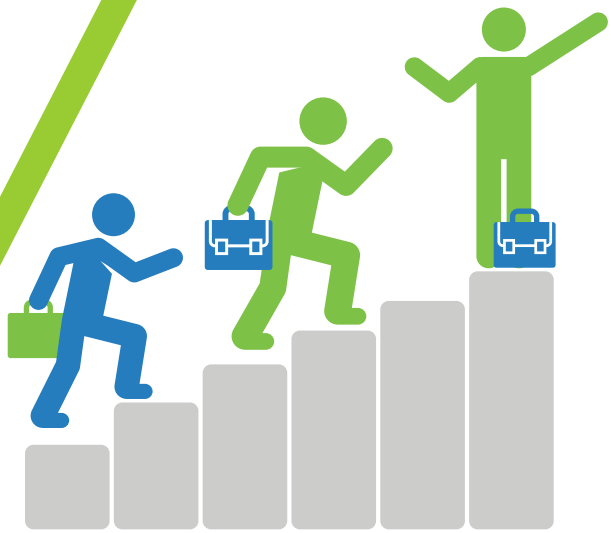
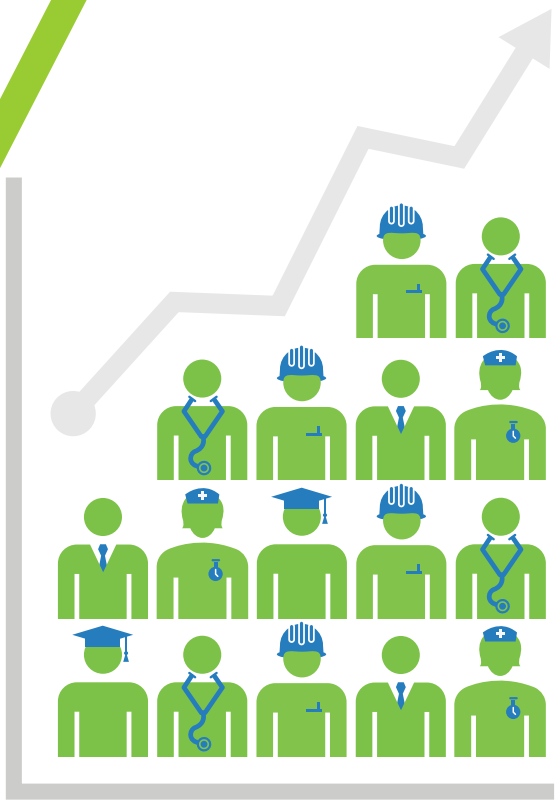
OECD Skills Strategy Diagnostic Report

Spain

2015





OECD
BETTER POLICIES FOR BETTER LIVES

Building the right skills can help countries improve economic prosperity and social cohesion

In what way?

By contributing to social outcomes such as health, civil and social engagement.

By supporting improvement in productivity and growth.

By supporting high levels of employment in good quality jobs.

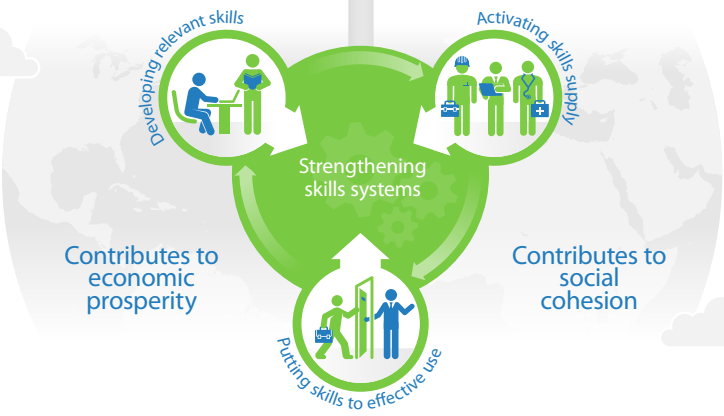
How is this achieved?

By strengthening skills systems

Designing and implementing an evidence-based national skills strategy.

Funding skills through public and private sources and designing effective incentives for employers and individuals.

Providing good information for the public, businesses and policy makers.



Contributes to economic prosperity

Contributes to social cohesion

OECD SKILLS STRATEGY DIAGNOSTIC REPORT: SPAIN

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FOREWORD

Skills are the foundation upon which Spain must build future growth and prosperity. After a protracted recession, characterised by high levels of unemployment, Spain has returned to growth and the economy is starting to create jobs. Now is the time to harness Spain's skills and human capital to drive innovation and inclusive growth for the future.

Paving the path to growth, prosperity, and wellbeing will hinge upon developing high levels of skills that are relevant to the needs of the labour market, facilitating job growth and efficient transitions and returns to work, and making the best use of skills in workplaces. Making this happen in practice requires concerted government action. Spain has undertaken a number of reforms aiming to improve the responsiveness of the labour market and education system, enhance the fiscal framework, and boost the business sector. Yet governments cannot achieve better skills outcomes alone. Success will depend on the commitment and actions of a broad range of stakeholders.

Skills do more than just raise employment, income and aggregate growth. Data from the Survey of Adult Skills (PIAAC) show that in all countries, adults with higher foundation skills, such as literacy and numeracy, are far more likely than those with lower skills to report good health, to perceive themselves as actors in political processes, and to have trust in others. In short, achieving higher skills levels for all fosters equity and facilitates people's participation in democracy and society.

The OECD Skills Strategy provides countries with a framework for developing co-ordinated and coherent policies that support the development, activation, and effective use of skills. Countries that are the most successful in mobilising the skills potential of their people share a number of features: they provide high-quality opportunities to learn throughout life, both in and outside school and the workplace; they develop education and training programmes that are relevant to students and the labour market; they create incentives for, and eliminate disincentives to, supplying skills in the labour market; they recognise and make maximal use of available skills in workplaces; they seek to anticipate future skills needs and they make learning and labour market information easy to locate and use.

This diagnostic report identifies 12 skills challenges for Spain based on analysis of OECD, European Commission and national data, as well as input received from the national and regional governments and a wide range of stakeholders, including individuals, employers, employer associations, trade unions and education providers.

We hope that this report will help in paving Spain's road to sustainable growth and prosperity by stimulating a national conversation on Spain's skills challenges, assets and aspirations. Success will ultimately depend on all actors working together to achieve a common goal.

As ever, the OECD stands ready to contribute to ongoing efforts in designing and implementing better skills policies for better jobs and better lives.

Andreas Schleicher

Director for the OECD Directorate for Education and Skills and Special Advisor to the Secretary-General on Education Policy

ACKNOWLEDGEMENTS

This report is part of a series of country projects within the OECD programme of work on "Building effective national and local skills strategies".

The OECD is grateful to the Spanish inter-ministerial project team, chaired by Mr José Ignacio Wert Ortega, Minister of Education, Culture and Sport and co-chaired by Ms María Fátima Báñez García, Minister of Employment and Social Security as vice-chair. The OECD is also grateful to Ms Montserrat Gomendio, for co-ordinating the project at the policy-level as State Secretary for Education, Vocational Training and Universities. The project benefited greatly from the many contributions of the national project team, which included representatives from the Ministry of Education, Culture and Sport, the Ministry of Employment and Social Security, the Ministry of Economy and Competitiveness, the Ministry of Finance and Public Administration, the Ministry of Industry, Energy and Tourism, the Ministry of the Presidency and the Economic Office of the President. We are particularly indebted to Aurora Saeta del Castillo, Mª Isabel Fernández Santos, Carmen Maceiras García, Mª Jesús del Río Alcalde, Mª Ángeles Muñoz-Fernández de Bastida, Mª Soledad Iglesias Jiménez, Jorge Sainz González, José Ignacio Sánchez Pérez, Rafael Van Grieken Salvador and Ángel de Miguel Casas of the Ministry of Education, Culture and Sport, Julio Martínez Meroño, Miguel Fernández-Díez Picazo and María Mateo Feito of the Ministry of Employment and Social Security, Juan del Alcázar Narvaez and Javier Soria of the Ministry of the Presidency, Ángel Jurado Segovia of the Economic Office of the President, Clara Eugenia García García, Galo Herrero Villanueva, Carolina Mateos Bustamante and Carlos Balmisa García-Serrano of the Ministry of Economy and Competitiveness, Manuel Arenilla Sáez, Carlos Adiego Samper, Pablo González de Herrero Fernández and Susana Casado Robledo of the Ministry of Finance and Public Administration, Ana Mª Lagares Pérez, Tatiana Mª Martínez Ramos and Cristina Morales Puerta of the Ministry of Industry, Energy and Tourism, Sonsoles Samboal Jiménez of the Ministry of Health, Social Services and Equality, and Ana López Holgado, Joaquin Cascón López and Manuel Vargas Vargas of the International University Menéndez Pelayo (UIMP), without whose support and advice this project would not have been possible.

Thanks also go to Ambassador Ricardo Diez-Hochleitner and Education Counsellor Javier Muñoz Sánchez-Brunete at the Permanent Delegation of Spain to the OECD, for their commitment to this project.

The OECD team wishes to thank the representatives of the Autonomous Communities, and stakeholders who took part in the workshops held in Madrid and Cuenca in 2014-15. Their comments and insights – delivered during workshops, via an electronic discussion group and by e-mail – have both driven the process and shaped this diagnostic report. We would also like to thank the many people who generously gave their time to meet and correspond with us to answer our many questions regarding Spain's skills system.

The OECD is grateful to the Directorate General for Education and Culture and the Directorate General for Employment, Social Affairs and Inclusion of the European Commission for contributing both financial support and substantive expertise in the course of this project. We are especially grateful to Michael Teutsch, Patricia Perez-Gomez and Michael Horgan for their active participation and valuable contributions.

While the diagnostic report draws upon data and analysis from the OECD, the European Commission, Spanish authorities and other published sources, any errors or misinterpretations remain the responsibility of the OECD team.

The OECD Skills Strategy team is co-ordinated by Joanne Caddy (Directorate for Education and Skills). Andrew Bell and Samuel Kim were the lead authors for this report and Tanja Bastianic conducted the data analysis (Directorate for Education and Skills). Deborah Roseveare (Directorate for Education and Skills) provided thought leadership and strategic oversight for the project.

The Spain Skills Strategy diagnostic report drew upon the knowledge, input and comments of a broad cross-directorate OECD team, including: Guillermo Montt and Glenda Quintini from the Directorate for Employment, Labour and Social Affairs; Jonathan Barr from the OECD's Local Economic and Employment Development Programme; Bert Brys from the Centre for Tax Policy and Administration; Alistair Nolan from the Directorate for Science, Technology and Innovation; Paolo Veneri from the Directorate for Public Governance and Territorial Development; David Haugh and Alberto Gonzalez Pandiella from the Economics Department; and Marta Encinas-Martin, Jose-Luis Alvarez-Galvan, Gara Rojas Gonzalez, and Simone Stelten from the Directorate for Education and Skills.

Florence Wojtasinski and Emily Groves (Directorate for Education and Skills) provided invaluable support for project management, as well as report layout and design. Graphic design elements were provided by Great Fridays.

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EXECUTIVE SUMMARY

Why a Skills Strategy? Better skills, better jobs, better lives

Skills have become the key driver of individual well-being and economic success in the 21st century. Without proper investment in skills, people languish on the margins of society, technological progress does not translate into growth, and countries are unable to compete in increasingly knowledge-based global economies.

The OECD Skills Strategy provides countries with a framework to analyse their strengths and weaknesses as a basis for taking concrete actions according to the three pillars that comprise a national skills system: 1) developing relevant skills from childhood to adulthood; 2) activating these skills in the labour market, and 3) using these skills effectively in the economy and society. An effective Skills Strategy strengthens a country's skills system by facilitating policy collaboration and coherence across these three pillars.

Building an effective skills strategy for Spain

Spain's economy is showing clear signs of recovery, after a protracted recession. Spain's economy returned to growth in 2014 and has started to create jobs in greater numbers. These positive developments were spurred, in part, by a broad range of government reforms to improve the functioning of the labour market, raise the quality of education system, enhance the fiscal framework, and boost the business sector.

Despite these positive developments significant challenges remain. Spain has amongst the highest unemployment rates in the OECD, for both adults and youth, and the Spanish economy was still smaller, and the income of Spanish people was still lower, in 2014 than it was in 2007. High debt levels inherited from the recent economic crisis, an ageing population and rising spending pressures in other policy areas, such as pensions, will oblige governments to make tough choices and make efficiency and effectiveness a cornerstone of policy design.

At the same time as Spain is grappling with these pressing challenges the world itself is changing. Globalisation and advances in communication and transportation technologies are combining to reshape the structure of employment and the skill requirements of jobs. While the future is by definition uncertain, all signs point to a world in which higher levels of skills will be increasingly critical for people's success in the economy and society.

Skills are central to meeting the challenges of today and tomorrow. Skills improvements are an important driver of employment, productivity, economic growth, and higher living standards. Fostering better and more equitable skills outcomes also provides the foundation for building a healthier, more equitable, and more cohesive society.

The OECD Skills Strategy: defining the concept of "skills"

The OECD Skills Strategy defines skills (or competences) as the bundle of knowledge, attributes and capacities that can be learned and that enable individuals to successfully and consistently perform an activity or task, and that can be built upon and extended through learning. The concepts of "skill" and "competence" are used interchangeably in this report. The sum of all skills available to the economy at a given point in time forms the human capital of a country.

The OECD Skills Strategy shifts the focus from traditional proxies of skills, such as years of formal education and training or qualifications/diplomas attained, to a much broader perspective that includes the skills people acquire, use and maintain – and also lose – over the course of a whole lifetime. People need both hard and soft skills to help them succeed in the labour market, and a range of skills that help them to contribute to better social outcomes and build more cohesive and tolerant societies.

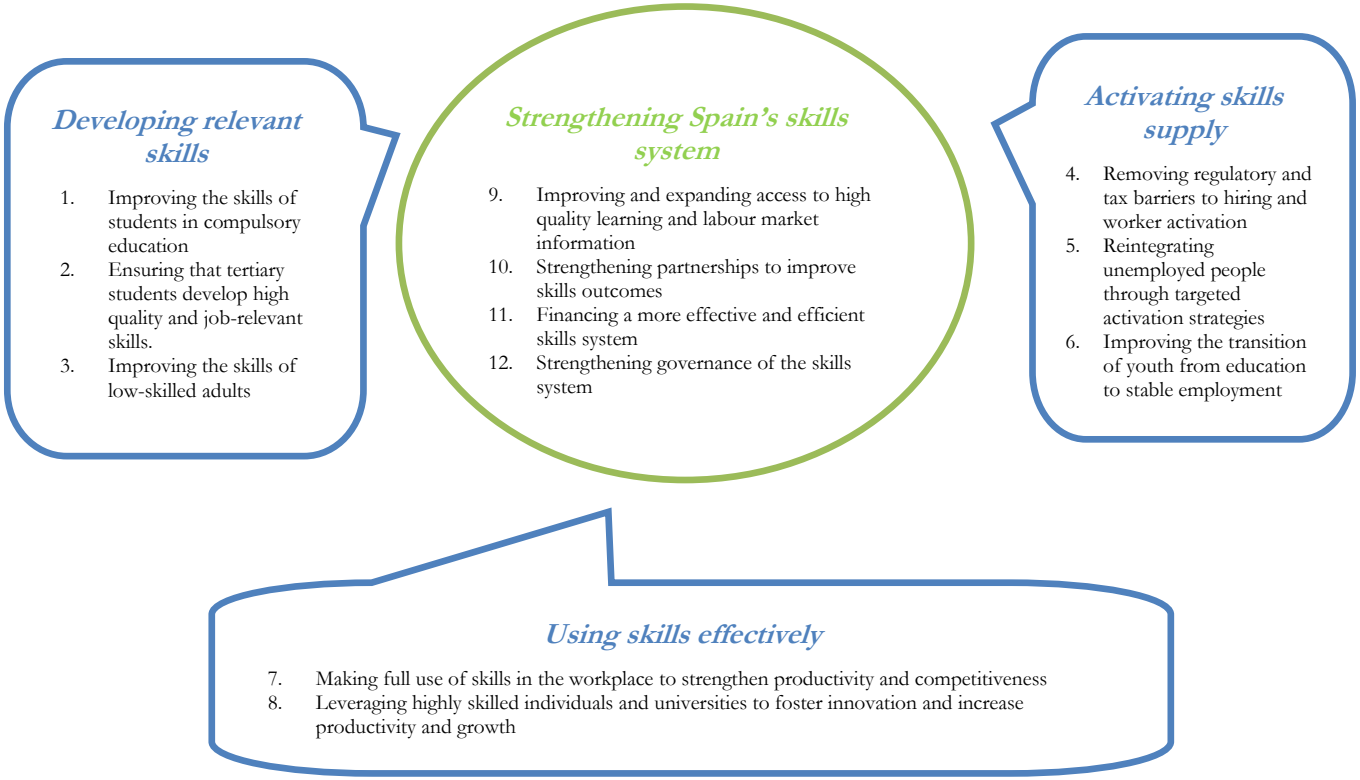
Source: OECD (2012b), *Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264177338-en.

Spain's skills challenges

This diagnostic report identifies 12 skills challenges for Spain. These challenges were identified through workshops with national and regional governments and stakeholders and through analysis of OECD, European Commission and national data. The challenges are described under each of the main pillars of the OECD Skills Strategy and are framed as outcome statements. The first eight challenges refer to specific outcomes across the three pillars of developing, activating and using skills. The next four challenges refer to the "enabling" conditions that strengthen the overall skills system. Success in tackling these skills challenges will boost performance across the whole skills system.

All of the challenges identified are strongly interlinked, and their connections with each other are identified throughout the report. Failure to look beyond policy silos will have implications for specific groups in Spain, such as youth, as well as for the economy and society's ability to recover following the economic crisis and build a solid foundation for future prosperity.

12 SKILLS CHALLENGES FOR SPAIN



Pillar 1: Developing relevant skills

1. ***Improving the skills of students in compulsory education.*** Spanish youth need strong skills for success in further learning, the economy and society. Spain has made a number of reforms, and is introducing further reforms, aimed at improving quality, equity and efficiency in secondary schools. These include introducing skills-based curricula and modernising vocational education and training (VET).

   Early school leaving, grade repetition and late school completion remain high and costly despite the fact that more youth are now completing upper secondary education. In Spain, a quarter of students leave school early, a third repeats a grade, and almost a quarter completes school as much as 2 years later than the rest of their Spanish peers. All three rates are considerably higher than the OECD average. Grade repetition alone is estimated to cost an amount equivalent to almost 8% of the total expenditure on primary and secondary education. While a number of Spanish regions are performing at the level of peers in high performing OECD countries in reading, mathematics and science, the performance of Spanish students overall is below the OECD average. Only few Spanish students are performing at the highest levels. Sustained effort is needed to improve quality, equity and efficiency in compulsory education.

2. ***Ensuring that tertiary students develop high quality and job-relevant skills.*** Tertiary attainment in Spain has grown rapidly and is now at the OECD average. In 2012, the share of Spanish 25-34 year-olds with tertiary education was almost 40% as compared with just under 20% among 55-64 year-olds. This 20-percentage point difference was surpassed in only six OECD countries.

   However, too few tertiary graduates are developing the high levels of skill needed for success in the economy and society. While the skills of Spanish tertiary graduates are showing improvement over time, they still rank near the bottom of the OECD countries who took part in the Survey of Adult Skills (PIAAC). Furthermore, only around 12% of tertiary-educated adults perform at the highest level of proficiency in literacy, about half the OECD average. Higher levels of skills will be needed to power a knowledge-based economy and for individuals to thrive in their personal and professional lives. Many students are graduating from fields of study that are not well aligned with the needs of the labour market. Ensuring that Spain has the necessary skills to respond to rising skill needs and to boost economic growth in the future will require immediate efforts to improve the quality and relevance of skills and continued expansion of participation over the long term. This notwithstanding, the fact remains that many graduates today struggle to find a job.

3. ***Improving the skills of low-skilled adults***. Close to ten million adults in Spain have either a low level of literacy or of numeracy. Roughly two-thirds of these low-skilled adults will still be in the labour market ten years from now and over one-third of them will still be working twenty years from now.

   Low-skilled adults in Spain are less likely to participate in education and training than their more highly skilled Spanish counterparts and also their similarly skilled peers in other OECD countries. This is despite the fact that Spain has a relatively comprehensive and flexible adult education system, that adult participation in education has risen in recent years, and that recent reforms have aimed to make the professional training system more responsive to labour market needs. As the skill requirements of jobs continue to change and increase, more will need to be done to encourage and help low-skilled adults to upskill and reskill to keep their current jobs or find new ones.

Pillar 2: Activating skills supply

4. ***Removing regulatory and tax barriers to hiring and worker activation.*** Many working-age adults in Spain are not realising the full benefits of investments in their skills. In 2014, Spain had the second highest unemployment rate and third lowest employment rate in the OECD. And almost a quarter of workers in

Spain are employed on temporary contracts, a share only exceeded by Chile and Poland among OECD countries. Youth and low skilled adults are particularly at risk of being hired on temporary contracts.

High rates of unemployment, low rates of employment and labour market duality have long been features of the Spanish labour market. Spain has introduced a large number of labour market reforms since 2012 to boost hiring and employment and decrease employers' reliance on temporary contracts. Nonetheless, the labour market continues to be characterised by high unemployment and labour market duality. Further efforts are needed to ensure that labour market regulation and tax policies provide incentives, and not disincentives, to hire and work.

5. ***Reintegrating unemployed people through targeted activation strategies.*** Active labour market programmes are an important means of activating people who are inactive or unemployed and promoting employment. Following the economic crisis, the large increase in the number of jobseekers put considerable pressure on capacity of the public employment services (PES), especially given its comparatively small size. Enhancing the performance of PES is important for supporting the rapid reintegration of the unemployed and of the long term unemployed. Expenditures on active labour market programmes are not high compared to other OECD countries, particularly when considering the numbers of unemployed people in Spain. Focus on training should be reinforced, building on recent reforms to increase efficiency, targeting and relevance to labour market needs.

   Increased monitoring and better enforcement of job search compliance and better targeting towards those most in need could support quicker returns to work. Removing, or mitigating, barriers to labour mobility together with improved labour market information and guidance support could also boost employment.

6. ***Improving the transition of youth from education to stable employment.*** Youth in Spain face difficulties in making smooth transitions from school to work. Youth unemployment and long-term unemployment rates rank amongst the highest in the OECD. The share of youth neither in employment, education nor training (NEET) (20%) also ranks near the top of the OECD, surpassed only in Mexico, Greece and Italy. Youth NEET are at risk of becoming long-term unemployed and more difficult to integrate in the future.

   Helping more young people to find their first jobs will require, among other things, better performance of PES in assisting and orienting youth to make the transition into employment, in particular through early intervention tailored to individual needs. In addition, as many unemployed youth have low levels of education and skills, they will need training and further education.

Pillar 3: Using skills effectively

7. ***Making full use of skills in the workplace to strengthen productivity and competitiveness.*** Today, Spain is not making full use of the skills of its workforce. The use of skills in the workplace is only about average and many workers have skills that exceed the skills requirements of their jobs which places Spain second among OECD countries who participated in the Survey of Adult Skills (PIAAC). Despite having higher levels of skill on average, young workers are even less likely to use cognitive skills at work than their prime-age peers. Young workers in Spain are also less likely to use computers at work than their peers in other OECD countries surveyed. Workplaces in Spain rank poorly on a number of measures of the adoption of innovative workplace practices.

   The comparatively low use of skills in the workplaces and low take up of innovative workplace practices implies a waste of talent that might otherwise be used to improve firm competiveness and productivity. Making full use of the skills of Spain's workforce will require greater efforts to raise awareness among firms about the importance and means of making the effective and intensive use of skills in the workplace a central component of their business strategies.

8. ***Leveraging highly skilled individuals and universities to foster innovation and increase productivity and growth.*** Highly skilled workers, entrepreneurs and universities are central to a country's innovation system. Spanish firms are less actively engaged in innovation activities than many of their foreign competitors. This lack of innovation is reflected in low levels of investment in Knowledge-based Capital (KBC), including Research and Development (R&D). Additionally, graduation rates at the doctoral level are well below the OECD average and few doctorates holders are employed in the business sector. In Spain, only 15% of doctorate holders work in the business sector as compared with well over 30% in countries such as Belgium, Denmark, the Netherlands, the United Kingdom and the United States. Spanish universities could do more to support innovation and growth through the transfer of research and knowledge to the private sector.

   Spain needs to do a better job of leveraging highly skilled workers and universities to foster innovation, productivity and growth. This would involve reducing barriers to innovation and entrepreneurship and creating incentives to invest in KBC. It would also mean making the use of highly skilled workers engaged in innovation central to the business strategies of Spanish firms.

Strengthening Spain's skills system

9. ***Improving and expanding access to high quality learning and labour market information.*** Evidence of current skills mismatches as well as uncertainty about future skill needs in the context of technological advances, globalisation, demographic changes and other pressures all point to the importance of having good data and information on current and future skill needs. Learning and labour market information allows a broad range of actors to make better choices that facilitate a better alignment between skills supply and demand.

   While a range of information on current skill needs is already available in Spain, there are information gaps and room for improvement in the design and dissemination of information products. Existing information in Spain is often available only in the form of dense, technical reports, which may be difficult for many users to interpret without guidance. Furthermore online information is scattered across multiple websites, making information hard to locate and cross-reference. Spain also does not conduct national forecasts of future skill needs.

10. ***Strengthening partnerships to improve skills outcomes.*** Effective partnerships are critical for developing and implementing effective skills policies. In Spain, governments are already working with the private sector to increase the number work placement opportunities for VET graduates and for workers on training contracts.

    However, there are few formal partnership arrangements for facilitating dialogue and co-operation between governments and stakeholders on skills-related issues. For example, the private sector is not actively engaged to provide input into decisions related to seat allocation and course design of tertiary education programmes. This lack of collaboration may come at the cost of a poor alignment between the skills being developed in education and training and the skills needed in the economy. Partnerships that facilitate dialogue and foster co-ordinated action will be critical to address Spain's skills challenges and build a responsive and resilient skills system.

11. ***Financing a more effective and efficient skills system.*** As it emerges from the recent recession, Spain is burdened with high levels of public debt and high budget deficits. Overall per student spending on compulsory and tertiary education is around the OECD average. The share of spending on tertiary education that is financed by the public sector in Spain (78%) exceeds the OECD average (69%).

Spain could do more to align government spending and taxation policies to encourage greater skill development, activation and use. Higher private contributions could permit new investments that strengthen the quality and relevance of skills development. The tax system could be used to incentivise more private spending on skills and to encourage firms to hire and individuals to supply their skills in the labour market. Given Spain's decentralised administrative structure, financing a more efficient skills system requires an integrated strategy shared between the national and regional governments.

12. ***Strengthening governance of the skills system.*** Effective governance structures are needed to ensure that skills policies are implemented coherently across the many ministries and levels of government that have an interest in, or impact on, the development, activation and use of skills.

    While high-level inter-ministerial committees exist, at both the state and regional level, more formal and regular dialogue is needed, especially at the mid-management level, to ensure that policies are complementary and reinforcing. Sectoral conferences – a mechanism used to co-ordinate action among the state and regional governments – are often seen as ineffective. Recognition, financial support and accountability for the results of shared initiatives can help foster meaningful collaboration among different ministries within and across all levels of government.

From diagnosis to action

The main goal for this joint project between the OECD and the Spanish government on "Building an effective Skills Strategy for Spain" was to provide a strategic assessment of the national skills system in Spain and the way skills are developed, activated and used. This analysis is needed when designing effective skills policies and strategies to meet Spain's future skill needs and to improve the match between supply and demand for skills.

Now is the time to focus on improving skills outcomes to boost productivity and innovation while removing a bottleneck to Spain's future economic growth. This diagnostic report represents one input to future action in Spain to improve skills outcomes. Of equal importance to future success are the 'intangible' assets generated by the Skills Strategy project through sustained inter-ministerial and national-regional dialogue and co-operation as well as stakeholder engagement over the course of 2014-15.

The results presented in this diagnostic report can be put to use in many ways, including as a basis for raising public awareness, fostering broader public debate about the skills challenges currently facing Spain and encouraging social partners and national and regional governments to work together to tackle these challenges in the future. The OECD stands ready to support Spain in its ongoing efforts in designing and implementing better skills policies for better jobs and better lives.

INTRODUCTION

Skills have become the key drivers of individual wellbeing and economic success in the 21st century. Without proper investment in skills, people languish on the margins of society, technological progress does not translate into growth, and countries can no longer compete in increasingly knowledge-based economies. The more countries strive to achieve the highest levels of innovation and competitiveness in their economies, the more they have to focus on generating the right skills mix, making sure that those skills are fully activated in the labour market, and maximising their use in workplaces.

Spain's economy is showing clear signs of recovery

After a protracted recession, Spain's economy returned to growth in 2014 and has started to create jobs in greater numbers. Spain's economy grew by 1.4% in 2014 and the OECD forecasts it to grow by 2.9% in 2015 and 2.8% in 2016. Job growth picked up considerably with employment increasing by 433 900 (+2.53%) more people in 2014, and most of that increase (367 400) was in fulltime jobs (INE, 2015). The last time employment grew at a similar rate was in 2007, when the economy grew by 2.6%. Furthermore, the unemployed rate fell to 24.3% in 2014 after peaking at 26.1% in 2013 (EC, 2015a). Labour costs decreased by 0.4% in the third quarter of 2014 over the previous year (INE, 2014a).

These positive developments were spurred, in part, by a broad range of government reforms to improve the functioning of the labour market and education system, enhance the fiscal framework, and boost the business sector (OECD, 2014a).

Despite these positive developments, significant challenges remain. In 2014, the Spanish economy was still smaller and the income of the Spanish people still lower than in 2007 (ILO, 2014). Budgetary consolidation, tight lending conditions and private deleveraging will continue to restrain the recovery (OECD, 2014c). Elevated unemployment remains an important source of vulnerability to adverse shocks. Labour market duality continues to be an important feature of the Spanish labour market, with a large share of workers employed in precarious jobs with limited career prospects.

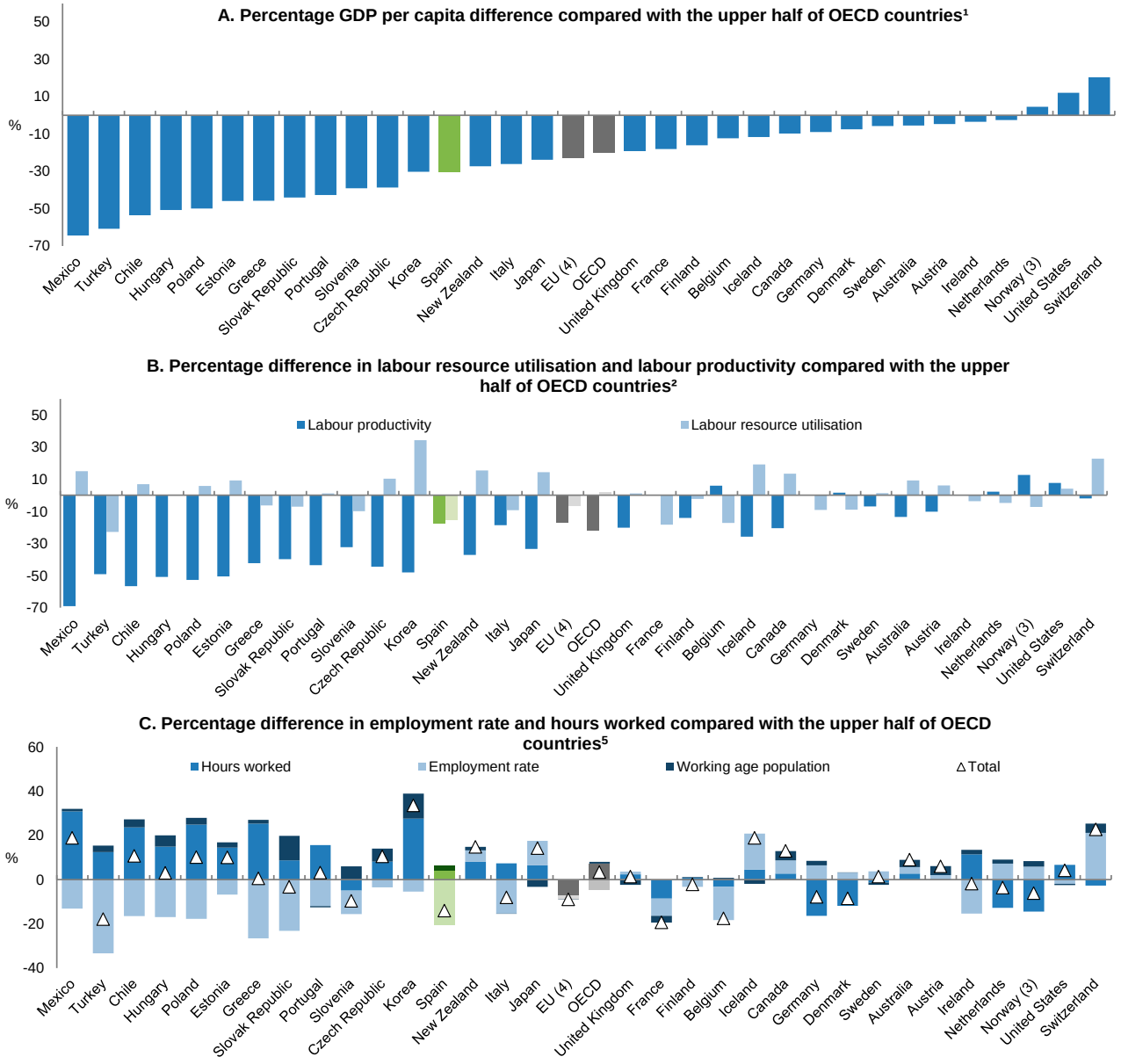
Boosting labour utilisation, productivity and skills will drive future growth

Gross Domestic Product (GDP) per capita in Spain falls below the OECD average (Figure 1a). In common with most other southern European countries, the gap in Spain's GDP per capita vis-à-vis the upper half of OECD countries can be explained by both low labour productivity and low labour utilisation (Figure 1b). A country can grow its GDP through a combination of increasing the number of its people who are working and the number of hours those people work (labour utilisation) and increasing the amount of economic output per hour worked (labour productivity). In the case of Spain, labour productivity shortfalls explain comparatively less and labour utilisation shortfalls comparatively more of this gap than in other countries (Figure 1b). The comparatively low rate of labour utilisation in Spain is entirely attributable to its low employment-to-population ratio (Figure 1c). The total number of hours worked per worker and the share of the population that is working age are both above average.

Comparatively low employment rates are not new to Spain. The employment-to-population ratio in 2007 – before the onset of the recession, when employment in Spain was at a record high – was still only at the OECD average (Figure 2a). Prior to 2007, the employment rate ratio in Spain was consistently below average (Challenge 4, Figure 43).

Figure 1. Large gaps in GDP per capita are mostly due to productivity shortfalls

The sources of real income differences, OECD countries, 2013



Notes:

1. Compared to the simple average of the 17 OECD countries with highest GDP per capita in 2013 based on 2013 purchasing power parities (PPPs). The sum of the percentage difference in labour resource utilisation and labour productivity do not add up exactly to the GDP per capita difference since the decomposition is multiplicative.
2. Labour productivity is measured as GDP per hour worked. Labour resource utilisation is measured as the total number of hours worked per capita.
3. Data refer to GDP for mainland Norway which excludes petroleum production and shipping. While total GDP overestimates the sustainable income potential, mainland GDP slightly underestimates it since returns on the financial assets held by the petroleum fund abroad are not included.
4. Average of European Union countries in the OECD.
5. Employment rate is measured as total number of employed divided by working-age population. Hours worked are measured as total number of hours worked per employed. Working-age population is measured as working-age population divided by total population. The total of the three components is not equal to labour resource utilisation as presented in panel B since the decomposition is multiplicative.

Source: OECD (2015), *Economic Policy Reforms 2015: Going for Growth*, http://dx.doi.org/10.1787/growth-2015-en.

Better skills, effective labour market policies and stronger incentives to work and hire can boost labour utilisation

Spain has returned to growth but employment remains very low and unemployment very high. The employment rate fell from a pre-crisis 54.1% in 2007 Q4 to 42.2% in 2014 Q2, but is projected to rise only marginally to 45.7% by Q4 2016 (Figure 2a). The jobs gap – the percentage-point change in the employment rate since the onset of the crisis (Q4 2007) – was still 10.4 percentage points in 2014 Q2. The unemployment rate (24.6%) in 2014 Q2 was still 16 percentage points higher than in before the crisis (2007 Q4) (Figure 2b). Even by 2016 Q4, the unemployment rate is expected to remain above 21% (OECD, 2015).

A number of regulatory and tax barriers have impeded employment growth. In Spain relatively strict employment protection, weak enforcement of regulations governing the use of temporary contracts and wage rigidities combined to exacerbate job shedding in the wake of the recession and slowed employment growth in the recovery period. Bassanini and Garnero (2013) find that in OECD countries strict employment protection legislation (including strict dismissal legislation) are associated with lower job finding rates and higher unemployment. Bentolila et al. (2011, 2010) find that differences in the extent of employment protection can explain approximately 45% of the much larger rise in unemployment in Spain than in France. A high tax burden on labour may have also discouraged hiring and participation in the labour market.

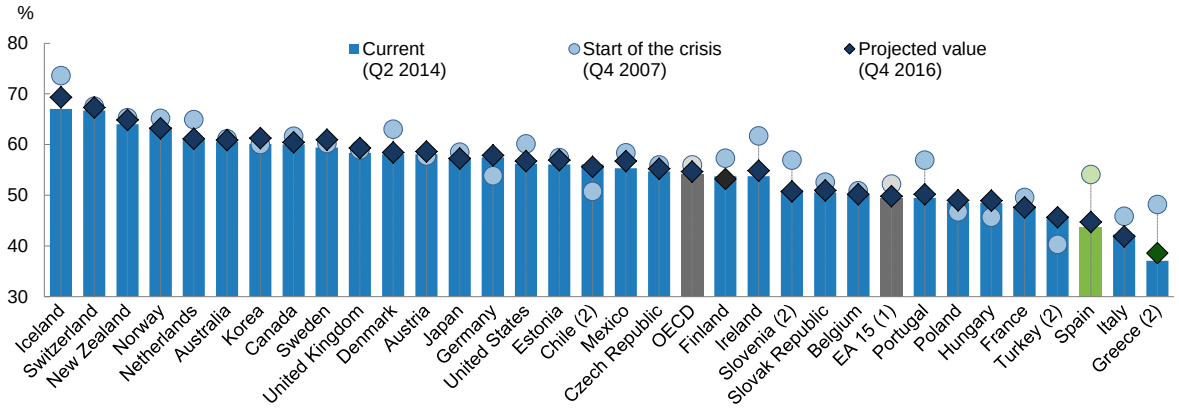
Unemployment benefits and active labour market policies are important for supporting transitions from inactivity and unemployment to employment. Unemployment benefits provide income support during times of joblessness, while active labour market policies encourage and facilitate efficient returns to work. Some individuals simply need help finding work. For them, good labour market information, counselling and job search assistance may be sufficient to return them to employment. Others lack the skills needed for the jobs of today: 45.6% of those who are unemployed in Spain lack even the most basic skills (measured as lower than level 2 literacy or numeracy proficiency on the Survey of Adult Skills, PIAAC). For many of these individuals, and for many others who are unemployed, returning to work will require access to training opportunities to upskill or reskill.

Increasing labour utilisation in Spain also implies ensuring that the students of today do not become the unemployed of tomorrow. Skills are critical for ensuring successful transitions from school to work. There is a long-established relationship between education and skills on the one hand and labour market participation and employment on the other. More highly educated and skilled individuals have, on average, consistently higher rates of participation and employment. Furthermore, this relationship tends to be linear, with each incremental increase in educational attainment or skills achievement typically leading to better labour market outcomes. While educational attainment rates in Spain are near the OECD average, students at both the upper secondary and tertiary level tend to leave school with levels of basic skill that are significantly below the OECD average. Furthermore, many leave school with levels of education and skill that are poorly matched with the needs of the labour market (OECD, 2013b).

Figure 2. The jobs recovery remains incomplete

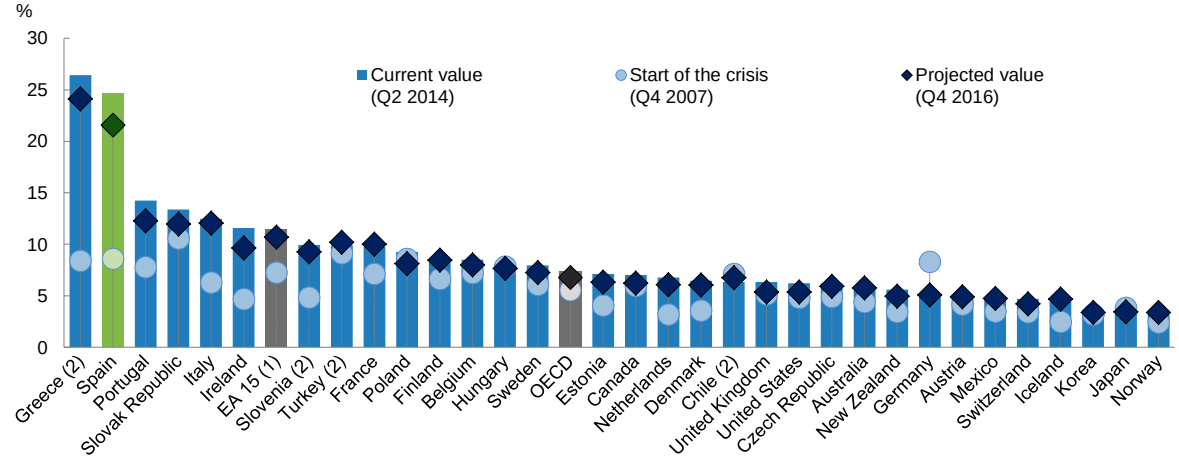
A. Evolution of the employment-to-population ratio

Percentage of the working-age population (aged 15 or more)



B. Evolution of the unemployment rate

Percentage of the labour force



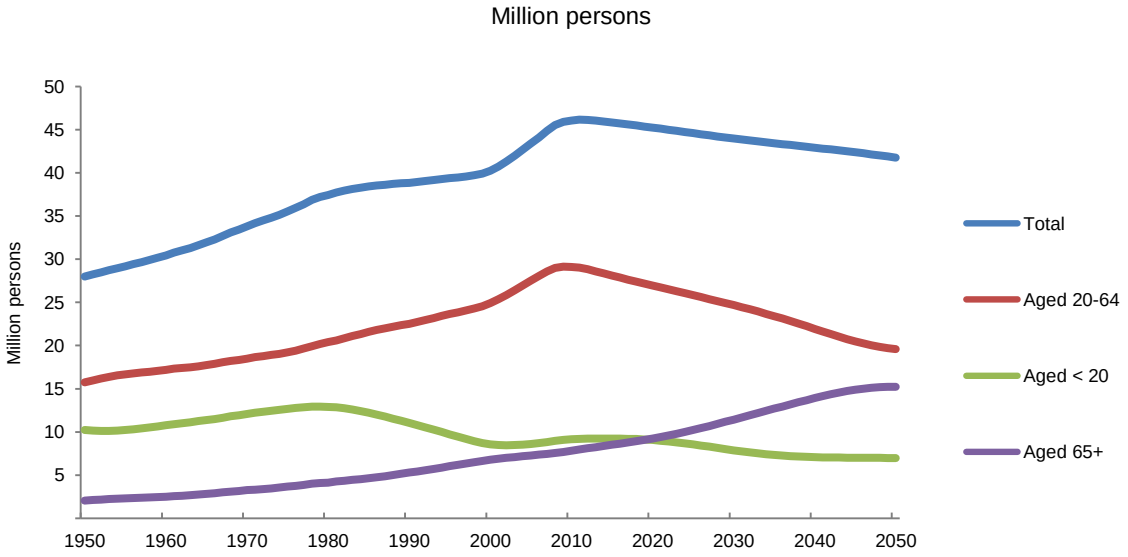
Note: Countries shown by descending order of the current employment rate (Q2 2014) in Panel A and of the maximum gap (country-specific trough) in Panel B.

1. Aggregate of 15 OECD countries of the euro area.
2. Annual values.

Source: OECD (2014b), "OECD Economic Outlook No. 95", *OECD Economic Outlook: Statistics and Projections (database)*, http://dx.doi.org/10.1787/data-00688-en.

An ageing population and a structural decline in labour supply mean that there are limits to how much Spain can grow its economy through increased labour utilisation in the medium- to long-term. In Spain, as in most other developed economies, declining fertility is resulting in a shrinking labour supply. The share of the population that is of working age in Spain has been falling since 2010 (Figure 3). This could be good news for the unemployed, since as the economy recovers declining labour supply should lead to tighter labour markets, making it easier for them to find work. However, this only holds if workers have skills that match the needs of the labour market and regulations and tax policies do not create barriers to hiring and activation. If the skills of workers are misaligned with the needs of the labour market, and if the business environment is not conducive to job creation, employers may respond by substituting capital for labour and by offshoring work to other countries. Labour productivity knows no limits, unlike labour utilisation. In short, a structural decline in labour supply means that productivity growth will be the main source of increased growth and improved living standards in Spain in the medium- to long-term.

Figure 3. Spanish population: historical and projections



Source: OECD (2014), "Historical Population Data and Projections (1950-2050)", Demography and Population, in OECD, *OECD.Stat*, (database), http://dx.doi.org/10.1787/data-00285-en.

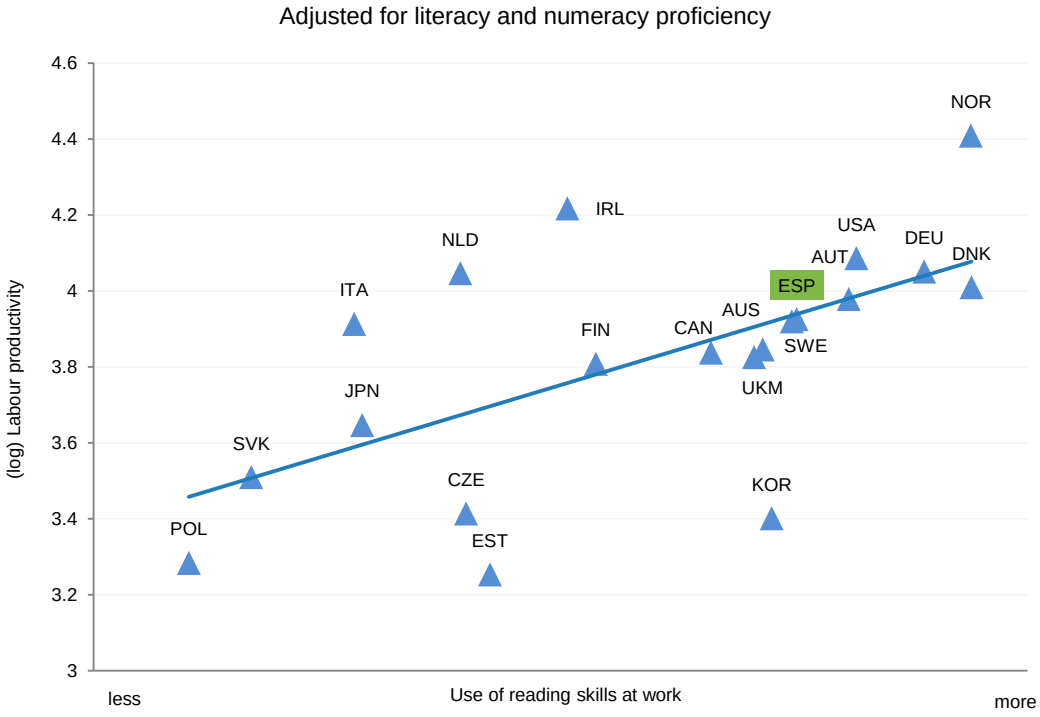
Improving the quality and relevance of skills is essential for increasing productivity

Productivity refers to the efficiency with which an economy transforms inputs into outputs. Productivity growth makes individuals wealthier, firms more profitable, and governments more flexible. It is also the only source of sustained growth in living standards over the long term. Even small increments in productivity growth rates will, if they persist over extended periods of time, make large differences to economic growth and living standards.

Skills improvements are a major driver of productivity growth. Sources of productivity growth include improvements in the knowledge and skills of workers as well as innovation and technological advances, both of which are the products of human knowledge and skill. The strong relationship between skills and productivity is well established. Bassanini and Scarpetta (2001) estimate that an extra average year of schooling raised GDP by around 4-7% in OECD countries in the long run. Hanushek and Woessmann (2012) estimate that raising cognitive skills by ¼ of a standard deviation (the sort of improvement observed in Poland over the past decade) would boost growth rates by about ½ a percentage point. At the firm-level, it has been estimated that a 5 percentage point increase in worker participation in training is associated with a 4% gain in firm productivity; and a 1% increase in training days is associated with a 3% gain in productivity; and that the productivity of a trained worker is about 23% greater than that of an untrained worker (Barrett and O'Connell, 2001; Barron, Black and Loewenstein, 1989; Dearden, Reed, Reenen, 2000; Konings and Vanormelingen, 2010).

Making more effective use of available skills can also boost productivity growth. There is a strong association between the use of foundation skills at work and labour productivity (Figure 4). New OECD research (McGowan and Andrews, forthcoming) highlights the potentially significant gains to labour productivity that can be achieved through a more efficient matching of workers with jobs. Mahy, François and Guillaume (2015) provide evidence that firms can increase their productivity by making better use of the skills of workers whose qualifications exceed the skill requirements of their jobs.

Figure 4. Labour productivity and the use of reading skills at work



Notes: Lines are best linear predictions. Labour productivity is equal to the GDP per hour worked, in USD current prices (Source: OECD.Stat). Adjusted estimates are based on OLS regression including controls for literacy and numeracy proficiency scores. Standard errors in parentheses.

Source: OECD (2012), Survey of Adult Skills (PIAAC) (database), Table A4.4, www.oecd.org/site/piaac/surveyofadultskills.htm.

Spain's comparatively weak skills outcomes are a drag on productivity growth. While educational attainment in Spain is near the OECD average, Spanish upper secondary and tertiary graduates leave school or university with lower levels of skill than the OECD average. There is also evidence that many tertiary students choose and complete fields of study that are not optimally aligned with the needs of the labour market. Furthermore, Spain has a comparatively high rate of mismatch, with a large number of workers who have skills and qualifications that either exceed or fall short of the requirements of their jobs.

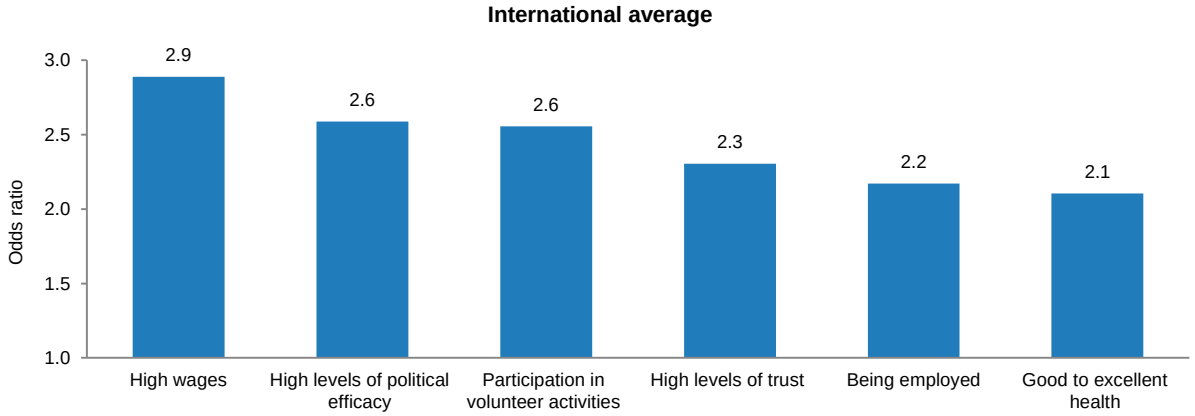
Spain is not leveraging the full productive potential of its workforce. While the intensity of skills use in workplaces in Spain is close to the OECD average, Spanish firms rank low internationally on the adoption of innovative workplace practices. Spain also invests comparatively little in knowledge-based capital (KBC) and firms employs relatively few knowledge-based capital workers. Furthermore, in spite of recent government efforts in this area, there are high barriers to entrepreneurship and university spending on research and development is comparatively low. All of this implies that Spain is not making effective use of its available skills to increase productivity.

Better skills also foster equity, inclusion and participation

Inequitable skills outcomes can fray the social fabric. People with lower levels of skill and education are at not only at greater risk of unemployment and low earnings, they also have poorer health outcomes, trust others less and are less likely to engage in community life and democratic processes (Figure 5). As a consequence, having good educational and skills outcomes at the aggregate level is not in itself "good enough". It is essential to actively pursue equity in educational and skills achievement to ensure that everyone can share in national prosperity and participate fully in society.

Figure 5. Likelihood of positive social and economic outcomes among highly literate adults

Increased likelihood (odds ratio) of adults scoring at Level 4/5 in literacy reporting high earnings, high levels of trust and political efficacy, good health, participating in volunteer activities and being employed, compared with adults scoring at or below Level 1 in literacy (adjusted)



Notes: Odds ratios are adjusted for age, gender, educational attainment and immigrant and language background. High wages are defined as workers' hourly earnings that are above the country's median.

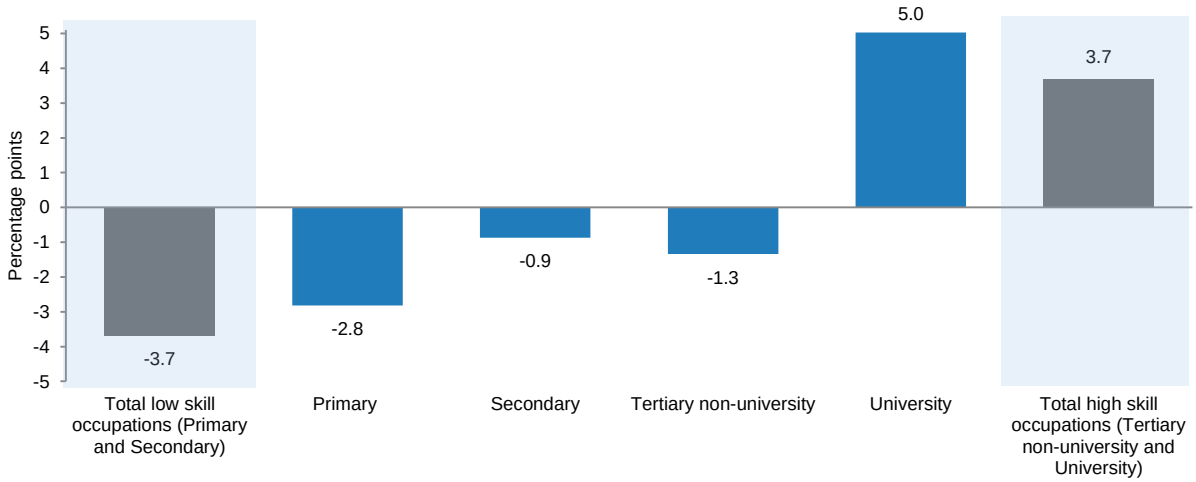
Source: OECD calculations based on OECD (2012), Survey of Adults Skills (PIAAC) (database), Figure 0.1, http://dx.doi.org/10.1787/888932903633, www.oecd.org/site/piaac/surveyofadultskills.htm.

The skills required for success in the economy and society are changing

Globalisation and advances in communication and transportation technologies are combining to reshape the structure of employment and the skill requirements of jobs. Rapid improvements in computer technology over the last few decades have provided employers with cheaper machines that can replace people in many middle-skilled activities such as bookkeeping, clerical work and repetitive production tasks. Improvements in technology have also enabled employers to offshore jobs that do not require face-to-face interactions. The consequence of these trends has been a shift away from jobs characterised by routine tasks – whether manual or cognitive in nature – and towards those characterised by non-routine manual and cognitive tasks (Autor and Dorn, 2013; Autor, Katz and Kearney, 2008, 2006; Autor, Levy and Murnane, 2003; Blinder and Kreuger, 2013; Goos and Manning, 2007). Routine tasks – which are most prevalent in jobs requiring middle-level skills – are those most easily replicated by technology, resulting in a displacement of workers performing these tasks. Goos, Manning and Salomons (2014) find that between 1993 and 2010 the same trends prevailed in Spain.

These global trends are reflected in the changing skill requirements of jobs in Spain. Between 2006 and 2014 almost all growth in the shares of employment in Spain was in occupations that typically require a university degree (Figure 6). There were small declines in the shares of jobs that require a tertiary non-university degree or an upper secondary diploma, and a much larger decrease in the share of jobs requiring less than a post-secondary diploma. However, that the majority of jobs (71% in 2012) continue to be in occupations that typically require upper-secondary education or less.

Figure 6. Change in share of employment (percentage points) by typical educational requirements of occupations, 2006-14

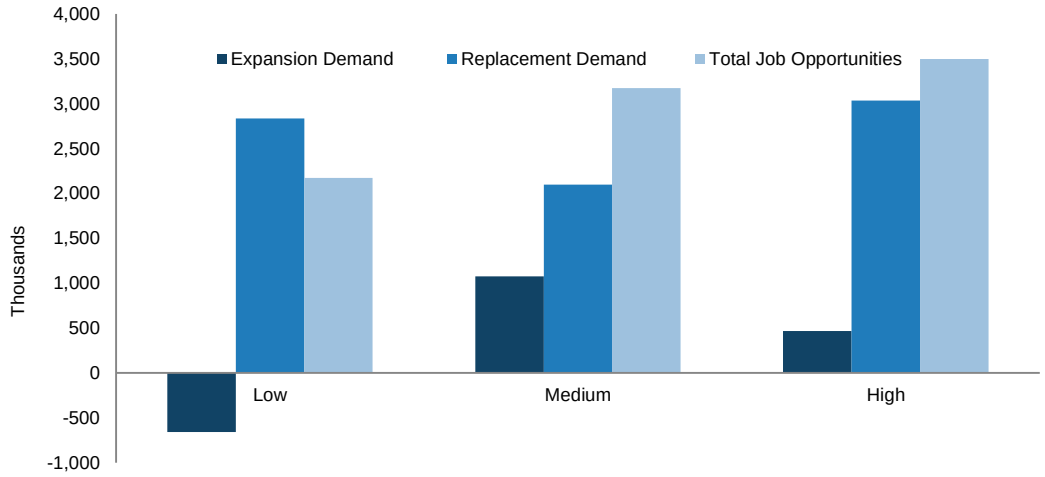


Source: OECD calculations based on INE (2014b), Encuesta de la Población Activa 2014, www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195128&idp=1254735976595.

Whether these trends will continue into the future is uncertain. Sources of uncertainty include the rate of technological advance, continued expansion of global value chains (GVC), rates of global labour mobility, and general global economic conditions. Elliot (2014) provides evidence for the United States suggesting that technological advances are likely to continue to make a large number of workers – particularly those people with low levels of skills – vulnerable to displacement by technology. A number of other factors may additionally impact on the types of jobs that will be created in the future and, by extension, the type and levels of skills that workers will need. As the population of Spain continues to age, there will be increasing need for those skills related to health and personal care services. Increasing concern for the environment will also undoubtedly have an impact on the jobs that are created in the future. Trends in tourism may also have a large impact of jobs and skill needs, especially in Spain where tourism accounts for over 5% of GDP (WTTC, 2014).

Forecasts provide some insight into how the skill needs of the labour market will evolve in the future. CEDEFOP forecasts that between 2013 and 2025 job opportunities due to both expansion and replacement demand will be greatest in occupations requiring high level qualifications (Figure 7). Expansion demand is forecasted only in occupations requiring upper secondary and tertiary level qualifications. Job opportunities are expected to be greatest in the distribution and transport, business, and service sectors (Figure 8). Sectors that provided decent paying jobs for low skilled workers in the past – such as the primary, manufacturing and construction sectors – are not projected to create significant numbers of job opportunities in the future. These forecasts are based on status quo assumptions. They do not take into account any future reforms to the labour market, the education system, the tax code and the innovation system, which might have an impact on the skills supplied and demanded in the labour market. For example, many countries aiming to improve labour utilisation have chosen to undertake reforms of taxes and labour income. If such changes were implemented in Spain, they might increase the number of jobs in labour intensive sectors such as manufacturing and agricultures, and perhaps, even the construction sector as well.

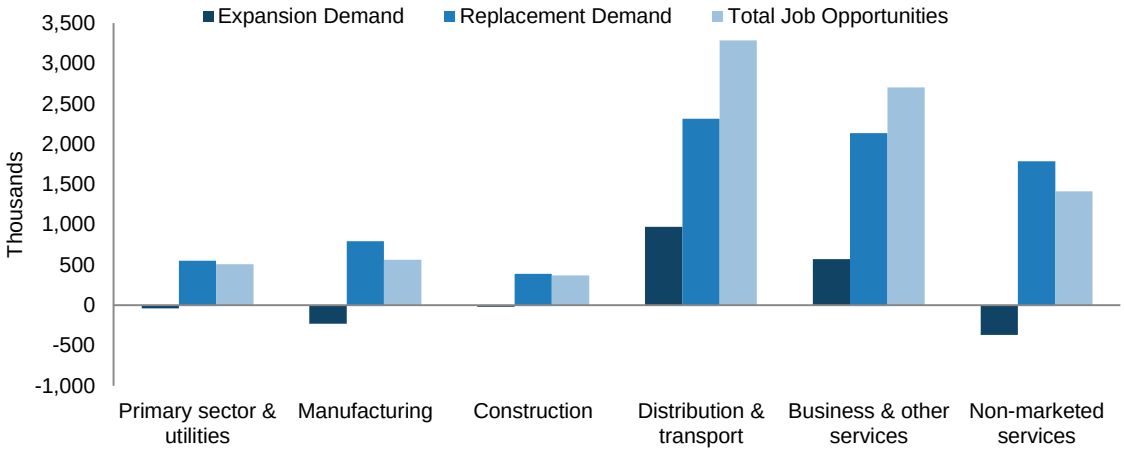
Figure 7. Forecast of job opportunities in Spain by qualification level requirements, 2013-25



Note: The definitions of skill levels are as follows: low qualification = ISCED 1 and ISCED 2 (less than upper secondary); medium qualification = ISCED 3 and ISCED 4 (upper secondary or post-secondary non-tertiary); and high qualification ISCED 5 and ISCED 6 (tertiary).

Source: CEDEFOP (2015b) "Job opportunities: Skills forecast for 2015", 2013-2025, www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/job-opportunities.

Figure 8. Forecast of job opportunities in Spain by sector, 2013-25



Source: CEDEFOP (2015b) "Job opportunities: Skills forecast for 2015", 2013-2025, www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/job-opportunities

Fiscal pressures demand greater efficiency of the skills system

Many OECD countries are struggling with how to finance skills policies in the context of fiscal pressures. As a result of high debt levels inherited from the recent economic crisis, unfavourable demographics and rising spending in other policy areas, such as healthcare and pensions, many countries are seeking to improve the efficiency of national skills policies. Spain is no exception. The number, scale and specialisation of schools and universities could be better optimised to increase efficiency, and consideration could be given to adopting new innovations in learning that reduce costs. Governance mechanisms could

increase collaboration and improve the co-ordination of skills policies across ministries and levels of government. Skills financing arrangements could also be reformed to increase incentives to invest in skills while at the same time ensuring that those who benefit most from investments in skills, such as individuals and firms, shoulder a greater share of the cost. Better learning and labour market information and strong partnerships among governments, business, unions and higher education institutions could also help to ensure a better match between skills supply and demand.

The OECD Skills Strategy can help Spain to respond to skills challenges

Spain is not alone in confronting complex policy challenges. Continuing economic uncertainty, technological advances, globalisation, population ageing, and fiscal pressures are creating a new era of economic and social uncertainty across all advanced economies. The prevailing sentiment is that economies and societies are evolving in ways that cannot easily be predicted. Yet governments cannot afford to take a "wait-and-see" attitude. They need to make choices today to ensure that they are well positioned to take advantage of economic opportunities as they arise and to respond effectively and efficiently to whatever challenges lie ahead. Given the importance of skills for a wide range of economic and social outcomes, many advanced and emerging economies are making skills policies central to their strategies for reinforcing economic and social wellbeing.

A coherent, strategic and future-oriented skills strategy is required to secure the future prosperity and wellbeing of Spain's people. The economic growth rates Spain achieved in the 2000s were largely due to easy access to financing at low interest rates. This growth was unsustainable and led to the housing bubble that helped precipitate the massive job losses witnessed in Spain after 2009. Given their importance for boosting labour utilisation and productivity and, in turn, for increasing growth and living standards, the development, activation and effective use of skills must be a central pillar of Spain' new economic model.

Governments in Spain have already implemented a number of reforms designed to increase employment and better align skills development with the needs of the economy and society. In 2012, the government introduced a series of labour market reforms designed to increase flexibility and wage moderation to support job creation and labour activation. A new labour market activation strategy was established in 2013 and 2014 to facilitate more efficient returns to work. Significant educational reforms have also been introduced and are expected to be implemented between 2014 and 2017. Among these reforms is an expansion and modernisation of vocational education and training (VET) at the secondary and post-secondary levels, including the creation of a new Dual VET programme. In early 2015, the training system for employment was reformed to improve the quality and relevance of training.

The OECD Skills Strategy provides an integrated, cross-government strategic framework to help countries maximise their skills potential to drive inclusive economic growth and improve wellbeing. It helps countries to identify the strengths and weaknesses of their existing national skills pool and skills systems, benchmark them internationally, and develop policies for improvement. In particular, the strategy provides the foundations upon which governments can work effectively with all interested parties – national, local and regional government, employers, employees, and learners – and across all relevant policy areas to: develop high quality and relevant skills from early childhood to adult education; activate skills in the labour market; and put skills to effective use in the workplace and the economy at large.

Fostering a whole-of-government approach to skills

Maximising a country's skills potential requires a co-ordinated effort across ministries. A whole-of-government approach to skills is needed to integrate the diverse fields of education and training, labour, economy, tax, local economic development, research and innovation. Each OECD Skills Strategy project is designed to foster greater interaction and exchange among relevant ministries in order to forge a common understanding of the skills challenges at stake as a basis for co-ordinated action.

The project on Building an Effective Skills Strategy for Spain involves an inter-ministerial project team in Spain including the Ministry of Education, Culture and Sports, the Ministry of Employment and Social Security, the Ministry of Economy and Competitiveness, the Ministry of Finance and Public Administration, the Ministry of Industry, Energy and Tourism, the Ministry of the Presidency and the Economic Office of the President. This team was responsible for setting the strategic direction for the project by defining which outcomes of the OECD Skills Strategy Diagnostic Toolkit are most relevant to Spain, and ensuring that the diagnostic phase covered all relevant aspects of the national skills system.

A whole-of-government approach also implies collaboration and co-ordination across levels of government. This is particularly important in the context of Spain, where Autonomous Communities have significant responsibilities for the design and delivery of skills policies. Representatives from all 17 Autonomous communities participated in this project providing their perspectives on Spain's skills challenges; for example:

- More than 100 people took part in the diagnostic workshop with autonomous communities in Madrid, 3-4 November 2014.

Engaging stakeholders in strengthening the skills system

Effective skills policy design and implementation requires a broad and shared understanding of the need to enhance skills, the current strengths and challenges facing a country's skills system, and priorities for action. The OECD Skills Strategy underscores the need to look beyond government and build strong partnerships with all actors involved, such as employers, trade unions, training institutions, students and other stakeholders.

Each national project is designed to ensure stakeholder engagement and ownership, and to build a shared commitment for concrete action. This is achieved by actively engaging with stakeholders throughout the process, notably through a series of workshops. Each workshop consisted of structured small group discussions among participants speaking in their native language as they worked through a series of exercises. In the case of Spain:

- More than 100 people took part in the diagnostic workshop with stakeholders in Cuenca, 24-25 November 2014, including employer organisations, trade unions, education and training providers, foundations, NGOs and private companies

Through their active participation in these events, Spain's autonomous communities and stakeholders have played a central role in identifying the main challenges faced by Spain's skills system, and their input has helped to shape this diagnostic report. Notably, through the final workshop where:

- More than 80 representatives from autonomous communities and stakeholders took part in the skills challenges workshop in Madrid, 23 March 2015.

More than 50 additional stakeholders were interviewed in a series of bilateral discussions about Spain's skills challenges and system.

Collaboration with the European Commission

The European Commission has been a key partner in this collaborative project on Building an Effective Skills Strategy for Spain generously providing expertise, data and financial resources to support project implementation. Experts from the European Commission Directorate General for Education and Culture and Directorate General for Employment, Social Affairs and Inclusion have been active participants through all stages of the project.

Mobilising comparative data and international experience

Working in close partnership with the national project team, the OECD has mobilised its resources to support analysis of Spain's skills challenges and opportunities. These resources include:

- The OECD Skills Strategy framework and diagnostic toolkit to structure the analysis and workshops.
- The design and delivery of interactive workshops that maximise discussion among diverse participants, forge a shared understanding among stakeholders of the skills challenges currently facing Spain, and generate concrete written outputs.
- Relevant OECD comparative data to analyse how Spain fares in relation to other OECD member countries on a number of important skills dimensions.
- A multidisciplinary team of OECD staff drawing on expertise from across the relevant OECD directorates: education and skills; labour and social policy; local economic development; public governance; taxation; economics; science, technology and innovation.
- An external, independent perspective with which to create a "level playing field" for all actors in the skills system and foster constructive dialogue.

Drawing upon diverse sources of information when developing a skills diagnosis

This diagnostic report draws upon three main sources of information: input from workshops with stakeholders, OECD comparative data, and relevant country case studies from other OECD countries.

Spain's stakeholders

The skills challenges identified by a diverse set of stakeholders who participated in the workshops constitute the "backbone" of this report.

OECD comparative data and analysis

Second, the wealth of OECD comparative data and analysis which serves to shed light on the challenges identified by stakeholders, placing Spain's challenges in a broader international context. Each section examines one skills challenge and provides international comparative data from OECD and other sources.

Country case studies

Third, the report features a selection of concrete cases to illustrate how other OECD member countries have tackled similar challenges in their own contexts.

How stakeholders view Spain's skills challenges

The workshops held in 2014-15 were designed to encourage all stakeholders to express their diverse views and generate both quantitative and qualitative evidence on the main skills challenges facing Spain. This

information was captured through group discussion and bilateral meetings with the OECD (Figure 10). While many of these skills challenges are long standing and well known to all participants, the exercise also generated new insights into how different stakeholders perceived or formulated challenges.

Workshop participants had clear views on the many strengths of Spain's current skills system. Working in small groups, they drew up a varied list (Figure 9) that they agreed was a strong basis on which to build future success.

Several methods were used to solicit workshop participants' personal assessments of how Spain's overall skills system performs today. For example, based on a set of outcome statements that had previously been selected by the Spanish inter-ministerial project team from the OECD Skills Strategy diagnostic toolkit, each workshop participant was asked to rate Spain's performance as weak, average or strong. One such outcome statement was "Young people have developed strong literacy and numeracy skills upon completion of initial education". The results were then compiled and analysed in "real time" during the workshops and presented at the final session (see Annex for workshop reports).

Spain's skills challenges

This diagnostic report identifies 12 skills challenges for Spain. These challenges were identified through workshops with governments and stakeholders and through analysis of OECD, European Commission and national data. The challenges are described under each of the main pillars of the OECD Skills Strategy and are framed as outcome statements. The first eight challenges refer to specific outcomes across the three pillars of developing, activating and using skills. The next four challenges refer to the "enabling" conditions that strengthen the overall skills system. Success in tackling these skills challenges will boost performance across the whole skills system.

All of the challenges identified are strongly interlinked, and their connections with each other are identified throughout the report. Failure to look beyond policy silos will have implications for specific groups in Spain, such as youth, as well as for the economy and society's ability to recover after the economic crisis and build a solid foundation for future prosperity.

Pillar 1: Developing relevant skills

1. ***Improving the skills of students in compulsory education.*** Spanish youth need strong skills for success in further learning, the economy and society. While students in a number of Spanish regions are performing at the level of peers in high performing countries, students in other regions are falling behind. The performance of Spanish students overall is below the OECD average in reading, mathematics and science, and comparatively few Spanish students are performing at the highest levels of proficiency in these areas. Furthermore, Spain has comparatively high rates of early school leaving, grade repetition and late school completion. More could also be done to increase participation in VET and work-based learning. Sustained effort is needed to improve quality, equity and efficiency in compulsory education.

2. ***Ensuring that tertiary students develop high quality and job-relevant skills.*** Tertiary attainment in Spain has grown rapidly and is now at the OECD average. However, too few tertiary graduates are developing the high levels of skills needed to meet labour market demand and bolster productivity and growth. Furthermore, many students graduate from fields of study that are not well aligned with the needs of the labour market. Ensuring that Spain has the necessary skills to respond to the rising skills needs of the labour market and boost economic opportunities in the future will require concerted efforts to improve the quality and relevance of skills acquired in tertiary education in the immediate future, and continued expansion of participation to meet new demands over the long term.

3. ***Improving the skills of low-skilled adults***. Spain has many low-skilled adults who will be in the workforce for many years to come. Many of these low-skilled adults need help to adjust to ongoing changes to the structure of employment and the skills requirements of jobs. Low-skilled adults in Spain are not only less likely to participate in education and training than their more highly skilled Spanish counterparts but also their similarly skilled counterparts in other OECD countries. Opportunities to upskill and reskill will be increasingly necessary for many to maintain existing jobs or find new ones.

