deems necessary to get his or her job today.

1. Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

2. Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264204256-en, Figure 4.24. Based on data from the Survey of Adults Skills (PIAAC) 2012.

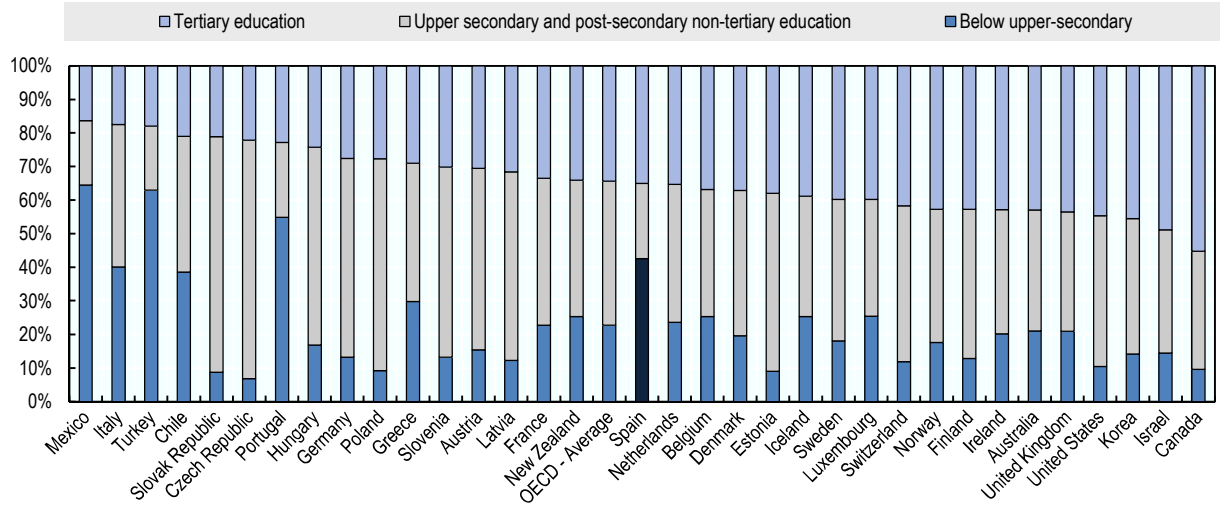
Key education and skills trends

Educational attainment has steadily improved in Spain, with a rise in the share of the population who have a tertiary degree from 23% in 2000 to 35% in 2015, now on par with the OECD average (Figure 1.5). Over the same period, the share of adults who have less than upper secondary education plunged from 62% in 2000 to 43% in 2015, though this is still high compared with the average across OECD countries (23%). While there are strong employment and wage incentives to pursue tertiary education in Spain, returns to tertiary education are low relative to the OECD average – consistent with the relatively low demand for higher-level skills. Tertiary graduates in Spain earn 40% more than upper secondary school graduates compared to a wage premium of 55% on average across OECD countries (Figure 1.6).

In Spain, the national Ministry of Education, Culture and Sport (*Ministerio de Educación, Cultura y Deporte*, MECD) *has overall responsibility for education*, but the autonomous communities make decisions regarding the administration of their own education systems. MECD establishes the general national plan for education and sets minimum requirements for educational establishments. Based on these requirements, compulsory education lasts until age 16, after which students who earn the compulsory secondary school certificate (*Graduado en Educación Secundaria Obligatoria*, ESO) can choose whether to go to university by studying for the *bachillerato*, to undertake middle grade vocational training (*formación professional)* or to leave school.

Figure 1.5. Educational attainment of the adult population, OECD countries, 2015

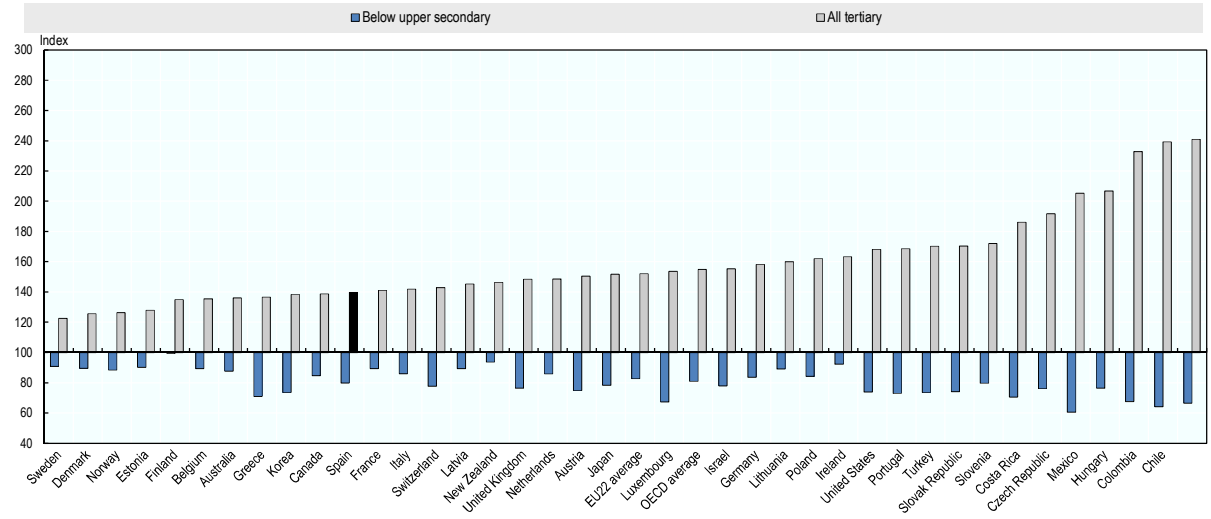
Percentage of population aged 25-64



Source: *OECD Education and Training Database.*

Figure 1.6. Relative earnings of adults working full-time, by educational attainment, 2014

25-64 year-olds with income from employment, upper secondary education = 100



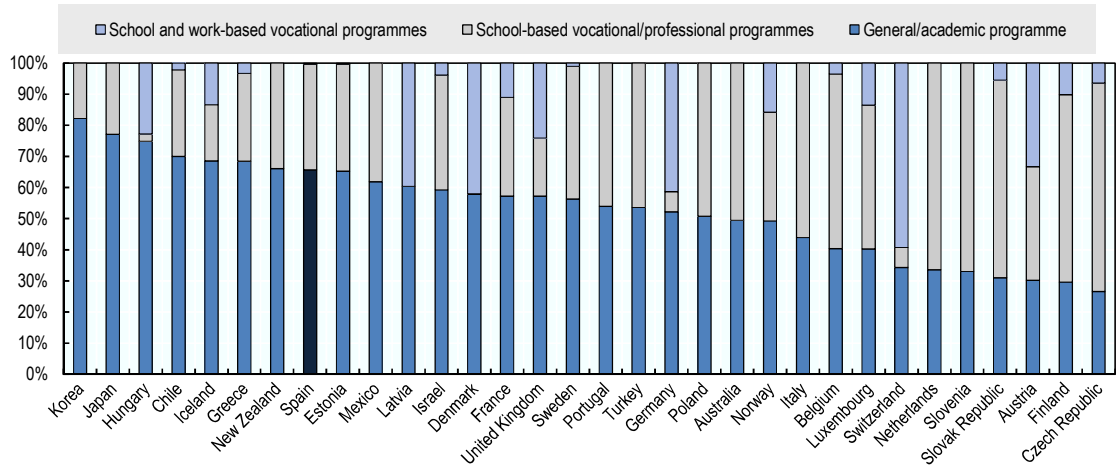
Note: This chart shows the earnings of graduates of tertiary programmes and those who have not completed upper secondary education relative to the earnings of people who have completed upper secondary education. For example, in Spain, tertiary graduates earn 40% more than upper secondary education graduates, while school leavers earn 20% less.

Source: OECD (2016), *Education at a Glance 2016: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2016-en, Figure A6.1.

Vocational education and training (VET) offers the opportunity to learn applied skills which are directly linked to the world of work. Vocational training in Spain is organised in training cycles or *ciclos formativos*: basic grade (which students can begin at age 16 or exceptionally at age 15, and which is aimed at students in lower secondary education and can lead to a professional diploma and the ESO certificate), middle grade (for students who have attained their ESO) and superior grade (for students who have completed the *bachillerato*). Successful completion of the superior grade training cycle allows students to directly enter university programmes in the field related to their trade. In Spain, about a third of upper-secondary school students enroll in vocational education, which is relatively low compared with other OECD countries (see Figure 1.7). There are two types of work-based vocational training programmes in Spain. The first type (*los contratos para formación y aprendizaje*) is run by the Ministry of Employment and Social Security (MEYSS) and is primarily for young people who are not in the formal education system. The second type (*Formación Profesional Dual, FP Dual)* was introduced in 2012 by the Ministry of Education and combines classroom training with work-related training in firms. FP Dual has more than tripled since its introduction in 2012: from 4 292 students during the 2012/13 academic year, to 23 973 students during the 2016/17 academic year (MECD). However, enrolment in work-based training is still very low in Spain (Figure 1.7).

Figure 1.7. Distribution of upper secondary student enrolment, by programme orientation, 2014

Percentage of all upper secondary students



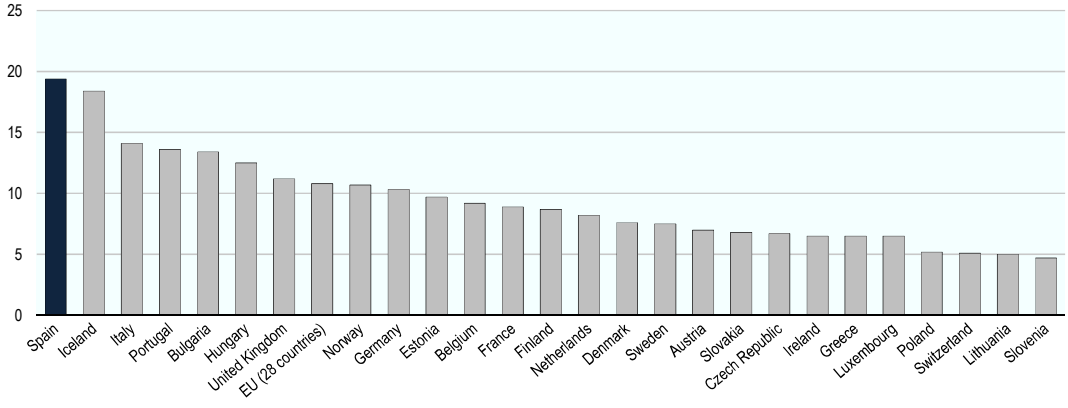
Note: When no separate data on school and work-based vocational programmes is available, the students from this category are included in the school-based programmes category.

Source: OECD Education at a Glance Database.

Spain has the highest dropout rate in Europe, despite a steady fall in the rate of early school leaving from nearly a third of young people in 2004 to just less than 20% in 2016 (Figure 1.8). Efforts to reduce early school leaving are ongoing, with the National Reform Plan 2013 setting objectives to meet the European Union 2020 strategy which proposed to reduce dropout rates to 15% by 2020 (OECD, 2014c). An elevated dropout rate is worrisome given the excess supply of workers with low-level qualifications and the relatively poor labour market outcomes of those who do not complete upper secondary school (Figure 1.10).

Figure 1.8. Spain has the highest early school leaving rate in Europe

Share of population age 18-24 with at most lower secondary education, 2016



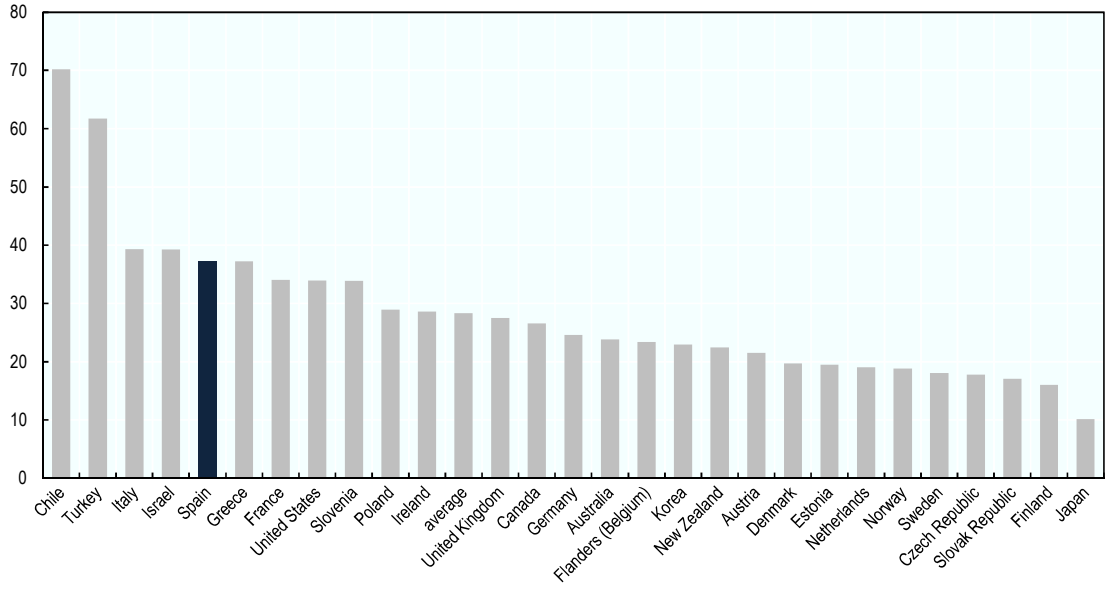
Note: This chart shows the share of the population age 18-24 with at most lower secondary education, and who were not in further education or training in the last four weeks preceding the survey.

Source: Eurostat, based on the EU-LFS.

Moving beyond educational attainment, the Programme for International Students Assessment (PISA) provides insight into the quality of skill development among young people. PISA tests 15-year-olds on reading, mathematics and science, and results for 2015 show that Spanish students improved slightly in reading performance between 2012 and 2015, while performance in mathematics and science remained stable. Spanish students currently perform at the OECD average in reading and science, and just below the OECD average in mathematics (PISA 2015). There are large disparities in the performance of students in basic skills between Spanish regions participating in PISA,[2] mostly linked to socio-economic status (European Commission, 2015; OECD, 2015a).

Low basic skills among adults hamper their employability. According to the OECD Survey of Adult Skills (PIAAC), nearly 40% of adults age 25-64 perform at the lowest level of literacy or numeracy in Spain – one of the poorest performances among countries participating in the survey (see Figure 1.9). Also, nearly a quarter (23%) of Spanish adults lack basic information and communications technology (ICT) skills, compared to the OECD average of 15%. Recent tertiary graduates (age 25-34) in Spain have the lowest average literacy scores of any of their peers in OECD countries (OECD, 2014b). Partially due to their low basic skills, their employment rate is one of the lowest in Europe at 68.7%, far lower than the EU average of 81.9% for recent tertiary graduates (European Commission, 2016). Furthermore, 44.5% of higher education graduates who were employed four years after graduation were not in jobs that required a university degree (European Commission, 2015). The IMD World Talent Report 2016, which compares the ability of countries to attract, develop and retain talent, ranked Spain among the bottom ten countries (out of 61) in terms of the ability of university graduates to meet the needs of a competitive economy.

Figure 1.9. Percentage of adults aged 25-64 with low levels of literacy or numeracy, selected OECD countries, PIAAC 2012



Note: This chart shows the share of adults (age 25-64) who perform at Level 2 or below in numeracy or literacy.

Source: Survey of Adult Skills (PIAAC) 2012.

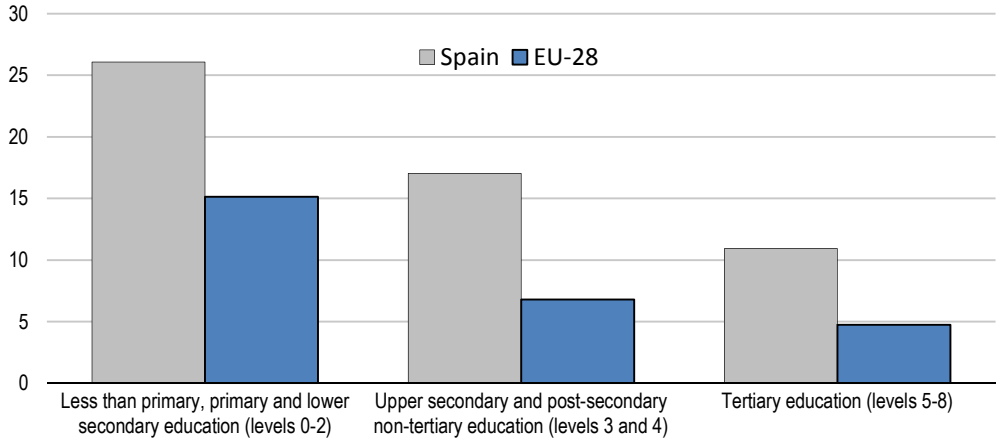
Despite low basic skills among adults, participation in lifelong learning is below average. Participation in lifelong learning opportunities is critical to equip the Spanish workforce with the necessary skills to meet changing skill demand due to globalisation and technological change, particularly given Spain's large population of low-skilled adults. However, only 35% of Spanish adults aged 25-64 participated in at least one job-related learning activity in the year prior to the 2012 Survey of Adult Skills, compared with 41% on average across countries surveyed. Moreover, while the low-skilled have the greatest need for training, they are less likely to participate in education and training than more highly-skilled adults, and are also less likely to participate than their similarly-skilled peers in other OECD countries (OECD, 2015a).

Key labour market trends

While labour market conditions are improving, Spain is still troubled by very high unemployment, which represents a large pocket of unused skills at risk of depreciation and even obsolescence. As shown in Figure 1.2, the unemployment rate has started to decline after having risen dramatically during the crisis from 8.2% in 2007 to its peak level of 26.1% in 2013. But at 20%, it still remains high and well-above pre-crisis levels and both the OECD and EU averages. Unemployment risk is particularly high among the less well-educated[3] (OECD, 2017a), but unemployment is high at every educational level (Figure 1.10). For instance, the unemployment rate of tertiary graduates in Spain is more than twice as high as the EU average.

