



Deutsches Institut für  
Erwachsenenbildung  
*German Institute  
for Adult Education*



## **Final Report**

### **DEVELOPING THE ADULT LEARNING SECTOR**

#### **Lot 2: Financing the Adult Learning Sector**

(Contract EAC 2012-0073)

**Prepared for the European Commission/DG Education and Culture**

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**Berlin, August 27, 2013**



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## 1. Introduction

Europe is at the cross-roads: the labour market has an increasing need for skilled and highly-skilled labour, while demand for low qualified is shrinking rapidly. At the same time demographic change and other factors request a later (effective) retirement age. These and other developments will result in an increasing need for – vocational as well as non-vocational – adult learning, likely to require additional funding, while spending for education has even decreased in recent years in the aftermath of the economic crisis (Eurydice 2013).

In the light of these challenges ahead, this study maps and analyses key data, the sources, the mechanisms of funding approaches and relevant recent developments with a particular focus on the following countries: Austria, Belgium, Denmark, Germany, Estonia, Hungary, Italy, Netherlands, Romania, Slovakia, Slovenia, Spain, and United Kingdom as well as Norway and Switzerland as EEA countries and – in order to compare Europe’s adult learning policies with those of major competitors – the four non-European countries Australia, Canada, Korea and the USA. Based on a thorough analysis of previous and own research on the financing of adult learning it draws conclusions and recommendations. It aims to enhance knowledge about the effects of funding volumes, systems and instruments on adult learning in general as well as for certain target groups and areas of adult learning (second chance education/basic skill provision, higher education later in life, older/retired people) and learning providers.

The next section 2 reviews the most recent data on participation rates and is followed by an overview about the wider benefits of adult learning (section 3). Section 4 provides an overview of total spending for adult learning by the various stakeholders, complemented by indicators allowing a comparison of spending levels across countries. Funding systems and instruments and their role in relation to participation are presented and analysed in section 5. This is followed by section 6 reviewing the funding policies for the three target groups (second chance education/basic skills, higher education (for the first time) later in life, older and retired people) as well the financial conditions of learner providers. Findings are summarised in section 7 and brought forward to conclusions and recommendations.<sup>1</sup> The annex provides a brief overview on country-specific aspects.

## 2. Participation rates in adult learning

New data on participation in adult learning has been published only very recently, indicating that on average participation rates in EU-27 countries increased between 2007 and 2011 from 35 to 41%, according to Adult Education Survey (AES) (see

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<sup>1</sup> The Terms of Reference, a detailed overview about the data and methods used and a more detailed analysis is provided in the annex of this study.

Figure 1).<sup>2</sup> This trend emerges also for most countries, though to a varying extent in detail. In Northern, Western and Southern Europe all countries show increasing rates, with one exception in each region (Sweden, Belgium and Greece),<sup>3</sup> while the newer member states are split into two groups. The one group (EE, HU<sup>4</sup>, PL, and RO) reveals increasing rates, while the rates declined in the other (BG, LT, LV, SI, and SK).

Furthermore, many countries show a reduction in participation rates for formal adult learning which is often over-compensated by increasing rates in non-formal learning. If an increase is visible for both segments, the increase in non-formal learning is commonly higher than for formal learning. This indicates a shift towards more non-formal learning.

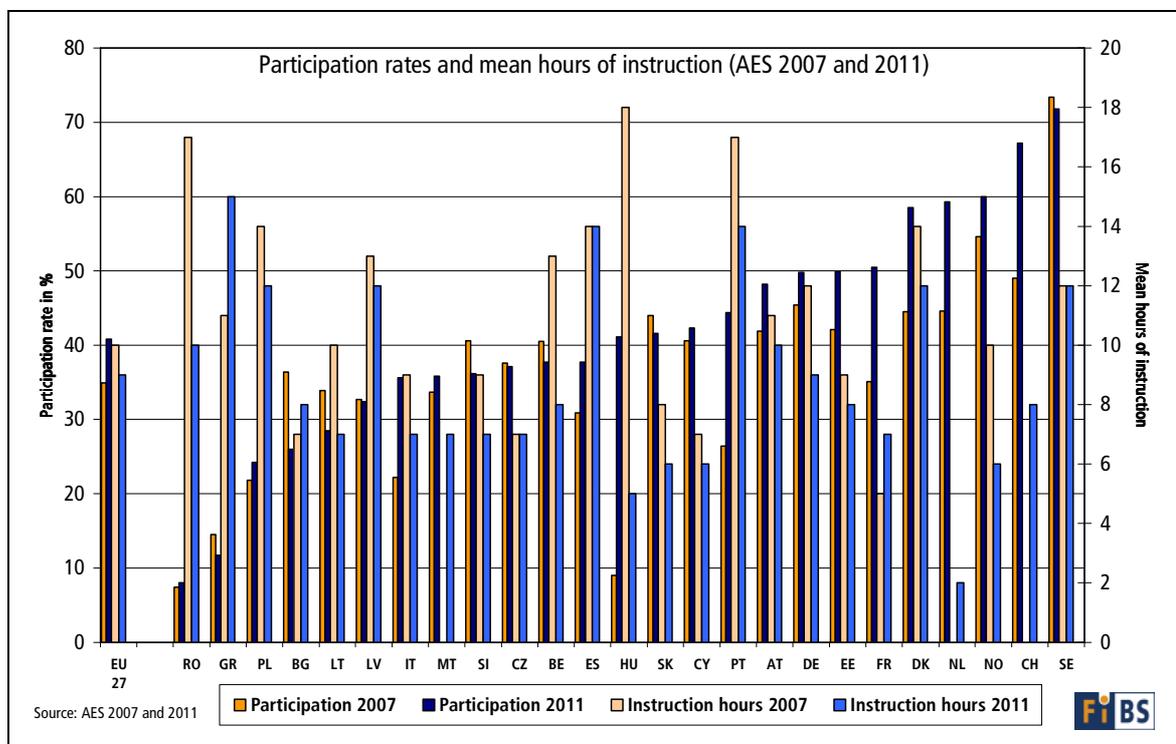


Figure 1: Participation rates and mean hours of instruction according to AES 2007 and 2011 (ranked according to participation rates 2011)

An interesting finding, though, is that many countries with higher participation rates in 2011 than in 2007 have lower mean hours of instruction in 2011 than in 2007 (see the two bars at the right in Figure 1), while most countries with lower participation rates increased mean hours of instruction; though exceptions exist. For example, BE, SI, LT, LV, and SK show decreases in participation and instruction time. Thus, a trade-off

<sup>2</sup> It is likely that this average figure will change slightly since AES 2011-data is not yet readily available for all countries. Updated data were provided in July 2013, providing the participation rate for the United Kingdom (35.8% compared to 49.3% in 2007) and revising 2011-figures for Switzerland (65.5% instead of 67.2%). As a result average rate goes down from 40.8% to 40.2%.

<sup>3</sup> The newly published data for the UK increase the number of exceptions to two for Western Europe.

<sup>4</sup> Hungary and France report a break in time series.

between participation rates and mean hours of instruction can be observed in most countries.<sup>5</sup>

Reviewing participation patterns in relation to educational attainment, the common trend of participation rates increasing with educational attainment is still clearly visible. Many countries, e.g. DE, SI, PT and CY, seem to have had a stronger focus on low qualified, whose rates increased more than those for the medium and highly qualified. Figure 2 reveals that the relative difference between the low and the highly qualified is lower in 2011 than in 2007, i.e. the right bar is lower than the leftish one. For example, PL reduced difference from factor 12 to less than factor 9, i.e. the participation rate of highly qualified is 12 and 9-times, respectively, higher than that of low qualified. However, this is not valid for all countries; instead some countries, e.g. CZ, SK, show increasing disparities between the low and highly qualified. The highest level of inequality can be observed in Romania, where high qualified have a 16-times higher probability to participate in adult learning, whereas the difference is only factor two in the Nordic and in several Western European countries. Overall, disparity is higher in the newer member states than in the rest of Europe, apart from Greece and Italy on the one hand and Hungary, Estonia and Bulgaria on the other.

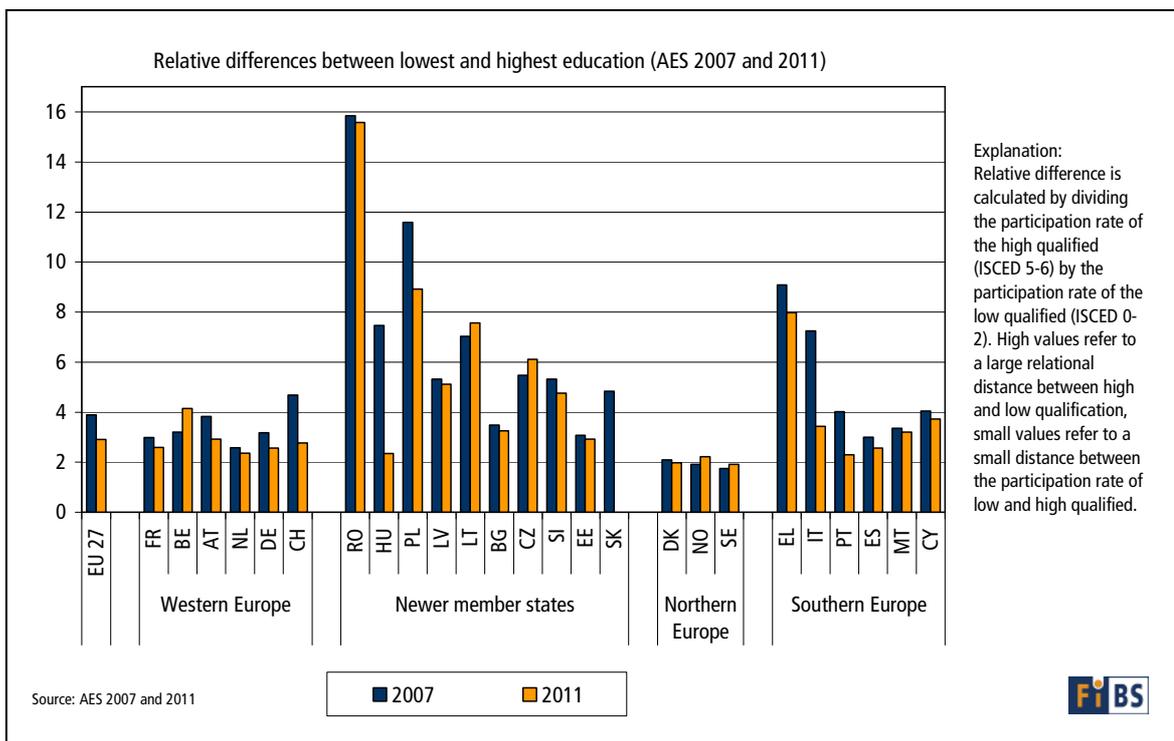


Figure 2: Relative differences between lowest and highest education (AES 2007 and 2011).

<sup>5</sup> This could suggest to review the European benchmark indicator on adult education for ET 2020, which is based on participation rates only. An indicator, which combines participation rates and mean hours of instruction might be more appropriate and would allow a better comparison between countries.

In relation to age, younger age groups, particularly those aged 25 to 34, participate far more than older cohorts, especially those aged 55 to 64. However, as for educational attainment, in many countries the rates of older people increased slightly more than those of the younger groups, resulting in lower disparity rates, whereas disparity has increased in some other countries, particularly in Greece and Romania.<sup>6</sup>

### 3. The benefits of adult learning

#### 3.1 Macro-economic benefits

Adult learning is beneficial for society, individuals and economy. Coulombe/Tremblay/Marchand (2004) found human capital to be a crucial factor in explaining the convergence of GDP per capita over time.<sup>7</sup> Their results suggest that growth is mainly fostered by improving the skills of all society members rather than focusing strictly on skill development of highly talented individuals. Adult education in particular may contribute to a reduction in the gap between the skills needed by employers and those held by employees and thus increase output (Coelli/Tabasso/Zakirova 2008).

Bivariate estimation results		
Dependent	Independent	Correlation coefficient r
innovation index (2010)	participation in AL (2009)	0.67***
innovation index (2010)	share of training enterprises as% of total (2005)	0.66***
innovation index (2010)	HR index (2009)	0.58***
innovation index (2010)	employee participation in CVT courses (2005)	0.57***
innovation index (2010)	Other forms of learning in enterprises index (2005) (2005)	0.51**
innovation index (2010)	costs of CVT as % of total labour cost (2005)	0.45*

\*p < 0.05 (significant); \*\*p < 0.01 (highly significant); \*\*\*p < 0.001 (extremely significant)

Table 1: CVT provision and participation, and innovation (Cedefop 2012)

As Table 1 reveals, our analyses show strong (bi-variate) correlations between adult learning and countries' innovation performance indicators. More precisely, the effect of different measures of participation in and provision of training – participation in adult learning (AL), the share of training enterprises, HR practices, employee participation in CVT courses, workplace learning and costs of CVT as share of total labour cost – on innovation performance was analysed. Bivariate estimation results suggest that strong

<sup>6</sup> The likelihood to participate in adult learning is now 6.5-times higher for young people; up from 4.5 in Greece and 5.6 in Romania.

<sup>7</sup> Results based on data of the 1994 International Adult Literacy Survey (IALS) on 14 OECD countries over the time frame 1960 to 1995. Human capital investment measured by average test scores of the population aged 17 to 25 concerning literacy, prose, quantitative or document skills.

and significant linear relationships exist between all previously stated measures of participation in and provision of training in the EU27 and Norway. Participation in AL hereby shows the highest correlations ( $r = 0.67$ ) with innovation performance (Cedefop 2012c).<sup>8</sup>

While the significant correlation between participation in adult learning and innovation performance could not be confirmed in “smaller” multivariate analyses including the highly significant control variable cognitive factors (i.e. task-complexity aspects of work organisation), a factor analysis accounting for multiple important indicators linked to innovation retrieved interesting results in this regard.

The study used a factor analysis to explore if human capital formation has an actual effect on innovation performance. To generate the human capital factor, variables representing participation in and provision of adult learning were collapsed in one factor, explaining 66.6% of the variance.

As portrayed by Table 2 the human capital formation factor correlates with share of training enterprises, employee participation in CVT courses, firms’ investment in CVT, participation in AL, workplace learning and the human resources (HR) index. Of the 6 variables collapsed, participation in adult learning (LFS 2009) had the fourth highest loading, after the first three variables related to CVET.

Human capital formation	Components (factors)
	1
Participation in AL (LFS 2009)	0.799
Share of training enterprises as% of total (2005)	0.916
Employee participation in CVT courses (2005)	0.848
Workplace learning index (2005)	0.764
HR index (2009)	0.735
Costs of CVT as% of total labour cost (2005)	0.821

Table 2: Human capital formation (Cedefop 2012)

Overall, multivariate regression results suggest that task complexity (cognitive factors) and human capital formation are the two driving factors of innovation performance rather than participation in higher education (HE) (see Table 3), the latter being frequently used as an indicator of innovative ability. Concerning the significant link between the human capital factor and innovation performance, it should be noted that results suggest this link to be strongly driven by CVET variables. Furthermore, the strong significant effect of task complexity on innovation performance portrays the importance of learning-intense (working) environments for innovation. The results of this study clearly highlight the importance of adult learning for innovation in Europe.

<sup>8</sup> Additional multi-variate analyses indicate that learning in the workplace (i.e. learning while working) through task complexity is the most important driver for innovation performance (Cedefop 2012b).

Dependent	Independent	Beta coefficient	R <sup>2</sup>
Innovation index (2010)	Factor 1 (Organisation typology)	0.11	0.84
	Factor 2 (Human Capital Formation)	0.27*	
	GDP per capita (2010)	0.03	
	Cognitive factors (all years)	0.78***	
	Share of tertiary education (2005)	-0.004	

Table 3: Regression results (Cedefop 2012)

According to this Cedefop-study, adult learning is obviously more important for innovation performance than (initial) higher education, whereas Voßkamp/Nehlsen/Dohmen (2007) identified a relationship between age, tertiary education and innovation in the sense that the strength of the association between tertiary education and innovation depends on the age of the tertiary educated. Particularly strong links were hereby found between the share of tertiary educated people aged 45 to 54 – and mainly for ISCED 5B, but not for ISCED 5A/6 – and innovation. This could suggest that tertiary education needs to be complemented by (general and/or vocational) adult learning, reconfirming the crucial importance of adult learning for innovation.<sup>9</sup>

These findings are complemented through a positive relationship between adult learning and economic growth, which was identified through this study; countries with higher growth rates in 2007 and 2011 show higher AES participation rates in adult learning than countries with lower growth rates. This is valid for cross-sectional analyses and becomes even stronger, if a time-lag model is introduced; i.e. the correlations are stronger for the time-lag model than for the model without. This could be a first indication that participation in adult learning has a positive impact on growth.

Furthermore, the relationship tends to weaken after 3 years, suggesting that adult learning has a temporary impact and depreciation is taking place; a finding which is in line with expectations as well as with Brunello (2001), who found that depreciation is taking place for individuals. This observation suggests on the one hand that participation in adult learning is important not only for short-term but also for mid-term growth, though not for long-term growth, unless adult learning is repeated from time to time.<sup>10</sup>

<sup>9</sup> These findings suggest that adult learning should be taken into account for innovation indicators, such as, for example, the European Union Innovation Scoreboard (UIS). Another issue of the UIS is that input factors are taken into consideration, even though its role for innovation is disputable (Cedefop 2012b).

<sup>10</sup> When regarding regression results derived on the basis of simulated data for the entire time frame 2007 till 2011, results of different estimation techniques are less straight-forward. However, the estimation results of nearly all (5 out of 6) models with the comparatively higher goodness of fit values also suggest a positive relationship between participation in adult learning and growth. This serves as additional indication that differences in participation rates in adult learning in Europe may have contributed to differences in growth rates over the past half-decade. This is important since several countries, such as, for example, Germany, increased public spending for adult learning during the crisis, while others did not, but decreased even (Eurydice 2013; see also section 4.3 in this study).

However, even a more cautious interpretation suggests that adult learning plays an important role in relation to economic performance: the results in this study show that companies are an important driver for participation in adult learning. If employer act economically rationale, their investment in adult learning and continuing vocational education and training is important in relation to their economic development, i.e. they would not invest if they would not benefit from it. Thus, the higher participation rates in adult learning in economically more advanced countries are necessary in order to support these higher growth (and innovation) rates. This argument is also supported by lower rates of return to adult learning (e.g. higher education) in economically more advanced countries.

### 3.2 Micro-economic benefits

At individual level, several studies show income benefits and reduced unemployment rates for adult learners (e.g. Lynch 1994; Brunello/Comi/Sonedda 2010; Brunello 2001; Murray/Skarlind 2005; Zhang/Palameta 2006).<sup>11</sup> The results vary from an increase of hourly wages by 0.2% for one week of training (Lynch 1994) to a 2% wage increase after one day of training. According to Brunello/Comi/Sonedda (2010), the literature finds wage returns of a least 3% for one week of (private sector) training, a finding which they confirm with regard to selected Italian regions, where returns were estimated at 4.4%, though confronted with high depreciation rates. The varying size is also due to heterogeneity of adult learning itself. However, it should also be understood that the returns are not measured in relation to the costs of adult learning but in relation to the previous wage; due to the commonly rather limited costs of adult learning it is likely that rates of returns in relation to costs are comparably high.<sup>12</sup> Yet, this needs further investigation, which also applies to the long-term benefits of adult learning.<sup>13</sup>

Another finding with regard to the economic crisis Europe faced over the last few years (and still faces) is, that the correlation between training participation and initial education is even increasing, “when European economies are hit by negative temporary shocks” (Brunello 2001, p. 15). Thus, those with less education are hit threefold by an economic downturn: (1) their risk of unemployment is higher, (2) qualification requirements for employment increase, and (3) they participate less in adult education and further training than those with higher educational attainment.

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However, such relationships are commonly not valid in any case. For example, even though DK increased public funding for and participation rates in adult learning it shows a negative growth rate in GDP per capita between 2007 and 2012, whereas LT shows positive growth rates, despite declining public funding amounts and participation rates. However, it would be advantageous to have more frequent data on participation rates.

<sup>11</sup> However, discussions still prevail to what extent such returns are due to adult learning or training or due to other, unobserved factors (e.g. Messer et al. 2010; Oosterbeek 2013).

<sup>12</sup> A simple illustration might support this view: If costs for adult learning are € 2,000 (which is a rather high amount) and the wage increase is e.g. € 30 per month over three years, the rate of return would be 4.4%.

<sup>13</sup> It appears that the long-term benefits are higher than the short-term benefits (e.g. Kruppe 2013).

