

Lifelong learning in Spain:
a challenge for the future

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D I S C L A I M E R

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Lifelong learning in Spain: a challenge for the future

Estudios sobre la Economía Española - 2016/08

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executive summary

Investment in lifelong learning is a key mechanism to improve workers' productivity and to adapt their skills to the changing needs of firms. The European Commission has repeatedly stressed its importance as a mechanism to foster economic growth in the European Union. Lifelong learning was incorporated into the objectives of the Lisbon Agenda (2010) and it is also placed among the strategic objectives for 2020. Specifically, to this date, all member countries should reach a rate of adult participation in education and training of 15%.

In this second report of New Skills at Work we take stock of the participation of adults in lifelong learning in Spain¹. The report is divided in three parts. The first part of the report provides a descriptive analysis of the evidence on cognitive skills of the adult working population in Spain. The analysis confirms a well-known finding: despite major improvements in the educational attainments of the working population in the last few decades, the average level of cognitive skills remains low by international standards. In particular, Spain stands out as one of the EU countries with the largest share of adults who lack basic skills and competences. This is relevant for several reasons. The labour market position of this group has been deteriorating since the late 1970s, although this trend was temporarily interrupted during the period of the housing boom, and the digitalization of the economy is bound to place further pressure on this group in the near future. The report identifies three dimensions to the problem that deserve careful attention from Spanish policy makers: 1) Low average educational attainments; 2) Unsustainably high dropout rates from secondary education and 3) Comparatively low levels of cognitive skills at all educational levels. On all three scores Spain should strive for convergence to the levels prevailing in the leading countries in Europe.

Convergence will not be possible without major improvements in Spain's educational system to reduce the dropout rates in secondary education, and in the system of adult learning that is the topic of this report. Participation in adult learning may serve to mitigate some of the problems associated with a premature entry in the labour market. Moreover, it helps to improve workers' productivity and makes them more resilient to the impact of technological progress.

¹ This article builds on elements of an earlier study entitled "Claves para mejorar la educación y formación de adultos en España en la post-crisis", published in *Reflexiones sobre el sistema educativo español*, edited

The second part of the report therefore proceeds to document the participation in adult learning in Spain. It documents the recent evolution of the participation rates in adult learning and provides a comparative analysis of adult learning for a sample of countries that includes Spain and nine other European countries. Our sample includes the five countries that participate in New Skills and Work, the UK, Spain, Italy, France and Germany and a selection of mostly Scandinavian countries with high participation rates in adult learning programs.

The cross-country analysis reveals that the overall participation rate in adult learning in Spain is still five percentage points below the 20%-target of the EU2010 agenda. This rate is in line with the EU average but much lower than in the Scandinavian countries where close to 30% of the adult population participate in adult learning activities according to the European Labour Force Survey. Moreover, it has to be taken into account that the existing training needs of Spain are larger than the needs of most other European countries due to the relatively low cognitive skills of the working population and the massive destruction of jobs for less-educated workers during the crisis. Most of these jobs were concentrated in shrinking sectors like construction and so Spain faces a major challenge to relocate a large number of low-educated unemployed to sectors that may absorb these workers. In many cases this will require some form of training.

Besides additional funding, Spain will also have to revise its training policies. A careful analysis of the participation rates in adult learning by age, level of education and employment status of persons reveals two prominent shortcomings. The participation of the less-educated in adult learning activities is almost negligible in Spain and during the crisis we observe a steep drop in the participation rates in non-formal education and training, by far the most dominant form of adult learning among the unemployed. Thus, the participation in adult learning is especially low among those who most need it and their access to training seems to have become even more of a challenge during the crisis. The report links this last feature to the severe cuts in the public funds for the training of the unemployed.

Finally, the third part of the report describes the existing system of adult learning and suggests reforms to improve the design and the access to formal and/or non-formal education and training. The report identifies two peculiarities of the Spanish system of adult learning. First of all, there is a lack of flexible programs that allow workers to acquire basic skills and competences outside the regular educational system. The second peculiarity

is related to funding. The bulk of the funds for lifelong learning and training are transferred to the training providers and employers while only a tiny fraction of the funds is transferred to the eligible workers. This contrasts with the situation in the leading reference countries where the eligible workers receive a substantial fraction of the available funding. Two recent reforms may bring the funding of training more in line with practice elsewhere in Europe as they foresee the introduction of training vouchers. The report provides an analysis of the expected benefits of these reforms and outlines options for further improvements.

Educational attainments and cognitive skills of Spanish adults

In the past three decades, the education level of the adult Spanish population has increased considerably. According to estimates by De la Fuente and Domenech (2014), the average number of years of schooling increased by four years in the period 1980-2010. Moreover, the percentage of graduates in higher education has tripled during this period. Among the younger generations, more than 40% of people obtain a college education. This figure is above the EU-28 average and in line with the figures in countries like France and the Netherlands¹.

Nonetheless, the overall level of cognitive skills of the adult population is still low by international standards. Below we document three dimensions to this problem: 1) low average educational attainments; 2) an exceptionally high dropout rate from secondary education and 3) comparatively low levels of cognitive skills at all educational levels.

Average educational attainments

Despite progress made in recent decades, the average years of schooling in Spain is still the third lowest in the OECD just ahead of Portugal and Mexico (De la Fuente and Domenech, 2014). As early as 1960, countries such as Denmark, Australia, Norway, USA and Sweden had already achieved a higher mean number of years at school than Spain in 2010. Similarly, the proportion of the population with higher education in Spain in 2010 was achieved by the US in 1970 and by most European countries in the 1980s or 1990s.

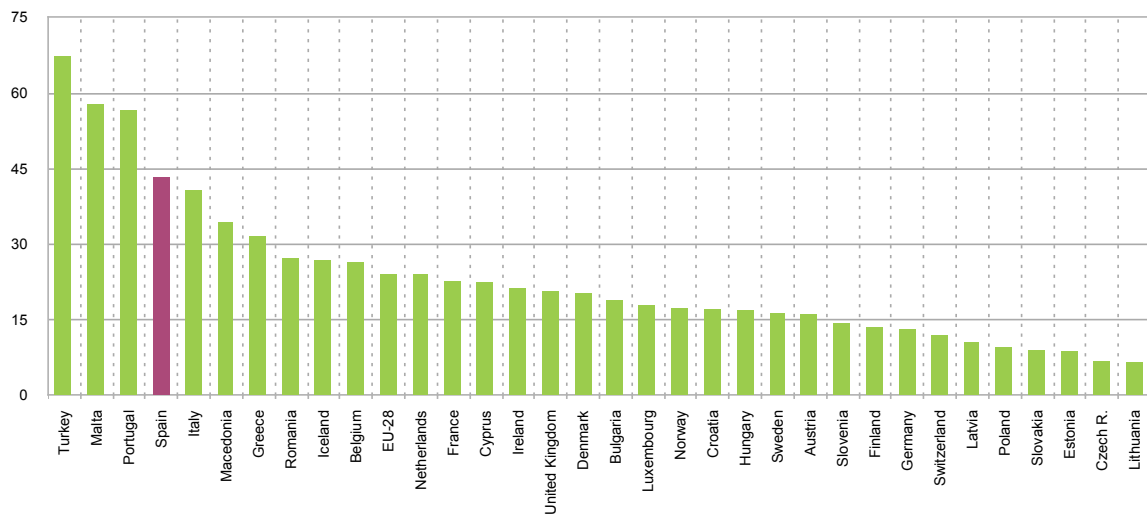
One of the most worrying aspects of the low average educational attainments in Spain is the large proportion of people aged 25 to 64 with uncompleted secondary education. 43.4% of the adult population in Spain has a level of education less than or equal to ISCED2 level, that is these persons have completed at most compulsory lower-level secondary education (*Educación Secundaria Obligatoria* or *ESO*).

According to the European Labour Force Survey (EU-LFS), only Portugal, Turkey and Malta have higher shares. In

¹ According to the EULFS, 42.3% of young people aged 30 to 34 in 2014 had acquired a higher education in Spain, while the average EU-28 was 37.4% in the Netherlands this rate it was 44.8% and 43.7% in France.

these countries more than half of the adults are low educated. By comparison, the EU-28 average stands at 24%, while the Scandinavian countries, and even Central and Eastern European countries, have percentages below 20%. Moreover, it is important to stress that the differences are not a reflection of composition effects. It is true that among older workers in Spain the share of low educated persons is high by international standards, but the same is true for young adults. Indeed, due to the persistent inflow of large numbers of early school leavers in Spain, the difference in the share of low-educated adults between Spain and the rest of Europe is similar across all age groups.

Figure 1: Adult population with low educational attainment level (EU-28, 2014)
(Lower secondary education or less, ISCED 0-2, 25-64)



Source: European Labour Force Survey (Eurostat)

The actual problems may well be bigger than suggested by the above figures, as there is a sizable group of the adult population in Spain (14%), which has not even completed the final year of compulsory education (ESO). From the viewpoint of adult education and lifelong learning, this feature is relevant because the persons without completed lower-secondary education have no access to upper-secondary education (intermediate level vocational education or high school). Those who do not wish to complete compulsory education at a later stage in their lives therefore have no other choice than to opt for alternative recognitions of competences such as the *certificados de profesionalidad*.

Early school leavers

As mentioned above, the main cause of the low educational level in the adult population is the successive waves of young people who abandon the education system prematurely before completing secondary education.

According to the definition of Eurostat, the share of early school leavers is the percentage of young people aged 18 to 24 without a degree corresponding to post-compulsory secondary education (high school or intermediate level vocational education), which are outside the education system and who are not receiving any other form of schooling or training. Figure 2 illustrates the historical evolution of the share of early school leavers together with the share of high school dropouts who did not even complete compulsory lower-secondary education.

