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Erwachsenenbildung
*German Institute
for Adult Education*



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DEVELOPING THE ADULT LEARNING SECTOR

Lot 2: Financing the Adult Learning Sector

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1. Introduction

1.1 European challenges

Demographic and social change: The demographic change is leading to a decreasing workforce and an ageing population in Europe, although the fertility rates are slightly increasing in all Member States (Eurostat 2011). A smaller workforce has to support a higher number of inactive people. Life expectancy and health have increased almost continuously and population projections by Eurostat indicate that the European mean old age dependency ratio in EU-27 is expected to increase substantially from 28.4% in 2010 to 58.5% in 2060 (Eurostat 2011). Eventually, non-EU immigration will significantly influence population development in the EU Member States. The proportion of migrants and their descendants is estimated to have doubled by 2060. Besides, intra-EU mobility intensifies: Around 20% of EU-27 residents have cross-national experiences (Eurostat 2011) – and migration increases.

Economic and labour market developments: Economic changes with serious impact on employment take place, comprising among others global developments, environmental and technological evolutions, and increasingly varying working fields and practices (Eurydice 2013). The financial crisis and economic downturn exposed fundamental problems and unsustainable trends in many EU Member States. Moreover, the crisis affected the funding of education and training (Eurydice 2013) as Member States had to balance their public finances first. Europe's growth, which is lower than its main competitors, depends on productivity. Innovation through R&D, a better integration of ICT and all individual capabilities are key-drivers of smart and sustainable growth, but poor basic skills, missing education or training qualifications, skills not matching labour market needs etc. hamper it. Appropriate skills and lifelong learning are prerequisites for labour market participation, for individuals to go "one step up", for economic and social cohesion, smart and inclusive growth and prosperity for all. Furthermore, in an ageing population, where people work longer, adults should be and remain "employable" to ensure their integration in the labour market, to support supply and demand of the workforce and to avoid and/or reduce unemployment. Currently, the employment rate for women, aged 20 to 64 is only 63% in EU 27 and consistently lower than for men (76%). Only 49% of older workers, aged 55 to 64 are integrated in the labour market (LFS 2012). The youth's unemployment rate is at 23.5% (March 2013)¹ on average, largely as a consequence of the economic and financial crisis. Employment rates vary also according to levels of educational attainment: Across the EU 27, the employment rate for people, aged 25 to 64 with completed tertiary education is 83.7%, while only 53.5% of those who attained a primary or lower secondary education are employed. On the other hand, less than one third of people aged 25 to 34 have a university degree.

¹ It should be noted though that these figures do not necessarily relate to all young people, but only to those looking for education or employment, i.e. those in education are not included in the denominator.

The Annual Growth Survey 2013 indicates that the EU economy is only slowly recovering from the crisis and that, despite important action has already been taken, additional efforts and investments are necessary, i.a. for “promoting growth and competitiveness for today and tomorrow” and for “tackling unemployment and the social consequences of the crisis” (European Commission 2012k). Explicitly, investments in education should be exempted from budget cuts.

Educational participation and attainment: As summarized above, skill requirements rise remarkably, but participation in adult learning is limited. Only 9.0% of people aged 25 to 64 take part in adult learning (LFS 2012). However, for 23 million unemployed people new training and skills are needed. Over 14% of 18 to 24 year olds need compensation measures as a second chance to gain qualification, but low-skilled benefit less from lifelong learning than better educated people. The low-skilled are facing a much higher unemployment risk than the better educated (OECD 2011a), and participate disproportionately low in company training as well as in individual adult learning. Other groups are elderly and migrants, e.g. only 4.5% of 50 to 64 years olds are learners (LFS 2012), though, age itself cannot explain the low participation rates of this age cohort (Hansson 2008; Bassanini et al. 2006). Insufficient means to finance training are an important factor, especially for low-income earners or unemployed people etc. (Eurydice 2011). More than 80 million people live at risk of poverty and 8% of the labour force earn too less to surmount the poverty threshold. Other reasons are, to name just a few, the lack of awareness, insufficient motivation due to disappointing learning experiences in the past, low expectations, missing information, advice and guidance, e.g. in their mother tongue, or other accompanying measures, missing peers etc. The lack of time or support by family members, rigid conditions instead of flexible learning opportunities, target-group oriented modes and learning environments etc. can be additional barriers. Participation in full-time higher education programmes is often difficult for non-traditional and mature learners (Eurydice 2011). Therefore, part-time studies and appropriate learning opportunities are needed. In 2008, the percentage of part-time students in higher education, for example (ISCED 5 and 6) in EU 27 Member States plus Island, Liechtenstein, Norway and Turkey was 21.4% on average. The share of part-time students aged 30 and above, among students is 49% and, thereby, in the majority of European countries at least three times higher than among younger students (Eurydice 2011).

Challenges: There is a huge gap resulting from higher skill requirements, worldwide dynamically changing developments, innovation needs and almost daily broadened knowledge on the one hand, and the high share and number of low-qualified, and decreasing job tenure periods on the other hand. Smart, sustainable and inclusive growth in Europe, increasing employment rates, productivity, prosperity and social protection as well as individual steps up and overall participation in society and economy are depending on skills enhancement, for which education, initial education as well as continuous adult learning, is a key factor. Lifelong learning, including general education, vocational education and training and higher education has to be reinforced (European Commission 2010).

To match demand for highly qualified individuals the promotion of tertiary education is required for adult learners, mature and non-traditional students, who are, in general, older than higher education students normally and “have re-joined formal education after a certain period outside the system” (Eurydice 2011), but are no homogenous group. Adult learners differ in motivation, demographic characteristics, learning and career paths etc., which implies that they often need additional support before entering higher education or even during their studies. Access criteria play an important role as recognition and validation of prior learning does.

On the other hand, the employability of disadvantaged, vulnerable groups such as older workers, migrants, low-skilled etc., their first and continuous adaptation of skills and their integration in the labour market are necessary to avoid and reduce unemployment and poverty, to match supply and demand in Europe, and to foster social cohesion. The elderly are required as active citizens and will have to remain longer in employment. Moreover, the figures should be contrasted with some 73 million European citizens, aged 25 to 64 having no or only low formal qualification. Migrants need instruction in the language of their host country and in intercultural competence, but the increasing number of mostly young adults (aged 25 to 34) immigrating could contribute to the labour force. Moreover, adult learning can help elderly people, who already retired, to remain active citizens. Thus, they can still contribute to society by engagement in voluntary work etc.

Adult learning priorities, and financial returns: Despite many initiatives and extensive measures over the past decade, educational attainment and continuous adaptation of skills, especially participation in adult learning, varies and can be optimized. As outlined in the ToRs, the “three key areas for the further development of the adult learning sector” are “improving quality, ensuring appropriate and effective financing, and opening the higher education sector for adult learning.” Progress has been made in the adult learning sector, but regardless of the numerous reasons for limited participation rates, European, national and, if applicable, regional strategies and policies are still needed for exploiting the social and economic potential and to balance inequalities to the extent possible. In particular, investments in education, related frameworks and target-group oriented funding instruments as well as financing conditions play a crucial role, for example, to encourage and to enable individuals to take part in education, and considering economic and social needs. Disadvantaged groups have to be activated and supported. On the other hand, up-skilling, in particular through further tertiary education, is necessary at all ages as there is a lack of highly qualified workforce. Learning for older adults, e.g. after retirement, is getting more attention as regards active ageing. Finally, the effectiveness of adult learning systems considering different sub-groups, and the information on adult skills and adult learning needs has to be improved. Cost-effectiveness and high returns on investment have to be ensured.

1.2 Policy framework

This section is dedicated to European policies in education areas summing up the progress made and presenting remaining challenges for adult learning and their financing. Although the focus of this study is laid on adult learning it touches, in fact, various segments of adult learning, incl. (non)-vocational education and training, higher education as well as lifelong learning. In order to provide a comprehensive overview on relevant policy developments, the following section presents briefly the relevant information for all these segments.

The strategies on lifelong learning and education financing

Adult and lifelong learning is a long-standing interest of the European Union. The three Memoranda published by the Commission in 1991, the Memorandum on Higher Education in the European Community, the Memorandum on Vocational Education in the EC in the nineties, and the Memorandum on Open and Distance Learning in the European Community promoted already a comprehensive debate on education policy referring to increasing international changes since the 1980ies. From the Commission's point of view all education sectors needed a comprehensive coordination of action and reduction of barriers (Walter 2006).

The Amsterdam Treaty in 1997 claimed in its preamble "to promote the development of the highest possible level of knowledge for their people through a wide access to education and through its continuous updating".² The Lisbon European Council in March 2000 emphasised the importance of VET, especially the achievement of high skills, for the promotion of social inclusion, cohesion, mobility, employability and competitiveness as well as for upcoming economic developments, and of related reforms enhancing the performance of the education systems in Europe. The strategic objective for the European Union was to become the world's most dynamic knowledge-based economy. In 2005, the Lisbon Strategy was reviewed, emphasizing the intense need to work for better governance, more growth as well as more and better quality jobs, productivity and employment (European Commission 2005). The next year, the Commission proposed to the EU Member States principles of efficiency and equity to lay in education and training policies to gain beneficial effects (European Commission 2013a). Efficiency and equity in national lifelong learning strategies were to be developed by the Member States by the end of 2006 should be planned because "their repercussions and the effects of investment in education and training are substantial in the long term" (European Commission 2013b). Education and training policies focusing all educational phases should be based on these principles and strengthen quality as well as improve the relationship between education and the world of work in order to meet the challenges of competitiveness and social cohesion.

The increasing need for further development and for (re)training of adults through the economic crisis, the insufficient existing growth and low participation rates in adult

learning induced the European Union to strengthen adult learning activities. Thus, the strategic framework for European cooperation in education and training "ET 2020" repeated the crucial role of education and training, especially lifelong learning, facing current and future challenges, the need for efficient investment in human capital through education and training systems and flexible European cooperation (European Council 2009). It recognises the progress made in the "Education and Training 2010" work programme, the Copenhagen as well as the Bologna process but identifies also substantial challenges that still remain on the agenda even if the Lisbon goals would be achieved. Therefore, until 2020, the European cooperation and support should concentrate on the further development of education and training systems in the Member States. The four strategic objectives comprise lifelong learning as well. The five benchmarks as reference levels of European average performance are more precisely:

- Adult participation in lifelong learning (at least 15% of adults)
- Low achievers in basic skills (less than 15% of the 15-year olds)
- Tertiary level attainment (at least 40% of those aged 30 to 34)
- Early leavers from education and training (less than 10%)
- Early childhood education (at least 95% of the children between 4 years and school starting age).

The comprehensive Europe 2020 Strategy (European Commission 2010) sets three priorities: smart, sustainable and inclusive growth. Europe should aim at developing an economy based on knowledge and innovation, at promoting a more resource efficient, greener and more competitive economy and at fostering a high-employment economy delivering social and territorial cohesion, in particular considering that the crisis wiped out recent progress within the EU and challenges are manifold. All three strategies are linked to the quality and performance of the education system. The specific educational goals ("headline targets") also addressed in this strategy, repeated the five benchmarks established in ET 2020 (see the list above).

Further headline targets concern an increase of the employment rate, more investments in R&D, reducing climate gas emissions and a significant reduction of the risk of poverty. Several targets, if not even all, will be fostered by a high quality education system that enables acquisition of skills, knowledge and competences. All targets are interrelated, but especially the target of inclusive growth focuses the increase of the employment rate in Europe, supporting people of all ages to anticipate and manage change, and to modernise labour markets to ensure that the benefits of growth reach all European regions (European Commission 2010). Its specific objectives are i.a. addressing tertiary education attainment as already highlighted in "ET 2020".

2 See Part one, Art. 2 of the Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and certain related acts (European Communities 1997).

To catalyse the progress of the EU 2020 strategy, seven flagship initiatives were established. The most relevant ones in the field of adult learning, higher education, VET and lifelong learning are

- “An agenda for new skills and jobs” (modernising labour markets and empowering people by lifelong learning, increasing labour participation and productivity, ensuring the sustainability of social models and better matching of labour supply and demand);
- “Youth on the move” (e.g. enhancing performance, quality and international attractiveness of education systems at all levels, promoting the recognition of non-formal and informal learning and facilitating young people’s entry to the labour market); complemented by
- “European platform against poverty” (strengthening economic, social and territorial cohesion by supporting people in or at risk of poverty to participate in training, social benefits and be integrated in communities, etc. and emphasizing their rights and dignity).

In addition, the EU 2020 strategy intends to enhance key policies and instruments, e.g. the investment in growth, i.e. it stipulates cohesion policy and its structural funds, mobilising the EU budget and private finance. The development and use of “innovative instruments to finance the needed investments, including public-private partnerships (PPPs)” are required for the realisation of the objectives set as well as in view of long-term growth priorities, the need “to maximise impact, ensure efficiency and EU value added” (European Commission 2010).

In relation to these developments and policies it should be mentioned that the European Social Fund (ESF) and the European Fund for Regional Development (EFRD) make substantial contributions in the field of education and training, supporting infrastructure and systems as well as individuals. The ESF as the European Union’s main financial instrument to support employment in the EU Member States and to promote economic and social cohesion still aims at the creation of more and better jobs in the EU (European Commission 2012d). It supports the modernisation of national education and training systems and co-finances “training/re-training (e.g. for youth, long-term unemployed, employed at risk of losing their jobs, etc.) in the context of national schemes.” In the current funding period (2007 to 2013) the ESF contributes more than half of its total expenditure (estimated at 39 billion EUR) (European Commission 2011c) to lifelong learning and concentrates on those target groups having particular difficulties in finding work, such as women, young people, older workers, migrants and people with disabilities. “One priority is to boost the adaptability of workers with new skills, and enterprises with new ways of working. Other priorities focus on improving access to employment: by helping young people to make the transition from school to work, or training less-skilled job-seekers to improve their job prospects. Indeed, vocational training and lifelong learning opportunities to give people new skills form a large part of many ESF projects. Another priority focuses on helping people from disadvantaged groups to get jobs. This is part of enhancing ‘social inclusion’ – a sign of the im-

portant role that employment plays in helping people integrate better into society and everyday life. The financial crisis has led to a redoubling of efforts to keep people in work, or help them return to work quickly if they lose their jobs” (European Commission 2013c). In October 2011, the Commission proposed new priorities for the funding period 2014 to 2020, reinforcing the role of the ESF and aiming at increasing integration of disadvantaged target groups, such as youth, elderly and specific ethnic groups. Core working fields are increasing employment opportunities, education and lifelong learning as well as better social inclusion, reducing poverty, and better services of public administrations to serve citizens and job-seekers (European Commission 2013d). On the other hand, the EFRD is aiming at strengthening economic and social cohesion in the European Union by correcting imbalances between its regions (European Commission 2013c).

Lifelong Learning Initiatives

In 2000, the Memorandum on lifelong learning stressed the importance to build an inclusive society providing quality learning for all. Lifelong learning was understood as high quality education throughout the life course, not only strictly adult learning, equally accessible and, firstly, based on individual needs and demands (European Commission 2000). In 2001, the Communication from the Commission “Making a European area of lifelong learning a reality” highlighted the relevance of lifelong learning for all and set six priorities of action: 1. valuing learning, including formal, non-formal and informal learning, and appropriate supporting instruments; 2. information, guidance and counselling aiming at facilitating access to learning opportunities, creating learning cultures and working in partnerships; 3. investing time and money in learning contributing to adequate resourcing, facilitating access to learning opportunities and striving for excellence as well as considering transparency, instruments, incentives etc.; 4. bringing together learners and learning opportunities i.a. for an insight into demand for learning, also encouraging and supporting learning at the workplace; 5. continuing work on the “new” basic skills (package) and their accessibility for all, and in particular for vulnerable groups; 6. developing innovative pedagogy as regards methods, teaching roles and ICT integration. Additionally, adequate resourcing was mentioned (European Commission 2001).

In 2006, the action programme in the field of lifelong learning 2007 to 2013 was launched (European Commission 2006b) in order “to contribute through lifelong learning to the development of the Community as an advanced knowledge-based society, with sustainable economic development, more and better jobs and greater social cohesion, while ensuring good protection of the environment for future generations. In particular, it aims to foster interchange, cooperation and mobility between education and training systems within the Community so that they become a world quality reference.” Eleven specific objectives ranging from the development of quality, innovation, attractiveness and accessibility as well as creativity, competitiveness and employability to the realisation of a European area of lifelong learning etc. One action was especially aiming at operating grants to support certain operation and administrative costs borne by

institutions or associations. Beneficiaries are participants and teaching staff in education areas, enterprises, providers, social partners, organisation for accompanying measures, research centres, NGOs and politicians etc. Also the Grundtvig programme was established.

During this decade, manifold activities took place at European and national level and all educational levels. Instruments evolved within the perspective of lifelong learning based on strategies and priorities developed. Accordingly, the Lifelong Learning Programme integrates all education and training initiatives.

- As regards vocational education and training, enhancing the recognition of competences and qualifications as well as quality assurance, increasing transparency, information and guidance, and strengthening the European dimension were among the main priorities of the Copenhagen declaration (2002) (Cedefop 2010a; European Council 2002).
- The modernisation of the higher education systems proceeded, focusing adult learners and more and appropriate support. With the Sorbonne and the Bologna declaration (Sorbonne Joint declaration 1998; The Bologna Declaration 1999), addressing a competitive European Higher Education Area (EHEA) and the independence and autonomy of all higher education institutions, the call for a common reference frame within the EU has started. In 2006, the “Modernisation agenda for universities” emphasized the societal role of European universities and encouraged them i.a. to cooperate closely with labour market and economy. The Leuven/Louvain-la-Neuve Communiqué (2009) emphasized i.a. equal opportunities to quality education and participation in higher education, increasing participation in lifelong learning, including accessibility and quality of provision as well as transparency of information, and promoting employability. New and diverse funding solutions to complement public funding were foreseen.
- Concerning adult education, the Grundtvig programme focused teaching staff, relevant organisations and learners. Core working fields are developing the adult learning sector against the demographic backdrop, encouraging and supporting people to take part in learning in order to develop personally, to improve skills and achieve professional targets. The programme’s specific objectives are
 - “increase the number of people in adult education to 25 000 by 2013, and improve the quality of their experience, whether at home or abroad;
 - improve conditions for mobility so that at least 7 000 people per year by 2013 can benefit from adult education abroad;
 - improve the quality and amount of co-operation between adult education organisations;
 - develop innovative adult education and management practices, and encourage widespread implementation;
 - ensure that people on the margins of society have access to adult education, especially older people and those who left education without basic qualifications;

- support innovative ICT-based educational content, services and practices" (European Commission 2012b).

Grundtvig pursued numerous and various activities, i.a. contributing to literacy, numeracy, and basic skills as well as to the integration of migrants and to intercultural awareness, using adult learning to combat social exclusion (European Commission 2012b). In 2007, the Grundtvig programme has been integrated in the European Union's Lifelong Learning Programme (LLP).

The Communication "It is never too late to learn" (European Commission 2006a) and the Action Plan on adult learning "It is always a good time to learn" (European Commission 2007) started intensified European cooperation. The Communication set specific priorities in the adult learning sector:

- "analyse the effects of reforms in all sectors of education and training in Member States on adult learning
- improve the quality of provisions in the adult learning sector
- increase the possibilities for adults to go "one step up" – to achieve a qualification at least one level higher than before
- speed up the process of assessment of skills and social competences and have them validated and recognised in terms of learning outcomes
- improve the monitoring of adult learning sector"

This Action plan indicates that quality of provision is depending on policy, resources, accommodation and other factors, emphasizing the role of qualified staff. In addition, it underlines that measures are needed to "overcome the multi-dimensional barriers to participation", e.g. to widening access to tertiary education. In 2008, the Council Conclusion on adult learning (European Council 2008) confirmed the need to "encourage both higher education and vocational education institutions to reach out more to adult learners", and to "ensure the efficiency, effectiveness and quality of adult learning, with the aim of increasing active participation in such learning [...], of attracting sufficient public and private investment to this area, and of encouraging the private sector to consider such learning as a key component of workplace and business development". Among the specific measures for the period 2008 to 2010, the aspect of financial investments across the various age groups and across the various educational sectors was underpinned, in line with a lifelong learning approach. Based on the conclusions of the Workshop on financing adult learning in times of crisis 2010, the EU set up a Thematic Working Group on "Financing Adult Learning".

In addition to the structural funds concentrating on national activities, the Lifelong Learning Programme (LLP) broadly addressed transnational mobility and cooperation between organisations and institutions. Learners and teachers at all stages should be enabled to take part in stimulating learning experiences, the education and training sector is to be developed. LLP aimed at improving, opening up and modernising education institutions and education policies adapted to the Education and Training 2020 strategic framework. Since its beginning LLP has funded learning mobility of around

1,250,000 European citizens and almost 70,000 European organisations. Activities range from exchanges, study visits and networking up to learning programmes, policy co-operation and dissemination of results. LLP contributes 7 billion EUR for the current funding period (2007 to 2013) (European Commission 2013d). In the same period, the Grundtvig programme for general adult learning as one of the four sub-programmes of the LLP provided funding for innovation and staff development in adult learning. In 2010, about 63 million EUR were allocated, i.e. approximately 4% of the LLP (GHK 2011).

Finally, the European Investment Bank has financed 17 billion EUR in 2010 for investment in education, research, development, innovation and ICT (European Commission 2011a).

Reviews and future priorities

The processes during the last decade and developments in different education areas were surveyed.

- In 2010, the strategic approach and priorities of the Copenhagen process was reviewed. The Bruges Communiqué on enhanced European Cooperation for the period 2011 to 2020 called for strengthening and improving the quality and efficiency of VET to make European VET systems “more attractive, relevant, career-oriented, innovative, accessible and flexible than in 2010”. Excellence and equity in lifelong learning and social cohesion as well as a shared responsibility for investing in VET was promoted: “An increased emphasis on adult learning in recent years also requires additional resources. [...] Budgetary constraints will force us to come up with innovative solutions to secure sustainable funding for VET and to ensure that resources are efficiently allocated and equitably distributed” (Bruges Communiqué 2010).

In the Draft conclusions of the Council and of the Representatives of the Governments of the Member States on the priorities for enhanced European cooperation in VET for the period 2011-2020 a “global vision for vocational education and training in 2020” planning that “European VET systems should be more attractive, relevant, career-oriented, innovative, accessible and flexible than in 2010, and should contribute to excellence and equity in lifelong learning (European Council 2010). Flexible learning pathways for young and adult learners in a permeable education system validating formal, non-formal and informal education are expected. The participation in VET of individuals and groups at risk of being excluded is to facilitate and encourage i.a. through financial means. ESF and LLP „should be used to support the agreed priorities for VET, including international mobility and reforms implemented by the Member States“.

Short-term deliverables 2011 to 2014 comprise (European Council 2010)

- Improving the quality and efficiency of VET – enhancing its attractiveness and relevance
- Making lifelong learning and mobility a reality

- Enhancing creativity, innovation and entrepreneurship
- Promoting equity, social cohesion and active citizenship
- Transversal objectives, governance and ownership of the Copenhagen process

Subsequently, seminars and conferences of CEDEFOP and the European Commission in Brussels addressed these issues, e.g. the seminar „Learning later in life – uncovering the potential of investing in an ageing workforce“ in September 2011, and the conference „One Step Up in later life – learning for active ageing and inter-generational solidarity“ in November 2012.

- In 2011, the Communication “Supporting growth and jobs – an agenda for the modernisation of Europe’s higher education systems” highlighted key areas for reforms needed. It incited i.a. to foster school students from underrepresented groups and non-traditional, adult learners, also providing tailored accompanying measures as guidance, transparent information on educational opportunities and outcomes, to facilitate access to higher education, e.g. through distance learning and enhanced use of ICT, and to alternative sources of funding (European Commission 2011c). In December 2011, the Council conclusions on the modernisation of higher education welcomed these activities stating that the „main responsibility for delivering and supporting reforms in higher education rests with Member States and education institutions themselves“, but „public investment, supported by additional sources of funding, should remain the basis for sustainable higher education“, considering current economic and financial developments (European Council 2012). Access to higher education for disadvantaged and under-represented groups and permeability of education systems are seen as important targets in higher education. Collaboration of higher education institutions, employers and other stakeholders are to strengthen to optimize quality and the matching of education and employment. Furthermore the conclusions promote „more flexible governance and funding systems in higher education institutions, including mechanisms linked to performance and competition, [...] professionalisation of internal management,“ and facilitated „access to alternative sources of funding, including — where appropriate — by using public funds to leverage private and other public investment“.
- In March 2011, the progress made was evaluated at the Final conference on the first Adult Learning Action Plan held in Budapest. As major challenges still remain, priorities are the “provision of large-scale second chance initiatives to tackle the problem of too many low-skilled adults in Europe, addressing in particular the problems of early school leavers, people with literacy problems and those adults who lack the functional skills required in modern society; efficient ways to finance adult learning in a time of budgetary austerity; and a sound evidence base to inform further development and reforms” (European Commission 2011b). Furthermore, the need to open systems, in particular to young adults, to achieve the share of 40% attainment in tertiary education of 30 to 34 year olds was discussed (European Commission 2011b), so that quality assurance, validation for access to universities and higher education for non-traditional learners and young adults, better permeability between VET and higher education, etc. were highlighted. It was discussed to expand the LLP.

- In November 2011, the Council Resolution on a renewed European agenda for adult learning and the attached agenda for the period 2012 to 2014 were launched (European Council 2011). As outlined in the resolution, “this Agenda should be seen in the context of a longer term vision for adult learning which – in the period up to 2020 – will endeavour to raise the sector’s profile in general [...]”. The five priority areas are
 - Making lifelong learning and mobility a reality
 - Improving the quality and efficiency of education and training
 - Promoting equity, social cohesion and active citizenship through adult learning
 - Enhancing the creativity and innovation of adults and their learning environments
 - Improving the knowledge base on adult learning and monitoring the adult learning sector

The European Union identifies the following working fields to contribute to this agenda (European Commission 2013a):

- Awareness raising
- Basic skills and the work on "one step up"
- Financing adult learning
- Higher education: access to adults
- Monitoring the adult learning sector
- Quality
- Reaching out to specific target groups
- Validation of non-formal and informal learning
- Accordingly, the conference “One step up - European Agenda for Adult Learning” in February 2012 in Brussels, marked the launch of this agenda and started especially the discussion on adult learning attractiveness and promoting lifelong learning, especially encouraging low-qualified people (European Commission 2013e). In November 2012, the conference "One step up in later life – learning for active ageing and intergenerational solidarity" followed, focusing elderly (European Commission 2013f).

The “2012 Joint Report of the Council and the Commission on the implementation of ET 2020 outlined that the strategic framework must be adjusted to current developments for the specific period 2012-2014 to improve efficiency of European cooperation in education and training and to reflect national needs. Therefore, priorities, tools and governance structure should be updated, particularly “geared to mobilise education and training to support Europe 2020” (European Commission 2012j). Identified priority areas for European cooperation are

- Making lifelong learning and mobility a reality
- Improving the quality and efficiency of education and training
- Promoting equity, social cohesion and active citizenship
- Enhancing creativity and innovation, including entrepreneurship, at all levels of education and training

The Communication from the Commission “Rethinking Education: Investing in skills for better socio-economic outcomes” (European Commission 2012h) emphasized relevant issues for raising the efficiency of education and training systems. The document is accompanied by country fiches summarising the performance and policy reforms of the EU Member States, the first edition of the Education and Training Monitor and five other Staff Working Documents showing the comprehensive approach:

The Communication identified the following issues as main challenges to be addressed: Delivering the right skills for employment in the 21st century, new ways of teaching and learning and new approaches to funding and partnerships. Youth employment and cost-sharing play an important role in this Communication. Consequently, joint action was requested from the education and employment sector to ease transitions, minimize barriers and improve the current situation in many respects. Cut-backs in public funding for some educational phases because of fiscal constraints and structural under-investment, especially in the skills of adult workers, was seen as well as limited lifelong learning activities so that conditions for participation are to be reviewed and options are to be explored. Increasing investment is also requested for other matters, e.g. for foreign language teaching or for teachers’ professional development. Collaborative efforts and adapted funding mechanisms are appreciated. The six priorities for EU Member States are to

- “Promote excellence in vocational education and training [...]
- Improve the performance of student groups with high risk of early school leaving and low basic skills [...]
- Strengthen the provision of transversal skills that increase employability such as entrepreneurial initiative, digital skills and foreign languages [...]
- Reduce the number of low-skilled adults [...]
- Scale up the use of ICT-supported learning and access to high quality OER [...]
- Revise and strengthen the professional profile of all teaching professions [...]

Moreover, “the Commission calls on Member States to stimulate national debates on ways to provide sustainable funding mechanisms to enhance stability and efficiency, while channelling support towards those who tend to participate less” (European Commission 2012h). On the other hand, the European coordination and contribution comprise these aspects:

- Enhanced country-specific focus and support to Member States [...]
- Accelerate improvements in work-based learning [...]
- Create a European Area for Skills and Qualifications [...]
- Funding Education for Growth [...]
- Pave the way towards a new European initiative on “Opening up education” [...]
- Entrepreneurship education actions [...]
- Partnerships between education, business and research [...]

Increasing efficiency of funding in education is seen as key factor for successful reforms in the EU Member States. The EU’s funding education for growth is to strengthen commitment to a skilled and lifelong learning workforce and includes monitoring actions

taken by the Member States, debates at EU level on the benefits of investment in education and training, reviews on how the level of training provision for adults working in companies can increase.

According to this “Rethinking Education” Communication, the European Council proposed the Youth Employment Initiative (2013) in February 2013, endowed with a budget of 6 billion EUR for the period 2014 to 2020, halfway financed by a dedicated Youth Employment budget line and the ESF. The initiative is aiming at youth not in education, employment or training in EU “regions with a youth unemployment rate at above 25% in 2012 by integrating them into the labour market.” Promoting the measures outlined in the Youth Employment Package in December 2012, EU Member States can use the funds for implementing the Youth Guarantee Recommendation agreed by the EU’s Council of Employment and Social Affairs Ministers (European Council 2013; European Commission 2012i). The guarantee should foster people up to age 25 by offering “employment, continued education, an apprenticeship or a traineeship within four months of leaving school or becoming unemployed” (European Commission 2013g).

This policy framework in relation to adult education in particular, but also concerning the other segments to the extent adults are concerned, build the framework for this study.

1.3 Research environment of this study

The financing of adult learning has been on the agenda of several studies over the last ten to fifteen years, in parallel to various developments and changes of the funding systems and discussions on new funding instruments. Some examples of the contributions during this period are:

- UNESCO Institute for Education (2000), *The Financing of Adult Learning in Civil Society*, Hamburg.
- Dohmen, Dieter, Birgitt A. Cleuvers (ed.) (2003), *The Financing of Further Education and Lifelong Learning*, Conference Documentation, Bielefeld.
- OECD (2003), *Beyond Rhetoric: Adult Learning Policies*, Paris.
- OECD (2004). *Co-financing Lifelong Learning: Towards a Systemic Approach*. Paris: OECD.
- Expertenkommission „Finanzierung Lebenslangen Lernens“ (2004), *Finanzierung Lebenslangen Lernens – der Weg in die Zukunft*. (Experts Commission on ‘Financing of Lifelong Learning’, *Financing Lifelong Learning – the way into the future*), Endbericht, Bielefeld.
- Dohmen, Dieter (2007b), *Current Trends in the demand-led financing of further training in Europe – A synopsis*, Study commissioned by the Federal Ministry of Education and Research, FiBS-Forum No. 40 (www.fibs.eu), Berlin.

Over the last few years, Cedefop commissioned a number of studies, particularly on certain types of funding instruments but also on funding systems:

- Cedefop (2008). Sectoral training funds in Europe. Luxembourg.
- Cedefop (2009). Sharing the costs of vocational education and training. An analysis of schemes in newer EU Member States. Luxembourg.
- Cedefop (2009). Using tax incentives to promote education and training. Luxembourg.
- Cedefop (2009). Individual Learning Accounts. Luxembourg.
- Cedefop (2012), Loans for vocational education and training in Europe. Luxembourg.
- Cedefop (2012), Payback clauses in Europe: Europe: supporting company investment in training, Research reports No. 23. Luxembourg.
- Cedefop (2012), Training leave. Policies and practice in Europe, Research report No. 30. Luxembourg.
- Cedefop (2013), Financing education and training for adults. Luxembourg (forthcoming).

As this report focuses also on systems level, it should be noted that the Cedefop-study on financing education and training for adults, in which members of the research team were involved, analysed the relationship between funding systems and participation rates in adult learning, particularly based on LFS and CVTS 3 data (PPI/FiBS 2012). A first (qualitative) finding of this study is that better performing countries employ fewer full-country equivalent numbers of instruments for companies and more for individuals than countries with low(er) LFS participation rates. Though this relationship between the FCE number of cost-sharing instruments for individuals is not statistically significant; a value of slightly above 0.1 may indicate that findings may turn significant, if the number of countries is increased beyond the 27 EU Member states.

Countries with higher LFS participation rates apply on average more FCE numbers of instruments for all instrument types, i.e. more vouchers/grants for individuals, tax incentives for individuals, loans, and training leaves. Furthermore, the better performing countries employ on average more instrument types for individuals and fewer types for companies, though the decrease is rather limited for the latter. The joint number of instrument types increases also.

Reviewing the responsiveness of cost-sharing systems in relation to financial barriers, the share of countries addressing uncertainty of returns is far higher in the high participation countries compared to both other groups, and the share of countries addressing unequal access increases steadily for all three country clusters, as far as barriers faced by individuals are concerned. The number of FCE instruments increases for all individual barriers (even though the figure decreases between low and medium countries for ‘uncertainty of returns’). The statistical analysis reveals that the number of instrument addressing individuals’ ‘uncertainty of returns’ barrier is almost significant (0.072). The other figures show no pattern with individual participation.

Looking at the systems’ responsiveness in relation to LFS participation, the share of instruments addressing more than one barrier (except unequal access) at the same time increases between the three clusters, i.e. the higher the participation rate in coun-

tries the higher the share of instruments serving more than one barrier at the same time.

Eventually, Falch and Oosterbeek (2011) conducted a study on financing lifelong learning for the European Experts Network on Economics of Education (EENEE) on behalf of the European Commission, which is based on a literature review of studies with ‘credible comparison groups’, which may be considered very rigorous. They conclude i.a. that empirical evidence from England confirms that ‘simply making training available at a low price (or even for free) indeed does not provide sufficient incentives, at least not to the low skilled employees at which the program was targeting’. With regard to individual learning accounts they point to inefficiencies. Based on experimental studies from Switzerland and the Netherlands, they identify important windfall profits (deadweight loss)³, resulting from the fact that beneficiaries would have been willing to invest in training even without public subsidy. This finding is consistent with previous findings (e.g. Wolter/Messer 2010; Dohmen 2007, as well as several other studies, e.g. instrument evaluations). Interesting is that both exploratory studies arrive at similar figures of around 60% deadweight loss.

For the US Veteran voucher they find significant positive effects on college participation. Yet, they are careful, whether this result can be transferred to Europe, because of the very special target group and differences in the education systems between the USA and Europe.

Based on previous research from Oosterbeek they conclude that income tax deductions for individuals ‘appear to have substantially positive effects on training participation. This may be due to the fact that this instrument is available to everyone while other policies are typically aimed at the specific groups of low skilled workers’ (p. 3).

In the meantime, after the start of this study, another study has been published by Oosterbeek (2013), which is also focused on rigorous studies and results. Since parts of the study are similar to the previous study, Falch/Oosterbeek (2011), he arrives at the same conclusions. One major difference is his critique on the use of the LFS participation rates as benchmark for ET 2020, particularly because it underreports participation rates and may arrive at distortionary patterns across countries. A second difference is the inclusion of some additional research in relation to vouchers for companies. While Abroamovsky (2011) did not find any statistical significant effect on take-up rate of employers and employees in the Employer Training Pilots in England, Görlitz (2010) found for the training cheque NRW an increase at company level of 4 to 6 percentage points or 10%, respectively. Additionally, no effect on training intensity in relation to the share of employees was observed nor increased the share of low-qualified. Eventually, Oosterbeek simulates possible deadweight effects, arriving at a deadweight effect of

³ 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.

90%, because 30 vouchers would be needed to increase participation of low-skilled by one additional person. Another part reviews company training and the relationship between employer and employee, which is not at the core of this study.

Eventually, he reviews research on the returns to training concluding that previous research arriving sometimes at substantial wage or productivity returns to training disappear more or less the more advanced techniques are employed. This suggests that unobserved differences between trained and untrained workers are likely the core explanatory factors rather than training. He concludes: “studies that use credible identification methods report rather modest estimates. This is also what one would expect at efficient investment levels” (p. 21), Given this “there is no solid empirical basis for the EU’s approach to lifelong learning ... [T]his report argues that there are no clear indications of underinvestment in the countries where solid evaluation studies have been conducted.”

Since the focus of Oosterbeek is largely on company training, the question is whether his results are also valid for adult learning, which is more driven by individual interests rather than company or work-based learning.

1.4 Role and structure of this study

FiBS – Institute for Education and Socio-Economic Research and the German Institute for Adult Education (DIE) have been commissioned by the European Commission/DG Education and Culture to conduct the study on “financing the adult learning sector”, in early February 2012. This final report summarises the findings. According to the Terms of Reference, “the specific objective of the study is on the one hand to map and to analyse key data, the sources and the mechanisms of funding approaches and relevant recent developments. On the other hand, conceptual considerations to designing an integrated, theory-based model to measure the wider social/health and economic benefits of adult learning should be developed.

More specifically the following results should be achieved:

1. a thorough analysis of the findings of existing research
2. an examination of the key data relating to the funding of adult learning (sources and amounts of funding, important trends, particularly also in relation to the impact of the crisis), in a representative range of at least 15 countries, clearly identifying who pays, how much and for what, with appropriate reference to a number of non-European countries
3. an analysis of national policy trends and developments on financing adult learning, referring to aspects such as legal basis for funding, shifts in overall balance between sectors, trends with regard to public/private responsibility for specific types and segments of adult learning etc., main challenges and future priorities

Particular in-depth attention should be paid to

- formulae used to pay for second chance and basic skill provision

- funding of providers (government/public project sources, private and individual sources) and – in the light of the current crisis – trends relating to the effects of the market (insolvencies, concentrations etc.)
- way in which individual learners' costs are covered in different areas/types of adult learning
- Initiatives and developments in relation to the funding of learning for older and in particular retired adults
- funding models to enable adults to access higher education institutions for the first time, providing examples of good practice of existing funding models.
- Review and conceptualisation of the wider benefits of adult learning.

The analyses should lead to a set of conclusions concerning the strength and weaknesses of the funding policies, schemes and instruments, and a set of recommendations for Member States on how to improve the effectiveness and efficiency of their funding systems for adult learning.”

In order to follow these tasks this report is based on the following sources:

- Thorough literature review and analysis
- Statistical analyses of adult learning data in Europe and other countries, e.g. Eurostat, OECD
- Brief summaries on the adult learning policy in the countries concerned
- Mapping survey on cost-sharing and public funding instruments
- Factual information on selected funding instruments
- Expert overview/survey on the situation of learning providers
- Online survey of learning providers and
- Statistical data on funding volumes

This study covers in particular the EU 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. In order to review and to compare Europe's policies on adult learning with those of major competitors, four non-European countries are covered: Australia, Canada, Korea and the USA.⁴

In this regard, section 2 presents a first analysis of the most recent participation rates of LFS 2012 and AES 2011 and compares them with previous surveys, particularly with AES 2007, since 2007 is the only year for which participation rates are also available for the non-European countries.

Section 3 reviews the wider benefits and returns to adult learning, reviewing the impact of adult learning on macro-economic indicators, such as growth rates, innovation as well as concerning the individual benefits, such as income, health, etc., revealing that adult learning clearly has important merits. Furthermore, the analysis of the benefits in this, but also in subsequent sections (e.g. section 6), provides a basis to chal-

⁴ However, information for Korea is rather limited.

lence some arguments in relation to the distribution of benefits of learning over the life-course.

Section 4 reviews the funding amounts spent on adult learning, while section 5 investigates how funding systems and instruments in the countries of concern contribute to achieving higher participation rates. Estimations of funding volumes are affected by data limitations. In order to reduce the risk of incomplete data the estimations are based on various (and combined) sources; furthermore, several adjustments were necessary to arrive at the figures presented in this report. In addition, several funding indicators, which are newly developed during this study and also drawn from AES 2007 and/or AES 2011 are analysed, particularly in relation to participation figures.

Reviewing the barriers to adult learning as starting point of section 5, it turns out that financial constraints are of varying importance across regions and countries; however, they need to be accompanied by other measures to address other barriers, which are equally, if not even more important than funding barriers. The share of those mentioning financial restrictions as (core) reason for non-participation is (on average) far higher in countries with low participation rates. This is still valid for AES 2011. The overall result of section is: “money matters”. The rest of this section reviews funding instruments more in detail and their role in relation to participation rates.

Chapter 6 focuses special target groups and providers of adult education, commencing with second chance education, which is catering, in principle, to those 73 million low qualified Europeans who are in need of a second chance option to graduate successfully from upper secondary education or to gain basic skills. Although countries spend considerable amounts of money, it seems that there is room for improvement, e.g. through more comprehensive policies. The returns to second chance education are substantial, providing support for arguments in favour of curative measures, even though initial education is, of course, preferable.

When access to higher education for mature students is concerned (see section 6.2), funding policies in many countries are not immediately supportive, but focus traditional students entering higher education as part of initial education. In order to make higher education for non-traditional students a reality, funding is an important means to achieve this goal. Only if people have access to funding, they are in a position to enter universities; however, accompanying measures are needed to address other challenges of non-traditional students. A similar picture arrives when reviewing funding policies for older people (see section 6.3).

Eventually, the financial situation of learning providers is reviewed in section 6.4, providing insight in the relevance of various funding sources for different types of providers and the impact the crisis has had on these. A somewhat surprising finding is that only certain types of learning providers in certain countries are affected by changes in funding, while a ‘general’ impact of the crisis cannot be observed.

Overall, the findings in these sections provide room for the conclusion that the overall lifelong and, in particular, adult learning culture in a country contributes to high participation rates, in general as well as for certain groups. Countries with high participa-

tion rates have usually a comprehensive lifelong learning culture and support participation in adult learning with a strong role of public funding (comprising funding from the state as well as from employment agencies, if applicable). In these countries, adult education as well as re- or up-skilling can take place across the whole life-cycle and funding opportunities are open to (almost) all age cohorts and target groups. This openness is not observable in countries with lower participation rates.

2. Participation rates in adult learning

2.1 Participation patterns in adult learning

Information on participation in adult learning is available through 3 different sources:

- Adult Education Survey (AES): The AES is a self-contained survey referring to “all learning activity (i.e. intentional learning) undertaken throughout life, with the aim of improving knowledge, skills and competences, within a personal, civic, social, and employment related perspective” during the last 12 months (Eurostat AES meta-data). This includes formal and non-formal activities. AES data are published for the years 2007 and 2011, though 2011 results are not yet available for all countries (e.g. Finland is still missing)⁵.
- Lifelong Learning ad hoc module of the Labour Force Survey (LFS): The LLL ad hoc module of the European LFS covers “all purposeful learning activity, whether formal or informal, undertaken on an ongoing basis with the aim of improving knowledge, skills and competences” of the last 4 weeks prior to the survey (Eurostat LFS-LLL metadata); “informal learning activities” include “non-formal education” as well as “informal learning”.⁶
- Continuing Vocational Education and Training Survey (CVTS): The CVTS reviews learning activities in enterprises employing 10 or more staff over the last 12 months. Here, participation rates refer to the percentage of employees participating in continuing vocational training courses (all enterprises). Thus, learning activities refer particularly to non-formal training, while informal learning is neglected and persons who are not employed are also excluded. Although data for most countries are already published for CVTS 4, this is not yet the case for Denmark, Greece, Ireland and Norway.⁷

Since the analytical focus of this study is on individuals and their participation in adult learning, the following section will review and compare participation rates according to LFS and AES, while neglecting CVTS. This also intends to avoid over-complexity. This means that we will provide an overview for the following surveys

- Adult Education Survey (AES 2007 and 2011) and
- Lifelong Learning ad hoc module of the Labour Force Survey (LFS 2012)

The following analyses of the relationship between funding and participation is largely based on the participation rates of the 2007 as published by AES and OECD (2012), because this is the only source providing data for European as well as non-European countries, which this study is to review. However, some analyses are also

⁵ Data for the UK were published in mid-July and are already reflected to some extent in the following sections of this study.

⁶ For a critical review of the LFS-methodology see Oosterbeek, 2013 (see also below)

⁷ This statement is valid for late April 2013.

conducted in relation to AES 2011, covering those countries, for which data is already available.

2.2 Participation rates according to LFS

The following Figure 1 provides the most recent LFS-data for 2012, showing also the most recent trends over time since 2007. First of all, DK, CH, SE, and FI have the highest participation rates; however, differences are substantial even between these countries at the top. While Denmark's rate is above 30% and CHs rate is at around 30% in 2012, FI is below 25% and Sweden's rate has only just risen again over the 25% mark. For 2011, NL and SI have taken over the next positions and surmounted UK, where rates dropped substantially from 19.4 to 15.8% between 2010 and 2011; 2012 remains at the level of 2011.⁸ BG, RO, HU, SK, and EL are at the bottom, with rates clearly below 5% and either with (almost) no progress or even declining.

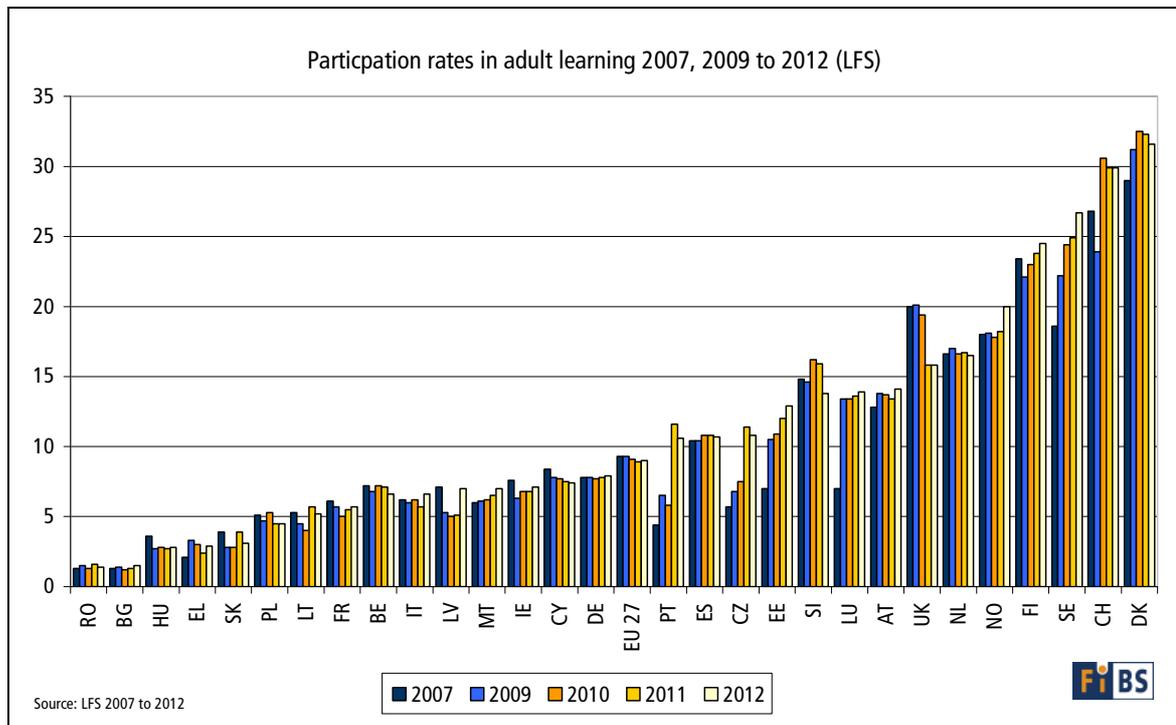


Figure 1: Development of participation rates according to LFS 2007 to 2012.⁹

Reviewing the developments over time, changes are very limited for most countries, though some exceptions exist. For example, PT and CZ show substantial increases from 2010 to 2011, which appear, though, somehow strikingly strong and are based on time series breaks; also LT and SK as well as EE show remarkable increases in relation to their previous level, while rates in UK drop substantially. It is worth noting that on

⁸ Though the UK Figure for 2011 has been provisional for some time, it appears that this objection has been removed.

⁹ UK-data were provisionally initial, briefly after the survey results were launched, but this objection has been removed. Furthermore, rates are similarly low in 2012.

the one hand the rates for the countries with highest participation rates, DK, CH, SE and FI followed by NO, increased rates even further compared to the pre-crisis level 2007 (NO only in 2012, SE constantly from 2007 to 2012), though DK and CH show a small drop between 2010 and 2011, DK even between 2011 and 2012, while on the other hand the rates of some countries at the lower end have even dropped, e.g. BG (but increased again in 2012) and EL (also increased in 2012).

Eventually, it should be noted that Oosterbeek (2013) criticized the use of this data source as benchmark for EU/ET 2020 for various short-comings. The most important critique concerns the short time-period of 4 weeks prior to the survey, which may distort patterns to the advantage of countries with higher shares of long-term programmes, while countries with mostly short-terms measures are disadvantaged (see in this direction also Rosenblatt 2009).

Not only because of this critique, but particularly because of the fact that OECD (2012) provides data for the non-European countries for a 12-months period and for the year 2007, the following section provides an overview on the participation rates for 2007, based on AES 2007 and OECD (2012), though providing also an update on 2011 for those countries for which data is available. First of all, the overview starts with a comparison of participation rates in 2007 and 2011.

2.3 Participation rates in adult learning in 2007 and 2011 according to AES

The AES provides overall participation rates in adult learning, covering formal and non-formal education and training. Two core facts can be identified. Firstly, participation rates in the Western and especially Northern European countries are commonly higher on average than in the newer member states as well as in the Southern European countries, regardless of the year of the survey (see Figure 2). Sweden has by far the highest rates of all countries with more than 70% in both survey years. CH has the second highest rate in 2011 (65%), after a strong increase from 49% in 2007, which applies also to the NL and DK, both countries show now a similar level of close to 60% as NO. These five countries are well ahead of all followers. FR, EE and DE have rates of around 50%, AT is only slightly below. PT, CY, SK and HU are also above the EU average of 41%.

RO and EL remain at the bottom with a strong difference to PL and with different developments over time; while RO has slightly increased its rate, the already low Greek rate decreased even further.

Overall, two thirds of all listed European countries reveal higher participation rates in adult learning in 2011 compared to 2007; this is valid for almost all countries located in Northern, Western, and Southern Europe, though one exception can be found in each of these regions, i.e. Sweden, Belgium and Greece. The increase is highest in Hungary, where difference is strikingly high and due to break in time series (as is also the case for FR); Switzerland, Portugal, and the NL show increases of around 15 percent-

age points. In contrast, the newer member states are split into two groups; while the first group, consisting of Estonia, Hungary, Poland and Romania, shows increases of different size. The second group of countries, such as Bulgaria, Lithuania, Latvia, Slovenia and Slovakia, shows lower rates in 2011.

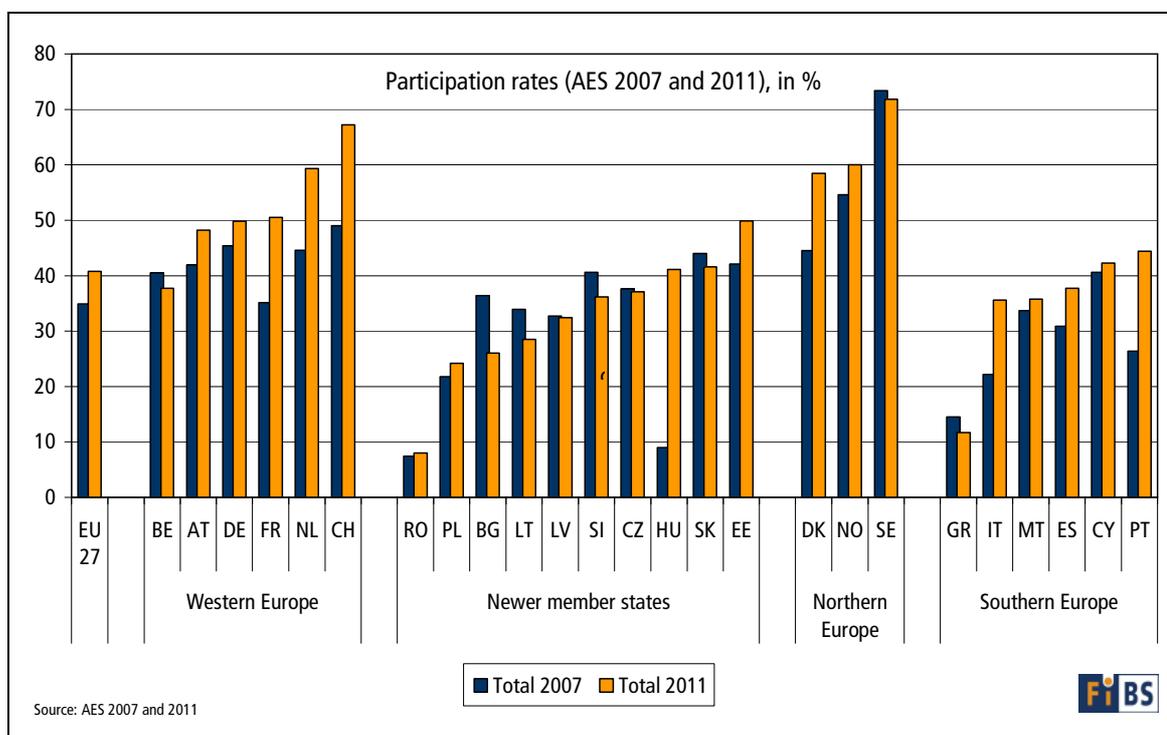


Figure 2: Participation rates (AES 2007 and 2011).

Excursus: Time trends according to LFS and AES

Comparing briefly participation rates and particularly developments over time between LFS and AES, some interesting – and sometimes even striking – differences can be observed, indicating structural changes in some countries. In general, one would probably expect that LFS and AES show similar trends for the years 2007 and 2011.

Table 1 summarises the findings, indicating similar trends in both surveys for a small minority of countries, e.g. EL, BG, RO, and LV, revealing decreasing rates, though sometimes of varying size. In contrast, PT and EE show strong increases in both surveys, while size of increase varies for ES and DK; however the direction is the same. Differences in the size of the development can be explained by differences in the time horizon, e.g. LFS over-valuing more long-term oriented programmes.

Yet, a number of countries show contradictory developments over time between both surveys. For example, apart from a break in time series in HU resulting in a very strong increase in AES, while almost no change is visible in LFS; this suggests a particular increase in certain forms of short-term training programmes; similarly in FR. CZ shows also some contradicting figures. While the LFS shows a strong increase in 2011, which is stable in 2012, the AES shows a marginal decrease; the only explanation seems to be that either more long-term oriented measures are compensated through a reduction in short-term measures or that the timing of these programmes or of the survey has been adjusted (randomly or not) and fits now very well to each other. Yet some changes in the structure of programmes can be identified through a more detailed analysis of AES-data (see in this regard the section on mean hours of instruction).

		AES				
		Strong decrease	Small decrease	No change	Small increase	Strong increase
LFS	Strong decrease	EL				
	Small decrease	BG,	RO, LV		AT	FR*, IT
	No change				PL, CY, DE	HU*, NL*
	Small increase		BE			ES, DK
	strong increase	LT	SK, SI, SE	CZ		PT, EE

Remark: *) break in time series in one survey

Table 1: Changes in participation rates between AES 2007 and 2011 and LFS 2007 and 2011.

End of excursus

Participation rates subdivided by formal and non-formal education

Although, more people take part in non-formal rather than formal education in all countries (see Figure 3), different trends can be found in each region concerning the level of participation in formal adult learning: Northern European countries tend to have the highest participation rates in formal adult learning compared to the other regions in Europe. In 2007 DK, SE and NO were characterized by participation rates between 8 and 10%. While DK and SE were able to even increase this high rate in 2011 (increase towards a value of about 11%), NO has to a lower rate of about 7%.

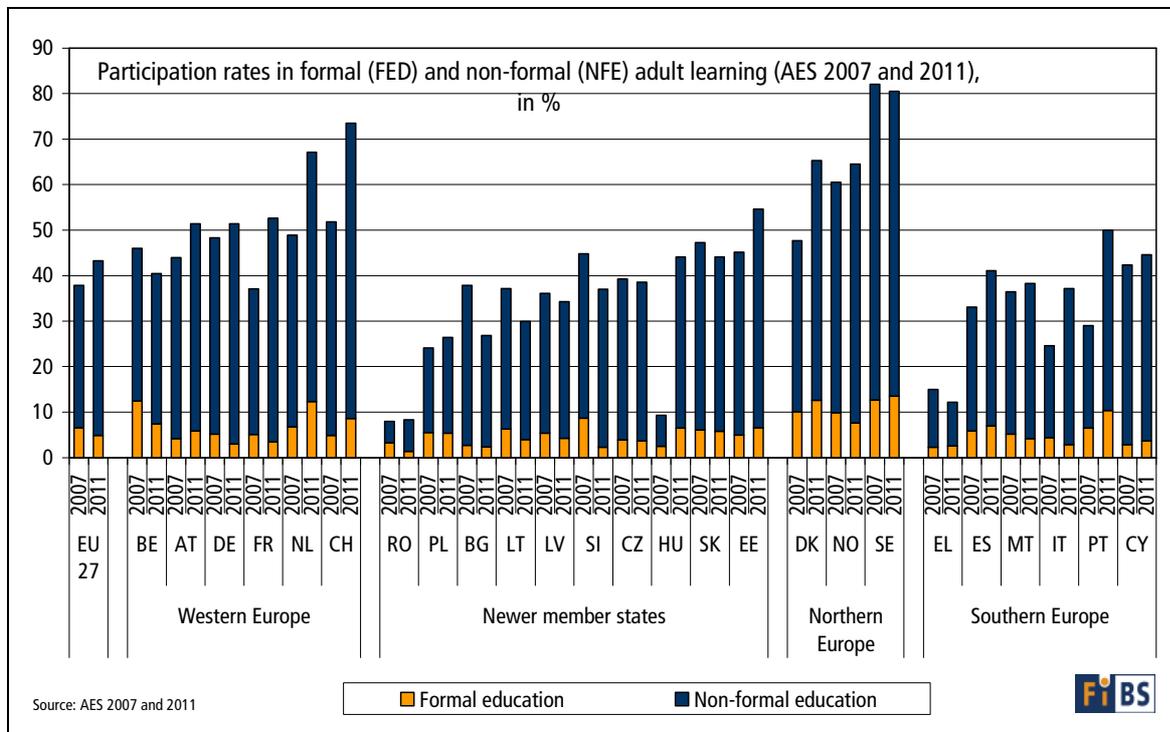


Figure 3: Participation rates in formal (FED) and non-formal (NFE) adult learning (AES 2007 and 2011), in%.

Most newer member states as well as Southern European countries show lower values, with rates of approximately 5% in both survey years on average. In 2007 HU

(2.5%) and RO in 2011 had the lowest (1.4%) rates in formal adult learning. In contrast, SI had by far the highest rate in these countries with 8.7% in 2007; in 2011 EE showed the highest rate among these countries (6.6%). Participation rates in the Southern European countries are comparably low at around 5%. In both survey years EL had the lowest rate of all Southern European countries (2007: 2.3%, 2011: 2.6%), whereas PT reached the highest rates in 2007 (6.6%) and 2011 (10.4%). Western Europe is placed in between the high rates of the Northern European countries and the medium to low rates of the newer member states as well as the Southern European countries. Looking at country level, however, the countries differ widely. While AT (2007: 4.2%) and DE (2011: 3%) have the lowest rates for formal adult learning, BE with 12.5% in 2007 and NL with 12.3% in 2011 show the highest values.