Since this can also be observed for the recent crisis, better educated people are less hit by the crisis, resulting, in fact, in increasing returns. Statistics show that the unemployment rates of people with higher education rose to a much lower extent following the economic crisis, namely from 3.3% to 4.7% between 2008 and 2010, than for people without or with upper secondary education. In comparison, the unemployment rate of the prior group rose from 8.8 to 12.5%, the unemployment rate of the latter group from 4.9 to 7.6% during the recession. Overall, having or investing in more education gives individuals an advantage, as it allows them to remain in their employment positions or change these more easily (OECD 2012).

Furthermore, substantial public and private (monetary) rates of return for second chance as well as for higher education later in life as well as for initial secondary and tertiary education can be identified (e.g. OECD 2008, 2012 as well as sections 6.1 and 6.2). Importantly, public and private rates of return vary a lot across countries and for both sexes; so that it is almost impossible to arrive at general and overarching results, but it appears that returns to education are lower in the Nordic countries than in the other regions. Our research indicates that returns are higher in countries where unemployment is lower. Importantly, private as well as public rates of return for second chance and higher education later in life are sometimes even higher than for initial education. Though further research, particularly for Europe (and countries) is needed in order to arrive at more conclusive results, these findings provide some room to challenge the common line of argumentation as regards decreasing rates of returns across the life-span (see in this direction also Käpplinger/Haberzeth/Kulmus 2013).

Equally important with regard to policy advice is that returns to adult education arrive much faster than for initial education. This provides room to argue, firstly, that investments in adult learning should be kept high or even increased. Secondly, it can also suggest to invest in adult and higher education first and to use the earlier (fiscal) returns to boost investments in early childhood and school education slightly later. The opposite strategy, i.e. to invest in early education first, will result in measurable (fiscal) return only from 2035 onwards (Dohmen 2011; Dohmen/Henke 2011).

### **3.3 Wider benefits**

Apart from such economic benefits, wider benefits on health, crime and social cohesion can be observed. Individuals become less depressive, more self-reliant and resilient, stop smoking and drug and alcohol abuse. The starting point of such analysis is the basic model for the wider benefits of learning (see Figure 3), in which education impacts via the mediating mechanisms 'skills, beliefs and competencies', 'social interactions' and 'qualifications' on the wider benefits.

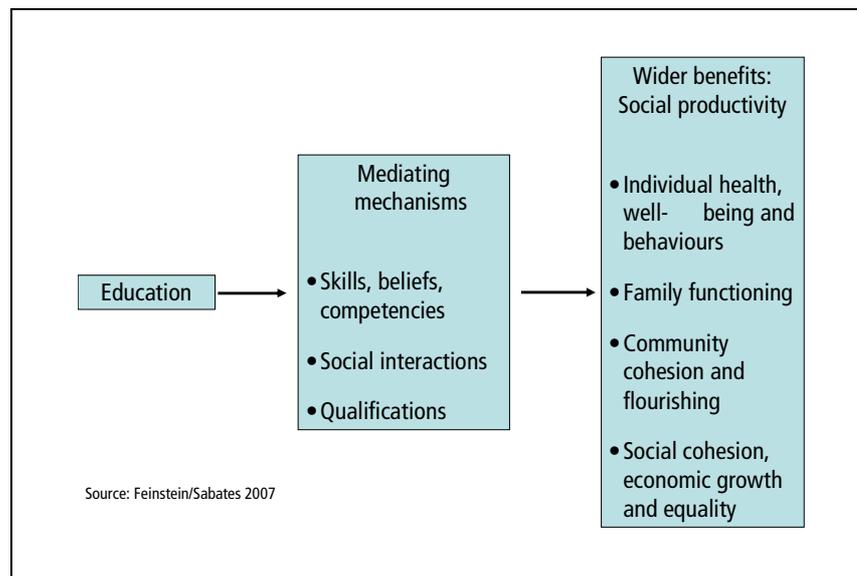


Figure 3: A simple model for the wider benefits of learning (Feinstein/Sabates 2007).

One of the core messages by Feinstein and Sabates (2007) is that in addition to qualification is a key currency for the labour market, adult learning has far more effects on individuals and several of those are even more important for society as well as for economic growth and social cohesion. Such “social productivity” may on the one hand sustain positive developmental trajectories and generate positive life chances, on the other hand it may prevent aspects leading to personal and social dislocation (individual exclusion, community breakdown), such as obesity, crime, teenage parenthood, anti-social behaviour, intolerance, mental health problems, social division, disengagement, drug abuse and social immobility. The returns to adult learning are visible irrespective of whether young or mature adults are concerned (Feinstein/Sabates 2007; Connolly/Rees/Furlong 2008):

- Women enhance their chances of re-entering the labour market, if they gain qualifications during adulthood (Jenkins et al. 2003; Jenkins 2006), and reduce their dependence from welfare benefits.
- The costs of poverty crime in England and Wales would be reduced by between £10m and £320m per year if 1% of the working age population gains level 2 (instead of no) qualification. Raising it further to level 3 would save another £70m and £180m. If this spreads over to other forms of crime total saving would be £665m p.a. in England and Wales (Feinstein 2002a).
- Bringing 1% of people with no qualification to level 1 would reduce risk of depression among women by 6 to 10 percentage points and for younger men by 6 percentage points. This would result in savings of treatment costs of about £6 to £34m if 10% of women would increase their qualifications to level 1. Raising the level further up to level 2 would even reduce probability of depression at age 42 by 15% from 26% to 22%; this would save £200m (Feinstein 2002b; Feinstein/Chevalier 2006).

- Following Feinstein/Hammond (2004), adults participating in one or two learning activities between age 33 and 42 are significantly more likely to stop smoking (reduction of 12.5%), to increase level of exercises (20%) and reported higher life satisfaction (14% reduction of general decline of life satisfaction). Other effects are lower probability of depression or higher recovery rates as well as to “positive transformations in well being, optimism, efficacy (perceived control over important factors) and self-rated health” (Feinstein/Hammond 2006; Feinstein/Sabates 2007).
- In addition, reduced alcohol consumption and probability of depression as well as higher recovery rates are reported. In this regard, the impact of leisure courses is more pronounced than of those related to work. However, all forms (academic accredited, vocational accredited, work-related and learning for leisure) show effects.
- Research also reports changes in social and political attitudes, e.g. higher tolerance levels (one third), lower authoritarian levels, reduced political cynicism and increased political interest, increased membership in organisations and increased participation in elections (Feinstein/Hammond 2004).
- Another important aspect is that people with disappointing learning experiences in youth can change their negative attitude towards learning if they experience positive examples, linking them also to other social networks. According to Feinstein/Hammond (2006), participants in adult education “have positive transformations in well being, optimism, efficacy (perceived control over important factors) and self-rated health” (Feinstein/Sabates 2007).

Some of the changes in attitudes should be regarded in the light that mid-age adults commonly are very reluctant to change behaviour; suggesting that even comparatively small figures are in fact quite substantial in relative terms (see also Field 2012). With regard to various forms of adult learning, Feinstein and Hammond (2004) report that almost all forms of courses (academic accredited, vocational accredited, work-related and learning for leisure) reveal positive effects, possibly with the exception of the vocational programmes leading to accreditation. However, it appears that political and social attitudes are better addressed by academic courses, while leisure courses and work-related training impact on a broader range of outcomes (Feinstein/Sabates 2007).

Furthermore, even low qualified learners with poor learning experiences gain from positive experiences and proceed with additional learning. Eventually and often neglected are intergenerational returns when children benefit from their parents' learning (Cedefop 2011). Although the wider benefits are visible, it appears that further efforts are needed to translate the effects into measurable rates of return at macro-level, e.g. what is the impact on public budgets, if people stop smoking, drug and alcohol abuse or become less depressive. However, a first and cautious estimate of the wider benefits mentioned above would easily arrive at least at around € 2 to 3bn per annum for a country like the UK; this is roughly equivalent to 0.1%, possibly even 0.2% of GDP, which is close to the level of public funding in several countries, e.g. the UK (see section 4). Furthermore, even employers benefit from non-vocational adult

learning, e.g. through lower absence rates, because of better health, or better language proficiency; these benefits are not included in the estimation above.

Looking more on non-vocational adult learning, a second model of wider benefits from Manninen (2012, 2013) refers more explicitly to non-vocational or liberal adult learning and education (see Figure 4).

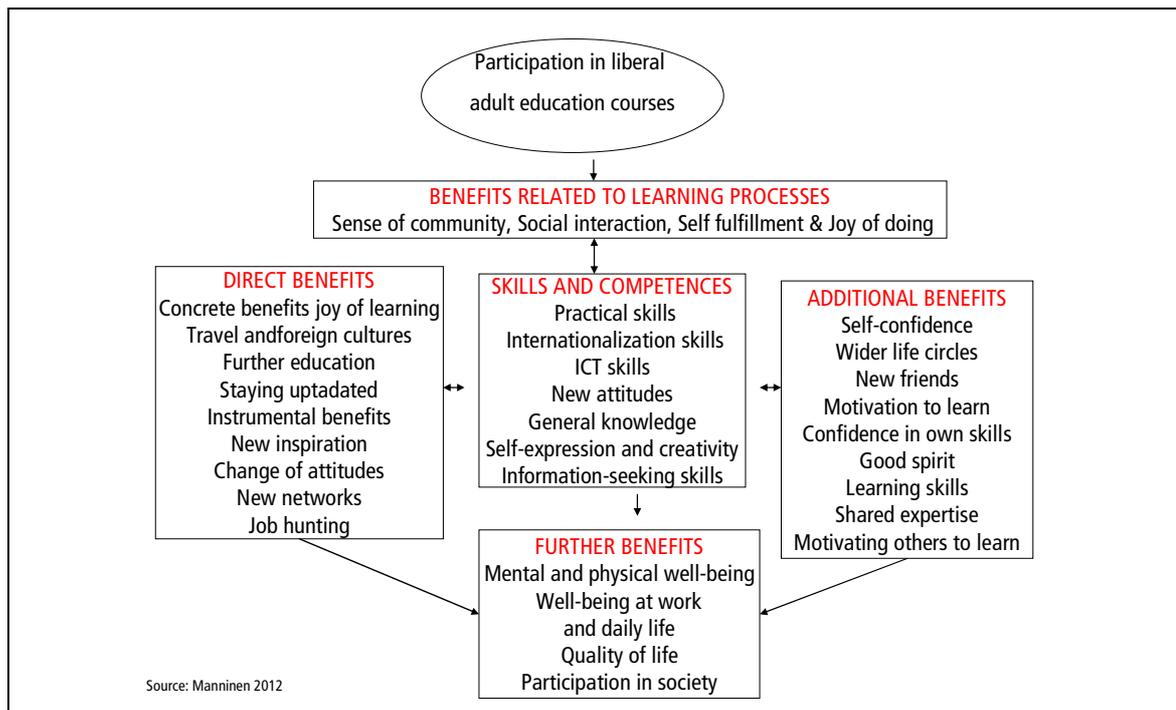


Figure 4: Manninen's model of wider benefits of liberal adult education (Manninen 2012, 2013).

Testing this model empirically in several studies (see for an overview Manninen 2010, 2012, 2013; Motschilnig 2012), the relationship between adult education and active citizenship and societal involvement as well as development of social networks, self confidence etc. (see Figure 4) appears well established and confirmed. Another very important result concerns the role of many competencies learnt through liberal adult education at the workplace, confirming the blurred or blurring demarcation line between liberal (non-vocational) and vocational adult learning.

More in detail, Manninen's studies (2010, 2012, 2013) found that 28% of respondents reported spontaneously mental well-being and 13% improved health as result of liberal adult education. Another important aspect concerns the positive impact of adult learning for additional (sub-sequent) learning, which is noted by almost all participants (98%). Eventually, Manninen (2012) relates the wider benefits of adult learning to societal challenges (see Table 4).

Furthermore, recently developed valuation techniques allow to quantify the returns to non-market goods such as education in monetary terms (Fujiwara/Campbell 2011). Fujiwara (2012) uses this well-being valuation approach to value the positive impact of participation in part-time courses on health (£148), the probability to find or keep a job

(£224), social relationships (£658) and volunteering on a regular basis (£130) for the individual. As portrayed by the monetary values, the study finds strong evidence for the benefits and high valuation of adult learning on multiple areas of life, above all concerning social relationships.

Challenges	What people get from liberal Adult Education?
Globalization	Language skills, Cultural competencies
Active citizenship	Sense of community, Societal involvement Networks, Self-confidence
Social capital	Learning motivation, Confidence on own skills, Joy of learning, Learning skills
Lifelong learning	Practical skills, ICT skills, General knowledge, Wellbeing at work
Employability	Physical wellbeing
Health	Mental wellbeing, Wellbeing at work & daily life, Life quality
Mental health	

Table 4: Wider benefits of learning and societal challenges (Manninen 2012)

Many other publications have sought to create a calculation base for the returns to (adult) learning, amongst others accounting for their indirect positive effects on safety and democracy, resulting in the assumption that the returns to education have a great economic influence and possibly a larger monetary value than tax returns and social insurance pensions (McMahon 1999, Haveman/ Wolfe 1984). This assumption was confirmed in the study of McMahon (2009). McMahon advocates the incorporation of social activities of graduates in such calculations, as graduates represent the societal group engaged the most in politics and hence – to a large part – contribute to sustaining society.

Summarising the previous results concerning the various benefits and their distribution across stakeholders it is evident that individuals, employers and society, including the public purse, benefit from (non-vocational) adult learning. In general, this suggests that all three should also participate in funding; probably, individuals and the state more than employers, unless vocational and company training is included; furthermore, employment agencies, if applicable, are very likely to be a major beneficiary and should contribute to the financing, not only for the unemployed but also for low qualified. However, it is difficult to establish exact ratios how much each beneficiary should contribute.

## 4. Macro level funding

### 4.1 Funding volumes

This study arrives, for the first-time ever, at (roughly) comparable spending figures for adult learning for a relevant number of countries.<sup>14</sup> Furthermore, it is important to note that the understanding of adult learning varies across countries; the figures presented in this study are therefore not necessarily identical with figures from other sources.<sup>15</sup>

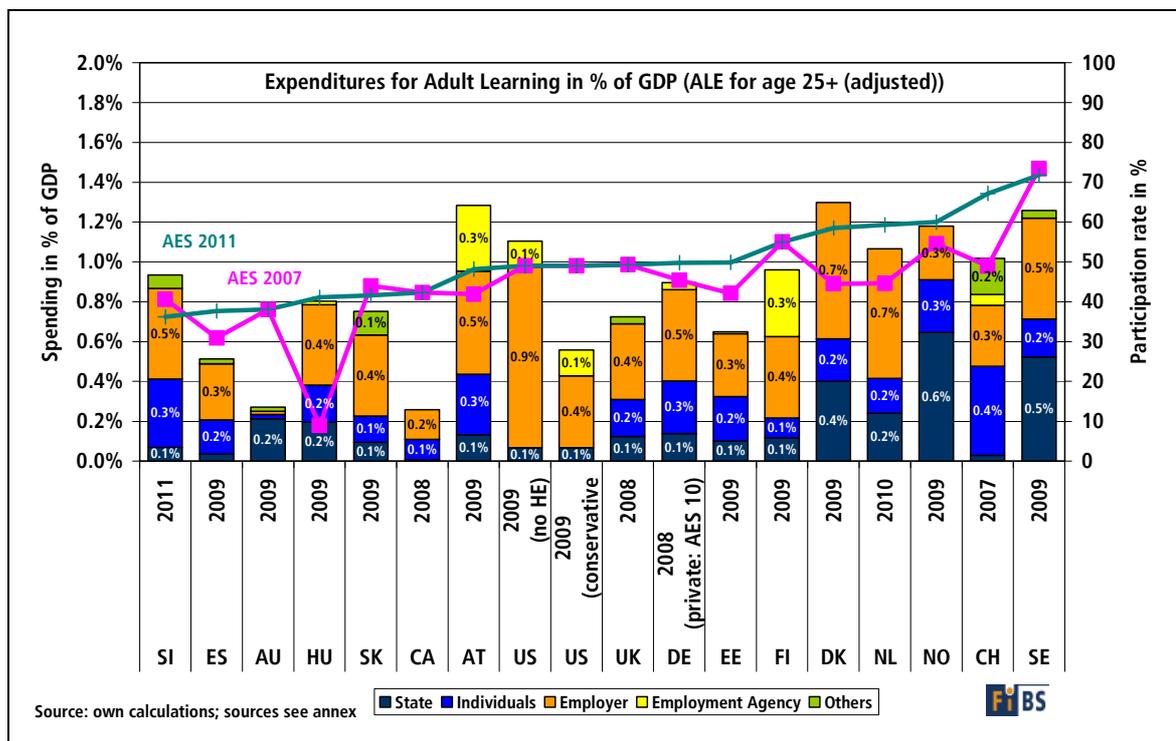


Figure 5: Adjusted spending for adult learning (age 25+, excl. higher education) in % of GDP<sup>16</sup>

- <sup>14</sup> For details on the sources and methodological aspects of this chapter see section 8 in the annex, in particular section 8.2.
- <sup>15</sup> For example, spending for post-compulsory education in the UK is almost 4% (Schuller/Watson 2009), since this includes initial higher education, going down to 0.7% for adult learning according to our estimations. In this study, we distinguish between adult learning for those aged 25+ (exclusive of higher education) on the one hand and adult learning including of higher education for mature students, aged 25 and above.
- <sup>16</sup> As mentioned more in detail in section 8.2 in the annex, availability of funding data is rather limited and based on various definitions etc. Several countries estimate funding figures only once upon a time (e.g. Switzerland for 2007 and UK for 2008), other countries report some data on an annual basis, e.g. Germany, while some data are collected only every few years, e.g. bi- or three-annually, and either estimated for the time in between these collections. This leaves us with two options: (1) to have data for one or two years, e.g. 2009 and/or 2010, for (even) fewer countries or (2) to provide data for more countries at the cost of comparability for some countries, while accepting limitations in comparability because of various years. We opted for the latter, because it seems likely that figures do not change extremely, despite the crisis. However, limited comparability of data for CH and UK should be taken into consideration.

Countries like AT, DK and SE spend more than 1.2% of GDP (countries in Figure 5 are ranked according to AES participation rate 2011)<sup>17</sup>; NO almost 1.2%. CH and NL spend between 1.0 and 1.1% of GDP. Several countries allocate between 0.8 and 1.0% of GDP for adult learning, HU, SI, DE<sup>18</sup>, and FI. Eventually, EE, SK<sup>19</sup> and the UK spend around 0.7% of GDP, while ES is at about 0.5%<sup>20</sup>. CA and AU seem to spend even less, though this may be due to under-reporting. Two different figures are presented for the USA, due to different estimates concerning employer spending on training. While the ASTD estimates spending to \$ 1,086 per employee, adding up to 0.9% of GDP, another more conservative estimate from Wilson (2010) suggests an employer spending of 0.4% of GDP. Consequently, total spending varies between 1.1% and less than 0.6% of GDP.<sup>21 22</sup>

An important finding in Figure 5 is that spending volumes appear to be linked to participation rates according to AES 2011. All five countries with the highest rates, SE, CH, NO, NL, and DK spend more than 1.0% of GDP, FI spends slightly less, but had also lower participation rates in 2007. This could suggest that a spending level of (almost) 1.0% of GDP is required to arrive at a participation rate of at least (almost) 60%; the only other countries with such high funding volumes but lower participation rates are AT and the US (ASTD), pointing to possible inefficiencies (see in this regard also Lassnigg et al. 2013). The vast majority of countries with participation rates of up to 50% spend between 0.6 and 0.8%, exceptions in addition to AT and US (ASTD) are DE and SI; the latter may also have room for increasing effectiveness, though it should be noted that funding decreased recently.<sup>23</sup>

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Because no data on participation rates for 2011 are yet available for FI, UK, US, CA and AU, these figures remain identical with 2007 data.

- 17 AES 2011 participation rates for UK were not yet published when the figure was prepared; the recently published data indicate a drop from almost 50% in 2007 to 36% in 2011, which would mean that UK is the country with the lowest participation rate among the countries considered here.
- 18 Spending level for DE would go up 1.2% of GDP is budget for active labour market policy is increased to the levels mentioned in Eurydice (2013), while this level of 0.9% results on the basis of published data from the Federal Statistical Office, adjusted by own estimates for individual and company spending (see methodological remarks in section 8.2 of the annex).
- 19 With regard to SK, the basis for this estimate is somewhat limited, since the data for 2009 and 2010 arrive at completely different average figures per participant, suggesting that the final figures may lie somewhere in between.
- 20 Spending in Spain may be (slightly) underreported as no data for public funding is yet available (May 2013).
- 21 This example show how important reliable funding data is and that it is sometimes difficult to assess which data is more appropriate – or plausible – than others.
- 22 When including spending for mature students in higher education spending goes up, though at varying rates, depending on the share of mature students enrolled in universities and the level of tuition fees and public spending. The first group of countries, comprising the USA (ASTD), DK and SE, spends more than 2% of GDP. Another three countries, FI, NO, and AT, spend between 1.8 and 1.7%. Seven countries allocate between 1.5 and 1.0% of GDP for adult learning, in descending order US (Wilson 2010), NL, UK, SI, DE, CH and AU. Eventually, five countries appropriate less than 1% of GDP, ES, HU, CA, EE, and SK.
- 23 Analyses on the basis of AES in combination with funding data for selected years only does not allow to assess the intermediate link between changes in funding and participation. However, as the LFS provides participation data for each year, a preliminary review of participation rates and funding

Though (bi-variate) statistical analyses show a significant correlation between total spending in relation to GDP and participation rates, according to AES 2011, this disappears when controlling for GDP per capita.<sup>24</sup>

Reviewing funding volumes by financier, employers bear the biggest part in most countries, apart from NO, FI and SE, where the state contributes more (in FI only if funding from employment agency is included<sup>25</sup>). In most countries, the employers' share is around 0.4 to 0.5% of GDP, in some countries, such as DK, the NL and US (ASTD) it is even more. In contrast, the state contributes only 0.1 to 0.2% of GDP, except in the Nordic countries, where it is at least 0.4%. The share of funding from individuals lies in between employer and state funding in most countries, with 0.2 to 0.3% of GDP. ESF funding is reported differently across countries; in some it is explicitly counted as 'other', in others it is part of state funding.