Figure 1.10. Unemployment rate by educational attainment, 2016

Unemployment rate by level of educational attainment, population age 25-64, Spain and EU-28



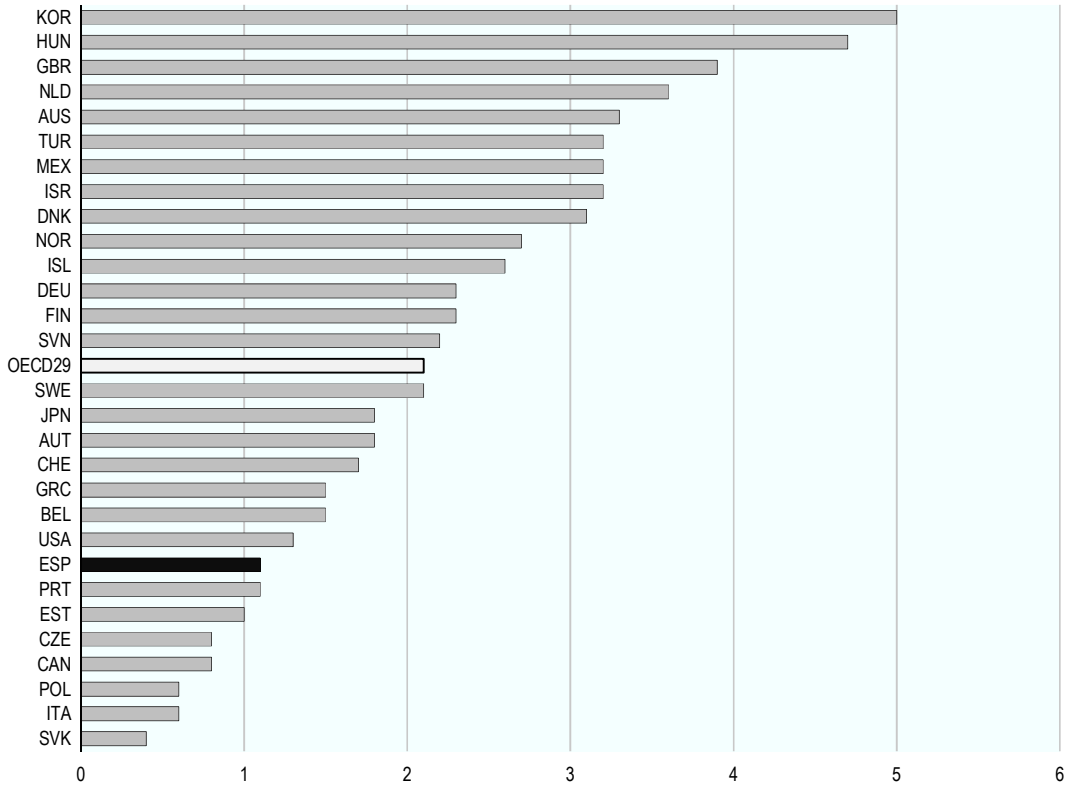
Source: Eurostat.

There are wide disparities in unemployment rates between the different autonomous communities in Spain: Andalusia in the south of Spain faced an unemployment rate of 36.3% in 2013, while Basque Country in the north had the lowest regional unemployment rate in the country at 15.8% (OECD Regions Statistics). Regional economic disparities in Spain are aggravated by low labour mobility: just over 1% of the population moves between regions on an annual basis, compared with an average labour mobility rate of 2% in OECD countries (Figure 1.11). Incentives to move across regions for work may be

dampened by poor availability of permanent employment opportunities in Spain. Low labour mobility prevents an optimal allocation of skills across the country as workers face barriers in moving to regions where their skills are better rewarded.

Figure 1.11. Annual regional migration rate, average 2011-13

Share of total population who moves across TL3 regions

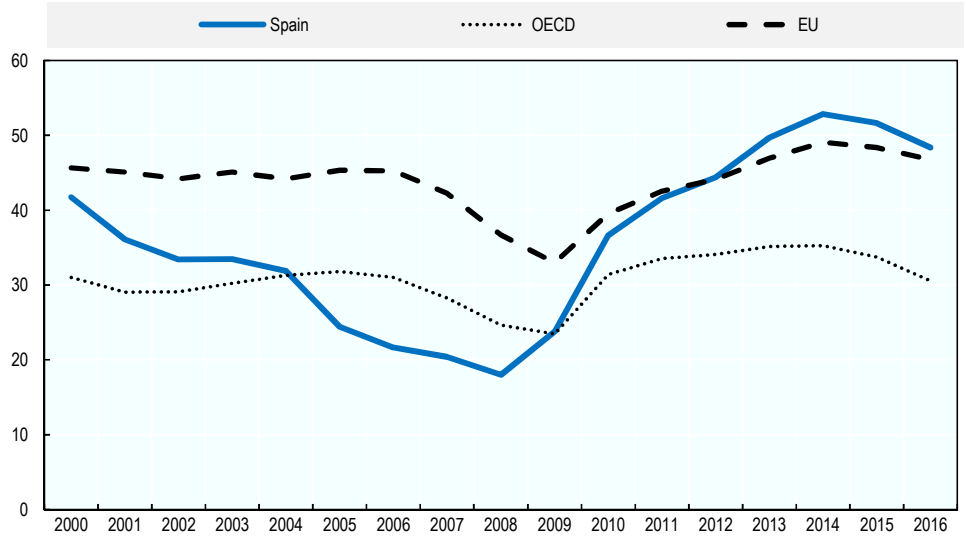


Source: OECD (2016), *OECD Regions at a Glance 2016*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2016-en.

Long-term unemployment increased substantially during the recession and has been slow to decline despite improved labour market conditions. In 2016, just under half of the unemployed in Spain (48.4%) had been out of work for a year or more, well above the OECD average long-term unemployment rate of 30.5% and close to the EU average rate of 46.8% (Figure 1.12). Those experiencing the longest unemployment spells are disproportionately low-skilled older workers from the construction sector (Jansen et al., 2016). Long spells of unemployment reduce employment prospects even when the economy starts to recover because skills become obsolete, the unemployed lose contact with professional networks, and employers may prefer to hire candidates with recent work experience (OECD, 2011).

Figure 1.12. High incidence of long-term unemployment

Share of unemployed who have been unemployed for at least one year, 1999-2016



Source: OECD Labour Force Statistics.

Another key priority for Spain is to better employ the labour and skills of youth who were the demographic group hardest hit by the rise in unemployment. From 18.1% in 2007 to 44.4% in 2016, the youth unemployment rate in Spain (age 15-24) is more than triple the OECD average and over double the EU average. Higher educational attainment is a determinant of youth labour market success, but even among young university graduates, unemployment rates are very high (36%; see OECD, 2017a). High youth unemployment suggests that there are barriers in the school-to-work transition, and represents long-term costs for both youth and the economy in lost investment in education and skills.

Young people who are neither employed nor in education or training (NEET) are particularly vulnerable to the risk of permanent economic disadvantage and rapid skill depreciation and obsolescence. About a quarter of 15-29 year-olds in Spain were not in employment, education or training in 2011, compared with only 15.8% across OECD countries. The risk of permanent economic disadvantage is even higher for NEETs who have not finished upper-secondary schooling. At 12.9%, the share of young people in Spain who meet this description is one of the highest among OECD countries, reflecting Spain's elevated dropout rate, and remains 3.4 percentage points above its pre-crisis level (OECD, 2016c).

The Spanish labour market is characterised by a high share of temporary contracts, despite 2012 labour market reforms designed to reduce their use. Temporary employment can erode the skill supply as it is associated with lower probability of receiving on-the-job training, possibly resulting in skills depreciation among temporary workers (Cabrales et al., 2014). While the share of temporary employment has declined in Spain since 2007, it is still one of the highest in the OECD, at 25% of total employment in 2015, only exceeded by Poland (OECD, 2017a). Unfortunately, transitions from temporary to permanent employment are limited – only 10% of temporary employees move to permanent employment over the course of a year, and this share has declined since 2007.

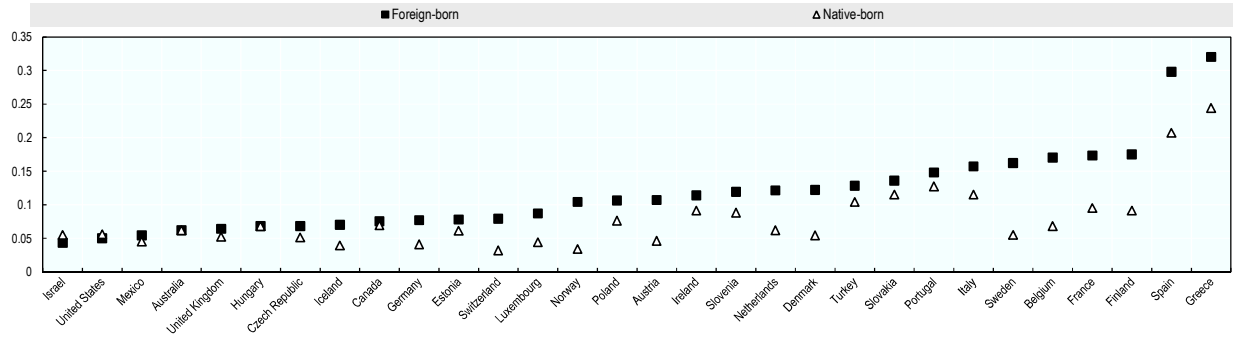
Even among permanent employees, many are in part-time employment when they would prefer full-time work, exposing them to the risk of skills depreciation due to underuse and less likelihood of training. As in many OECD countries, part-time work in Spain increased as a result of the crisis, from 10.5% of workers in 2007 to 14.1% in 2016, a level on par with other OECD countries. However, a particular feature of the labour market in Spain is that more than half of part-time employment is involuntary (61.9% against the OECD average of 16.4% in 2016), meaning that employees only work on a part-time basis because they cannot find a full-time job.

Poor labour market prospects since the crisis have contributed to negative net migration flows to Spain in recent years; whereas prior to the crisis, migration provided a steady flow of low-skilled labour into the country. Indeed, the immigrant population in Spain almost tripled between 2000 and 2013 from 4.9% to 13.4% of the total population (OECD, 2015b), above the OECD average of 9.2% (2011). The increase in migration inflows was due to an economic boom that began in 2000 and was driven by growth in the real estate market which created demand for low-skilled labour (Rodríguez-Planas and Nollenberger, 2014). But net migration flows have dropped to negative levels since the economic crisis when the construction market collapsed (European Commission, 2016; OECD, 2015b). While immigrants working in the construction sector represented 17.5% of all immigrant contracts in 2008, by 2014 they represented only 6.3% (Observatorio de las Ocupaciones, 2015). Most immigrants work in the services sector, and particularly in the lowest-skill jobs ("elementary occupations"), which largely comprise domestic help and agricultural labourers (Observatorio de las Ocupaciones, 2015). Few highly-educated immigrants are drawn to Spain for employment. Attracting international students is another way to bring highly-skilled people into a country, but Spain attracts only 2.2% of the worldwide market share of international tertiary-level students, and this share is in decline (OECD, 2015b).

The foreign-born population in Spain was hit particularly hard by the recession, since many had been working in jobs with temporary contracts (e.g. construction, domestic help, agriculture), which were the first to go (Rodríguez-Planas and Nollenberger, 2016). As in most OECD countries, the foreign-born population in Spain faces a higher unemployment rate than the native-born population, but in Spain this gap is particularly large at 9 percentage points, compared with only 4 percentage points across available OECD countries (see Figure 1.13). In 2015, about a third of foreign-born individuals were unemployed in Spain, compared to 21% of native-born individuals. While immigrants who arrived prior to the recession moved quickly into employment and then from low to medium-skilled jobs within five years of arrival, those who arrived since the recession were more likely to be unemployed and to face poor upward mobility, reflecting some decline in the demand for low-skilled construction work (Rodríguez-Planas and Nollenberger, 2016).

Figure 1.13. Unemployment rate by place of birth, available OECD countries, 2015

Unemployment rate, 15-64 (%)



Note: Recent migrants are those who arrived within the five years preceding the survey and settled migrants are those who arrived at least five years before the survey. The OECD average excludes Poland.

Source: OECD (2016), *International Migration Outlook 2016*, OECD Publishing, Paris, http://dx.doi.org/10.1787/migr_outlook-2016-en.

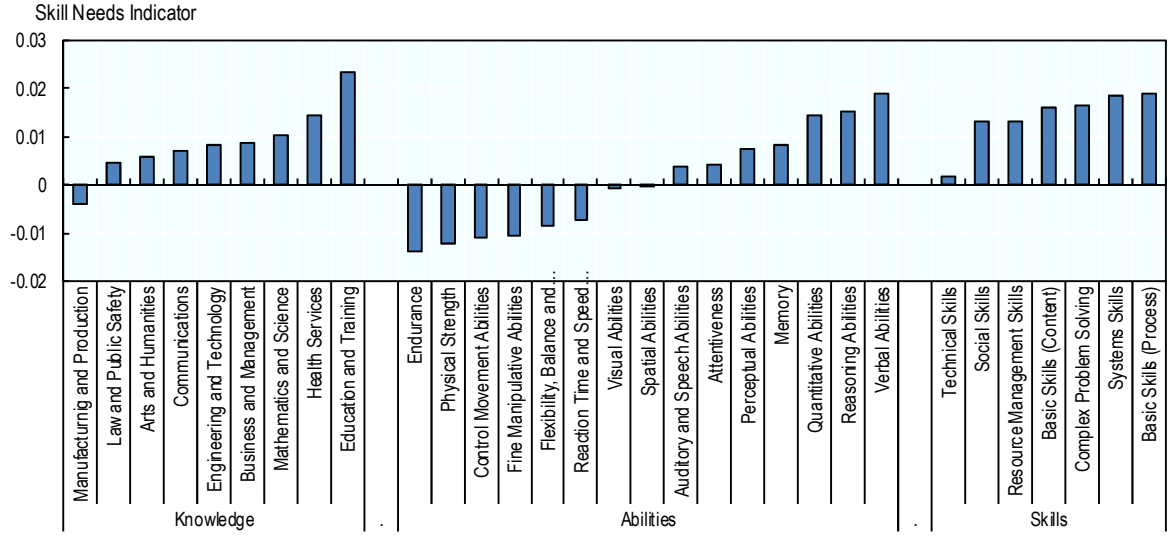
As a result of the recession and the decline in labour demand, many highly-educated Spanish natives left the country to find work in other parts of Europe, the United States or Latin America (Rodríguez-Planas and Nollenberger, 2016). This brain drain has been concentrated among young professionals, particularly architects, engineers and business professionals. With outflows of young, highly-educated Spanish citizens not being replaced with equally-educated inflows, brain drain could exacerbate skill mismatches and skill shortages over the long-term, particularly in the context of population ageing (European Commission, 2016; Izquierdo et al., 2015).

Skills shortage and mismatch

Skill imbalances arise when the demand and supply of skills are poorly aligned. With Spain's high level of long-term unemployment, the supply of low-skilled labour exceeds demand, resulting in large surpluses of labour and skills. On the other hand, international employer survey evidence suggests that skill shortages are relatively low in Spain. According to the results of the 2016 Manpower Global Talent Shortage Survey, 26% of employers in Spain report having difficulties filling jobs due to skill shortages, which is below the global average of 40%. A similar picture is painted by the most recent Eurofound survey in 2013: 24% of Spanish firms reported difficulties finding staff with the required skills; again, well below the average (39%) across European countries surveyed (Cedefop, 2015). While skill shortages in Spain are low relative to other countries, they have increased since the economic crisis when demand for labour in Spain was even lower – in 2013 and 2014 only 3% of employers in Spain reported skill shortages (Manpower Global Talent Shortage Survey). Employers in Spain currently report hiring difficulties for business managers, skilled trades, and technical occupations in production, operations and maintenance. Randstad, a recruitment agency, argues that skill shortages may become an increasingly pressing issue as the population ages and skilled workers who left the country during the economic crisis do not return. By 2020, Randstad estimates that Spanish companies may struggle to fill almost 2 million posts, notably in the fields of health, IT and engineering. But for the time being, activating surplus labour still dominates the policy discussion over skill shortages.

While employer surveys provide useful information about hiring difficulties from employers' perspective, these are inherently subjective in nature. *The OECD's Skills for Jobs database offers an assessment of skills in shortage and surplus which relies upon quantitative information* about employment, wage and talent pressure – rather than subjective reports. The term "skills" broadly refers to knowledge, abilities and skills.[4] For Spain, surpluses are evident in knowledge related to manufacturing and production, as well as physical abilities mainly related to manual tasks (Figure 1.14). The biggest shortages are evident in basic skills and abilities related to numeracy and literacy, as well as higher-level cognitive skills and abilities, like reasoning, systems skills and complex problem solving. Shortages are also evident in education and training, science, technology, engineering and mathematics (STEM) fields, business and management, and communications. Spain faces particularly large shortages in knowledge of computers and electronics, which reflects relatively low digital skills by international comparison. While the demand for higher-level skills is still limited in Spain based on the indicators reviewed earlier in this chapter, the supply is also limited, generating the shortages shown in Figure 1.14.

Figure 1.14. Skill shortages and surplus, Spain, 2014



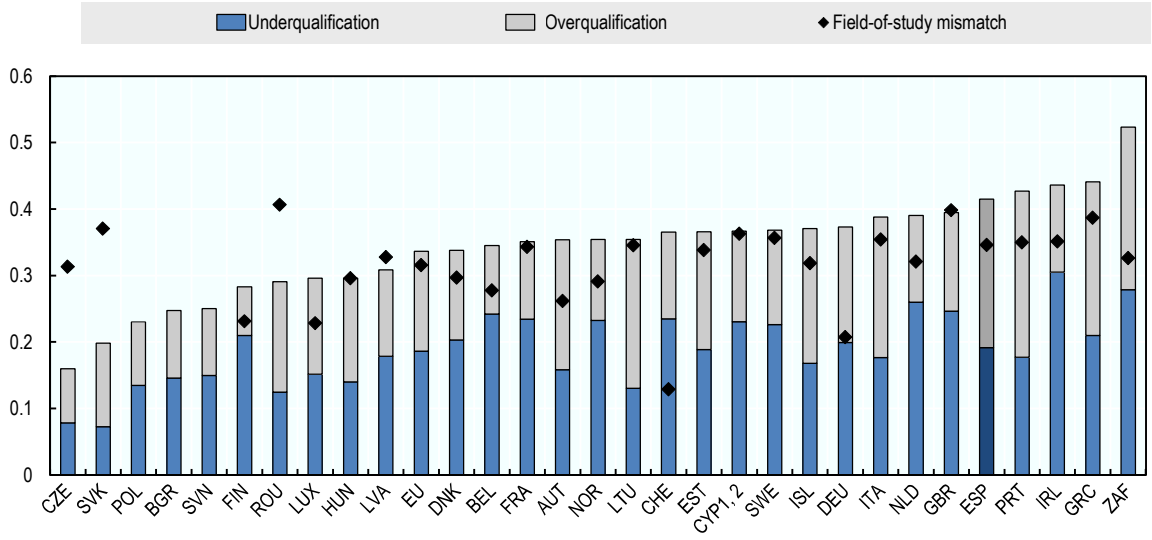
Note: Positive values point to shortages, negative values to surplus.