Apart from the height of the rates, it has to be mentioned that in almost all newer member states the participation rate in formal adult learning is lower in 2011 than in 2007; the only exception is Hungary (see Figure 3), though basically due to a break in time series. In Southern Europe, four out of six countries increased their rate for formal education, while they decreased in MT and IT. In Western Europe the image is divided into three countries having increased its participation in formal education (AT, NL, CH), three showed reductions (BE, DE, FR). Northern Europe was able to increase participation in formal education, except NO.

In contrast to formal education where participation rates decreased from 6.6% in 2007 to 4.9% in 2011, participation rates in non-formal adult learning increased from 31.3% to 38.4%. In Western European countries (AT, DE, FR, NL and CH) participation rates enhanced towards non-formal participation. Belgium is the only exception, as both the rate of formal as well as non-formal learning changed to a similar extent. In other parts of Europe, no clear pattern can be identified. For instance, the newer member states are divided into three groups of countries. Whereas RO, PL, EE and HU above all are characterized by a much stronger increase of the participation rate in non-formal adult education, compared to formal education, LV and SI show an equivalent increase for both types of education. In contrast, BG, LT, CZ and SK experienced a relative change in favor of formal adult education.

Mean time of instruction

Figure 4 reviews the mean time of instruction according to AES 2007 and 2011 and shows that, on average, the mean instruction time is lower in 2011 than in 2011. Furthermore, this trend can be observed in the vast majority of countries. Only some countries, such as e.g. FR (+10), SI (+12) and EL (+12), increased average instruction hours.

Going more into details, a slightly increased European average of hours of instruction for formal training is somewhat misleading, because, in fact, almost half of all European countries reduced the average instruction hours, while only a minority of six countries increased it. A similar finding emerges with regard to non-formal learning; many countries reduced the average instruction time, while only a comparatively small

number increased it. Strong reductions can be observed in Belgium (down from 9 to 5) or HU (down from 9 to 3), while MT and FR increased from 1 to 3 hours and 3 to 5 hours, respectively. In contrast, the average hours of instruction of formal programmes dropped substantially in several countries; for instance, from 75 to 59 hours in DE, from 41 to 17 in HU and from 40 to 24 in CY. Similar trends, though of smaller size, can be observed in various other countries, e.g. PT (-9 hours) or AT (-6).

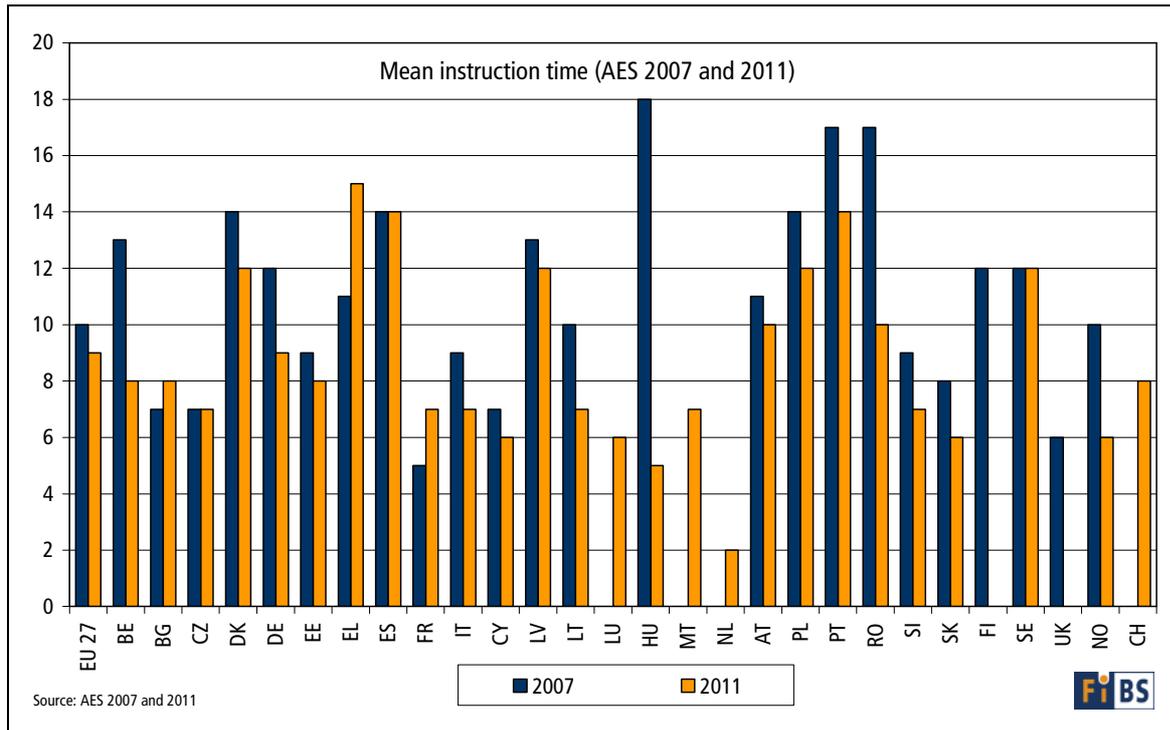


Figure 4: Mean instruction time (AES 2007 and 2011).

Participation rates and mean time of instruction

The previous sections highlight some important developments: First of all, most countries in Europe show higher participation rates in 2011 than in 2007. This is valid for all but one Northern (exception: SE), one Western (BE), and one Southern European country (EL), while the newer member states are divided into two groups of almost identical size, one group increased its rates, the other decreased. This highlights that a relevant number of newer member states has not enhanced its position; at least as far as the mere participation rates are concerned.

The second finding is that many countries with increasing participation rates reduced their average hours of instruction, either for non-formal and/or formal adult learning. The following Table 2 contrasts both. The only country increasing participation rates and mean instruction time at the same time is FR, though the break in time series should be accounted for. In contrast, EL and BG are the two countries with lower rates in 2011 than in 2007, but increased mean instruction hours, while BE, LT and SI reduced participation rates and instruction hours at the same time.

		Average instruction time				
		Strong decrease	Small decrease	No change	Small increase	Strong increase
Participation rate	Strong decrease				BG	EL
	Small decrease	BE, LT	SI	SE		
	No change			CZ		
	Small increase	DE, RO, NO	AT, PL, EE, IT, CY			
	Strong increase	HU*, PT	DK	ES	FR*	

Remark: *) break in time series in one survey

Table 2: Changes in participation rates and mean instruction time between AES 2007 and 2011.

These findings confirm Rosenbladt (2009), highlighting the role of mean instruction hours and recommending not to look at participation rates only. Furthermore, it should be noted that although no figure on mean instruction hours for formal and non-formal learning is available for the NL in 2007, the average figures of just 2 hours per capita is by far lowest figure of all countries under review. Yet, since the mean instruction for non-formal learning has dropped from 4 to 2 hours, this suggests that the overall figure will have gone down probably.¹⁰

Participation rates by age

Comparing participation rates by age shows that young people participate more in adult learning than older cohorts (see Figure 5). In all EU countries, the participation rate is the highest for people aged 25 to 35 and decreases with every age group and is the lowest for people at the age of 55 to 64. Over the last years, the EU 27 average participation rate has increased for every age group almost equally by 5 to 7 percentage points. Apart from some exceptions, the direction is the same for all age groups and follows the overall pattern of the country, i.e. the participation rates increases or decreases for all age cohorts. This means, for example, that the rates for all age cohorts in SE and EL decreased, while they increased for most other countries in Northern and Southern Europe. However, though this is valid for DK it does not apply to NO, where the rate for the older cohort sunk.

While the rates increased for all age groups in all Western European countries, Belgium shows decreasing rates for all but one age cohort; instead it increased for those aged 45 to 54. In Southern Europe, apart from lower rates for all groups in EL, most countries show the contrasting picture for all age groups. However, two exceptions exist, in MT and CY the rate for those aged 45 to 54 decreased despite an overall increase (for all age groups).

¹⁰ Eventually, it should be noted that formal learning in the NL is said to last 1 hour on average per capita only, which is hardly believable.

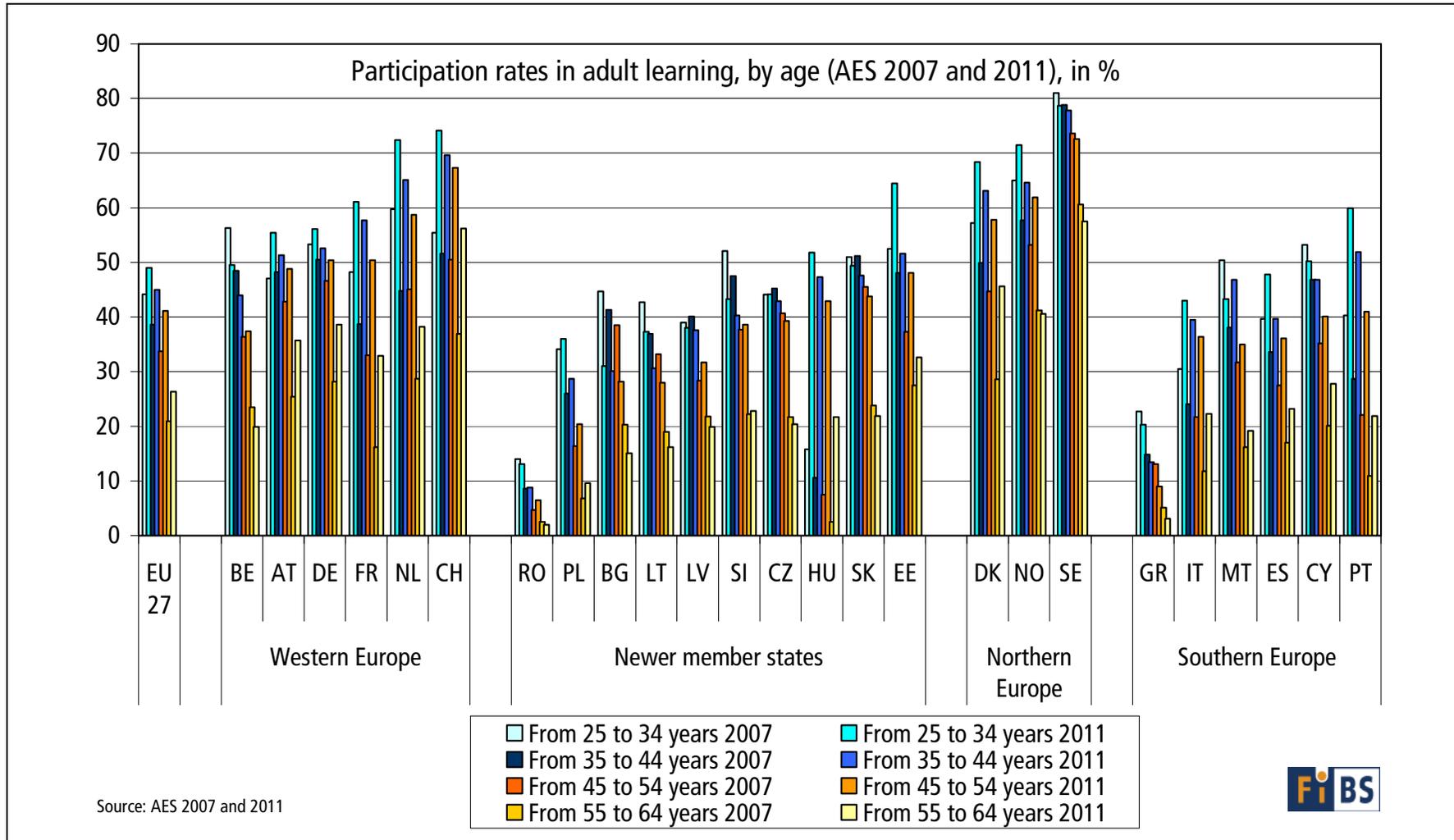


Figure 5: Participation rates in adult learning by age (AES 2007 and 2011).

In the newer member states the patterns are more diverse, on the one hand because of the generally diverted picture with some countries showing increasing and some countries revealing decreasing rates. While for Poland and Estonia higher rates are visible for all groups in 2011 than in 2007, the opposite is valid for Bulgaria, Lithuania and Slovakia. In Romania the age cohort 35 to 44 reveals reduced rates, while all other groups increased their rates. In Latvia, age groups 25 to 54 showed lower rates, while that of older people (aged 55 to 64) increased. In Slovenia all but the oldest groups experienced a decline in participation rates. In contrast, in the Czech Republic all age groups from age 35 to 64 show declining rates, whereas for young people a minimal increase can be observed.

Whether such changes, particularly if they concern older people, are due to changes in the adult learning policies in the respective countries, targeting certain groups more or less than before is a question that will be analysed in section 6.3.

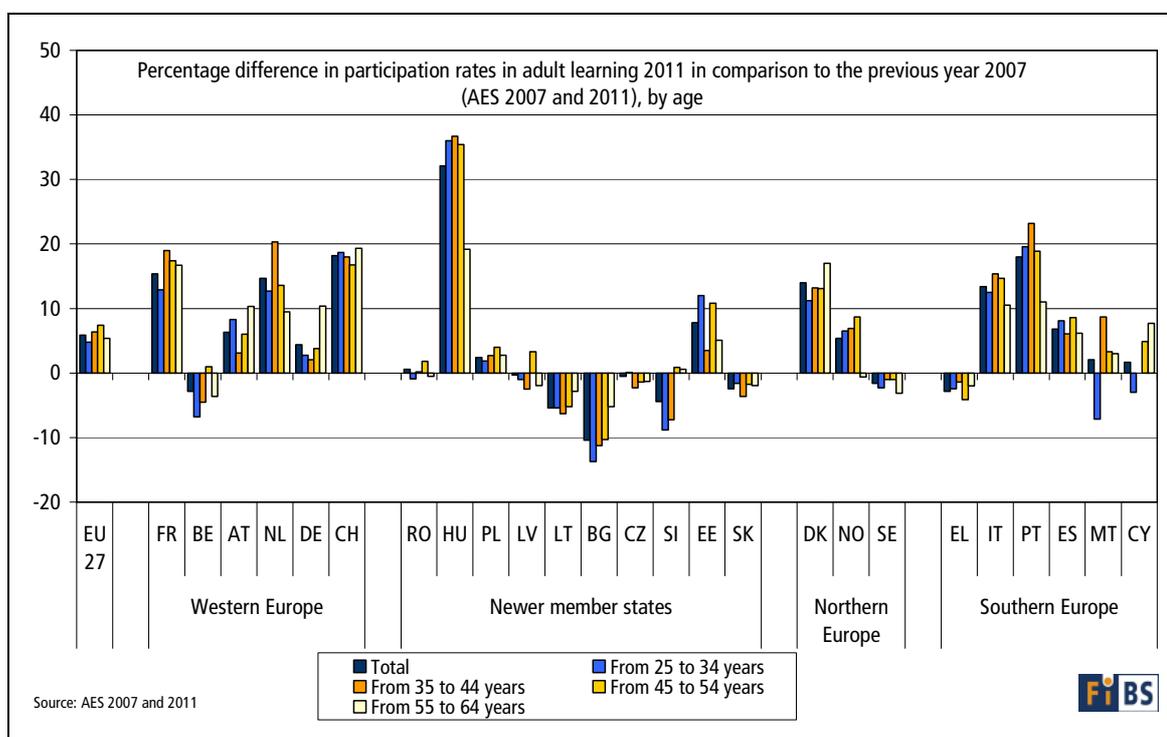


Figure 6: Percentage difference in participation rates in adult learning 2011 in comparison to the previous year 2007 (AES 2007 and 2011), by age.

Participation rates by education attainment

A strong impact of the educational level on participation rates in adult education is also quite evident (see Figure 7). In all European countries participation rates follow educational attainment, i.e. the highest participation rates can be found for people with the highest level of education (ISCED levels 5 or 6), while people with ISCED levels 0 to 2 have the lowest figures.

Especially for some newer member states, such as Romania, Poland, the Czech Republic, Latvia, Lithuania or Slovenia, the relative difference between high and low

qualified people regarding their participation rate is particularly huge (see Figure 8). The participation rate of the highly educated is often more than five times, sometimes even (more than) ten times higher than for people with lowest levels of education, indicating high levels of inequality in adult learning participation in these countries. For instance, Romania is by far the country with the highest inequality across all European countries; the rate for high qualified people was almost 16 times higher in 2007 than for people with ISCED levels 0 to 2, furthermore the difference decreased only very slightly. In Poland the chance to participate in adult education for high-qualified people was more than 11 times higher than for low qualified in 2007. By 2011 the gap narrowed to factor 9. In the case of the Northern European countries, the relative difference between the rates of the highest and lowest educated is much smaller with factor 2. Also most Western European countries managed to keep this difference in participation between low and high qualification at least at a level of around 4.

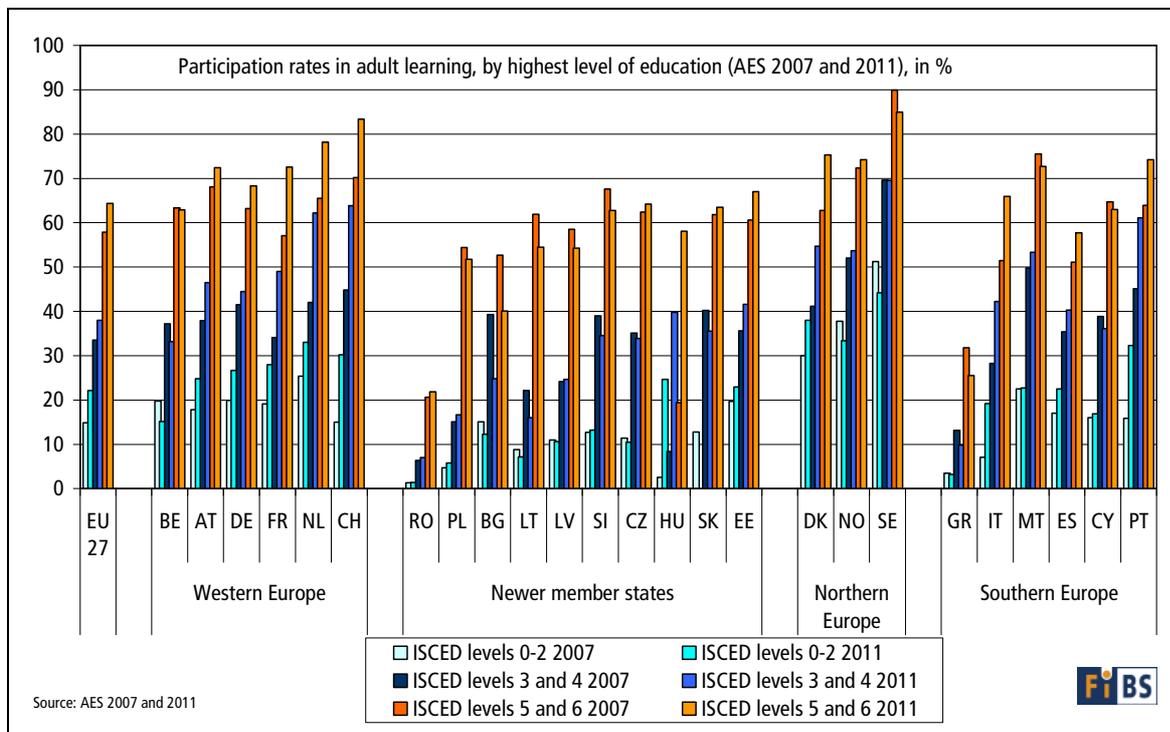


Figure 7: Participation rates in adult learning by higher level of education (AES 2007 and 2011).

However, the average European (EU 27) participation rate increased between 2007 and 2011 for each level of education (for ISCED 0-2 2007: 14.9%, 2011: 22.1%; for ISCED 3-4 2007: 34.5%, 2011: 38%; for ISCED 5-6 2007: 57.9%, 2011: 64.3%) (see Figure 7), though this does neither apply for every country nor is the direction necessarily the same for all education levels in each country (see Figure 9). While an increase in participation can be observed for all educational levels in most Western European countries, except BE, most Central and Eastern countries experienced either a decline for all (LT, BG) or some educational levels (PL, LV, CZ, SI and SK). All rates increased only in RO, HU and EE. A similarly diverse picture can be found in Northern Europe, where DK shows an increase for all levels, NO only for some and SE experi-

enced a decline for all levels. On the one hand at least some Southern European countries (IT, PT, ES) reveal an increase in participation rates of all levels. On the other hand, other Southern European countries, such as (MT, CY) show a decline for all or for some educational levels (EL).

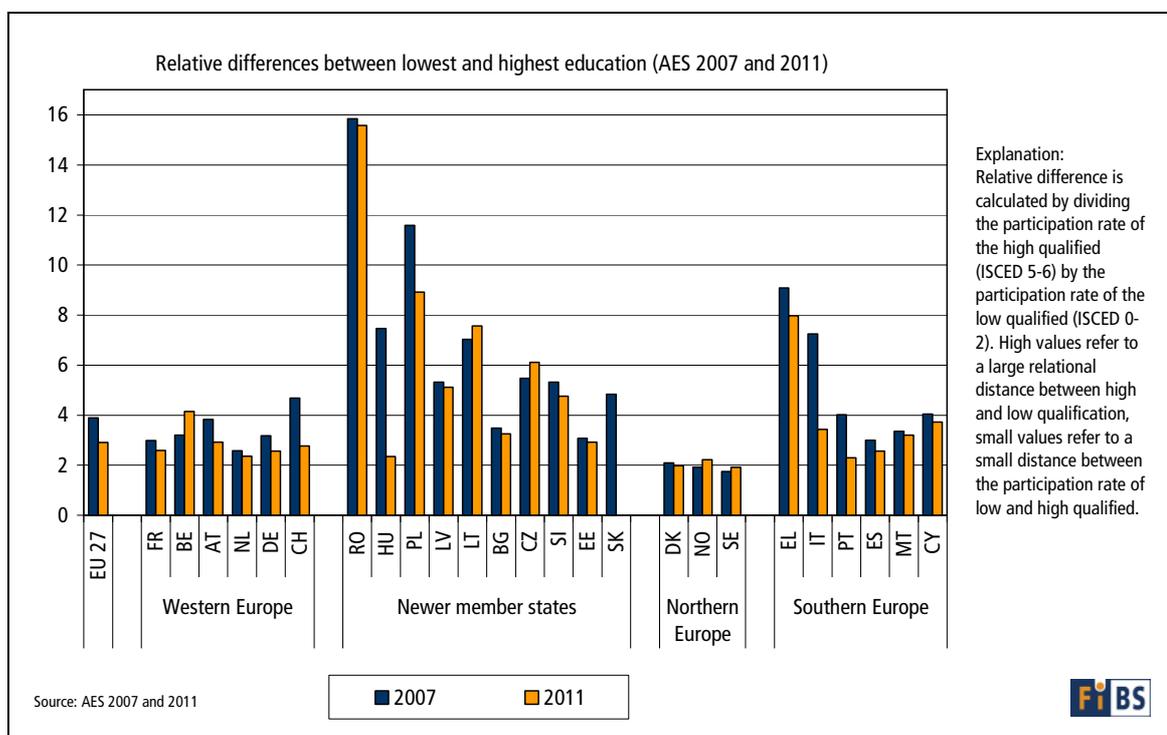


Figure 8: Relative differences between lowest and highest education (AES 2007 and 2011).

Among the countries, which seem to have succeeded in increasing the levels of the low qualified more than those of medium or high qualified people are e.g. DE, SI, PT and CY. Germany, for instance, increased its participation rate in the group of low qualified by 6.8 percentage points (from 19.9% to 26.7%), for the medium qualified only by 3 percentage points (41.5% to 44.5%) and for the highly qualified by 4.9 percentage points (from 63.2% to 68.1%). Although Slovenia increased adult learning for low qualified only by 0.5 percentage points (from 12.7% to 13.2%), it must be emphasized, that the participation rates for the medium and highly qualified decreased by 4.5 percentage points (from 39% to 34.5%) and 4.8 percentage points (from 67.6% to 62.8%), respectively. PT records an overall increase by 16.4 percentage points (from 15.9% to 32.3%). In comparison to that, the increase for people with ISCED levels 3-4 was 16 percentage points (from 45.1% to 61.1%) and for people with ISCED levels 5-6 only 10.3 percentage points (from 63.9% to 74.2%).

Despite an overall decline in BG, by and large, the decrease is smallest for low qualified. In contrast, SK shows a strong incline for the highly qualified, while no participation rate is shown for the low qualified. According to remarks, this is due to low reliability, but it appears likely that the response rate was too low, since low reliability is also mentioned in cases where data is presented. In Belgium another picture emerges; here the decline is lowest for the highly educated, while it is highest for the

low qualified. Also RO shows a small decline for the low qualified, while rates increased for both other groups. In PL we find a rather huge decline for the high educated and an incline for the low and an even higher incline for the medium educated.

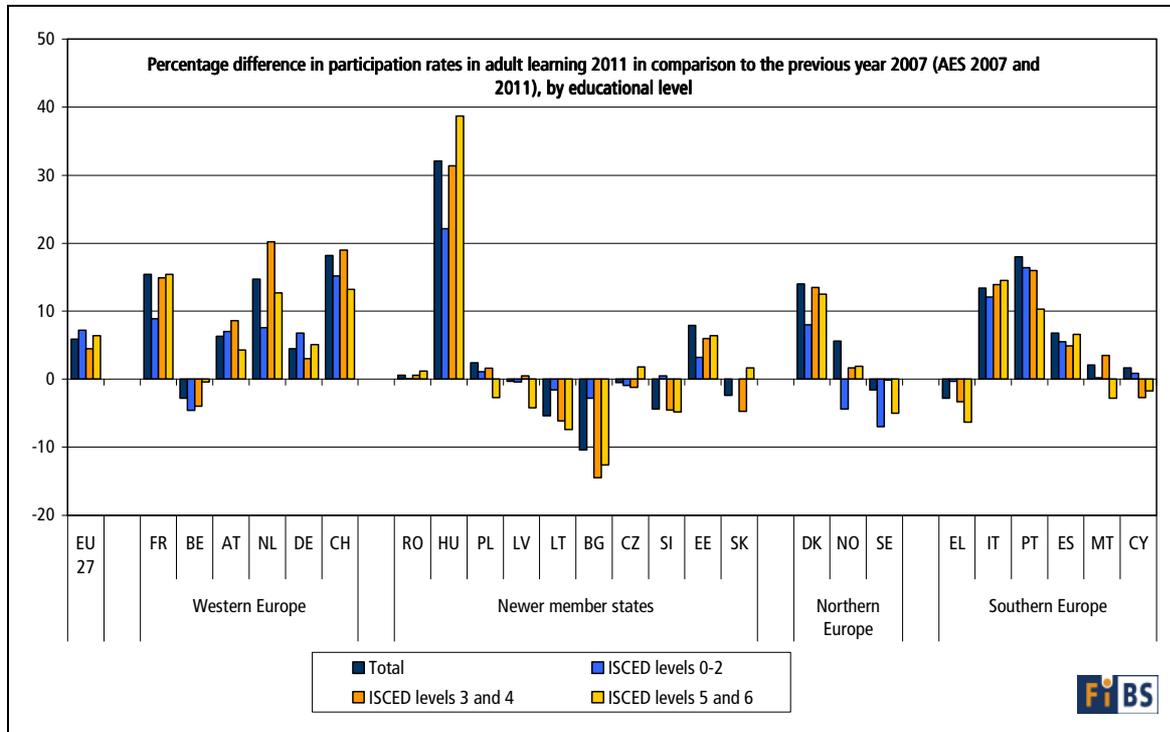


Figure 9: Percentage difference in participation rates in adult learning 2011 in comparison to the previous year 2007 (AES 2007 and 2011), by educational level.¹¹

¹¹ Please note that some figures are striking and appear not correct. For example, the increase in total participation is higher in some countries than the increase for all sub-groups, e.g. for Portugal, France, Denmark and Estonia, which is mathematically hardly to explain. However, figures are in line with Eurostat data.

3. The wider benefits of adult learning

Even though the right to education is an important driver to argument in favour of (public) investment in adult education, it appears that this line is not strong enough to justify investment in adult learning in times of scarce public budgets. In contrast, research seems to have provided sufficient evidence to pressurise for more investment in the early phases of lifelong learning (e.g. Cunha/Heckman et al. 2006). Therefore, this section will briefly review the discussion on the benefits of education across the life-course at the beginning and come back to it at the end, once the benefits and returns to adult learning have been investigated more in-depth. This discussion is important to provide the foundation for any discussion on where and how much to invest in education along the lines of lifelong learning.

More in general and from an economic perspective, investment in adult learning and education is justified, if public and/or private returns are sufficiently high in absolute as well as in relative terms, i.e. in comparison to other investment opportunities and needs. With regard to investment in adult learning this requires, firstly, that the benefits are higher than the (discounted) costs and, secondly, that returns are at least comparable to other education sectors. The (wider) benefits of adult learning comprise core economic aspects, such as growth, innovation, income and unemployment rates as well as the social benefits arising from social advancement/cohesion, but also better health and lower crime rates etc. The distribution of benefits across stakeholders can be used as indicator for the distribution of costs.

3.1 The recent discussion on investment in and the benefits of education

The discussion on investment in education has gained new attention in recent years in the light of research linking neuro-science to economics. According to Cunha/Heckman et al. (2006), firstly, the early years are the very best time to learn and that later learning builds upon earlier learning – learning begets learning. Secondly, the returns to early education are higher than to later learning and, thirdly, that the social returns are higher for the education of disadvantaged groups. The proponents of this line of argumentation claim that adult learning does not bring anything at all (Wössmann 2013; Heckman 2013).

In order to provide an impression of the differences they summarise their findings in a graph, suggesting that the returns to early education are far higher than the returns of learning in later phases and that returns decrease throughout the life course. Logically, the consequence of such analyses are requests to invest more in the early phases of education, particularly in early childhood education, and if necessary financed by cutting public spending for later phases, i.e. particularly higher education and adult learning (Cunha et al. 2006), as frequently repeated by economists (e.g. Brunello 2012; Heckman/Jacobs 2010). However, it is important to note that Cunha et al. (2006) them-

selves mention in their seminal work that their research should not be used to qualify for policy advice in this regard. Furthermore, even though showing that returns are higher for certain segments of education or certain target groups, they also provide ample evidence that the returns for less advantaged learners are still high enough to qualify education investment in these groups, because they are still above the 10% margin.¹² In contrast, Heckman et al. (2010) arrive at returns of 7-10% for early childhood education to disadvantaged groups, which is much lower than previous research suggested.

Though this overall finding is plausible and confirmed by other research (Psacharopoulos 1973, 1981, 1985, 1994; Patrinos/Psacharopoulos 2004), the following section presents some evidence based on other research and is able to provide different insights. The findings in this study clearly suggest to being more cautious with regard to such simplifying and general statements. The excursus serves as first indication how mis-leading general conclusions are, reviewing the argument that “the private returns to higher education are higher than the public returns”.

Excursus: Are private returns to higher education higher than the public returns?

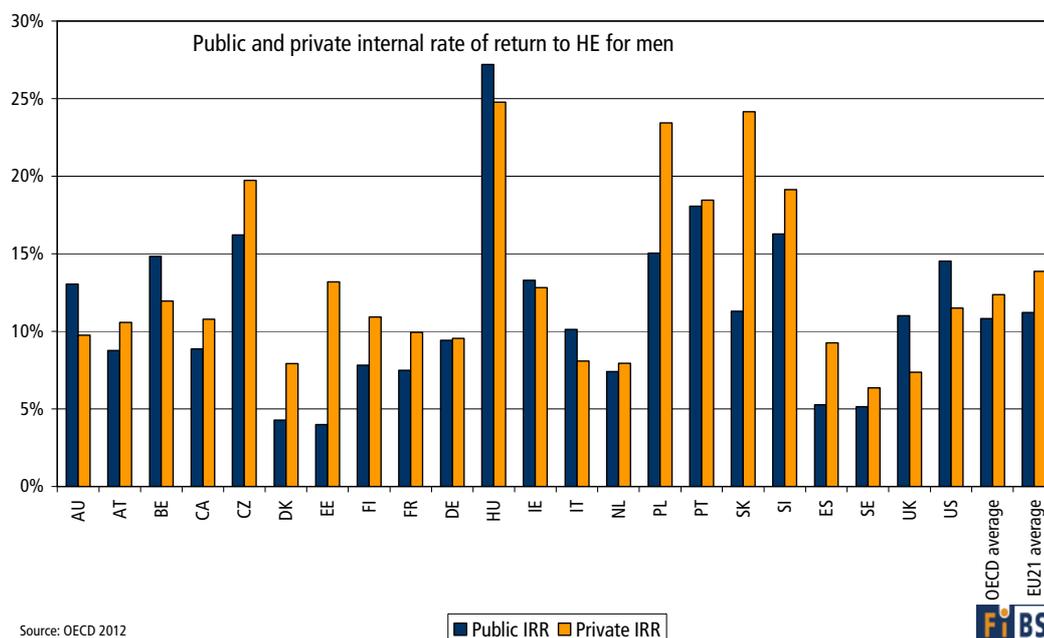
A common statement is that the private returns to higher education are higher than the public returns. However, the following figures provide evidence that this statement is not well qualified for each and every country. Furthermore, even countries, which are usually considered being very similar to each other, show very different results. The figures are based on the 2012 issue of *Education at a Glance* (OECD 2012).

Figure 10 reveals, firstly, that private returns to male higher education are on average higher than public returns; this is valid for the OECD- as well as for EU 21 countries; the same applies to female higher education (see Figure 11). However, looking at the figures for the various countries the level of private and public rates of returns are very different, and the rates for male and female graduates differ as well.

In fact, public returns are higher than the private ones in Australia, Belgium, Hungary, Italy, the UK and the USA; while private benefits are higher than public returns in Denmark, Canada, Estonia, Poland, Slovakia, Spain as well as Sweden, though to a lesser extent. Returns seem well balanced in Germany, Ireland, and the Netherlands. Although the same picture emerges for males and females, it is important to note that the level of private and public returns varies between female and male graduates. While the public and the private returns are higher for men than for women in the vast majority of countries, several exceptions exist. Private and public rates of return are higher for female than for male in Australia, Belgium, Canada and Spain; (almost) no differences can be observed in the Netherlands, Portugal and to some extent in Slovenia. Another picture emerges for Denmark and France, where private returns are higher for men and public returns for female. Eventually, while no gender differences for the public returns are observable in Sweden and the UK, the private returns are higher for men in Sweden and for women in the UK.

Since the results are presented for 2008, it might be worth to have a brief look at the impact of some policy changes. For examples, private returns are likely to decrease in the UK, while the public rates of return will increase further more – it is, thus, not surprising that student numbers decreased after the fee rise.

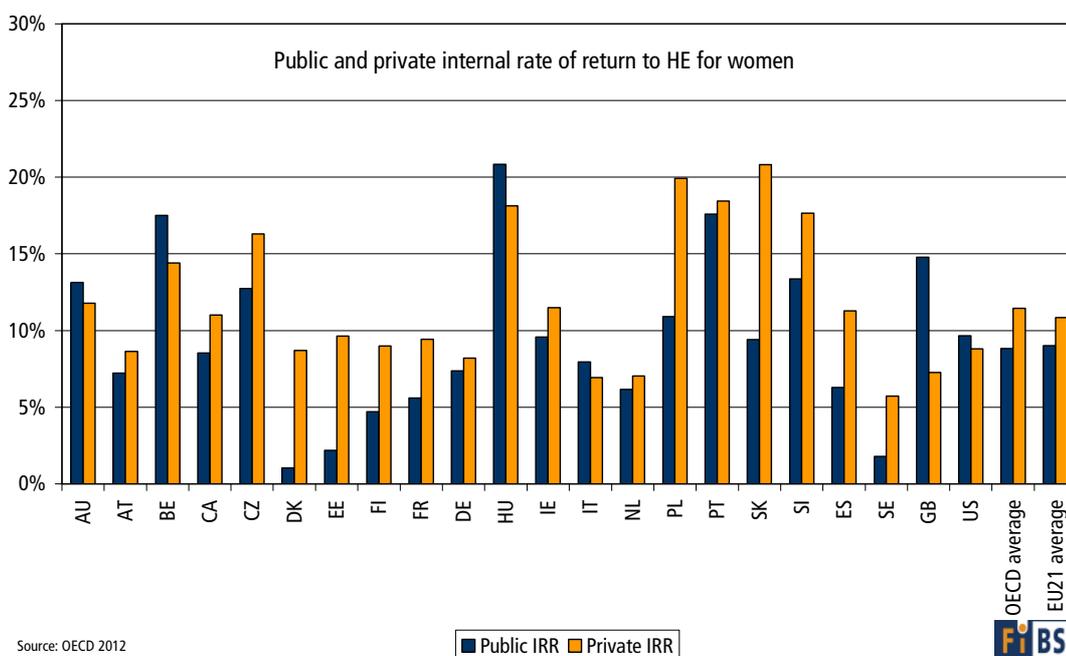
¹² Technically, it is important and interesting to note that no units are specified in the graph, i.e. the difference between high and low returns can be equal to 10% or to 0.1% - however, the shape of the graph suggests that the differences are large. This is not to say that Cunha/Heckman (2006) etc. are generally false, but the point is that the graph may overstate the differences between the rates. We will come back to this point later in this study.



Source: OECD 2012

Figure 10: Private and public internal rate of return to male higher education.

Although one might point to the role of fees in explaining the variances between countries (e.g. fee levels are too high in several anglo-american and the newer member states and too low in the Nordic countries, while existence or even absence of fees might result in balanced public/private returns), this does not explain the whole picture. It is likely that the unemployment rates and income differences between upper secondary and higher education graduates play its role as well as even other factors. The rates of return to higher education are exceptionally high in CZ, HU, PO, and SK, where the student share as percentage of their age cohort is limited.



Source: OECD 2012

Figure 11: Private and public internal rate of return to female higher education.

Adding up, the perceived wisdom that private rates of return to higher education are higher than the public is not valid in any case; instead several exceptions can be identified. Since also the rates of return and the differences between public and private rates of return as well as those for male and female vary a lot, this is a first indication that general statements should be treated with caution.

3.2 Benefits of adult learning – a brief introduction

An **individual** invests in adult education if the expected returns are higher than the costs of this investment. The private costs of training cover the direct and indirect costs of training, such as fees, training or learning materials (text books, copies, computers, etc.), travel/accommodation, child care costs etc. as well as the so-called opportunity costs if working time has to be reduced for the learning exercise. Yet, in this regard but also in relation to the discussion on the financing systems and instruments, it is important to note that adult learning is very heterogeneous and that it may take place during working time as well as during leisure time and may comprise few hours only but it can also last several months or even years of part- or full-time learning.

As adult learning may improve the productivity of the learner, s/he might earn a higher income than before or than an employee not engaged in such training. The net-benefit of the learning exercise is calculated by subtracting the full costs of training (direct and indirect costs as well as opportunity costs) from the earnings differential and the measurement is based on the net income stream, i.e. subtracting tax payments and social insurance contributions from gross salary.¹³ The difference between costs and benefits is the net benefit of training. In addition, since unemployment risk is lower for (higher) skilled than for less skilled workers the lower unemployment risk is another monetary return, which has to be taken into account.

As the individual outcome of education and training is not limited to higher productivity and higher wages so-called non-monetary returns may be considered as well. Non-monetary returns accrue due to better health and safety at the workplace, reduced risk of unplanned pregnancy etc. (Grubb and Ryan 1999; Wolfe and Zuvekas 1997; McMahon 1997, 1999). As non-monetary effects are probably more relevant for benefits than for costs returns are probably underestimated.¹⁴ Furthermore, several of these non-monetary benefits to the individual accrue also to society and are called social benefits.

Another feature which is of interest to this study and which appears only rarely investigated is the impact of funding instruments and rates of return. While adult learning without reduction of working time might 'only' result in opportunity costs of leisure foregone (if learning is not conducted during working time), credit financing means that interest payments reduce net rate of return, i.e. adult learning is only beneficial to the

¹³ It might be worth to discuss, whether and to what extent social insurance contributions should be deducted, if they result in higher pension payments or other benefits. A suitable approach might be to deduct them at the point of payment and to include the resulting payments at the particular point in time. While this estimation is probably easier for pension or unemployment insurances than for health insurance, several crucial issues remain.

extent the monetary return exceeds the interest rate. Since market interest rate for loans is (often substantially) higher than those of savings, individuals who cannot finance their adult education through savings (or even without reduction of working time) are disadvantaged compared to individuals able to finance adult learning through savings (Dohmen 1999). In this regard, one might argue that public intervention should keep interest rates for lendings at levels of savings in order to ensure equitable access to (adult) education; furthermore the larger the gap between interest rates for loans compared to those of savings the more are people disadvantaged who have to finance their education through loans.

The major difference between private and **social costs and benefits** is that the latter covers all costs and benefits that occur to a certain economy/nation. Hence, the social costs and benefits are not limited to the effects of the stakeholders of the learning system but include externalities, which accrue to people or institutions not involved in adult learning. Good examples are reduced costs for the health system, if better educated people smoke less or cease smoking, or because of reduced crime rates since better educated people are less criminal, which are important externalities leading to underinvestment in training, qualifying public intervention. Although there has been much debate about external effects to various levels of education, this is less the case for adult learning.

Even though private and social returns are interrelated, they may also diverge substantially as the following example may highlight: if adult learning brings an unemployed person into employment, this may increase his/her income position only marginally, while public returns are huge. If welfare benefits are e.g. € 750, s/he would have to earn at least a gross income of € 1,000 to arrive the same disposable income through employment. Even if s/he would earn e.g. a gross income of € 1,500 this would only increase the disposable income to € 1,050 to € 1,100. In contrast, this would reduce social welfare payments of about € 9,000 per year, increase tax payment by about € 1,250 and contribute almost € 7,500 to the social insurance system (including the employer's contribution¹⁵). Adding up, while the net income of the individual may increase by about € 350 per month (which is identical with a perceived net-wage of € 2 per hour), the fiscal benefits of the state would amount to almost € 1,500 per month. This (realistic) example clearly highlights that public or fiscal returns can outweigh private returns by far and could even suggest that private non-investment proof rationale. Since a recent study for Germany found quite substantial fiscal returns of up to almost 25% to education for disadvantaged groups (Dohmen 2011), supporting a European study estimating the costs of low educational achievement to about € 21 trillion in the

14 If the non-monetary benefits of VET are higher (lower) than of general education a bias exists either under- or overestimating the rewards and, thus, the rate of return to VET compared to general education.

15 In Germany, employer and employee contribute half each to social insurance payments. On average, the contribution amounts to up to appr. 43% of gross income.

long-run (Hanushek/Wößmann 2010), this indicates a strong public interest and incentive to invest.

Though this study focuses on non-vocational adult learning in particular, it seems appropriate to look briefly also at **companies' costs and benefits**, since they are affected quite often directly or indirectly; for example, if private language classes result in enhanced language skills, which then can be applied for business purposes (see in this regard the following section on the wider benefits of non-vocational adult learning). Another example concerns training leaves, which can be utilised for non-vocational learning; in this case companies may bear (part of) the (full) costs of non-vocational adult learning. The costs of the company comprise the productivity foregone (due to absent employees), participation fees, travel and/or accommodation expenses etc.

The benefits of companies are enhanced productivity, resulting in improved competitiveness, more innovation, and, thus, higher profits. Non-monetary benefits are employees who are more satisfied with their job and employment conditions, making a company more attractive as employer – an important asset in times of demographic change and shortage of skilled labour. An important external effect to companies arises if (low-skilled/qualified) employees who participated in adult learning are healthier, because they are less absent from the work-place etc. This might suggest that employers should even contribute to second chance education or curative adult learning as well as to other forms of general or non-vocational adult learning, which is in line with empirical findings (see e.g. Hansson 2008).¹⁶

The following section investigates the benefits of adult education more in-depth, starting with the macro-economic benefits, on growth, employment and innovation and moving on to individual as well as the wider benefits in relation to health, crime and social cohesion. The public and private rates of returns of adult learning through graduation from upper secondary and higher education will be reviewed in the corresponding sections 6.1 and 6.2.

3.3 The macro-economic benefits of adult learning

3.3.1 Adult learning and economic benefits, growth and employment

For a broad set of countries including developed and less developed countries, countless studies of the past and present have found a strong positive effect of education on economic activity, such as on GDP, long-term economic growth and labour productivity (e.g. Barro 1997, 2001; Mauro 2000; Coulombe et al. 2004). Coulombe et al.

¹⁶ In this context, it has to be distinguished between inter- and intra-firm externalities. The latter is the effect of an unskilled worker who learns by observing a skilled worker whilst the former would be for example the growth effects of a new invention, which is a 'real' social benefit to the economy. While intra-firm externalities are a return for the particular company only and therefore part of the private benefits, inter-firm externalities may justify public intervention; furthermore, it appears that while the macro-economic new growth theory has accounted for such externalities, this is not yet the case for micro-economic analyses.

(2004) found human capital to be a crucial factor in explaining the convergence of GDP per capita over time.¹⁷ Their results suggest that growth is mainly fostered by improving the skills of all society's 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). Overall, there are strong grounds to believe that adult learning of all kinds results in returns for individuals as well as society as a whole (Conolly et al. 2008). As portrayed by a recent Cedefop (2011) study on the benefits of VET, the returns to adult learning are mostly visible for labour market outcomes, such as higher participation rates, lower unemployment rates, opportunities to acquire new forms of qualifications and advance in terms of professional status. On a macro level, IVET and CVET additionally contribute to a lower degree of skill mismatch, labour market integration, further career development opportunities and professional status. This study portrays that great differences exist amongst countries with respect to which model of adult learning, in this case VET, maximises benefits. This results amongst others from the fact that differences in the definition and role of vocational education and training (VET) across countries persist. Cultural and social-class values are key factors in this respect. As micro, meso and macro level effects are inter-related and complex, it is difficult to separate these from one another (Cedefop 2011).

This brief overview indicates that statistical evidence concerning participation and growth (rates) has not much been provided, yet. Thus, we complement statistical analyses in order to review the contribution adult learning may have on growth rates.

In our estimation, the relationship between AES participation rates and real GDP growth over time is analysed, on the basis of data on the years 2007 and 2011¹⁸. For such an investigation, the use of panel data is required, i.e. a dataset in which the behavior of entities is observed over time. These entities can for example be states, companies, individuals or, as in our case, countries.¹⁹ Given that the relationship between different variables and growth over time is analysed, it is important to make sure that trends and/or seasonality do not bias estimates, i.e. lead to unrealistic results. Many variables are likely to be trending over time and may fluctuate in similar patterns. Failing to account for this, i.e. not accounting for time effects, may result in (significant) relationships being suggested between variables only because similarities in trending exist between them (Wooldridge 2009). Time effects can be accounted for either by including a so-called year trend or year dummies. In the case of this study, the latter

¹⁷ 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.

¹⁸ For an additional, simulated analysis series, see section 8 in the annex.

¹⁹ For the analysis of panel data, advanced panel estimation methods are necessary. Elaborate information on the different estimation methods, reasons underlying the choice of the fixed and random effects estimation method, as well as choice of control variables and time effects is provided in the section 8.1.

method was chosen.²⁰ In the regression analysis of this study, it also makes sense to include a time lag of participation in AL in the model, given that participation in AL is likely to affect growth with some delay. In the case of the model analysed, the lag of participation in AL allows inferences on whether participation in 2007 may have contributed to affecting growth rates in a later time period, 2011.

	FE1	FE2	RE1	RE2
	Real GDP growth	Real GDP growth	Real GDP growth	Real GDP growth
AES participation	0.827 ^{***}	1.048 ^{***}	0.569 ^{**}	0.542 ^{**}
Time lag of AES participation (participation rate in previous year)		0.274 ^{**}		0.355 ^{****}
GDP per capita	3.248 ⁺	1.142	-0.389 ⁺	-0.477 ^{***}
Year dummy	yes	yes	yes	yes
N	44.000	37.000	44.000	37.000
r2_w	0.627	0.731	0.489	0.609

Standardised Beta Coefficients. Significance levels: ⁺ p < 0.10, ^{**} p < 0.05, ^{***} p < 0.01, ^{****} p < 0.001

Table 3: Fixed effects estimation results of AES participation on growth. Years 2007 and 2011

Table 3 presents the results of the four regression models, differing only concerning their estimation method (Fixed Effects (FE) vs. random effects (RE) estimation) and the inclusion of the lag of participation in adult learning as an independent variable (in FE 2).²¹ Regression results for all models suggest a positive relation between AES participation and real GDP per growth. This effect holds even when (additionally) controlling for the time lag of AES participation, which shows that it is not merely caused by serial correlation, i.e. differences in participation rates of countries being based on differences participation rates in the past. Furthermore, regarding FE 2 and RE2 (R²), the models with the highest goodness of fit value “within their estimation method”, both AES participation and the time lag of AES participation are significant, which suggests that participation in adult learning has a positive impact not only on short term but also on long term growth. Furthermore, the strength of the relationship between participation in AL and growth, as measured by the respective beta coefficient, is strong – regarding strictly RE results (RE1, RE2), even the strongest of all variables. Interestingly, GDP

20 When using year dummies, one year dummy less than the total number of years in the data is omitted to form the so-called base level. In the case of our analysis, the year dummy 2007 forms the base level. Detailed estimation results and information on the estimation method are presented in the section 8.1.

21 As in all cases when dealing with regression models containing variables with missing data on certain countries and time points, it is important to keep in mind that the estimation excludes these missing observations and regression results are hence not applicable to these. It was previously mentioned that AES data does not include Luxembourg. Furthermore, OECD data on GDP per capita does not cover Bulgaria, Latvia, Lithuania, Malta, Romania and Cyprus. Furthermore, as previously stated, all coefficients are to be interpreted in comparison to the base level, year 2007, ceteris paribus. A more detailed

per capita and growth appear to have an only barely significant (FE1) or insignificant (FE2) relationship, when regarding FE models. Regarding RE models, suggests this relationship to be negative, if only barely significant in RE1. Overall, a negative relationship between GDP per capita and real GDP growth which can be explained by the fact that countries with high economic performance may have less scope for growth as they are approaching steady state growth rates.

To sum up, results suggest that countries with higher AES participation rates show higher growth rates than countries with lower rates participation rates (after accounting for differences in economic performance and time effects). These results serve as a first indication of a positive relationship between participation in AL and economic growth, suggesting short term as well as long term benefits for the countries of analysis.²²

3.3.2 Adult learning and innovation

Several recent Cedefop studies have analysed the effect of adult learning on innovation in countries. A Cedefop (2011) study states companies to benefit from VET in terms of being more profitable and innovative and employees more productive. Furthermore, the very recent Cedefop (2012) study on ‘Learning and innovation in companies’ amongst others analysed the impact of different measures of participation in and provision of training on innovation in the EU-27 Member States and Norway, that is innovation on organisational and socio-economic levels.

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 (see Table 4) suggest that strong 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.

Interestingly, when comparing the correlations of these further education (CVET) indicators with that of tertiary education, the study finds adult learning as well as company-provided training have stronger correlations with innovation performance than tertiary education. Various bivariate and multivariate analyses were carried out to further analyse the relationships of these indicators and innovation performance. Positive

regression table, as well as more detailed discussion on regression results, is provided in the section 8.1.

²² The same model was estimated using Labour Force Survey (LFS) participation rather than AES participation rates for the time frame regarded. In contrast to the model with AES participation rates, regression results for participation in AL were not significant. One possible explanation is that the countries included in the LFS differ slightly. Furthermore differences may be attributed to differences in the survey population of the AES and LFS. Given that the LFS rates incorporate the age group 15+, they may be considered a less precise measure of adult learning than AES rates.

correlations between different variables linked to adult learning and innovation were observed. In addition, participation in adult learning was found to covariate positively with innovation performance.

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*
participation in AL (2009)	Other forms of learning in enterprises index (2005)	0.56***
participation in AL (2009)	HR index (2009)	0.57**

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

Table 4: CVT provision and participation, and innovation (Cedefop 2012)

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. Before elaborating these results, background information on the countries of analysis as well as factors must be provided.

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 5 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 the CVET.

In addition, although not as interesting in the context of this study as the first factor, a second factor ‘Organisation typology’ was generated, in which variables representing different work organisation types (discretionary learning, taylorist and traditional) were collapsed. While all three work organisation forms showed high loadings, those of the

latter two types were negative, while discretionary learning had a positive loading. This factor explained 80.79% of the variance.

	Components (factors)
Human capital formation	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 5: 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), 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.

Dependent	Independent	Beta coefficient	R ²
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	
Source: Cedefop 2012			

Table 6: Regression results (Cedefop 2012)

Overall, the results of the Cedefop (2012) study clearly highlight the importance of adult learning for innovation. As the authors state, the results suggest that focusing on tertiary education in the Innovation Union Scoreboard (IUS) is narrowing the role of education and training with regard to innovation and recommend the inclusion of CVET-indicators in the IUS.

Another study which also found results indicating that tertiary education itself is not sufficient to contribute to innovation was carried out by Vosskamp, Nehlsen and Dohmen (2007). In this study, the authors found that a relationship between age, tertiary education and innovation exists in the sense that the strength of the association between tertiary education and innovation depends on the age of the tertiary educated people. Particularly strong links were hereby found between the share of tertiary edu-

cated people aged 45 to 54 – and mainly for ISCED 5B, but less for ISCED 5A/6 – and innovation. This could suggest that tertiary education may have to be complemented by continuing education and training (general and/or vocational) and again emphasises the crucial importance of adult learning for innovation.

3.3.3 Fiscal returns to education

Another perspective is provided by Dohmen and Henke (2011) as well as Dohmen (2011) who estimated the fiscal returns for various measures aiming to improve the educational performance of disadvantaged youth in Germany. Although they also found high returns to early childhood education another finding was that even curative measures ‘later in life’ at around age fifteen, for example, might be linked to substantial and in some cases even higher (marginal) fiscal returns.

Furthermore, results for federal level and central states might be different and particularly in federal states depend on the distribution of costs and returns between the federal layers. Dohmen (2011) analysed the distribution of costs and fiscal benefits between the laender and the central level in Germany, finding that the national level has huge fiscal benefits, which are due to limited involvement in the financing of education on the one hand and higher revenues of the social insurance system as well as higher tax revenues on the other. An important driver for public benefits are higher employment rates of those with higher educational attainment. For example, in Germany fiscal returns arrive at some 28% for higher education compared to 17% for early childhood education (incl. social insurance benefits) (Dohmen 2011; Dohmen/Henke 2011).

3.4 Economic benefits to the individual

As outlined above the individual returns comprise monetary as well as non-monetary returns. The empirical literature presents very different results, varying 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 can confirm with regard to selected Italian regions, where returns were estimated at 4.4%, though confronted with high depreciation rates.

Reviewing literature somewhat more in detail, returns from vocational and general further training²³ were estimated using the European Household Panel survey (ECHP)²⁴. In this estimate, which dispensed with all control variables beyond individual characteristics, permanent positive returns from vocational training were shown, except

23 Vocational education and training was surveyed using the question, “Have you at any time since January (year) been in vocational education or training, including any part-time or short courses”. This definition includes initial vocational training in the dual system, for example. Information on the ECHP variables can be found in Eurostat (2003a) and in the Eurostat coding regulations (2003b).

24 Unfortunately data is not available for all countries. The few internationally comparative econometric studies are based on the European Household Panel surveys (ECHP) that were carried out annually from 1994 to 2001. Further information on the ECHP can be found in the University of Essex study (2007) and in Lehmann/Wirtz (2003).

for Great Britain and Ireland. It can also be stated that returns from vocational further training were less than those of general education (OECD 2004) except in Portugal, Italy and Spain.²⁵ Thirdly, an econometric model on returns from vocational training was run with data from the current and the previous employer, using a range of individual, industry-specific and country-specific control variables.²⁶ In general, permanent positive returns from participating in training and education were shown. The returns were higher if the employee changed jobs after training. The difference in the levels of returns between those who moved to another employer and those who remained with the employer is often viewed as an indication of the market power of the employer, who can absorb part of the resulting productivity. Without departing from the basic theoretical assumptions, lower wages of employees who do not change employers after training could also be explained by cooperative behaviour between the parties (OECD 2004).

Brunello (2001)²⁷ identified rates of returns among European countries that hardly differed. He found significant national effects only for Italy, France and Denmark. The author contrasted current participation in vocational education and training (between 1995 and 1996) with earlier participation in training and education (between 1993 and 1994). Returns to occupational further training between 1995 and 1996 are on average at 17.8% across the countries investigated, they were highest in France (22.5%) and lowest in Denmark (12.2%). In contrast, training in the previous period (1993/94) reduced income by 3.6% on average and in Italy by 9% – a finding that is explained with decreasing returns from training over time (Brunello 2001); this would suggest that training has a temporary effect on private returns and that these have to be “depreciated” over time. This conclusion is also in line with the findings of Brunello (2001), who also found that “the relationship between education and training is stronger for the older and educated birth cohorts, which points to the possibility that current training is a substitute for outdated education” (p. 17).

It was also shown for all countries reviewed in the study that training incidence increased with the level of initial education, i.e. participation is higher for those with higher educational levels, and that returns from further training were higher for tertiary education graduates, though this advantage decreases with increasing professional experience (ibid). This would suggest that current training and general education are complements in the short run, while this nexus disappears the more job experience a person has.

A study from Sweden reveals that a two-year vocational education degree has positive effects on income and employment probability compared to those with less qualification. An additional third year has only very small additional effects (Murray/Skarlind 2005).

²⁵ There is no information available how significant these effects are.

²⁶ Significant results are only available for Belgium, Denmark, Finland, Ireland and Spain.

²⁷ Only the first three ECHP were used as basic data here.

Furthermore, Zhang and Palameta (2006) researched the returns to general adult education in Canada and found that receiving a certificate results in wage increases, while not receiving a certificate led only to a marginal increase of wages. Reviewing different sub-groups, the results are confirmed for men of all age groups as well as for younger women, no increase was found for older women. Positive wage returns were also found for improvements in basic skills, i.e. for higher scores in literacy and numeracy (McIntosh/Vignoles 2001; De Coulon/Marcenaro-Gutierrez/Vignoles 2007). Hansen/Vignoles (2007) comparing returns in an international perspective assume that such relatively high returns to basic qualification are due to relative scarcity of such skills.

Hansson (2008) concludes his overview with the finding that wage returns are higher for those moving to another employer (after company provided training), while wage returns to (general) training are more restrained if the employee remains within the company having provided the training. For the company, however, such training is beneficial as employees are more motivated and less interested in moving to another company.

In contrast, it appears that the benefits for older people are less clear-cut. Bassanini et al. (2006) found that the training rate of older people is associated with employment rate of older people in European countries; a finding which is confirmed in Hansson's study (2008). Another benefit for both groups is increasing job stability (OECD 2004), which, however, goes at the costs of 'immediate' wage returns; though this latter result turns into even larger monetary benefits, once reduced unemployment and job-loss risk is translated into income differences/benefits. Furthermore, there is some evidence that employment is at the core to explain the decreasing participation rates of older as well as low-qualified people (Hansson 2008).

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.

3.5 The wider benefits of adult learning

In addition to the immediate monetary returns presented in this study so far, adult education has further benefits, deriving from individual change in behaviour, and, possibly even more important, resilience, self-concept etc.

The starting point of such analysis is the following basic model for the wider benefits of learning, in which education impacts via the mediating mechanisms 'skills, beliefs and competencies', 'social interactions' and 'qualifications' on the wider benefits.