Pillar 2: Activating skills supply

4. ***Removing regulatory and tax barriers to hiring and worker activation.*** High rates of unemployment, low rates of employment and labour market duality have long been features of the Spanish labour market. Spain has introduced a large number of labour market reforms since 2012 to boost hiring and employment and decrease employers' reliance on temporary contracts. Nonetheless, unemployment remains stubbornly high and labour market duality remains a problem. Further reforms may be needed to ensure that labour market regulations and tax policies provide incentives and not disincentives to hire and work.

5. ***Reintegrating unemployed people through targeted activation strategies.*** Following the economic crisis, the large increase in the number of jobseekers put considerable pressure on capacity of the Public Employment Services (PES), especially given its comparatively small size. Enhancing the performance of PES is important for supporting the rapid reintegration of the unemployed and of the long term unemployed. Expenditures on active labour market programmes (ALMP) are not high compared to other OECD countries, particularly when considering the record numbers of unemployed people in Spain. Increased monitoring and better enforcement of job search compliance and the improved targeting of ALMPs at those most in need could support quicker returns to work. Support for labour mobility and improved labour market information and guidance support could also support increased employment.

6. ***Improving the transition of youth from education to stable employment.*** Youth in Spain face difficulty making smooth transitions from school to work. The share of youth neither in employment, education nor training (NEET) has risen steadily and ranks near the top of the OECD. Many unemployed youth have low qualifications and low levels of skill. These youth are at risk of becoming long-term unemployed and more difficult to integrate in the future. A number of issues need to be addressed in order to help youth find their first jobs, including improved outreach from the Public Employment Service to youth and better access to quality information and guidance systems that are tailored to the specific needs of youth.

Pillar 3: Using skills effectively

7. ***Making fuller use of skills in the workplace to strengthen productivity and competitiveness.*** Spain is currently not making full use of the skills of its workforce. The use of skills in the workplace is only about average and many workers have skills that exceed the skills requirements of their jobs. Workplaces in Spain rank poorly on a number of measures of the adoption of innovative workplaces practices that could make them more productive and competitive. This implies a waste of talent that might otherwise be used to improve firm competiveness and productivity. Making fuller use of the skills of Spain's workforce will entail greater efforts to raise awareness among firms about the importance and means of making the effective and intensive use of skills in the workplace a central component of their business strategies.

8. ***Leveraging highly skilled individuals and universities to foster innovation and increase productivity and growth.*** Spanish firms are less actively engaged in innovation activities than many of their foreign competitors. The lack of innovation in the Spanish economy is reflected in low investment in Knowledge-based Capital, including R&D, and the comparatively small share of PhD holders employed in research in the private sector. Spain is also not sufficiently leveraging its institutions of higher education

to support innovation and growth through the transfer of research and knowledge to the private sector. Firms in Spain face a variety of barriers to innovation including substantial barriers to entrepreneurship and limited access to venture capital.

Strengthening Spain's skills system:

9. ***Improving and expanding access to high quality learning and labour market information.*** While a range of information on current skill needs is already available in Spain, there are important information gaps and room for improvement in the design and dissemination of information products. In addition, Spain does not conduct national forecasts of future skill needs. This information is important not only for informing the choices of students, but also for informing the seat allocation planning of tertiary institutions and the human resource and investment decisions of firms. Taking steps to improve learning and labour market information would allow a broad range of actors to make choices that facilitate a better alignment between skills supply and demand.

10. ***Strengthening partnerships to improve skills outcomes.*** Effective partnerships are critical for developing and implementing skills policies. In Spain, governments work with the private sector on a number of issues of mutual interest. Generally, however, there are few formal partnership arrangements for facilitating dialogue and co-operation between governments and stakeholders on skills-related issues. Partnerships that facilitate dialogue and transform it into co-ordinated action will be critical for addressing Spain's skills challenges.

11. ***Financing a more effective and efficient skills system.*** As it emerges from the recent recession, Spain is burdened with high levels of public debt and high budget deficits. This poses the challenge of finding more efficient mechanisms for financing skills investments. Spending and taxation policies could be better optimised to encourage skills development, activation and use and to remove unintended disincentives for the same. Given Spain's decentralised administrative structure, financing a more efficient skills system requires an integrated strategy shared between the national and regional governments.

12. ***Strengthening governance of the skills system.*** Effective governance structures are needed to ensure that skills policies are implemented coherently across the many ministries and levels of government that have an interest in or impact on the development, activation and use of skills. Spain has a number of mechanisms in place to facilitate dialogue, information sharing and the co-ordination of efforts; however, governance structures can be improved. Recognising and financially supporting collaboration initiatives can help ensure that meaningful collaboration occurs across different ministries and levels of government.

Figure 9. Stakeholder views on the strengths of Spain's skills system

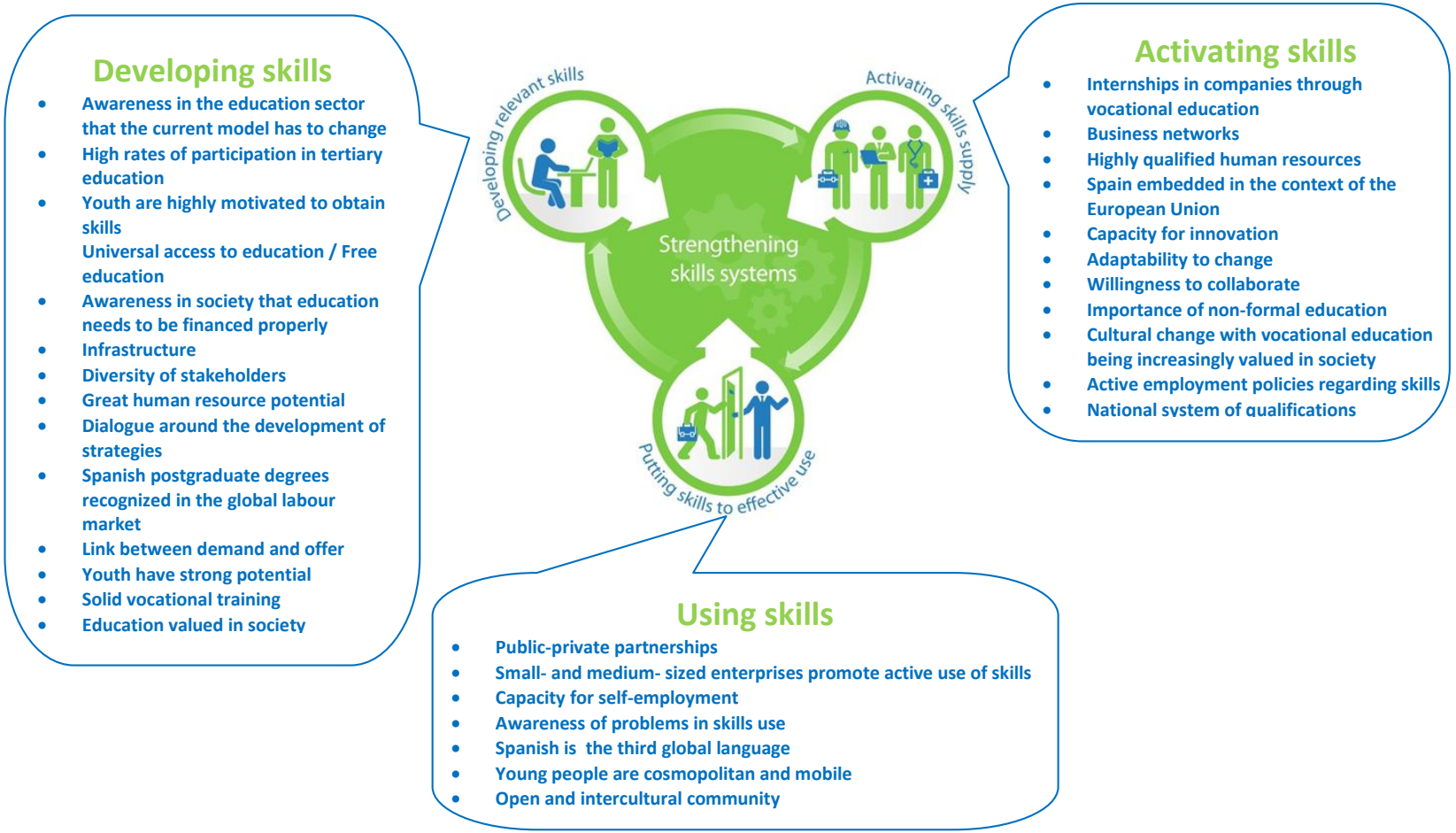
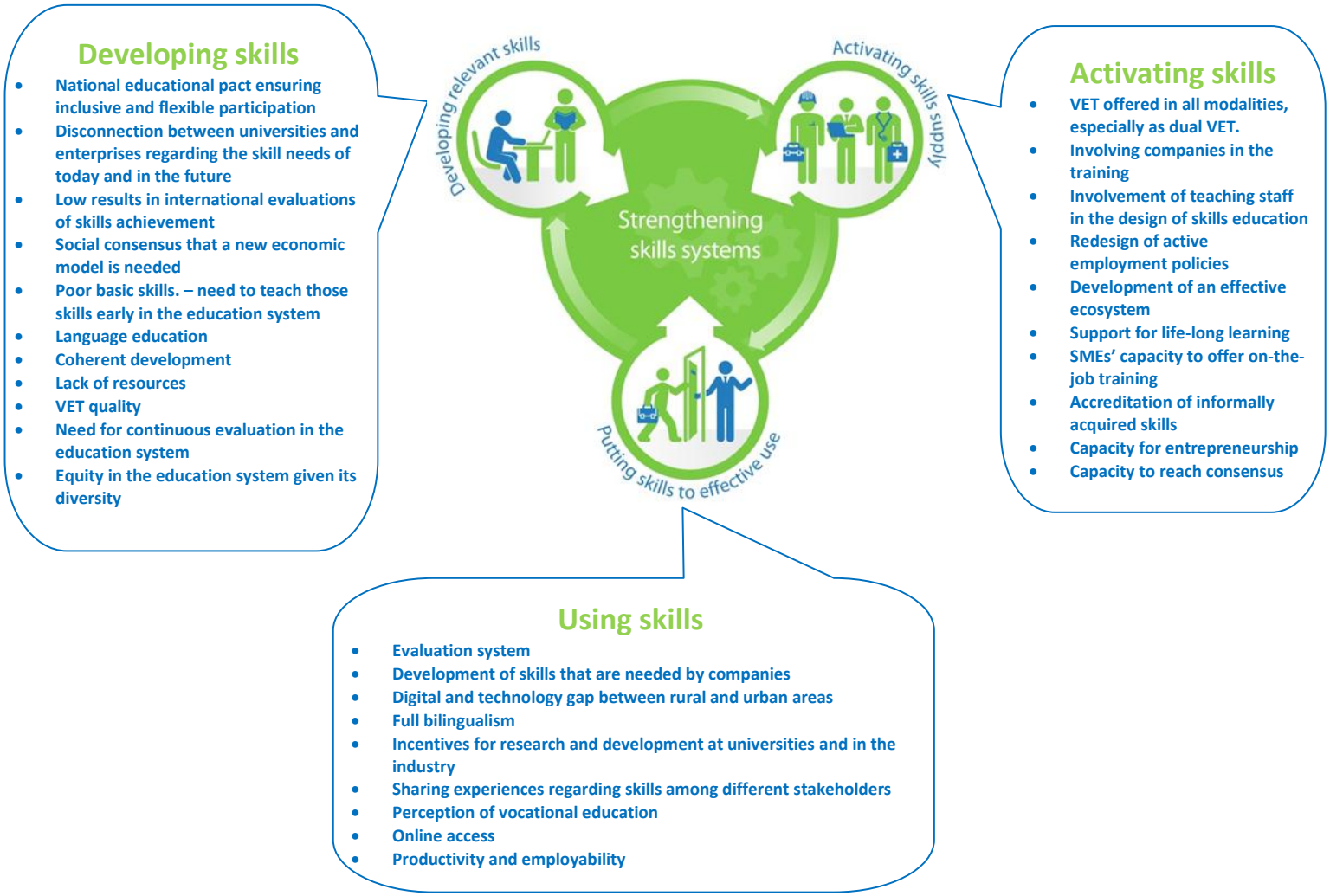


Figure 10. Stakeholder views on the challenges facing Spain's skills system



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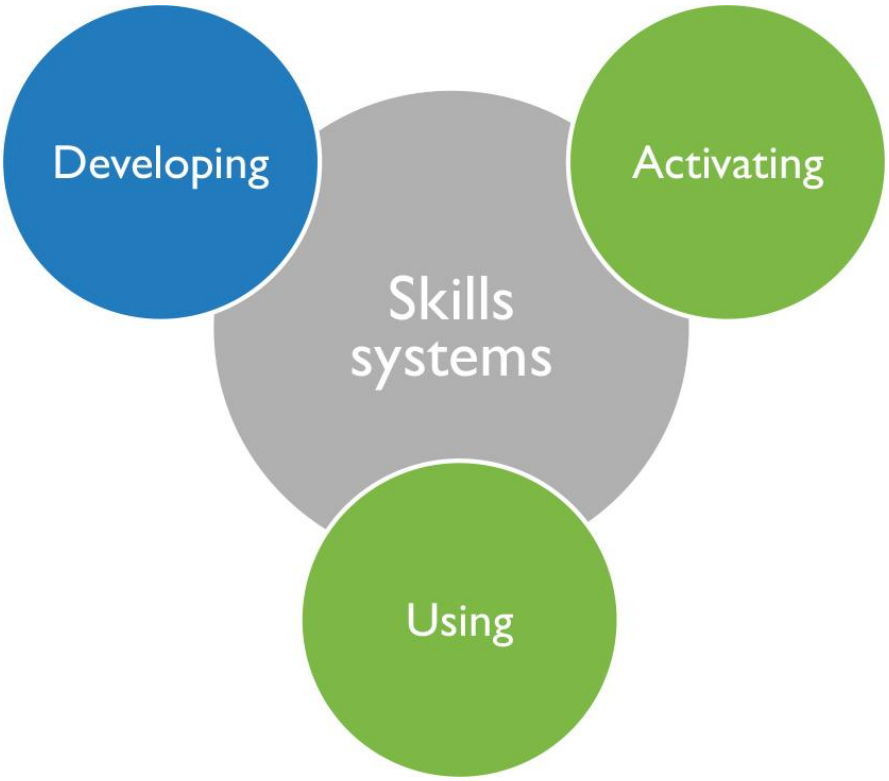
DEVELOPING SKILLS



INTRODUCTION TO DEVELOPING SKILLS

Skills are critical to people's success in the economy and society. When people have strong skills they are better equipped to succeed in higher education, continue learning in adulthood, adapt to the evolving skill needs of workplaces, and participate more fully in society. For countries, skills are a key driver of innovation, productivity and, ultimately, economic growth and higher living standards.

Over the last several decades, Spain has made significant progress in increasing participation in early childhood education and increasing upper-secondary attainment. Yet early school leaving, grade repetition and late school completion continue to be a challenge, increasing the cost of the education system and delaying young people's entry into the labour market. In addition, students in Spain are less likely than their peers in other European countries to participate in vocational education and training, and even when they do so they are less likely to participate in work-based learning, which has been found to support effective transitions from education to employment. Furthermore, although students in a number of Spanish regions have reading, mathematics, and science skills that rival some of the highest performing OECD countries, the performance of Spanish students overall is below the OECD average. Comparatively few Spanish students perform at the highest levels of proficiency in these same skill areas.

Similarly, despite significant increases in tertiary attainment rates, many tertiary graduates have not acquired strong foundation skills, as measured by the Survey of Adult Skills (PIAAC). Only a few are high performers. However, there is significant variation across regions, with some regions performing significantly above the average for OECD countries and others performing below that average. Many students graduate with skills that are not well aligned with the needs of the labour market and face difficulties in the transition to employment.

A number of factors have an impact on the quality and relevance of skills developed in Spain. Although spending on primary and secondary education in Spain is close to the OECD average, per-student spending has fallen since the recession. But when it comes to quality in education, how money is spent is as important as how much is spent. In comparison with other OECD countries, Spanish teachers benefit from fewer support programmes such as induction programmes, teacher feedback, appraisal mechanisms and professional development, all of which has an important influence on student performance. At the tertiary level a range of factors could be having a negative impact on the quality and relevance of skills acquired, including a lack of specialisation in institutions, funding mechanisms that do not take sufficiently into consideration labour market needs, a lack of external evaluations for quality control, and absence of accessible and tailored information on labour market outcomes by level and field of study.

A large share of Spanish adults has low levels of skills and many of them will be in the labour market for decades to come. These adults are vulnerable to low-wage, low-quality employment and to structural unemployment. Ensuring that these low-skilled adults can make contributions to the economy and society in the future will mean removing barriers to adult education and training. It will also mean targeting those most likely to benefit from education and training and encouraging and incentivising their participation.

CHALLENGE 1: IMPROVING THE SKILLS OF STUDENTS IN COMPULSORY EDUCATION

A selection of challenges identified by Spanish workshop participants:

"Rigidity in the curriculum design, which makes it difficult for the education system to adjust to the real demands of the labour market. Better co-ordination is needed"

"The teaching profession needs to be improved: selection, training, teaching methods and evaluation"

"Special attention should be given to address the socio-economic diversity within and across regions in Spain"

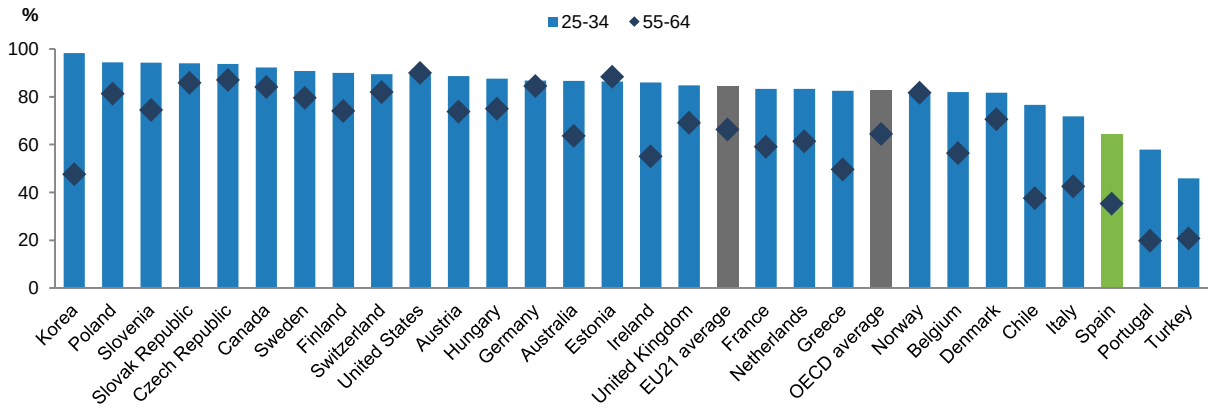
"Teachers need to receive professional development in order to continue to improve their teaching practice"

School completion and strong foundation skills are critical to youth for succeeding in further education and learning in adulthood. Sustained efforts to improve efficiency, quality and equity in compulsory education are needed to ensure that all Spanish youth have the skills needed for success in further learning, the economy and society. If these skills are not acquired during compulsory education, they are much harder and more expensive to develop later in life. Those who drop out of school are more likely to have low foundation skills and are at greater risk to be unemployed, as has been demonstrated clearly in the wake of the recent economic recession.

More youth are completing secondary education, but rates of early school leaving, grade repetition, and late school completion are high and costly

Due to rapid expansion in education over the last several decades, 64% of Spanish 25-34 year-olds have attained at least an upper secondary education. This is a remarkable increase when compared with the relatively small share (35%) of 55-64 year-olds with the same level of attainment (Figure 11). However, Spain still has the fourth highest proportion of 25-34 year-olds with less than upper secondary education at 36% (OECD, 2014c). These individuals are most at risk of remaining low skilled throughout their lives and to become unemployed, especially in times of economic crisis.

Figure 11. Upper secondary education attainment rate, 2011



Note: Only first-time graduates in upper secondary programmes are reported in this chart. Programmes spanning ISCED levels 3 and 4 (Höhere berufsbildende Schule) not included.

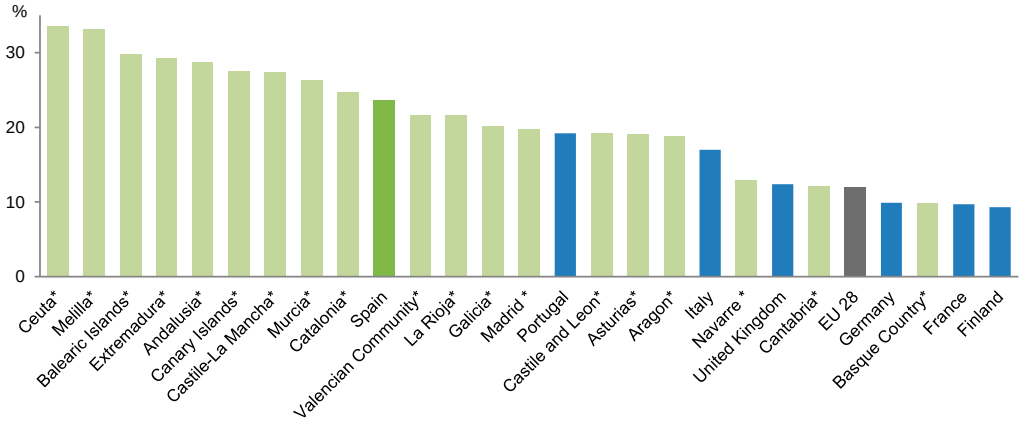
Source: OECD (2014c), *Education at a Glance 2014: OECD Indicators*, Tables A2.1a and A2.1b, http://dx.doi.org/10.1787/eag-2014-en.

Rates of early school leaving are high in Spain, but vary greatly across regions. The early school leaving rate in Spain (24%) is the highest in the EU 28 (Figure 12). However, school leaving rates vary considerable across the country. This has been one of the most inequitable aspects of the education system. The autonomous community of País Vasco has a school leaving rate of 9.9%, which is lower than the European Union average (12%), identical to that of Germany, and not much higher than that of a high performing country like Finland (9.3%). On the other hand, in regions such as Murcía, Castilla-La Mancha, Canary Island, and Andalusia among others, the early school leaving rate can reach 25% or more.

Grade repetition in Spain has increased 4 percentage points between 2003 and 2012, reaching 32.9% in 2012. This is far higher than the OECD average (12.4%) (Figure 13). The OECD finds that grade repetition is ineffective in improving outcomes, can contribute to dropout and can be costly (OECD, 2012a). Grade repetition was estimated by PISA to cost about 20 000 Euros per student in Spain in 2012. This represents almost 8% of the total expenditure on primary and secondary education – one of the highest shares among OECD countries (OECD, 2014d). These are funds that might otherwise be used to provide support to those students who need it most, improving the quality of teaching, infrastructure and resources and, ultimately, students' skills.

Many Spanish students complete late. 23% of students complete school as much as two years later than the rest of their Spanish peers. If one disregards when students complete, the completion rate in Spain (83%) is close to the OECD average (87%) (OECD, 2014c). Put another way, Spanish youth are as likely to complete as their international counterparts, but they tend to take longer to do so. The extra time required to complete initial education is associated to the two aforementioned related issues: 1) a high incidence of grade repetition, and 2) a high incidence of early school leaving (with many returning later to complete).

Figure 12. Early school leaving rates across autonomous communities* and selected OECD countries, 2013

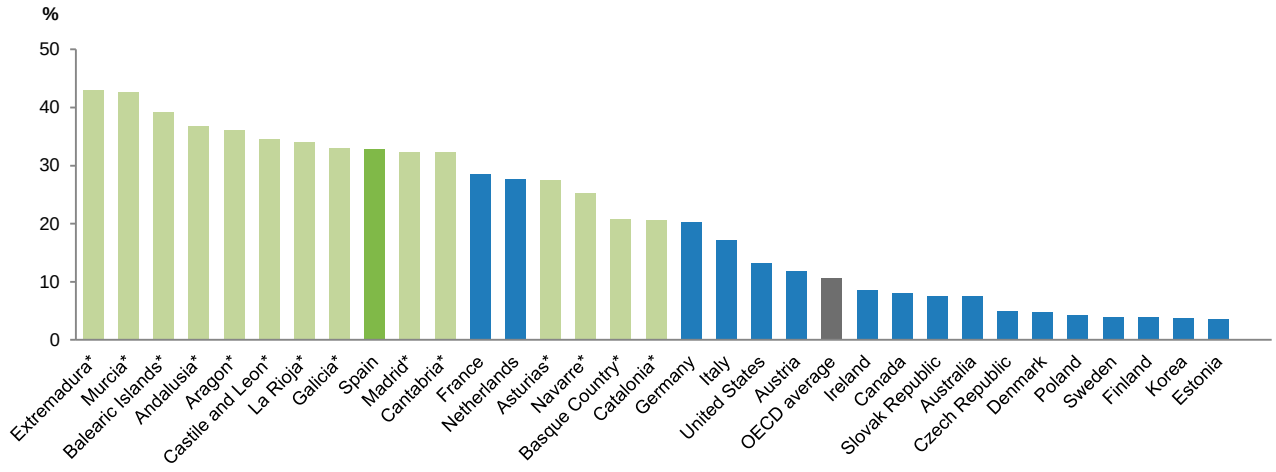


Notes:

1. Definition of early school leaving in education and training. Percentage of the student population 18 to 24 years that has not completed upper secondary education and takes not part in any type of education and training.
2. Calculated with the methodology established through Eurostat based on the annual mean of trimestral data.
3. The data need to be interpreted with caution, because the derivatives of small sample sizes are affected by sample errors.
4. Besides regions in Spain only selected countries shown. Spanish regions are shown with asterisk sign.

Source: European Commission (2013), "Young people's social origin, educational attainment level and labour outcomes in Europe", Eurostat database, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfso_00t3&lang=en, and INE (2013), Encuesta de la Población Activa 2013, www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195128&idp=1254735976595.

Figure 13. Grade repetition rates across autonomous communities* and selected OECD countries, 2012



Note: Besides regions in Spain, only countries that participated in PISA and PIAAC are shown.

Source: OECD (2012c), "Database – PISA 2012: The PISA International Database", http://pisa2012.acer.edu.au, Table IV.2.18 and OECD (2013b), *PISA 2012 Results: What Makes Schools Successful? Resources, Policies and Practices (Volume IV)*, PISA, Figure IV.2.10, http://dx.doi.org/10.1787/9789264201156-en and INE (2013), Encuesta de la Población Activa 2013, www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195128&idp=1254735976595.

In Spain about 30% of students in lower secondary education do not graduate with the certificate needed to access upper secondary education (OECD, 2014d). To promote student success and prevent dropout, measures are needed to assess students' learning gaps, build teachers' capacity to diagnose and address these gaps, and provide the supports teachers need to achieve these outcomes. With the new education law (LOMCE, Organic Law 8/2013) changes were introduced in the education system in order to reduce the early school-leaving rate (Box 1). In order for Spain to reach the European Union 2020 strategy goal of reducing the dropout rates to 15% by 2020, considerable attention and resources should be given to those regions that are struggling the most with this issue and to those students who are most at risk of drop-out, such as immigrant students, for whom the drop-out rate is as high as 43.6% (ReferNet-España 2013).

Box 1. Reform of the Education System (LOMCE)

A new reform in process of implementation, the Organic Law for the Improvement of Educational Quality (Ley Orgánica para la Mejora de la Calidad Educativa, LOMCE, 2013), proposes to introduce greater flexibility in student pathways at age 15 instead of 16, ease the transition into upper secondary vocational education programmes, provide more autonomy to schools and school leaders, and strengthen external student assessments. To be implemented starting in September 2014, the reform is wide-ranging:

- It aims to define core common basic education throughout the country while taking into account the special requirement of regional governments. Together with evaluations for the entire national territory, the aim is to tackle the large differences among regions.
- It changes the design of the curriculum, so that specifies not only on the subject matter but also the competencies that must be acquired. Every content component is linked to an assessment criteria and a learning standard. While there is a common curricula for general subjects, regions and schools have more autonomy in designing the curriculum for specific subjects
- It introduces a new Diploma on Basic VET which lasts two years for students between 15 and 17, ends with a professional certificate and gives access to Intermediate Level VET (Formación Profesional de grado medio). Students can also take the final examinations to obtain one of the two diplomas in Compulsory Secondary Education (Educación Secundaria Obligatoria, ESO).
- It reforms Intermediate Level VET by introducing new optional subjects (communication, mathematics and foreign language) to promote lifelong learning and facilitate transition to higher VET. Furthermore, the curriculum includes entrepreneurship-related content and students are required to spend a minimum of 33% (previously 20%) of their time in work-based learning.
- It establishes greater autonomy for schools in schedule, content and pedagogical approaches and will allow further autonomy in co-operation with the regional administrations.
- It modifies the selection process for school leaders to require candidates to have taken a specialised training course, to value previous experience and to consider candidates from any school (in the past, priority was given to internal school candidates).
- It introduces external assessments at the end of each stage of education. The tests will be for diagnostic purposes only in primary education, and high stakes in lower and upper secondary education.

Under this reform, students in the last year of lower secondary education can choose either general academic courses or more vocationally oriented courses that combine academics with specific training in one or more professional profiles. At the end of the year, students can take either the academic or the vocational examination, leading to a diploma that will give them access to their chosen pathway, either Baccalaureate or vocational education and training (VET). The government has allocated EUR 964 149 503 to finance the implementation of LOMCE between 2014 and 2017, with financial assistance from the European Social Fund.

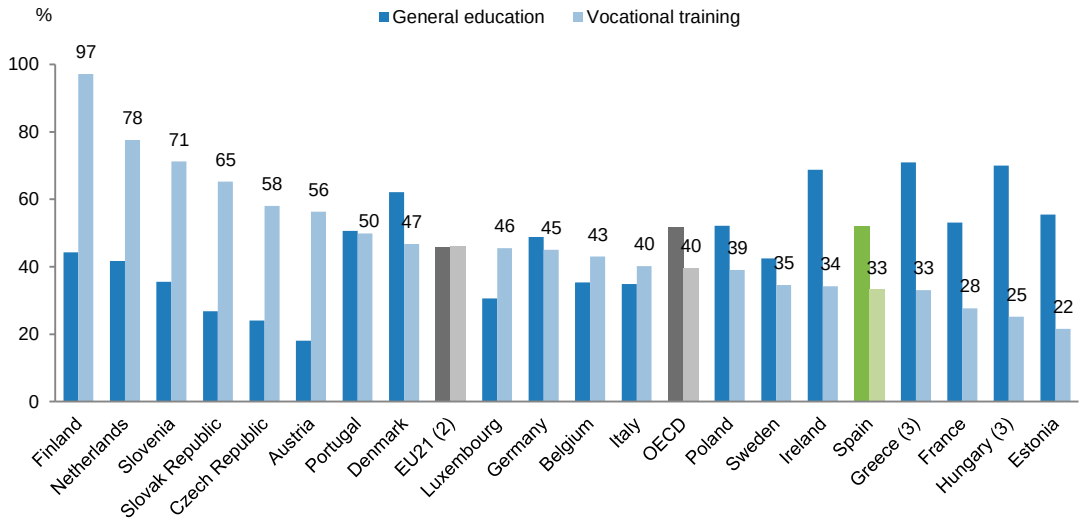
Source: OECD (2015b), "Spain", in OECD, *Education Policy Outlook 2015: Making Reforms Happen*, Paris, http://dx.doi.org/10.1787/9789264225442-31-en.

Spanish students are less likely to participate in VET and work-based learning

As in other OECD countries, in Spain there is considerable interest in vocational education and training (VET) programmes. Through its practical orientation and strong connection to the world of work, these programmes are seen as an effective means for encouraging completion of upper secondary education among those at greatest risk of dropping out and for providing them with practical skills needed in the labour market.

However, the share of upper secondary students graduating from vocational programmes is relatively low in Spain. Whereas 33% of upper secondary students in Spain graduate from vocational programmes, in Germany, a country well-known for its strong VET system, 45% do so (Figure 14). There is also a considerable number of students that study in short duration VET programmes, but since those are less intense (1 300 hours instead of 2 000 hours) and do not lead to a diploma they are currently being phased out and are not included in the graduation rates shown here.

Figure 14. Upper secondary education: Comparison of graduation rates in vocational and general education, selected countries, 2012[1]



Notes:

1. Graduates in ISCED 3A, 3B and long 3C programmes are considered. The population attaining certificates in both vocational training and the general education system (baccalaureate) is included in both categories.
2. Average of the EU countries in the OECD
3. This country includes graduates in ISCED 3C-short programmes.

Source: OECD (2014c), *Education at a Glance 2014: OECD Indicators*, http://dx.doi.org/10.1787/eag-2014-en; prepared by authors, and Ministerio de Educación, Cultura y Deporte (2014a), "Facts and figures: 2014/2015 school year", www.mecd.gob.es/servicios-al-ciudadano-mecd/dms/mecd/servicios-al-ciudadano-mecd/estadisticas/educacion/indicadores-publicaciones-sintesis/datos-cifras/Definitivo2014-2015_Ingles.pdf.

Spain has introduced a number of reforms to VET at the secondary school level (Box 2). The earliest age when VET is offered has been reduced from 16 to 15 years of age. This introduces a basic initial two-year cycle of (Basic VET) in the third and fourth year of lower secondary education. This is meant to give students vocational study options earlier in order to prevent early dropout from school. Learners opting to continue with school-based VET attend a two-year programme, which leads to an intermediate-level VET diploma. This diploma gives access to tertiary level VET. In practice though, few students completing

intermediate VET have entered tertiary level VET as many have not completed certain academic subjects or have not attained strong enough marks in those subjects in order to pass the admission requirements. Consequently, most tertiary VET students come from the academic track. The Ministry of Education, Culture and Sport has already identified this as an issue in recent reforms and is undertaking efforts to ensure that intermediate VET is a stepping stone to tertiary VET and not simply a dead end, while also building pathways between VET and the academic stream.

Box 2. Dual VET in Spain

The Dual VET system was established in November 2012 through the Royal Decree 1529/2012. The dual system is intended to improve collaboration between companies and VET providers to promote greater involvement of companies in the training of VET students. Dual VET training refers to all types of VET which combine work and learning.

Dual training includes both the training activity specific to an apprenticeship contract and training activities as part of participation in formal education (VET schools). In a dual programme that leads to a qualification, workplace learning must constitute at least a third of the total number of programme hours. Basic requirements for the dual system are regulated by the Ministry of Education, Culture and Sport, with implementation by regional governments. Within two years, the number of students participating in Dual VET has quadrupled, and the number of companies has increased tenfold.

Source : OECD (2015a), "OECD Education Policy Outlook Reforms Finder", www.oecd.org/fr/edu/reformsfinder.htm; CEDEFOP (2013), "Spain: laying the foundations for a dual system in vocational training", 28/08/2013, www.cedefop.europa.eu/en/news-and-press/news/spain-laying-foundations-dual-system-vocational-training.

A major barrier to expanding VET in Spain is securing commitment from social partners to provide students with practical training opportunities. The recent VET reform has increased the minimum period of time spent in practical training at the upper secondary level (intermediate VET) from 20% to 33%. However, a major challenge to implementing this reform is the large share (89%) of micro companies (nine or fewer employees) in Spain (Challenge 8). Often, micro enterprises do not have the capacity to train students and help with the development of their practical skills. This means that it might be hard for companies in Spain to absorb larger numbers of VET students, and VET schools might face difficulties in procuring adequate placements for their students. For the same reason, the newly introduced Dual VET system – which will provide students with a year of school-based training and then a year of practical training in a company – might also prove difficult to implement. Greater co-operation and collaboration will be needed from all VET stakeholders, including those that participate in the national system of professional qualifications. This co-operation could be enhanced, for example, by forming clusters of SMEs in a given industry that have a shared need for workers with certain VET qualifications, and creating networks of SMEs which can share resources, experiences and capacities. Some countries promote greater SME involvement in VET education by creating agents that take over some of the administrative burden of training VET students (Box 3). There are examples in Spain, too, of SMEs working collaboratively to ensure that that VET students get the training they need (Box 4).

Box 3. External bodies supporting SMEs' involvement in VET

Australia: Group training organisations (GTOs) are not-for-profit organisations supported through public funding and payments from host employers. GTOs take care of the initial selection process of suitable apprentices and then hire apprentices out to host employers. Throughout the training process GTOs arrange the initial placement, rotate placements to another business for broader training experiences if necessary, monitor the training to ensure quality and take care of the administrative work.

Source: National Centre for Vocational Education Research, www.ncver.edu.au

Norway: Training offices (*opplæringskontor*) are owned by companies and usually concern specific trades. They work actively to identify potential training companies and establish new apprenticeship places, supervise companies with apprentices, and train staff involved in the tutoring of apprentices. Many training offices organise theoretical part of the apprentices' training. They often sign the apprenticeship contracts on behalf of smaller training enterprises, thereby becoming accountable for completion of the training and its results.

Source: Norwegian Directorate for Education and Training (2008), "Responses to the National Questionnaire", unpublished.

Switzerland: The Swiss government established through the 2004 Act on VET the vocational training associations (*Lehrbetriebsverbünde*). These are associations of two or more training firms that share apprentices whose training is organised across several firms on a rotating basis. The aim is to allow firms that lack the capacity and resources to provide full training of an apprentice to be engaged and to lower the financial and administrative burden on individual firms. One of the firms in the association has overall responsibility for the training of the apprentice, signs the apprenticeship contract and represents the association externally. The Confederation subsidises the *Lehrbetriebsverbünde* with initial funding (*Anschubfinanzierung*) during the first three years for marketing, administrative and other costs necessary to set up the joint training programme. After this initial support, the training associations are supposed to be financially independent. The associations are organised under an umbrella association (*Vereinigung Lehrbetriebsverbünde Schweiz*: www.verbuende.ch). An evaluation (*Resultate Evaluation Lehrbetriebsverbünde*, OPET, Bern) found that a majority of the firms participating in training associations would not have engaged in training otherwise.

Source: OECD (2009), *Learning for Jobs, OECD Reviews of Vocational Education and Training: Korea*, www.oecd.org/korea/42689417.pdf.

Box 4. Spotlight on Spain: Collaboration to support Dual VET training in the automotive sector

Some countries promote greater SME involvement in VET education by creating agents that assume some of the administrative burden related to organising training for VET students. In Spain, the Regional Automotive Initiative Group, or *Grupo de Iniciativas Regionales de Automoción* (GIRA), supports collaboration among SMEs to jointly offer training programmes to Dual VET students. GIRA is the cluster of producers of automobile components in the region of Cantabria, in Northern Spain. It was created with the objective of fostering co-operation among producers of car components to improve their international competitiveness.

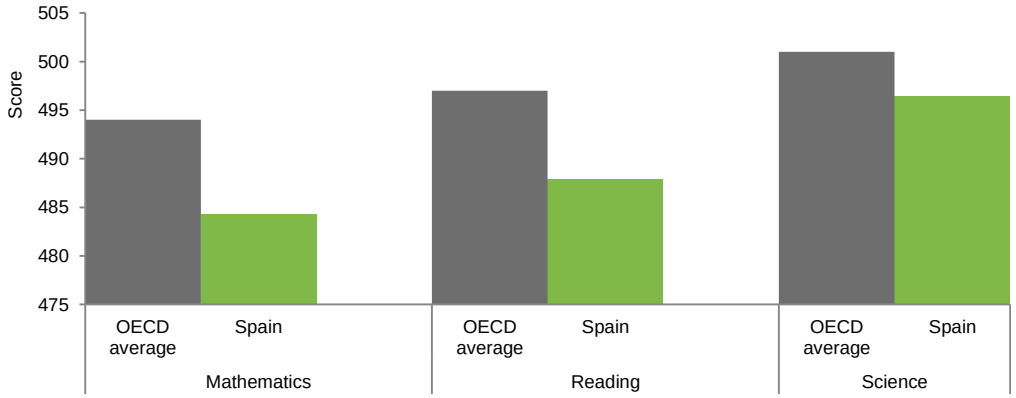
Since 2012, it supports Dual VET programmes in the regions, offering internships and also providing specific training courses at their own facilities. The courses offered include: electronics, computer science and communications, administration and management, mechanical manufacturing, vehicle maintenance, and trade and marketing. To date, 51 students have been trained by GIRA as part of this programme.

Source: GIRA (2015), Grupo de Iniciativas Regionales de Automoción website, www.giracantabria.com; Department of Education, Culture and Sports of Cantabria (2015) Gobierno de Cantabria, Consejería de Educación, Cultura y Deporte website, www.educantabria.es.

Many students fail to develop strong foundation skills and few perform at the highest levels of proficiency, yet students in some regions perform well

Spain ranks below the average in foundation skills development (Figure 15). Comparisons can be made to other OECD countries who, like Spain, participated in both PISA and the Survey of Adult Skills (PIAAC)[1]. In all three PISA assessment areas (reading, mathematics and science), Spanish students rank behind their peers in most other OECD countries, and there has been no improvement in performance since 2003. In mathematics Spain ranks ahead of only three other countries out of the 24 countries that took part in both PISA and PIAAC, and there has been no improvement in performance over time. The performance of students near the end of secondary school (when PISA is administrated) may be related to their performance in primary school and, possibly, in early childhood and education institutes. While Spain has one of the highest participation rates in Early Childhood Education and Care (ECEC), which has been shown to improve the cognitive development of children, especially those from disadvantaged socio-economic backgrounds (Burger, 2010), ensuring quality among ECEC providers has been a challenge. Over half of the ECEC providers are private (supported by government subsidies) and Autonomous Communities stipulate only the basic objectives and requirements of the curricula (European Parliament, 2013). This has resulted in a great diversity of ECEC curricula in Spain, which makes comparability, evaluation and quality assurance difficult. Spain may wish to investigate the features of secondary school systems in countries like Norway and Poland where, despite relatively poor performance at the end of primary school, significant improvements occur by the end of secondary school demonstrating that large initial gaps in achievement can be overcome (Choi and Jerrim, 2015). Consideration should be given to providing teachers and school leaders with additional support to identify low achievers before they fall too far behind and to providing these students with special programmes designed to help them catch up.

Figure 15. Mean performance, PISA, 2012



Source: OECD (2013a), *Education at a Glance 2013: OECD Indicators*, http://dx.doi.org/10.1787/eag-2013-en.

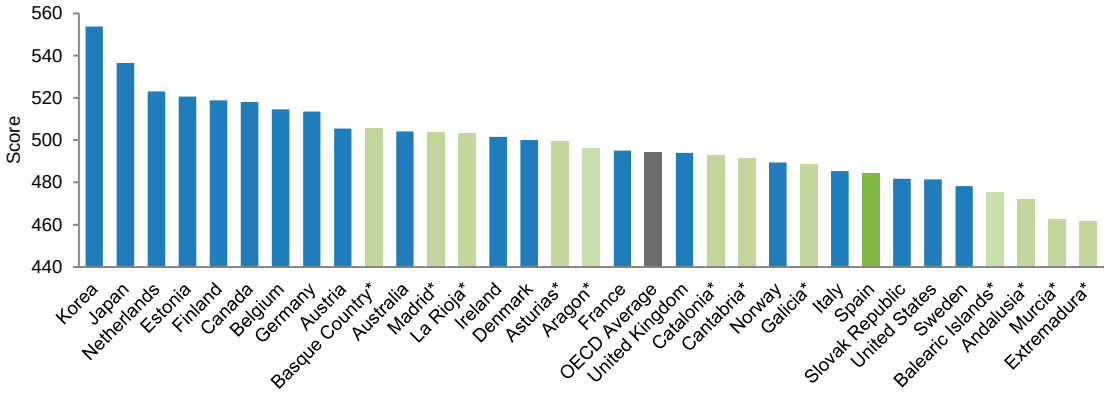
Student performance varies considerably across regions and socioeconomic groups

Learning outcomes vary across regions, with some regions performing above average and others performing far below average (Figure 16). Around 55 score points – the equivalent of a year-and-a-half of formal schooling – separate the highest- and lowest-performing regions in Spain. More than 85% of the performance differences in mathematics across regions are accounted for by socio-economic disparities. This is much higher than in other OECD countries such as Italy where 47% of performance differences across

1. To facilitate understanding of Spain's relative performance in skills development across all ages, in this report PISA scores are compared only for countries that participated in the Survey of Adult Skills (PIAAC), which has fewer participating countries. This allows Spain to be compared with the same countries across all age groups.

regions are accounted for by socio-economic disparities. Performance differences across schools in Spain are much smaller than the OECD average, but differences within schools and across regions were larger than the OECD average (OECD, 2013c).

Figure 16. Mathematics performance at age 15 for Spanish autonomous communities* and selected OECD countries, PISA 2012



Note: For the sake of comparability, only countries participating in PIAAC are included here, the average is the average for countries participating in PIAAC.

Source: OECD (2012c), "Database – PISA 2012: The PISA International Database", http://pisa2012.acer.edu.au.

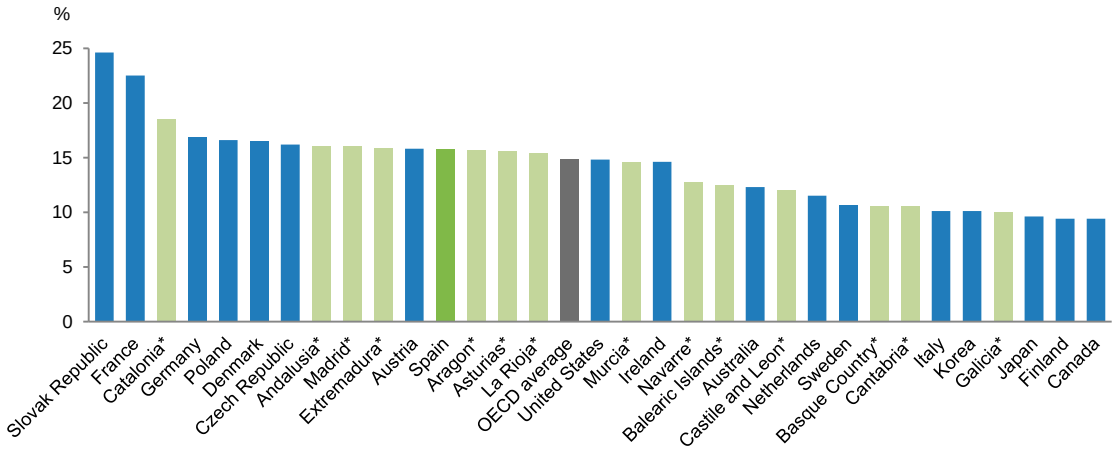
Spain has few top performers in any of the measured assessment areas. In mathematics 8% performed at level 5 and 6 (the highest levels), which is considerably below the OECD average (12.6%). 24% of students is low performers, which is close to the OECD average (18.8%), and there has been no improvement since 2003 (OECD, 2013b).

Students from immigrant and low socio-economic status families are underperforming

Immigrant youth in Spain often fall behind their native-born classmates. The difference in mathematics performance between immigrant and native-born students was 52 points in favour of native-born students, which is the equivalent of nearly a year-and-a-half of formal schooling. This is considerably higher than the OECD average of 34 points. This is a concern given that the proportion of students with an immigrant background increased from 3% in 2003 to 10% in 2012. After accounting for socio-economic status, the difference dropped to 36 points, but remained significantly greater than the OECD average of 21 points (OECD, 2013d).

Socioeconomic status exerts a relatively strong influence on skills outcomes among Spanish students. The variation in performance explained by students' socio-economic background was 15.8% in 2012. This is roughly similar to the OECD average (14.8%), but it is greater than in countries such as Japan (9.6%), Canada (9.4%), and Finland (9.4%) (OECD, 2013c; Figure 17). Equity in education outcomes has deteriorated over time. In 2012, socio-economically advantaged students outperformed less-advantaged students by 34 score points in mathematics – six points higher than in 2003.

Figure 17. Percentage of variance in mathematics performance explained by socio-economic background, for Spanish autonomous communities* and selected OECD countries, PISA 2012



Source: OECD (2013c). *PISA 2012 Results: Excellence Through Equity: Giving Every Student the Chance to Succeed (Volume II)*, PISA, Table B2.II.1, http://dx.doi.org/10.1787/9789264201132-en.

The influence that socioeconomic status exerts on outcomes varies greatly across regions in Spain. In Galicia (10%) and the Basque Country (10.5%) socioeconomic status explains as little of the difference in outcomes as it does some of the countries with the most equitable outcomes in PISA. On the other hand, in Catalonia (18.5%) and Madrid (16%) socioeconomic status explains more of the difference than the average for OECD countries (14.8%).

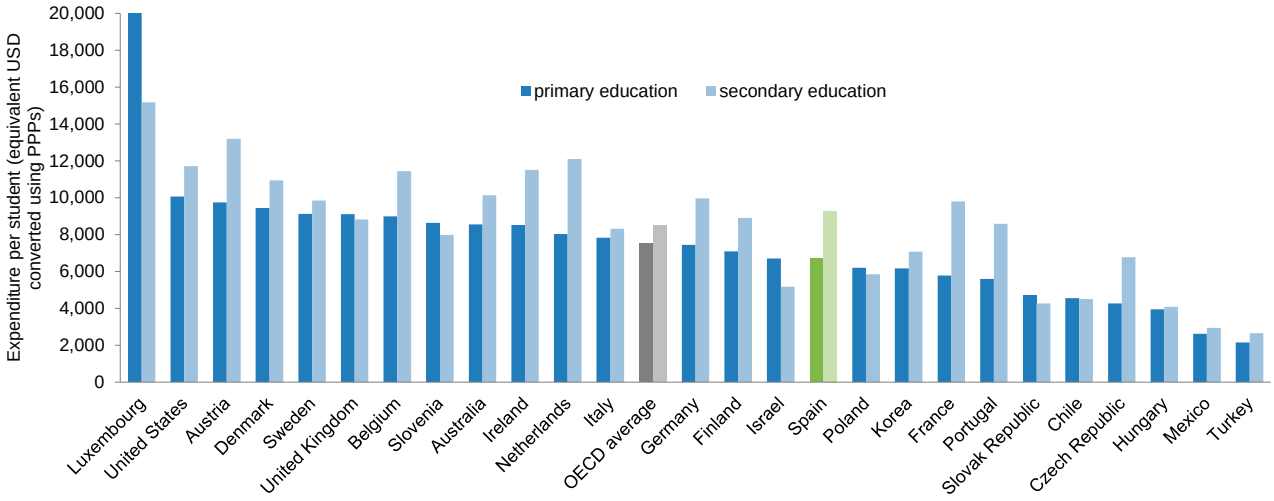
Spending on secondary education is close to the OECD average, but per-student spending has fallen since the recession

Per student spending in Spain on compulsory education is similar to the OECD average overall. Spain spent annually slightly less per student on primary education (USD 6 699 versus USD 7 521) and slightly more on secondary education (USD 9 266 versus USD 8 499) (Figure 18). These figures are from 2011, the most recent year for which internationally comparable data is available. Between 2008 and 2011 Spain increased its total spending in education by 4%. However, due the rise in the number of students, the amount spent per student decreased (OECD, 2014c). Policy makers face the challenge of balancing the expansion of access to education with the improvement of quality of educational services. In many OECD countries, including Spain, expenditure has not kept up with expanding enrolments, especially since the onset of the financial crisis. However, the Government of Spain has allocated EUR 964 149 503, with financial assistance from the European Social Fund, to finance the implementation of LOMCE (Box 1) between 2014 and 2017.

The mix of secondary school programmes influences the level of expenditure per student in most countries. Usually per student spending is higher in vocational programmes than in general programmes. Therefore recent reforms designed to increase participation in VET might increase the cost per student. To safeguard quality, the Government may need to increase spending and/or achieve greater efficiencies in the education system.

Figure 18. Annual expenditure per student in primary and secondary education, 2011

In equivalent USD converted using PPPs, based on full-time equivalents



Note: Public institutions only (for Italy, except in tertiary education).

Source: OECD (2014c), *Education at a Glance 2014: OECD Indicators*, Table B1.1b, http://dx.doi.org/10.1787/eag-2014-en.

How money is spent is as important as how much money is spent. Allocating more and better resources to education will only go so far. What is taught in the classroom – and how it is taught – ultimately determines whether those resources serve the school system's primary objective: providing high-quality, equitable education to all. School environments that enable breadth and depth of instructional content and effective delivery are critical for student's learning outcomes.

Teachers play an important role for improving the school system

The quality of classroom teaching reflects not only the initial education of teachers, but also what support teachers receive on the job. Support for teachers can come in the form of induction programmes, feedback, appraisal systems and professional development. Effective induction programmes provide new teachers with holistic support through structured activities, such as an introduction to the school, peer work with other teachers and mentoring by more experienced teachers. Such support is found to have a positive influence on new teachers' commitment, retention and student achievement (Cohen and Fuller, 2006; Fletcher, Strong and Villar, 2008). Teacher feedback is an important mechanism by which teachers receive valuable feedback from other teachers or principals, which can improve their teaching practices and help to identify professional development needs. Formal teacher appraisals occur when a teacher is evaluated by a principal, an external inspector or another teacher. Teacher feedback and formal teacher appraisals create opportunities to improve teaching practices, which can have a significant impact on student learning and outcomes (Fuchs and Fuchs, 1986; Hattie, 2009). Informal feedback and learning from other teachers have also been found to have a positive impact on teachers' level of job satisfaction and feelings of self-efficacy. Professional development activities provide opportunities for teachers to update and learn new skills and to learn new teaching tools and techniques. This is particularly important given that the characteristics and needs of students change over time (OECD, 2013c).

Spanish teachers are less likely to benefit from on the job support programmes. According to the 2013 OECD Teaching and Learning International Survey (TALIS), few Spanish teachers participate in an induction programme at the school where they start working. Three-quarters of teachers in Spain work in

schools where the principal reports that there is no induction programme, while 59% of teachers do not have access a mentoring system (TALIS averages are 34% and 26% respectively). Once Spanish teachers start working they rarely receive feedback and appraisals. Almost a one-third of teachers (32%) report never having received any feedback in their current school, and 36% work in schools where teachers are generally never formally appraised (the average of those jurisdictions participating in TALIS are 12% and 7% respectively). Spanish teachers are also less likely to participate in professional development activities such as workshops (67% vs 71%), education conferences or seminars (24% vs 44%) and observation visits to other schools (9% vs 19%) (OECD, 2013c).

The support that is available to teachers is often not very effective. Even when teachers receive feedback, comparatively few Spanish teachers report that the feedback they received led to positive changes in their teaching practices (45%), their methods for teaching special-needs students (40%) or their use of student assessment to improve student learning (53%). The TALIS averages are 62%, 45% and 59% respectively. Teachers in Spain are also less likely to view the professional development training they receive as relevant. Approximately two teachers out of three agree or strongly agree that there is no relevant professional development activity offered, which is high compared to the TALIS average (39%) (OECD, 2013c).

Teachers lack support to participate in development activities. Only around 33% of Spanish students (compared to 52% of students across OECD countries) attend schools where principals reported that appraisals of and/or feedback to teachers lead directly to a (small, moderate or large) change in the likelihood of career advancement. Four out of five teachers in Spain agree or strongly agree with the statement that there are no incentives for their participation in professional development activities (the TALIS average is 48%). Even when professional development opportunities are available, Spanish teachers receive little support for their participation. For example, only a small share of teachers receive scheduled time for activities that take place during regular working hours at the school (23%), a salary supplement for activities outside working hours (2%) or non-monetary support (such as reduced teaching, days off or study leave) for activities outside working hours (6%) to participate in professional development (TALIS averages are 54%, 8% and 14%, respectively) (OECD, 2013e).

Improving the teacher selection process and how funding is allocated are critical factors in increasing the quality of education. In Spain the selection of teachers for a permanent teaching position is made almost exclusively on the basis of seniority – as measured by the number of years a teacher has previously taught while employed on a temporary contract. While teaching experience can improve the quality of teaching, it is not alone sufficient. Evidence suggests sound subject knowledge as well as strong pedagogical skills are also important when selecting teachers. Much of recent funding for education in Spain has been allocated to hiring a larger number of teachers to decrease class size and to providing the teachers with higher salaries. However, class size has not been shown to be a significant contributor to better learning outcomes (OECD, 2012b; Ehrenberg et al., 2001; Piketty and Valdenaire, 2006). On the other hand, remuneration, professional recognition and efforts to provide teachers with guidance, feedback and high quality and relevant professional development activities have been found to have a positive impact on student learning outcomes (OECD, 2012b; Cohen and Fuller, 2006; Fletcher, Strong and Villar, 2008; Fuchs and Fuchs, 1986; Hattie, 2009).

Strong leadership is needed to boost the quantity and quality of professional development opportunities for teachers. Spanish principals report lower levels of management capacity than their counterparts in other TALIS countries**.** More than 40% of principals in Spain indicate that they have never had received training for instructional leadership, such as on establishing well-articulated goals or a safe environment conducive to learning and ensuring that teachers' efforts are focused on instruction and their own instructional improvement (TALIS average is 22%) (OECD, 2014b). Most principals in Spain continue to teach with only a 5-12 hour reduction per week of their teaching time, which can limit their capacity to fulfil their role as pedagogical leaders (OECD, 2014a). The recent education law (LOMCE) requires that new

principals participate in training that covers management, administration, leadership, budgeting, legislation and team work skills (MECD, 2014b).

The government has taken steps to improve the performance in compulsory education

Spain has introduced a number of reforms aimed at improving performance, equity and efficiency in compulsory education. These include the Strategic Lifelong Learning Plan 2014-2020, the Plan for Reducing Early School leaving 2014-2020, the National Strategic Plan for Childhood and Adolescence 2013-2016, Programmes for Reinforcement, Guidance and Support, the Programme to reduce early dropout in education and training, the Information and Communication Technology (ICT) Plan for Schools. The Organic Law for the Improvement of Educational Quality (LOMCE) will enter into force gradually in 2014-15 and 2016-17 academic years, which includes the introduction of an initial year of basic VET. Law 1529/2012 has introduced a new Dual VET system. It is still too early to evaluate the impact of these reforms.

Summary and policy implications

Spanish youth need strong skills to succeed in further learning, the economy and society. While students in a number of Spanish regions are performing at the level of peers in high performing countries, students in other regions are falling behind. The performance of Spanish students overall is at, or below, the OECD average in reading, mathematics and science, and comparatively few Spanish students are performing at the highest levels of proficiency in these areas. Students from immigrant and low socio-economic status families are most likely to be underperforming. Teachers require additional support to identify low achievers early, and these low achievers need special programmes to help them catch up quickly.

If strong foundation skills are not acquired during compulsory education, they are much harder and more expensive to develop later in life. Indeed, improving learning outcomes in compulsory education might be the most effective and efficient means for improving outcomes in tertiary education and throughout life. Sustained effort is needed to improve quality, equity and efficiency in compulsory education.

The best performing education systems are only as good as their teachers. Spanish teachers are less likely to benefit from on the job support programmes, and what support they receive is not very effective. Teachers also lack incentives and support to participate in development activities. Strong leadership is needed to boost the quantity and quality of professional development opportunities for teachers.

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CHALLENGE 2: ENSURING THAT TERTIARY STUDENTS DEVELOP HIGH QUALITY AND JOB-RELEVANT SKILLS

A selection of challenges identified by Spanish workshop participants:

"The problem of low foundation skills starts before tertiary education. It needs to be diagnosed and addressed before"

"Professors need to receive better training, incentives and evaluation"

"There is a gap between the skills developed and the skills demanded by the labour market. The education system is always behind"

"Little information is available on employability and salaries by field of study"

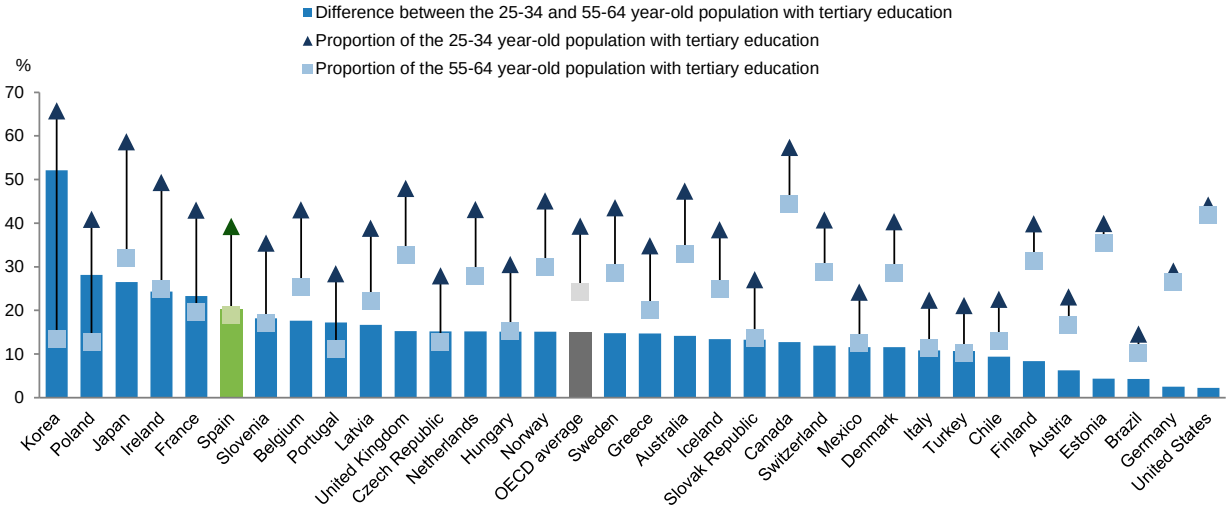
An increasing share of occupations in Spain requires higher levels of education and skills, and this trend is expected to continue in the future. Higher levels skills are also critical for spurring innovation and productivity, thereby supporting economic growth and higher standards of living. As in many countries, attainment at the tertiary level has risen rapidly in recent decades. However, the speed of this expansion in Spain may itself have contributed to the large share of graduates with skills that are not aligned with the needs of the labour market.

Tertiary education attainment rate in Spain is close to the OECD average

The share of Spanish adults with tertiary education has risen significantly over the last several decades and is now equivalent to the OECD average. The percentage of tertiary–educated adults in Spain has risen from 23% in 2000 to 32% in 2012 (OECD, 2014b). In 2012, the share of Spanish 25-34 year-olds with tertiary education was 39% as compared with 19% among 55-64 year-olds (Figure 19). This 20 percentage point improvement was surpassed in only six OECD countries.

Figure 19. Percentage of tertiary-educated adults, 2012

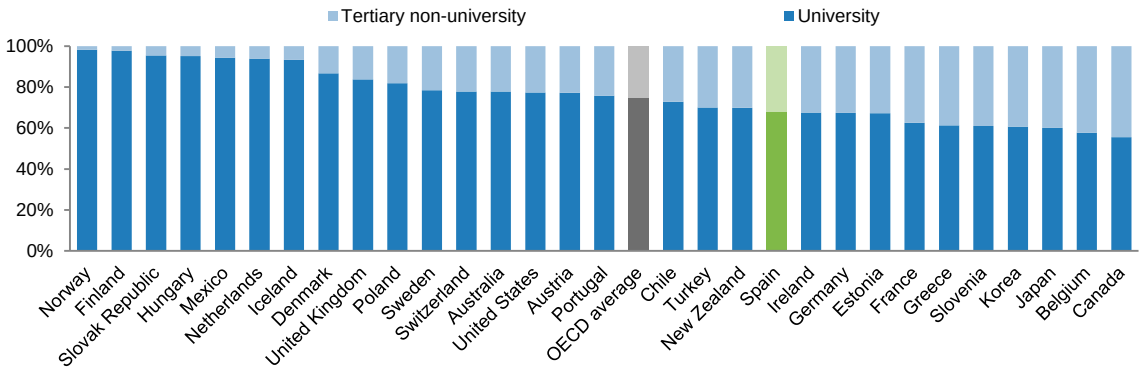
25-34 and 55-64 year-olds, and percentage-point difference between these two groups



Source: OECD (2014b), *Education at a Glance 2014: OECD Indicators*, Table A1.3a, http://dx.doi.org/10.1787/eag-2014-en.

In Spain, the share of tertiary graduates completing university programmes as compared with tertiary non-university programmes (shorter, vocationally-oriented programmes) is lower than the OECD average. Among 25-34 year-old tertiary graduates in 2002, 68% completed university level programmes versus an OECD average of 75% (Figure 20).

Figure 20. Percentage of 25-34 year-old tertiary graduates, by type of programme, 2012



Source: OECD (2014b), *Education at a Glance 2014: OECD Indicators*, Table A1.3a, http://dx.doi.org/10.1787/eag-2014-en.

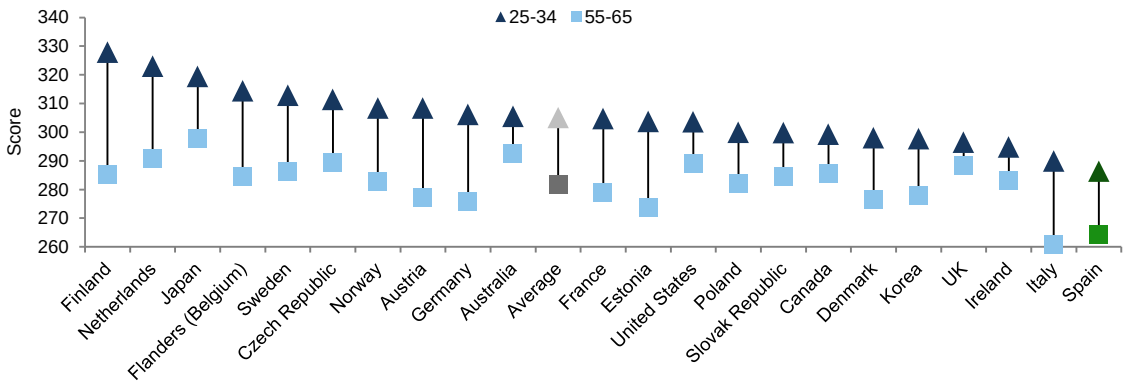
University programmes are typically 4 years in duration and may be followed by a one-year master's programme or longer doctoral programme. Under the recent Royal Decree 43/2015 universities in Spain now have the option to offer shorter bachelor programmes of three years (180 ECTS – European Credit Transfer and System) instead of 4 years (240 ECTS) and master programmes of 1 year (60 ECTS) instead of two years (120 ECTS) (MECD, 2015b). This brings Spain in line with the Bologna Declaration and the majority of European countries. Approximately 30% of all degree programmes, in subjects such as engineering, architecture and health, in which the duration is established by European or national standards, will not be affected by this change (MECD, 2015b).

Tertiary non-university programmes are typically shorter than university programmes and focus on developing practical, technical or occupation specific skills that facilitate direct entry into the labour market (OECD, 2014b). Tertiary non-university includes a broad range of programmes, some of which are two to three years in duration. Others are very short programmes, often less than one year, providing a fairly narrow set of skills. In Spain, tertiary non-university include advanced arts and technical programmes in plastic arts and design, fine arts (music, dance, and dramatic arts), advanced sports studies as well vocational education and training in technology and traditional trades (MECD, 2014a).

Spanish tertiary graduates have comparatively low levels of basic skill and few are high performers

Despite significant progress in increasing tertiary attainment, there are concerns about the quality of skills developed during those studies. The Survey of Adult skills (PIAAC) finds that the foundation skills of Spanish tertiary graduates rank near the bottom of the OECD, but there are indications of significant improvement over time (Figure 21).

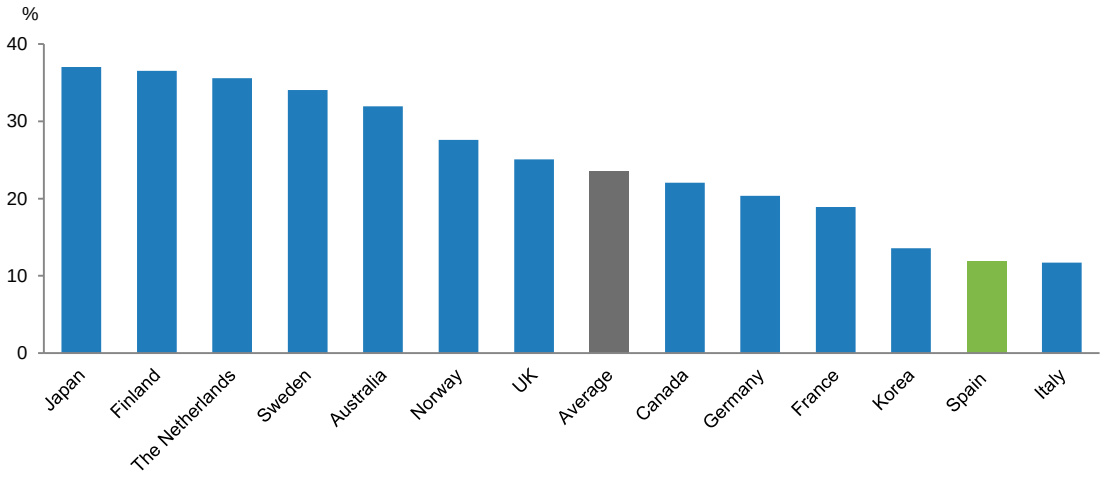
Figure 21. Mean literacy score for tertiary graduates, population aged 25-34 and 55-65, selected countries, PIAAC 2012



Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Spain has comparatively few high performing tertiary graduates. Around 12% of tertiary-educated adults perform at the highest level of proficiency in literacy (Level 4/5) (Figure 22), as compared with an OECD average for countries surveyed by PIAAC of 24%. In Australia, Finland, Japan, the Netherlands and Sweden more than 30% of tertiary graduates perform at the highest level of proficiency.

Figure 22. Proportion of tertiary graduates aged 25-64 with literacy proficiency Level 4 or 5, selected OECD countries, PIAAC 2012



Source: OECD (2014b), *Education at a Glance 2014: OECD Indicators*, Table A1.6a (L), http://dx.doi.org/10.1787/eag-2014-en.

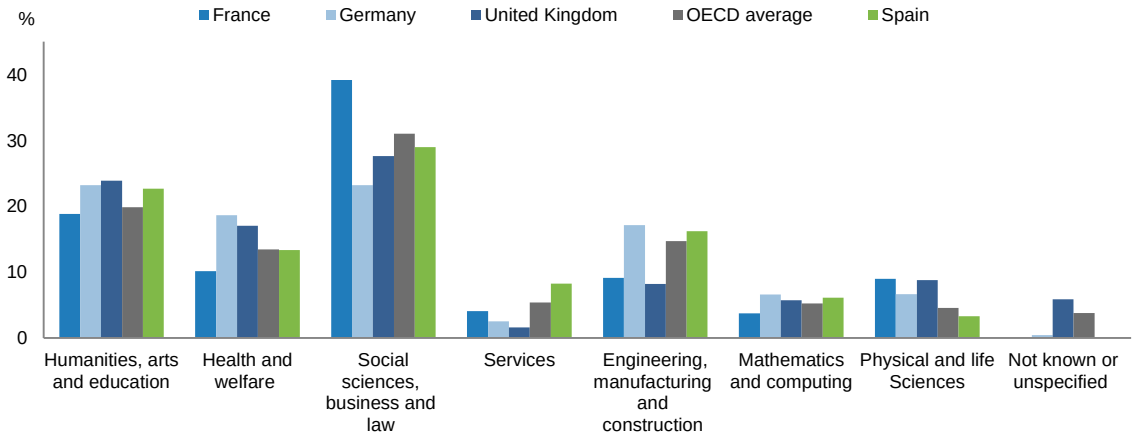
The performance of Spanish tertiary graduates could be related to the comparatively lower levels of skills acquired in compulsory education. As noted in Challenge 1, Spanish 15 year-olds rank below the OECD average on measures of basic skills performance. Evidence suggests that the gap in learning outcomes in Spain opens up very early in life. The international assessment *Progress in International Reading Literacy Study* (PIRLS) shows Spanish primary school students at the age of ten significantly falling behind their peers in other OECD countries (Choi and Jerrim, 2015). This means that strategies to improve the quality of outcomes in tertiary education must be complemented by measures to improve outcomes further upstream during compulsory education.

Field of study choices in Spain mirror closely those in other OECD countries

The common perception that too many tertiary students in Spain are studying the humanities and social sciences is not borne out by comparative data. This concern was echoed by many who participated in skills strategy workshops and during bilateral interviews with the OECD. Over 50% of new entrants choose to study humanities and social sciences, while 16% choose engineering, manufacturing and construction, and 6% choose mathematics and computer sciences. This distribution of learning across fields of study generally resembles that found in other OECD countries (Figure 23). However, the share of students in Spain (3%) enrolling in the physical and life sciences is considerably below the OECD average (4.5%).

Many Spanish youth anticipate careers in engineering and computer sciences, but this does not translate into higher participation rates in these fields in tertiary education. PISA finds that the share of Spanish 15 year-old boys and girls planning to pursue careers in engineering or computing is amongst the highest in the OECD. Yet, this early expression of interest does not lead to higher enrolments in these courses at the tertiary level. Potential explanations include: a university funding formula that tends to favour expansion in lower cost fields (see below) and difficulties obtaining the courses and marks required for access to these fields. Better access to information about what courses and marks are needed to access specific fields of study and of the relative economic rewards associated with completion of different fields, might lead to a different distribution of learning choices.

Figure 23. Distribution of tertiary new entrants by field of education, selected OECD countries, 2012



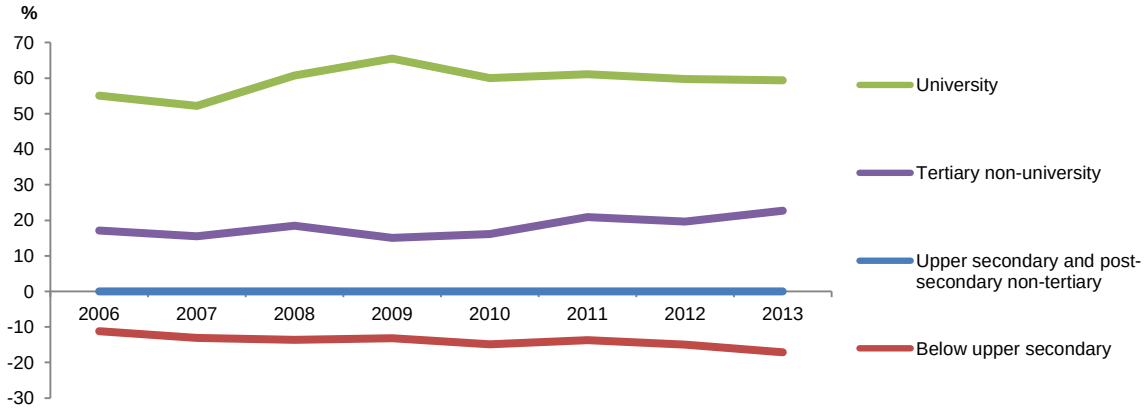
Source: OECD (2014b), *Education at a Glance 2014: OECD Indicators*, Table C3.3a, http://dx.doi.org/10.1787/eag-2014-en.