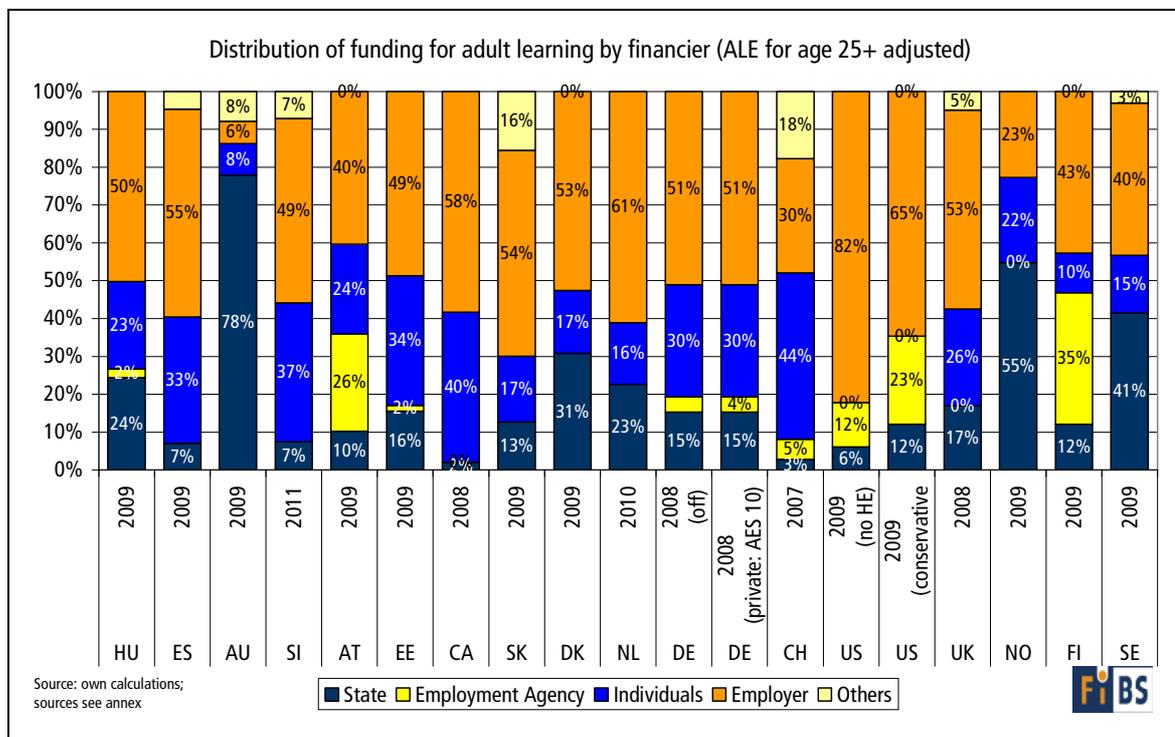


Figure 6: Distribution of funding between stakeholders for adult learning (aged 25+ - adjusted) (ranked according to AES 2007 participation rate)

volumes suggests that decreasing (public) funds are likely to result in lower participation, as the examples SI and DK illustrate. However, both indications do not necessarily develop in the same direction.

<sup>24</sup> It may still have to be seen, whether the inclusion of funding data for more countries results in significant correlations; actually, funding and participation data (2011) at the same time is only available for 12 (exclusively European) countries.

<sup>25</sup> From our point of view, employment agencies should be considered separately from state funding, as its funding sources vary across country. While employment agencies are funded from the public budget in some countries, employer and employee funding, in the form of social security/insurance contributions, are the major sources in other countries, e.g. Germany.

Looking at the distribution of funding between stakeholders more explicitly (see Figure 6), employers bear almost or even more than half of total spending in a majority of 10 countries, which is the case for state funding only in AU and NO. Individuals contribute the largest share in CH with 44%, commonly it is between 15 and 30%.<sup>26</sup>

Relating this distribution of funding to the distribution of benefits, as elaborated in the previous section, it appears that individuals contribute less than might be appropriate, while employers may pay more than expected, at least according to the benefits. However, since the focus of this study is not on company training, which is likely at the core of employer funding, this share may be justified because of the employers' benefits from company training.

Reviewing the macro level links between participation and distribution of funding more in detail, it seems that the participation rate is higher in countries where individuals bear a smaller share, while the joint state-employer share is higher (if applicable, including employment agencies). However, statistical analyses suggest some caution, although some preliminary findings turn up.

Total funding as per cent of GDP as well as state funding in relation to GDP correlate statistically significantly and positive with AES 2011 total participation rate, though this link vanishes when controlling for GDP. Total funding as per cent of GDP is also statistically significant and positive linked to non-formal adult learning (AES 2011)<sup>27</sup> as well as total participation according to LFS 2010 and LFS 2011.

Some other links show weakly significant or only almost significant correlations, e.g. concerning the state's funding share in relation to total (formal or non-formal) participation, according to AES/OECD 2007<sup>28</sup>, and formal adult learning in OECD countries 2007 (OECD 2012)<sup>29</sup>. The only link with regard to funding from individuals at macro level is a weakly significant and negative correlation for formal adult learning (according to AES 2011). Since the micro economic analysis later in this section will reveal a stronger negative correlation, this could suggest that average funding per individual in relation to GDP per capita is more important than macro-level funding.

Eventually, some weakly significant and negative indications can be found concerning the funding share of employers. However, as for all this analyses, findings should be considered preliminary and request further investigation with enhanced and extended data, i.e. broader country coverage, particularly concerning funding data.

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<sup>26</sup> If spending for post-24 higher education is included, funding shares of individuals and, particularly, the state go up and that of employers' decreases, as they are commonly not (much) involved in the financing of higher education. The size of the increase depends mainly on the share of mature students and the level of tuition fees.

<sup>27</sup> The relationship between state funding and participation in formal adult learning is almost significant, while the relationship to non-formal participation rates for OECD countries (OECD 2012) is weakly significant.

<sup>28</sup> AES/OECD 2007 combines data from AES 2007 and data from OECD (2012) for the non-European countries, referring also to the year 2007.

<sup>29</sup> The link is only almost significant for AES 2011 participation rates in formal adult learning.

Overall, it appears that funding and participation according to AES 2011 correlate far more to each other than previous surveys.

Adding up, our – though still preliminary – results show repeatedly that higher funding and higher state funding, both in relation to GDP and possibly also in relation to funding from other sources, is linked to higher participation rates in adult learning, while it seems that individuals' and employers' share is linked negatively with higher participation rates, i.e. higher participation is linked to lower contributions from employers and individuals; however, this is likely to go at the costs of windfall profits and deadweight loss<sup>30</sup>, because particularly better educated individuals would invest in adult learning even without public funding (e.g. Messer/Wolter 2009; Falch/Oosterbeek 2011; Oosterbeek 2013; Dohmen 2007).

## 4.2 Funding indicators

Additional indicators were established in the context of this study in order to allow further comparisons on funding across countries. For example, spending per adult concerns the amount spent per adult aged 25 to 64 (independent from whether s/he participates in adult learning or not). This indicator shows important disparities across countries (see Figure 7). For example, NO spends around € 925 per adult (exclusive of post-24 higher education), while AT, SE, DK, the NL and CH (in descending order) spend between € 720 and € 650. The next group comprises FI, DE, and UK with between € 510 and € 410 per adult. EE has the lowest amounts, with around € 130 and even € 100 lower than ES, HU and SK.

A statistical analysis of the relationship between funding per adult and participation rates reveals significant correlations, suggesting that funding per adult is higher in countries with high participation rates, while very low in countries at the lower ends.<sup>31</sup> The pattern becomes even more conclusive, when taking into account the higher participation rates in DK and CH according to AES 2011.<sup>32</sup>

A second new indicator is spending per adult and per mean hour of instruction (AES 2011), i.e. the number of adults is multiplied by the number of mean hours of instruction; this indicator aims to balance variations in the mean hours of instruction across countries (see Figure 1 in this regard). The corresponding figures (see Figure 8) indicate rather different amounts of money, ranging from € 13, € 14 and € 17 in HU, EE and ES to more than € 90 in NO, which is around 25% more than for UK, AT and SE.

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<sup>30</sup> Windfall profits and deadweight loss are two sides of the same coin: windfall profits concern the beneficiaries, who receive public support even though they would have been willing to invest, while deadweight loss refers to the public view, whose financial support does not result in increased participation rates, as beneficiaries would have participated in adult learning even without public subsidies. Thus, both terms can be used almost synonymously.

<sup>31</sup> The links are only weakly significant for the relationship between participation rates in adult learning and the funding amounts per adults borne by the state, the individuals and the employer.

<sup>32</sup> It remains to be seen whether this is also valid with regard to the UK, whose participation rate decreased from almost 50% in 2007 to 35.8% in 2011.

Four countries, DK, FI, DE and SI spend between € 40 and € 50 per adult, while SK arrives at € 30. The overall pattern is that countries with high(er) participation rates spend more per adult and hour of instruction than countries with lower rates. With very few exceptions the line, presenting the AES 2011 participation rates, follows almost exactly the spending per adult and hour of instruction. Though statistically, several (bi-variate) correlations turn up, this needs further investigation.

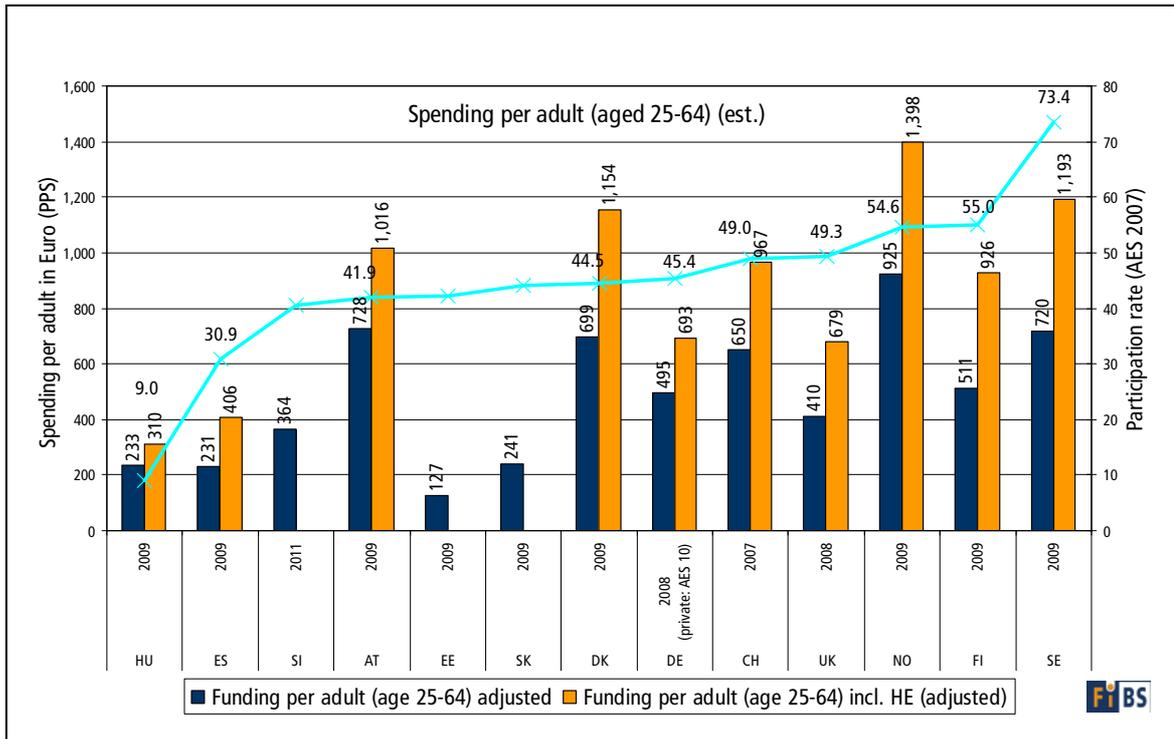


Figure 7: Spending per adult (ranked according to AES 2007 participation rate)

Reviewing the individual's costs per hour of instruction as third indicator (see Figure 9) reveals that individuals pay lower amounts per hour in countries with higher participation rates than in the countries with lower rates. This is particularly the case for formal adult learning (and becomes even more pronounced when the outlier Cyprus, with extremely high costs per hour, is removed). Statistically, this indicator costs per hour of instruction shows significant negative correlations with participation rates in formal adult learning, according to AES 2011, but also OECD (2012) for the year 2007, even after controlling for GDP as core explanatory factor of participation rates.

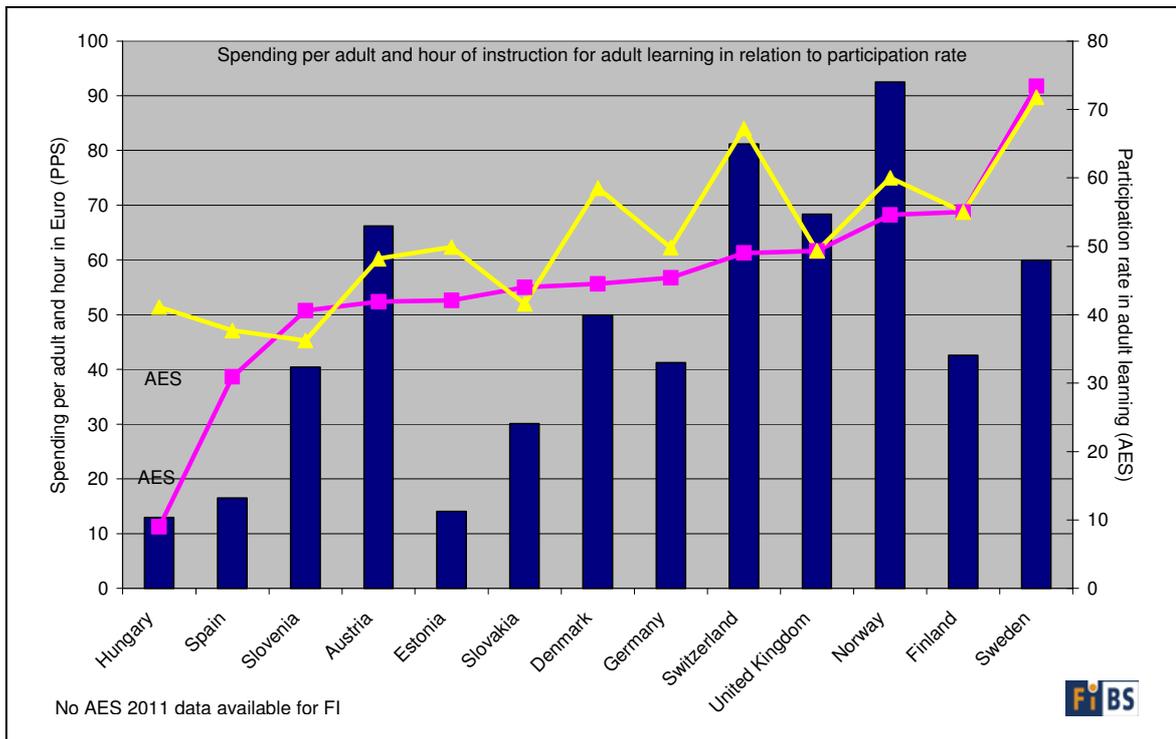


Figure 8: Costs per hour of instruction and adult (unit costs).

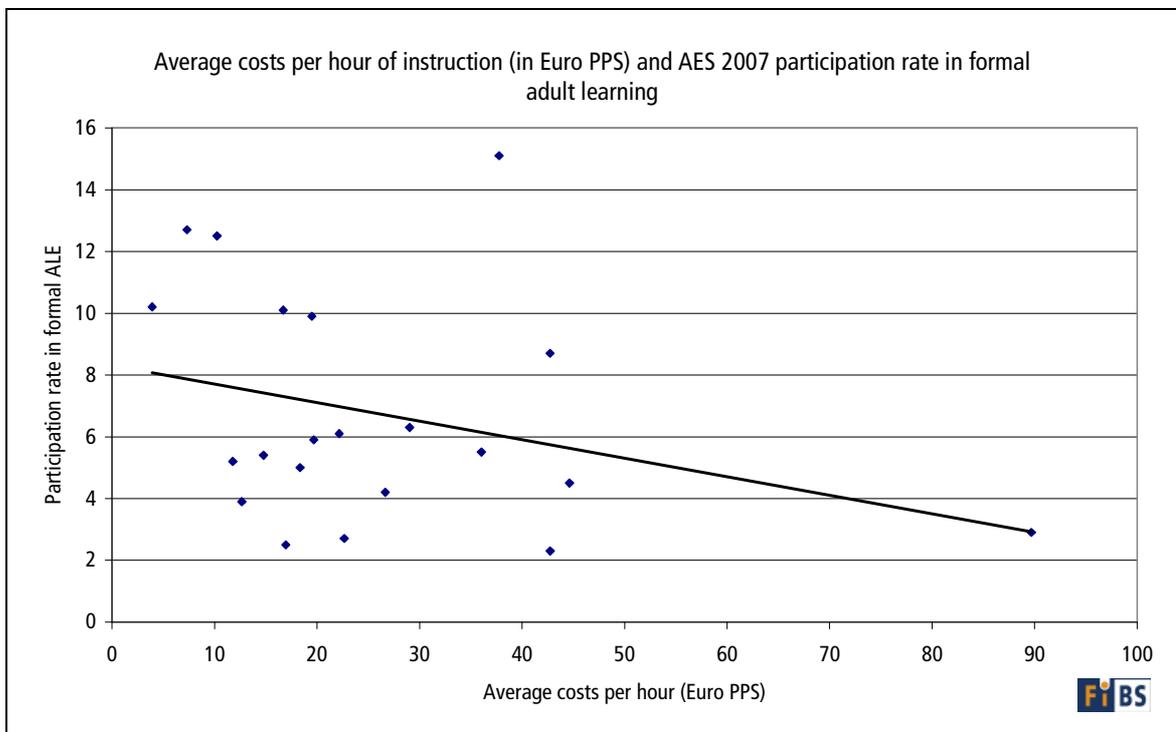


Figure 9: Average costs per hour of formal adult learning in Euro (PPS) and AES 2007 participation rate.

Eventually, reviewing distribution of spending per adult by financier (see Figure 10), combined spending of state and employers as well as funding from each of these two sources separately is far higher in high participation countries compared to countries

with low participation rates (with the mere exception of Switzerland), suggesting that both play a vitale role in explaining differences in participation rates across countries. Although even individuals' spending is higher in countries with higher participation rates, the difference is comparatively small. Individuals pay between € 110 and € 120, in the countries at the top (apart from Switzerland and Norway).

Furthermore, it is of interest to note that the spending amount per adult coming from individuals themselves decreases the higher the participation rates among the newer member states are (see the countries on the left-hand side in Figure 10), i.e. the amount individuals spend on average per adult is lower in countries with higher participation rates. The same pattern emerges also for the other, economically better-off countries. Individuals spend more per adult in AT and DE compared to all Nordic countries, but NO, and the Netherlands, whose participation rates are much higher (see Figure 10) (FI's AES 2011 participation rate is not yet available) (CH remains the second exception, where costs per adult borne by individuals is higher than in better-off countries with lower participation rates).