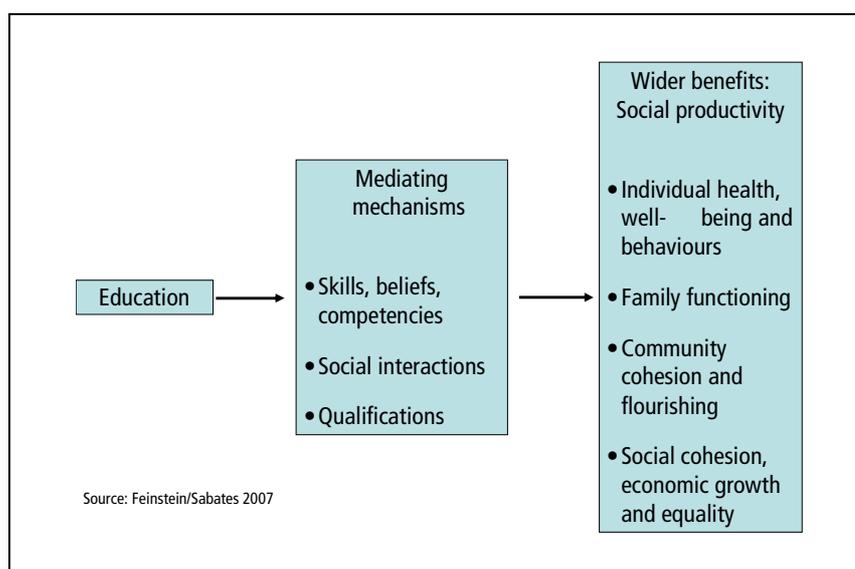


Figure 12: A simple model for the wider benefits of learning (Feinstein/Sabates 2007).

One of the core messages by Feinstein and Sabates (2007) is that despite 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 chance 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.
- if 1% of the working age population gains level 2 (instead of no) qualification the costs of poverty crime in England and Wales would be reduced by between £10m and £320m per year. Raising it further to level 3 would save another £70m and £180m. If this would spread 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 satis-

faction (14% reduction of general decline of life satisfaction). However, it appears that this has not yet been costed, which also applies to reduced alcohol consumption, 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. Of particular interest for this study, focussing more on non-vocational learning is that 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).

Some key findings emerging from research and presented above support the relevance of second chance education with regard to the wider benefits of adult learning; yet one challenge is probably also to change the learning settings, i.e. departing from school-based adult learning towards other forms.

Adding up the various wider benefits, a rough and very crude, though still cautious estimate would easily arrive at least at around € 2 to 3 bn 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 (see section 4).

A second model of wider benefits from Manninen (2012, 2013) refers more explicitly to non-vocational or liberal adult learning and education (see Figure 13).

Testing this model empirically in several studies (see for an overview Manninen 2010, 2012, 2013), the relationship between adult education and active citizenship and societal involvement as well as development of social networks, self confidence and

other (see Figure 13) 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.

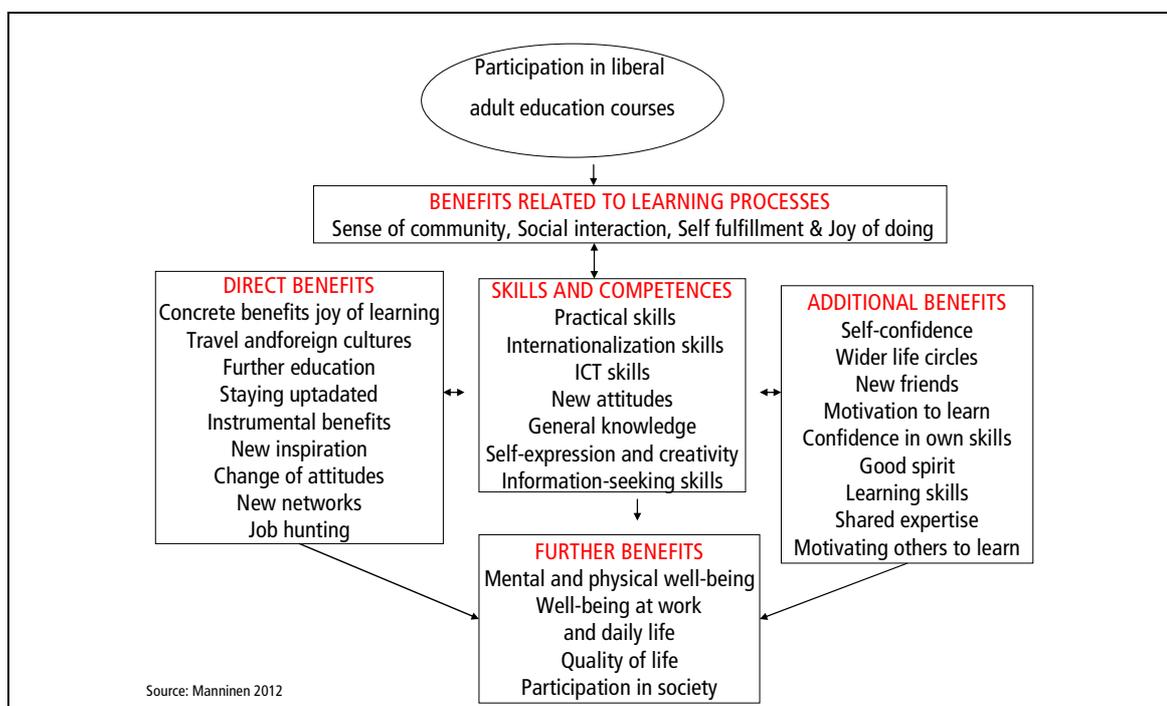


Figure 13: Manninen's model of wider benefits of liberal adult education (Manninen 2012, 2013).

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%); unfortunately, it appears that no data was established for former non-participants (see in this regard also Motschilnig 2012).

Summarising his findings, Manninen (2012) relates the wider benefits of adult learning to societal challenges:

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

Table 7: Wider benefits of learning and societal challenges (source: Manninen 2012).

Eventually, recently developed valuation techniques allow to quantify the returns to non-market goods such as education in monetary terms (Fujiwara/Campbell 2011). Presenting three valuation techniques for social cost-benefit analysis, the first technique, the stated preference method, uses information provided by questionnaires to calculate the Willingness to Pay (WTP) or Willingness to Accept (WTA)²⁸ for a non-market good. These questionnaires either focus on the good as a whole, or special attributes of the good such as its effects on the environment and costs. The second technique, the revealed pricing method, amongst others uses price differentials between the prices of market goods in relation to non-market goods or their consumption to calculate elicited WTP and WTA estimates, e.g. differences in housing prices due to their location with respect to education facilities, or demand curves for non-market goods. Finally, the most recent technique, the life satisfaction approach incorporates subjective well-being measurement. Life satisfaction is considered a good proxy for individual utility. In this approach, the gain in individual's life satisfaction due to an increase in his or her income is used to infer the monetary value of an increase in life satisfaction due to the consumption of a non-market good such as education. Nevertheless, it should be noted that all these methods have their weaknesses, e.g. individuals may not be able to correctly assess their future utility of consuming a certain good or have imperfect information. In addition, preferences of individuals are in many cases only vaguely defined and individuals generally have difficulties valuing these (Fujiwara 2012). Even when keeping these weaknesses in mind, it is interesting to regard the study of Fujiwara and Campbell (2011). The authors developed a well-being valuation method which e.g. allows the estimation of the monetary values of adult learning on health, employment, social relationships and volunteering, as calculated in the study of Fujiwara (2012). Given that the model automatically calculates the impact of adult learning on these domains by assigning a monetary value to the change in well-being by participating in it, individuals do not need to value their preferences themselves. Fujiwara (2012) uses this well-being valuation approach to value the positive impact that 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.

Many other publications have sought to create a calculation base for adult learning, amongst others accounting for their indirect positive effects on safety and democracy. Due to this, one may assume 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

²⁸ "WTP represents the maximum amount of money an individual is willing to give up to receive a good. WTA is the minimum amount of money they would need to be compensated for foregoing a good." (Fujiwara/Campbell 2011, p.11)

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.

Additionally, various other studies found adult learning – as well as other aspects closely connected to it, such as (higher) employment – to be connected with better health, lower crime rates, higher safety at the workplace, reduced risk of an unplanned pregnancy etc. (Grubb/Ryan 1999; Wolfe/Zuvekas 1997; McMahon 1997, 1999; Lochner/Moretti 2001; Feinstein 2002a, 2002b). A better health status of the individual as well as for family members (children, spouse) can be assumed to have positive external effects because of a reduced contribution of others insured. For example, in Belgium the degree of ISCED 3 compared with a lower ISCED level is combined with an increase of the probability around 15 percent to a good level of the health status (e.g. OECD 2009). Besides affecting the areas previously mentioned, adult learning was found to be linked to social cohesion, technological change (Wolfe/Zuvekas 1997) and intergenerational benefits (Cedefop 2011a). Furthermore, Feinstein and Hammond (2004) observed adult learning to positively affect social and political attitudes and beliefs, i.e. strengthening civic engagement and participation. A more recent study, which amongst others analysed the effects of adult learning on social and political attitudes, was conducted by Feinstein and Sabates (2007). The authors found education to support the expansion, formation and sustenance of a broad range of features of personal and social development that are central to public policy across the whole system of Government, contributing to wide-ranging policy objectives and influencing well-being and functioning at the level of the individual, family, community and nation. Although Feinstein and Sabates acknowledge that technical and academic skills are crucial to withstand the pressures of a globalising world with ever increasing levels of technological development and intensification of economic pressures, they emphasise the importance of features of personal development such as resilience, self-regulation, and a positive sense of self and personal and social identity to meet these challenges. These features are crucial when it comes to acting as civic agents with a sense of personal responsibility and tolerance, as well as to interacting with others. The authors criticise the under-recognised social value of these, advocating that returns to investments in education at all stages of the life course may not always be economically transacted or economically measurable, yet benefit society. Overall the study advocates the importance of education for wider social and political attitudes and community-based benefits, including active citizenship and democracy.

Lastly, it should be mentioned that education is a crucial factor in times of economic downturn. 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).

However, in spite of the many opportunities arising for adult learning in times of an ever-changing world, obstacles must first be overcome. Recent studies (e.g. Coelli et al. 2012; Rousell 2002; Ryan/ Sinning 2009) have found the likelihood to engage in formal education to decrease with age, even in countries with high participation rates of adults in education. In the case of Australia, one of the OECD member states with the highest rates of participation in education after the age of 30 (OECD 2010), 2-3% of adults with 55-64 years of age in comparison to 14-15% of adults aged 25-34 years participate in formal education, while older individuals prefer vocational rather than university education. Furthermore, higher educated individuals are more likely to participate in adult learning (Coelli et al. 2012).

3.6 Summary – the wider benefits and the financing of adult learning

The previous section has shown that education in general as well as adult education has important public (social) and private benefits, comprising monetary as well as non-monetary returns. Adult learning has important labour market benefits, in terms of higher income (though even higher when moving to another employer), lower unemployment rates etc. However, it should be noted that recent research challenges such results, arguing that unobserved factors may be at the core and not learning (Messer et al. 2010; Oosterbeek 2013). However, even if the rates of return may seem rather small, it should be noted that the investment itself is commonly small, so that even small wage returns may turn out substantial. A bottleneck to more general and conclusive findings is even rather the heterogeneous nature of adult learning, which forms another major difference to initial education.

The section on the wider benefits of adult learning has revealed additional and substantial (private but also public/social) benefits, in particular with regard to disadvantaged, low qualified target groups. The review of the rates of return to upper secondary education later in life (second chance education) will confirm this with regard to more economic benefits (see section 6.1.2). It is very important to note that these findings are in line with research on education policies in general, both suggesting to drawing more attention to – and provide more funding for – (adult) education of disadvantaged groups. Even short-term learning can be linked to surprisingly high returns and build a bridge to subsequent learning activities.

At macro level, adult learning indicators show stronger correlations to innovation performance, i.e. output, than higher education. Although this is particularly valid for learning in the workplace, several other adult learning indicator, such as AES 2007, LFS or CVTS participation rates, show strong correlations, which are not much lower than for on-the-job or close to the job-learning and higher than those of higher education. Additional findings, such as the particular role of the share of older tertiary education graduates in relation to innovation (Voßkamp/Nehlsen/Dohmen 2007), suggest that higher education may have to be complemented with adult learning.

This finding is 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, showing even stronger correlations than the model without time-lag. This suggests that participation in adult learning has a positive impact on growth. Interestingly though, while in line with expectations, is that the relationship tends to weaken after 3 years, suggesting that adult learning has a temporary impact and depreciation is taking place; this finding is in line 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. This means that parts of the benefits of adult learning only become visible after some time; this is in line with expectations.²⁹ On the other hand it seems to provide first evidence that a long-term impact of adult learning will only be visible if adult learning is repeated from time to time.

The labour market benefits of adult learning are further supported by statistical analyses carried out within the context of this study. Results suggest that a negative relationship between the unemployment rate³⁰ and (total) LFS 2010 participation in adult learning exists, even when accounting for differences in economic performance between countries.³¹ This means that participation in adult learning appears to be higher in countries with a lower unemployment rate. While negative relationships between LFS and AES/OECD participation in adult learning and the unemployment rates of males and females are visible in nearly all bivariate analyses, only the negative relationship between LFS participation and the unemployment rate of females holds on multivariate level, i.e. when controlling for GDP per capita. Overall this comparatively strong and significant relationship between the unemployment rate of females and participation suggests that females, in contrast to males, are more (less) prone to partici-

²⁹ 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 a first 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 other did not, but decreased even (Eurydice 2013). However, such relationships are commonly not valid in any case. For example, even though DK increased public funding for adult learning it shows a negative growth rate in GDP per capita between 2007 and 2012, whereas LT shows positive growth rates, despite seemingly declining participation rates. However, it would be advantageous to have more frequent data on participation rates.

³⁰ Data based on Eurostat figures on long-term unemployment rates as a percentage of the active population.

³¹ While a nearly significant relationship between AES/OECD participation in adult learning (significance level= 0.053) holds in bivariate analysis, the relationship becomes insignificant when including the control variable GDP per capita.

pate in adult learning if they are employed (unemployed). Consequently, countries with low unemployment rates of females show high overall participation rates.³²

Eventually, the empirical evidence concerning economic benefits of adult learning might be affected by labour market imperfections (wage compression) (e.g. because of companies' market power) but also because of internal equity considerations within companies. Such considerations are linked to fairness and moral (Bewley 1998), but also to other internal factors, such as envy and malevolence, leading to demotivation, bad climate etc. and, ultimately, reduced productivity. Such compressed wage structures might be at the core when explaining why employers invest in general adult learning³³. In contrast to economic theory, employers are obviously willing to contribute to its financing, although individuals reap most of the benefits, because of wage returns either with their current employer, though they are commonly smaller, than if moving to another employer (Hansson 2008). However, the employer's contribution is obviously still rationale as employees tend to remain with their employer, i.e. employer-provided/financed training seems a stabilising factor as far as job/employer retention is concerned. If individuals pay for (formal) non-vocational training, they fare best if they move to another employer; which seems to be among the strongest motivation for employees to pay for training.

Excursus: Rates of returns over the life-course (revised)

The findings of this section shed some new light on the argumentation that the returns to education decrease over the life-span and that early education is the best suitable investment in education, while adult learning has almost no benefits/returns (Wössmann 2013; Heckman 2013). Even though there is, of course, no doubt that early investment is better than later measures compensating for insufficient investment in early childhood, the crucial question is whether (public) funds should be redistributed from later phases to earlier phases and if, to what extent.

First of all, the review of available evidence on benefits and rates of return to education in this section has revealed that it is difficult to argue with overarching patterns and findings, as the returns to education differ dramatically between countries. This also applies to all segments of education and is even valid for second chance and higher education (see sections 6.1.2 and 6.2.2, respectively), as well as for adult learning in general. While some countries reveal extremely high private and/or public rates of return to higher or adult education, and are thus highly rewarding for individuals and society (state), they are far lower in other countries. Furthermore, it is very likely that the very same adult learning programme/measure is hardly paying-off in some countries, whereas is highly rewarding in others.

Secondly, a crucial assumption from Cunha/Heckman et al. (2006) and others is that of decreasing marginal rates of return over the (working) life-time, which is correct if costs for higher education or adult learning are similar to those for early childhood education, due to the shorter

³² Interestingly, these multivariate results suggest that the negative relationship between the female long-term unemployment rate (measured in relation to the active population) and participation in adult learning appears to be driving the significant overall relationship. However, this observation should be treated with caution as conclusions require more in-depth analysis.

³³ In this regard, the term 'general' refers to the (economic) distinction between general and specific training, while specific training is of use only for the present employer, general training is not restrained to the present employer but can be applied to other employers as well.

working life available to recoup the benefits. However, it seems to neglect depreciation – if early childhood education is not followed by high quality school and higher education, returns will decrease and may even be close to zero. The discussion on the long-term benefits provides ample evidence about this issue; Heckman himself has provided evidence and argued that the returns to early childhood education, here in relation to Perry-Preschool Project, are much lower than argued by previous research and are around 7-10% (Heckman et al. 2010). The research review in this section, but particularly those in later sections on the rates of return to second chance and higher education (later in life) will reveal high rates of return (at least for some countries); these rates of return are sometimes even higher than for initial secondary or higher education. Some other research from the UK arrives even at extremely high internal rates of return to second chance education (at around age 20 basically), which seem to be far higher than those estimated by Heckman et al. (2010) for early childhood education. However, a crucial aspect is probably incomparability of results across studies, employing different methodologies; thus, both lines of argumentation should be treated with caution. The policy implication of our findings is surely not to argue for curative instead of preventive education, or to the disadvantage of early childhood education, but to prevent policy recommendations based on limited information and research.

This is also valid with regard to the returns of adult education, which are questioned by Messer et al. (2010) and Oosterbeek (2013) or Heckman (2013) and Wössmann (2013). Messer et al. (2010) and Oosterbeek (2013) base their argumentation on one experiment from Switzerland, where returns to (formalised³⁴) adult learning could neither be identified nor excluded! Instead, they point to other non-observed factors, which may be responsible for differences in the returns between those engaged in adult learning and not. Firstly, Switzerland is a very special case in relation to adult learning; it is the country where by far the biggest share of adult learning is financed by individuals, while state funding is rather limited (see section 4 and 5 in this regard) and it is questionable whether the results can be easily transferred to other countries. In contrast, the result of this study at hand provide evidence that (public) funding matters, while the relative costs of individuals for adult learning are negatively correlated with participation rates, i.e. individuals pay comparatively lower shares of their income in countries with high participation rates, while they pay more if participation rates are low(er). Secondly, it is very likely that even those individuals not engaged in (formalised) adult learning may be engaged in (informal) adult learning, which might be a substitute to formalised adult learning. Thus, the non-observed factor may be other adult learning. Thirdly, the research from economists commonly does not account for research from other disciplines and limits itself. Even more important, the research is self-referential, i.e. only the findings of a very limited circle of economists are cited in these studies. For example, when referring to research on training funds Oosterbeek (2013) does not even quote the studies from Cedefop (2008c) and Johanson (2009). Instead, he builds his conclusions on a very small set of selective examples.

Eventually, Cunha/Heckman et al. (2006) refer particularly to research from the United States, where funding principles, revenue structures and the education system are completely different than in Europe. For example, many European countries have comprehensive social insurance systems, higher tax rates, resulting at least in different levels of benefits compared to countries without social insurance systems; labour market shortages, unemployment rates etc. also play a role as well as other factors, such as wage compression or high social benefits in case of unemployment for example, resulting in lower (private) returns, while public returns may increase. Lower or higher fee rates for adult learning or education in general may also make a difference. The following sections will review, for example, estimates of internal private and

³⁴ Formalised adult learning refers to either formal or non-formal learning.

public returns to second chance education as well as to higher education later in life, and will provide evidence that overarching conclusions are difficult to draw, but that the same education pathway or sector will result in completely different internal rates of returns (see in this regard also the following excursus), clearly suggesting that policy recommendations need to look at the particular circumstances and environment in the countries of concern; yet sometimes it is possible to address a cluster or group of countries through similar or identical recommendations.³⁵

In addition to the previous lines of discussion, Feinstein and Sabates (2007) place a strong intergenerational argument in support of adult learning: adult learning (of parents) enhances indirectly the learning conditions for children, contributing to better learning outcomes. In this line of argumentation, they consider the common argument 'earlier is better' as too narrow to provide guidance for successful education policies. Another argument might be related to the time frame, since investments in early education will start to pay off in the mid 2030s, while adult learning investments will start to bring returns already in a few months or years. The monetary returns of adult learning can then be utilised to invest even more in early education.

Eventually, a core question resulting from this section is what are the implications for politics and for the distribution of funding across stakeholders? A first conclusion would be that adult learning pays-off. Secondly, the findings in this section do not provide additional support for arguments to shifting funding from later to earlier phases of learning, but may suggest to keep investments in adult learning high – or even to increase investments – in order to support short-term economic development. Another line of argumentation could to ask for more empirical evidence in the one or other direction. Eventually, the analyses suggest that individuals and the society benefit from (non-vocational) adult learning. Furthermore, even employers benefit, e.g. if employees cease negative attitudes and become healthier, resulting in lower absence from the workplace and, in turn, higher productivity. Even though it is difficult to establish exact shares of benefits for each stakeholder, as a rule of thumb one might argue for a somehow equal distribution of costs, i.e. in case of three stakeholders, individuals, companies and public purse, each stakeholder could cover around one third on average. Tackling this question from the other side of the coin, there is no obvious reason to leave one stakeholder apart in financing adult learning. However, this overall distribution of costs will have to vary for different groups of adult learners. It appears that social benefits are higher for groups under-represented in adult learning, such as low qualified, while other groups will participate anyway, either financed by themselves or by the employer. This pattern suggests that the public purse should cover a higher share of the costs of low qualified than of highly qualified. We will come back to this issue in subsequent sections, when certain target groups are reviewed more in-depth (see chapter 6).

³⁵ Often it is also not visible, whether 'activity rates', i.e. the share of the population with a certain qualification, e.g. with higher education attainment, are taken into account. For example, public fiscal returns are sometimes boosted simply because the share of 'active' people, e.g. of higher education graduates, is much higher than in the group with the next lower qualification.

4. Funding volumes – who pays, how much and for what?

This section aims to answer the question what role funding plays in relation to adult learning participation. Do countries with higher participation rates spend more? Who is financing what and how much?

Even though some previous research has been conducted, the level of information in relation to this question is still limited. Almost no empirical evidence is available. Thus, this study will aim to enhance available knowledge in this regard.

The results of this exercise are threefold: Firstly, the level of information will be enhanced in relation to funding volumes, because no comparable macro-level data on the financing of adult learning is yet available; adult learning or continuing VET is not included in the Eurostat, Unesco or OECD statistics, probably for reasons of availability and comparability of data. Secondly, we will also provide some information concerning the question, whether macro-level funding volumes and/or the distribution of funding among stakeholders have an impact on participation rates, and if so, in which direction. Thirdly, we will provide additional evidence which role (individual) costs play in explaining participation rates. Previous research found a negative correlation between adult learning participation rates according to AES 2007 and the level of individual spending in relation to GDP per capita (PPMI/FiBS 2012).

In order to provide comparable figures across countries, macro-level indicators, such as expenditures related to GDP, and micro-level indicators, such as funding per adult or per hour of instruction, were developed. Whenever funding figures have to be converted from national currency into Euro, we rely on purchasing power parities (PPP), following international practice.

It is worth mentioning that our mission seems to be one of the first times ever that efforts are made to provide comparable data on the funding for adult learning across European and/or non-European countries. The only other trial in this direction we are aware of is from the Unesco Institute of Lifelong Learning (UIL) when preparing the Second Global Report of Adult Learning and Education (GRALE), which faced the same problems we are facing – and which are highlighted more in-depth in the following methodological section (UIL 2013).³⁶

The research team as well as the national experts have undertaken immense efforts to collect data on funding volumes for adult learning and to adjust these figures to the extent possible and necessary in order to arrive at figures, which appear most appropriate, in order to identify some overarching patterns and to support drawing of some general conclusions. The following figures and tables are the result of this work. However, the following review, figures and data should be seen in the light of the following remarks on the methodology and its limitations; therefore, we recommend to understand the figures as estimations rather than precise figures. Having said that, of course,

³⁶ The team leader of this study has been involved as expert in the preparation of the funding section of the 2nd GRALE report.

we hope that we have arrived figures which provide the right impression and are comparable across countries, by and large.

Methodological remarks

Before going into the details, it is worth mentioning that data gathering on the funding volumes spent on adult learning in general or for certain sub-sectors (e.g. non-vocational or vocational adult learning) is very challenging, where it is often difficult to assess the quality and/or coverage of data either delivered by national experts, responsible ministries or collected from other sources, e.g. from publications. Even official documents, e.g. from statistical offices, often leave room for interpretation or doubts, whether the figures presented are those searched for.³⁷ In addition, the accounting practices in the various countries vary a lot, some countries provide only data on public spending, while others account for direct spending of various (all) financiers and some countries 'claim' to provide even more detailed data on indirect flows, such as, for example, tax incentives etc.

Another matter of concern is that the understanding of adult learning varies quite substantially; while some countries understand adult learning as "post-secondary" or "post-compulsory" education, which includes initial higher/tertiary education, catering usually for those aged 18 to 25, other countries consider adult education as taking place after initial education; in this understanding higher education is independent from students' age part of initial education and, thus, no spending for higher education is accounted for in the adult education budget. Eventually, no official statistics are available in a number of countries, on which this study could be based.³⁸

Yet, in order to improve the availability of funding data this study presents the information and data collected, even though bearing the risk that some figures may turn out to be not (fully) correct or completely reliable – however, in case that claims are made, we would expect that this 'complaint' is linked to the provision of other, more comprehensive or correct data, which then would result in a better and hopefully comparable data set on the funding of adult learning in Europe (or for OECD-countries).

Furthermore, it is important to note that these figures are not in line with the understanding of adult learning in all countries under consideration. For example, the USA and UK refer to post-secondary or post-compulsory education, which comprises initial tertiary education. As a consequence, funding figures are much higher than presented

³⁷ To avoid any misunderstanding, the core problem of data from statistical offices is not quality but coverage. For example, official statistical data on individual spending for adult learning in Germany (Statistisches Bundesamt 2012) is much lower than the amount spent according to AES (Gnahs/von Rosenblatt 2011).

³⁸ The following statement, sent by email from the statistical office to the national expert for Switzerland, presents an example of this difficulty: "Actually, we do not have any figures on the financing of adult/further education, which could be published. The data, which were collected as part of micro census "Initial and Further Education" in 2011 are – because of methodological problems – not yet in a manner that allows publication. At the moment we are collecting data concerning the employers' expenses on further education for the first time ever. Data concerning public expenditures (incl. Regional Employment Agencies) are not available"(Translation by research team).

in the following sections, as highlighted more in detail in section 8.2.1 and 8.2.2 in the annex.

4.1 Financing adult learning (age 25+) – adjusted estimates

Funding volume in relation to GDP

In order to have comparable and comprehensive data, by and large, data provided by national experts, statistical offices and/or ministries had to be adjusted to incorporate funding by individuals and companies to the extent possible.³⁹ Therefore, we compare the data provided by the national experts and/or drawn from other sources and complement these data through compilations based on AES 2007 for individuals⁴⁰ and CVTS4 for employer spending; it should be noted, though, that this adjustment is not possible for countries not participating in those studies, i.e. particularly AU, CA and the US. While data sources for the USA seem comparatively good, the data for AU and CA are likely to be insufficient, probably underreporting total spending⁴¹. Furthermore, it should be noted that the approach chosen here results in the combination of data of several years – 2010 for CVTS4, 2007 for AES and the years specified in the figure below concerning funding from the public purse, the employment agency and other sources (if applicable).⁴²

Figure 14 shows that several European countries surmount the 1% of GDP threshold, and some exceed even 1.2%, namely AT, DK and SE. Above 1% of GDP are the NL, CH, and US, provided that employer spending amounts to \$ 1,086 as estimated by ASTD; if not, spending drops to less than 0.6% of GDP (see section 8.2.1 for more details in this regard). Eventually, spending in European countries is at least 0.5% (ES) and commonly between 0.7 and 1.0% of GDP.

With some exceptions (AU, DK, CH, NO and UK) employers carry the largest financial share,⁴³ in some cases more than 0.7% of GDP% (DK and NL) or even 0.9% in the US, if ASTD figures are correct. In contrast, employers finance only 0.3% of GDP in ES and EE. The most common share of employers is between 0.4% (HU, SK, US (conservative estimate) UK and FI) and 0.5% of GDP (SI; AT, DE, and SE), i.e. in half of all 18 countries. This seems to be a good 'benchmark' for employer spending.

³⁹ For an overview on the original and unadjusted data please refer to section 8.2 in the annex.

⁴⁰ Funding data for AES 2011 is not yet published.

⁴¹ Based on Lassnigg et al. (2012) spending in Australia would increase to 0.4% of GDP, because of higher public spending going up from 0.2 to 0.4% of GDP.

⁴² AES average spending and participation rate is linked to Eurostat population statistics data for those aged 25 to 64 in order to arrive at total spending for adult learning, which then can be translated into a share of GDP. Employer spending according to CVTS4, measured as share of the wage bill, is combined with the wage bill's share in relation to GDP according to Eurostat statistics (for more detail refer to section 8.2.4 in the annex). Not surprisingly, this adjustment results in higher figures than the original data.

⁴³ The Australian figures are likely incomplete in this regard, as only state funded learning providers are included in NCVET's statistical survey.

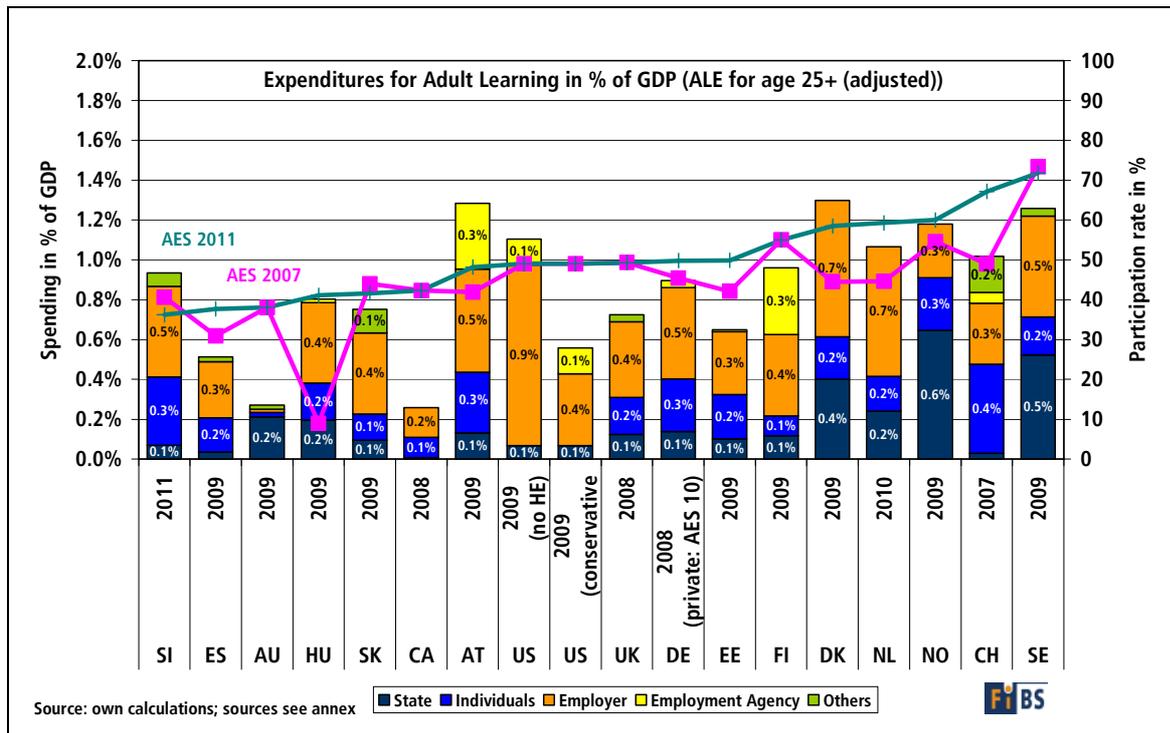


Figure 14: Adjusted expenditures for adult learning (Age 25+) by stakeholder as % of GDP (ranked according to AES 2011 participation rate)^{44 45}

The state is the biggest financier in NO and SE, with 0.6 and 0.5% of GDP, respectively. The public share increases substantially in AT and FI, if employment agency is included. In this case, the state becomes the biggest funder in FI (0.7% of GDP), while it remains below the employer's share in AT (0.4% in total). In contrast, the role of the state is very limited in some other countries, covering utmost 0.1% of GDP in SI, EE, CA, SK, CH and US, though increasing to 0.2% of GDP in the latter, if employment agency is added.⁴⁶

⁴⁴ As mentioned more in detail in the methodology section 8, availability of funding data is rather sketchy. Several countries estimate funding figures only once upon a time (e.g. Switzerland, others report some data on an annual basis, e.g. Germany, while other data is only collected every few years, e.g. bi- or three-annually, and either estimated for the time in between this collections or not. Thus, we had to decide either to reduce the number of countries, when limiting the time frame, or to increase the number of countries, while accepting limitations in comparability because of data for different years. We opted for the latter, aiming to provide a picture as broad as possible, bearing in mind that figures might changed to some extent – and in one direction or another – during the crisis. However, section 4.8 indicates that the changes are commonly not too dramatic, particularly in the light that much of the data presented above is based on estimates. As mentioned already, the figures should be considered as estimates rather than exact data. This clearly calls for suggestions to enhance the availability of funding data in each country and the comparability across (European) countries.

⁴⁵ Because no AES 2011 data on participation rates is yet available for FI, US, CA and AU, these figures remain identical with 2007 data. It should be noted that data on the financing of adult learning is often available for certain (one) year(s) only. This leaves us with two options: (1) to have data for similar years for (even) fewer countries or (2) to provide data for more countries at the cost of comparability for some countries. We opt for the second option, by pointing to limited comparability for CH and UK

⁴⁶ It is of interest to compare the figures presented in this study with those provided by countries to UNESCO's GRALE: Estonia (0.03% of GNP), Hungary (0.23%), Slovakia (0.23%), Denmark (0.34%), Finland (0.28%), Netherlands (0.03%), Norway (0.14%), and Sweden (0.18%). With the possible exceptions of SK and FI, the figures reported as state's financial share in this study are higher; however,

Apart from CH, where individuals contribute the biggest part with 0.4% of GDP, the share varies between 0.1 and 0.3% of GDP; SI, AT, DE and NO are the countries where individuals contribute 0.3% of GDP, while it is 0.2% in ES, EE, DK, HU⁴⁷, NL, UK and SE. The lowest contribution from individuals is 0.1% in SK and FI, but also in CA (though data is likely to be incomplete here).

According to our data, employment agencies play a very different role across countries. While they play a particular important role in FI and AT, its role should also not be under-estimated in the US, while its role has been much on the decline in DE, where the share is now below 0.1% of GDP.

Although other financiers play a visibly relevant role in CH, SI, SK and some other countries, it is important to note that most European countries do not report properly for ESF funding, which has an important stake in all newer member states, but also in several Western European countries, such as, for example, DE, where almost all public initiatives over the last six to seven years were co-financed by ESF-sources. For HU, almost 90% of the public share reported in this study is from ESF-funds; in Slovenia the ESF share is identical with the national budget share and in Slovakia the ESF volume is almost identical with funding by other sources.

Distribution of funding between stakeholders

Figure 15 reviews the distribution of funding between stakeholders, confirming that the employers are the most important financier of adult learning in the countries concerned. Employers bear more than half of total expenditures in 9 countries (US (82 or 65%, respectively), CA, ES, SK, UK, DK, NL, DE, HU; in two more countries (SI and EE) it is only slightly below. Interestingly, in eight countries the employers' share is around 50%. Another interesting finding of the figures presented here is that USA is the country with the highest employer share, of either more than 80%, if the ASTD figures on employer spending are closer to reality than Wilson's (2010) estimate, in which employer spending would arrive at 65%, though this would still be the highest share across all countries.⁴⁸ CA is the country to follow with 58%, while the highest share of employer spending for Europe is reported from ES, with 55%. In contrast, employers' share is only 23% in NO, 30% in CH, and between 40 and 45% in AT, SE and FI.⁴⁹

if either employment agency in Finland and funding from other sources in Slovakia is taken into consideration, figures in this study remain higher than those reported in UIL (2013).

⁴⁷ It is likely that the Figure of 0.1% is invalid, because of the very low participation recorded in AES 2007 (9%), which increased to 40% in AES 2011 (breaks in time series). This would suggest that individual spending might be around 0.4% of GDP, in fact. Total spending would amount to around 1.0% of GDP in this case.

⁴⁸ However, it seems likely that the funding contribution of individuals is underreported in the US.

⁴⁹ It seems very likely that employer funding for Australia is under-reported; Lassnigg/Vogtenhuber/Osterhaus (2012) report a public share of 54% (incl. 2% Active Labour Market Policy) and an employer share of 41%; the individual share is 5% and thus slightly smaller than reported here.

Taking into account the figures by Lassnigg et al. (2012) on AU, the state's share is likely to be close to the Norwegian data.⁵⁰

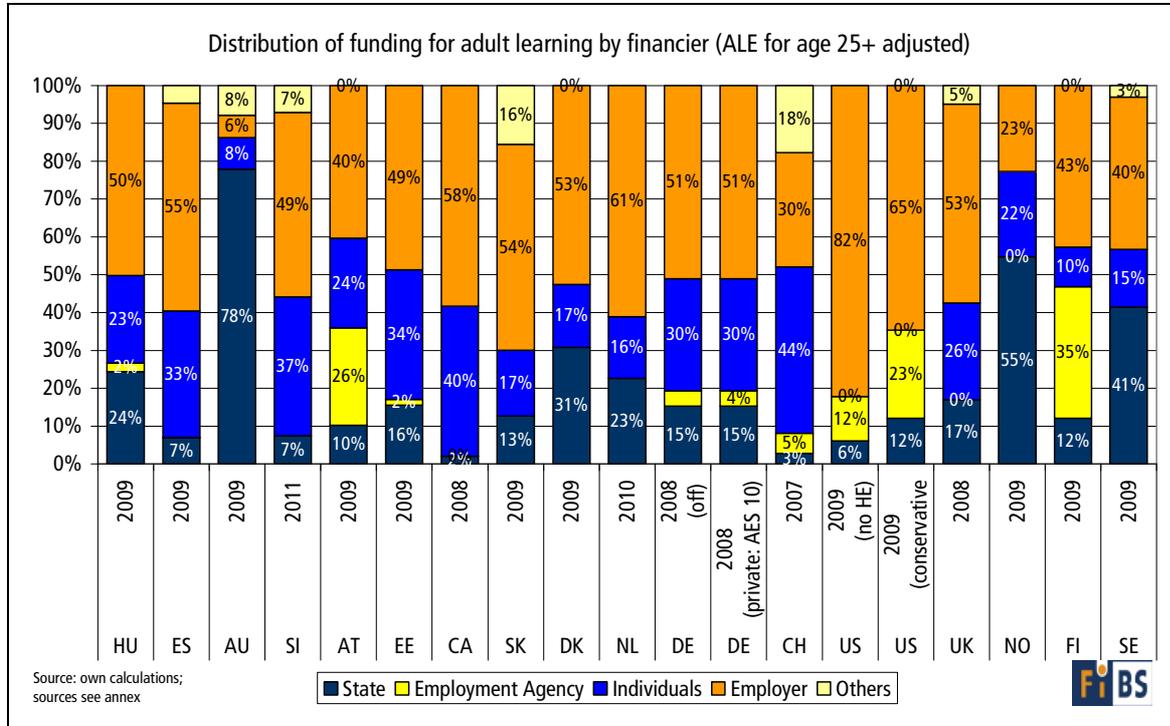


Figure 15: Distribution of funding between stakeholders for adult learning (aged 25+ - adjusted).

Individuals bear the largest share only in CH, with about 44%, the Canadian figure of about 40% is only slightly less. The individuals' contribution is around one third in SI, ES and DE, and almost one fourth in AT and HU, while around 20% in NO, UK, EE and SK. Individuals' share are least in SK, DK (17% each), NL (16%), SE (15%) and FI (10%). Reviewing these figures in relation to the finding that lower individual costs in relation to GDP per capita are conducive to higher participation rates, the findings here may support this result, when looking particularly at FI and SE, while individuals' spending share is slightly higher in NO and the UK. Furthermore, SK, DK and NL report shares for the individual contribution which are lower than those of NO and the UK, but show far lower participation rates. CH is presenting the most contrasting finding, because the individuals' contribution is by far the highest with 44% and, even more striking, the participation rates increased substantially between 2007 and 2011, reaching now similar levels than SE and FI. It should also be taken into consideration that DK has also increased its participation rate to the level of the other Nordic countries and CH. Furthermore, the individual contribution is slightly higher in the low participating countries at the left of the following Figure 16. Adding up, though not absolutely conclusive, the overall pattern – and particularly the changes between AES 2007 and 2011

⁵⁰ It is important to that, apart from the Netherlands, for which budget figures were available, these figures do not account for redistribution of costs between employer or individuals and the public purse because of tax incentives. As a result the public share is slightly higher in the Netherlands, while under-reported in other countries. In contrast, the share contributed by individuals and companies is overstated.

– provide some support for the impression that lower individual contributions at macro level are similarly conducive to higher participation rates than low average fees in relation to GDP per capital at micro level.

As already indicated above employment agencies play important roles in Finland, where they account for almost 36% of funding for adult learning, followed by a share of 28% in Austria, and 23% in the US (based on Wilson’s estimate for employer financing; only 12% if ASTD provides the more appropriate figure on employer spending). If employment agencies are considered part of public responsibility, the state’s position changes in those countries where they play an important role. For example, FI’s public funding share increases to 49%, AT’s to 39% and the US’s to 18% or even 35%, depending on which statistical sources relied concerning employer spending.

Reviewing the overall picture, employers play the most important role with regard to adult learning in most countries, while the public (states’) role⁵¹ varies a lot across countries. Limiting the individuals contribution at micro as well as macro level is likely to be conducive to higher participation rates. However, it is also likely that this goes at the cost of high deadweight loss, estimated to around 60% by Falch/Oosterbeek (2012).

4.2 Spending for adult learning incl. post-24 higher education

In response to the understanding that adult learning includes those aged 25 and above who are enrolled in higher education, this section estimates the expenditures spent for adult learning including higher education of mature students; however, it should be noted that it is not possible to eliminate spending for those students aged 25+ who are still in initial higher education. In order to adjust for this issue at least to some extent, the following considerations are based on the average share of students aged 30+ and aged 25+ according to OECD (2012).^{52 53} Not surprisingly, this approach results in spending figures that are higher than above, though increase varies across countries.

First of all, total spending amounts now to at least 0.7% of GDP in SK and EE and may reach 2.2% of GDP in DK and SE. Secondly, the states’ role is gaining more importance in almost all countries and becomes the biggest single financier of adult learning (incl. post-24 higher education) in most countries (see Figure 16 in this regard); the exceptions are EE, SK, the NL and, eventually, the US and the UK.

⁵¹ To avoid confusion, the states’ and the public role are not identical, the public role includes the employment agencies, which are left out when the state is concerned (unless implicitly reported as part of the state’s budget).

⁵² For example, in Germany 42.2% of students are aged 25+ and 14.0% are 30 years of age and older, thus the average is 28.1%.

⁵³ It was assumed, though, that distribution between public and private funding is the same for younger and for older cohorts, which may not necessarily be the case. However, since additional and more detailed data is missing, no other assumption could be made. Furthermore, it was assumed that private financing of higher education means funding through individuals, which may not be a proper assumption for the USA, where the data provided by the Department for Education suggest that a significant part of private sources (\$ 45bn in 2009) is not from individuals, though no specification has been made what exactly these sources are.

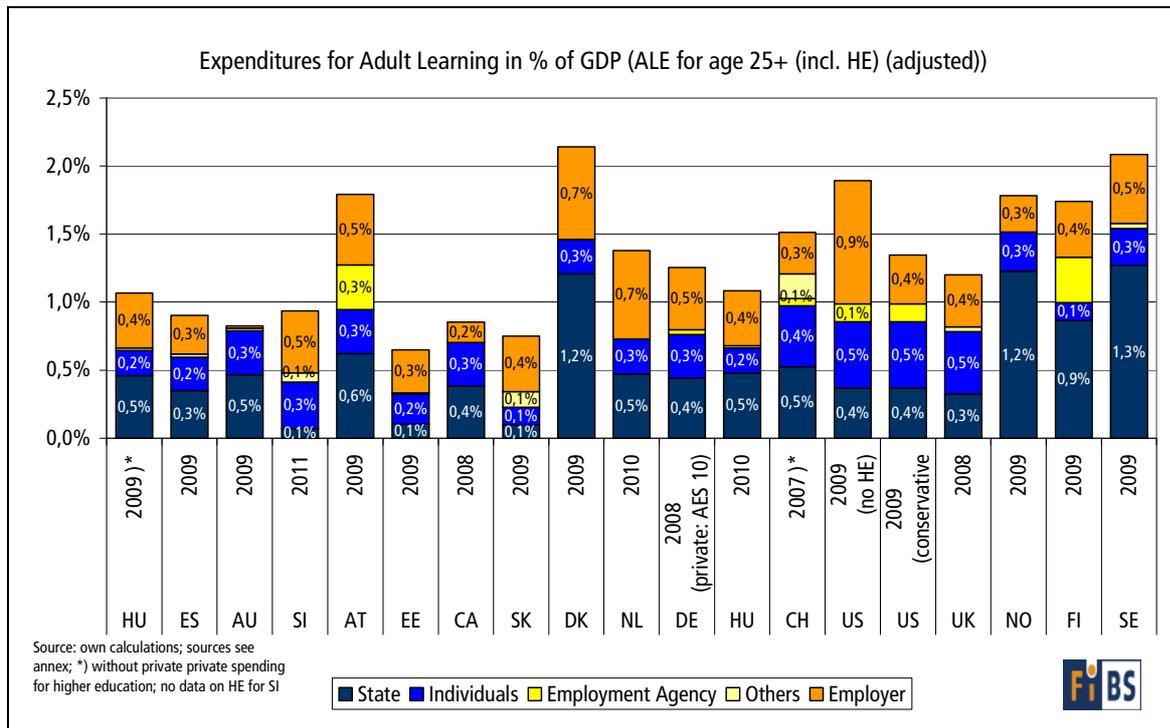


Figure 16: Expenditures for adult learning (Age 25+) by stakeholder as% of GDP.

In most countries, individuals' contribution is also increasing, though at very different rates. The increase in individual funding rates is rather small in countries without or with low tuition fees, e.g. AT and DE, or where the share of students aged 25 and above is rather small. For example, the individuals' funding share increases by less than 0.1 percentage point in the NL, albeit substantial tuition fees, because less than 20% of students are mature students.⁵⁴

Funding distribution

According to Figure 17, the countries can be grouped into four groups, largely. For group 1 public spending is more than half of total funding, which is the case in all four Nordic countries (NO, FI, SE and DK) and Australia, though the latter should be treated with some caution, as either public spending is likely to be over-reported or private spending under-reported. CH is close to this group, though the share of 46% is too high, because individuals' share in financing higher education is missing in OECD-data. The states' share is around one third or above (though below 45%) in a second group of countries covering HU, ES, AT, NL, DE, while it is up to one fourth in the third group, comprising the two anglo-american countries US and UK. Eventually, the state's share is less than 10% in the two Central and Eastern countries, SK and EE.⁵⁵

⁵⁴ As will turn out later in the section 6.2 on higher education later in life, the NL are even more focussing on younger students than in the past through changes in the funding of students, resulting in lower age limits.

⁵⁵ A rough estimate for SI would result in a state funding share of around 20%, if 25% of students are aged 25 and above.

Furthermore, the individuals' share is between 7% (in Finland) and 40% in Australia, indicating that the share goes even further down in the Nordic and other countries, where no or only very limited fees exist, e.g. in DE, AT and CH, while it increases – at the costs of employer funding – in countries with high fee rates, such as, for example, AU, the US, NL and CH.

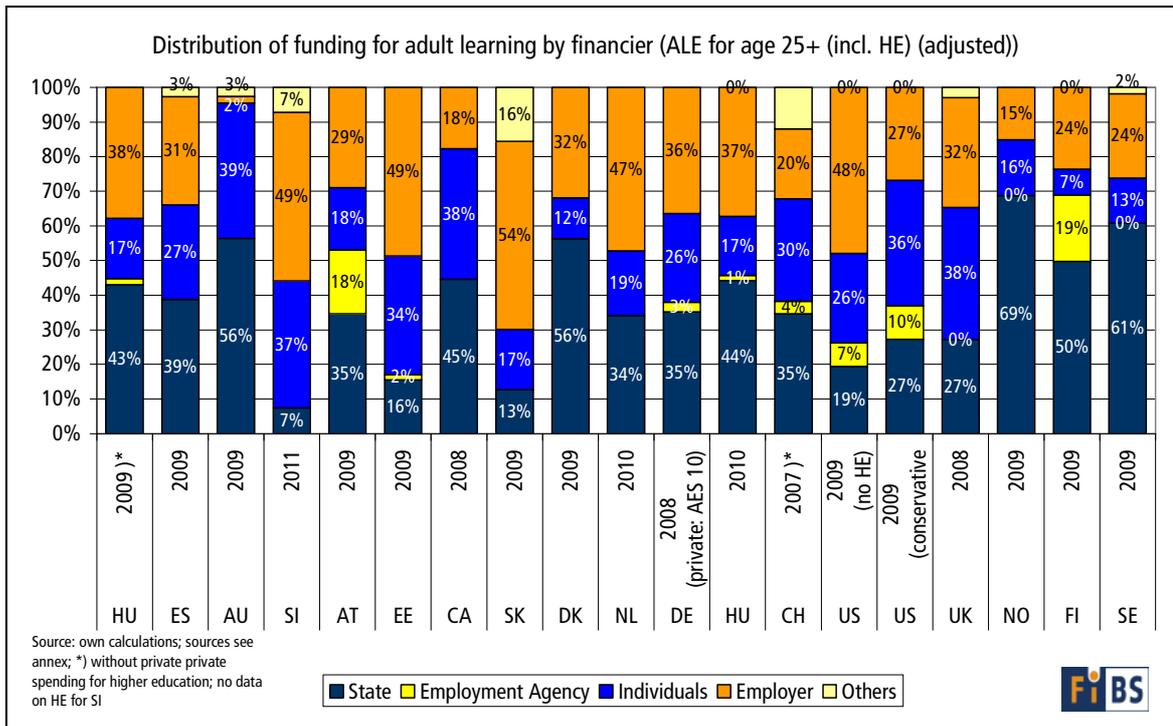


Figure 17: Distribution of funding between stakeholders for adult learning and post-24 higher education.

The research results in this section confirm the previous findings and strengthen the role of public financing even. If higher education for mature students is included, the slope of the relationship between public funding and participation rates becomes even steeper, i.e. public funding is likely a driver for participation in adult learning and/or higher education of mature students. In anticipation of section 6.2 it can be said that higher enrolment rates of mature students – even if age 40+ is concerned – are linked to support schemes which are open to older students and not restricted to young age cohorts.

The following section will review several newly developed indicators, comparing funding volumes in relation to adults and mean hours of instruction.

4.3 Spending per adult

Another indicator in relation to funding volumes is to estimate the spending per adult, dividing total funding amount by the number of adults aged 25 to 64.⁵⁶ As above

⁵⁶ The number of adults aged 25 to 64 is based on Eurostat figures on the population by education attainment level, sex, age groups and labour status.

the figures should be considered as estimates, rather than precise figures. Figure 18 reveals rather different levels of spending per adult. When looking at the left bar, funding per adult (exclusive of post-24 higher education), NO spends around € 925 per adult, 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. EE has the lowest figures, with around € 130 and even € 100 lower than ES, HU and SK.

Figures go up, though to a varying degree, when funding for mature students is included. The interesting finding is that figures increase by more than € 400 in the countries at the right (SE, FI and NO), but also in DK, suggesting similar costs and/or shares of mature students. Increase is between approximately € 200 to € 300 in countries like CH, DE, NL and AT and slightly less than € 200 in ES. The lowest difference is visible in HU with less than € 100, probably because some spending for higher education is already included in the left bar.

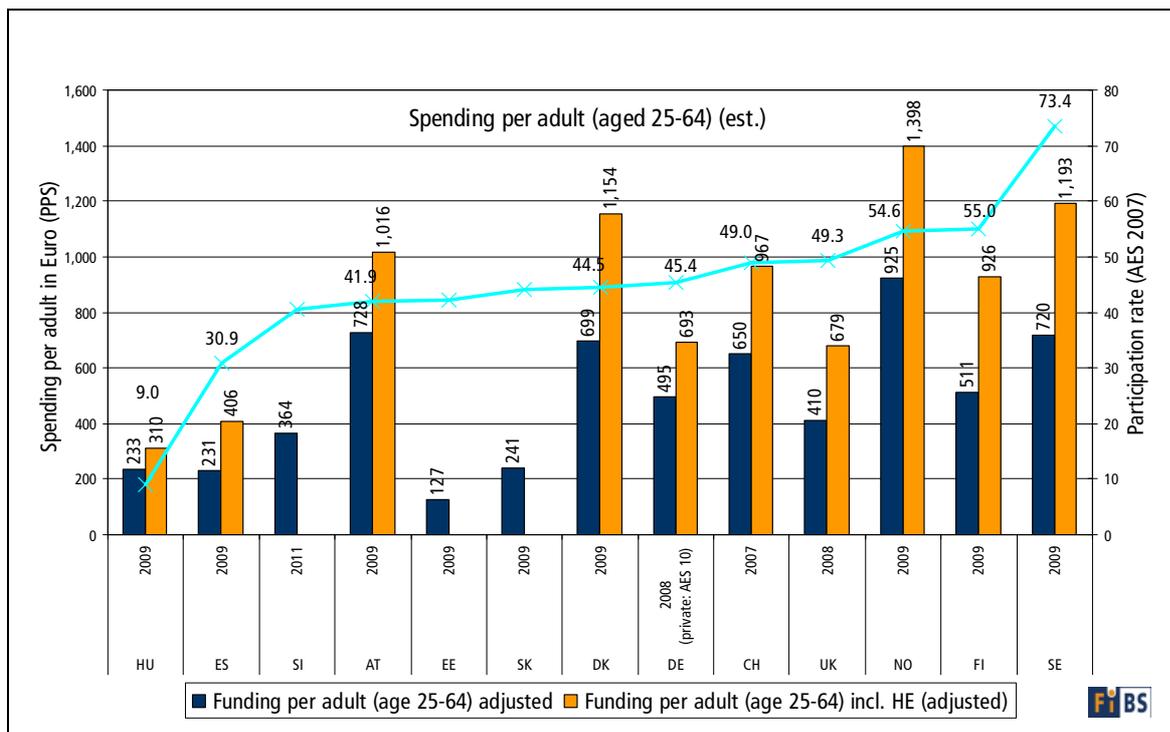


Figure 18: Spending per adult.

Reviewing the relationship between funding per adult and participation rates, the pattern suggests that funding per adult is higher in the countries with high participation rates, while very low in countries at the lower ends. The pattern becomes even more evident, when taking into account the higher participation rates in DK and CH according to AES 2011. Overall, countries with higher participation rates spend far more per adult than countries with lower participation rates, though, for example, EE and SK spend far less than AT and DK, despite comparable participation rates. Even DE spends only two thirds of the amount AT disburses per adult, though the mean instruction hours are slightly higher in DE than in AT, confirming that DE has lower costs per

hour of instruction than AT (see also the following sections in this regard). This finding supports the concern from Lassnigg et al. (2012) that spending is comparatively high in AT, while output, measured in terms of participation rate, is rather limited. The following section will review whether differences in the number of instruction hours may help to explain this pattern.

4.4 Individual spending per instruction hour

A further indicator to compare funding levels across countries is to look at the average amount of money an individual has to spend and to relate this to participation rates. Starting from previous analyses one would assume that participation rates are higher where individuals have to spend less per hour of instruction. Table 8 summarises the results, separately for formal and non-formal adult learning and ranking countries according to their participation rate in this form of adult learning.

Non-formal adult learning	Participation rate	Average amount per hour	Average amount per hour in Euro PPS	Formal adult learning	Participation rate	Average amount per hour	Average amount per hour in Euro PPS
Sweden	69.4	17,2	13,8	United Kingdom	15.1	43,8	37,8
Finland	51.2	10,6	9,0	Sweden	12.7	9,1	7,3
Norway	50.6	37,8	20,8	Belgium	12.5	11,9	10,3
Germany	43.1	37,2	32,0	Finland	10.2	4,6	3,9
Slovakia	41.2	9,0	13,2	Denmark	10.1	20,5	16,7
United Kingdom	40.3	24,3	20,9	Norway	9.9	35,5	19,5
Estonia	40.2	9,8	13,9	Slovenia	8.7	37,6	42,7
Austria	39.8	40,7	32,8	Lithuania	6.3	17,1	29,0
Cyprus	39.5	37,2	40,0	Slovakia	6.1	15,1	22,2
Denmark	37.6	11,4	9,3	Spain	5.9	20,7	19,7
Slovenia	36.1	31,3	35,5	Poland	5.5	19,5	36,0
Czech Republic	35.4	13,3	16,0	Latvia	5.4	8,3	14,8
Bulgaria	35.2	4,8	11,9	Germany	5.2	13,7	11,8
Belgium	33.5	12,6	10,8	Estonia	5.0	12,8	18,3
Lithuania	30.9	8,0	13,6	Austria	4.2	33,0	26,6
Latvia	30.7	9,0	16,1	Czech Republic	3.9	10,5	12,7
Spain	27.2	15,6	14,8	Cyprus	2.9	83,4	89,7
Poland	18.6	5,6	10,3	Bulgaria	2.7	9,1	22,6
Greece	12.7	28,0	31,1	Hungary	2.5	10,5	17,0
Hungary	6.8	12,6	20,3	Greece	2.3	38,5	42,7

Table 8: Average costs for the individual per hour of instruction and participation rate.

A first finding concerns the huge disparity of individual costs per hour of instruction between non-formal and formal adult learning. Individuals pay between € 9 per hour in Finland and Denmark and € 40 (PPS) in Cyprus for non-formal adult learning. The costs are also above € 30 (PPS) per hour of instruction in AT, DE, ES und SI. In con-

trast, the individual costs per hour of formal learning vary between € 4 (PPS) in Finland and € 90 in CY. Apart from this extremely high value for CY, costs are highest in SI and EL, with more than €40 (PPS). Even though it is difficult to arrive at an overall conclusive pattern, it is visible that costs are particularly high in some countries with very low participation rates (see Figure 19 for formal adult learning). However, costs per hour are also comparatively low in other countries with low to modest participation rates in formal adult learning and high in CY as county with medium high participation rates.

Reviewing the relationship between individual costs per hour of formal instruction and the participation rate in formal adult learning finds a significant negative correlation, if costs per hour of instruction are measured in absolute terms, but not if measured in PPS. Furthermore, statistical correlations can be identified for this indicator – individual costs per hour in Euro (absolute) – in relation to total participation.