Some tertiary students graduate with skills that are not well aligned with the needs of the labour market

The relative earnings and employment associated with different levels and fields of study are an important measure of the alignment between the skills supply and demand (Machin and McNally, 2007). Employers signal their preferences for different levels and fields of study by their offer of employment and compensation.

The skills of tertiary graduates are highly valued in Spain. Given strong tertiary attainment growth (supply) in Spain over the past several decades, premiums (earnings relative to those of upper secondary graduates) would be expected to have declined if employer need (demand) for their skills not also increased. Figure 24 shows that the premiums for tertiary studies have remained high and relatively stable over time. This suggests that employer demand has increased in tandem with the increasing supply of tertiary graduates. The premiums are higher for university graduates than for tertiary non-university graduates, and higher for tertiary non-university graduates than for high school graduates. These findings suggest that the value placed on credentials in the labour market increases with each incremental increase in attainment. Carrasco, Jimeno and Ortega (2014) find that the skill premium in Spain has risen since 2006 as a result of an increasing relative demand for high-skilled workers. Figure 25 shows that employment tends to be higher at each successive level of education, and this remains the case in both the peaks and troughs of economic cycles. The exception to this pattern is employment rates for university and tertiary non-university, which are virtually identical.

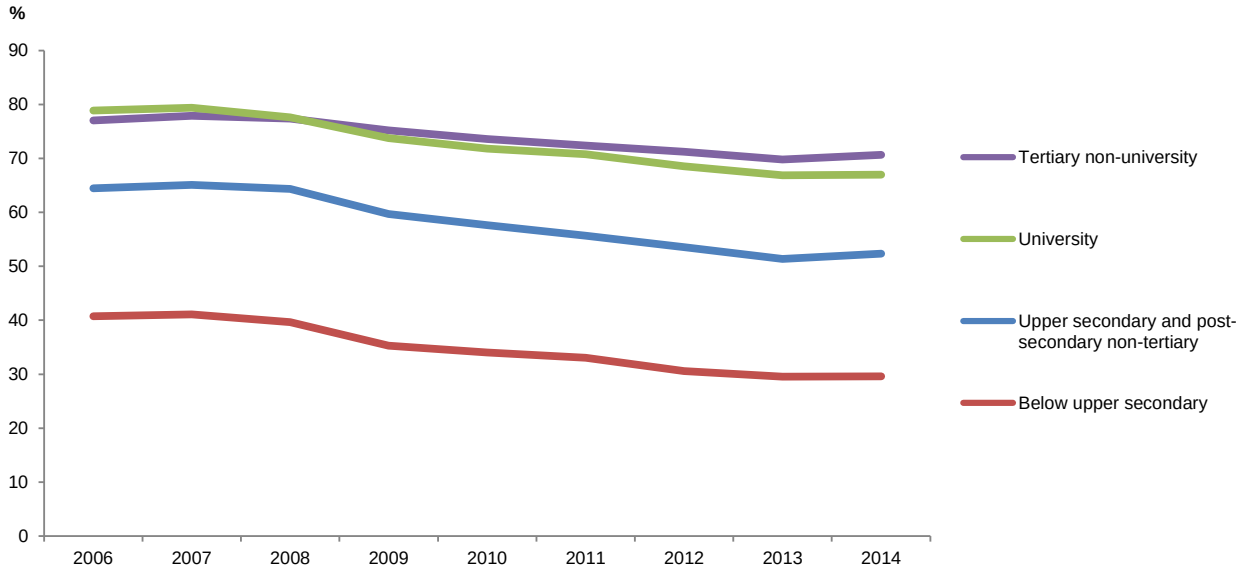
Figure 24. Wage premium relative to upper secondary education in Spain, 2006-13



Note: Based on monthly wages

Source: OECD calculations based on INE (2013), Encuesta de la Población Activa 2013, www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195128&idp=1254735976595.

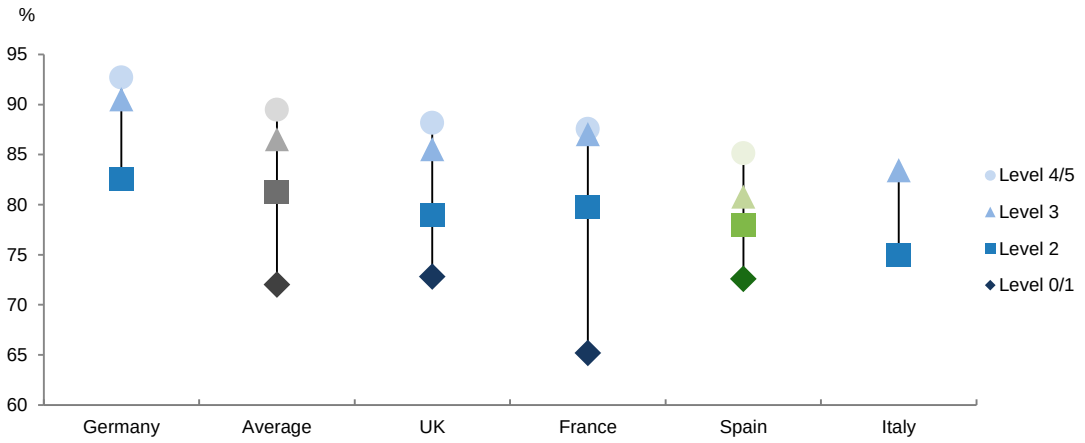
Figure 25. Employment rates at different levels of study in Spain, 2006-14



Source: INE (2013), Encuesta de la Población Activa 2013, www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195128&idp=1254735976595.

However, not all credentials are rewarded equally: skills matter. Even among individuals with a common credential, earnings and employment vary greatly based on the actual skills possessed by those individuals (Figure 26). In Spain, as in other OECD countries, tertiary graduates with higher levels of skills – as measured by literacy and numeracy – are more likely earn more and to be employed than tertiary graduates with lower levels of skills.

Figure 26. Employment rate for tertiary graduates aged 25-64 by literacy proficiency level, PIAAC 2012

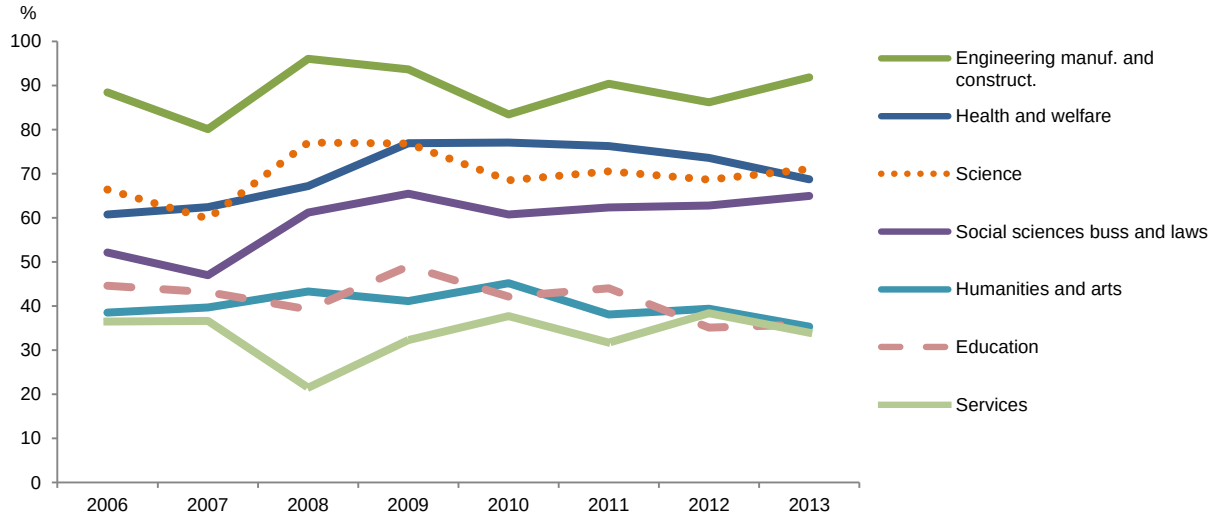


Source: OECD calculations based on the OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Field of study choices may be sub-optimal from the perspective of firms

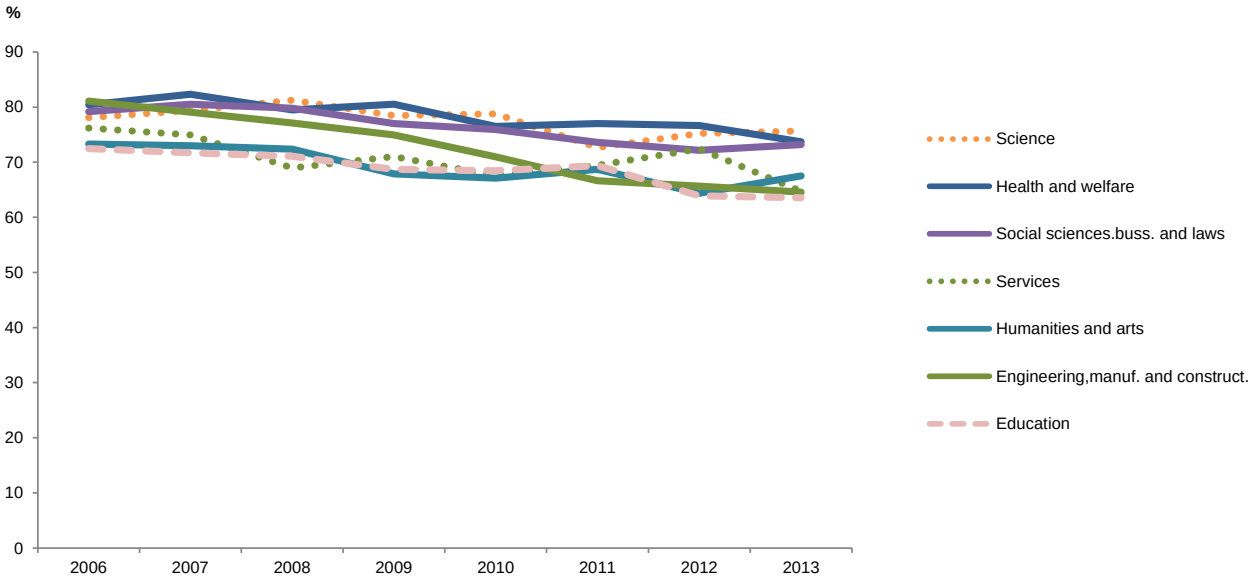
At the university level, the rewards have been particularly strong for engineering graduates, but have also been high for graduates in health and welfare, the physical and life sciences, and social sciences. Figure 27 shows that earnings premiums for graduates in these fields have been consistently higher than for graduates in other fields, and the gap is generally growing. However, the labour market still places a high value on the skills developed in other fields such as agriculture, education, humanities and arts and services as is demonstrated by the positive premiums associated with studies in those fields. The premiums in these latter fields have been at least 35% greater than those of upper secondary graduates, and bettered only by the top performing fields at the tertiary non-university level (i.e. health and engineering) (Figure 27). This is evidence of the high value that has been placed on the skills developed in university across a broad range of fields of specialisation. It should be noted that these premiums need to be interpreted with caution as they may also reflect factors such as the differential distribution of people of different backgrounds – i.e. skill level before entering the field, age, gender, immigrant status, socioeconomic status, etc. – across levels and fields of study. Perhaps because university graduates accept whatever job is available to them, employment rates do not vary greatly (approximately ten percentage points between highest and lowest rates) across fields of study (Figure 28). Unsurprisingly, employment rates have declined for graduates of all fields since the onset of the recession, as they have in other countries. Of interest is the fact that engineering graduates have suffered the largest decline in employment since the onset of the recession. It is unclear why this should be the case, especially given that premiums for graduates of engineering programmes are rising. It could be that engineers who become unemployed find that their skills are less transferable to other jobs or engineers may be more likely than graduates of other fields to hold out for a job that is related to their studies and/or meets their wage expectations.

Figure 27. Wage premium for university graduates relative to upper secondary graduates by field of education in Spain, 2006-13



Source: OECD calculations based on INE (2013), Encuesta de la Población Activa 2013, www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195128&idp=1254735976595.

Figure 28. Employment rates for university graduates by field of study in Spain, 2006-13

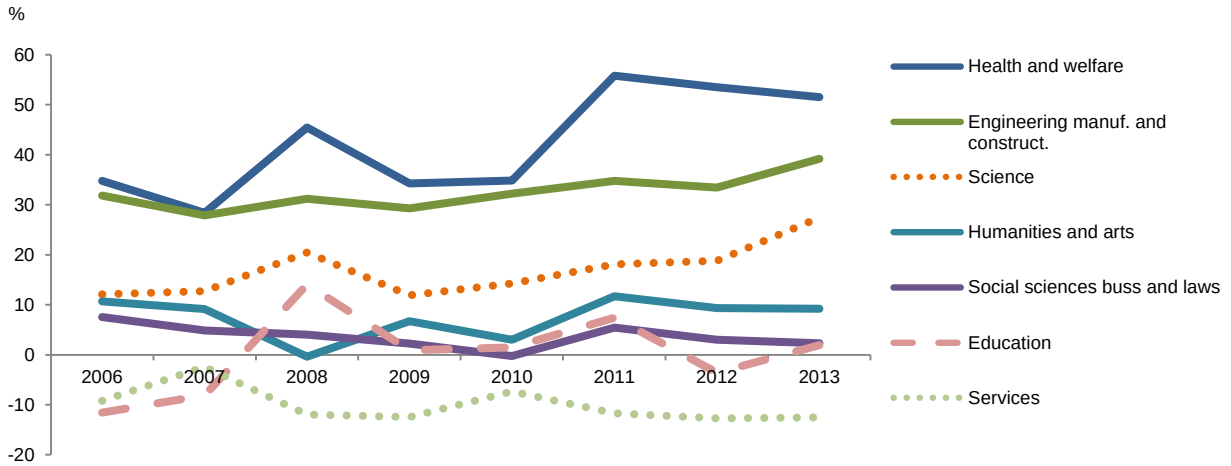


Source: INE (2013), Encuesta de la Población Activa 2013, www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195128&idp=1254735976595.

At the tertiary non-university level, rewards have been strongest for graduates in the fields of health, engineering and science. Graduates of health, engineering and sciences have had consistently higher and rising premiums relative to graduates in other fields at the tertiary non-university level (Figure 29). Indeed, graduates in these fields at the tertiary non-university level have had higher earnings than graduates of many

fields at the university level (e.g. humanities and arts, education, and services). Conversely, tertiary non-university graduates of programmes in services, education, social sciences, agriculture, humanities and arts have premiums that are similar to those of graduates with upper secondary as their highest level of education, suggesting that the skills of the former have not been more highly valued in the labour market than those of the latter. Many of these less well remunerated fields may be comprised of short programmes providing a relatively narrow set of skills (e.g. hairdressing, security and protective services, cooking, and sports). It could also be that many graduates of these fields find themselves employed in jobs characterised by the performance of routine tasks, which are vulnerable to automation and offshoring. Many individuals who pursue studies in these fields may have been poor performers in compulsory education. Therefore, their lower premiums may also reflect lower initial skill levels. Consequently, one cannot assume that these individuals would have had better outcomes had they pursued different fields of study. As in the case of employment rates for university graduates, employment rates for tertiary non-university graduates vary little across fields of study.

Figure 29. Wage premium for tertiary non-university graduates relative to upper secondary graduates by field of education in Spain, 2006-13



Source: OECD calculations based on INE (2013), Encuesta de la Población Activa 2013, www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195128&idp=1254735976595.

While higher levels of education are associated with better outcomes, many recent graduates are struggling to gain a foothold in the labour market

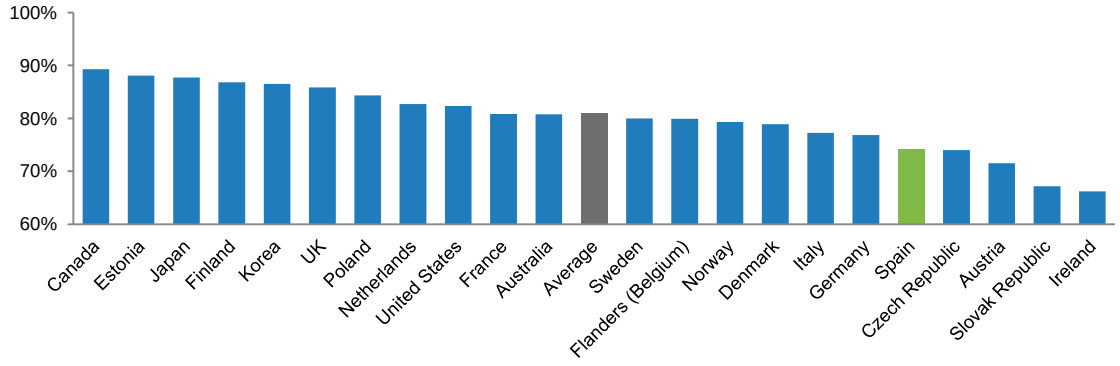
Taken together, these findings suggest that the labour market has placed great value on tertiary graduates generally and university graduates more specifically. These findings are consistent with historical evidence that an increasing share of jobs in Spain requires a university level education as well as CEDEFOP's projections of the future educational requirements of jobs, which estimate that the educational requirements will continue to increase (Figures 6 and 7).The comparatively higher and rising premiums associated with studies in engineering at both the university and university non-tertiary levels suggest that demand has been particularly high for graduates of this field. Boosting attainment in engineering might, therefore, lead to more individuals benefiting from the high wages associated with these studies and more firms realising higher productivity gains. Increasing attainment rates in high-demand fields of study, such as engineering, would require opening more spaces in these programmes in institutions of higher education but also ensuring that, upstream, more students in compulsory education complete the right courses and attain sufficiently high grades to gain entrance to, and be successful in, these fields. It should be noted, however that engineering graduates currently have a comparatively low employment rate.

Despite the high value placed on higher levels of education in the labour market, today many recent tertiary graduates are struggling in the labour market. In a weakened economy, demand for workers is low generally, leading to high rates of unemployment, especially among recent labour market entrants, regardless of their level of education and skills (Challenge 6). In the case of Spain, very high rates of unemployment mean that even graduates of levels and fields of education that are typically in high demand may experience difficulty finding work. For example, in 2014 only 35% of recent graduates (class of 2009/2010) from social science and law programmes was working in jobs requiring university credentials, while 23% was working in medium-level, non-manual jobs, and another 32% was working in low-level manual jobs (MECD, 2014b). Nevertheless, there is a long term trend in Spain, as in other OECD countries, towards an increasing share of jobs requiring higher levels of education. Moreover long terms trends show that tertiary graduates typically fare much better than non-graduates in the labour market, regardless of whether the economy is in a period of growth or contraction. Higher levels of education and skill will continue to be critical to success in the economy and society in the medium- to long-term.

While many tertiary graduates report being over-qualified for their jobs, most are well matched on the basis of the skills they actually have

Many tertiary graduates report being overqualified for their jobs. However, 75% of these individuals are assessed as possessing the right level of skills (measured by literacy) needed for the jobs they hold (Figure 30). This could suggest that many Spanish tertiary graduates – indeed many graduates across all OECD countries – may not be developing the level of skill that one would normally associate with participation in tertiary education. High rates of over-qualification might also reflect students completing fields of education for which there is limited demand in the labour market. Other factors that might explain over-qualification include a misallocation of labour across the economy and personal choices (i.e. prioritising personal interest, earnings, location of work, and family responsibilities over a good job-qualification match).

Figure 30. Percentage of over-qualified tertiary graduates who are well-matched for their jobs on the basis of skills (literacy), PIAAC 2012



Source: OECD calculations based on the OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

The quality and relevance of skills acquired in tertiary education are determined by many factors

University governance and hiring practices

University governance and hiring practices in Spain provide few incentives for universities to respond to changing labour market needs. Spanish universities are independent from central and regional governments and are led by academics who have been elected for limited periods by the university community. This creates an incentive for university leaders to give greater priority to the interests of their immediate circle

of academics and students than those of other actors, such as employers, thereby preserving the status quo. Furthermore, academic staff are hired, promoted and compensated based on regulations and practices that favour the hiring of internal staff and provide limited mobility across institutions. As a result, existing course offerings may reflect more the professional backgrounds of faculty and interest of students than what is needed in the labour market.

Quality assurance systems

The National Agency for Quality Assessment and Accreditation (*Agencia Nacional de Evaluación de la Calidad y Acreditación*, ANECA) was established in 2002 to co-ordinate quality assurance measures, including the development of an information system with performance indicators and an accreditation process to ensure that degrees meet specified national and international standards. These quality assurance measures were important steps towards introducing a set of common indicators for all universities. Another major activity of ANECA is the accreditation of professors. Only accredited professors can be hired as salaried employees by universities.

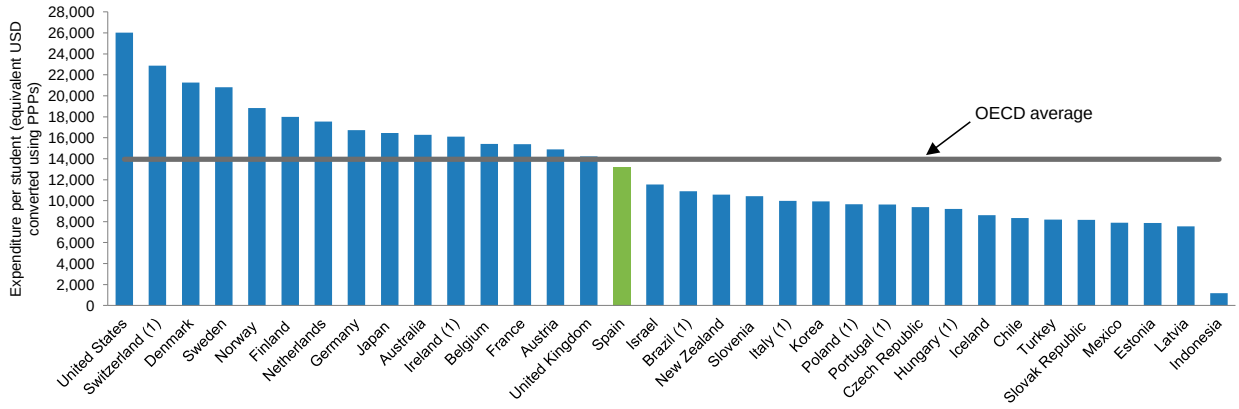
The large number of accreditation agencies might contribute to the varying quality and responsiveness of institutions across regions. In addition to ANECA, there are also a number of regional accreditation agencies that act as an autonomous body advising the regional authority in charge of higher education, or operate as a consortium linking regional government and universities or represent a department of the regional government. Although indicators and criteria for evaluating programmes and professors are comparable, accreditation practices and standards may vary across regions. The uneven expertise and experience across regional accreditation agencies may contribute to inequitable outcomes in universities across regions as well (OECD, 2009). Consistent criteria for evaluating programmes and professors across regions could potentially encourage greater mobility of both students and professors and foster greater competition among tertiary education institutions.

Spending on tertiary education, institutional funding formulae, and tuition fees

Per student spending on tertiary education in Spain is slightly lower than the OECD average, and is significantly lower than in countries in which tertiary graduates have higher levels of skills achievement such as in the Nordic countries, Japan, Germany, France, and the United States (Figure 31). In the context budgetary pressures and rising enrolments, many governments have had to make difficult choices about where to invest scarce public resources. Since the beginning of the economic crisis in 2008, expenditure per tertiary student has decreased in more than a third of OECD countries, including Spain. Although the total expenditure by tertiary educational institutions in Spain increased between 2008 and 2011, it did not increase as rapidly as the overall increase in student numbers, resulting in a decline in per student spending (OECD, 2014b).

Figure 31. Annual expenditure per student in tertiary education, 2011

In equivalent USD converted using PPPs, based on full-time equivalents



Note: Public institutions only (for Italy, except in tertiary education).

1. Year of reference 2010

Source: OECD (2014b), *Education at a Glance 2014: OECD Indicators*, Table B1.1a, http://dx.doi.org/10.1787/eag-2014-en.

Current funding formulas may be more responsive to the interests of students than to the needs of the labour market. The total amount of funding received by public universities is determined by the number of students enrolled and not by the number of students who actually graduate or what programmes are most needed in the labour market. This creates an incentive to add additional spaces in programmes that are inexpensive to deliver and for which student demand is high, such as the humanities and social sciences. Conversely, it is a disincentive to create additional spaces in programmes that are relatively more costly to provide such as engineering or medicine, which require expensive laboratories and equipment. The lack of incentives in funding formulae to respond to labour market demands could lead to excess supply of graduates in certain fields of study and shortages in others. Incorporating such incentives into funding models should help to ensure a better alignment between the supply and demand for skills.

Wide variation in tuition fees across regions may lead to greater inequity in tertiary attainment. Regions are free to set tuition fees within the limits established by the central government. During the academic year 2014-15 an undergraduate degree (*grado*) course in Galicia cost on average EUR 11.89 per credit for a first enrolment, while in Cataluña it cost on average almost 3 times as much at EUR 33.52 per credit (MECD, 2015a). Each region passes a Regional Decree Law that sets the tuition fees for each programme of study. However, these fees are determined only by theoretical cost calculations and are not based on actual costs. As a result, tuition fees, even for the same programmes, differ greatly across regions. Students from disadvantaged families in regions with relatively higher tuition fees might therefore find it more difficult to pursue tertiary studies, especially if other grants or forms of financial support cannot be accessed or are insufficient.

In Spain, tertiary students are eligible for study grants contingent upon their parents' income and their academic performance. Currently, around 20% of our university students receive such grants. Students are required to demonstrate a minimum academic performance to access and maintain the grants. Around a third of university students lose their grants after the first year because they have not met this minimum requirement. The purpose of this requirement is to incentivise higher performance. In addition to national grants, most regional governments provide supplementary grants such as funds to purchase books or to cover transportation costs. In Spain, the national budget for grants has increased from EUR 1 138 225 600 in 2012 to EUR 1 413 524 600 in 2015. Due to the large increase of eligible university students, the average amount per university student has slightly decreased (MINHAP, 2015, 2012; MECD, 2015; MECD, 2012).

Many countries require higher private contributions to the cost of tertiary education to finance investments in improving learning quality and to improve the alignment between study choices and labour market needs. Higher tuition fees could increase revenues for universities, allowing for greater investments in teaching, resources, technology and infrastructure that could improve learning quality. A small enough increase might even be manageable for students without needing to resort to debt. However, higher tuition fees do not automatically translate into higher revenues. If tuition increases are supported by repayable student loans and default rates are high – due to excessively high fees, high interest rates, high payback rates, or to poor economic conditions – anticipated revenues may not be realised. Permitting differential pricing across institutions and programmes could encourage greater institutional and programme differentiation, thereby stimulating competition among universities to improve quality, efficiency and equity (Barr, 2012). Higher tuition fees might also encourage students to make education choices that are better aligned with the needs of the labour market since they will have an incentive to investigate whether their chosen course of study will provide them with a good return and, if applicable, enable them to repay their loans upon graduation. However, this would also need to be complemented with better access to quality learning and labour market information (Challenge 9). Given current economic conditions, a tuition fee increase may not be appropriate at this point in Spain.

Well-designed student financial support schemes can help safeguard equitable access to higher education while at the same time while permitting higher tuition. Most countries with grants and loans schemes provide means-tested, non-repayable grants to those from low socioeconomic backgrounds to support their participation in higher education. Access and equity can be further reinforced through income-contingent loans (i.e. repayable once graduates earn above a certain income threshold) or loan forgiveness schemes for those who find themselves unable to repay their loans. These schemes also help to protect individuals from being severely impacted during economic downturns or by unanticipated changes in the education and skill requirements of jobs. Countries with high tuition fees and well-developed student support systems are among those with the highest entry rates into university education. For example tertiary entry rates were above the OECD average (59%) for Australia (96%), New Zealand (79%), the United States (72%), the Netherlands (65%) and the United Kingdom (64%) (OECD, 2014b). A loan system was in effect in Spain from 2009 to 2011, but the timing – in the midst of a recession – was unpropitious and many students defaulted on their loan payments. The loan system was discontinued as a result.

Increased student mobility might force institutions to compete to a greater extent on the quality and relevance of their programme offerings. Despite international and national mobility scholarships most students (80%) stay in their home region. Devolution of responsibility for universities has led to the opening of new universities across all regions. This combined with comparatively low tuition fees and an under-developed loans and grants system means that students have every incentive to stay close to home. Furthermore, even those inclined to move for studies face a number of barriers including high rent costs in some regions and difficulty finding part-time employment to offset the additional costs associated with living away from home (OECD, 2014a).

Scale of institutions and academic specialisation

The rapid expansion of tertiary education may have come at the expense of quality. Currently, there are 50 public universities and 33 private universities in Spain, a figure that is more than double that of thirty years ago (MECD, 2014a). When one compares the ratio of university-age students (18 to 30) with the number of universities available, Spain does not appear to have an excess of universities. However, the rapid rate of expansion may have stretched available human and financial resources too thinly with potentially negative impacts on quality.

Greater specialisation could improve economies of scale, allowing financial resources to be directed towards raising the quality and relevance of skills. Under current regulations, tertiary institutions

are obliged to offer a minimum number of degree courses in order to ensure provision of a broad range of programmes, despite the fact that 30% of degree programmes have fewer than 30 students enrolled (OECD, 2014a). The current university reform introduces new regulations that reduce the number of degree programmes universities are required offer to only 8. This should permit institutions to eliminate programmes for which there is limited demand, allowing them to reinvest funds in programmes for which demand is strong. The reform could also have the additional positive effect of providing prospective students with a clearer signal of which programmes of study are in greatest demand.

Greater specialisation could also enable Spanish universities to excel globally. Only 12 Spanish universities appear in the global ranking of the top 500 universities in the world (QS, 2014). Yet, Spain has several departments with an international reputation for quality housed within universities whose overall performance is lower. Thus, there is already a strong base on which to build specialisation, improve quality and enhance the labour market relevance of degrees offered. Just as universities in the U.K. and the U.S. have done, Spain's universities could potentially attract a large number of international students and have the distinct comparative advantage of being well-equipped to attract talented students from Latin America. If non-EU students were to pay higher tuition fees, as is common practice in universities across the EU, Spain's universities could generate additional financial resources to invest in improving teaching quality (OECD, 2014a).

Improving linkages between tertiary institutions and the business sector

Better linkages between tertiary institutions and employers would improve the labour market relevance of programmes. This might include greater business representation on university governing boards and more firm and industry involvement in curriculum development and programme evaluation. The current university reform proposal aims to restructure current governing board arrangements, so that representatives from the private sector and civil society can sit on the board and influence university decision-making.

Increased mobility between university and the private sector could improve the quality and relevance of skills developed in tertiary education. University professors would learn more about the world of work: knowledge that they could take back to, and apply in, the classroom. Currently, there is little staff mobility between universities and the private sector in Spain. Professors are under the pressure to publish a certain number of articles within six years (*sexenios*) in order to advance to the next salary level. There are limited incentives or support for professors to take leave of universities to work in the private sector (OECD, 2009).

Box 5. Spotlight on Spain: Mondragon University

Mondragon University, in the Basque Country, in Northern Spain, is an example of an institution that was created to be responsive to the needs of the labour market. Part of the Mondragon Corporation, Mondragon University began as a polytechnic school in 1948, but was formally established as a University in 1997 by the transformation of three co-operatives into the faculties of Business, Engineering and Humanities. The university has a co-operative structure and a long tradition of engagement with co-operatives and local firms. It has developed its own educational model, *Mendeberri*, which utilises practical curricula aimed at solving real-world problems (learning by doing) and emphasises the development of social and communication skills and continuous evaluation.

Mondragon University has been a pioneer in the implementation of work-study programmes in Spain, requiring that students complete a final one-year project at a firm and allowing them the possibility of combining their formal studies with part-time work. This enables them to earn a salary that helps to pay for their studies while, at the same time, increasing their employability. The university is also involved in projects that support the development of regional innovation systems. The university has created an innovation centre with the objective of addressing the needs of local businesses, a culinary centre and two technological research centres. Funding for the Mondragon University comes from a mix of private and public sources.

Source: Mondragon University, www.mondragon.edu; Martínez-Granado, Maite, Patxi Greño, and Mercedes Oleaga (2012), "The Basque Country, Spain: Self- Evaluation Report", *OECD Reviews of Higher Education in Regional and City Development*, www.oecd.org/edu/imhe/regionaldevelopment; OECD (2013a), *Higher Education in Regional and City Development: Basque Country, Spain 2013*, http://dx.doi.org/10.1787/9789264200180-en; OECD (2011), *OECD Reviews of Regional Innovation: Basque Country, Spain 2011*, OECD Reviews of Regional Innovation, http://dx.doi.org/10.1787/9789264097377-en.

Improving learning and labour market information together with career and education guidance services

Better information about the labour market outcomes of graduates of different institutions and fields of study could help to improve quality and the alignment between the skills supply and demand. Employers signal their perspectives on the value of studies through their employment and compensation offers. Making publicly available information about the employment and earnings of graduates of different institutions might encourage more students to enrol in institutions that offer the prospect of better employment and earnings. This behaviour would, in turn, create greater competition among institutions, thereby raising quality standards. Similarly, information about the labour market outcomes of graduates of different fields of education would permit prospective students to better understand the relative value placed on these studies in the labour market, thereby encouraging them to make study choices that are better aligned with the needs of the economy. While much of this information is already available in Spain, it is often in the form of ad hoc, technical reports. To be effective in influencing the behaviour of individuals, such information needs to be up-to-date, accessible and easily interpretable. It must also be tailored to the needs of different users, such as students in the early years of secondary education who are making choices about courses of study that might enable or constrain future educational options. Given that information is often passed on to students by parents, information should be tailored to their needs as well. More could be done to improve accessibility and user-friendliness to newly launched sites like the *Employment Portal* (*Portal de Empleo*) and *What to Study and Where to Study in Universities* (QEDO) in order for secondary students and their parents to easily navigate the sites and understand what career opportunities are accessible with what type of degree and skills. Examples from other countries and how they provide information for students could be relevant for Spain to consider (Box 6) (see Challenge 9 for more on learning and labour market information).

Box 6. National Careers Service – United Kingdom

The National Careers Service website provides information, advice and guidance to help students (13+) and adults to make informed decisions about their learning, training and working opportunities. The site is a one-stop platform that provides career tools to explore different career pathways with descriptions on work activities, working hours, conditions, income level, entry requirements (both academic and vocational routes), continuous development activities, necessary skills, funding information, contacts for further information and job market information with statistics and employment forecasts. There is a special tab for students aged 13 to 16 that customises this information into a user-friendly format with colourful pictures, simple words and easy-to-understand graphics.

Source: National Careers Service website, https://nationalcareersservice.direct.gov.uk/Pages/Home.aspx.

But information alone is insufficient. Youth need guidance to interpret learning and labour market information. This might involve a range of measures, including voluntary career and education counselling services, mandatory structured courses in upper secondary school, and outreach by firms. Increasingly, adults will also be accessing tertiary institutions to upgrade or reskill for the purposes of finding new work after job loss, retaining current work in the context of evolving skill needs, and improving career prospects. Adults, too, need information and guidance tailored to their needs. Career counselling and guidance is especially valuable when searching for, and applying for, a job. A recent survey conducted by the Observatory of Innovation for Employment (Observatorio de Innovación para el Empleo) (2014) found that only 28% of university students knew how to look for employment in their profession. Students need practical advice and support in using existing job search sites, preparing CVs, drafting cover letters and conducting an interview.

Availability of information on labour market outcomes by field of study is improving, but there continues to be room for improvement. The Ministry of Education, Culture and Sports has recently released a study on the labour market outcomes of university graduates from the 2009 and 2010 cohort 4 years after

their graduation (MECD, 2014b). The report provides information on the employment rates and income levels by field of study. During the first phase about 190 749 students on the initial university cycle (*grado*) were tracked. In the second phase, master and doctoral students will also be analysed. While this study represents an important initial step towards making information available that could be used better align the supply and demand for programmes of study, it only represents one cohort that happens to have been strongly affected by the recent economic crisis. Additional cohorts would provide allow more in-depth analysis of changes over time. Moreover, since this is a technical report and is only available as a downloadable PDF file, it is unclear to what extent this new information will actually be used by students and their parents to inform study choices, or by the government to guide funding allocations.

Summary and policy implications

Tertiary attainment in Spain has grown rapidly and is now at the OECD average. However, too few tertiary graduates are developing the high levels of skills needed to meet labour market demand and bolster productivity, competitiveness and growth. Part of the answer lies in improving outcomes in compulsory education, but much too can be done at the tertiary level to ensure that students leave education with the skills needed for today and tomorrow.

Employers in Spain show a clear preference for students who complete tertiary studies through their employment and compensation offers. Tertiary students experience both higher earning and employment. Studies at the university level and in engineering at either the university or tertiary non-university levels are particularly well rewarded. However, some students graduate from fields of study that are not well aligned with the needs of the labour market.

Several factors have a negative impact on the quality and relevance of skills acquired in tertiary education. These include the very broad range of programmes offered at institutions, funding formulae and governance structures that do not provide incentives to align course offerings and curricula with the needs of the labour market, a lack of external evaluations with consistent criteria across regions, and a lack of detailed learning and labour market information tailored to the needs of prospective students. Ensuring that Spain has the necessary skills to respond to rising skill needs and to boost economic growth in the future will require immediate efforts to improve the quality and relevance of skills and continued expansion of participation over the long term. In the short term, however, more needs to be done to ensure that recent tertiary graduates, who have been so adversely impacted by the long recession, have opportunities to share in the benefits typically associated with their higher levels of skill. See Challenges 4, 5 and 6 for further discussion of activating the unemployed.

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CHALLENGE 3: IMPROVING THE SKILLS OF LOW-SKILLED ADULTS

A selection of challenges identified by Spanish workshop participants:

"There are barriers to access training like the hours when they are offered and a lack of flexibility"

"Programmes need to be tailored to the different age groups of adults"

"Provide more incentives to qualifications or re-qualification"

"The quantity and quality of available training is low"

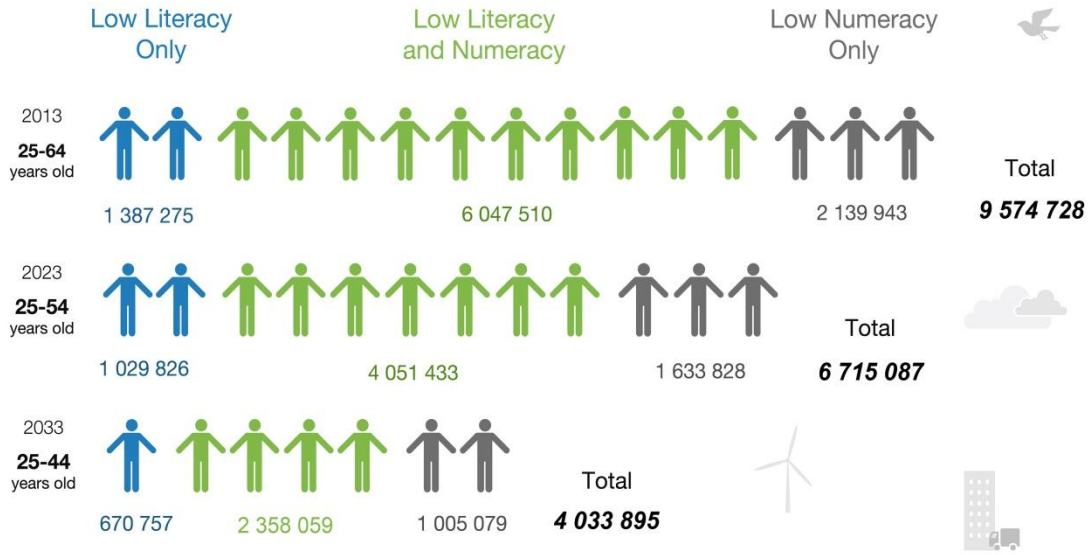
"Companies invest little in the training of adults especially those on short-term contracts and working in SMEs"

Low-skilled individuals are increasingly at risk of being left behind. As the skill requirements of jobs continue to rise, as jobs increasingly involve analysing and communicating information, and as technology pervades all aspects of life, individuals with poor literacy and numeracy skills will find themselves increasingly at risk of unemployment and social marginalisation. For any country, having a large number of low-skilled adults implies lower productivity, competitiveness and standards of living.

Spain has many low-skilled adults who will be in the workforce for decades to come

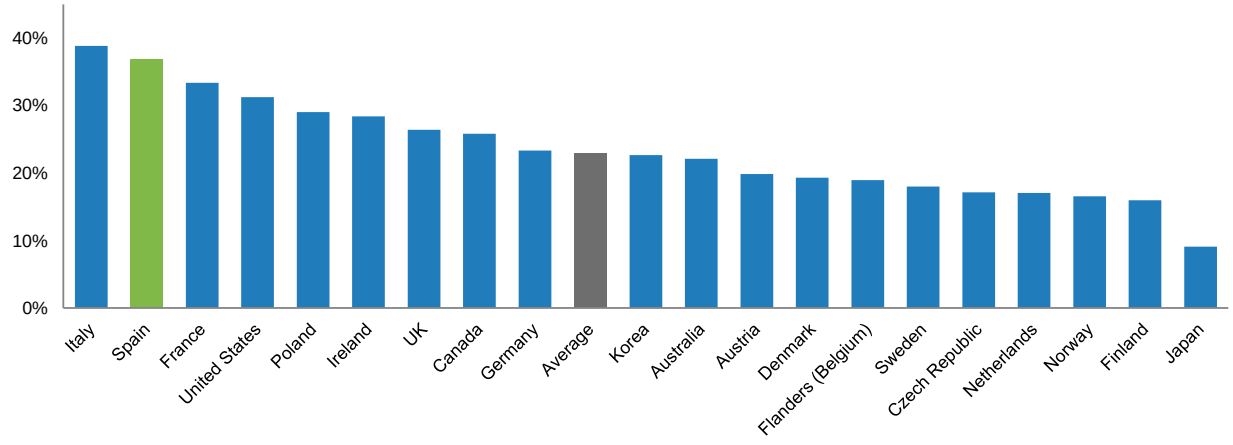
Close to 10 million adults in Spain have either low levels of either literacy or numeracy (Figure 32). Concretely, 37% of all adults between the ages of 25 and 64 have less than level 2 proficiency scores on the Survey of Adult Skills (PIAAC) compared to an OECD average of 23%. Of the countries who undertook the survey, only Italy has a greater share of low-skilled adults (Figure 33). Roughly two-thirds of these low-skilled adults will still be in the labour market ten years from now and over one-third of them will still be working twenty years from now. Of the close to 10 million low-skilled adults in Spain in 2012, roughly 6 million (23% of all 25 to 64 year-olds) had both low levels of literacy and numeracy. In practical terms, people with less than level 2 proficiency in literacy or numeracy have difficulty with simple written information and struggle with basic quantitative reasoning respectively (Box 7 explains how low-skilled adults are defined in this report and provides examples of what it means to be low-skilled). This does not imply that these individuals lack strong occupational skills nor that they are inactive. However, given that foundational skills, such as literacy and numeracy, are the building blocks for learning other skills, low levels of basic skills will reduce their adaptability and resilience when faced with change in the workplace and society.

Figure 32. Number of Spanish adults aged 25-64 with low levels of literacy and/or numeracy, PIAAC 2012



Source: OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Figure 33. Percentage of adults aged 25-64 with low levels of literacy or numeracy, selected OECD countries, PIAAC 2012



Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

The large number of low-skilled adults in Spain is due, in part, to the historical legacy of low-levels of educational attainment. Across OECD countries, the children of parents with low levels of education have significantly lower levels of skills proficiency than those whose parents have higher levels of education, even after taking other factors into account (OECD, 2013b). Spain is one of the countries where differences in skills are biggest between older and younger workers, as measured by PIAAC. However, this may not be enough. The legacy of low levels of educational attainment cannot be changed overnight. It may take considerable time – possibly a generation – before increases in educational attainment among adults in Spain translate into greater skills achievement among younger people.

Box 7. What does it mean to have low foundation skills?

In this report, low-skilled adults are defined as those who have less than level 2 proficiency in literacy or numeracy on the Survey of Adult Skills (PIAAC). The Survey of Adult Skills groups individuals into 6 skill levels (less than Level 1 and Levels 1 to 5). To illustrate what it means to be low skilled, descriptions are given below of the tasks individuals can be expected to perform with less than level 2 literacy and numeracy proficiency.

Literacy proficiency:

Below Level 1	Individuals at this level can read brief texts on familiar topics and locate a single piece of specific information identical in form to information in the question or directive. They are not required to understand the structure of sentences or paragraphs and only basic vocabulary knowledge is required. Tasks below Level 1 do not make use of any features specific to digital texts.
Level 1	At Level 1, adults can read relatively short digital or print continuous, non-continuous, or mixed texts to locate a single piece of information, which is identical to or synonymous with the information given in the question or directive. These texts contain little competing information. Adults performing at this level can complete simple forms, understand basic vocabulary, determine the meaning of sentences, and read continuous texts with a degree of fluency.

Numeracy proficiency:

Below Level 1	Adults at this level can only cope with very simple tasks set in concrete, familiar contexts where the mathematical content is explicit and that require only simple processes such as counting; sorting; performing basic arithmetic operations with whole numbers or money, or recognising common spatial representations.
Level 1	Adults at Level 1 can complete tasks involving basic mathematical processes in common, concrete contexts where the mathematical content is explicit with little text and minimal distractors. They can perform one-step or simple processes involving counting, sorting, basic arithmetic operations, understanding simple percents, and locating and identifying elements of simple or common graphical or spatial representations.

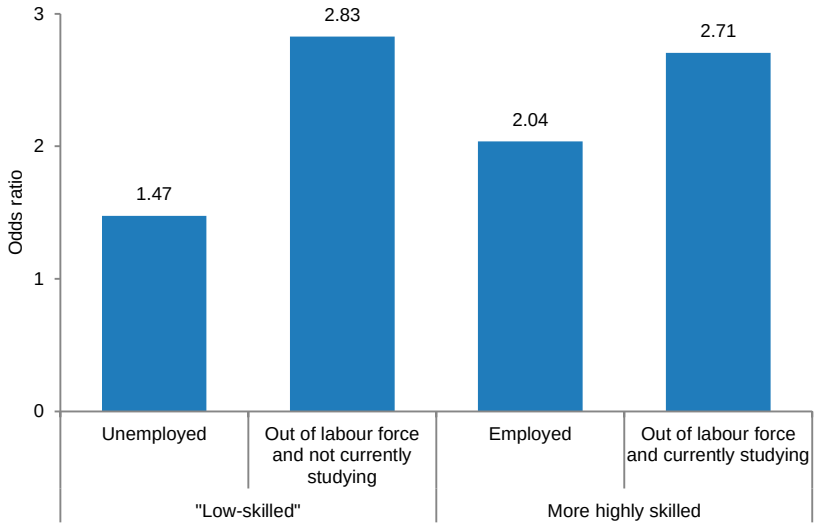
Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

Low-skilled adults need opportunities to upskill or reskill to meet new skill requirements of jobs

Employment prospects and earnings are poor for low-skilled adults in Spain. According to the Survey of Adult Skills (PIAAC), low-skilled working-age adults (aged 25-64) are almost 1 ½ times more likely to be unemployed and almost 3 times more likely than their more highly skilled peers to be out of the labour force but not studying (Figure 34). Conversely, more highly skilled adults (i.e. Level 2 or above) are twice as likely to be employed (Figure 34). Recent labour market reforms have reduced labour costs and may enable wages to adjust more freely to changes in demand and, thereby, increase job opportunities for low-skilled workers in the medium-term. However, the trade-off may be lower wages or slower wage growth than in the past. Already, low-skilled adults earn significantly less than their higher skilled counterparts (Figure 35).

Figure 34. The effect of literacy proficiency on labour market participation, PIAAC 2012

Adjusted odds ratios showing the effect of literacy or numeracy levels on the likelihood of participating in the labour market among 25-65 year olds, 2012

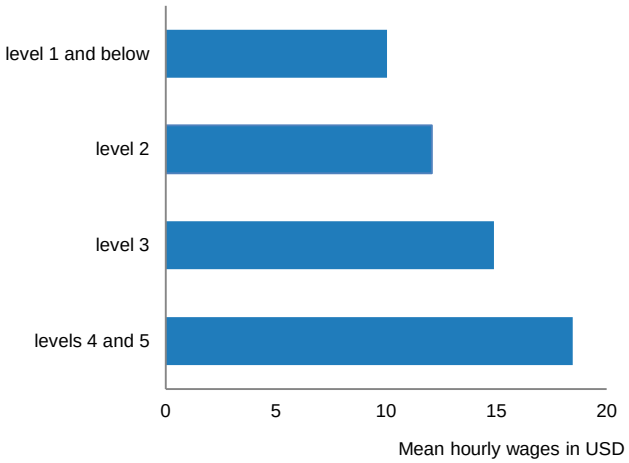


Note: "Low-skilled" corresponds to less than level 2 proficiency in literacy or numeracy; 'More highly skilled" corresponds to level 2 or greater proficiency in literacy or numeracy.

How to read the chart: Low skilled are 1,47 times more likely to be unemployed than those with skill level 2 or above; High skilled are 2,04 times more likely to be employed.

Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Figure 35. Mean hourly earnings (USD) in Spain by literacy level, PIAAC 2012



Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

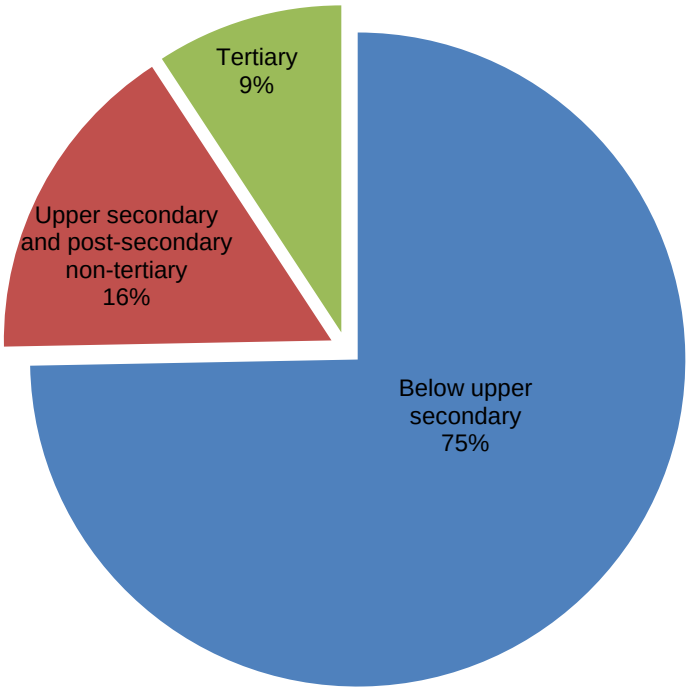
To respond to these challenges, adults with low levels of skill will need access to opportunities to upskill and reskill. Adult education and training provides low-skilled workers with a means to develop their existing skills and learn new skills, thereby permitting them to find work, maintain existing jobs, or make the

transition to employment in new occupations and sectors. For some low-skilled adults, this will require the development of foundation skills, such as literacy and numeracy, which have their own utility in the labour market but which also serve as the building blocks for learning new skills. Others will need to acquire new jobs-specific or technical skills. Targeted encouragement and support for job-related education and training will be critical for aiding low-skilled adults to maintain or find employment, increase their productivity and wages, and combat social exclusion.

Adult formal education plays a central role in supporting skills development of low-skilled adults

Adult formal education is an important means for raising skills levels. Figure 36 illustrates the strong relationship between academic attainment and the likelihood of having very low levels of skill. Specifically, it shows that almost three quarters of individuals with low levels of literacy has less than an upper secondary education. Foundation skills, such as literacy and numeracy, not only permit workers to do important tasks required in most workplaces – such as read instruction manuals, write reports and interpret basic statistics – but also to learn more advanced general and technical skills. The strong, positive relationship between educational achievement and skill proficiency is an important reminder that prevention is the best form of cure (For an analysis of the development of skills in compulsory and tertiary education, see Challenges 1 and 2).

Figure 36. Highest education achieved among low-literacy Spanish adults aged 25-64, PIAAC 2012



Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Spain has a relatively comprehensive formal adult education system. Adults who have not completed primary education can access Initial Teaching of Basic Education for People of Adult Age (*Enseñanzas Iniciales de educación básica para personas en edad adulta*). This programme supports individuals to develop basic skills that will allow them access to lower secondary education. The programme can be accessed through institutions targeting adults, regular primary and secondary schools, and, in some cases, private

centres. Adults who have not completed lower secondary education are able to access Secondary Education for Adults (*Educación Secundaria para Adultos)*. To access this programme, prospective participants must meet at least one of the following conditions: completed the 6th grade of primary education, or equivalent; finished Initial Teaching of Basic Education for People of Adult Age (*Enseñanzas Iniciales de educación básica para personas en edad adulta*), or pass an entrance examination. The programme is primarily provided through regular secondary schools, generally in the form of evening classes. Adults who have not completed upper secondary education can access evening or long-distance courses in order to get the upper secondary education diploma (*bachillerato*). All of these programmes are available free of charge to eligible adults over 18 years old (but in certain circumstances individuals as young as 16 years old). In addition, adults can access a wide range of vocational programmes, including the preparatory programme for the entrance examinations to intermediate-level vocational training, vocational training for employment, basic vocational training, and initial vocational qualification programmes. The Ministry of Education has also established an online platform for vocational training covering the intermediate and upper level. (EC, 2015)

A considerable number of adults in Spain participate in formal adult education at the upper secondary level or below. In 2011/12, approximately 90 000 adults participated in programmes at the primary level. A further 236 000 participated in programmes leading to the completion of lower secondary, which is significantly more than in countries such as Italy (around 34 000 participants in 2011/12) and Germany (around 20 000 participants in 2012/13) (EC, 2015). The relatively large number of participants in formal adult education in Spain is in part a reflection of the comparatively large share of Spanish adults who have not completed their studies at this level. Despite comparatively large numbers of adults participating in adult education and training in Spain, the number of participants is still relatively small compared to the large numbers of people in Spain with low levels of qualifications and skills.

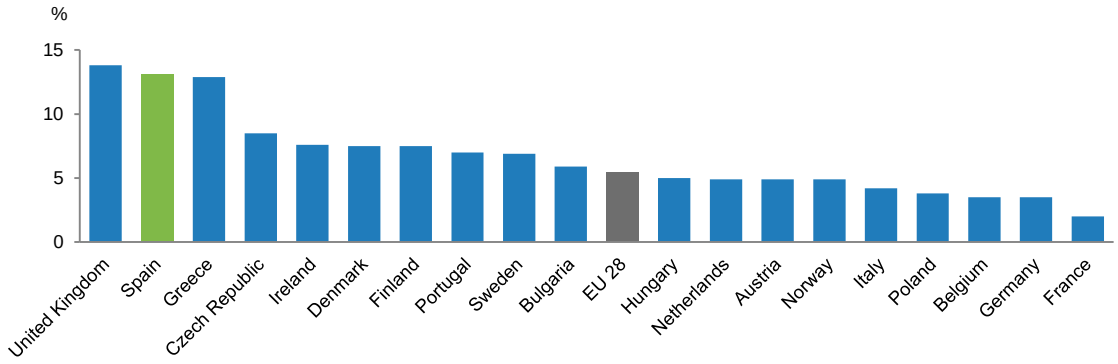
On-the-job training for employees also plays a central role in the reskilling and upskilling of low-skilled adults in Spain. On-the job training is one of the most effective means for maintaining and enhancing skills and, by extension supporting job maintenance and career advancement. This is true for both low- and high-skilled workers. Finally, actions towards improving the assessment and recognition of the skills gained through professional experience or informal training can help to reveal and recognise tacit knowledge and skills, thereby enabling workers to better market the skills they possess.

Flexible learning arrangements are critical to promoting adult participation in education and training

Flexibility in the provision of formal adult education can encourage and support greater adult participation. The European Commission (European Commission/EACEA/Eurydice, 2015b) lists a number of flexible modes of provision that are found to encourage greater adult participation in learning. These include: distance learning; breaking programmes into smaller units or modules; credit-based qualifications; validating non-formal and informal learning; as well as flexible pathways.

The adult education system provides adults with a number of tools and flexible learning arrangements. Adults in Spain have access to online databases providing comprehensive information about adult education and training provision (European Commission/EACEA/Eurydice, 2015b). The *Aula Mentor* programme provides adults in Spain with distance learning opportunities combining virtual learning and physical learning spaces with both computers and tutors (European Commission/EACEA/Eurydice, 2015b). Spain ranks amongst the top of European countries in terms of the share of adults participating in online distance learning activities (Figure 37). Adult general and vocational secondary education is also offered in modules (European Commission/EACEA/Eurydice, 2015b). Under this system, adults without formal qualifications can have their knowledge assessed and then enter the module corresponding best to their needs, thereby decreasing learning time and cost to both individuals and society.

Figure 37. Percentage of adults aged 25-64 who participated in a distance learning activity (formal or non-formal), selected countries, 2012



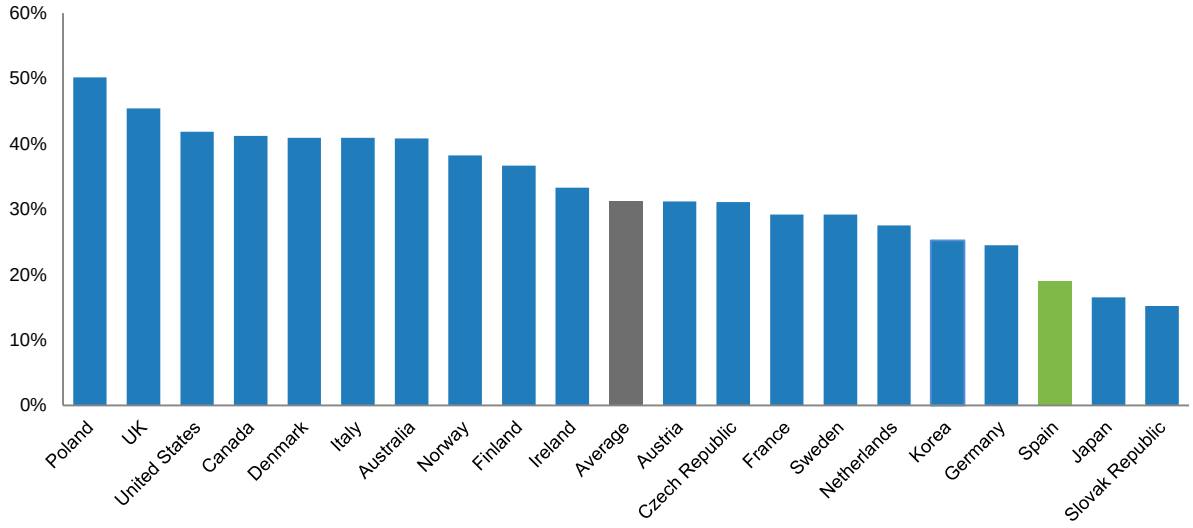
Source: European Commission/EACEA/Eurydice (2015b), *Adult Education and Training in Europe: Widening Access to Learning Opportunities,* Eurydice Report, Figure 4.3, http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/179EN.pdf.

Since immigrants constitute a large share of low-skilled adults, language training might be important for facilitating their fuller participation in the labour market. Approximately 21% of 25-64 year-olds with low literacy skills in 2012 were immigrants (PIAAC, 2012). The Ministry of Employment and Social Security finances programmes that provide immigrants with employment support and Spanish language training (*Foro para integración social de los inmigrantes*, 2014).

Low-skilled adults in Spain are less likely to receive job-related training than their counterparts in other OECD countries

Despite the variety of options available to adult learners, adults with low levels of skill are less likely than their counterparts in other countries to participate in job-related education or training. Only 19% of low-skilled adults in Spain participated in some form of formal or non-formal adult education or training in Spain in 2012, as compared with an OECD average of 31% (Figure 38) (PIAAC, 2012).

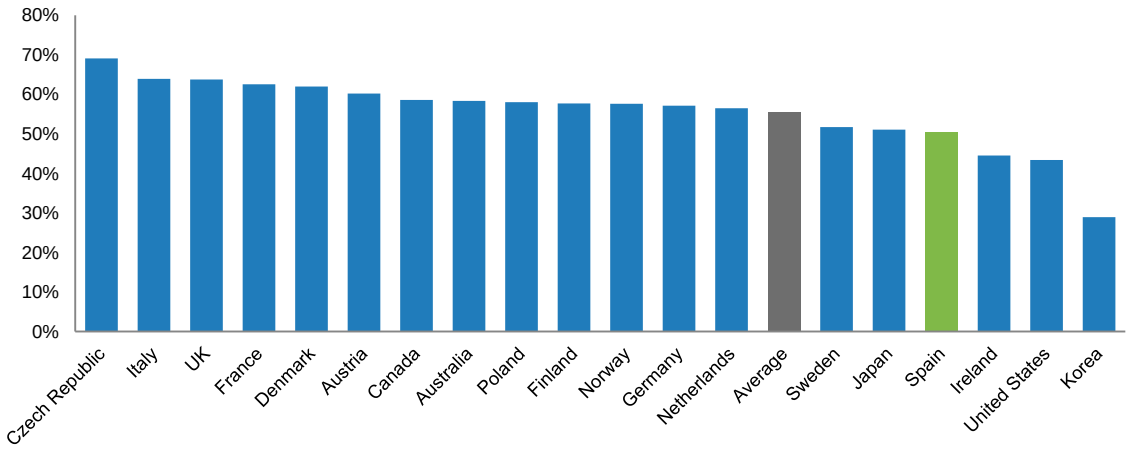
Figure 38. Participation in formal or non-formal adult education and training for job-related reasons, adults 25-64 with low levels of literacy or numeracy, PIAAC 2012



Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Adults with low levels of skill are also less likely than their counterparts in other countries to receive employer-sponsored training. Close to 51% of low-skilled of Spanish adults who reported participation in adult education or training received total or partial employer support for training (Figure 39). The all-country average was around 56%. A similar pattern is seen for participation in on-the-job training.

Figure 39. Percentage receiving employer financial support in total of low-skilled adults (aged 25-64) participating in adult education or training, selected OECD countries, PIAAC 2012

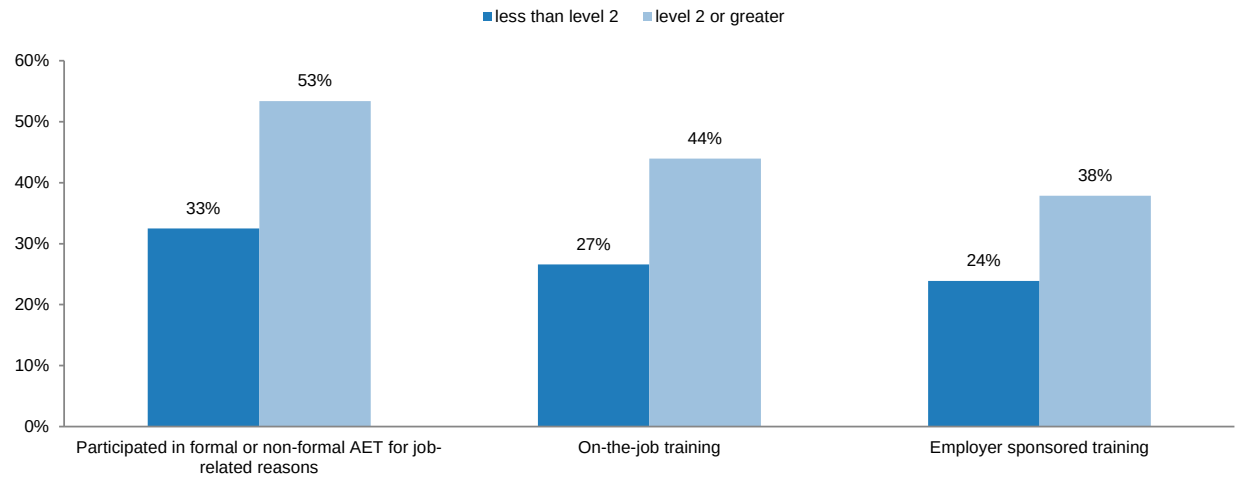


Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Low-skilled adults are less likely than those with higher levels of skill to participate in education and training

As in other countries, low-skilled adults in Spain are less likely than their more highly skilled peers to participate in job-related education or training, receive employer-sponsored training, and participate in on-the-job training (Figure 40). In Spain, 33% of employed adults aged 25-64 with low literacy or numeracy participated in adult job-related education and training in 2012, as opposed to 53% among those with higher levels of skill. Similarly 27% of low-skilled employed adults participated in on-the-job training and 24% received employer support for training versus 33% and 38% respectively for their more highly skilled counterparts. This pattern of lower participation in all forms of learning among the least skilled is found across all countries participating in the Survey of Adult Skills.

Figure 40. Percentage of employed adults aged 25-64 by literacy or numeracy level, PIAAC 2012



Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

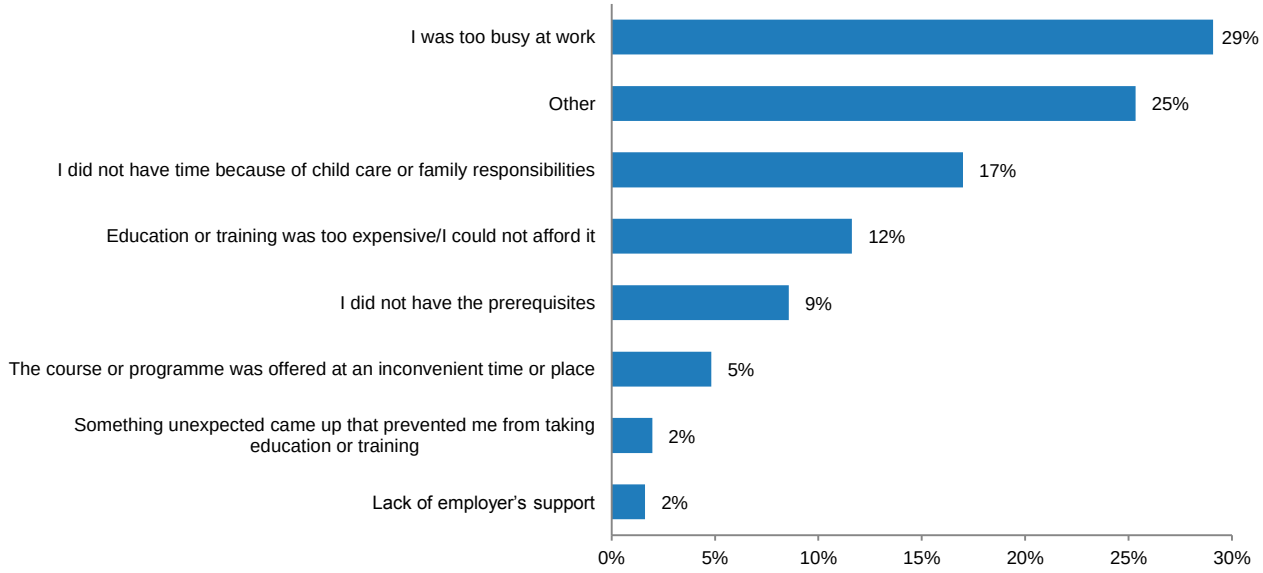
Note: AET = adult education and training

Low-skilled adults face unique barriers to participation in education and training

In addition to the many barriers to learning faced by adults generally, low-skilled adults face a number of additional barriers. Employers' might perceive that returns are higher if they invest in more highly skilled workers. There might additionally be a lack of demand for training on the part of low-skilled adults (OECD, 2005). Those with lower levels of skill typically did not do well in school, disliked school or both – given past experiences they are unlikely to actively seek out opportunities to learn.

The most important barriers to participation in education and training reported by low-skilled adults in Spain are being too busy at work, having to care for children, and having family responsibilities (Figure 41). In 2012, 29% of low-skilled adults cited being too busy at work as their reason for not participating in education or training; 17% gave child care or family responsibilities as their reason; and 25% gave other reasons. Costs, lack of prerequisites, and lack of employer support were offered as reasons by only 12%, 9% and 2%, respectively, of low-skilled adults.

Figure 41. Reasons given by Spanish adults with low literacy for not participating in education and training, PIAAC 2012

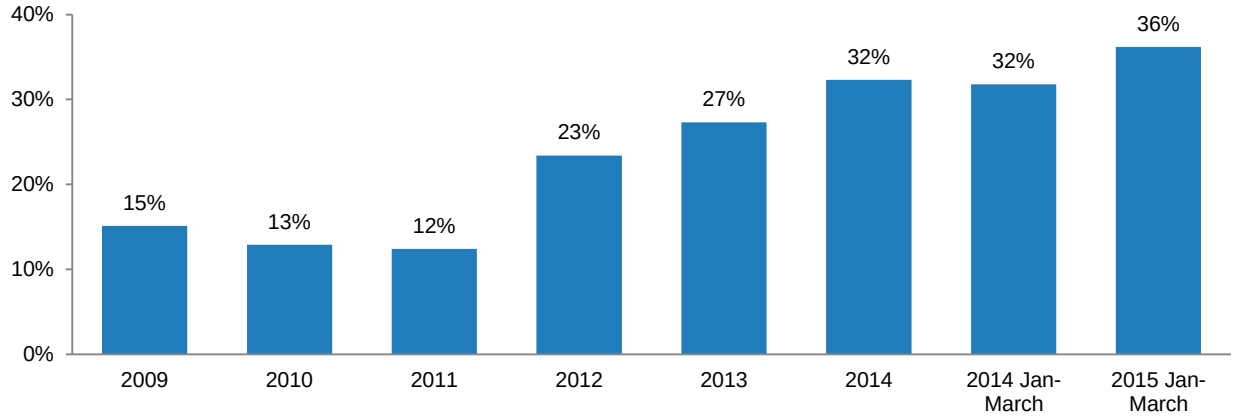


Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Low-skilled adults in Spain benefit from a variety of general and targeted measures designed to lower the cost of participation in education and training. Lost wages are often the largest cost incurred by adults taking part in education and training. While most countries in Europe make allowances for paid training leaves, Spain is one of the few which gives preferential access to those with low levels of academic achievement. The individual training permit (*permiso individual de formación*) provides s those with low levels of education priority access to officially recognised training activities leading to an official qualification (European Commission/EACEA/Eurydice, 2015b). However, as in most countries, an employer's authorisation for leave is a condition for access to paid training leave in Spain. Despite strong financial supports to help adults generally, and low-skilled adults in particular, to participate in adult education and training in Spain, still not enough of these individuals are taking advantage of opportunities to pursue education and training.

Low-skilled young adults are also increasingly benefiting from the training and learning contract to access the labour market and gain valuable skills. The training and learning contract is a labour contract targeting those between 16 and 24 years of age (up to 29 years temporarily) who do not have a formal credential or vocational qualification or become employed in a different sector. This scheme permits employers to deduct all, or a portion, of the cost of training from social security contributions (European Commission/EACEA/Eurydice, 2015b). The 2012 Labour Market Reform expanded the use of this contract by easing the conditions under which firms can provide training and has allowed for the accreditation of training. The share of training contracts used to hire low-skilled workers has increased from less than 15% to over a third between 2011 date and 2014, most likely as a consequence of allowing training to be based solely on professional content (Figure 42). As is the case for unemployed adults generally, low-skilled unemployed adults can also benefit from a number of financial support measures for skills development, including the maintenance of unemployment benefits while in training and assistance to cover the cost of training (European Commission/EACEA/Eurydice, 2015b). Additionally, the Government of Spain offers a number of co-funding measures to support skills training for certain target groups, such as adults with disabilities, unemployed women, victims of gender-based violence, and people with special educational needs (European Commission/EACEA/Eurydice, 2015b).

Figure 42. Percentage of apprenticeship contracts signed by workers with primary education or less



Source: New hirings register of SEPE Statistics: MEYSS (2015a), "Datos estadísticos de contratos", www.sepe.es/contenidos/que_es_el_sepe/estadisticas/datos_estadisticos/contratos/datos/estadisticas_nuevas.html.

Those with low levels of skill are more likely to be employed with temporary contracts (Challenges 4 and 5). Individuals with insecure tenure are less likely to invest in skills that might improve their performance in their current job. Similarly, employers are less likely to invest in the skills of workers that they are uncommitted to maintaining. In part, their contractual status reflects their lower level of productivity: employers want to avoid the costs associated with laying-off their least productive workers. This underscores the importance of publically sponsored education and training programmes for the low-skilled.

The large number of micro and small enterprises in Spain is likely to be an impediment to increased workplace training. In Spain, around 29% of employees work for micro enterprises with 9 or fewer employees and another 26% work for small enterprises with between 10 and 49 employees. Both of these shares are above the average for the countries for which data is available (Challenge 8, Figure 89). There is a large body of evidence demonstrating that smaller firms are less likely than larger firms to invest in the skills development of workers (Stone, 2012; OECD, 2005). A recent survey of firms in Spain (Encuesta Annual Laboral, MEYSS, 2015b) found that small firms have greater difficulty identifying training needs: only 21.8% of firms with 5 to 9 workers identified training needs, compared to 75.8% of firms with over 500 workers. In addition, 54.1% of smaller firms (5-9 workers) reported high work load as a relevant factor limiting training provided to their workers. Among the reasons typically given for the lower investment in training by small firms include: less time to devote to organising and delivering training, limited resources, lack of information on what training is available to them, lack of training tailored to their specific needs, less management capability, more limited access to capital and risk aversion (Stone, 2012).