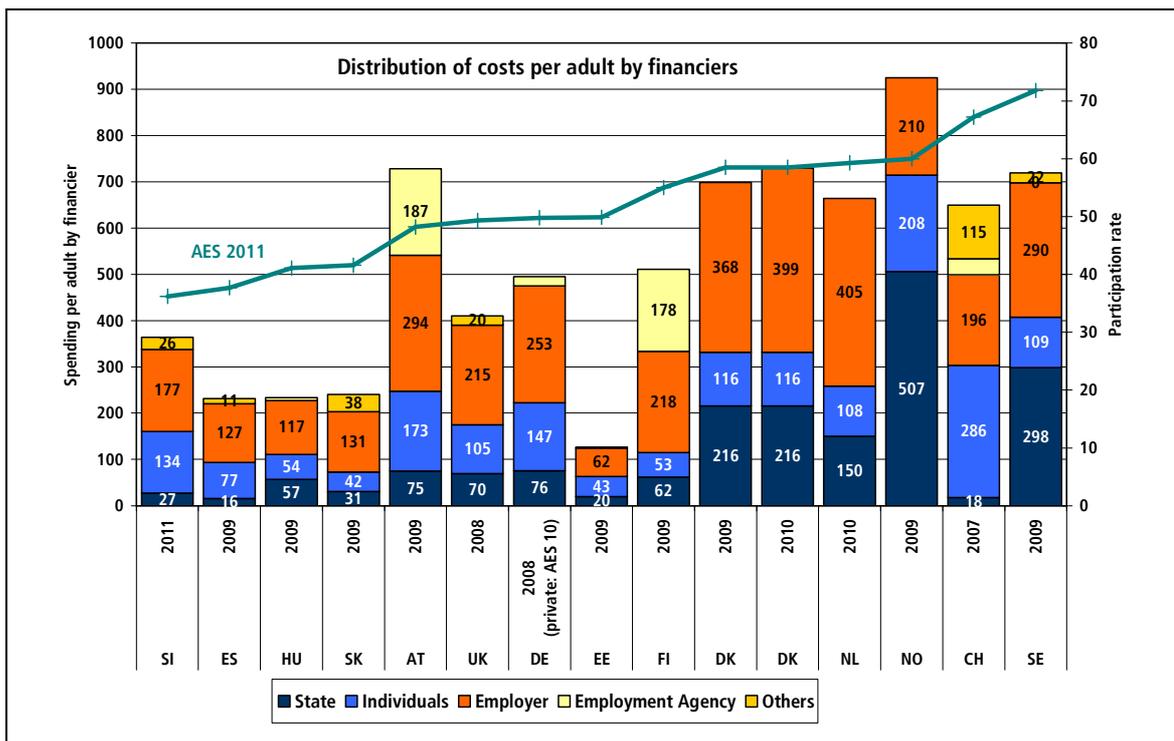


Figure 10: Distribution of costs per adult by financiers (ranked by participation rate, AES 2011).

### 4.3 Funding trends over time

Reviewing funding trends over the last few years, available data, which is very scarce, indicates that some states, such as e.g. DE and DK increased spending during crisis, and reduced it afterwards at least partially, e.g. DK (Eurydice 2013), while other countries, e.g. HU, SI or UK, reduced particularly state funds in more recent years. A striking finding, though, is that some countries received obviously more EU-funding

(Eurydice 2013), but show lower participation rates (LT, LV) (AES 2011). It is important to note that patterns do not go in the same direction over years, e.g. DK increased public spending in 2009 and reduced it the following year 2010, though still remaining above the starting point in 2008. This example indicates that it is difficult to talk about trends. It is even politically advisable to increase funding in times of crisis and to reduce it afterwards.

When reviewing the developments in funding amounts during the crisis, a downward trend can be observed in those countries where participation rates are (much) lower than in the better-off countries, while many better-off countries increased its spending volumes even, at least temporarily. Since the review of the benefits of adult learning indicated that adult learning has positive effects on growth and innovation, this could mean that economic development may drift apart in the near future, contributing to a widening gap between the worse-off and the better-off countries. This suggests that the ESF's role in fostering (socio)-economic development should be reviewed with the aim to help particularly those countries obviously in need of EU support, without relaxing the requirements for national (public) funding.

#### 4.4 Funding for adult learning in relation to total funding for education

Comparing spending for adult learning with spending for other education sectors reveals a level between early childhood education, catering to 3 to 5 year olds, and higher education; overall adult learning accounts for 15 to 20% of all education spending in almost all countries, for which we were able to estimate funding figures.

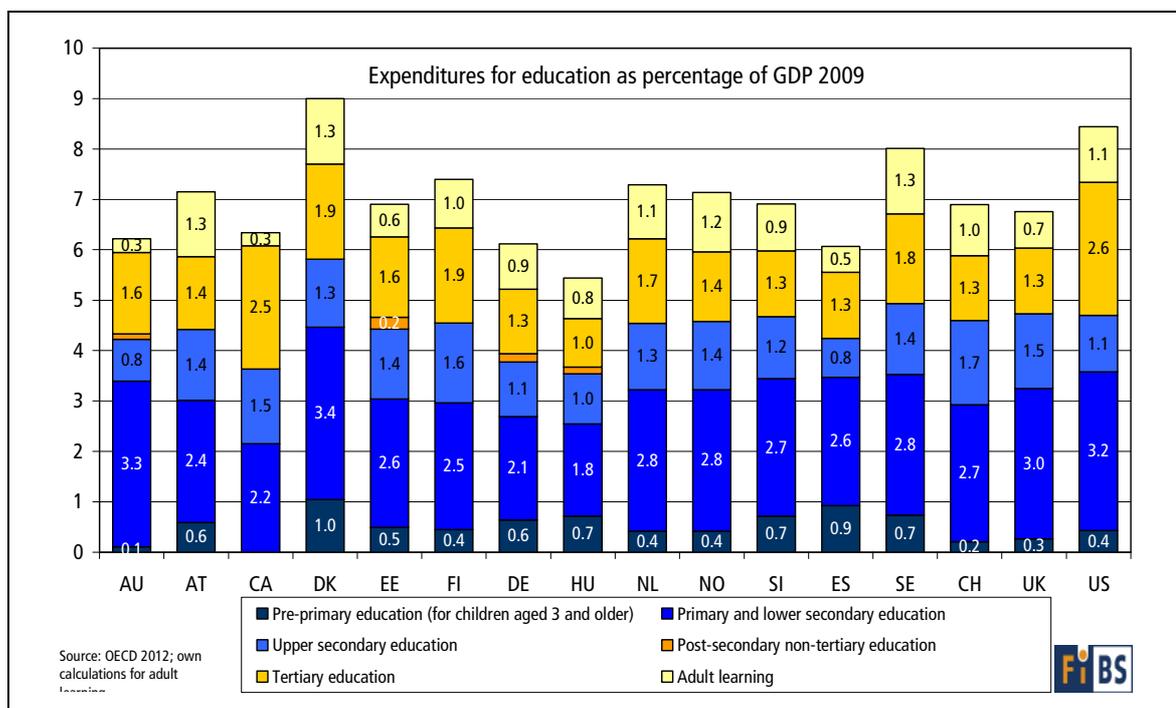


Figure 11: Expenditures for education as percentage of GDP 2009 by education sector (alphabetical order).

Figure 11 adds the spending volumes for adult learning to the overall spending figures for education and shows – unsurprisingly – that spending levels go up. Importantly, spending figures increase more in countries with higher spending figures than in those countries with lower spending figures. This indicates that spending for adult learning follows the same pattern than for education in general.

## 5. Funding systems and instruments and participation in adult learning

Costs are a barrier to participation in adult learning, though its importance differs a lot across regions and countries as well as for target groups. This is valid even though the reason ‘training was too expensive or unaffordable’ is ranked only fifth, according to AES 2011 – no need for training because of job or, alternatively, private reasons on the one hand and time because of family or work obligations, respectively on the other hand are more important.<sup>33</sup>

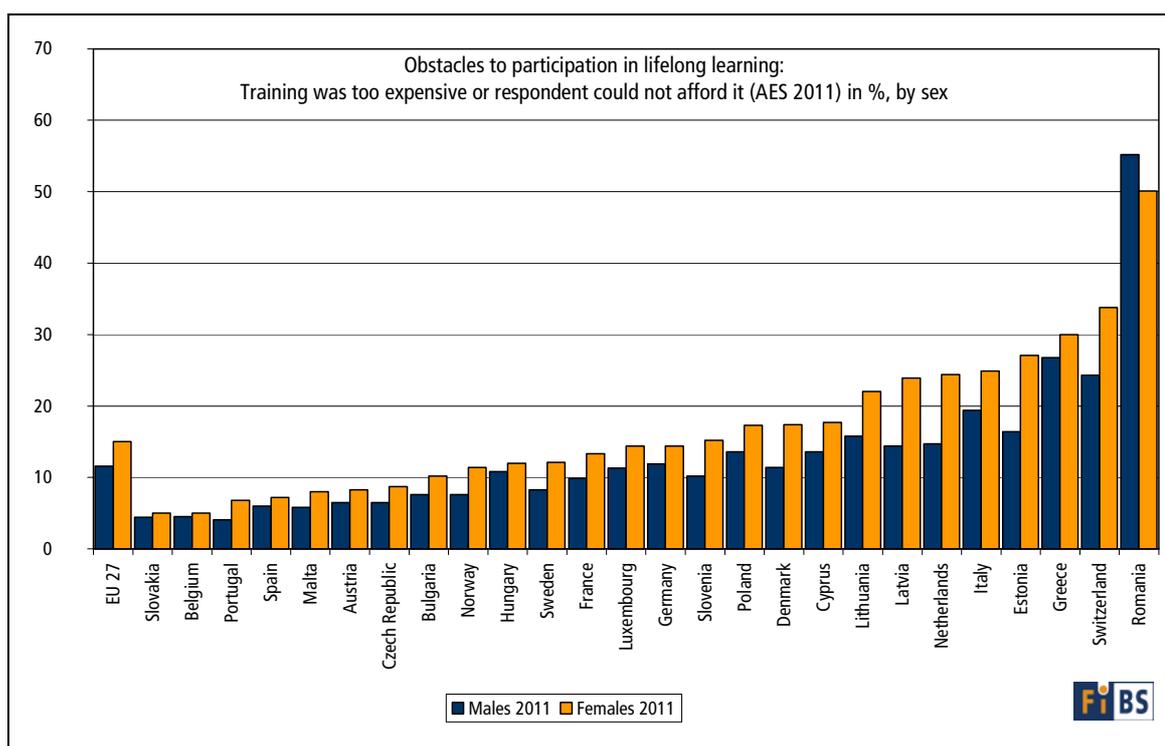


Figure 12: Obstacle – Training was too expensive or respondent could not afford it (AES 2011) in % by sex (ranked according to relevance of costs/affordability as barrier)

Overall, the share of non-participants in adult learning mentioning “training as too expensive or inaffordability” is 13%. The highest values can be found in Romania, where more than half of non-participants mention this obstacle. Second highest are the

<sup>33</sup> A similar result turned up according to AES 2007, even though the indicators “no need because of job” and “need need because of family” were not yet included; however, these newly introduced indicators affect comparisons between both AES surveys.

values in Switzerland and Greece with close to 30%, followed by Estonia, Italy, Netherlands, Latvia and Lithuania with almost 20%. In contrast, the lowest figures come from Slovakia, Belgium and three Southern European countries (Portugal, Spain and Malta).

AES 2011 shows also that more women rather than men state that training was too expensive or unaffordable (see Figure 12); only Romanian men report higher rates than women. Furthermore, the gender difference is particularly large, in absolute and relative terms, for Switzerland and the Netherlands (9.5 and 10.3 percentage points, respectively), while it is rather small in Belgium (0.5 percentage points). Large differences can also be found in the newer member states, such as, for example, Estonia, Lithuania and Latvia where women experience more financial restrictions with regard to adult learning. In Southern Europe, these differences do not seem to be as significant (maximum deviation of 5.5% in Italy).

The funding systems vary a lot across the countries reviewed more in-depth in this study. Among the 20 countries at the core of this study (see section 1 for a list of the so-called ALFi-countries<sup>34</sup>), 333 funding instruments, available for the financing of non-vocational adult learning,<sup>35</sup> can be identified, of which 178 are cost-sharing and 155 are fully publicly funding.<sup>36</sup> For all 33 countries the number increases to 384 (208 cost-sharing and 176 public funding, respectively). Summarising the number of schemes by instrument type, the most important are:

- 126 supply-side funding instruments across the 20 ALFi-countries (146 across all 33 countries), of which 46 (66) are unconditional and 80 (80) are conditional;<sup>37</sup>
- 93 (99) cost-sharing vouchers<sup>38</sup>, spread over 12 (17) countries.
- 43 (63) training leave regulations, spread over 16 and 27 countries, respectively;
- 36 (37) loan schemes (of which 26 are from CH only), spread over 9 and 10 countries, respectively;
- 24 (25) 100% grants, which require no individual co-financing, in 9 and 10 countries, respectively;
- 5 (8) tax incentives in 5 (8) countries

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<sup>34</sup> ALFi is the acronym for this study and will be used throughout the report to distinguish between certain groups of countries.

<sup>35</sup> It should be noted, though, that the demarcation between vocational and non-vocational adult education or whether non-vocational adult learning can be financed by a funding instrument is often not easy to establish.

<sup>36</sup> However, it is often difficult to establish exactly, whether an instrument which is labelled as '100% public funding' is really completely public funding or whether (private) co-financing is, in fact, taking place.

<sup>37</sup> Information on existence of conditional supply-side funding - as well as for 100% grants and fee reduction - is only available for the 20 countries investigated in this study.

<sup>38</sup> With regard to terminology, in this study vouchers concerns cost-sharing, while grants stands for 100% publicly funded grants, where no co-financing is required from the individual. However, instrument may cover 100% for certain target groups and less for others or cover 100% for learning programmes with low costs, e.g. up to € 100 or sometimes even € 600 in the Swiss canton of Geneva), while individuals have to pay the remaining amount, if costs are above this threshold.

- 5 fee reduction/redemption regulations in 2 countries
- 1 saving schemes.

Looking at regional differences, only few patterns turn up at this stage. While almost all European countries employ training leaves, they seem to be rather uncommon in the non-European countries covered by this study. In contrast, cost-sharing vouchers are available in all non-European countries, but only in some European countries; where 100% grants are often in place, suggesting that 100% grants and co-financing vouchers are employed complementarily to each other. Although the list suggests a high number of loan schemes, it is worth mentioning that ‘real CVET-loans’ are hardly available. Only DE, AU, UK and SE employ loans explicitly for vocational adult learning (AT has a combination of savings and loan scheme), the other loan schemes are for higher education. This finding may be important as (bi-variate) statistical analyses find several correlations between loans and adult learning participation; e.g. with regard to participation in overall (formal and non-formal) as well as in non-formal AL (according to AES/OECD 2007 as well as AES 2011 participation rates). In all cases, correlation is stronger and shows higher levels of significance for CVET-loans, rather than for loans in general.<sup>39</sup> In contrast, the existence of vouchers shows a weakly significant correlation with regard to non-formal, non-vocational AL participation rates, while tax incentives correlate weakly significant with formal adult learning, which also applies to 100% grants. These results are plausible, by and large: (1) loans allow financing of more expensive adult learning and tax incentives real cost-sharing between individuals and the state,<sup>40</sup> (2) 100% grants play an important role for disadvantaged groups and second chance education, while (3) vouchers, which are commonly limited to smaller amounts, co-finance the much lower costs of non-formal non vocational learning (according to OECD 2007 participation rates). Even though hard empirical evidence in this regard is still limited and requests further investigation, results suggest that these instruments are more important for adult learning than for others.<sup>41</sup>

Looking at the role funding instruments can play in relation to market failure and funding barriers to participation, tax incentives address shared returns, because the state benefits from economic returns, e.g. tax revenues increase because of income returns to adult learning or decreasing dependence from welfare benefits. Therefore, tax incentives should be in place. (State subsidised) Loans address liquidity constraints and capital market imperfections as first best solution, while vouchers are suitable to overcome uncertainty of returns, i.e. the insecurity whether adult learning will result in

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<sup>39</sup> Furthermore, a weakly significant correlation can also be identified between CVET-loans and LFS 2010 and LFS 2011 participation rates in adult learning.

<sup>40</sup> However, it is a bit surprising that non correlation could be found between and loans and participation rates in formal, but for non-formal adult learning. The only correlation between loans and participation rates in formal adult learning , which is even only weakly significant, concerns LFS 2010 and 2011.

<sup>41</sup> The findings are in line with previous qualitative research on tax incentives and vouchers, while no relationship could be established for loans (PPMI/FiBS 2012). Furthermore, this study found that countries with lower participation rates address companies more than individuals, while countries with higher rates employ more funding instruments for individuals.

higher income or lower unemployment. Risk aversion is best addressed through flexible, income-contingent loans as well as 100% grants, which are – similar to supply-side funding – important if people are not willing or able to pay (much) for adult learning. Table 5 structures this approach and provides also an overview on second-best solutions, if first best instruments are not in place or implementable, e.g. because of political reasons.

Reasons for under-investment in adult learning and funding instruments to overcome them	Cost-sharing between state and individuals					Public funding		
	Loans	Saving schemes	Tax incentives	Vouchers/grants/ILA	Training leave	Supply-side funding	100% grants	fee reduction/redemption
Shared returns between state and individuals			X	(x)				
Liquidity constraints	X	X		X <sup>6</sup>	X <sup>5</sup>	X	X	
Capital market imperfections	(X <sup>1</sup> )	X <sup>4</sup>				(x)	(x)	
Debt aversion	(X <sup>2</sup> )			(x)		(x)	(x)	
Uncertainty of returns	(X <sup>2</sup> )			X	(x)	X	X	
Risk aversion	(X <sup>2</sup> )			(x)	(x)	(x)	X	
Expcting low/no returns	(X <sup>1,2</sup> )	X <sup>4</sup>			X <sup>5</sup>	X	X	
No/limited willingness to pay						X	X	
Equity/unequal access	(X <sup>3</sup> )	(X <sup>3</sup> )	(X <sup>3</sup> )	(X <sup>3</sup> )	(X <sup>3</sup> )	(X <sup>3</sup> )	(X <sup>3</sup> )	(X <sup>3</sup> )

X - first-best solution to overcome barrier  
(X) - first-best solution if certain conditions are met or complementary measures implemented to overcome barrier  
(x) - second-best solution to overcome barrier

Conditions/complementary measures  
1) state guarantees and/or interest subsidies  
2) income-contingent loans or human capital contracts  
3) if targeted at or preferential treatment for disadvantaged groups  
4) state subsidies and/or interest subsidies  
5) paid training leave  
6) if upfront payment or in case that contribution of the individual is reduced due to transaction to provider  
7) if more than 100% of training costs can be deducted

Table 5: Taxonomy for financial intervention in adult learning financing

(Bi-variate) statistical analyses found significant results for capital market imperfections and (almost) for uncertainty of returns, which could serve as first and preliminary indication that addressing these barriers may be more important than other financial barriers; particularly the latter is in line with previous research (PPMI/FiBS 2012). The former (capital market imperfections) would be in line with the role of loans, while insecurity could point to vouchers; however, these preliminary findings need further research, e.g. based on AES 2011.<sup>42</sup>

Although this study found only very limited relationships between funding and participation rates at system's level, it is striking that decentral responsibility exists in all

<sup>42</sup> The analyses in relation to AES 2011 conducted in this study should be considered preliminary as data were not yet available for all countries; e.g. UK and Finland were missing at the time of analysis. UK data was added in mid-July 2013 only.

seven countries with highest participation rates according to AES/OECD-data (2007)<sup>43</sup> 11 out of 18 countries at the top employ this principle, while central responsibility prevails in the countries with low(er) participation rates. Statistically (bi-variate), countries with higher total numbers of instruments show higher participation rates (LFS 2011), which could be an indication that decentral responsibility might be linked to higher participation rates.

Furthermore, the full-country equivalent number of cost-sharing instruments shows weakly significant correlations with overall (formal or non-formal) participation rates; and separately also with participation rates in non-formal adult learning, according to AES 2011. However, this should be taken with care.

Eventually, reviewing the literature, empirical evidence on funding instruments and their impact on adult learning is limited, if extremely high requirements are established (Falch/Oosterbeek 2011; Oosterbeek 2013). However, it is even questionable, whether such high requirements are really appropriate for policy advice because they often only confirm results from previous and more qualitative analyses and are only available after years. For example, Dohmen (2007) estimated deadweight effects and mobilisation effects of **vouchers**, based on literature review, to roughly 50% each, i.e. 50% of participants would have participated even without the voucher, while the remaining half would have not. Both studies mentioned (Falch/Oosterbeek 2011; Oosterbeek 2013) arrive, based on a very small number of examples and with a strong focus on a Swiss example (it should be noted, though, that CH is very unique as turned out during previous analyses of this study!) at a deadweight loss of about 60%. Even that better educated people are more likely to make use of vouchers – as is the case for all non-restricted (targeted) funding instruments – while low qualified participate disproportionately less, is envisable from previous (more) qualitative research, e.g. based on evaluation studies, even if they do not employ such rigorous methods. Research on vouchers has shown this from the early beginning for all education sectors (Dohmen/Fuchs 2007; Dohmen 2007, 2010).