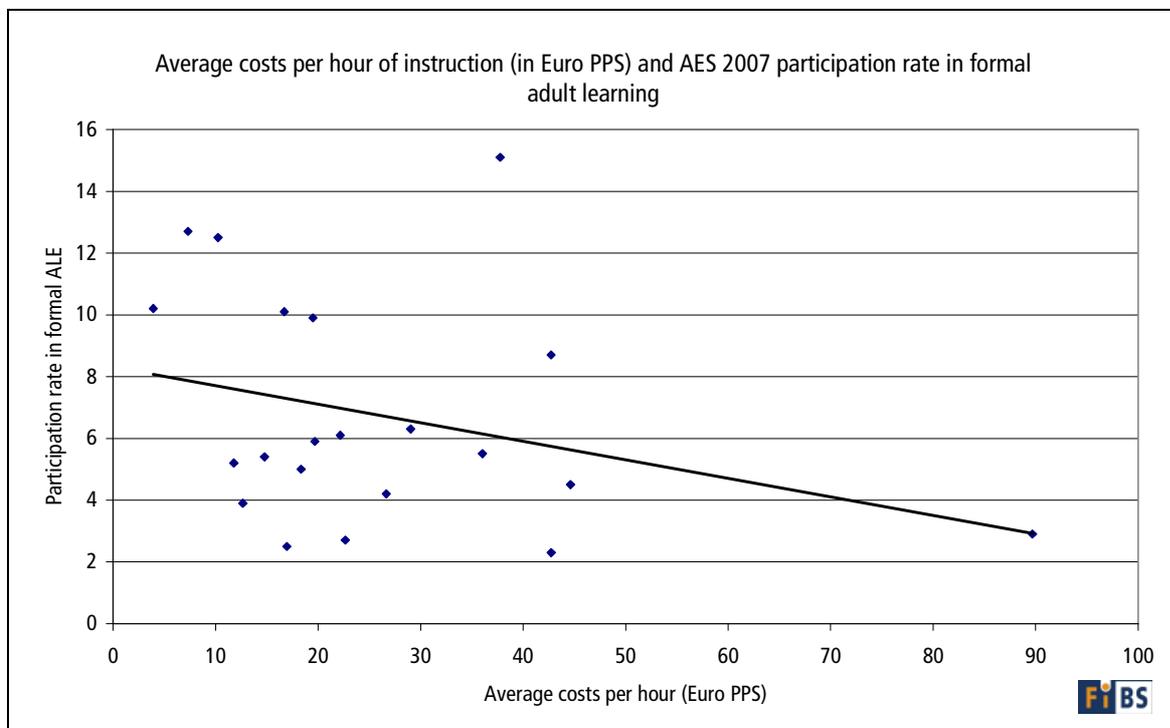


Figure 19: Average costs per hour of formal adult learning in Euro (PPS) and AES 2007 participation rate.

4.5 Spending per hour of instruction and adult

Eventually, the two layers – spending per adult and per mean hour of instruction – will be combined, estimating the spending for one hour of instruction in relation to overall spending per adult in a country, which might be considered as the “ultimate unit costs” concerning adult learning in Europe. Figure 20 indicates rather different amounts of money, ranging from € 13, € 14 and € 17 in HU, EE and ES to more than € 90 (PPS) in NO, which is around 25% more expensive than UK, AT and SE. Four countries, DK, FI, DE and SI spend between € 40 and € 50 per adult, while SK arrives at € 30.

Overall, the following figure reveals clearly that the low participating countries spend far less per hour of instruction than the medium and high participation countries, with the exception of EE on the one hand (spending a similar amount than HU and ES, though having a much higher participation rate according to AES 2007). Although the level of HU changes substantially between 2007 and 2011, because of a break in time series, the overall pattern remains the same, countries with high participation rates spend more per hour of instruction than countries with lower rates (though with exceptions). Furthermore, with very few exceptions the yellow line, presenting the AES 2011 participation rates follows almost exactly the spending per adult and hour of instruction! This suggests that, by and large, a relationship exists between spending levels and participation rates – however, the question of causality remains: are expenditures per adult and hour of instruction high because of high participation rates or vice versa?

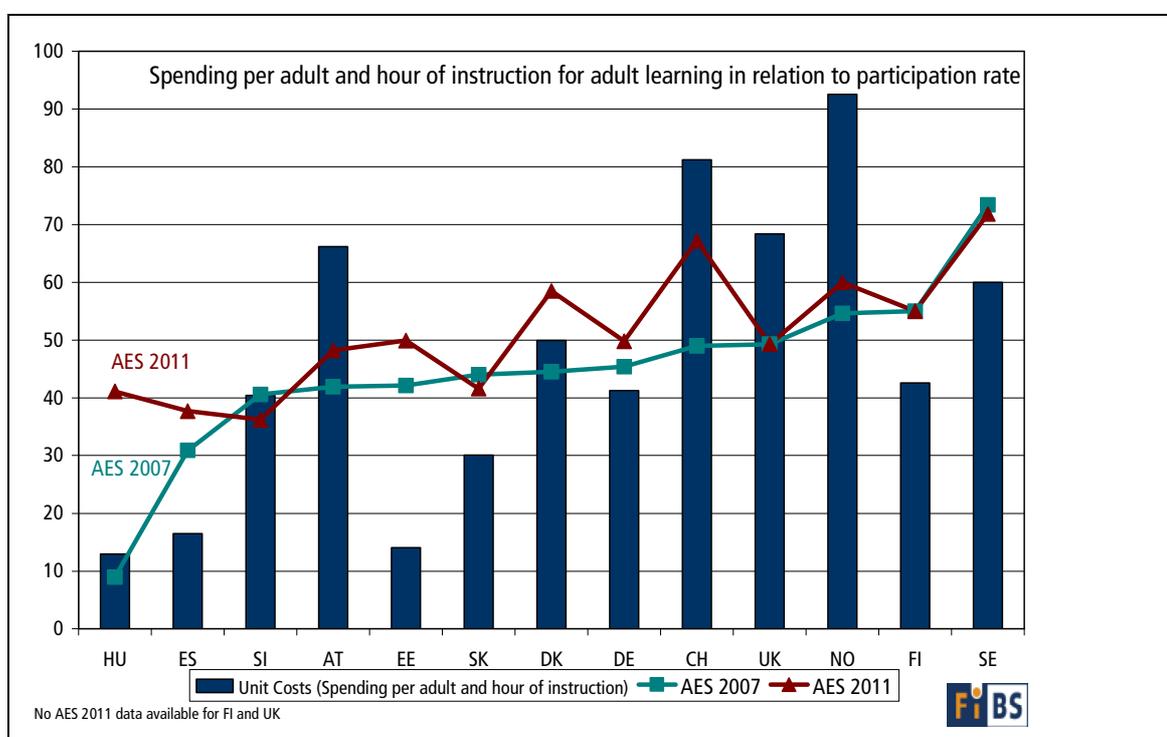


Figure 20: Costs per hour of instruction and adult (unit costs).

4.6 Total spending per adult and distribution of costs by financier

Figure 21 combines two indicators, the overall spending per adult and its distribution among stakeholders with participation rates in adult learning according to AES 2007 and 2011. The core finding is that total spending per adult follows the participation rates of countries with very few exceptions, if AES 2011 is concerned.

Spending per adult is at least € 650 in countries with highest participation rates, while spending is utmost € 500 in countries with participation rates of up to 55%. Countries at the lower end spend even less than € 250 per adult, except for Slovenia. These different levels translate also into the spending amounts of the various stakeholders.

For example, the state contributes less than € 80 per adult in countries with participation rates of up to 55%, while it is commonly at least € 200 in case of higher participation rates, except for NL and CH. However, some interesting exceptions exist; while the employment agency in FI may contribute to higher participation rates, because of substantial funding amounts per adult, this does not seem to be the case in AT, where the rate is below 50% despite a spending of € 260 AT from public sources, a spending level which is usually linked to participation rates of 55% and more. Another interesting exception is NO, where an extremely high state funding amount does not translate into even higher participation rates. In contrast, CH has one of the highest participation rates, despite an extremely low public spending of just € 53 per adult.

Furthermore, even individuals spend more on average per adult in countries with higher participation rates than in countries with lower rates (see Figure 23), though more exceptions exist. For example, individuals' comparatively high amounts in AT, UK and DE do not translate into participation rates comparable to other countries with similar individual spending levels per adult. In contrast, individual spending in CH and NO does neither prevent from participation nor contribute to even higher rates.

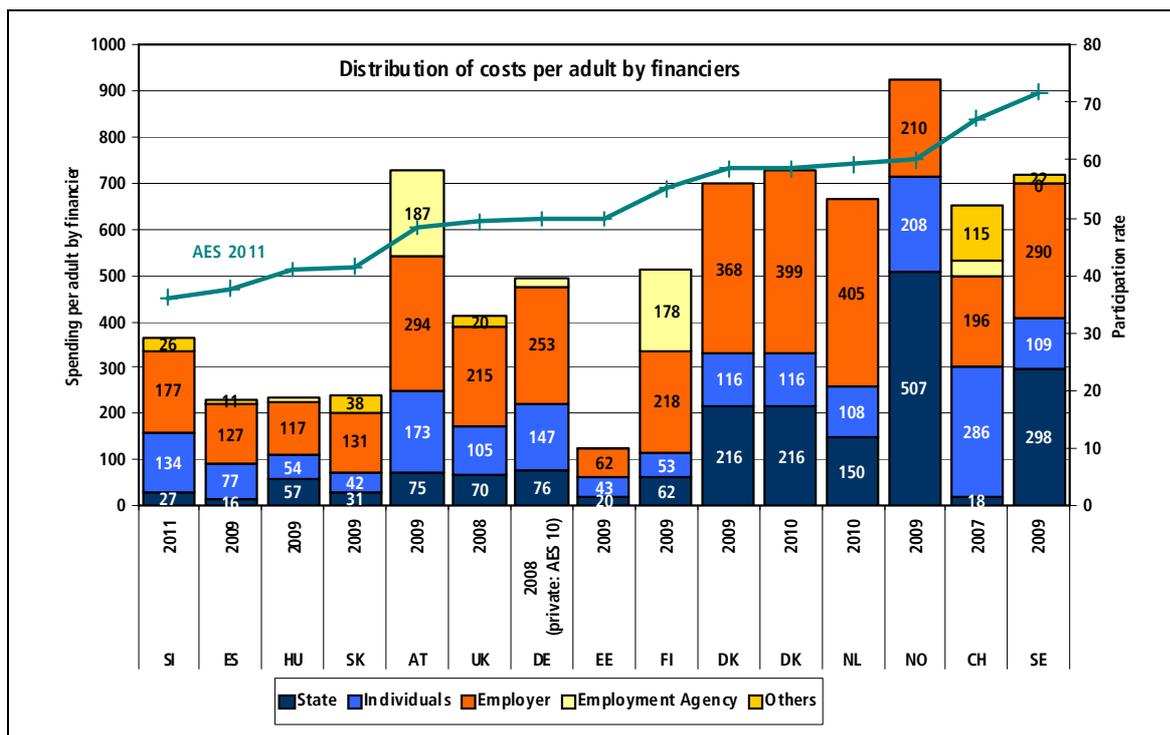


Figure 21: Distribution of costs per adult by financiers (ranked by participation rate, AES 2011)

With regard to employer contributions (see Figure 24), again, higher spending amounts per adult are in line with higher participation rates, though AT, DE and UK have spending levels which are comparable to other countries with higher rates. However, the three countries at the top do not show the highest employer contributions, while employers in DK and NL pay higher amounts without reaching highest rates in these countries.

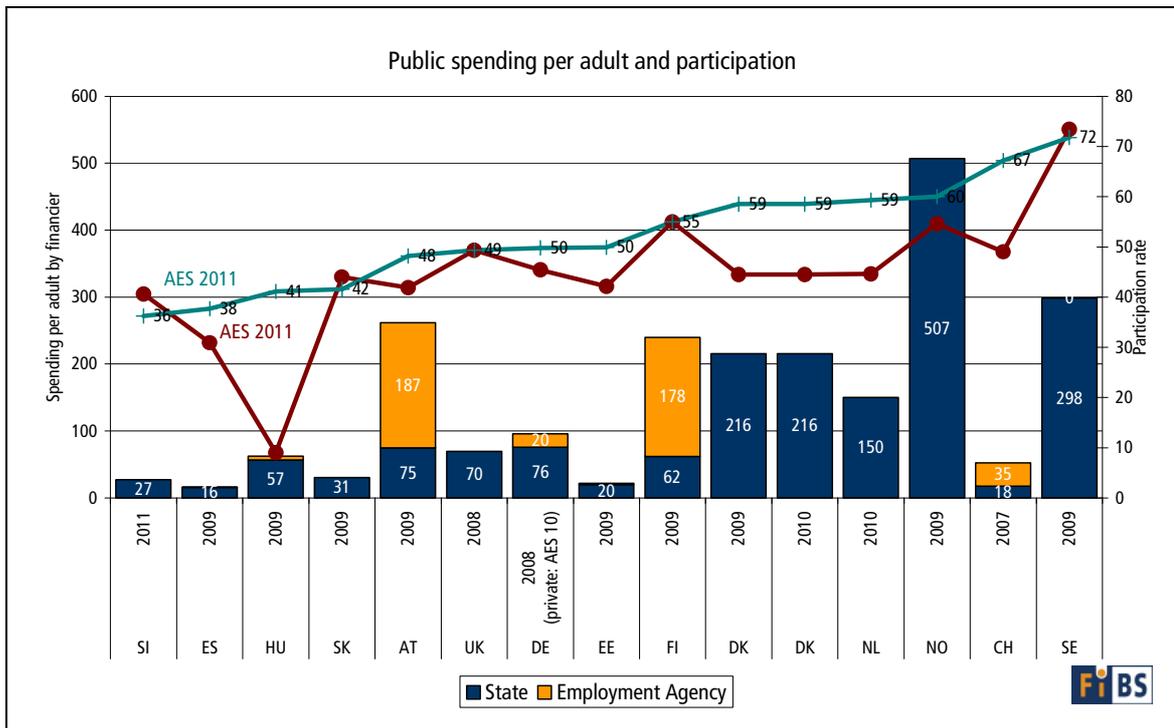


Figure 22: Public funding per adult and participation in adult learning.

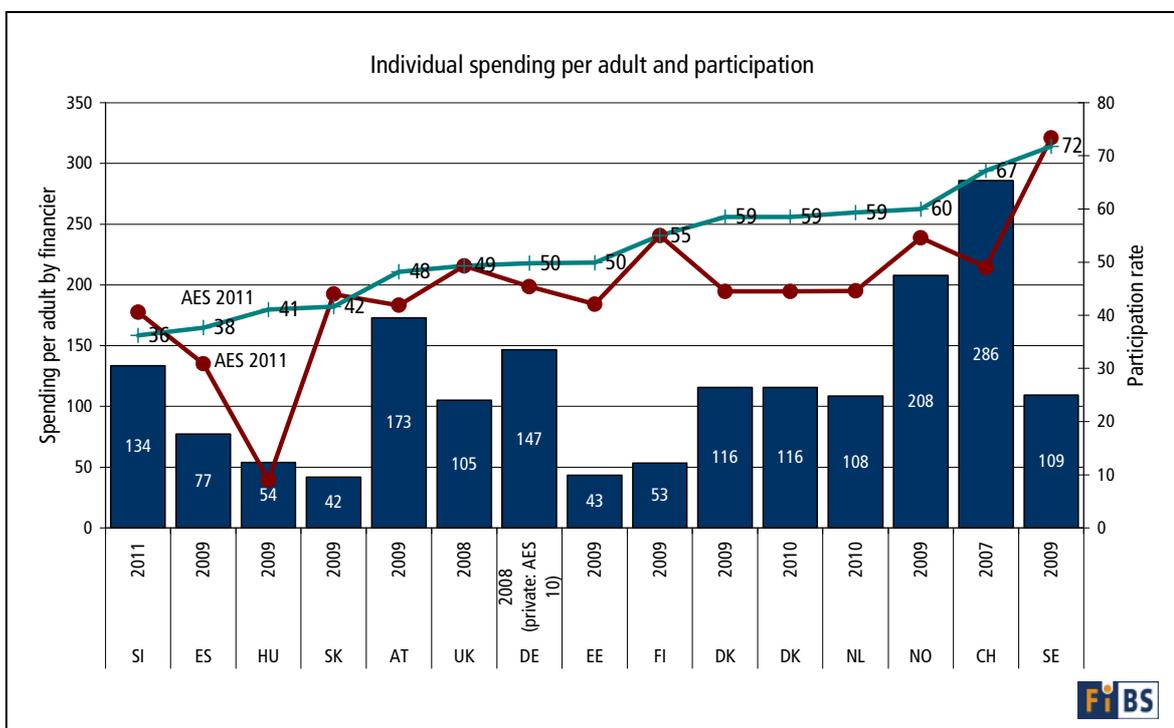


Figure 23: Individuals' funding per adult and participation in adult learning.

Looking at the combined role of state and employer funding (see Figure 25) the spending figures are far higher in countries with highest participation rates, apart from CH. State and employers contribute at least € 550 per adult in four out of the five countries at the top. In contrast, it is only up to € 200 in countries with the lowest rates and

around € 300 in countries with medium level rates, though EE as exception should be noted.

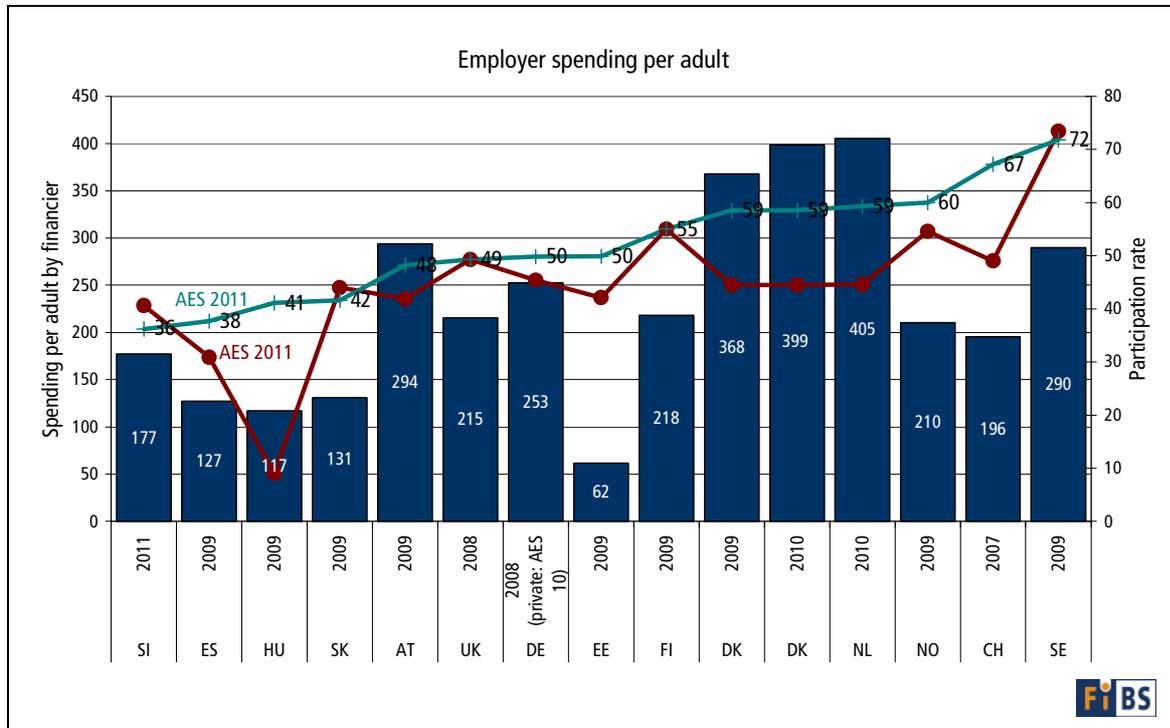


Figure 24: Employer funding per adult and participation in adult learning.

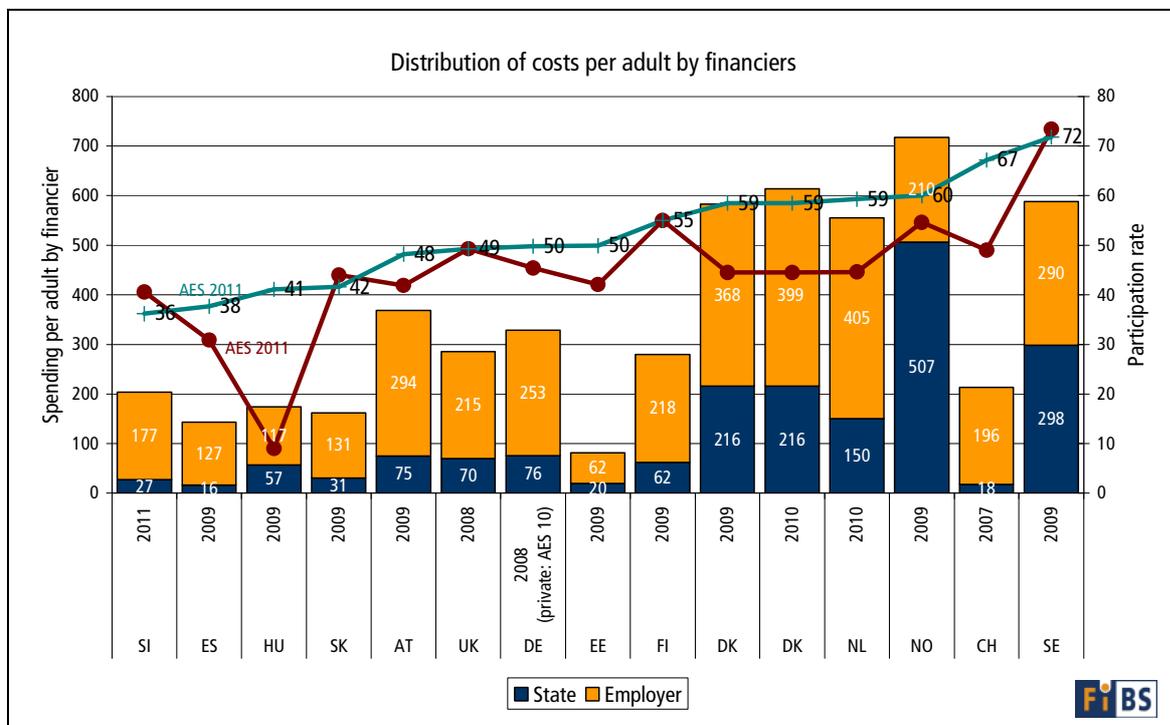


Figure 25: Combined employer and state funding per adult and participation in adult learning.

Although these findings appear somehow conclusive, it has to remain open at this stage, whether these findings remain robust if other countries are included, even though the qualitative analysis provides some evidence in this regard.

4.7 Funding for non-vocational adult learning

The previous section provided an overview of the available funding data for adult learning – according to various definitions – without distinguishing between vocational and non-vocational adult learning. The major reason for this is that for most countries such data is not available in a disaggregated manner; this is not surprising given the data limitations. This section will report on funding for vocational and/or non-vocational adult learning to the extent possible. The following data focus on adult learning in the more narrow sense, i.e. excluding spending for mature students in higher education.⁵⁷

According to the data provided by the **Austrian** expert, only € 0.2bn out of € 1.6bn is spent for non-vocational learning, exclusively borne by individuals. Thus, almost 40% of individuals' spending for adult learning is for non-vocational learning, which results in almost 0.1% of GDP.

The figures provided for **Denmark** are difficult to disentangle exactly with regard to vocational and non-vocational learning. However, it appears that the budget is distributed roughly half between vocational and non-vocational learning, which would mean that between 0.2 and 0.3% of GDP are spent for non-vocational learning, much of it for second chance education.

Reviewing the **German** data, the best proxy for non-vocational adult learning is probably the spending of € 1bn (0.04% of GDP) for the Folk high schools, although this may also incorporate some spending for vocational learning. 60% of this spending comes from public and 40% from private sources (Huntemann/Reichart 2011).

With regard to **Hungary**, it appears that half of the public spending reported is spent for non-vocational adult learning; this is less than 0.1% (more precisely 0.07-0.08%) of GDP; however, this distribution between vocational and non-vocational adult learning is based on the assumption that foreign language learning and ICT are non-vocational.⁵⁸

Spain spends 12% of its overall adult learning budget for non-vocational (€ 350-370m), i.e. 0.03% of GDP, with a slightly decreasing trend.

The estimates by Messer/Wolter (2009) and the Swiss Education Report (SKBF 2010) suggest that half of the adult learning budget in **Switzerland** is spent for non-vocational adult learning; this would result in almost 0.3% of GDP, of which the vast majority comes from individuals' wallets.⁵⁹

⁵⁷ Unless reported differently the following data is drawn from the information provided by the national experts for this study.

⁵⁸ Data provided through email (17.1.2013) by a Ministry representative.

⁵⁹ Preliminary estimates, which are based on combined information from both Swiss sources (Messer/Wolter 2009; SKBF 2010) and which need further clarification, suggest that between two third and almost 100% is paid by individuals.

No data is available for the non-European countries Australia and Canada, the figures for the **USA** indicate that. Only \$1.5m (€ 1.2m (PPP)) is marked as non-vocational.

Adding up, data on funding for non-vocational adult learning is rather sketchy and often relying on several assumptions. However, despite this restriction, it appears that funding volumes for non-vocational adult learning are very limited, hardly exceeding 0.1% of GDP, except for DK and CH, where up to 0.3% of DP is spend. This might be a consequence of the understanding that non-vocational adult learning is understood as private, individual responsibility, which has to be paid for by the individuals themselves, unless it aims to compensate for low educational qualifications.

4.8 Development of funding volumes over time

A crucial question concerns the impact the economic and financial crisis has had on funding for adult learning in the various countries; a common expectation is probably that funding for adult learning has decreased, which is the case for higher education in many EU countries (EUA 2012). The following section will investigate changes in funding volumes in those countries, for which and to the extent data is available for more than one year. While the previous section provided a comparative cross-sectional overview across countries, this section focuses on a country by country level. The data reported from national experts are complemented by information from Eurydice (2013) for those countries for which information is presented in this report.

Although no complete set of information is available for **Denmark**, some figures indicate that funding has increased substantially between 2008 and 2009 and that it remained in 2010 above the level of 2008, despite serious reductions in big spending programmes (see Table 9). In total, the funding volumes for the four programmes, for which information has been provided for all three years, show a spending level that is still 16% higher in 2010 compared to 2008. However, according to Eurydice (2013), the financial assistance for adult learning was reduced in 2011 from 100% to 80% and which will reduce also the overall spending levels by DKR 24m. This might now be lower than before the crisis.

Funding volume in € mio	2008	2009	2010
FVU - preparatory AL	11,6	21,6	20,8
AVU - general AL	58	66	91,1
AMU - Adult vocational AL	175	221	178
VEU-grants (for GVU+AMU)	183,3	273,3	210,6
Total	427,9	581,9	500,5

Table 9: Development of funding in Denmark between 2008 and 2010 for selected instruments.

Funding volumes for adult learning in **Estonia** increased between 2009 und 2010 by slightly more than 10% from € 32m to € 36m, largely driven by increased public spending, which rose from € 14m to € 18.3m (+31%).

The change in **Germany's** funding volumes over the last decade shows remarkable reductions on the one hand and substantial increases on the other; furthermore, some

shifts can be observed. If changes of funding volumes over times are concerned, funding at the end of the last decade is lower than it was at around the turn of the century. For example, public core funding for adult learning and further education (Grundmittel) was around € 9.3bn in 1999 and decreased to around € 3.5bn in 2007 (Konsortium Bildungsbericht 2010).⁶⁰ The major ‘driver’ for this decreased public spending was adult education for the unemployed, which shrank from € 7.8bn to € 2.2bn in 2006, i.e. by more than 70%. Yet, funding increased in the two subsequent years 2007 and 2008 to € 2.65bn, the latter is likely to be influenced by the emerging crisis in 2008. One important driving factor for this increase was the federal government, which increased its spending for training from € 1.8bn in 2007 to € 2.7bn in 2009 in the light of the economic crisis. Furthermore, active labour market policies amounted to € 8.8bn in 2008, € 7.9bn in 2009, and € 6.8bn in 2010; this would increase total spending for adult learning by 0.3% to 1.2% of GDP, bringing DE to the top countries in terms of funding for adult learning. For the period 2012 to 2014, € 20m are foreseen for basic literacy and numeracy skills for adults (Eurydice 2013).

Furthermore, funding for company training shows also diverging patterns over the last almost 15 years; while overall spending for company training amounted to € 9.5bn in 1999, and increased to € 10.2bn in 2004; the corresponding figures were € 8.2bn in 2008 (Statistisches Bundesamt 2011) and € 8.4bn in 2009 (Statistisches Bundesamt 2012). Although funding for Folk high schools has slightly increased, this does not compensate for the reductions mentioned.

Ups and downs are reported over the last 3 years for public funding in **Hungary**. A 15% increase from € 50m (2009) to € 57m (2010) is followed by a decrease to € 54m in 2011.

The **Dutch** pattern shows an increase from 1.4bn in 2009 to 1.9bn in 2011.⁶¹

The **Norwegian** figure shows an increase from € 1.29 to 1,37bn in public spending. Further increases of about NKR 24m (almost 40%) are reported for the period 2010 to 2012 for the Basic Competence in Working Life Programme

Data for **Slovenia** is available for the years 2011 and 2012, which clearly indicates that funding is planned to decrease quite substantially by almost 20% from € 49m to € 40m, which results importantly in redistribution between national and EU-funding. While EU funding increased even slightly from € 24.1m to € 24.5m, local state funding decreases by almost € 10m from € 25.1 to € 15.6m. Not surprisingly, the change happens where no EU co-funding is in place, i.e. in the budget of the Ministry of Education (Perme 2012; Eurydice 2013).

By and large, **Spain** shows slightly increasing patterns. Funding rose from € 2.9bn to € 3.0 between 2009 and 2011, even though data on spending from state budget for

⁶⁰ Figures are reported in current prices, i.e. in real prices the difference is even bigger.

⁶¹ The increase between 2010 and 2012 appears even more impressive, but this unique figure of € 3.7bn is almost double that of 2012 and even more than that compared to 2010. Thus, we refrain from presenting this figure here, but suggest request further investigation.

2011 is not yet available; this might suggest that increase might even be stronger. The increase is particularly due to rising funds from employment agency, increasing from € 6m in 2009 to € 934m in 2011, while contributions from individuals and employers shrunk at the same time.

USA (USD bn)	2009	2010	2011	Change
Total amount in local currency	153.217,5	196.495,5	198.742,4	30%
State	9.317,5	12.995,5	15.242,4	64%
Individual	-	-	-	-
Employer	125.900,0	171.500,0	171.500,0	36%
Employment agency	18.000,0	12.000,0	12.000,0	-33%
Source: own calculations based on response to funding questionnaire Department for Education				

Table 10: Changes in funding volumes in the USA 2009 to 2011.

In contrast to many European countries, spending has substantially increased in two of the non-European countries, i.e. Australia and the USA. However, the increase in the **USA** is due to a strikingly immense growth in employer financed training, which increased according to the Department of Education, which relied on external sources (ASTD 2011), by more than one third (see Table 10). Although at first glance, public spending might have seemed to increase, figures show that redistribution took place between state budget and employment agencies. In the end, total public funding remained unchanged, by and large. Reviewing Table 10 above, private financing by individuals is obviously under-reported, indicating that even the Department of Education has no data on spending of private households.

A statistical summary from **Australia** (NCVER 2011) shows an increase in total funding by about 37% from AusD 6.04bn to 8.25bn, which is basically driven by public spending, which increased by AusD 2.2bn, while so-called income increased by around 350m 'only'.

4.9 Summary of funding for adult learning and comparison with other education sectors

The previous section reviewed several funding indicators, commencing with macro level funding figures, broken down subsequently into per capita spending figures (per stakeholder). Even though heterogeneous pictures emerged, whose shape depended much on what was exactly analysed and what data was included in the review, it appears that some overall conclusions can be drawn.

However, before summarising the findings, it is important to note that data availability is a restriction and that information from various sources had to be combined in order to arrive at the figures presented. Because much has been experimental research the figures should be considered as estimates, which would require further analysis and validation, before final and overarching conclusions should be drawn. In this regard, the following considerations should be taken as preliminary findings. It would be of importance to extend country coverage and validate data even more with national experts in order to provide the best possible estimates.

Furthermore, it has to be highlighted that the understanding of adult learning in this report is not necessarily identical with the national understanding of adult learning and with national data on funding amounts based on this understanding. For example, the Anglo-american countries consider post-secondary/compulsory education identical with adult learning, which then includes also (initial) higher education. It is therefore not surprising that funding figures published for these countries are far higher than those of other countries for adult learning; e.g. the US as well as the UK spent almost 4% of GDP according to this understanding (see section 8.2 in the annex for further details). It is also no surprise that these figures decrease drastically, when the European understanding of adult learning is concerned, which is much narrower and reviews adult learning as post-initial learning of people aged 25 and above. The considerations in this study are based on the understanding of adult learning taking place after initial education and concerns those aged 25 and above.

Eventually, it should be noted that almost no official and comprehensive statistical data is available; this applies even for the most developed countries in Europe and elsewhere! And even though our national experts and/or representatives from responsible ministries or statistical offices did their best to provide us with the best available data, we gained the impression they these data are likely to under-report total spending in most countries, particularly with regard to private spending by individuals and companies. The research team therefore decided to adjust the spending figures for this two groups with data drawn from the CVTS3 or CVTS4 for employers and AES 2007 for individuals.⁶² The following figures refers to these estimations which are based on such adjusted information and data; for a review and analysis of initial data and additional estimations as well as methodological remarks please refer to section 8.2 in the annex.

Spending for adult learning addressing those aged 25+ is usually between 0.5 and 1.3% of GDP, though some countries, such as AU and CA, may spent less. AT, DK and SE are the countries spending more than 1.2% of GDP, NO spends slightly less. The Netherlands and CH are two more countries whose spending is above 1.0% of GDP; Finland spends slightly less than this. The figures reported for the US depend much on the level of employer spending, where several estimates come to very different results. For example, if employer spending is based on ASTD estimates, which may appear quite high, US spending amounts to 1.1% of GDP, while it is less than 0.6%, if employer spending builds upon the more cautious estimate of Wilson (2010). SI and DE are below the benchmark of 1.0% of GDP,⁶³ spending around 0.9% of GDP, HU and SK around 0.8%, the UK 0.7% and EE 0.6%. In contrast, the lowest spending figures of 0.5% of GDP among the European countries are reported for Spain.

⁶² Reliance on AES 2007 was necessary because AES 2011 does not yet provide data on individual spending amounts; CVTS 3 was included in cases where CVTS 4-data was not available for countries under review.

⁶³ Spending level for DE would go up 1.2% of GDP if 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 ALMP-data from the Federal Statistical Office.

In most countries employers bear the highest share of spending, varying between 0.3 and 0.9% of GDP, provided the ASTD estimate results in the most reliable figure for the US, otherwise 0.7% of GDP is the highest figures, valid for DK and NL. In a relative majority of countries, employer spend between 0.4 and 0.5% of GDP, which could be considered a lower benchmark. The highest spending levels of state funding are reported for Norway (0.6% of GDP) and for SE (0.5% of GDP), while the lowest rates are utmost 0.1% of GDP, reported for Slovenia, Estonia and Slovakia; a similar level is reported for AT, though funding from employment agency should be accounted for in this case. In some of these countries, spending of individuals is also rather low at around 0.1%, e.g. in Hungary, Estonia, Slovakia or Finland. In general, individual spending for adult learning is between 0.2 and 0.3% of GDP in the vast majority of countries, which might be considered another benchmark in this regard.

Reviewing the link between participation rates and spending levels of different financiers, analysis suggests that funding by employers and particularly the state (incl. employment agencies in some countries) are important drivers. Funding from public sources is at least 0.5% of GDP in those countries showing the highest participation rates, i.e. SE, FI and NO; in all other countries it is lower and commonly even much lower. However, in contrast, albeit AU and DK show public spending of 0.4% of GDP, participation rates are lower and for AU even much lower.

Taking public and employer financing together, it appears that both add up to approximately 1% of GDP in countries with higher participation rates; however, it seems also that such spending levels are not the only explanatory factor, since Slovenia, Austria, Denmark and the Netherlands arrive at similar, if not even higher shares, but lower participation rates. This raises two questions, (1) whether much funding goes to some costly training (e.g. for low-qualified), or (2) whether some countries are more successful in incentivising individuals, by whatever means.

Reviewing the average cost per hour for the individual, it turns out that AT seems to spent comparatively high amounts in relation to its participation rate. The reason for this would need further investigation (Lassnigg et al. 2013).

If higher education for 'mature' students is included, funding levels go – unsurprisingly – further up, since the state and/or private households spent more. While Sweden and Denmark reach levels above 2.0% of GDP, the lowest shares are between 0.9% (Spain, Australia as well as Canada) and 0.7% of GDP in Estonia and Slovakia. Overall funding levels for the Nordic countries are well above 1.5% of GDP, which is apart from the US (if ASTD is reliable) only the case in Austria and Switzerland.

An important finding is that state/public funding is the major single funding source, if higher education for mature students is included in the understanding of adult learning. Overall, four groups of countries can be identified: (1) the share of public funding is at least 0.9% of GDP in all Nordic countries, and even 1.2% if Finland is neglected, which are well ahead of all other countries; (2) in a second group of countries, comprising several Western European countries, such as Hungary, the Netherlands, Switzerland and Germany, as well as Australia, the US and Canada, public spending is between

0.4 and 0.6% of GDP. (3) A third group, covering ES and the UK, public spending is 0.3% of GDP; while (4) it is 0.1% in the remaining newer member states (SI, EE and SK).

Further analysis of additional indicators confirms these findings; overall spending per adult is much higher in countries with higher participation rates, which is particularly confirmed for the amounts the state and employers finance jointly. Joint state-employer spending is at around € 600 for all but one country with highest participation rates; CH is the exception. In contrast, state and employer finance around € 300 in countries with medium participation rates and less than € 200 in countries with lower participation rates; EE is the only exception with joint state-employer funding of € 80 per adult and a participation rate of 50% according to AES 2011.

Interestingly, the countries are divided into two groups, when individual spending amount per adult is concerned. Individuals spend at least € 100 in countries with high participation rates, except for EE and FI on the one hand (where levels are roughly € 50) and NO and particularly CH (levels of € 210 and € 285, respectively). Even though no overall pattern can be identified in this regard, it is of interest to note that the spending amount per adult coming from individuals decreases among the newer member states the higher their participation rates of these countries are (see the left hand side in Figure 23). The same pattern emerges also for the other, economically better-off countries on the right hand side of the figures. Individuals spend more in AT and DE compared to all Nordic countries, but NO, and the Netherlands, whose participation rates are much higher (FI's AES 2011 participation rate is not yet available).

Even total spending per adult suggests that a relationship to participation rates exists. Countries with highest participation rates, according to AES 2011, spend at least € 650 per adult – only AT arrives at such levels, though participation rates is below 50% – while total spending is utmost € 500 for countries with participation rates below almost 60% and below € 250 for countries with rates of approximately 40%. Even though these findings appear quite conclusive and convincing, final empirical evidence would require funding data for more countries. Furthermore, the question of causality remains open – are funding volumes high because of high participation rates or are participation rates high because of high funding volumes. However, it is obvious that money matters in relation to participation and that states and employers are important drivers.

All in all, the analysis in this section provides substantial evidence that higher participation rates are linked to higher funding levels in relation to GDP but also in relation to the adult population. Spending volumes in relation to GDP as well as per adult are much higher in the top half than in the bottom half, although this not valid for any country in both groups.

Comparing these figures for adult learning with spending for other education sectors, adult learning is in very few countries almost comparable to higher education,

while it is close to early childhood education⁶⁴ in other countries (see Figure 26). In contrast, funding for other initial or formal education sectors is much higher. Adult learning has a share of 15 to 20% of all spending for education in most countries. The exceptions are, on the one hand CA and AU, where we may have incomplete data and ES with less than 10%. On the other hand, AT spends 22% of its total education budget for adult learning.

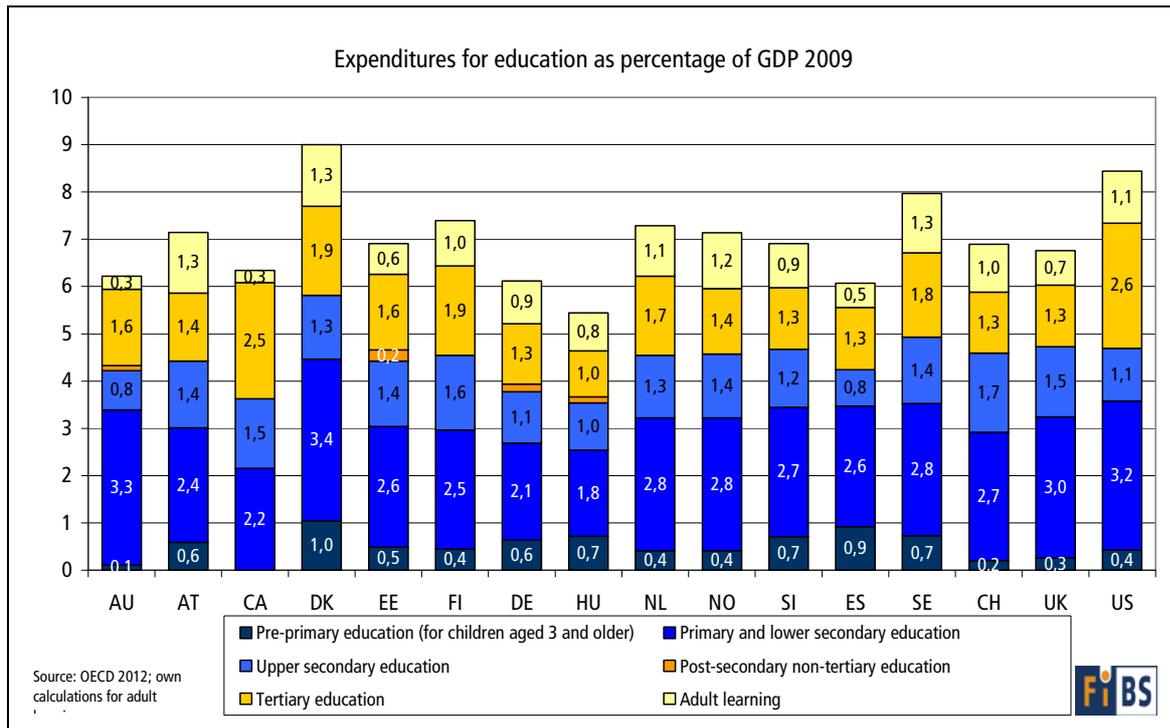


Figure 26: Expenditures for education as percentage of GDP 2009 by education sector.

Figure 26 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.

Eventually, when reviewing the developments in funding during the crisis, a downward trend can be observed in those countries where participation rates are (much) lower than in the better-off countries. Since the review of the benefits indicated that adult learning has positive effects on growth and innovation, this could mean that economic development will drift apart, 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 national responsibility.

⁶⁴ It should be noted that these figures on early childhood education concern those aged 3 to school entry age, by and large, and not to nursery education for all; i.e. spending for early childhood from 0 to 5 or 6 would be higher than presented.

5. Funding systems and instruments

Why should funding instruments or systems make a difference? Economically, there are two core reasons; first of all, the market does not arrive at an optimal solution, e.g. because of externalities or other causes, which will be briefly reviewed in the following section. According to economic theory each stakeholder should bear the costs in relation to his or her benefits (OECD 2005). Secondly, additional (financial) barriers may prevent participation, e.g. because people do not have the means to finance their education or are insecure about future returns, their size or whether economic downturns may affect them negatively. This would suggest that a well-designed funding system should address the various financial barriers, unless certain instruments operate extremely well in relation to several barriers.

The previous section has started to review the relationship between participation and funding volumes and its distribution across stakeholders and revealed that countries with higher participation rates spend more on adult learning than countries with lower participation rates and that joint employer-state funding appears crucial, while individuals pay less in countries with similar economic performance but higher participation rates. This section complements this picture and commences with an overview on funding systems and instruments employed in the various countries (section 5.1) and on the role of (individual) costs as barrier to participation (section 5.2). Section 5.3 provides a brief introduction into the economics of education as important underlying rationale in the recent discussion of the financing of adult learning; the following sections 5.4 and 5.5 follow this line of reasoning, presenting a rationale for state intervention into adult learning and an overview on the theory and practice of funding instruments for adult learning. The chapter 5.6 analyses whether relationships between funding system and instruments, respectively, and participation rates in adult learning can be identified. Results are eventually summarised.

5.1 A brief overview on funding systems - mapping of instruments

As displayed in detail Table 11, the adult learning funding systems are very heterogeneous and complex across countries. Within the almost 20 countries at the core of this study (which will be named ALFi-countries (ALFi = Adult Learning Financing) in the following sections to ease the presentation), 333 funding instruments can be identified, of which 178 are cost-sharing and 155 are fully publicly funded. If we review all 33 countries the number increases to 384 (208 cost-sharing and 176 public funding, respectively).

The instrument which is applied mostly in the countries under consideration is **supply-side funding**, of which 146 schemes exist, if unconditional and conditional instruments are counted together; though it should be noted that this number is largely driven by the 51 US, 16 German and 13 Canadian instruments. These high numbers are due to the fact that each state/region applies its own instrument(s) in these countries, which is counted separately.

Total number of instruments			ALFi EU 14														Non-ALFi EU 13											EEA		Non-European countries				Total ALFi 20	Total 33						
Type	Sub-type		AT	BE	DE	DK	EE	ES	FR	HU	IT	NL	RO	SI	SK	UK	BG	CY	CZ	EL	FI	IE	LT	LU	LV	MT	PL	PT	SE	CH	NO	AU	CA			KR	US				
Cost-sharing	V/ILA/GFI	GFI	2			2				1						1					2					1										8	11				
		V/ILA	20	2								25			1		2	1		1								1						28	1	3	2	1	85	88	
	Tax incentives	TAI											1				1								1	1			1									4	7		
		TCI					1																																1	1	
	Loans	ICL																											1						1				1	2	
		MTL			2		1				1							2													1				26	1		1		35	35
	Training leave	PTL	1	2	12			1	4	2		2			1					1	1	1			3		1		2										25	34	
		UTL																						1						1										2	
		UTL/PTL				1	1	2	2	2	2	1		2	1	2	2	1	2		2	1			1	1				1						1				18	27
	Saving schemes		1																																					1	1
Total (cost-sharing)		24	4	14	3	3	3	6	6	26	3	2	3	2	8	2	2	2	1	5		2	4	2	3	1	3	3	54	2	3	4	4	4			178	208			
Public funding	Fee redemption/exemption			2																																			5	5	
	100% grants	1		1	2	1	1					2	1							1																			24	25	
	SSF	2	2	16	1	2	1			2	1	3	3	3	2	4	1	4	4	1					3	1	2	1	3	1	2	1							46	66	
	Conditional SSF		2		1					1	3																				2	3	13	4	51				80	80	
	Total (public)		3	6	17	4	3	2			3	4	5	4	3	2	4	1	4	4	1	1				3	1	2	1	3	1	4	4	31	4	51			155	176	
Total (cost-sharing and public funding)		27	10	31	7	6	5	6	9	30	8	6	6	4	12	3	6	6	2	6		2	4	5	4	3	4	6	55	6	7	35	8	55			333	384			

Table 11: Overall mapping of funding instruments across the countries under review – total number of instruments.

The instrument with the second highest number is **vouchers**, of which 99 schemes can be found. As before, this number is driven by three countries, CH, AT and IT, accounting for 75 instruments. In the case of Austria the high number results not only from the number of states (9) but also from different funding agencies involved; vouchers or grants are provided by the regional governments and the Chambers of Labour.⁶⁵ Though vouchers, individual learning accounts (ILAs) and grants for individuals are named differently, they are, in fact, very similar to each other.⁶⁶ Independent from the particular approach, such instruments have been much on the agenda in recent years.⁶⁷

Training leave⁶⁸ policies (either paid and/or unpaid) are applied in 27 countries and is, thus, the instrument that is most widely distributed across the 33 countries under consideration. Almost all European countries employ them, only Ireland has no scheme and Poland none for non-vocational adult learning; in contrast apart from Korea training leaves do not exist in the non-European countries reviewed in this study. As many countries established different versions, a total number of 63 regulations can be identified.

Tax incentives (for individuals)⁶⁹ are applied in 8 countries, if only those schemes are considered allowing the deduction of costs of non-vocational adult learning. Usually such regulations address all income earners, but in fact they reach only those who pay taxes, while non-tax payers do not benefit from such regulations.

Although **loans** exist in many countries, the number of loan schemes which clearly address adult learning or further education of those age 25+ or even age 30+ who progressed not directly through the initial education system up to higher education almost without any break is comparatively small. Even though 9 of all 33 countries reviewed in this study report such schemes, most refer to higher education.

Saving schemes are only very rarely applied across countries (only in AT).⁷⁰

⁶⁵ Furthermore, the employer federations established their own voucher/grant scheme, but since these can be used for vocational training only, they are not included in the table (see PPMI/FiBS 2012 for a closer look).

⁶⁶ According to Dohmen (2009), the term ILA referred initially to the introduction of a saving scheme, where individuals (or employers) deposit money on a bank account more or less regularly. Those approaches were discussed particularly in the United Kingdom, in Sweden and in the Netherlands, though eventually nowhere implemented in this form. Nowadays, the core distinction is that ILAs operate via the individual's bank account while vouchers transfer the money to the training provider upon delivering the voucher to the funding agency.

⁶⁷ Overviews are provided, for example, in Dohmen 2007, Cedefop 2009a, Dohmen/Ramirez-Rodriguez 2010, Dohmen/Timmermann 2010.

⁶⁸ For a more detailed overview on previous research see Cedefop (2012d) and section 5.5.2.4 in the annex.

⁶⁹ See in this regard for example: Cedefop 2009b, d, Falch/Oosterbeek 2011 and Dohmen/Timmermann 2010 as summarising overviews and particularly section 5.5.2.1 in the annex.

⁷⁰ The German 'saving scheme' is, although named as education saving scheme, is not really a saving scheme, since it allows to withdraw funds for learning purposes from a saving account. However, demarcation between saving and non-saving scheme might leave room for discussion. Furthermore, this

A total of 24 **100% grants** are applied across the 20 countries which are at the core of this study; however, 15 are from Canada. Thus, they do not seem to be very widespread.

Eventually, the table indicates the existence of 5 **fee reduction/redemption regulations** in two countries, Canada and Belgium.

As mentioned above, it should be recognised that the figures on 100%, conditional supply-side funding and fee redemption/reduction policies may be under-represented in this study, since we have not collected information on these instruments in 13 European countries, which are not part of this study.

5.2 Costs as barrier to participation

Even though the reason ‘training was too expensive or unaffordable’ is only ranked fifth, according to AES, it should be reviewed more in detail here in order to identify regional differences, because previous analyses (PPMI/FiBS 2012) found strong differences related to participation rates.

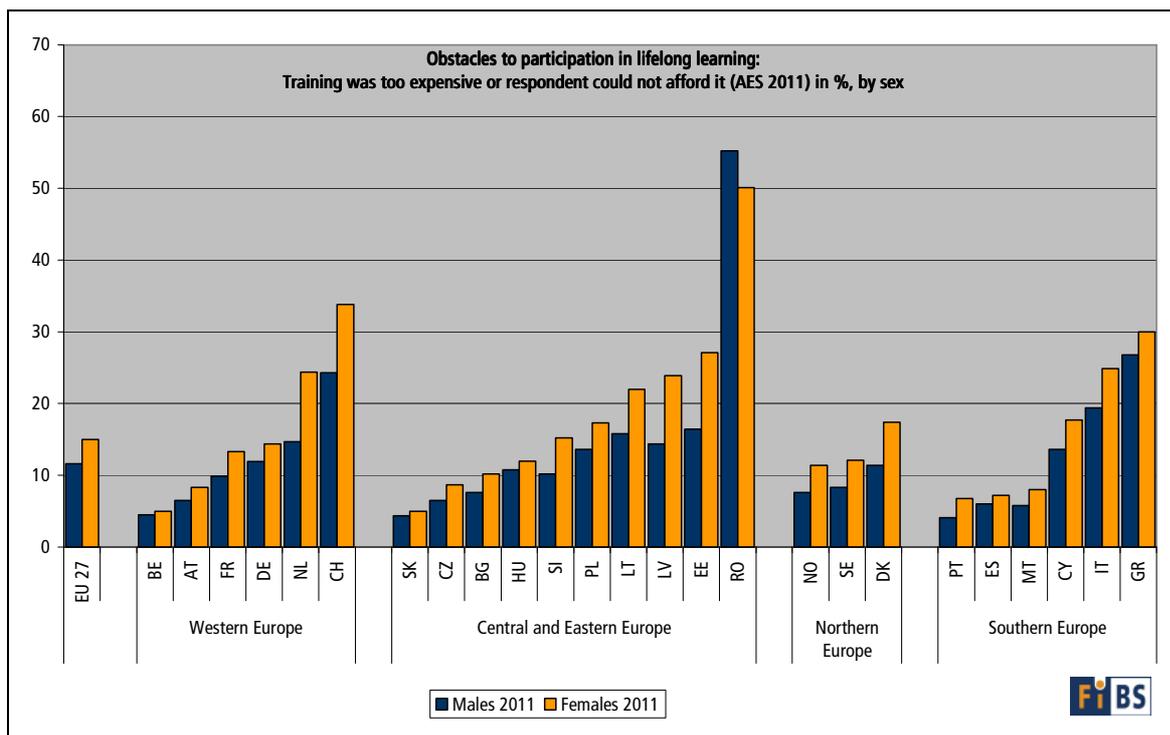


Figure 27: Obstacle – Training was too expensive or respondent could not afford it (AES 2011) in%, by sex.

Overall, the share of non-participants in adult learning mentioning “training as too expensive or inaffordability” is 13% (see Figure 27). The highest values can be found in

scheme is limited to vocational adult learning, though demarcation may be blurred. The Dutch Levensloopregeling has been removed at the end of 2011.

Romania, where more than half of non-participants mention costs as obstacle. Second highest are the 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 adds another important factor, female state more often than males that training was too expensive or unaffordable. Though the level is limited in absolute terms, it should be noted that the relative difference is more substantial (see Figure 27). Interestingly, the gender difference is particularly large, in absolute and relative terms, in Switzerland and the Netherlands (9.5% and 10.3%, respectively), while it is rather small in Belgium (0.5%). Large differences can also be found in newer member states such as Estonia, Lithuania and Latvia where women tend to experience more financial restrictions than men when trying to participate in adult learning.

In Southern Europe, with a maximum deviation of 5.5% in Italy these differences do not seem to be as significant as in the countries mentioned above. The only country where this common relationship between gender and costs as a barrier does not apply is Romania, but Romania is the only country where over half of all non-participants argue with financial restrictions as barrier for not participating (females: 50.1%, males: 55.2%).

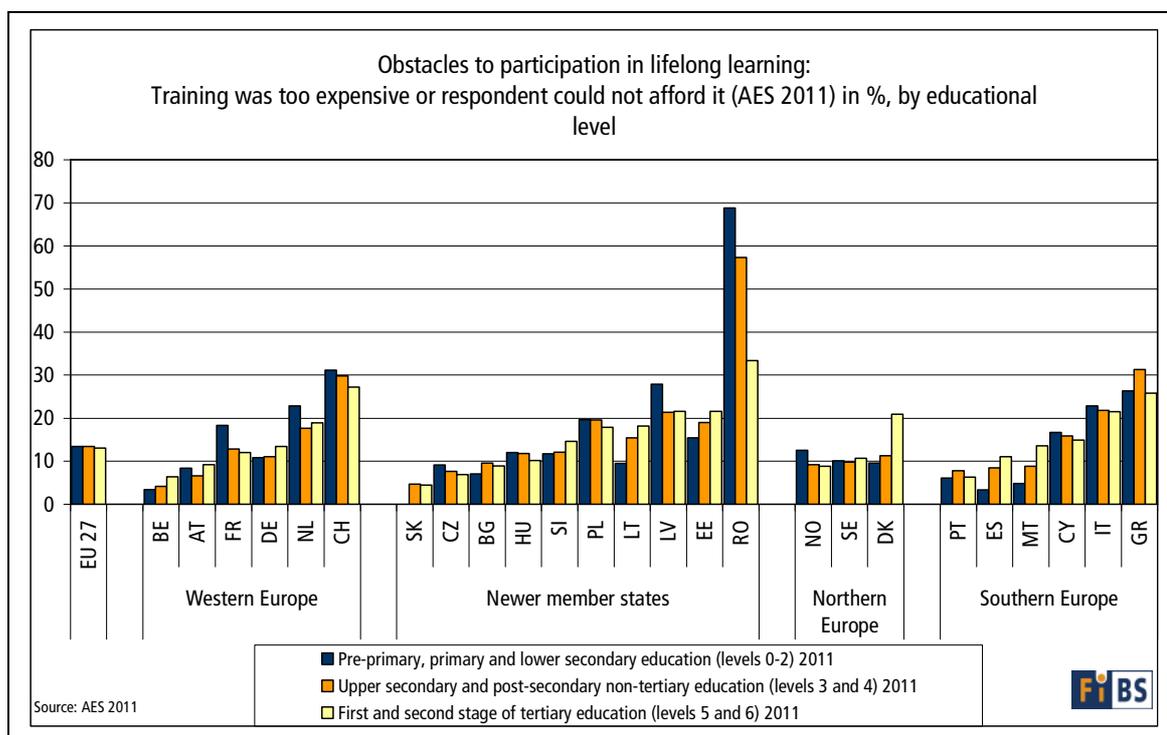


Figure 28: Obstacle – Training was too expensive or respondent could not afford it (AES 2011) in%, by educational level-

Obstacle “training too costly” by education attainment

Having a look at the obstacle ‘costs too high/unaffordable’ as cause for non-participation by education attainment (see Figure 28), the EU 27 average in the 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 a relevant number of countries across all regions particularly low qualified perceive costs as barriers. Among these countries are DE, NL 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 Cyprus and in Italy.

Higher qualified people experience costs as a barrier in several countries, e.g. AT, PL, SI, DK, and particularly in Southern Europe (PT, MT). The differences are rather small in the remaining countries.

5.3 Principles of the economics of adult education⁷¹

1. Financing may be defined from two different perspectives. A traditional and narrow definition from business economics aims at all measures of obtaining liquidity and of preservation of the ability to pay. A much broader view on financing focuses on the provision of resources being viewed as necessary for teaching, training and learning. Here, financing means to create the availability of resources. In a formal or non-formal learning context, adult learning can only happen, if four species of resources are available:

- a) mental or psychical resources (the ability and willingness to learn),
- b) the time for learning,
- c) physical resources and finally
- d) money in the form of liquid means.⁷²

These different types of resources stand in a strong relationship of complementarity to each other. Without the motivation to learn, time is wasted in vain, money thrown out of the window, learning will not happen. The same holds if there is no time to learn or no money to pay for the instruction.

2. The need for financial resources can be satisfied either by supply-side financing towards the institution or by demand-driven financing. In the former case, the financial means flow directly from the financier and sponsor, respectively, to the educational institution. In the latter case, money flows directly from the financier to the learner (“customer”) and from there to the institution (e.g. by means of vouchers as

⁷¹ This section builds upon Dohmen/Timmermann (2010).

⁷² When it comes to vocational training, a fifth type of resources becomes crucial which are the institutional conditions of learning like security or quality requirements of products and work places, work contents, work places and environments which are rich of learning opportunities.

presented in section 5.5.2.1). Institutional financing may focus on inputs (unconditional supply-side funding) or on outputs and performance indicators, respectively (conditional supply-side funding). A third form, “project-based funding” is placed somehow in between, as the institution responds to a request, but often funded on an input basis.

By and large, the flow of funds to adult learning institutions may be input or output (performance) oriented or demand driven. Each of these alternative channels is likely to produce different steering effects on supply and demand behaviour. In particular, demand driven financing is expected to strengthen the market power of the “customers” with respect to pricing, quality, width of the programmes, time position of the courses etc.

3. A third important aspect of financing relates to the guiding principles and aims of financing adult education. To what extent do different financing modes contribute to internal (institutional) or external (macroeconomic) efficiency as well as to social justice? Social justice leads the attention towards equality and equal opportunities. Unfortunately, empirical knowledge about these effects is very poor due to the difficult task to measure them. Therefore, the discussion about possible effects suffers from speculations, guessing and assumptions, and is often led by hidden interests. The following section aims to overcome this bottleneck to the extent possible, by providing an updated overview on the research on funding instruments.
4. All financing solutions need an answer to the question “who pays” or “who could pay” for adult education. Basically, four groups of economic subjects could give money for learning:
 - a) the “individuals”, i.e. the participants (“customers”) of adult education or related persons,
 - b) the total or groups of the work force,
 - c) private organisations (companies, unions, foundations, corporations, educational institutions),
 - d) the state (comprising the different state levels).
5. The type of transactions which might be imposed on the financiers can be
 - a) the market price,
 - b) fees or dues (only covering a contribution margin and requiring other financiers),
 - c) taxes (either a special adult education tax or a general tax according to the non-affectation principle), and
 - d) a levy (from the work force or the employers).⁷³
6. A further important question is which sources those can exploit who pay for adult education. In principal, only three sources are available and can be taken:
 - a) the current income,

⁷³ Although training levies or training funds are an important instrument for the financing of company-training, which is also receiving much attention in the „Rethinking Education“-strategy (European Commission 2012), this instrument is not included in this study, which focuses non-vocational adult learning in particular.