A number of OECD countries have developed specific measures to engage low-skilled adults in learning. In response to these challenges, OECD countries have developed a wide range of measures, including: measures to raise awareness of the value of training and to raise the profiles of small firms that invest in training, targeted human resource management information and guidance, tax incentives, training subsidies and training levies, among others (Stone 2012; OECD, 2005). Several OECD countries are taking concrete steps to engage low-skilled adults in learning (Box 8 and 9). There are also good examples from Spain (Box 10).

Box 8. The Nordic Countries

The comparatively high participation in adult education in the Nordic countries has attracted much interest. Empirical findings suggest that the major difference between the Nordic and non-Nordic countries are not the existence of participation barriers (the patterns of nonparticipation in both country groups are similar) but the conditions that allow a person to overcome theme (Payne, 2006; Dæhlen and Ure, 2009). Desjardins and Rubenson (2009) argue that a welfare state regime can affect a person's capability to participate as it can help to overcome learning barriers. The Nordic countries have a long history of fostering adult learning, target various participation barriers, and ensure that disadvantaged groups have equal learning opportunities.

Effective public policies include:

- Adult education policies that have been closely integrated with active labour market policy (Desjardins and Rubenson, 2009).
- The Nordic countries feature a state-led social partnership approach to adult education, in which industrial relations involve negotiations among the state, employers, and unions. The corporatist tradition has enabled trade unions to positively influence their members' learning opportunities (Green, 2013).
- The Nordic countries have a strong record of public policy that comprehensively addresses participation constraints. Folk high schools and adult education associations may better respond to different collective and individual aspirations and needs than the formal educational system or education and training supplied by the employer (Desjardins and Rubenson, 2009; Desjardins and Rubenson, 2013).
- The emphasis on equity has a deep impact on the funding regimes of the Nordic countries. Tuijnman and Hellström (2001) found that public support has a crucial effect on the participation of those least likely to enroll. The policy emphasis is on subsidising participation for those who need it most (by eliminating fees, providing targeted study assistance, and financing outreach activities), guaranteeing student spaces, and reducing credit constraints. This strategy also compensates for a tendency by employers to offer little or no financial support to low-skilled employees (Desjardins and Rubenson, 2009).

Source: Dæhlen, M. and B. Ure (2009), "Low-skilled adults in formal continuing education: Does their motivation differ from other learners", *International Journal of Lifelong Education*, Vol. 28, No. 5, pp. 661-674; Desjardins, R. and K. Rubenson (2009), "The impact of welfare state regimes on barriers to participation in adult education: A bounded agency model, *Adult Education Quarterly*, Vol. 59, No. 3, pp. 187-207; Desjardins, R. and K. Rubenson (2013), "Participation patterns in adult education: the role of institutions and public policy frameworks", *European Journal of Education*, Vol. 48, Issue 2, pp. 262-280; Green, F. (2013), *Skills and Skilled Work: An Economic and Social Analysis*; Payne, J. (2006), "The Norwegian competence reform and the limits of lifelong learning", *Journal of Lifelong Education,* Vol. 25, No. 5, pp. 477-506; Tuijnman, A. and Z. Hellström (eds.) (2001), *Curious Minds: Nordic Adult Education Compared*; Windisch, H. C. (Forthcoming), "Adults with low literacy and numeracy skills: A literature review on policy interventions", *OECD Education Working Papers*, No. 123.

Box 9. What are other countries doing to support Adult Education and training for low-skilled adults?

The Australian Workplace English Language and Literacy Programme

Introduced by the Australian Government in 1991, the Workplace English Language and Literacy (WELL) programme provides grant funding to support integration of language, literacy and numeracy (LLN) education within vocational training, delivered in the workplace. The main aim of the WELL programme is to assist organisations to train their workers in job-related LLN skills. The WELL programme is integrated with vocational training and dedicated to the needs of the workplace. By building workers' LLN skills alongside vocational training, WELL training is intended to increase workforce flexibility and responsibility, productivity and efficiency, health and safety in the workplace, communication, consultation and teamwork, and creates a training culture in the workplace. Between 2009 and 2014, more than 72 000 employees and 530 Indigenous Employment Programme (IEP) participants have completed training funded by the WELL Programme. Over that time, the programme has supported 1 030 training projects conducted by 160 Registered Training Organisations (RTOs) across 740 employer worksites in Australia. The large majority of employers (ca. 80%) report that the training has a positive impact on LLN skills as well as on employees' career prospects. Embedding LLN within vocational training produces greater improvement across key employability traits than vocational training programmes alone. The most important aspects for future success is attention to activities that support the identification of business needs, the availability of qualified and suitably experienced trainers, and an efficient application process.

Box 9. What are other countries doing to support Adult Education and training for low-skilled adults? *(continued)*

The Accelerating Opportunity (AO) initiative in the US

Launched in 2011, the Accelerating Opportunity (AO) initiative aims to increase the ability of students with low basic skills to earn valued occupational credentials and to obtain well-paying jobs. AO encourages states to change the delivery of Adult Basic Education for students interested in learning career skills by enrolling them simultaneously in for-credit career and technical education courses at local community colleges as they improve their basic education and English language abilities. It builds on the legacy of the adult education initiative Breaking Through and on Washington State's I-Best programme. The initiative promotes and supports the development of career and college pathways that incorporate contextualised and integrated instruction, team teaching between adult education and college instructors, and enhanced support services at community colleges. AO is also designed to change how states and colleges co-ordinate with government, business, and community partners and reform policy and practice to fundamentally change how students with low basic skills access and succeed in post-secondary education and the workforce.

Four states (Illinois, Kansas, Kentucky, North Carolina) received grants to begin implementing the AO model in the 2012 spring semester and oversaw the development of career pathways in 33 community and technical colleges. Louisiana, as the fifth state, began implementation in the 2012 fall semester at nine additional colleges. In the first year of implementation, these 42 colleges enrolled ca. 2 600 students and built capacity to provide team teaching with college and adult education instructors, offer comprehensive support services, and develop partnerships to support the sustainability and scaling of AO. AO students who participated in focus groups during the first year site visits described their experience as mostly positive, many of them were planning to continue their post-secondary education after completing a pathway, and several had jobs related to their field of study.

Source: Anderson, T. et al. (2014), *The First Year of Accelerating Opportunity: Implementation Findings from the States and Colleges*, www.jff.org/sites/default/files/publications/materials/413238-The-First-Year-of-Accelerating-Opportunity.pdf; UNESCO (2014), Australian Workplace English Language and Literacy (WELL) Programme, www.unesco.org/uil/litbase/?menu=4&programme=134; Windisch, H. C. (Forthcoming), "Adults with low literacy and numeracy skills: A literature review on policy interventions", *OECD Education Working Papers*, No. 123.

Box 10. Spotlight on Spain: Strategies to improve skills of low-skilled workers

The Foundation Esplai runs the "Conecta Joven" project which involves 23 centres throughout the country and provides basic ICT skills targeting women over 45, older people and immigrants. The instruction is given by young people who are recruited and trained to be project "motivators". Key partners include the Microsoft Corporation, Wrigley, the Ministry of Employment and Social Affairs, the Ministry of Education, Culture and Sport, Injuve and NGOs. The principles of this project are intergenerational collaboration promoting citizenship among young people and older members of society, facilitating the acquisition of digital skills of vulnerable groups, fostering service and life-long learning and strengthening social inclusion and local social networks among participants and institutions. With web 2.0 tools and services (such as blogs, discussion forums, social networking sites) new course content is developed and delivered. An external evaluation by the Centre of Research and Practices that Overcome Inequalities (CREA) at Barcelona University found that participants used their newly acquired digital skills in their daily life when communicating through email (64%), generating documents (69%), and looking for a job (44%). At the same time the young "motivators" gained teaching experience, higher ICT skills, soft and social skills such as patience, commitment, and solidarity.

Source: Hayward, D. (2010), "Case Study Conecta Joven", Links-up.eu, www.links-up.eu/Dissemination_case_study_Conecta_Jovena85b.pdf%3b?option=com_k2&view=item&task=download&id=17.

Steps have been taken to improve access to adult education and training

In 2014, the Ministry of Education, Culture and Sport in collaboration with the Autonomous Communities developed a Strategic Plan for Lifelong Learning. The plan includes all training activities

undertaken at any time in the life cycle of a person to improve their theoretical and practical knowledge, skills, competencies and/or qualifications for personal, social and/or professional reasons. The Strategic Plan for Lifelong Learning in education will provide access to distance formal education (Primary, Secondary Education and Vocational Training School), and to free tests for obtaining credentials in secondary education and at the bachelor level, as well as resources (e.g. online learning portals) for learning throughout life through different activities and in different contexts (MECD, 2015).

The Ministry of Education, once again in collaboration with the Autonomous Communities, has also developed the tool Inform Yourself (*InFórmate*) to provide information and advice about different ways to continue training in the education system and promote the return to it. The design of the website is simple comprising two pages, multiple choice answers and a help window with a FAQ section. Users provide basic information and are then directed to other websites with relevant training offers. The relatively large number of training options can be overwhelming especially for adults with low literacy and low digital skills. Clicking through the numerous websites and searching for the relevant information can be time-consuming and cumbersome. Complementing the website with a search function, a hotline to call as well as local information and guidance centres would improve the user experience and ensure that those who need training the most will be able to easily find out about it.

The Government has also introduced a number of reforms to support low-skilled individuals to reskill and upskill. Royal Decree-Law 3/2012 for the first time recognises Vocational Training as an individual right. The National Reform Programme 2013 states that the government plans to reform the professional vocational system to improve worker employability. This same law provides for the possibility of training and apprenticeship contracts based on dual training within the workplace. Since these measures were introduced, the number of training contracts has more than doubled from 60 000 in 2012 to 140 000 in 2014. The Ministry expects that this number will rise to 175 000 in 2015. Furthermore, the number of certificates issued rose from fewer than 12 000 in 2012 to 70 000 in 2014. Under the previous system, contracts for training and learning did not necessarily lead to certification. From June 2015 onwards, all training carried out by means of this type of contract will have to be certified. Therefore, it is expected that the number of certifications issued will rise significantly. Finally, the Ministry is currently developing a new framework for co-ordination and co-operation among the different Administrations and Institutions who have a role in the delivery of dual training. This will permit the development and sharing of tools for financing, management, control and evaluation of the system.

In March 2015 a major reform of Professional Training was introduced with the aim of improving the efficiency and effectiveness of the training system (Box 11). The reform has implications for the institutional framework as well as operations, introducing competition in the delivery of training courses for employees and jobseekers. Forward-looking analysis of training needs is also considered, along with closer co-operation with autonomous regions. The system will play an important role in maintaining skills of employed workers and upskilling or reskilling those of jobseekers.

Box 11. Reform of professional training system

On March 2015, the Government adopted a major reform of the Professional Training system. (Royal Decree-law 4/2015, of 22 March). The reforms introduces a new model based on the following pillars:

- A single model for all the competent Administrations (National and regional), thus promoting market unity in training services provision.
- Effective training based on a multiannual forecast, analysis of the needs and of the labour market, as well as the skills profile of workers and an adequate matching between the two.
- Competition in access to funding: introducing private training centres to compete for 100% of the public funds available for training. Up until 2012, only workers' and employers' associations were eligible and funds were distributed on the basis of their representativeness. With the reform, training centres have had access to an increasing amount of funding (calls for tenders were gradually opened up to competition).
- Enhanced information systems and ongoing evaluation that will allow for: the measurement of public funding allocated to training throughout the country; the identification of what training is taking place and where; the evaluation of the effectiveness of this training (impact assessment); and the tracking of an individual's training record throughout his career ("training account").
- Greater flexibility of training at the firm level: reduced constraints on businesses wanting to train their workers for the specificities of their position and greater opportunities for small firms to participate in this training. In particular, new "organising entities" will play a significant role in co-ordinating the needs of several firms and solve any problems of scale that up until now limited training for their workers (only 26% micro-firms trained their works, compared to 93% of large firms).
- Change of governance in the system: social partners will play an essential role in contributing to identify training needs and priorities, given their knowledge of and close contact to economic activity. They will not, however, receive direct funds to train workers, given the new competitive tendering mechanisms in place.
- Transparency and efficiency in the management of public funds for training, preventing the cases of mismanagement that have surfaced over the years.

Source: Jefatura del Estado (2015), "Real Decreto-ley 4/2015, de 22 de marzo", *Boletín Oficial del Estado*, No. 70, Lunes 23 de marzo de 2015, www.boe.es/boe/dias/2015/03/23/pdfs/BOE-A-2015-3031.pdf.

Summary and policy implications

Spain has many low-skilled adults who will be in the workforce for many years to come. There are close to 10 million low-skilled adults between the ages of 25 and 64 in Spain. Around two-thirds of them will still be in the labour market ten years from now and more than one-third even in twenty years.

Many low-skilled adults need help to adjust to ongoing changes in the structure of employment and the skills required by jobs. Many have jobs that are vulnerable to displacement by technology or offshoring to low wage countries. Others confront rapidly changing workplaces where the skill needs of jobs are often changing and increasing. Opportunities to upskill and reskill will be increasingly necessary for many to maintain existing jobs or find new ones.

Low-skilled adults in Spain are not only less likely to participate in education and training than their more highly skilled Spanish counterparts but also if compared to low-skilled adults in other OECD countries. This is despite the fact that Spain has a relatively comprehensive and flexible adult education system and provides a wide variety of measures to support adult education and training, including a number which specifically target low-skilled adults.

More support for on-the-job training may be needed to help low-skilled adults maintain their jobs and progress in their careers. Success in this regard will require overcoming barriers, such as capacity constraints in micro and small firms and insufficient awareness of the importance of training for long-term firm viability.

Given the challenges of engaging low-skilled adults in education and training, a prudent strategy would be to target those at greatest risk of job loss and/or those most likely to benefit from education and training. These strategies should address the most important barriers to the participation of Spanish adults in learning, such as lack of time and child-care and other family responsibilities. They might also promote awareness of the importance and benefits of skills development both for themselves and, indirectly, for their children.

Prevention is the best form of cure. The best way to ensure that low-skilled adults continue to have gainful employment in the future is to ensure that the youth of today do not also leave school with low levels of skill. Historical evidence and forecasts of future skill needs suggest that the share of low-skilled jobs will be stagnant at best, but could also decline. Many studies also find that the share of middle-skilled jobs is shrinking. If such scenarios hold true, then adding more low-skilled adults to the large existing stock of low-skilled adults risks crowding some of them out of the labour market altogether.

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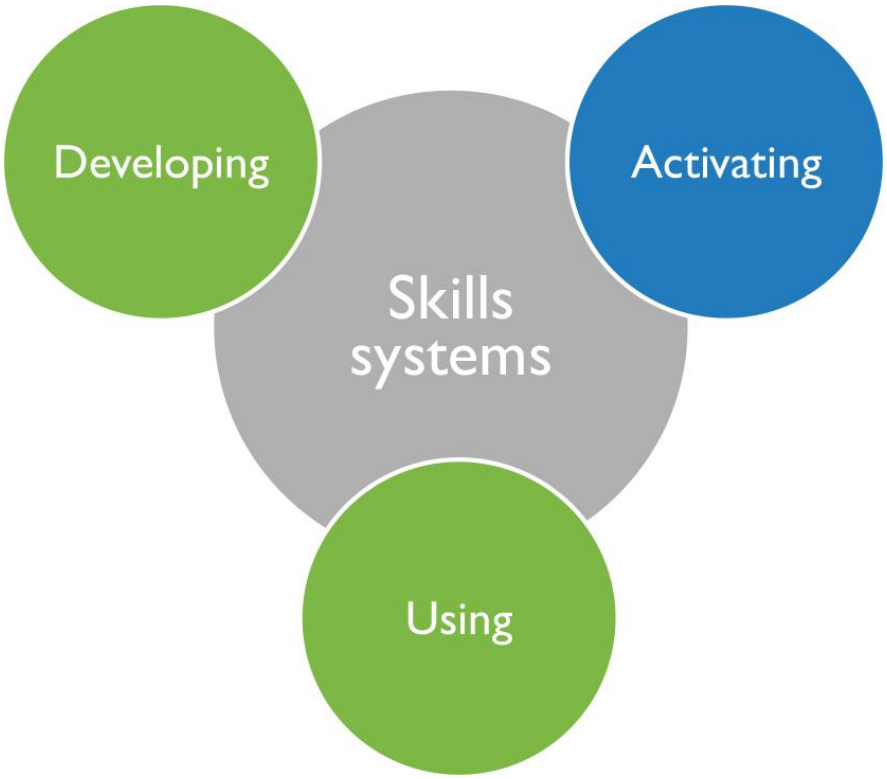
ACTIVATING SKILLS



INTRODUCTION TO ACTIVATING SKILLS

To realise the full benefits of investments in skills, the skills of working-age adults must be fully activated in the labour market. However, if the labour market does not provide sufficient opportunities for gainful employment, people's skills will lay idle and over time will atrophy. Across OECD countries, certain groups are under-represented in the labour market as they face unique barriers that prevent them from realising their full skills potential. In some cases, public policies do not create sufficient incentives or, worse, create disincentives for individuals to supply their skills in the labour market. Governments and social partners play a critical role in identifying and mobilising people's unused and under-used talent.

Spain has one of the highest rates of unemployment in the OECD and there are large numbers of long-term unemployed workers. Youth unemployment is particularly high. The costs of not addressing high unemployment include lost income, lower economic growth, lower tax revenue and higher social costs. Yet many of those who do find jobs are hired on temporary contracts with very limited job security, career prospects and employer-provided training. This is particularly the case with youth and the low-skilled. While temporary contracts provide flexibility to employers who might not hire otherwise, in Spain they are too rarely stepping stones to regular contracts. Many people are employed in the informal economy with no eligibility for unemployment insurance, employer-sponsored health and pension schemes and training.

High levels of unemployment and low employment are not new to Spain. Unemployment rates as low as the OECD average, such as those that prevailed in Spain just before the onset of the recent economic crisis, were an anomaly rather than the norm. Historically high rates of unemployment and low rates of employment relative to other OECD countries suggest that Spain has faced structural impediments to labour market clearing. Strict employment protection legislation and a high tax burden on labour may have been a brake on hiring and employment in Spain. These barriers must be addressed to ensure that individuals and society realise the benefits of their considerable investments in skills development.

Across OECD countries, labour market policies and public employment services play a critical role in helping un- and under-employed people to return quickly to full and gainful employment. Income support programmes for the unemployed must create the right incentives, and avoid generating disincentives, for adults to supplying their skills in the labour market. Active labour market policies and the Public Employment Service (PES) must quickly identify and reactivate the inactive and unemployed. And when these individuals lack the skills needed for the labour market, the PES needs to provide access to training. In Spain, the capacity of the public employment service to support job search and training is low by OECD standards. Spain also has one of the highest ratios of claimants to public employment service staff in the OECD. While spending on active labour market polices has increased since 2007, the amount of funding dedicated to active labour market policies has not kept pace with the sharp increase in the numbers of people unemployed.

Youth who are unable to make smooth transitions from school to work are particularly at risk. They are at greater risk of being unemployed or underemployed and having lower earnings later in life. Even before the crisis, youth unemployment in Spain was around 20%. The crisis has exacerbated the situation and in recent years youth unemployment has risen to above 50%, which is almost 2.5 times that of prime-age workers. The number of youth neither in employment, education nor training (NEET) has increased steadily as well and ranks near the top of the OECD.

Without significant improvements to its activation performance, Spain will continue to experience high rates of unemployment and risks having a lost generation whose long-term employment, earnings and social prospects are dim.

CHALLENGE 4: REMOVING REGULATORY AND TAX BARRIERS TO HIRING AND WORKER ACTIVATION

A selection of challenges identified by Spanish workshop participants:

"Eliminate the artificial legal barriers for permanent hiring in order to reduce temporary contracts"

"High unemployment is the issue in Spain"

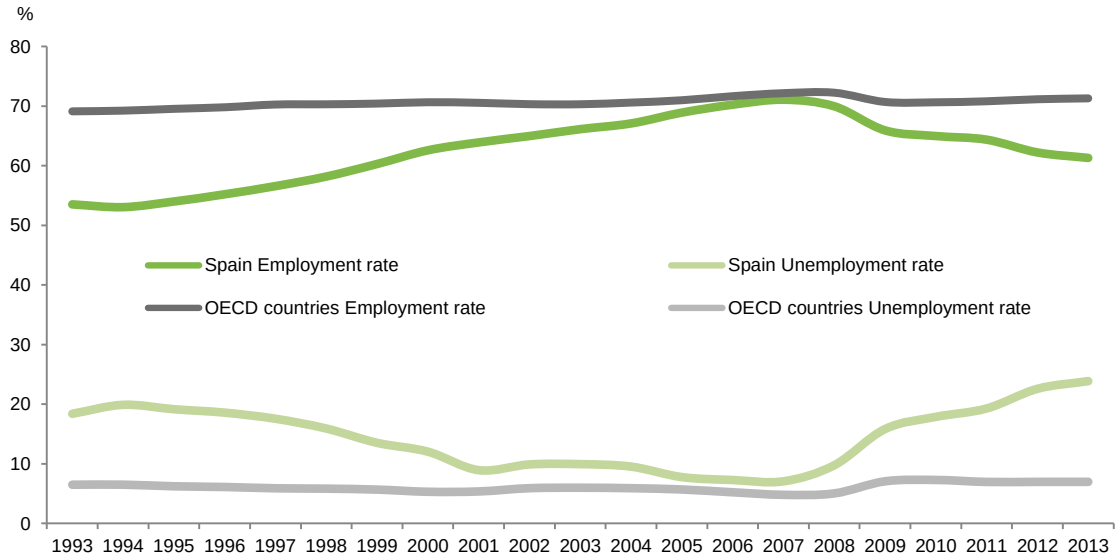
"There is an excess supply of labour"

"More and better employment is needed"

To fully benefit from skills investments people's skills must be activated in the labour market. With an unemployment rate that is the second highest in the OECD and an employment rate that is third lowest in the OECD in 2014, many working-age adults in Spain are not realising the full benefits of investments in their skills. In the 2000s, unemployment fell and employment rose to near the level of the OECD average, due in large part to easy access to capital and an unsustainable construction boom. Wages, too, rose very rapidly, exceeding gains in most other European countries. Nominal wage growth also exceeded productivity growth (Peeters and den Reijer, 2012). However, when the bubble burst and the recession took hold, the economy shed jobs faster than in any other OECD economy. Job losses have affected wide segments of the population. Today, even many highly skilled and well-educated individuals are also having difficulty finding work.

High unemployment and low employment are arguably the greatest challenges facing Spain today. Labour market rigidities and labour market duality contributed to job shedding and slumping employment during the crisis. Even with relatively healthy employment growth starting at the end of 2013, the unemployment rate remains very high and employment rate comparatively low. As Figure 43 shows, high rates of unemployment and low rates of employment are not new to Spain. A large informal sector has also long been a characteristic of the Spanish economy. All of this suggests that there are structural impediments to the market for labour clearing in Spain. These barriers must be addressed to ensure that people and society realise the benefits of their considerable prior investments in skills development.

Figure 43. Employment and unemployment rate for Spain and OECD countries, 1993-2013



Source: OECD (2015b), "LFS by sex and age - indicators", OECD Labour Force Statistics (OECD.Stat database), http://stats.oecd.org/Index.aspx?DataSetCode=LFS_SEXAGE_I_R (accessed 24 March 2015).

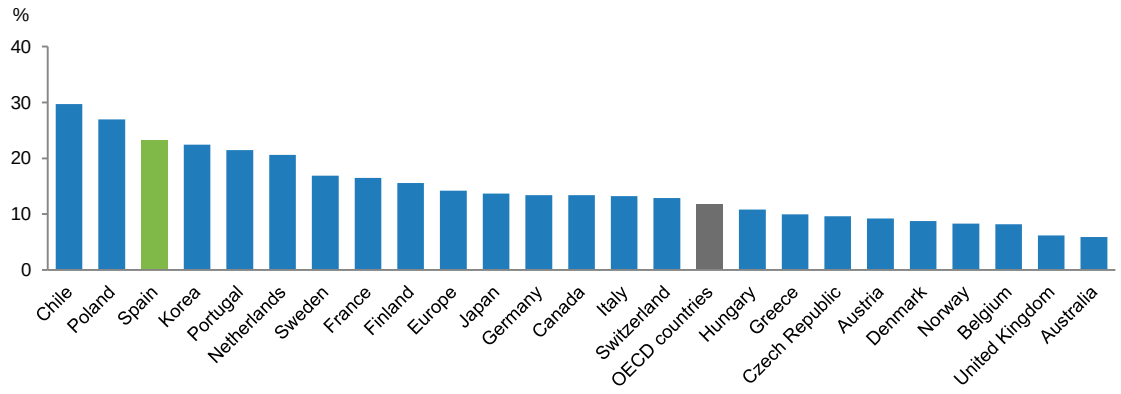
The Spanish economy is characterised by labour market duality

Employment protection legislation (EPL) governs the hiring and firing of workers. The purpose of EPL is to protect the individual worker, and the country as whole, from the costs associated with job displacement (OECD, 2013a). For individuals, these costs include the loss of earnings, decreased mental and physical health, and the possible obsolescence or atrophy of skills and experience. For the country, job losses imply additional costs related to higher spending on health care (mental and physical), unemployment benefits and active employment measures, as well as loss of tax revenues.

Strict EPL legislation increases the costs of hiring and firing workers. To minimise these costs, employers frequently hire workers on temporary contracts. Temporary contracts provide firms with the opportunity to test whether a worker is a good fit before offering them a regular contract and also greater flexibility to lay off workers during economic downturns. Temporary contracts are thus a form of flexibility that can create a segmented labour market: some workers enjoy the benefits and security of regular contracts while others cycle between temporary contracts in precarious jobs. This segmentation is often referred to as *labour market duality*. Labour market duality makes the hiring and firing of workers – as opposed to wages – the dominant mechanism for adjusting to the business cycle. As a consequence, countries with high levels of labour market duality tend to experience greater job losses during economic downturns.

In Spain, historically high levels of protection for workers on regular contracts have contributed to significant labour market duality well before the crisis. These protections included a strict definition of what constituted a justified collective dismissal and relatively high severance pay for laid off workers. Almost a quarter of workers in Spain are employed on temporary contracts (Figure 44). This is significantly higher than the OECD average (12%) and much higher than countries such as Australia, Belgium, Denmark, Ireland, Norway and the United Kingdom, where less than 10% of workers have a temporary contract (OECD, 2015b). Indeed. Only Chile (35%) and Poland (27%) have higher shares of workers employed on temporary contracts. In Spain, youth (Challenge 6) and low skilled workers (Challenge 4) are particularly at risk of being hired with temporary contracts.

Figure 44. Percentage of temporary workers in selected OECD countries, 2013



Note: Data for Australia and Japan from 2012.

Source: OECD (2015b), "Incidence of permanent employment", OECD Labour Force Statistics (OECD.Stat database), http://stats.oecd.org/Index.aspx?DataSetCode=TEMP_I.

Temporary contracts are rarely a stepping-stone to regular contracts. In Spain, only 20% of workers in temporary contracts moved into regular contracts after three years, as compared to a European country average of around 50% (OECD, 2014b). Workers with temporary contracts are six percentage points more likely to become unemployed the following year when compared to workers in regular contracts. Furthermore, they are more likely to become inactive the following year. Such workers are less likely to receive employer sponsored training, have less income security, are less likely to have unemployment or health insurance, and are less able to save for their pensions (OECD, 2014b). The result is a large group of people who are left cycling between temporary contracts with typically low wages and poor career advancement opportunities.

There are no simple solutions to entrenched labour market duality. Policy options to reduce labour market duality include making the use of temporary contracts more difficult and costly, relaxing regulations on dismissal of permanent workers or fostering convergence of termination costs across contracts. Many countries restrict the use of temporary contracts by law. Most countries mandate that after a certain number of temporary contracts the worker must be hired in a regular contract. Many countries also mandate that the share of temporary workers cannot exceed a certain percentage of their workforce (e.g. 20% in Italy), with exceptions for small firms or those in certain seasonal economic activities such as agriculture or tourism (OECD, 2013a). Spain, too, has regulations governing the use of temporary contracts but, in practice, enforcement has been lax. These restrictions are often not enough to protect workers from cycling between temporary contracts, as firms may engage with workers through different types of contracts. To decrease reliance on temporary contracts, some have recommended that countries consider the introduction of a single contract with severance pay increasing with worker seniority (OECD, 2012; Bentolila et al., 2011).

Labour market inflexibility has exacerbated job losses and created disincentives for hiring

Strict EPL and labour market duality can exacerbate job shedding and depress hiring. When economic conditions are uncertain, such as in the period following a recession, employers may be reluctant to hire workers if they have limited flexibility to adjust wages and if the cost of dismissing workers is high. Prior to the 2012 reforms (Box 12), it was relatively difficult and costly for firms to dismiss workers in Spain. Bassanini and Garnero (2013) find that in OECD countries strict employment protection legislation (including strict dismissal legislation) are associated with lower job finding rates and higher unemployment. Bentolila et al.

(2011, 2010b) find that differences in the extent of employment protection can explain approximately 45% of the much larger rise in unemployment in Spain than in France. They observe that while both Spain and France share similar labour market institutions, Spain had a larger gap in the firing costs between regular and temporary workers and, in practice, more lenient regulation of the use of temporary contracts. The result was a greater use of temporary contracts and a correspondingly higher rate of job destruction in the recession.

Strict EPL also impairs the efficient reallocation of labour. For workers, strict EPL increases the risk associated with job changes, with the result being higher wage demands when changing jobs and decreased labour mobility overall (Orsini and Vila Núñez, 2014; Gielen and Tatsiramos, 2012). In the aggregate, the lack of wage flexibility and disincentives for workers to reallocate their labour from declining to growing firms and industries hinders productivity growth and job creation (Orsini andVila Núñez, 2014).

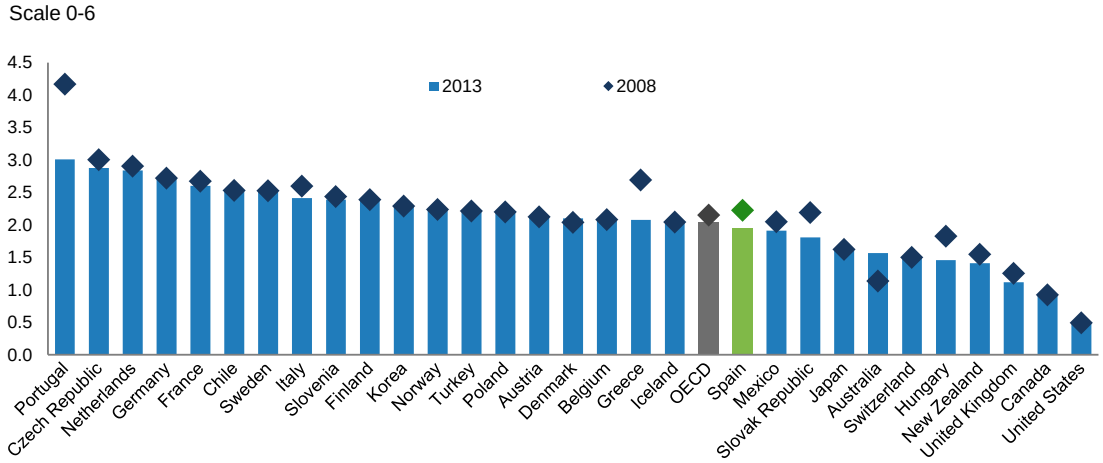
Sector wide collective bargaining has tended to limit firms' flexibility to adjust wages or working hours to economic conditions. Prior to 2012, Spain's collective bargaining system was characterised by an intermediate degree of centralisation at the sector or region level. Under this system, collective bargaining outcomes were extended by law to all firms of the same sector or region, even when those firms were not represented in the agreement (OECD, 2012). Decreased flexibility to adjust wages and working hours makes layoffs the primary mechanism of adjustment. This lack of flexibility is likely to have exacerbated job shedding in Spain during the recession.

Recent reforms aim to increase labour market flexibility and hiring

The 2012 labour market reforms include provisions to facilitate firms' flexibility to respond to changing economic circumstances. Under the reform, what constitutes a justified dismissal has been clarified, which should result in fewer claims of wrongful dismissal and lower associated costs. Dismissal is considered justified for economic reasons if a firm has declining revenues over three consecutive quarters as compared to the previous year. In the case of wrongful dismissal, the maximum compensation has been reduced from 45 to 33 days' wages per year of seniority (up to a maximum of 24 months). This applies to all new contracts and for future years of service on existing contracts. The reform also clarified the conditions under which an employer can undertake collective dismissals and firms no longer have to pay interim wages while judicial procedures are pending nor do they require administrative approval. Employers are required to provide training and a relocation plan for workers when the collective dismissal affects over 50 workers. Furthermore, it sets limits on the circumstances in which workers can individually challenge collective dismissal agreements and unambiguous limits on the power of courts to void collective redundancy actions. The reform also puts a limit on the duration of fixed-term contracts to 24 months (EC, 2015; OECD, 2012, 2013a, 2013b).

The reform has brought the degree of protection offered by regular contracts closer to the OECD average. Until the labour reform of 2012, the level of employment protection in Spain was among the highest in the OECD. The reform has reduced it close to the OECD average (Figure 45). Yet the costs associated with wrongful dismissals in Spain remain high in international comparison. In particular, the difference with respect to firing costs of workers on temporary contracts remains large (OECD, 2012).

Figure 45. Strictness of employment protection legislation[1]



Note:

1. Synthetic indicator of the strictness of employment protection legislation (EPL) with a scale of 0-6 from most to least restrictive. The EPL shown in this figure incorporates three aspects of dismissal protection: procedural inconveniences that employers face when starting the process; notice periods and severance pay; and difficulty of dismissal.

Source: OECD (2014), "Employment protection legislation", in OECD, *OECD Economic Surveys: Spain 2014*, http://dx.doi.org/10.1787/888933128650.

The recent reform of collective bargaining arrangements aims to restore competitiveness and preserve jobs by allowing wages to adjust more flexibly to economic conditions (OECD, 2013b; Box 12). The reform allows enterprises to opt out of sectorial collective bargaining and negotiate firm-level collective agreements (OECD, 2012). Firms are also permitted to pursue internal flexibility measures, such as introducing unilateral changes to wages and working hours when warranted by objective economic, technical, production or organisational conditions. Furthermore, if an agreement cannot be reached, employers can opt out of collective bargaining and refer the matter to arbitration. The results of this arbitration can be challenged before a court only on very limited grounds. Finally, collective bargaining agreements can no longer be extended for more than one year after their end date to create incentives for social partners to renegotiate new agreements that are responsive to current economic conditions (OECD, 2013b, 2012).

Box 12. Recent labour market reforms in Spain

The 2012 reform of employment protection legislation

The 2012 labour market reforms aimed to reduce the duality in the Spanish labour market, through the reform of employment protection legislation and by fostering internal flexibility:

- The law redefines the economic reasons for dismissal, further clarifying the conditions under which a dismissal for objective reasons could be justified. In this case, the employer pays 20 days' wages of severance pay per year of seniority. The law specifies that dismissal is justified for economic reasons if the company faces a persistent decline in revenues or income, *i.e.* over three consecutive quarters as compared to the same periods of the preceding year. As concerns other objective reasons for dismissal that would also validate justified dismissal, the firm has to show only that it has undertaken technical, organisational or other production process-related changes, but no longer has to prove that the dismissal was necessary for future profitability of the firm.

Box 12. Recent labour market reforms in Spain *(continued)*

- If a dismissal is judged to be unjustified, the maximum severance pay is reduced to 33 days' wages per year of seniority up to a maximum of 24 months, compared with 45 days and a maximum of 42 months on the regular permanent contract previously. This applies to all new contracts and for future years of service on existing contracts.

- The law eliminates the need for administrative authorisation of collective dismissal, in line with current regulations in most European countries.

- While it removes the option of express dismissal, according to which firms could declare the dismissal upfront as being "unjustified" and pay 45 days' wages per year of seniority to avoid litigation, firms no longer are obliged to pay interim wages during the period the case is adjudicated.

- The law introduces a new type of permanent contract for companies with fewer than 50 employees. Hiring on this new contract is subject to an extended trial period of one year, compared with a previous maximum of six months, and various tax credits.

- It further restricts the use of temporary contracts, by reinstating the maximum period of extension of a temporary contract to two years. This law was temporarily suspended in August 2011.

The 2012 reform of collective bargaining

One of the main building blocks of the 2012 labour market reforms concerns the collective bargaining system so as to enhance adaptability of firms to shocks. It also aims at reducing labour market duality by fostering the internal flexibility of firms:

- It allows companies to reach a collective agreement with representatives of workers to establish relevant working conditions within the firm, most notably including basic salary, allowances and overtime compensation, or the distribution of working time. These firm-level agreements have priority vis-à-vis higher-level agreements.

- If there is no collective agreement on the firm-level, the new law aims to further facilitate opting out from higher level agreements. No further condition applies to opt-out as concerns working hours, wages, work location or functions, if the firm has suffered declining revenues for two consecutive quarters as compared to the same periods of the preceding year. Opting out is also easier to justify for technical, organisational or production-related reasons. In particular, the law introduces obligatory arbitration if workers and employers do not agree on the conditions of the opt-out.

- If a firm suffers declining revenues over two consecutive quarters, it can unilaterally alter or suspend employment contracts beyond what was originally agreed between employers and workers. Changing a contract unilaterally by the employer is possible under economic, technical, organisational or production-related reasons – similar to dismissal for justified reasons and opting out. In case of disagreement with the decision of the employer, the employee may choose to charge compensation of 20 days per year worked and terminate the employment relationship or appeal before the Social Courts.

- The reform aims to encourage more flexible renegotiation of the agreements and reduce their inertia. It sets a maximum of one year (*ultra-actividad*) during which a former agreement is valid. If no new agreement is reached within the year, labour relations would be governed by the provisions of an agreement reached at higher levels (i.e. a sectoral or regional agreement, or in the case that they too have not been renewed, the Workers' Statute).

Source: OECD (2012), *OECD Economic Surveys: Spain 2012*, http://dx.doi.org/10.1787/eco_surveys-esp-2012-en.

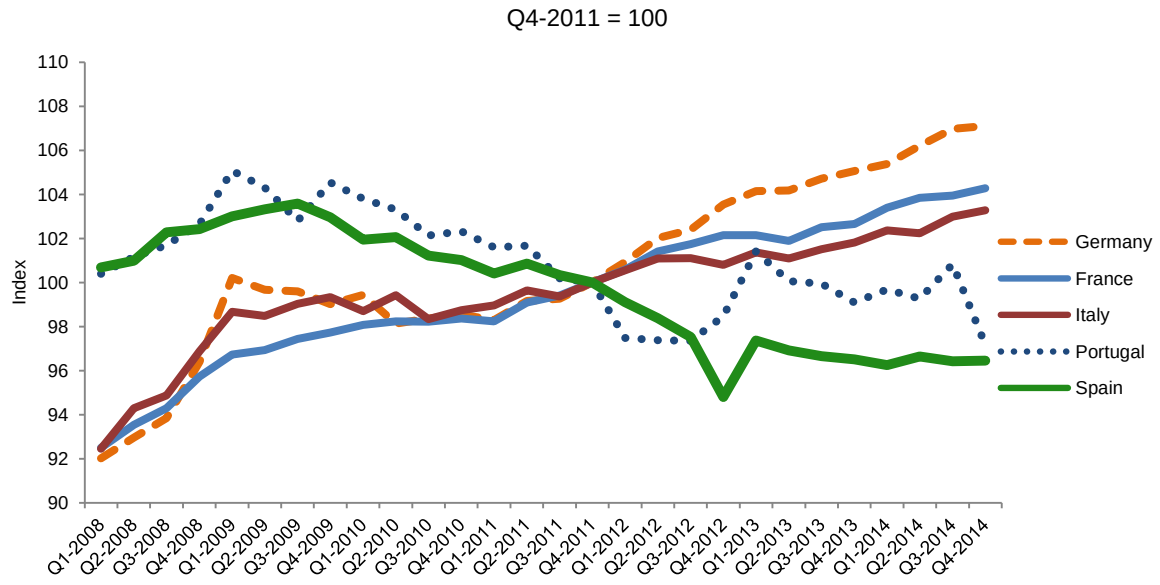
Increased labour market flexibility may create new challenges

Less strict rules governing dismissals should create greater incentives to hire, but will also imply more frequent periods in and out of work, even during good economic periods. As a consequence, it is of the utmost importance to ensure that active labour market policies (Challenges 5 and 6), unemployment benefits (Challenge 5), social assistance, other transfers, and the taxation system (Challenge 11) be calibrated to shorten periods of unemployment and smoothen unemployed people's transition back into the labour market. In countries such as the United States and Canada, eligibility for unemployment insurance and social assistance is conditional upon active, monitored job search. In many cases, the unemployed must attend job finding clubs or seminars or participate in skills development activities.

Collective bargaining at the firm level may provide firms with greater flexibility to adjust wages and hours of work so that the dismissal of workers is not their only option during economic downturns which will help to protect jobs and livelihoods (OECD, 2012). However, adjustment may create economic hardship for workers and their families, especially the low-skilled and those hired under temporary contracts, as they often face lower wages and lower wage growth. Spain will need, therefore, to ensure that its labour market and social policy architecture, including its tax and transfer programmes, are well adapted to this new landscape. Many countries characterised by labour market flexibility have developed policies to supplement low in-work income. In the United States and Canada workers with low income are also entitled to a variety of means-tested income support schemes to help ensure that it always pays to work (Box 13).

Spain has experienced one of the largest drops in unit labour costs in Europe since 2012 (Figure 46). Between the fourth quarter of 2011 and the second quarter of 2013, unit labour costs declined by 3.9% in Spain, while during the same period labour costs were moderately rising or falling only slightly in other European countries (OECD, 2013b). However, this cannot be solely attributed to the government's labour market reforms. The OECD (2013b) notes that wage moderation in Spain was particularly noticeable in the public sector in 2012 for reasons that were closely related to fiscal consolidation and not to labour market reforms. Nonetheless, lower labour costs helped to correct for the fact that nominal wage growth had outstripped productivity growth during the boom years. It also helped to bolster Spain's competiveness internationally.

Figure 46. Evolution of unit labour costs in selected European countries, 2008-13



Source: OECD (2014e), "Unit labour costs" (indicator), http://dx.doi.org/10.1787/37d9d925-en.

Box 13. Income support for low income workers

The United States federal Earned Income Tax Credit

The Earned Income Tax Credit (EITC) provides working people who have low to moderate income with a refundable tax credit.

The maximum amount of credit in 2014 was USD 496 with no children, USD 3 035 with one qualifying child, USD 5 460 with two qualifying children, and USD 6 143 with three or more qualifying children.

Eligibility depends on income and the number of qualifying children. For example a single individual with no children would need to earn less than USD 14 590 to qualify, while a married individual filing with a spouse with three or more children could have income up to USD 52 247.

Source: Internal Revenue Service, www.irs.gov.

The Canada Working Income Tax Benefit

The Working Income Tax Benefit (WITB) is a refundable tax credit intended to provide tax relief for eligible working low-income individuals and families who are already in the workforce and to encourage other Canadians to enter the workforce.

In 2014, the benefit amount varied by province, with the maximum benefit ranging from CAD 640 to CAD 1 206 for singles and CAD 1 280 and CAD 1 914 for families.

For single individuals without children, the maximum amount of WITB is paid if working income is between CAD 6 992 and CAD 11 332 for 2014. The WITB payment is gradually reduced when net income is more than CAD 11 332 (this is referred to as the base threshold). No WITB is paid when net income exceeds CAD 17 986. These amounts vary slightly for residents of Alberta, Quebec, Nunavut and British Columbia.

For families, the maximum amount of WITB is paid if the family's **working income** is between CAD 10 252 and CAD 15 649 for 2014. The WITB payment is gradually reduced when family **net income** is more than CAD 15 649 (this is referred to as the base threshold). The WITB payment is reduced to zero once family net income exceeds CAD 27 736. These amounts vary slightly for residents of Alberta, Quebec, Nunavut and British Columbia.

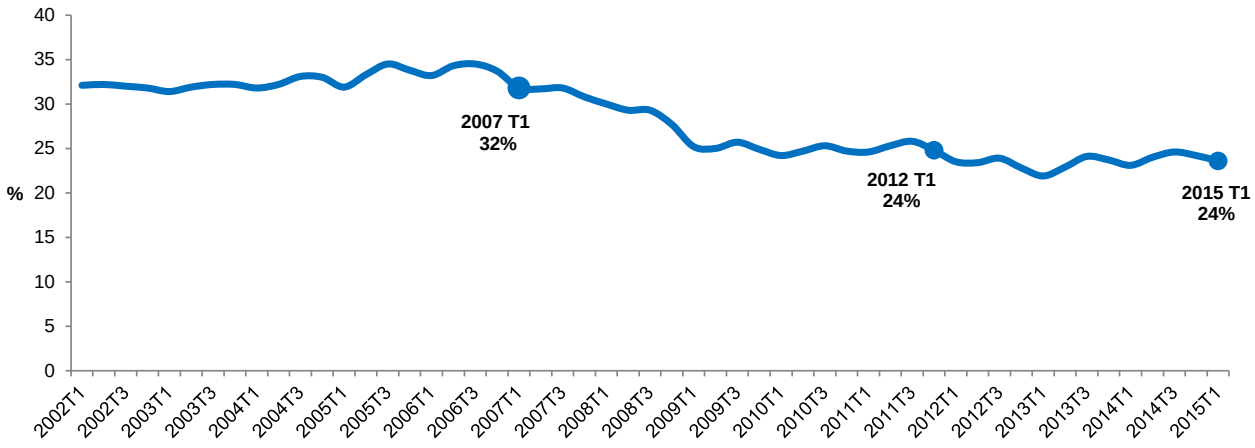
Source: Canada Revenue Agency, www.cra-arc.gc.ca/menu-e.html.

High unemployment and low employment persist and temporary contracts remain common

Despite recent reforms, unemployment rate remains very high, the employment rate remains depressed, and labour market duality persists. Unemployment remains amongst the highest in the OECD and employment amongst the lowest. After the large reduction in workers on temporary contracts since 2008 – due to the massive layoffs of such workers in the wake of the economic crisis – the share of temporary employment has remained fairly stable at around 24%, as shown in Figure 47. Flows into permanent employment are not strong enough to offset current segmentation of the labour market. Of net employment growth in 2014, 45% was temporary employment. Short-term economic uncertainty, the structure of the Spanish economy (e.g. the importance of sectors such as tourism where seasonal work is common, and of those where work is irregular, such as agriculture and construction), and entrenched firm behaviour may explain the continued prevalence of temporary forms of employment. A recent survey of firms (Encuesta Annual Laboral, MEYSS, 2015b) found that among firms indicating that they would respond to low demand by reducing labour costs (67% of firms), a larger share (45%) reported that they would reduce temporary employment than cut working hours (23%) or wages (15%).

Temporary contracts in Spain continue to be particularly prevalent among youth (Challenge 5) **and those with low levels of skill** (Challenge 3). As previously noted, a key problem with temporary contracts is that they tend not to be a stepping stone to permanent contracts. One of the factors that might facilitate the continued reliance on temporary contracts is the ability to circumvent the 24-month limit on the duration of fixed-term contracts by redefining the job and rehiring the same workers on another temporary contract after a short period of unemployment (OECD, 2012).

Figure 47. Percentage of employees on temporary contracts in Spain, 2002-15



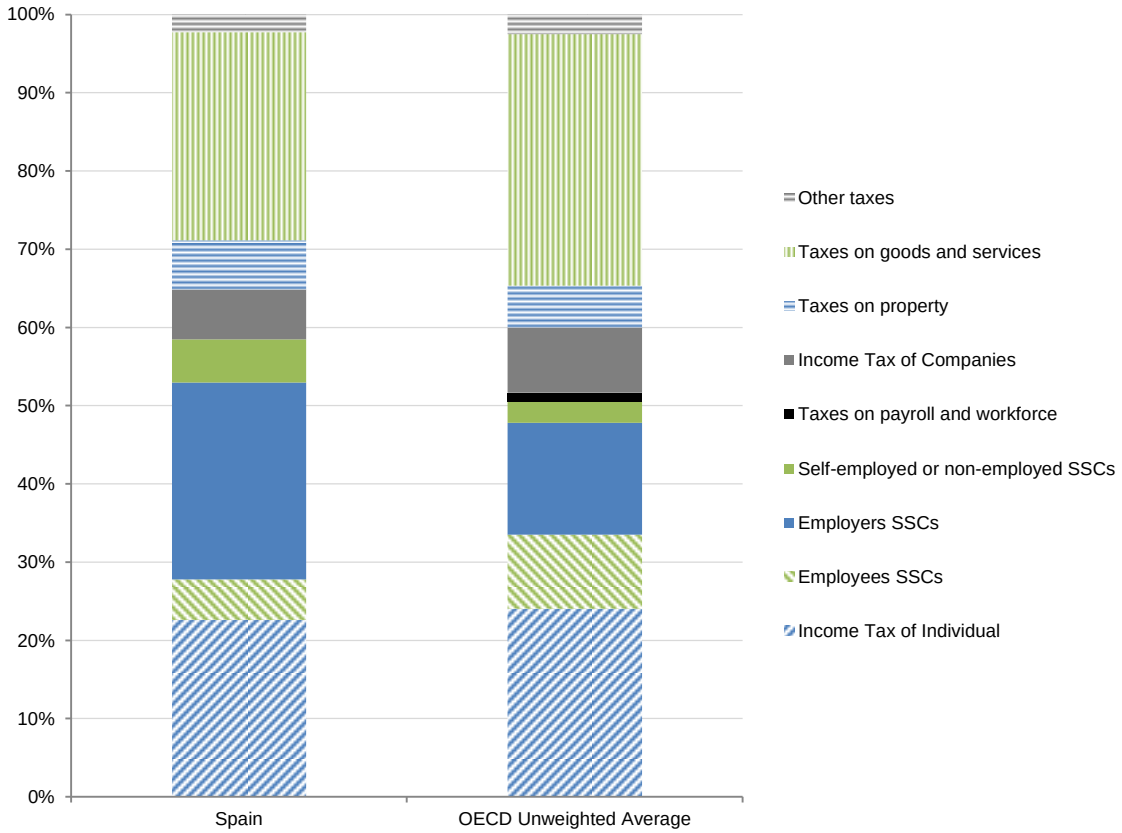
Source: Instituto Nacional de Estadística (2015), "Asalariados por sexo y tipo de contrato o relación laboral. Valores absolutos y porcentajes respecto del total de cada sexo", [Spanish Labour Force Survey (EPA)], www.ine.es/jaxiT3/Datos.htm?t=4223.

Spain's tax regime discourages hiring and worker activation

The tax burden on labour income is an important factor in determining whether it pays for employees to work and for employers to hire. Income taxes, employee and employer social security contributions (SSCs) and payroll taxes (and other hiring costs) open up a wedge between what it costs to hire a worker, and what the worker takes home as after-tax income. Tax wedges that are too high can lead to people working fewer hours, working (partially or fully) in the informal sector to evade taxes, or to them leaving the labour market altogether. Tax wedges that are too high will also reduce employers' incentives to hire. A crucial objective for Spain is to ensure that the financial rewards to activating skills in the formal labour market are sufficient, both for the worker and for the firm. Spain faces significant challenges in this area. Since labour market participation is low and unemployment is high, especially among young people, it is of some concern that Spain's overall tax mix relies as heavily as it does on taxes on labour income.

Labour taxation finances a significant part of the government in Spain. Figure 48 shows that Spain raises 58% of its total revenue from taxes that fall on labour income: personal income taxes and social security contributions. This is in contrast to an OECD average of 51% of total revenue from these sources. In particular, Spain raises 36% of total government revenue from social security contributions (SSCs), in contrast to an OECD average of 27. However, the Social Security system still faces both short and long term challenges and relies on social contributions to guarantee adequate pensions. This makes reform challenging from a fiscal sustainability perspective; encouraging skill activation through tax reductions on labour will require tax increases elsewhere. Spain has comparatively low Value-added Tax (VAT) revenues and low environmental tax revenues; there is thus potential to shift the tax mix in this direction and reduce the tax rates on labour.

Figure 48. Tax revenue of main headings as a percentage of total tax revenues, 2012



Source: OECD (2014c) "Revenue Statistics - Comparative tables" 1965-2013, Public Sector, Taxation and Market Regulation Statistics (OECD.Stat database), http://dotstat.oecd.org/Index.aspx?DataSetCode=REV.

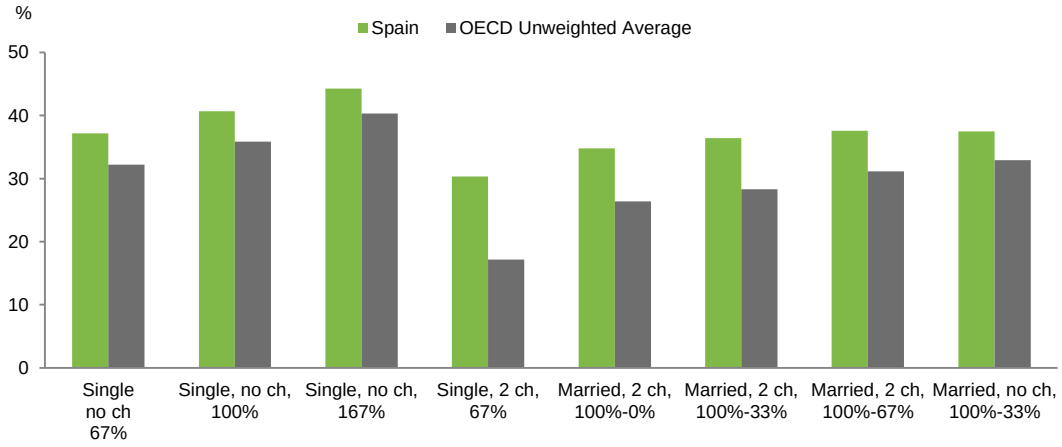
The high tax burden on labour in Spain might discourage labour market participation. Spain's high revenues from labour taxation are a result of comparatively high effective labour income tax rates. Figure 49 compares Spain's effective tax rates for a variety of family types and income levels to the respective OECD averages. Effective tax rates in Spain are higher than the OECD average in every category, sometimes significantly so. This is very challenging from a skills activation perspective. If the tax system places too high a burden on labour, then it becomes financially unattractive for taxpayers to work, leading to inactivity and poverty traps.

High tax burdens on labour are particularly worrying for the labour market activity of single parents and second earners. There are high and steeply rising tax rates on single parents in Spain. But single parents tend to have low levels of labour market attachment and are more likely to stop working altogether in response to taxation (Athreya, Reilly and Simpson, 2014; Bargain, Orsini and Peichl, 2014). They also face substantial fixed costs when working, such as childcare. Many OECD countries place far lower tax burdens on parents, and single parents in particular, for precisely this reason. Improving financial incentives to activate skills for these groups should be an urgent priority for Spain.

A high tax burden on labour is a strong disincentive for the hiring of low-skilled workers. For employers, high tax burdens on labour income are problematic when the productivity of workers is low on average. Labour income taxes, and in particular employer social security contributions, significantly increase the costs of hiring workers for Spanish employers. Low average skill levels of adults in Spain – as reflected by

Spain's low scores in the Survey of Adult Skills (PIAAC) – translate into low labour productivity. Although skill deficits of both employed and unemployed workers should be tackled at their source by improving the skills of workers directly (Challenges 1, 2 and 3), the tax system should be designed to alleviate, rather than compound, the problems generated by low skill levels. Lower employer SSCs targeted at low-income workers and low-skilled workers may increase employers' incentives to hire workers who face skills and productivity deficits.

Figure 49. Income tax plus employee and employer contributions less cash benefits, as % of labour costs, for selected family units, 2013



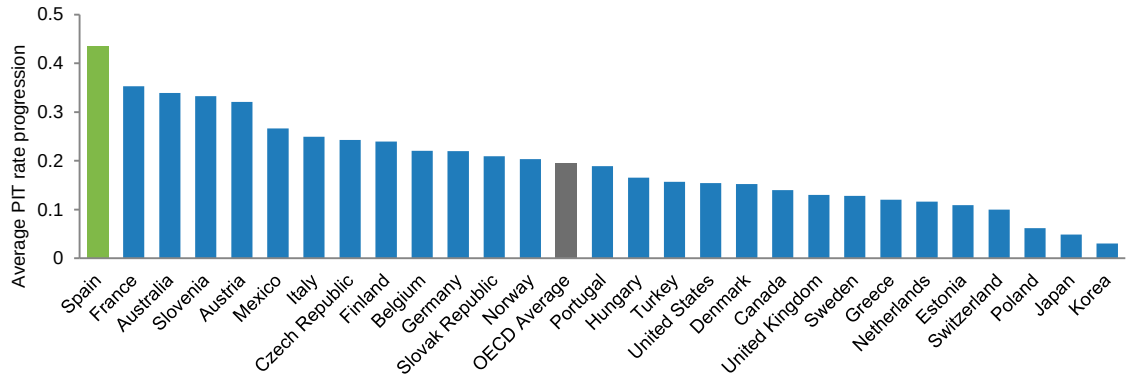
Note: Ch = children; Wages are expressed as a % of the average wage; for married couples the principal earner is assumed to earn the average wage, while the second earner's income varies.

Source: OECD (2014d), *Taxing Wages 2014*, http://dx.doi.org/10.1787/tax_wages-2014-en. Data are from 2013.

Spain's steeply rising effective personal income tax rates at the lower end of the income distribution are a disincentive for workers to supply their labour, work longer hours and invest in skills development. Tax progressivity can often be beneficial from a tax equity perspective; taxing those on higher incomes at a higher rate than those on low incomes improves the fairness of the tax system. However, when this progressivity kicks in at low income levels, it means that each additional euro a low-income worker earns is taxed away steeply. In Spain, the tax progressivity at lower income levels is the highest in the OECD (Figure 50). This level of progressivity provides a financial disincentive for these workers to increase their hours worked, to gain a promotion or a higher salary, and crucially, to upskill.

The tax system could work better to activate those least likely to participate in the labour market. Reforms to the tax system in Spain should focus on these interactions of the tax allowances and the tax rate schedule (i.e. the rates and bands). Reforms should be carefully calibrated to ensure that marginal tax rates and wedges are lowest for target groups whose activation in the labour market needs to be encouraged most: for those on low incomes, for those likely to have low levels of labour market attachment, and for those with low skills. Broadening the personal income tax base while lowering personal income tax rates and employer SSCs, especially those at the lower end of the income distribution, will achieve these effects.

Figure 50. Average Personal Income Tax (PIT) rate progression, 50-67% of the average wage, 2012



Note: Data are from 2012. This graph shows overall average PIT rate progression from 50% of the Average Wage to 67% of the Average Wages, for single taxpayers with no children.

Source: OECD (2013c), *Taxing Wages 2013*, http://dx.doi.org/10.1787/tax_wages-2013-en.

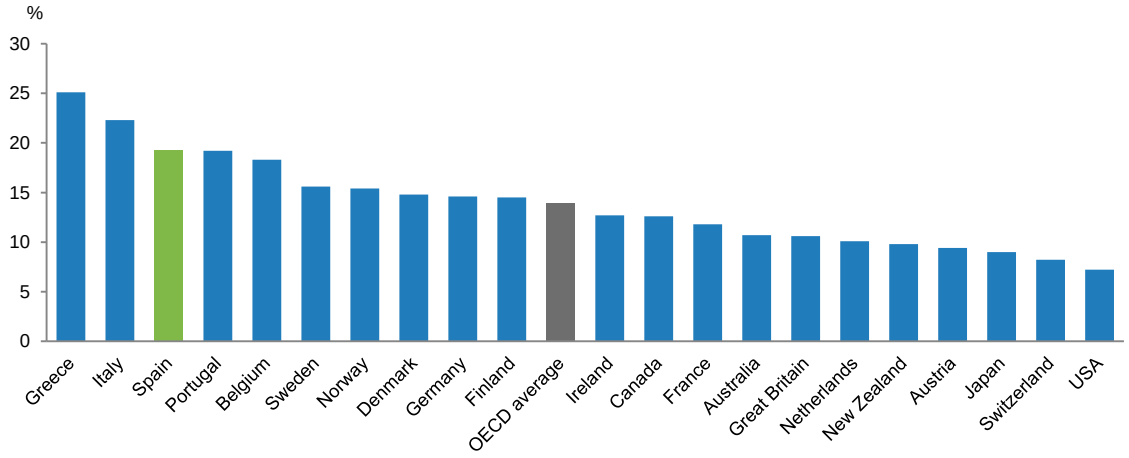
Recent temporary cuts to social security contributions aim to increase job creation, especially under regular contracts. In March 2014, the government introduced a temporary, conditional cut to employer social security contributions for new regular contracts to a flat rate of EUR 100 per month. The reduction applied to positions created between 25 February and 31 December 2014 and will be valid for two years from the start of the contract. Following this two-year period firms with less than ten employees are entitled to a permanent 50% reduction in employer social security contributions. The cut is conditional on the firm having not fired workers in the previous six months and the contract resulting in a net increase in employment (OECD, 2014a). Since March 2014 a surge in permanent employment has increased the numbers of new permanent hirings by around 20%. Until a deeper evaluation is carried out, this seems encouraging signs. In March 2015 a new cut on social contributions has focused on low wages. The first EUR 500 of wages is exempt of social contributions. This reform seems particularly targeted to the low-skilled, low-wages jobs, where it can be most effective.

The tax regime in Spain as well as strict EPL may create incentives to hire and supply labour informally

The Informal economy is Spain is comparatively large. While there are no definitive measures of the size of the informal workforce, one study (Feld and Schneider, 2010) estimates that the informal economy in Spain represented approximately 19% of GDP in 2007, which would make the informal sector is Spain considerably larger than most other OECD counties (Figure 51). This suggests that there might be large numbers of people who are working informally in Spain.

Informality has negative fiscal consequences for the broader economy and for public finances. Workers' absence from the tax system reduces the amount of labour taxation that is raised. This necessitates higher tax rates on formal workers that may exacerbate labour market and skills challenges. Informal workers may also continue to receive social benefits even though they are working, adding to the fiscal burden on the state.

Figure 51. The size of the shadow economy in 21 OECD countries as a % of official GDP, 2007



Source: Feld, L.P. and F. Schneider (2010), "Survey on the shadow economy and undeclared earnings in OECD countries", *German Economic Review*, Vol. 11, No. 2, pp. 109-149.

The income tax system in Spain may be contributing to informality. High social security contributions and income taxes increase labour market informality, especially for low-income workers. Where the tax burden is high, workers and employers may find it financially optimal to work and hire informally to evade tax.

Labour taxes could be better designed to decrease informality. There is evidence that reducing labour taxes could have significant effects on informality. Though research on informality is challenging due to poor data quality, one study associated a 13% increase in labour taxes with a drop of 4.9% in the employment to population ratio, and a rise in the shadow economy of 3.8% of GDP (Davis and Henrekson, 2004). Reducing social security contributions (SSC) in Spain may encourage many informal workers, and the employers who employ them, to regularise their status in the labour market, especially if tax administration efforts to combat tax and SSC fraud are strengthened at the same time. Such regularisation may offset some of the cost to the exchequer of social security contributions or income tax reductions. Thus such these reforms may, at least in part, pay for themselves.

Informality could also be an employer response to strict EPL. Informal work arrangements permit employers to create jobs that might not otherwise be created in the formal economy. While this might be a good arrangement for workers who might not otherwise have any work at all, it comes at the cost of job quality, slower growth and lower tax revenues. Workers in the informal economy have no employment protection, are unlikely to receive training to improve their skills, and are not eligible for unemployment insurance. They also do not pay income taxes to the state and they and their employers do not make social contributions to health or pension schemes. Informal enterprises have an incentive not to grow to avoid scrutiny from tax authorities and there is a positive relationship between the size of the informal economy and the size of the micro-enterprise sector (OECD, 2013b). Firms operating in the informal economy also tend not to invest in modernising production. This translates into low productivity per worker and hence low wages. Moreover, the informal sector does not proportionally contribute to the financing of public services and infrastructure and acts as unfair competition to compliant firms (OECD, 2014a).

Summary and policy implications

High unemployment and low employment are among the greatest challenges facing Spain today. High rates of unemployment have long been a feature of Spain's labour market. While unemployment declined to record lows in the 2000s, the factors underpinning this turnaround proved to be unsustainable. With the economic crisis, unemployment reached a new high in Spain. A number of regulatory and tax barriers have contributed to the long-term trend of high unemployment and have exacerbated job shedding in the downturn and hindered hiring in the recovery.

The large range of labour market reforms introduced since 2012 may help to make the labour market more flexible. Increased collective bargaining at the firm level may provide firms with greater flexibility to adjust to economic conditions. Employment growth has been robust recently. However, unemployment remains stubbornly high and labour market duality persists. Employers need to be weaned off the use of temporary contracts and encouraged to use internal flexibility while improving job quality and skills investments. Further reform should aim to promote internal flexibility and further reduce segmentation by decreasing incentives for employers to rely on temporary contracts. The OECD (2015a) recommends that severance pay be uniformly set so that for all types of contracts it is initially low and then gradually increases with tenure.

While greater labour market flexibility should boost hiring and employment, it may also create new challenges requiring more integrated public policy responses. Flexible labour markets imply more frequent periods in and out of work for workers, even during good economic times. However, it could also lead to lower wages and/or wage growth for some workers. Spain will need, therefore, to ensure that its labour market and social policy architecture is well adapted to this new landscape. This might entail further improvements to labour market policies (Challenges 5 and 6), supplements for low in-work income, and changes to how skills are financed (Challenge 11) to ensure adequate support and incentives to work.

The high tax burden on labour may be a disincentive to hiring and activation, as well as to participation in the formal economy. Tackling this challenge is difficult. Spain's revenue needs are considerable, and the social security system must be kept on a fiscally sustainable path, especially given the ageing populations. Additional, sustainable measures are needed to increase hiring and encourage participation in the formal economy.

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CHALLENGE 5: REINTEGRATING UNEMPLOYED PEOPLE THROUGH TARGETED ACTIVATION STRATEGIES

A selection of challenges identified by Spanish workshop participants:

"Public employment service counselling, activation and follow-up with unemployed are weak, as is the differentiation of strategies and screening of individual needs"

"The public employment service needs to be better linked with employers and industrial policy"

"Making unemployment benefits contingent on active job-search may result in discouragement"

"Labour market information exists, but it is not used. There are no filters on the quality of job postings"

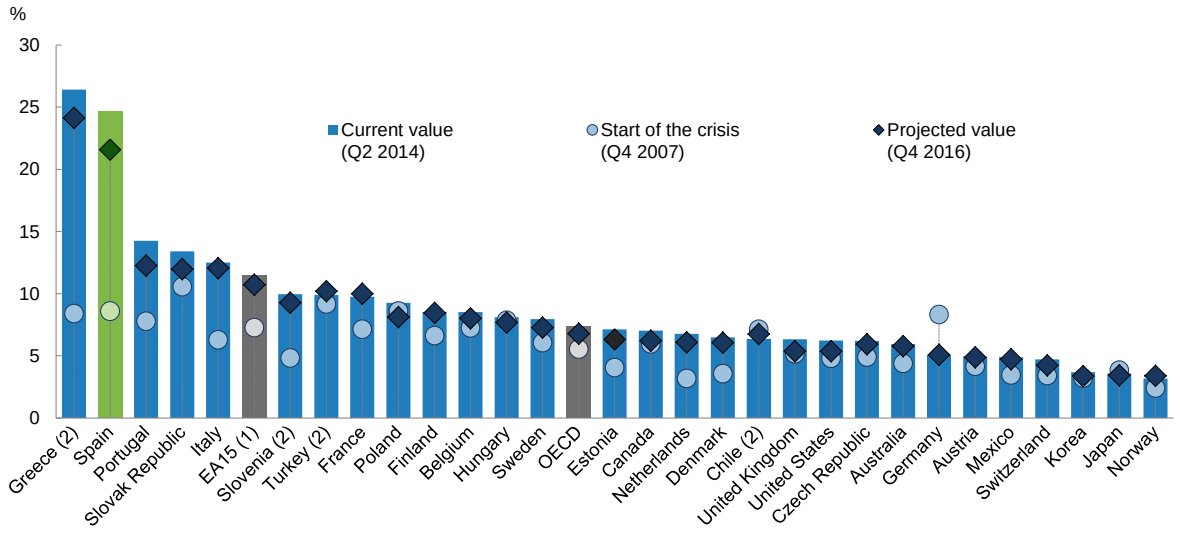
Across OECD countries, labour market policies and public employment services play a critical role in helping inactive, unemployed and under-employed individuals to return quickly to full and gainful employment. Income support programmes must create incentives and not disincentives to adults supplying their skills in the labour market. Active labour market policies and the public employment service must help unemployed people to seek and find jobs. When individuals lack the skills needed for the labour market, they need to support skills upgrading. Critically, all of these measures must work as a coherent and mutually reinforcing whole.

Spain has a high rate of unemployment and long-term unemployment

Unemployment in Spain is at a record level and among OECD countries is surpassed only by Greece (Figure 52). This primacy is of major concern as is the high rate of long-term unemployment that was 53.4% in 2014 Q3, as compared with an OECD average of 34.7% (Figure 53). **Spain cannot afford to have so many unemployed people and so many unemployed for so long.**

Figure 52. Unemployment rate

Percentage of the labour force



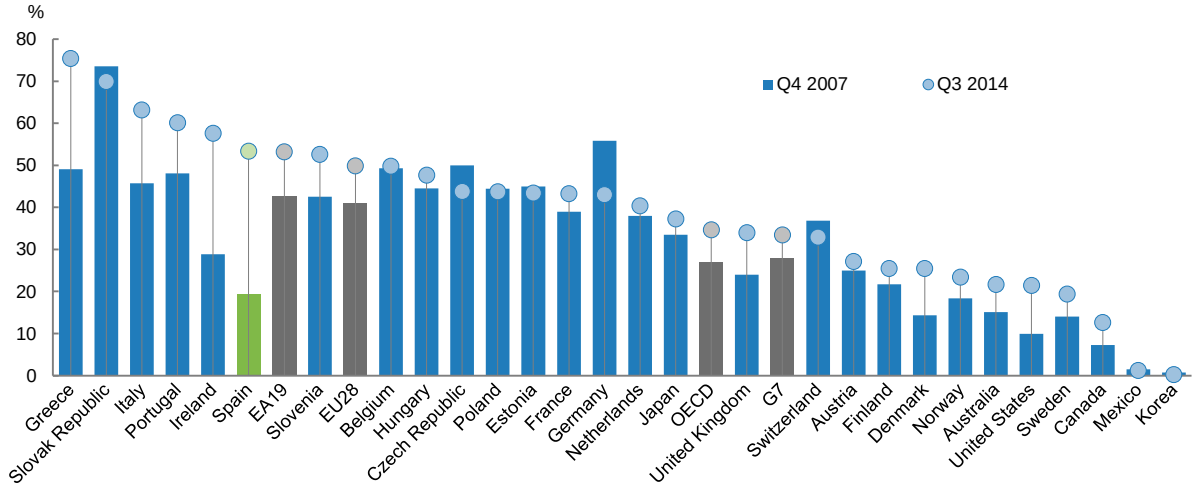
Notes: Countries shown by descending order of the current unemployment rate (Q2 2014)

1. Aggregate of 15 OECD countries of the euro area.
2. Annual values.

Source: OECD calculations based on OECD (2015a), "Main challenges facing the labour market", OECD Economic Outlook: Statistics and Projections (database), http://dx.doi.org/10.1787/data-00688-en.

Figure 53. Long-term unemployment rate

Percentage of the unemployed



Note: Countries are shown in descending order of the incidence of long-term unemployment in Q3 2014. Data are not seasonally adjusted but smoothed using three-quarter moving averages. OECD is the weighted average of 33 OECD countries excluding Chile.

Source: OECD calculations based on quarterly national labour force surveys.

Unemployment has many negative implications for individuals and society. For individuals, unemployment, and especially long-term unemployment, means lower incomes and a greater struggle to provide for their families and for retirement. For society, it means higher costs associated with spending on unemployment and social assistance benefits and active employment measures, as well as lower tax revenues. High unemployment is also associated with a range of negative social outcomes, such as poorer health and higher crime, all of which impose a cost on society. High rates of unemployment also mean that people's skills atrophy and/or become obsolete, representing a waste of individual and societal investments in developing those skills.

Active Labour Market Programmes are critical for helping jobseekers to secure employment

Strong co-ordination between national and regional Public Employment Services (PES) is of critical importance given the decentralised delivery of employment services in Spain. While the central government is responsible for labour market legislation and passive labour market policies (e.g. unemployment benefits), regions are the competent authorities for the implementation of employment policies and are responsible for running the regional PES. The central government also provides the regions with the funds needed to implement these policies. There is a need to find a good balance between providing autonomy to regions on the one hand and on the other ensuring policy coherence and a similar level and quality of service across the country.

Over the last several years, the government has been gradually reforming the institutional framework for active labour market policies (ALMP) to ensure that they better support activation. The resulting system, designed with the consensus of the regions, supports greater co-ordination between levels of government, with a strong focus on evaluation and achieving results. The new approach to activation policies was introduced in 2013 and formally launched in September 2014 as the Activation for Employment Strategy 2014-16, a multiannual framework for the co-ordination of activation policies in Spain that establishes common objectives (MEYSS, 2014a). These objectives are specified yearly in annual plans, which determine which ALMP measures can be carried out by the regional PES. A Common Catalogue of basic employment services was approved in 2015. Depending on their specific contexts, regional PES are free to choose the best measures to achieve the common objectives. Common protocols, methodologies and minimum quality criteria in service provision are being developed jointly by the National and regional PES.