Basic skills (Content) refer to foundational structures needed to work with and acquire more specific skills in a variety of domains (e.g. reading comprehension, listening, writing, speaking, basic math and science). Basic skills (Process) refer to those that contribute to the more rapid acquisition of knowledge and skill across a variety of domains (e.g. critical thinking, active learning, etc.).

Source: OECD Skills for Jobs Database.

Figure 1.15. Qualification and field-of-study mismatch, Europe and South Africa, 2015

Share of employees, 15-64



Note: 2013 for qualification and field-of-study mismatch in Germany. Field-of-study mismatch not available for Poland, Bulgaria and Slovenia

1. Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

2. Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: *OECD Skills for Jobs Database.*

The Skills for Jobs database also provides insights into the degree of mismatch, both in terms of qualifications and field of study. The evidence indicates that in 2015, 22% of workers in Spain had a qualification which exceeded the requirements of their job – a level of over-qualification that is higher than the EU average and similar to countries like Greece, Italy, and Lithuania (Figure 1.15). About 19% of workers in Spain had a lower qualification than is required by their job, which is on par with the EU average. Over-qualification is consistent with low occupational shortages, as employers take advantage of surplus labour to hire workers with qualifications beyond those required for the job (Bulmahn and Kräkel, 2002). This could be the case for university graduates, in light of the large increase in tertiary enrolments over recent decades. Over-qualification is also consistent with large variations in the actual skills of workers with the same qualification level. Indeed, findings from the Survey of Adult Skills show that nearly 80% of over-qualified workers in Spain are actually well-matched in terms of the basic skill (i.e. literacy and numeracy) requirements for their jobs.

Field-of-study mismatch is higher than the EU average, and overlap with over-qualification is high. About 35% of workers are employed in a different field to the one they specialised in during school, which is slightly above the EU average of 32%. To the extent that knowledge and skills acquired in one field of study are transferable to another without the need for individuals to downgrade in order to find a job, then field-of-study

mismatch is not too costly for individuals or society (Montt, 2015). But in Spain, 48% of individuals who are mismatched by field-of-study are also over-qualified, which suggests that many people are specialised in fields for which there is little labour market demand, and so they must downgrade to take a job in an area unrelated to their studies. This share of overlap is one of the highest among countries surveyed, and suggests costs to individuals and society in lost human capital investment.

Notes

1. Northern regions like Basque Country and Navarra form part of a high-R&D "cluster" with parts of Slovenia, Austria, Switzerland, and southern France, and invest an average of 1.64% in R&D as a share of GDP. On the other hand, regions in southern Spain have an average R&D intensity of only 1.01%. (Eurostat)

2. The difference between the highest- and lowest-performing regions is equivalent to 16 months of schooling (OECD, 2012).

3. According to the Labour Force Survey (*Encuesta de Población Activa*), the unemployment rate of those who have only primary education (38.1%) is 2.7 times higher than those with higher education (14.3%). Over half (54%) of the unemployed in Spain have not passed secondary education (MEYSS, 2015).

4. Please consult OECD (2017b) for more details on the methodology of the *OECD Skills for Jobs Database*, and an overview of key results.

References

Bulmahn, G. and M. Kräkel (2002), "Overeducated Workers as an Insurance Device", *Labour*, Vol. 16, pp. 383–402, http://dx.doi.org/10.1111/1467-9914.00200.

Cabrales, A., J. Dolado and R. Mora (2014), "Temporary Contracts Are Bad for Your Cognitive Health: Evidence from PIAAC", VOX CEPRs Policy Portal, http://voxeu.org/article/dual-labour-markets-job-training-and-cognitive-skills.

Cardoso, M. (2012), "The Recovery of Productivity in Spain: Is It Sustainable?", BBVA, https://www.oecd.org/std/productivity-stats/5%20Session%201d%20-%20cardoso%20-%20Productivity%20OECD_vf.pdf.

Cedefop (2015), "Skill Shortages and Gaps in European Enterprises: Striking a Balance Between Vocational Education and Training and the Labour Market", No. 102, Luxembourg.

Doménech, R., J.R. García and C. Ulloa (2016), "The Effects of Wage Flexibility on Activity and Employment in the Spanish Economy", BBVA Research, Working Paper 16/17, Spain.

European Commission (2016), "Education and Training Monitor 2016: Spain", https://ec.europa.eu/education/sites/education/files/monitor2016-es_en.pdf.

European Commission (2015), "Education and Training Monitor 2015: Spain", http://ec.europa.eu/dgs/education_culture/repository/education/tools/docs/2015/monitor2015-spain_en.pdf.

Izquierdo, M., Jimeno, J., Lacuesta, A., 2015. Spain: From Immigration to Emigration? (No. 1503). Banco de Espana.

Jansen, M., S. Jimenez-Martin and L. Gorjon (2016), "The Legacy of the Crisis: The Spanish Labour Market in the Aftermath of the Great Recession", *Estudios sobre la Economia Espanola – 2016/10*, FEDEA.

MEYSS (2015), "Sistema de Formación Profesional para el Empleo en el ámbito laboral (Ley 30/2015), Ministerio de Empleo y Seguridad Social, Madrid.

Montt, G. (2015), "The Causes and Consequences of Field-of-study Mismatch: An Analysis Using PIAAC", *OECD Social, Employment and Migration Working Papers*, No. 167, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jrxm4dhv9r2-en.

Observatorio de las Ocupaciones (2015), "2015 Informe del Mercado de Trabajo de los Extranjeros Estatal (Datos 2014) ", Servicio Público de Empleo Estatal, Madrid.

OECD (2017a), *OECD Economic Surveys: Spain 2017*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-esp-2017-en.

OECD (2017b), *Getting Skills Right: Skills for Jobs Indicators*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264277878-en.

OECD (2016a), *Education at a Glance 2016: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2016-en.

OECD (2016b), *OECD Regions at a Glance 2016*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2016-en.

OECD (2016c), *OECD Employment Outlook 2016*, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl_outlook-2016-en.

OECD (2016d), *International Migration Outlook 2016*, OECD Publishing, Paris, http://dx.doi.org/10.1787/migr_outlook-2016-en.

OECD (2015a), "OECD Skills Strategy Diagnostic Report: Spain", OECD, Paris, http://www.oecd.org/skills/nationalskillsstrategies/Diagnostic-report-Spain.pdf.

OECD (2015b), *International Migration Outlook 2015*, OECD Publishing, Paris, http://dx.doi.org/10.1787/migr_outlook-2015-en.

OECD (2014a), *The 2012 Labour Market Reform in Spain: A Preliminary Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264213586-en.

OECD (2014b), *Skills beyond School: Synthesis Report*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264204256-en.

OECD (2012), "OECD Programme for International Student Assessment (PISA), Results from PISA 2012: Country Note for Spain", OECD, Paris, https://www.oecd.org/pisa/keyfindings/PISA-2012-results-spain.pdf.

OECD (2011), *OECD Perspectives: Spain, Policies for a Sustainable Recovery*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201736-en.

Rodríguez-Planas, N. and N. Nollenberger (2016), "Labor Market Integration of New Immigrants in Spain", *IZA Journal of Labor Policy*, Vol. 5, No. 4, http://dx.doi.org/10.1186/s40173-016-0062-0.

Rodríguez-Planas, N. and N. Nollenberger (2014), "A Precarious Position: The Labor Market Integration of New Immigrants in Spain", Migration Policy Institute and International Labour Organization.

Database references

Eurostat (2016), "Employment and unemployment (Labour Force Survey)", Eurostat Database, http://ec.europa.eu/eurostat/web/lfs/data/database.

Eurostat (2015), "Gross domestic expenditure on R&D (GERD)", Eurostat Database, http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_20&plugin=1.

OECD Education at a Glance Database, http://www.oecd.org/education/database.htm.

OECD Education and Training Database, https://www.oecd.org/statistics/data-collection/educationandtraining.htm.

OECD National Accounts Database, http://www.oecd-ilibrary.org/economics/data/oecd-national-accounts-statistics_na-data-en.

OECD Skills for Jobs Database, http://www.oecd.org/employment/skills-for-employment-indicators.htm.

OECD Short-Term Labour Market Statistics, https://stats.oecd.org/index.aspx?queryid=35253.

Chapter 2

Skills assessment and anticipation system in Spain

In order to design policies that effectively tackle existing or anticipated skills imbalances, countries must thoroughly analyse their demand for and supply of skills. The findings from these skills assessment and anticipation (SAA) exercises can feed into a range of policies, including education and training, employment and migration policies. This chapter documents some of the different SAA exercises in place in Spain, highlighting the various information sources and involved stakeholders.

Policy response to skill imbalances requires access to reliable and timely data about which skills are needed in the labour market. Spain has several exercises in place to generate this type of information; however, use of this data in policy could be enhanced.

The public employment service in Spain, Servicio Público de Empleo Estatal (SEPE) produces a catalogue of hard-to-fill occupations on a quarterly basis (*el catálogo de ocupaciones de difícil cobertura*). The list is prepared using data collected from the regional public employment services for each province and region, and occupations on the list are determined by a set of technical criteria, which are decided jointly by the different units of the Administración General del Estado. To be included on the list, occupations must first demonstrate shortage pressure based on four quantitative indicators: 1) a high degree of penetration of the occupation in the labour market (number of job vacancies divided by total employed in that occupation), 2) few job applicants relative to job vacancies, 3) easy access to employment (the ratio of the number of people hired to job applications), and finally, 4) a high degree of regional labour mobility in that occupation. Next, for occupations to be included on the list the number of applicants nation-wide for a particular occupation must be low, and the unemployment rate in that occupation must not have grown by more than 10% of the national average over the past year. To complete the catalogue, SEPE adds to this filtered list some occupations relating to professional sports (e.g. athletes and coaches) and work at sea, while excluding any occupations from the construction or clothing sector and labourers. This catalogue is then used to facilitate entry of foreigners who have skills in demand. However, since the economic crisis, hardly any occupations make it on to this list, apart from those relating to professional sports and work at sea, reflecting the relatively low degree of skill shortages in the country.

Since 2011, the Occupations Observatory (*el Observatorio de las Ocupaciones*), the research arm of SEPE, publishes an annual report (*Los perfiles de la Oferta de Empleo*) of occupations which are most in demand based primarily on whether they had positive recruitment over the previous eighteen months. While the list is based on hiring trends, the Observatory also consults with employers to assess their difficulty filling jobs and what their training needs are. For each high-demand occupation, the report includes a detailed profile of employment and unemployment trends, including a regional breakdown. It also clarifies educational requirements for the occupation, and translates these into skill requirements using input from the National Institute of Qualifications (*Instituto Nacional de las Cualificaciones*, INCUAL*)*. In addition to making this report available online, SEPE sends it by email to several thousand career counsellors on a regular basis and shares the results at job fairs.

As part of the Annual Labour Survey (*Encuesta Anual Laboral*), the Ministry of Employment and Social Security (MEYSS) publishes data on firms' prospects of future hiring and training behaviour. Conducted annually since 2013, the survey focuses on firms with five or more employees and 11 500 firms completed the questionnaire in 2015. Firms' expectations of whether their staff size will increase or decrease are summarised by broad occupational group, professional experience level of the potential candidates, and whether the hire is likely to be a permanent or temporary contract. In terms of training behaviour, the survey reports on the share of firms that train their employees by size of firm, economic sector, and the broad type of training provided. Firms also indicate the skills they consider to be most important for their future growth. In 2015, for example, firms prioritised team work (58% of firms), customer service (54%), and management skills (46%).

In addition, the Ministry of Education, Culture and Sports (MECD) publishes yearly data on education participation, performance, attainment and employment by broad field of study and qualification level (OECD, 2015). The annual report, "Facts and Figures:

2016/2017 school year" *(Datos y cifras: Curso escolar),* charts enrolment and educational attainment from early childhood education to lifelong learning, providing employment, unemployment and wages by broad education level and field of study. Another annual report produced by MECD, "Facts and Figures on the Spanish University System" (*Datos y cifras del Sistema Universitario Español*), outlines facts relating to Spanish universities, including the number of institutions, their location, student enrolment, distribution of graduates by broad field of study, academic performance of incoming students, employment outcomes by degree type and broad field of study, and basic information about earnings of graduates (but not by field of study). A new report by the MECD entitled, "Labour Market Entrance of University graduates: the Social Security membership perspective*" (Inserción laboral de los egresados universitarios: La perspectiva de la afiliación a la Seguridad Social),* uses social security affiliation data to track employment and earnings outcomes of a cohort of university students who graduated in 2010 for four years after graduation. The report provides labour market outcomes by qualification, field of study, and professional sector (not by occupation). To date, this report has only been prepared for one cohort of bachelors graduates, but there are plans to extend it to the masters and doctoral levels and to update the study annually (OECD, 2015). Data from this report feed into MECD's online web portal, "*Que estudiar y donde en la Universidad?*," which students can use to decide which university programme to pursue.

The National Statistical Institute (*Instituto Nacional de Estatisticas,* INE*)* also initiated a survey to track labour market outcomes of university graduates, though using a different method from MECD. Instead of using social security data, INE's "Labour Market Entrance of University Graduates Survey" (*Encuesta de Inserción laboral de titulados universitarios)* combines administrative data and interviews with university graduates. Employment rates are provided by qualification, field of study, professional sector, and broad occupation group. The survey also tracks self-reported over-qualification of graduates over time and by region. Users can access data tables online, as well as a press release which summarises findings. Both MECD's "Labour Market Entrance of University graduates: the Social Security membership perspective*"* and INE's "Labour Market Entrance of University Graduates Survey" track the labour market outcomes of the same cohort of university students who graduated in 2010. Labour market outcomes are predictably lower on average in MECD's analysis compared to INE's analysis, since MECD uses social security affiliation rates as a proxy for employment rates, and social security affiliation rates are lower than employment rates: the average social security affiliation rate of 2010 graduates in 2014 is 64.4%, while the average employment rate is 75.6%. Qualitatively, however, the two studies largely agree on which qualifications yield the strongest labour market outcomes. For instance, both studies rank Electronic Engineering, Medicine, and Industrial Electronic and Automatic Engineering as three of the top occupations leading to high employment (Table 2.1).

Table 2.1. Bachelors programmes with the highest and lowest employment rates four years after graduation, by study

MECD	INE
Bachelors programmes with the highest employment rates four years after graduation	
Medicine	Electronic engineering
Optometry	Medicine
Financial and actuarial sciences	Industrial electronic and automatic eng.
Industrial electronic and automatic eng.	Aeronautic engineering
Electronic engineering	Naval engineering
Bachelors programmes with the lowest employment rates four years after graduation	
Fine arts	Environmental sciences
Architecture	Hispanic philology
History	Biology
French philology	Theory of lit. and comparative literature
Philosophy	Technical forest engineering

Note: This table reports the qualifications which led to the highest and lowest employment rates for the cohort that graduated university in 2010. Only programmes with 100 graduates or more are displayed.

Source: MECD (2016), Inserción laboral de los egresados universitarios. La perspectiva de la afiliación a la Seguridad Social: Primer Informe; INE (2015), "Nota de prensa: Encuesta de Inserción Laboral de Titulados Universitarios 2014".

Reference

OECD (2015), "OECD Skills Strategy Diagnostic Report: Spain", OECD, Paris, http://www.oecd.org/skills/nationalskillsstrategies/Diagnostic-report-Spain.pdf.

Chapter 3

Policies to reduce skill imbalances in Spain

As skills imbalances can be costly for individuals and societies, countries try to reduce them by implementing policies that steer the demand for and supply of skills. The demand for skills can, for example, be influenced by industrial policy, while education and training, employment and migration policies can alter the supply of skills. This chapter reviews the policies that government and other stakeholders have implemented in Spain to tackle skills imbalances.

Countries can use data gleaned from skill anticipation and assessment (SAA) exercises to better design policies to align skill supply and skill demand. In Spain, the government and other stakeholders have undertaken efforts to activate the unemployed and to make the education and training system responsive to labour market demand. The government has also put in place policies to attract skilled migrants and to boost demand for higher-level skills in order to reduce skill imbalances.

Reforms to professional training

Recent reforms to the professional training system aim to bring skills supply more in line with demand for both workers and the unemployed

Ley 30/2015 may be a step in the right direction towards making training more responsive to demand, though it is too soon to tell. Announced in 2015 but not yet operational, the reform of the professional training system (*Ley 30/2015, Sistema de Formación Profesional para el Empleo en el ámbito laboral*) made dramatic changes to the way that public training funds are managed, in an effort to better align publicly-subsidised training for both workers and the unemployed to the needs of the labour market. *Ley 30/2015* had broad parliamentary support, but during meetings with stakeholders we heard that it was approved without the consensus of social partners. Social partners have historically been central to the professional training model, including in the design and delivery of training for employed workers, but their role will now be limited to that of identifying current and future training needs. Public training funds, which in 2016 amounted to EUR 2.2 billion, come primarily from the professional training levy (86%, discussed below), but also from the state (8%) and the European Social Fund (5%). About half of this budget is allocated to training for the unemployed, and the other half to training for workers.

With respect to training for workers, a key component of the 2015 reform was to introduce more competition to training provision and to the management of training funds, whereas previously, employer and trade union organisations (i.e. the social partners) had exclusive responsibility for these roles. Concerns arose that under the old system, excessive sub-contracting of training out to third-party institutions led to training that was of low quality (*El Pais*, 15 June 2014). Under the reform, training must be based on training needs that are real, immediate and specific to the firm and its employees and training duration must be a minimum of two hours. Third-party organisations entrusted to plan training must be accredited under the new law. Firms must spend the levy amount within one year, but small firms (less than 50 workers) are allowed to accumulate their levy funds for up to two years.