- b) the past income (by saving), and
- c) the future income, e.g. by taking loans.

Table 12 shows which economic units may be involved in financing adult education, where they get their financial means from, and by which types of expenditure they support adult education. It should be clear that the survey already presumes a number of redistribution processes of income, because the primary distribution of the national income happens between labour and capital income. From these primary sources, parts of the national income go to the different state levels (by fees, dues, direct and indirect taxes, tax compensations between the state levels) and to all the private organisations shown in the survey.

7. Discussions on financing education often neglect an important distinction between the question “who pays” and “who bears the burden” (at the end). A third question which is prior to the first asks “who can or who could or who should pay” for adult education. Two principles dominate the discussions. The first one (“pay-as-you-use”) refers to the idea of equal exchange of values and defines an exchange as being just, when performance and the “quid pro quo” are equal. From this it is inferred that those who benefit from education should pay; this principle is supported, for example, by economists (see e.g. OECD 2005). The opposite implication of this principle would be that only those who can pay will benefit from education. This principle would exclude those from access to adult education whose income is insufficient in order to pay for education.

A society which has itself devoted to equal chances of access to education (including adult education) will not accept the exclusion effect and prefer the second principle which looks at peoples “ability-to-pay” and implies a partial redistribution of the national income in favour of low income subjects. The contributions of high income subjects then are higher than the benefits they earn from adult education, for low income subjects the contributions are lower than the benefits and may be zero for some. However, a justification for such redistribution to the advantage of the low-income earners would be that society (and/or the public purse) benefits particularly from adult learning of this target group (see sections 3 and 6.1.2 in this regard).

The review on the benefits of adult learning suggests that society benefits from adult learning of low income or low-qualified persons, in relation to economic benefits, e.g. income returns as measured by the internal rate of return, as well as to wider benefits (see section 3).⁷⁴

⁷⁴ Seldom discussed is the question whether those who prima facie pay for adult education do indeed bear the costs and the final burden of financing adult education, respectively; i. e. do at the end sacrifice parts of their financial resources (the cost and financing incidence, respectively). Subjects and organisations may be able to pass their financing burden on to other subjects or groups of persons or organisations. The ability to pass the burden on depends on market constellations, price elasticities, but also on political and economic power. It is distributed among persons, group of persons and organisations unequally. We can assume that chains of passing on processes in the economy are steadily happening which, unfortunately, cannot easily be observed. Therefore, our empirical knowledge about these pass on processes is very poor, and we can only put forward presumptions. Participants in adult education can be regarded as being politically and economically powerless; therefore they will not be

Economic unit		Revenues from	Expenditure for
Learners/ families		Current income: wage, salary, income from rent, interest or grants	Tuition fees, interest on loans, amortisation of loans, general taxes (pro rata) or earmarked education tax, drawing right contributions, saving account contributions, cost of living
		Past income: former savings, heritage, drawing right account	Tuition fees, cost of living,
		Future income: loan, credit	Tuition fees, cost of living
Workers/ employees		Current income: wage, salary, income from rent, interest or grants	Tuition fees, interest on loans, amortisation of loans, general taxes (pro rata) or earmarked education tax, drawing right contributions, saving account contribution, cost of living
		Past income: former savings, heritage, drawing rights	Tuition fees, cost of living,
		Future income: loans, credits	Tuition fees, cost of living
Private organisations	Employers	Sales, rent, interest, tax/ levy exemption/ reduction/ rebate from state or educational funds, grants/ subsidies/ premium	Expenditures for learning of staff (fees, take over of loan interest or loan amortization, selective grants to staff members, general (pro rata) or education tax, levy contribution to state or learning funds), contributions to drawing rights or individual educational saving/ individual learning accounts
	Employers associations/ employers' educational funds	Employers' contributions, fees, sale of counselling services and own education programmes, tax exemptions/ reductions, rebates	Contributions/ grants or loans to supra-firm training institutions, general tax (pro rata), selective grants or loans to learners
	Unions	Member contributions, fees, sale of counselling services and own education programmes, tax exemptions/ reductions, rebates	Contributions/ grants or loans to supra-firm training institutions, general tax (pro rata), selective grants or loans to learners
	Churches	Contributions, fees, donations, taxes from members	Expenditures for own learning institutions and programmes, selective grants or loans to learners
	NGO's/ Welfare Organisations	Contributions/ donations from individuals or organisations, sales of counselling services, tax exemption or reduction, state subsidies	Expenditures for own learning institutions and programmes, selective grants or loans to learners
	Donors	Contributions/ donations from individuals, organisations or states, sales of counselling services, tax exemption or reduction, state subsidies	Expenditures for learning institutions and programmes (capital investment/ infrastructure), selective grants or loans to learners
State	National level, regional level, community level	Tax revenues from the tax system (general taxes, special taxes, education taxes), revenues from educational levy systems, sales of public services against fees, foreign aid (EU)	Expenditures (capital and recurrent) for own learning institutions, revenues foregone by: tax exemptions/ reductions/ rebates to learners/ workers/employees/ employers/ associations (employers, unions), NGO's, churches; matching grants or categorical aid, grants or loans to learners

Table 12: Financing adult education: the space of revenues and expenditures by economic unit (financial resources)

8. Even the state is not the last source of financial means for adult education, as he gets his revenues from his clients (fees and dues) and from the tax payers, be it by means of general taxes or of special educational taxes. Looking at the two large tax

able to pass their financing burden on to others apart from the possibility to reduce their tax debt. Workers, employees and civil servants might try to pass their financial contributions for adult education back to their employers in the course of individual or collective negotiations over remuneration. While success of doing so will be small, even in the case of success, employers will try to pass the burden on to their customers or back to their suppliers. A general conclusion may be allowed: Whenever economic organisations are expected to contribute to the financing of the learning of citizens, they will try to pass this burden on to the customer and consumer, respectively, by means of raising the prices of their goods. And they will be successful, at least in the long run.

paying groups, the individuals and the taxable organisations, the latter have by far the best chances to pass their burden of taxes and charges on to other economic subjects and ultimately to the consumers, respectively. It is safe to conclude that at the end, although many different groups of economic subjects may pay for adult education, only two societal groups are likely to bear the burden of financing adult education which are the tax payers and the consumers. As the tax payers are also consumers, it is safe to say that it is the consumers who bear the burden of financing adult education. However, it is not known, how this burden is distributed among them. A further conclusion is that due to the complex passing on processes, the cost of organised learning and adult education is provided from labour income and not from capital income, by that confirming that education and adult education, respectively, is an investment which has to be financed by the sacrifice of consumption.

5.4 Funding systems - why intervening in adult learning?

Although the economic approach is often considered to be too narrow to being the basis for political action in education systems (markets) its major advantage lies in the provision of an analytical tool for assessment. According to this line of reasoning, public intervention in learning markets should only take place if the market cannot be expected to work efficiently, i.e. if the market fails. Following Weisbrod's article (1962) a large debate came up whether education is associated with externalities and whether they can justify public intervention. Without going too much into the details the following section briefly reviews the core result with regard to adult learning.⁷⁵

5.4.1 Externalities

If externalities exist private returns diverge from social returns to training and the market will provide too less training opportunities because individuals or companies decide solely on the basis of their own benefits and do not take into account the benefits of others. As the total social benefits are higher as perceived by individuals or companies underinvestment in human capital will occur.⁷⁶

Recent research points to some important externalities, partly non-market, that arise due to education and training. Wolfe and Zuvekas (1997) mention, for example, social cohesion, technological change or crime reduction, which is also valid for adult learning as section 3.5 has highlighted. Some more have partially private and partially public rewards, like less reliance on income and in-kind transfers, and charitable giving. A better health status of the individual as well as for family members (children, spouse)

⁷⁵ This section is an extended, modified and updated version of a section prepared for a Cedefop-study (PPMI/FiBS 2012). The taxonomy is more elaborated and more tailored to empirical evidence than the previous version.

⁷⁶ An important argument with regard to training levies is usually the issue of poaching. Since this refers to company-provided training, we will refrain from presenting this discussion here.

can be assumed to have positive external effects because of a reduced contribution of others insured.⁷⁷

Furthermore, an improved competitiveness on the labour market or a reduced unemployment rate in the case of unemployment insurance or other welfare payments will reduce either the insurance contributions or the tax burdens and therefore have considerable externalities.

Snowder (1996) points to another externality linked or leading to a 'low skill, bad-job trap': sectors of an economy with bad jobs are characterised by low productivity and low wages and, often, by a high number of low qualified staff and, additionally, just a few people if any who are highly qualified. As firms will have to face difficulties to fill vacancies for high qualified staff, they do not have an incentive to provide them. This leads to low incentives to acquire human capital because of the returns will be low. A vicious cycle will result.

Ritzen and Stern (1991) mention also limited information and (inflexible) contracts. The first is due to the fact that employers cannot observe the productivity of training a worker receives in other firms. Due to this asymmetric information general training becomes specific. Such a problem will also occur if there is no certification system that clearly states which kind of course and of what quality has been taken. Furthermore, in case of high depreciation rates due to technological change (general) training has to be renewed from time to time. Yet contracts do not contain sufficient incentives for general training.

5.4.2 Liquidity constraints and capital Market Imperfections

A first financial barrier is liquidity constraints, resulting from insufficient liquid means, commonly because of low income, preventing participation. The common solution to overcome liquidity constraints are loans, provided by private banks or financial services. Although some examples of such private loans exist particularly for higher education (e.g. Career Concept, Fonds Deutsche Bildung or Deutsche Bank in Germany), the common experience is that private financing is rarely available. Another market-like solution is provision of public loans, which respond to capital market conditions, i.e. without state guarantees and market-like calculation of interest rates.⁷⁸ Such an approach is applied in Germany's higher education system through KfW as a form of 'public adoption of private behaviour'.

Capital market imperfections are the most accepted reason for a public intervention in education markets. Due to an insufficient ability to secure human capital invest-

⁷⁷ A study of Klepinger, Lundberg and Plotnick (1999) finds empirical evidence that early childbearing has negative impact on a mother's human capital formation and therefore on earnings. They conclude that public policies directed towards reduced teenage childbearing would likely have positive effects on the economic well-being of many young mothers. Furthermore, they can be expected to be longer in social welfare programmes (Grubb/Ryan 1999).

⁷⁸ Responding to capital market conditions means that the interest rates is based on the bank's interest rate for taking-up the money from capital markets, the default risk and the cost for administerin the loan.

ments, adverse selection and moral hazard, banks are either not willing to provide loans or would have to charge an interest rate far beyond the market rate making human capital investment unprofitable.

First, adverse selection can be directly related to the need to introduce a loan system for education investments, as the costs for adult learning are commonly rather low. Such small loans would be of particular interest for people who start from a disadvantaged position, particularly because of low income. Alternatively, the number of costly adult learning programmes is rather small, the costs to establish such loans are comparatively high, resulting in high interest rates, because of high administrative costs. It is likely that no market for adult learning loans will be established, unless the state intervenes in order to reduce the interest rates. For example, the interest rate for the Personal Career Development Loan in England was almost 10% (Cedefop 2012a). Furthermore, the limited market results in high interest surcharges because the costs to establish and operate the loan scheme have to be divided among few loan takers. Vice versa, economies of scale suggest to provide one loan scheme only. Another approach for (private) banks would be to sell normal consumption loans, where interest rates correlate negatively with the social position of the learner, i.e. people from disadvantaged groups, which are more in need to take up loans, will have to pay higher interest rates, because of the logic mentioned above.

Another aspect in this regard is the interest rate wedge between interest rates for savings and loans, resulting in higher return rates needed for those bound to loans compared to those who are able to finance their education through withdrawals from saving accounts (Dohmen 1999).

Secondly, moral hazard is relevant because there is an incentive either to earn no working income, to reduce it or to leave the country just for one reason: not to repay the loan.⁷⁹ Even without having the intention to default the repayment the risk of non-graduation and/or unemployment might lead to unaffordable loan repayments. The latter aspects are more relevant for women than for men so that women would face difficulties to get any loan. Thus, the capital market would provide too few loan opportunities.

If the interest rates for educational loans would be raised due to the aforementioned risks it would lead to differing individual and social rates of return, justifying public intervention into education and training financing, at least by providing interest subsidies for loans or debt-guarantees.

Capital market constraints – as a problem not only for financing higher education but also for vocational training – have been mentioned quite often (e.g. Lynch 1994; Greenhalgh and Mavrotas 1994 ; Acemoglu 1996). But it is questionable whether it is sufficient to relax credit controls to reduce barriers to competition among financial intermediaries or to provide loan guarantees as suggested by Booth and Snower (1996).

⁷⁹ There seems to be evidence that default rates in Australia are affected by people leaving the country without repaying the loan or even with the intention to avoid repayment.

Yet, even if private or public loans are available (at reasonable rates), individuals may be reluctant to take-up such loans for two reasons: risk aversion and/or uncertainty of returns.

5.4.3 Risk and Uncertainty of Individuals

Investment in education and training is risky. Neither do people know whether they will graduate successfully in advance in case of formal programmes nor do they know whether they will find an (adequate) new job and an appropriate wage payment afterwards or whether their adult learning will result in such benefits. Furthermore, limited empirical evidence does also not contribute to better knowledge about the returns to adult learning (see section 3 in this regard).

For certain forms of learning, particularly full-time formal adult learning, individuals are very seldom in a position to spread risk over several forms of investment. Either they invest in education and training or not. If they invest they need their total (available) income and often savings or have to take up loans so that they cannot save another share of their income. If their only investment in human capital fails they have to live in poverty. Individuals might decide not to invest in human capital but to remain unskilled, even though this might increase unemployment risk etc.

Thus, the government might intervene to improve income security by reducing the individual risk. Ritzen (1991) suggests an inverse insurance which could – under certain conditions – overcome the risk aspect of human capital investment.

5.4.4 Risk or debt aversion

Another barrier, related to loan funding only and which is gaining recognition and even acceptance in the economic literature, is debt aversion, which has been repeatedly confirmed, even among brighter university students (see e.g. Oosterbeek/Patrinos 2008; Patrinos/Oosterbeek 2010; Caetano/Patrinos/Palacio 2011), resulting in non-take up of loans, at whatever conditions they are available. An interesting finding is that human capital contracts, which do not use the wording of loans, are a possible solution to overcome this barrier although it is, in fact, a very special form of strict income-contingent loan (Caetano/Patrinos/Palacios 2011).

This finding is confirmed for vocational education graduates in Germany not intending to enrol in higher education though possessing the entry qualification to enrol in higher education. 63% of male and 77% female respondents argued that debt to finance the costs of studying is an argument for their decision not to study (BIBB 2010).⁸⁰

⁸⁰ Only two other arguments were more important: Lack of the required financial preconditions for studying (74% of male and 80% of female respondents, respectively) and the „wish to earn their own money as soon as possible“ (66 and 75%, respectively) (BIBB 2010).

5.4.5 Complementarity between General and Specific Training

Ritzen and Stern (1991) assume that general and specific training are complements. They point out that on the one hand a worker should have basic knowledge in his/her occupation if s/he is to learn details and on the other hand that his/her general education and training must be deepened by special training. "Inherent in complementary is that general training pays off more if it is combined with specific training, and that specific training is more profitable when it is done jointly with general training. Complementarity then means that employers will not invest in specific training unless workers have sufficient general training. The mirror image is that workers will not invest in general training unless they know that specific training will follow" (p. 5).

If both parties would live in a world of security as regards long-lasting contracts employers might be willing to participate in the costs of general training because they will gain due to spillovers for specific training. If turnover is high they fear that they will not gain and they will not be prepared to pay, resulting in underinvestment in training.

5.4.6 Distributional and Social Aspects of Public Intervention

The review of empirical data on participation in adult learning indicated that participation is often biased to the advantage of better-off individuals. To overcome this situation there is much agreement that some kind of public intervention is necessary for distributional and social aspects, e.g. equality of opportunity and equity.

The World Bank (1991) justifies public intervention for equity reasons for the poor, women, and minorities when carefully targeted for these groups; although this must not necessarily hold for all European countries, it is quite obvious that several countries face similar problems (see e.g. section 5.2 in relation to costs as barriers). According to their strategy and understanding this cannot rectify public provision of education and training or blanket subsidisation as the benefits spread to all people even to those who are neither poor nor disadvantaged.

Booth and Snower (1996) find that the inequality problem is also relevant for training and generally due to serious inequalities in income and wealth should be addressed by income redistribution policies and not by intervention into the training market.

5.4.7 Linking financial barriers and funding instruments – a taxonomy

Public funding for adult learning aims to reduce the individual's costs in order to increase participation rates. While the previous section reviewed the economic literature in relation to justifications for adult learning, the following section aims to translate the lines of argumentation into a taxonomy for public intervention, linking the financial barriers to funding suitable to overcome them.

A first financial barrier is liquidity constraints, resulting from insufficient liquid means, which would prevent from participation. The common first-best solution to overcome liquidity constraints are loans, provided by private banks or financial services. Yet, the common experience is that private financing is rarely available, apart from normal con-

sumption loans, and if so it is linked to high interest rates and usually not available to everyone, but restricted to those having high return expectations, leaving those aside mostly affected by liquidity constraints. Alternatively, consumption loans request higher interest rates for those economically worse-off, although section 3 and particularly section 6.1.2 below indicate that the social rates of return to these groups may be higher. A similar approach, which tackles liquidity constraints from another perspective are saving schemes or individual learning accounts; which require regular deposits on a bank account.

The weakness of private loan provision (high interest rates, selection of beneficiaries) might be either overcome by state guarantees or interest subsidies to private lenders or through provision of public loans, which respond to capital market conditions.⁸¹ Such an approach is applied in Germany's higher education system through KfW (Bank for Reconstruction and Development). While the former subsidises the private provision of loans (including the calculated profit rate), the latter is a 'public adoption of private behaviour'. Eventually, both aspects can be combined, if the public loan is subsidised through state guarantees or interest subsidies, reducing the interest rate for the individual beneficiary to a rate below the capital market interest rates. Yet, although loans or state guarantees/interest subsidies are the first-best solution from an economic viewpoint, they are, of course, not the only option. Second-best solutions, from an economic point of view, are vouchers or grants on the one hand or supply-side funding on the other.

However, even if loans are available at reasonable rates, individuals might not take-up such loans for several reasons. One, economically rational, cause would be if the individuals face difficulties in estimating the returns to adult learning (so-called "uncertainty of returns"), either because of limited empirical information and/or because of the difficulty to foresee future developments. A first-best approach to overcome such "uncertainties" is loan conditions, which respond flexible to different returns, e.g. in the form of income-contingent loans, human capital contracts or so-called 'graduate tax'⁸². However, since vouchers, grants as well as paid training leave and supply-side funding reduce the costs for the individual they contribute indirectly to "uncertain return expectations". In this regard, supply-side funding and grants, which reduce the individual costs to zero, would remove the risk completely and are thus another means to address individual return considerations, whether uncertain or low/no return expectations. Risk aversion means that returns are highly discounted, resulting in low/no return expectations; thus both lines could be taken together, but for clarity of analysis we do not combine them, from which we will refrain for completeness and clarity.

⁸¹ Responding to capital market conditions means that the interest rates is based on the bank's interest rate for taking-up the money from capital markets, the default risk and the cost for administerin the loan.

⁸² The term 'graduate tax' is usually applied in relation to university studies and financing; however, the principle is also applicable to adult learning.

The other barrier, related to loan funding, debt aversion (see e.g. Oosterbeek/Patrinós 2008) may be overcome by avoiding the word loans is a human capital contract, which is, in fact, a very special form of strict income-contingent loan (Caetano/Patrinós/Palacios 2011).

Another funding barrier is limited or no willingness to pay for adult learning, which is repeatedly confirmed by surveys reviewing this issue (Dohmen/de Hessele/Himpele 2007). A large share of people is not willing to contribute with own means to adult learning, suggesting high public subsidies to adult learning in the form of supply-side funding, 100% grants or vouchers.

Eventually, social and equity concerns result in support of those in worse-off positions, such as, for example, lowly qualified, low income earners, or other disadvantaged groups. This comprises all instruments, which are targeted at these groups or apply preferential treatment to them, e.g. in the form of higher funding amounts or share.

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/LA	Training leave	Supply-side funding	100% grants	fee reduction/redemption
Shared returns between state and individuals			X	(x)				
Liquidity constraints	X	X		X ⁶	X ⁵	X	X	
Capital market imperfections	(X ¹)	X ⁴				(x)	(x)	
Debt aversion	(X ²)			(x)		(x)	(x)	
Uncertainty of returns	(X ²)			X	(x)	X	X	
Risk aversion	(X ²)			(x)	(x)	(x)	X	
Expecting low/no returns	(X ^{1,2})	X ⁴			X ⁵	X	X	
No/limited willingness to pay						X	X	
Equity/unequal access	(X ³)	(X ³)	(X ³)	(X ³)	(X ³)	(X ³)	(X ³)	(X ³)

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 13: Taxonomy for financial intervention in adult learning financing.

Furthermore, as mentioned in the previous section, externalities, such as health, crime, which are not accounted for in individual cost-benefit analyses, justify public contribution in the form of grant subsidies (in whatsoever form, provided the public contribution is non-repayable), which also applies to public (fiscal) benefits, resulting from higher tax payments and/or social security contributions because of higher income. As the public budget gains from adult learning it would be fair to share in the costs; since

otherwise the public would gain a rent by appropriating part of the private returns without contributing to the cost (Barr 1998). Yet, if this is the case and tax allowances for adult learning are granted for tax payers, complementary allowances or cash benefits have to be provided to non-tax payers or low income earners benefiting less from tax allowances, granting higher tax repayment the higher the taxable income. Table 13 summarises this discussion and provides an intervention logic or taxonomy for an adult learning funding system.

5.5 Funding instruments – a systematic overview

Table 14 classifies the various instruments according to the level of state involvement, into self-financing, cost-sharing and 100% publicly funded instruments, complementing the previous table.

Self-financing concerns funding that takes place either through the individual and/or the employer, whenever the state is not involved in funding. Although self-financing can take place relying on current income, revenues or accumulated assets (see section 5.3), from the political perspective loans and saving schemes are more of a concern in this direction, as they can be designed in various ways, complementing the immediate sources of self-funding. Human Capital Contracts are a special form of a loan (Palacios 2003), developed in relation to the financing of higher education, while not yet discussed in relation to adult learning. However, classifying all these instruments under the category 'self-financing' requests that these instruments are neither state-subsidised nor backed. Whenever the state intervenes, it is cost-sharing.⁸³ However, state regulation may take place.

More difficult to classify are training leaves and payback clauses. On the one hand, leaves and payback clauses are often regulated through laws or other frames. On the other hand, various forms exist, leading to different categorisation; sometimes they are self-financing, often they concern cost-sharing with varying financiers. Therefore, particularly training leaves are classified into various groups and in one form it is even cost-sharing between state and employer or individual, if costs of living are reimbursed through public means, e.g. by unemployment benefits, as is the case in Austria and Finland.

⁸³ An exception from this definition might exist, if a public agency (bank) runs a loan scheme at market-like conditions, i.e. if the interest rates covers all costs, i.e. administration, deferment and default, without any other state subsidy or guarantee.

	Self-financing and cost-sharing (without state involvement)		Cost-sharing (with state involvement)		Public funding	
	Individuals	Employer/company	Provider	Individuals	Individuals	Employer/company
Individual	Loans (market conditions, with no state subsidy) Saving schemes (if neither subsidised nor state regulated) Human capital contracts	Payback clauses				
Employer/ company	Unpaid Training Leave Fees (if employer paid)	Paid Training Leave Training funds (national, sectoral) (if no public contribution)				
State			Vouchers/, Individual Learning Accounts Grants (cost-sharing, with financial contribution from individual) Loans (if subsidised or provided by state) Tax incentives Saving schemes (if subsidised or state regulated)	Grants for companies Tax incentives Loans (if subsidised or provided by state) Training funds (if state contributes to funding bases) Training leave (if state contributes to cost)	Supply-side funding (unconditional and conditional) 100% grants to individuals (where no co-financing is required) Fee waiver	100% subsidies (grants, which are provided from the government without any individual contribution, neither explicitly nor implicitly)

Source: Dohmen 2012

Table 14: Structure of funding instruments for adult learning

The largest group of instruments is clustered as cost-sharing instruments, covering all instruments where the state contributes partially to the costs of adult learning, e.g. tax incentives, vouchers/individual learning accounts, state-subsidised loans or saving schemes. Apart from training leaves, the same types of instruments can be named in relation to employers.

Eventually, public funding concerns 100% state funding, either through supply-side funding, 100% grants for individuals or fee waiver policies (for certain groups). However, with regard to supply-side funding it is often difficult to assess whether this is really 100% public funding or, in fact, cost-sharing, because it may not be immediately visible whether individuals have to co-finance a part of the (total) costs through learner fees, paid to the learning provider, or not.

The focus lies on instruments addressing (non-vocational) adult learning of individuals, i.e. funding targeting employers, such as, for example, training funds or grants for employers, will not be reviewed, even though they address the individual, ultimately.

5.5.1 Self-financed adult learning

The overview on costs borne by individuals (see section 4.1) as well as on funding volumes indicated that individuals bear a substantial share of the cost of adult learning. At macro level the individuals' shares were up to 0.4% of GDP or up to almost 50% of total costs in CH, though mostly it is between 0.2 and 0.3%. At micro level costs varied a lot, depending on the one hand on whether formal or non-formal learning is concerned, with commonly much higher average amounts for formal learning. On the other hand, the average amounts borne by the individual vary substantially between countries, depending on whether costs per programme or per mean hour of instruction are concerned. The highest average amount for a single programme was reported for formal adult learning in CY, with an average figure of € 3,300, which is also the country where one hour of learning was most expensive with € 90.

However, neither was the overview above able to specify to what extent adult learning programmes are fully-financed by individuals, nor does there seem to be any overview in the literature on the extent of self-financed adult learning. At first glance, one might argue that it seems likely that many (most?) programmes in adult education are only (partially) financed by those participating in the programme, i.e. they are paid by individuals. However, having another look, it seems more plausible to assume that statistics and surveys are mis-leading, because it seems likely that they provide only a partial view on adult learning. For example, AES 2007 reviews the costs for single programmes, but not the annual costs, which would be needed to estimate total spending from individuals. Thus, it is possible that the individuals' costs are under-estimated, in contrast to employers' and public costs, reporting on an annual basis.⁸⁴

⁸⁴ Another example may refer to Norway, where statistics provided by the Ministry of Education suggest that 25% of all adults participate in publicly funded learning, while the official participation rate is almost

However, the overview on funding volumes above would suggest that the relevance of self-financed adult learning may vary between countries and that its role is likely to be much higher in some countries than in others. The country with the highest share borne by individuals (44%) is Switzerland (see section 4), though this is still less than half; furthermore, at most a third of all European, or better EU countries, is covered in this study. Although Switzerland is among the countries with the one of the highest participation rates, according to AES 2011 as well as LFS 2012, it is the country with the second highest share of non-participants (more than 30%), pointing to costs are too high/not affordable (see section 5.2); furthermore the share of low-qualified arguing in this direction is even slightly higher. Another example is Romania, where participation rates are rather low and where more than 50% of non-participants mention costs as a barrier, which is by the highest share across all European countries. One expectation in relation to self-financing is that countries should have higher shares among low-qualified, arguing that they did not participate in adult learning, because of costs/affordability, than in other countries and particularly than the medium and highly qualified in their own country. From Figure 61 (in the annex) it is difficult to argue in one or the other direction.

A system of self-financing adult education requires the individual learner to finance his or her learning activities from their own financial means, which can mean from current income, from savings or from loans (see Table 12). The model defines a number of assumptions: a) the benefits should only flow towards the learner, b) the cost of learning should be borne (solely) by the learner according to the pay-as-you-use principle, c) supply of and demand for adult education follow the market allocation mechanism and are steered by market prices, d) learners with sufficient income are able and willing to pay these prices, e) learners from low(er) income backgrounds are only partly or not at all able to pay the market prices from their income, so they are expected to take (interest-bearing) loans which they will have to pay back later from their (hopefully higher) income, f) as it is assumed that due to the high investment risk and missing risk prevention no private capital market will set up in business, public loan or security programmes should be established to open access to adult education for the otherwise excluded individuals. The logic of the “pay-as-you-use” principle requires the loan takers to pay interest without any exception, while the “ability-to-pay” principle would suggest a mixed system of grants and loans, and the mixture of both would change depending on financial ability.

The main objection against the self-financing model argues that fees serve as a deterrent, and loans have a discouraging effect upon the low income groups so that investment in adult education might be lower than is optimal from a societal perspective, and the demand for adult education would unfold reflecting the unequal distribution of personal income in the society. If the education policy goal were the expansion of adult

60%. The difference gives room to challenge whether the share of funding from individuals is really only 15%.

education and higher participation of hitherto neglected societal groups, these two goals would very likely not be achieved. Another side effect might be a shift in demand from non-vocational adult learning to continuing vocational training. While self-financing as a pure financing mechanism does not find a majority of supporters, partial participation of the learners themselves in contributing a fee which does not at all cover the (full) cost of the programme seems to be acceptable by many. As will be seen in the following sections, the more recent debates focus on the question of how the purchasing power of the individuals could be strengthened.

The core result of the previous section is that self-financing by individuals is economically only justified, if only the participant benefits from adult learning. It seems likely that this condition is only rarely fulfilled (see section 3), e.g. in case of consumptional adult learning. However, even here demarcation lines may be blurred, e.g. if cooking classes result in better health of the individual, his/her partner and even more in case children benefit, whose performance in school might improve because of lower absence rates. However, some (programme) areas of adult learning are only consumptional. In general, though, it seems appropriate to consider co-financing, either in general – e.g. if benefits accrue also to others – or for certain target groups, e.g. those who cannot finance ‘non-consumptional’ adult learning.

An important counter argument to self-financing is shared returns in case income benefits arise, resulting in higher income tax payments. In this case, a tax incentive should exist (see next section).

5.5.2 Cost-sharing instruments

The structure of the following sections follows largely the intervention logic or taxonomy and the roles certain instruments play in relation to externalities or funding barriers.

5.5.2.1 Tax incentives

According to Barr (1998), tax deductions are a must if income is taxed, as otherwise government would appropriate part of the private returns to education and training. Tax-subsidies concern approaches where expenses for training and further training can be deducted from taxation.⁸⁵ A principle question is when can a tax deduction be called a subsidy or an incentive. Is this already the case, when training costs can be deducted from tax or only if the value of the tax deduction is higher than the cost? A Cedefop study (2009) on tax incentives in Europe argues that a tax deduction is to be considered an incentive only if the deductible rate is above 100%, which would mean that the number of countries applying tax incentives is rather limited and covers Austria in particular. If the requirements are lower, most countries in Europe would apply tax incentives (PPMI/FiBS 2012), even though the number of countries is much smaller, if deductible costs concern non-vocational adult learning; only 8 European and non-

⁸⁵ For a more extensive review and discussion of tax incentives for (adult education) see Dohmen (1999a, 2009c) and most recently PPMI/FiBS (2012).

European countries enable individuals to recover some of such cost;⁸⁶ In contrast, tax incentives play a stronger role for the reimbursement of costs incurred in relation to higher education as well as vocational learning.

An important question is, what are the effects of tax incentives in relation to participation. Strikingly, empirical evidence is rather limited. While Leuven/Oosterbeek (2007) argue that tax incentives almost double participation though at a very low level; Oomens (2003) argues, based also on research from the Netherlands, for windfall profits. A reason may be that those who decide about participation in further training make this decision according to other criteria than the criteria that an accountant might apply. In fact, it appears that both is correct, i.e. tax incentives may have a mobilisation as well as a deadweight effect; though this finding is valid for all instruments.

Two (rigorous) evaluations are available (Falch/Oosterbeek 2011; Oosterbeek 2013), both from the Netherlands. The first study concerns a special tax deduction, in addition to the normal one, for 'older' workers aged 40+ (Leuven/Oosterbeek 2004). Although participation rates of 'older' workers increased, this was merely due to postponement of training from the late thirties to age 40, respectively, suggesting strong deadweight loss. The second analysis (Leuven/Oosterbeek 2007), employing two different methodological approaches,⁸⁷ suggests that a 10% percentage point increase in the tax deductibility of training costs results in an increase of training participation of 0.33 percentage points, which is identical with a 10% increase in training rate (Oosterbeek 2013). The second approach arrived at even higher effects, indicating that an increase of tax deductibility of 10% percentage points results in an increase of training participation of 0.8 percentage point, equal to an increase of participation rate of 25%. Oosterbeek (2013) argues that the "true effect" is likely to lie in between both estimates. He also indicates that abolishing the tax deduction would result in a drop of participation rates by more than 40%, from 3.0 to 1.7% (ibid.). However, this is identical with a deadweight effect of about 55%, which is similar to other funding instruments, such as vouchers, for example (see below section 0). Strikingly, while Oosterbeek (2013) considers vouchers to be largely ineffective, because of a high deadweight effect of 60%, he argues that "tax incentives are an effective instrument to enhance human capital accumulation" (Oosterbeek 2013, p. 7). "At a marginal tax rate of 0.4 every Euro invested by the government in the form of tax deduction, leads to 0.75 to 1.5 euro's of private expenditures on training investment" (ibid., p. 7), which is a rate of 75

⁸⁶ It should be noted, though, that it is sometimes difficult to establish clear demarcation lines between vocational and non-vocational adult learning as well as higher education; furthermore, even though expenses for adult learning may be tax deductible by law, the practice of the taxation authorities must not necessarily comply with, because of sometimes difficult to establish demarcation lines between vocational and non-vocational adult learning, for example. While some taxation offices are more flexible, others apply strict and narrow definitions.

⁸⁷ The first approach builds around kinks in the tax rates, assuming that differences in participation rates slightly below and above the kink may be due to different tax rates. The second was based on changes in the tax rates between years 2000 and 2001 (Leuven/Oosterbeek 2007; for summaries see Falch/Oosterbeek 2011; Oosterbeek 2013).

to 150%. It will have to be seen, whether similar effects can be identified for other instruments.

In contrast, equity concerns can be brought forward against tax incentives. As income is the basis for tax payments and many countries apply tax regimes with increasing marginal tax rates, this immediately means also that the tax benefit is the higher the higher the taxable income, while those earning no or a low income do not gain (much) from reduced tax payments, as they either do not pay taxes or have a low marginal tax rate.⁸⁸ As a result, tax incentives support usually the prevailing participation pattern as the net costs (for comparably expensive programmes) are the lower the higher the income, because the tax reduction is higher. This suggests that additional measures need to be implemented to complement financing through taxation, e.g. income-related grants.

Tax credits, which are applied in two countries only, though only in EE with regard to adult learning, might overcome this problem, since they reimburse the tax payer in case of low or negative taxes, when the tax incentive turns into a grant.

Another, more general problem may remain though, i.e. that the individual would have to pre-finance the full cost of the programme and will then be reimbursed once the (annual) tax declaration is prepared and accepted and the reimbursement is made.

Eventually, it should be mentioned that tax incentives are among the few instruments that allow to account for more than direct (fee) costs, as they care for travel and accommodation costs as well as teaching and learning materials (PPMI/FiBS 2012).

Striving for information on take-up, more explicitly, and amounts spent from public budgets – or more precisely not paid into the public purse – information is limited. Cedefop (2009b) mentions an revenue loss of about € 30m in Austria (budget year: 2008), € 410m in France (2008) for some 3.2m employees enrolled in secondary or higher education. For Germany, 400,000 taxpayers should have claimed expenses of € 400m, equivalent to € 1,000 on average (2004). Based on an average marginal tax rate of 30%, this would result in revenue loss of about € 120m in relation to individuals' spending on adult learning.⁸⁹ In the Netherlands tax revenues were € 194m in the Netherlands.⁹⁰

⁸⁸ The reduction in the tax payment depends, in fact, upon the marginal tax rate, which impacts on the difference between the tax that would have been paid without the tax incentive and the tax finally paid.

⁸⁹ Importantly with regard to the funding volumes, estimated above, tax incentives result in redistribution between taxpayers, either individuals or companies, and the state; i.e. they do not lead to higher expenses for adult learning. Apart from the Netherlands, for which budget figures were available, tax deductibility has not been accounted for. Compared to other countries the public share is slightly higher in the Netherlands, while under-reported in other countries. In contrast, the share contributed by individuals and companies is overstated.

⁹⁰ Unfortunately, the report (Cedefop 2009b) is not entirely clear, whether this includes company spending or not; however, comparing the amount with Germany it seems likely that this includes companies' expenses. Just as a rough Figure, German companies spend € 8.7bn on direct expenses which doubles approximately if indirect costs are accounted for, which would result in tax expenses of about € 3bn and € 6bn, respectively, if the ZEW figures on the average taxation rate of companies are correct (ftp://ftp.zew.de/pub/zew-docs/div/Effektive_Steuernbelastung_Europa.pdf), though they apply to 2004,

In conclusion, it can be stated that, from an economic point of view, the tax deductibility of individual and employers training expenses is justified and well-founded. Firstly, the state benefits from educational investments (if income is the tax basis and adult learning results in higher returns or, in turn, avoids negative effects of non-training on income or employment) (see Dohmen 2003). Secondly, in order to avoid dis-incentives in relation to other investments. This suggests that tax incentives are a minimum requirement for the financing of adult learning, unless other instruments are available, compensating for such effects. However, as tax incentives reimburse costs of adult learning only, it needs to be complemented through other means, helping to pay for adult learning, in case of limited liquidity constraints.

5.5.2.2 Loans

Loans are a means to provide individuals without sufficient liquidity with the monetary means to finance adult education. Thus, they are an instrument to improve individuals' ability to pay and should form part of (privately) financed adult education. However, private banks are not much engaged with special further education loans, for several reasons. Firstly, the common arguments in relation to education loans apply also to adult learning, i.e. human capital cannot be safeguarded, for example, and returns are considered insufficiently secure, but risky. Even though this scrutiny could be overcome by state guarantees, another aspect is that the number and credit amount of adult learning loans is likely to be rather limited (see below), resulting in comparatively high interest rate surcharges. Instead, banks offer normal consumption credits for adult learning, for which the normal credits conditions apply, i.e. interest rates are higher for worse-off learners, requiring higher private returns to adult learning for this group to qualify take-up of a loan. And given the limited amounts required to cover the (direct) costs of adult learning, it is particularly the low-income earners and/or low qualified, facing this liquidity problem. Better-off individuals are likely to have sufficient means, unless they get engaged in costly programmes, e.g. to move to another vocational or occupational area.

This capital market imperfection calls for state intervention for three (economic) reasons: Firstly, because of the impossibility to safeguard education investments; secondly, because of the limited number and/or low average amount of adult learning loans, resulting in high interest surcharges, and, thirdly, equity concerns to reduce disadvantages of worse-off target groups. State intervention should be twofold; credit guarantees to keep interest rates at reasonable levels and subsidies to compensate for limited total credit amount. However, it should also be considered whether other instruments may be more economically, e.g. grants for certain target groups and/or segments of the adult learning market.

while the figures above are for 2008. However, this figures should only provide a very rough estimate in order to show levels and not exact figures.

An important aspect in relation to the role of funding in relation to participation is that loans show statistically significant (bi-variate) correlations with adult learning participation rates (see section 5.6 for more details).

The common expectation is that loans have a discouragement effect upon low income groups so that the investment in adult education might be lower than is hoped for from a societal perspective, and the demand for adult education would unfold reflecting the unequal distribution of personal income in society. If the education policy goal were the expansion of adult education and higher participation of hitherto neglected societal groups, these two goals would very likely not be achieved. Another side effect might be a shift in demand for adult education from adult non-vocational learning to vocational training.

Although, at first glance, loans exist in almost all EU-countries (Cedefop 2012; see also LSE Enterprise 2011), it is important to note that all but three schemes are for initial VET and particularly higher education. Focussing on adult learning, only four loan schemes are available for adult learning, i.e. the Swedish loan, the Personal and Career Development Loan (PCDL)⁹¹, the German master craftsmen loan (AFBG) and the Australian VET Fee HELP.

The approaches of these four countries to address adult learning are different. While, for example, Sweden has an overall instrument targeting higher education as well as adult learning at the same time, the UK employs the Professional and Career Development Loan, catering to adult learning in- and outside of universities. Introduced in 1989, as Career Development Loan, the amount of the loan is up to almost € 12,000 and, initially, subject to low interest rates (Verry 2003), actually the interest rate is more market like with 9.9% (Cedefop 2012a). No interest is in fact payable during the training and further training and for a further month – the government pays it during this period – nor have repayments to be made. Borrowers can defer the start of repayments by up to 17 months in case of unemployment. The funding period is two years at most; i. e. longer programmes are only partly funded.

This line of credit was opened in 1988/89 and by 2000/01 over 150,000 applications had been approved, which is an annual average of 11,500 loans (Verry 2003). Though more than 17,000 loans were granted in 2005, with a total value of £ 70 mln (€ 85 mln), the average number of contracted loans was 15,000 a year (LSC 2008a) and has dropped to approximately 10,000 recently (Fletcher 2011). A possible explanation for this development is that only 2 banks are still involved, whereas it were four previously. The average amount of each loan is at about € 6,000 (see Table 15 below). In contrast to vouchers or learning accounts (see below), around 60% of users were male, while the share of female seems to be slightly increasing over the years. The core age group is 20 to 29 years old, though a small share of users is also above age 50 and average level of programme costs are £3,300 (€ 4,000), but said to be increasing over the years

⁹¹ The PCDL will be replaced by another more comprehensive loan schemes, which will be briefly presented below.

(LSC 2008a).⁹² An evaluation clearly indicates that loans are an important source of funding for those with no other financing opportunity or with comparably high costs.

From 1.8.2013 onwards the PCDL and most other public funding for adult learning will be replaced by so-called “Advanced Learning Loans”, which is the major component of a new funding system; only certain parts of second chance education remain publicly funded.

Whereas the PCDL was a conventional mortgage-type loan, the „24+ Advanced Learning Loan“ is – like the loan scheme for higher education – income-contingent and has to be repaid at a rate of 9% of the income which exceeds the annual income of £ 21,000 (€ 24,600). For example, if someone earns £ 25,000 per year s/he would have to pay £ 30 per month (www.gov.uk/advanced-learning-loans/further-information). The repayment period will last until the original loan is completely repaid, inclusive of interest, whereas repayment will be stopped (temporarily), if the income is below the threshold of £ 21,000 (€ 24,600). The interest rate is variable and based on inflation rate (Retail Price Index) plus a surcharge of 3% during the learning period (and afterwards until next April). This rate is also valid if the annual income exceeds £ 41,000. In contrast, the inflation rate serves as interest rate in case that the income remains below the threshold of £ 21,000; between £ 21,000 and £ 41,000 the surcharge is up to 3% (www.gov.uk/advanced-learning-loans/further-information).

It appears that “Advanced Learning Loans” will be limited to so-called level 3 and 4-qualifications – this is A Level, Diploma and (higher) apprenticeships, whereas loans for university-based adult learning will be available through the study loan. Of interest is that the government expects an increase in demand for loans to 50,000 in the first and 160,000 in the second year, though experts cast doubts that such high figures are realistic (Fletcher 2011). It will have to be seen whether this complete overhaul of the funding system will result in increasing participation rates, other than envisaged in the recent past and which is also highlighted in LFS participation rates (see section 2.2).⁹³

The German master craftsmen loan (AFBG) supports the costs of living as well as additional training costs, as far as they are directly related to the programme, i.e. fees and examination costs. Funding is restricted to 24 months in case of full-time and 48 months in case of part-time programmes.

The amount and combination of grant and loan depends on what needs to be financed. Programme and/or examination fees can be supported up to a maximum amount of € 10.226, 30.5% of it is grant and 69.5% is an interest-bearing loan. Support for maintenance is, in principle, 44% grant and 56% interest-free loan. But, as the first € 150 is a loan, while the remainder is divided into the two shares of grant and loan, the effective grant-loan ratio depends on the total amount granted. Support for maintenance can be increased by € 215 for husband/wife and by € 210 per child. In this case

⁹² One out of six has costs of more than £ 5,000 (€ 6,000).

⁹³ The recently published AES 2011-data for the UK indicate a drop from 50% (2007) to 36%, confirming the decline in participation rates.

support is 50% loan and 50% grant. Lone parents can receive another € 113 per child as 100% grant. Until 2009 support for children and husband/wife was 100% loan and has then been turned into a 50% loan and grant. While support for programme and examination fees is granted independent from income, support for living costs is means-tested.

It should be mentioned that a reduction of 25% is granted upon application in case of successful examination. This reduction has been introduced to the regulations in 2009, and may have led – possibly in combination with other changes in the law – to an increased number of participants in the programme.

Repayment starts after a grace period of 2 years after the termination or examination, and can be extended to six years, if certain pre-conditions are met. The repayment period depends on the amount that has to be repaid, i.e. in fact it depends on the total amount of loan plus interest payments.

	Australia	United Kingdom	Sweden	Germany
	VET Fee HELP	PCDL	Study loan⁹⁴	Master craftsmen loan (AFBG)
Take-up	26.000 (2010)	10.000 (2010) (2005: ca. 15.000)	n.a.	166,000 (2012)
Eligible	54.600	n.a.		n.a.
Take-up rate	48%	marginal		-
Repayment conditions	Income-contingend; Income threshold: € 37.600	Mortgage loan, Income-contingend in future	Mortgage loan	Mortgage loan
Interest rate	Inflation rate, 0% in real terms	9,9% nominal	2,4% nominal	2,04% nominal; effective rate: 1.18% (May 2013)
Default rates	n.a.		10% ⁹⁵	
Date of establishment	2009	1989		1996
Responsible agency	State	2 banks (Barclay, the Co-operativ, previously 4 banks)	State agency	KfW/state
Credit volume	€ 90 Mio (average per contract: € 3.500)	€ 60 Mio. (average per contract: € 6.000)	n.a.	n.a.

Table 15: Summary of loan conditions and take-up figures

⁹⁴ This loan can be used for adult learning outside of universities.

⁹⁵ Es liegen keine weitergehenden Informationen dahingehend vor, worauf sich dieser Anteilswert bezieht. Es erscheint aber plausibel, davon auszugehen, dass 10% der Rückzahlenden, meist nur vorübergehend, mit der Rückzahlungs aussetzen. Dieser Wert sollte in keinem Fall als Ausfall im Hinblick auf das insgesamt ausgezahlte Kreditvolumen interpretiert werden.

The loan is free of interest for the duration of the training programme plus the two year grace period but interest-bearing for the repayment period. The loan-taker can decide whether s/he prefers a fixed or a flexible interest rate. The flexible rate depends on the 6-months Euribor plus administration costs plus risk contribution and is actually (May 2013) at 2.04% nominal and effectively at 1.18%.

Repayment has to take place in instalments of at least € 128 per month, but can also be higher if the total amount cannot be repaid within the maximum repayment period of ten years.

Eventually, the Australian loan scheme should be briefly summarised. Introduced in 2008, VET FEE help is a complement to HECS, the higher education contribution scheme, which has gained considerable attention over the last almost 25 years, because of its particular approach and the claim that it does not deter students from low-income families from studying. VET FEE help is an income-contingent loan for the financing of higher vocational qualifications, without any distinction between initial and further learning and without any age restriction, similar to HECS. The loan has to be repaid as a fixed share of income; 2 to 3% of income are to be repaid, if the income threshold of Aus\$ 49.095 (€ 37.600) is surmounted; otherwise repayment will automatically be deferred to later periods, when the individuals surmounts this income level.

26,100 learners applied for such a loan in 2010, which is a take-up rate of almost 50%, because the number of eligible learners is only 54,600; because only 95 learning providers registered under this scheme, arguable due to a highly complex accreditation procedure (DEEWR 2011). According to evaluation are persons older than 45 years of age under-represented; in the age group only 30% of those eligible make use of the loan (DEEWR 2011).

In 2010, Aus\$ 117.6m (€ 90m) were spent for this scheme (DEEWR 2011), which is in line with an average amount of Aus\$ 4,500 (€ 3,465). This is a considerable increase in relation to 2009 when only Aus\$ 25.6m (€ 19.7m) were disbursed.

Adding up, even though take-up numbers may be considered relatively small, it appears that loans are crucial for the financing of more costly programmes in order to surmount possible liquidity constraints, since most other instruments are limited to rather small amounts of funding. This is particularly valid with regard to higher education and to formal adult learning, e.g. master craftsmen programmes. The focus in this section was on adult learning loans, higher education loans will be reviewed in section 6.3. This brief overview revealed that the approaches employed in the various countries differ a lot from each other; some are combinations of loans and grants, e.g. Sweden and Germany, while others are loans only – though grants might also be available through other regulations. Important differences concern the form of repayment, although there may be some indications that labelling-effects exist (Caetano/Patrinós/Palacio 2011), suggesting that income-contingent loans may be advantageous, empirical evidence on the differences in take-up rates of mortgage vs. income-contingent loans is not conclusive, but it is still much debated.

The statistical analyses in section 5.6 will identify several links between loans and total (formal or non-formal) participation rates, according to AES/OECD 2007 as well as AES 2011. While this is valid for loans in general (covering CVET and study loans), the correlation for CVET-loans is even stronger and the significance level is commonly much higher (see Table 47 in the annex). Furthermore, almost significant results can be envisaged between CVET-loans and LFS 2010 as well as LFS 2011 participation rates, whereas this is not the case for all loans (incl. study loans). In addition, significant correlations can also be observed between loans and participation in non-formal adult learning, according to AES/OECD 2007 as well as AES 2011. Again, the correlation is stronger and the significance level higher for CVET-loans. However, it should be noted that the number of countries with CVET-loans is rather small. Eventually, all correlations disappear, once GDP per capita is controlled for.

5.5.2.3 (Co-financing) Vouchers⁹⁶

The overview in chapter 5.1 indicated that vouchers are one of the most prominent funding instruments in Europe as well as outside of Europe. 93 instruments, addressing non-vocational adult learning, could be identified among the ALFi-countries; another 6 exist in other countries.⁹⁷ As already mentioned, voucher models are particularly used in countries with decentralised responsibilities, which drives the high number. Furthermore, in some cases several organisations issue vouchers in parallel (e.g. in AT the states and the Chambers of Labour⁹⁸).

Vouchers can be distinguished in various ways. Looking at their history in relation to adult learning, it is of interest to note that the initial ideas were more related either to saving accounts or to use the individual's bank account for the transaction. Dohmen (2009) called these models therefore, first-generation vouchers; another suitable term to respond to this logic might be 'individual learning accounts', which has been used during these times. Looking more at today's practice, vouchers operate mainly through coupons, while money is disbursed to the learning provider's bank account. One major effect is that the individual has to pay less, which means also that voucher schemes can help to overcome or reduce liquidity constraints, though this depends much on the share that is co-financed by the state and the maximum paid. One may call this new type also 'second generation voucher'.

⁹⁶ Different from previous studies, this study does not use the term 'individual learning accounts' (ILA) for three reasons. The core reason is that, according to our knowledge, no scheme operates via a bank account, which would be a (technical) distinction from vouchers and grants. Furthermore, as far as we have been able to establish, no scheme operates as saving scheme, which would be comparable to the initial idea of ILAs in the UK, the Netherlands and Sweden (Dohmen 2007, 2009); saving schemes are discussed in a separate section 5.5.2.6 and cover the initial ideas to individual learning accounts.

⁹⁷ For completeness, it is worth mentioning that vouchers are labelled very differently, e.g. training vouchers, training or learning accounts, training bonus and Training Cheques, to name just a few. In this study the term grant is used for 100% publicly financed grants, where no cost-sharing is involved.

⁹⁸ In addition, the employer federations use there one model, which is targeted at vocational learning, though.

The following section summarises the available experience with vouchers and grants for individuals on the basis of a cross-sectional analysis of core elements, drawing particularly on the findings of this study at hand, but also on various other studies conducted in recent years on this instrument as well as on more comprehensive analyses (see for more presentations on country level Dohmen 2007; Cedefop 2009; Dohmen/Ramirez-Rodriguez 2010, PPMI/FiBS 2012).⁹⁹

The basic assumption of cost-sharing vouchers is that it is (at least) a (sub-) task of the state to (co-) finance learning opportunities. Instead of allocating budgets to the suppliers directly the state directs the money devoted to adult education to the demanding individuals in the form of vouchers or entitlements, respectively. These individuals would then unfold purchase and market power in the education market. The suppliers would have to offer their programmes under conditions of competition and would take either cost covering market prices or – in the case of co-financing – fees. A voucher would present a certain amount of money, and each eligible person (the largest group of eligible persons would be all people having finished compulsory education) would get a certain number of vouchers which could be used for all types of post-compulsory learning opportunities including adult education and being provided by state, private non-profit or for profit educational firms. Levin asks for accreditation of the programmes offered and being eligible for submission of vouchers by the state with respect to programme content, transparency and quality, procedures of complaint, accountability and other characteristics. Vouchers could represent subsidies or loans or a mixture of both, their value varies with income and also depends on ascriptive attributes of the recipients. In order to take into consideration the time preferences of the recipients and the possibility of paying interest on vouchers not yet used could be thought of. Such a voucher system would only work if a comprehensive information and regulation system is established which would have to prove the application of each applicant for vouchers and his or her claim basis, to determine the size and the composition of the vouchers (as to the grant and loan part), to control for the utilisation of the vouchers and to monitor the supply side to meet the standards set. As the voucher system focuses on individual choice between educational institutions and programmes, an elaborate information system is crucial which provides both sides, the suppliers and the customers, with useful and easily accessible information (e.g. about the programmes, their cost and their quality, their requirements, about the qualifications of the teachers resp. trainers, about the accreditation and quality standards, about the infrastructure and equipment etc.).

The strong merit of the voucher model is seen in its assumed ability to offer equal access to adult education for all who want and are motivated to learn because the financial incentive is equal for all. Moreover, it is expected that the efficiency of providing learning opportunities and of utilising these opportunities will grow. The intensity of these expected effects is likely to depend on the size of the vouchers as well as on

⁹⁹ As far as could be established, vouchers and individual learning accounts are only rarely established in the new member states (Cedefop 2009, 2009b).

their composition between the grant and the loan part. It is assumed that the effect of equalising educational chances, i. e. the demand for adult education from hitherto disadvantaged or underrepresented, respectively, social groups will be the stronger the higher the value of the vouchers and the lower the loan part will be. A problem which may have to be addressed is that different educational programmes will entail different costs and require vouchers of different size or number. This means that vouchers of equal value might reflect different amounts of education or training, depending on the programmes chosen. This problem of determining the appropriate voucher value is crucial, but cannot be solved in a general way but must be decided upon in the context of concrete constellations. Another open question is whether it should be allowed to add on private money to the voucher. If it were allowed, the goal of equalising access and utilisation of adult education might be endangered, if it were not allowed, those clients who were able and willing to add on might search for alternative private ways of investment. The distinction between co-financing vouchers and full-cost grants, is covered by the terms vouchers (co-financing) and grants (100% publicly funded).

This difference between vouchers, which are analysed in this section, from grants analysed in section 5.5.3.2, is that the state does not cover the full costs but requests co-payments of varying size from the participant; this is called cost-sharing. Furthermore, the term ‘cost-sharing’ here concerns particularly the direct cost of learning in form of ‘fees’.¹⁰⁰ Before presenting the details, it might be worth noting that vouchers for non-vocational learning are mostly available in the upper half of the medium and the high participating countries, which could – though in conjunction with other instruments – suggest that they are conducive to high(er) participation rates. The following section reviews vouchers more in-depth.

5.5.2.3.1 The scope and take-up of the model, funding recipients and target groups

Four different approaches can be distinguished in terms of their scope and the number of those basically eligible for funding. On the one hand, there are models oriented towards (1) all or at least (2) large groups of the population. On the other hands there are models targeted a very specific groups (3), e.g. older or low-qualified people and, eventually, (4) pilot models, which intended to gain experience with vouchers.

Universal vouchers

Reviewing the practice across countries, it appears that universal models are rather scarce. At best the comprehensive models in Norway and Sweden may fulfil this requirement, while all other instruments are more or less targeted. Even the initial Individual Learning Account in the UK was largely comprehensive. In contrast, the other large scale models, such as, for example, the German Bildungspremia, the training

¹⁰⁰ In an even broader understanding, cost-sharing could refer to the total costs of adult learning, inclusive of learning material, travel and accommodation expenses, etc as well as opportunity costs, such as income foregone.

cheques in North-Rhine Westphalia or Brandenburg, or to some extent regional models in Austria or Italy, all have their specific groups, which are eligible.

Among the “universal models”, the British ILA, which was established in 2000 and abandoned in 2001, can still be regarded as the biggest of its kind so far, as it was oriented towards all adults and resulted in a total of 2.6m accounts being opened. Far less (1.4m accounts) were eventually utilised for learning.¹⁰¹ Eventually, it might also be of interest that even a number of 2.6m recipients would end up in a take-up rate of less than 10% in relation to the eligible population. It is an interesting and important overarching finding that even such comprehensive schemes do not – or very rarely – seem to reach two-digit take-up rates.¹⁰²

Large-scale vouchers

Different eligibility policies are employed, for example, in Germany. While the training cheque NRW (Bildungsscheck NRW) targeted people employed in SMEs of up to 250 employee, which covers the vast majority of employees, the federal education premia (Bildungsprämie) was initially restricted to individuals with a taxable income of € 20,000 and € 40,000, respectively, in case of jointly taxed couples, the income threshold was later increased and reduced again. The training cheque Brandenburg addresses all individuals, employed on contracts which are subject to social security contributions. However, even despite the comparatively broad eligibility, take-up numbers are limited, by and large. For example, the training cheque NRW arrived at a maximum number of 87,600 recipients, which is approximately 1% of the state’s labour force. The federal education premia might have had a maximum number of approximately 95,000 in 2011,¹⁰³ which results in a take-up rate of utmost 0.4%,¹⁰⁴ possibly even less; interestingly, the rate would be very similar, if the participants in adult learning (appr. 22m; AES 2011) are the basis. In relation to all adult people, take-up rate would be even less. However, it would be around 1.7% of those adult learners, spending own money.¹⁰⁵ This example highlights also that establishing take-up rates is not

¹⁰¹ For a more detailed description of this model see e.g. Cheesman 2003; Dohmen 2007; Cedefop 2009; Dohmen/Ramirez-Rodriguez 2010; Dohmen/Timmermann 2010.

¹⁰² Despite efforts in this direction, we have not been able to establish take-up figures for particular funding instruments; the experience from this and previous studies (PPMI/FiBS 2012) is that such figures are either only rarely available or not provided to third parties for whatsoever reason. From Norway, for example, we received a table with detailed figures on numbers of people enrolled in certain strands of adult learning, and added was the notion, „all these forms of adult education are either partly or fully (for primary and secondary education) funded by the state. In total, public funding would have reached between 663,000 and 740,000 people in 2011 and 2010, respectively. In relation to 2.6m adults aged 25-64, according to Eurostat statistics, this result in a take-up rate of 26 to 28%, which is a rate far ahead of almost all other countries, probably except for some other Nordic country.

¹⁰³ This figure is estimated based on a combination of information from various sources; the only information, which has been published, refers to 164,000 recipients since launching the programme. Although this figure has been published in March 2013 (Press release, 26.3.13), it is likely, though, that it refers to the first 3-years funding period only.

¹⁰⁴ The estimate is based on the assumption that appr. 60% of people employed earn an income below the threshold; according to our knowledge no specific figures are available in this regard.