State funding for ALMPs is conditional on results achieved and regions are being encouraged to share best practices. State funds for the implementation of ALMPs by regions are increasingly allocated based on results achieved. In 2016, 70% of the funds will be subject to the results achieved (in 2013, 2014 and 2015, the figure was 15%, 40% and 60%, respectively). The indicators to evaluate outcomes are agreed upon each year with the regions and specified in the Annual Plans. An online platform was used to facilitate communication between the central and regional governments as well as across regional governments. According to the Ministry of Employment and Social Security, two years after implementing this new framework, the average achievement of objectives by the regions has increased. In addition, the "Employment and Labour Affairs Sectorial Conference" (the body that brings together the representatives of the regions and central government periodically) has been given greater relevance since 2012. Steps have also been taken to disseminate successful approaches across regions: a best practice-sharing programme among the PES was introduced in 2014, covering topics such as profiling, the implementation of a training voucher or certifying competences that have been acquired via work experience.

Stronger focus on evaluation would help improve the efficiency of active labour market policies. Evidence based design of employment policies is known to be an effective tool to improve efficiency. This requires information on the implementation of policies, along with an evaluation culture that integrates lessons learned into the design and redesign of policies.

Box 14. The shift of the German PES towards result-orientation and evaluation of programmes and benchmarking regional units

At the beginning of 2003, legal changes to modernise the German PES became effective and the PES was modernised following the principles of results-orientation and more comprehensive evaluation. Before modernisation the German PES was characterised by a complex profile of tasks, the inefficient mixing of activities, an under-developed service orientation and a heavy caseload with one officer responsible for 600 to 800 unemployed. The transformation from a bureaucratic public authority to a modern service provider took place in several waves. In 2004, the German PES was renamed to Bundesagentur für Arbeit (BA) to reflect the new goal-oriented labour market policy. The formerly hierarchically organised employment offices were converted into customer-oriented job centres and the former management-by-directives approach has been replaced by a management-by-objectives approach. Quantitative goals were set for each local office taking into account the special circumstances in their local labour market environment.

Performance management at the Bundesagentur für Arbeit

The BA sets its targets and performance goals independently from the government. Although contributions and benefits are defined by legislation, the PES has far-reaching autonomy concerning implementation. Until 2012 the steering process was characterised by a mix of a top-down and a bottom-up approach. The national goals to prevent unemployment and reduce its duration were used throughout all levels of the organisation, down to teams in local offices. The BA's management board handed down broad targets and sometimes binding operational guidelines. Regional directors, however, had the autonomy to take into account local variation in capacity and labour market conditions in agreeing target levels with the local agencies.

In 2013, there has been a shift towards a stronger bottom-up approach providing a high degree of decentralised autonomy and responsibility at the local level. Local employment offices now can decide the distribution of funds among different types of measures and work out their own yearly business plan in accordance with operational targets, whilst taking into account the client structure and labour market conditions. The budgetary needs are fixed by local entities and communicated and consolidated via the regional to the central level. Quarterly performance dialogues between the different levels are used for follow-through. Hence, there is no direct connection between resource allocation and goal achievement as this might cause false incentives. If rewarding good performance means getting more funds in the next period, this could reinforce regional disparities in unemployment. Instead rewards are offered throughout the organisational hierarchy, with managers at all levels having a performance appraisal that is partly influenced by achievement of their signed performance agreements. This is then used to judge eligibility for a small proportion of their salary (performance related pay) and also influences their promotion prospects.

Benchmarking regional units

A key factor for improving performance is to benchmark local agencies. Local agencies are subject to benchmarking among themselves and comparator local agencies with similar labour market conditions. Local agency targets are agreed upon with a view to bringing each agency up to the level of the top performers in the comparator group. A classification model identifying exogenous factors that influence PES performance was developed to benchmark PES performance across the 156 labour market districts. The regions set individual contribution expectations at the local level through a process of negotiation. Performance variation between and within regions is then used to identify good practices, which are shared between regions and localities. The BA experience with the benchmarking system is positive and it is considered to be an effective way of information sharing and improvement. The German experience shows that an open and trust-based system, with information sharing (by a centralised IT system) and support, is essential to ensuring that benchmarking facilitates healthy competition.

Integrating performance management and evaluation

In the last 10 to 15 years there was a general catch-up in terms of evaluation research in Germany starting with the comprehensive evaluation mandate as part of the "Hartz reforms". Considerable methodological progress has been made and data availability and quality are high. The BA uses a number of sources for monitoring and evaluation of operation and performance management. It collects a variety of data in a data warehouse to monitor and evaluate the success or failure of active labour market interventions in order to develop cost effective interventions. In recent years, the BA introduced a more advanced way of improving performance through testing the effects of provision of different services on a pilot basis, followed by rigorous evaluation of results in close co-operation with research institutes.

Source: Konle-Seidl, R. (2014), "The shift of the German PES towards result-orientation and evaluation of programmes and benchmarking regional units", presented at the seminar *Helping the unemployed find jobs: the crucial role of activation policies in the regions*, Madrid, 8 July 2014.

Better targeting and monitoring of job search support could facilitate faster returns to work

Better targeting of employment services to the needs of specific groups could facilitate faster returns to work. For example, profiling tools can help to target the groups that are at greater risk of long-term unemployment, so that they receive more intensive support, such as longer meetings with counsellors and appropriate training. These tools could also be used to identify those jobseekers that should be referred to specialised job placement services.

The monitoring of job search efforts and sanctions for non-compliance can increase accountability and improve outcomes. While the regional Public Employment Service (PES) has a responsibility to provide jobseekers with a variety of employability supports, the jobseeker has a responsibility to actively search for work and to participate in counselling sessions and training that improves their employability. Without this mutual obligation, jobseekers have little incentive to return to work, especially if the unemployment benefits are relatively generous as in the case of Spain[2].

Box 15. New reforms of ALMPS in Spain

The 2014-2016 Spanish Activation for Employment Strategy seeks to improve the activation of the unemployed. It has done so by introducing a profiling system, a single Spain-wide job portal, common IT system, promoting the sharing of best practices across regions and the national PES. Moreover, funding from the central government for ALMPs in the regions has become increasingly contingent upon evaluation results rising from 15% in 2013, 40% in 2014 and 60% in 2015. The 22 indicators for the performance evaluation have been established together with the regional authorities and are continuously being updated. Common objectives, guiding principles, and information-sharing provisions are in place to improve the co-ordination and the quality of ALMPs. Moreover, regional and national PESs have begun to share best practices with one another on themes like "profiling and personalised itineraries" and "training policies". In order to guarantee minimum quality criteria in service provision a Common Catalogue of basic employment services has been created. This helps to ensure the application of common methodologies across the regions and improve interregional comparisons.

Hiring subsidies have been introduced as part of labour reforms. Subsidies were introduced to hire disadvantaged groups (*Incentivos a la contratación de colectivos desfavorecidos*), specifically young jobseekers under 30, unemployed over 45, long-term unemployed and workers on temporary contracts. Women who fit these criteria are eligible for a larger subsidy. The subsidies are targeted at micro and small enterprises below 50. The "entrepreneur support contract" (*contrato de apoyo a emprendedores* – CAE) allows companies to hire workers with a permanent contract that has a one-year trial period. If the workers don't pass the trial period and the companies decide to let them go, the companies don't have to pay any severance payments to the workers. Companies have thus a stronger incentive of offering this kind of permanent contracts instead of temporary contracts.

Source: Ministerio de Empleo y Seguridad Social (MEYSS) (2014b) "Real Decreto 751/2014, de 5 de septiembre", *Boletín Oficial del Estado*, No. 231, Martes 23 de septiembre de 2014, www.boe.es/boe/dias/2014/09/23/pdfs/BOE-A-2014-9623.pdf.

Jobseekers in Spain must demonstrate that they are actively searching for a job and face tough sanctions if they do not, but enforcement is weak. In Spain, eligibility for unemployment benefits is conditional upon providing proof of registration with a PES and actively using their services. Jobseekers who receive the contributory unemployment benefit (*prestación por desempleo*) sign an activation engagement (*compromiso de actividad*) that obliges them to actively search for a job, report to a job interview, accept an adequate job offer and participate in training and counselling that increases their employability. However,

2. Based on average net replacement rates over 60 months of unemployment in 2012. The averages are unweighted averages of two income levels and four family situations, after tax and including unemployment benefits and family benefits. No social assistance "top-ups" or cash housing benefits are assumed to be available in either the in-work or out-of-work situation. For further details see OECD Tax-Benefits Models.

monitoring is not systematically conducted. Furthermore, while job seekers are required to accept an "adequate" offer, what constitutes an "adequate" job offer is not clearly defined, making enforcement difficult.

Spain ranks among the OECD countries with the strictest eligibility criteria for unemployment benefits (Venn, 2012). While sanctions have increased since 2012, recent evidence suggests that a substantial share (20% in 2013) of registered jobseekers does not comply with the active job search requirements (Báñez García, 2013). Tightly linking payment of unemployment benefits to compliance with an active job search is complicated by the fact that while the central government is responsible for unemployment benefit payments it is the Autonomous Communities that are responsible for ALMPs (OECD, 2014a). Box 16 provides examples of what some other countries are doing to support activation.

Box 16. Activation Strategy Country Examples

Activation Strategy in Finland

In Finland, the PES is managed at the local rather than national level. Local level labour committees convene social partners and benefit agencies to determine the eligibility criteria as well as the sanctions for not following job-search obligations. Municipalities are responsible for social assistance benefits and provide some reemployment services for the unemployed. In 2004, separate labour force service centres, drawing upon staff from local PES offices and the municipal services, were introduced to provide specialised services to the most at-risk jobseekers. In 2006, a major reform of the financing of the benefit system took place. Up to that point, financing of the benefit system came from the national government while ALMPs were implemented at the local level, leading to inefficiencies and persistently high levels of unemployment in the 1980s and 1990s. With the reform, municipalities accepted to pay half of the cost of the benefits for the long-term unemployed. This provided them with incentives to pursue cost-effective activation measures. Unlike in certain other countries, Finnish authorities did not lower the relatively generous unemployment benefit rates to improve work incentives. Instead, they have relied on strict enforcement of conditions in the benefit system as well as on cost-effective ALMPs. Finland devotes more resources to ALMPs than most OECD or EU countries. In 2011, its spending on ALMPs was over 1% of GDP while the OECD average was just under 0.6%. As a result of these reforms, labour market outcomes have improved significantly over the past decade. Currently, the unemployment rate is around 8%. The Finnish case shows how to construct a positive interaction between the financing of the benefit system and local responsibilities for the design and delivery of employment services thereby increasing the incentives for local actors to make activation measures more effective.

Activation Strategy in Australia

In comparison to other OECD countries, Australia spends little on ALMPs (only 0.3% of GDP or half of the OECD average).The Australian employment service model is rather unique among OECD countries as public employment services ceased to exist in the mid-nineties. Instead, the services normally provided by a public employment service are provided by private sector providers that compete for contracts from the national ministry. Other OECD countries have gone in a similar direction, including the Netherlands, the UK and Ireland, but none have gone so far as to abolish entirely its PES. For example, in the UK, the PES (JobCentre Plus) is still responsible for the serving the short-term unemployed while the long-term unemployed are referred to private providers operating on a regional basis. The private providers in Australia are a mix of profit and not-for-profit providers such as the Salvation Army or Mission Australia. Currently, there are more than 100 providers that compete with each other at over 2 300 sites throughout Australia. Pay-for performance contracts are drawn up and monitored by the Department of Employment in Australia. The contracts are issued for periods of three to four years and providers are rated based on econometrically-adjusted estimates of the performance of the providers, which take into account the caseload size, state of the local labour market and other factors. Providers that do not meet specified standards are not awarded new contacts. Some studies show that the quasi-market for employment services that this contracting approach has created have contributed to the relatively good labour market performance of the past two decades. Unemployment rates have been below 6% since the early 2000s. However, due to "cream-skimming" by contractors who focus on easily employable jobseekers one drawback of this system has been the neglect of vulnerable groups such as people who have long-term illnesses or are receiving disability benefits. Their needs are much more heterogeneous than those of unemployment benefit recipients and will generally require a greater range of tailor-made support to make them job-ready. This could be addressed by revising the terms of the outcome fees that reward providers for better employment outcomes for this disadvantaged group.

Source: Martin, J. (2014), "Activation and active labour market policies in OECD Countries: stylized facts and evidence of their effectiveness", *IZA Policy Paper*, No. 84, June 2014, http://ftp.iza.org/pp84.pdf.

The capacity of the public employment service has been strained by the large increase in unemployment

Large caseloads make it difficult for PES caseworkers to provide timely individualised counselling and job-search assistance that are needed to support quick returns to work. In Spain, there is one PES employee for every 250 jobseekers, a ratio higher than in all other European countries with the exception of Ireland (Table 1; OECD, 2014a). As was noted during the OECD Skills Strategy workshops in Spain, caseworkers spend a large proportion of their time on administrative tasks instead of counselling. This means that in order to provide an equivalent level of service, Spain would have to provide employment services more efficiently than other countries. Strategies for improving efficiency include the automation of the administration of unemployment benefits so that staff can be redeployed to case-working roles and the profiling of beneficiaries to ensure that the support offered targets those most in need. In Germany, improving the jobseeker-advisor ratio through the "1:70 project" has led to promising results with, on average, 10 days shorter unemployment spells with associated savings on benefit payments. After 10 months in operation, these savings have off-set the costs of hiring additional case workers (Hofman et al., 2012; Hainmüller et al., 2011). Still, the PES service has done a relatively good job in connecting with the unemployed. In Spain, the share of prime-aged (30-49) unemployed individuals that reported being in contact with the public employment service was close to the OECD average (Figure 54) (OECD, 2015).

Table 1. Average caseload in the public employment service[1]

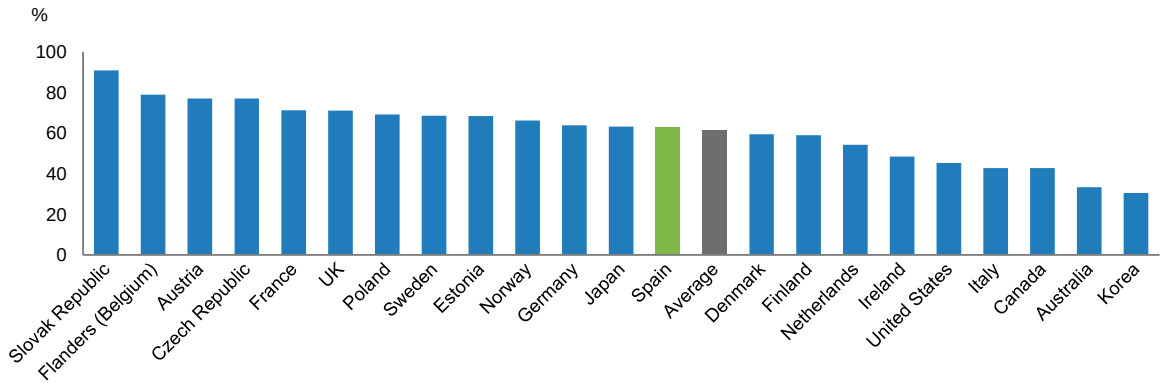
Country	Registered job seekers (thousand)[2]	Public employment service (PES) staff (thousand)[3]	Job seekers per PES staff member
Spain	**5,745.3**	**21.4**	**269**
Austria	258.6	4.9	53
Belgium	547.4	10.0	54
Czech Republic	509.2	7.3	70
Denmark	207.7	5.8	36
Estonia	53.2	0.5	108
Finland	470.4	3.9	120
Germany	5,207.6	110.0	47
Greece	576.6	3.4	169
Ireland	444.9	0.6	778
Netherlands	625.6	5.0	125
Poland	2,011.2	23.8	84
Portugal	639.7	3.6	177
Slovak Republic	401.5	2.3	172
Slovenia	110.7	1.0	112
Sweden	679.0	10.8	63
United Kingdom	1,571.1	72.9	22

Notes:

1. 2010 for job seekers for Greece.
2. Data on the total number of jobseekers registered with the PES are broken down into those considered as registered unemployed according to national definitions and other registered jobseekers.
3. Latest data available from the country fiches of the European Commission website, 2010 or 2011 in most cases but 2012 for Spain. The remit of the PES varies across countries in terms of groups covered (e.g. disabled, employed jobseekers) and services provided (e.g. career guidance, in-house training). For more details see the "PES Business Models" study by Mobility Lab available from the European Commission website (link below).

Source: EC (2014d), "Persons registered with Public Employment Services - PES", Eurostat database, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lmp_rjru&lang=en; PES staff numbers for Spain provided by the Ministry of Employment and Social Security; other PES staff numbers from EC (2014b), Employment, Social Affairs and Inclusion, Public Employment Services, http://ec.europa.eu/social/main.jsp?catId=105&langId=en, accessed April 2014.

Figure 54. Percentage of the prime-aged (30-49) unemployed that contacted public employment services in the last four weeks, PIAAC 2012



Source: OECD calculations based on the Survey of Adult Skills (PIAAC) (2012) (database). www.oecd.org/site/piaac/surveyofadultskills.htm.

Due to the limited capacity of the PES, there has been a shift towards the greater use of private placement agencies. The percentage of vacancies for which the PES successfully placed unemployed jobseekers in 2013 stood at only 17.1% (EC, 2014b). In order to more effectively place the large number of unemployed, the PES has established a framework for collaboration with private job-placement agencies. Under this measure, about 80 private agencies have been selected through a public tendering process (Jefatura del Estado, 2013). Participating regions can issue contracts to these approved private agencies under a common set of regulations

The new common framework to monitor the quality of private job-placement agencies across Spain's regions may help to boost efficiency in job-matching processes. The framework reinforces the importance of monitoring and making payments based on the successful matching of jobseekers with stable employment. This is meant to avoid some of the risks that can be inherent in contracting with private agencies to deliver employment services. Some evidence suggests that reliance on private sector agencies for the delivery of activation programmes is associated with significant "dead-weight" loss – i.e. services are provided to jobseekers who would have found jobs even without their intervention (Heckman, Heinrich and Smith, 2002). There is also a risk that private agencies focus on short-term rather than long-term outcomes (Heckman, Heinrich and Smith, 2002). Private agencies may enrol as many jobseekers as possible in order to maximise profit, while only putting minimal effort into their placement (Behaghel, Crépon and Gurgand, 2012). When contract payments are made contingent upon placing the unemployed in jobs, evidence suggests this increases placements for more readily employable workers, without impacting job tenure (Koning and Heinrich, 2010). The government should conduct regular evaluations of activation programmes to ensure that they are effective and efficient. The government should also identify and disseminate best practices for the unemployed generally as well as for specific target groups. Countries such as Switzerland and Australia that have relied heavily on private employment agencies could provide valuable insights into how to improve the effectiveness of such employment services. For example, in Australia the tendering process has been revised regularly to improve incentives and avoid gaming on the part of service providers (OECD, 2012a).

Information and guidance is also important for supporting effective job searches

A "one-stop employment portal" (Portal del Empleo) was launched in 2014 to help match jobseekers with job vacancies. On this portal, employers can post their vacancies and jobseekers can search them based on key words such as occupation and location. High demand occupations are featured on the main page. The quality of job postings on the portal is variable. Some postings provide specific information on the skills and

credential requirements of the jobs as well as on working conditions (e.g. working hours). Others provide only minimal information, such as a job title, job location and a link to the website where the vacancy was originally posted. The government may want to consider increasing the number of required information fields and providing employers with incentives and assistance in filling out postings. Consideration might also be given to increasing the amount of information available to job seekers. This might include career exploration tools for long-term planning, information on job-relevant training, and labour market forecasts. Examples of such measures can be found in other OECD countries (Box 17; Challenge 9, Box 29).

The Occupations Monitoring Observatory of the PES publishes annually on its website a report (*Perfiles de la Oferta de Empleo*) lists the sectors with the highest expected job growth (EC, 2014c). High demand occupations are identified based on the number of job postings found on around 230 job search websites and in the print media as well as through qualitative interviews with community stakeholders, such as employers' associations, labour unions, university officials etc. Each profile is described in about 5 pages with detailed information on: working conditions (salary, full-time/part-time, temporary/regular contracts); employment rates by region; the required skills, experiences and education; as well as current number of graduates that typically enter this occupation. Only about 16 high demand occupations are profiled in detail, but less detailed profiles are provided for other occupations as well.

Box 17. Examples of labour market information tools in OECD countries

Finland Forenmatti

Foreanmatti (www.foreammatti.fi) is an online webportal where jobseekers can find up-to-date information on the number of open vacancies per profession, where those jobs are located, what skills employers demand and how intense the competition is today and will be in the future. There is labour information on around 200 professions regionally, the number of vacancies in the past 12 months, average salary of the profession, the number of unemployed per profession per region and also a forecast of the labour market situation (currently up to 2017). It also shows the number of unemployed per profession.

Canada Job Bank

The Canadian job bank website (www.jobbank.gc.ca) is administered by the Government of Canada and provides information in French and English on jobs, career paths, employer resources and job market trend nationally as well as provincially. The homepage interface provides a search function to look for jobs in specific locations, functions to set up job alerts, analysis of top advertised jobs and job search safety tips. Employers as well as jobseekers can create a personal account that keeps track of their postings or searches. Career paths can be explored according to occupation, education programme, wages, outlook and skills. The job market trends are updated constantly with news feeds.

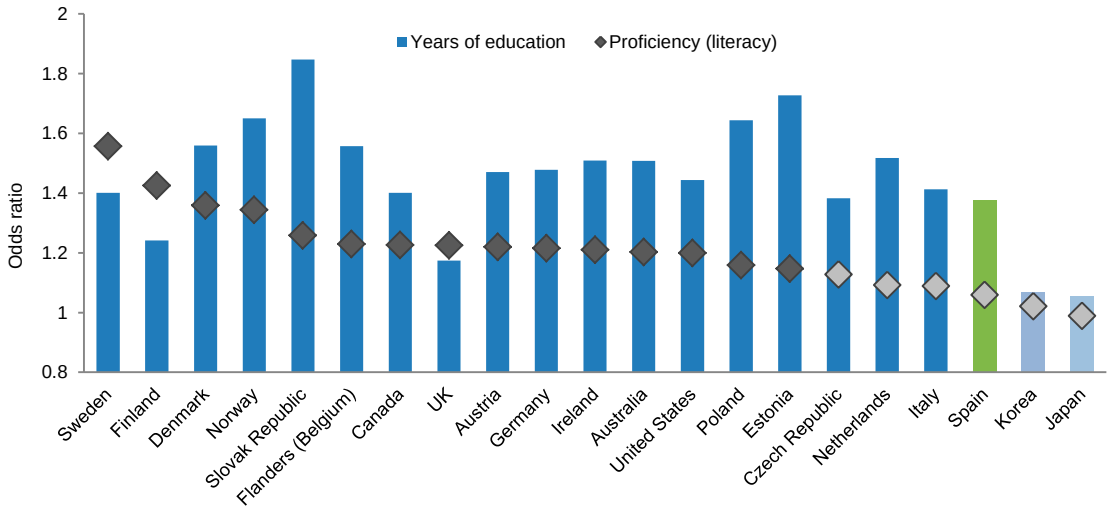
Many unemployed individuals will need assistance to make effective use of web-based job search and information portals. Some unemployed individuals may lack sufficient foundation or digital skills needed to access, interpret and act upon the information which is available online. Navigating through the websites can be difficult and accessing uploaded PDF files is cumbersome. Information about job opening and job trends is very important for job seekers, but for many users it needs to be complemented with guidance and counselling. This is especially the case for low-skilled adults, who are at greatest risk of becoming long-term unemployed.

Training is not given sufficient priority

Many unemployed people in Spain have low levels of skill and education. As in other OECD countries, the unemployment rate for low-skilled adults (those who scored lower than level 2 on the Survey of Adult Skills in literacy) is higher than for those with higher levels of skills. Across the OECD, low-skilled adults are twice as likely to be unemployed than their counterparts with higher skills levels (OECD, 2013b). The connection between education and skill on the one hand and unemployment on the other is less strong in Spain than in most other OECD countries (Figure 55). This could be due to the very high rate of unemployment generally. Still, the unemployment rate for adults with tertiary education in Spain is less than half that of those with less than upper secondary education (Figure 56). As in other OECD countries, unemployment rates have increased for all adults at all levels of educational attainment. However, in Spain there has been a particularly strong increase in the unemployment rate for adults with below upper secondary education (Figure 56). Many of the unemployed in Spain had formerly been employed in the construction sector prior to its collapse. Many of these people will need to be retrained if they are to find jobs in new sectors.

Figure 55. Effect of education and literacy proficiency on labour market participation, PIAAC 2012

Odd ratios showing the effect of education and literacy proficiency on the likelihood of participating in the labour market among adults not in formal education



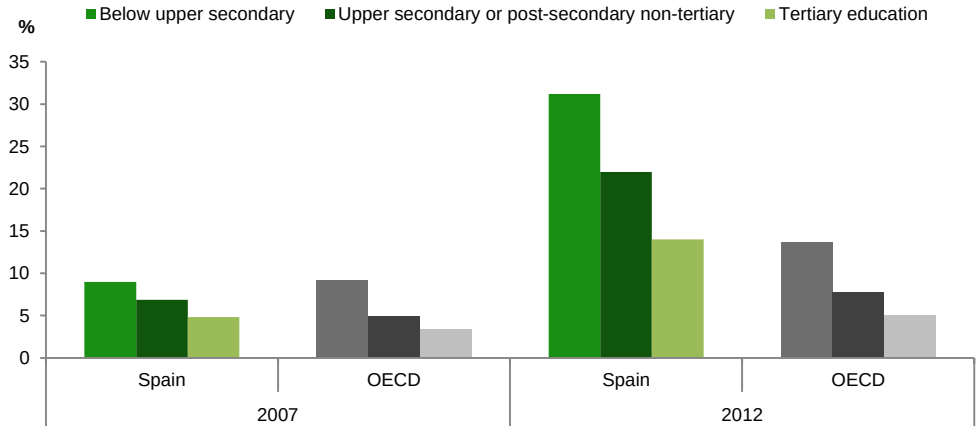
Notes: Countries are ranked in descending order of the odds ratios of proficiency.

Results are adjusted for gender, age, marital and foreign-born status. The odds ratios correspond to a one-standard-deviation increase in proficiency/years of education. Statistically significant values are shown in darker tones. Years of education have a standard deviation of 3.05, literacy has a standard deviation of 45.76.

Source: Survey of Adult Skills (PIAAC) (2012) (database), Table A6.5 (L). http://www.oecd.org/site/piaac/surveyofadultskills.htm

Figure 56. Unemployment rates by educational attainment in Spain and the OECD, 2007 and 2012[1]

Persons aged 25-64, as a percentage of the labour force in each gender



Note:

1. Unweighted average of OECD countries

Source: OECD (2014c), *Education at a Glance 2014: OECD Indicators,* Indicator A5, http://dx.doi.org/10.1787/eag-2014-en; OECD (2009), *Education at a Glance 2009: OECD Indicators*, Indicator A5, http://dx.doi.org/10.1787/eag-2009-en.

Relatively few job seekers receive training in Spain, and training programmes show only moderate success. The Tripartite Foundation estimates that in 2013, 252 084 jobseekers had participated in training schemes. However, this number represents only around 4% of the total number of the unemployed (according to LFS) (EC, 2014c). An evaluation of the Programme for Professional Requalification (*Programa de recualificación profesional,* PREPARA), which targets long-term unemployed who have exhausted their unemployment benefits, showed that most personalised activation plans were focused on labour market orientation (93%) and relatively few on re-training (8%). This lack of attention to training is of some concern given that most of the participants (60%) had no more than a primary level education. Furthermore, for those who participated 70% found that the programme did not lead to employment. Only 1% of participants obtained a permanent contract, while the rest secured temporary contracts lasting less than two months (EC, 2013).

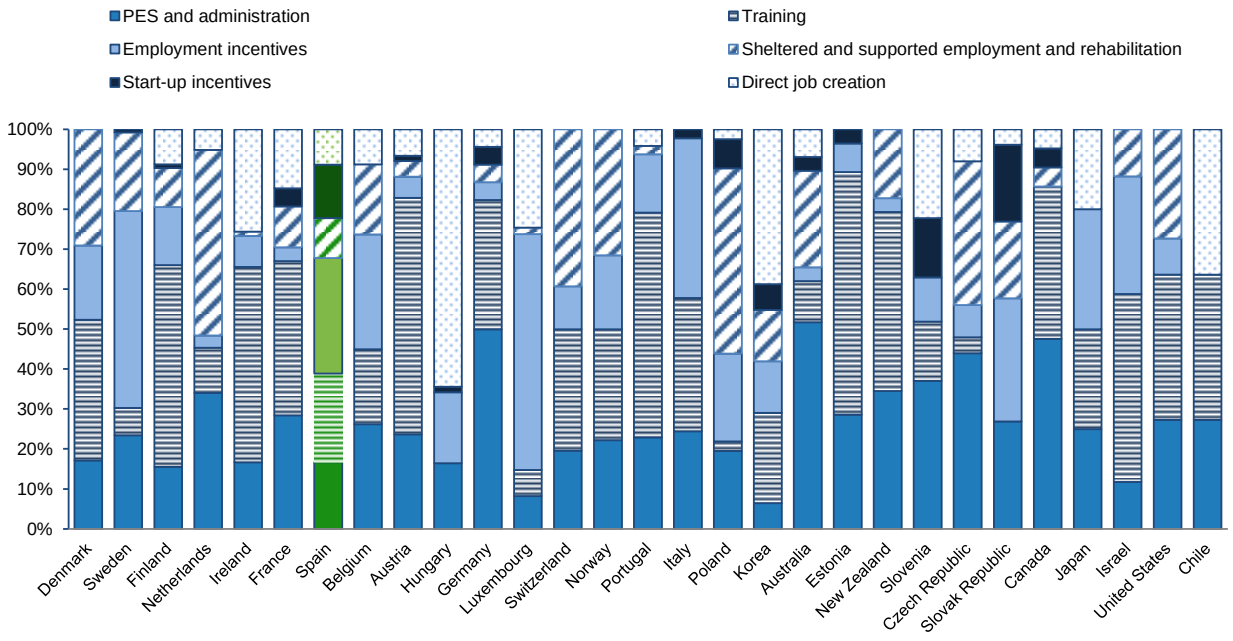
A relatively small share of ALMP expenditures is allocated to training. Looking at Spain's expenditure on ALMPs, 29% is spent on employment incentives, 22% on training, 17% on the PES and administration, 13% on start-up incentives, 10% on sheltered employment (support for people with reduced working capacities) and 9% on direct job creation measures. Many countries spend significantly more on training. In Austria and Ireland, for example, 60% and 48% respectively of the total expenditures on ALMPs is allocated to training (Figure 57). Some studies have shown that training programmes are associated with positive medium-term impacts, but appear ineffective in the short-term (Card, Kluve and Weber, 2010; Box 18).

Box 18. Effective training for activation of unemployed

In order for training to be effective it needs to be targeted at specific groups and tailored to their needs like women re-entering the labour market or immigrants. The duration of the training should not be too short and, when possible, should be work-based. In challenging economic times, with low aggregate labour demand and heavy restructuring due to labour market reforms, it is difficult to assess the current and future skill needs that training should address. In such instances, providing training in general skills is the most useful (EC, 2014a). Policy makers need also to be aware that training takes time and that possible negative short-term risks exist such as lock-in effects (during training, job finding rates are lower for training participants than for non-participants) and displacement effects (subsidised training might adversely affect other labour market participants or outcomes) (Kluve, 2014). If training programmes are poorly designed, they may have no impact at all.

The training scheme for the unemployed and employed in Spain has recently been reformed to improve the efficiency and relevance of training (Challenge 3, Box 10). Under the previous system training offers did not effectively increase employability and the programmes offered often did not reflect where demand in the labour market was greatest. Specifically, 60% of participants did not experience a significant improvement in their employability 12 months following completion of their programmes and less than 20% found employment related to the programme offering (MEYSS, 2014a). Royal Decree 4/2015 has reformed the training system by establishing: an evaluation and monitoring system to ensure quality; multi-annual strategic planning that gives consideration to current and future labour market needs; an open and transparent tendering process for private training providers; an integrated information system; and an anti-fraud unit (Jefatura del Estado, 2015). The new system also gives greater attention to the needs of small enterprises.

Figure 57. Public expenditure on different active labour market programmes, as a percentage of GDP, 2012



Note: Data for Australia, Ireland, Israel, Luxembourg, Poland and Spain from 2011.

Source: OECD/Eurostat (2015), "Public expenditure and participant stocks on LMP", Labour Market Programmes (database), http://stats.oecd.org/Index.aspx?DataSetCode=LMPEXP.

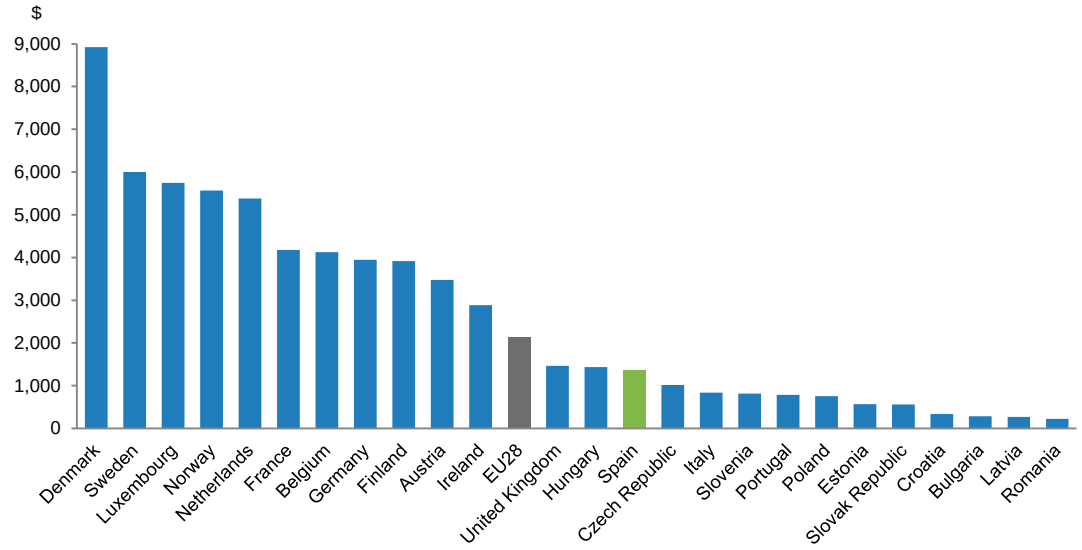
Funding for labour market programmes is low given the large number of unemployed

Labour market programmes for the unemployed and those who are out of the labour force can be passive or active. Passive labour market programmes include income support (e.g. unemployment benefits) or public assistance for early retirement. Active labour market programmes (ALMP) include employment incentives, direct job creation, sheltered employment, start-up incentives, training, public employment services (PES) and administration (e.g. counselling, job-search assistance). Activation measures are designed to bring unemployed and inactive people back into the labour force, enhance their employability and prevent extended periods of unemployment. They are not only a response to unemployment (and long-term unemployment in particular) but also contribute to tackling the challenges of an ageing workforce, poverty reduction and social exclusion (OECD, 2013a).

These two forms of labour market programmes are independent, but should be mutually reinforcing. All countries with a well-developed income support system (i.e. passive programmes) can benefit from a strong employment-focused activation system. Active labour market policies complement passive income security programmes with support for enhancing employability through job-search assistance and access to training and/or job creation and job sheltering programmes. Eligibility for income support can be, and often is, made conditional on participation in activation programmes (OECD, 2013a).

Total expenditures on labour market programmes in Spain reached 3.8% of GDP in 2011 and rank among the highest in the OECD, but spending on active measures is comparatively low. Rising expenditures on labour market programmes have been driven to a great extent by the need to spend more on unemployment benefits in the wake of the economic downturn. Expenditures on active labour market programmes are not high compared to other OECD countries, particularly considering the record numbers of unemployed people in Spain (Figure 58). While expenditures on passive measures more than doubled relative to GDP, expenditures on active labour market programmes increased only slightly in 2008 and had decreased to a level of 0.89% of GDP by 2011 which is lower than that observed between 1998 and 2004 (OECD/Eurostat, 2014). Spain, Ireland and the US are among the few OECD countries where spending on ALMPs per unemployed had fallen significantly from 2005 to 2011. This is mostly due to a large increase of unemployed people post-2007, a shift in spending towards passive unemployment measures and strong pressures for fiscal consolidation to minimise public budget deficits and rising public debt/GDP ratios (Martin, 2014).

Figure 58. Expenditures on active labour policies, purchasing power standards per person wanting to work

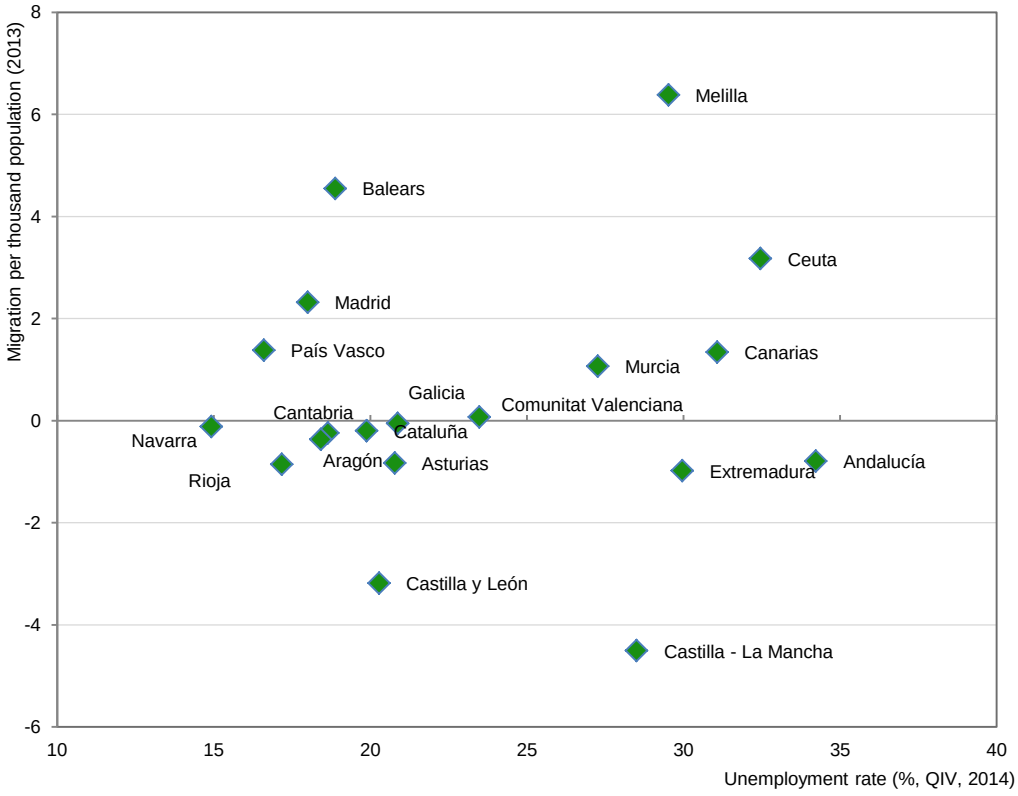


Source: European Commission (2015), "LMP expenditure", Eurostat database, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lmp_ind_exp&lang=en, 2012 or last available data.

Increased labour mobility could lead to higher employment

A lack of labour mobility in Spain may negatively impact job-finding rates. Figure 59 shows that there is no relationship between unemployment rates and migration patterns in Spain. Workers are not moving from regions with high unemployment rates to those where it is lower. Encouraging greater mobility might help to reduce unemployment. A number of factors might be impeding labour mobility in Spain. First, while unemployment benefits are in theory portable across regions, eligibility is contingent on being a resident of a region for a certain period of time, effectively limiting their portability. Second, the rental housing market is under-developed in Spain, making it potentially difficult and expensive to move (see challenges 2 and 5 for more discussion of this barrier). Third, the extensive use of temporary contracts (Challenge 4) discourages migration, since they imply greater risks associated with moves (e.g. the cost of moves may not be recouped if the job is terminated, and by moving the individual loses the support of family and social networks) (Antolín and Bover, 1997).

Figure 59. Regional unemployment and migration



Source: Instituto Nacional de Estadistica (INE) (2014), INEbase, www.ine.es/en/inebmenu/indice_en.htm.

Summary and policy implications

Persistent high levels of unemployment and an increasing share of long term unemployment are a significant challenge in Spain. The negative implications for individuals and society are widespread and have a direct and long-lasting impact on economic and social outcomes.

Enhancing the performance of Public Employment Services (PES) will be important for the rapid reintegration of the unemployed. The large number of jobseekers is putting considerable pressure on the capacity of the PES, especially given the relatively small size of PES in Spain. Helping jobseekers back into employment will require some combination of more resources, improved efficiency and better co-ordination

of the PES. Recent efforts to improve co-ordination between the central government, which is responsible for unemployment benefits, and the regional governments, which are responsible for active labour market measures must continue. As governments in Spain increase their reliance on private job placement agencies, careful monitoring will be needed to ensure that they provide effective and efficient service to those most in need.

Increased monitoring and stronger enforcement of job search compliance and the improved targeting of active labour market policies (ALMP) at those most in need will also be important for facilitating quicker returns to work. More targeted and tailored interventions are needed to ensure to identify and support those most in need of support to fine work. More resources should be dedicated to training especially for the low-skilled, but training also needs to be better linked to the needs of the labour market.

Significant labour reforms have been launched to improve the design, funding and delivery of active labour market programmes in Spain. Regular monitoring and evaluation will be necessary to ensure that programmes are achieving results and are responsive to the changing skill needs of the economy and society.

Activation policies must be complemented by other policies to boost employment. Measures should be taken to facilitate internal labour mobility. Steps should also be taken to improve the quality, accessibility and scope of information on current job vacancies and labour market trends (see challenge 9 for more on this issue). Increased support for career guidance and counselling would be helpful, especially for those with lower levels of skill.

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CHALLENGE 6: IMPROVING THE TRANSITION OF YOUTH FROM EDUCATION TO STABLE EMPLOYMENT

A selection of challenges identified by Spanish workshop participants:

"Better information and guidance needed on the secondary level to facilitate transition"

"Many of the youth have already been long-term unemployed"

"Incentives to hire youth exist, but the regulations of those incentives are rigid"

"Better collaboration between educational institutes and enterprises is needed to facilitate the transition of youth"

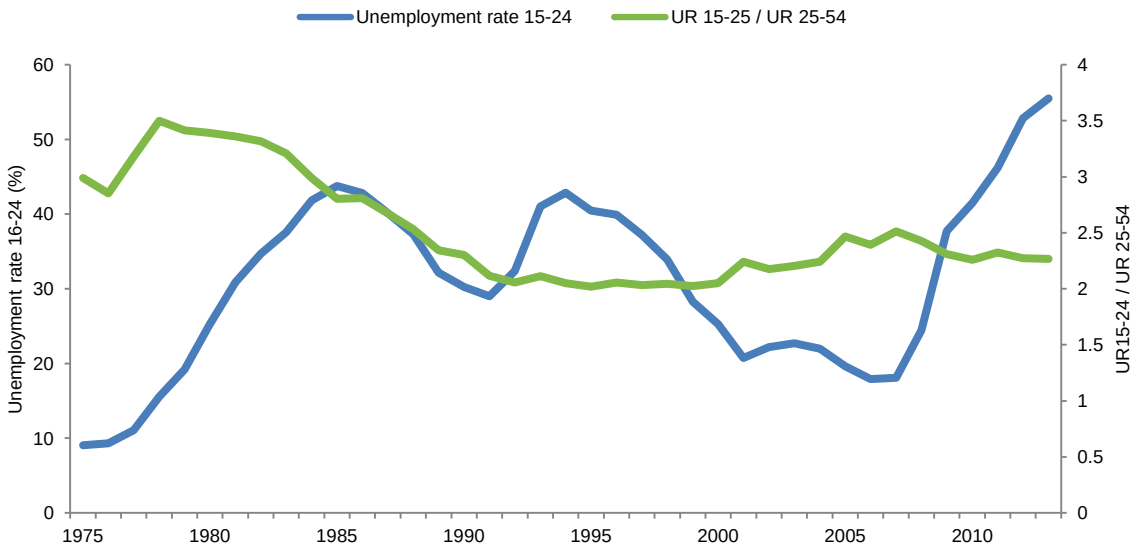
Supporting successful transitions from school to stable employment is critical for long-term success in the economy and society. Youth who are unable to make successful transitions from school to employment are at increased risk of unemployment later in life, lower lifetime earnings, and decreased participation in social life. With large numbers of youth neither employed nor in education or training (NEET), Spain needs to act quickly to ensure that the youth of today do not become a lost generation.

Youth unemployment continues to be high

Despite recent declines, the youth unemployment rate remains high. The unemployment rate for 15- to 24-year-olds only slightly decreased from 54.6% in 2013 to 52.4% in 2014. A similar decline is evident for 25- to 29-year-olds, for whom unemployment declined from 32.2% in 2013 to about 29.8% in 2014 (EC, 2015a; MEYSS, 2014). Around 16.7% of youth (15-29) are long-term unemployed (12 months or longer), which is higher than for adults (14%) (EC, 2014).

Spain has witnessed similarly high rates of youth unemployment during previous recessions. In the mid-1980s and early 1990s youth unemployment reached almost 50%. The ratio between youth and adult unemployment stabilised at around 2.5 in the mid-1990s and has remained around that level since, even during the recent recession (Figure 60). This is not significantly higher than in other OECD countries, which suggests that Spain has structural unemployment problem that is affecting the entire working population, rather than just young people (Dolado et al, 2013). These structural problems include certain disincentives to hire workers and supply labour (Challenge 4). Still, there are many steps that can be taken to improve youth transitions to work and increase youth employment.

Figure 60. Youth unemployment rates (UR) and ratio UR 16-24/UR25-54

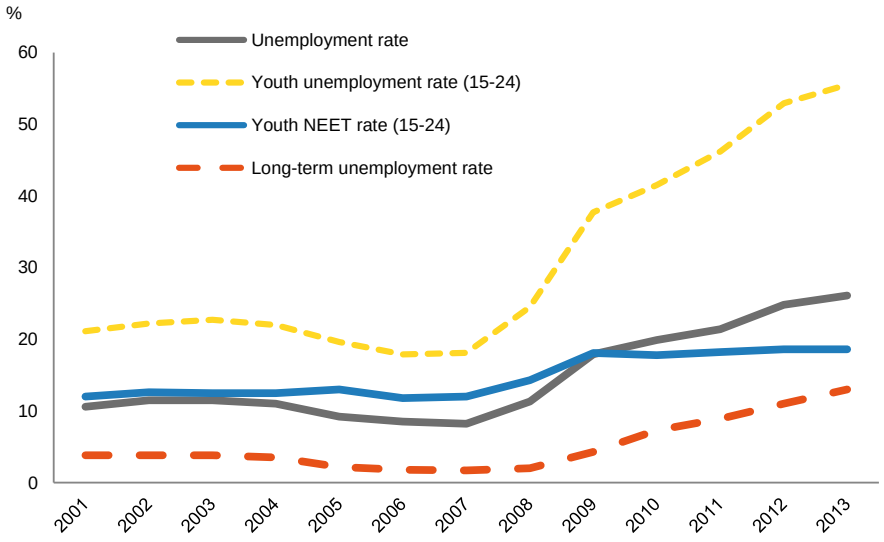


Source: OECD (2014a), "Labour market statistics: Labour force statistics by sex and age: indicators", *OECD Employment and Labour Market Statistics* (database), http://dx.doi.org/10.1787/data-00310-en.

Many youth are neither employed nor in education or training

The share of youth that is neither employed nor in education or training (NEET) rose from 2007 until 2009 and has remained relatively constant at around 20% since then (Figure 61). This is one of the highest rates among OECD countries, surpassed only by Mexico, Greece, Italy and Turkey (Figure 62). High rates of youth NEET is related to the large number of youth dropouts in compulsory education, which have declined recently but are still a problem (Challenge 1). That NEET rates have peaked might reflect the choice of many youth to stay longer in education or training while waiting for the economy to recover and start generating more jobs. Most of the youth NEET (around 71.2%) are actively looking for a job, but 35.5% declared that they are not registered with the public employment services (EC, 2015a). These youth in particular are at risk of becoming long-term unemployed.

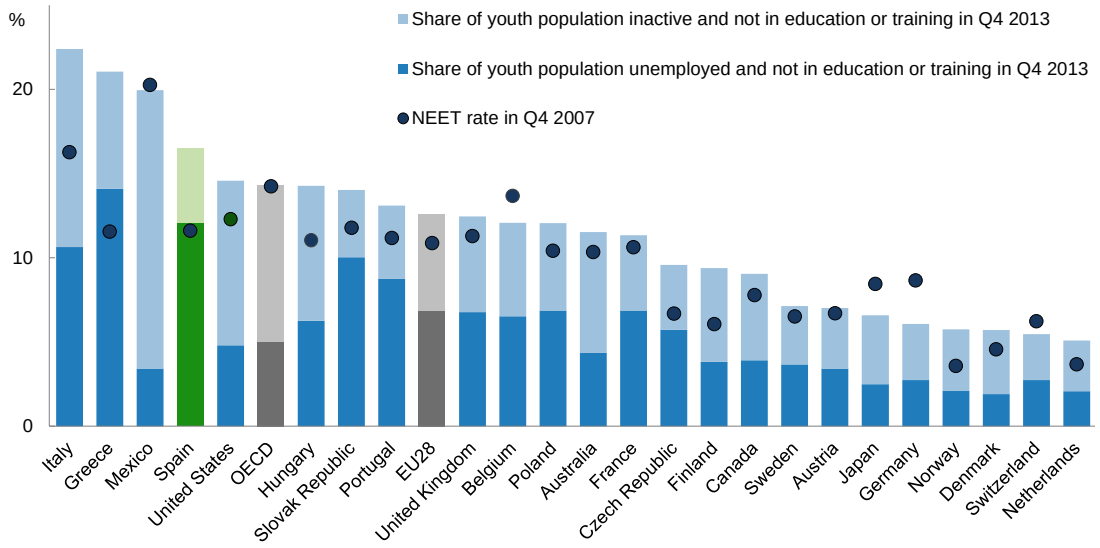
Figure 61. Labour market Indicators



Source: European Commission (EC) (2015a), "Country report Spain 2015: Including an in-depth review on the prevention and correction of macroeconomic imbalances", Graph 1.6, http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_spain_en.pdf.

Figure 62. NEET rates among youth

Percentage of population aged 15-24, Q4 2007-Q4 2013



Note: Countries are shown by descending order of the NEET rate in Q4 2013.

Source: OECD estimates based on national labour force surveys.

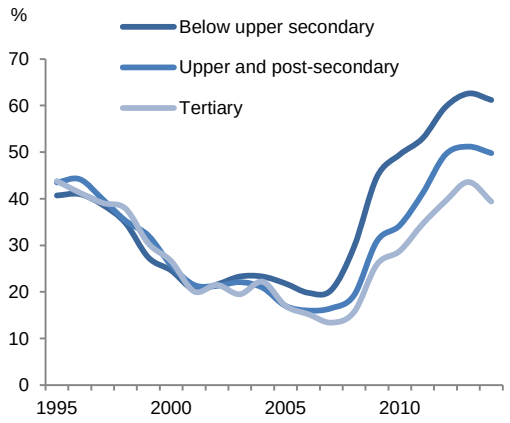
Youth are struggling to gain a foothold in the labour market

Youth who have low levels of qualifications and skills are especially at risk of unemployment. Unemployment among low qualified youth (15-24) is around 62.6% (2013), which is much higher than the rate in 2007, when it was 20.4% (Figure 63 and 64). This is due, in part, to the large decrease in the number of jobs in the construction sector, which had been a large employer of relatively low-skilled and low-qualified youth (i.e. with less than upper secondary education). Low-qualified and low-skilled youth are at a particular disadvantage in the current labour market as they lack both marketable skills and prior work experience. They may also lack the necessary foundation skills needed for further participation and success in lifelong learning (Scarpetta, Sonnet and Manfredi, 2010). Some groups within the youth population, such as women and youth with an immigrant background, face additional barriers to their integration into the labour market (OECD 2015c).

Even youth with high levels of qualifications and skills are struggling to gain a foothold in the labour market. Challenges 1 and 2 have shown that the youth of today have higher levels of education and skill than those in the past. Still, as Figure 63 shows, in 2014 almost 40% of youth (15-24) with a tertiary education were unemployed.

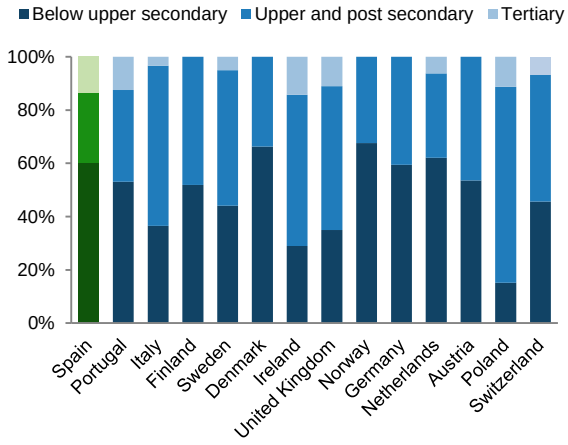
Spanish youth require more time to find a first job after leaving school regardless whether they find temporary or permanent work. While it takes Spanish youth more than 2 years to find work, in Germany and Denmark it takes about 1 and 1.5 years respectively. The gap is even greater if one considers only regular contracts: 6 years (Spain) versus 2 years (Denmark). This has long been the case, even well before the crisis hit, and can be explained by a high level of labour market dualism in Spain (Dolado et al., 2013; Quintini & Martin, 2006). Even 4 to 5 years later almost 20% of 15 to 34 year olds have still not found a regular job in Spain, while the shares in other countries such as the UK (4%) and the Netherlands (5%) are considerably lower (Wölfl, 2013).

Figure 63. Unemployment rates of youth (15-24) per level of education over time



Source: OECD (2012), "Unemployment is particularly high among low skilled youth", in OECD, OECD Economic Surveys: Spain 2012, http://dx.doi.org/10.1787/888932740556.

Figure 64. Contribution to total youth (15-24) unemployment rate, 2011



Source: OECD (2012), "Unemployment is particularly high among low skilled youth", in OECD, *OECD Economic Surveys: Spain 2012*, http://dx.doi.org/10.1787/888932740556; "Unemployment rates by sex, age and educational attainment level (%)", Eurostat database, 2012, 2013, 2014, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_urgaed&lang=en

Long periods of unemployment for youth are costly. Long-term unemployment can have a "scarring effect" with a higher likelihood of unemployment later in life, lower pay, poorer mental health and overall reduced life chances (Bell & Blenchflower, 2011; Strandh et al., 2014; Arulampalam, Gregg and Gregory, 2001; Cockx and Picchio, 2013. Long periods of unemployment on CVs may be interpreted by employers as reflecting skills deficiencies, low productivity, and a poor work ethic or attitude, all of which will make employers less inclined to hire such youth. There is also the danger that skills will atrophy or, even, become obsolete when young graduates are unable to apply their skills soon after graduation. Furthermore, youth may also become less confident about their skills, more anxious and pessimistic about future employment prospects. Unemployed youth are also more likely to stay at home, which may create financial pressures for parents, and decrease their savings for retirements.

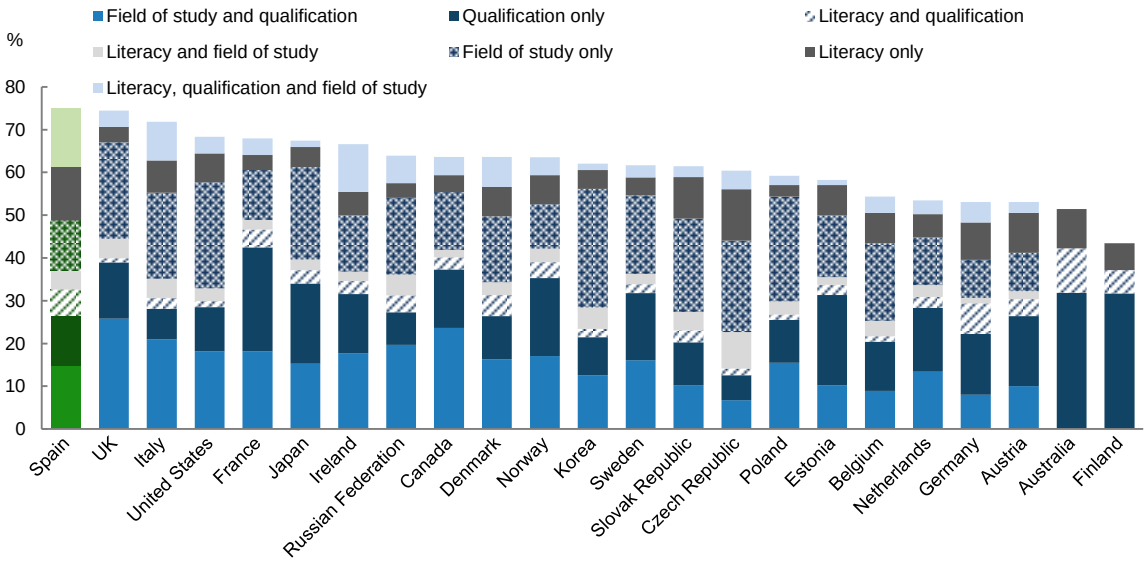
When youth do find work, they are often under-employed.

Many youth are finding jobs that do not make full use of their skills. Youth who do find employment in the current labour market often find themselves in jobs that are mismatched with their skills, qualifications and fields of study (Figure 65). While it is normal that it takes youth some time to find a job for which they are well-matched, the share of Spanish youth (70%) that are mismatched on one of these dimensions is considerably higher than the average (61%) for all countries participating in the Survey of Adult Skills (PIAAC). Young workers are also using their cognitive skills less at work than their prime-age peers. This is true even when comparing young and prime-age workers with the same level of cognitive skills (OECD, 2015c).

Many only find part-time work. Spain has the highest rate of youth working involuntary in part-time jobs (22% versus the OECD average of 4%) (Figure 66). Given the dearth of job openings in Spain, many youth may prefer to take any available job if the alternative is no job at all. Underemployment can lead to significantly lower self-esteem (Prause & Dooley, 1997), lower productivity and in-work poverty (OECD, 2014c).

Figure 65. Total mismatch among youth (16-29) by type of mismatch[1,2]

As a percentage of all youth in employment



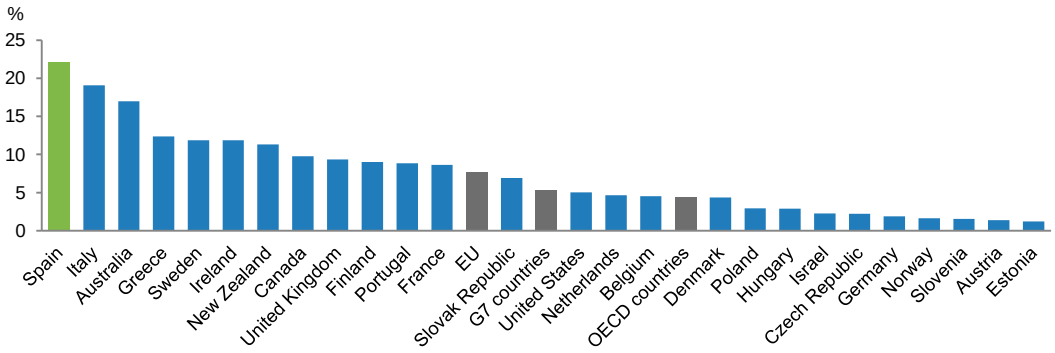
Notes:

1. Workers are classified as mismatched by qualification if they have higher or lower qualifications than required by their job; workers are classified as mismatched in terms of literacy skills if they have literacy proficiency exceeding or below that required by their job; workers are classified as mismatched by field of study if they are working in an occupation that is not related to their field of study (see Box 5.5 and Annex 5.A2 for further details).

2. Occupation is only available at the 2-digit level in the ISCO-08 classification for Australia and Finland. Hence it is not possible to assess the extent of field of study mismatch in these two countries using the same definition used for the other countries.

Source: OECD calculations based on OECD (2012), Survey of Adults Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Figure 66. Percentage of involuntary part-time workers in total employment of youth (15-24), 2013



Source: OECD (2013a), "Incidence of involuntary part time workers", OECD Labour Force Statistics (OECD.Stat database), http://stats.oecd.org/Index.aspx?DataSetCode=INVPT_I.

Youth often face unfavourable working conditions

Many youth who find work earn less than their counterparts in the past. Recent reforms have made the labour market more flexible and wages have become more responsive to economic conditions, which has led to increased hiring (Challenge 4). New measures such as reduced social security contributions have facilitated the entry of young and low-qualified workers into the labour market. However, the prolonged crisis has led to lower wages at the moment of initial hiring or the renewal of temporary contracts. The average entry salary for young people has decreased from EUR 1 210 in 2008 to EUR 890 in 2013 (-35% in real terms) (EC, 2015a). Although greater employment opportunities are a positive development, the trade-off is that some young people are at risk of in-work poverty (Challenge 4). In other countries, low in-work income is addressed to some extent by tax-based income support for low income workers (Challenge 4, Box 10).

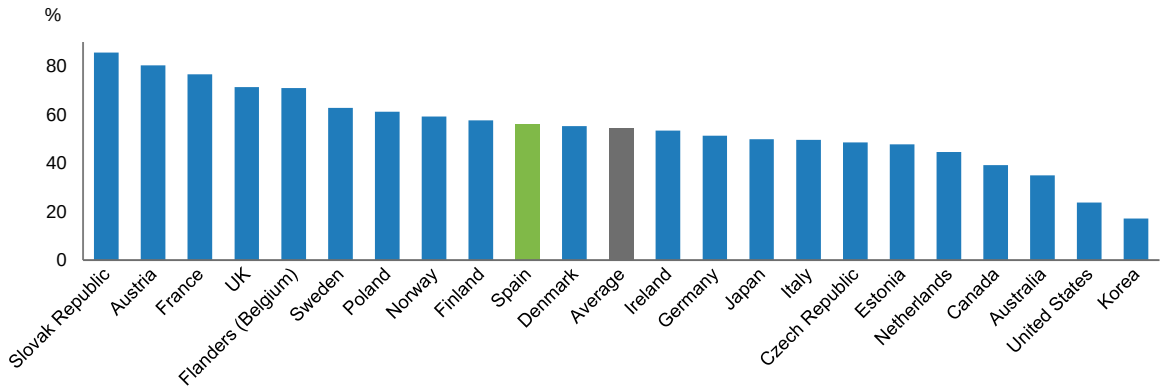
Three out of four youth are employed on a temporary contract. Around 71% of young workers (16-24) are hired with a temporary contract and this share has increased during the crisis. The rate of youth with a temporary contract is 3 times as high as the rate for regular workers (16+) and makes young workers vulnerable to economic fluctuations (MEYSS, 2014). While in many European countries temporary contracts are a stepping stone for youth to a permanent contract, in Spain youth are more likely to be trapped in temporary contracts. In labour markets characterised by duality, such as Spain, there is an inner core of permanent or regular workers (*insiders*) with good wages and security and a peripheral group of temporary workers (*outsiders*) often in low productivity jobs, with lower wages and frequently alternating between periods of temporary employment and phases of unemployment (Eichhorst, 2014; Amuedo-Dorantes, 2000). Youth with temporary contracts have fewer career prospects and experience lower wage increases over time. Furthermore, temporary workers in Spain are 17% less likely to receive employer-sponsored training, hindering the workforce's skill development and productivity (OECD, 2014b).

The transition rate for youth from temporary to regular employment has decreased during the crisis. The transition rate falls further when the worker has had multiple temporary contracts (García-Pérez and Muñoz-Bullón, 2011). The government has tried to counter this by introducing subsidies to encourage companies to hire youth with regular contracts. This seems to have stabilised the transition rate from unemployment to regular contracts. However, research from Dolado et al. (2013) suggests that between 2005 and 2012 many of the regular positions created by subsidy schemes were terminated when the subsidy period ended. Other strategies may be needed to ensure that temporary contracts are a stepping stone to regular contracts and not a trap.

Public employment services play an important role in facilitating youth transitions to employment

Across OECD countries, the public employment services (PES) play an important role in connecting the unemployed to the education system and the world of work. As noted in Challenge 5, the capacity of the PES has been strained by the large increase in the numbers of unemployed. Nonetheless, the share of unemployed youth reporting that they were in contact with the PES was slightly above average in Spain (Figure 67) (OECD 2015c). Still, given the very large numbers of unemployed, the challenge for the PES is to increase both its effectiveness and efficiency.

Figure 67. Percentage of the unemployed aged 16-29 that contacted public employment services in the last four weeks, 2012



Source: OECD calculations based on OECD (2012), Survey of Adults Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Youth have unique needs that necessitate tailored employment measures. They are often less confident and experienced in interacting with bureaucratic authorities, need more orientation and information about work options, and have preferences and attitudes that are different from mature jobseekers. For example, they may become more easily frustrated with technical language and regulations or become easily demotivated by sanctions governing eligibility for unemployment benefits (EC, 2011). This underscores the importance of having PES personnel who are trained to work specifically with youth and profiling tools and practices that support the provision of individualised and targeted supports for unemployed youth. In Slovenia, youth between 16 and 25 who have left school early are offered a holistic counselling service (e.g. guidance counsellors, financial advisors, sex educators, social counsellors, school counsellors) that recognises the diverse and interconnected needs of youth (Walther and Pohl, 2005).

In many countries, PES are expanding their outreach services to youth NEETs not registered with the public employment service, providing them with relevant information, guidance and counselling. In many countries, these services are being offered even before youth exit formal education. These initiatives include: having PES advisors visit schools, holding school visits to local PES, holding job fairs, and training school administrators and teachers about relevant public employment services (EC, 2011). However, the PES in Spain do not currently conduct these sorts outreach activities (European Network of Public Employment Services, 2014). The absence of such measures in Spain may be a reflection of the limited capacity and/or efficiency of the PES (Challenge 5). Spain could draw upon the experience of other countries that have developed youth employment outreach services (Box 19).

Box 19. Finland: PES reaching out to youth

Delivered by the Ministry of Education, Science and Culture, in co-operation with municipalities across Finland, the "Outreach Work" programme is implemented with the assistance of schools, the PES and other public services. Outreach Work offers long-term holistic one-to-one support from a Youth Worker. Young people voluntarily enrol in the programme which is delivered through three steps. Firstly, a young person can be referred by a public service (such as health services) or they can refer themselves. Secondly, guidance is individually tailored via assessments and motivational activities or peer group support activities. Thirdly, these activities help the young person to work towards a better quality of life.

Box19. Finland: PES reaching out to youth *(continued)*

Outreach Work targets young people up to the age of 25 whose activities are unknown i.e. those who are not registered with the PES or who are applying for, or undertaking, education or training. 60% of those contacted are aged between 16 and 20 and 25% are aged between 21 and 25.

Youth Workers hold relevant qualifications and are required to have many years of experience of delivering social work. They have a caseload of five to ten young people, depending on the difficulties faced by the caseload. In 2013, Youth Workers were in contact with 27 117 young people, of these 16 627 were in long term support. The primary goals agreed between the young person and the Youth Worker include studies (29%), PES services (20%) and youth workshops and youth work (17%). Fifteen percent of young people were referred to other measures or rehabilitation activities. Only 3% of those engaged declined help and support from a Youth Worker.

Key ingredients: A 'one-stop-shop approach' is being trialled in a small number of cities. It brings together key agencies for young people, such as health care, social services and careers. Good communication is in place between the different agencies. The identification of NEETs works well as schools pass on the contact details for young people or those at risk of dropping out. In addition, the services are promoted via carefully placed adverts on social media and websites.

Resources: 418 Youth Workers deliver the service. There is an annual budget of EUR 12 million per year. This is nationally funded, with 70% coming from the Ministry of Education, Science and Culture and 30% provided by the municipalities. Municipalities have to apply for the national funding to support the role of the Youth Worker. They can involve NGOs if necessary. The use of funding is monitored and checked with regional authorities.

What works for whom and why? This client-centred approach is flexible to the needs of the individual. No specific targets are set as the aim is for the young person to have a better life, which often involves education and employment.

Obstacles and improvements: The follow-up of participants and the outcomes is not monitored. There are difficulties in exchanging data to create this process. It is anticipated that more municipalities will use the one-stop-shop approach in the future.

Source: European Commission (EC) (2015b), "PES practices for the outreach and activation of NEETs", March 2015, http://ec.europa.eu/social/BlobServlet?docId=13728&langId=en.

Up-to-date information and guidance services are difficult to access in Spain. Upper secondary and tertiary education graduates hoping to enter the labour market upon graduation are not provided with easily accessible guidance and job-search assistance co-ordinated by education institutions and employment centres. Currently, available information is dispersed across different websites: vocational education and training, national employment opportunities, European employment opportunities, employment observatory, and employment guidance services in the regions, among others. The information is not integrated and is thus difficult to navigate. Streamlining the information in one portal would help. The National Youth Guarantee Scheme website launched in July 2014 aims to be the single contact point for all those involved in the Spanish Youth Guarantee Programme.

Spanish youth face barriers to geographic mobility such as a relatively high rental rates. Despite large and persistent differences in unemployment rates across regions, there is relatively little internal migration from those regions with higher unemployment to those with lower unemployment (Challenge 5). While young people between 16 and 34 years of age are most likely to move in Spain, the overall number is still fairly small (EC, 2015a). Dolado et al (2013) find that that Spanish youth are more likely than their counterparts in other European countries to live with their parents, regardless of their level of education and the type of their employment contract (temporary or regular). For example, 70% of young Spanish males with regular contracts continue to live with their parents, which is significantly higher than for peers in the UK (30%), Germany (21%), Netherlands (16%) and France (16%). This pattern holds true for females as well, but to a lesser degree. In Spain less than 10% of youth between 22 and 29 are responsible for their own housing and are living in a rental home, while almost 16% of youth own homes. This rate is significantly lower than in Germany (58%),

France (47%), the Netherlands (42%) and the UK (33%). Rental accommodation in Spain is relatively expensive. It absorbs more than half of the disposable household income, as compared with 35% in France, 33% in the UK, 25% in the Netherlands, and 23% in Germany. At the same time, only 16.2% of Spanish youth are entitled to a housing allowance (subsidy for employed youth with a low level of annual income – *Renta Básica de Emancipación*), while 54.2% of youth in France and 36% of youth in the Netherlands are supported by similar measures. The Plan for the Implementation of the National Youth Guarantee Programme sets out that the Ministry of Employment and the Autonomous Communities implement programmes that promote national and European mobility (MEYSS, 2013). In practice though, programmes seem to focus more on international mobility rather than on mobility within Spain. This could be due to the challenges of co-ordinating efforts across a highly decentralised country such as Spain.

Youth employability has been the focus of recent government programmes

Spain is currently implementing the 2013-16 Youth Employment and Entrepreneurship Strategy, which has led to some short-term improvements, but more remains to be done. Up until December 2014, almost 365 000 young people had benefited from these measures, the most common of which were employment subsidies (EC, 2015a). The Youth Employment and Entrepreneurship Strategy covers 100 measures designed to integrate young people in the labour market with 15 of those being early-impact, "emergency" measures designed to: provide education and training to support improve employability; promote entrepreneurship and self-employment; improve support by PES and partner organisations; and create incentives for hiring youth.

Spain also established a National Youth Guarantee programme in 2014 with financial support from the European Union (Law 18/2014). The goal of the programme is to increase youth employment rates by offering either a concrete job offer or participation in an active labour market programme within four months of a young person leaving formal education or becoming unemployed. The programme targets youth who have dropped out of formal education or who have recently graduated from lower-, upper-secondary or tertiary education. Active labour market programmes for youth include second-chance education programmes, enrolment in apprenticeship or pre-apprenticeship programmes, vocational counselling, work experience programmes or further education (Carcillo et al., 2015).

The National Youth Guarantee offers companies incentives to hire youth. Companies that hire young people who have less than three months of work experience with a regular contract are eligible to receive a subsidy, with lower social security contributions of EUR 500 a year for three years. Other incentives include social security contribution reductions for work placement contracts and for co-operatives and worker-owned limited companies who hire unemployed youth. When companies hire NEETs less than 25 years of age they can receive a subsidy equivalent to 50% of the minimum wage for a maximum of one year (MEYSS, 2014). Subsidy programmes need to be carefully designed and monitored to avoid deadweight loss effects (i.e. providing subsidies to employers who would have hired youth even in the absence of a subsidy) and substitution effects (i.e. substituting workers not supported by financial incentives with youth who are, resulting in no net employment growth).

Box 20. National programmes for youth

The Spanish Chamber of Commerce provides an integrated programme of qualification and employment for youth (*Programa Integral de Cualificación y Empleo*, PICE). Youth are provided with career guidance and an individualised training plan with the ultimate goal of getting them employment or becoming self-employed. The programme is targeted at the NEET youth who are between 16 and 25 years old (up to 30 years in case of disability). On-site capacity-development training happens in the offices of the Chamber of Commerce. Youth can also participate in a dual VET programme that gives them hands-on experience in the work place. Moreover, youth may also receive support to go to other European countries.