Figure 2: Early leavers from education and training²
(Spain, 1997-2015, 18-24 years, %)



Source: own calculation using microdata of the Spanish Labour Force Survey (EPA- first quarters, INE)

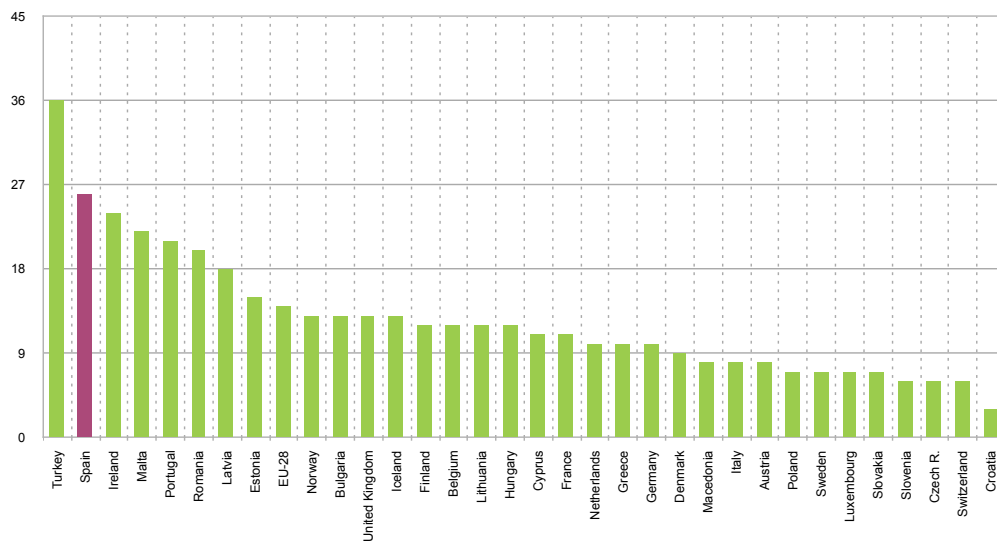
In the late 1970s the share of early school leavers stood at levels near 70%. Since that time this rate has decreased steadily (almost 25 percentage points since the 1990's) with the exception of the period of the housing boom. In this period we even observe a small increase in the share of early school leavers as scores of young people were drawn into the labour market attracted by the high wages in the construction sector (see Aparicio, 2014). Since the start of the economic crisis, Spain seems to have returned to the downward trend in the share

² Jóvenes de 18-24 años fuera del sistema educativo y formativo que no alcanza un nivel correspondiente a la enseñanza secundaria post-obligatoria

of early school leavers, but we need more data before we can draw firm conclusions about the apparent return to the downward trend that started in the 1970's.

In the meantime, the education authorities should pay careful attention to the red line in Figure 2, which represents the number of young people who have left school without having completed compulsory secondary education (ESO). At present, 10% of young people aged 18 to 24 are in this situation. This figure is still higher than the one registered before the start of the housing bubble. In other words, the education authorities in Spain have managed to increase the proportion of young people who continue their studies after finishing compulsory education, but no progress is made in reducing the dropout rate of those who leave before completion of compulsory education.

**Figure 3: Early leavers from education and training
(European countries, 1997-2015, 18-24 years, %)**



Source: European Labour Force Survey (Eurostat)

A second disturbing fact is the high intergenerational persistence of low educational attainments in Spain, as evidenced by the large differences in the percentage of early school leavers between the group of young people whose parents failed to complete compulsory secondary degree and those whose parents (either one or both parents) completed compulsory education. The intergenerational transmission of dropout is especially pronounced when we focus on young people who, like their parents, fail to complete even compulsory education. Felgueroso and Jimenez (2015) show that in this case the differences have widened further during this recess-

sion, and they are not shrinking during the early stages of the economic recovery either. About 27% of young people whose parents did not complete lower-secondary education left school early, which is an increase by 12% over the last decade.

Furthermore, Spain lags behind the rest of Europe in its endeavour to reduce dropout rates and in recent years it has been overtaken by countries like Portugal. Indeed in 2014, Spain's dropout rate was the second highest in Europe and almost double the average rate in Europe.

The core competencies of the adult population

The indicators presented so far only provide a partial view of the gaps between the level of educational attainments in Spain and the rest of Europe. The persons with low levels of formal education can acquire additional skills throughout their working life, through training or work experience. Similarly, the skills acquired at each level of education may differ across countries and they may become obsolete with the passage of time. Therefore, the actual level of competencies and skills may differ across countries for persons even if we compare persons with the same level of education. Below we complete the information about the skill gaps with comparative data on the basic level of cognitive skills of the adult population.

Figure 4: Adult population with low proficiency levels in numeracy and literacy



Source: PIAAC (OECD)

Our first source of evidence is the *International Programme on the Assessment of the skills of the adult population (PIAAC 2013)*. This recent survey revealed a bleak picture about the basic competencies of the adult population in Spain. More than one out of four Spanish adults between 16 and 65 obtained a score of 1 or less on the PIAAC scale in core competences like Reading Comprehension (27.5%) and Mathematics (30.6%). These low scores are only comparable with those of Italy as shown in the Figure below.

Moreover, as shown in the results of the PIAAC study (2013), the poor performance of Spanish adults is not only the result of a composition effect (having a population with a comparatively large share of people of low educational levels). The skill levels of Spanish workers are comparatively low at all levels of education when we compare workers with the same level of education (INEE, 2013).

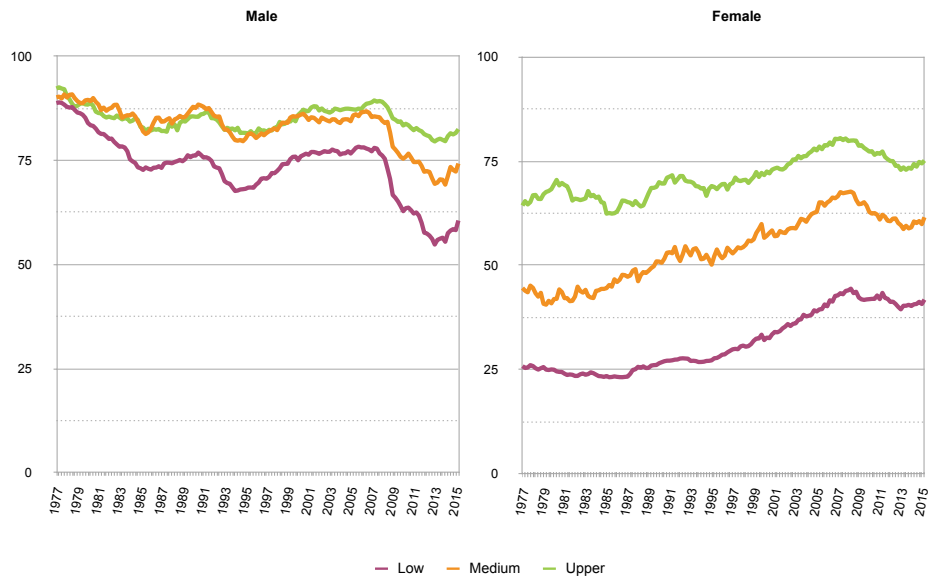
Spain performs equally poorly in other core competences such as the command of foreign languages or digital literacy. The 2011 Eurostat Adult Education Survey (AES) showed that Spain was one of the countries with the lowest command of European languages other than Spanish. Specifically, 49% of the adult population (25-64 years) did not know any foreign language compared to a EU-28 average of 34.1% and shares below 10% for the Scandinavian countries and 15% for countries like the Netherlands and Switzerland, respectively. Similarly, the Statistics Information Society of Eurostat indicated that by 2014 42% of the Spanish population aged 25 to 64 had never used a computer or did not know how to perform basic ICT operations. This high rate of digital illiteracy is not much different from the EU-28 average (44%), as shown in Felgueroso (2015), but it is substantially higher than in countries like Finland (22%) or Denmark (31%). In principle, lifelong learning could play a useful role in remedying these shortcomings.

Cognitive skills and the exit from the crisis

In recent years the training needs of Spanish workers have expanded considerably due to the unequal impact of the crisis that particularly affected the workers at the bottom of the skill distribution. As can be observed in Figure 5, the employment rate of the workers with low levels of education (at most lower secondary education) has fallen by 20 percentage points during the crisis, continuing a downward trend that started at the end of the 70's and that was only temporarily interrupted in the years of the housing boom.

Indeed, at the end of the 70's, the employment rate of low-educated males was virtually the same as those of males with medium or high levels of education. All three groups enjoyed employment rates of nearly 90%. By contrast, nowadays the employment rate of low-educated workers is thirty percentage points lower than in the late 70's and 20 percentage points lower than the corresponding rate of persons with a degree in higher education. Moreover, the pattern for males differs completely from the one observed for women. In the case of women we observe a clear positive correlation between educational attainments and employment rates and a strong rise in the three employment rates since the mid-80's. The female employment rates have come down during the crisis, but much less so than the employment rates of males.

Figure 5: Employment rates by gender and educational attainment (25-64, 1997-2015)



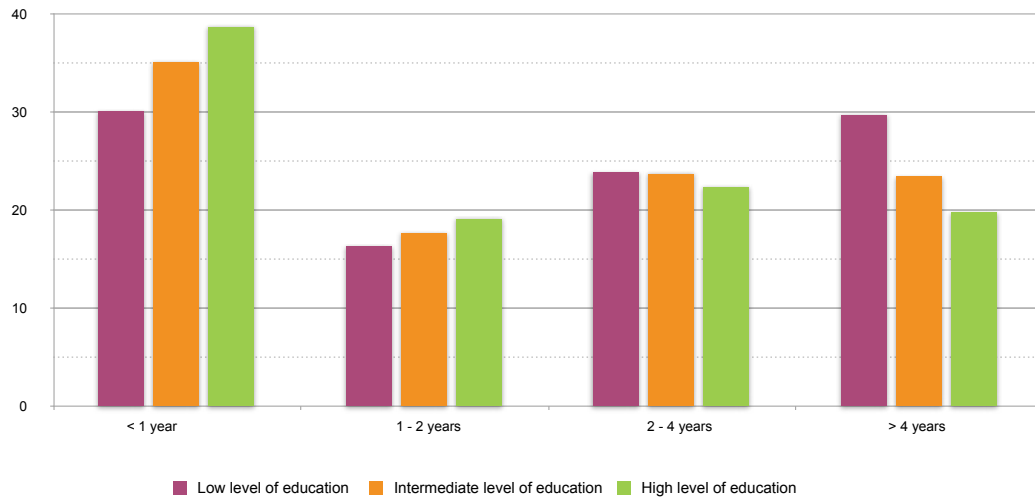
Source: Spanish Labour Force Survey (EPA, INE)

The above data show that the deterioration in the labor market prospects for less educated males corresponds to a trend that has marked the last three decades. However, the current situation is critical due to the unprecedented drop in the employment rate of less-educated men. According to the latest figures, the unemployed with no more than compulsory education make up more than half of the total stock of unemployed, compared to a share of 38% in the active labour force, and their weight among the very long-term unemployed (with spells of more than two years) is even higher³.

³ In the second quarter of 2015, 55% of the unemployed have a low educational level, compared to 22% and 23% for the middle and upper levels, respectively. The corresponding figures for the long-term unemployed are, respectively, 57%, 21% and 22%.

Many of these (very) long-term unemployed will likely need some form of training programs that fosters their reintegration into the labour market.

Figure 6: Distribution of unemployment by duration and level of educational attainment (25-64, 2015: Q2)



Source: Spanish Labour Force Survey (EPA, INE)

Lifelong learning in Spain: some figures

In this section, we analyze the evolution of the participation in adult learning in Spain in the last decade. In the first part, we focus on young adults who have left school recently. Specifically, we focus on the percentage of youth who decide to return to school to complete their education and on the use of training contracts, the main mechanism to offer education and training to young persons who want to combine learning and work. Next, we compare the characteristics of the adults who participate in formal and non-formal education or training in Spain to those who participate in adult learning in other European countries.