A core problem of vouchers is that disadvantaged, particularly low-qualified groups have difficulties to make use of them, but even more with taking quality-oriented decisions based on information (Kruppe 2006, 2008; and Dohmen/Fuchs 2007; Dohmen 2010; Dohmen/Ramirez-Rodriguez 2010 for overviews on research). This core problem needs further research and well-defined action in order to increase participation of these groups in adult learning. With regard to such under-represented groups they need to be targeted through more systematic and overarching approaches, combating several, if not even all relevant barriers at the same time (FiBS/Research

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<sup>43</sup> In order to include comparable statistical information on participation in adult learning for the non-European countries this study relied on AES 2007 and OECD 2012-data. In a previous study on behalf of Cedefop (PPMI/FiBS 2012), we were able to identify statistical patterns based on LFS-data. For a critical review of the LFS-data in general, but in particular with regard to its role as European benchmark indicator see Oosterbeek (2013).

voor Beleid 2012). It is likely that pro-active methods to approach these target groups are advisable, instead of ‘waiting that they come’.

Although almost all European countries employ **training leave** regulations, their impact on participation rates is rather small; take up is rarely above 1% level – however, exceptions exist (SE: 6.2%; PT: 4.4%; BE: 1.7%; LV: 1.4%; UK: 1.4% (Cedefop 2012a; PPMI/FiBS 2012).

Empirical evidence on the effectiveness of **tax incentives** is also limited, only few studies are available (Cedefop 2009; Leuven/Oosterbeek 2004), suggesting that they may have a very small, though relatively substantial positive impact on take-up of learning. However, as with vouchers, deadweight loss is around 50%.<sup>44</sup> Yet, it appears that outreach of tax incentives is sometimes quite high in comparison to other instruments. For example, 400.000 people are said to have deducted training expenses from the tax base in Germany (Cedefop 2009). However, similar to the other instruments, data on take-up is rather limited.

Regulations on **payback clauses** exist in most European countries, either established at national, social partner or company level, intending to safeguard employer’s investment in learning in case the employ resigns the employment contract shortly after training (Cedefop 2012b). Despite its broad existence it appears that payback clauses become only very rarely effective, in the sense that employees have to repay costs of learning. One reason may be that employee only rarely quit contracts shortly after training, another that reimbursement would be rather limited, e.g. because of the commonly limited costs of training.

**Saving schemes** hardly exist in Europe; the only scheme, actually operating, is the Austrian schemes, which, in fact, is a combined savings and loan scheme. Yet, take-up is extremely limited, particularly in relation to adult learning, even though individuals are entitled to a low-interest loan, issued immediately after signing the contract.<sup>45</sup> The very limited relevance of saving schemes seems due to systematic reasons: (1) costs of adult learning are commonly fairly small, (2) savings are particularly important for low income earners who are usually not in a position to save especially for education, as their liquidity is rather constrained, (3) it is questionable, whether savings for education are economically rationale, because it affects the liquidity for other consumption or investment purposes. If such a liquidity constraint would result in another credit, taken

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<sup>44</sup> Strikingly, Oosterbeek (2013) argues on the one hand that tax incentives are an effective instrument, while he considers vouchers rather ineffective, although the deadweight effect of tax incentives is roughly 50%, while that of vouchers is around 60%. It is hardly plausible that this 10%-difference marks the borderline between effective and ineffective instruments. In contrast, based on the results of this study it seems hardly possible, at least in practice, to design funding instruments without any or with very small deadweight effects. Furthermore, it is very likely that any trial will result in substantial administrative burden, which would than be criticised because of its limited effectiveness.

<sup>45</sup> Another saving schemes established in the Netherlands has been disclosed because of its low take-up; the German saving scheme, which is part of the education premia, is not really a saving schemes, despite its name. In contrast, it enables individuals to withdraw funds from a state supported saving scheme for learning purposes during the seven years grace period, without losing state subsidy.

up for example, to buy a new car (or whatever), the interest rate for the credit would be higher than the interest return to educational savings, resulting in a loss, (4) savings plans for training are also unattractive for commercial banks, because the small amounts and low relevance of larger amounts saved result in relatively high costs (Dohmen 1999, 2007).

**An overall problem** to judge the effectiveness of funding instruments **is data availability**; take-up figures are only available for few funding instruments; the overall impression is, though, that take-up rates are commonly rather small. Even comparatively large schemes, in the sense of broad eligibility criteria, such as, for example, the training cheque NRW, reach not more than 5 or 6% of eligible population (Dohmen 2013); altogether take-up rates of national and regional schemes in almost all German states add up to utmost 140 or 150,000 per year, which is approximately 5% of adults spending own money for adult learning. Another example are the regional vouchers in Austria, for which Dohmen (2009) estimated an overall take-up of approximately 100,000, or the vouchers from the Chambers of Labour, available to all employees in Austria. Whether the funding schemes in the Nordic countries are really more successful is unknown, due to lack of data; however, it appears as such (almost) universal schemes may contribute to higher participation rates; we will come back to this issue below.

Take-up figures of the use of various funding instruments at national level are even more limited. Data available for Norway suggest that 25% of all adults participate in publicly funded learning (estimation based on statistics from the Norwegian expert provided for this study). In Germany, tax incentives are likely to be most important, with 400.000 beneficiaries (2004) (Cedefop 2009), 166,000 through master craftsmen grants and loans (Statistisches Bundesamt/Federal Office of Statistics 2012), and up to 150,000 via various voucher and grant schemes (Dohmen 2013a, 2013b), while those enrolled in second chance education are not included in these figures. However, these figures are indicative and likely underreporting total take-up of available funding opportunities.<sup>46</sup> The limited availability of data on take-up rates and funding volumes calls on the one hand for national level activities; on the other hand it might also call for action at EU level.

Another advice is to employ funding instruments addressing individuals directly to them and not via employers, because companies follow necessarily another logic than catering for disadvantaged groups. In contrast, companies support commonly the better-off more than under-represented groups.

Overall, the previous analysis suggests that public funding should be complementary to individual and company funding; i.e. high income individuals are very likely to participate in adult learning independently from public incentives; the same applies to companies, often caring also for better-educated (and better paid)

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<sup>46</sup> For this very reason, section 4 did not contain any indicator on spending per beneficiary.

employees, while staff with low(er) qualifications is less supported. Since the latter group is often neither willing nor able to pay for training, but are highly rewarding to the public, they should be at the core of public and political attention.

The following table summarises the strengths and weaknesses of the various funding instruments:

<b>Funding instrument</b>	<b>Strengths</b>	<b>Weakness</b>
<b>100% grants</b>	<ul style="list-style-type: none"> <li>Allow easy and well-defined targeting</li> <li>Do not require co-funding (from under-represented groups)</li> <li>No (financial) entry barrier</li> </ul>	<ul style="list-style-type: none"> <li>Huge deadweight effect, if poorly targeted</li> <li>Administrative burden high (if targeted)</li> <li>Application procedure often complicated</li> <li>Require active application of individuals, may turn out as additional barrier</li> </ul>
<b>Fee reduction/exemption</b>	<ul style="list-style-type: none"> <li>Reduced/limited cost burden for target groups</li> <li>Do not require co-funding (from target groups), in case of fee exemption</li> <li>Low or even no (financial) entry barrier</li> </ul>	<ul style="list-style-type: none"> <li>Huge deadweight effect, if poorly targeted</li> <li>Require administration to control eligibility</li> </ul>
<b>Supply-side funding</b>	<ul style="list-style-type: none"> <li>Reduces cost burden for target group</li> <li>Does not require co-funding</li> <li>Low or no entry barrier (depending on whether co-funding is required or not)</li> </ul>	<ul style="list-style-type: none"> <li>Huge deadweight effect, if poorly targeted</li> <li>Utilisation/take-up difficult to control</li> </ul>
<b>(Cost-sharing) vouchers</b>	<ul style="list-style-type: none"> <li>Cost-sharing responds to shared benefits</li> <li>Allow easy and well defined targeting</li> <li>Can respond flexible to different environments</li> </ul>	<ul style="list-style-type: none"> <li>Take-up rate of underrepresented groups usually low</li> <li>Co-financing requirement may prevent participation (of low income or under-represented groups)</li> <li>Deadweight effect high, unless targeted at underrepresented groups</li> <li>Administrative burden high (if targeted)</li> <li>Application procedure often complicated</li> <li>Require active application of individuals, may turn out as additional barrier</li> </ul>

		Supply may be very limited in areas with low population density or for learners with special needs, because programs cannot be run economically, unless complementary measures taken (e.g. adjusted voucher values etc.)
<b>Training leave (paid and unpaid)</b>	Time constraint can be overcome Paid TL does help to cover costs of living and/or costs of learning	Costly from the viewpoint of the employer (paid leave) Participation depends upon employer agreement Does not increase funding for AL
<b>Tax incentives</b>	Allow cost-sharing for costly programmes Easy to administer/limited administrative burden Are, in fact, often not restricted to fees, but cover also other costs, e.g. travel, accommodation, learning materials etc.	Pre-financing requirement; liquidity constraint not resolved Cost recovery (public co-financing) increases with income; No or very limited incentive for low income earners
<b>Loans</b>	Enable financing of costly AL Costs of living and other costs can be financed	Take-up of risk-averse groups limited Adverse selection in case of market solution with public guarantees Administration costs likely to be high, contributing to high interest surcharges State subsidy not visible because hidden in lower interest rates Interest rates may be higher than for savings, disadvantaging loan takers (often from disadvantaged groups)
<b>Saving schemes</b>	Allow saving of huge amounts	Saving of higher amounts requires long-term anticipation of AL needs/plans High administration costs Interest rates/returns are commonly low Banks/financial service companies are not interested (unless costs are covered by individuals via lower interest rates or by state subsidies)

Table 6: Strengths and weaknesses of funding instruments

## 6. Financing of certain target groups and learning providers

This section reviews funding for three different target groups – second chance education/provision of basic skills, higher education (for the first time) later in life, and older/retired people – and for learning providers.

### 6.1 Second chance education/basic skills provision

73 million Europeans have not graduated from upper secondary education and would be in need of additional qualifications to possess the minimum qualification for a successful employment; people with utmost lower secondary education are considered as low-qualified.<sup>47</sup> Therefore, the European Union puts much emphasis on reducing early school leaving and gaining additional qualifications and competences. Reviewing participation rates of low-qualified in adult learning reveals that they participate much less than better qualified. However, it needs to be taken into consideration that the group of low-qualified consists of several sub-groups, where often various hampering factors are combined; for example, age, migration background and health problems etc. The share of low-qualified increases with age, i.e. large shares of low qualified in each country are older people; and the share of low-qualified is much higher among females, particularly in older cohorts.

From a micro as well as macro-economic perspective, investment in second chance education/basic skill provision (SCE/BSP) pays off in most countries (see Figure 13), though rates of return to second chance education are lower than for initial secondary education. Investment in SCE is substantial in most countries and it appears that countries investing more in SCE/BSP benefit through decreasing rates of low qualified adults.

In spite of these positive returns and the substantial amounts invested, it appears that numbers and shares of participants in SCE are relatively modest (see Table 7). Apart from HU (take-up rate<sup>48</sup> 12%), CAN (7%) and USA (7%), figures are rather small. For example, the share seems to be rather low in AT (0.4%), CH (0.4%) and NL (close to 0%).<sup>49</sup> The discrepancy between substantial investment and participation rates is seemingly due to high unit costs on the one hand and limited interest from individuals, which is, strikingly enough, obviously even economically rationale in many cases, although they do not have to contribute own means commonly.

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<sup>47</sup> In contrast, the term low-skilled refers to functional aspects and is more subjective. For example, a person with a university degree is commonly not considered low qualified, but may be considered low-skilled, e.g. because of long absence from the labour market.

<sup>48</sup> The take-up rate defines the share of beneficiaries in relation to the total target population, here the low-qualified.

<sup>49</sup> Under-reporting cannot be excluded.

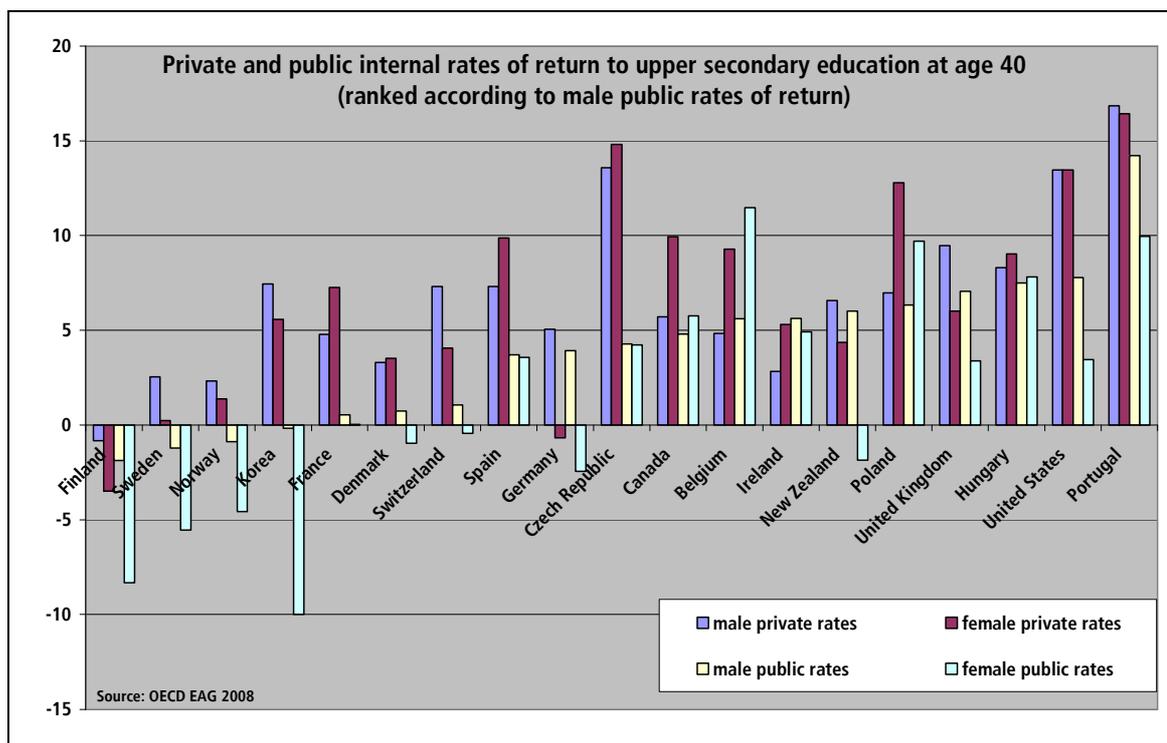


Figure 13: Private and public rates of return to upper secondary education at age 40 (ranked according to public rates of return for male)

Participation rates of low qualified correlate negatively with the share of low qualified in a country and are highest (see Figure 14) in countries where rates of return are lowest, e.g. in DK, FI and NO. In contrast, participation rates are sometimes low in countries with high private and/or public returns. However, some exceptions exist: HU and, particularly the USA and PT show high returns and relatively high participation rates, either with regard to SCE/BSP or to adult learning in general. The core explanatory factor for high or low rates of return from the individual perspective is the unemployment rate, i.e. rates of return are lower in countries, where unemployment rates are lower. When regarding differences in rates of return by gender, rates of return are higher for the sex, for which the unemployment rate is lower. From a public perspective, the difference between unemployment benefits and fiscal returns matters. Furthermore, it should be noted that the unemployment rate shows links not only to private and public rates of return, but also to participation in adult learning of individuals (of all education levels). Statistical analyses carried out in the context of this study suggest a negative relationship between the long-term unemployment rate and LFS participation in adult learning, even when accounting for differences in economic performance between countries. This means that participation in adult learning appears to be higher in countries where unemployment rates are lower. Females, in contrast to males, are found to be more (less) prone to participate in adult learning if they are employed (unemployed).

Country	AT	AU	BE	CA	CH	DK	FR	HU	NL	SK	USA
year	2012	2010	2010	2008	2010	2010	2011	2011	2010	2010	2011
A) Participants basic skills	2	79			3	28		95			845
budget / participant (in € 1,000)	3.3	3.3				0.7					
B) Participants upgrade attainment level	2		53	176		8	12	148	17	9	1.167
budget / participant (in € 1,000)	5.6					11.5	2.0		9.0	0.3	
A+B) total participants SCE	4	79	53	176	3	36	12	243		9	2.012
SCE average total (budget / participant)	4.4	3.3				3.1	2.0		9.2	0.3	
Take-up rate (participants/ target grp)	0.4%	2.0%	2.7%	7.2%	0.4%	4.1%	0.1%	12.2%	0.0%	2.1%	6.7%

Table 7: Take-up rates and average budget spend per participant on second chance education and basic skill provision to for low-qualified (numbers x 1,000, budget in € 1,000<sup>50</sup>).

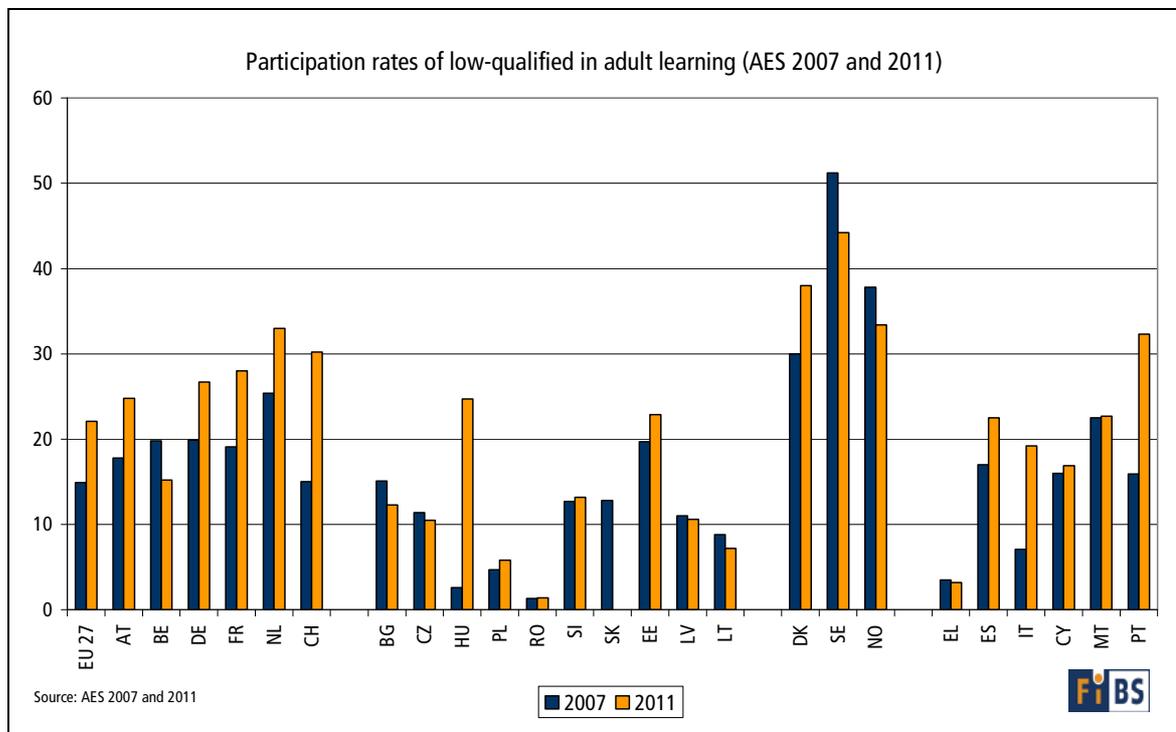


Figure 14: Participation of low qualified in adult learning 2007 and 2011.

<sup>50</sup> Budgets are not corrected for purchasing power parities.

From a mere economic perspective, these findings suggest to apply more focussed policies and to invest in SCE/BSP only, if private and/or public returns are high enough to justify this investment. Even though this would, of course, suggest to employ SCE/BSP policies particularly for younger people and in cases where unemployment rates of low qualified are higher and lower for medium qualified, even second chance education for people around aged 40 pays-off in certain countries.

In many countries, funding is completely through the public purse, either applying (conditional or unconditional) supply-side funding or 100% grants; individuals themselves have to contribute own means only very rarely, and if they have to pay, the amounts are commonly rather small. Another question is, whether funding concerns only fees or the costs of learning providers or whether funding for costs of living is available; the latter is commonly the case for the unemployed, though not necessarily for others. However, an interesting finding from AES 2011 is that the mean hours of formal adult learning appears to be rather limited, though, varying across countries from 15 hours in Luxembourg to 59 in Germany. Furthermore, values decreased in many countries between 2007 and 2011.