Box 20. National programmes for youth *(continued)*

The Skills-for-Work Schools (*Escuelas Taller*) and Job-learning Centres (*Casas de Oficios*) are programmes that help unemployed youth. They combine theoretical classroom teaching with practical training and are based on the methodology "learning by working". The Skills-for-Work Schools last between one and two years, while the job-learning centres are limited to one year. In both there is an initial training phase of six months, in which the unemployed young person receives EUR 9 per training day. After the classroom training phase the unemployed begin the on-the-job training (6 to 18 months) with a training contract and receiving a salary that is 75% of the minimum wage. The number of youth participating is quite modest. In 2011 about 3 791 young unemployed participated in the Skills-for-work schools (87%) and in the Job-learning Centres (13%). In 2013, two-third of the beneficiaries of 2011 were able to find a job. There have been no major changes in the implementation of these programmes since the 1990s, when responsibility for implementation was transferred to the regions. Impact evaluations are conducted on the regional level. The Valencian Employment Service Foundation (*Fundación Servicio Valenciano de Empleo*) found that this practice was the most successful alternate training scheme in the Spanish labour market policies with high labour market insertion rates (up to 100% in some sectors and territories), low participants/trainer ratio (8:1) and adequate integration with employers' demand. The synergies between the participants, the training model and the territorial needs are one of the most positive characteristics of this programme (Bravo, E. A., 2008).

Source : Bravo, E. A. (2008), "Veinte años del programa de Escuelas taller, Casas de oficios y Taller de empleo. (Reflexiones para el futuro)", *Revista del Ministerio de Trabajo y Asuntos Sociales*, No. 71, pp. 123-148 www.empleo.gob.es/es/publica/pub_electronicas/destacadas/revista/numeros/71/est06.pdf.

Summary and policy implications

Youth in Spain face difficulties in making a smooth transition from school to work. Despite a recent, slow decline in youth unemployment, the youth unemployment rate remains stubbornly high in Spain. Many unemployed youth have low qualifications and low levels of skill. The number of youth neither in employment, education nor training (NEET) ranks near the top of the OECD. These youth are at risk of becoming long-term unemployed and more difficult to integrate into the labour market in the future.

When youth do find work, it is often under unfavourable working conditions. Many youth find work that does not make full use of their education and skills. Many are working only part-time and/or are earning less than their counterparts in the past. Many are hired with temporary contracts, increasing their vulnerability to unemployment in the future. Youth with a temporary contract are less likely to be converted to a permanent contract in Spain than elsewhere. It is important to strike a good balance between increasing labour market flexibility to increase job opportunities for youth on the one hand and safeguarding the quality, stability and earning of those jobs on the other.

Several issues need to be addressed simultaneously to help youth find their first jobs. PES have to improve their performance in supporting and guiding youth in their transition from school to employment, in particular through early interventions that are tailored to their individual needs. The PES must also reach back into the education system to help more of them make a successful transition from school to work without a period of unemployment in between. Barriers to youth mobility must also be addressed. This includes a poorly functioning rental market for housing that limits their ability to move to places where there are better job opportunities. Up-to-date and quality information and guidance services that are tailored to the specific needs of youth would also support more successful transitions.

Efficient transitions from school to work are essential to avoid the scarring effects of unemployment and under-employment and to maintain the skills that youth and society have invested so heavily in developing. Without adequate support there is a real risk of creating a lost generation whose long-term employment, earnings and social prospects are dim. The Strategy for Entrepreneurship and Youth Employment as well as the National Youth Guarantee programme are promising. These programmes will need to be carefully monitored and evaluated to ensure that they are having their intended impact.

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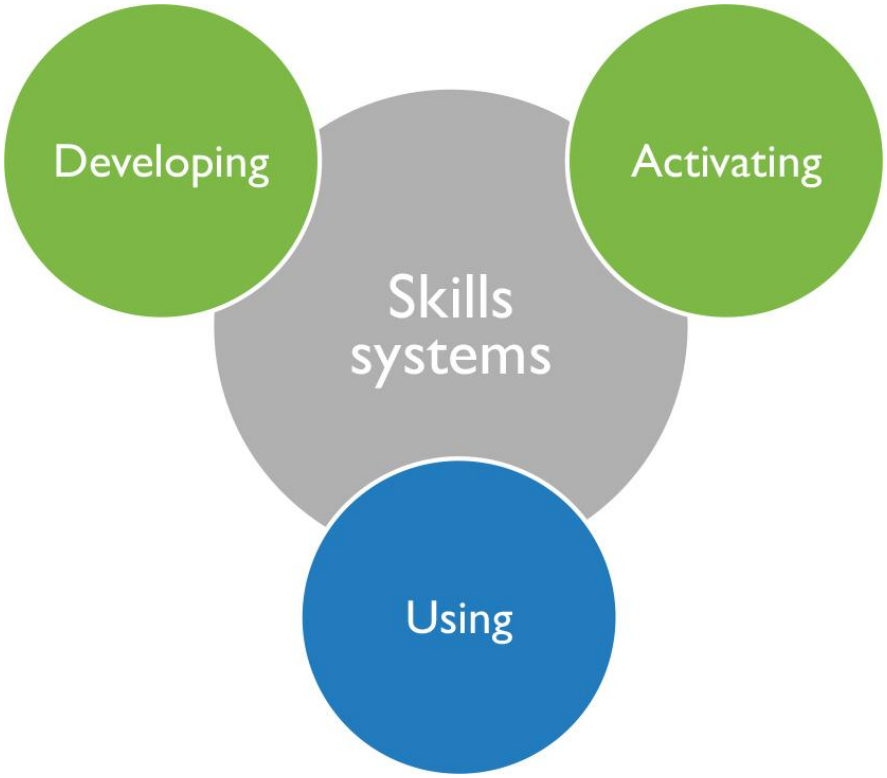
USING SKILLS



INTRODUCTION TO USING SKILLS

Investments in developing and activating skills are critical for ensuring that individuals have the skills they need for economic and social success and the opportunities to use them. However, successful skills policies also need to ensure that these skills are used effectively so that investments in skills provide maximal returns to the individual and society. In adulthood, skills are, to a large extent, developed informally, through work experience. Skills that are not fully utilised tend to atrophy. Skills that are not fully utilised in workplaces represent a lost opportunity to increase innovation, productivity, competitiveness and growth for the benefit of individuals, firms and society as a whole.

Spain is currently not making optimal use of the skills of its workforce. The use of skills in the workplace is only about average and many workers have skills that exceed the skill requirements of their jobs. Firms in Spain are less likely than their counterparts elsewhere to adopt innovative workplace practices that might make them more productive and competitive**.** This implies a waste of talent that might otherwise be used to improve firm competiveness and productivity. Making fuller use of the skills of Spain's workforce will entail greater efforts to raise awareness among firms about the importance of making the effective and intensive use of skills in the workplace a central component of their business strategies.

Firms and countries can also improve their performance by making highly skilled workers, entrepreneurs, and universities and research institutes central to their innovation system. Workers with advanced degrees conduct research that leads to new innovations that contribute to substantial process improvements and the introduction of new products and services. They also embody the know-how needed to adopt, adapt and implement new innovations and technologies in the workplace, thereby boosting productivity and profits. Entrepreneurs are also needed to bring new ideas to market. For their part, universities and research institutes are needed to generate and transfer new knowledge to firms and train the highly skilled workers and entrepreneurs that the private sector needs to grow the economy. Currently, few Spanish firms are actively engaged in innovation. Spain invests comparatively little in knowledge-based capital and employs relatively few knowledge-based capital workers. In addition, there are high barriers to entrepreneurship while university spending on research and development is also comparatively low.

Spain will not realise its full economic and social potential unless it does a better job of using the skills it has already invested in and leveraging those investments to increase innovation and productivity. For firms, this means making skills central to their business strategies. For the country, it means ensuring that investments in skills, research and innovation are aligned with its broader economic goals.

CHALLENGE 7: MAKING FULL USE OF SKILLS IN THE WORKPLACE TO STRENGTHEN PRODUCTIVITY AND COMPETITIVENESS

A selection of challenges identified by Spanish workshop participants:

"There is a lack of organisational capacity at both company and government level to better use existing skills"

"There is lack of teamwork culture and skills. No long-term perspective"

"There is a lack of incentives to fully use the skills of specific groups of the population"

Developing and activating skills are necessary but insufficient to improve productivity and competitiveness. A country can have great success in developing and activating skills, but fail to realise the full benefits of those skills if they are not used effectively in workplaces to boost productivity. Conversely, a country can partially offset poor performance in developing and activating skills by getting maximal benefit of the skills it has available. The use of skills at work is also critical for their maintenance and further development. Prior investments in learning can be wasted if workers skills are left to atrophy and/or workers are not given opportunities to build on those initial investments by further developing their skills.

Skills use in the workplace is positively correlated with productivity growth

The use of reading and writing skills are positively correlated with labour productivity across OECD countries (Figure 68). Even after adjusting for average proficiency scores in literacy and numeracy, the average use of reading and writing skills explains a considerable share (50% and 44% respectively) of the variation in labour productivity across countries (Quintini, 2014). In other words, how skills are used at work has an important impact on productivity above and beyond that of the impact of proficiency in the same skills.

Figure 68. Labour productivity and the use of reading skills at work

adjusted for literacy and numeracy proficiency

Notes: Lines are best linear predictions. Labour productivity is equal to the GDP per hour worked, in USD current prices (Source: OECD.Stat). Adjusted estimates are based on OLS regression including controls for literacy and numeracy proficiency scores. Standard errors in parentheses.

Source: OECD (2012), Survey of Adult Skills (PIAAC) (database), Table A4.4, www.oecd.org/site/piaac/surveyofadultskills.htm.

The Survey of Adult Skills directly assesses "information-processing" skills that provide a foundation for effective and successful participation in workplaces. These include literacy, numeracy and problem solving in technology-rich environments. These skills are highly transferable and therefore relevant to many work contexts. In addition, the survey also assesses certain "generic" skills that help individuals to perform their work-related duties effectively such as interpersonal communication, self-management, and the ability to learn (OECD, 2013).

Table 2. Survey of Adult Skills (PIAAC) indicators of skills use at work

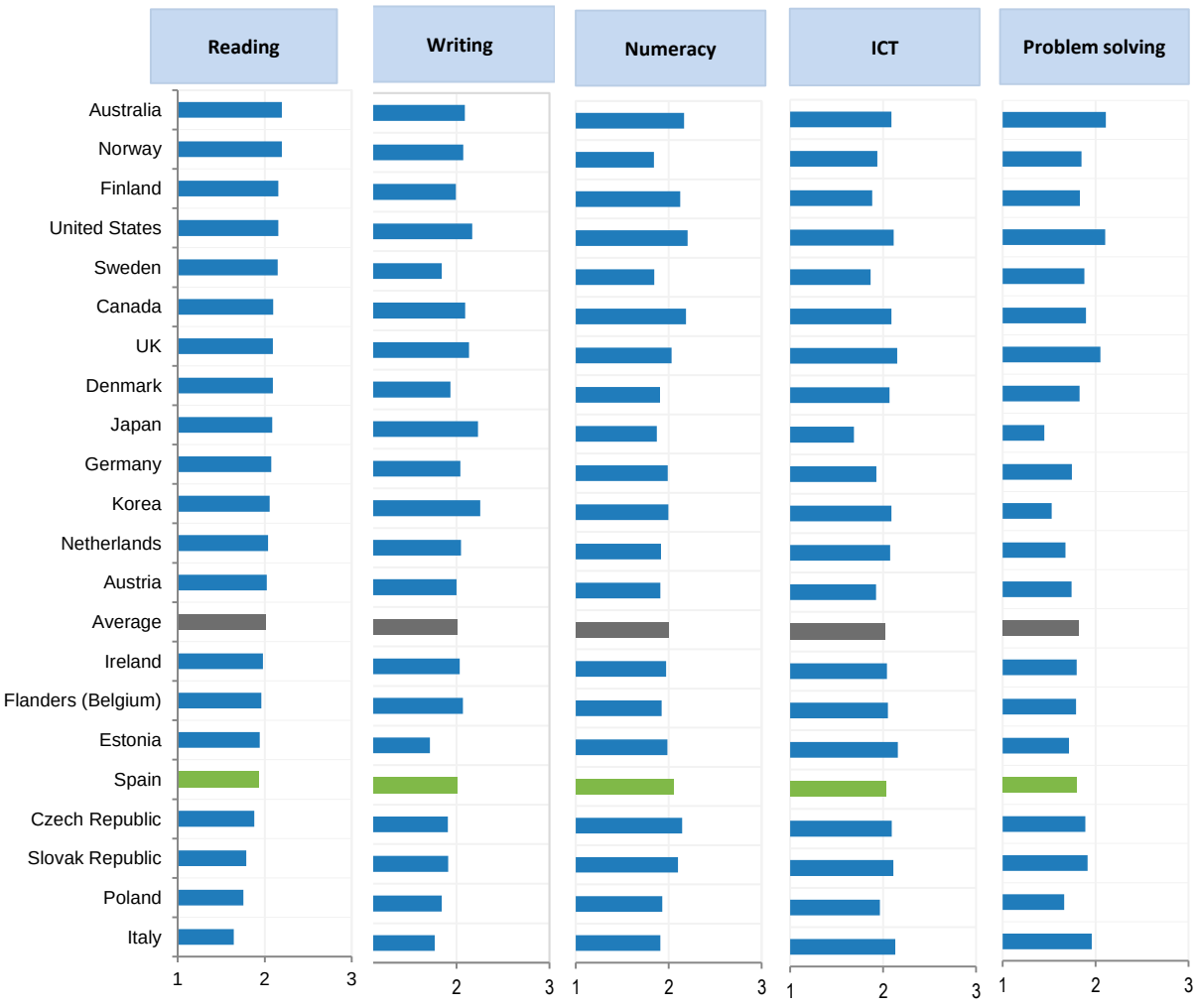
	Indicator	Group of tasks
Information-processing skills	Reading	Reading documents (directions, instructions, letters, memos, e-mails, articles, books, manuals,bills, invoices, diagrams, maps)
	Writing	Writing documents (letters, memos, e-mails, articles, reports, forms)
	Numeracy	Calculating prices, costs or budgets; use of fractions, decimals or percentages; use of calculators; preparing graphs or tables; algebra or formulas; use of advanced math or statistics (calculus, trigonometry, regressions)
	ICT skills	Using e-mail, Internet, spreadsheets, word processors, programming languages; conducting transactions on line; participating in online discussions (conferences, chats)
	Problem solving	Facing complex problems (at least 30 minutes of thinking to find a solution)
Other generic skills	Task discretion	Choosing or changing the sequence of job tasks, the speed of work, working hours; choosing how to do the job
	Learning at work	Learning new things from supervisors or co-workers; learning-by-doing; keeping up-to-date with new products or services
	Influencing skills	Instructing, teaching or training people; making speeches or presentations; selling products or services; advising people; planning others' activities; persuading or influencing others; negotiating.
	Co-operative skills	Co-operating or collaborating with co-workers
	Self-organising skills	Organising one's time
	Dexterity	Using skill or accuracy with one's hands or fingers
	Physical Skills (gross)	Working physically for a long period

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

Spain is not making full use of the skills of its workforce

Spanish workplaces rank close to average in the intensity of use of information-processing skills in workplaces (Figure 69). Like Spanish adults, adults in the US and the UK have mean literacy and numeracy scores that are below the PIAAC average. However, workers in the US and the UK use their skills more intensively in the workplace than do workers in Spain. This implies that American and British firms might be doing a better job of getting the most productivity out the skills of the workers they have. The extent to which skills are used in workplaces may also reflect differences in the industrial structure and business models employed across countries. Still, given the strong link between skills use and productivity and economic growth, Spain should be aspiring to an economy that makes fuller use of its skills.

Figure 69. Average use of information-processing skills at work, PIAAC 2012



Notes: Countries are ranked in descending order of the average use of reading skills at work.

Skills use indicators are standardised to have a mean of 2 and a standard deviation of 1 across the entire survey sample.

Source: OECD (2012), Survey of Adult Skills (PIAAC) (database), Table A4.1., www.oecd.org/site/piaac/surveyofadultskills.htm.

There is also room to increase the use of generic skills in Spanish workplaces (Figure 70). Spain performs above average in use of "learning at work" and marginally above average in use of "self-organising skills" in the workplace. Spain performs near average on use of "co-operative skills" and "physical skills". Spain performs below average on use of "task discretion", influencing skills" and "dexterity". Once again, the US and the UK outperform Spain in the average use of these skills.

Figure 70. Average use of generic skills at work, PIAAC 2012

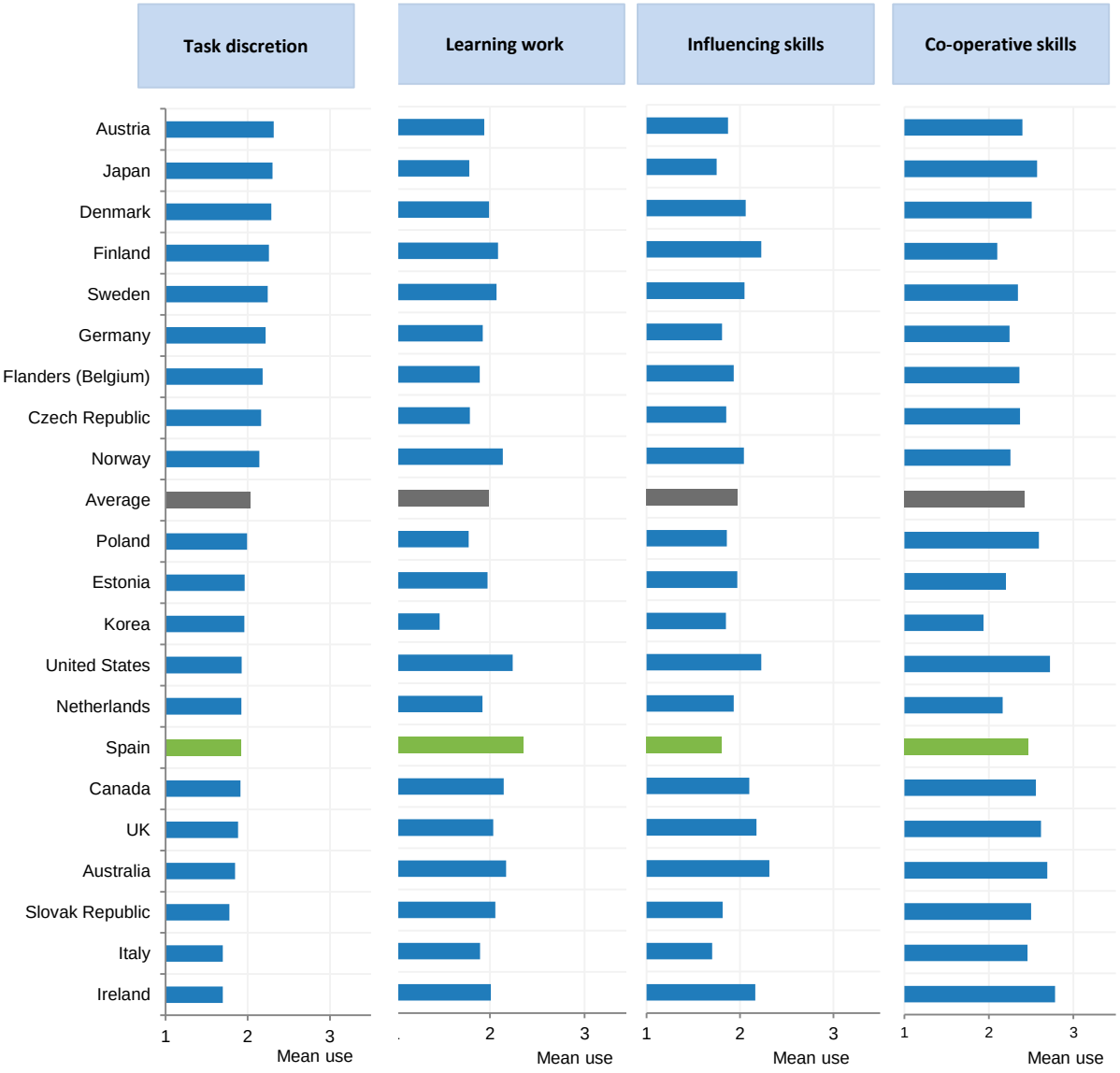
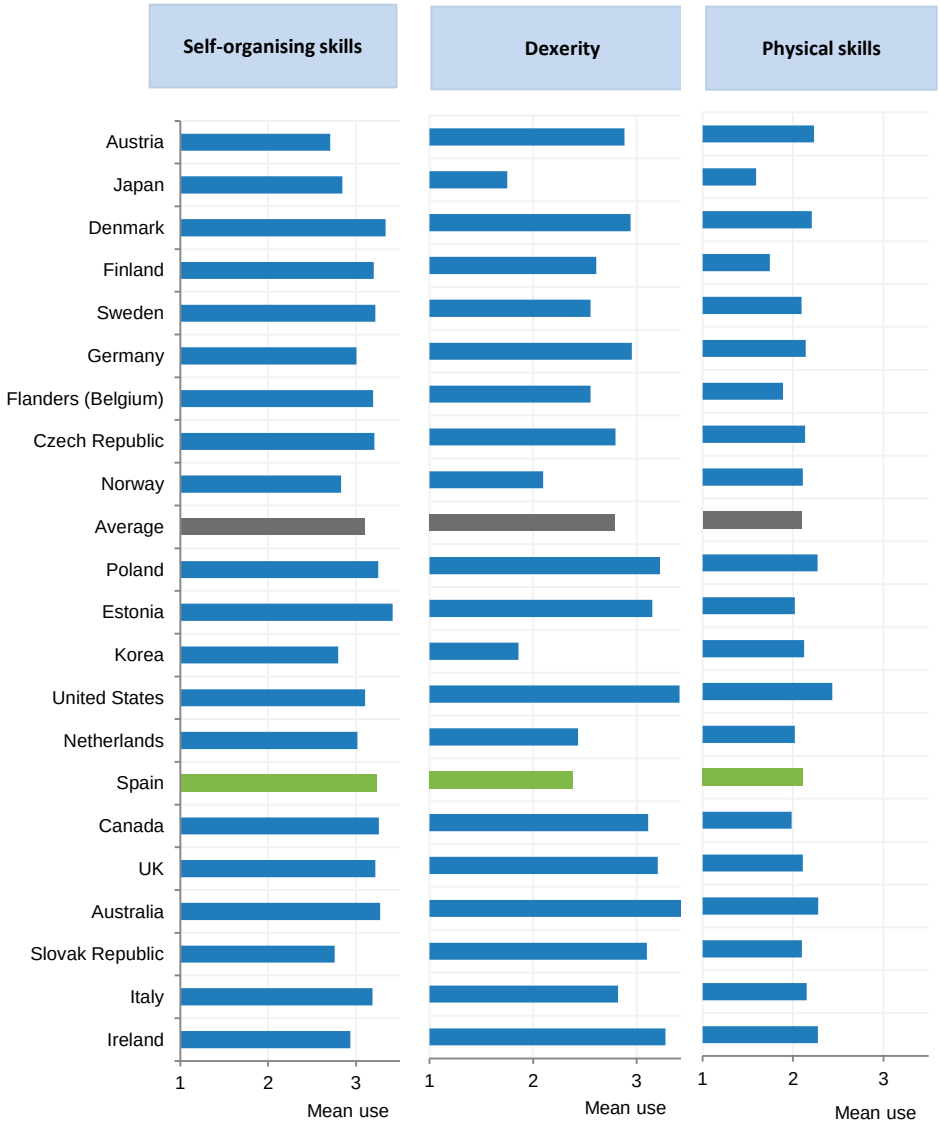


Figure 70. Average use of generic skills at work (continued)



Countries are ranked in descending order of the average use of task discretion at work.

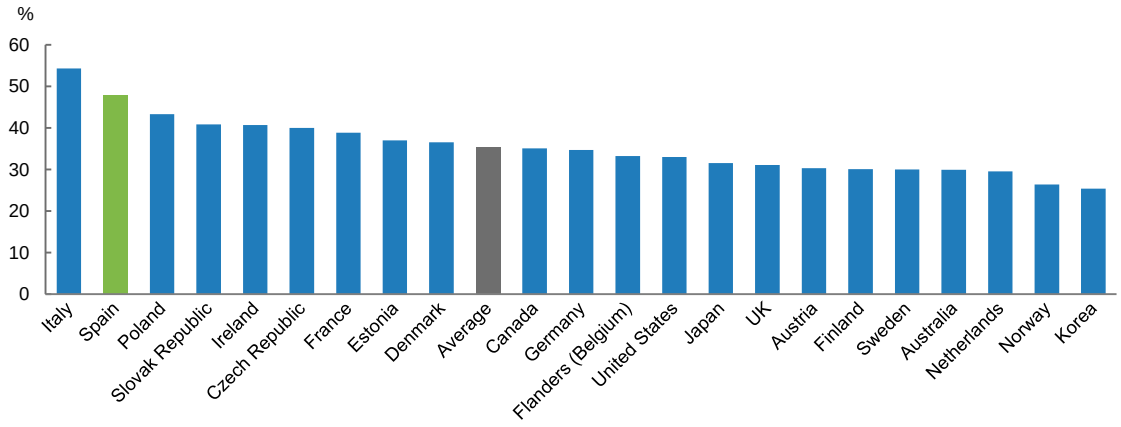
Notes: Skills use indicators are standardised to have a mean of 2 and a standard deviation of 1 across the entire survey sample.

Source: OECD (2013), "High use of skills at work", in OECD, *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/888932901315.

Of particular concern is the underutilisation of the skills of young people just entering the workforce. When they enter the world of work, young people need to use and enhance their skills to strengthen their employability**.** Many young people who have just left the education system are likely to have the most up-to-date skills in certain areas. The Survey of Adult Skills shows that young workers in Spain use cognitive skills, on average, less at work than their prime-age peers. The result holds even when comparing young and prime-age workers with the same level of cognitive skills. This despite the fact that Spanish youth generally have higher levels of skill than the older generations (OECD, 2015b).

Youth in Spain are less likely to use computers in the workplace. Figure 71 shows that young employees are less likely to use computers at work than their counterparts in all other counties participating in PIAAC with the exception of Italy. More should be done to harness the skills of young people for their benefit and that of society as a whole. This would both help to boost national productivity and growth and provide for more equitable outcomes.

Figure 71. Youth with no computer experience at work, PIAAC 2012



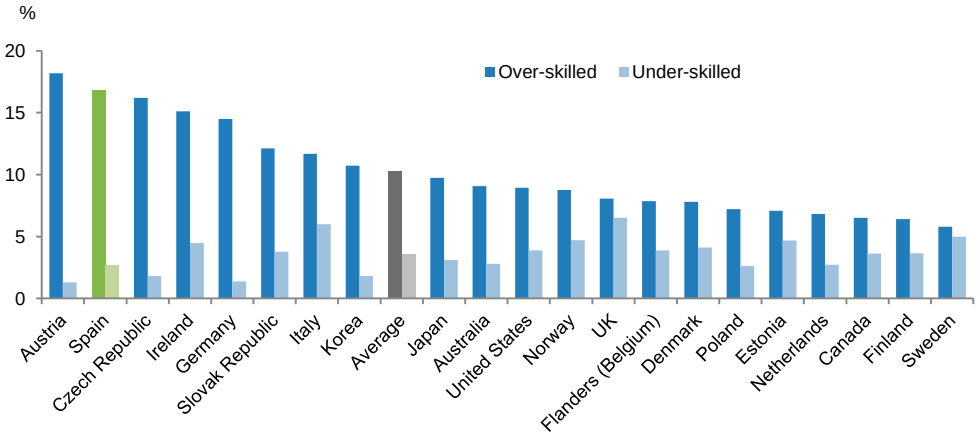
Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Many workers have skills that exceed the requirements of their jobs

A mismatch between the skills of workers on the one hand and the skill requirements of jobs on the other implies a waste of talent that could otherwise be used to increase firm productivity and performance, as well as aggregate growth. Some amount of mismatch is inevitable due to personal preferences (e.g. prioritising interest, family responsibilities, location of work and earning over finding a job that makes full use of one's skills) and temporary circumstances (e.g. it might take a while to find a job that makes full use of one's skills after graduation, immigration, or job loss). However, involuntary and prolonged skills mismatches represent a lost opportunity for firms to redesign jobs and reorganise workplaces to make fuller use of the talent they have available to them. There are clear economic benefits to firms (e.g. higher productivity and performance), individuals (e.g. higher earnings) and the country (e.g. higher aggregate growth and standards of living) to be gained from better management of human resources, including practices that involve the hiring of workers, design of jobs and provision of training.

A comparatively large share of Spanish workers is in jobs for which they are over-skilled. The Survey of Adult Skills provides a means to measure the quality of the match between the skills of individuals and the skill requirements of their jobs that is independent of qualifications (OECD, 2013). Figure 72 shows that Spain had the second largest share of workers who were over-skilled for their jobs (and a relatively small share of under-skilled workers) in 2012.

Figure 72. Percentage of over- and under-skilled workers, PIAAC 2012



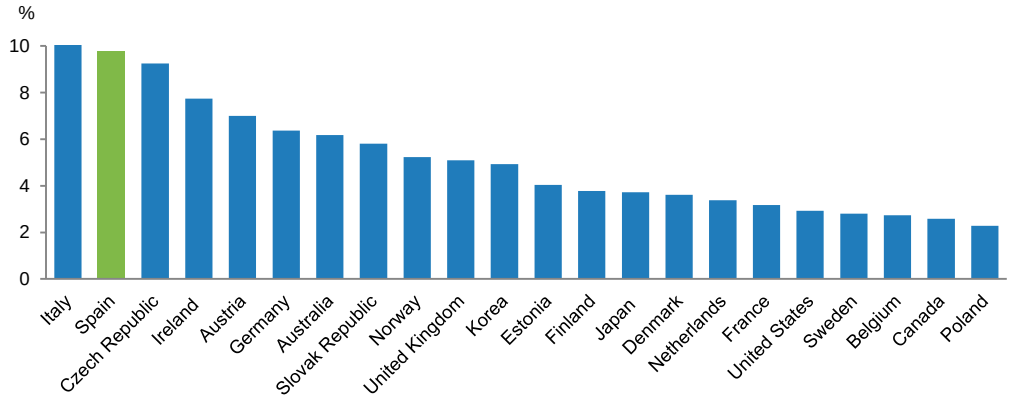
Notes: Over-skilled workers are those whose proficiency score is higher than that corresponding to the 95th percentile of self-reported well-matched workers – i.e. workers who neither feel they have the skills to perform a more demanding job nor feel the need of further training in order to be able to perform their current jobs satisfactorily – in their country and occupation. Under-skilled workers are those whose proficiency score is lower than that corresponding to the 5th percentile of self-reported well-matched workers in their country and occupation.

Source: OECD (2012), Survey of Adult Skills (PIAAC) (database), Table A4.25, www.oecd.org/site/piaac/surveyofadultskills.htm.

Firms that restructure their work organisation to make better use of the available talent might be able to realise higher productivity and performance. New OECD research finds that potentially significant gains in labour productivity can be achieved through the more efficient matching of worker skills with the skill needs of jobs (McGowan and Andrews, forthcoming). Reducing skill mismatch expands the effective pool of labour that firms can draw workers from, enabling them to innovate and grow (Figure 73). Mahy, Rycx and Vermeylen (2015) additionally provide evidence suggesting that firms can increase their productivity by finding ways to make better use of the skills of workers with qualifications in excess of those typically needed for their jobs.

Figure 73. Counterfactual productivity gains from reducing skill mismatch

Simulated gains to allocative efficiency from lowering skill mismatch to the best practice; per cent



Notes: The chart shows the difference between the actual labour productivity and a counterfactual labour productivity based on lowering the skill mismatch in each country to the best-practice level. 1-digit industry level mismatch indicators are aggregated using a common set of weights based on the industry employment shares for the United States. The estimated coefficient for the impact of mismatch on productivity is based on a sample of 19 countries for which both firm level productivity and mismatch data are available.

Source: McGowan, A. M. and D. Andrews (forthcoming), "Mismatch and labour productivity: New evidence from OECD countries", *OECD Economics Department Working Papers*.

The best way to develop and maintain skills is to use them. Skills that are not used atrophy and/or become obsolete over time. Indeed, there is a two-way relationship between proficiency in information-processing skills and the practices that require using those skills: proficiency facilitates practice and practice reinforces proficiency (OECD 2013). Therefore, work environments that are skill demanding help to maintain and develop skills.

High performance workplace practices are not widespread in Spain

Spain ranks low on the adoption of organisational changes and new technologies that are found to be associated with increased firm-level innovation and productivity (Figure 74). This is likely to be both a cause and effect of the low intensity of skill use in Spain.

Figure 74. Organisational change and new technologies

Percentage of workers who reported changes in their current workplace during the previous three years that affected their work environment

A. Substantial restructuring or reorganisation

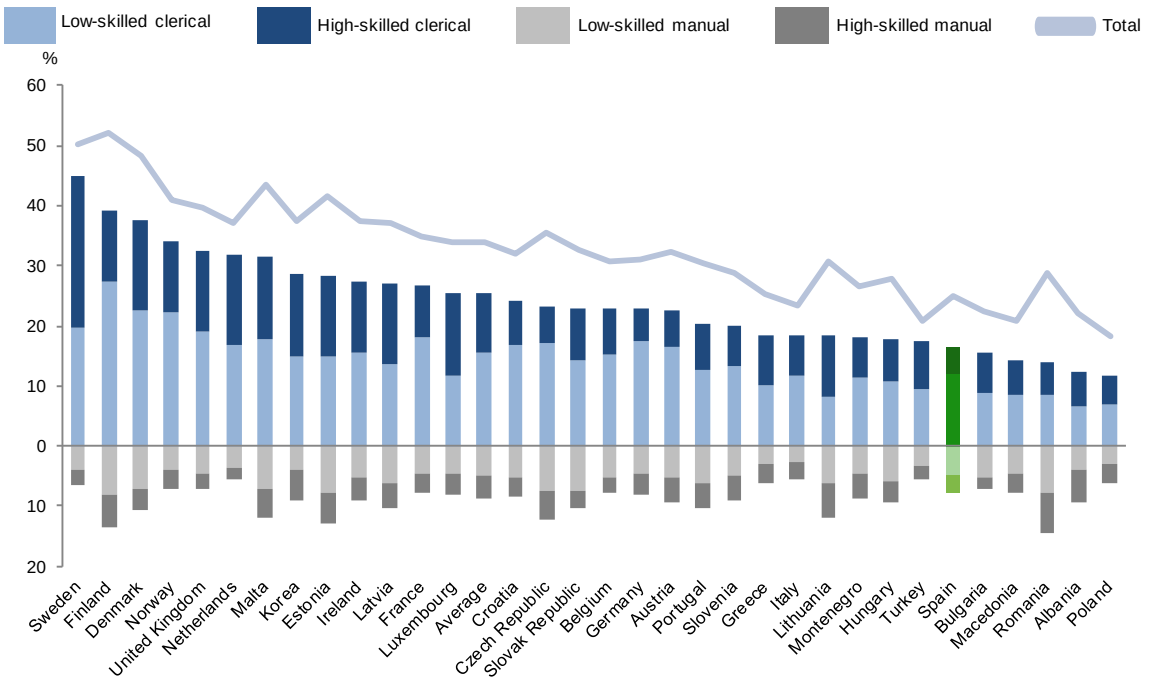
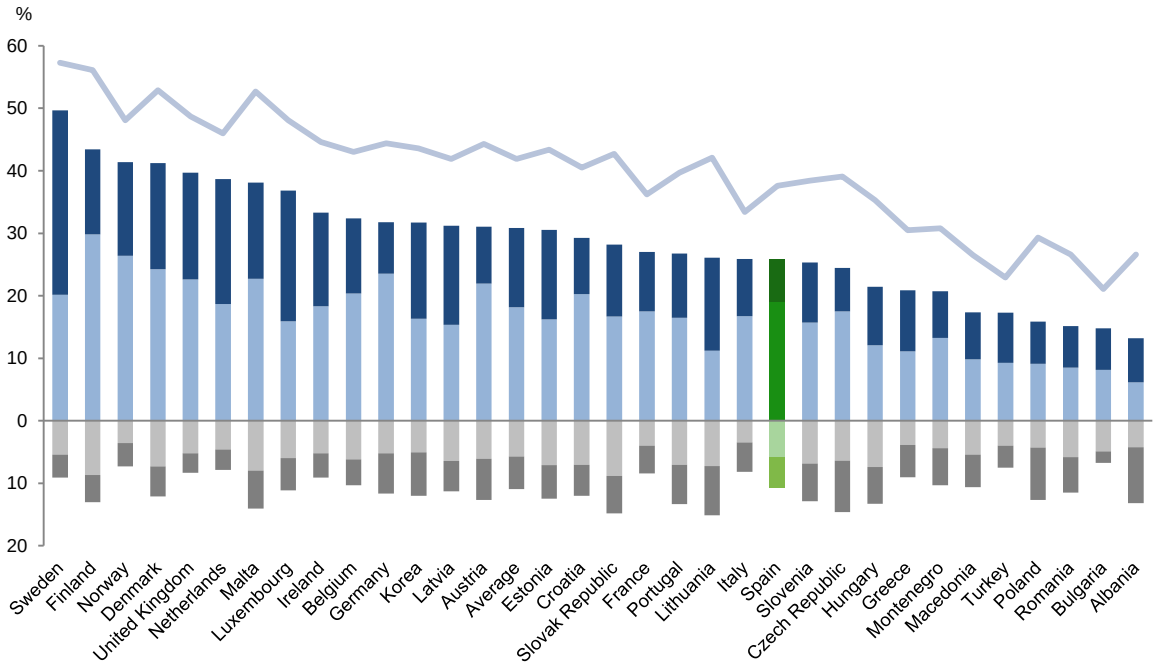


Figure 74. Organisational change and new technologies (continued)

B. Introduction of new processes or technologies



Countries are ranked in descending order of the percentage of workers with low and high clerical related skills who report changes.

Source: OECD (2013), "Organisational change and new technologies", in OECD, *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/888932900346.

High performance workplaces are a form of organisation that makes high demands on the skills of workers (Box 21). High performance workplaces are thought to increase firm profits, sales and productivity by providing workers with greater autonomy and responsibility and encouraging greater identification with the firm (Belt et al., 2009). A considerable body of research demonstrates that high performance workplaces increase worker job satisfaction and worker loyalty to, and sense of identity with, firms (Bauer 2004; Belt and Giles, 2009; Cristini, 2011; Hunter and Hitt, 2001; Box 22).

Box 21. What are High Performance Workplaces?

Eurofound (2013) defines high performance workplaces as those that are "characterised by a production concept that allows for extensive employee involvement in operational decision-making as a means of harnessing people's potential more effectively and of improving the organisation's performance. Workers in a high performance work system experience greater autonomy over their tasks and methods of work, and have higher levels of communication about work matters with other workers, functional specialists, managers and, in some instances, with vendors and customers."

The OECD (2010) defines a learning organisation – a conceptually similar organisational model – as one "supporting innovation through the use of employee autonomy and discretion, supported by learning and training opportunities".

Source: Eurofound (2013), "High performance workplaces: Background paper for the Third European Company Survey", Dublin, www.eurofound.europa.eu/sites/default/files/ef_files/surveys/ecs/2013/documents/ecs2013docs/EF1303EN.pdf; OECD (2010), *Innovative Workplaces: Making Better Use of Skills within Organisations*, http://dx.doi.org/10.1787/9789264095687-en.

Box 22. What practices promote more effective skills utilisation?

The Australian Workforce and Productivity Agency (now mainstreamed within the Department of Industry) has outlined the following types of initiatives designed to make the use of skills more effective:

- **Job redesign**: involves changing the role or description of a job so that the skills of the employee are put to better use. This can include teamwork and flexibility in job descriptions and work arrangements with colleagues.
- **Employee participation**: includes involving employees in discussion on business strategy, which aims to more effectively use employees' knowledge and experience.
- **Autonomy:** includes giving employees more freedom and autonomy to make decisions in how they perform their job.
- **Job rotation**: involves facilitating the learning of new skills by shifting employees into different jobs and positions within the company.
- **Skills audit** (training needs assessment): aims to identify the skills that employees currently have and identify which skills are most needed.
- **Multi-skilling**: is related to job rotation and involves training employees in multiple skill sets, which enables them to perform other tasks, which are not included in their job description.
- **Knowledge transfer**: these types of initiatives can include developing new skills and training that is related to work or working with experienced workers to develop mentorships opportunities for younger staff.

Source: Skills Australia (2012), "Better use of skills, better outcomes: A research report on skills utilisation in Australia", www.industry.gov.au/skills/Publications/Documents/Skills-utilisation-research-report-15-May-2012.pdf.

High performance workplace practices are less widespread in Spain. Bauer (2004) finds that Spain ranks 13th out of 15 European countries (just ahead of Portugal and Greece) on the degree of worker involvement in high performance workplace practices. The OECD (2010) provides evidence that Spain ranks second to last among EU 27 countries in the adoption of "discretionary learning" and "lean" organisational models. *Discretionary learning* and *lean* organisational models are those where workers are more likely to apply their own ideas at work, are more likely to find their work intellectually stimulating, and are more likely to agree that their work provides opportunities to learn and grow. The OECD (2010) additionally finds that Spain ranks last among 15 EU countries in terms of organisational complexity.

Box 23. Spotlight on Spain: Sanitas

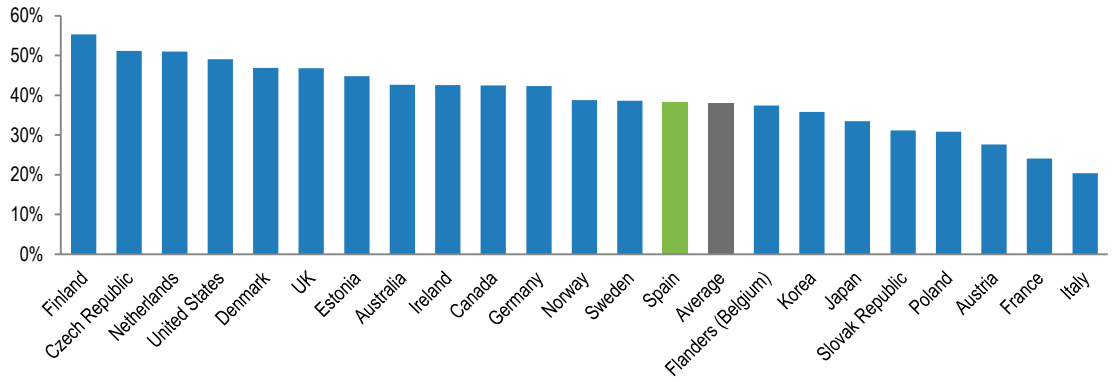
Sanitas is a company that was founded in 1954 and specialises in medical assistance and insurance. The headquarters are based in Madrid and Sanitas has just over 8 000 people employed. In 2009 the company introduced the programme *Sanitas Smile* with the goal of improving the health of its workforce with better hydration, physical exercise, nutrition and health promotion. Indicators to track the impact of this intervention are: health markers, perception of well-being, level of physical activity, productivity, employee satisfaction, indices of absenteeism and overall company performance. The Foundation of Health Education (Fundación de Educación para la Salud – FUNDADEPS) conducted an evaluation of this programme in 2013. A total of 1 921 employees participated in the programme. Of those a sample of 484 was selected and tracked over the course of 6 and 12 months. Through questionnaires and physical check-ups like blood tests and in comparison to a control group, the foundation came to following results: participants had lower levels of cholesterol, lower levels of body fat, and reported higher consumption of vegetables and water. They reported also on average 11.5 hours more of physical activity during the week. Furthermore, the participants were 91.84% less absent, which comes to about ten working days a year. Productivity levels have also risen by 43.32% in relation to accomplishing the annual objectives.

Source: Fundadeps (2013), "Informe Resultados Sanitas Smile 2013", www.fundadeps.org/recursos/documentos/677/estudio-sanitassmile-2013.pdf.

A number of factors limit the use of skills and adoption of high performance workplace practices

A number of characteristics of the Spanish skills system limit the expanded use of high performance workplace practices in Spain. High performance workplaces provide workers with a high degree of autonomy and a broad range of responsibilities. As a consequence, high performance workplaces: require workers with higher levels of skill; provide workers with substantial training and informal learning opportunities; require a strong employment relationship and job security so that workers take a long-term interest in the firm; and must have large internal labour markets that permit employees to experience a wide range of functions (Eurofound, 2013). Spain falls short on all of these dimensions. First, Spain's workforce has comparatively lower levels of skill that the OECD average (Challenges 1, 2 and 3). Second, participation in on-the-job training is only around average (Figure 75). Third, the large share of workers on temporary contracts in Spain might undermine employee commitment to the firm (Challenge 4). Fourth, the large share of micro and small enterprises in Spain limits the capacity to provide workers with a diverse range of work opportunities (Challenge 8, Figure 88). Furthermore, micro and small enterprises often lack the managerial and technical skills needed to implement such practices.

Figure 75. Participation in on-the-job training for employed workers, PIAAC 2012



Source: OECD calculations based on OECD (2012), Survey of Adult Skills (PIAAC) (database), www.oecd.org/site/piaac/surveyofadultskills.htm.

Among small firms awareness of the centrality of skills to performance is low. A recent survey of firms (Encuesta Annual Laboral, MEYSS, 2015) shows that in 2013 only around half (56%) of small firms (5-49 workers) viewed skills as important for their future, as compared with over 75% of those firms with 500 workers or more. Small firms are also less likely to provide in-the-job training (Challenge 3) and typically do not include training as part of their system for internal promotion (only 21% of small firms do so, as compared with 44% of larger firms). Box 24 highlight a government initiative designed to support the dissemination and adoption of innovative business practices among SMEs in Spain.

Box 24. Spotlight on Spain: Innovative Business Groups Program (IBGP)

Established in 2006 by the Ministry of Industry, Energy and Tourism, the Innovative Business Groups Programme (IBGP) encourages the creation and strengthening of clusters of SMEs. The IBGP is a group of companies and research centres that collaborate to generate synergies through the implementation of innovative business processes. In 2014, the programme was reoriented to focus on improving the international competitiveness of clusters.

Projects eligible for funding include those with a focus on developing product innovations (new goods or services or improvements to existing ones) and improving work processes, work and enterprise organisation or marketing practices.

The IBGP provides funds for start-up costs related to project development, co-ordination and management structures, as well as a portion of staff and other operational costs associated with the projects. It also supports the preparation of feasibility studies needed for the purposes of responding to calls for research projects at the national and international level. External collaboration, such as consultancy services, and transportation can also be covered by the programme up to certain limits. The maximum amount companies can receive through this programme is EUR 200 000 in a three-year period. In 2014, the programme supported 196 projects, with a total budget of 6.3 million euros.

Source: Ministry of Industry, Energy and Tourism, www.minetur.gob.es.

As is the case in other OECD countries, workers on fixed-term contracts in Spain use their information-processing skills less intensively than their colleagues in permanent employment (Figure 76). The same pattern is found with respect to the use of generic skills. The exception being the use of "dexterity" or "physical skills", which are used more by workers on temporary rather than on open-ended contracts. This suggests that workers on fixed-term and open-ended contracts may not be evenly distributed across occupations, with those on fixed-term contracts being more commonly found in jobs requiring use of manual labour.

The low intensity of skills use among workers on fixed-term contracts may reflect, in part, their lack of incentives and motivation to do more. Workers employed on fixed-term contracts are less likely to see an intersection between their interests and those of their firm. Consequently, they are less likely to proactively look for ways to innovate and find efficiencies that improve firm performance. Furthermore, neither employers nor individuals are as likely to invest in developing job-related skills if employee tenure at the firm is uncertain. Indeed, a number of studies show that workers hired on temporary contracts are less likely to receive on-the-job training and employer support for training (Autor, 2001; Cabrales, Dolado and Ricardo,2014; OECD, 2014b, 2006). Spanish workers hired on temporary contracts are even less likely than their counterparts in other OECD countries to receive employer-sponsored or employer-organised training (OECD, 2014b).

Box 25. Promoting the better utilisation of skills in Flanders, Belgium

In Flanders, Belgium, collaborations have been built between the unions, academics and government representatives to help managers to promote better skills utilisation in a number of different sectors. Such collaboration is particularly evidentin the province of Limburg. The fragility of the local economy, which has traditionally been based on low-skilled work and a few large employers, was recently demonstrated by Ford's decision to leave the region. Local policy makers are now faced with the problem of finding new employment for low skilled ex-factory workers whose transferable skills are limited. At the same time, the ambition is to move the region towards more productive, higher skilled employment. The local ACV union has responded by setting up "best practice labs" for innovative work organisation in co-operation with a coalition between academics, unions, enterprises and consultants (Flanders Synergy), subsidised by the Flemish government.

"Best practice labs" have been set up in the construction, logistics, healthcare, social economy, social service/care sector and agricultural sectors. Each one functions as a learning network where companies share experience. Each lab covers seven themes, each representing a domain in which managers can have an influence. One theme has been exploring new ways that firms can expand their market base while also improving job quality; another has been exploring ways of involving workers more in decision making. The workshops have proved so useful that one sector, construction, is now running its own labs, independent of public funding. The Foundation for Innovation in Work (*Stichting Innovatie en Arbeid*) in Flanders also collects examples of initiatives that combine skills utilisation and work organisation and makes them available through a website.

The health and social care sectors in Flanders have also been the focus of restructuring to produce better quality jobs in a number of regions, spurred by local labour and skills shortages. In Limburg, the Provincial Development Agency (POM Limburg) set up a platform to address work organisation issues within the care sector in 2010 called Platform Care Limburg *(Platform Zorglandschap Limburg*), with support from the provincial government. This scheme has focused on improving work organisation within local hospitals and nursing homes to create more flexible work organisation and increase labour productivity. One workstream has focused on combining part-time jobs across organisations to create full-time jobs. This shows the potential for the public sector to improve skills utilisation and job quality in its own workforce, which can be particularly important in rural areas where the public sector is a significant local employer.

Source: OECD (2015a), *Employment and Skills Strategies in Flanders, Belgium*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264228740-en.

Figure 76. Use of information-processing skills at work, by type of contract, PIAAC 2012

Adjusted and unadjusted differences in the mean use of skills between types of contracts, in percentage of the average use of skills by employees with a fixed-term contract

Countries are listed in alphabetical order.

Notes: The sample includes only employees. Adjusted estimates are based on OLS regressions including controls for literacy and numeracy proficiency scores and occupation dummies (ISCO 1 digit).

Footnote 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 recognizes 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".

Footnote 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 (2012), Survey of Adult Skills (PIAAC) (database), Tables 4.14a and 4.14b, www.oecd.org/site/piaac/surveyofadultskills.htm.

Summary and policy implications

Developing and activating skills are necessary but insufficient for increasing productivity and competitiveness – to do so, skills must also be put to effective use at work. The use of skills at work is also critical for their maintenance and further development.

Spain is not making full use of the skills of its workforce. The use of skills in the workplace is average compared to other OECD countries and many workers have skills that exceed the skills requirements of their jobs. Workplaces in Spain rank poorly on a number of measures of the adoption of innovative workplaces practices that could make them more productive and competitive**.** This implies a waste of talent that might otherwise be used to improve firm competiveness and productivity.

Greater efforts are needed to raise awareness among firms of the importance of making the effective and intensive use of skills in the workplace a central component of their business strategies. Governments can also collaborate with social partners to encourage and support firms in making better use of skills in the workplace.

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CHALLENGE 8: LEVERAGING HIGHLY SKILLED INDIVIDUALS AND UNIVERSITIES TO FOSTER INNOVATION AND INCREASE PRODUCTIVITY AND GROWTH

A selection of challenges identified by Spanish workshop participants:

"There is a lack of entrepreneurship culture"

"Higher education institutes and professors lack incentives to be closely connected with the industry"

"Best practice sharing among companies is not happening"

"Co-ordination among SMEs needs to be improved"

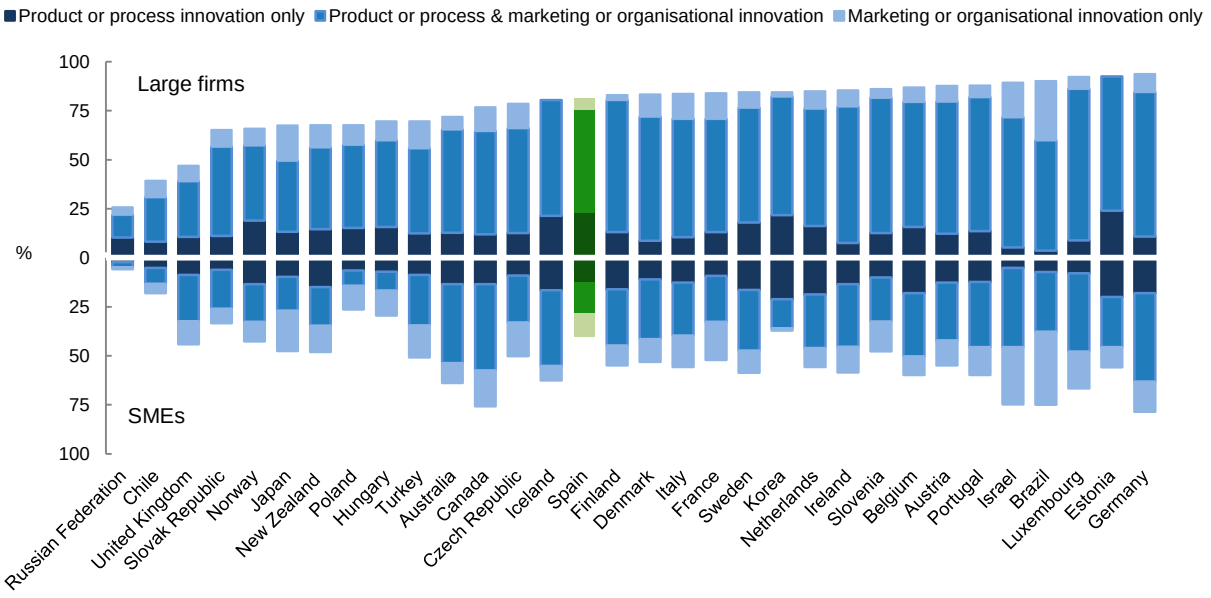
Highly skilled workers, entrepreneurs, universities and research institutes are central to a country's innovation system. Highly skilled workers conduct research leading to innovations that can be commercialised in the form of new products and services. They also embody the know-how needed to adopt, adapt and implement innovations and new technologies in the workplace, thereby boosting profits, productivity and growth. Entrepreneurs take risks that are needed to bring new ideas to the market. For their part, universities and research institutes generate and transfer new knowledge to firms and train the highly skilled workers and entrepreneurs that firms need to innovate and grow.

Spanish firms are less actively engaged in innovation

A comparatively small share of Spanish firms is actively engaged in innovation (Figure 77). The OECD (2013a) finds that innovative firms tend to combine new marketing or organisational methods with product or process innovations, since these are generally complementary. Further, the OECD finds that new organisational methods may facilitate the introduction of a new production process or indeed, that the new process may even require them. This is true for both large firms and SMEs in both manufacturing and services. However, firms in Spain – both SMEs and large enterprises – are less likely to be engaged in innovation than peers in other countries, including Italy, France, Portugal and Germany.

Figure 77. Innovation types by firm size, 2008-10

As a percentage of all SMEs and large firms



Source: OECD (2013f), "Innovation types by firm size, 2008-10", in *OECD Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, http://dx.doi.org/10.1787/888932892404.

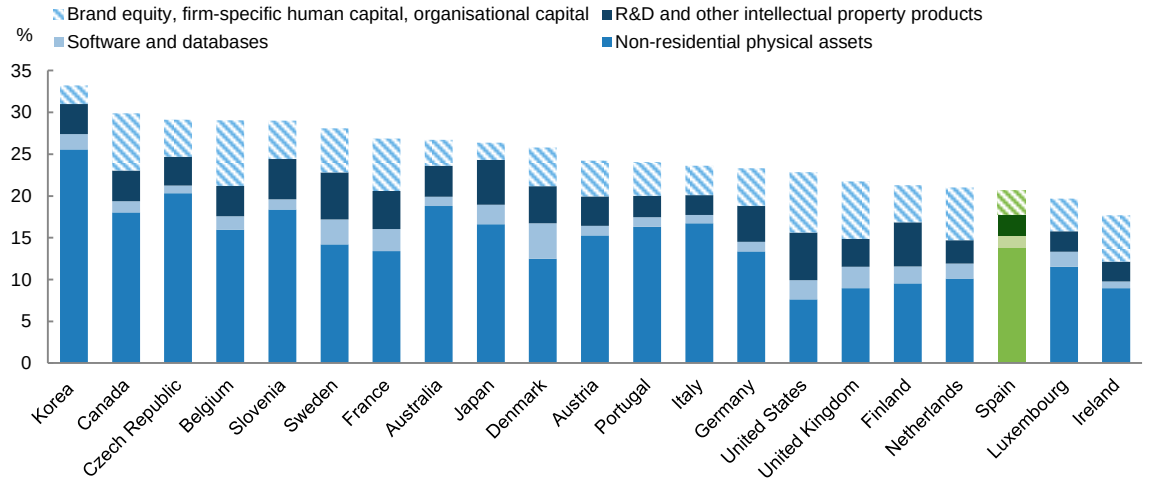
Spanish firms invest less than competitors in Knowledge-based Capital

Low engagement in innovation is reflected in low rates of investment in Knowledge-based Capital (KBC) in Spain. Recently, the OECD (2013f) has shown that rising business investment in a range of intangible assets – such as organisational capital (OC), computerised information (CI), design, and research and development (R&D) – is important for growth and productivity in OECD economies, as well as being positively associated with firm-level value added, productivity and competitiveness.[3] Such intangible assets – or knowledge-based capital – are often a direct manifestation of human capital (for instance, software is a translation of human expertise into code). Available data suggest that Spanish firms invest less than many of their international counterparts in KBC (Figure 78). This low level of investment in KBC is also reflected in the relatively low share of KBC-related workers in Spain (Figure 79).

3. However, different intangible assets have different impacts on productivity. The economic characteristics of some assets, and the economics of their creation - in particular the intellectual property resulting from R&D - have been studied at length. Less is known about the economic features of some other assets, such as design and large data sets.

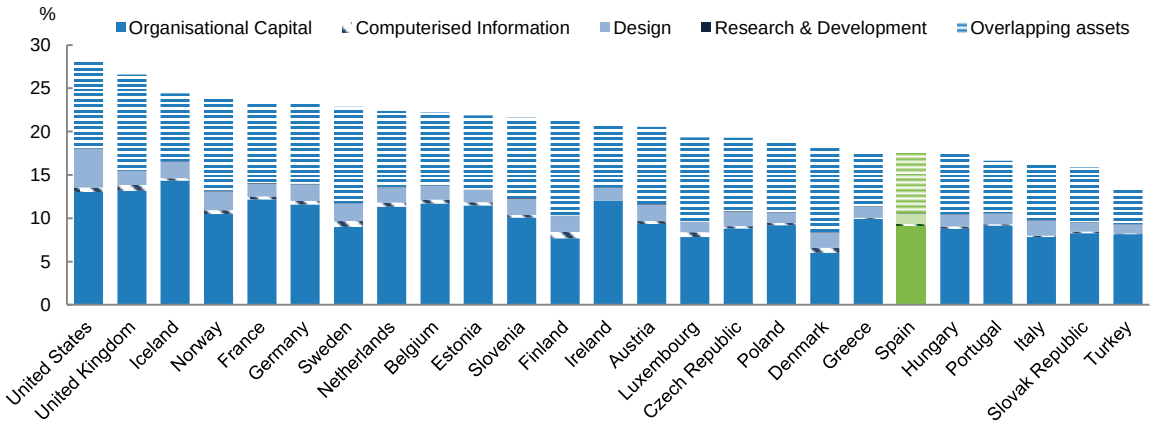
Figure 78. Investment in physical and knowledge-based capital, 2010

As a percentage of value added of the business sector



Source: OECD (2013f), "Investment in physical and knowledge-based capital, 2010", in OECD, *Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, http://dx.doi.org/10.1787/888932889820.

Figure 79. Knowledge-based capital related workers, selected countries, 2012



Note: Workers contributing to R&D, design, software and database activities and to firms' organisational knowhow account for between 13% and 28% of total employment in many OECD economies (total length of the bar). Of these workers, between 30% and 54% contribute to more than one type of KBC asset (bar "overlapping assets").

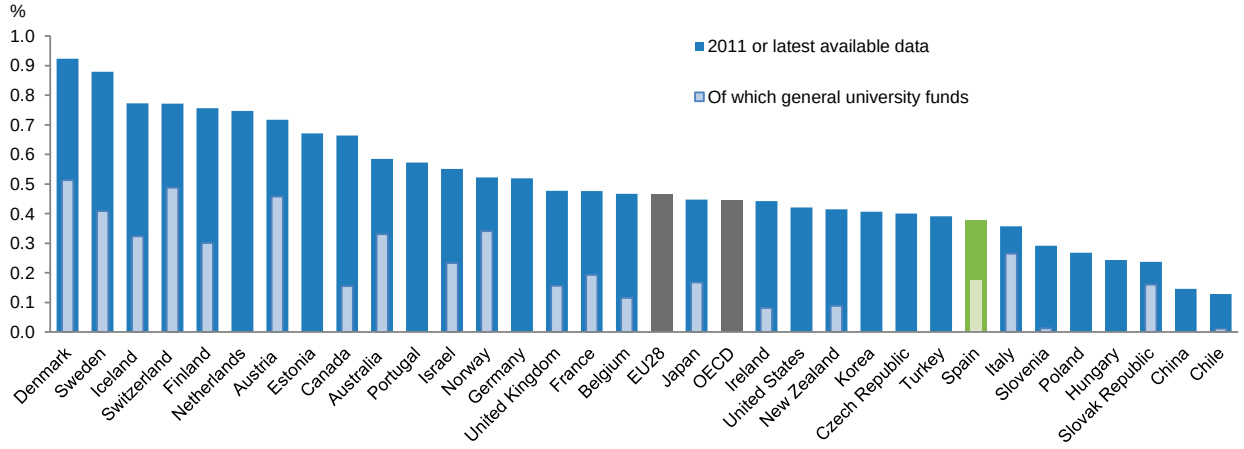
Source: OECD (2013f) "Knowledge-based capital related workers, 2012", in OECD, *Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, http://dx.doi.org/10.1787/888932890618.

Higher education spending on R&D also lags behind key competitors

Higher education spending on research and development (R&D) in Spain is comparatively low. Spending on R&D generally is also comparatively low in Spain. R&D comprises creative work undertaken on a systematic basis to increase the stock and use of knowledge. Expenditure on R&D is still considered a key indicator of countries' innovative efforts**.** Most basic research is performed in universities and in public research organisations. Governments rely on two main modes of direct R&D funding: institutional and project-based. Institutional funding can help ensure stable long-run research funding, while project-based funding can promote competition and target strategic areas. Investment in research and development in universities in Spain is below average relative to peers (Figure 80). However, institutional funding in Spain is close to the OECD average, and is significantly higher than in the United States and the United Kingdom and similar to that of France.

Figure 80. Higher education expenditure on R&D, 2011

As a percentage of GDP



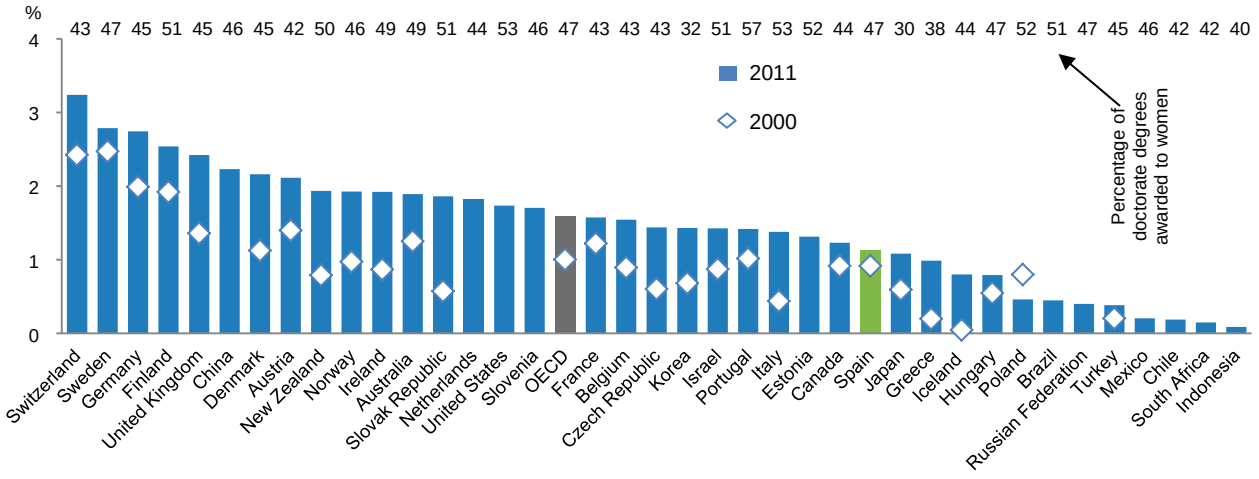
Source: OECD (2013d), Main Science and Technology Indicators (database), June 2013, www.oecd.org/sti/msti.htm.

The number of doctorate holders is comparatively low and few are employed in research and in the business sector

Spain has comparatively few doctoral graduates. While many skills contribute to innovation, research and development (R&D) is central in creating the knowledge that underpins innovation. R&D is also important in enabling the absorption of knowledge and technologies created elsewhere. Accordingly, the availability of researchers in science and engineering is important. Doctoral graduates trained to conduct research are considered to be the conduit for the creation and diffusion of scientific knowledge. Spain had a comparatively small number of PhD graduates in 2011 and there has been limited growth in the number of PhD graduates since 2000 (Figure 81). On the other hand, the share of Spanish doctoral graduates that studied sciences (42.5%) was well above the OECD average (25.3%) (OECD, 2013f). Furthermore, the share of all new science and engineering doctoral graduates that are women (44%) was also considerably higher than the OECD average (34%) (OECD, 2013f).

Figure 81. Graduation rates at doctorate level, 2000 and 2011

As a percentage of population in the reference age cohort

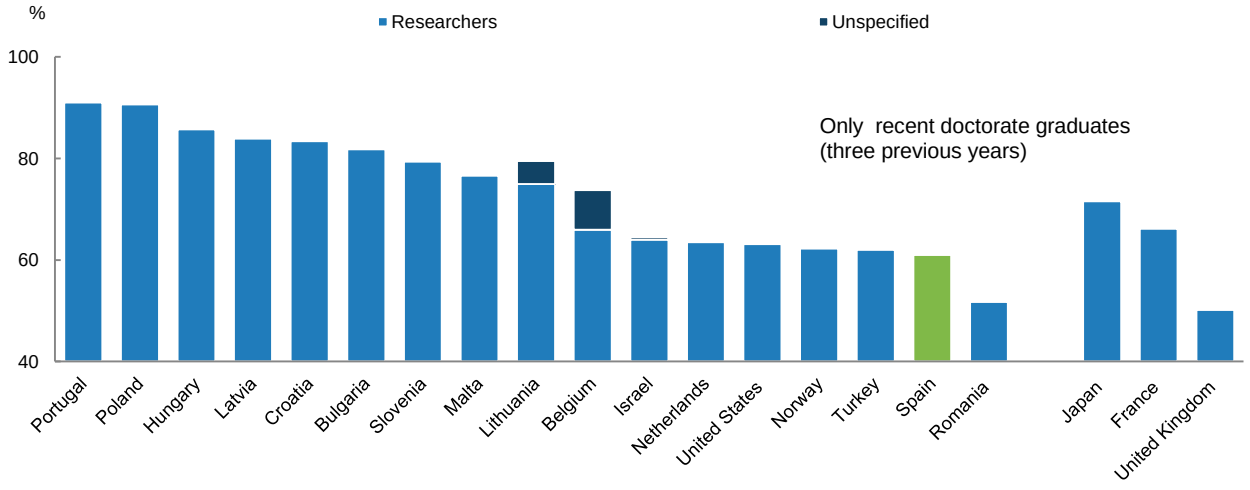


Source: OECD, based on OECD (2013b), *Education at a Glance 2013: OECD Indicators*, http://dx.doi.org/10.1787/eag-2013-en, and OECD (2013e), OECD Education Database, July 2013, www.oecd.org/education/database.htm.

A small share of doctorate holders is employed in research. An economy's ability to stimulate research is pivotal to its capacity to create new knowledge and stimulate innovation. Increasing technological change and specialisation have made research professionals increasingly critical to scientific advancement and innovation systems (OECD, 2013f). From this perspective, the low share of doctorate holders employed in research in Spain is of concern (Figure 82).

Figure 82. Doctorate holders working as researchers, 2009

As a percentage of employed doctorate holders

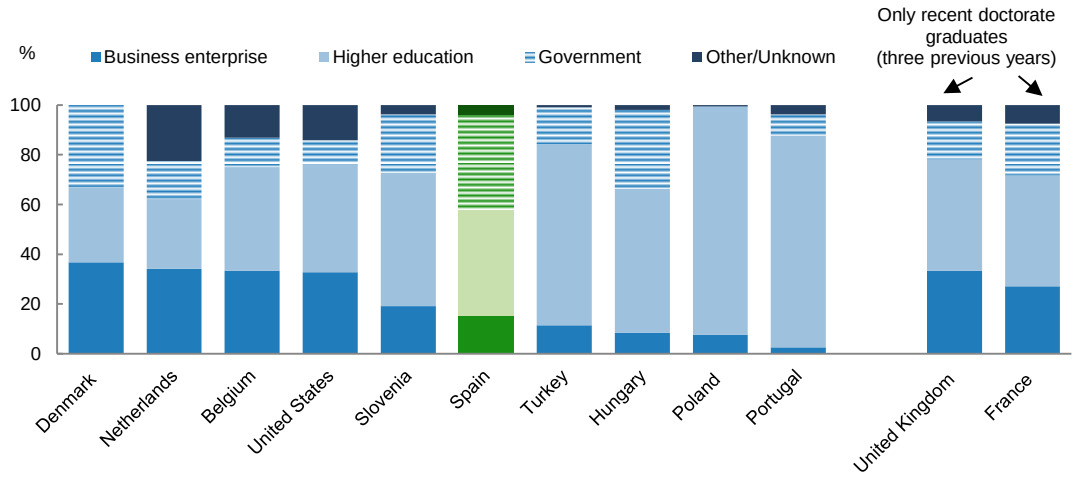


Source: based on OECD/UNESCO/Eurostat (2013), OECD/UNESCO Institute for Statistics/Eurostat data collection on Careers of Doctorate Holders 2010, June 2013, www.oecd.org/innovation/inno/oecdunescoinstituteforstatisticseurostatcareersofdoctorateholderscdhproject.htm.

Additionally, Spain has one of the lowest incidences of doctorate-holder employment in the business sector. At 15.1% this compares poorly with shares of doctorate holders working in business of well over 30% in countries such as Belgium, Denmark, the Netherlands, the United Kingdom and the United States (Figure 83). The low incidence of doctorate-holder employment in business matters because studies suggest that R&D performed by the business sector is particularly important in driving productivity growth (even if private-sector R&D is often linked to public sector R&D in complex ways).

Figure 83. Doctorate holders by sector of employment, selected countries, 2009

As a percentage of employed doctorate holders



Source: OECD (2103f), "Doctorate holders by sector of employment, 2009", in OECD, *Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, http://dx.doi.org/10.1787/888932890884.

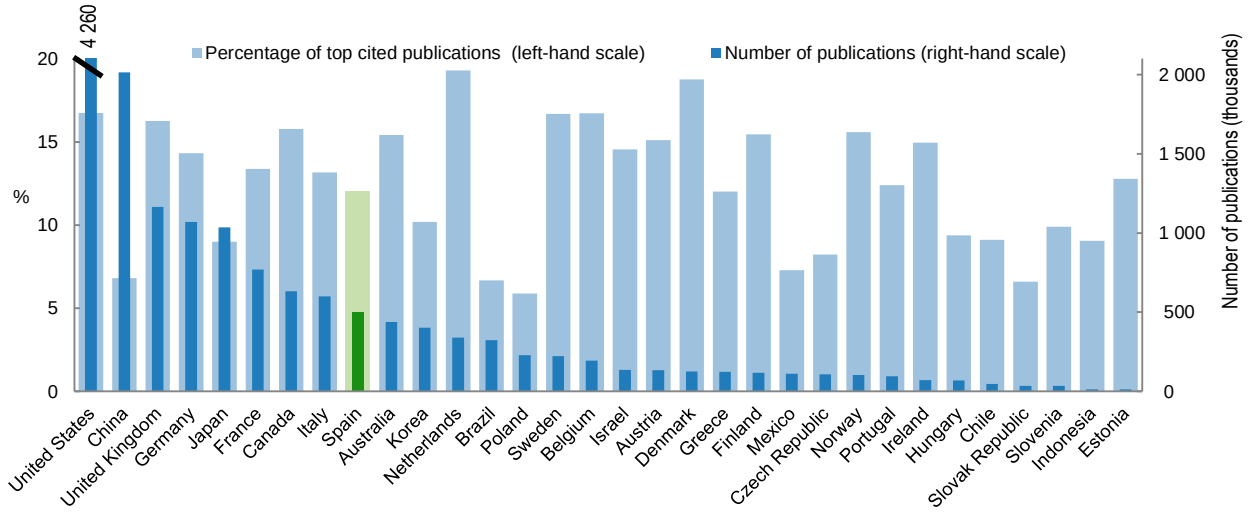
Universities could be contributing more to knowledge generation and diffusion

The university system is an important component of a country's innovation system. Universities contribute to research and innovation in a number of ways. First universities conduct basic and applied research which can eventually be commercialised through a variety of routes. Second, universities train researchers that firms need to conduct their own research and adopt innovations and new technologies.

Spain produces a relatively large number of research papers, but their quality could be improved. Research publications are an important measure of university quality. Though Spain generates a large number of scientific publications, the share of these that are top-cited publications – a measure of "quality adjusted" research output – is low compared to certain peers, such as the United States, the United Kingdom, Germany and France (Figure 84). This might be related to Spain's comparatively low levels of investment in R&D.