Young adults: the return to school and the incidence of training contracts.

Table 1 shows the percentage of young people below 30 who returned to school (after having dropped out before) in the last decade. Inspection of the Table shows that the return rates have increased for all levels of education during the recession. Nonetheless, the absolute numbers are still quite low, especially in the case of young adults who dropped out of the schooling system before completion of compulsory education.

Table 1. Annual flows of persons returning to formal education⁴

Nivel de estudios	2006-2007	2008-2009	2010-2011	2012-2013	2014
Menos de ESO	4,8	5,0	6,9	7,6	7,4
Título de ESO	3,8	4,6	5,4	5,8	6,4
Bachillerato	17,8	18,7	19,0	23,2	26,2
FP de grado medio	3,2	4,0	6,5	7,1	7,9
FP de grado superior	6,1	7,4	10,9	11,5	18,3
Estudios universitarios	12,3	14,6	15,7	15,2	19,1
Total	7,9	8,8	10,1	10,9	12,8

Source: EPA, submuestra anual.

⁴ Number of persons outside regular education in year t-1 who are enrolled in regular education in year t as percentage of those outside regular education in t-1, 16-29

Access to work-based training programs (the so-called *formación para el empleo*) therefore remains key, especially for the less educated, as they seem completely disconnected from the formal schooling system. Yet, as shown in Felgueroso and Jimenez (2015), only 10% of the early school leavers in the age group 18-24 are engaged in some kind of non-formal education or training (i.e. training or education outside the regular schooling system that does not lead to official degrees), and for those with no more than compulsory education this proportion even lower, around 5%.

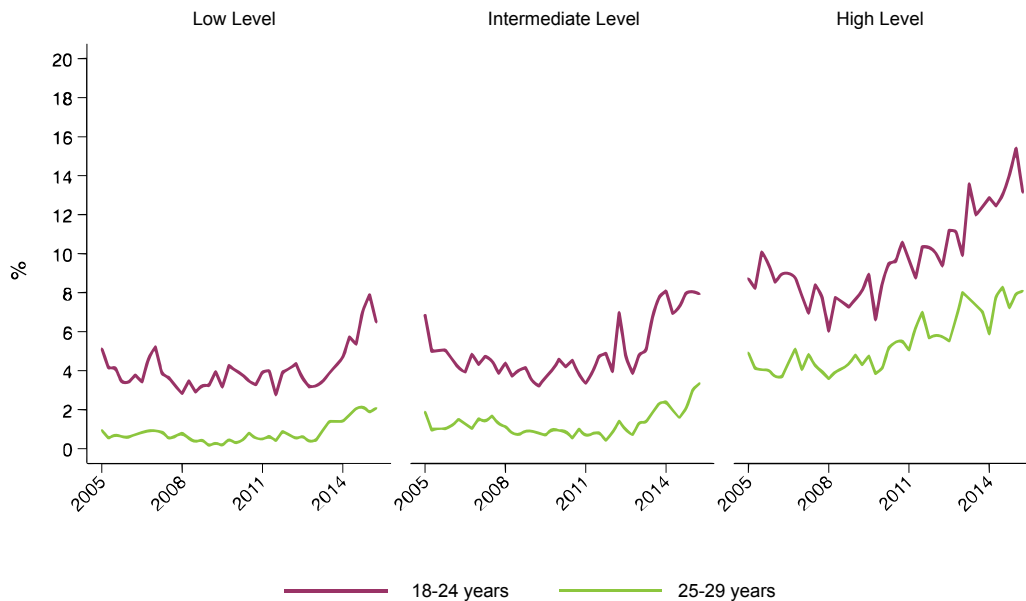
Since the 1980s, training contracts have been the main instrument to stimulate youth to either resume their studies or to upgrade their skills by combining work and study. Broadly speaking, there are two types of training contracts: apprenticeship contracts (*contratos de formación y aprendizaje*) for young workers with no more than compulsory education and traineeships (*contratos de prácticas*) for those who have at least completed secondary education. In apprenticeship contracts the workers alternate work and training during a maximum period of three years with the objective to obtain a formal degree in vocational training (*formación profesional de grado medio*) or a professional certificate (*certificado profesional*). By contrast, traineeships, with a maximum duration of two years, serve mainly to acquire work experience. Furthermore, trainees need not devote a minimum amount of their time to formal training activities, but upon termination the firm is obliged to emit a certificate that summarizes the obtained professional experience.

Since their creation in the 1980's, numerous measures have been introduced to make training contracts more attractive to firms including social security rebates, specific rules on minimum wages and less stringent rules for the content and the duration of the training activities. The most recent labour market reform of 2012 contains further steps in the same direction: the age limit for training contracts is raised by five years, from 25-29 years, the minimum amount of time devoted to training activities in apprenticeship contracts is reduced and the reform relaxes the rule for the chaining of training contracts. The main idea behind the reform was to reduce the differential in the costs to firms of hiring a person under a training contract or an alternative contract that does not entail training obligations. Indeed, traditionally, training contracts make up a smaller proportion of the contracts offered to youth than (regular) open-ended contracts, despite the fact that the latter have built-in redundancy pay provisions while training contracts are temporary contracts that can be terminated at no cost. But the relaxation of the rules also comes at a cost as the training content of the apprenticeships is eroded.

The Spanish labour force survey does not provide separate figures for the incidence of apprenticeships and traineeships. Figure 7 therefore shows the evolution of the incidence of training contracts by educational attainment. The contracts signed by young persons with no more than lower-secondary education are necessarily apprenticeship contracts (*contratos de formación y aprendizaje*), while the vast majority of the training contracts for those with completed secondary education are traineeships (*contratos de práctica*). Similarly, Figure 8 illustrates the proportion of the youth with a training contract who declare that they effectively follow some form of training or education program (either in the formal education system or in the form of non-formal training or education).

As can be seen, the reform of 2012 seems to have had a positive effect on the use of training contracts, and particularly so for youth in the age group 18-24. Moreover, we observe an increase in the proportion of employed youth with a training contract for all levels of education, but the share of training contracts remains low especially for the less educated. Only 8% of the employed workers in this cohort hold a training contract compared to around 14% for youth with a university degree, and for the low educated in the age group between 25 and 29 this percentage drops to below 2%. It is important to remind that this group includes many of the young persons who abandoned education during the period of the housing boom.

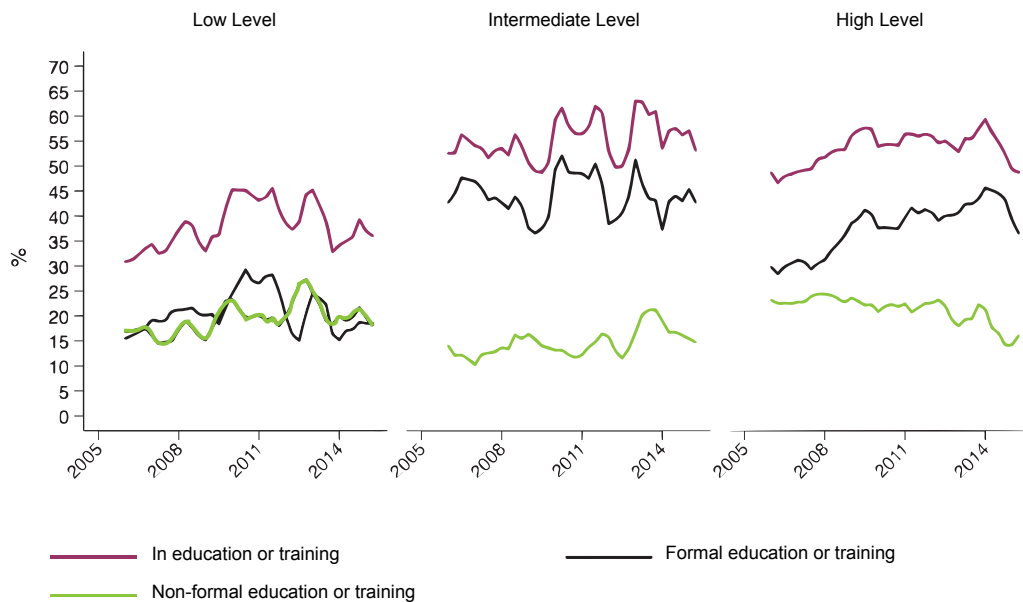
Figure 7: Percentage of young salaried workers with a training contract by age and level of education (2005-2015: Q2)



Source: Own elaboration based on data from the Spanish Labour Force Survey

Importantly, the less educated youth are also the ones who are least likely to receive some form of education or training among those with training contracts as indicated by the evidence presented in Figure 8. In particular, according to the data only 20% of the low educated with an apprenticeship contract perform studies that allow the participant to obtain an officially recognized degree within the formal system of education (*formación reglada*). By contrast, for those who completed their secondary education this percentage is more than double. In this respect it is important to stress that the 2012 reform has eliminated the option for those who did not complete compulsory education to accomplish this with the help of an apprenticeship contract. Their only option is to obtain a professional certificate. In other words, the reform has made it more difficult for this group to complete compulsory education and to gain access to intermediate level vocational training. Given the high number of unemployed dropouts in the age group below 30 this measure does not seem appropriate as a return to the formal schooling system may not be option for many of them.

Figure 8: Youth with training contracts enrolled in education or training programmes.
Annual averages by age and education (2005-2015: Q2)



Source: Own elaboration based on data from the Spanish Labour Force Survey

The participation of adults in lifelong learning.

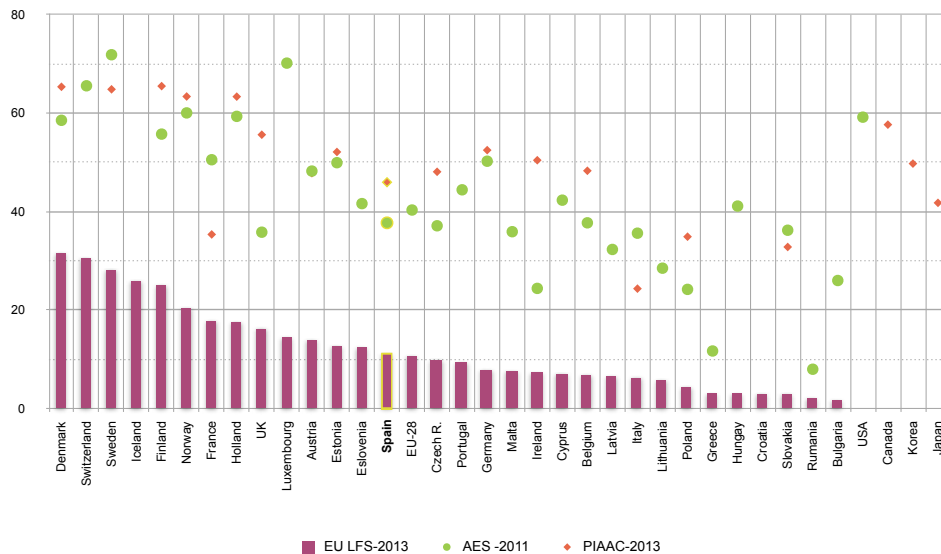
In this section, we analyze the characteristics of adult learning in Spain from two perspectives: on the one hand we will study its evolution during the crisis and, on the other hand, we will analyze the gaps relative to the countries where participation rates of adults in education and training are superior to ours. The aim is to quantify the

main gaps and to identify what kind of policies might encourage participation in lifelong learning in the Spanish context.