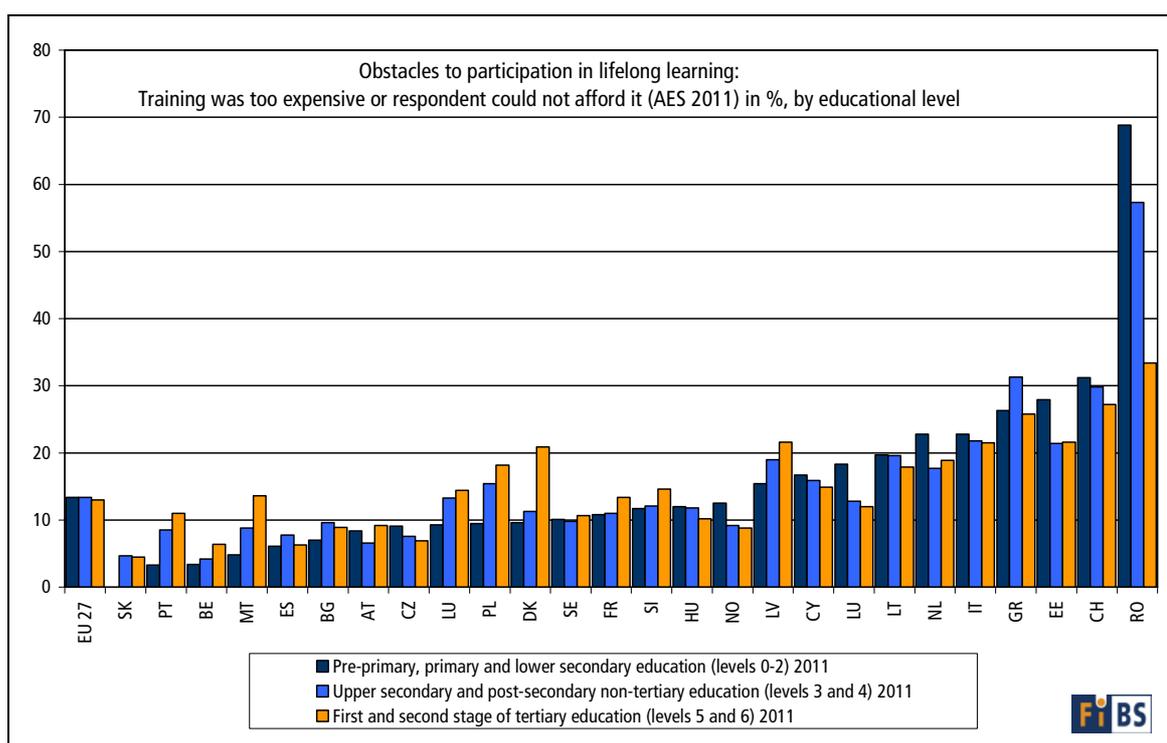


Figure 15: Obstacle – Training was too expensive or respondent could not afford it (AES 2011) in %, by educational level (ranked according to share of low-qualified mentioning costs/affordability as obstacle)

The most important finding concerning funding is that take-up figures appear to be low even in countries with publicly financed entitlements, as e.g. in Norway, which suggests that additional measures are necessary to overcome various, if not even all,

barriers at the same time. It seems even likely that funding is not at the core at all in many countries.

However, the previous finding that low-qualified have to contribute only very little, if at all, stands in some contrast to Figure 15 above, which reviews the reason ‘costs too high/unaffordable’ as cause for non-participation by education attainment. The EU 27 average in the AES 2011 survey shows only slight differences between the different educational levels, by and large. However, the look at country-related data shows three different groups of countries: In several countries across all regions low qualified perceive costs more as a barrier than medium and highly qualified. Among these countries are FR, NL, AT and CH as Western European countries, CZ, HU, EE and particularly RO as newer member states. Romania is outstanding, because more than two thirds of non-participating low qualified argue with costs, whereas only one third of highly qualified mentions this reason. Comparatively small are the higher shares of low qualified in Norway, in CY and in IT.

This finding suggests that public funding is obviously not available to all (low qualified) adults, but that a certain and varying share is either not aware of the funding opportunity or not addressed through funding schemes. For example, while unemployed people in Germany are addressed through the employment agency they are not (or only very rarely) targeted through other funding instruments, i.e. the federal training premia or state-level instruments. It seems likely that this is also the case in other countries, preventing relevant groups of society from participation in adult learning.<sup>51</sup>

From a European perspective, this calls for differentiated policies, supporting especially policies to the advantage of low qualified on the one hand in countries where costs or funding are more of a problem than for other groups and countries. On the other hand, additional barriers need to be surmounted in those countries where funding is not at the core, i.e. in those countries where funding is (almost) no barrier for low qualified.

## 6.2 Higher education (for the first time) later in life

An important finding with regard to higher education later in life is that public and private internal rates of return are substantial (see Figure 16) and sometimes even higher than for initial tertiary education, though important differences across countries and by gender exist. Although higher education later in life pays-off in many countries, it does not pay-off in any country; particularly the Nordic countries show very low rates.

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<sup>51</sup> A re-analysis of the German AES 2010 suggests that a substantial share of people not in employment points to “funding/affordability” as a barrier, suggesting that funding modalities are either insufficient for this target group or that knowledge about funding opportunities is limited. In fact, it appears that funding for this group is hardly available, despite funding from the employment agency.

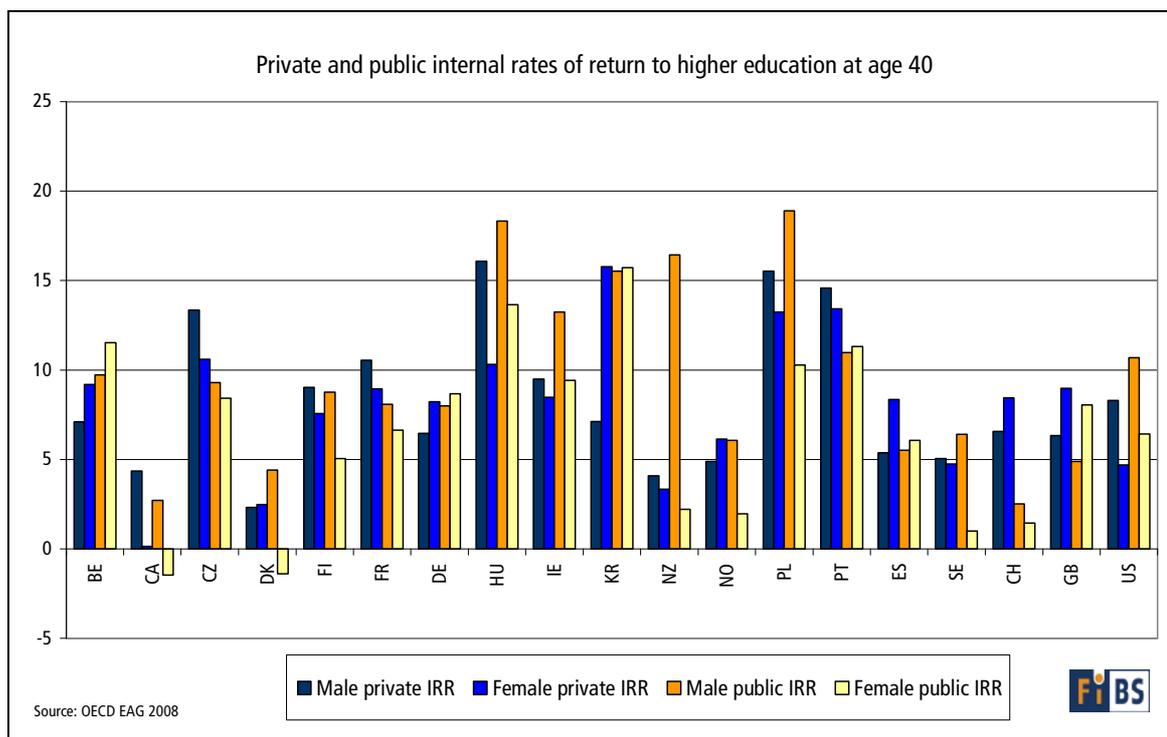


Figure 16: Private and public Internal Rates of Higher Education later in life for male and female (ranked alphabetically).

The following Figure 17, ranked by the share of students aged 40+, reviews the share of mature students in relation to all tertiary education students. It highlights substantial differences in the share of tertiary education students aged 30 years and above across the OECD-countries, ranging from 3% in Greece to 33% in Sweden and Norway. Looking at the whole group of mature students, the 24 countries can be grouped into four clusters with six countries each and with relatively clear demarcation lines. At the top are all four Northern European countries and UK and AU; while SE and NO are above 30%, Finland and Denmark are close to 30%, with the UK almost at the same level than Finland. Australia falls slightly behind. All six countries have a share of mature students of well above 25%. A second group comprises six countries clearly above the 20% level, i.e. AT, US, CH, PT, LU and ES. The third group has rates above 15%, covering SK, IE, HU, CZ and CA, Germany is close to the 15% rate, but falls clearly short of the levels of the other groups, but is also well above BE, NL and KR.

Focussing the age group 40+, the picture becomes slightly more divers. SE, NO and UK remain clearly at the top with 15%, while AU, FI, DK and the US are also above 10% but well below the countries at the top. The remaining countries show rates of well below 10%, headed by AT, PT and IE and followed by CH, CA and ES.

It seems possible and appropriate to cluster the 24 countries into three groups. Some countries are clearly ahead of others, SE and NO are in the highest ranges in both groups, while DK, FI, AU and UK as well as CH and AT are in the top group for one age cohort and in the upper medium in the other. The first four countries show comparatively higher rates in the older, the latter two in the younger cohort.

A second group of countries ranks in the middle, with upper medium to high shares of 30 to 39 year olds in tertiary education, and varying clusters for those aged 40+. This group comprises several Western (IE, DE), Southern (ES, PT, IT), newer member states (CZ, HU, SK) and CA as non-European country. The remaining five countries show comparatively low rates in both age cohorts; this is valid for FR and particularly for EL, KR, NL and BE.

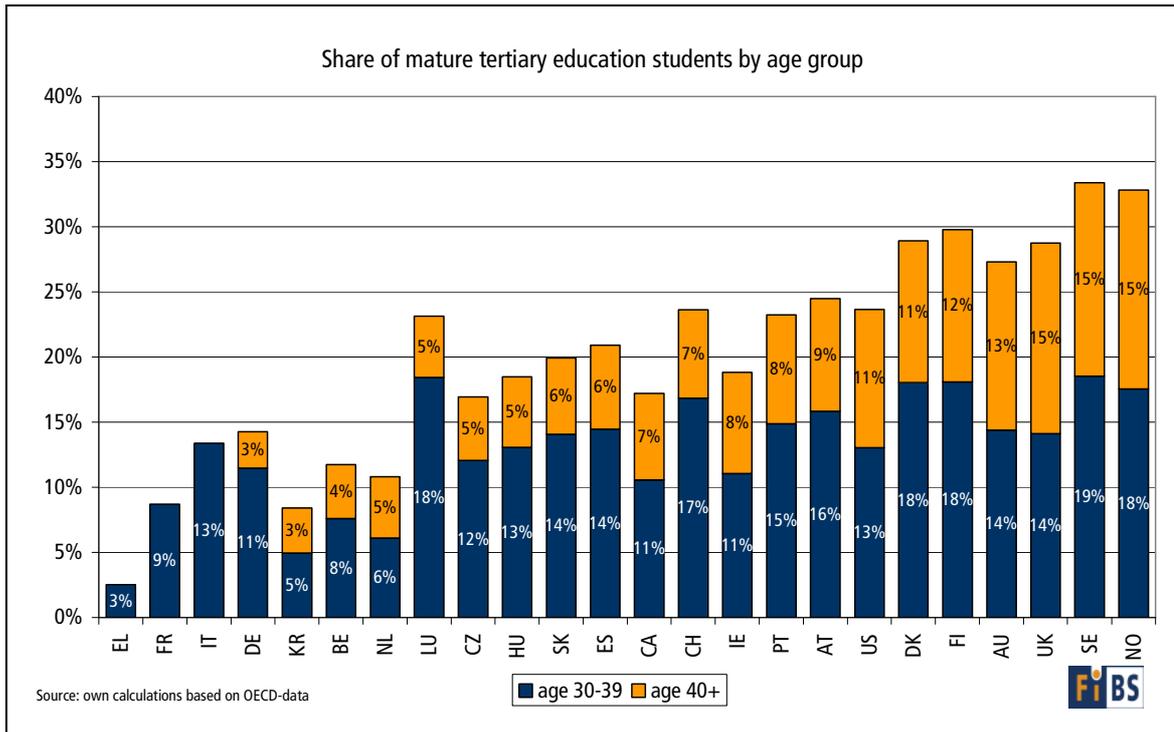


Figure 17: Share of mature tertiary education students by age group (2010) (ranked by share of students aged 40+).

Looking at the funding policies employed in the three clusters the link between funding modalities and the shares of mature or non-traditional students becomes obvious. The first group employs open access policies, providing funds to people entering the HE system without almost any age restriction (up to age 60). Not surprisingly, this policy is linked to comparatively high participation rates of mature students in HE, as can be observed for the Anglo-american and the Nordic countries. Furthermore, when looking at the details, e.g. the application or non-application of means-testing either for loans and/or grants, some smaller differences may be attributed to this. While the Nordic countries do not employ any means-testing, which is also the case for the loan schemes in the UK (England) and Australia, the USA employs means-testing to grants and (interest-subsidised) loans. While the former countries have often higher rates of mature students, the share are slightly lower in the UK (England) and Australia, and are another bit lower in the USA. Thus, while it appears that the existence of funding instruments as such is more important than the special type of instrument, i.e. loans are obviously well accepted to finance HE later in life, which may be due to the fact that most of this age cohort gained experience in

taking-up loans and may also be supported indirectly through repayment conditions. In contrast, means-testing seems to make a difference, though.

A second group of countries, applying either general funding regulations with age restrictions well beyond the common age levels of initial higher education, i.e. above age 30 and, for example, up to age 40 or 45, or established special regulations providing funds under certain conditions. Countries belonging to the first sub-group are, for example, DE and HU, though at least in the case of DE this has not yet lead to high(er) participation rates, despite several attention over the last couple of years.<sup>52</sup> AT is an example for countries belonging to the second sub-group, because some funding is available to support successful graduation for universities studies. Furthermore, it seems that a higher education policy supporting only a limited share of students in initial higher education with full-cost grants, while the rest has to pay full-cost fees, results in comparatively high participation rates of mature students. This group is likely to comprise largely students, who are not from better-off families, which would have been able to pay full-cost fees at age 20, when enrolment in initial education usually takes place.

A third group of countries emphasises only initial higher education; in such countries funding is restricted to age 30, if not even less, and support is commonly dependent on parental income; often some support is even targeted at parents. As a result, shares of mature students are very limited.

Eventually, it is important to understand that funding policies alone are not enough to support lifelong learning in HE, but that additional policies and measure are required (see the report for Lot 3 “Opening higher education to adults” in this regard).

### **6.3 Learning of older and retired people**

As is the case for low qualified, also older (aged 55 to 64) and particularly retired people participate less in adult learning; often low qualification levels and age are correlated, since the share of low qualified is much higher for older age cohorts. As already mentioned this is even more pronounced for females.

Figure 18 reveals that participation rates of older people increase between 2007 and 2011 in most European countries, and particularly for CH, DK, and FR, while decreasing rates can be observed in NO, CZ, SK, LT, LV, and EL. Of these countries, NO and EL are outstanding, NO because of its high participation rate despite reduction, and EL because of its extremely low rate. However, this increase in participation rates goes along with decreasing rates of older people in formal education, which even halved in some countries, such as Belgium, or vanished in others, such as DE and IT. Although disparity between younger and older age cohorts decreased, i.e. the increase

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<sup>52</sup> Policy with regard to the target group changed only very recently. The student support scheme has only been enhanced in late 2010, while data in Figure 17 concerns also the year 2010, the KfW study loan raised age limited to age 44 at the beginning of 2013.

in participation rates of older is higher than for younger cohorts (or decrease is lower), disparity has even increased in some countries. Eventually, mean time of instruction for older people is (even) lower than for all participants.

When reviewing the participation rate of older people by various sub-categories (see Figure 19), it turns out that one third of those employed are active adult learners, while less than 10% of already retired people are active, suggesting that employment status matters. Thus, this study identifies not age itself but employment status as core explanatory variable for participation rates, re-confirming previous analyses (OECD 2004; Hansson 2008; Bassanini et al. 2006). Furthermore, employment status of older people itself is linked to two different aspects, educational attainment and retirement policies. The share of employed people, aged 55 and above is higher the higher educational attainment in this age group and vice versa, i.e. the share of low qualified in employment is much lower, while the share of unemployed or inactive low-qualified is much higher. Low-qualified retire earlier, e.g. because of physically demanding jobs etc. Furthermore, the three variables (educational attainment, adult learning and (early) retirement) are often interlinked, i.e. those with higher education remain longer in employment and participate more in adult learning. However, this is not valid in any case, some countries have a high effective retirement age, sometimes even higher than official retirement age, but participation rates remain limited.

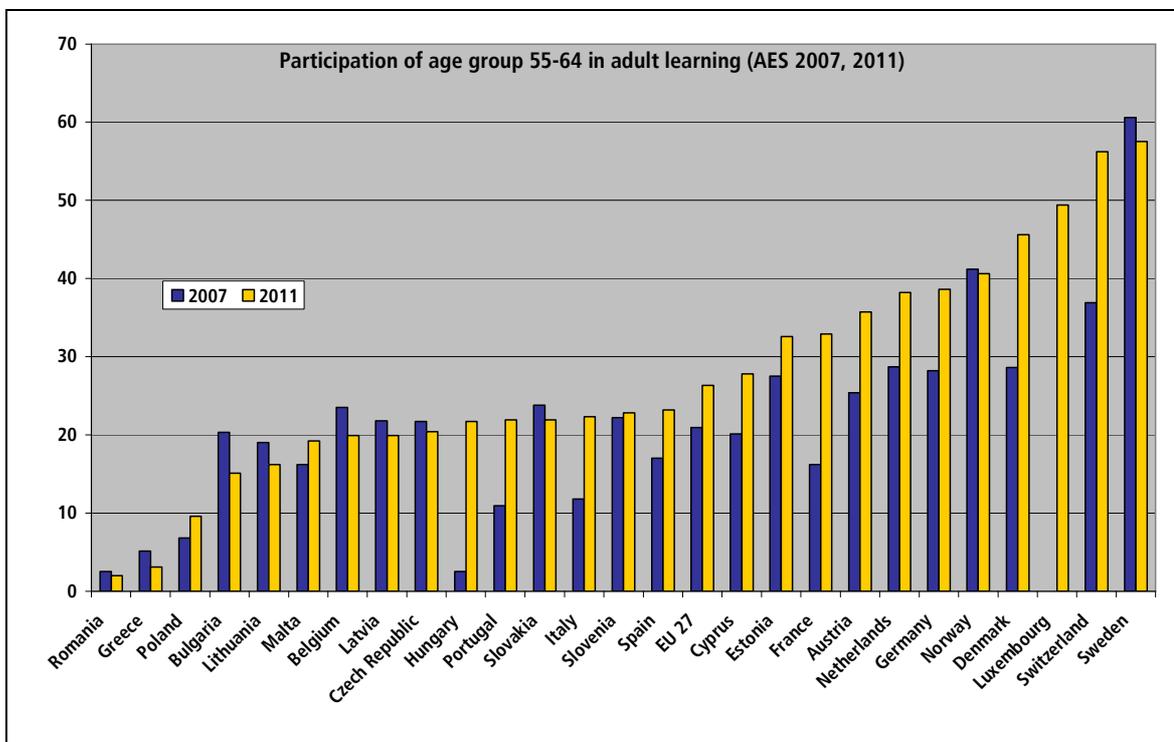


Figure 18: EU27 - Participation rate in formal and non-formal education and training in different age groups in %. (ranking according to AES 2011)

Overall, when regarding the statistical relationship between participation in adult learning and educational attainment for adults aged 55 to 64, a positive relationship is

suggested for the share of (older) adults with tertiary education (ISCED levels 5 and 6) and participation (AES/OECD 2007 as well as LFS), even after accounting for differences in economic performances between countries. Consequently, countries with higher shares of high qualified older adults are also those with higher participation rates of this age group in adult learning. The opposite holds when regarding the AES/OECD 2007 participation of the same age group of adults, yet with a low primary education level. Here a significant negative relationship is observed, even when controlling for GDP per capita. This confirms that participation in adult learning is lower in countries with high shares of low-qualified older people.