¹⁰⁵ According to Gnahn/von Rosenblatt (2012), 25% of all adult learning contribute own means.

easy, as it depends a lot on the exact specification of the eligible population; and not all adult learners in Germany are eligible; in the case of the education premia, it addresses particularly people in employment with a taxable income below € 20,000 and € 40,000 for married couples, respectively.¹⁰⁶

Another example of a ‘large-scale voucher’ is the training cheque Brandenburg, addressing almost the state’s whole population in employment with a high funding share of 70% and up to a limit of € 3,000 per year. However, even such generous conditions are obviously not linked to high take-up figures. Only 1,400 people received a voucher in 2012; this is approximate 0.1% of those eligible; though no specific information about the participation rate in adult learning in Brandenburg is available. Other example from the German laender can be found, addressing larger segments of the adult population (Dohmen 2013a, 2013b).¹⁰⁷

In Italy, the regional vouchers are usually oriented towards employees in various contractual relationships and life situations, while the credit cards introduced in 2006 in three regions are available for individual further training in particular for the unemployed and employees with atypical employment agreements. The regions and autonomous provinces have positioned and committed themselves in very different ways in this area in recent years. Emilia-Romagna and the Marche were the first regions to try individual funding for training. Some regions have preferred to fund companies rather than provide vouchers to individuals. The autonomous province of Bolzano-Bozen is the only territory in Italy that also provides individual vouchers to the unemployed registered with the employment office.¹⁰⁸

In Switzerland, in the case of Geneva, vouchers are available to the all residents with a maximum income of CHF 88,340 (€ 74,000). According to our knowledge, this is a shift from previous policies; initially those groups were targeted who take part in further training at low levels. In the first four years after the introduction 8,027 further training vouchers were issued to 5,850 persons, a rate of just 6% (Commission externe de’évaluation des politiques publiques (CEPP) 2006). Take-up rates are at around 5,000 to 5,300 in 2009 and 2010, respectively, which is a take-up rate of 17% in relation to 31,000 to 31,500 people eligible.¹⁰⁹

The situation in Austria is complex. Individual federal states’ models can account for up to 20,000 participants funded per year (see, for example Bauer 2009; Dohmen 2007), but models differ by target groups, coverage of programmes and level of co-financing (Dohmen 2007; Dohmen/Ramirez-Rodriguez 2010). It must also be taken into

¹⁰⁶ Prior to the last changes, job returners were also eligible and the income threshold was € 25,600 and € 51,200, respectively.

¹⁰⁷ However, since all of these example refer to vocational adult learning officially, neither is included in Table 11.

¹⁰⁸ For more information on the regions see Bianchi (2005), Dohmen (2007), and Dohmen/Ramirez-Rodriguez (2010).

¹⁰⁹ These figures of 31,000 and 31,500, respectively, may be perceived to contradict with the eligibility criteria (all adults). Furthermore, in certain cases, if costs are up to CHF 750 100% of the costs are covered; in this case the cost-sharing voucher turns into a 100% grant.

account that vouchers are also available from the Chambers of Labour, while those of the employer federations are restricted to vocational learning; this double and triple funding explains the high number of vouchers to some extent; other instruments concern special groups, such as mature students for example. In the first two years after the introduction of the model, the Chambers of labour issued a total of 120,000 vouchers and between 2002 and 2006 a total of around 290,000 vouchers provided. This gives an annual average of around 60,000 vouchers throughout Austria, reaching 2% of the target group. It would therefore seem reasonable to assume a total number of around 80,000 participants funded per year for vouchers and learning accounts from the Austrian states (Länder) and chambers of commerce in total. If these figures are realistic, by and large, this would be equivalent to an estimated take-up rate of around 3% of Austria's adult population.

Targeted vouchers

A third group of vouchers targets certain, very specific groups, which are often well defined. Various examples of very specific vouchers can be found across Europe, employing different approaches. The first group is exclusively targeted at certain groups, the second form is so-called preferential treatment, i.e. certain groups receive higher shares of co-funding or higher maximum amounts. An example of preferential treatment has been presented in the previous para, with the ILA+ in Vienna.

A very specific voucher is, for example, employed in Trento province in Northern Italy, targeting people at risk of social exclusion, elderly, low-qualified and women, particularly. 36,000 people received a voucher, which is about 7% of the population; as far as we know, no information about the size of the target population is available.

For example, the models in Wales and Scotland, which were established only shortly after the UK ILA was abolished, are different in value and target group. In both regions, a so-called ILA200 with a value of £ 200 (€ 240) is targeted either at low income (Scotland: £ 22,000; € 26,500) or low educated (Wales: below level 2) groups, while an ILA100 can be used by broader target groups.¹¹⁰ The Wales voucher was disclosed in March 2011.

The Austrian capital of Vienna employs the so-called "Vienna Employment Promotion Fund" (Wiener Arbeitnehmer/innen Förderungsfond – WAFF), targeting various groups through different lines of funding, ILA and ILA+. Established in 1995 the focus is on vocational learning for unemployed, people on parental or education leave and welfare benefit recipients. In the case of second chance education, e.g. in order to get a vocational or lower secondary education qualification, 80% of costs, up to € 450 can be financed. Recently, new lines were established, ILA and ILA+. While the ILA grants between 10 and 50%, with a maximum of € 1,000, the ILA+ co-finances 50 to 90%, up to a maximum of € 3,000; the latter targets people with a net-income of utmost € 1,400

¹¹⁰ Although the new model is named "Skills Account", it does not seem to be similar to the voucher or account models summarised in this section.

and at most lower secondary education qualification. This scheme is one of the very few examples operating via the learner's bank account.

In 2011, the WAFF supported almost 8,370 employed and unemployed people through two different lines of action; more in detail, 6,100 ILAs and 2,260 ILA+ were issued. While the average amount of support of the ILA is € 204 (p.a.) that of the ILA+ is five times higher at € 1,026.

The Flemish Training Cheque (target group: employees), which was introduced in September 2003 supported 932,000 people in total by the end of 2008, almost 1.1m applications were registered. In 2008, the number of vouchers issued was 200,000. In relation to 2.1m employees, the voucher scheme reaches 9.7% of the target group (Heyman 2010).

The German state of Rhineland-Palatine supports continuous training for workers of at least 45 years of age and SME employees through a so-called "Qualification cheque". Beneficiaries receive grants amounting to a maximum of 50 per cent of their training costs, up to € 500 per year. In contrast to the "Bildungsscheck NRW", a minimum level of € 60 annually is given and engagement in the training programme of interest must occur three months after the issuing of the education cheque.

In 2008, the German state of Hesse established a scheme with an identical title „Qualification cheque“, targeting employees in SMEs, if they do not possess any degree in the field they are currently working in, or are at least 45 years of age or are working part-time, less than 30 hours a week. In addition, instructors can be supported irrespective of age or qualification. Equipped with € 8m for the period 2007 till 2013 for about 11,200 vouchers; almost 5,000 vouchers were granted until the end of 2011. In 2010 and 2011, almost 1,800 individuals benefited each year. However, it is evident that take-up is below planning figures. Take-up figures in Rhineland-Palatinate are likely even lower, though no official data is available. During the first year, between July 2009 and July 2010 872 „QualiCheques“ were granted, however, take-up numbers increase commonly over time.

While the voucher in the Swiss canton of Geneva arguably is open to all adults, in spite of up to 31,500 eligible, the canton of Fribourg provides vouchers to low qualified people only.

Pilot vouchers

Eventually, a fourth group of vouchers models are pilot projects that reach a very small number of people, commonly established in the early years of the last decade; therefore, this para is very brief. In the Netherlands a total of around 2,500 accounts were opened during two trial phases. In Flanders (Belgium) the number of ILA accounts was 400. The same applies to the Swiss experiment, providing 2,400 individuals with vouchers, of which only less than 20% made use of the voucher (Wolter/Messer 2009; Messer/Wolter 2010). Such small plans aim to provide experience on feasibility, suitable forms and functionality (for more details see Dohmen 2007).

5.5.2.3.2 Funding share, amounts and beneficiary co-payment

All three components are to some extent independent from each other and to some extent interrelated. As this section reviews cost-sharing arrangements, eligible costs are always shared between the state and the individual beneficiary and funding shares complement each other necessarily.

While previous research suggested that the ‘average voucher’ covers 50% up to a maximum state contribution of € 500 (Dohmen 2007; 2000; Dohmen/Ramirez-Rodriguez 2010; Dohmen/Timmermann 2010), this does no longer respond to the heterogeneity of regulations. Instead, a new typology seems more appropriate, dividing vouchers into three or even four categories. A first group of vouchers covers the full costs up to a certain maximum amount; examples for this are the ILAs in Scotland, Wales or the Swiss Canton of Geneva. While the two former schemes provide comparatively limited amounts of up to £ 100 or 200 (€ 120 to 240), respectively, the Geneva voucher is more generous with CHF 750 (€ 600). In practice, this means also that some beneficiaries may receive a 100% grant, while others may have to co-finance large parts themselves, in case of costly programmes. Implicitly, there is a sliding scale of co-financing shares.

The second group concerns vouchers with established and fixed co-financing shares until an upper threshold of the co-funding amount is reached. This seems to apply to the majority of schemes, though with largely varying co-funding ratios. A first cluster requires ‘low’ individual co-funding of up to 25%, as e.g. the Polish (20%) or the Maltesian (25%) grant for individuals or the Upper Austrian Education vouchers in certain cases, where preferential treatment is applied. A second group requires co-funding of around 50%, which seems to be the largest group, e.g. Upper Austrian voucher (regular rates), the Belgium opleidingscheque, the CZ Third Age University for elderly people and several German models; yet, it should be noted that only limited information is available in this regard. A third group requires high individual contributions and provides only limited public co-funding. However, it should be noted that in most cases upper limits of public co-funding are established, which are often in a range of up to € 300; higher public funding is only rarely the case and often even limited to certain specific target groups (see below).

A sub-group of such co-financing shares concerns models applying different ratios to different target groups. Examples of such schemes are the Vienna ILA/ILA+, another example is the Further Education Bonus (Weiterbildungsbonus) in the German state of Hamburg. This scheme applies very different rates to different target groups, e.g.

- Employed or self-employed low-qualified, migrants, unskilled: 50%, max. € 750
- Employed or self-employed in SMES: 75%, max. € 2,000
- New entrepreneurs (receiving unemployment benefits (ALG I, II) or self-employed (ALG II): 75%, max. € 1,125
- Employment, subject to social security contributions: 100%, max. € 1,500
- Employment on the basis of so-called “Hamburg Model”: € 2.000.

This overview indicates a rather complex situation, aiming on the one hand to provide different funding opportunities to people with different characteristics, resulting on the other hand, in complex regulations, which may even establish new barriers to participation.

Eventually, a fourth group requires a lump-sum contribution from the individual, as for example, the Italian Trento voucher, where the individual has to pay € 150, independent from the exact costs of the learning programme.

The funding amounts of cost-sharing vouchers and grants vary considerably. On the one hand are several models limiting co-financing from the public purse to € 300 or even less; e.g. the ILA Scotland and ILA Wales, the voucher of the Austrian Chambers of Labour, the Flemish training cheque¹¹¹. On the other hand, the maximum funding is rather high in certain cases; e.g. the Austrian WAFF (ILA and ILA+) or the training cheque Brandenburg, providing up to € 3,000. Other examples of comparatively high amounts are the certain support lines of the Further Education Bonus in Hamburg. In between these two ends are schemes, such as the German federal training voucher or the Training cheque NRW provide public co-funding of up to € 500 or the Geneva voucher with up to € 600.

Another approach is employed, for example, in some of the Austrian Laender (states), where maximum funding amounts have a much higher value at first glance, which are, though, to be spread over several years, so they usually average out within the range of € 300. Only Tyrol, where vouchers can be worth up to € 500, with 25% of costs shared by the government, is different in this respect. Funding amounts are higher in Vorarlberg, with up to € 250 per month or 2,500 per year, but this subsidy is paid for full-time training and is therefore designed to replace income. The Chamber of Labour vouchers provide € 100 to 200 annually, with certain regional differences. In the canton of Geneva (Switzerland) the average value of the 8,000 training vouchers used was CHF 600 (about € 370).

Government funding was around € 450 in both phases of the Dutch pilot project and could be added considerably through payments made by participants or by third parties. In the first phase of the experiment with two pilot models, a personal contribution was required, either as a one-off deposit of € 22 to € 200 or through participation in a further training measure in the participant's free time. In the second project phase this was the case in five models.

In Italy, in contrast, comparatively high amounts can be provided, with vouchers having a value of between € 500 and € 5.000 and covering around 80% of costs. Participants have to pay up to 20% of costs themselves. The training credit card, which is oriented towards only certain target groups, has a value of up to € 3,000 over a period of two years.

¹¹¹ The funding provided through the Flemish Training Cheque covers 50% of costs, with a maximum of € 250 per person and year, i.e. the public contribution is up to € 125. Only those having no upper secondary education qualification receive funding of up to € 250 annually without making a contribution (preferential treatment).

Interestingly, though, is that average funding in Germany seems largely independent from the maximum amount or the share certain co-financed. The average amounts of the federal education premia, the training cheque NRW as well as Brandenburg arrive at figures of about € 320 to 350 (Dohmen 2013a; 2013b); only the Hamburg Further Education Bonus had a considerably higher amount of € 600 to 650 in 2010 and 2011; however, average funding came down to € 500 in 2012.

An important question is whether funding amounts and/or shares make a difference as regards take-up rates. Although this question has rarely been investigated yet, some figures, coming from different angles, point into this direction. Firstly, take-up figures from an experimental approach in Switzerland show that take-up rates for higher funding amounts are higher (Messer/Wolter 2010; Wolter/Messer 2009). The take-up rate of the voucher worth € 1,100 was thrice as high as those of the vouchers with a value of € 150. However, as a negative result, even deadweight loss increased with level of maximum support, i.e. share of highly educated and high(er) income correlated positively, while mobilisation effect decreased (Wolter/Messer 2009).

Secondly, the increase in take-up of the German education premia from roughly 600 applications per month on average in 2009 to around 8,000 in 2011, can probably be explained to some extent by the increase of maximum funding from € 154 to € 500; unfortunately at the same time the income threshold was raised from € 20,000/40,000 (single/jointly tax paying couples) to € 25,600/51,200, making a clear assessment rather difficult.¹¹² However, it is likely that the former has an impact of its own, even though all take-up data from Germany indicate that new instruments need time to arrive at their normal level; in the first two to three years the number of recipients is gradually increasing, starting sometimes from surprisingly low numbers. For example, the training cheque NRW started with 21,000 in 2006 and increased via 73,000 to almost 88,000 in 2008, through dropping afterwards again down to some 25,000 in 2012 (Haberzeth/Kulmus 2013), because of changes in eligibility criteria.

This issue of 'changing eligibility criteria' points to another important aspect, steering of take-up numbers for two reasons: Firstly, countries aim to spend certain amounts of money over the funding period, if funding is co-financed from ESF. As member states would have to spend excessive amounts from their own budgets, they have an incentive to limit utilisation to the maximum amount available from ESF. Secondly, they have an incentive to spend as much as possible, if the national contribution comes from private sources, which is the case, for example, in Germany. This can result in varying funding conditions, sometimes aiming to limit take-up, sometimes to boost take-up. An example in this direction is the training cheque Brandenburg, which had initially similar conditions than the training cheque NRW and increased its maximum amount and share of co-financing in order to arrive at higher take-up figures.

¹¹² This change of two components at the same time hinders a clear assessment which of the two is more important concerning the strong increase. As far as could be established, the evaluation will not be in a position to separate both effects.

5.5.2.3.3 Socio-economic characteristics of participants

If the socio-economic characteristics of funding recipients are examined, it is especially noticeable that the proportion of women who opened up a learning account or used a voucher was much higher than the proportion of men in almost all models examined. This may in some cases be due to the focus on certain occupational groups (Bollens 2003), as in Flanders and the Netherlands, but seems not to depend on this factor alone. For example, 70% of those using the Bildungsscheck NRW were female (SALSS 2008), while the share seems even higher among the federal Bildungspremia. In contrast, females are underrepresented in the case of Germany's unemployment voucher, due to the fact that the chance of successful integration into the labour market, which is a pre-requirement to issue the voucher to an individual, is lower than for men. Thus, this result follows the pure logic of the scheme.

The socio-economic characteristics of participants also correspond to expectations; i. e. utilisation rates increase together with educational levels and/or professional position. This suggests that windfall gains are relatively high, although some considerable mobilising effects also have been achieved, as several evaluation reports suggest: in these cases adult education and further training would not (or only to some extent) have been possible without financial support (Dohmen/Ramirez-Rodriguez 2010; Wolter/Messer 2009; Doets/Huisman 2009; Dohmen 2007).

In terms of reaching disadvantaged target groups, i.e. in particular the unskilled and educationally disadvantaged groups and older employees, a fairly mixed picture emerges, leaving space for interpretation in both directions. In England for example, 22% of persons who opened an account had not requested any further training in the past 12 months. 56% of users could not have financed the training otherwise and 16% had no vocational qualification (McLaughlin 2007). In Scotland 51% of participants stated that they could have financed their training even without the account, in England this rate was 44%, in Northern Ireland it was 31% and in Wales 49% (The Scottish Parliament 2001). In the German state of North Rhine-Westphalia 45% of the participants had not participated in adult education for at least five years (Matzdorf 2010).

Among those using the training voucher of the Austrian Chambers of Labour in the first two years, 18% took part in further training for the first time and 45% could not have taken part in training without the voucher (Elap 2006).

This means on the one hand, that in Great Britain and in Austria between one third and a half of participants would have undergone training without government assistance, but on the other hand that at least half, and in Northern Ireland over two thirds could not have taken part in further training without support. Even if this does not show any direct effect on disadvantaged target groups, a certain mobilising effect can be assumed, but it is hardly possible to exactly identify the size of the mobilisation effect. Further activity is however needed to improve the achievement of goals in this area because in almost all, if not even in all models, older employees for example, are underrepresented. The same applies to low-skilled workers (see Bollens 2003 on Flanders; SALSS 2008 on the German state of North Rhine-Westphalia).

Conversely, it can be stated that the number of highly qualified participants is generally disproportionately high. In Flanders, the utilisation rates of the Training Cheque and the Learning Account increased with educational levels, with the proportion of the unskilled using the Training Cheque at 15% lower than for the Learning Account (23%).

Employees in small and medium-sized enterprises (SMEs) are usually also under-represented. 40% of those using the Training Cheque in Flanders came from companies with fewer than 50 employees. 40% of users for whom information on training behaviour was available, had not taken part in any further training in the previous two years. This represents quite a significant effect in our view. The Bildungsscheck NRW (North Rhine-Westphalia) was said to have reached a share of 70% participants from SMEs with less than 50 employees, although this is a high share, it should be noted that the scheme was directed at SMEs (with less than 250 employees) and that in general up to 90% of all employees are employed in SMEs.

Of the 123 companies participating in the Dutch pilot project, one third had fewer than 10 employees, one third had between 10 and 100 employees and the remaining third more than 100 employees. Among the account holders over a third had (35%) an educational level of the general upper secondary education qualification at most, and 55% a vocational upper secondary education qualification or comparable qualification. The remaining 10% may have had a tertiary education or university degree, although Geertsma et al. (2004) do not state this clearly. In the second phase, of the total of 1,400 learning accounts, 500 (36%) were for jobseekers and 900 (64%) were for employees.

A finding of the German voucher for the unemployed, which contributes to the socio-economic bias, is that the lowly educated obviously have difficulties in taking the decisions required to make use of the voucher. This group was overrepresented among those who did not use the voucher although they qualified for the labour market access criteria¹¹³ (Kruppe 2006, 2008).

A matter of interest that is indirectly related to socio-economic factors is the regional distribution of voucher utilisation. Results from the German voucher for the unemployed scheme suggest a regional bias, when the number of participants is – at a given voucher value – too low to arrive at cost-covering levels from the adult education supplier's side. In this case, less densely populated areas may be disadvantaged compared to cities (Dohmen 2005).

5.5.2.3.4 Summary and evaluation results

This section reviewed the available information on the operation of vouchers, showing the huge variety of approaches across the almost 20 countries at the core of this study. However, the core question remains still to be answered: are vouchers effective in rising demand and targeting participants. If the answer would be based on recent

¹¹³ This criterion required a 70% labour market entrance probability within six months after the training, supporting pro-cyclical effects within regions, resulting in less vouchers issued in economically worse-off regions compared to better-off regions (Dohmen 2005).

research from Falch/Oosterbeek (2011) or Oosterbeek (2013), the answer is likely no. Their core results can be summarised as follows: Based on very few studies, particularly from Switzerland (Wolter/Messer 2009; Wolter/Messer 2010; Messer et al. 2010), which are considered most reliable and rigorous by Falch/Oosterbeek (2011) and Oosterbeek (2013), 60% of voucher take-up is deadweight loss, because these participants would have participated anyway. Not surprising is that, as mentioned already above, take-up increases with the voucher value and with educational attainment of the recipient. This result can be found in several evaluations of vouchers in adult learning (e.g. Dohmen 2007; Dohmen/Ramirez-Rodriguez 2010); furthermore, this applies to vouchers across all education sectors (Dohmen 2010; Dohmen/Fuchs 2007) and is largely due to the specific characteristics of the voucher, because it builds on information, quality-based decision making and active action, e.g. in opting and moving to other schools or learning providers. One could pronounce it even more: vouchers are an instrument from the better-off for the better-off; consequently, voucher schemes will be biased (Dohmen 2007, 2010; Dohmen/Fuchs 2007). Thus, the request to refrain from comprehensive ‘vouchers for all’ but to target it to disadvantaged groups is not new – however, the conclusion remains valid.

This study approaches the question above from another angle: section 5.6 on funding and participation will show that vouchers may be linked to higher participation rates in non-vocational, non-formal learning, i.e. countries with higher participation rates employ more voucher schemes measured, in full-country equivalent (FCE) numbers (see in this regard section 5.6.1); yet the correlation is only significant at the 10%-level. This indicates that it is too early to come up with conclusive results; also because the concept of FCE numbers of instruments is still in its infant phase and needs further work and the results are only based on bi-variate statistical analysis.

Furthermore, whether this means targeting certain groups exclusively, through preferential treatment or through more comprehensive schemes remains to be seen. The same applies to the question how to balance mobilisation effects and deadweight loss, as both occur at the same time. Eventually, it needs to be mentioned that Oosterbeek’s (2013) argument is biased: with regard to tax incentives he argues that they are an effective instrument although he arrives, in fact, at a deadweight effect of 55% and for vouchers he argues that they are ineffective because of too high deadweight effect, though the effect is only 5% percentage points higher.

5.5.2.4 Training leaves

As noted earlier, another important resource is time; according to AES 2007 time was the most important barrier; though this has changed for AES 2011, where no need for training is more important, time remains an important resources constraint. Formal or non-formal learning can happen during leisure time or during work time (or both). Some countries have passed laws on educational leave already in the 1970s in order to provide work time for learning. These laws usually guarantee the right of all public and private employees to take leave for educational purposes during working hours. To

qualify, an employee must have worked for his company for a certain time span. The right to educational leave usually covers all types of education – general, vocational and that provided by trade unions. The employees usually have the right to leave if they meet the requirements, however have to negotiate the point in time and the conditions of leave. The right to return to their jobs (i. e. the same status and income) is included.

In 1974, the ILO released convention C140 on paid educational leave (PEL). According to a Cedefop report from 2005, the convention was ratified by 32 countries worldwide. In the European Union, almost all countries, with the general exception of Ireland, whereas Poland restricts it training leave to vocational learning, have training leave regulations (see Table 11 in this study; Cedefop 2012e; PPMI/FiBS 2012), which hardly exist in the non-European countries covered in this study (only Korea has such regulations for civil servants).

According to Cedefop (2012e) 62 training leaves could be identified in the countries under review (EU27, 3 EEA and 3 accession candidate countries), of which the majority was universal in terms of groups addressed and eligible types of training. More specifically, of the 62 schemes in the EU-27 countries, 33 were universal at national level, another 12 – from Germany – at regional/state level; thus, universal refers to the target groups addressed. The remaining 17 were targeted either to vulnerable or to occupational or sectoral groups, e.g. civil servants, teachers or employees in certain sectors. Furthermore, some are confined to vocational programmes, though these are very few. Another distinction refers to legal regulations on the one and collective agreements on the other hand.

Eventually, a core distinction refers to paid vs unpaid leave; in the former case the employer continues to pay the salary, even though the employee is absent from the workplace; whereas the salary payment is discontinued in the latter. For the employer the training leave results in costs, unless costs are reimbursed by the state (see below).

The following section concentrates particularly on those aspects which concern the financing of training leave and adds briefly some information on training leave regulations in Germany, which are not yet covered in international literature, because Cedefop (2012e) has included on some information on the North Rhine-Westphalian scheme.

The maximum duration of training leaves varies from a 3 days in certain French leave regulations to two years in Belgium and even three years in one of Belgium regulations for civil servants as well as in Norway.

In Germany, twelve out of the sixteen states (Laender) have legal regulations concerning paid educational leave for workers and employees. Those states without legal regulations are Bavaria, Saxonia, Baden-Württemberg and Thuringia, where actually a law is in parliament for approval. As neither a nationwide continuing education and training law nor a national educational leave law exists, each of the twelve states has introduced different regulations beyond a common basis and philosophy. While 10

states do not compensate employers for the costs incurred, Mecklenburg-West Pomerania and Rhineland-Palatinate have compensation regulations in place. In Mecklenburg-West Pomerania the full expenses of the employee on leave are reimbursed, i.e. wage plus social security contributions, Rhineland-Palatinate reimburses 50% of the average wage amount, i.e. the employer has to bear half of the costs on average.¹¹⁴ In addition, cost recovery depends on the availability of funds in the state's budget. Furthermore, small and medium enterprises are protected through various regulations to some extent, e.g. the number of days for leave is limited to the number of employees.

In other countries, other compensation policies exist. For example, training funds play a role in BE, DK, ES, HU, and PL, though many funds do not reimburse the full costs of training, neither in relation to salary nor in relation to training fees etc. However, cost recovery rates depend on the fund regulations and are not part of the leave regulation. For example, in relation to one of the Danish training leave regulations employer may recover 85% of the normal salary, in Poland it varies between 50 and 80% (Cedefop 2012e). A more common regulation linked to training leave is payback clauses, which are reviewed in the next section.

A common cost recovery scheme, which implicitly always applies for training leaves is tax allowances or tax incentives for employers, because they can normally deduct any cost from the tax bill. However, this is not a special co-financing scheme with regard to training leaves, but applies generally for company-training.

Employment agencies or the state plays a particularly important role for long-term leave regulations, which may be used, for example, for higher education studies. In this regard, the cases in Finland and Austria, where the person on leave receives benefits comparable to unemployment benefits, are of interest.

Despite the attractive regulations in some countries and sometimes intense discussion about the role of training leave as regards adult learning and continuing vocational education and training, beneficiary numbers are comparatively limited. By far the highest figures are reported for the UK, Sweden and Portugal, with approximately around 400,000 and up to 280,000 and 230,000, respectively (Cedefop 2012e); in Sweden this refers to two different regulations, while in Portugal only to one; no figures are available for the other leave regulations. These figures are equivalent with a take-up rate in relation to total employment numbers of 6.2% in Sweden and 4.4% in Portugal, in the UK it is 1.4%. Apart from Belgium (1.7%) and LV (1.4%), no other country reports figures above 1%; in contrast, some countries, e.g. AT, ES, FI, or even FR report figures of up to 0.3% at best, sometimes even below 0.1%. The low take-up figures for AT and FI are striking, given that individuals can receive a compensation during leave up to the level of unemployment benefits. However, it appears likely that leave takes often also place outside of legal regulations or collective agreements, based on company level or individual agreements.

¹¹⁴ In practice, cost-coverage is lower for employees with higher salaries and higher for employees with lower salaries.

Eventually, data on costs are also rather limited. The highest figures are reported for UK with € 148m for the state and € 375m for the social partners, i.e. particularly the employers. For the NL, state costs of one regulation are reported at € 300m, which seems quite high, for DK the figure is up to € 240m for one and up to € 72m to another scheme. In contrast, state contribution in HU is 0.7m for one regulation; AT, BE and some other countries lie in between these ends, spending € 73m and € 64m, respectively.

5.5.2.5 Payback clauses

Although payback clauses were mentioned in the literature from time to time (OECD 2003c; Bassanini et al. 2006), little is known about payback clauses, although they exist in 27 out of 33 European countries (see Table 16), regulated at different levels. National regulations exist in 14 countries; social partner agreements pertain in three and company level regulations in 10 countries (Cedefop 2012b).

Payback clauses regulate that the employee has to repay training costs borne by the employer in case s/he quits the employment relationship within a certain period of time after training. They function as a risk insurance for employer towards misinvestment and can be considered a complement to training funds. Even though employees are often sceptical about payback clauses, their major advantage is that they support employers' willingness to bear the cost of training, enabling the employee to undergo this training.

Level of Regulation			
National Level	Social Partners	Company level	Not encountered
14	3	10	6
Austria	FYROM	Croatia	Cyprus
Belgium	Netherlands	Germany	Denmark
Bulgaria	Norway	Ireland	Finland
Czech Republic		Italy	Greece
Estonia		Latvia	Iceland
France		Malta	Liechtenstein
Hungary		Spain	
Lithuania		Sweden	
Luxembourg		Turkey	
Poland		UK	
Portugal			
Romania			
Slovakia			
Slovenia			

Table 16: Level of regulation of payback clauses (Cedefop 2012b)

While all employment contracts in the countries with national regulation or social partner agreement are secured somehow automatically, special agreements are needed if regulated at company level only. The only country, for which some data are

available, is the Netherlands, where approximately 50% of employment contracts contain such regulation. However, even if such clauses are included in employment contracts it appears that they become only very rarely effective, in the sense that employees have to repay part or all cost incurred by the employer (Cedefop 2012b).

5.5.2.6 Saving schemes

In addition to loans, saving schemes are another means of privately financed education, though it seems that, as is the same with loans, private banks or insurance companies do not play a big part, as far as adult learning is concerned.

This section will examine models for saving capital for financing further training. These models are comparable with savings for building or capital accumulation; i.e. savings are made over a longer period and usually in equal deposit amounts. This savings process is supplemented by the state, i.e. cofunded. Three different examples from Sweden, Austria and the Netherlands will be presented.

Before going into detail, it seems noteworthy that the role of savings accounts is extremely limited across Europe, the only model established is the Austrian one, and here take-up numbers are extremely limited, only a few thousand contracts have been signed since its implementation in the middle of the last decade, even though it is linked to immediate issuance of a loan and can be used to finance higher education. With regard to adult learning it appears that saving schemes are hardly functional, because of six reasons:

1. The amounts needed for adult learning are commonly rather limited
2. If higher amounts are required, the time span to accumulate such higher amounts is quite long, e.g. to arrive at € 5,000, almost four years are needed, if € 100 are saved every month, even if € 200 are transferred to the saving account, it takes approximately 2 years.
3. It seems likely that the planning horizon for adult learning is commonly rather short-term, i.e. half a year or a year
4. Banks are not interested to establish specific saving accounts for learning
5. In case of public subsidies, disbursement for learning needs to be controlled
6. Unless the public subsidy is more or less virtual until the accumulated amount is withdrawn from the savings account, substantial amounts are bound to savings and cannot be used for other purposes.

The Swedish Individual Learning Account

The introduction of Individual Learning Accounts based on capital accumulation for further training funded through taxation was discussed in Sweden for many years. Even though the model was not implemented in the end, for the sake of completeness – and in order to cover the range of available options – it will be presented here (see also Ljunggren-Lönneberg et. al. 2003; Schütze 2007).

Government funding of the accounts was to be based on the income tax system and not as a direct payment into an account, as was the case in Great Britain (Ljunggren-Lönneberg et. al. 2003). Payments into the account could then have been deducted from taxation up to an amount of SEK 37,700 (€ 4,100 in 2001).¹¹⁵ In order to motivate employers to make payments into the accounts, they also would have been able to deduct the deposits from their tax. They would also have received a 10% reduction in the income tax that would be payable in any case.

The model, individual aspects of its approach, and the overall concept were all fiercely criticised, in particular by unions and trade associations, so the scheme was finally not introduced and no concrete experience with this approach is available.

A savings plan for education and training in Austria

The Tyrol Chamber of Labour submitted a proposal for a savings plan for education and training, which has been further developed and since the autumn of 2005 has applied to the whole of Austria.

Money is to be saved for (further) training measures through the linking of the investment by the participant with the corresponding training premium or interest. The type of saving the person decides on, whether a bankbook, funds, or another form, is not important. The government pays a bonus of 3 to 8%, up to a maximum of € 1,000 annually. The saver is entitled to spend the amount saved plus the training savings plan premium on training (or for another purpose) after six years. After the expiry of this period, the saver is also entitled to take out a loan, the maximum amount of which is assessed in accordance with the amounts deposited. A further advantage of savings plans for training and education is that parents and grandparents can pass the accounts on to their children and grandchildren, so they do not expire. The system appears to hardly have been used so far.

Since autumn 2005, this form of saving for training has been linked with a 'Kredit for Pflege und Bildung' (loan for support, training and education) provided by building societies, which can especially be used to finance further training. Demand however seems to be very limited (see "Die Presse" of 21.02.2007). This may be the case to an even greater extent because tuition fees for a university course of study can also be financed through this loan, i.e. the few savings or loan contracts that have been concluded may have been used to finance university education rather than for training.

„Savings for further training“ in Germany

As already mentioned above, in early 2009 the federal government has introduced a component that is called "Savings for further training", though it should be understood that this is not a real saving scheme for education but a withdrawal component as part of a general programme to support the accumulation of assets by employees. The Vermögensbildungsgesetz (Law on Asset Accumulation) regulates that those employ-

¹¹⁵ If the amounts paid in are withdrawn, the interest earned is taxed at 15%.

ees whose taxable income is up to € 20,000/40,000 (single/jointly taxed couples) can benefit from a governmental contribution in addition to the interest payment of the bank or insurance company. Every month some € 40 is deposited in a “savings account” and a top-up of € 40 by the government (employees savings premia) is received in addition to the banks/insurance interest payment.

Within this framework, the so-called “savings voucher” allows a withdrawal of funds from the account for adult education during the seven year savings period, within which withdrawals are usually linked to a loss of the governmental savings premia. During the first 1.5 years around 1,300 employees applied for withdrawals.

Eventually, it might be worth to briefly mention a new initiative aiming towards savings accounts for children as a component in relation to transfers for parents not enrolling their child(ren) in kindergarten. Whereas details are not yet finally established, it appears that federal parliament will not decide on this proposal in the near future.

Summary

Taking the preceding details into consideration – including the experiences of the Dutch pilot project on ILAs (Dohmen 2007) – savings plans for training in the “true” sense, i.e. the accrual of savings, seems at best to be of marginal importance. This may be due to the fact that the required amounts saved are fairly small, so targeted saving is only necessary to a very limited extent, in particular for those on low incomes. Yet, low income earners will usually not be in position to save especially for education, as the liquidity will be constrained. In addition, it is questionable, whether such saving for education would be economically rationale, because it affects the liquidity for other consumption or investment purposes. If such a liquidity constraint would result in another credit, taken 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.

The saving of larger amounts would be possible and perhaps also beneficial, but the prospect for corresponding expenditures on further training is comparatively limited, in contrast to the situation with university studies. Such expenditure would however be required for the saving of larger amounts. Savings plans for training are also unattractive for commercial banks for the reasons mentioned, i.e. the fairly small amounts and low relevance of larger amounts saved at a relative high cost.

5.5.3 Public funding instruments

“The state” (represented by national, regional and local political units) can be involved in financing adult vocational and non-vocational learning in different ways. The first distinction refers to the revenue side of the budget. The state can rely on special education taxes which are raised either for education in general (therefore requiring decisions as to the distribution of spending the revenue between the different sectors of the education system) or which are devoted to adult education from the beginning. Or it is subjugated under the non-affectation principle which means that the revenues of all

taxes are put in one “basket” without designation. The state has then to decide by budget debate which part of the revenue should be devoted to adult education. The second distinction refers to the expenditure side of the budget and is between supply-side or demand-side financing. Looking at the supply-side, state financing may mean full or co-financing of public or private learning institutions for adults. Full funding of public institutions implies covering all expenditures of the institutions, co-financing implies the existence of other financiers (a third distinction). The state can be engaged by means of subsidies or loans to the institutions or by reduction, exemption or rebate of taxes, he may finance either the cost of the personnel, of investments or of the current material cost.

Demand side financing may be restricted to cover the fees of the programmes. If the fees do not cover the full cost, then either the state is also engaged on the supply side or there are other co-financing partners on the supply side (e.g. the learners or employers or foundations). Demand side financing may go beyond covering the provision of the programmes by widening the financial support to cover the living cost of the learners or parts of it. Here, the instruments are scholarships resp. grants, loans (income contingent or not) or reduction, deduction, exemption or rebate of taxes. A general conclusion may be drawn at this point: State financing of education does neither necessarily mean supply-side financing nor full funding nor state production of education. Conversely, state production of education does not necessarily imply full funding by the state.

Furthermore, public funding can support adult learning through 100% cost coverage or through a lower share, though the latter is commonly understood as cost-sharing. Since the question whether the learner has to contribute to the costs or not may make a difference in terms of participation, it would be of importance to cover this difference also by terminology. Yet, in practice it is often difficult to establish whether the public subsidy covers the full costs or not unless it is known whether the learner or the employer pays fees or not. While cost-sharing is immediately related to contributions from the individual, and, thus, clearly not 100% public funding, the opposite is valid for 100% grants to the individual; in this case the learner will not have to contribute to the costs – theoretically. In practice, this means commonly that 100% of the tuition or participation fee is covered, while travel expenses, learning materials, child care arrangement etc. are to be covered by the individual. This would either result in the definition that only grants covering all costs of adult learning by 100% are instruments named as 100% public funding or to limit the understanding to the 100% of the cost eligible for funding – although the latter is unsatisfying from a theoretical perspective, from a practical point it seems to be the better approach. In practice, any other approach is likely to result in 100% cost-sharing. Furthermore, in case of supply-side funding it is even more difficult to establish whether funding aims at full-cost coverage or not, because this depends probably on the specific learning programme or class.

The following section concerns three instruments, supply-side funding, 100% grants and fee reduction or fee waiver policies. As mentioned, public subsidies for adult edu-

cation can be supply-side or demand-side, i.e. supporting the institution providing adult learning opportunities or the learners themselves. Supply-side policies subsidise the price, while demand-side approaches contribute to individuals' ability-to-pay.

5.5.3.1 Supply-side funding

Supply-side funding is often perceived as the 'natural' form of education financing, particularly if education is perceived as public good, which has to be fully financed from public budgets.¹¹⁶

Supply-side funding concerns funding that is channelled through the learning provider and was initially input-oriented by addressing the costs for staff (teaching and non-teaching), equipments, office accomodation etc. The initial form provided funding without any conditionality, in relation to quality, number of participants, provision of programmes etc. Although this may be considered an extreme case and highly unlikely that the (public) financier would not change the funding conditions in the "long-run" it intends also to establish a clear demarcation to other forms of conditional funding of learning providers. This means, that funding which is channelled through the learning provider but which depends either on the provision of a certain programme, mimimum enrolment figures or even the number of participants is not considered as 'unconditional' supply-side funding, but as conditional or demand-based funding of learning providers. In this sense, this report distinguishes between

- unconditional supply-side funding – funding of learning providers without the need to meet any pre-condition (which is often input-oriented),
- conditional supply-side or demand-based funding of learning to stimulate providers to develop provision specifically aimed at the identified vulnerable groups (e.g. literary programmes, civic integration programmes, active ageing programmes), mimimum numbers of enrolments and/or number of participants

In contrast, any funding that is channelled through the employers/individuals is considered demand-side funding; though it should be understood that demand-side funding can be fully public funding, e.g. in the case of 100% grants for individuals requiring no co-funding (see section 5.5.3.2).

Supply-side funding can be provided to learning providers on a legal basis, but also on the basis of programme and project funding, often based on tender procedures. Such tender procedures are, for example, applied in SK to distribute funding to learning providers that fulfil the specific aim of the particular tender, e.g. to provide (second chance) learning opportunities to Roma minorities. In general it seems that supply-side funding in the newer member states is often based on project-funding and/or tenders. Even though project-based funding, e.g. through tenders, can be an important factor in order to address specific needs, its major bottleneck is that no lasting and sustainable structures will be established, but that learning providers opt for whatever is tendered.

¹¹⁶ It is important to note that this 'perceived' understanding of a public good does not refer to the economic discussion, where a specific understanding of 'public good' applies.

If it is known that no additional funding is provided once the tendering or project period is terminated, learning providers have only very limited incentives to provide high quality services to customers. Furthermore, clients, particularly from dis-advantaged groups need time to acquaint with new initiatives and to experience positive examples and benefits. Thus, it seems likely that these groups will benefit less than expected.

A different approach is employed in the Northern European countries, the UK and in the German *Laender* (states), where much supply-side funding for adult learning is based on legal regulations, though often distributed on the basis of additional arrangements.¹¹⁷ Furthermore, conditional supply-side funding has gained importance, even though this is only reflected to some extent in Table 11.

An indication for the importance of supply-side funding is that our research repeatedly confirmed that participation rates are higher in countries, where individuals contribute lower amounts from the own wallet in relation to their income (see section 4 and PPMI/FiBS 2012). Even though this must not necessarily be due to supply-side funding, but could also be based on cost-sharing with smaller shares borne by the individual. Reviewing macro level figures, another indication could be that the shares borne by individuals are much lower for the Northern European countries, and for the Netherlands, and that all four countries are among the group with highest participation rates. However, Switzerland is also among these countries, despite having the highest share of funding from individuals. This could suggest that funding is possibly not the only explanatory factor, but that, for example, the learning culture of a country on the one hand and economic factors, such as wealth and income, on the other may play their role too.

5.5.3.2 100% grants (without co-financing of individual)

Grants for individuals¹¹⁸ can take different forms, among the most important is whether they request an individual co-financing or not. This section focuses grants without any individual co-financing, while those with co-funding are discussed in section 0 in line with vouchers. Such grants are a means to link public funding for adult learning with demand-side funding of learning providers and are a possible response to the criticism on supply-side funding, in other cases it is an add-on. For example, since adult learning in the UK is largely supply-side funded, costs of living and maintenance in order to be able to participate in this learning is provided to the individual as 100% grant.¹¹⁹

Although section 0 focused cost-sharing vouchers, it contained also some examples of 100% grants, if preferential treatment was employed to support certain target groups

¹¹⁷ As available data on supply-side funding is limited to these countries, further research on this topic will have to be left to other research.

¹¹⁸ As worked-out more in section 0 vouchers and grants are very similar to each other – in this study the term grant is applied in relation to 100% public funding.

¹¹⁹ Yet, it is important to note that adult learning funding is planned to change almost completely from August 2013 onwards, when the „Advanced Learning Loan“ is introduced and will replace the previous funding policy (see for more details section 5.5.2.2).

or in case that costs of learning remained below the threshold where individuals had to contribute own means. Examples are for ILA Scotland is a 100% grant of up to £ 200 (€ 240) for low-paid workers and unemployed; since obviously no age limit is specified, it is also open to retired people. The same applies to the Geneva vouchers if costs of learning are below € 600, etc.

Another example in this regard is the Austrian training leave, which is a combination of training leave and grant for individuals, as it supports the training leave through a grant for the individual; the amount of money which is granted is equivalent to the employee's unemployment benefits and is thus at least a partial substitution of income foregone (opportunity costs). This educational leave is available for almost all forms of learning activities, whether formal or non-formal, intending to acquire additional ISCED-qualifications or second chance education.

The Dutch VO18+ supports second chance education of people 18+ with financial means enabling their participation in such programmes. The average amount of funding is € 168 per month and students and aims obviously particularly at covering maintenance cost, though other costs might have to be borne additionally. It is worth noting that participants have to pay fees of about € 1,013 p.a., which might have to be borne through VO18+ grant. Another grant TS18+ is available, which seems to address (almost) the same target group and type of education, though at much lower levels of € 50 per month.

Other examples are from Canada, where several regions employ 100% grants to support specific target groups:

- The Northwest Territories support unemployed people with disabilities to achieve their learning goals;
- the province of Quebec funds foreign students (migrants) taking technical training merit-based, particularly in regions where labour market is declining;
- apprentices¹²⁰ in British Columbia receive grants for travel, accommodation, and other indirect costs; disabled people can cover the costs for special devices;
- the Ontario Bridging Participant Assistance Program provides bursaries of up to \$ 5,000 to unemployed migrants to cover direct education costs (tuition, books, equipment),
- Provincial Training Allowance in Saskatchewan provides grant funding to assist with the costs of living for low income adult students enrolled full-time in basic education, workforce development programs or quick skills training which are not eligible for student loan funding. The PTA needs assessment rules determine who is financially needy based on income levels and family size.
- Scholarships for Apprentices and Occupational Trainees recognize the excellence of Alberta apprentices in a trade, and trainees in a designated occupation, and to encourage recipients to complete their apprenticeship or occupational training programs, etc.

¹²⁰ Other than commonly in Europe, apprentices are aged 25+.

It might be of interest to understand that funding in Canada seems to follow another approach, which is more targeted at very specific groups, supported largely through 100% grants, as the following Table 17 highlights. 85% are 100% public and only 15% are cost-sharing instruments. Furthermore, 60% of instruments are either national or located in three provinces, British Columbia, Ontario and Quebec, the remaining 40% are spread across 10 provinces (see for a more detailed overview section 7.2.2).

Type/name of instrument	Federal level	Regional					
		British Columbia	Ontario	Quebec	Alberta	Manitoba	Saskatchewan
Number of 100% publicly funded instruments	6	8	5	5	2	3	1
Number of cost-sharing instruments	1	1	1	1	1	0	1
		Regional					
		Northwest Territories	Prince Edward Island	Newfoundland and Labrador	Nova Scotia	New Brunswick	Yukon
Number of 100% publicly funded instruments	1	2	2	2	1	1	0
Number of cost-sharing instruments	1	0	0	0	0	0	0

Table 17: Structure of funding instruments in Canada

Other examples will be presented in the section on second chance education as 100% grants as well as supply-side funding is often related to very specific target groups, particularly low qualified. 100% grants may also serve to covering the costs of maintenance, either in addition to learning costs or complementing other funding instruments.

Statistical analyses, conducted to identify relationships between funding and participation (see section 5.6 as well as Table 47 in the annex) suggest that participation rates according to LFS 2010 and 2011 are higher in countries employing more 100% grants (FCE numbers). Furthermore, the relationship between 100% grants and participation rates in formal adult learning (AES 2011) shows almost significant values; all results suggest that further research is needed to come up with clearer findings.

5.5.3.3 Fee redemption/reduction policies

Certain target groups might be exempted from fee payments or pay reduced rates, resulting in compensation payments for learning providers. Interestingly, although explicitly mentioned as a separate form in the questionnaires, it seems that fee reduction or fee waiver policies are only very rarely employed. The total number of five schemes is placed in two countries, Belgium and Canada. In Belgium the Flemish and the Walloon province employs such a scheme; in Canada three provinces.¹²¹

¹²¹ The significant correlation between the FCE number of fee redemption/waiver regulations and participation in formal adult learning (according to AES/OECD 2007) is striking, because of the very small number of countries employing such regulations.

5.6 Funding and participation

5.6.1 Level of operation of cost-sharing instruments and accounting for national outreach: re-scaling of mapping to full country equivalents

It was already briefly mentioned that funding instruments do not necessarily operate at national level, but can also function at regional or even local level, which is not considered separately in this study. Table 18 provides a detailed break-down of instrument-types by level of operation. Although most cost-sharing instruments are operated at national level across the 33 countries of analysis, it turns out that regional instruments exist in several countries, which is the case e.g. for vouchers in AT, BE, CA, CH, IT or UK. In AT and IT the clear majority of vouchers/ILAs are regional (e.g. in IT 24 of 25 vouchers/individual learning accounts in total). Concerning other instruments, regional training leave regulations were only applied in Germany (12 schemes) and regional (conditional) supply-side funding instruments were operated in all non-European countries and BE. Concerning tax incentives and saving schemes, regional versions were not encountered at all.

After having seen that the number and distribution of instruments is very different across countries and their national 'outreach', e.g. 1 national voucher scheme has another outreach than 1 regional scheme, which would not allow a serious comparison across countries, it appears more appropriate to apply a weighted approach in this regard. The number of funding schemes will therefore be re-based to 'full-country equivalents' (Table 19 and Figure 29), which adjusts for the number of instruments at country level.

For instruments that are applied only in one region, the number of regional instruments will be divided by the number of regions (or states according NUTS classification). This indicator reveals how many instruments are available for all adult citizens in a country. However, it should be noted that the estimation is based on a simple calculation by dividing the number of instruments at regional level through the number of regions in a country. In this regard 12 training leaves across 16 German states translates into 0.75 full-country equivalent (FCE) training leaves, while 18 regional vouchers for individuals in 9 Austrian states translate into 2 FCE vouchers.¹²² As a logical consequence of this approach the number of full-country equivalent cost-sharing instruments will be reduced in those 12 out of 33 countries having instruments at regional level.

¹²² In fact, this is still a simplification as this assumes that all Austrian states are really covered. Any other, more advanced approach would have stretched the work by far too much.

Country	Level	AU	AT	BE	BG	CA	CH	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HU	IT	KR	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK	UK	US	Total ALFi 20	Total 33
Tax Incentives	N											1							1		1	1		1							1	1	5	8	
Vouchers	N	2	4	1	1	1			1		2				2		1	1	2				1			1			1		2	2	19	25	
	R		18	1		2	28											2	4												1		74	74	
Loans	N	1				1				2		1					1								1			1			1	1	9	10	
	R						26																								1		27	27	
Training Leave	N		1	2	1			2	1		1	1	1	3	3	6	4	1	1	2	3	1	2	2	1		2	2	2	2	2	2	31	51	
	R									12																								12	12
Saving schemes	N		1																															1	1
Fee redemption	N																																		
	R			2		3																												5	5
Supply-side funding	N	1	2		1		1	4	4		1	2	1	1			2	2				3	1	3	2	2	1	3	3	3	2			25	45
	R			2						16																					4		22	22	
Conditional supply-side funding	N	2		1		1					1						1	2	3						2							1	14	14	
	R	1		1		12													1												50	65	65		
100% grants	N		1			4				1	2	1			1									2			1						12	13	
	R					11								1																			12	12	
National	N	6	9	4	3	7	1	6	6	3	7	6	2	4	6	6	9	6	7	2	4	5	4	8	6	3	4	6	6	6	4	6	5	116	167
Regional	R	1	18	6		28	54			28				1				2	4	1											6	50	217	217	
Total number	N+R	7	27	10	3	35	55	6	6	31	7	6	2	5	6	6	9	3	8	2	4	5	4	8	6	3	4	6	6	6	4	12	55	333	384

Table 18: Existing funding instruments for individuals by level of operation.

FCE number of instruments		ALFi EU 14													Non-ALFi EU 13													EEA		Non-European countries				Total AL Fi 20	Total 33	
Level	Type	AT	BE	DE	DK	EE	ES	FR	HU	IT	NL	RO	SI	SK	UK	BG	CY	CZ	EL	FI	IE	LT	LU	LV	MT	PL	PT	SE	CH	NO	AU	CA	KR	US		
Cost-sharing	V/ILAGFI	6,0	1,3		2,0				1,0	2,1			1,0	2,3	1,0		1,0		2,0					1,0	1,0			1,1		2,0	1,2	2,0	2,0	24,0	79,8	
	Tax incentives					1,0					1,0			1,0									1,0	1,0			1,0					1,0	1,0	5,0	8,0	
	Loans			2,0		1,0			1,0					1,3													1,0	1,0	1,0	1,0	1,0	1,0	10,3	11,3		
	Training leave	1,0	2,0	0,8	1,0	1,0	3,0	6,0	4,0	1,0	2,0	2,0	2,0	2,0	2,0	1,0	2,0	1,0	1,0	3,0		2,0	3,0	1,0	2,0		2,0	2,0		1,0		1,0	31,8	51,8		
	SSC	1,0																															1,0	1,0		
	Total (cost-sharing)		8,0	3,3	2,8	3,0	3,0	3,0	6,0	6,0	3,1	3,0	2,0	3,0	2,0	6,5	2,0	2,0	2,0	1,0	5,0		2,0	4,0	2,0	3,0	1,0	3,0	3,0	2,1	2,0	3,0	2,2	4,0	4,0	72,0
Public funding	Fee redemption		0,7																													0,2		0,9	0,9	
	100% grants	1,0		1,0	2,0	1,0	0,1				2,0	1,0							1,0													4,8		11,9	13,9	
	Supply-side funding	2,0	0,7	1,0	1,0	2,0	1,0		2,0	2,0	3,0	3,0	3,0	2,0	1,0	1,0	4,0	4,0	1,0					3,0	1,0	2,0	1,0	3,0	1,0	2,0	1,0			25,7	47,7	
	Conditional supply-side funding																																			
	Total (publicly funded)		3,0	2,7	2,0	4,0	3,0	1,1		3,0	4,0	5,0	4,0	3,0	2,0	1,0	1,0	4,0	4,0	1,0	1,0				3,0	1,0	2,0	1,0	3,0	1,0	4,0	3,1	7,0	4,0	2,0	58,8
Total incl. supply		11,0	6,0	4,8	7,0	6,0	4,1	6,0	9,0	7,1	8,0	6,0	6,0	4,0	7,5	3,0	6,0	6,0	2,0	6,0		2,0	4,0	5,0	4,0	3,0	4,0	6,0	3,1	6,0	6,1	9,2	8,0	6,0	130,8	181,8

Table 19: Number of Full-country equivalent numbers of funding instruments across the countries under review.

Figure 29 clearly portrays that the number of instruments for individuals in AT goes down from 27 to 11 FCE instruments and in IT from 30 to 7. While AT still remains the leading country among the 33 countries of analysis after this adjustment, IT is now considerably closer to the average (with 7 FCE instruments in comparison to the average of 5 FCE instruments across all 33 countries). A larger impact of this approach can also be identified for DE and UK, while the remaining countries are either not or rarely affected.

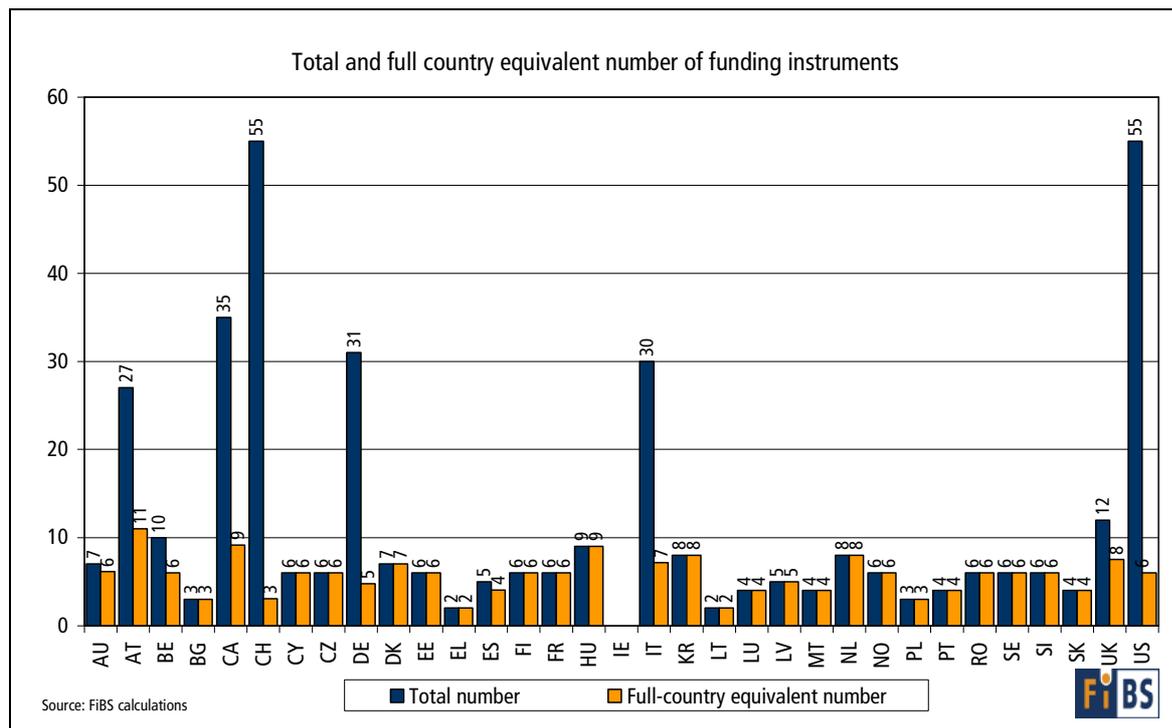


Figure 29: Total and full-county equivalent number of cost-sharing instruments for individuals.

5.6.2 Funding and overall participation in formal or non-formal adult learning

This section concerns differences in the funding systems across countries and groups of countries and its relation to participation rates. The core questions are: Do funding systems and/or instruments play a vital role in explaining differences in participation rates across countries? If relationships can be identified, what are the core aspects that need to be taken into consideration?

The following analysis is particularly based on those countries at the core of this study, i.e. the 14 EU member states, the 2 EEA and the 4 non-European countries. However, we will include also the 13 EU countries, which are not at the core of this study as fourth group to the extent possible. Yet, for these countries information on non-cost-sharing instruments is limited and comprises only some information on supply-side funding instruments.

Linking funding systems and instruments to participation rates, the following analyses are related to AES/OECD 2007 data as far as participation rates in adult learning are concerned.¹²³ Concerning total participation in adult learning, this results in the following composition of participation groups:

- high participation countries (SE, FI, CH, NO)
- upper medium participation countries: countries above the OECD-average of 40% called upper medium participation countries (UK, US, DE, NL, DK, SK, CA, EE, AT, SI, CY, BE)
- lower medium participation countries: countries below the OECD-average called lower medium participation countries (AU, CZ, BG, LT, MT, LV, ES, FR, KR, IE, and PT)
- low participation countries (IT, PL, EL, HU, and RO), which are grouped together although great variances exist between them.