The European Commission repeatedly stressed the importance of lifelong learning as a key factor of economic growth in the European Union. Lifelong learning was incorporated into the objectives of the Lisbon Agenda (2010) and it is also placed among the strategic objectives for 2020. Specifically, to this date, all member countries should reach a rate of adult participation in education and training of 15%⁵.

The official data on adult learning is derived from responses to questions in the European Labour Force Survey about participation in learning activities (formal or informal) in the four weeks before the date of the interview. The latest results published by Eurostat for 2013 are shown in Graph 9. As you can see, the Spanish participation is slightly higher than the European average but it is still about 5 points off the target for 2020.

Figure 9: Participation rates in education and training (25-64)



Source: Eurostat and OECD

The four-week reference period of the EU-LFS is very short and might underestimate the participation rates. Some of the most recent surveys therefore use longer reference periods (usually 12 months). For example, if you look at the two most recent sources, the 2011 Eurostat *Adult Education Survey* (AES) (the circles of Figure 9) or

⁵ Adults are defined here as those aged 25 to 64 years. The data sources used are the Labour Force Surveys collected in the European Labour Force Survey, which will be referred in the text by its acronym EU-LFS.

the *Programme for the International Assessment of Adult Competencies* 2013 (PIAAC) of the OECD (triangles in Figure 9), we find that rates of adult learning in Spain amounted to 37.7% or 45.9% respectively. Hence, the participation in adult learning seems more widespread than as suggested by the EU-LFS but these alternative surveys lead to similar conclusions: First, the participation rates in Spain are close to the European average and second, there are several countries with higher participation rates that already comply with the objectives for 2020. These leading countries, which include the Scandinavian countries, Switzerland, the Netherlands, France and the United Kingdom will serve as a reference in our comparative analysis together with Germany and Italy⁶.

Once again it might be argued that the participation rates are not a good reference indicator as the objective need for adult learning is likely to be bigger in countries like Spain, given the comparatively low educational attainments and competence levels of its workforce, than in the countries that comply with the goals set by the European Commission. Still, the comparative analysis remains useful because we can exploit the differences in participation rates according to the characteristics of individuals, businesses, and jobs to assess the relative merits of the various systems of adult learning.

Differences by educational level and age

Figure 10 shows a prominent characteristic of adult participation in lifelong learning in Spain: it correlates strongly with the educational level of the workers. Participation rates of those with a college degree are 4 to 5 times the rates of those who have completed at most compulsory secondary education. This positive correlation between the participation rates in lifelong learning and education is the usual pattern in all countries, but the pattern is more pronounced in Spain.

Moreover, as shown in Figure 11, this positive correlation with education is observed for all age groups and is independent of sex. This Figure also shows the strong negative correlation of the participation rates with age. Finally, the participation of the less-educated in adult learning is residual for males and females for almost all age groups and, returning to Figure 10, in recent years we observe a drop in the participation rates for all four levels of education.

⁶ The inclusion of Germany and Italy is motivated by our desire to report comparative evidence for the five European countries that participate in the New Skills at Work program.

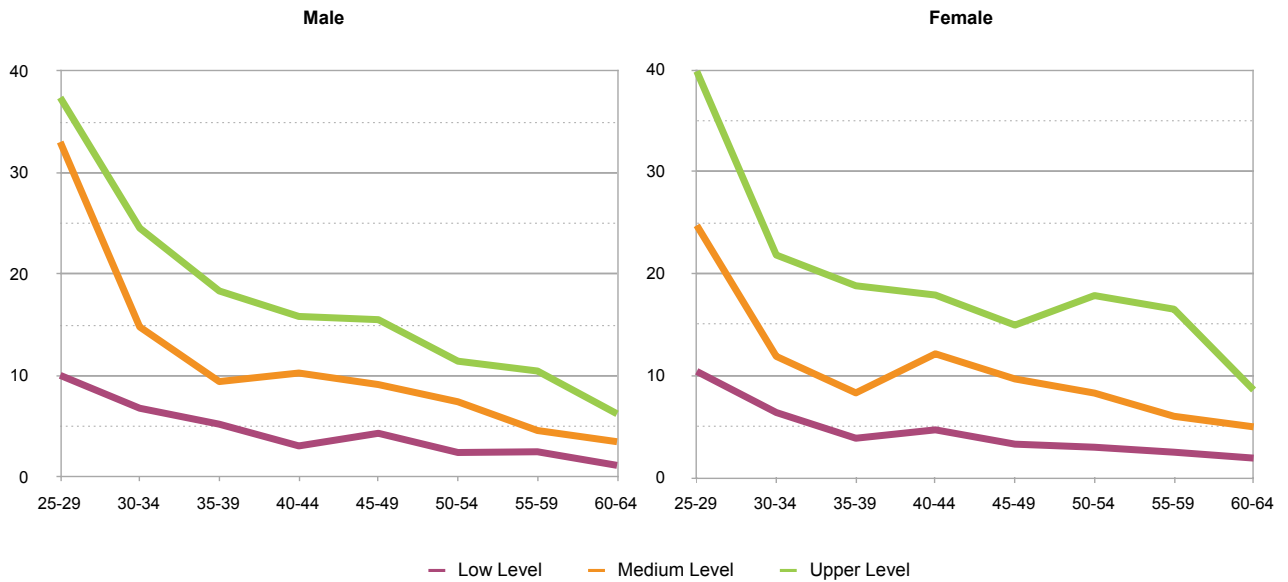
Figure 10: Participation rates in education and training. Yearly averages, 2005-2015: Q2)



Source: Own elaboration based on data from the Spanish Labour Force Survey

Human capital theory offers several potential explanations for the positive correlation between education and the participation in adult learning. To start with, the returns to human capital investments may increase with the level of education, either because education and adult learning are complements or because of selection as the best students tend to acquire more years of schooling. In addition, high-educated individuals may have more options to engage in lifelong learning activities than workers with less schooling because they tend to work in more knowledge-intensive sectors and occupations. Finally, firms may be more willing to invest in the training of their most skilled workers as this may strengthen the bond between the worker and the firm and reduce turnover. An in-depth analysis of these issues is beyond the scope of this report. Below we focus mainly on the differences in the pattern of participation rates compared to other countries and the recent evolution of the participation rates during the crisis.

Figure 11: Participation rates in education and training by age, gender and level of education (2015: Q2)



Source: Own elaboration based on data from the Spanish Labour Force Survey

Table 2 below offers comparable data on the participation rates in adult learning by level of education for our sample of reference countries. Two facts stand out. For all countries we observe a positive correlation between the participation rates and the educational attainments, and the countries that perform better than Spain in terms of the participation rates in adult education, do so at all educational levels. In Denmark, for example, the participation rate of the least educated is about 23% compared with 4% in Spain, and for persons with higher education the Danish rate is 41% compared to 17.5% in Spain. In relative terms, the differences are largest at the bottom of the skill distribution. In part, this feature may be explained by differences in the sectoral composition of employment, with a high weight of seasonal and knowledge-extensive activities in Spain. The second explanation for the differences in participation rates is the much higher spending on active labour market policies in Denmark.

Table 2. Participation rates of adults in lifelong learning activities by level of education (25-64, 2014)

	Total	Low	Medium	Upper
Spain	9,8	3,8	9,6	17,5
Germany	7,9	3,3	7	12
Denmark	31,7	22,8	28,3	40,7
Finland	25,1	13	21,6	32,9
France	18,6	8,1	15,5	29,7
Holland	17,8	8,8	17,6	24,9
Italy	8	2,2	9,4	18,7
Norway	19,7	11,9	16	26,3
UK	15,8	7,4	13,1	23,1
Sweden	28,9	19,6	24,2	38,4
Switzerland	31,7	10	26,7	44,3

Next, the cross-country comparison also confirms the negative correlation of the participation rates with age, and inspection of Table 3 reveals significant gaps in the participation rates for persons above 35 years' age, especially when we compare Spain to the Scandinavian countries or Switzerland.

Table 3. Participation rates of adults in lifelong learning activities by age (25-64, 2014)

	25-64	25-34	35-44	45-54	55-64
Spain	9,8	36,3	9,0	4,6	5,1
Germany	9,3	37,6	7,2	2,7	0,7
Denmark	28,6	60,1	33,2	19,3	17,9
Finland	18,6	40,4	25,8	16,5	8,1
France	12,6	26,6	12,5	9,3	10,2
Holland	10,5	32,8	10,7	7,7	4,9
Italy	6,7	26,8	3,1	1,4	1,6
Norway	14,7	41,8	17,5	7,4	1,9
UK	9,7	21,8	11,4	6,6	4,7
Sweden	28,7	60,1	37,6	19,4	12,1
Switzerland	17,7	38,6	18,7	12,9	10,2

Source Tables 3-4: Fuente: EU LFS annual subsample (Eurostat)

The recession and formal vs. non-formal education and training

Spain is recovering from a long and deep recession. During the crisis millions of jobs were lost in sectors like construction that were artificially inflated during the boom. Due to this massive displacement of workers who need to relocate to other sectors one would expect to observe a substantial rise in the participation rates in training programs. At the same time, however, the public spending on active labour market policies fell substantially, with severe cuts in the funding of training programs for the unemployed⁷.

While there are several studies (some specific to the Spanish context and others that offer cross-country comparisons) that analyze the profile of the participants in adult learning in Spain, little is known about the net-effect on participation rates of the rise in demand and the cuts in public spending on training during the crisis⁸. A recent study of Calero and Escardíbul (2014) uses data from the EPA to compare the participation rates in informal training of employees in 2007 and 2012. The authors observe an increase in male participation rates and a decrease in the case of women, which they interpret as evidence of the widening of the gender differences in the access to training during the crisis.