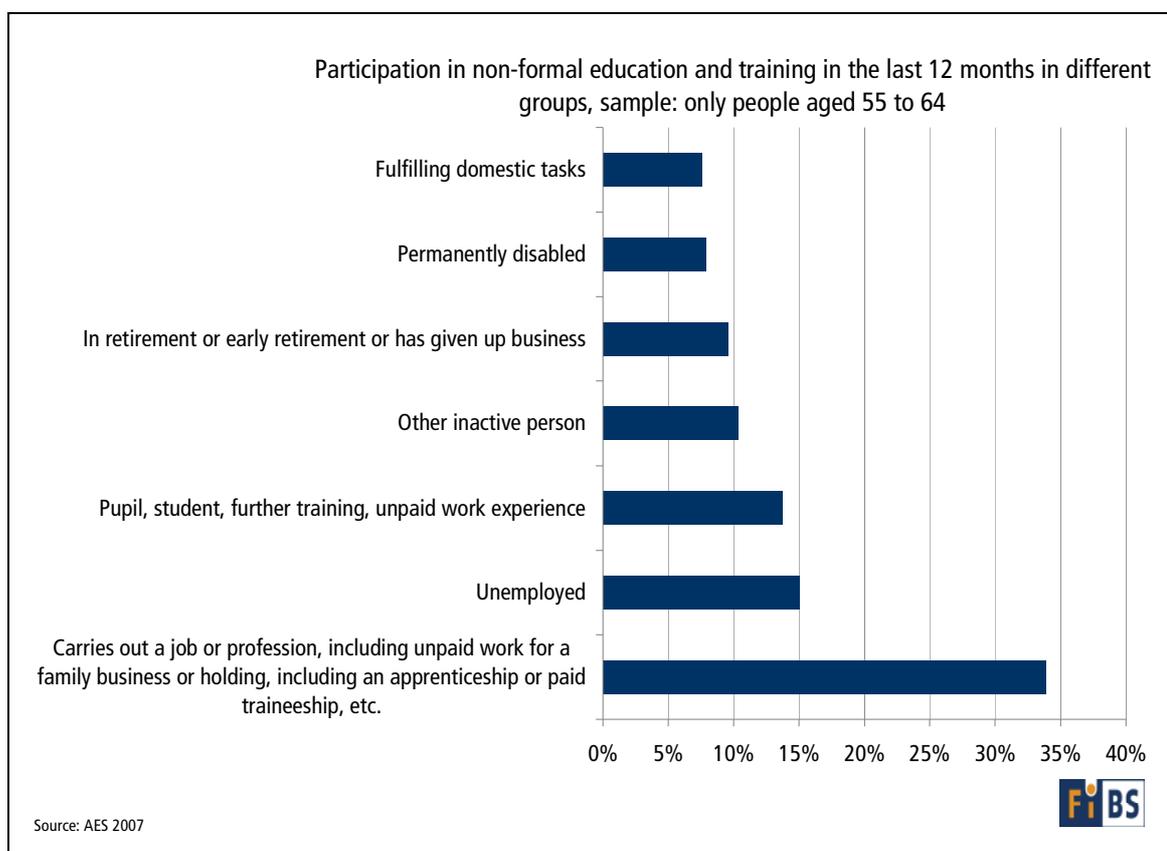


Figure 19: Participation in non-formal education and training in the last 12 months in different groups, sample: only people aged 55 to 64. Source: Calculation by the authors with data from AES 2007.

Going one step further, and differentiating the share of adults aged 55 to 74 by educational status and employment status, multivariate analysis (controlling for GDP per capita) suggests that the previously elaborated relationships between AES/OECD 2007 participation and the share of old(er) adults with primary and tertiary education levels hold irrespective of the employment status (employed or unemployed) and are of similar strength. However, one must note that nearly significant results, if e.g. LFS participation rates are instead used for estimation, point out that employment status may matter in this respect. Overall, these results are in line with previous observations and portray that age itself is not the core explanatory factor in relation to participation in

adult learning, but educational attainment, whereas the role of employment status needs further investigation, though results suggest that it may matter, i.e. the more older people are „still“ in employment the higher the participation rate.

Lastly, both the effective retirement ages of men and women show a positive relationship with LFS participation in adult learning, after controlling for GDP per capita. This suggests that participation in adult learning is higher in countries in which adults work for a longer period of their life, i.e. increasing effective retirement age is, thus, likely to increase participation rates of older people in adult learning.

Retired people participate even less and particularly for different, non-job related factors become more pronounced. Many countries address this group through various supply-side driven activities, such as “universities of the 3<sup>rd</sup> age”, senior study programme in higher education or specific provision of learning opportunities at community level. These activities are not linked to any additional and specific funding opportunities, apart from covering the costs of provision of learning opportunities and/or cross-subsidisation. However, the USA has some minor programmes for this target group; in CZ the university of the third age is a voucher programme for older people. Furthermore, some programmes implicitly address this group of retired people, either because they are not restricted to any age limit or because they target people above a certain age threshold without restricting funding to employment status.

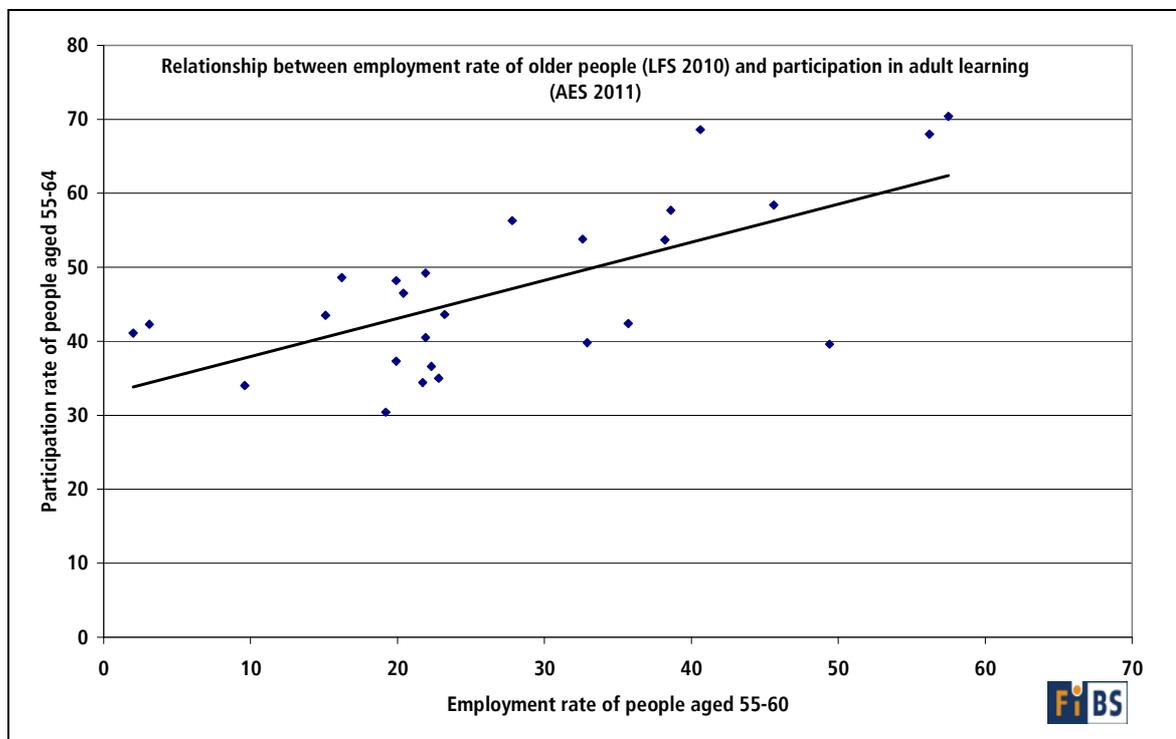


Figure 20: Relationship between employment rate of people aged 55-64 and their AES 2011 participation rate.

Eventually, it is worth to mention that funding is less of an obstacle than for younger age cohorts, while are dispositional barriers (e.g. health status) become more

important. Not surprisingly, the reason “do not need it for the job” is more pronounced (see Figure 21).

In general, and similar to the finding in the previous section on higher education later in life and in spite of the limited role of funding as an obstacle, it appears that participation rates are higher in countries employing open access funding policies, as the Nordic countries do in particular and the Anglo-american countries to some extent. Such open funding opportunities address (almost) the whole population and are often embedded in practised lifelong learning cultures and policies (see also below). Other countries, basically those with participation rates around the (European) average employ targeted funding schemes for (certain groups of) older people, though employing varying definitions of older people (addressing either the age cohort 45+, 50+ or even 55+). However, the very few schemes for which take-up data is available, e.g. in the German states of Hesse and Rhineland-Palatinate, suggest that the number of beneficiaries is rather limited. The remaining countries with low or limited participation rates of older people employ either more project-based funding policies, e.g. through tenders, or have commonly very little funding opportunities for adult learning available, if any.

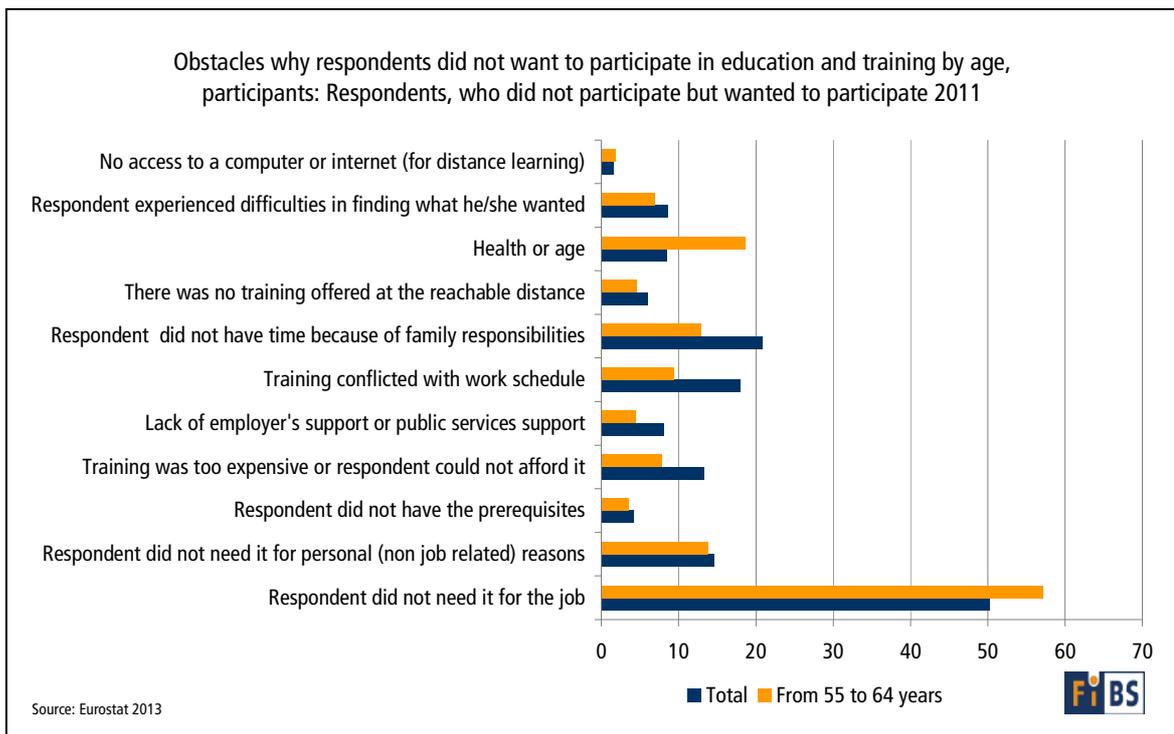


Figure 21: Obstacles why respondents did not want to participate in education and training by age, participants: Respondents, who did not participate but wanted to participate 2011.

Yet, in the future it is highly likely that participation rates of older people will increase, as can be seen for the period 2007 to 2011 in most European countries (see Figure 18).

## 6.4 Funding situation of learning provider

The structure of learning providers is very heterogeneous in the European countries, though certain types are prevalent across all countries, by and large (AES 2007). Across all countries, learning institutions from employers form the biggest group with almost 40% on average, and up to almost 70% in BG. In contrast, the share of employers as learning providers seems almost non-existent in Hungary. The second largest group are “institutions for non-formal education/further education” (16.5%), followed by “institutions for formal education/further education” (10%) and business institutions (9%). Around 5%, each, are “chambers of commerce”, non-commercial institutions, individuals, and non-profit-associations. However, the role the various types of learning providers play in each single country varies a lot.

Overall, available research on learning providers and their financing is still rather limited, particularly in a cross-country perspective. Therefore, and in order to close this gap at least to some extent, this study conducted an (experimental) online-survey in seven countries (Austria, Germany, Hungary, Italy, Netherlands, Slovakia, and Slovenia). More than 400 learning providers, out of more than 3,000 invited, took part in this survey, showing a very diverse picture.<sup>53</sup>

Fees from participants are of particular importance to learning providers in Germany<sup>54</sup>, Austria, and, though with some differences, of medium importance for the Netherlands and Slovenia while fees from employers play a major role for learning providers in HU and SI. In contrast, fees from employers are almost irrelevant for German providers, responding to the survey. In contrast, public grants are of major importance for learning providers in Germany and Italy; furthermore, grants from background institution/financier/sponsoring body are extremely important in Germany.

Reviewing to what extent learning providers are affected by the crisis, i.e. in particular hit by cuts in their sources of funding, learning providers in HU and IT were (strongly or slightly) affected from shrinking fees from participants; for HU this applies even more for fees from companies. In contrast, German and Austrian providers are affected only to a minor extent. The only country where a vast majority of learning providers state that they were affected from cuts in public budgets is Italy; whereas this applies to almost half of the Hungarian providers, which are also more affected from cuts in sponsoring than learning providers in other countries.

Furthermore, private-for-profit providers are far more dependent on fees from participants or companies and are, thus, far more affected by the crisis. In contrast,

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<sup>53</sup> As response to the invitation to participate in the survey was voluntarily and not all provider addresses were available, but in some countries even selective by nature, it is likely that results are biased. The following information should, thus, be seen in the light of this remark.

The questionnaires (see section 0 in the annex) as well as the invitation letters were translated into national languages.

<sup>54</sup> Folk high schools are over-represented in the German sample, though it seems likely that fees would play an even more pronounced role if selection of learning providers would be more in line with overall distribution of learning providers in Germany.

only up to one third of public providers mention reductions in funding sources, whether from private or from public sources as a problem; except for funding from employment agencies in Germany. Funding is perceived far more of a problem in Hungary and Slovenia than in the other countries.

Overall, these findings clearly indicate that learning providers in some countries are far more affected from the crisis than in others. Furthermore, it appears that cuts in public budgets are far more of a problem for learning providers in Italy and Hungary than in Germany and particularly Austria and Slovenia. Learning providers in Hungary suffered also far more from shrinking fee revenues from participants and companies, which is though to a lesser extent, also the case for IT, SK and SI.

In order to review the challenges learning providers face and how they are affected by changing funding environments, a regular learning provider business climate index at European level could be established, following the German Ifo-business climate index, which has been translated in a national learning provider index. This index shows that learning providers in Germany were more or less affected from changing requirements and funding opportunities during the crisis; some learning providers benefited temporarily a lot from additional public funding provided for employers and helping them to surmount the crisis by substituting short-term work arrangements by learning opportunities for their employees, while those learning providers depend mainly on employer funding experience business cycles following the common pattern, experiencing sharp cuts during the crisis.

## 7. Conclusions and recommendations

One of the core conclusions of this study is that adult learning pays-off and that returns to adult learning are substantial and accrue to individuals, employers and society at the same time, suggesting a cost-sharing between all three or even four stakeholders, if employment agencies exist in a country. Furthermore, several adult learning indicators show stronger correlations with innovation performance than higher education; and countries with higher growth rates during the last five years show higher participation rates in adult learning – however, the identification of causalities needs further research, although the fact that the correlation is stronger for the time-lag model than for a model without time-lag may suggest that adult learning has a positive effect on mid-term growth. Relationships to AES 2011 participation are stronger than for AES 2007.

Reviewing funding volumes and distribution, countries with higher participation rates show higher funding amounts in general, but also in relation to various indicators, e.g. spending per adult or spending per adult and per hour. Although funding from employers and states seem to be drivers of adult learning participation, statistical analysis confirms this only for state funding, while contribution from individuals is significantly – and for several indicators – negatively correlated with adult learning participation, even if controlled for GDP as core explanatory factor. This finding has two

implications: First of all, costs for the individual should be kept low (or even reduced), if participation rates are to be increased. Secondly, increasing participation rates through public funding policies is linked to increasing deadweight effects, if funding is not targeted at those in need of funding, and who otherwise will not participate; however, since funding is neither the only nor the most important barrier, this should be complemented by accompanying measures addressing other barriers, which vary a lot between individuals, though.

This suggests developing comprehensive lifelong learning strategies and cultures, which are obviously a major component in order to reach higher participation rates. Countries with high participation rates in general, but also with regard to certain target groups, e.g. low qualified, mature/non-traditional students or older people, employ open access policies, in the sense that (public) funding is available to (almost) all adults, and often through a rather small number of instruments. However, as regards effectiveness it is likely that high deadweight effects persist, as highly educated people are likely to enrol in adult education even without public funding.

In contrast, countries with low participation rates are still very much, if not even almost exclusively oriented towards initial education. Funding for adult learning is very limited and often tender- or project-based, and, thus, not aiming at establishing sustainable structures. In between the two clusters are countries which commenced their way towards a comprehensive lifelong learning strategy and culture; these countries employ often various instruments for several target groups, demanding participants to search for information about funding sources. Because search and utilisation of information is linked to initial education, this advantageous better and disadvantages less educated people.

Furthermore, it seems that the latter group is strongly oriented towards funding for unemployed and companies, while funding for other groups is (almost) non existent. Previous research (PPMI/FiBS 2012) suggests that countries with higher participation rates address individuals rather than companies, i.e. the number of funding instruments for individuals is higher, the number of instruments for companies is higher in countries with low(er) participation rates. This suggests to re-orientate funding towards individuals and to provide (more) funding opportunities for under-represented groups, even if they are in employment.

With regard to older people, education levels and a higher effective retirement age are important drivers for participation in adult learning for this group; i.e. rising retirement age could be a short-term policy in order to increase their participation rates. Funding itself – as well as time constraints because of family or job – is less of a problem for this group than health, age and limited learning needs because of job, i.e. accompanying measures are probably more at the core than funding. This applies also to second chance education, where most countries employ full-cost funding or request only a small funding part from the individual. In spite of this comparatively comfortable

situation, participant figures appear still limited, although funding in many countries is substantial.

Another suggestion resulting from this study concerns European indicators: (1) The trade-off between increasing participation rates according to AES and decreasing mean hours of instruction suggest to establish an indicator which combines both factors, e.g. multiplying the share of adults participating in adult learning with the average hours of instruction. This indicator would also respond to the varying role and duration of formal and non-formal learning. (2) The correlation between adult learning and innovation output (performance), which seems to be even stronger than the role of (initial) higher education, should be recognised in the Innovation Union Scoreboard.

Eventually, even though concerns about data limitations are mentioned in almost every study, unfortunately, it needs to be mentioned that data limitations are a serious problem with regard to adult learning, hampering research and policy advice. Apart from participation rates, for which the adult education survey 2011 seems to provide a very good picture by and large, all other data are incomplete, not to say even sketchy, and commonly hardly comparable. Even at national level this is a matter of concern, particularly as far as funding volumes are concerned, which are either incomplete or available for certain (one) year(s) only. Different national understandings and definitions of adult learning are another issue hampering comparability of national data.

## Annex: Country-specific considerations

The following section provides a brief overview on some core aspects and concern on a country by country basis.

**Australia** applies very general and overarching funding policies with regard to its adult population, no distinction is made between initial and continuing VET and no age restrictions apply to its funding instruments, as far as we could establish. It might therefore not be surprising that Australia has comparatively high participation rates when people aged 40+ are concerned, with the vast majority of almost 10% in VET, while only 1% of this age cohort is enrolled in higher education. With regard to non-vocational adult learning, it should be noted that this topic is obviously not recognised as public responsibility. Thus, the following refers to vocational adult learning.

According to our data over 80% of funds for the VET system are provided by the eight state and territory governments to public and private providers (known as Registered Training Organisations RTOs) . For an individual student in a government supported place the government funding is over 90% of the cost of tuition. Funding comprises conditional, demand-led financing of learning providers as well as grant and loan support for individuals.

The key instruments for VET are entitlements for all persons of working age to a (state or territory) government subsidised place at least for a first Certificate III. In addition, VET fees are quite low compared with university fees. In New South Wales

where there is a specified state level system of charges for VET the higher annual fee is \$1,720 for an Advanced Diploma and as low as \$506 for a Certificate I or II. For students from low income/disadvantaged background the government subsidy is considerably higher than for other students. The fee such students are charged is usually called a concession fee and is as low as \$100 per annum in the state New South Wales for 2013. Around twenty per cent of all VET students are eligible for the concession rate. Furthermore, financial assistance is available to about 15% of students in full time VET. Eventually, an income contingent loan is provided by the Australian government and is available to students taking Diploma and Advanced Diploma courses. This is called VET FEE-HELP and is very similar to HECS HELP. This is a new development except in Victoria where it has been available for two years. So far the take up rate by students is relatively low compared with university students. The reasons for this include the complexity of the elements of VET courses and also because with most providers the fees remain fairly low.