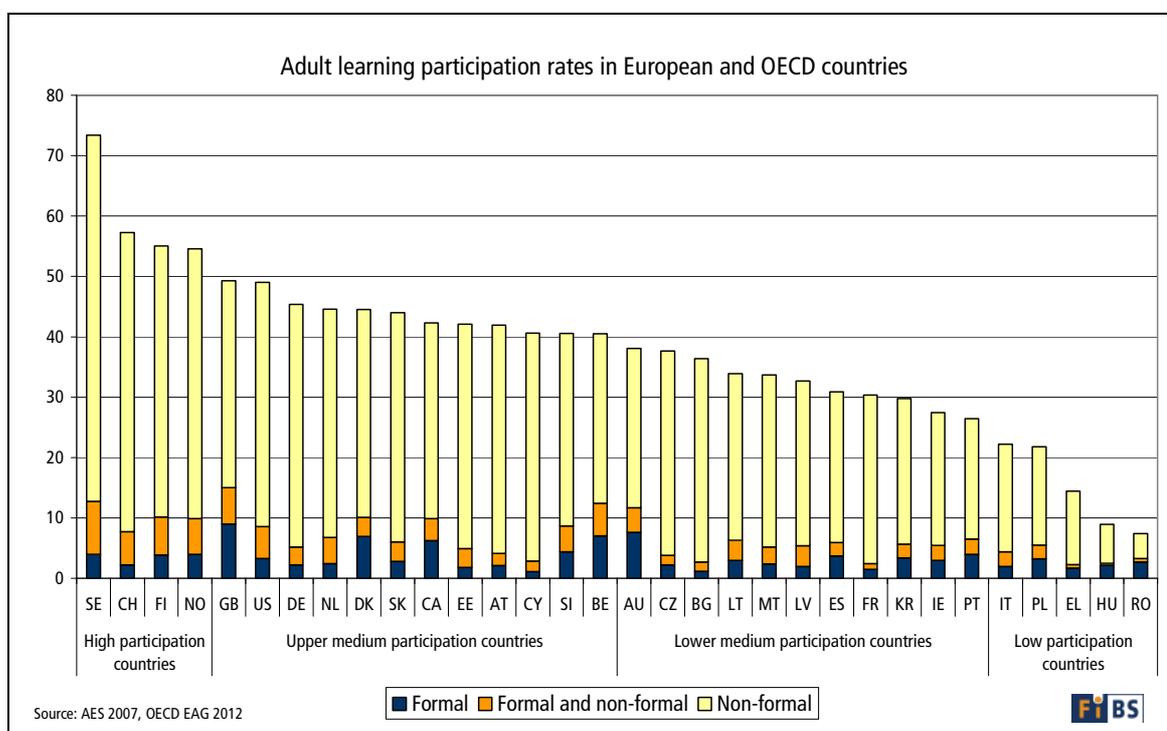


Figure 30: Adult learning participation rates in European and OECD-countries. (ranked according to AES/OECD 2007 participation rates)

Reviewing participation rates and the level of operation of instruments (see section 5.6.1) an interesting first finding is that **the top-7 countries (SE, CH, FI, NO, UK, US and DE) apply decentralised approaches** due to their federal structure (UK, US, CH, and DE) or because of the responsibility of the municipalities for adult learning (SE, FI, NO). In fact, even in DE and the US, the local communities or municipalities are re-

¹²³ The notion refers to AES 2007 for the European countries and to those data published in OECD (2012) for the non-European countries. Actually, it is not yet possible to relate funding systems and instruments to more recent data, because no information is available for participation rates in adult learning in the non-European countries.

sponsible for certain areas of non-vocational adult learning. In DE, for example, the municipalities have the major responsibility for the Volkshochschulen (Folk high schools), which belong to most important providers of non-vocational adult learning in DE.

However, local responsibility does not mean that the local communities/municipalities bear full financial responsibility; in all cases states and/or central funds are involved – either as co-financing (e.g. folk high schools in DE) or as upfront financial transfer from upper levels to municipalities (e.g. the Nordic countries and the US). In case of such payments, the municipalities or states have some discretion to establish their own priorities, usually within certain limits.

Although these seven ‘leading’ countries are the majority of countries with decentralised responsibility, decentralisation is not limited to those countries. Other countries with decentralised responsibility are CA, AT, BE and AU; of these countries only AU is not placed in the upper half with above average participation rate. This could raise the question whether decentralised responsibility is conducive to higher participation rates in adult learning, even though municipalities in some other countries have their stake in adult learning, but with less responsibility than in those 11 countries. This thesis is supported by the fact that these 11 countries amount to almost two third of the 17 top countries.

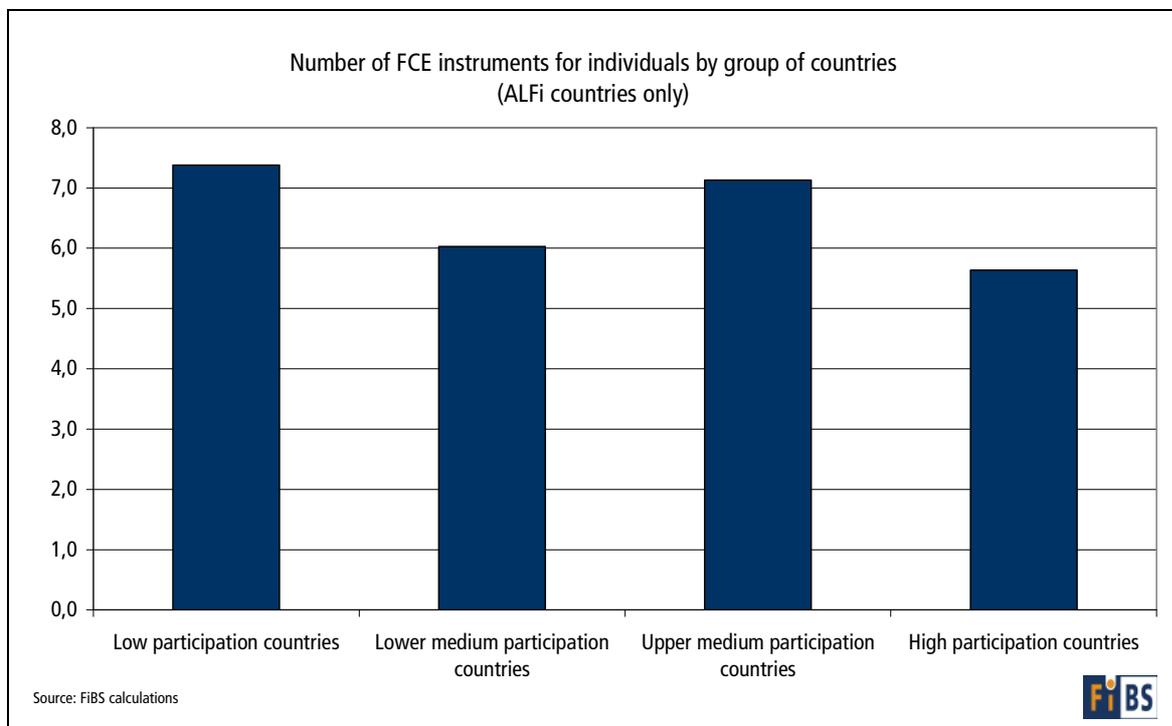


Figure 31: FCE number of instruments by group of countries.

Since previous research (PPMI/FiBS 2012) indicates that the total number of instruments is not a good indicator for participation rates, Figure 31 focuses on the number of FCE instruments in relation to participation. The fact that the low participation countries employ more FCE instruments than the lower medium and high participation

groups does not provide any indication that the FCE number of instruments is a strong indicator in relation to AES/OECD 2007 participation rates, because the number of instruments is almost equally high in the upper medium countries.¹²⁴ Furthermore, no indication can be found that composition of funding systems in cost-sharing and public funding instruments across the 20 countries at the focus of this study is concerned; Figure 32 does not show any pattern.¹²⁵ Furthermore, inclusion or exclusion of countries in one group or another changes results immediately.

Figure 33 and Figure 34 review whether the availability and/or the average number of certain funding instruments in countries are able to explain differences in participation rates. At first glance, Figure 33 does not show clear patterns concerning the availability of instruments and their role in relation to participation. Apart from individual tax incentives, where the share of countries increases from the low via the lower and upper medium to the high participation countries, no clear pattern emerges. Instead the share jumps often from lower to higher rates and backwards. However, the high participating countries employ more loans, fewer training leaves; even the share of countries employing conditional supply-side funding instruments is lower among those with higher participation rates, though the pattern is less clear cut than for tax incentives. Looking at Figure 34 may support some points. For example, the average number of tax incentives increases from low to high participating countries.¹²⁶ The average number of vouchers is higher in the upper medium and the high participation countries, though the share of countries employing vouchers becomes lower from the low to the upper medium participation countries. However, the number of countries (in each group) and the differences across these groups are too small to arrive at clear conclusions. Results are often driven by few countries only, though some results confirm findings in previous studies (PPMI/FiBS 2012).

Similar observations can be made with regard to loans, which are more applied in upper medium and high participation countries, whereas the average number of training leaves is lower the higher the participation rates in a country group are. Eventually, when reviewing supply-side and conditional supply-side funding separately, no pattern

¹²⁴; However, it might be worth to mention that (bi-variate) statistical analyses (see Table 47 in the annex) arrive at significant positive correlations with regard to the total number of instruments and LFS 2010 (total participation rate) and almost significant correlations for LFS 2011 as well as AES 2011 total (formal or non-formal) as well as non-formal participation rate. The same applies to OECD 2007-rates for non-formal, non-vocational adult learning (see also section 5.6.4). Yet, this could be an indication that decentralised systems work better than centralised systems, though this requires additional research.

¹²⁵ Preliminary statistical analyses point to some weakly or almost significant relationships between cost-sharing instruments and AES 2011 participation rates, in particular for total (formal or non-formal) as well as non-formal adult learning (see Table 47 in the annex)

¹²⁶ There may also be a connection between both facts: the higher the number of countries employing a certain type of instrument the higher the likeliness that the average number is also higher. However, that this is not necessarily interlinked becomes evident when reviewing vouchers, because here the share of countries employing vouchers decreases from the low via the lower to the upper medium countries, but the average number is higher for the upper medium countries, while the average number is almost identical between the low and lower medium participation countries, despite a lower share employs the instrument in the latter group.

emerges, but when looking at both instruments jointly, almost all countries employ them and the average number of instruments per country gets lower the more the country groups with higher participation rates are concerned. Since the number reduces from 3.3 via 2.2 to 2.0 for the upper medium and the high participation group, this is valid, though, with one exception.

Statistical analyses confirm some findings. Overall, and not surprisingly, countries with higher participation rates are economically more advanced than countries with lower participation rates; i.e. GDP per capita is an, if not even the most important factor in explaining participation rates (AES/OECD 2007, LFS 2010, LFS 2011 as well as AES 2011). The correlation is significant for GDP per capita in PPS as well as in absolute terms, though commonly stronger and more significant for GDP per capita in absolute terms rather than for PPS.

With regard to funding instruments, the link between loans and participation rates (AES/OECD 2007 as well as AES 2011) is confirmed statistically; this is valid for loans in general (covering study loans) as well as for CVET-loans only, for which the correlation is even stronger and the significance level commonly much higher (see Table 47 in the annex). Furthermore, almost significant results can also be identified between CVET-loans and LFS 2010 as well as LFS 2011 participation rates, whereas this is not the case for all loans (incl. study loans).

Furthermore, an almost significant correlation turns up with regard to the FCE number of cost-sharing instruments and participation in formal or non-formal adult learning (AES 2011), which is not identifiable in Figure 32; the latter may be due to the particular grouping of countries.

Adding up, the analyses in this section suggest that loans in general may play a role in explaining participation rates with regard to participation in total (formal or non-formal) adult learning, according to AES/OECD 2007 as well as AES 2011. The correlation is very likely to be even stronger for CVET-loans, though the number of countries with such loans for adult learning is rather small: However, this correlation disappears, once GDP per capita is controlled for. Whether the number of cost-sharing instruments may play a role, has to be left open for the time-being.

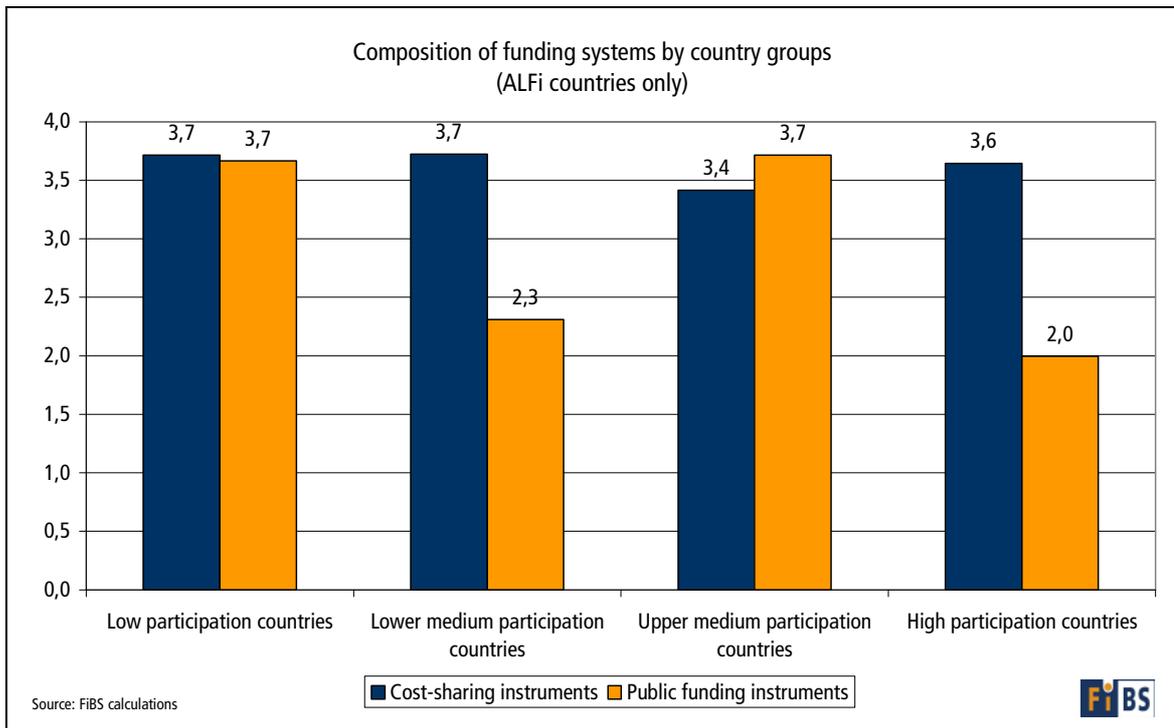


Figure 32: Composition of funding systems by country groups and participation in AL.

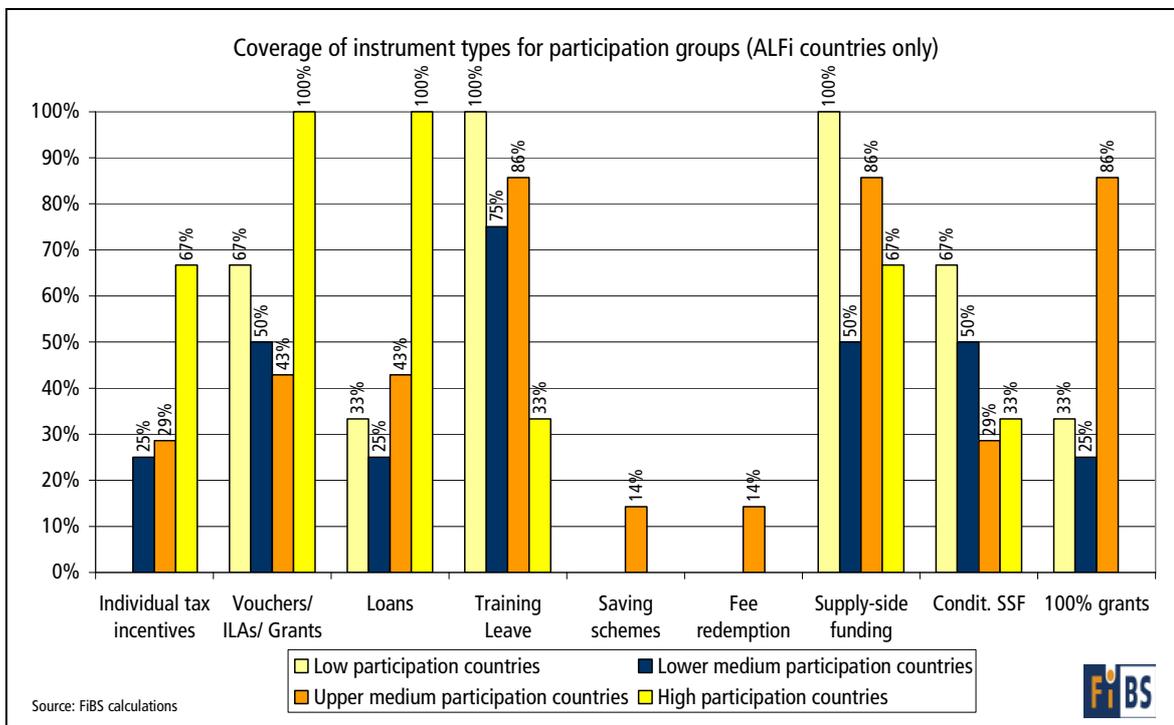


Figure 33: Availability of instruments types and participation.

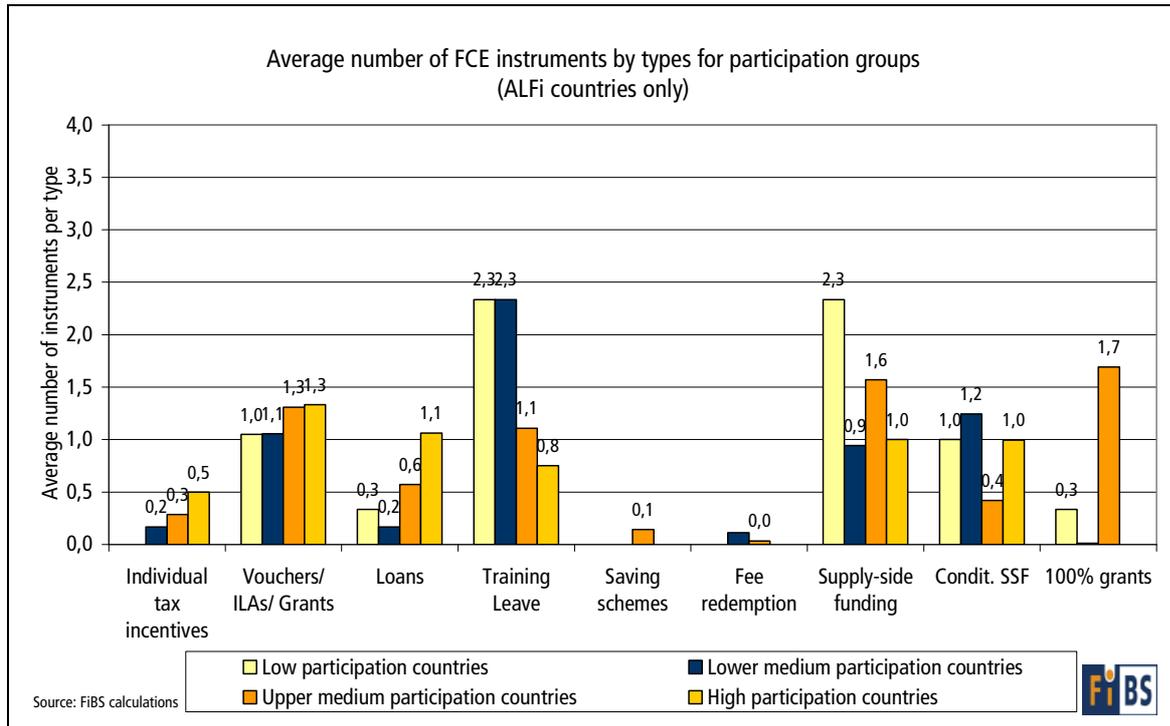


Figure 34: Average FCE number of instruments by type (ALFi countries).

5.6.3 Funding systems and participation in non-formal adult learning

While the previous figures did not distinguish between formal and non-formal adult learning such a distinction is important since a common picture is that the participation rates are largely driven by non-formal learning, while the role of formal learning is more ambiguous. The following Figure 35 summarises the participation rates for the year 2007 as measured by AES/OECD 2007 in European and OECD countries.

Figure 35 shows the participation rates in non-formal adult learning, when the countries are grouped according to their overall participation rates, indicating that variances across countries are very much in line with overall rates. However, since the core question in this section is whether there is a relationship between funding systems and participation rates in non-formal adult learning, countries will be analysed according to their ranking order (see Figure 36). In this case, NO, CH and US are at the top, followed by DE, NL, SK, UK, EE, AT, DK, SI, CA, BE as upper medium countries with above OECD-rates. The lower medium group consists of AU, FR, ES, KR and IT, while RO and HU form the group of low performers as non-formal learning is concerned. To sum up, the US as well as all Nordic, a mixture of Western countries as well as the newer member states belong to the two better participation groups, while the remaining two groups comprise mainly Southern European countries and the newer member states, yet also FR, KR and AU.

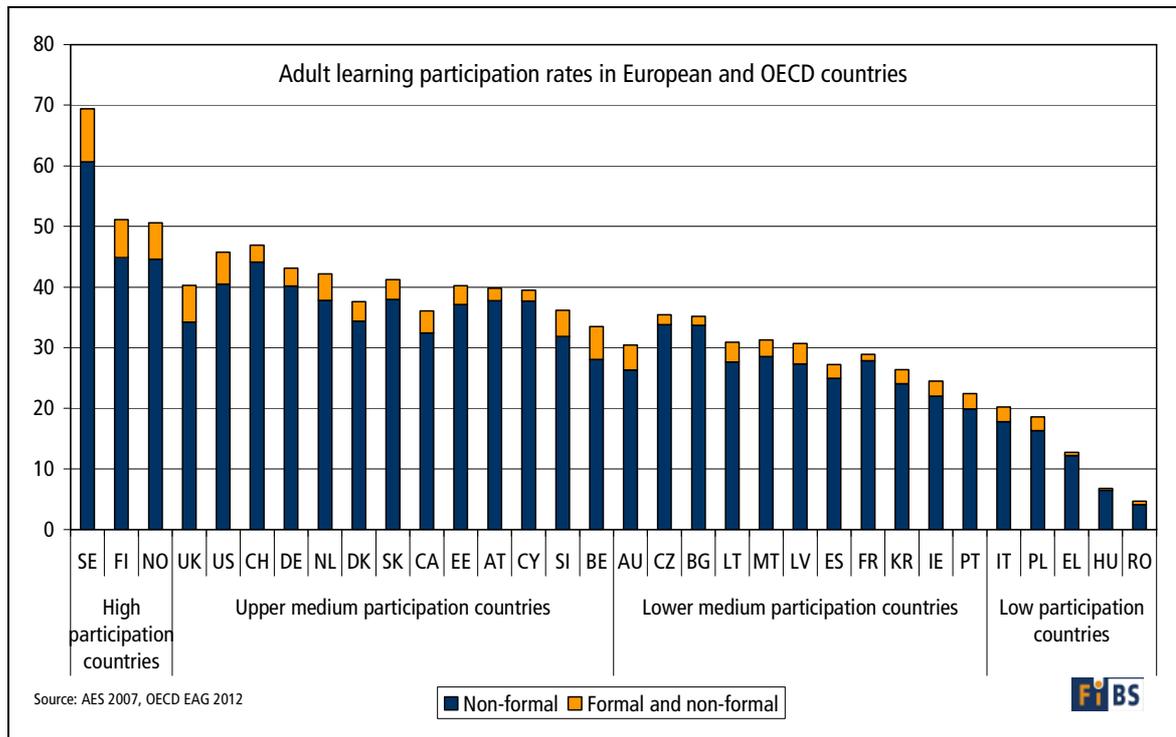


Figure 35: Participation rates in non-formal adult learning (ranked by overall participation rate according to AES/OECD 2007).

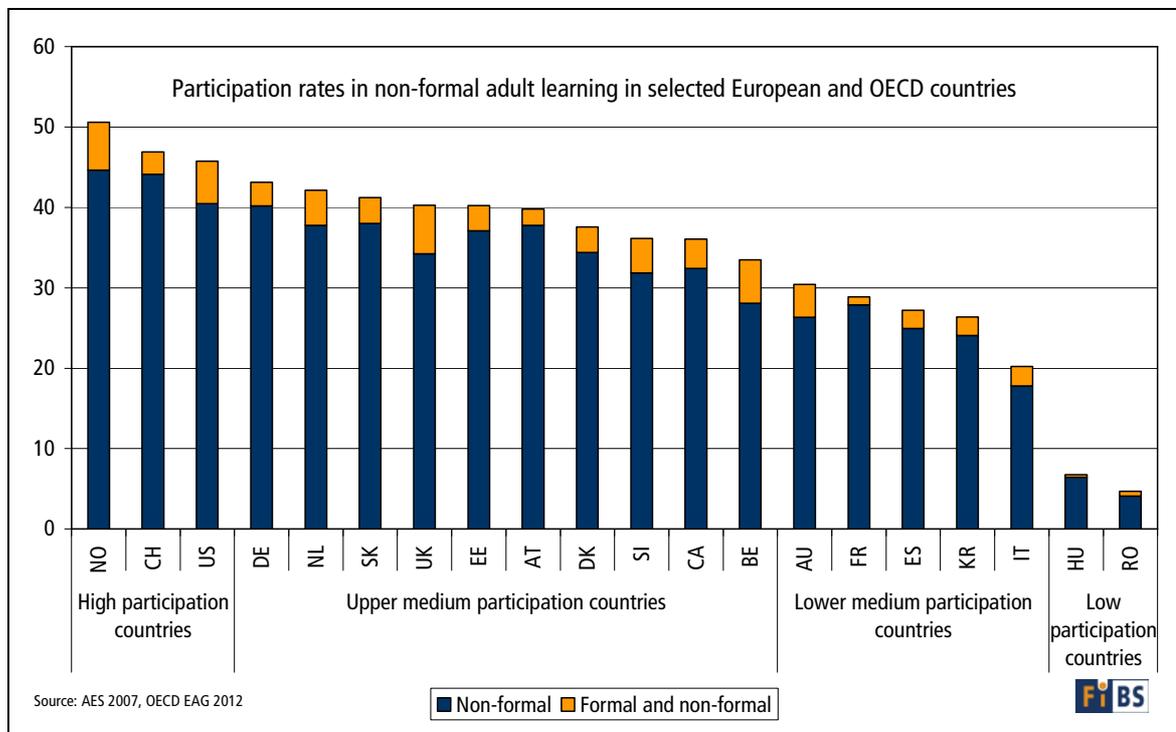


Figure 36: Participation rates in non-formal adult learning in the ALFi-countries (ranked by participation rate in non-formal adult learning according to AES/OECD 2007).

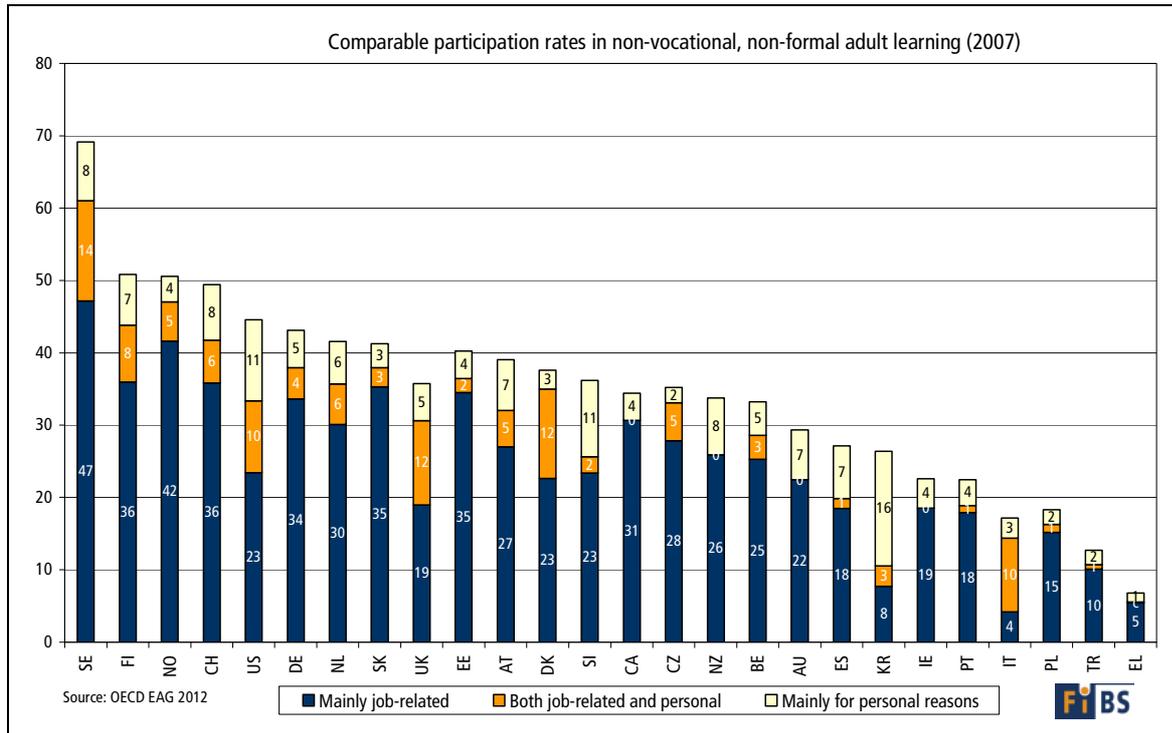


Figure 37: Participation rates in non-formal adult learning by motivation 2007 (OECD countries).

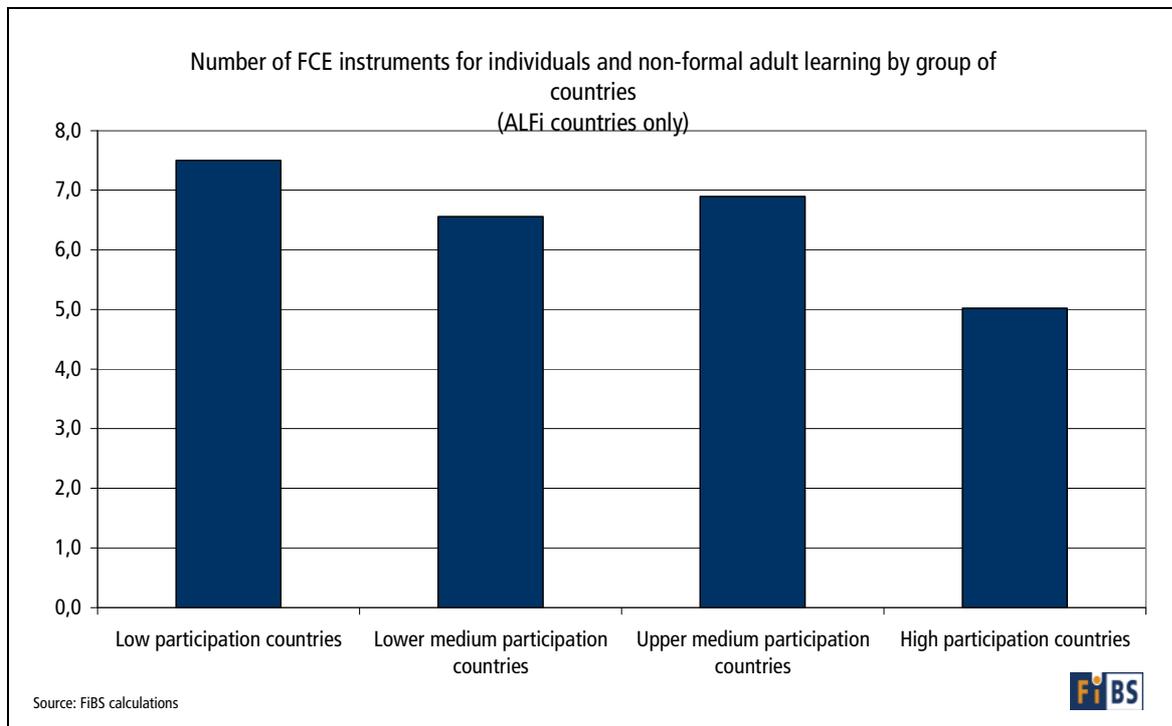


Figure 38: FCE number of instruments by group of countries according to participation in non-formal adult learning.

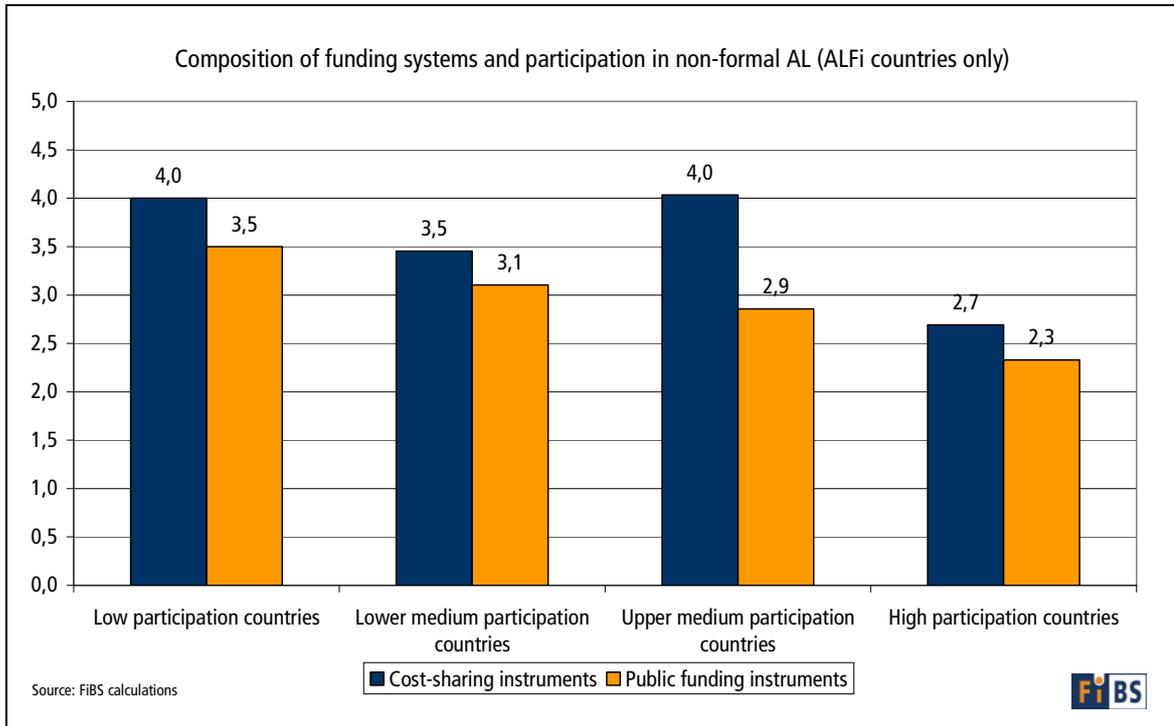


Figure 39: FCE number of cost-sharing and public funding instruments by group of countries according to participation in non-formal adult learning.

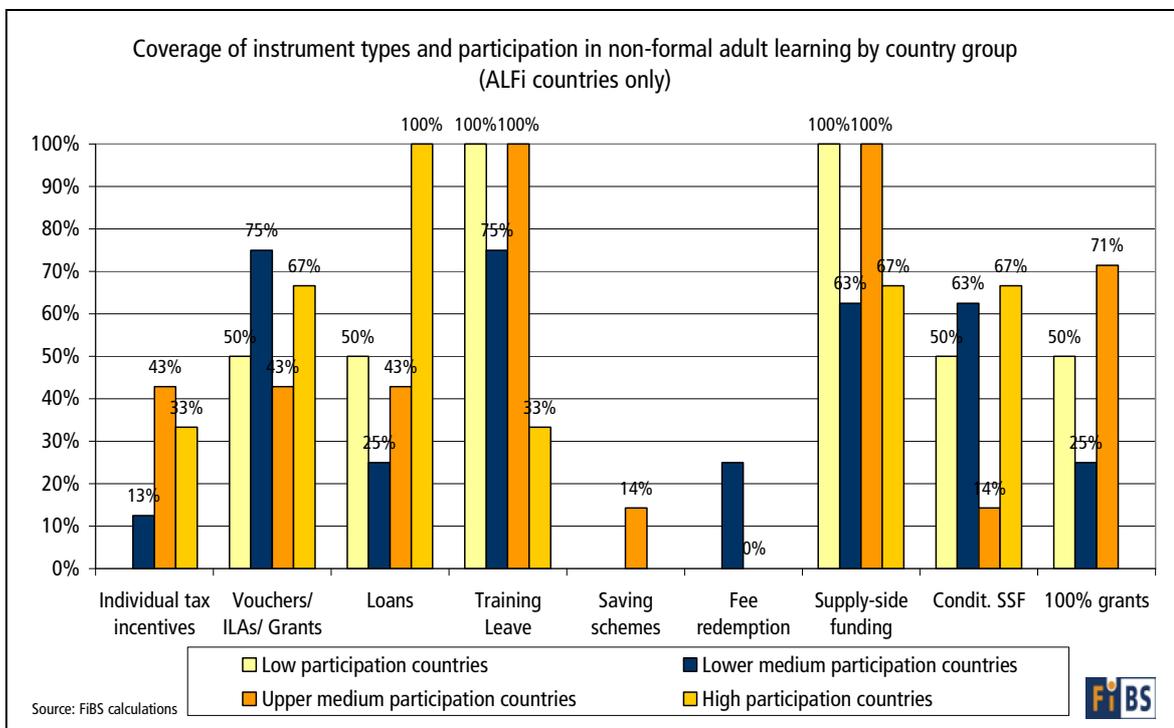


Figure 40: Availability of funding instruments by type and participation in non-formal adult learning by group of countries (ALFi countries).

As in the previous case of (formal or non-formal) adult learning, the total number of FCE instruments does not show any clear pattern, even though the number of instru-

ments tends to decrease with participation rates. However, when dividing the FCE instruments into cost-sharing and publicly funded instruments, a negative relationship between participation and the average number of FCE public funding instruments can be identified. A similar trend for the cost-sharing instrument is interrupted by the upper medium participation countries.

Looking at instrument types, a negative relationship appears to exist between the average number of training leaves in country groups and participation in non-formal adult learning, which would be in line with the previous section. Other patterns do not seem to exist.

While descriptive analyses did not find any conclusive pattern, statistical analyses identify several relationships. The number of loans is statistically significant with non-formal participation rates according to AES 2011 as well as AES/OECD 2007, again for loans in general but also for CVET-loans; as above, the correlation is much stronger for CVET-loans. A weakly significant correlation can also be found for the total number of cost-sharing instruments, though only for AES 2011, the total number of instruments as well as the total number of cost-sharing instruments. This would suggest that better-off countries employ more instruments for non-formal adult learning than worse-off countries, when accounting for different national outreach this is probably only valid with regard to cost-sharing instruments. This seems a contradiction to previous research (PPMI/FiBS 2012), suggesting that further research in this regard is needed.

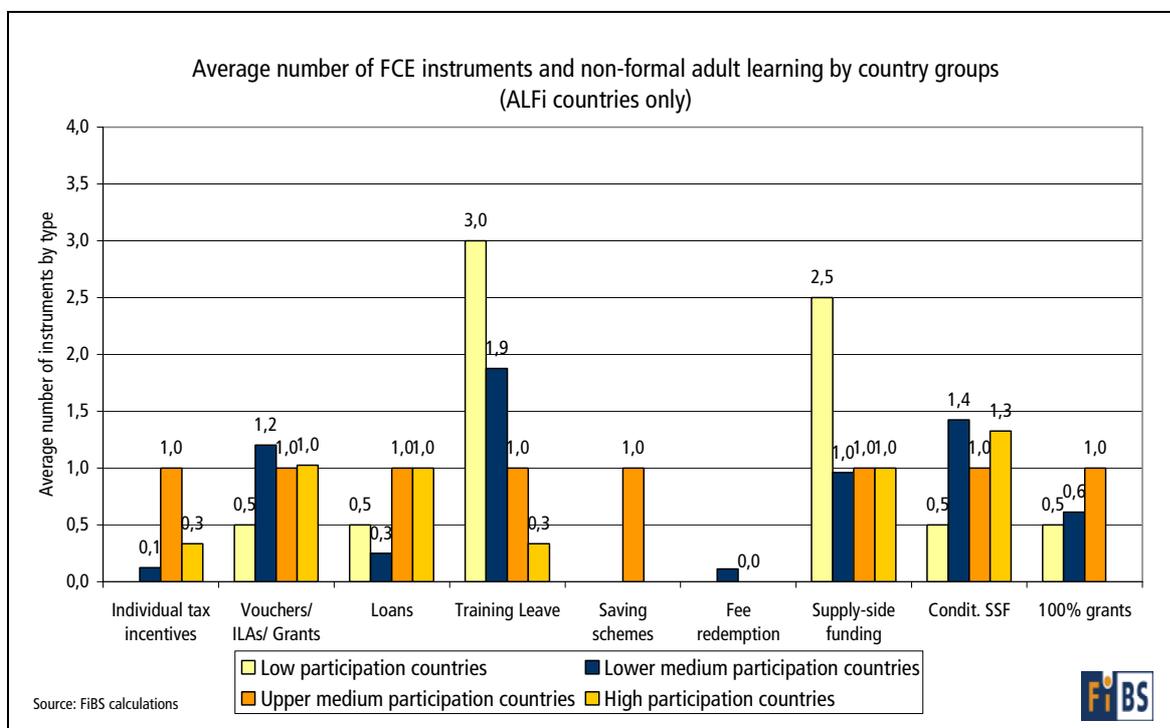


Figure 41: Average FCE number of instruments by type (ALFi countries) and group of countries according to participation in non-formal adult learning.

5.6.4 Funding systems and non-vocational, non-formal adult learning

Since the focus of this study is on non-vocational adult learning it is appropriate to review the relationship between funding for non-vocational adult learning and participation in non-vocational, non-formal adult learning; non-vocational is here understood as not (exclusively) job-related.¹²⁷

Figure 42 presents the participation rates for non-vocational, non-formal learning, ranked according to overall participation rates, indicating that the role varies quite a lot across all countries. Figure 43 provides another picture, ranking bars according to the non-vocational participation rates. Even in comparison with (total) non-formal adult learning some changes in the ‘ranking’ order are depicted. Even in this case SE remains at the top, followed by US, KR and UK as members of the high participation group. The second group of upper medium countries comprises a heterogeneous group of Northern (FI, DK), Western (CH, AT, NL), Eastern (SI) and Southern (IT) European countries. The third group of lower medium participation countries also spreads across all regions.

Hence, most countries change their position, although some countries remain in the group where they were before (e.g. SE, PL, EL and HU). Major changes occur e.g. for KR and IT, either moving from lower ends to the middle or even to the top, while NO and SK move several places down to the lower medium group.

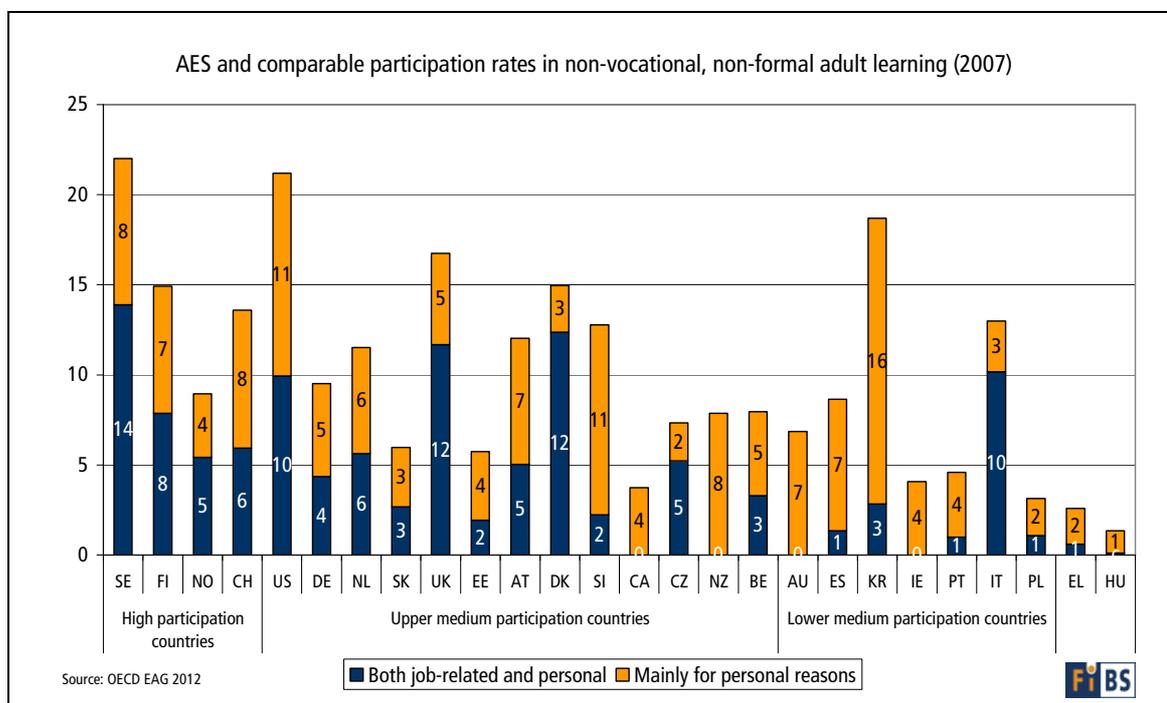


Figure 42: Participation in non-vocational, non-formal adult learning (ranked according to overall participation rates).

¹²⁷ This analysis is based exclusively on OECD-data (OECD 2012), which includes the four non-European countries, while those European countries are not included, which are not members of the OECD.

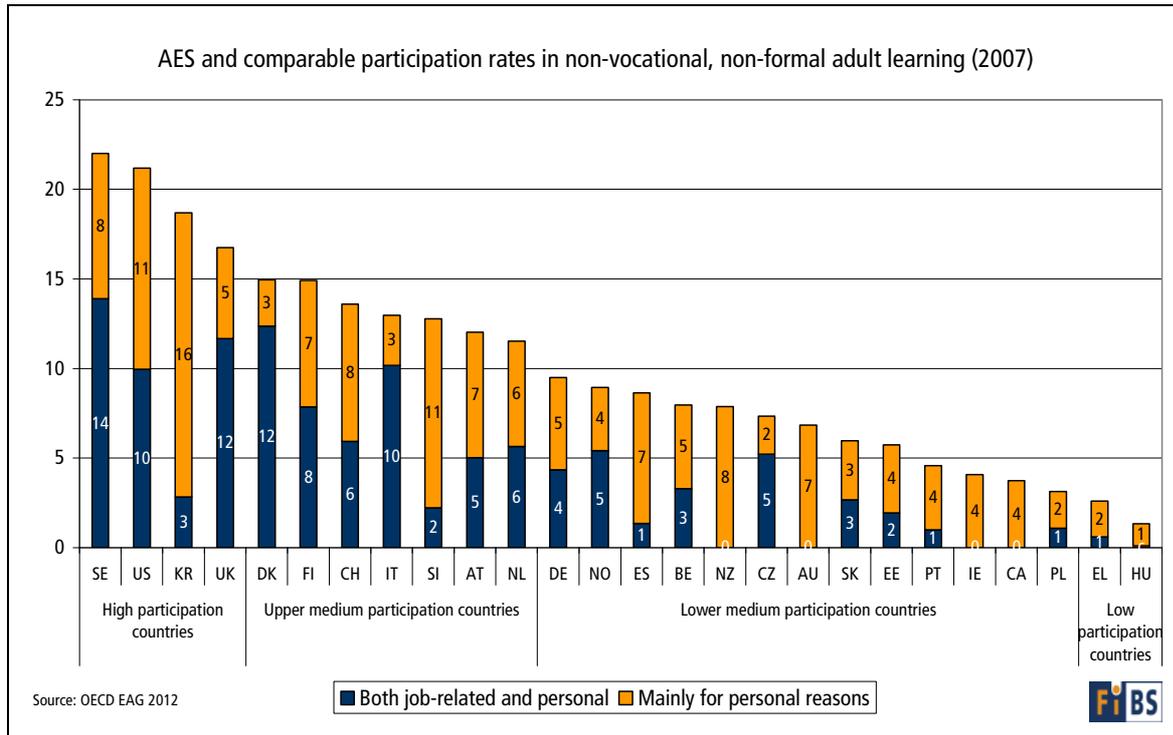


Figure 43: Participation in non-vocational, non-formal adult learning (ranking by participation rate in non-vocational, non-formal adult learning).

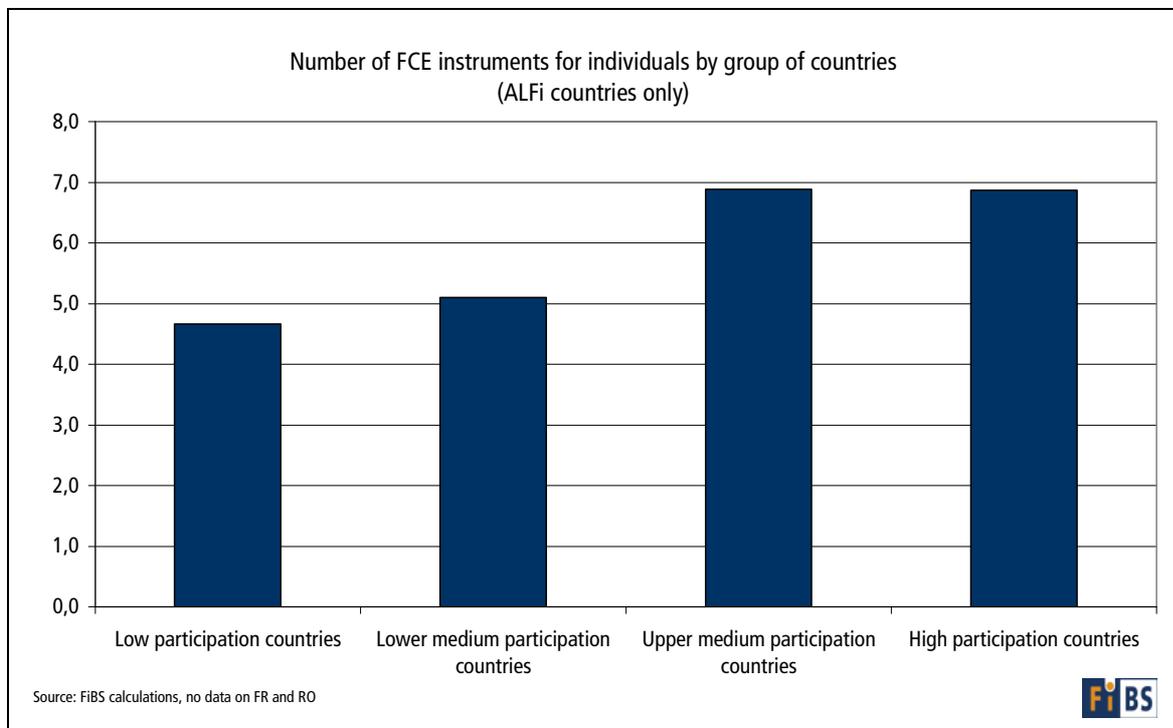


Figure 44: FCE number of instruments by group of countries according to participation in non-vocational, non-formal adult learning.

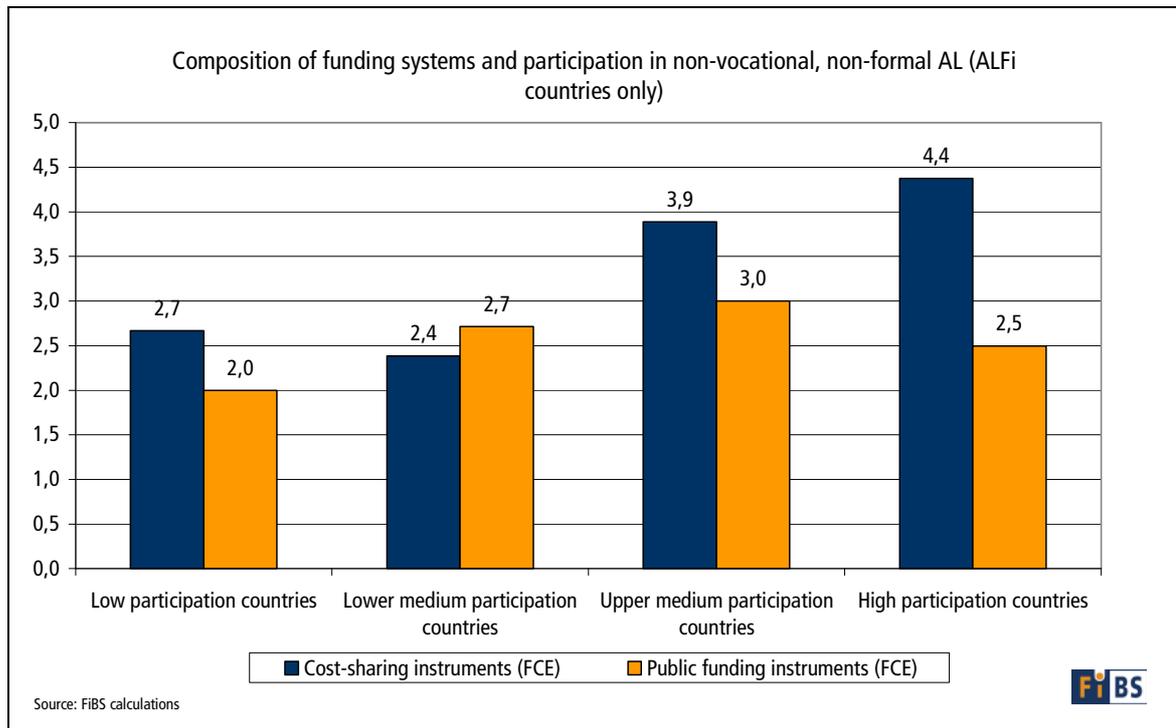


Figure 45: FCE number of cost-sharing and public funding instruments by group of countries according to participation in non-vocational, non-formal adult learning.

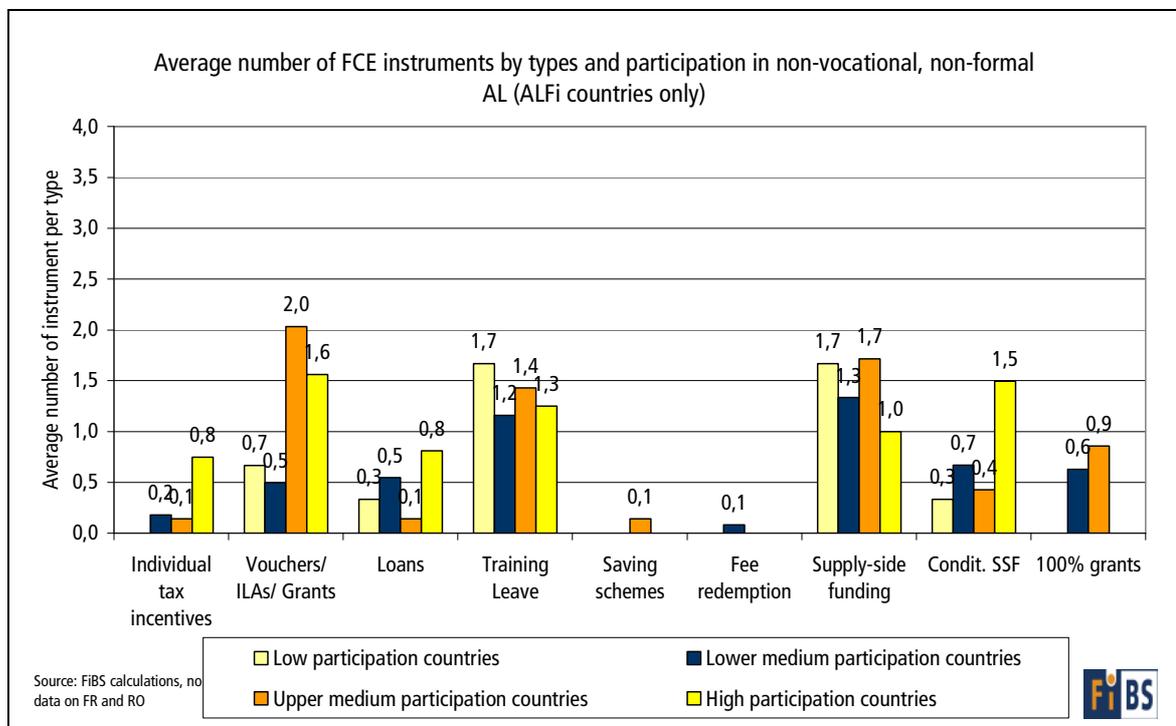


Figure 46: Average FCE number of instruments by type (ALFi countries) according to participation in non-vocational, non-formal adult learning.

Figure 44 reveals that the FCE number of funding instruments shows a positive relationship to participation rates, when disregarding the identical average number of FCE

instruments in upper medium and high participation countries. While an increasing average number of cost-sharing instruments in relation to participation grouping can be found, no pattern emerges in relation to public funding (see Figure 45).

Almost no relationship can be identified between availability or number of instruments by type, though high participating countries apply more tax incentives, vouchers and supply-side funding instruments than the other groups (see Figure 46).

However, statistical analysis points to a weakly significant correlation between the FCE number of cost-sharing instruments and participation rates. Furthermore, the FCE number of vouchers and the number of CVET-loans correlate weakly significant with the participation rates in non-formal, non-vocational adult learning. While the relationship between vouchers and participation might be explainable with the small funding amounts which usually apply and which may be conducive since they reduce the privately borne share, the role of loans is less clear cut, because they should play a more important role with regard to expensive programmes. Furthermore, it is likely that the correlation fades away, once GDP is controlled for.

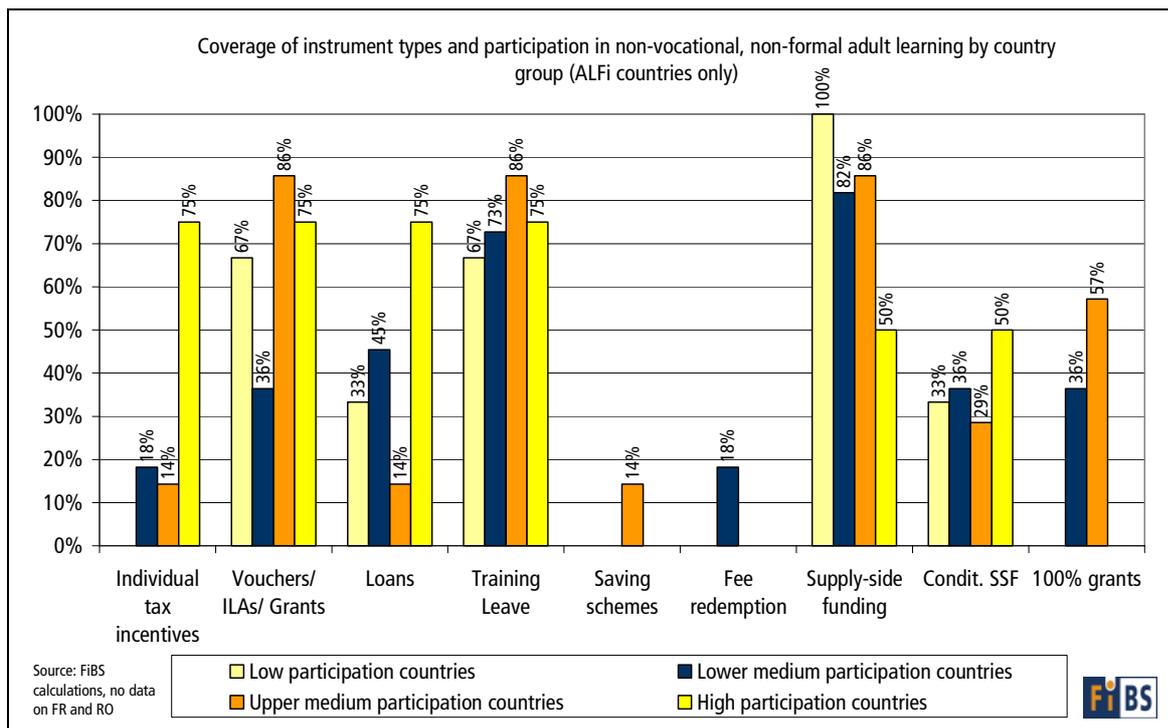


Figure 47: Availability of funding instruments by type and participation in non-vocational, non-formal adult learning by group of countries (ALFi countries)

5.6.5 Funding systems and formal adult learning

The previous section reviewed the relationship between funding systems and non-formal adult learning. The complementary consideration is to review the relationship between funding and formal adult learning. While the AES allows the specification of non-vocational formal adult learning, comparable figures are not available for the non-

European countries. For the following analysis we will therefore have to rely on formal adult learning participation rates in general.

Figure 48 shows the participation rates in adult learning, when the countries are grouped according to their overall participation rates, clearly indicating that substantial and important variances exist across countries and that many countries change their position a lot.