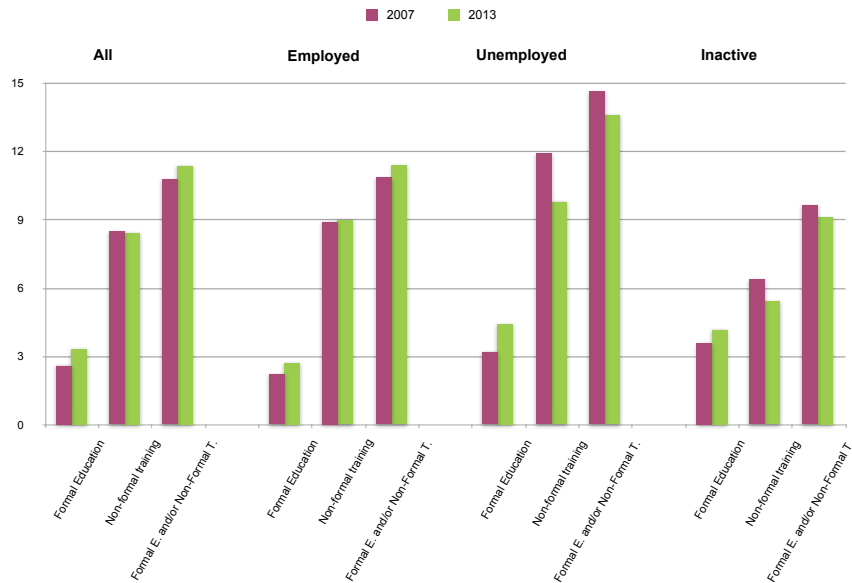
However, the recent changes in adult learning are more complex. There are substantial differences in the evolution of the participation in formal (offered within the regular schooling system and that entitle participants to official degrees) and non-formal education and training (taught courses by schools, in workplaces for unemployed, seminars, lectures, tutorials, etc.) and the changes also differ depending on the labour market status of the worker (employee, inactive or unemployed). Indeed, the overall participation rates in both systems of adult learning have remained fairly stable since the start of the recession (about 11% on annual average), but these aggregate figures hide important differences depending on the formal or informal character of the offered programs and the employment status of the participants.

7 See Felgueroso (2011) for a discussion about whether the adult education and training, and investment in human capital in general is counter-cyclical, pro-cyclic or acyclic.

8 For example, Abellán and Felgueroso (2005), Albert et al. (2005 and 2010), Cabrales (2014), Carvajal (2013), and Escardíbul Calero (2014), et Caparros. (2009), Felgueroso and Jimenez (2009 and 2011), Peraita (2005), to name a few studies carried out by Spanish researchers in the past 10 years.

Figure 12 reports the participation rates in formal and non-formal education and training by employment status of the participants. As can be seen, the overall participation rate has increased by only a few tenths between 2007 and 2013, and this increase can be attributed to a slight increase in the participation in formal training and education⁹.

Figure 12: Participation rates in formal or non-formal education and training by labour market status.
Annual averages 2007 and 2011, 25-64.



Source: Spanish Labour Force Survey (EPA, INE)

Moreover, when we distinguish by employment status, we observe a substantial decline in the participation rates in non-formal learning among the unemployed and a somewhat less pronounced drop in the same rate for the inactive. Still, the overall participation rate in non-formal education and training has remained virtually constant during the crisis due to the steep rise in the number of unemployed as this group typically has the highest participation rates. Regarding participation in formal education and training programs, we observe a small increase in the participation rates for all three groups (employed, unemployed and inactive).

There are several candidate explanations for the above-mentioned changes. Clearly, the fall in the participation rate of the unemployed in non-formal training and education may be driven by the substantial cuts in the public

⁹ The fall recorded since 2014 and that can also be seen in Figure 10 has no clear explanation. The National Classification of Education (CNED-2014) has been modified, but this should not have influenced the question on participation rates in education and formal and non-formal education that calculate the rate of participation in education or training system. See Felgueroso (2015) for a more detailed discussion of this issue and a more in-depth analysis of the participation in adult education in the recession with additional data from the Ministry of Education, Culture and Sports.

spending on the (re)training of the unemployed. These cuts have been particularly severe since 2011 and they led to the interruption and/or the downscaling of many training programs. But in part the observed pattern for the unemployed may also respond to an optimal switch from non-formal to formal learning programs driven by a drop in the opportunity cost of formal learning programs, especially in the case of the low educated who face very high unemployment rates and low hiring rates. For these workers it may be optimal to temporarily abandon the labour market to complete their education and to return to the labour market when the employment prospects for this group has improved. Finally, it might be the case that the persons who have swelled the ranks of the unemployed during the recession were simply less prone to participate in non-formal education or training in the first place. The available data do not allow us to quantify the importance of the various channels, but on balance unemployed workers reduced their overall participation in formal and non-formal learning activities during the crisis.

A cross-country comparison of the participation rates in formal and non-formal education and training shows that these rates have increased in all of our reference countries, with the only exception of the UK. Moreover, the rise in participation is concentrated in non-formal learning programs. Indeed, it is precisely in the participation rates in non-formal learning programs where we observe the most pronounced differences between Spain and the reference countries, although there are also sizeable differences with respect to participation in formal learning programs when we compare Spain to the Scandinavian countries or the Netherlands.

Table 4. Participation rates of adults in lifelong learning.
Regular versus informal training and education (25-64, 2007 and 2013)

	Formal and/or NonFormal		Formal		Non-Formal	
	2007	2013	2007	2013	2007	2013
Spain	10,6	11,1	2,4	3	8,5	8,4
Denmark	29	31,4	5,7	6,5	24,8	26,6
Switzerland	26,8	30,4	5,1	4,7	23,6	27,3
Finland	23,4	24,9	8,2	8,9	16,8	17,7
UK	20	16,1	5,5	5,1	18	13,9
Sweden	18,6	28,1	5,9	7,1	13,6	23,2
Norway	18	20,4	5,1	6,2	13,6	15,2
Holland	16,6	17,4	6,8	6,5	9,8	10,9
Germany	7,8	7,8	2,9	3,2	5,2	4,9
France	6,1	17,7	0,7	1,5	5,5	16,5
Italy	6,2	6,2	3,1	2,5	3,3	3,8

Source: EU LFS annual subsample (Eurostat)

The determinants of participation in lifelong learning in Spain

In this section we perform a somewhat more systematic analysis of the determinants of lifelong learning in Spain, using data from the yearly subsamples of the Spanish Labour Force Survey for the period 2007-2015. In line with the existing literature, we explore how demographic characteristics of the workers plus variables like tenure, size of the firm and industry affect the likelihood of participation in lifelong learning for employed workers. Similarly, in case of non-employed workers (either unemployed or inactive), the analysis allows us to explore how the participation in lifelong learning evolves with the duration of non-employment, benefit entitlement and the person's relationship with the public employment services.

Formally, we estimate a *multinomial logit model* with three competing outcomes: no participation in lifelong learning, participation in formal education or training and participation in non-formal education or training. The persons who respond that they have participated in both systems of adult learning during a given year are included in the second category. The results are reported in table A-1 (see appendix). The reported coefficients

are *relative risk coefficients*. A ratio larger than one indicates that a person with this specific characteristic is more likely to participate in formal (Column 1) or non-formal (Column 2) education or training than the reference group, and the opposite is true for ratios smaller than one.

Demographic characteristics Inspection of the Table shows that the likelihood of participation in lifelong learning is falling with age and rising with the educational attainments of the workers. Moreover, foreigners are less likely to participate in lifelong learning than nationals (or persons with a double nationality). In all three cases, the differences are most pronounced in the case of formal education or training. Finally, other things being equal, women participate less often in formal and more often in non-formal education or training than men do.

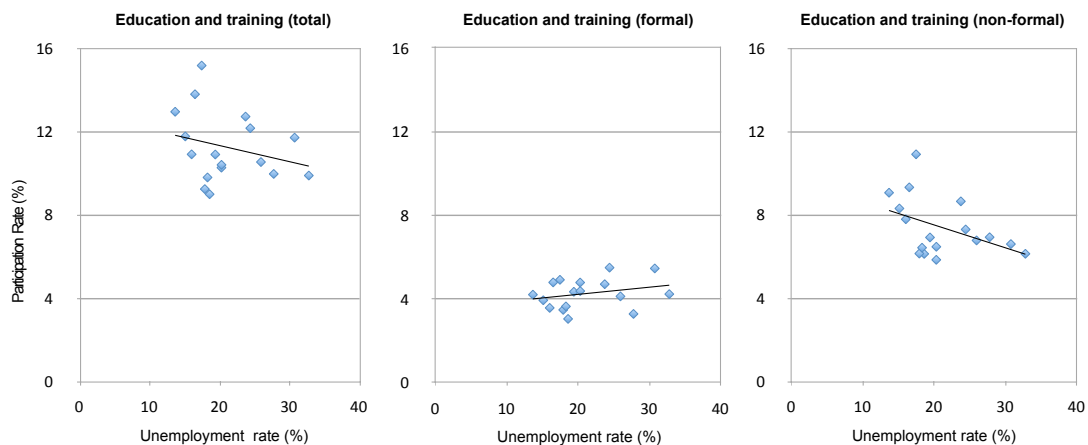
Employment status The next set of variables explores how the likelihood of participation in lifelong learning depends on a worker's employment status. Our results indicate that salaried workers in the private sector (our reference group) tend to participate more in both systems of lifelong learning than self-employed persons, but less so than employees in the public sector and the unemployed or the inactive. For the unemployed we find that the likelihood of participation in non-formal learning follows an inverted U-pattern in the duration of the spell. The maximum likelihood is reached during the second year of unemployment, but even for the short-term unemployed and the very long-term unemployed with durations above 4 years, we obtain relative risk ratios close to 3. Furthermore, the likelihood of participation is higher for registered unemployed than for unregistered unemployed. The latter probably reflects the fact that participation in many of the subsidized training programs for the unemployed is restricted to those who are registered as such with the public employment services.

Next, for the employed workers we find that the likelihood of participation in both systems of lifelong learning follows a U-pattern in tenure. Employees with short tenures below three years are more likely to participate in adult learning than workers with longer tenures although participation starts to rise again beyond the tenth year of tenure. Furthermore, we find that the participation in non-formal learning is increasing in firm size and it varies considerably across sectors. The health sector, the education sector and professional activities are the industries with the largest likelihood ratios while the lowest ones are observed for mining and retail and wholesale trade.

Finally, our estimations reflect a rise in the overall likelihood of participation in formal education or training and a mild drop in the likelihood of participation in non-formal learning.

Regional variation The data also allow us to explore relevant variations along the regional dimension. The results indicate that there is a large degree of inter-regional variation in the participation in formal and non-formal learning that is not accounted for by our list of firm and worker characteristics. One possible explanation for the residual variation in participation are the substantial regional differences in aggregate labour market conditions. For instance, inspection of Table A-1 shows that the participation in non-formal learning is relatively high in regions with below-average unemployment rates like the Basque Country, Navarra or the Rioja. By contrast, participation in formal learning is most intense in regions such as Andalusia or Castilla la Mancha with historically high unemployment rates. In Figure 13 we illustrate this point by plotting the regional unemployment rates on the horizontal axis and the regional participation rates for each of the two systems of adult learning on the vertical axis. In the case of non-formal learning we observe a negative correlation between the participation rate and the local unemployment rate. Once again this seems to indicate that the participation in lifelong learning activities is relatively low among the most disadvantaged collectives. This is partly compensated by a positive correlation between the regional unemployment rates and the participation rates in formal education and training, but overall we obtain a negative correlation between the unemployment rates and the participation in adult learning.