The government subsidy to a provider also varies for public providers outside the metropolitan areas where the costs of provision are higher in part due to smaller enrolments in any field of study.

As in the other Anglo-American countries, the Australian states, with financial support from the Australian government, have the major responsibility for funding VET; in contrast to higher education, where the national government has responsibility for the public funding of higher education.

As has already been outlined in the section on funding volumes as well as in this section above, the share of public funding is comparatively high; this is likely to be an argument in favour of the high participation rates of people aged 40+. Some specific programmes for basic skill provision are presented below in the section on second chance education.

However, this seemingly well designed and attractive funding regime results in below average participation rates in adult learning, leaving room for the question, what are the bottlenecks for participation. Furthermore, as mentioned above, one may question whether Australia's sorting in the countries with an established lifelong learning culture is appropriate or whether it should belong to the next group.

Though **Austria** spends very high shares of its GDP, i.e. 1.3%, participation rates are comparatively low for such spending figures. Despite the second highest spending per adult (€ 730) its participation rate is close to the European average.

One possible explanation could be that a relatively high share is spent for second chance education, demanding usually high amounts per participant. For example, the 'Adult education initiative' is equipped with € 54.6m to qualify 12,600 adult, which is €

4.330 per adult.<sup>55</sup> Another possible explanation is the high spending through the employment agency. However, whether these are the core issues has to be left open; since also Lassnigg et al. (2012) raised concerns about effectiveness of spending, pointing to high spending in relation to participation rate. The country is aiming to reach the 20% benchmark in relation to adult learning participation rates 2020 (LFS).

While second chance education seems to have gained additional attention, initiatives concerning higher education later in life exist, but address only the examination phase. Instruments for older people do not seem to exist and funding through vouchers etc. is rather limited, possibly not really supportive in most cases; Upper Austria and Vienna may appear some exceptions.

Another aspect is the probably limited number of beneficiaries of the various voucher schemes; if our figures are close to reality the average number of beneficiaries per scheme is between 5,500 and 6,600. Given the commonly comparatively high costs of administration of voucher schemes, which is subject to economies of scale, this could suggest to review these lines of funding.

Although responsibility for adult learning in **Belgium** lies mostly with the regions (communities), policies are very similar; the federal level is only responsible for the paid training leave. Funding policies operate particularly through supply-side funding, particularly in case of formal and second chance adult learning. Participants have to pay fees, sometimes rather small amounts, sometimes up to € 400 per course and year; in this regard some differences concerning the maximum amount can be observed. Furthermore, fees may be reimbursed upon successful completion of the programme. Data on funding volumes and participant numbers with regard to the specific target groups are rather limited, 6,665 participants are enrolled in second chance education in the Flemish region. No specific funding instruments are available for mature students or older people, apart from training leave, time credit regulations and employer-oriented training and guidance vouchers.

With regard to participation rates in general, Belgium has the lowest rates of all Western European countries showing decreases between AES 2007 and 2011 and time the mean time of instruction decreased from 13 to 8 hours; together with Lithuania it is the only country in Europe showing this pattern.<sup>56</sup> This suggests a strong shift in adult learning, which might give room for review and advancement.

In **Canada**, public financing of adult education is primarily in the areas of literacy, adult basic education, second (official) language acquisition, and skills (re)training. Financing of adult education within the post-secondary system (college and university)

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<sup>55</sup> Reviewing spending per beneficiary by state reveals important differences and economies of scale, i.e. the costs per beneficiary decreases with the number of beneficiaries in a state. This could also suggest to cooperate more in order to decrease costs per beneficiary or to increase the number of beneficiaries.

<sup>56</sup> Though Slovenia shows also decreasing figures for both indicators, the drop in mean instruction time is much smaller.

is not different from financing of youth PSE, except in the case of some skills training where public funds support some training.

As in other Commonwealth countries, major responsibility is at regional level, which means that no overarching policy or funding framework exists. The heterogeneity of Canadian funding approaches becomes immediately evident, when reviewing the following Table. The range of instruments is rather broad, while Nunavut applies only the 7 national level instruments; British Columbia adds another 8 provincial instruments to this (the BC TIOW is not counted separately as it is the regional version of the national level TIOW).

Despite the intention of the Canadian education ministers to indicate remarkable spending levels in their response to UNESCO, it appears questionable whether Canada has a 'real LLL policy'. Spending levels, even if they may be under-estimated to some extent, would suggest that adult learning for those aged 25+ is not a the core of the Canadian policy.

**Denmark's** adult learning system is based on an important role of conditional (performance-based) supply-side funding through the taxameter system (Jespersen 2003). The taxameter system, which covers around 80% of institutional funding, provides block grants to adult learning providers, which are based on a number of criteria and combine input requirements (funding needs) with output orientation, complemented by participant fees as well as by two overarching grant schemes for individuals, one more for general, one more for vocational adult learning, providing up to € 420 per week – equivalent to 80% of the highest unemployment benefit – for costs of living and for fee payments, if applicable. According to the Ministry of Education these fee payments cover on average 20% of costs and vary between € 15 to 150 per unit, while no fee is demanded for second chance education – this could be considered preferential treatment for this target group. No special (funding) regulations are applied to older/retired people or with regard to mature higher education students; they are treated like any other participant and have access to core funding instruments mentioned above.

Despite the state's comparatively high funding share, employers are the major financier of adult learning in Denmark, contributing 0.7% of GDP or more than 50%; the training funds are likely to play an important role in this regard (PPMI/FiBS 2012). However, the question arises why this comparatively high funding volume does not result in higher participation rates. This could point to some inefficiencies or ineffectiveness or, alternatively, special conditions preventing higher rates. Compared to other Nordic countries, costs/affordability plays a more important role as obstacle, particularly for women.

According to the indicators established in this study, **Estonia** seems to be one of the most effective countries as far as adult learning is concerned, as least if our funding estimates are appropriate. It arrives at above average participation rates, with a spending of around 0.6% of GDP and the lowest spending per adult of all countries (€

130). An explanation for this (seemingly) relatively good result is not immediately identifiable. Although funding seems to be a matter of concern, particularly for females and low-qualified, differences seem comparatively small; furthermore, the mean hours of instruction are similar to many other countries. However, state contribution is among the lowest across all countries; less than 20% or only 0.1% of GDP comes from public sources, including employment agency. Furthermore, this funding comes largely from European funding sources.

Interestingly, though, is a relatively high share of mature students in higher education, which may be due to the particular model of state-based funding for a limited share of (initial higher education) students, which forces all those into other opportunities, and particularly into employment, who cannot afford to pay the high, often full-cost fees. This model is employed in many newer member states.

**France's** adult learning system is heavily based on agreements between social partners and the government, resulting in a strong focus on labour market related training, for employed as well as unemployed people. The only instrument which is available for non-vocational training are various training leave regulations, whose contribution to participation are rather limited. However, due to the fact that participation rates in adult learning are between 30 and 60% and 70%, respectively, depending on whether age or educational attainment are concerned, France could be an example how a largely employer based funding system arrives at medium level participation rates; according to our national coordinator total spending for CVET arrives at 1.6% of GDP, which would be, though, very high. This could suggest that the system might be somehow ineffective, because several other countries arrive at far higher rates with less money or, vice versa, the same participation rates with lower funding amounts. Furthermore, it appears that private spending is not even yet accounted for. However, it seems that some additional support for certain (under-represented) target groups might be advantageous.

**Germany's** adult learning system is based on private contributions from individuals and employers, combined with a (very) limited public role. Around € 600m is spend for (non-vocational) adult learning at Folk high schools and comparable institutions, increasingly based on performance-based supply-side funding; however, the regulations are established by the 16 states and differ much in detail. Public co-funding for individuals is available through one federal scheme (training grant – Bildungsprämie) and various state-level regulations, though commonly restricted to vocational (professional) learning. Non-vocational programmes can be co-financed, if demarcation between vocational and non-vocational learning is blurred, e.g. in case of key competences. Overall, take-up appears relatively limited with up to 150,000, probably, for all voucher schemes; in relation of estimate 5.5m people contributing own means to adult learning. Tax incentives are probably the most important co-funding instrument, followed by the master craftsmen loans and grant scheme. This could explain why particularly low-qualified point to costs affordability as obstacle to participation. Furthermore, some evidence exists that the introduction of several

funding instruments of the past 6 to 7 years has not contributed much to increasing participation rates (Dohmen 2013a, 2013b).

Second chance education is also regulated at state level, but three core pathways across the states exist, (1) evening classes (though they can also be full-time and are not necessarily restricted to evenings; they are financed through education ministries as part of formal education), (2) through ‘business/technical’ colleges, allowing ‘combined’ graduation from VET as well as from formal general education programmes, and (3) so-called vocational preparation programmes of various forms (and not limited to adults but largely for younger people). All these forms are fully financed through public means, often in form of conditional supply-side funding, based on demand.

Financing for higher education later in life has been rather limited; only at beginning of this year 2013 KfW extended its study loan to age 44; previously it was – similar as the law on study support (BAfoeG) limited to age 34. Some special funding is available for older, but not for retired people, though this is restricted to employability and thus considered vocational. Overall participation rates of these target groups are limited, though participation of older people has increased quite a bit compared to previous surveys.

A question is whether the heterogeneity of funding instruments is conducive to increasing participation rates or whether this discourages particularly the disadvantaged, who may face difficulties in identifying suitable funding opportunities.

**Hungary** has an AES 2011-participation rate close to the average, which is linked to total funding of 0.8% of GDP or € 235 per adult. The state contributes one fourth, largely co-funded through ESF. Important to note are the low mean hours of instruction; the figure of 5 hours (AES 2011) is among the lowest of all countries, down from the highest value of 18 in AES 2007. Eventually, public funding has dropped in Hungary in recent years.

As in other newer member states, the share of mature students in higher education is comparatively high and also supported by a study loan, open to students up to age 40. Possibly, this share of mature students will increase in the future because of a reduction of state-funded places to 10%.

The **Netherlands** show some shifts in responsibilities from decentralised to centralised responsibilities, and backwards again. Overall, funding relies very much on employers and training funds, contributing € 1.7bn in 2008 and € 3bn if labour costs are included (Ministry of Education, Culture and Science 2009), though this figure seems much higher than the CVTS 4-results would suggest. With regard to non-vocational adult learning only some instruments are available, including 2 training leave regulations and several 100% publicly funded instruments, such as supply-side funding and 100% grants; in contrast, it is estimated that 80-90% of adult learning takes place in non-state supported courses and that costs are covered completely by individuals themselves. This could indicate that contributions from individuals in section 4 are

under-estimated. Furthermore, despite public support individuals have to contribute own means to second chance education, which could explain the low take-up rates as identified in section 2.

In general, funding is above 1% of GDP and participation rates are among the top countries, though information on mean hours of learning is strikingly low – possibly because of mis-reporting. Overall, the Netherlands appear to be doing quite well, despite comparatively limited state funding in several indicators, as reported in section 4 which is compensated by employer funding of at least 0.7% of GDP, which is highest together with Denmark.<sup>57</sup>

**Norway** combines national, county and local responsibilities: The Ministry of Education and Research is responsible for the administration of the statutory educational provisions of the Education Act as well as for developing curriculum guidelines. This Act also gives the regulations for formal primary and secondary education for children, youth and adults. The Ministry is also responsible for the administration of the Adult Education Act (2009). The municipalities are responsible for the implementing of formal adult education at primary and lower secondary level as well as for adult immigrants of Norwegian as a second language. The counties are responsible for the implementation of formal adult education at upper secondary level. The public authorities cooperate with study associations representing non-governmental organisations.

Though the state is involved in the financing of adult learning, specific regulations depend on the municipalities, receiving lump-sum block grants from the national level for all formal education sector and are free to allocate them as they seem fit. Overall, average spending per adult in Norway is € 925 per annum; which is € 200 more than the next country. Costs per beneficiary are € 2,000; though breakdown by programme is not possible. The state's contribution of 0.6% of GDP is the highest across all countries in this study.

**Romania** has the lowest participation rate of all countries and by far the highest share of non-participants pointing to costs and affordability as obstacle; more than 50% of non-participants mention this aspect and even two thirds among the low-qualified. The chance of highly educated adults to participate in adult learning is 16-times higher than for low-qualified.

Furthermore, almost no data on funding volumes seems available. The only figure we could gather during this study suggests a public spending of € 18m by the employment agency; this would amount to slightly more than € 3 per adult. This would be by far the lowest public spending Figure across all countries.

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<sup>57</sup> If MOE Figure s are more appropriate than CVTS 4-data on employer spending the Figure would even go up.

According to the country brief it appears that no other (public) funding for adult learning is available, although the country changed its law, which is now ‘dedicated to the principle of lifelong learning’. It will have to be seen whether this is supportive to increase spending for adult learning; the results of this study suggest an urgent need to provide public funding also to employed people, actually public funding is focused on unemployed and companies. A recent study on financing training provides some indication that support for employers may not be very conducive to support the participation adult learning (PPMI/FiBS 2012), particularly not with regard to those people more in need of support, even though employers in Romania contribute probably between 0.4 and 0.5% of GDP.<sup>58</sup>

**Slovakia** has a strong focus on employers, for which comparatively many funding instruments are available (PPMI/FiBS 2012), while only very little supply-side funding supports adult learners directly, whereas training leave regulations address time constraints. Consequently, employers bear by far the biggest share, while contribution from the state and individuals is rather limited, whatsoever indicator presented in this study is concerned.

**Slovenia** has had comparatively high and above average participation rate in adult learning in the past; ranging within the top third in both surveys (LFS and AES 2007). However, in recent years participation rates dropped, despite still considerable – though decreasing – funding for adult learning. Almost 1.0% of GDP was spent in 2011, which is the highest figure among newer member states and largely based on employers’ and individual contributions. Only 0.2% of GDP is spent from public and EU sources. Despite the comparatively high overall spending figures, spending per adult is only € 365, which is, though, still the highest value among the newer member states.

The country’s core focus is on initial education and funding for adult learning, i.e. the focus lies with disadvantaged groups, i.e. low-skilled/qualified. Reviewing the limited public spending in relation to participation, this could suggest a relatively effective system, where deadweight loss of public spending is comparatively limited; however, this would require further investigation. In contrast, the overall result seems less promising as the spending per adult is quite high in relation to its participation rate; some countries with lower overall spending per adult (SK, EE) reveal higher participation rates than Slovenia.

**Spain** shows a contradictory picture. While the country has below average participation rates according to AES 2007 and 2011, its LFS figures are above EU average, suggesting comparatively high mean hours of instruction, likely due to formal adult education. The high mean hours of instruction are confirmed, when reviewing Figure 1, Spain has among the highest values and is the only country, where an increase in participation is not linked to reduced mean hours of instruction.

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<sup>58</sup> No figure on company spending is provided by CVTS 4; this figure is based on CVTS 3-data. Additionally, no spending figure is available for individuals from AES 2007; therefore, Romania is not included in the funding amount estimates in section 4.

Interestingly, this seems to be linked to comparatively little funding for adult learning of around 0.5% of GDP. This could raise questions on how to increase participation rates, particularly when looking at the high unemployment rates, even if the often stated rate of 50% and above does not seem to provide the correct picture. In relation to spending per adult, Spain belongs to a group at the lower ends; among those countries for which this study was able to estimate funding figures, only Estonia spends less.<sup>59</sup> However, Spain spending indicators are comparable to other countries with similar participation rates.

Another point, which is at the margin of this study, is that employer spending seems comparatively limited, despite the existence of a national training fund. While employer spending in many countries is above 1% of the payroll, it is only 0.8% in Spain. This results in a Figure of 0.3% of GDP, which is among the lowest employer funding rates across all countries.

The **United Kingdom** has a long tradition of adult learning including both personal development and more vocationally orientated learning, though recently with a particular focus on (employability oriented) social inclusion and employability, i.e. adult learning is particularly oriented towards the labour market. However, some funding (£210m; € 260m) also available for more general learning. With regard to participation rates, the UK has experienced strong reductions in LFS figures in recent years, down from 19.4 to 15.6% between 2010 and 2011. Very recently published data for AES 2011 point to the same direction; while participation rate was 49.3% in 2007, it is only 35.8% in 2011.

Several funding sources are available to support private investment in adult learning, including for higher education, e.g. through interest-subsidised loans (Personal and Career Development Loan and the same loan scheme than for younger students). However, Callendar (2013) points to important and disadvantages changes for part-time students, which is the bulk of mature students, in the light of the recent changes in higher education funding, which may affect their participation in higher education. Institutional support is available for second chance education (supply-side funding), though not much complemented through special support for individuals, apart from maintenance grants of £30 per week for certain groups – instead, individuals may have to contribute to institutional costs in some cases – , as well as for older people through financing of so-called Universities of Third Age and/or community learning.

Of importance is the complete overhaul of the funding system for adult learning, which will almost entirely consist of (income-contingent) “Advanced Learning Loans” from August 2013 onwards; the only exception concerns those who left compulsory education without attaining the necessary literacy and numeracy skills for employability. The expectation is that demand is 50,000 in the first and 160,000 in the second year;

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<sup>59</sup> For completeness, it might be the case that spending Figure s are underreported, because spending of only € 6.1m from employment agency seems rather low.

experts are sceptical that these figures will be reached (Fletcher 2011). Of utmost interest is whether this shift will be able to increase participation rates in adult learning in the (near) future; it would not be surprising if the opposite would be the case.

The **United States of America** have a strong focus on higher education as part of their adult learning system, for which the bulk of funding sources is available, while, in contrast, public funding for non-university adult learning seems rather limited (0.1% of GDP). Furthermore, non-vocational adult learning is considered private responsibility, for which no public funding is provided; some employer sponsoring might be available though.

In spite of this rather limited public funding, funding levels for adult learning appear to be remarkably high compared to all other countries, if the ASTD-estimate on employer spending for company-related training is realistic, whereas another estimate by Wilson (2010) would result in below average spending for adult learning. In this latter case, the US participation rate would appear comparatively high, while the higher amounts would better fit with the overall pattern, identified in this study.<sup>60</sup>

The policy with regard to (non-vocational) adult learning rests on the one hand on a Federal-States-Localities responsibility with State matching and maintenance; at state level federally provided funds are distributed on a competitive basis to local providers.

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<sup>60</sup> However, there is no additional evidence that the spending volumes are as high as the ASTD-estimate suggests, except the better fit into the overall pattern.

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## List of abbreviations

- AL – Adult Learning  
AES – Adult Education Survey  
AES/OECD 2007 – Adult learning participation rates with data retrieved from AES 2007 and complemented by data for 2007 from OECD (2012) for the non-European countries  
ASTD – American Society of Training and Development  
BSP – Basic Skill Provision  
CVET – Continuing Vocational and Educational Training  
ECTS – European Credit Transfer System  
Eds. – Editors  
EEA – European Economic Area  
EFRD – European Fund for Regional Development  
ET – European Cooperation in Education and Training  
EUA – Association of European Institutions of Higher Education  
FCE – Full-country Equivalent  
FED – Formal Adult Learning  
FE – Fixed Effects  
GDP – Gross Domestic Product  
HE – Higher Education  
HEI – Higher Education Institution  
HR – Human Resources  
ICT – Information and Communication Technology  
ILA – Individual Learning Accounts  
ISCED – International Standard Classification of Education  
LFS – Labour Force Survey  
LLL – Lifelong Learning  
LLP – Lifelong Learning Programme  
NFE – Non-formal Adult Learning  
NGO – Non-governmental Organization  
PCDL – Personal and Career Development Loan  
POLS – Pooled Ordinary Least Squares  
PPS – Purchasing Power Standard  
PTL – Paid training leave  
R&D – Research and Development  
RE – Random effects  
SCE – Second Chance Education  
TL – Training leave  
UTP – Unpaid training leave  
SME – Small and Medium Enterprises  
VET – Vocational Education and Training  
WTA – Willingness to Accept  
WTP – Willingness to Pay

## **Glossary**

Adult learning – learning activities of adults, aged 25 and older, after leaving initial education

AES/OECD 2007 – Adult learning participation rates with data retrieved from AES 2007 and complemented by data for 2007 from OECD (2012) for the non-European countries

Deadweight loss – measures the share of public subsidies, not resulting in additional participation in adult learning, because people are subsidised who would have paid for adult learning themselves if no public support would have been available

Internal rates of return – measure the returns to an investment, here education, comparable to interest rates, i.e. what would have been the interest rate for a similar capital investment

Market failure – refers to situations in which the market does not result in the optimal solution

Mapping survey – survey conducted for this study, providing an overview on funding instruments in a country and prepared by national expert

Policy briefs – short and summarised overview on adult learning policy in a country, prepared especially for this study by national expert

Windfall profits – benefit for beneficiaries of public subsidies, who would have paid for adult learning themselves if no public support would have been available

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