Training for the unemployed will also be subject to greater competition under the reform, through the use of "training cheques" as well as more monitoring of outcomes. To promote greater competition in training offered to the unemployed, the reform also encourages regional public administrations to introduce a "training cheque" (*cheque formación*), whereby the unemployed person can select the centre where they wish to receive training and the corresponding public administration will pay the fee directly to the training centre. To support the unemployed in assessing the quality of training providers, the reform also proposes greater evaluation and makes training institutions responsible for monitoring outcomes (e.g. changes to employment status). Regular audits of training institutions were also proposed, and a special inspection unit will be set up to investigate fraud, with penalties increased for companies that misuse funds.

Activating the unemployed

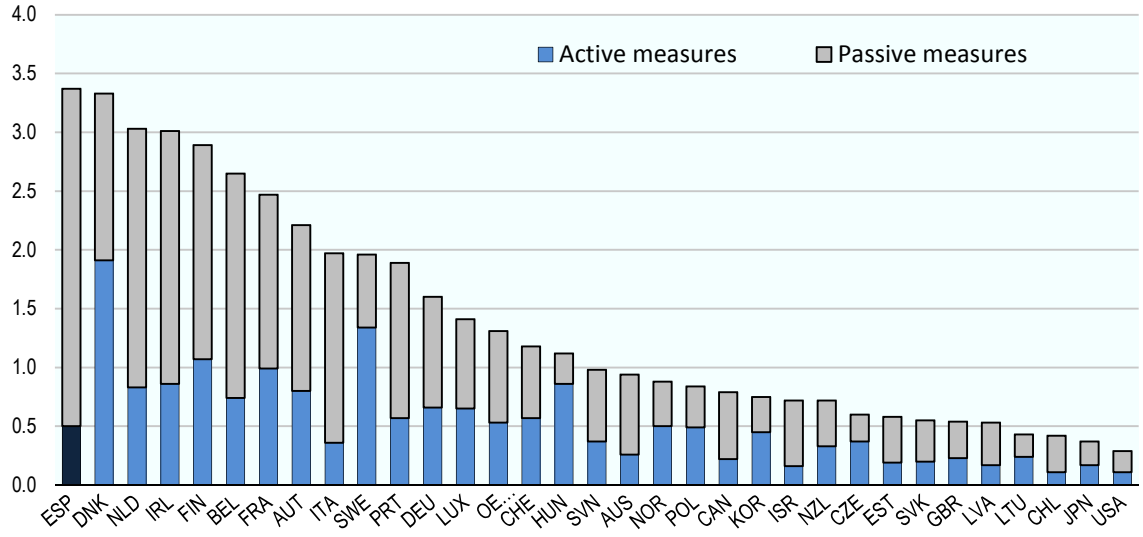
Recent papers by the Bank of Spain show that the qualifications and skills of the unemployed are poorly aligned with the needs of the labour market, and this misalignment has worsened over time (Izquierdo et al., 2013; Puente and Casado, 2016). With among the highest rates of long-term unemployment and youth unemployment in the OECD, activation policies are therefore a key priority for Spain, though the decentralised nature of activation policies creates challenges to effective implementation. Passive labour market policies (i.e. unemployment insurance and benefits) are managed and implemented by the central government, while the 17 autonomous communities (*Comunidades Autónomas)* implement active labour market policies (ALMPs), like training and job search assistance. The national public employment service (*Servicio de Empleo Publico Estatal*, SEPE) is responsible for designing active labour market policies and administering funding to the autonomous communities.

Spain could do more to upskill and retrain the unemployed

Spain spends relatively little on ALMPs. Spain spends 3.3% of GDP on labour market policies, higher than any other OECD country (Figure 3.1). However, spending is heavily weighted towards passive measures, including unemployment benefits and unemployment insurance. In fact, only 14% of public spending on labour market policies goes toward active measures, compared to the OECD average of 40%. Despite its high incidence of long-term unemployment, Spain spends considerably less on ALMPs per unemployed person than other OECD countries: 3.9% on ALMP per unemployed as a share of GDP against the OECD average of 14.5% in 2013 (OECD, 2017a). Even while allocating a large amount of public resources to unemployment benefits, short entitlement periods and a high share of long-term unemployed mean that the standard unemployment benefit covered only 24% of the unemployed in 2012, well below the OECD average (OECD, 2017a). The co-ordination of active and passive labour market policies between the central and regional governments is also an issue. While payment of unemployment benefits is carried out by the central public employment service (PES), jobseekers register with the regional PES. After registering, jobseekers have an interview with a caseworker who may recommend training courses, career guidance or self-employment support. If such active measures are recommended then they become a requirement for receipt of unemployment benefits, along with job search activity. Monitoring of such activities has traditionally been low, though it has increased with recent ALMPs targeting the long-term unemployed (OECD, 2017a).

Figure 3.1. Most labour market policy expenditure is allocated to passive measures

Total public expenditure as a share of GDP, 2014



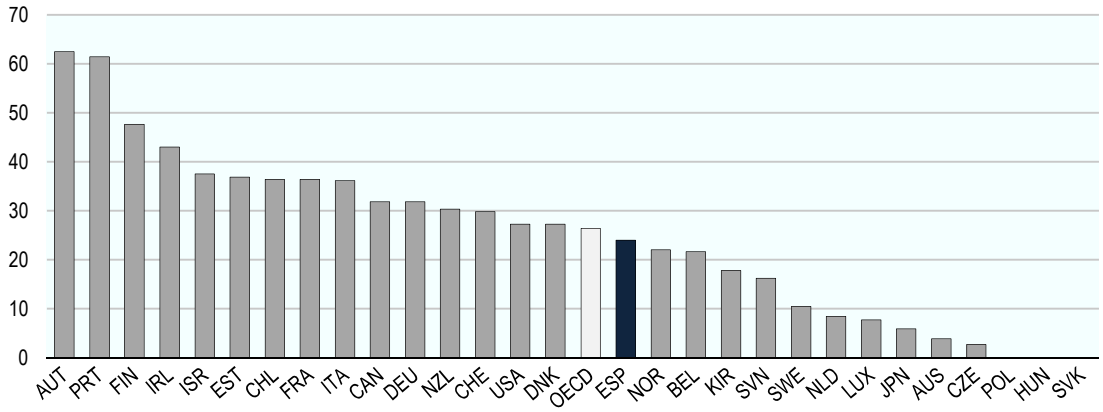
Note: 2013 for Ireland, Poland and Spain. 2011 for the United Kingdom.

Source: OECD Statistics on Labour Market Programmes.

More ALMP spending could be allocated to retraining the unemployed. International experiences of training programmes for the unemployed are mixed, with positive effects on employment evident in the medium to long-term, but neutral or even negative impacts in the short-term (Card et al., 2015). Negative short-term impacts can generally be attributed to "lock-in effects," whereby participants withdraw from the labour market temporarily while training. Training is found to be especially effective for improving the employment prospects of the long-term unemployed. As a share of total ALMP expenditure in Spain, 20% is spent on start-up incentives, 16% on job search, 14% on employment incentives, 14% on direct job creation, 12% on sheltered employment (support for people with reduced working capacities) and 24% on training. While this share of spending on training is close to the OECD average, it is low relative to Austria (63%), Portugal (61%), and Finland (48%) (Figure 3.2). Very little information is publicly available regarding the type of training that the unemployed receive in Spain, but the bulk of spending is allocated to state and regional grants for training proposals (EUR 721 million, 72% in 2016; see Figure 3.3). Recall that under the reform, regions are encouraged to issue training cheques and let the unemployed choose their training providers. Despite the large number of long-term unemployed who lost jobs in the construction sector, only a small share of the training budget is spent on requalification.

Figure 3.2. Share of ALMP spending on training is low

Share of total expenditure on active measures allocated to training, 2014

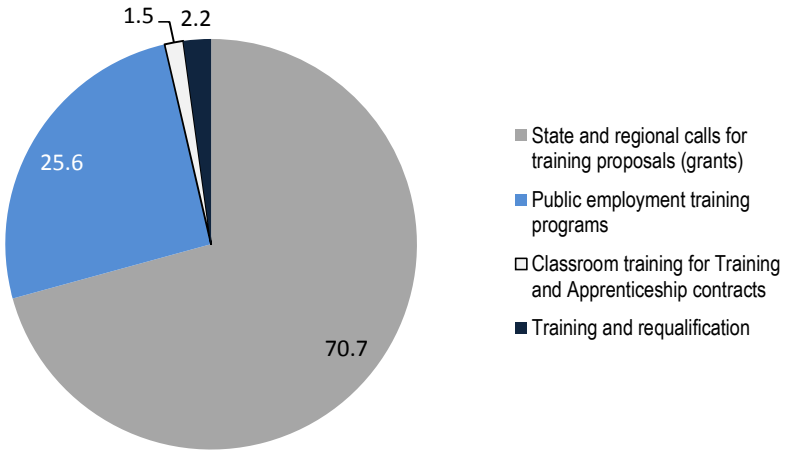


Note: 2013 for Ireland, Poland and Spain.

Source: OECD Employment and Labour Market Statistics.

Figure 3.3. Allocation of professional training budget for the unemployed, 2016

Share of the professional training budget for the unemployed, by type of training activity



Source: Fundación Estatal (March 31, 2016), "Presupuesto y financiación de la formación para el empleo en 2016", Blog Formación y Empleo.

Too much focus has been on hiring subsidies, which do not improve employment prospects for jobseekers with skill deficiencies. While spending on hiring subsidies has fallen from 41% of ALMP expenditure just before the crisis in 2007 to only 14% in 2014, hiring subsidies are still the most common type of ALMP, with 4% of the labour force having been beneficiaries of hiring subsidies in 2013, compared to only 1.5% of the labour force having received training. Between 2010 and 2013 hiring subsidies targeted young people age 16-30 with employability problems, the long-term unemployed and the low-skilled (Cueto and Patricia, 2014). However, since 2014, hiring subsidies can be applied indiscriminately to any type of jobseeker, regardless of their employability. Larger hiring

subsidies are provided to employers for offering permanent rather than temporary contracts, which helps to encourage permanent employment. But hiring subsidies which are applied to any type of jobseeker regardless of employability are shown to have no impact on overall employment due to significant deadweight losses (i.e. they simply push forward hiring which would have taken place without the subsidy). Even more worrisome, untargeted hiring subsidies may reduce access to employment for more vulnerable groups (Cueto and Patricia, 2014; Jansen, 2016).

ALMPs focused on activating the long-term unemployed have had some limited success

Since the crisis, there have been three waves of ALMPs designed to activate long-term unemployed who have exhausted their regular unemployment benefits: *Renta Activa de Inserción* (RAI), *Programa de Recualificación Profesional* (PREPARA) and *Programa de Activación para el Empleo*, (PAE). The RAI is a permanent programme which provides a monthly benefit for 11 months (conditional on job search and training) to older unemployed who face serious difficulties finding work, while the PREPARA and PAE programmes were introduced as temporary measures.

A third of participants found work through PREPARA, which tied benefit receipt to completion of basic job search training. PREPARA provided a one-time non-extendable benefit of EUR 400 (or EUR 450, if one has family responsibilities) per month for up to six months to long-term unemployed of any age and required the beneficiary to undertake training and career guidance. A job coach at the public employment service validated attendance at training and career guidance sessions and was the link between the PES and the unemployed person. Though originally intended to upskill the jobseeker in their area of professional expertise, resources constraints limited provision of training to general courses on job search techniques, resume writing, and job interview skills. An evaluation of PREPARA found that 30% of participants exited into employment and only 18% had held work for more than two months (Cueto and Patricia, 2014).

Under PAE, jobseekers were assigned a personal tutor who helped them to identify their training needs. Operating between 2015 and 2017, PAE was only available to long-term unemployed who had participated in one of the other two programmes (RAI or PREPARA) and were still unemployed six months after exhausting these benefits. Like PREPARA, PAE is a temporary programme that provides long-term unemployed with EUR 400 per month for up to six months. Unlike PREPARA, beneficiaries do not lose their benefits if they succeed in finding work. If a participant finds work during the six months of the programme, the employer receives a subsidy for the value of the benefit for the remainder of the programme – which creates hiring incentives for the employer. Another feature is that beneficiaries are assigned a tutor who personally helps them transition into employment. The tutor is responsible for developing a personalised action plan (*Itinerario de Inserción*) for the participant and for supervising its implementation. An evaluation finds that 15% of programme participants find employment under PAE (OECD, 2017a), which is a poorer outcome than the PREPARA programme partly because the participants represented a less employable sub-sample since they had been unemployed longer. A similar programme to PAE was recently approved (*Programa de Acción Conjunta para Desempleados de Larga Duración*), which commits the government to allocate EUR 515 million over three years to the regions to provide personalised services for 1 million long-term unemployed. As with PAE, a key limitation of this new programme is that PES counsellors lack training on how to personalise action plans to the specific skill needs of the unemployed, which results in poorly tailored action plans.

PES counsellors are overburdened, and employment services are poorly tailored to skill needs.

PES counsellors are overburdened in Spain, with 721 jobseekers for every PES worker, compared to less than 300 jobseekers per PES worker in Italy, and fewer than 50 jobseekers per PES worker in Germany (OECD, 2017b). Furthermore, career counsellors at the PES lack training about how to develop individualised employment action plans. As a result, training is poorly targeted on the particular skill needs of the unemployed, and there is very little variation in treatment based on risk of long-term unemployment. A study conducted by a Spanish think tank, Fedea, estimates that it takes 9.5 months on average for an unemployed person to receive their first service once having applied to the PES, and this waiting time does not vary for different education groups (Jansen, 2016). Furthermore, the types of interventions received by beneficiaries are almost identical across education levels, pointing to an absence of targeting (Rebollo-Sanz, 2017).

Statistical profiling tools, which could help PES counsellors to tailor employment services, have not been widely implemented. While the 2014-2016 Spanish Strategy for Employment Activation (*Estrategia Espanola de Activación para el Empleo,* EEAE) encouraged autonomous communities to introduce statistical profiling systems to better target PES to the specific needs of the unemployed, to date most regions have not done so.[1] Lack of targeting of ALMPs means that programming for the unemployed is not currently based on their personal skill needs and that those with a higher risk of becoming long-term unemployed are not prioritised. Furthermore, statistical profiling tools could promote a more efficient use of tight resources.

Box 3.1. A statistical profiling tool for Spain

In an effort to stimulate the use of such tools, Fedea (*Fundación de Estudios de Economia Aplicada*), a Spanish public policy think tank, has developed a statistical profiling tool for Spain using data from the public employment services. Some autonomous communities are investigating the possibility of using Fedea's statistical profiling tool to better tailor their employment services, but it is not yet in use anywhere. The tool estimates the probability that jobseekers will find a job within the following three to twelve months, using detailed information about their skills, education, labour market history, and other personal characteristics. The chief value of this tool is its ability to identify jobseekers who face a high risk of entering long-term unemployment. PES administrations could use this information to fast-track such high-risk individuals into employment services. But Fedea's tool goes beyond simply categorising the unemployed into high-risk and low-risk groups. Using longitudinal data of individual's work histories and their participation in ALMPs, the tool can also provide estimates of the relative effectiveness of different employment services for particular types of jobseekers, e.g. those with low basic skills or older workers. Both types of information generated by the statistical profiling tool permit job coaches at the PES to more easily develop personalised employment plans for jobseekers.

Source: Jansen, M. (2016), "El reto de la inserción de los desempleados de larga duración", *Fedea Policy Paper No. 26*, Universidad Autónoma de Madrid y Fedea, Madrid.

Recent reforms could promote consistency in implementation of ALMPs and facilitate labour mobility

The Estrategia Española de Activación para el Empleo (EEAE) reform sets minimum requirements for regional implementation of public employment services. The decentralised nature of active labour market policy management represents a key challenge to activating the skills of the unemployed. While regional implementation of ALMPs allow regions to adapt programmes to local needs, considerable variation in how these policies are

implemented across regions threatens the quality of public employment services. To promote consistency in implementation of ALMPs across the 17 regional public employment services (*Servicios Autonómicos de Empleo*), the 2014-2016 Spanish Strategy for Employment Activation (*Estrategia Española de Activación para el Empleo,* EEAE) established common objectives for ALMPs nationwide, in co-operation with the autonomous communities. A Common Catalogue of basic employment services (*Cartera Común de Servicios del Sistema Nacional de Empleo)* was approved in 2015, and establishes minimum requirements for all public employment services, which are to include career guidance, placement services, training, and advisory services for the self-employed and entrepreneurs. State funding for the implementation of ALMPs by regions are also increasingly allocated based on achievement of outcomes, with 70% of funds in 2016 subject to demonstration of results achieved. Funding is conditional on a set of established indicators which focus primarily on hitting targets with respect to inputs (e.g. number of services provided, number of individuals who received services) as opposed to outcomes (e.g. employment rates or user satisfaction with services).

A new single jobs portal could promote labour mobility, but employer participation is low. The EEAE also introduced in 2014 a single Spain-wide portal of job vacancies (*Portal Único de Empleo, Empléate*[2]*)*, which aggregates job vacancies posted in the 17 regional PES into a single job portal, to facilitate recruitment and to promote labour mobility. But due to poor employer engagement, only 36,000 job vacancies are posted and few Spanish unemployed consult the PES when they look for a job (only 30% of the unemployed against 62% OECD average; see Jansen, 2016).

Helping young people find work

Training and apprenticeship contracts create opportunities to activate young school leavers.

Employers receive subsidies for training provided as part of the training and apprenticeship contracts in the employment system. Since 2012 (*Royal Decree 1529/2012*), employers have incentives to sign training and apprenticeship contracts (*los contratos para formación y aprendizaje*) that supplement school-based vocational training with work experience – a work-based VET programme in the employment system. Under such contracts, employers commit to provide the trainee with a job related to their vocational training qualification for at least one year, but no more than three years. Employers can deduct training costs from their social security contributions. Trainees must be young (age 16-30) and pursuing medium or superior grade vocational training qualifications or a "certificado de profesionalidad". About EUR 15 million (1.5% off the unemployment training budget, see Figure 3.3) is spent on the classroom portion of the training and apprenticeship contracts. No evaluations of this programme have yet been carried out as data on number and type of participants and their labour market outcomes have not yet been made public by MEYSS.