Figure 13: Regional participation rates in adult learning vs. regional unemployment rates



Source: Spanish Labour Force Survey, annual subsample.

Felgueroso (2015) performs a comparable cross-country analysis of the profiles of the participants in formal and non-formal adult learning programmes for a sample of countries that includes Spain, France, the UK, Switzerland, Sweden, Finland, Denmark and the Netherlands. The econometric methodology is very similar to the one used here, but the data from the European Labour Force Survey do not permit the same level of detail as the data from the Spanish Labour Force Survey.

The principal conclusions can be summarized as follows:

- The age pattern of the participation in formal learning is similar across countries, but the negative slope of the age profile is nowhere as steep as in Spain.
- The negative difference in non-formal adult learning between natives and immigrants is also larger in Spain than in the reference countries. Indeed, in some of these countries immigrants are more likely to participate in non-formal learning than natives.
- The relatively high participation in formal learning of the unemployed is observed for all countries and the differences between unemployed workers with different durations tend to be small.
- The same is true for the relatively high participation rate of the unemployed in non-formal education and training. Moreover, the participation rates seem to rise somewhat after the sixth month of unemployment. Compared to the other countries in the sample, Spain is the country with the third-highest relative risk coefficient for the unemployed, behind Finland and Sweden. In the latter two countries, participation also increases more strongly with duration than in Spain.

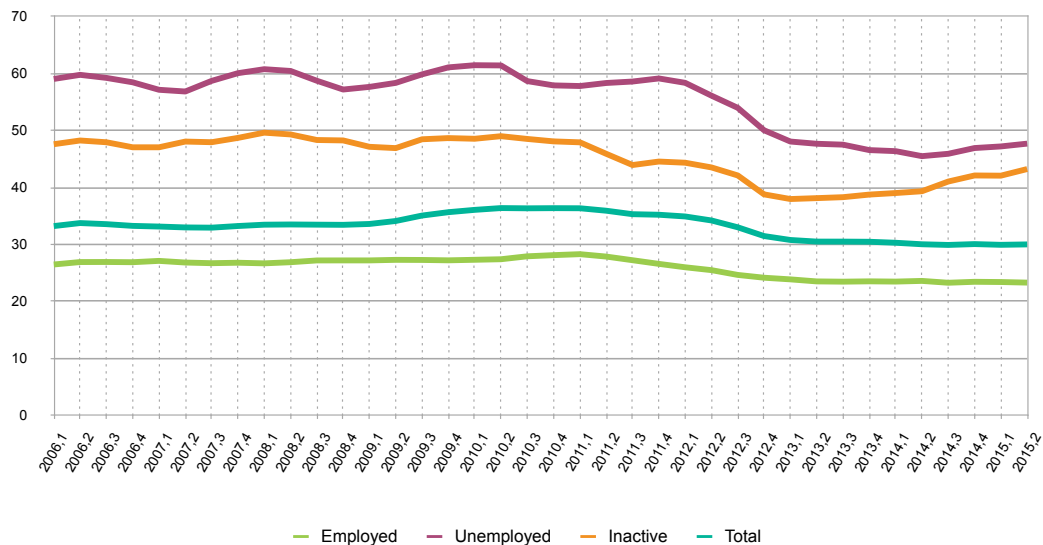
It is important to stress, however, that the estimations cannot conceal the large negative differences between the mean participation rates in the reference countries and in Spain. For example, almost 30% of the Danish and Swiss employees participate in non-formal training activities compared to less than 10% in Spain. Similarly, 45% of the Swedish unemployment and 33.5% of the Danish unemployed participate in some form of learning, compared to only 13.2% in Spain and for the case of formal learning the observed differences are even more pronounced.

The intensity of participation in lifelong learning

Besides the incidence of participation it is also important to consider the intensity of the participation in adult learning. The latter can be measured by the weekly or monthly hours devoted to learning activities. Both the EPA and the EU-LFS only provide information on the hours devoted to non-formal education and training. Two noteworthy facts are observed.

First, the average monthly hours devoted to non-formal training or education declined for all occupations since 2011, and the decline is most pronounced in the case of the unemployed. In the period until 2014, the monthly time devoted to adult learning fell by more than 10 hours in the case of the unemployed and by more than 5 hours for employees. Thus, the economic recession and the cuts in public spending on training programs seem to have had a greater impact on the intensity of non-formal education and training than on participation in this type of learning activities. Nonetheless, the economy-wide average of the time devoted to adult learning increased due to a composition effect: the unemployed are still the ones who devote most time to informal learning activities and their number rose enormously during the crisis.

Figure 14: Monthly hours devoted to non-formal training by labour market status.
Annual averages, 25-64, 2006-2015: Q2)



Source: Spanish Labour Force Survey (EPA, INE)

Another relevant observation is the fact that Spanish adults devote considerably more time to adult learning programs than their peers in the 10 reference countries, and this is true for employed, unemployed and inactive workers. The details are shown in Table 5 that reports data from the annual sub-sample of the EU-FLS for 2013. Inspection of the table shows that the differences are especially large in the case of unemployed and inactive persons. The only exception is Germany where the unemployed and the inactive devote more time to adult learning programs than in Spain. In this respect it is important to recall that Spain and Germany also presented the lowest participation rates in adult learning, behind Italy. This suggests that there may be a relationship between low rates of participation and the intensity of the training programs. In particular, in Spain and Germany it may be difficult to reconcile family life and participation in training activities as the latter require more hours than in other countries.

Table 5. Monthly hours devoted to non-formal training by labour market status (25-64, 2013)

	All	Employed	Unemployed	Inactive
Spain	33,2	24,5	52,6	45,3
Germany	21,2	17,4	62,3	57,4
Denmark	16,6	15,2	35,7	17,7
Finland	11,8	10,6	30,0	18,7
France	13,7	12,8	20,6	16,3
Holland	17,9	16,0	32,6	32,4
Italy	6,2	5,8	10,9	7,2
Norway	15,9	14,7	41,9	33,8
UK	9,2	8,5	14,6	11,3
Sweden	10,8	9,4	26,5	14,5
Switzerland	14,4	13,8	29,2	16,8

Source: Fuente: EU LFS submuestras anuales (Eurostat)

Characteristics of the system of lifelong learning in Spain

The objective of this section is to offer a detailed description from a comparative perspective of the peculiarities of the Spanish model of adult learning.

Programs for the acquisition of basic skills

Following a recent report by Eurydice (2015), programs aimed at the acquisition of basic skills can be divided at least into three main groups:

1. Programs within regular education that allow participants to complete lower secondary education (ISCED 2).
2. Programs outside regular education aimed at acquiring basic skills including reading comprehension, literacy, mathematics, and ICT.
3. Programs to gain access to higher educational levels and the acquisition of basic skills during work (vocational training, active labour market policies) and others such as popular education.

According to this report, Spain does not have training programs to provide adults with basic educational skills that do not require a return to the formal educational system. Virtually all Western-European countries have some sort of program other than initial education that allow adults to acquire a set of basic skills (reading comprehension, numerical literacy and computer skills). These programs are not directly linked with the existing systems of initial or formal education and they typically have their own lines of funding. Moreover, their aim is not to provide access to post-obligatory education, as is the case for the existing programs in Spain.

Importantly, although the programs of type 2 for the acquisition of basic skills are taught outside the formal education system, several countries do recognize the degrees and certificates obtained in these programs in their official systems of qualifications. In most countries, these programs are a competence of the Ministry of Education, but in others they are considered to be part of the country's active labor market programs. This is the

case for instance in France, where 90% of participants in the programs to acquire basic skills are unemployed. In Norway, on the contrary, the program of basic work related skills is geared towards employees.

The Eurodyce report acknowledges that some regions in Spain run programs of this kind. What is missing though is a comprehensive program at the national level that is not based on a return to the formal education system. Moreover, the existing programs of the Autonomous Regions are moderate in scope. According to the EPA for the fourth quarter of 2014, there are 4.2 million adults aged between 25 and 64 who failed to complete compulsory education. Of these 4.2 million persons, only 3.5% was engaged in some sort of learning program: 1% in the formal education system and 2.5% in non-formal programs outside the schooling system. One might be tempted to think that the bulk of this group are elderly with very low rates of schooling, or foreigners from countries with less advanced educational systems. However, this is not the entire explanation. The above-mentioned group includes 850,000 native people below 45 years and of these persons only 6% (3% in the formal and another 3% outside the formal schooling system) are engaged in some form of training or education.

Additional data from the Ministry of Education, Culture and Sports indicate that only 68,000 people enrolled in an adult learning program to acquire basic skills in 2013-2014, 51.5% less than in the pre-crisis period 2006-2007. These numbers contrast with the significant rise in enrollment in secondary education (by 25.6% for in-class learning and 86.3% for distance learning), although enrollment remains relatively low at around 178,000. At the same time there has also been significant increase the number of persons who registered to take part in the entrance exams to school-based vocational training and university.

Finally, the EU-LFS surveys confirm the enormous weakness of Spain in formal adult education for the less educated. In 2013, only 0.20% of the adult population (25-64 years) participated in formal programs to acquire basic skills (*enseñanzas iniciales para adultos*), while Spain is one of the countries with the highest share of adults without completed primary education as was shown in Section 1. Similarly, only 0.4% of adults participated in mid-level studies while almost 3% of the adult population participated in higher education programs (ISCED levels 5 and 6). By way of comparison, the participation rates for initial and lower secondary education programs are lower than in the Netherlands, Sweden and the United Kingdom. And in the case of mid-level education the Spanish rate is lower than in any of the reference countries and only 50% of the corresponding rate in Finland

and the Netherlands. Spain also presents lower participation rates in tertiary education than Sweden, Finland, and Denmark, but the most surprising findings are the low rates of participation in initial and mid-level education as almost 15% of the adult population did not complete compulsory education while another 29% have at most completed compulsory education.

Progress in the area is vital, but so far the scheduled reforms do not include the introduction of a nation-wide program of second-chance education for adults, nor have there been attempts to harmonize the existing programs at the regional level¹⁰.

Employment training programs

In Spain, in 2013, 80% of non-formal learning was job training (*formación para el empleo*), either meant for the person's current job or for a future job. These rates are even higher among employees (84%) and the unemployed (87%), while the corresponding percentage among inactive workers is 43%. These totals are similar to those of the Swiss and the Finnish, somewhat lower than those of the Danes, and almost double those recorded in France and the United Kingdom (no information is available for Sweden, Norway, and Germany). But once again there are important composition effects: the participation rate among the inactive and unemployed persons is much higher in Spain than in Switzerland or Finland. Moreover, the age structure of the inactive population is key as the participation in job training among workers over 50 years is less than 20%.