Figure 84. The quantity and quality of scientific production, 2003-11

Number of documents and percentage of world's top-cited

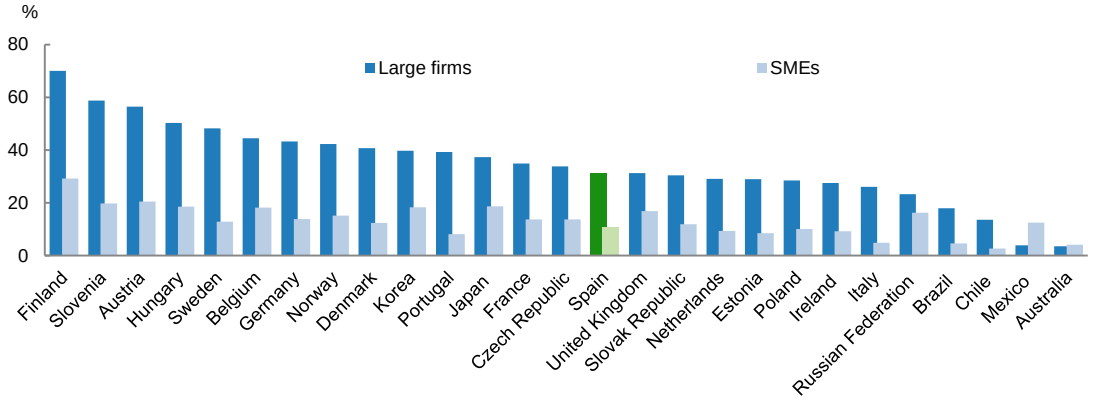


Source: OECD (2013f), "The quantity and quality of scientific production, 2003-11", in OECD, *Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, http://dx.doi.org/10.1787/888932891568.

Linkages between universities and the private sector could be improved. In Spain, there are few formal mechanisms to link university researchers and the private sector. Underdeveloped linkages between universities and the private sector mean that research capacity in universities is not being fully utilised to support innovation and growth. The *OECD's Science, Technology and Industry Scoreboard 2013* shows that the share of Spanish firms of all size classes that co-operate on innovation with outside partners, including international partners and higher education institutions, is low. On one indicator of the strength of university-private sector linkages, the share of business funding of the higher education research sector, Spain ranks near to the OECD average. On another indicator, the proportion of both SMEs and large firms in Spain that collaborate with higher education and public research institutes, Spain ranks below the OECD average (Figure 85).

Figure 85. 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 (2013f), "Firms collaborating on innovation activities, by size, 2008-10", *OECD Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, http://dx.doi.org/10.1787/888932891321.

Box 26. Programmes to support knowledge transfer and commercialisation of public research

The Linkage Scheme in Australia (ARC) aims to enable public and private sector organisations to develop and undertake research projects jointly with university-based researchers. Target groups are industry, higher education institutions and public research institutions. Partner organisations are required to enter into arrangements with universities regarding intellectual property and support research financially, and may use the research findings and share in any intellectual property created, consistent with those arrangements. Australian Postdoctoral Fellowships (Industry) and Linkage Industry Fellowships are available under the ARC's Linkage Projects scheme to encourage the mobility of human resources between university and industry.

The Regional Attention and Action for Knowledge Circulation (RAAK) in the Netherlands aims to encourage university and SME collaboration. The scheme awards subsidies to regional innovation programmes aimed at the exchange of knowledge, and that are executed by a consortium of one or more education institutes and one or more businesses. These regional innovation programmes have to focus on innovation demands from SMEs in the region. To be eligible for funding, the RAAK requires involvement of at least five SMEs and/or at least two public institutions (or one overarching organisation).

The Technology Strategy Board (TSB) (now renamed "Innovate UK") in United Kingdom holds regular competitions for funding of collaborative R&D projects with the objective of assisting the industrial and research communities to work together on R&D projects in strategically important areas of science, engineering and technology. Projects range in value from GBP 10 000 to over GBP 100 million. Over 900 projects are currently being supported with a combined business and government investment of over GBP 1 billion, with just over half the funds committed by business.

Note: See www.arc.gov.au for more information on the Linkage scheme in Australia, www.innovatie-alliantie.nl/?id=492 for more information on RAAK in the Netherlands, and www.innovateuk.org for more information on the collaborative research and development in United Kingdom.

Source: OECD (2013a), *Commercialising Public Research: New Trends and Strategies*, http://dx.doi.org/10.1787/9789264193321-en.

Knowledge diffusion also depends on the circulation of researchers between universities and the private sector. Graduate student placements play an important role in knowledge transfer by helping to build firm capacity to absorb innovation, which is a key barrier to increasing SME innovation rates (OECD 2014a). This is very important in a country such as Spain with a large share of small enterprises. Following previous OECD recommendations (OECD, 2010 and 2011) both the Basque Country and Catalonia have introduced pilot industrial doctorate (PhD) programmes. The central government is also launching an industrial PhD programme (OECD, 2014a).

The small scale of Spanish universities and their lack of specialisation may constrain co-operation with the private sector. University scale and specialisation not only have implications for the quality and relevance of skills (Challenge 2), but also for research capacity. In general, larger institutions are better able to attract research funding, and have the scale needed to support divisions that facilitate commercialisation and collaboration with private enterprise. Increased specialisation allows greater scope for institutions to become knowledge leaders in their chosen areas. The OECD Economic Survey of Spain 2014 recommends that the central government expand the use of performance-based funding, such as the "centre of research excellence" programme Severo Ochoa, which provides extra funding to institutions evaluated as top research performers internationally (Box 27).

University human resource practices may also be a barrier to greater university-private sector collaboration. Currently university promotion and bonus pay prospects for professors depend almost entirely on the quantity of scientific papers produced in six-year periods. Very little weight is given to knowledge transfer activities such as generating patents and spin-off companies. This limits the incentives that university professors have to share knowledge and expertise with companies. OECD (2014a) recommends the establishment of a researcher progression track where knowledge transfer type activities, beyond simple quantitative outputs such as patents, would count heavily for promotion and pay.

Box 27. Spotlight on Spain: Spanish Strategy for Science and Innovation 2013-2020

Severo Ochoa Centres of Excellence, and María de Maetzu Units of Excellence

The Government of Spain and the regional governments jointly drafted the *Spanish Strategy for Science and Innovation 2013-2020,* which was launched in 2012. It outlines six priority areas in order to improve the Spanish Science, Technology and Innovation System. One of these areas focuses on the creation and specialisation of knowledge and talent. The aim is to promote knowledge creation through optimising the use of existing resources (human, financial, technical etc.) and collaboration among scientific, technical and innovation research groups. These groups can collaborate by sharing the same office space in one of the 32 research institutes, co-locating in the same scientific and/or technological park or staying connected through specialised research clusters and other forms of collaboration (European research networks, strategic alliances, etc.). These research groups are by design inter-disciplinary and intersectoral. Such collaboration promotes a more efficient use of infrastructure and equipment, increased mobility of researchers and technologists, transfer of knowledge, and identification and creation of new competitive products and services.

The Ministry of Economy and Competitiveness has launched the *Severo Ochoa Centres of Excellence* and *María de Maeztu Units of Excellence* programmes that select and support well-performing research centres and units. Such centres and units are selected based on their cutting-edge research, international leadership in their respective field, close interaction among its research members and a high degree of openness to international collaboration. An independent committee consisting of internationally renowned scientists is responsible for the selection covering the areas "Life Sciences and Medicine", "Mathematics, Experimental Sciences and Engineering" and "Humanities and Social Sciences". Accreditation as a "Severo Ochoa Centre of Excellence" or a "María de Maeztu Unit of Excellence" is valid for four years and includes a grant of one million EUR per year (for centres) or a grant of EUR 500 000 per year during this period. A limited number of "Severo Ochoa" centres of excellence or "María de Maeztu" units of excellence are accredited each year. At the end of their four-year accreditation period they may apply again for accreditation.

Source: Ministry of Economy and Competitiveness (2012), "Spanish Strategy for Science and Technology and Innovation 2013-2012", www.idi.mineco.gob.es/stfls/MICINN/Investigacion/FICHEROS/Spanish_Strategy_Science_Technology.pdf; Ministerio de Economía Y Competitividad (MEC) (n.d.), www.idi.mineco.gob.es/portal/site/MICINN/menuitem.7eeac5cd345b4f34f09dfd1001432ea0/?vgnextoid=cba733a6368c2310VgnVCM1000001d04140aRCRD, (accessed 16 June 2015).

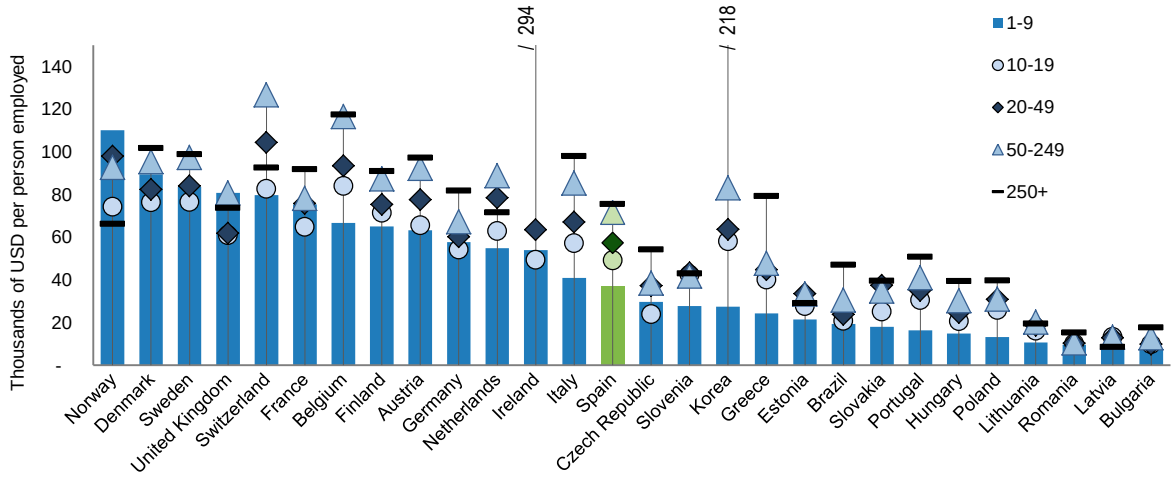
The regionalisation of innovation policy in Spain represents both a challenge and an opportunity. R&D and innovation policy is shared between the central government and the 17 autonomous communities, each of which has its own innovation strategy and policy instruments. The challenge is to create synergies and prevent excessive fragmentation. OECD (2014a) recommends that the central government could further foster the expansion of better performing research organisations across Spain by providing extra direct funding to research centres.

Spain's comparatively large share of small enterprises might impede innovation

Very small companies tend to invest less in innovation activities, and small enterprises in Spain are even less engaged than their counterparts in other OECD countries. Smaller firms are also less likely to invest in R&D and collaborate with universities (OECD, 2013f). These firms may lack sufficient knowledge, capacity and scale to invest in research or adopt innovative practices. Without employees possessing at least basic knowledge of R&D, it is unlikely that companies can make effective use of R&D and innovation support schemes either at national or European level. This may help to explain why smaller firms tend to have lower levels of productivity than larger ones (Figure 86). In this respect, Spain's large share of micro and small firms (Figure 87) and large share of employment in micro and small firms (Figure 88) may dampen aggregate productivity. Increasing incentives for firms to grow could help to boost aggregate productivity growth.

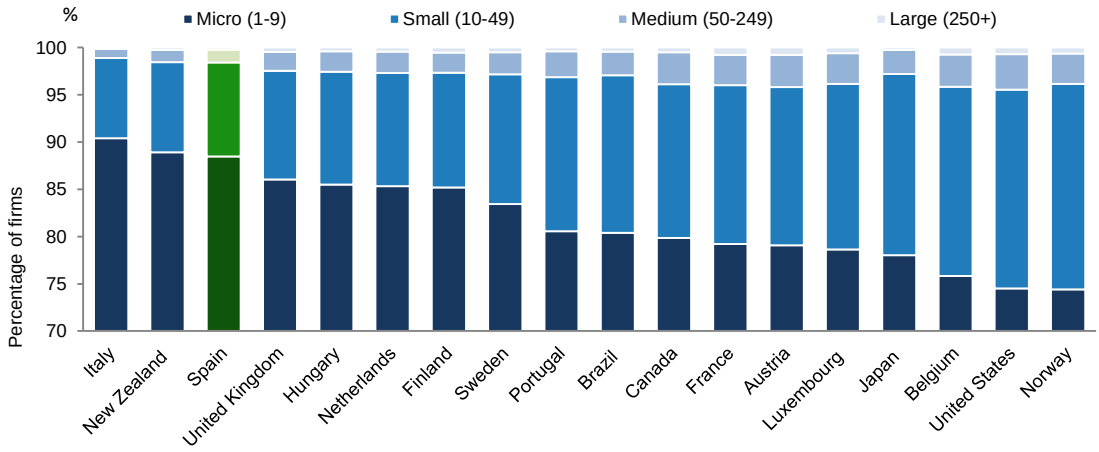
Figure 86. Labour productivity levels by enterprise size, total economy

Thousands of USD per person employed, 2011



Source: OECD (2014b), "Labour productivity levels by enterprise size, total economy", in OECD, *Entrepreneurship at a Glance 2014*, http://dx.doi.org/10.1787/888933063556.

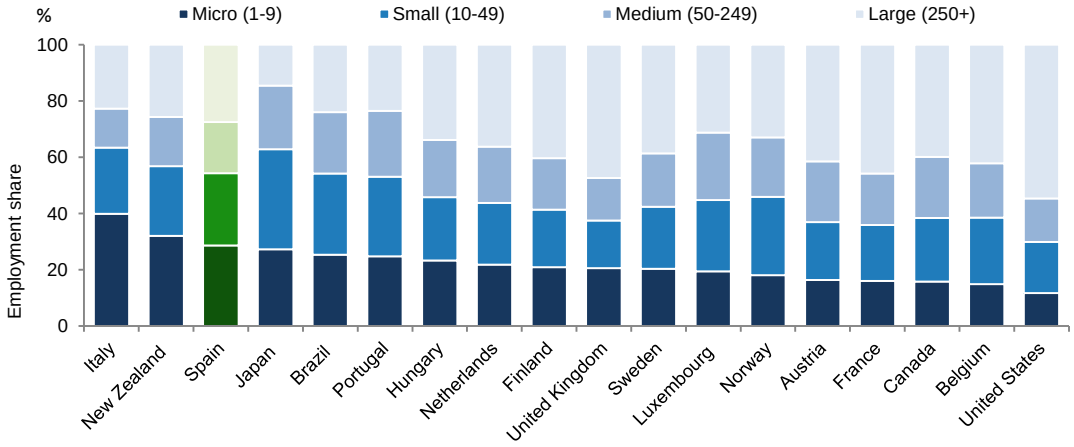
Figure 87. Percentage of firms of different size by country



Note: The period covered is 2001-2011 for Belgium, Canada, Finland, Hungary, the Netherlands, the United Kingdom and the United States; 2001-2010 for Austria, Brazil, Spain, Italy, Luxembourg, Norway and Sweden; 2001-2009 for Japan and New Zealand; 2001-2007 for France; and 2006-2011 for Portugal. Sectors covered are: manufacturing, construction, and non-financial business services. Owing to methodological differences, figures may deviate from officially published national statistics. For Japan data are at the establishment level, for other countries at the firm level. Average across all available years.

Source: Criscuolo, C., P. N. Gal and C. Menon (2014a), "The dynamics of employment growth: New evidence from 18 countries", *OECD Science, Technology and Industry Policy Papers*, No. 14, http://dx.doi.org/10.1787/5jz417hj6hg6-en.

Figure 88. Percentage of employment by different firm size and by country



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There are substantial barriers to entrepreneurship in Spain

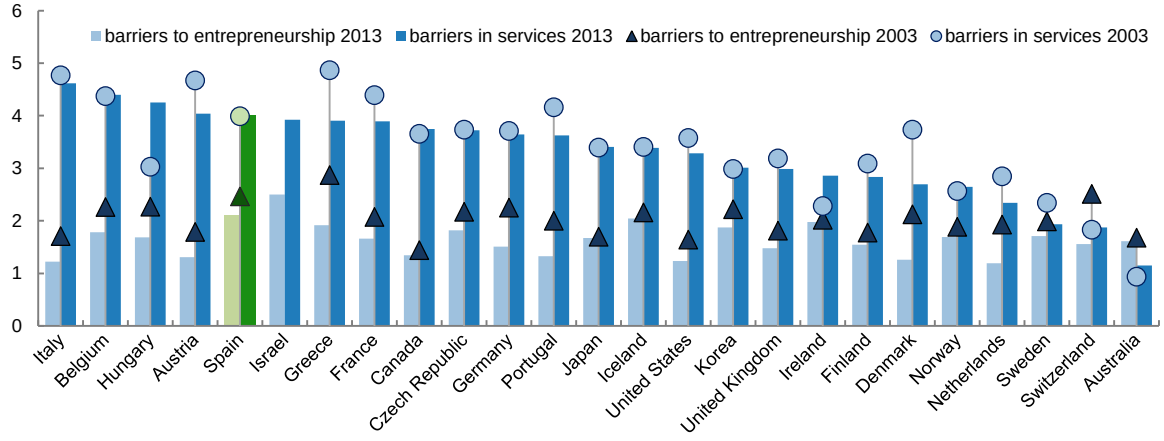
The education system has a key role in building an entrepreneurial culture. The entrepreneurial culture of a country reflects the attitude that individuals have towards entrepreneurship, the likelihood of choosing entrepreneurship as a career, the readiness to start again after failure, and the support provided to family and relatives planning to set up a business. All of these aspects of the culture play a role, although there is little empirical evidence on their relative importance across countries (OECD, 2013c).

Skills and the education system drive entrepreneurship in two important ways. First, the entrepreneurial mind-set can be built through education, including through teaching strategies, course content, learning environments and learning outcome assessments to promote entrepreneurship in a broad sense. Second, the practical competences and skills needed to start and grow new ventures can also be built. For example, training can be offered to people who are motivated, or who have already decided, to start their own business.

Barriers to entrepreneurship are a drag on innovation in Spain. Currently, much entrepreneurial activity in Spain is driven by necessity rather than opportunity (such as when people opt for self-employment as an alternative to unemployment). In the 2015 edition of the World Bank's study *Doing Business*, Spain ranks 77th out of 189 countries with respect to the ease of starting a business. The OECD's 2014 publication *Entrepreneurship at a Glance* also shows Spain to have particularly high barriers to entrepreneurship. 'Barriers to entrepreneurship' is a composite indicator encompassing administrative burdens on start-ups, regulatory and administrative opacity, and barriers to competition) (Figure 89).

Figure 89. Barriers to Entrepreneurship

(0 to 6, from least to most restrictive)

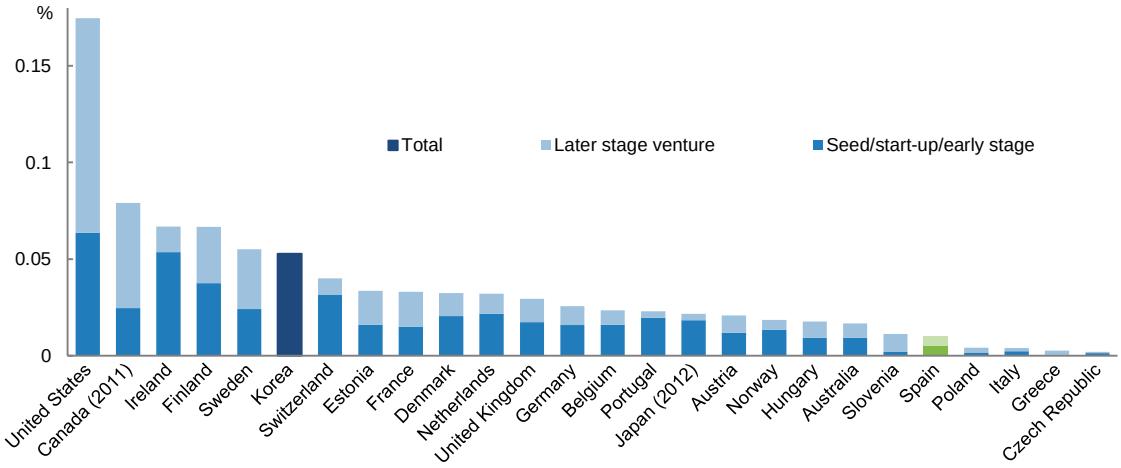


Source: OECD (2014b), *Entrepreneurship at a Glance 2014*, http://dx.doi.org/10.1787/entrepreneur_aag-2014-en.

Limited access to venture capital may also stifle innovation. Venture capital represents a source of financing for firms not quoted on the stock market and is, therefore, important for entrepreneurship. It is especially important for innovative young enterprises with growth potential. Venture capital can replace or complement traditional bank finance (OECD, 2014c). In Spain, venture capital investment as a percentage of GDP is amongst the lowest in the OECD (Figure 90). As in most OECD countries, venture capital became less accessible following the crisis. In Spain, venture capital investment in 2013 was only 29% of what it was in 2007 (OECD, 2014b).

Figure 90. Venture capital investments as a percentage of GDP

Percentage, 2013



Source: OECD (2014b), *Entrepreneurship at a Glance 2014*, http://dx.doi.org/10.1787/entrepreneur_aag-2014-en.

Spain has a number of measures to ensure access to finance for firms and for SMEs in particular. These include financial measures to facilitate access to credit and fiscal measures to support businesses.

Examples include the establishment of a new Official Credit Institute (a public company that has a dual role of a specialised credit institution and a state financial agency); Liquidity Facility for SMEs to finance working capital for SMEs; an intermediation line for financing investment projects of medium-sized enterprises; and Treasury guarantees to insure debt securities issued by the Asset Securitisation Fund (OECD, 2014c).

The government has introduced a number of reforms to support research and innovation and entrepreneurship

Spain has also made progress in expanding the innovation system. Past and current central government policies related to R&D and innovation aim to expand research capabilities, increase human resources for research, and improve innovation outputs and linkages between science and industry. The Spanish Strategy for Science, Technology and Innovation aims to increase co-ordination across regions and to foster researchers' mobility across the public and private sectors.. The Council for Science, Technology and Innovation policies has been created to improve the governance of the innovation system (OECD, 2014a).

Spain has made progress towards these goals. This includes increasing its innovation inputs, capabilities and outputs. Since 2000, both gross expenditure on R&D (GERD) and business enterprise expenditure on R&D (BERD) have risen as a share of GDP. Spain has increased the number of published scientific and engineering articles, and raised the proportion of researchers employed in the economy. It has also further developed expertise in several scientific domains including energy and materials (OECD, 2014a). In 2013 the government launched a programme providing guarantees for SME loans between 12-18 months for investments, R&D and working capital financing (OECD, 2014c).

Spain has also taken steps to promote entrepreneurship. The law 14/2013 introduces a number of measures to foster entrepreneurship and self-employment. Young self-employed workers can receive reductions in social security contributions. Workers at risk of long-term unemployment are eligible to receive unemployment benefits while being self-employed. Unemployment benefits can be claimed as a lump sum to cover the costs of receiving specific training or starting a new company. Corporate income tax and personal income tax have been reduced for the first two years of a new company. The more recent law (Real Decreto 475/2014) introduces 40% reductions in employer social security contributions for researchers.

Summary and policy implications

Highly skilled workers, entrepreneurs and universities are central to a country's innovation system. Highly skilled researchers and universities generate and transfer new knowledge to the private sector that results in increased innovation, productivity and growth. High skilled workers also facilitate the adoption and implementation of innovations and new technologies in the workplace. Since entrepreneurs are critical to bringing new ideas to market, barriers to entrepreneurial activity and limited access to venture capital are a drag on innovation.

Spanish firms are less actively engaged in innovation activities than many of their foreign competitors. The lack of innovation in the Spanish economy is reflected in low investment in Knowledge-based Capital, including R&D, and the comparatively small number of PhD holders employed in research and in the private sector.

Spain is not sufficiently leveraging its institutions of higher education to support innovation and growth through the transfer of research and knowledge to the private sector. There are few formal mechanisms to link university researchers and the private sector. Indeed, there are a number of institutional disincentives to greater co-operation between university researchers and the private sector.

The comparatively large share of very small firms in Spain may also limit aggregate investment in R&D thereby dampening innovation and productivity. Firms in Spain face a variety of barriers to innovation including low levels of entrepreneurship and limited access to venture capital.

Spain could do a better job of leveraging highly skilled workers and universities to foster innovation, productivity and growth. This would involve reducing barriers to innovation and entrepreneurship and creating incentives to invest in KBC. It would also mean making the use of highly skilled workers engaged in innovation central to the business strategies of Spanish firms.

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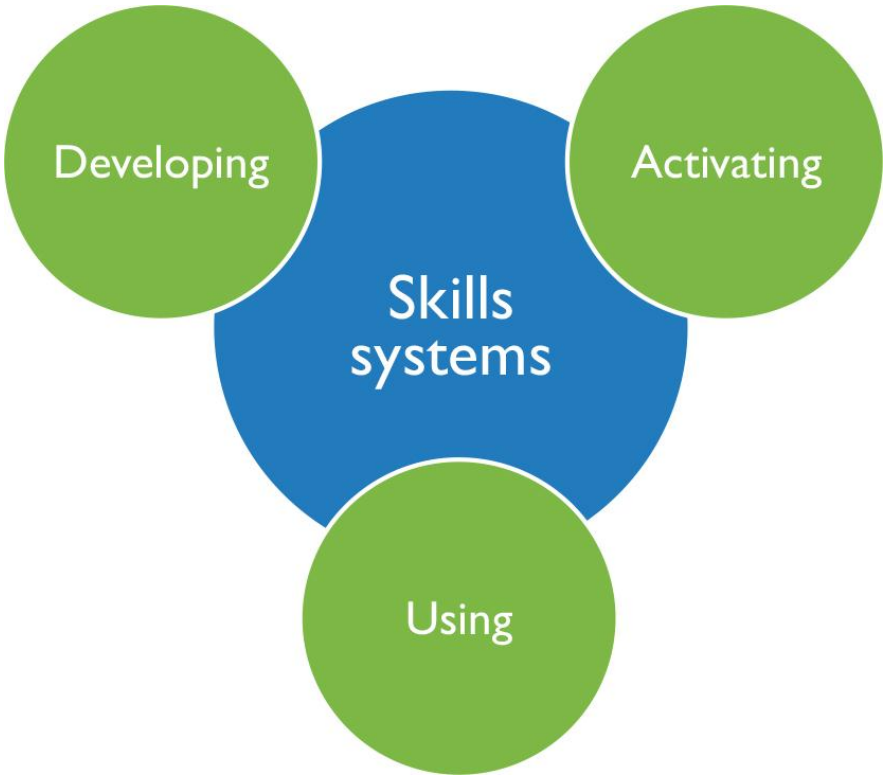
STRENGTHENING SPAIN'S SKILLS SYSTEM



INTRODUCTION TO STRENGTHENING SPAIN'S SKILLS SYSTEM

Improving performance in the development, activation, and use skills requires that all of the actors and mechanisms that have an impact on skills in Spain work together as a coherent and mutually reinforcing skills system. Four challenges have been identified for strengthening Spain's skills system. They are: improving and expanding access to learning and labour market information; strengthening partnerships to improve skills outcomes; financing a more effective and efficient skills system; and strengthening governance of the skills system.

Technological advances, globalisation, population ageing and other factors are altering the structure of employment and, in the process, the skill requirements of jobs. High quality, timely and accessible learning and labour market information can help a variety of users to make informed choices that bring skills supply and demand into better alignment. While Spain already compiles and disseminates a considerable range of information on learning and labour market outcomes and trends, this information is often only available in the form of technical documents or is scattered across multiple websites. There are also a number of information gaps, such as a lack of projections of future skill needs.

While governments play a central role in the skills system, what they can achieve alone has its limits. Improving skills outcomes requires collaboration and co-operation among the various actors with a stake in the outcomes of the skills system, including individuals, firms, employer associations, unions, educational institutions and many others. Spain would benefit from more regular and formalised partnership arrangements for involving all actors in the skills system further upstream in the planning and decision making processes.

How skills investments are financed has a great impact on the effectiveness and efficiency of skills policies. Government spending and taxation policies can create incentives or disincentives for the development, activation and effective use of skills. As beneficiaries of investments in skills, individuals, employers and social partners also have a key role to play in the financing of skills investments. In the context of continuing fiscal prudence and the budgetary pressures associated with unemployment and an ageing population, it is essential that policies for financing skills investments be calibrated to maximise their effectiveness and efficiency. More can be done to improve skills financing in Spain.

Given the vast array of factors that impact on skills development, activation and use, and the wide distribution of responsibilities in these areas across many ministries and all levels of government, effective governance structures are critical for policy coherence and continuity. Policy coherence and continuity are particularly important in the context of the long time horizon needed for certain skills policies – education policy in particular – to bear fruit. While Spain has a number of governance structures in place to facilitate dialogue and collaboration, these typically focus on specific segments of the skills system, such as education or employment. More needs to be done to facilitate dialogue and co-ordination across the entire skills system.

CHALLENGE 9: IMPROVING AND EXPANDING ACCESS TO HIGH QUALITY LEARNING AND LABOUR MARKET INFORMATION

A selection of challenges identified by Spanish workshop participants:

"There is uneven access to information across the country. The regional information systems are not always linked"

"Information exists, but people do not necessarily use it"

"Information for youth is needed early, since decisions on career path are taken early"

"SMEs lack information on skills supply"

Information about learning opportunities as well as about current and future skill requirements is essential for informing the choices of a wide range of actors. Concerns about current skills mismatches, as well as uncertainty about future skill needs in the context of technological advances, globalisation, demographic changes and other pressures, highlight the importance of having good data and information on skills pressures. High quality, timely and accessible information on emerging skills needs and learning opportunities is needed to better align skills demand and supply.

Skills mismatches are evident in Spain today, and the skill requirements of many future jobs will change or increase, or both

OECD research has highlighted considerable variation in the supply and demand for skills across regions in Spain. Figure 91 shows that none of the regions are showing signs of a skills deficit (i.e. a shortage of skilled individuals). A number of regions are classified as being in a high-skill equilibrium, which is to say that demand for high skilled workers is met by an equal supply of high skilled workers. Of concern is the large number of regions classified as being in a low-skill equilibrium, which is to say a situation in which the demand for low skills is met by a supply of low skills. This is a recipe for low wages and growth.

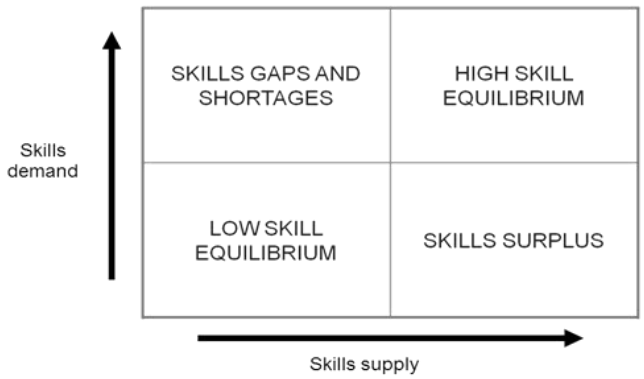
Figure 91. Relative balance between skills supply and demand, Spanish regions, 2011

Source: OECD (2014c), "Skills supply and demand, Spanish regions, 2010", in OECD, *Job Creation and Local Economic Development*, http://dx.doi.org/10.1787/888933139366; Labour force survey and regional accounts data are from the Instituto Nacional de Estadistica. www.ine.es.

Box 28. Balancing skills supply and demand at the local level

Research by the OECD LEED Programme has highlighted how a mismatch between supply and demand can build up at the local level creating inefficiencies in the local labour market as the skills being deployed are not effectively utilised by employers. A statistical tool has been developed to understand the balance between skills supply and demand within local labour markets.

Understanding the relationship between skills supply and demand

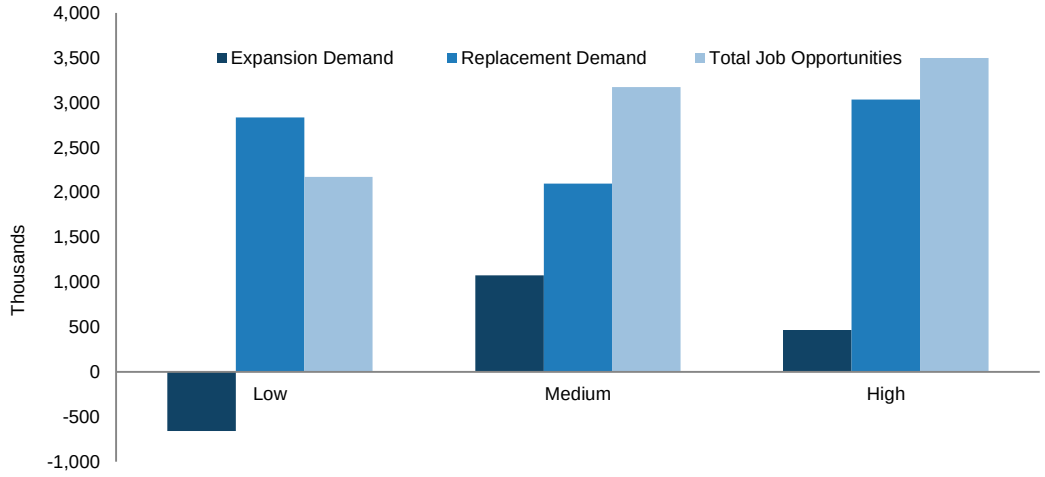


Looking at the figure above, in the top-left corner (skills gaps and shortages), demand for high skills is met by a supply of low skills, a situation that results in reported skills gaps and shortages. In the top-right corner, demand for high skills is met by an equal supply of high skills resulting in a high-skill equilibrium. This is the most desired destination of all high performing local economies. At the bottom-left corner the demand for low skills is met by a supply of low skills resulting in a low-skill equilibrium. Lastly, in the bottom-right corner, demand for low skills is met by a supply of high skills resulting in an economy where high skills are available but are not utilised. This leads to the outward migration of talent, underemployment, skill underutilisation, and attrition of human capital, all of which signal missed opportunities for creating prosperity.

Source: Froy, F., S. Giguère and M. Meghnagi (2012), "Skills for competitiveness: A synthesis report", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2012/09, http://dx.doi.org/10.1787/5k98xwskmvr6-en.

Forecasts suggest that the jobs of the future will require higher levels of education than those of today. CEDEFOP forecasts that between 2013 and 2025 job opportunities in Spain, due to both expansion and replacement demand, will be concentrated in occupations requiring medium- and high-level qualifications (Figure 92) (CEDEFOP, 2015a). Though an increasing share of Spanish youth is completing upper secondary and tertiary studies, it is not certain that sufficient numbers of them will graduate with the right credentials and skills to meet future demand. While projections of skill needs are based on a number of strong assumptions and many factors that are currently unknowable will ultimately impact on the need for skills in the future, this information provides a better basis for making choices than does no information at all.

Figure 92. Forecast of job opportunities in Spain by qualification level requirements, 2013-25



Note: The definitions of skill levels are as follows: low qualification = ISCED 1 and ISCED 2 (less than upper secondary); medium qualification = ISCED 3 and ISCED 4 (upper secondary or post-secondary non-tertiary); and high qualification ISCED 5 and ISCED 6 (tertiary).

Source: CEDEFOP (2015b) "Job opportunities: Skills forecast for 2015", 2013-2025, www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/job-opportunities.

Learning and labour market information can help actors make choices that improve the alignment between skills supply and demand

Policy makers can use information about current and future skill needs for a wide range of purposes. Ministries responsible for education can use this information to inform curriculum development and set the number of student places in upper-secondary, post-secondary and tertiary education programmes. In many countries information about current and future skill needs are used to inform the development and design of Vocational Education and Training (VET) programmes. Ministries responsible for employment can use this information to update occupational standards (which provide a guide for employers about the skills, training and experience needed to carry out a job) and to design apprenticeships and active labour market policies (ALMP) such as training, employment subsidies, direct job creation and support for entrepreneurship and geographic mobility. Some countries also draw on this information to develop and update selective migration policies (OECD, forthcoming). Government ministries often produce and make available learning and labour market information to inform their policy decision-making as well as the choices of many other actors.

Youth use learning and labour market information to make field of study choices that balance personal interests and labour market rewards. Due to the long time lag between the point at which an individual chooses a field of study and the point at which he or she graduates, prospective students typically need future oriented information, such as projections of future skill needs (often defined as the skill needs of occupations forecasted to be in shortage, surplus or balance). However, for this information to be relevant to youth, they must be made aware of how occupations relate to fields of study (i.e. which fields of study are sources of supply for specific occupations). Forecasts of future skill needs can only provide general guidance, as future skill needs are, by definition, uncertain. Consequently, students should also be able to cross-reference skills forecasts with information about the historical labour market outcomes of graduates from different levels and fields of study. This provides youth with a sense of the value placed on these studies in the labour market, regardless of what job they eventually end up holding. Additionally, they need to be made aware of the courses that must be completed and the marks that must be obtained in secondary school in order to gain entry to their chosen field of study. Finally, this information needs to be provided in manner that is easily accessible and interpretable by youth and their parents.

In contrast, adult job seekers who are making decisions in the immediate to short-term require information on current labour or skill shortages and short-term projections of skill needs. Since adults are typically less mobile than youth (due to family needs and responsibilities, mortgages, etc.), they generally require information at the local and regional level. Since some will not have the skills needed for their chosen occupation or for occupations where job opportunities currently exist, they additionally require information about what training might be required and where it may be found. As is the case for youth, adult job seekers need information that is packaged in an easily accessible and interpretable manner.

Social partners are also important users of information on skill supply and demand. Social partners such as trade unions and employer associations, use this information to advise their members, support the development of their own training programmes or influence employment or education policy (OECD, forthcoming). Employers use information about current and future labour supply and demand imbalances to make important decisions about: hiring, compensation and benefits, and training; providing outreach to students and potential labour sources (including foreign labour); investing in technology (to complement or replace labour); work organisation and business strategies (i.e. the types of skills available to enterprises can enable or constrain the range of business strategies that they might pursue); and where to locate their operations (i.e. whether to invest in a country or region or locate elsewhere). For their part, trade unions use learning and labour market information to plan and develop training for members and to develop labour negotiation strategies. Social partners will typically want to consult information about both current and projected skill and labour needs, at the national, regional and local levels as well as by industry.

A range of information on current and future skills needs is available in Spain, but information gaps persist

The Ministry of Education, Culture and Sports publishes data on education participation, performance, attainment, and, to a lesser extent, graduate outcomes. There are, however, some important data and information gaps and most of this information is available only in the form of summary or technical reports or searchable online databases. *Facts and Figures 2014/2015* school year (*Datos y cifras: Curso escolar 2014-2015)* is an annual report that provides information on enrolment and attainment across the education system (from early learning to lifelong learning). It also provides point in time information (i.e. not time series data or longitudinal data) on employment, unemployment and wages by broad levels of study. *Basic Facts: Spanish University System* (*Datos básicos: del Sistema Universitario Español*) is an annual report providing information on a broad range of facts relating to Spain's universities, including information on the number of institutions, location of institutions, number of students, field of study offerings, marks of incoming students, employment outcomes by degree type and field of study (for major fields only), and basic information about earnings of graduates (but not by field of study). What is missing from these reports is information on outcomes (employment and earnings) by level and field of education over time. This information is needed to

assess of the evolution of demand for various credentials. The recent report "Inserción laboral de los egresados universitarios: La perspectiva de la afiliación a la Seguridad Social" (MECD, 2014) helps to address some of these information gaps. It provides information on the employment and earnings of a cohort of bachelor graduates (2009/10 graduating year) by broadly defined fields of education. In the second phase of this project, the outcomes of master and doctoral students will be analysed. The Government of Spain might want to consider extending this analysis to additional cohorts and more granularly defined fields of study.

The Ministry of Employment and Social Security provides information on high demand occupations. *Portal de Empleo*, a "one-stop employment portal", was launched in 2014 to better match job seekers with vacancies. On this portal, employers can post their vacancies and job seekers can search for vacancies based on key words like occupation and/or location. High demand occupations are identified on the main page. The Occupations Monitoring Observatory of the PES publishes on its website an annual report (*Perfiles de la Oferta de Empleo*) on the sectors with the highest expectations of job growth (EC, 2014). High demand occupations are identified based on the number of job postings found on around 230 job search websites and in printed media, as well as on qualitative interviews with community stakeholders, such as labour unions, university officials, etc. Each profile is described in about 5 pages with detailed information on working conditions (salary, full-time/part-time, fixed/permanent contracts), employment rates by region, the required skills, experiences and education as well as current number of graduates that typically enter this occupation.

While information about current job vacancies and high-demand occupations is valuable, job seekers, policy makers and others also require information about occupational labour shortages. Job vacancy information can help job seekers conduct a job search, but it does not help to identify where shortages exist. Job vacancy data is a rough proxy for demand, but assessing shortages requires consultation of indicators of both demand and supply (e.g. even if there is growing demand for labour in a given occupation, there is no shortage unless supply is not also growing at the same pace). Information on occupational labour shortages would permit job seekers to target their job searches at occupations with a high probability of success and/or align their training choices with the needs of the labour market. Policy makers, too, could use this information to design and fund training programs and other measures that respond better to labour market needs. Education and training providers could use this information to aid them in developing and designing courses and programmes.

As an indicator of job vacancies and labour demand, job postings data suffers from a number of limitations. For example, changes in the number of job postings may reflect the increasing tendency to use online postings as a means of recruitment in occupations or the extent of employment turnover in a given occupation (i.e. some occupations and industries are known to have high turnover due to low wages and poor working conditions, which will be reflected in a higher number of job postings) and not to changes in demand. Other limitations of job postings data that may result in biased estimates of demand include: uneven use of job postings across occupations and sectors; difficulty removing duplicate postings; and sometimes inaccurate information about the number of job opportunities associated with a single posting (some firms with high turnover routinely post job opportunities regardless of whether they are currently hiring). Since all indicators have limitations, an international best practice is to use more than one indicator for assessments of occupational skills pressures. Spain may wish to consider supplementing online job postings data with other indicators such as wages, employment, unemployment, and hours worked.

Spain does not currently conduct its own national forecasts of occupational labour supply and demand balances. Given the significant time lag between when tertiary students start their studies and when they enter the labour market, this information is especially important for informing their choices about level and field of study as well as for informing the decisions of policy makers and educational institutions about curriculum design and seat allocations in specific fields of study. This information is additionally helpful to enterprises, which can use it to better plan for their human resource needs (e.g. hiring, training) and capital

investments (e.g. investments in technology and infrastructure). National forecasts carried out in the context of pan-European projection systems, such as CEDEFOP's projections, provide information on job opportunities by: a) qualification requirement (of which there are 3: low, medium and high); b) sectors (of which there are 6); and c) major occupational groups (of which there are 10). Similarly, the Annual Labour Survey (*Encuesta Annual Laboral*)(MEYSS, 2015) has recently started to publish annual data on firms' prospects of future hiring. Data is classified into broad occupational groups, professional experience of the potential candidates and preferred type of contract. While this is very useful information, the skill and occupation categories are too broad to inform most choices made by students, educational and training institutions, and employers.

Some countries link occupation-based assessments and skills anticipation information to specific skills through comprehensive occupational standards or descriptions of what skills are required in each occupation (OECD, 2015). Examples include Canada's National Occupational Classification (Box 29) and the United States' O*NET database, which provide detailed information about the knowledge and skill requirements for 500 and 800 occupations, respectively.

Box 29. Canadian Occupational Projection System

Employment and Social Development Canada (ESDC) uses the models of the Canadian Occupational Projection System (COPS) and the National Occupational Classification to develop projections of future trends in the numbers of job openings and job seekers by occupation at the national level. The projections allow for identifying those occupations that may face labour shortage or labour surplus conditions over the medium term. The latest projections cover the 2013 to 2022 period.

Projections were developed for 283 occupational groupings that cover the entire labour force. Users can search for summaries of projection results by occupation or industry; detailed projection results by occupation or industry, including information on the factors that are expected to influence occupational labour markets, such as demographics, labour force participation rates by age group and level of education; and synthesis documents covering the major components of the projections, i.e. the economic scenario, the industrial breakdown of economic activity, job openings by occupation, job seekers by occupation and projected labour market conditions by occupation.

This information is available from both the COPS website or from the Job Bank, a one-stop portal for job search and learning and labour market information.

Source: Employment and Social Development Canada, http://occupations.esdc.gc.ca/sppc-cops/w.2lc.4m.2@-eng.jsp.

Information could be more accessible and better tailored to the needs of different users

While national skills assessments and forecasts carried out in the context of pan-European projection systems (e.g. CEDEFOP) provide useful information on current and potential skills pressures, this information appears to have limited impact on policy decisions in Spain. For example, this information is not currently being used inform decisions about the distribution of funding for seats across different fields of education and institutions in higher education. Similarly, it is not evident that this information is being used to inform choices about training on offer to the unemployed. Funding for education and training seems to be driven primarily by student demand and the research interests of professors (Challenge 2). The reach and impact of skills assessment and anticipation exercises could be strengthened through increased cross-government collaboration and stakeholder engagement.

Information could also be made more user-friendly. While much of the information needed by users is already available to them, it is often in the form of ad hoc and/or technical reports. In many cases, these reports are not easy to find unless one already knows that they are available. Additionally, they often take the form of compendia of facts and figures and use technical language or jargon, which make them difficult to interpret by laypersons. Furthermore, what information is available online is dispersed across multiple

websites, which makes information hard to find and cross-reference (Challenge 6). Information resources need to be made more user-friendly by, for example, providing online, interactive information platforms that bring together all of the relevant facts in one place and that are tailored to the needs of different users (Box 30).

Box 30. Texas Workforce Commission

The Texas Workforce Commission website is a one-stop, interactive information portal which is segmented by the needs of different users; specifically, jobs seekers and employees, businesses and employees, and community and workforce partners, in English, Spanish and Vietnamese. Here, job seekers can apply for unemployment benefits, post their *curriculum vitae*, search for job vacancies, explore careers, link to online courses, and find out about employment support resources and training opportunities. People can explore specific occupations of interest, learning about their educational requirements, the knowledge, skills and abilities needed for work in that occupation, typical tasks performed in that occupation, and work values. They can also access a wide range of labour market indicators, including state and national employment levels, annual average job openings, projected job opportunities to 2022, percentage and absolute changes in projected job opportunities between 2012 and 2022, hourly wages, gender distribution, turnover rate, average time in occupation and current job, as well as the sorts of enterprises where these occupations are typically found. The website even provides a tool for evaluating expenses against careers. Specifically, the "Reality Check" is an interactive tool that permits individuals to estimate their costs relating to housing, transportation, clothing, health care, and entertainment and then explore which careers would pay for these needs and their education requirements.

Prospective students can search fields of study at different levels of education and investigate where these programmes can be found and which occupations they lead to. They can also search and compare specific educational institutions on the basis of their application deadlines, admissions requirements, degree offerings, competitiveness, extracurricular activities available, resources, tuition fees, percentage of graduates with full time job offers 6 months after graduation, and a host of other variables.

Users can also access a variety of online courses and videos relating to job searches and education.

Employers can access information and resources relating to recruiting and hiring, training, social security contributions, labour laws, as well as avoiding and managing layoffs. They can also access labour market information targeted for their specific needs.

For community and workforce partners, information and resources are available relating to training provision, education, child care, workforce development, civil rights and discrimination, among others.

Source: Texas Workforce Commission, www.twc.state.tx.us.

Existing online resources in Spain, such as Portal de Empleo and Qué Estudiar y Dónde en la Universidad (QEDO), could be better tailored to help secondary students and their parents to understand what career opportunities are available to graduates of different levels and fields of education and to help job seekers relate job opportunities to training and education. The Canada Job Bank, for example, is an interactive, single portal providing information tailored to different users' needs on current job vacancies, occupational projections (for 400 occupations), occupational profiles, and labour market outcomes (earnings, employment, and occupations) for more than 50 fields of study in apprenticeship programmes, college and university (Challenge 5, Box 17).

Greater cross-government collaboration and engagement of social partners could improve the quality and relevance of learning and labour market information

A large number of Spanish Ministries are involved in some way in the production and dissemination of information on current and future skills needs. These include the Ministry of Education, Culture and Sports, the Ministry of Employment and Social Security, the Ministry of Finance and Public

Administration, the Ministry of Economic Affairs and Competiveness, the National Institute of Statistics, as well as regional governments. Spain has a number of mechanisms to enable cross-ministerial collaboration on skills assessment and anticipation exercises, including: The Council of Ministers, the General Council for Vocational training, The General Commission of Secretaries of State and Undersecretaries, a variety of committee and working groups established to discuss issues of shared interest, as well as sectoral conferences for education and employment which provide forums for discussions between the state and regional governments.

More could be done to leverage mechanisms of inter-ministry collaboration to strengthen the coherence and impact of learning and labour market information in Spain. Currently, the Ministries of Education and Employment are conducting separate exercises to assess skills needs in support of their respective policy objectives and main target groups. Namely, informing the choices of job seekers in the case of the Ministry of Employment and informing those of students in the case of the Ministry of Education. Not enough is being done to draw linkages between their various information sources for the benefit of a multitude of potential users. For example, students can find information separately about outcomes by levels and field of study from the Ministry of Education and on occupational skills pressures from the Ministry of Employment, but a bridge is not made between the worlds of education and work (i.e. an explanation of which fields of study lead to which occupations and, conversely, which occupations draw workers from which fields of education). Effective skills assessment and information systems are designed around the needs of specific user groups and policy objectives, and not the mandates specific government institutions and their administrative information sources. For example, a single portal for information on learning and labour market information, such as exists in other OECD countries, would allow users to access all of the information they need to make informed choice in one place, thereby improving both reach and impact.

A related difficulty is the different terminology used in the various policy domains. For example, no link is made between educational qualifications and the skills requirements in job vacancies posted by Public Employment Services. Spain will benefit from the work at EU level in ESCO (European Skills/Competences, Qualifications Occupations), which provides a common language and taxonomy aimed at building semantic bridges between the worlds of Education and Employment.

Sub-national governments need to be more fully engaged in the assessment of current and future skill needs. Sub-national entities are naturally endowed with a stock of regional and local knowledge that is critical for understanding the nature and extent of skills shortages and pressures. Information systems currently do not permit the easy sharing of information across levels of government. In addition, the forums (e.g. sectoral conferences) for dialogue between different levels of administration often does not involve staff at the technical level (Challenge 12), who are most involved in skills assessment and anticipation exercises.

The engagement of social partners, such as employers and trade unions, and educational institutions can help to improve estimates of current and future skill needs, and facilitate co-ordinated action to address these pressures. Social partners can be important sources of qualitative and quantitative information on skills demand and supply that would aid in i) making assessments, ii) interpreting quantitative labour market data (e.g. job postings, wages, employment); and iii) validating assessments of current and future skill needs. For example, employers can provide information about changes in future hiring intentions that are not captured in existing data. Educational institutions, for their part, can provide information on changes in the number and type of course offerings. Engaging social partners and educational institutions in the process of assessing skill needs also provides them with an opportunity to co-ordinate policies and investments in such a way as to improve the alignment of skills supply and demand. For examples of the value of engaging partners in the development, design and delivery of learning and labour market information see Boxes 31 and 32.

Box 31. Workforce Intelligence Network (WIN)

In Michigan, United States, the Workforce Information Network (WIN) provides opportunities for co-ordination, efficiencies, and innovation across partners, by delivering real-time, actionable marketplace intelligence to support more efficient solutions for employers. This information helps consortium members, particularly community colleges, make better "real time" decisions regarding skill gaps. One of the tools used by WIN is a methodology to search the internet for job openings and resumes (*curriculum vitae*). This information, combined with data from the state's labour market information and special surveys, are incorporated in strategic plans and operational decisions. For example, SEMCA (which is a Local Workforce Investment Board in the United States) has been able to act upon this focused information and is currently working to create a talent pool for Computerized Numerical Control (CNC) and Welding. SEMCA also relies on WIN for detailed analysis of specific industries and occupations. Each year it completes a "Region Top Jobs" report, which includes the availability of current and projected opportunities by occupation, with the number of openings, and the rates of pay.

Within the advanced manufacturing sector, WIN connects with various organisations and associations and is leading important initiatives to better align the talent system with talent needs. WIN serves as project lead and fiscal agent for InnoState, a new coalition among WIN, the Detroit Regional Chamber's Connection Point, the Michigan Manufacturing Technology Center (MMTC), the National Center for Manufacturing Sciences (NCMS), the Business Accelerators of Southeast Michigan (BANSEM) and the Society of Manufacturing Engineers (SME). Backed by funding from the Michigan Economic Development Corporation and various federal government agencies, InnoState is focused on expanding the New Product Contract Manufacturing Cluster of firms to increase their business and compete globally. WIN also convenes the skilled trades taskforce, which addresses employer talent needs through ongoing dialogue between the talent system and employers looking for skilled trades talent.

In the area of information technology, which is one of the fastest growing in the region, WIN's cluster strategy includes the convening of an employer-led, multi-industry council, which has come to be known as the Tech Council of Southeast Michigan. The Council is convened to raise awareness of, and shape community responses to, regional talent needs. This group meets routinely and has two primary focuses:

- talent attraction and development;
- marketing and branding Southeast Michigan as a technology hub.

The Council is comprised of more than 30 employers who have a significant need for information technology talent and is open to any additional company who may be interested in participating. WIN is directly involved with company-led training initiatives like "IT in the D" and serves as a communication conduit for the region's various talent partners. WIN is also working closely with the Michigan Economic Development Corporation, the state of Michigan, business accelerators, and many others to collaborate and help drive their efforts and programs aimed at closing the IT talent gap in Southeast Michigan.

Source: OECD (2014b), *Employment and Skills Strategies in the United States*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264209398-en.

Spain already has a number of mechanisms and systems in place for engaging stakeholders, but they are not being fully leveraged. Examples of mechanisms that facilitate the engagement of stakeholders of skills assessment issues include: the General Counsel for Vocational Training, which brings together representatives of government and major stakeholder to discuss issues related to VET; the University Council, which convenes rectors of Spanish universities; and state school boards, which include representations from all sectors of the non-university educational community. However, the government reports having difficulty in engaging interest from enterprises, especially SMEs which comprise the bulk of Spanish enterprises. Furthermore, most of these forums focus on a particular stakeholder group (e.g. the education sector) and do not permit dialogue between social partners and educational institutions. And none of these forums have as their sole and explicit purpose the engagement of stakeholders in skills assessment and anticipation exercises. Some countries have created dedicated councils and committees to discuss skills need. For example, employers have an active role in the skills assessment and anticipation exercises in Australia and New Zealand (OECD, forthcoming).

Box 32. Anticipating future skills needs in Ireland

Data collection and dissemination on skill needs and labour markets is improving in Ireland due to the work of the Expert Group on Future Skills Needs (EGFSN) which advises the Irish government on current and future skills needs of the economy and on other labour market issues that impact on Ireland's enterprise and employment growth. Established in 1997, the EGFSN reports to the Minister for Jobs, Enterprise and Innovation and the Minister for Education and Skills and is funded by the National Training Fund. Forfás provides it with research and secretariat support while the FÁS Skills and Labour Market Research Unit (SLMRU) provides it with data, analysis and research and manages the National Skills Database.

Reports from the Expert Group on Future Skills Needs outline the skills and competencies required for jobs in specific sectors based on consultation and research at the national level. These are drawn on by training and other providers but are not sufficiently detailed to ground the mapping of profiles for local jobs. FÁS is implementing a new career-themed approach to training in its course provision and curriculum design and trainees will be made aware of a range of jobs and industry sectors for which their training will equip them. It has identified ten career clusters to inform its future training provision, including Health Care and Social Services, Built Environment and Transportation, Distribution and Logistics, Information Technology, Sales and Marketing, Financial Services, and Business Administration and Management. These clusters are based on the best labour market intelligence available on current and emerging employers' needs.

Source: OECD (2014a), *Employment and Skills Strategies in Ireland*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264207912-en.

Summary and policy implications

Learning and labour market information allows a broad range of actors to make choices that facilitate a better alignment between skills supply and demand. Students in lower and upper secondary education use information on labour market outcomes by field of study and on future skills needs to make informed choices about studies at the tertiary level. Job seekers make use information on current job opportunities as well as short-term projections of skills and labour shortages to inform job search and training choices. Human resource managers require detailed information about current and projected labour demand and supply to make decisions about compensation and benefits, hiring, training and investment. Policy makers need reliable and timely information to support decisions about the design and funding of education, training, and active labour market policies.

A range of information on current skill needs is already available in Spain, but information gaps remain and there is much room for improvement in the design and dissemination of information products. While information on current job vacancies is available, there is limited information about current occupational labour shortages. Information on the outcomes of graduates of different levels and fields of study in tertiary education are typically only available for a point in time, which does not allow for an assessment of trends. The learning and labour market information that is available is typically reported only for broadly defined occupational groupings and fields of education. Most users need access to more granular information on specific occupations and fields of study. Furthermore, learning and labour market information in Spain is often available only in the form of dense, technical reports, which may be difficult for many users to interpret without guidance. What online information exists is scattered across multiple websites, making information hard to locate and cross-reference.

Spain lacks forecasts of future skill needs. Information on future skills needs is important not only for informing the choices of students, but also for informing the human resource, planning and investment decisions of firms.

There is room to strengthen cross-governmental collaboration and to increase engagement with social partners. Spain already has a number of mechanisms for facilitating information sharing and collaboration across government (both between ministries and between state and regional governments) and with social partners, but none of them is specifically dedicated to skills assessment and anticipation exercises. As a consequence, information tends to be produced by single ministries in isolation for the purposes of addressing their own specific policy objectives. Collaboration could improve the quality, accessibility and impact of information on skills.

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CHALLENGE 10: STRENGTHENING PARTNERSHIPS TO IMPROVE SKILLS OUTCOMES

A selection of challenges identified by Spanish workshop participants:

"There is a lack of venues for meaningful collaboration between actors"

"Institutional barriers exist for universities to link with firms"

"Political will is absent to promote collaboration"

"There is lack of consensus-based strategic vision and leadership"

Effective partnerships are critical to the effectiveness and efficiency of skills systems. While governments play a key role in the skills system, what they can achieve alone has limits. Improving skills outcomes requires collaboration and co-operation with the many actors who have a stake in the outcomes of the skills system, including individuals, firms, employer associations, unions, educational institutions and many others. Spain could benefit from more regular and formalised partnership arrangements for involving all actors in the skills system in planning and decision-making.

Strong partnerships between government and the private sector can improve the quality and relevance of skills developed in initial education

Partnerships between educational institutions and employers can help to ensure that the skills being developed meet the needs of the economy. Many OECD countries are taking steps to increase employer involvement in the design and delivery of education and training. For their part, many employers are seeking a more active role in designing and delivering education and training programmes to ensure that they have access to the highly skilled workers that they currently need or anticipate needing in the future.

In Spain partnerships between government and the private sector in skills development can be improved. Participants in Skills Strategy workshops often remarked that companies and were not sufficiently involved in ensuring that the skills developed in the education system effectively responded to their needs. There seems to be limited engagement between the education and private sectors, which may help to explain why, despite large numbers of unemployed in Spain, some employers continue to complain that they cannot find enough workers with the skills they need.

Across OECD countries there are a variety of examples of how this partnership can be strengthened. In Ontario, Canada, employers advise community colleges (which offer tertiary non-university programs, typically with a duration of between one and three years) on the skill needs of their firms, sectors and the regional economy through participation in Programme Advisory Committees (OECD, 2014a). In the United States, community colleges are able to rapidly develop courses to meet changing skill needs because they make use of industry representatives as trainers. The use of trainers from industry also helps to build good relationships between the education and private sectors. In some cases, community colleges have created a separate branch of their institution offering more traditional academic courses, in order to more quickly respond to local needs (OECD, 2014c). Community colleges are also represented on Workforce Investment Boards (WIBs) in the United States, thereby helping to strengthen connections with employment services, economic development agencies, as well as local employers, who make up the majority of membership (Box 33).

Box 33. Integrating employment and economic development at the local level

In the United States, since 1998 local workforce investment boards (WIBs) have played an important role in creating more integrated strategies to address employment and skills within broader economic development strategies. There are over 600 WIBs across the United States, at the state and local level, and they are strongly business-led, being both chaired by business and having a majority of business members (at least 51% of board membership must be employers). Each local workforce investment area is governed by such a board, which is responsible for providing employment and training services within a specific geographic area.

The WIBs administer the Workforce Investment Act (now reauthorised under the 2013 Workforce Innovation and Opportunity Act) services as designated by the governor and within the regulations of the federal statute and US Department of Labor guidelines. There are also designated seats for representatives from labour unions and local educational institutions, with economic development officials sitting on the boards in many states. While performance of the boards varies, in some areas they have developed strong integrated strategies which bridge across employment, skills and economic development. The local WIBs are typically an extension of a local government unit, which in most cases is the county government and can include more than one government entity. They are not agencies of the federal or state governments, and the staff is not comprised of federal or state employees. Local WIBs hire staff to administer the programmes. The actual delivery of services is contracted out to intermediaries, which include other public agencies (government agencies and educational institutions) and to non-government (non-profit and for-profit) organisations.

Source: OECD (2014c), *Employment and Skills Strategies in the United States*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264209398-en.

Stronger collaboration between the government and the private sector will be critical to the success of the new dual VET system

The dual VET system is being expanded, but student participation is still relatively low. With the Royal Decree 1529/2012, Spain introduced a dual VET system, which combines training in the classroom with work experience in firms (MECD, 2012). In 2014 there were 9 555 students, 375 educational institutions and 1 570 companies involved. However, there are still relatively few participants, reaching only about 2% of the student population (in Germany it is around 60%).

The quality of the dual VET system depends to a great extent on the quality of partnership between VET institutes and companies. There are at least four different partnership arrangements for VET in Spain:

- The entirety of training takes place in the VET institute, while the enterprise supports it through providing space, equipment and experts for the training modules (28%).
- Certain modules are taught in the enterprise that complement those are taught by the VET institute (11%).

- Training is shared between the VET institute and the enterprise, and both collaborate in the instruction (57%).
- Training is provided entirely in the enterprise, following the regulations of article 18.4 on the contract of training and learning – contrato de formación y aprendizaje) (4%).

The diversity of these VET partnership arrangements shows that there is no unified or standard form. This makes quality control and the comparability of students' learning experience across the different approaches difficult. Formalising and regulating partnership arrangements would be a first step for ensuring that the substance and quality does not differ too greatly across different partnership arrangements. Greater consistency would also help employers to assess the credentials against their own skill needs, thereby improving matches.

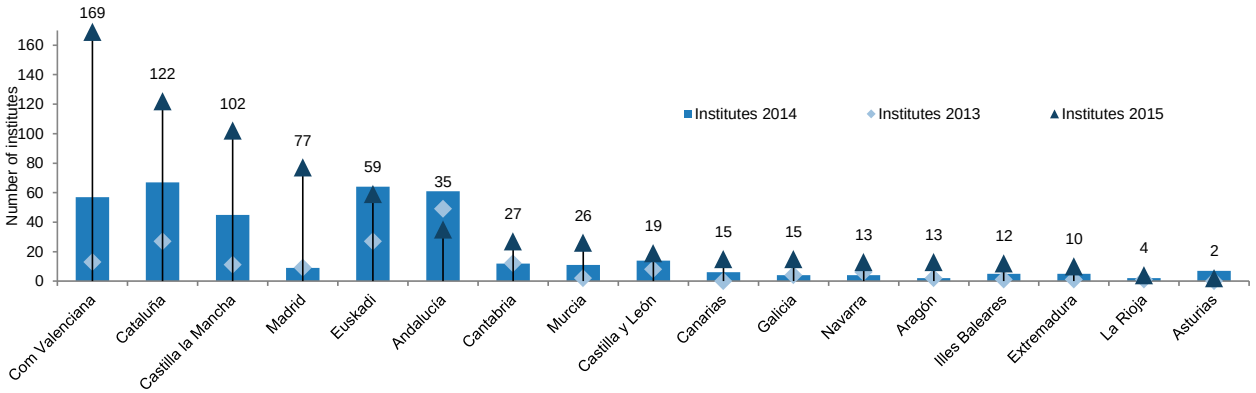
As the dual VET system expands, equitable access across all regions needs to be ensured. Currently, the numbers of student participating in dual VET vary greatly across regions. While the average number of students across all regions is 562 (Table 3), students in Andalusia (2 562) and Catalonia (2 545) alone make up more than half of the total number of VET students. Other regions such as la Rioja (24), Aragon (33) and Galicia (61) have very modest numbers of students. Similar patterns can be observed with respect to the distribution of dual VET institutes and the companies. While some regions, such as Castile-La Mancha (500) and Catalonia (226), have started to co-operate with many enterprises others, such as Extremadura (6), La Rioja (8) and Aragon (14), collaborate with a very limited number of enterprises (Figures 93 and 94). Although the total number of students, institutions and participating enterprises has risen steadily from 2013 to 2014, the increase has been uneven. Closer examination is needed of how some of the more successful regions (such as Castile-La Mancha, where the number of participating enterprises increased from around 16 to 500 within one year) have been able to obtain strong support from the business community (MECD, 2014). Peer learning and the sharing of best practices can help to strengthen partnership arrangements across all of Spain. Strong partnership with enterprises is critical, as the number of students cannot rise without the number of participating companies rising concurrently to absorb them.

Table 3. Distribution of dual VET students across regions 2013-15

Autonomous Communities	Students 2013	Students 2014	Students 2015
Andalucía	2,335	2,562	528
Aragón	49	33	85
Asturias	0	103	70
Illes Baleares	5	109	211
Canarias	0	183	885
Cantabria	100	212	450
Castilla la Mancha	269	1,491	1,629
Castilla y León	75	234	210
Cataluña	500	2,545	3,718
Extremadura	15	85	120
Euskadi	126	175	406
Galicia	15	61	243
Madrid	516	725	3,991
Murcia	30	184	489
Navarra	86	79	512
La Rioja	11	24	57
Comunidad Valenciana	160	750	2,595
TOTAL	4,292	9,555	16,199

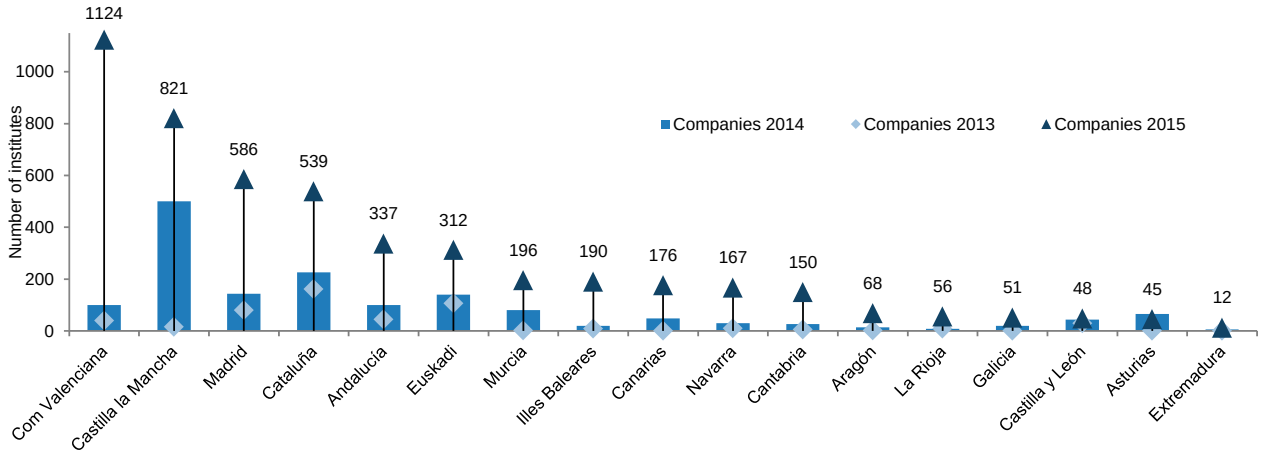
Source: Ministerio de Educación, Cultura y Deporte (2014), "Datos de la Formación Profesional Dual del curso 2013-2014", www.mecd.gob.es/prensa-mecd/dms/mecd/prensa-mecd/actualidad/2014/01/20140113-fpdual-bankia/datos-fpdual-2013-14.pdf; 2014-15 data provided by the Ministry of Education, Spain.

Figure 93. Distribution of dual VET institutes across regions, 2013-15



Source: Ministerio de Educación, Cultura y Deporte (MECD) (2014), "Datos de la Formación Profesional Dual del curso 2013-2014", www.mecd.gob.es/prensa-mecd/dms/mecd/prensa-mecd/actualidad/2014/01/20140113-fpdual-bankia/datos-fpdual-2013-14.pdf.

Figure 94. Distribution of companies providing dual VET across regions 2013-15



Source: Ministerio de Educación, Cultura y Deporte (MECD) (2014), "Datos de la Formación Profesional Dual del curso 2013-2014", www.mecd.gob.es/prensa-mecd/dms/mecd/prensa-mecd/actualidad/2014/01/20140113-fpdual-bankia/datos-fpdual-2013-14.pdf.

Spain can learn from what other countries are doing to leverage partnerships to increase participation in dual VET. In Germany, social partners are closely involved in developing and updating apprenticeship training plans. The Economic Chambers provide advisory services to participating firms, monitor training and carry out final exams that are then formally recognised by the Ministry of Economic Affairs and Technology (Hoeckel and Schwartz, 2010). In the United States, the Registered Apprenticeship system is an industry-sponsored system that, in collaboration with the Department of Labour, supports the design and delivery of training to meet the specific needs of employers (OECD, 2014d). The Chamber of Commerce in Spain has convened a broad range of stakeholders and identified key factors to improve participation in the dual VET system (Box 34).

Box 34. Key factors for strong partnerships in the Spanish dual VET system

As highlighted during the dual VET seminar organised by the Chamber of Commerce on 24 February 2015, Madrid, there are five factors that are important for the successful implementation of dual VET in Spain:

1. formal agreements between enterprises and training institute, especially with regards to the participation of the enterprise in the design of the training programme;
2. training of the tutors that instruct the students;
3. certification of knowledge, ability and skills;
4. evaluation of the dual VET system;
5. alternative dual VET programmes for SMEs taking into account their specific needs and constraints.

In general, education institutes and companies must reach a consensus on the terminology used, so that they communicate effectively with one another. There needs to be consensus on the curriculum that is being taught, so that the training meets the needs of the enterprise. A common framework for dual VET, encompassing such matters as partnerships, the evaluation of training quality, the preparation of students before coming to the company and the training of tutors among others, should guide practice in all regions in order to ensure equitable implementation. The seminar summary report includes a recommendation that a third independent party such as the Chamber of Commerce or ANECA could play an intermediary role or provide external quality control.

Source: Chamber of Commerce (2015), "Conclusiones Seminario Factores de Éxito de la Formación Profesional Dual".

Co-operation between governments and social partners is needed to raise the quantity and quality of workplace training

A successful partnership for training in workplaces is critical for Spain. A tripartite agreement between the central government, employers' associations (CEOE and CEPYME) and labour unions (UGT, CCOO and CIG) was established in 1992 to support the training of both the employed and unemployed. Funds came from employer and labour contributions plus central government revenues. In 2014 alone 471 590 companies provided training, which was a significant increase from 2005 when only 63 449 companies did so. A total of EUR 951 million were spent on training in 2014, which was a substantial decrease from the EUR 1 545 million spent on training in 2010 (Fundación Tripartita, 2014). Employers' associations, inter-sectorial self-employed associations, individual training centres and labour unions could submit training proposals and apply for this funding. However, significant problems emerged, including: a lack of strategic long-term planning, low quality and relevance of training courses, fraudulent management of funding, and overall inefficiency. These problems stemmed, in part, from the conflicting interest of social partners (employer's associations and labour unions), which were at the same time acting as agents responsible for determining how training funds were to be spent and as providers of training.

As a consequence of these problems, this tripartite arrangement has recently been reformed. Royal Decree 4/2015, which was passed on 23 March 2015, provides the central government with the majority power in determining which training courses will be funded. There have been negative reactions from the employer's associations to the reform. They argue that employers are best placed to know what kind of training is most needed and, therefore, should have greater input into how funds are spent.

Further efforts are needed to strengthen co-operation among government and social partners in order to ensure an effective implementation of the reform. There is consensus among all stakeholders that the past training system was deficient. The design of the new system should take into consideration the perspectives of social partners to ensure their buy-in and support, and to avoid an erosion of trust that could lead to substantial delays and inefficient implementation of the training system.

Box 35. Spotlight on Spain: Barcelona Activa

The Barcelona City Council created in 1986 Barcelona Activa in response to the high unemployment rate over 20%, economic restructuring, closure of a number of factories and a lack of entrepreneurial initiative. Barcelona Activa acts as the Economic Promotion Counsellor of the city and works closely together with public sector bodies and private institutions – more than 370 collaboration agreements. The four service activities are i) business creation and entrepreneurship culture; ii) innovative business consolidation and growth; iii) human capital development and new employment opportunities; iv) access and improvement of employment. Some initiatives that emerged out of the partnerships are:

- Activa's "Porta 22": reference centre about new occupations and emerging and transforming sectors. The amenity is designed as an open, free-access space, aimed at people looking for new jobs, opportunities, employment orientation, and orientation about the future of professional evolution. It provides 730 new professional profiles analysed in depth through 12 multimedia interactive applications and 150 visuals; 50.000 pages of digital content; personal advice and a twice monthly activities' programme.

- Ca n'Andalet: this is the Centre where all the activities linked to training and skills development are designed and partially developed by Barcelona Activa. It is the reference in the improvement of knowledge and professional skills in the city. The centre offers various services, including: vocational training aimed at upgrading the skills of the low qualified and the unemployed; training in new technologies and business management; and professional certification. This training centre is now specialised in training on the personal services sector, one of the emerging sectors in the city.