Youth Guarantee aims to foster and activate the skills of youth

The Youth Guarantee allocates significant funding to hiring and training youth, with some focus on fostering digital skills. In 2013, Spain started the *Youth Guarantee (Garantía Juvenil*), which is an EU-subsidised scheme that commits to providing unemployed youth with an offer of employment, education, apprenticeship or traineeship within four months of becoming unemployed. Since EU funding is based on the youth unemployment rate, Spain received more funds for the Youth Guarantee (YG) than any other participating

country, with an estimated budget of EUR 3.48 billion for the four-year period 2013-16 (EUR 871 million each year). About EUR 1.1 billion came from the European Social Fund while the remaining EUR 2.4 billion was financed by the Spanish central government (MEYSS, 2013). Of the initial "emergency" measures (about 50% of the budget), 40% were intended for employment incentives, 38% to promote self-employment and entrepreneurship, and 22% for training. The remaining measures to be implemented over the four years of the strategy included 50% for training and education. Under the employment incentives, employers who hire youth can count on having their social security contributions covered for the duration of the contract (usually six months). The programme put an emphasis on fostering digital skills, including the use of ICTs to improve access and integration into the job market of young people with disabilities (OECD, 2016).

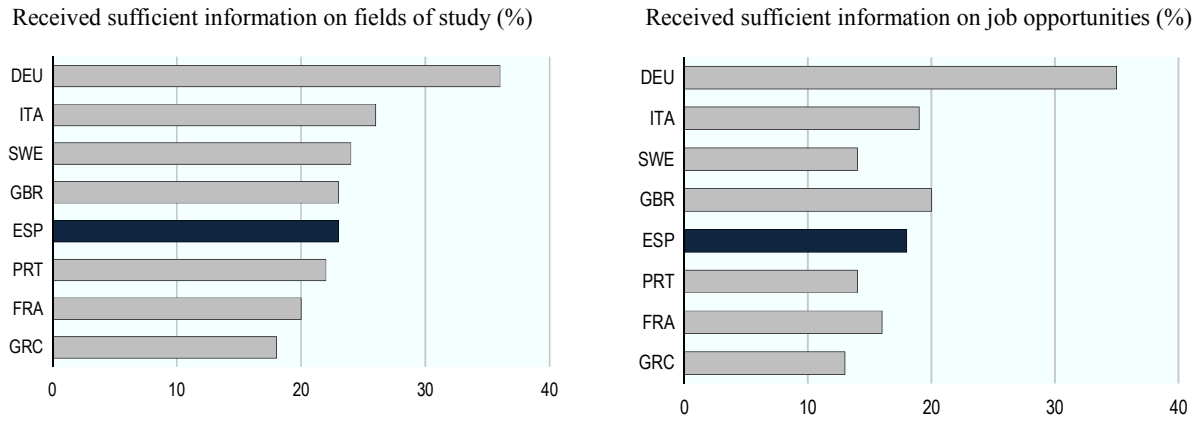
But the Youth Guarantee has not succeeded in targeting enough NEET youth. An evaluation of the labour market outcomes of this programme has not been conducted due to lack of available data about how many beneficiaries found employment following participation in the programme and the type of employment they found – an unfortunate lapse in monitoring. However, very few eligible youth were targeted by the programme: by March 2016, only 19.3% of NEETs were registered (CJE, 2016). The Spanish Youth Council (*Consejo de Juventud de Espana*, CJE) argues that this low participation in the YG is due to an overly complex registration process. The CJE also found a lack of employer engagement in the implementation of the YG, and expressed concern that not having minimum requirements for job quality meant that few hiring subsidies led to permanent jobs and the incidence of training in new jobs was low.

Education and training: Policies directed at individuals

Tools for guiding students to invest in skills and education which are in high demand

Career guidance services in secondary school could be improved. Given the high rate of youth unemployment in Spain, a high-quality career guidance system which ensures that young people have the information and guidance they need to make critical decisions about their education, training, and career pathways is needed to promote matching of their skills with labour market demand. As of 2012, careers guidance in schools was mandated by national legislation to one class hour per week in compulsory primary and secondary education and in the two years of baccalaureate upper secondary education. However, several stakeholders noted that in practice, career guidance in schools is poor, as counsellors lack knowledge of the labour market (OECD, 2014), content is unstructured, and engagement with employers is lacking. Moreover, the quality of career guidance services varies significantly across autonomous communities, with some schools enjoying higher counsellor-to-student ratios, which allows for more personalised guidance. Less than a quarter of young people in Spain report receiving sufficient information on fields of study or job opportunities from their high school career guidance programme, which is comparable to student reports from France, Portugal, Italy and the United Kingdom, but inferior to Germany, where over a third of students report receiving sufficient information in these areas (see Figure 3.4).

Figure 3.4. Few young people in Spain think they are getting good career advice at their secondary school



Source: McKinsey Survey, Aug-Sept. 2012, 2013.

MECD manages an online web portal to help students decide what to study in university. Several information portals exist to provide students with information about education and occupation pathways, and their labour market potential. The web portal, *What to study and where?* (*Que Estudiar y Donde en la universidad?,* QEDU)[3] was developed by the Ministerio de Educación Cultura y Deporte (MECD) to facilitate decisions about which university degree to pursue, and is fed by data from MECD's "Labour Market Entrance of University graduates: the Social Security membership perspective" study. Students can learn about average labour market outcomes associated with a particular qualification and field of study, including the employment rate, the share of self-employed, and the share of employees in permanent jobs. A rough measure of qualification mismatch is also available, which computes the share of graduates of a given degree who are registered in a Social Security professional group that matches their level of education. For instance, 94% of aeronautical engineering graduates and 100% of medicine graduates are well-matched according to this metric, while only 12% of graduates with a diploma in public administration and 15% of graduates with a diploma in tourism are well-matched. Not only can students investigate which universities across the country offer the degrees they are interested in, but they can also learn how labour market outcomes vary depending on which university they go to. This type of information contributes to making universities accountable for the quality of the education they provide.

A similar web portal is available to learn about vocational education. In addition to QEDU that focuses on university education, the MECD also makes available a web portal for vocational training, called *TodoFP*.[4] The website includes information on curriculum content and locations of institutions that offer each vocational degree. Information on labour market outcomes of technical degrees is also available, including monthly flows into or out of unemployment for persons with a given degree, and the occupations and regions where graduates were hired in the last month. This information is updated monthly by SEPE. However, it is not possible to ascertain the average employment rate or wage of graduates with a particular technical qualification. Without this information it may be difficult for prospective students to compare the labour market prospects of technical degrees to those of general academic degrees. SEPE's annual report on the labour market (*Informe del Mercado de Trabajo)* shows that VET graduates (both intermediate and advanced) and university graduates are the only education groups to have experienced rising recruitment since 2010, which suggests strong labour market prospects for

VET graduates that are not fully conveyed by the web portal. The web portal developed by Fundación Atresmedia and Fundación MAPFRE provides much of the same information as TodoFP, but complements this with video testimonies of how students are using their degrees in the labour market (Box 3.2).

Box 3.2. Promoting Vocational Training in Spain

Fundación Atresmedia and Fundación MAPFRE have collaborated to offer a web portal for vocational training, ***Descubre la FP***,[1] which complements the government-run *TodoFP*. Users can search by vocational training degree to obtain simple and concise explanations of prerequisites, course content, costs and length, possible occupations associated with the degree and where to go to study. While no data on labour market outcomes is available, the portal includes links to video testimonies of students and professionals in the field who speak to the usefulness of vocational training in the labour market.

Another initiative in place to raise interest in vocational training is **SpainSkills**, a biennial competition organised by MECD which allows VET students to compete with one another in technical skills. Winners go on to compete in EuroSkills and WorldSkills competitions. Along with Portugal, Spain is one of the longest-standing members in WorldSkills, having participated for 65 years (*WorldSkills Annual Report 2015*). In 2015, as part of the Community Plumbing Challenge of WorldSkills, a team from Basque Country in Spain joined teams from India, Australia and the United States to design and deliver sanitation solutions in a local municipal school in Nashik, India.

1. http://www.descubrelafp.org/.

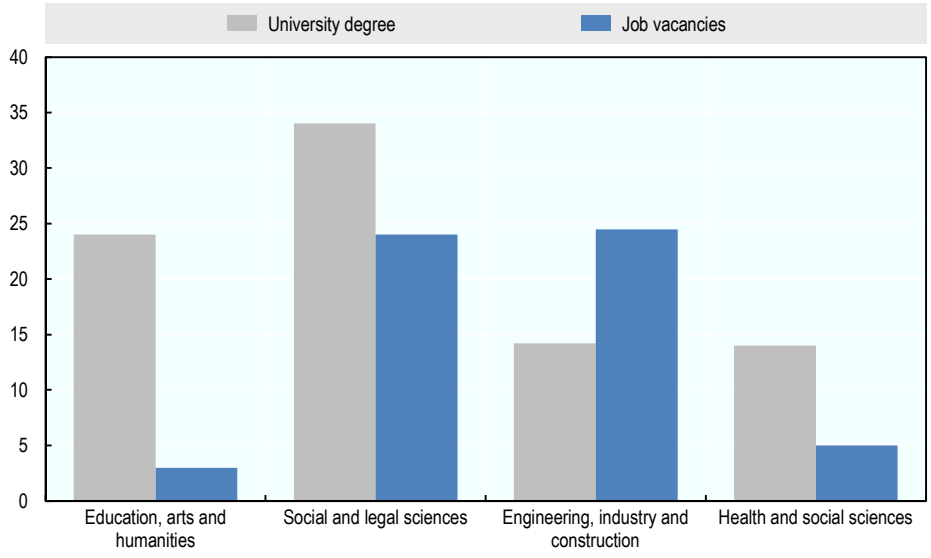
A separate web portal is in place to learn about occupations and their relative labour market demand. To learn about occupational pathways, individuals can consult the Spain-wide job web portal, *Empléate*,[5] which provides information about occupations in demand based on data from the Observatorio de las Ocupaciones. *Empléate* was put in place in 2014 (as part of the EEAE) to facilitate matching of job openings and jobseekers and to promote labour mobility. In addition to channelling job vacancies from the various regional public employment services and private job portals that have joined the project, the portal also provides headline statistics about which occupations and sectors have experienced the highest rate of hiring over the last month, and the skills and education that are required to work in these occupations and sectors. Headline statistics on the main page of the portal highlight jobs and sectors most in demand, and users can follow links to SEPE's website for more detailed information.

Financial assistance does not steer students towards in-demand occupations. In addition to career guidance, financial incentives can steer students towards career pathways for which they are well suited and for which there is demand. For the most part, though, financial assistance for students in Spain is allocated based on need and performance, and is not set up to steer students towards in-demand occupations. During the 2014/15 school year, EUR 1.9 billion was spent on financial assistance for 1.8 million students, of which 21% was allocated to support compulsory schooling, and the remaining 79% to support post-compulsory schooling (MECD, 2015). In compulsory schooling, assistance is provided to cover the costs of books and other learning materials for children from low-income households (80% is provided by the autonomous communities). Tuition fees for higher education are already heavily subsidised in Spain, and financial barriers to entry into higher education are relatively low (OECD, 2014). Bursaries are granted to higher education students based on their family income and performance in school – with about 90% of funding coming from MECD, and the rest from the autonomous communities. MECD also creates national prizes for superior grade VET (*Premios Nacionales de Formación Profesional de grado superior)* that recognise students' performance when successfully

completing their studies. Prizes are awarded for each of the 26 professional families, and are valued at EUR 1 200 each. No bursaries offered by the MECD are linked to specific skills. Field of study choices appear to be influenced by factors other than labour market demand, as the distribution of graduates by programme do not reflect the distribution of job vacancies (see Figure 3.5). For instance, while nearly a quarter of university graduates pursued a degree in Education, Arts and Humanities, less than 5% of available jobs require this qualification. By contrast, while only about 15% of students graduate with a degree in Engineering, Industry or Construction, nearly a quarter of job vacancies require this qualification.

Figure 3.5. Degrees of university graduates are poorly matched with demand

Distribution of job vacancies and university graduates, by professional group, 2014



Source: *Informe 03/2015. Competencias profesionales y empleabilidad.* Consejo Económico y Social (CES). Data on job vacancies come from Infoempleo 2014 and data on university graduates come from MECD, *Estadisticas de Educación curso 2013-2014*.

Despite the large base of low-skilled adults, incentives for lifelong learning are limited.

As the demand for skills continues to evolve with technological change and globalisation, adults need to continue learning over the course of their lives in order to remain employable in their current job, as well as to retrain for jobs with better labour market prospects. The fact that low-skilled adults and those working under temporary or part-time contracts are less likely to receive employer-sponsored training makes it important to offer learning opportunities that are not tied to a job. This is particularly so in Spain, where the base of low-skilled adults is large, the incidence of non-standard work is high, and where the shrinking of the construction sector since the crisis means that many low-educated unemployed will need to retrain. Services that enable recognition of prior learning are also important to empower workers who picked up skills informally (e.g. while on the job) to have those skills recognised and rewarded on the labour market.

Participation in free basic skills training for adults is low. However, incentives for lifelong learning directed at individuals are limited in Spain. Low-skilled adults can benefit

from free basic skills training offered by the MECD which results in a recognised certificate (*Ensenanzas iniciales para adultos, Ley Orgánica 2/2006)*. However, participation in this basic skills training is extremely low – in 2013, only 0.2% of the adult population (25-64) participated (Felgueroso, 2016), despite about 12% of adults performing at Level 1 or below in the Survey of Adult Skills. Low participation rates may reflect lack of interest on the part of school leavers to return to formal education.

Beyond basic skills training, another two measures were recently proposed to promote lifelong learning. Under the umbrella of reforms to the professional training system (*Ley 30/2015*, mentioned above), two measures were proposed to encourage lifelong learning for workers: training leave and individual training accounts (*Cuenta Formación*). As part of the training leave, workers are entitled to a 20-hour period of training leave once they have attained at least one year of seniority in their job. While it is a step in the right direction, the leave excludes workers in non-standard forms of employment, who have difficulty meeting the one year of seniority requirement. The individual training accounts (*Cuenta Formación*) are intended to keep track of training participation and qualifications of workers over the course of their careers. As a validation of previous training, the account may incite workers to participate more in training, since it strengthens the signalling power of skills attained. However, with no funding tied to the training account, it is unlikely to increase training participation among low-wage workers. Neither the training leave nor the individual training account is yet operational.

MECD also supports "Classroom Mentor" (Aula Mentor), an online open distance training system introduced to provide training to people living in rural areas, as well as those living in urban areas whose access to training is restricted by working hours or caring responsibilities. Course content is developed by professionals hired by MECD and new courses are introduced based on labour market demand. Each course is assigned a tutor who supports, evaluates and monitors individuals' learning, and who also encourages virtual interactions between students. While tuition is not free, it is very low (EUR 24/month), and goes towards payment of tutors. MECD finances the development costs for new courses, training for tutors and administrators, and other costs including investing in software and website maintenance. Student enrolment in 2008 was 19 190: of which about a quarter were aged 16-24; about 60% were age 26-45; and 15% were age 45 or older (University of Florence, 2010). Currently there are 170 courses, and the content varies from high skill (including specialised courses in programming) to more basic, like "Introduction to Computing" or "Introduction to Office Skills." While *Aula Mentor* does not provide any officially recognised degree, students who pass the final exam obtain a "certificate of achievement".

Autonomous communities issue calls to have professional skills acquired through work experience evaluated and accredited. Opportunities to validate learning acquired informally help to improve job mobility, by increasing the signalling power of those skills. In Spain, recognition of prior learning (RPL) is a regional jurisdiction and the service provision varies by region. In autonomous communities where RPL services exist, regions put out calls to accredit certain skills, based on labour market needs. Individuals take an exam or complete an interview to have their skills evaluated, and are awarded certification (either a *Titulo de Formación Profesional* or a *Certificado de Profesionalidad*) if they are successful.

Education and training: Policies directed at employers

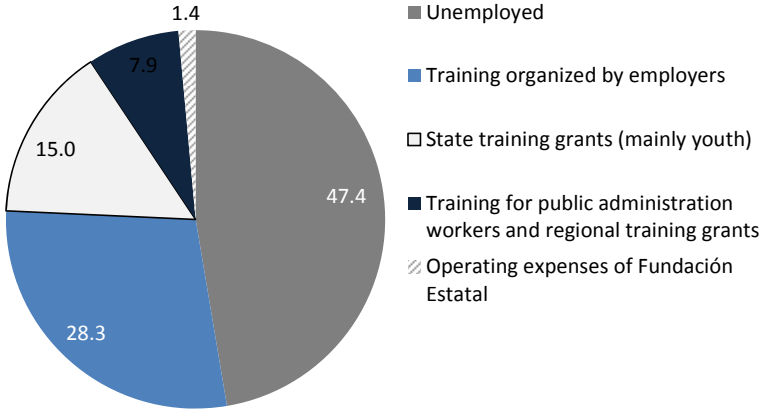
Employer-driven training is expected to reduce skill imbalances since employers are thought to know best which skills they need. Employee training is shown to have many benefits for employers, including higher productivity, profits and lower labour turnover. But an international survey of talent development[6] ranked Spain last out of 61 countries in terms of the degree to which companies prioritise employee training. One of the challenges that Spain faces is that the economy is characterised by mostly small and medium-sized enterprises (SMEs), which are constrained both in funding training and in articulating their training needs. In view of these constraints, a number of policies are in place to incentivise employer-led training in Spain.

Professional training levy creates incentives for employers to provide training

Professional training in Spain is financed mainly from the proceeds of the professional training levy. The professional training levy (*Cotización para formación profesional*) is a contribution of 0.7% of a company's payroll, of which 0.6% is borne by employers and 0.1% is borne by workers. These funds form 86% of the total public budget for financing professional training initiatives for both the employed and the unemployed, as discussed earlier, with the remaining funds coming from the state. About a third of the professional training budget is available to employers to fund training for their own employees, while the remaining funds go to programmes for the unemployed, public administration workers and other workers (Figure 3.6). Employers lose any training credits which they do not use during the year (or over the course of two years, for SMEs), so they face a strong incentive to provide training. However, in 2015, only 27% of firms that paid the levy provided training for their employees (Fundacíon Estatal, 2015). This is much lower than the 80% of employers who report providing training for their employees in the Annual Labour Survey (*Encuesta Anual Laboral*, 2015); a discrepancy which may be due to informal training not being captured by levy spending, and also to the fact that the Annual Labour Survey measure is self-reported.