The structure of the training system for employment in Spain

The system of job training in Spain consists of three subsystems. The so-called *formación de demanda o bonificada* (training on demand) that is made up of the training programs offered by companies. These training programs aim at increasing the competitiveness and productivity of firms by improving the skills and qualifications of their employees. Companies are entitled to financial aid to carry out this type of training programs in the form of social security rebates.

10 The only relevant novelty in this area is a proposal by one of the opposition parties to develop a second-chance program that would allow 700,000 of the low-educated NEET in Spain to either acquire basic skills and competences or recognition of their professional experience.

Companies can choose to organize the training programs themselves or they can decide to cooperate with other firms, delegating the management of the program to a single organizing entity. Using Individual Training Permits, businesses can allow their employees to pursue studies that are officially recognized and that lead to some form of qualification, including professional certificates and titles.

The second subsystem is the so-called *formación de oferta o subvencionada* (supply-side training). This type of training courses, open to both employed and unemployed persons, are offered for free by employers' organizations, trade unions, third-sector organizations and appropriately registered and accredited training centers. The unemployed workers who participate in these programs are entitled to scholarships and grants for maintenance and to pay for transportation costs.

Finally, the *formación en alternancia con el empleo* comprise the training provided to workers as part of an apprenticeship or trainee contract and the public training programs that allow participants to combine training and the acquisition of work experience in the workplace.

During the last legislature, the system of job training has undergone two relevant changes: as mentioned before, the public funds for the training of the unemployed have been cut and a profound reform in the delivery of job training is underway.

Public spending on job training

According to estimates of the National Public Service of Employment, between 2011 and 2014, the resources allocated to training fell by one billion euros. This corresponds to a 34.5% cut. Public contributions to the training of employees were reduced by 32.4%, while the training programs for the unemployed and the so-called *escuelas taller* suffered cuts of, respectively, 31.3% and 57%. The State contributions to training fell by 87% and concurrently there was a substantial drop (10.2%) in the training fees paid by firms, which can be attributed to the drop in employment and wages during the crisis.

The State Budget for 2016 foresees an increase in the annual budget for job training of about 6%, while the funds for the training of unemployed are scheduled to rise by about 12%. However, these budget increases are small compared to the budget cuts in the period between 2011 and 2014.

It is hard to make a comparison of current public expenditure on active training policies between Spain and the reference countries because we have only reliable data up to 2012. As shown in Table 6, in 2011, that is before the biggest cuts took place, Spain's spending on active labour market policies, measured in percentage of GDP, was in line with the European average, and Spain spent even more than countries such as Holland or Sweden. However, the data also show marked differences in the way the available funds were distributed between the participants, the firms and the providers of the training.

In Spain, most of spending was earmarked for the training providers. By contrast, almost no money was transferred directly to participants.

Table 6. Public Spending active policies for training, participation and transfers (2011)

	Public spending on education% of GDP	% Expenditure / GDP by type of transfer			Spending per person wanting to work in pps	Partici-pant-es (%)
		Individuals	Business	Provides -mers		
Spain	0.188	0.005	0.048	0.136	317.55	50
France	0.353	0.173	0.093	0.086	1.717	14.9
Holland	0.132	0.041	0.064	0.027	827.17	19.8
Finland	0.517	0.369	0.017	0.131	2031.17	16.1
Sweden	0.085	0.042	0	0.043	394.47	2.9
Norway	0.187	0.148	0	0.039	1972.83	10.9
Denmark	0.496	0.485	0.011	0	2117.81	16.7

Source: Eurostat

This contrasts with the experiences in other countries. In Denmark, the country with the highest rate of participation in adult learning, almost 100% of the funds are transferred directly to participants and in most other countries participants receive a substantial fraction of the funds. Even in Sweden, where formal education and training has more weight than non-formal training and education, half of the budget for non-formal programs is transferred to the participants rather than the providers or the employers.

Given the reduction in the budget for job training since 2012, it is likely that the public funds for training providers have converged to the levels of the reference countries, but until now there were hardly any transfers of funds to participants.

The reform of the system of job training: an assessment

Table 6 provides relevant information, but the system of job training in Spain is bound to undergo a profound transformation due to the changes laid down in the Royal Decree-Law RDL 4/2015 (*Reforma Urgente del Sistema de Formación Profesional para el Empleo en el ámbito laboral*) and Law 30/2015, of September 9.

The prologue of the above-mentioned Royal Decree identifies several weaknesses in the existing design of job training in Spain. A lack of coordination between the different areas; the lack of a strategic plan to foster the system of dual vocational training in the form of apprenticeships and traineeships; the poor link between the supply of training programs and the need of firms, especially in the case of the training programs open to SME's; Scattered information about the available programs and a lack of evaluation of their impact on participants. Finally, the prologue refers to deficiencies in the role of the social partners in the design and the execution of the bulk of the existing training programs.

The above reforms envisage several profound changes in the system of job training, some of which are already underway, to overcome these problems and to guarantee the individual rights to training for workers and firms. Here we would like to highlight three of the most important changes.

Firstly, in the future the supply of training programs will be determined on a competitive basis, forcing training providers to compete for the available funds. The competitive allocation of funding makes an end to the existing monopoly of the social partners. Secondly, workers will be assigned an individual training account that summarizes the training the worker has received along his or her entire working career. In addition, the government plans to introduce a system of training vouchers for the unemployed, allowing them to fund training programs of their own choice. The implementation of these training vouchers will be a competence of the regional governments. And, last but not least, the training programs will be evaluated continuously to measure the quality of the impact of these programs on participants.

The recent economic literature offers a wealth of information on the experiences with training vouchers in other countries¹¹.

The main argument in favor of training voucher is that they increase the freedom of choice of the participants. This should lead to better matches between applicants and training providers with a likely positive effect on the effectiveness of the training programs. Moreover, the freedom of choice encourages competition between the training providers and this may help to improve quality.

In the case of employed workers, training vouchers may also improve the access to training allowing also workers who have not been selected to participate in courses that are financed or run by their company.

However, the argument that the increased freedom of choice necessarily leads to higher utility or efficiency is questionable. The beneficiary of the training voucher may fail to make the right choice from the viewpoint of society. One of the most important issues in the case of training vouchers for the unemployed is therefore whether the system should be extended to all groups of unemployed workers, including the less-educated ones, or whether it is more efficient to assign these workers to specific programs for low-educated workers.

Barnow (2009) identifies several potential sources of information failures that could lead to an improper use of the training vouchers. First, participants may have insufficient information about the demand for occupations and the associated wage payments. Second, the participants may insufficient information about the relative effectiveness of the different service providers and, finally, their choices may be based on incorrect perceptions of their abilities for various occupations and training programs. The first two failures can be resolved by providing information to participants in the program, while the third failure requires guidance and orientation by experts.

The United States has more than half a century of experience in developing training programs based on training vouchers. On the basis of numerous evaluations of these programs the United States has passed successive laws that established minimum conditions that need to be satisfied to implement such programs. First, the States have to create a list of eligible training providers that meet the State's requirements on placement rates and the wages that are achieved upon completion of the program. Secondly, the funded programs need to focus on high demand occupations. Third, local programs are allowed to set limits on the duration and the cost of

11 See Felgueroso (2015) for a more detailed analysis of the theory and empirical evidence on training vouchers

training for the beneficiaries. And finally, local programs are allowed to use counselors to give guidance to the unemployed on how to use the training vouchers. Similar rules should be considered in Spain to guarantee a proper allocation of the available funds.

Furthermore, most countries that implemented training voucher scheme conducted an *ex-ante* evaluation on the basis of a pilot project with a limited number of participants. Such an evaluation may help to obtain reliable estimates of the actual impact of the training vouchers, especially if the pilot program takes the form of a randomized trial in which potential participants are randomly assigned to treatment and control groups.

The existing evidence indicates that training vouchers tend to achieve a significant rise in the participation in training courses. However, this often comes at the expense of substantial deadweight costs. Furthermore, counseling only produces positive effects if potential beneficiaries receive individualized attention in accordance with their profile. Given the lack of experience with training vouchers in Spain, an *ex-ante* evaluation on the basis of a randomized trial could serve to finetune the design of the system before it is fully deployed. And independently of whether such a randomized trial is implemented or not, the authorities should perform a periodic *ex-post* evaluation of the results to identify possible margins of improvement.

Further policy recommendations

The available evidence shows that public funding and economic incentives for training tend to produce mixed effects, depending on the design of the programs and the characteristics of the target groups. The response of the participation rates may differ across target groups and the same may be true for the impact of training participation on subsequent labour market outcomes. The latter include employment rates (re-employment of the unemployed or the ability to maintain one's job), occupational mobility (within and between firms), salaries, or match quality. Moreover, the effects tend to vary with time in ways that depend on the characteristics of the target group and the state of the business cycle.

Consequently, it is impossible to give categorical answers about the effectiveness of these public programs and incentives, but one can draw a number of relevant conclusions. The first one derives from the fact that the market for training is imperfect and plagued by information asymmetries. A country that wishes to design an ef-

fective and efficient system of training incentives should therefore start by collecting precise information about the existing demand and supply of skills and competences and generate information about the relative efficiency of the various types of incentives. Moreover, it is key to guarantee transparency, that is, all this information should be made publicly available in order to improve the quality and the orientation of the training programs so that the participants acquire the skills demanded by local employers. This is obviously not an easy task, but if Spain wants to improve the level of cognitive skills of its workforce and remedy the problem of the widespread lack of basic skills and competences, it will have to make decisive steps in this direction, distinguishing carefully between the needs of the employed and the unemployed.

Training programs and incentives for the unemployed

The public involvement in training is most direct in the case of the unemployed. To start with, the Public Employment Services (PES) should compile a detailed profile of all the registered unemployed, or at least the ones who may need assistance. For all those who are not in a position to immediately return to the labour market, the profile should identify what competences or skills might help to remove the barriers to re-employment. As a first step, it would be convenient to develop a statistical profiling tool that allow the PES to estimate a person's employability conditional on a wide set of indicators that capture his or her (non-) cognitive skills and relevant work experience. The outcome of this profiling exercise should be a precise estimate of the probability that the person will exit unemployment and/or manage to find a suitable job, taking into account the expected evolution of demand for workers with similar characteristics. For this to work, the statistical profiling tool should make an efficient use of the information about the characteristics and the exits of job seekers that is stored in the information system of the PES. And this information should be supplemented with detailed information about the competence level and the experience of the job seeker that is collected during the intake interviews. Many countries have been using this type of statistical profiling system for quite some time, but in Spain neither the national PES nor the majority of the regional PES currently have such a tool.

The necessary information about the current and future demand of competences by firms can be compiled in various ways. The PES could use the information about the vacancies registered on its own *Portal de Empleo*, but an even better option is to send out surveys to local employers with questions about current and expected

skill shortages and manpower needs. Surveys of this kind have proved to be a useful ingredient in the configuration of public training programs in Madrid and are a better tool to detect future skill shortages than online registers of existing job vacancies. More in general, it is important to establish strong local networks that involve representatives from the local PES, firms and training institutions. The new information technologies are rapidly changing the competences needed by firms and regular information sharing through these networks may help to anticipate those changes.