- Cibernarium: hosted by the technology park, the Cibernarium was born in co-operation with Cité de Sciences of Paris. It is the centre for digital diffusion and literacy that aims at disseminating the new opportunities that knowledge society and, particularly, the new technologies offer to the personal and professional development of students, jobseekers and enterprises. The Cibernarium trains the population in the use and utility of the information and communication technologies.

Source: OECD (2009), *Promoting Entrepreneurship, Employment and Business Competitiveness: The Experience of Barcelona*, www.oecd.org/cfe/leed/43505170.pdf.

Collaboration and co-operation among firms can also help to increase workplace skills development. Given the large number of micro and small enterprises in Spain, inter-firm collaboration in training may be an effective way to share the cost of training that is responsive to their specific needs. Formal arrangements for dialogue across firms and sectors can be an important step towards developing collaborative training arrangements that increase both the quantity and quality of training by firms, especially SMEs. Box 35 provides an example of a partnership among employers in Barcelona, while Box 36 provides an example from Ireland.

Box 36. Ireland: Building partnerships among employers to better align skills development opportunities with the world of work

Skillnets was established in 1999 to promote and facilitate workplace training and upskilling by SMEs. It is the largest organisation supporting workplace training in Ireland. In 2011, it had 70 operational networks through which it trained over 40 000 people for a total expenditure of EUR 25 million. It is a state-funded, enterprise-led body that co-invests with enterprises, particularly SMEs, when they co-operate in networks to identify and deliver training suited to their workforces. A network of SMEs, which are mostly sectoral or regional, is guided by a steering group of the local enterprise representatives. The steering group gives strategic direction and guidance to a network manager who co-ordinates all operational activity leading to the delivery of an agreed training plan with learning interventions suited for the member company workforces. The national programme is co-ordinated by Skillnets Ltd, who contract with all networks and provide programme support and monitoring to ensure the delivery of agreed quantitative and qualitative target outputs.

In 2011, these networks were predominantly sectoral, with a national remit and company membership. However 30 of the networks were located in Dublin. In addition, 25% of all Skillnets member companies and 33% of trainees were Dublin-based. While Skillnets has a national impact, its influence is largely confined to SMEs which account for 94% of its 10 000 member companies. Although it was originally set up to cater exclusively for the employed, since 2010 Skillnets has had a mandate to include the provision of training for jobseekers. This happens both in an integrated manner (with jobseekers attending programmes with employees), and also through the provision of dedicated longer-term programmes exclusively for the unemployed (e.g. the Jobseeker Support Programme) which includes work placement. Skillnets has also launched a pilot training initiative, Management Works, providing management training to the SME community with a key focus on owner-managers.

Source: OECD (2014b), *Employment and Skills Strategies in Ireland*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264207912-en.

Private employment placement agencies need careful monitoring to ensure the quality and efficiency of their services

Partnerships between PES and private placement agencies are becoming increasingly important in Spain. On 17 June 2014, a new framework agreement was introduced that guides the development of public-private partnerships between the public employment services and private placement agencies (*agencias de colocación*). The agreement provides these agencies with a greater role in the provision of labour market activation services. Eighty agencies (MEYSS, 2014) have been pre-selected for eligibility for contracts with participating regional public employment services (all except Catalonia, Andalusia and Basque Country). This framework is an important first step for ensuring common practices and quality standards across regions.

Private employment services need to be carefully monitored. While the intent is to improve cost-effectiveness, there is a risk that private enterprises will 'cream-skim' (Challenge 5) the best of the unemployed and/or provide only the minimum amount of service to place an unemployed person in a job. The former might imply dead-weight losses (i.e. the provision of service to someone who would have had a high probability of being employed even without that service) and the latter substitution effects (i.e. the substitution of one employed person receiving a service or incentive with another who is not (Challenge 6). Therefore, the incentive structure of such partnerships needs to be carefully designed and monitored (Finn, 2011).

Competition among private deliverers of services can create a disincentive to placement agencies collaborating and sharing best practices amongst themselves. The national PES or another third party could play an important role in identifying and promoting the most effective initiatives. Performance measures – such as service quality and the long-term outcomes for the unemployed – should inform government decisions to renew contracts with private service providers.

Partnerships can help support the identification of current and future skills needs

Systems to identify current and future skills needs are critical for a successful skills system in Spain. Many countries have systems in place to identify current or future skills needs in the form of vacancy surveys, skills mismatch studies, occupational forecasts, foresight exercises and other means. While a range of information on skills needs is available in Spain, there are important information gaps and shortcomings in the dissemination and tailoring of information to the needs of specific user groups (Challenge 9).

Strong partnerships between government and stakeholders are essential to aid in the identification of current and future skill needs. Stakeholders hold important information about current and anticipated skills needs. Yet they are rarely involved in the assessment of skills needs in Spain. Several countries have developed mechanisms to facilitate stakeholder input in these exercises. These include involving stakeholders in the advisory boards of key agencies (e.g. Denmark, Finland, Norway, Wallonia/Belgium) or actively involving them through thematic workshops (e.g. Canada, Norway). Some countries have used the development of national skills strategies as a means to facilitate dialogue on skills needs across (e.g. Austria, Germany, Korea, Ireland, Switzerland or the United States). Box 37 describes how to build successful locally-based partnerships.

Box 37. How to build successful locally-based partnerships?

A locally based partnership is usually designed to bring together all relevant actors within a region to address a specific issue within a community and/or improve its overall economic wellbeing. However, bringing together all relevant actors is not an easy task. It implies having around one table not only different government institutions (usually of different levels), but also social partners, employers, NGOs, training institutions, and representatives of civil society. Whatever the reason to set up a partnership, there are certain factors to bear in mind:

- Organisational structure: To be efficient, a partnership should have recognisable and autonomous structure to help establish its identity. The structure should have stability and permanence as well as flexibility, and the credibility which derives from a certain independence from political influence. It is also important to review lines of communication to ensure that all partners are kept informed and involved. Equity should be a guiding principle in building a partnership, as should (for many partnerships) a "bottom-up" structure. Sufficient human and financial resources are also needed.

- Preparation: Preparatory work is crucial for developing a steady and effective partnership. Careful research into the context in which the partnership will be operating must be part of this phase. The strengths and weaknesses of the area should be assessed and effective measures designed. One of the most important aspects of this phase is to identify the right partners and establish clear roles for each.

- Work plan: Partnerships need to develop a long-term strategy if they are to work effectively and have a lasting effect. For area based partnerships, this strategy should include a vision for the region, focusing on the outcome to be achieved, an action plan identifying shorter-term priorities, and a co-ordinated working programme including activities and measures that will contribute to the achievement of long-term outcomes. The work programme should indicate the interests and targets of all partners and include activities and measures that will contribute to the improvement of the territory.

- Implementation: In this phase partners are in regular contact to co-ordinate implementation, to extend and supplement the working programme with new measures, and in some cases to test new approaches. Public relations activities should inform the wider public of the targets, activities and measures of the partnership.

- Monitoring: To assess a partnership's achievements, determine improvements to be made and adapt further planning, a comprehensive monitoring system should be used. A partnership should be evaluated periodically and should publish reports to demonstrate the added value of its work.

Source: Adapted from OECD (2006), *Successful partnerships: A guide*, www.oecd.org/cfe/leed/36279186.pdf.

Partnerships between universities and enterprises can facilitate knowledge generation and transfer

The mobility of teaching and research personnel (*Personal Docente Investigador* - PDI) between universities and businesses is critical for strong partnerships. Greater mobility would benefit the individual by supporting the acquisition of skills and experiences, but also the enterprise, which, with support of trained researchers and the universities, could obtain and commercialise new knowledge in the forms of new or improved goods and services. The Law of Science, Technology and Innovation (Jefatura del Estado, 2011) recognises the importance of the mobility of researchers and introduces regulations that govern such movements. This legislation permits university personnel to work in the private sector for up to 5 years, but also requires that they subsequently return to the university for at least 2 years. However, the decision as to whether university personnel are permitted to work in the private sector lies with the university.

In practice, few professors and researchers spend time in the private sector. A qualitative study conducted by REDFUE (Rubio de las Alas-Pumariño, 2014; Box 38) finds that the most important barriers to mobility between universities and the private sector are legal issues stemming from employment contracts, expected workloads, and a lack of interest on the part of both enterprises and researchers. Additionally, many university personnel lack certain knowledge and skills that are important for success in the private sector. These include knowledge and skills relating to working with investors, negotiating, managing innovation, managing human and other resource, and administration. Additionally, there are insufficient incentives for university personnel to work for spells in the private sector. For example, only after having already passed one traditional evaluation cycle (*sexenio*), where they are evaluated based on the number of publications produced, is staff eligible to be evaluated in subsequent cycles on a broader range or criteria, including the number of patents produced (MECD, 2012). To increase mobility, universities could revise promotion practices, permit staff to benefit financially from the technology transfer to companies, provide staff with time or reduce their teaching load in order to launch companies and license their technology (Rubio de las Alas-Pumariño, 2014).

A number of mechanisms exist for facilitating knowledge transfer between universities and business, but important barriers to co-operation remain. Knowledge and research can be transferred through a research contract between universities and businesses, which can be funded either by the business or through public funds from the European Union, the national or regional government. Some universities in Spain have special units that support researchers in licensing their patents to companies, but only few universities provide the resources to help researchers with funding to get their inventions patented. Most Spanish universities encourage entrepreneurship and promote spin-offs. Despite these arrangements, REDFUE (Rubio de las Alas-Pumariño, 2014) finds that there are a number of barriers to knowledge and research transfer, including: insufficient awareness of patent rights among researchers; the scarcity of applied research in universities and, therefore, a lack relevance to many businesses; and a lack of seed funding to develop initial research findings into marketable products.

Box 38. Spotlight on Spain: strong partnerships between universities and companies in Spain

The University-Enterprise Foundations Network (*Red Española de Fundaciones Universidad Empresa,* REDFUE) is a private non-profit organisation created in 1997 to promote better relations between universities and enterprises in Spain. The network includes about 45 Spanish universities and over 15 000 other organisations ranging from companies, entrepreneurial associations, financial institutions, chambers of commerce, and several local or regional governments. They have organised around 41 000 internships in companies for university students since 2011 and have on average about 2 500 technology transfer projects.

Source: Red Española de Fundaciones Universidad Empresa, www.redfue.es.

Summary and policy implications

Effective partnerships are critical for strengthening the effectiveness and efficiency of skills policies. Collaboration between government and stakeholders is also needed to ensure that skills policies are aligned with the needs of the economy and society. This requires mechanisms to support communication between government and relevant stakeholders and among various stakeholders.

In Spain, governments work with the private sector on a number of issues of mutual interest. For example, the private sector provides work placement opportunities for VET graduates. The government has traditionally worked closely with employer's associations and unions in a tripartite training arrangement, but this arrangement has since been reformed in a way that makes the government a more powerful member of the partnership. While the reforms addressed very real shortcomings in the previous agreements, the government will need to ensure that employers and unions continue to be actively engaged in the planning and design of training programmes.

Generally, however, there are few formal partnership arrangements for facilitating dialogue and co-operation between governments and stakeholders on skills-related issues. For example, the private sector is not actively engaged to provide input into decisions related to seat allocation and course design of tertiary education programmes. There are also no formal on-going mechanisms to facilitate dialogue and co-operation between universities and the private sector. This lack of collaboration may come at the cost of a poor alignment between the skills being developed in education and training and the skills needed in the economy. This is a missed opportunity to leverage universities and researchers to support increased innovation.

In the workshops that led to the preparation of this report, many stakeholders mentioned that it was the first time that many of them had sat down together and with governments to discuss skills issues more strategically. **Sustaining this dialogue and transforming it into co-ordinated action will be critical for addressing the skills challenges set out in this report.**

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CHALLENGE 11: FINANCING A MORE EFFECTIVE AND EFFICIENT SKILLS SYSTEM

A selection of challenges identified by Spanish workshop participants:

"A more balanced funding formula is needed to support more the programmes that are needed in the labour market"

"Funding mechanisms should support diverse institutions and not only certain types of institutions"

"Funding streams from the public and private sector should complement each other"

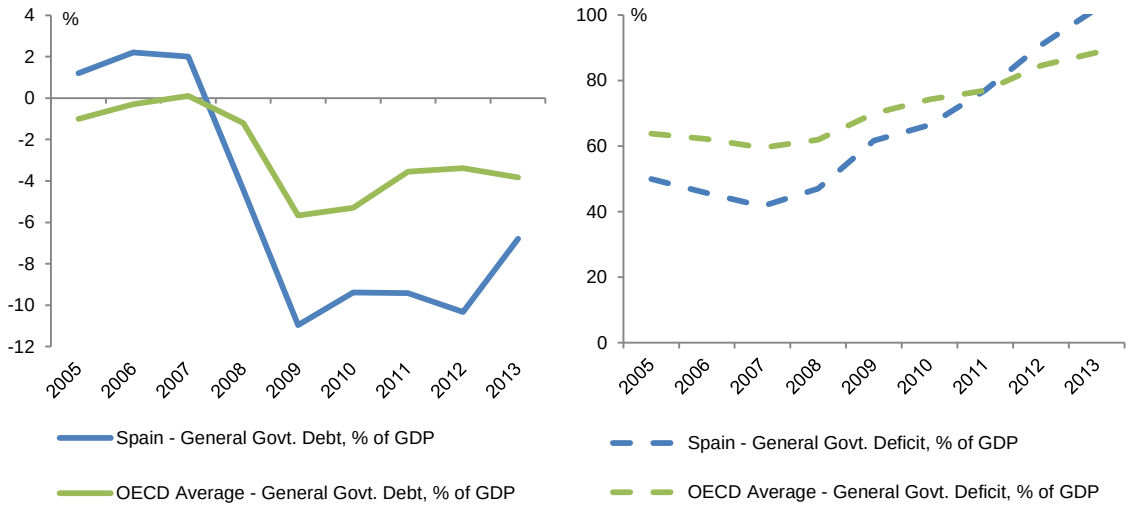
"Resource management in educational institutions needs to be improved with better strategic planning and optimisation of available resources"

How skills investments are financed has a major impact on the effectiveness and efficiency of skills policies. Government spending and taxation policies can create incentives or disincentives for the development, activation and effective use of skills. As beneficiaries of investments in skills, individuals, employers and social partners also have a key role to play in the financing of skills investments. In the context of continuing fiscal prudence and the budgetary pressures associated with unemployment and an ageing population, it is essential that policies for financing skills be calibrated to maximise the effectiveness and efficiency of those investments.

Financing skills investments is challenging in the context of high public debt

Financing new public investments in skills is challenging given Spain's high levels of public debt and large budget deficits (Figure 95). Significant fiscal consolidation efforts from Spain must continue under its EU commitments. Hence Spain's fiscal situation will remain tight in coming years and new educational spending by the State will be difficult to finance, or must be financed by offsetting reductions in spending elsewhere.

Figure 95. General government debt and deficit in Spain compared to OECD averages, % of GDP

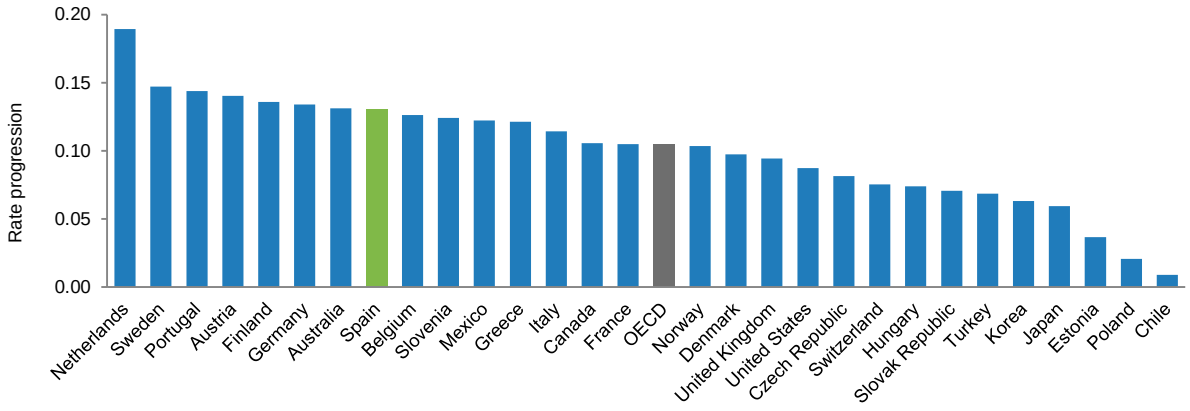


Source: OECD (2015a), General government deficit (indicator), http://dx.doi.org/10.1787/77079edb-en (Accessed on 25 April 2015); OECD (2015b), General government deficit (indicator), http://dx.doi.org/10.1787/77079edb-en (Accessed on 25 April 2015). OECD Average is weighted.

The returns to investments in Skills are high, both for the individual and for the government. Highly skilled individuals enjoy a sizable wage premium in Spain and it should continue to be high as skilled labour comes to play an increasingly important role in the international labour market. These returns accrue to the individual in terms of higher wages, higher standards of living, better job opportunities, financial security and better employment prospects over their lives. However these returns also accrue to the government in terms of higher income tax revenue from higher wages, higher indirect tax revenue from increased spending, and lower public expenditure on unemployment benefits from increased employment.

A central determinant of how the returns to skills in the form of higher wages are divided between the state and the individual is the tax system. In Spain, as workers earn more, the Spanish government receives tax revenue at a steadily rising rate; Spain has one of the most progressive tax systems in the OECD (Figure 96). This means that a large fraction of the returns to skills, as earned by workers in the form of wage premiums, will actually accrue to the Spanish government in the form of tax revenue. Just as investment in roads, broadband or other public works yields benefits back to the government in the form of higher economic output, so investment in human capital yields returns for the government in the form of higher personal income tax receipts.

Figure 96. Average Personal Income Tax (PIT) rate progression, 50-200% of the average wage, 2012

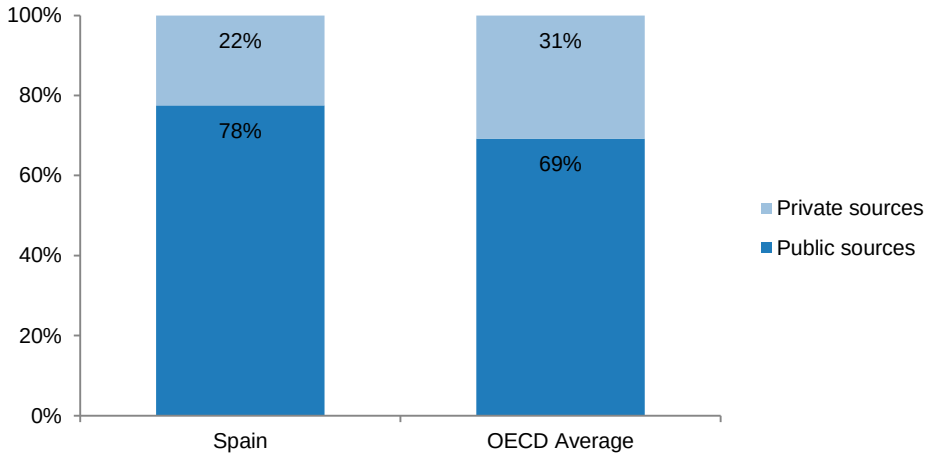


Source: OECD (2013), "Overall average PIT rate progression, standard deviation across income intervals, single taxpayer, no children", in OECD, *Taxing Wages 2013*, http://dx.doi.org/10.1787/888932783743. Data are from 2012. This graph shows overall average PIT rate progression from 50% of the Average Wage to 200% of the Average Wages, for single taxpayers with no children.

Skills investments in Spain are primarily financed by the public sector

The private share of expenditures on tertiary education in Spain is smaller than the OECD average. In 2011 the private share of expenditures on tertiary education was 23% in Spain as compared to an OECD average of 31% (OECD, 2014a; Figure 97). This suggests that increased private financing of skill expenditure could be an attractive option for Spain to boost skill investment, especially given the potentially high returns to increased investment in skills and the constraints on public finances. This could come in the form of increased financing by firms, individuals or other entities.

Figure 97. Relative proportions of public and private expenditures on tertiary education, 2011



Source: OECD (2014a), *Education at a Glance 2014: OECD Indicators*, Table B3.1, http://dx.doi.org/10.1787/eag-2014-en.

Faced with the high and rising costs of tertiary education, many countries charge comparatively higher tuition fees and encourage contributions from other private sources. Revenues from higher tuition fees can allow tertiary institutions to increase investments in teaching, resources, technology and infrastructure that could improve learning quality. As noted in challenge 2, small increases in tuition may be manageable for students without needing to resort to debt. Higher tuition fees might also encourage students to choose programmes of study that are in high demand in the labour market, since students will have an incentive to investigate whether their chosen field of study will provide them with a good return on their investment and, if applicable, permit them to repay their loan upon graduation. However, this would need to be complemented with good learning and labour market information (Challenge 9) and guidance support (Challenge 6) to ensure that students understand the potential returns to study in different fields. Private contributions can also be increased by encouraging private sector donations to, or sponsorship of, tertiary institutions and faculties (e.g. donations of equipment, capital investments, etc.) in exchange for formal recognition of their support.

Box 39. Study grants in Spain

In Spain, tertiary students are eligible for study grants contingent upon their parents' income and their academic performance. Currently, around 20% of our university students receive such grants. Students are required to demonstrate a minimum academic performance to access and maintain the grants. Around a third of university students lose their grants after the first year because they have not met this minimum requirement. The purpose of this requirement is to incentivise higher performance. In addition to national grants, most regional governments provide supplementary grants such as funds to purchase books or support for transportation.

In Spain, the national budget for grants has increased from EUR 1 138 225 600 in 2012 to EUR 1 413 524 600 2015 in 2015. Due to the large increase of eligible university students, the average amount per university student has slightly decreased.

Source: MINHAP (2012), "Presupuestos Generales del Estado 2012"; MINHAP (2015), "Presupuestos Generales del Estado 2015"; MECD (2015), "Datos y Cifras del sistema universitario español: Curso 2014-2015", MECD (2012), "Real Decreto 1000/2012, de 29 de junio", Boletín Oficial del Estado, No. 160, Jueves 5 de julio de 2012, www.boe.es/boe/dias/2012/07/05/pdfs/BOE-A-2012-9007.pdf.

The tax system could do more to incentivise increased private financing of skills development

The tax system can provide incentives to encourage private skill financing, and may be used to "crowd-in" private funding. In the presence of certain tax provisions, employers, educational institutions, parents, and individual workers may be incentivised to increase the amount of educational spending they undertake.

In Spain, the personal income tax system provides only modest benefits to private skill financing of education. In most OECD countries, tax relief is offered to workers who finance part of their continuing education (Torres, 2012). This can occur either by deducting the value of skill expenditure from taxable income (a tax allowance) or from the tax bill itself (a tax credit). Spain offers no such provisions at the national level; though some regional governments (such as the Canary Islands) do have such provisions. This is due, in part, to the fact that most continuing education is financed by the government, so direct costs to the individual are usually low. Nonetheless, introducing tax relief for private skill expenditures, especially for continuing education, could encourage upskilling by individuals.

Such tax reliefs for skill expenditures need to be carefully designed to be effective and provide value for money. First, it is important that tax relief finances genuinely private spending on skills that will improve the productivity of the worker in the labour market; otherwise, students may earn tax relief for education even if they do not really bear its costs or has been undertaken for consumption rather than investment purposes (i.e. courses taken for personal enjoyment rather than for employment-related reasons).

Second, it is important that the benefits of these provisions are spread equally across the population. Tax allowances, in reducing the size of the tax base, provide most benefits to those who have large tax liabilities in the first place - often those on higher incomes. Refundable tax credits for skill expenditures can avoid these problems by making tax benefits equally available to those with large tax liabilities and those who earn less and therefore pay lower taxes.

Tax relief for scholarship income can be another way of encouraging an important source of skill financing in many OECD countries. Many OECD countries incentivise the granting of scholarship income by making this income tax exempt. In Spain, however, only public scholarships are tax exempt. This may discourage the provision of scholarships from private parties. Making scholarship income tax exempt could increase the level of education financing in Spain from private foundations, private universities and so on. Again, design issues are important; the scholarship income must be genuine scholarship income, not other income disguised as a scholarship. Many OECD countries prohibit employers from offering scholarship income to their employees for exactly this purpose.

The exemptions for public scholarship income are comparatively modest in Spain. The exemptions are capped at EUR 3 000 per year, rising to a maximum of EUR 15 000 per year if the grant/scholarship is intended to compensate travel and lodging expenses for conducting formal studies up to the second university cycle. In the case of studies abroad, this amount increases to a maximum of EUR 18 000 per year. However these caps may not fully encompass the costs of education for a given student. Some OECD countries (such as the United States) cap exempt scholarship income at the level of demonstrated educational expenses (tuition fees, books and materials, and so on). As educational expenses rise, so too does the amount of scholarship income that is tax-exempt.

The tax system can also be used to encourage increased employer investment in skills. In Spain, employment contracts to train young people (16 to 24 years old) with no qualifications receive a 100% exemption from employers' social security contributions throughout the employment contract period (6 to 24 months, and up to 48 months in case of disabled workers). Conversion of these training employment contracts into permanent employment sees the employer receive an employer social security contribution rebate of EUR 500 (EUR 700 in case of women). This policy should be evaluated for its effectiveness and possibly extended. If it is effective, it could be extended to other at-risk demographics, to workers with out-dated or poor qualifications (not just those with no qualifications), and by expanding the rebates.

The tax system could be improved to increase employment in the formal economy

Labour taxation finances a significant part of the government in Spain. Spain raises 58% of its total revenue from taxes that fall on labour income, as compared with an OECD average of 51%. Thirty-six percent of total government revenue comes from social security contributions, in contrast to an OECD average of 27%. These figures make reform challenging from a fiscal sustainability perspective; encouraging skill activation through tax reductions on labour will require tax increases elsewhere. Spain has comparatively low Value-added Tax (VAT) revenues and low environmental tax revenues; there is thus potential to shift the tax mix in this direction to reduce the tax rates on labour.

The high tax burden on labour in Spain may discourage labour market participation and increase poverty. Spain's high revenues from labour taxation are a result of comparatively high effective labour income tax rates. Effective tax rates in Spain are higher than the OECD average in every category, sometimes significantly so. As a consequence, it may be financially unattractive for some to work, leading to inactivity and poverty traps.

The personal income tax system could work better to activate those least likely to participate in the labour market. Reforms to the tax system in Spain should focus on the interactions of the tax allowances and the tax rate schedule (i.e. the rates and bands). Reforms should be carefully calibrated to ensure that marginal tax rates and wedges are lowest where activation in the labour market needs to be encouraged most: for those on low incomes, for those likely to have low levels of labour market attachment, and for those with low skills. Broadening the personal income tax base, while lowering personal income tax rates, especially those at the lower end of the income distribution, will achieve these effects.

A high tax burden on labour is also a strong disincentive for the hiring of low-skilled workers. For employers, high tax burdens on labour income are problematic when the productivity of workers is low on average, as is the case in Spain. Labour income taxes, and in particular employer social security contributions, significantly increase the costs of hiring workers for Spanish employers. Lower employer Social Security Contributions targeted at low-income workers and low-skilled workers may increase employers' incentives to hire workers who face skills and productivity deficits.

The income tax system in Spain may be increasing informality. Where the tax burden is high, workers and employers may find it financially optimal to work and hire informally to evade tax. Informality has negative fiscal consequences for the broader economy and for public finances. Workers' absence from the tax system reduces the amount of labour taxation that is raised. This necessitates higher tax rates on formal workers that may exacerbate labour market and skills problems. Informal workers may also continue to receive social benefits even though they are working, adding to the fiscal burden on the state.

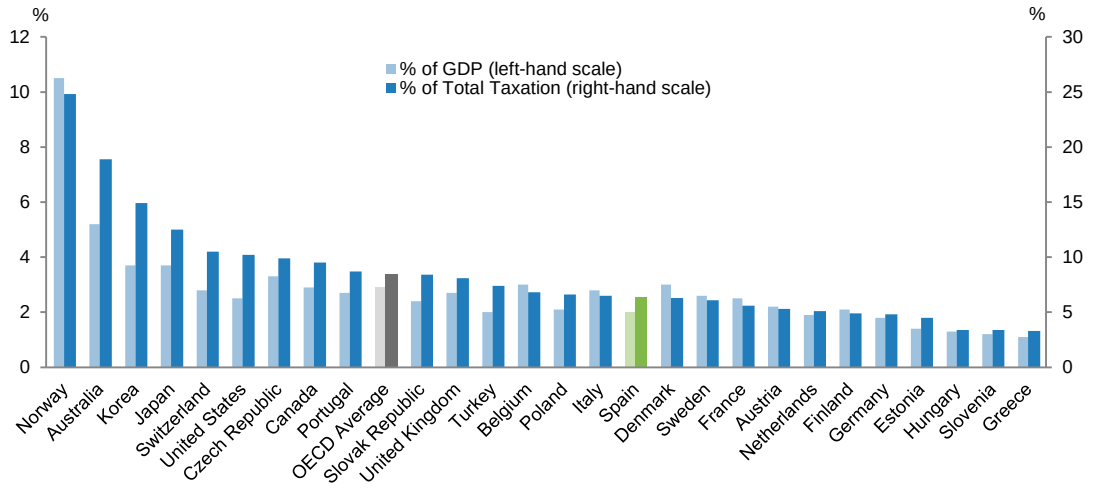
Labour taxes could be better designed to decrease informality. Reducing social security contributions in Spain may encourage many informal workers, and the employers who employ them, to regularise their status in the labour market, especially if tax administration efforts to combat tax and social security fraud is stepped up at the same time. Such regularisation may offset some of the cost to the exchequer of social security contributions or income tax reductions. Thus such these reforms may, at least in part, pay for themselves.

Corporate taxation could be better calibrated to attract investment and create jobs

The corporate income tax (CIT) system is an important policy lever in attracting high value-added FDI into Spain. In a global, knowledge-based economy, businesses are increasingly operating within global value chains and activities are shifted to locations where competitive advantages are the highest; taking advantage of benefits such as skilled labour forces, entrepreneurial skills and innovative capacity, lower taxes, lower cost bases and other comparative country advantages. OECD analysis (OECD, 2010) has found that the CIT rate is the most distortive tax from an economic growth perspective. As governments are tightening international tax rules to prevent artificial profit shifting and base erosion, it is expected that investment will become even more sensitive to effective corporate tax rates. In light of these challenges, Spain has lowered its statutory CIT rate from 30% in 2014 to 28% in 2015. The rate will be decreased further to 25% in 2016, which is about the average CIT rate in the OECD.

Spain's corporate tax system has a comparatively narrow tax base. There is a generous R&D tax credit and a tax credit for the maintenance of employment. Businesses may also deduct up to 10% of earnings that are retained within the corporation from their corporate tax base. These tax subsidies narrow the base and significantly reduce the effective CIT rate below the statutory rate of 25%. These subsidies are, however, not directly targeted at strengthening the skills of the Spanish labour force. Another downside of the current wide variety of deductions and credits available is that corporate income tax revenues in Spain are low by OECD standards, both as a share of the tax mix and as a share of GDP (Figure 98). If Spain were to introduce CIT provisions that would be targeted directly at strengthening skills it may well have to finance these measures by abolishing other, and possibly less efficient, corporate income tax subsidies.

Figure 98. Corporate income tax revenues, % of GDP and total taxation, 2011

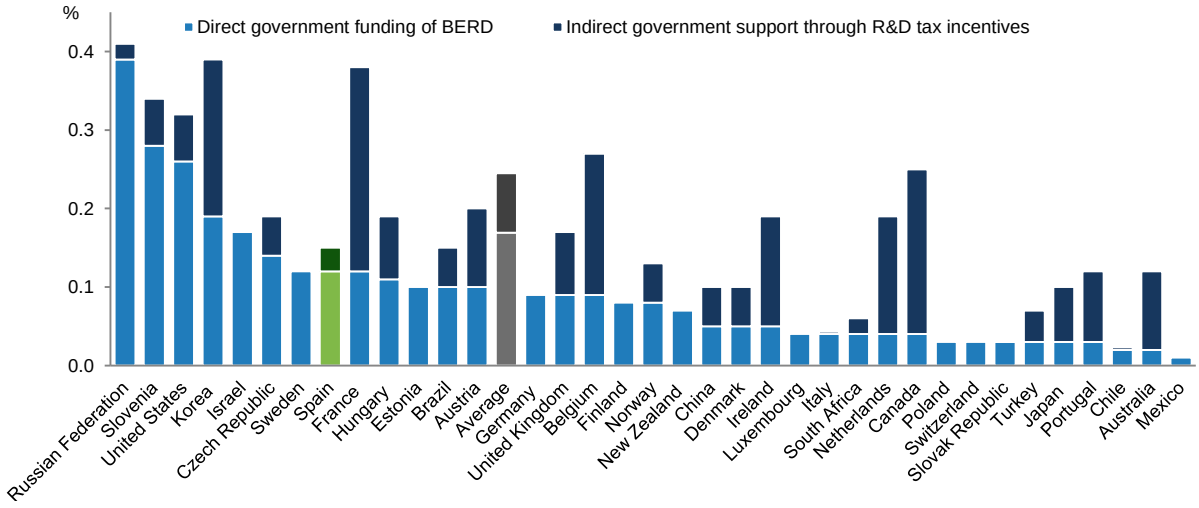


Source: OECD (2014d), "Tax revenue trends, 1965-2013", in OECD, *Revenue Statistics 2014*, http://dx.doi.org/10.1787/rev_stats-2014-4-en-fr. Data are from 2011. OECD Average is unweighted.

The taxation of knowledge-based capital and R&D could be better designed to encourage innovation and growth

Although R&D subsidy levels by the Spanish government are above the OECD average, R&D activity in Spain is below OECD average. Spain implements one of the OECD's most generous R&D and technological innovation tax credits. However, take-up of the credit is relatively low as is illustrated by the height of the light green bar in Figure 99. An evaluation of the expenditure rules and R&D tax credit in Spain, and especially how its design could be improved in order to encourage Spanish businesses to innovate more, could be timely. More could be done to improve awareness of these R&D opportunities in Spain, especially among foreign investors. It is also important to ensure that the R&D tax credits do not disproportionately benefit large companies and that smaller firms do not face significant administrative barriers (e.g. cumbersome application procedures to access R&D tax credits).

Figure 99. Direct government funding of business R&D (BERD) and R&D tax incentives, 2011



Source: OECD (2013a), "Direct government funding of business R&D and tax incentives for R&D, 2011", in OECD, *OECD Science, Technology and Industry Scoreboard 2013: Innovation for Growth*, http://dx.doi.org/10.1787/888932891112.

It is essential to get the framework conditions right. Creating propitious framework conditions can be a low-cost step for policy makers in fiscal terms. These framework conditions go beyond skills policies. Countries in which businesses invest more in R&D and KBC are those that reallocate resources to innovative firms more effectively. For instance, as a share of gross domestic product (GDP), the United States and Sweden invest about twice as much in KBC as Italy and Spain, and patenting firms in the United States and Sweden attract four times as much capital as similar firms in Italy and Spain (OECD, 2013c). Well-functioning product and labour markets are essential, as are bankruptcy laws that do not overly penalise failure (reducing the stringency of bankruptcy legislation from the highest to the average level in the OECD could raise capital flows to patenting firms by around 35%). And well-designed intellectual property rights (IPR) - an increasingly important framework condition - must be coupled with pro-competition policies and efficient judicial systems.

Good conditions for the financing of KBC-intensive firms are also needed. OECD (2013c) shows that for a sample of OECD countries and over a number of years, there is a positive correlation between aggregate business investment in KBC and the size of the venture capital sector. Countries with more developed seed and early-stage VC are also more effective at channelling capital and labour to young innovative firms. The availability of venture capital is both a determinant of entrepreneurship and a reflection of features of the population of firms in search of external finance. As shown in Table 4, total venture capital investments in Spain in 2013 were small, even relative to other economies of similar size. It is necessary to assess, therefore, the extent to which supply or demand characteristics of the equity market explain the low levels of such investment in Spain.

Table 4. Venture Capital Investments

Millions of US dollars, 2013

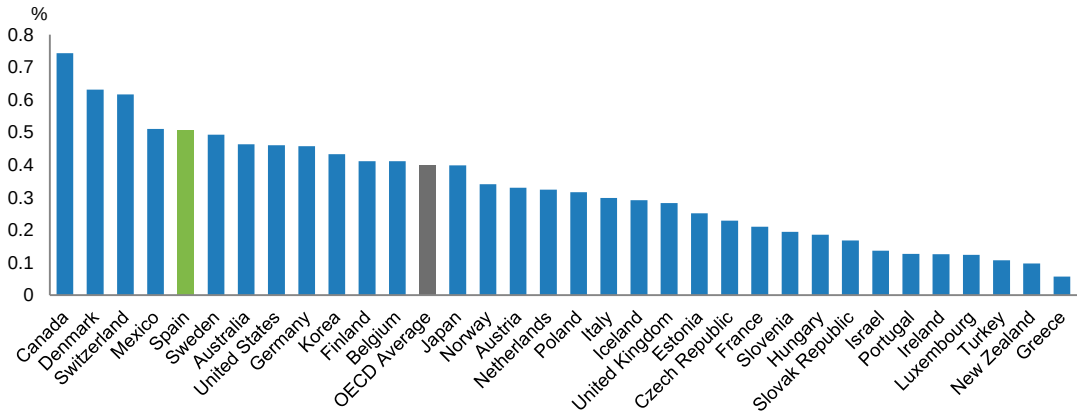
Country	Venture Capital Investments	Country	Venture Capital Investments	Country	Venture Capital Investments
Czech Republic	3.7	Austria	86.4	Sweden	307.3
Slovenia	5.3	Norway	94.6	Korea	635.5
Greece	6.4	Denmark	107.2	United Kingdom	740.4
Luxembourg	7.0	Belgium	118.8	France	902.2
Estonia	8.2	Spain	135.0	Germany	932.9
Poland	20.8	Ireland	145.5	Japan (2012)	1 284.58
New Zealand (2012)	21.7	Finland	171.0	Canada (2011)	1 406.58
Hungary	22.9	Australia	252.9	United States	29 364.96
Portugal	50.4	Netherlands	257.0		
Italy	80.7	Switzerland	260.6		

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

Public financing of skills investments need to be co-ordinated across all levels of government

The public sector in Spain has expanded in parallel to the process of decentralisation. Spain is one of the most decentralised countries in the OECD and is the country with the fastest rate of decentralisation in the last 15 years (OECD, 2014b). In 2012, expenditures by the Autonomous Communities and local administrations accounted for about half of total public expenditures in Spain (Figure 100). Expenditures on education represented 5% of GDP in 2013, while 23% of total investments by sub-national governments are made on education (OECD, 2014c).

Figure 100. Sub-national government expenditures as a share of total expenditures



Note: 2010 Canada and New Zealand; 2011 Australia, Japan, Korea, Israel, Mexico, Switzerland, Turkey and the United States. Data are not available for Chile.

Source: OECD (2013d), *Regions at a Glance 2013*, http://dx.doi.org/10.1787/reg_glance-2013-en.

Effective public investment in skills requires strong co-ordination across levels of government and policy areas. Better co-ordination can aid in the identification of investment priorities, as well as improve the management and co-ordination of joint policy competencies, thereby helping to better align objectives and avoid duplication. It also helps create trust across different levels of government and helps to ensure that adequate resources and capacities are devoted to the chosen priorities. More effective investment in skills can be achieved through well-designed and integrated investment strategies, where Autonomous Communities help targeting such strategies to their specific challenges. Regional and local variation in such matters as their job creation potential, competitive advantages and composition of the economic structure should be considered in the design of effective investment in skills. It is also important to minimise the administrative barriers to better align objectives across ministries and levels of government and exploit the potential policy complementarities of investments in education. The harmonisation of programme rules and the creation of specific inter-ministerial committees can help in this respect. Inter-governmental dialogue is only one way to improve co-ordination among levels of government. Other more formal mechanisms might include, among others, co-financing arrangements and contracts between levels of government (OECD, 2014c).

Summary and policy implications

Coming out of the recent economic recession Spain has high levels of public debt and high budget deficits. This poses the challenge of finding effective and efficient finance mechanisms to develop, activate and use skills effectively.

Spending and taxation policies should be optimised to encourage skills development, activation and use and to remove unintended disincentives for the same. Spain could do more to align government spending and taxation policies with these goals. Moderately higher tuition fees could be introduced to share the costs of tertiary education, permitting new investments that strengthen the quality and relevance of skills development. The tax system could incentivise more private spending by individuals and companies on skills. The tax system could also be better designed to incentivise firms to create jobs and individuals to supply their skills in the labour market and in the formal economy in particular.

Corporate tax income provisions that are directly targeted at strengthening the skills of the Spanish labour force could also make a difference. More could be done to ensure also that R&D tax credits are actually taken up and benefit the large number of SMEs in Spain.

Given Spain's decentralised administrative structure, financing a more efficient skills system requires an integrated strategy shared between the national and regional governments. This implies having effective mechanisms for dialogue on financing across all levels of government. It also might imply co-financing arrangements and contracts between levels of government.

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CHALLENGE 12: STRENGTHENING GOVERNANCE OF THE SKILLS SYSTEM

A selection of challenges identified by Spanish workshop participants:

"The different sectoral policies need to be better co-ordinated"

"There is a need to focus on the long-term and to build a shared vision with all regions"

"Regions differ in the conditions and opportunities they are exposed to"

"Participation among the main actors needs to be increased beyond just an exchange of information"

Given the wide range of factors that impact on skills development, activation and use, and the distribution of responsibilities for these policy areas across many ministries and all levels of government, effective governance structures are critical for policy coherence and continuity. Policy coherence and continuity are particularly important in the context of the long time horizon needed for certain skills policies – education policy for example – to bear fruit.

Effective horizontal governance is essential for policy coherence

Many ministries in Spain have an impact on the development, activation and use of skills. The Ministry of Education, Sports and Culture has responsibility for compulsory and tertiary education in Spain, as well as for aspects of the adult learning system. The Ministry of Employment and Social Affairs has responsibility for the Public Employment Service, passive and active labour market policies and programmes, and information on current skills pressures in the labour market. The Ministry of Economy and Competitiveness has responsibility for research, development and innovation policies. The Ministry of Finance and Public Administration has responsibility for developing the competences of the public service as well as for developing tax policy, which can create incentives or disincentives to the development, activation and use of skills. Indeed, there are few, if any ministries, which do not have some impact on, or interest in, skills outcomes. For this reason, the Spain Skills Strategy National team has drawn representatives from a large number of ministries, including the Ministry of Education, Sports and Culture, Ministry of Employment and Social Security, Ministry of Economy and Competitiveness, Ministry of Industry, Energy and Tourism, Ministry of Finance and Public Administration, Ministry of the Presidency, and the Economic Office of the President.

Given the great number of ministries with an impact on skills issues, horizontal collaboration and co-ordination are needed to ensure that policies are complementary and reinforcing. For example, in many countries tax policies are developed with little regard for their impact on skills formation and activation. In many countries, the two ministries with the greatest responsibilities for skills policies, those

responsible for education and labour, often have little tradition of working together. In Spain, too, there has been a tendency for ministries to take a siloed approach to the design and implementation of skills policies, focusing primarily on their areas of direct responsibility. For example, while certain vocational education training courses and pathways are certified and controlled by the Ministry of Education others are certified and controlled by the Ministry of Employment (see Challenge 1). This can cause confusion and inefficiency as employers try to make sense of the different VET certificates issued by two different ministries. Inter-ministerial commissions can address such co-ordination issues. For example, the Inter-ministerial Commission for the Implementation and Evaluation of Process of Recognizing Professional Competencies acquired through Work Experiences (*Comisión Interministerial para la evaluación y acreditación de competencias profesionales*) was created in 2011 to co-ordinate between the Ministry of Education and Ministry of Employment with regard to the evaluation and accreditation process of professional competencies (Ministerio de la Presidencia, 2011). Another example is the Inter-ministerial Commission of Science and Technology (*Comisión Interministerial de Ciencia y Tecnología, CICYT*), which was created in 1986 to plan, co-ordinate and implement the National Plan for Scientific Research, Development and Technological Innovation (EC, 2006; BOE, 2009). However, these co-ordination mechanisms typically operate at the highest level, with limited follow-up and support for day-to-day co-ordination among middle level civil servants. Administrative committees for ministries formally exist, but they tend to be limited to information sharing and the settling of jurisdictional conflicts (SGI, 2014).

A lack of funding and recognition can limit collaboration and co-ordination across different but interdependent policy areas. Collaboration across ministries consumes significant amounts of time and resources. If ministries are under pressure to deliver on their core mandates and horizontal collaboration is not acknowledged or funded, then horizontal collaboration will typically be given low priority or not occur at all. Central agencies and the government leadership, therefore, need to make clear the value they place on horizontal collaboration and back that up with appropriate funding and recognition systems. For example, ministries could be evaluated on the extent to which they actively and constructively engage in horizontal policy initiatives.

Horizontal collaboration and co-ordination at the regional level is equally important. Although structures formally exist for regional governments to interact with one another, evidence suggests that there are few formal horizontal agreements (*Convenios*) at the regional level (Box 40). Instead of multilateral agreements, bilateral agreements appear to be the norm. From 1996 to 2006, only 22 horizontal agreements were signed, most of them among neighbouring regions. During the same time period no single horizontal agreement was signed by all regions (León & Pereira, 2011). Nonetheless, there are some instances where sharing of best practice does occur. Public Employment Services from the different regions have held a few joint sessions during which they shared best practices. Similar horizontal collaboration and co-ordination mechanisms might be relevant in other policy areas such as education and innovation policies, or even across policy areas. Horizontal collaboration among the regions might help them to speak with a shared voice in discussions and negotiations with the central government, and also improve vertical co-ordination and the efficiency of the governance of Spain's skills system as a whole.

Box 40. Strengthening the role of horizontal inter-regional co-ordination

Horizontal inter-regional co-operation can make it easier to find shared positions in negotiations with the central government and thus facilitate vertical co-ordination. It can also help as a forum to exchange knowledge and best practices among regions, or to conduct shared projects or initiatives. The examples of the German Council of Prime Ministers (Ministerpräsidentenkonferenz), the Council for the Australian Federation or the Association of Regions of the Czech Republic demonstrate the advantages both for horizontal and vertical co-ordination of such institutional arrangements.

Germany: The governments of the German Länder (Länder are the German sub-national level corresponding to the autonomous communities in Spain) co-operate through the Council of Prime Ministers and 19 subject-specific standing conferences of ministers. The council/standing conferences are not part of the German government and cannot pass legislation. Nevertheless, they play an important role in the federal system. Councils have two primary functions. In policy fields where legislative powers reside with the Länder, they are the main forum for policy co-ordination across the Länder. In policy fields where the Länder have limited powers, council/conference resolutions articulate common interests of the Länder to other actors, such as the federal government or the European Commission. Co-operation in the council/conferences is consensus-based and most decisions are made unanimously. Formally, the Council of Prime Ministers and most other permanent conferences require the approval of 13 of the 16 German Länder to pass a resolution. Although resolutions are not legally binding, they have a strong symbolic power, and are almost always enacted by Länder governments. Some permanent conferences also draft model laws and regulations to support state administrations and to further harmonise laws across states. The Council of Prime Ministers is convened four times a year. After the council meetings, prime ministers meet with the German Chancellor. Subject-specific permanent conferences have their own meeting schedule and tend to meet between one and four times a year. The federal minister in charge of the respective portfolio typically attends the meeting as an observer. Several permanent conferences have established additional committees to discuss particular topics in more detail. The administrative structure of permanent conferences varies depending on their responsibilities. Some permanent conferences have their own permanent secretariats with sizable staff numbers, while others use the administration of the state that holds the rotating presidency of the permanent conference.

Sweden: The Swedish Association of Local Authorities and Regions (SALAR) represents the governmental, professional and employer-related interests of Sweden's 290 municipalities and 18 county councils and 2 regions. Its mission is to provide municipalities, county councils and regions with better conditions for local and regional self-government. There is no hierarchical relation between municipalities, county councils and regions, since all have their own self-governing local authorities. In Sweden, the municipalities are responsible for a larger share of public services than in most other countries. Three quarters of the activities carried out by municipalities are related to childcare, school education and elderly care. Other examples of the municipalities' responsibilities include spatial planning, refuse collection, waste disposal and rescue services. The activities of the county councils and regions cover two main areas: healthcare and regional development. SALAR also acts as an employer's association and promotes the interests of its members. It concludes collective agreements that are binding for municipalities, county councils and regions. It signs the collective agreements with the central trade union organisations representing more than 1.1 million employees, which makes it one of the largest employer's organisations in Sweden. SALAR is politically controlled. The members appoint 220 representatives to the Association's Congress, the highest decision-making body. The Congress meets every four years. It elects the Board, which is responsible for the activities of the Association. The daily work is led and co-ordinated by a Chief Executive and the administrative office is organised in eight divisions with a total workforce of 450. All municipalities, county councils and regions in Sweden are members of SALAR and membership is voluntary. The Association's operations are financed by fees paid annually by members in relation to their tax base. SALAR is independent from the Swedish government and a member of Council of European Municipalities and Regions (CEMR) and United Cities and Local Governments (UCLG). It is considered to be one of the strongest associations of its kind. This is due to long tradition of decentralisation and recognition of the local political level in the Swedish constitution from which follows assignments of significant responsibilities and functions to deliver welfare services.

Source: Sveriges Kommuner och Landsting, Swedish Association of Local Authorities and Regions (SALAR), http://skl.se/tjanster/englishpages/aboutsalar.995.html; OECD (2014b), Spain: From Administrative Reform to Continuous Improvement, OECD Public Governance Reviews, http://dx.doi.org/10.1787/9789264210592-en.

Effective vertical governance can foster effective collaboration between central and regional governments on skills policies

Given both a high degree of decentralisation and the fact that state and regional governments share responsibility for skills policies, collaboration and co-ordination is critical to the coherence of the skills system. Spain is one of the most decentralised countries in the OECD and the country with the fastest decentralisation in the last 15 years (OECD, 2014b). Along with the state government, there are 17 autonomous regions comprised of 50 provinces and 8 112 municipalities. These regional governments play an important role in both the design and implementation of skills policies (MINHAP, 2015).

The asymmetry between the fiscal power of the central and regional governments has advantages and disadvantages. While Autonomous Communities have been given increasing powers of political self-determination, the capacity to levy the most important taxes has remained mostly with the central government. These include the corporate and personal income tax, social security contributions and the value-added tax (VAT). As a result, most of the capacity to generate financial resources remains in the control of the central government. On the one hand, this permits the central government to make transfers in a way that ensure equitable delivery of public services across regions with very different inherent capacities for revenue generation. On the other hand, it can limit the flexibility of regions to develop policies that respond to their own competencies and objectives. More effective governance structures for skills policy can help ensure that Spain gets the most benefit within current constitutional arrangements.

Shared responsibilities in a single policy area make policy collaboration and co-ordination essential. Among the strengths of the current governance arrangements are the well-defined competencies of the state and the Autonomous Communities. Often this entails the central government guiding policy and the regions taking responsibility for implementation and delivery. This division of responsibilities can generate complicated co-ordination challenges. For example, collaboration is required to ensure the policies relating to active labour market measures translate into consistent and effective delivery. Also, while the central government is responsible for the provision of unemployment benefits, the regional governments are charged with the delivery of activation policies (Challenge 6). Such a division of responsibilities can complicate efforts to make unemployment benefit payments contingent upon participation in activation programmes.

Existing mechanisms for collaboration between central and regional governments may reinforce policy silos. Several mechanisms exist to facilitate collaboration between the central and regional governments (Box 41). Typically these take the form of forums for discussing and planning in particular policy areas (sectors). While these sectoral conferences can be an effective means of sharing information and reaching consensus on the design and delivery of policies in a given policy areas, they also tend to reinforce the walls between policy areas (e.g. between skills development and skills activation), thereby creating inefficiencies.

Box 41. Governance mechanisms to facilitate co-ordination among levels of government in Spain

Co-ordination among levels of government in Spain benefit from several institutionalised governance mechanisms, including:

- *Sectoral conferences*. Sectoral conferences represent a key instrument to facilitate co-ordination and co-operation across levels of government. They work sectorally, allowing regional and central government ministries to have a dialogue on a specific policy area (e.g. education). They have different functions, including those of agreeing on the implementation of the national legislation that affects the competences of the autonomous communities (ACs), of exchanging information and of approving, monitoring and evaluating joint plans and programmes.
- *Joint plans and programmes*. These are specific initiatives of Sectoral conferences in order to achieve common objectives when competences and functions are shared between the state and the ACs.

Box 41. Governance mechanisms to facilitate co-ordination among levels of government in Spain *(continued)*

- *Bilateral co-operation commissions* (comisiones bilaterales de cooperación). These commissions are established on an ad-hoc basis between the state and the ACs in order to solve specific co-ordination issues in a limited time horizon.
- *Contractual arrangements* (convenios). Convenios are typically stipulated between the state and the ACs in order to find an agreement on a specific issue where there is the need to specific the different roles and activities of the parties. They function indirectly as tools for dialogue, helping clarify responsibilities and in turn fostering learning. Convenios are legally binding and they can be used, for example, to strengthen existing joint plans and programmes. Of course, the parties are free to decide whether to engage or not in such a binding agreement.
- *The Conference of the Presidents of the Autonomous Communities*. This is the highest level mechanism of co-operation between ACs and the state. It deals with more political issues and it has met less than once per year since its creation in 2004.
- *The Conference of the Governments of the Autonomous Communities*. This is an institution that allows ACs to formally meet and facilitate the identification of shared positions to be negotiated subsequently with the central government. While it is not a multi-level governance mechanism *per se*, it can indirectly contribute to facilitate co-ordination between ACs and the state.

Source: OECD (2014b), *Spain: From Administrative Reform to Continuous Improvement*, OECD Public Governance Reviews, http://dx.doi.org/10.1787/9789264210592-en.

Many governance mechanisms are not performing to their full potential. A recent OECD review found that most sectoral conferences were not meeting regularly (of the 39 established conferences, only 21 have met regularly over the last 3 years) (2014b). Furthermore, many representatives of Autonomous Communities expressed concerns that agreements were not very effective. More generally, sectoral conferences are often not followed-up, which can be explained by the lack of binding mechanisms for implementation.

Effective governance mechanisms can help to resolve common multi-level governance gaps. Typical governance gaps include: policy, objective, administrative, information, capacity and funding (Table 5). For example, information asymmetries exist between the national and the sub-national levels of government when designing, implementing, and delivering public policy. Sub-national entities are naturally endowed with a stock of regional local knowledge that is crucial to deliver effective policy and that should be fully used by policy makers. Furthermore, current forums for discussion and engagement between levels of administrations typically do not involve those at the technical level, who are responsible for assessments of current and future skills needs. Arrangements should, therefore, be made to facilitate discussions at the more technical level where appropriate.

Table 5. Multi-level governance gaps

Multi-level governance gaps	Definition
Policy gap	Overlapping, unclear allocation of roles and responsibilities
Objective gap	Lack of alignment among the objectives of different ministries or different actors
Administrative gap	Mismatch between the spatial area of an administrative unit and the optimal space of intervention
Information gap	Asymmetry and incompleteness of information between central and sub-national governments
Capacity gap	Lack of technical capacity, staff, infrastructure, etc.
Funding gap	Unstable, not timely, insufficient financial resources to effectively implement policy

Source: Adapted from Charbit, C. and M. Michalun (2009), "Mind the Gaps: Managing Mutual Dependence in Relations among Levels of Government", *OECD Working Papers on Public Governance*, No. 14, http://dx.doi.org/10.1787/221253707200.

OECD countries have developed a wide range of mechanisms to promote collaboration among levels of governments, improve the coherence and complementarities among their measures, exchange information and knowledge, reduce administrative overlapping and duplications, and increase the quality and efficiency of public service delivery (Box 42).

Box 42. Main mechanism for vertical co-ordination in OECD countries

Legal mechanisms (binding laws and legislation) are the strongest methods for organising multi-level governance relations. This mechanism is often used with respect to fiscal resources, and to allocate competencies.

Standard setting. Many OECD countries establish universal standard-setting to ensure a similar level and quality of service provision across the country. In Sweden, for example, municipalities enjoy a high degree of autonomy in the provision of public services, but need to meet nationally set standards and regulations.

Contracts or agreements between national and sub-national governments concerning their mutual obligations, i.e. assignment of powers of decision, distribution of contributions (including financial commitments) and contract enforcement mechanisms. These arrangements offer several advantages: they allow for customised management or interdependencies; they are useful tools for dialogue that can be used for clarifying responsibilities and making mutual commitments explicit; they open possibilities for judicial enforcement; and they can be used as learning mechanisms. In federal and decentralised countries, "contracts" are a particularly important tool for promoting co-operation, coherence and synergies among levels of government. Examples include "arrangements" in Canada; "joint tasks" in Germany; "*accordi*" in Italy; and "*convenios*" in Spain. Among the challenges that have been observed across OECD member countries in the use of contracts are: high transaction costs, a power bias towards higher levels of government, or insufficient evaluation procedure to ensure compliance by all parties.

Strategic co-ordinating committees and partnership groups. The interests and inputs of key actors from different levels are co-ordinated through joint representation on administrative bodies or working groups. These committees can serve as forums for improved communication and dialogue over subjects of common interest. They can also help align interests and timing, and establish the basis for signing contracts and agreements among government levels. Finally, they can help disseminate good practices between different levels of government, or, horizontally, across regions. In some countries, co-ordinating bodies are leading actors in fiscal capacity building by representing the interests of the local or regional level to national level decision makers. In Norway, for example, the Association of Local and Regional Authorities provides a forum to discuss the framework for distributing revenues in relation to the tasks carried out by local governments, the financial situation of local government and efficiency measures. In the Czech Republic, the Union of Municipalities and the Association of Regions have representatives on the national government's Board of Deputy Ministers for Regulatory Reform and Effective Public Administration, and represent the regions' interests in the Czech parliament, the Cabinet and in European institutions.

Source : Charbit, C. and M. Michalun (2009), "Mind the Gaps: Managing Mutual Dependence in Relations among Levels of Government", *OECD Working Papers on Public Governance*, No. 14, http://dx.doi.org/10.1787/221253707200.

Effective skills policies must be responsive to the diverse conditions and needs of regions and communities

Supply and demand for skills varies across regions and communities. Some areas can have skills deficits, where demand for high skills is met by a supply of low skills or, conversely, skills surpluses where demand for low skills is met by a supply of high skills. The result is an economy where skills are not being well utilised (Challenge 9, Figure 91). Understanding the relationship between skills supply and demand within regional and local labour markets in Spain can help policy makers develop strategies at the regional and local level that better connect the education and training system to the world of work.

Flexibility in skills policy design and implementation can improve outcomes. The OECD defines flexibility as "the possibility to adjust policy at its various design, implementation and delivery stages to make it better adapted to local contexts, actions carried out by other organisations, strategies being pursued, and challenges and opportunities faced" (Froy and Giguère, 2010). For example, national governments increasingly

recognise the need to provide sufficient flexibility for regional and local employment and training agencies to take a lead role in designing and delivering employment and skills policies (OECD, 2014a). Flexibility at the regional and local level can also help to stimulate stronger partnerships and joined up actions, where stakeholders make programme and policy decisions based on shared objectives and activities.

Implementing flexible skills policies is challenging. Flexibility should enhance, not reduce overall policy effectiveness. It is difficult to inject flexibility in a way that continues to meet national policy goals, ensures efficiency in service delivery and maintains full accountability. OECD (2010) research has identified a number of different policy mechanisms that can allow for greater differentiation in the utilisation of programmes and services regionally and locally, while continuing to meet national policy goals such as management by objectives. This allows targets to be negotiated between the central and the regional and local level, where the national level verifies that the sum of all regional and local targets meets national policy goals. Regional and local capacities may also need to be strengthened when granting additional flexibility to regional and local employment and training agencies. Unfettered flexibility, may translate into inequitable service provision, inequitable standards, duplication, and poor performance. On the other hand, rigid vertical governance structures may make the design and implementation of horizontal skill policies at the regional and local levels more difficult. Skill policy and programmes end up largely being developed within a single ministry perspective and implemented within a vertical system of accountability.

Local governments must also be engaged in the planning for skills policies

Local governance in Spain is complex. The basic unit of local governments are the municipalities. They vary greatly in size ranging from Madrid (>3 000 000 inhabitants) to Illán Vacas in Toledo (<10 inhabitants). Currently, there are over 8 000 municipalities in Spain, of which approximately 84% have less than 5 000 inhabitants. Several municipalities are provinces (50) and may also be part of co-operative intermunicipal arrangements (*mancomunidades*) and a cluster of multiple municipalities that share a specific cultural identity, natural geography or function (*comarcas*). These arrangements allow municipalities to co-ordinate the delivery of joint services or projects among one another (OECD, 2013). The National Association of Municipalities and Provinces, represents the interests of these various local entities before the regional and central levels of governments (MINHAP, n.d.). There are currently two official bodies that facilitate collaboration between the central, regional and local government. The National Commission on Local Administration (*Comision Nacional de la Administración Local*) is in charge of reporting on the national provisions or regulations that affect the local government. The Sectoral Conferences for Local Issues (*Conferencia Sectorial para Asuntos Locales*) convenes representatives from the central, regional and local governments to discuss local government policies.

Local governments' are also involved in implementing skill policies. According to the Law on Rationalisation and Sustainability of the Local Administration (*Ley de Racionalización y Sostenibilidad de la Administración Local*, LRSAL) passed on 30 December 2013, besides having responsibility for basic service delivery functions (e.g. refuse collection, water supply, street cleaning, infrastructure) local governments share responsibilities in a numbers of skill related areas, such as enforcement of compulsory education, construction of teacher training centres, and maintenance of school buildings for early childhood, primary and special education. In order to avoid duplication, improve services and make better use of resources, the law permits the central government and regional governments to devolve further responsibilities to local governments. These include, but are not limited to, the creation of early childhood centres, provision of complementary activities in the teacher training centres, co-operation with the central government on delivery of long distance education, provision of social services that promote gender equality, and the inscription of enterprises and associations in the national and regional registrars (Jefatura del Estado, 2013). Besides these basic responsibilities, local governments in Spain can play a proactive role in promoting and implementing specific skill policies that are needed in their municipality (Box 43). The extent to which local governments are

consulted on skills policies is unclear and the frequency and degree of collaboration with the local government varies (OECD, 2014b).

Box 43. "Second chance" programme in Spanish cities

The European Association of Cities for Second Chance Schools reports on the experience in four Spanish cities: Bilbao, Cadiz, Gijón and Barcelona. In Bilbao, the programme is divided into phases with a decreasing share of coursework and an increasing proportion of workshops, tutoring and in-company work over a two-year period. The programme benefits from the strong local involvement of the Confederation of Basque Enterprises. In Cadiz, the programme is supported and promoted by Cadiz University in close collaboration with the City Council. The Association credits the role of employers in raising the success level of the "Second chance" programmes – in accepting students and trainees and their flexible working time in order to accommodate more technical training and individualised support services to help young people make the transition into the labour force.

Source: European Association of Cities for Second Chance Schools (2007) "Box 4.5: 'Second chance' programme in Spanish cities", in ILO (2008), *Skills for improved productivity, employment growth and development: Report V*, International Labour Conference, 97th Session, 2008, www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_092054.pdf.

Policy continuity is important for ensuring better skills outcomes

Policy continuity may be undermined by a high degree of turnover at the most senior levels of the civil service, especially when elections bring change. As in many other countries, when the government changes in Spain so, too, does a comparatively large share of senior civil servants (OECD, 2014b). The result is a loss of institutional knowledge and expertise, which can undermine policy continuity. This is of particular concern in the area of skills given the long time-lag between policy development and final outcomes. Another risk is damaged relationships with partners and stakeholders who are left to establish new relationships with a new administration. Greater continuity at the most senior levels of the civil service would help to ensure greater policy continuity, to the benefit of both policy effectiveness and efficiency. Measures to strengthen and safeguard the political neutrality of the senior civil service could help in this regard.

Spain is implementing a comprehensive governance reform programme

In the context of continuing budgetary restraint, the government has embarked on an extensive governance reform to reduce costs associated with unnecessary duplications of policies and overlapping responsibilities. On 26 October 2012, the Council of Ministers of Spain published the Agreement to Create the Commission for the Reform of Public Administration (*Comisión para la Reforma de las Administraciones Públicas,* CORA) that was tasked with drafting proposals to improve governance after consultation with stakeholders. The CORA report makes 217 recommendations. Some of these pertain to the central government, others to the regional governments, and some to both. As of December 2014, 129 measures have already been implemented, while 93 still remain to be implemented (OPERA, 2015).

The reform addresses horizontal and regional governance. Measures will affect the contractual arrangements (*convenios,* Box 41) between central government institutions and among different levels of governments. The recommendations are general. There will be a greater use of joint plans and programmes between the central and regional governments. Funding from the central government will also be made increasingly more contingent upon regional governments' performance in order to improve outcomes and the implementation of best practices. Horizontal collaboration instruments will be reinforced in order to maximise the use of limited resources across regions (Gobierno de España, 2013).

It remains unclear how these governance reforms will be implemented. Since the recommendations are quite general, it remains to be seen how they will be implemented. It is not apparent how the government will strike the right balance between dealing with short-term pressures and priorities (e.g. cutting government

spending to improve the fiscal balance) and medium and long-term structural objectives (e.g. improving co-ordination across levels of governments, changing how citizens interact with government) (OECD, 2014b; Gobierno de España, 2013). Another risk is that with the efforts to consolidate governance functions and reduce duplication in the administration, there is the potential for civil servants to be mismatched in terms of their capacities, working levels and ability to deliver on overall government strategic priorities, (OECD, 2014b). Continuous monitoring and external evaluation is needed to ensure the successful implementation of any governance reform.

Summary and policy implications

Effective horizontal governance structures are critical to the development and implementation of skills policies. Collaboration among different ministries is needed to ensure that skills policies are implemented coherently across distinct, but interdependent, policy areas. Regional governments can also benefit from increased collaboration and sharing best practices. Adequate funding and recognition systems are required to ensure that collaboration delivers better skills outcomes.

Effective vertical governance structures are necessary to strengthen Spain's skills system. Co-ordination among different levels of governments is crucial given Spain's highly decentralised form of government. In many cases, more than one level of government has responsibility for the same policy area. Generally, but not always, this entails the state government having responsibility for policy development and design and the regional and local governments having responsibility for delivery. Collaboration and co-ordination is needed to ensure that delivery is consistent with design.

Governance structures can be improved in Spain. While high-level inter-ministerial committees exist, more formal and regular dialogue is needed, especially at the mid-management level, to ensure that policies are complementary and reinforcing. Likewise, collaboration among regional governments needs to be strengthened so that best practices, knowledge and experiences can be shared more often and existing information gap can be overcome. Furthermore, effective vertical co-ordination is critical to the consistent and effective delivery of skills related policies (e.g. active labour market policies, education reform) across regions. Vertical co-ordination mechanisms such as sectoral conferences are characterised by low attendance, little follow-up and seen as ineffective. It is not clear whether and how local governments are consulted on skill policies. Policy continuity of skills policies is difficult with the current high degree of turnover at the most senior levels of the civil service across all levels of government, especially when the regional administration changes. Recognising and financially supporting collaboration initiatives can help ensure that meaningful collaboration occurs.

A governance reform has been launched. Continuous monitoring and external evaluation is needed to ensure the successful implementation of the governance reform now underway. Modernisation of governance structures can improve the development and delivery of effective, efficient and co-ordinated skills policies that promote the skills development, activation and use.

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NEXT STEPS

Moving from diagnosis to action

This diagnostic report encapsulates the key findings of the diagnostic phase completed in 2015, and is a key deliverable of the OECD-Spain-European Commission collaborative project on "Building an effective skills strategy for Spain".

The OECD Skills Strategy Diagnostic Toolkit has proved useful as a framework for engaging a wide range of stakeholders in far-reaching discussions about the skills challenges facing Spain today and in the future. This report highlights the breadth of the skills challenges ahead, and how effective and integrated policy responses will be needed to weave together measures from diverse fields such as education and training, employment, innovation, research, tax, local economic development and economy.

Policy makers can build upon these shared insights to generate options for concrete actions to meet Spain's future skill needs. Maximising Spain's skills potential and improving the match between supply and demand for skills is an endeavour that goes well beyond the capacity of government alone. Designing and implementing effective skills policies will require collaboration among many public actors at the national level as well as co-operation with the local authorities. Building a strong skills system for Spain will also depend upon the on-going involvement of key stakeholders including employers, trade unions, training institutions, students, teachers and others.

Above all, it will require a shared commitment across government ministries and social partners to build a responsive and resilient skills system that fosters Spain's competitiveness, social cohesion and high standards of living for all.

ANNEX 1: GLOSSARY

AC	*Comunidades Autónomas* (Autonomous Communities)
ALMP	Active labour market policy
ANECA	*Agencia Nacional de Evaluación de la Calidad y Acreditación* (National Agency for Quality Assessment and Accreditation)
AO	Accelerating Opportunity
ARC	Linkage Scheme in Australia
BA	*Bundesagentur für Arbeit* (Public employment service in Germany)
BERD	Direct government funding of business
CAE	*Contrato de apoyo a emprendedores* (Entrepreneur support contract)
CCOO	*Comisiones Obreras* (Workers' Commissions)
CEDEFOP	European Centre for the Development of Vocational Training
CEMR	Council of European Municipalities and Regions
CEOE	*Confederación Española de Organizaciones Empresariales* (Spanish Confederation of Employers' Organizations)
CEPYME	*Confederación Española de la Pequeña y Mediana Empresa* (Spanish Confederation of Small and Medium Enterprises)
CGPU	*Conferencia General de Política Universitaria* (General Conference on University Policy)
CI	Computerised information
CICYT	Comisión Interministerial de Ciencia y Tecnología (Inter-ministerial Commission of Science and Technology)

CIG *Confederación Intersindical Galega* (Galician Unions Confederacy)

CIT Corporate Income Tax

COPS Canadian Occupational Projection System

CORA *Comisión para la Reforma de las Administraciones Públicas* (Commission for the Reform of Public Administration)

CREA *Centro Especial en Teorías y Prácticas Superadoras de* Desigualdades (Centre of Research and Practices that overcome inequalities)

CV Curriculum Vitae

EC European Commission

ECEC Early Childhood Education and Care

ECTS European Credit Transfer and System

EGFSN Expert Group on Future Skills Needs

EITC Earned Income Tax Credit

EPL Employment protection legislation

EU European Union

EUR Euro

FDI Foreign direct investment

GERD Gross expenditure on research and development

GDP Gross domestic product

GTO Group training organisations

GVC Global value chain

ICT Information and communication technology

IEP Indigenous Employment programme

ILO International Labour Organization

INES Indictors of Education Systems

IPR Intellectual property rights

KBC Knowledge-based Capital

LFS Labour Force Survey

LLN Literacy and numeracy

LOMCE *Ley Orgánica para la Mejora de la Calidad Educativa* (Organic law for the improvement of the quality of education)

LRSAL *Ley de Racionalización y Sostenibilidad de la Administración Local* (Law on Rationalisation and Sustainability of the Local Administration)

MEC *Ministerio de Economía y Competitividad* (Ministry of Economy and Competition)

MEYSS *Ministerio de Empleo y Seguridad Social* (Ministry of Employment and Social Security)

NEET Not in education, employment or training

NGO Non-governmental organization

OC Organisational capital

OECD Organisation for Economic Co-operation and Development

PDI *Personal Docente Investigador* (Teaching and research personnel)

PES Public employment service

PhD Doctorate

PIAAC Programme for the International Assessment of Adult Competencies (Survey of Adult Skills)

PICE *Programa Integral de Cualificación y Empleo* (Integral Qualification and Employment Programme)

PIRLS Progress in International Reading Literacy Study

PISA Programme for International Student Assessment

PIT Personal Income Tax

PPP Purchasing power parities

PREPARA *Programa de recualificación profesional* (Programme for profesional requalification)

Q Quarter

QEDO *Qué Estudiar y Dónde en la Universidad* (What and where to study in university)

RAAK Regional Attention and Action for Knowledge Circulation

REDFUE *Red Española de Fundaciones Universidad Empresa* (University-Enterprise Foundations Network)

R&D Research and development

RTOs Registered Training Organisations

SALAR Swedish Association of Local Authorities and Regions

SEPE *Servicio Público de Empleo Estatal* (State Public Employment Services)

SLMRU Skills and Labour Market Research Unit

SME Small and medium-sized enterprises

SSC Social security contribution

TALIS Teaching and Learning International Survey

UCLG United Cities and Local Governments

UGT *Unión General de Trabajadores* (General Union of Workers)

UR Unemployment ratio

USD United States dollar

VAT Value-added tax

VC Venture capital

VET Vocational education and training

WELL Workplace English Language and Literacy

WIB Workforce Investment Board

WIN Workforce Intelligence Network

WITB Working income tax benefit

WTTC World Travel and Tourism Council

ANNEX 2: WORKSHOP REPORTS AND QUESTIONNAIRE FOR WORKSHOP PARTICIPANTS

OECD Skills Strategy
Diagnostic Report
Spain

Better skills policies help build economic resilience, boost employment and reinforce social cohesion. The OECD Skills Strategy provides countries with a framework to analyse their skills strengths and challenges. Each OECD Skills Strategy diagnostic report reflects a set of skills challenges identified by broad stakeholder engagement and OECD comparative evidence while offering concrete examples of how other countries have tackled similar skills challenges.

These reports tackle questions such as: How can countries maximise their skills potential? How can they improve their performance in developing relevant skills, activating skills supply and using skills effectively? What is the benefit of a whole-of-government approach to skills? How can governments build stronger partnerships with employers, trade unions, teachers and students to deliver better skills outcomes? OECD Skills Strategy diagnostic reports provide new insights into these questions and help identify the core components of successful skills strategies.

This report is part of the OECD's ongoing work on building effective national and local skills strategies.

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Further reading

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With the financial assistance of the European Union

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