Figure 3.6. Allocation of total professional training budget, 2016

Share of professional training budget, by type of spending



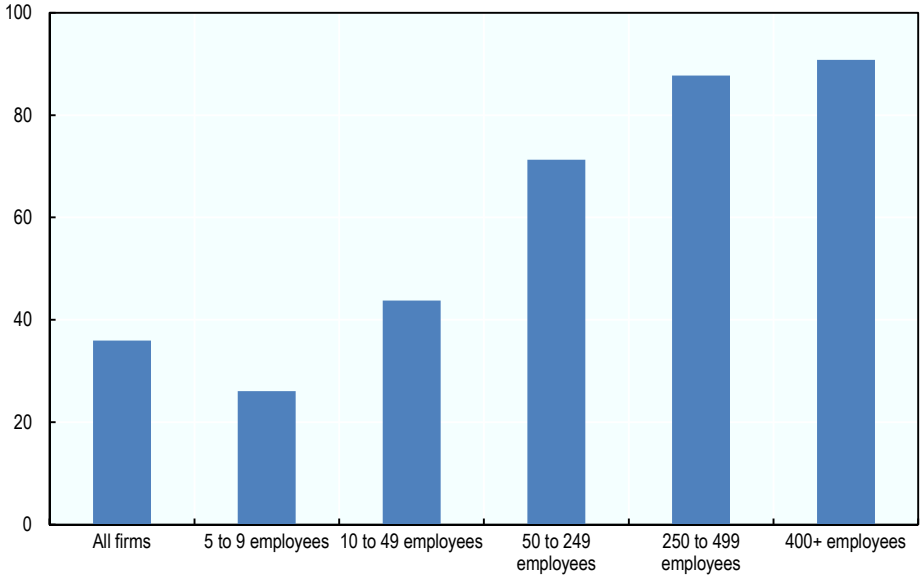
Source: Fundación Estatal (March 31, 2016), "Presupuesto y financiación de la formación para el empleo en 2016", Blog Formación y Empleo.

Training provided under the levy is not restricted to skills in demand. To use levy funds, employers receive training credits which are valued at a percentage of their total levy payment, and small employers can co-ordinate with one another to aggregate training credits. Employers may use the credits to conduct training internally, hire an external training provider, or collaborate with other employers to submit joint bids for common training programmes (*grupo empresearial)*. All costs of training, both direct and indirect (e.g. wages), are eligible for compensation with levy funds. Individual employees can also apply to their employer for training permission (*Permisos Individuales de Formación*), which grants the worker paid time off to pursue accredited vocational training, while the employer is compensated for lost wages with levy funds. Employers must submit training bids to the Fundación Estatal at least one week before the start of the course, and training must last a minimum of two hours. Other than verifying that training is legitimate and meets these minimum requirements, Fundación Estatal places no restrictions on the type of training that can be covered by levy funds (Fundación Estatal website).

Furthermore, much of the levy budget is spent on training that does not address skill needs. On the one hand, this freedom permits employers to determine and respond to their own skill needs. On the other hand, many employers have difficulty articulating their skill needs, which leads to a sub-optimal investment in training. Poor articulation of training needs represents a major challenge for small and medium-sized employers (SMEs), which comprise 90% of firms that contribute to social security and are therefore eligible for training credits (Fundae, 2016). Almost all large firms identify that their employees have training needs, while only 26% of small firms do (Figure 3.7). Since most firms are SMEs, this means that fewer than 40% of firms identify training needs among their employees. Firms that are able to articulate their training needs are more likely to provide training, but even among firms that are not able to do so, two-thirds still provide their employees with training (Fundae, 2016). This suggests that many firms spend their levy budget on training that does not actually address skill needs.

Figure 3.7. SMEs have difficulty articulating training needs

Share of firms that detect that their employees have training needs, by firm size, 2015



Source: Encuesta Anual Laboral 2015. Formación en las Empresas.

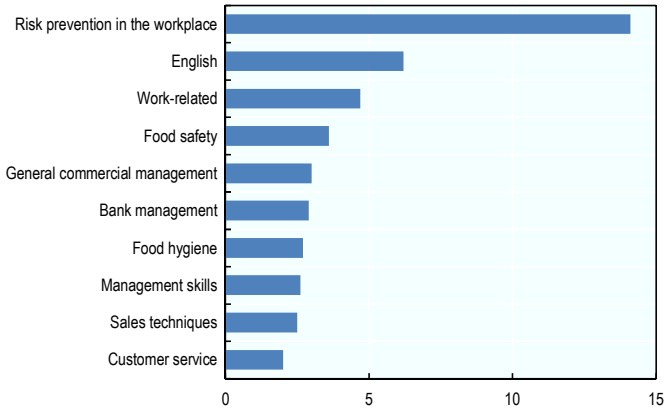
Much levy funding is spent on mandatory workplace training. Indeed, looking at data on the types of training provided by firms, over half of training firms use their levy budget to provide mandatory workplace training – 60% of firms that train provide mandatory courses on health and hygiene at work (Table 3.1). Similarly, the most common type of training activity, based on the share of employees who participate, is risk prevention in the workplace (Figure 3.8). Rather than spending levy funds to address emerging skill needs which may make the firm more productive, for instance, it seems that many managers recoup levy funds by undertaking training which they would have been required to provide anyway.

Table 3.1. Most training firms use levy funds for mandatory workplace training

Type of training	Share of training firms
Mandatory workplace training (health or hygiene)	60.2
Job-specific training	43.2
Other	24.4
Customer service	20.9
Team work	14.4
Office administration	13.3
Management	11.6
Foreign language training	11.4
Information technology - general	10.3
Problem-solving	8.3
Information technology - specialised	5.0
Basic literacy and numeracy	2.0

Source: Encuesta Anual Laboral, 2015. Formación en las Empresas.

Figure 3.8. Share of employees trained, by type of training activity, 2015



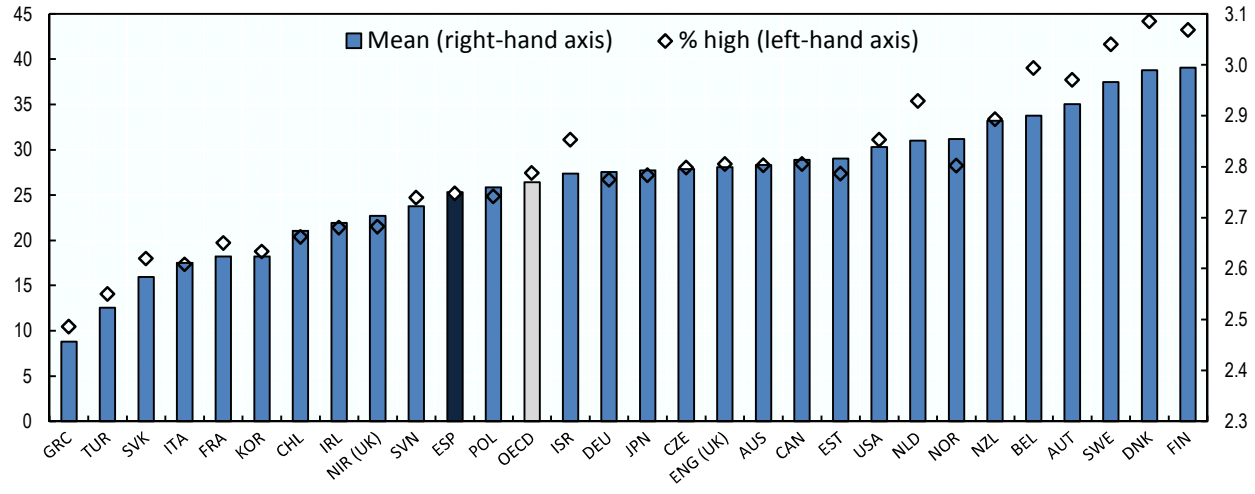
Note: This chart shows the top ten training activities with the highest participation.

Source: Fundación Estatal para la Formación en el Empleo. Informe anual 2015. Formación en las empresas.

Poor managerial skills hamper identification of training needs. Small firms may have difficulty articulating training needs of their employees due in part to less advanced managerial skills. Spain ranks lower than average in the share of jobs with High Performance Workplace Practices (HPWP); a characterisation which describes work organisation and management techniques that contribute to greater skill use at work (Figure 3.9). The use of flexible hours and training in Spanish firms is particularly low by international standards. Furthermore, while the share of employers having graduated from higher education has steadily increased over the last 15 years, the share of managers who have only completed compulsory schooling is still twice as high as the EU average (36.9% relative to 18%) (BBVA, 2016). A large rift exists in Spain between small firms and large firms; whereby large firms tend to be technologically-advanced, export-oriented, and led by well-educated managers, while small firms (fewer than 50 workers) represent the majority of firms, and have a lower level of productivity, less export capacity, and are led by managers with low levels of education (BBVA, 2016).

Figure 3.9. Spain ranks low on jobs with High-Performance Workplace Practices

Share of jobs with high HPWP and mean HPWP score, by country



Source: OECD Survey of Adult Skills (PIAAC), 2012.

The new dual VET programme in the education system could help to equip young people with skills needed for the labour market.

New dual VET programme in the education system (FP Dual) creates an opportunity for employers to shape the skills that young people develop. The dual model of VET training was introduced in 2012 with the hopes that it would help to improve the school-to-work transition for young people, as it has shown to do in other European countries (Quintini et al., 2007). As part of the dual VET programme in the education system (not to be confused with learning and apprenticeship contracts in the employment system, which are co-ordinated by MEYSS and were discussed earlier) employers and educational institutions agree upon where training will take place (at the firm, or in a training centre) and training content. As a result, the mix of training time between firms and training centres varies. Student participation in FP Dual has more than tripled since its introduction in 2012 (MECD), though continued bias against vocational education in favour of general academic programmes means that selection into vocational education is still largely based on failure in general education.

Employer participation in FP Dual is growing. Employer participation in FP Dual increased substantially since 2012, from 513 firms to 9 916 firms by 2016/17. This represents about 20%[7] of all firms. Lack of economies of scale, training infrastructure, and teaching expertise make expanding participation among SMEs a particular challenge, though efforts like those piloted by chambers of commerce, private firms, and other institutions demonstrate that it is possible to reduce these barriers (see Box 3.3).

Box 3.3. Supporting SMEs to develop dual VET programmes

Fundación Bertelsmann and the JPMorgan Chase Foundation collaborated to create new apprenticeship opportunities in Andalucia, Cataluña, and Madrid by providing *free technical support to SMEs* interested in developing an apprenticeship programme. These opportunities were focused on firms with between 10 and 500 workers and concentrated in the automotive, chemical, commerce, food and agriculture sectors. Participating firms had to meet certain quality standards, including compensating their apprentices, training tutors, and situating the apprenticeship programme at a strategic level in the company.

The consulting team worked with 190 SMEs to advise them throughout the process of creating apprenticeship places, including identifying positions within the company which could be filled by apprentices and matching available VET qualifications with the firm's skill needs. The consulting team also facilitated co-ordination between the firm and the education centre. Key to the success of the programme for SMEs was the involvement of intermediaries, including employer and sectoral groups, who helped to identify training needs. Of the 190 firms that the team worked with, 115 expect to offer at least one apprenticeship position during 2016/17 and 2017/18.

Fundación Bertelsmann also developed a *manual for tutors* of apprentices, which provides tutors with basic tools: how to plan training, select an apprentice, transmit information, supervise, and evaluate performance.

Source: http://www.mecd.gob.es/prensa-mecd/actualidad/2016/02/20160203-fp.html; Manual for Tutors, Fundación Bertelsmann – Fundación JP Morgan Chase (Sept 2015-Mar 2017), Programa de Apoyo a las PYMEs para el Desarrollo de la FP Dual en España: Informe Proyecto.

Variation in regional implementation of FP Dual increases flexibility, but could reduce the skill-signalling power of apprenticeships. Some stakeholders we heard from during our meetings in Spain were concerned that the ability of employers and educational institutions to negotiate training content and format to suit their needs has created excessive variation in the quality of FP Dual across autonomous communities, and risks reducing the skill-signalling power of these qualifications. Some regions in Spain offer apprenticeships as one year of course work followed by one year of work placement, while others offer a more integrated model, whereby students spend one day a week in the firm, and the rest of the week in school. Lack of minimum standards governing the practical portion of apprenticeship training could undermine the perceived quality of the qualification among employers.

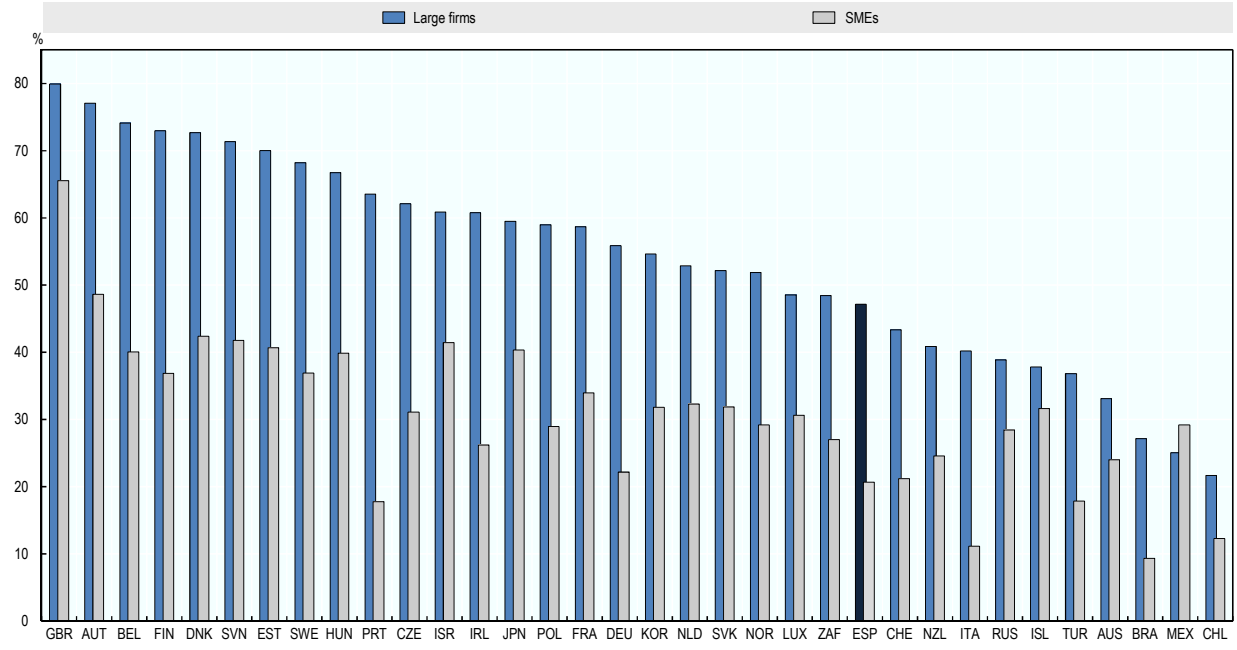
Education and training: Policies directed at training institutions

Funding formulas in Spain are driven by student enrolment and provide few incentives to make universities responsive to changing labour market needs. Universities face incentives to expand programmes if there is sufficient student interest, even if labour market prospects in that field are poor. Furthermore, institutions face little incentive to invest in higher-cost programmes, like many of those in science, technology, engineering and mathematics (STEM) that require expensive laboratories and equipment (OECD, 2015). In an evaluation of digital education in Spain, ONSTI (2013) found many cases in which employers posted vacancies for jobs which required a degree in digital education that was not yet offered in Spain, e.g. diplomas in graphic design, programming, and database administration. Most of these jobs require a high level of education, either a university degree or higher-level VET (MIET, n.d.). In some countries, employers collaborate with training institutions, but in Spain this happens very little (Figure 3.10). In addition, the process for evaluating and authorising degrees, carried out by ANECA (*Associación Naciónal de Evaluación de la Calidad y Acreditación)* is slow. As a result, training institutions and programme offering in Spain tend to be slow to respond to changing labour

market demand. Efforts like the *Libro Blanco para el diseño de titulaciones universitarias en el marco de la economía digital,* which review the evolving needs of the labour market and suggest ways to adapt educational provision to meet these needs, are therefore important.

Figure 3.10. Firms collaborating on innovation with higher education or public research institutions, by firm size, 2008-10

As a percentage of product and/or process innovative firms in each size category



Source: OECD (2013), *OECD Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, OECD Publishing, Paris, http://dx.doi.org/10.1787/sti_scoreboard-2013-en.

Attracting migrants with the right skills

While migration policy is fairly open in Spain, net migration to Spain has been negative since the recession owing to low economic demand. Nevertheless, SEPE produces a catalogue of hard-to-fill occupations on a quarterly basis which is used to facilitate entry of foreigners, though there are currently very few occupations on this list. A 2015 amendment (*Ley 25/2015 de 28 de julio*) to migration laws also includes a fast-track procedure with no labour market test, and an employer-led system to select and provide visas for highly-qualified professionals with a job offer, as well as investors, entrepreneurs, and researchers. Residence permits for such economic migrants can be issued to any sector or size of company and are valid for up to two years.

Boosting demand for high-level skills

The previously-mentioned policies have focused on how to better shape Spain's labour supply to match existing demand for skills, through activation, training and migration policies. But Spain has also implemented policies designed to enhance productivity and growth, which should boost demand for higher-level skills and qualifications and reduce the incidence of over-qualification.

Industria Conectada 4.0

Industria Conectada 4.0 could help firms to make better use of higher-level skills. In an attempt to encourage the use of digital technologies in firms, Spain introduced in 2015 an ambitious industrial strategy which provides manufacturing firms with the information, guidance, and financing they need to harness the benefits of the digital revolution. Called *Industria Conectada 4.0* (IC4) and managed by the Ministry of Industry, the strategy has three components: an online self-diagnosis tool, a consulting service, and loans. The free self-diagnosis tool allows firms to complete an online questionnaire, and then receive an assessment of their level of digital maturation, which can range from "static" to "leadership." Firms also learn how they compare to similarly-sized firms in the same sector, and the benefits of moving to a higher level of digital maturity in terms of growth, competitiveness, and internationalisation. During one week, 120 firms completed this questionnaire. The consulting service provides more individualised support to firms, and involves preparing a firm-specific action plan. A pilot of the consulting service was run in 2016 with 25 firms, with plans to scale up to 500 firms in 2017. Loans are also available (EUR 97 million in total) to help firms in their digital transformation. No evaluation of IC4 has yet been completed, but IC4 appears to be a commendable step towards promoting greater adoption of digital technology. Spain will need to continue investing in digital skills, which are low by international standards, in order to fully exploit the benefits of this programme and to take advantage of digitalisation.