Next, besides being a tool to assist the staff of the PES (and possibly also private intermediaries and third sector organizations) in the orientation of the unemployed, the profiling tools also have to serve two more functions. First of all, they should facilitate the design of personalized itineraries. Throughout Europe, personalized itineraries have become the corner stone to articulate programs for the long-term unemployed and Spain intends to follow the same route. However, the proper implementation of the announced plans seems impossible without a substantial investment in the recruitment and preparation of additional job coaches to reduce their workload (which is currently among the highest in Europe) and improve their knowledge of the local labour market.

Second, the statistical information of the PES should also be used for a systematic evaluation of the impact of the training options or incentives offered to the unemployed. Rigorous evaluations of this kind should be performed on a regular basis and the output of these evaluations should serve to improve the design of the personalized itineraries and to reorient the public funding of training to those programs with a proven impact on the participants' employment opportunities.

Training incentives for the employed

Spain should also strengthen the policies aimed at prevention of skill obsolescence. People are asked to work longer to guarantee the sustainability of our welfare systems, but at the same time the skills of many older workers are becoming obsolete more quickly due to the rapid introduction of new technologies. These two phenomena create the need for programs that allow older workers to recycle themselves to avoid the risk of dismissals motivated by skill obsolescence. In particular, Spain should stimulate preventive investments in the training and recycling of older workers with programs that offer compensation and/or facilities to worker and his or her employer.

One option would be to introduce individual training accounts that do not only contain exhaustive information on training participation and the qualifications of the worker, but also periodic contributions of the employer that the worker can use to finance training, either during employment in the current or future job or during unemployment. In other words, the funds should be portable so that they can also serve to fund training if the worker loses his or her job. A complete transformation of the current system of collective funding of training programs at the sectoral level to a system of individual accounts is probably undesirable, as low-wage earners would build up lower entitlements than high-wage earners. However, the current system also fails to generate a sufficient participation of the less-skilled workers and, in particular, the employees of SME's in formal and non-formal training. Spain should therefore decide whether to continue with the current system of collective funding or to move to a mixed system that redirects part of the funding to individual accounts.

Last but not least, the experience during the crisis shows that preventive action should start in school. The participation rates of the less-educated employees in training activities is typically very low and budgetary problems may not allow governments to invest a sufficient amount in active labour market policies in recessions. Reforms in the educational system are therefore needed to reduce the unsustainably high dropout rates in Spain and to achieve a better match between the supply and demand of skills. Both issues will be addressed in future reports of *New Skills at Work in Spain*.

conclusions

In this report we have documented the comparatively low level of cognitive skills of the adult population in Spain, and in particular a widespread lack of basic cognitive skills and competences, reflecting profound deficiencies in the educational system.

Despite the advances in adult learning over the past two decades, major progress is needed if Spain wants to catch up with the reference countries in Northern and Central Europe. One issue are the comparatively low participation rates in adult learning, but there are other potentially more important aspects. In particular, the data presented in this report reveals substantial inequalities in the access to adult learning by age and, especially, by level of education. The participation in lifelong learning of less educated is testimonial in Spain. In this regard, the authorities should set clear goals and adopt appropriate measures to foster the acquisition of basic cognitive skills. One interesting option is the development of flexible programs to acquire basic skills outside the education system but with official recognition. Unlike most Western European countries Spain currently does not have a nation-wide program of this kind. The existing programs are all integrated in the formal education system and are not adapted to the needs of those who abandoned education at an early age.

Another hurdle are the excessive number of monthly hours of learning activities in the existing programs of non-formal education and training. This makes it difficult to reconcile adult learning with work and family life, and, therefore, acts as a disincentive for the participation in adult learning.

In any case, one of the most surprising facts is that we have not observed an increase in the participation rate in adult learning during the crisis, despite massive job loss and a need for workers to move to other sectors and occupations. Most likely, the budget cuts in education and training programs for the unemployed are partly to blame. In fact, since 2011, we observe the steepest drops in the participation in non-formal programs of education and training which is the main pillar of adult learning. The drop in public funding of lifelong learning programs comes on top of the financial distress faced by many households in Spain and which may obstruct the access to education and training of the most needed.

Finally, a last relevant aspect is the way the available funds for adult learning are distributed between training providers, employers and participants. Until now training providers and employers received the bulk of the available funds, but this may change if the plan for the introduction of training vouchers is realized.

The available evidence suggests that training vouchers may significantly improve the access to training. However, they may come at the cost of significant deadweight losses, that is, they may end up subsidizing persons who would have acquired training in any case even without the voucher. Therefore, it would be important to implement a pilot project to clarify which groups should be entitled to a voucher and what amount of subsidy is needed to effectively raise the participation rates of these groups in relevant education and training programs. In addition, the experience in other countries indicates that it is important to assess the effectiveness of the training providers and this information should be made available to the recipients of the training vouchers. Finally, the introduction of training vouchers should be accompanied by an investment in the training and recruitment of counselors who can guide the recipients of the vouchers in their training decisions.

Finally, achieving a rise in the participation in adult learning is one thing, but what ultimately matters is that these programs are effective and offer the right type of training. Only some of the top ranking countries in the participation rates in adult learning consistently assess the effectiveness of their training programs using state of the art techniques. Spain still has a long way to go in this respect, but the time has come to make a decisive step in this direction. Both the intention to implement a transparent system of training voucher program and the commitment to perform program evaluations laid down in the 2015 reform are useful first steps in the right direction.

appendix

Table A-1: Results from multinomial logit estimations:

Participation in formal education or training, / non-formal education or training, / no participation,
Spain 2007-2013

	1.123	0.097		1.150	0.050	***
Telecommunications						
Financial services	1.424	0.128	***	2.220	0.080	***
Professional services	1.672	0.102	***	1.311	0.040	***
Administrative services	1.473	0.113	***	1.279	0.045	***
Public administration	1.271	0.097	***	1.142	0.040	***
	Participation in formal education or training			Participation in non-formal education or training		
	RRR	Standard errors		RRR	Standard errors	
Female	0.755	0.018	***	1.103	0.014	***
Spanish nationality	-	-	-	-	-	-
Double nationality	1.013	0.100		0.958	0.051	
Foreigners	0.401	0.023	***	0.693	0.020	***
25-29	-	-	-	-	-	-
30-34	0.292	0.009	***	0.671	0.014	***
35-39	0.143	0.005	***	0.591	0.012	***
40-44	0.116	0.005	***	0.543	0.012	***
45-49	0.084	0.004	***	0.505	0.011	***
50-54	0.046	0.003	***	0.432	0.010	***
55-59	0.025	0.002	***	0.350	0.009	***
60-64	0.017	0.001	***	0.346	0.010	***
Low level of education	-	-	-	-	-	-
Intermediate level of education	5.513	0.203	***	2.006	0.034	***

High level of education	7.081	0.251	***	3.443	0.053	***
EMPLOYED						
Salaried workers private sector	-	-	-	-	-	-
Salaried workers public sector	1.672	0.080	***	1.525	0.035	***
Self-employed	0.854	0.050	***	0.903	0.023	***
Other types of employment	1.476	0.212	***	1.162	0.091	*
Part-time	2.557	0.096	***	1.047	0.024	**
Tenure: 0-3 years	-	-	-	-	-	-
Tenure: 4-10 years	0.767	0.027	***	0.845	0.015	***
Tenure: 11+ years	0.912	0.040	**	0.884	0.017	***
Firm size: 1-10 employees	-	-	-	-	-	-
Firm size: 11-19 employees	0.987	0.059		1.169	0.032	***
Firm size: 20-49 employees	0.966	0.050		1.268	0.029	***
Firm size: 50-249 employees	1.213	0.057	***	1.370	0.030	***
Firm size: 250+ employees	1.353	0.066	***	1.384	0.032	***
Firm size: unknown number of employees above 110	0.894	0.051	*	0.919	0.028	***
Manufacturing	-	-	-	-	-	-
Mining and extraction	0.435	0.254		1.021	0.163	
Energy and water	0.953	0.148		1.288	0.080	***
Construction	0.731	0.067	***	0.997	0.037	
Whole- and retail trade	0.789	0.049	***	0.915	0.025	***
Transportation	0.892	0.075		1.028	0.037	
Hostelry	1.288	0.095	***	0.912	0.036	**
Education	1.910	0.123	***	1.669	0.051	***
Health	1.785	0.115	***	1.571	0.048	***
Leisure and other services	1.293	0.100	***	1.317	0.050	***
NON-EMPLOYED						
Inactive	6.945	0.362	***	1.162	0.031	***
Unemployed: less than 1 year buscando empleo	2.987	0.192	***	1.240	0.042	***

Unemployed: between 1 and 2 years buscando empleo	3.282	0.339	***	1.378	0.075	***
Unemployed: between 2 and 4 years buscando empleo	3.441	0.291	***	1.265	0.057	***
Unemployed: longer than 4 years	3.181	0.369	***	1.095	0.066	
Registered unemployed	0.902	0.038	**	1.724	0.045	***
Benefit recipient	0.842	0.043	***	1.021	0.027	
REGIONS						
Aragon	-	-	-	-	-	-
Andalusia	1.104	0.068		0.773	0.022	***
Asturias	0.904	0.078		0.724	0.031	***
Balearic Islands	1.196	0.109	*	0.718	0.034	***
Canarias	1.495	0.105	***	0.823	0.030	***
Canary Islands	0.857	0.077	*	0.661	0.029	***
Castilla-Leon	0.903	0.061		0.802	0.025	***
Castilla La Mancha	1.136	0.079	*	0.760	0.026	***
Catalonia	1.060	0.071		0.756	0.024	***
Valencia	1.119	0.076	*	0.935	0.030	**
Extremadura	0.973	0.081		0.940	0.036	
Galicia	0.955	0.063		0.775	0.024	***
Madrid	1.153	0.082	**	0.791	0.027	***
Murcia	1.074	0.089		0.856	0.035	***
Navarre	0.849	0.081	*	1.016	0.042	
Basque Country	0.753	0.059	***	0.948	0.032	
The Rioja	0.757	0.085	**	0.849	0.041	***
Ceuta and Melilla	1.565	0.193	***	0.904	0.064	
PERIOD						
2007	-	-	-	-	-	-
2008	1.565	0.193	***	0.904	0.064	
2009	0.978	0.043		0.974	0.021	
2010	1.048	0.046		0.946	0.021	**

2011	1.160	0.050	***	0.942	0.020	***
2012	1.311	0.056	***	0.914	0.020	***
2013	1.263	0.054	***	0.870	0.019	***
Constant	1.372	0.058	***	0.932	0.020	***

NEW SKILLS AT WORK

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