Notes

1. Cataluña is an exception. However, the profiling tool in Cataluña is not based on statistical evidence of the probabilities of finding employment for groups with different characteristics.
2. https://www.empleate.gob.es/.
3. https://www.educacion.gob.es/notasdecorte/compBdDo.
4. http://www.todofp.es/todofp.
5. https://www.empleate.gob.es/.
6. IMD World Talent Report 2016.
7. In 2016/17, about 9 900 firms participated in FP Dual. This represents about 18% of all firms (there were 3.2 million firms in Spain in 2015, according to the Instituto Nacional de Estadística).

References

BBVA – Banco Bilbao Vizcaya Argentaria (2016), "El capital humano de los emprendedores", No. 12, Esenciales Fundación BBVA, Ivie.

Card, D., J. Kluve and A. Weber (2015), "What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations", *Discussion Paper No. 9236*, Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor.

CJE – Consejo de la Juventud de Espana (2016), "Informe de Garantía Juvenil", No. 0, Consejo de la Juventud de Espana.

Cueto, B. and S. Patricia (2014), "A Review of Active and Passive Labour Market Policies in Spain", *MPRA Paper No. 60648*, University Library of Munich, Germany.

Felgueroso, F. (2016), "Lifelong Learning in Spain: A Challenge for the Future", *Studies on the Spanish Economy No. eee2016-08*, Fedea.

Fundacíon Estatal (2015), "Training for Employment: 2015 Key findings", Fundación Estatal para la formación en el empleo.

Fundae (2016), "Formación en las Empresas (Informe anual 2015)", Fundación Estatal para la Formación en el Empleo, Madrid.

Izquierdo, M., S. Puente and P. Font (2013), "Evolución del desajuste educativo entre la oferta y la demanda de trabajo en Espana", *Economic Bulletin*, Bank of Spain.

Jansen, M. (2016), "El reto de la inserción de los desempleados de larga duración", *Fedea Policy Paper No. 26*, Universidad Autónoma de Madrid y Fedea, Madrid.

MECD – Ministerio de Educación , Cultura y Deporte (2015), "Estadística de las Becas y Ayudas al Estudio Curso 2014-2015", Ministerio de Educación , Cultura y Deporte, Madrid.

MIET (n.d.), "Libro Blanco para el diseno de las titulaciones universitarias en el marco de la economiía digital", Agenda Digital para Espana, Ministerio de Industria, Energía y Turismo, Madrid.

OECD (2017a), *OECD Economic Surveys: Spain 2017*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-esp-2017-en.

OECD (2017b), *OECD Economic Surveys: Italy 2017*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-ita-2017-en.

OECD (2016), "Skills for a Digital World: Working Party on Measurement and Analysis of the Digital Economy", Background Paper for Ministerial Panel 4.2, DSTI/ICCP/IIS(2015)10/FINAL, OECD, Paris, http://pmb.cereq.fr/doc_num.php?explnum_id=3105.

OECD (2015), "OECD Skills Strategy Diagnostic Report: Spain", OECD, Paris, http://www.oecd.org/skills/nationalskillsstrategies/Diagnostic-report-Spain.pdf.

OECD (2014), *Skills beyond School: Synthesis Report*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264214682-en

OECD (2013), *OECD Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, OECD Publishing, Paris, http://dx.doi.org/10.1787/sti_scoreboard-2013-en.

Puente, S. and A. Casado (2016), "Skills Mismatch between Labour Supply and Demand in Spain", *Economic Bulletin*, Banco de Espana, Madrid.

Quintini, G., J. Martin and S. Martin (2007), "The Changing Nature of the School-to-Work Transition Process in OECD countries", *Discussion Paper No. 2582*, Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor.

Rebollo-Sanz, Y. (2017), "El model de Perfilado Estadístico: una herramienta eficiente para caracterizar a los demandantes de empleo", *Working Paper No. 1*, Fedea, Spain.

Database references

OECD Statistics on Labour Market Programmes, http://www.oecd-ilibrary.org/employment/data/oecd-employment-and-labour-market-statistics/labour-market-programmes-expenditure-and-participants_data-00312-en?isPartOf=/content/datacollection/lfs-data-en..

Chapter 4

Challenges and recommendations for Spain

While Spain has a range of policy initiatives in place to tackle skills imbalances, some challenges remain – notably, activating the large supply of surplus labour and skills in the country. This chapter proposes further actions that could be taken by public and private stakeholders to improve skills matching. Best practice examples from other countries are provided to illustrate how policies can effectively address skills imbalances. These recommendations and examples can assist policy-makers in designing or tweaking policies to reduce skills shortages, surpluses and mismatch.

Targeting unemployment training on skill needs

In light of persistently high long-term unemployment and youth unemployment in Spain, efforts are urgently needed to improve targeting of public employment services on the specific needs of unemployed individuals. At present, no targeting of ALMPs is carried out, and those at high risk of entering long-term unemployment are assigned the same treatment as those who are more easily employable. Also, very little information is made public about the types of training programmes jobseekers participate in, so it is not possible to assess whether the training addresses the skill needs of employers or not. Lack of targeting results in misallocation of scarce public funds, since priority is not placed on helping the people who could benefit the most (i.e. those with the highest risk of entering long-term unemployment). Beyond the cost savings, targeting of ALMPs could also facilitate a better matching of skill supply with skill demand, by prescribing unemployed individuals with tailored services to make them more employable given their particular set of skills, qualifications and other characteristics.

At present, caseworkers in many regions are overburdened and unable to devote adequate time to assessing each jobseeker's specific employability needs, and prescribing the employment services which would be most beneficial. Implementation of a statistical profiling tool was proposed in the 2014-2016 Spanish Strategy for Employment Activation; however, no autonomous community has yet adopted such a tool. Statistical profiling tools are used in most OECD countries (see Box 4.1 for examples) to help PES workers diagnose employability of jobseekers, and to assist in prescribing the type, intensity and duration of services needed to get them back to work. These tools are also able to assess the likelihood of an unemployed individual entering into long-term unemployment. Once such "high-risk" individuals are identified, they can be put on a priority list and fast-tracked into services which improve their employability.

Box 4.1. Use of statistical profiling tools: Best practice examples

One of the first countries to implement statistical profiling tools for public employment services**, Australia** has been using the *Jobseeker Classification Instrument (*JSCI*)* since the 1990s. The model predicts the probability of remaining unemployed for longer than 12 months based on the following characteristics: educational attainment, vocational qualifications, English proficiency, age, gender, recent work experience, jobseeker history, country of birth, indigenous status, indigenous location, geographic location, proximity to labour market, access to transport, phone contactibility, disabilities or medical conditions, stability of residence, living circumstances, criminal convictions and other personal factors. Upon client registration, jobseekers complete a questionnaire in order to gather the necessary information to compute their JSCI score. The higher the JSCI score, the higher the risk of long-term unemployment. Jobseekers are classified into one of four streams based on their JSCI score, and this classification determines the amount of funding that case workers may assign to services. Jobseekers in the lowest-risk stream may receive up to AUS 1 232 in services, while those in the highest-risk stream can receive up to AUS 10 000.

In response to a dramatic rise in the unemployment rate and strain on public funds due to rising unemployment income supports, **Ireland** introduced a statistical profiling tool in 2012 to better target those with a high risk of entering long-term unemployment. With the help of this tool, Ireland's unemployment rate has declined from 14.7% in 2012 to 7.9% in 2016. The profiling tool, called PEX (Probability of Exit) and developed in conjunction with the Economic and Social Research Institute (ESRI), predicts the probability that registered jobseekers will exit unemployment within one year based on a model with personal characteristics including: education, basic skills, recent labour market experience, sex, age, number of children, spousal earnings, geographic location, whether living in a rural or urban area, and access to transport. The model is able to predict the correct outcome in 69% of cases. Based on PEX's predictions, jobseekers are segmented into low, medium and high-risk bands, which determine the timing and intensity of intervention:

Box 4.1. Use of statistical profiling tools: Best practice examples *(cont.)*

- Low-risk jobseekers (likely to be unemployed for less than three months, approx. 20% of caseload): directed towards self-help tools, and if they remain unemployed for four months, they are invited to meet with a caseworker to develop a personalised progression plan.
- Medium-risk jobseekers (likely to be unemployed for three to 12 months, approx. 60%): meet with a caseworker within one week of initial engagement session, and subsequently every 3 months to review progress.
- High-risk jobseekers (likely to be unemployed for 12 months or more, approx. 20%): meet with a caseworker within one week of initial engagement session, and subsequently every two months to review progress.

Source: Statistical Profiling in Practice: International Experiences.; European Commission (2016), "Profiling of Jobseekers using Statistical Methods: Ireland"; World Bank Group (2014), "Profiling the Unemployed: A Review of OECD Experiences and Implications for Emerging Economies".

Given the potential impact on long-term unemployment as well as on public finances, the central government should consider taking the lead in investing in a statistical profiling tool for Spain. Autonomous communities face barriers in initiating the implementation of these tools, including limited financing and lack of analytical capacity within the public employment service. Once the initial investment is made, autonomous communities could adapt the tool to their specific regional contexts. In some countries, the output of the profiling tool binds the caseworker to a particular treatment. This is the case in both Australia and the United States, for example. But in other countries, like Ireland, the caseworker has more flexibility to decide which type of service (e.g. counselling, training, etc.) to prescribe to the jobseeker, using the results of the profiling tool to complement their own subjective assessment. In Spain, minimum national standards with respect to the use of the tool could be set; for instance, ensuring that high-risk jobseekers receive immediate and more intensive treatment. The judgement about the type of service they receive, however, could be left to the autonomous community.

The decentralisation of active measures to regions in theory helps to align employment services to local labour and skill needs but can create co-ordination problems which impair the quality of the employment services received by the unemployed. The Sectorial Conference of Labour Affairs facilitates co-operation by bringing SEPE and the autonomous PES together to discuss policy, and the introduction of minimum standards for ALMPs (*Cartera Común de Servicios del Sistema Nacional de Empleo)* is another welcome step towards improving co-ordination, and ensuring similar levels of quality in ALMP implementation across regions. But stronger co-operation between the central government and regional authorities responsible for the implementation of ALMPs is needed to ensure that the receipt of unemployment benefits is linked with active measures like training in an integrated way. In 2015, Italy established this type of national employment agency for ALMPs (*Agenzia nazionale per le politiche attive per il lavoro*, ANPAL) to ensure higher levels of co-ordination of PES across its regions. This new agency is supervised by the Ministry of Labour, and is in charge of co-ordinating the allocation of unemployment benefits in order to establish a link between active and passive labour market policies and to improve the effectiveness of such benefits for recipients.

In addition to establishing stronger links between passive and active labour market policies managed by the national and regional governments, respectively, the new co-ordinating body for ALMPs could also invest in technical expertise to evaluate ALMPs and promote best practices across regions by publicising the results of such evaluations. The lack of proper evaluations of ALMPs in Spain (with pre- and post-treatment observations for both the control and treatment groups) has led to a waste of public resources on ineffective labour market policies.

For instance, untargeted hiring subsidies continue to be the most common type of ALMP provided to jobseekers in Spain, though they are inefficient instruments for aligning the skills of the unemployed with those of employers. Previous experience has shown that hiring subsidies can generate significant deadweight losses and substitution effects if not well targeted (OECD, 2017a). Also, hiring subsidies are unlikely to boost the skills or long-term employability of jobseekers beyond providing them with temporary work experience in low-skilled jobs (Cueto and Patricia, 2014). For the 50% of jobseekers who have been unemployed longer than one year, there is a high risk that their skills have depreciated in unemployment. Complementing the hiring subsidy with subsidies for training in work-relevant skills would provide incentives for employers to upskill or even retrain new hires in skills needed by the employer.

In New Zealand, for example, employers can obtain government support when they hire someone who is on unemployment benefits and needs extra training to do the job. The government will pay the wages and training costs of the new hire for up to one year. To be eligible for this support, employers must hire the unemployed person into a permanent job of at least 30 hours per week, paying market wage. A variation of this programme is offered in the United Kingdom (*Sector-based work academies)*, where employers receive subsidies from the PES to train jobseekers in skills which they need. At the end of the training period, employers commit to provide the trainee with a job interview, but they are under no obligation to hire them. An evaluation revealed that for a cohort of participants aged 19-24, those who completed a sector-based work academy placement spent 50 days more in employment and 29 days less on benefit than non-participants during the 18 months after completing the programme (DWP, 2016). The Spanish PES should scale down its spending on hiring subsidies, limiting their use to unemployed youth, the long-term unemployed and those at a high risk of entering long-term unemployment. This would free up resources for subsidies to cover necessary training to help overcome skill deficiencies among jobseekers, making them more employable over the longer term.

Box 4.2. Recommendations: Better target training for the unemployed to improve employment outcomes

- Given scarce public resources and persistently high long-term unemployment, the Spanish Government should follow through with plans to introduce a statistical profiling tool to improve the targeting of public employment services. The Spanish Government should consider taking the lead to make the initial investment in the profiling tool and to encourage its use on a regional basis. Regional public employment services can then adapt the tool to their particular context.
- Consider creating a body responsible for co-ordinating ALMPs across the national and regional levels of administration. This body could also be responsible for the evaluation of ALMPs, which should be done more systematically and rigorously.
- The use of hiring subsidies should be reduced, and targeted to employing youth and the long-term unemployed. This would free up resources for subsidies to cover necessary training to help overcome skill deficiencies among jobseekers, making them more employable over the longer term.
- SEPE should collect and publish precise data on the types of training that jobseekers receive, in order to enable an assessment of whether this training meets employers' skill needs.
- The use of the new training vouchers for the unemployed (not yet operational) should be limited to accredited institutions and skills in demand, for example, based on the Occupations Observatory's list of occupations, qualifications and skills in high demand. For best results, training vouchers should be paired with tailored information, advice and guidance.

Career guidance in secondary schools

Provision of information and guidance that is accurate, complete, and up-to-date is critical to assist students in making well-informed decisions about which education and skills to invest in. Spain disseminates useful information about the requirements, cost and labour market outcomes of university programmes through MECD's user-friendly web portal, *What to study and where (Que estudiar y donde en la universidad?)* and *TodoFP*, for vocational education. To assist prospective students in comparing educational pathways, MECD could expand its recent cohort study of labour market outcomes of university graduates to include VET graduates and update the web portal accordingly. Aggregating the information of the different web portals – *Que estudiar y donde en la Universidad, TodoFP*, and *Empléate*—could also make this information more user-friendly. Ideally, the aggregated web portal would provide information on education and training pathways and their regional availability, costs of programs, their labour market outcomes, and links to job vacancies associated with those programmes.

SEPE currently distributes the Occupations Observatory's list of high-demand occupations to career counsellors on a regular basis via email and at job fairs. While useful, a more active approach may be needed to ensure that career guidance counsellors fully grasp the key messages of the report, so that they can convey them clearly to students. In addition to information about occupations, career guidance counsellors need to be familiar with prospects for different educational qualifications. MECD and SEPE could collaborate to offer regular workshops for teachers and career guidance counsellors on which qualifications and occupations are most in demand by employers. For example, in Sweden, as part of an annual training session for teachers, the public employment service provides

an overview of findings from their skill forecasts and assessment of skill needs. These presentations educate teachers about the types of occupations and skills most in demand, and make suggestions for how to diffuse labour market information to students.

Career guidance in secondary schools varies in quality from one region to another, and employer engagement is reportedly low. Spain should consider developing a national career guidance strategy which establishes minimum requirements for high-quality career guidance services, as has been undertaken in several OECD countries. For instance, England is currently revising its national career guidance strategy around eight key benchmarks (Box 4.3). A pillar of Spain's national career guidance strategy should be repeated interactions with employers while in school, as exposure to the world of work makes young people aware of possible career options, which can motivate them to continue with education and reduces their risk of becoming NEET (Mann, 2012). The requirement to provide students with exposure to the world of work can be highly structured, as it is in France, where under *Parcours Avenirs*, students must demonstrate having had the following interactions with employers by the time they graduate: participated in one organised firm visit; met one professional from the world of work (e.g. attended a presentation given by an employee about his or her job or sector); participated in one supported project (e.g. setting up a student business); and completed a compulsory internship. Fundación Exit, a Spanish NGO which focuses on improving the employability of low-skilled youth, has made inroads in creating partnerships with firms to provide young people with these types of experiences. For example, *Project coach* provides youth with six sessions in a firm over a two-month period, giving them an opportunity to learn which skills are in demand. With *Project yob*, another initiative of Fundación Exit, young people are faced with a panel of human resources professionals who, after a short interview, provide them with immediate feedback about their individual skill gaps. Under the leadership of a national career guidance strategy, schools can build on these examples of how to engage participation of employers to provide students with a window into the world of work.

Box 4.3. England's benchmarks for good career guidance

The Gatsby Charitable Foundation in England commissioned a study into what constitutes "good careers guidance," drawing from international case studies, literature reviews and analysis of good practice in English schools. Schools can consult a self-evaluation tool to compare how their provision of career education and guidance compares to a set of eight benchmarks of good careers guidance. The *Post-16 Skills Plan* recommended that the government adopt the Gatsby benchmarks in developing its national approach for careers education and guidance.

1. **A stable careers programme**: Every school and college should have an embedded programme of career education and guidance that is known and understood by pupils, parents, teachers, governors and employers.
2. **Learning from career and labour market information**: Every pupil and their parents should have access to good quality labour market information about future study options and labour market opportunities.
3. **Addressing the needs of each pupil**: Advice and support should be tailored to the career guidance needs that pupils have at different stages.
4. **Linking curriculum learning to careers**: All teachers should link curriculum learning with careers, by providing students with information about the relevance of certain subjects to future career paths.

Box 4.3. England's benchmarks for good career guidance *(cont.)*

5. **Encounters with employers and employees:** Through activities like visiting speakers, mentoring and enterprise schemes, every pupil should have multiple opportunities to learn from employers about work, employment and the skills valued in the workplace.
6. **Experiences of workplaces:** First-hand experiences of the workplace through work visits, work shadowing, or work experience help pupils to explore career opportunities, and to expand their networks.
7. **Encounters with further and higher education:** All pupils should understand the full range of learning opportunities available to them, including both academic and vocational routes.
8. **Personal guidance:** Pupils should have an opportunity to meet one-on-one with a career adviser (either internal or external) whenever significant study or career choices are being made.

Source: The Gatsby Charitable Foundation (2014), Good Career Guidance.

Box 4.4. Recommendations: Improve career guidance in secondary schools

- To improve quality of career guidance services, set minimum requirements for career guidance within secondary school which should include repeated interactions with employers. Provide career guidance counsellors with regular training to ensure they are well-informed about labour market opportunities and skills in demand.
- Online information about the requirements and labour market outcomes of qualifications should be better integrated and made more user-friendly to students and guidance counsellors. Expand longitudinal study of labour market outcomes of university graduates to include vocational graduates, and update web portals with this information.

Vocational education and training

Recent reforms to start vocational education pathways for students enrolled in lower secondary programmes at age 15 rather than 16 promise to redirect possible school leavers towards educational pathways that offer applied skills training, and could help to reduce the still-high rate of early school leaving and promote better skill matching among young people. The dual model of work-based training introduced in the education system in 2012 is also a welcome addition in this regard, as similar programmes have shown success in improving the school-to-work transition for young people in OECD countries. While participation of students, firms and educational institutions in FP Dual has increased substantially since the programme was introduced in 2012, employer participation could be higher. To expand the number of apprenticeship places available within firms, greater employer participation could be secured by more actively involving employers in the design of the classroom portion of FP Dual, in order to ensure that skills meet firm needs, as recommended in OECD (2017a). Encouraging collaboration between SMEs in the provision of training is also recommended (OECD, 2017a), since SMEs may face barriers covering the costs of providing a tutor on their own, or handling the administrative responsibilities associated with taking on an apprentice. Consideration should also be given to building upon the efforts of business associations, education centers and other

institutions which have fostered greater participation of SMEs in FP Dual through provision of technical assistance in developing an apprenticeship programme.

Regional inconsistency in how the on-the-job training component of FP Dual programmes is implemented could jeopardise the skill-signalling power of this qualification to employers. Minimum standards could be introduced to ensure strong integration of the skills learned in the classroom with those learned on the job. In Switzerland, for example, these standards or "training plans," as they are called, are developed jointly by education and industry associations for each occupation for which there are apprenticeships. Each training plan outlines the specific skills that are required and whether each is learned at the workplace, the interfirm training centre or in VET school. Training plans also outline how the learning is to be sequenced, so that classroom learning and on-the-job learning are well-integrated.

Box 4.5. Recommendations: Expand vocational education and training

- Encourage greater firm participation in FP Dual programme by providing technical support to small firms in the organisation and implementation of training.

Quality and relevance of higher education

Higher wages and better employment prospects should inherently steer young people to education and training programmes which are in demand in the labour market, provided they have access to good labour market information. Of course, education and training are not only about improving labour market outcomes, though this is a key objective. But in Spain, tertiary graduates face a high rate of qualification and field-of-study mismatch and one of the lowest employment rates across OECD countries – suggesting there is room for more steering of education and training decisions. Currently, low tuition fees for tertiary education and bursaries which are entirely linked to family income and academic performance rather than specific skills or qualifications provide little such steering. As recommended in the OECD Skills Strategy for Spain (OECD, 2015), the government could consider raising tuition fees moderately to encourage students to more rigorously investigate the labour market outcomes of their programme choices. Alternatively, introducing bursaries for in-demand qualifications, like ICT skills, could also influence these choices in the right direction. For example, financial incentives to encourage take-up of high-demand STEM fields exist in many OECD countries, including Australia, Canada, Estonia, Greece, Latvia, Malta, Sweden and the United States (OECD, 2017b).

Institutions face few incentives to respond to labour market outcomes in deciding which programmes to offer or in setting caps on student enrolment. Funding formulas based on student enrolment mean that training institutions cater more to student preference in programme offering, than to labour market demand. On top of this, institutions tend to be rigid and slow to develop new programmes. As a result, employers sometimes have trouble finding appropriately qualified candidates since few training institutions offer the qualification they are looking for. Moving towards more performance-based funding in tertiary education could promote better alignment between qualification demand and supply. Spain has already initiated some performance-based funding in the allocation of funding to universities that have demonstrated outstanding research performance: the "Severa Ochoa centres of excellence" and the "María de Maetzu units of excellence" received EUR 52 million in 2015, which amounts to 1.9% of the total budget (Fernández-

Zubieta and Zacharewicz, 2016). Spain could expand the use of performance-based funding in both VET institutions and universities, with funding allocated on the basis of labour market performance of graduates, for example, as is done in Estonia and, using a softer approach, in Denmark (see Box 4.6).

Box 4.6. Performance-based funding in higher education

In **Italy**, ANVUR (*Agenzia di Valutazione del Sistema Universitario e della Ricerca*) evaluates the quality of higher education institutions and governs the associated allocation of research funding. ANVUR has developed an indicator of research quality which takes a value between 0 and 1 and is computed by attributing scores to research activities in a specific scientific area and dividing by the sum of these scores in the same scientific area nationwide. This indicator of research quality is used to allocate 60% of public funding to universities.

From 2017 onwards, **Estonia** will use a new funding model for higher education which will allocate up to 20% of funds based on performance. One of the six indicators used to allocate such funding will be the labour market outcomes of graduates.

In **Denmark** the development contracts signed between the government and institutions include indicators that measure graduate labour market outcomes 4-19 months after graduation. The contracts are not legally binding, but universities must report on their contracts in their annual reports and in the annual audit by the ministry.

Source: ANVUR, Valutazione della Qualità della Ricerca (VQR); OECD (2017), *Financial Incentives for Steering Education and Training*.

Box 4.7. Recommendations: Ensure quality and relevance of schooling

- Expand performance-based funding to higher education in order to promote a stronger response of training institutions to the needs of the labour market. This should improve the matching of skills of graduates with labour market skill needs.
- Many university students graduate from fields of study that are not well aligned with the needs of the labour market. Consider linking tuition fees to labour market demand, or offering bursaries to students pursuing degrees in areas of skill shortages, based on the Occupation Observatory's list of occupations in high demand, for example.

Lifelong learning

Lifelong learning is a priority for all OECD countries since it enables adaptation to changing skill needs that arise due to technological change and globalisation. But in Spain, lifelong learning is especially important given the large population of low-skilled adults, the large supply of long-term unemployed, and the shrinkage of the construction sector since the crisis which necessitates retraining. However, Spain's participation in lifelong learning is below the EU average and more could be done.

Spain currently offers free basic skills training for adults within the formal education system. However, take up is very low (0.2% of adults) despite about 12% of adults having very low basic skills (Level 1 or less). Given that individuals with poor basic skills are likely to face barriers to training and labour market participation, it is important that basic skills programmes be as flexible as possible. For example, young people participating in the

Swedish Education Contract (*Utbildningskontrakt)*, a basic skills programme to help young people complete secondary education, are allowed to combine their studies with part-time work or work-based learning (OECD, 2017b). Offering basic skills training outside of the formal education system (which is not currently an option in Spain) may also be appealing for adults who left school early because they became disillusioned by formal education (Felgueroso, 2016).

Under the professional training levy, employers have the freedom to assess their own skill needs and to use levy training credits to provide employees with training. The recent reform of the professional training system (*Ley 30/2015*) promotes competition in the way that training is contracted out to third-party organisations and insists that such organisations be accredited – both welcome revisions. But levy funds are too often used for mandatory workplace training (e.g. health and safety), rather than to address skill needs. In order to ensure that levy funds help firms to reduce skill imbalances, spending of levy funds should be focused on training for skills in high demand. In South Africa, for example, a large portion of levy funds are earmarked for PIVOTAL training, which refers to professional, vocational, technical and academic programmes that address scarce and critical skill needs. These skill needs are identified by sectoral bodies, using information gathered by employers. In Spain, the Annual Labour Survey (*Encuesta Anual Laboral*) managed by MEYSS already surveys employers about their skill needs. This survey could be elaborated to develop a more precise picture of skill needs by sector, which could then serve as a basis for spending of levy funds.

The recently proposed training vouchers for the unemployed (*cheque formación)* could enable much needed "second chance" retraining for those whose skills have become obsolete, like jobseekers who used to work in the construction sector. Providing some guidance as to how these vouchers are to be used could steer jobseekers towards the development of skills in demand, in order to yield better employment outcomes (OECD, 2017b). In the case of the Vocational Competency Development Account System in Korea, for example, the jobseeker receives counselling prior to being issued with the voucher and, in Estonia, vouchers can only be used on a list of training programmes in areas of labour market need (OECD, 2017b). In the United States, training vouchers for the unemployed are limited to skills in demand and training programmes provided by accredited institutions (Felgueroso, 2016).

Employed workers can currently request paid leave to pursue accredited vocational training (*Permisos Individuales de Formación*) which could help employees to upskill in areas that are useful to their employer. But with nearly 40% of Spanish workers in temporary or part-time work, learning opportunities which are tied to individuals rather than to jobs are needed. For one, temporary and part-time workers are less likely to receive training from their employer. In addition, many may wish to retrain in an occupation with stronger labour market prospects, given the high share of involuntary part-time employment in Spain. One possibility could be to tie the Training Account (*Cuenta Formación*) to a system of vouchers to allow individuals to upskill and retrain in high-demand occupations. Alternatively, the government could provide formal training for workers (e.g. those who formerly worked in the construction sector) who wish to retrain in high-demand fields. In the United States, for example, the WorkAdvance programme helps low-income adults obtain more rewarding jobs in high-demand fields with opportunities for career growth (e.g. IT, transportation, manufacturing, health care, and environmental remediation). The programme offers formal training which takes into account employers' skills requirements and results in industry-recognised certifications. An evaluation of the programme using a randomised controlled trial found that it increased the earnings of participants, with the

greatest increases observed for those programmes that were most demand-driven (Hendra et al., 2016).

In addition to incentives to encourage the development and maintenance of skills over the course of adults' careers, it is also important that there be a system in place to validate non-formal and informal learning. Recognition of prior learning (RPL) improves skill matching by strengthening the signalling power of skills learned on the job or elsewhere. It can also reduce under-qualification by certifying the skills of workers who have performed a given job successfully for many years, during which time the qualification requirements of the job have increased as the supply of university graduates increased. Data from PIAAC demonstrates that about 19% of Spanish workers are under-qualified for their jobs, but 95% of these workers have the right level of basic skills to do their jobs (or indeed, are over-skilled). In Spain, RPL is a regional policy and service provision varies by region. Establishing minimum requirements for regional service provision and enabling the use of the professional training levy to validate skills acquired on-the-job could help to reduce the incidence of over-qualification, and improve labour market prospects for under-qualified workers, while also improving job mobility and skill matching.

Box 4.8. Recommendations: Promote lifelong learning

- To ensure that the professional training levy goes towards addressing skill needs, consider earmarking a share of levy funding for development of skills in high demand (e.g. based on the Annual Labour Survey).
- Introduce financial incentives for lifelong learning opportunities that are linked to individuals rather than to jobs. Consider tying the Training Account (*Cuenta Formación*) to a system of vouchers (similar to the training vouchers being introduced for the unemployed) to allow individuals to upskill and retrain as skill demand changes. More training credits could be provided for those skills and occupations that are in shortage.
- Make provision of basic skills training for adults more flexible in order to encourage higher participation, e.g. could be offered outside of the formal education system, or in a format compatible with work schedules.
- Allow employers to use levy funds to validate in-demand skills through recognition of prior learning.

Use of skill needs data

As outlined in Chapter 3, Spain produces a substantial amount of information on occupations, skills, and qualifications in demand. One missing piece of information is longitudinal data on the labour market outcomes of vocational training programmes. This gap should be filled with studies similar to the ones conducted to track labour market outcomes of university graduates. Furthermore, the Training Accounts (*Cuenta Formación*) – once operational – will keep an ongoing record of the education and training that individuals receive over their lifetime. This information should be used both to develop a more precise understanding of the type of education and training individuals receive, and also to evaluate its impact on their labour market outcomes.

While Spain produces a substantial amount of information on occupations, skills and qualifications in demand, very little of this data is used in policy making and dissemination could be better. SEPE's catalogue of hard-to-fill occupations is used in migration decisions and the Occupations Observatory's list of occupations in high demand is distributed to

career counsellors and at job fairs, but skill needs data does not appear to inform activation policy or education and training policy to any significant degree. Web portals to help inform students' human capital investment decisions should be made more user-friendly, perhaps by combining education portals with *Empléate*, and by conveying information in a readable and interactive format. Better use and dissemination of skill needs data in policy making would facilitate improved matching of skill supply with skill demand.

A key barrier in making better use of skill needs data in education and training policy is the highly decentralised nature of such policies. Better co-ordination is needed on skills policy, both across levels of government, and between government and other stakeholders, including social partners and education institutions, in order to promote an integrated, Spain-wide approach to enhancing the skills supply. In the United Kingdom, the UK Commission for Education and Skills (UKCES), which was recently dismantled, was an industry-led and publicly-funded organisation that co-ordinated both the production of skill needs data as well as skill policies. The UKCES managed the production of skill anticipation exercises in the UK, including the Employer Skills Survey, which involved co-ordinating across levels of government and with social partners. The UKCES also championed the use of skill needs data to inform policy making, including ensuring that changing skill needs fed into National Occupation Standards (OECD, 2016). Creating a similar type of co-ordinating body in Spain could improve the use of skill needs data in policy making. This co-ordinating body could be responsible for aggregating the skill anticipation and assessment exercises produced by SEPE, the Occupations Observatory, MECD and MEYSS, and disseminating this information to relevant stakeholders in a user-friendly way.

In addition to disseminating skill needs information, the co-ordinating body could champion its use in policy making. Examples of how policy could be more responsive to skill needs data have been mentioned earlier in this report, and include focusing use of professional training levy funds and the new training vouchers for the unemployed on training for in-demand skills, as well as introducing bursaries for qualifications which are required for high-demand occupations.

Box 4.9. Recommendations: Enhance use of skill needs data

- Assign a body to co-ordinate the collection of skill needs data across levels of government and to champion the use of such data in policy making. This co-ordinating body should also ensure that skill needs data are distributed widely to all relevant stakeholders. This co-ordinating role could be filled by *Fundación Estatal*, the organisation that currently performs quality checks on professional training levy spending, or by the Occupations Observatory, which produces the high-demand occupation list.

Weak demand for higher-level skills

Spain's economy continues to be geared towards low-skilled work, with more emphasis on low-skilled services than other European countries. While the share of jobs that require tertiary education is average, Spanish tertiary graduates are more likely than their European counterparts to work in low-skilled occupations. Boosting demand for higher-level skills and qualifications would make better use of the skills of tertiary graduates and reduce the incidence of over-qualification, while contributing to stronger growth and productivity.

The projects initiated as part of *Industria Conectada 4.0* (self-diagnosis tool, consulting project, and related financing) represent a promising step towards generating demand for higher-level skills, and boosting productivity and competitiveness of Spanish firms. By

providing tailored information and support to medium-sized firms, the services remove an important barrier to the adoption of digital technology, which is that SMEs are unaware of the benefits of doing so for productivity and competitiveness. Publicising the results of rigorous evaluations of pilots will be important to justify expansion of the programme and to ensure effective use of limited resources. Also, Spain will need to continue investing in basic skills and digital skills, which are low by international standards, in order to fully exploit the benefits of this programme. Raising awareness of Industria Conectada 4.0 and integrating it with the larger Digital Agenda will help to boost demand and supply of digital skills at an even pace.

Furthermore, strengthening the entrepreneurial and managerial skills of managers, particularly those in SMEs, is important to promote effective use of the existing skills and qualifications in the Spanish workforce. Spain should encourage the use of High-Performance Workplace Practices—particularly flexible hours and training which are relatively low—as these have been shown to improve skills utilisation, and could help to boost demand for higher-level skills and qualifications in Spain.

Box 4.10. Recommendations: Strengthen demand for higher-level skills

- Stimulate demand for higher-level skills through investment in R&D and industrial policy. Evaluate Industria Conectada 4.0 and expand if successful at spurring digital investment, growth and productivity.
- Strengthen entrepreneurial and managerial skills of employers so that they can take advantage of the digital revolution and create demand for higher-level skills. Improve skills utilisation by encouraging employers to adopt High-Performance Workplace Practices.

References

DWP – Department for Work and Pensions (2016), "Sector-based Work Academies: A Quantitative Impact Assessment", Department for Work and Pensions, London.

Felgueroso, F. (2016), "Lifelong Learning in Spain: A Challenge for the Future", *Studies on the Spanish Economy No. eee2016-08*, Fedea.

Fernández-Zubieta, A. and T. Zacharewicz (2016), "Rio Country Report 2015: Spain", JRC Science for Policy Report, European Commission.

Hendra, R. et al. (2016), "Encouraging Evidence on a Sector-focused Advancement Strategy: Two-Year Impacts from the WorkAdvance Demonstration", MDRC.

Mann, A. (2012), "It's Who You Meet: Why Employer Contacts at School Make a Difference to the Employment Prospects of Young Adults", Education and Employers Taskforce, United Kingdom.

OECD (2017a), *OECD Economic Surveys: Spain 2017*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-esp-2017-en.

OECD (2017b), *Financial Incentives for Steering Education and Training*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264272415-en.

OECD (2016), *Getting Skills Right: Assessing and Anticipating Changing Skill Needs*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264252073-en.

OECD (2015), "OECD Skills Strategy Diagnostic Report: Spain", OECD, Paris, http://www.oecd.org/skills/nationalskillsstrategies/Diagnostic-report-Spain.pdf.

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Getting Skills Right

Spain

Skills have the potential to transform lives and drive economies. However, in many countries, imbalances between the supply and demand for skills lead to significant skill mismatches and shortages, with as many as three in five workers in the OECD employed in jobs that do not make the best use of their skills. At the same time, a large number of employers report hiring problems due to skill shortages. This series examines how countries measure changing skill needs and how they develop skills that respond to labour market needs and how they ensure that these skills are fully utilised by individuals and employers. Presenting both thematic reports on specific policies and issues and in-depth country reviews, this series offers countries the information and analysis they need to get skills right.

This report identifies effective strategies to tackle skills imbalances in Spain. It provides an assessment of practices and policies in the following areas: the collection and use of information on skill needs to foster a better alignment between skills acquisition and labour market needs; education and training policies targeting skills development and investment for individuals and employers; activation policies to develop skills through on-the-job learning; and policies facilitating the entry of migrants with skills that are in demand. The assessment is based on country visits, desk research and data analysis conducted by the OECD secretariat.

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