Furthermore, since the core question is whether there is a relationship between funding systems and participation rates in (formal) adult learning, we will change the ranking order accordingly (see Figure 49). In this case, UK, BE and AU are at the top, followed by DK, CA, NO, SI, US, NL as upper medium countries with above OECD-rates. The lower medium groups consists SK, ES, KR DE, EE, CH, IT and AT, while RO, HU and FR form the group of low performers as formal learning is concerned.¹²⁸

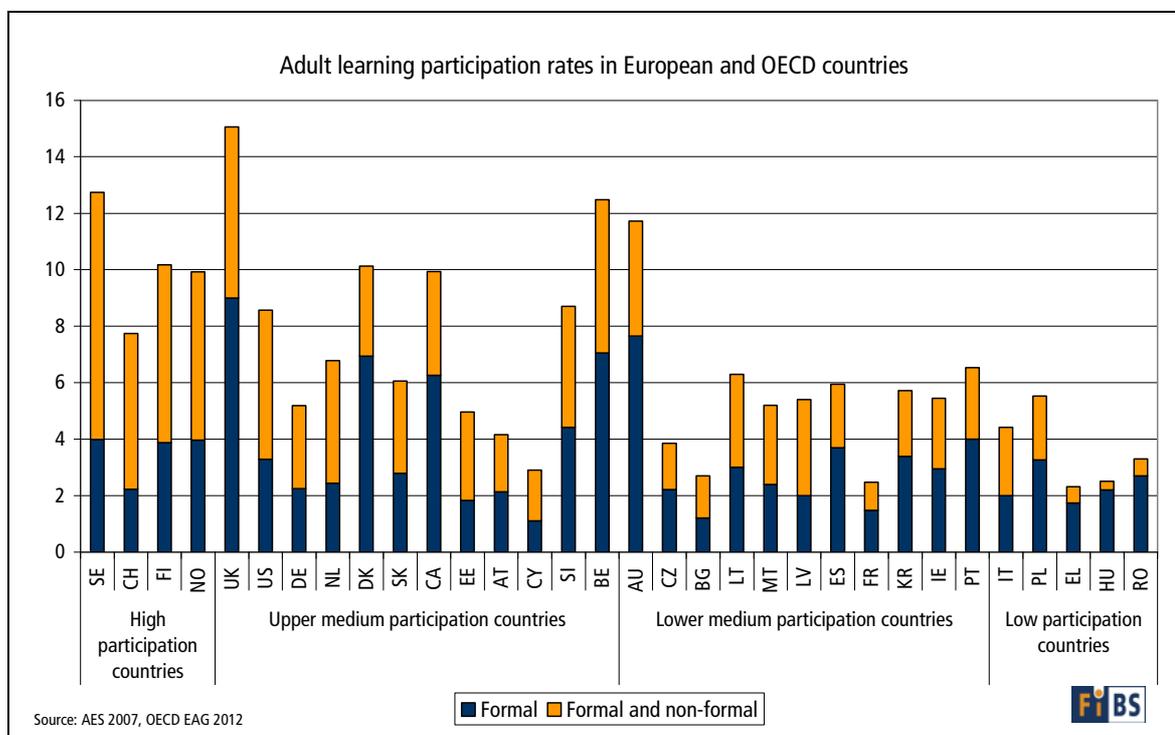


Figure 48: Participation rates in formal adult learning. (ranked according to overall AES/OECD 2007 participation rate)

No pattern can be identified, neither concerning the total FCE number of instruments nor for cost-sharing and publicly funded instruments, separately. Only when disregard-

¹²⁸ Since some ranking positions may be surprising, a quick look what is comprised by formal adult learning is helpful. First of all it may be appropriate to remember that this study reviews adult learning participation rates of those aged 25 to 64, according to European and OECD statistics. In this regard formal adult learning concerns post-secondary, non-tertiary education (comprising more demanding VET, which is not included in ISCED 3), shorter tertiary education programmes (ISCED 5B) as well as higher education (ISCED 5A/6) of this age group. A second strand is, in fact, second chance education aiming particularly at secondary school qualifications for early school leavers, who did not have the opportunity to acquire such a qualification in advance.

ing the high participation group, a negative relationship is suggested between cost-sharing and participation rates and a positive for publicly funded instruments.

Furthermore, Figure 51 shows some relatively clear positive relationships between participation and availability of vouchers/ILAs/Grants as well as loans; the case for tax incentives and training leaves is not that clear. When regarding the average number of FCE instruments by instrument types, the positive relationship between (formal) participation and loans is confirmed, whereas the other patterns tend to fade away. However, better performing countries appear to employ more conditional and fewer unconditional supply-side funding instruments. Although no relationship between participation and the average FCE number of training leaves can be identified, the especially high number of training leaves in low participation countries is evident.

(Bi-variate) statistical analyses arrive on weakly significant correlations for tax incentives in relation to AES 2011 and loans in relation to AES/OECD 2007 (0.052 and 0.055, respectively).¹²⁹

The only pattern that emerges from the statistical analysis of the AES/OECD 2007-data is a weak significant correlation at the 0.1 level, suggesting a positive relationship between higher state funding shares and participation rates in formal adult learning.

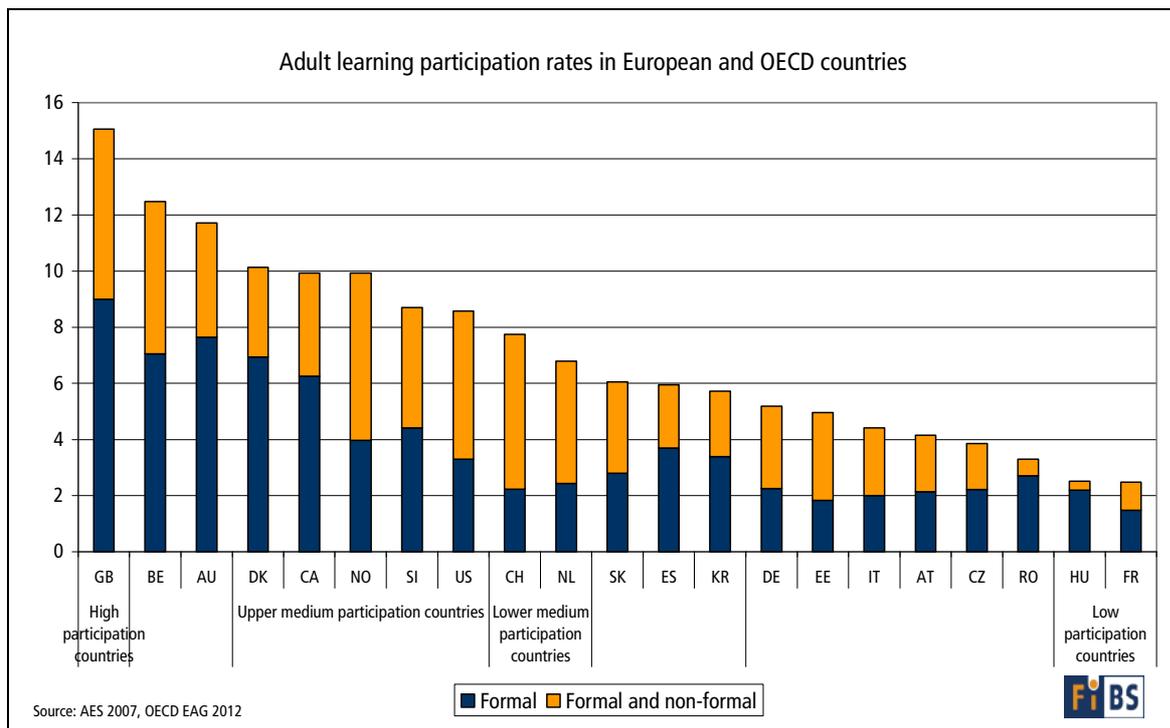


Figure 49: Participation rates in formal adult learning in the ALFi-countries. (ranked according to OECD 2012 participation in formal adult learning)

¹²⁹ The significant correlation for fee redemption/waiver regulations should be considered with care, because of the very small number of countries employing them.

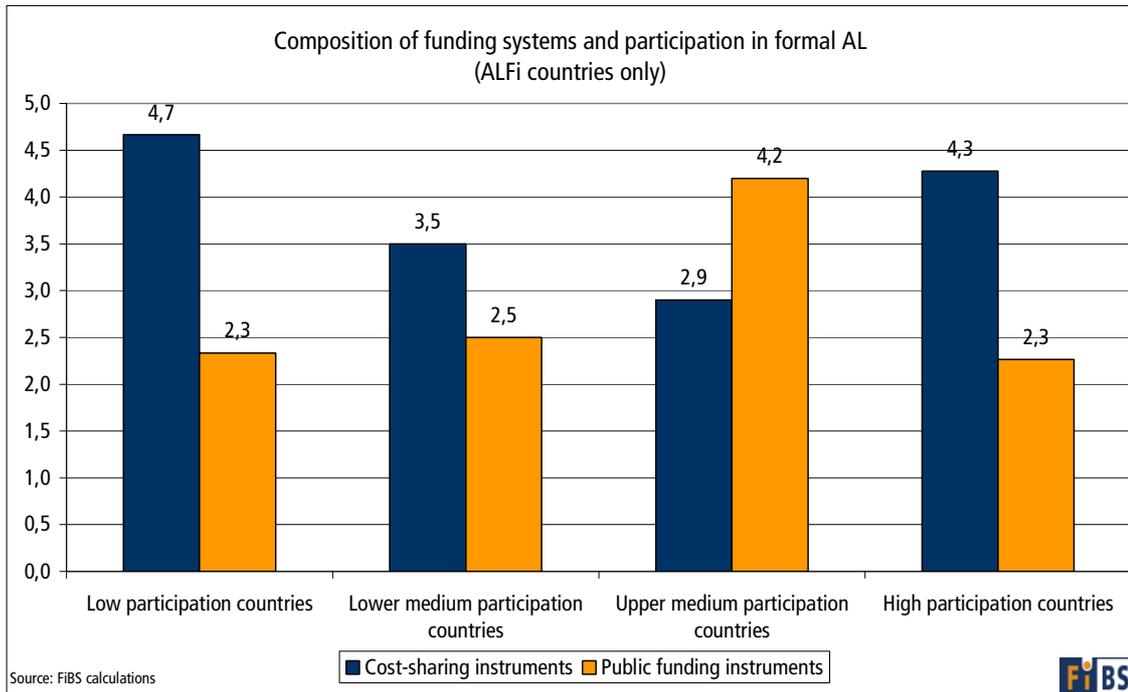


Figure 50: Composition of funding systems and participation in formal AL (ALFi countries).

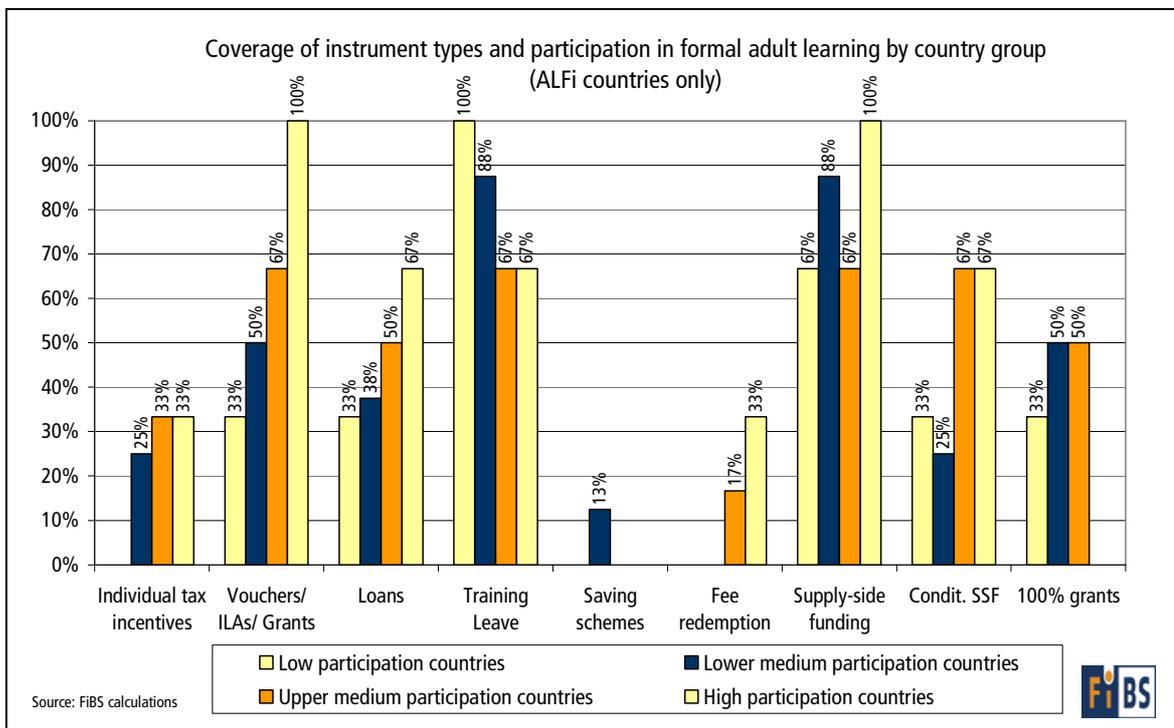


Figure 51: Availability of funding instruments by type and participation in AL (ALFi countries).

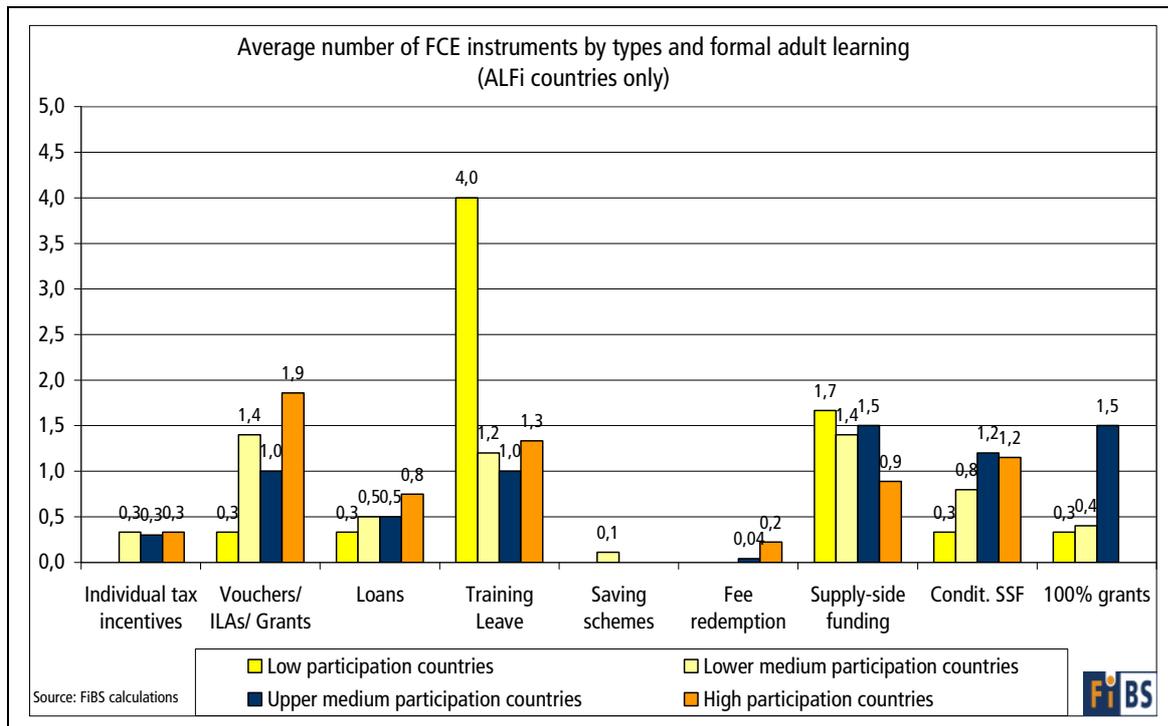


Figure 52: Average FCE number of instruments by type and participation in formal AL (ALFi countries).

Interestingly, though, is a re-analysis based on the AES 2011-data, confirming on the one hand the weakly significant positive correlation between the state’s funding share and participation in formal adult learning. On the other hand a higher share borne by the individual is negatively correlated to AES 2011-participation rates in formal adult learning. Similar correlation coefficients turn up concerning the total share of funding for ALE (aged 25+ adjusted; see section 4.1) and particularly the state’s funding volume in relation to GDP. However, the number of countries is very small, suggesting that further analysis is needed and, equally important, these correlations are likely to disappear when other factors are taken into consideration.

5.6.6 Summary

The previous section reviewed relationships between funding systems and adult learning, establishing some interesting relationships, which should be further investigated with additional countries and an even better data base concerning the funding instruments employed in the different countries and in relation to the different segments of adult learning.

Most importantly, participation rates in adult learning are highly significant driven by economic well-being; countries with a higher GDP show higher participation rates, whatsoever segment of adult learning is concerned.

With regard to funding systems, the full-country equivalent (FCE) number of cost-sharing instruments shows weakly significant correlations with formal or non-formal adult learning (according to AES 2011), non-vocational, non-formal (OECD 2007) as well as non-formal adult learning (AES 2011). This would suggest that employing more

cost-sharing instruments (FCE) is supportive to adult learning. Furthermore, loans, and here particularly, CVET-loans show repeatedly correlations with adult learning participation rates, be it for formal or non-formal (according to AES/OECD 2011 and AES 2011)¹³⁰ or non-formal adult learning (AES/OECD 2011, AES 2011). All these results are significant at the 5%-level, significance level is slightly weaker for formal adult learning (AES/OECD 2007) and with regard to LFS 2010 and 2011 participation (considered separately).

Eventually, tax incentives correlate weakly significant with formal and and vouchers with non-vocational adult learning, respectively.

Overall, results point to some links between funding systems and particularly instruments and participation rates in adult learning. Further analyses should account for GDP differences, because it is very likely that it more influential, fading away some of the other patterns.

While the various system level analyses arrived only very rarely at clear results, another and very strong finding is that countries with decentralised responsibility, either at state or local level, are disproportionately represented at the top. The top-7 countries (SE, FI, NO, UK, US, CH and DE), yet also several other countries, apply decentralised approaches due to their federal structure or because of the responsibility of the municipalities for adult learning. This could be an indication that decentralised responsibility is conducive to adult learning participation.

¹³⁰ In addition, only CVET-loans show almost or weakly significant results with regard to participation rates according to LFS 2010 and 2011 (0.063 and 0.088, respectively).

6. Financing the specific target groups and learning providers

The following section provides the information on the financing of the ‘specific target groups’, which should be taken into consideration. Chapter 6.1 focuses second chance education and the provision of basic skills, section 6.2 reviews the financing of higher education (for the first time) later in life, whereas section 6.3 looks at the learning of older and retired adults. Eventually, section 6.4 investigates the situation of learning providers and the impact the crisis has had on them.

6.1 Second chance education/basic skills education

6.1.1 Introduction

In today’s Europe, upper secondary education is considered to be the minimum requirement for successful entry into the labour market and continued employability. Eurostat data show that those who have completed at least upper secondary education have a significantly higher employment rate of 70% compared to 52% for people with only lower secondary education (LFS 2012). In addition, jobs requiring upper secondary education are commonly related to higher salaries, better working conditions and more opportunities for continuing professional development than jobs requesting lower qualification levels (Eurydice 2011).

One of the European Union’s objectives is to keep young people in education and training until at least the end of upper secondary education.¹³¹ The specific focus of European policy on young adults is due to the fact that under-qualified people run the highest risk of long-term unemployment or unstable employment. This can have additional consequences, such as social exclusion.

This chapter distinguishes between ‘second chance’ programmes for (young) adults leading to qualifications up to upper secondary level that can be regarded as equal to mainstream qualifications, and basic skills provision. The chapter starts with defining second chance; demarcating it from other adult learning types in section 6.1.2. Chapter 6.1.3 reviews the internal rates of return to “second chance education” for people graduating from upper secondary education at age 40 and compares them with returns to initial secondary education. Some statistical background information on group size and participation rates of low qualified is given in sections 6.1.4, followed by an overview of policies for this target group in Europe and non-European countries (section 6.1.5) and on funding instruments and volumes (section 6.1.6). Chapter 6.1.7 summarises the core findings.

¹³¹ This target is stressed by the Council conclusions of 12 May 2009 on the strategic framework for European cooperation in education and training – ‘ET 2020’, which includes a specific benchmark for early leaving of education and training: by 2020, the share of the population aged 18-24 with only lower secondary education or less, and no longer in education and training, should be less than 10%.

6.1.2 Definitions

Low qualified versus low skilled

In order to define the size of the population that potentially could benefit from second chance education, this study refers to the group of low-qualified people. According to the Eurofound study (2009), low-qualified workers are defined as those whose educational attainment level is less than upper secondary education, that is, less than ISCED 3, according to the International Standard Classification of Education (ISCED). Thus, it concerns people who have no or only basic educational levels (ISCED 0–2).

In contrast, low-skilled is defined as a persons' disposition in terms of knowledge, skills and attitudes, preventing a person to fully and continuously participate in society and labour market. While the term 'low-skilled' refers to a normative judgment concerning someone's skills and competences, the term 'low-qualified' refers to more objective criteria concerning someone not having certain qualifications. Despite the difference, the groups overlap to a large extent. Being low-qualified is often associated with not having the necessary skills.¹³²

Second chance demarkated

The focus of this chapter lies with 'second chance' education, targeting people who have dropped out of the education system or not been able – for whatever reason - to finish basic education, who are no longer subject to compulsory schooling and who neither have the qualifications and/or the required skills to find a job or to enroll in one of the existing (vocational) training programmes. Allowing such (younger) adults an entry back into the process of life-long learning is one of the main goals to be achieved, complemented by guaranteeing long-term social and vocational integration. According to this definition of the target audience, the second chance participants are supposed to be over the statutory school age. The age-demarcation in relation to low qualified adults is 25-64 years of age. Second chance education, defined as remedial support to those who left compulsory education with no or low level qualifications and predominantly provided through formal learning, another distinctive (second chance) target group are those adults that lack basic skill training.

Although the defined scope of 'second chance' education differs between countries, practice shows that 'second chance' education is both delivered through formal education and training programmes (leading to formal qualifications), that are provided by public funded Adult Education institutes, public schools, as well as publicly funded private training providers, and non-formal programmes (not resulting in formal qualifica-

¹³² The European wide study on low skilled take their qualification 'one step up' (Federighi/Torlone 2010), also takes ISCED level 1 and 2 as starting point, but adds to this that "The target group of the present study consists of adults with no or insufficient qualification, or whose professional skills are obsolete and need to acquire key competences at any stages in their lives." As this study rightfully remarks, there are people having a qualification higher than ISCED 2, but due to various reasons (i.e. out-dated knowledge, health issues, socio-economic developments, family constraints) have difficulties keeping

tions). The non-formal general education courses are provided by folk high schools for example. 'Second chance' education, in its narrow definition of behavioral and social skills training, is predominantly delivered through non-formal training and education programmes. One could think of the delivery of special preparatory special courses for lower secondary, upper secondary, intermediate and superior vocational, and even certain programmes preparing for university, but also language courses, literacy programmes, entrepreneurship training, ICT's, active citizenship, etc.). In comparison with non-formal education, formal adult education tends to be more aimed at increasing of the education level of the participant (remedial support).

Another definition issue related to the scope of what can be defined as 'second chance' education is related to the difference made between non-vocational and vocational tracks (the latter not being the focal point of attention in this study).

6.1.3 Rates of return to second chance education later in life

Some years ago the OECD (2008) reviewed the public and private monetary benefits of graduation for upper secondary at age 40, providing evidence and support for certain areas of adult education. Table 20 reveals that public as well as private internal rates of return of a person graduating from upper secondary education at age 40 are positive in almost all countries and in many countries even substantial, even if income foregone is not compensated (columns 1 and 2). The exceptions are almost exclusively from the Nordic countries; Finland is the only country with negative private returns for men and women, if the foregone income is not compensated. Germany shows negative returns for female.

Stenberg/de Luna/Westerlund (2011) confirm low or even negative returns to formal adult education of low to medium skiller 'older' people in Sweden. The only group for which higher monetary rewards could be identified were females with at least two small children, who were assumed to be not in employment because of family responsibilities. Another interesting finding is that returns seem to be higher for males with only few credits, which may be interpreted as signalling effect to the labour market.¹³³ Reviewing these findings in the light of the OECD estimates across countries, it could also be that some particular characteristics of Swedish labour market and/or welfare system play an important role in this regard.

Not surprisingly, if individuals are partially compensated, e.g. by receiving public subsidies compensation half of the foregone income (the columns 3 and 4), private returns go up to two digit figures in most countries. In some cases private rates of return exceed even the 20% level. Eventually, private returns increase even more, if participants receive a subsidy equal to unemployment benefits. Thus, from a private per-

pace with society and the labour market. Although this particular group of low-skilled is not at the core of the study this study concerns low qualified, i.e. persons having utmost lower secondary qualification.

spective, individuals would benefit in all countries if they would enrol in upper secondary education while unemployed and receive unemployment benefits; only in some countries the rates of return are comparatively low, i.e. below 10%, e.g. FI, DE (female), IE (male). At least the former two are countries with well established social security systems, providing a lower income threshold, reducing the private returns. In contrast, individuals' return exceeds in several countries 20% and sometimes even 30%. On average, female rates of return are (much) higher than those of male; sometimes almost double as high (e.g. Poland or Ireland).

Country	Year	Private rate at age 40 if ...						Public rate of return	
		... if the foregone earnings are at the level s/he could have earned with a lower secondary education		... if the foregone earnings are compensated by an arbitrary public subsidy amounting to 50% of the level s/he could have earned with a lower secondary education		... if the foregone earnings are compensated by a public subsidy amounting to unemployment benefits		Male	Female
		Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	(7)	(8)
Belgium	2004	4,8	9,3	11,2	17,6	16,8	66,2	5,6	11,5
Canada	2004	5,7	9,9	12,4	18,2	16,7	26,7	4,8	5,8
Czech Republic	2004	13,6	14,8	24,8	24,6	29,7	29,3	4,3	4,2
Denmark	2004	3,3	3,5	10,1	10,5	15,6	66,9	0,7	-1,0
Finland	2004	-0,8	-3,5	4,5	2,6	8,3	8,6	-1,9	-8,3
France	2004	4,8	7,3	11,3	14,5	17,8	33,4	0,5	0,0
Germany	2004	5,1	-0,7	11,1	5,0	12,6	8,5	3,9	-2,4
Hungary	2004	8,3	9,0	15,9	17,4	17,5	21,3	7,5	7,8
Ireland	2004	2,8	5,3	9,1	12,8	5,8	13,1	5,6	4,9
Korea	2003	7,5	5,6	14,8	11,8	15,2	13,9	-0,2	-10,0
New Zealand	2004	6,6	4,4	14,4	11,5	10,6	10,6	6,0	-1,8
Norway	2004	2,3	1,4	8,0	7,4	12,4	11,5	-0,9	-4,6
Poland	2004	7,0	12,8	17,7	24,5	12,9	25,9	6,3	9,7
Portugal	2004	16,8	16,4	26,8	26,8	36,1	38,3	14,2	10,0
Spain	2004	7,3	9,9	15,1	17,6	28,1	36,0	3,7	3,6
Sweden	2004	2,5	0,2	8,9	7,6	25,3	32,4	-1,2	-5,5
Switzerland	2004	7,3	4,1	14,4	10,1	22,6	43,1	1,1	-0,4
United Kingdom	2004	9,5	6,0	18,3	13,3	12,7	11,4	7,1	3,4
United States	2004	13,5	13,5	22,7	22,5	26,8	28,6	7,8	3,4

Source: OECD 2008 (www.oecd.org/edu/eag2008)

Table 20: Public and private internal rate of return to upper secondary education at age 40.

Though public returns are commonly lower than private returns, particularly in the case of unemployment benefits while enrolled in upper secondary education, they are positive in the vast majority of cases. Only in very few cases returns are lower than for other investments, i.e. in Nordic countries (FI, NO, SE), but also in Korea for both genders, for women in DK, DE and CH. In contrast, public returns are particularly high in PT, PL and, for female, in BE.

Comparing the internal rates of return to second chance education with those of initial secondary education (OECD 2008) indicates that differences depend very much on which figures – and consequently, which financial conditions – are concerned with regard to second chance education. While private returns are commonly (much) higher for initial education, if income foregone is not compensated by welfare benefits, private rates of return turn substantially higher in most countries for second chance education, if 50% of income foregone is compensated. Private rates of return increase even further, if compensation is of the level of unemployment benefits. Furthermore, it should

133 Another factor is that participants in formal adult education report higher sick leave rates than non-

be noted that even private returns may be positive in the first case for female in a number of countries (e.g. ES, PT, FR, BE, HU and PL as well as in CA).

In contrast, public returns are almost always (much) higher for initial than for second chance education, though two exceptions can be identified – BE (female) and PT (male).

Adding up, private returns are, in fact, higher for second chance education in a majority of countries, where unemployment or welfare benefits compensate at least partially for income foregone. This is the case in almost all countries under consideration. Consequently, participation in second chance education would be economically rational from the individual's perspective, while commonly not from the state's perspective.

6.1.4 Groups size of low qualified

According to the recently published “Rethinking Education” strategy, 73 million Europeans, around 25% of adults, have a low level of education (European Commission 2012l); this comprises people having an education attainment level of pre-primary, primary and lower secondary education (ISCED 97 levels 0-2) only. Although this number is still high, it appears that some progress has been made, as this figure was even higher in recent years.

As can be seen in Figure 53, among the countries with shares of low-qualified people above 30% are exclusively Southern and South-Eastern European countries; Turkey, Malta and Portugal arrive and surmount the 70% mark. The next to follow are several Western European countries (BE; FR, NL, and Ireland) as well as Australia where one out of four adults is low qualified. The lowest rates of less than 10% can be found in some Baltic countries and other newer member states, LT, CZ, and SK, the non-European country with the lowest rate is the USA with slightly above 10%.¹³⁴

The figure also indicates the average annual change rate (in percent) in the shares of low-qualified people over the period 2007-2010¹³⁵ (yellow bars), indicating that almost all countries have seen decreasing shares of low-qualified people. Extremely important is to note that development between countries is drifting further apart; change rates are far higher in countries already outperforming on the share of low-qualified people (especially countries from the new member states), while decrease is rather slow in those countries with the highest shares of low qualified people during the given period (correlation coefficient 0.46).

participants prior to the AE enrolment.

¹³⁴ Note that the Figure also contains comparative data for EFTA countries, accession countries (HR, MK) and Turkey.

¹³⁵ The period 2007 to 2010 has been selected to allow comparable change rate for all countries; DK and NO show important breaks in time series in previous years.

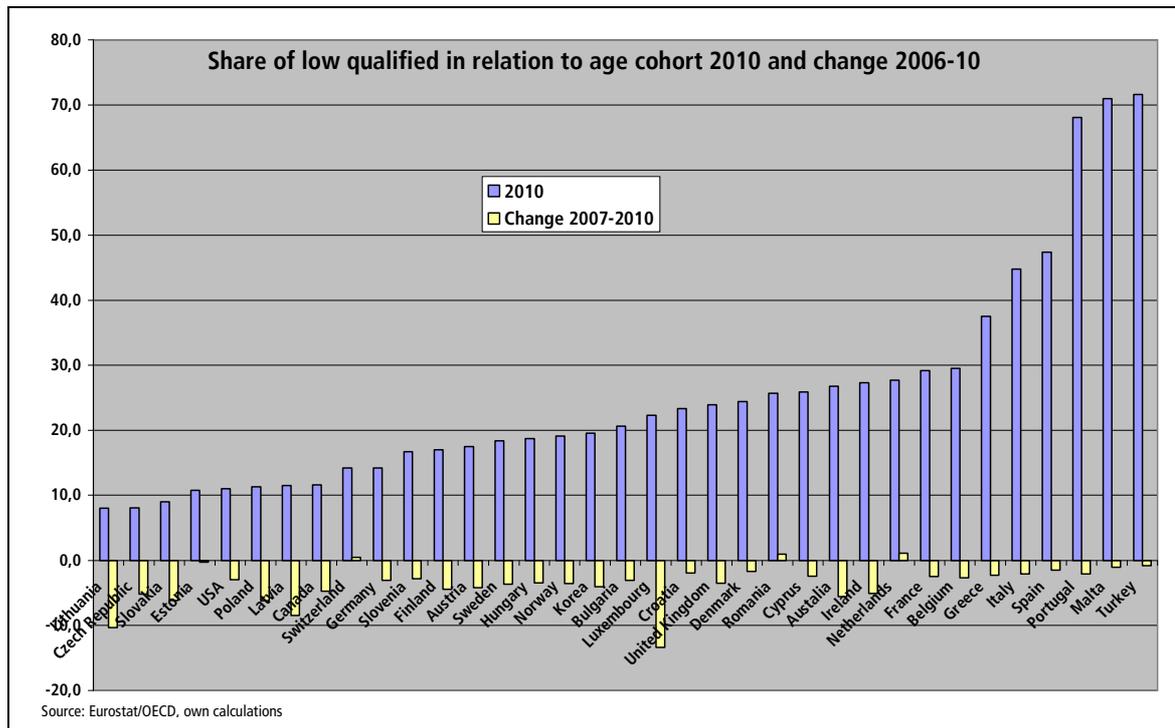


Figure 53: Share of 25-64 years olds with utmost lower secondary education (ISCED 0-2) in 2010 and annual change rate¹³⁶

Figure 54 shows the change in the shares of low qualified across age cohorts and thus how educational attainment has changed in the countries over the last forty years, indicating that the overall share of 25 to 64 years, presented in the figures above is build upon huge variations in the countries under review. The ranking from the left to the right follows from the lowest share in the youngest age cohort (25-34) to the highest. Reviewing the change in Korea over the last forty years, the share of low qualified decreased from almost 60% in the group of 55-64 year olds to 2% among the 25 to 34 year olds. While in Korea rates are decreasing strongly between those aged 35-44 and 25-34 (in relative terms), developments has come (almost) to a hold in Czech Republic and Slovakia; even in Poland decrease is comparatively modest, compared to Korea; in contrast Slovenia has seen a constant strong decrease over the last decades.

A reverse development can be identified for the USA, where the share of low qualified is higher in the two younger cohorts than in the two older ones and decrease over all four cohorts is rather modest. In Germany, almost no change can be observed between those aged 25-34 and those 54-64. Eventually, also Estonia shows a strong decrease between the two oldest cohorts is followed by a gradual increase in the share of low qualified. For all other countries, the share of low qualified is constantly and usually also strongly decreasing from cohort to cohort. However, it is also worth noting that the countries with the highest share in each age cohort are always the same.

¹³⁶ In some countries, e.g. Switzerland and Romania, change rates vary between plus and minus from year to year; thus the increase indicated in the Table should not be over-emphasized.

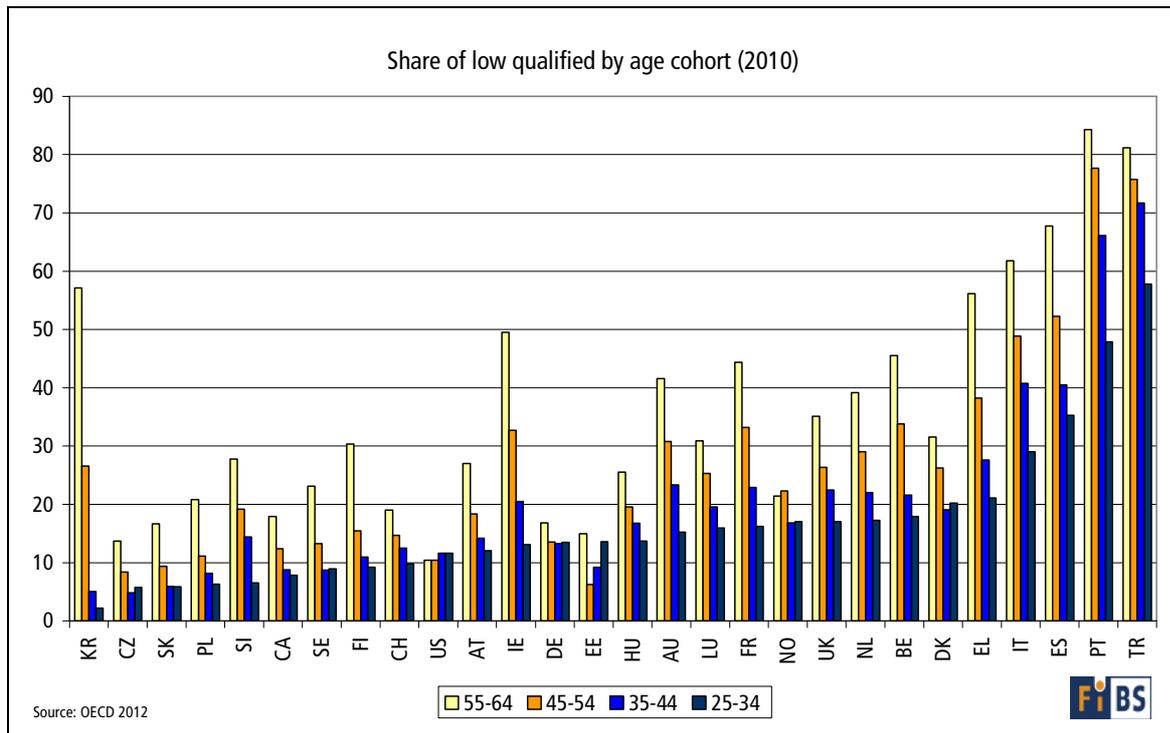


Figure 54: Share of low-qualified people by age group (ranked according to the share of low-qualified among 25-34 year old)

Comparing internal rates of return to secondary education (see section 6.1.2) and levels of low qualified and change rate shows interesting correlations. First of all, significant correlations can only be observed if the second chance learner gets a public benefit which is equal to his/her unemployment benefits.

A highly significant positive (bi-variate) correlation can be observed between the average annual change rate 2005/10 and females' internal private rate of return (if public subsidy is equal to unemployment benefit), suggesting that rates are particularly high in countries where decrease is rather low. Though these are often countries with high levels of low qualified (e.g. Spain, Portugal), this is not necessarily the case (e.g. Switzerland). The correlation for male is only slightly below the significance level; which is also valid for the change rate 2000/04. These findings could be an indication that people with upper secondary education are in high demand and that therefore the difference between the income of low and medium qualified (i.e. ISCED 0-2 and ISCED 3-4) is quite large.

Another positive and significant correlation can be observed between the level of low qualified male in 2010 as well as in 2005 and internal public returns. Interpreting this result it appears that compressed wage structures and high unemployment benefits, e.g. in Nordic countries, which all experience negative internal public return rates, reduces public benefits; however, the result is strongly affected by the outlier country of PT, as confirmed by statistical tests. When removing this country from the analysis, the previously significant correlations between the level of low qualified males in 2010 and 2005 and internal public returns become insignificant.

Participation in AL by low qualified

The table below shows the participation rate in formal and non-formal education by educational attainment and age cohort. The figures indicate that lower educated people participate less in adult learning in than higher educated people. This applies to all age groups. Interestingly, though is that the (absolute and relative) difference between low and highly qualified decreases from the younger to the older age cohorts, although one might expect the opposite.

	25-34	35-44	45-54	55-64	25-64
Below upper secondary education	27	24	20	12	20
Upper secondary and post -secondary non-tertiary education	46	41	37	25	38
Tertiary education	65	63	60	43	59
All levels of education	48	42	37	23	38

Table 21: Participation in formal and non-formal education by educational attainment and age (2007, EU19) (in% of population).

Uneven participation in adult learning is not only related to age class but also to other characteristics. Training rates are generally higher for men than for women, for skilled individuals than for the less skilled, for the employed than for the unemployed and inactive and for large firms rather than for small firms.

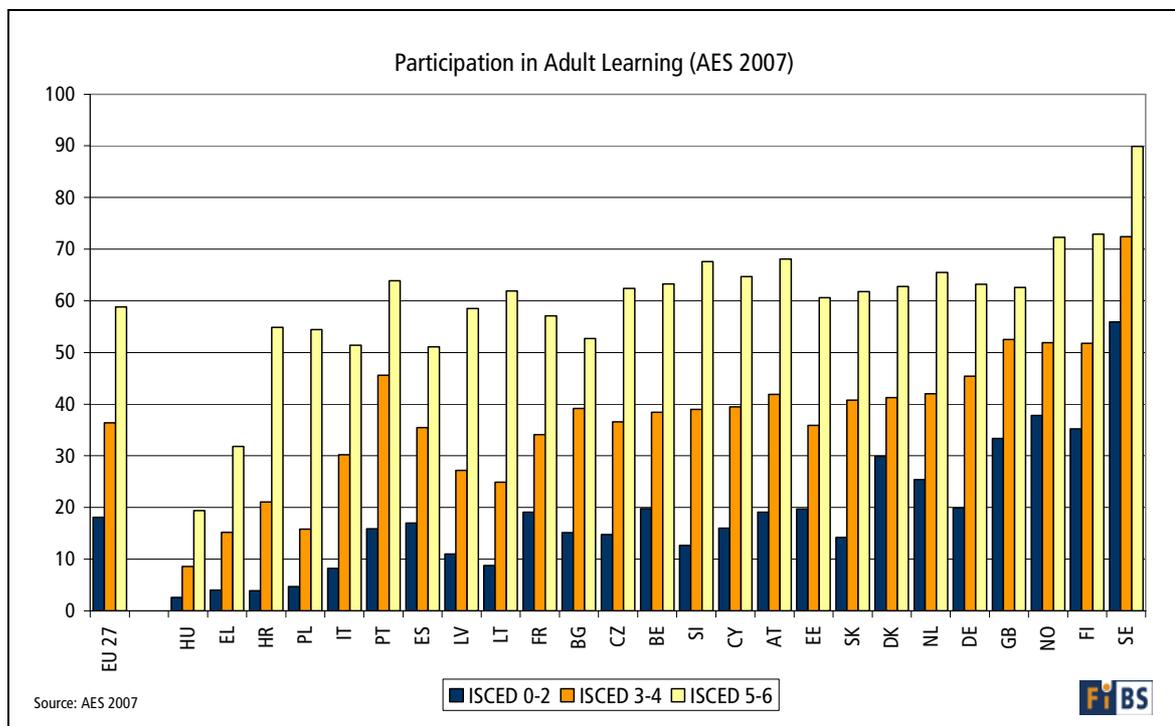


Figure 55: Share of adults participating in education and training by ISCED level (ranked by total participation rate) (AES 2007).

Figure 55 below presents the share of adult participation rate in education and training by education level based on AES 2007 data. The participation rate increases by the level of education. In general, participation in adult learning is three times higher for

high qualified than for low qualified people (importantly, LFS data in Figure 58 suggest a difference of four times), suggesting that better educated people are more engaged in to “longer learning” (see section 2 for further details in this regard).

By comparing only the low-qualified by region (and country), it turns out that participation rates of this group are highest in the Northern countries, and that only the United Kingdom reaches the level of Denmark and Finland. At the bottom are Hungary, Croatia, Poland and Greece followed by Italy and Lithuania. Although in general there seems to be a nexus between overall participation rates and participation rates of low qualified, this is not necessarily the case (see Figure 55). For example, Spain and Portugal show disproportionately high participation rates for low qualified compared to their overall rate and “neighbouring countries” with comparable overall participation rates. In contrast, Lithuania and Latvia, despite having slightly higher overall participation rates show much lower rates for low qualified. Also Germany and Slovakia show disproportionately low participation rates for low qualified.

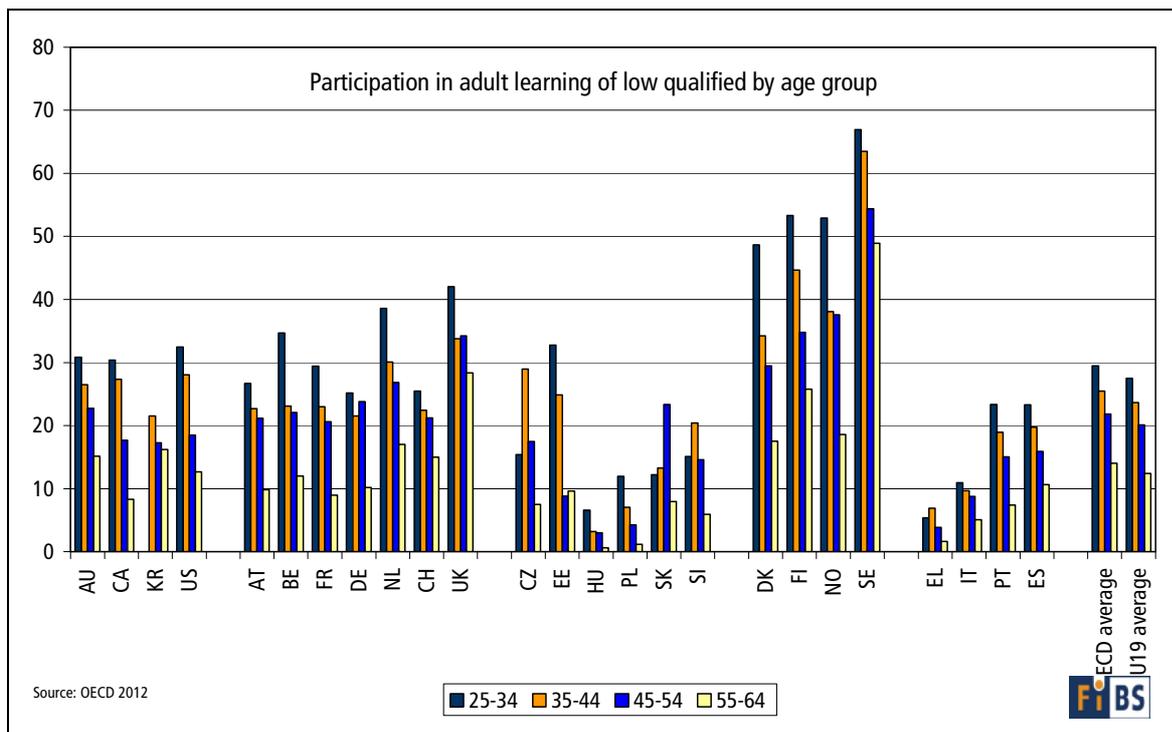


Figure 56: Participation of low qualified in adult learning by age group.

Figure 56 presents the participation rates of low qualified people in adult learning by age group, indicating the common pattern that participation rates decrease with age for most countries. Exceptions in this regard are Slovakia, where participation rate increases from the youngest cohort (25-34 years) to the second group (35-44 years), or Germany, where not much change can be envisaged for the age groups from age 25 to 54 and showing a sharp drop for the oldest cohort. Of interest is that the drop between those aged 45 to 54 and those aged 55 to 64 varies quite a lot across countries. While there is not much change between both groups, for example, in Estonia, or comparatively modest in Sweden, the drop is relatively strong in France, Germany or Slovakia,

for example. This may provide ground for the assumption that employment rates in some countries drop more sharply than in others and that, in fact, employment status is an important factor in explaining varying participation rates across educational attainment levels as well as age (see section 6.3 in this regard).

Changes between AES 2007 and 2011

In the meantime, first data has been published concerning the AES 2011, allowing to review newer participation figures and particularly a comparison of the rates in 2007 and 2011. Comparing the participation rates of low qualified in both years (see Figure 57) shows a diverging picture. While participation rates increased in almost all Western and Southern European countries but Belgium and Greece, respectively, they decreased in almost half of the newer member states as well as in Sweden and Norway.¹³⁷

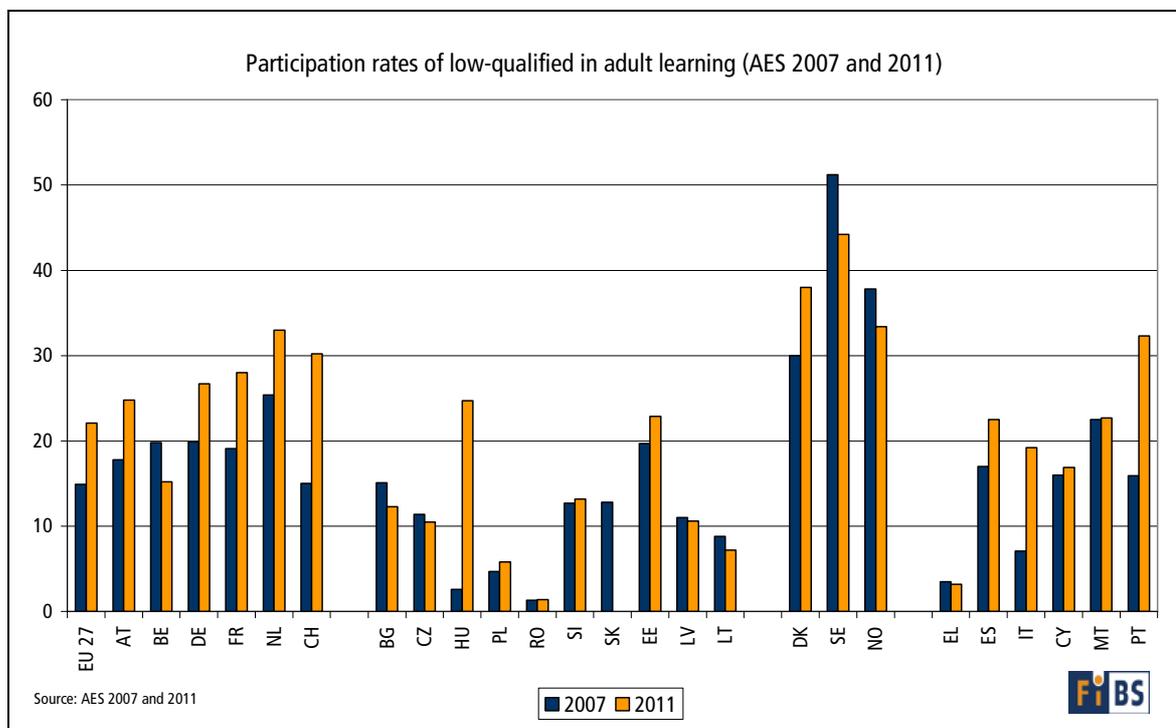


Figure 57: Participation of low qualified in adult learning 2007 and 2011.

While the figures above refer to AES data, Figure 58 presents the share of adults participating rate in education and training by education level based on 2010 LFS data (Eurostat 2012). Though the overall pattern is quite similar, some differences can be observed. For example, the Netherlands now have a level comparable to the UK and FI, while DK has the highest rate (different than above); the latter suggests that DK might have more long-term programmes for low-qualified than other countries. In general, participation in adult learning is four times higher for high qualified than for low

¹³⁷ The increase in Hungary is striking and due to methodological changes, which may also be valid for other countries as well, where it is less evident.

qualified people, whether this is an indication for more short-term programmes for low qualified than for high qualified cannot be judged here without additional information. No data for low-qualified groups is published for Bulgaria, Romania, Slovakia, and Lithuania.

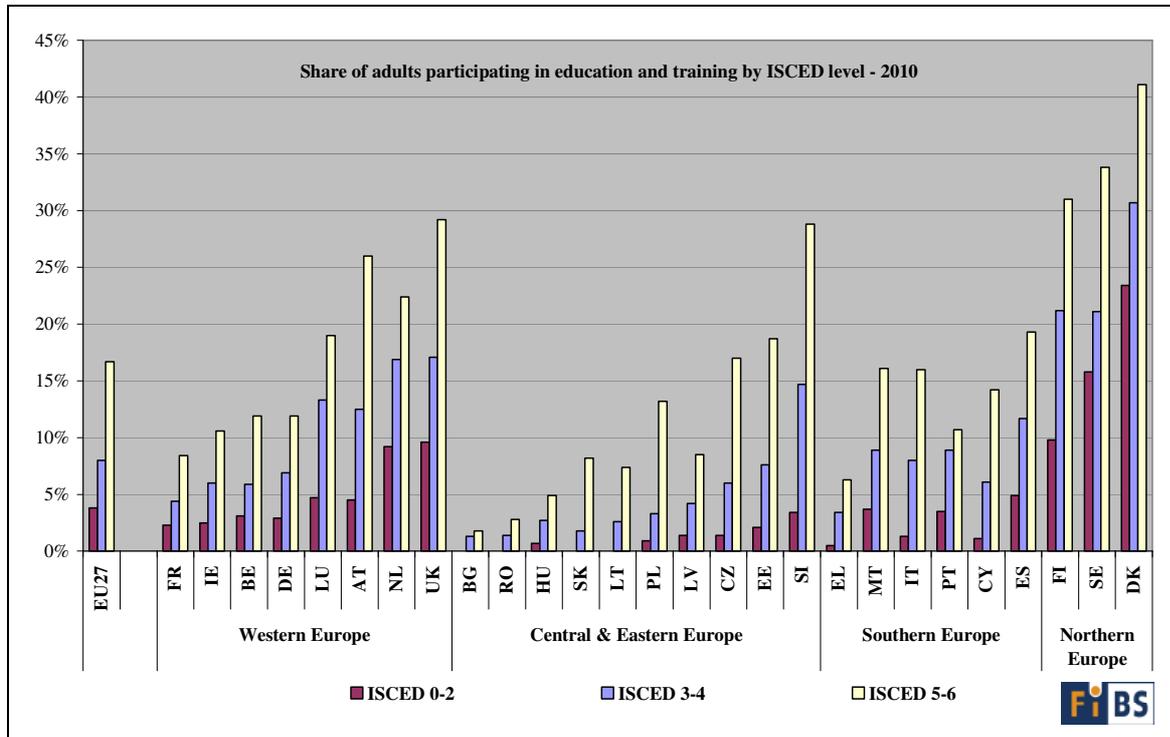


Figure 58: Share of adults participating in education and training by ISCED level, 2010. Source: LFS 2010, Eurostat.

Formal and non-formal adult learning of low-qualified

In comparison with non-formal education, formal adult education aims at increasing the education level of the participant. The participation rate in formal (and non formal) education of 25-65 year old low-qualified people is listed below.

In fact, only a very small percentage of low-qualified people enter formal education (though this is also valid for the better qualified); this is particularly valid in comparison with those having medium and high education attainment levels. For example, the average rate of formal education for those with ISCED 3-4 is 6.0% and 12.7% for those with tertiary education; compared to 2.7% for low qualified. Statistics also reveal that Nordic countries outperform the other countries, except for BE and the UK, which has the highest rate among low qualified in formal education, with 8%. In contrast, the figures are usually rather low in the newer member states as well as in Southern Europe; however it should be noted that the share of low qualified in the population is much lower in both regions, while Southern Europe has also the lowest rates of improvement. Furthermore, also Germany, France and particularly Switzerland have comparatively low participation rates of low qualified in formal adult learning.

The core message of this analysis is that a rather small share of low-qualified is obviously aiming at additional qualifications! Instead, by far most learning for this group is (normally) rather short-term training, possibly not enhancing employment prospects substantially.

Whereas basic skill training is more associated with non-formal learning, remedial support to those who left compulsory education with no or low level qualifications is predominantly provided through formal learning. Based on new data collected within the scope of this study some data on participation and average budgets spend on both types of second chance education are presented in a comparative perspective (see Table 24). The research shows that it is rather difficult to evaluate the extent to which public authorities across Europe ensure the provision of primary and lower secondary education for adult learners. Moreover, as basic skill training is not necessarily initiated by public authorities, such overview is even harder. As there are still many blanks, the presented data should be considered as indicative and therefore interpreted with care.

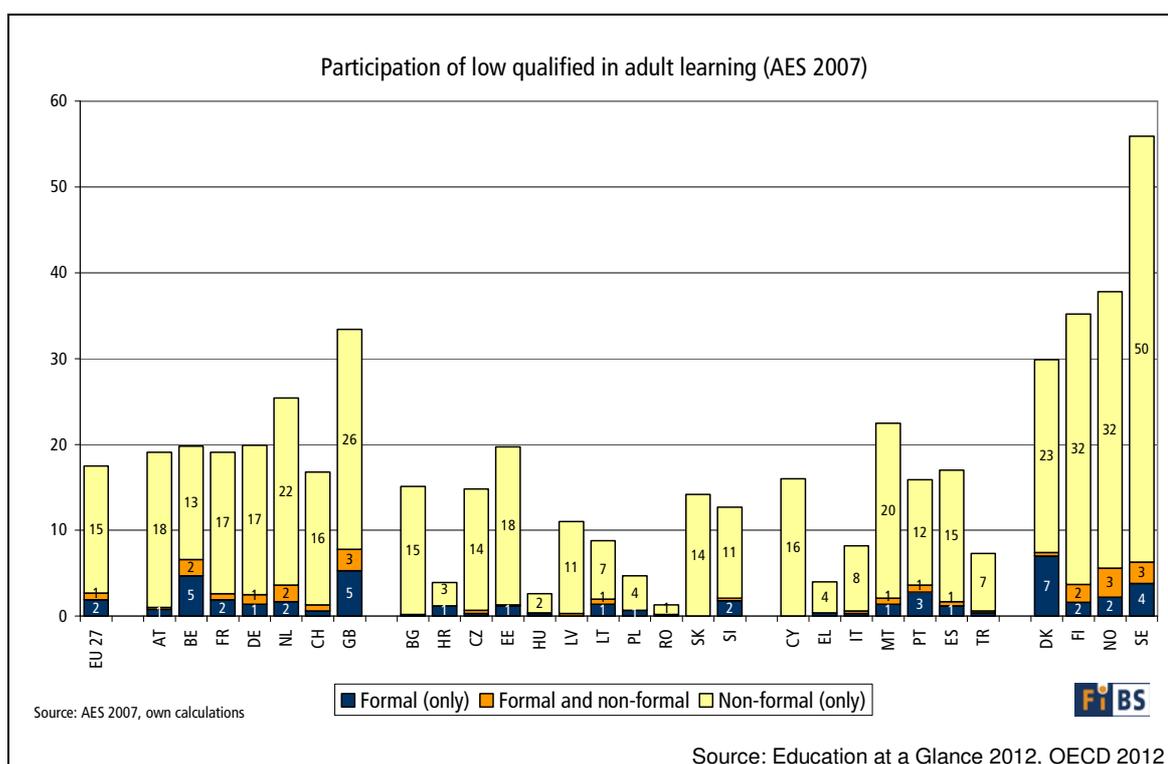


Figure 59: Participation in formal and non formal education; percentage of 25-65 year old population that maximum has attained lower secondary education.

There is not much difference in the participation level between both types of second chance education (as a percentage share of SCE target group). In Denmark the number of participants enrolled in basic skill education outweighs that of participants enrolled in formal remedial support training. Moreover, the data suggest that pick-up rates are on a higher level for at least two of the non-EU countries for which data are presented in the table (Canada, USA). Secondly, on average the budget per participant seems to be higher for second chance remedial support training as compared to basic

skills education. Given the difference in training types (formal versus non-formal, qualifying versus non-qualifying, short versus long training courses) the cost differences are plausible.

Though pick-up rates have been established for a limited number of countries, linking the data with decreasing numbers of low-qualified 25-64 over the period 2007-2010 in Figure 53 shows a firm rate of association; i.e. the larger the pick-up rates in second chance education targeting at upgrading the attainment level (target group B in Table 24 below¹³⁸) the larger the reduction in the percentage of low-qualified. Vice versa, lower pick-up rates seem to coincide with lower drops of those low-qualified in the age group 25-64. However, more conclusive results would require data from more countries.

Country	AT	AUS	BE	CAN	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	
Pick up rate (participants/ target group)	0.4%	2.0%	2.7%	7.2%	0.4%	4.1%	0.1%	12.2%	0.0%	2.1%	6.7%
Ratio: partic. A /part. B	55%					78%		39%			42%

Table 22: Participation rates and average budget spend per participant on second chance; basic skill and remedial support to those who left compulsory education with no or low level qualifications (numbers x 1,000, budget in € 1,000¹³⁹).

Linking the data with participation rates of adults (25-64 years) in formal and/or non-formal education, we find strong negative association levels, meaning that – for the countries mentioned in the table - high pick-up rates in second chance education tend to be associated with lower participation rates, whereas lower pick-up rates seem to coincide with higher rates of participation in formal and non-formal education. The highest rates of association are found for participants in upper secondary and post-secondary non-tertiary education. A possible explanation is that large shares of adult participants with low-qualifications in HU, CA and the US are in recognised second

¹³⁸ As basic skill education takes normally part in the non-formal sector, the comparison between the decrease in low qualified (according to the OECD statistics) has been limited to those adults involved in formal remedial support training (target Group B in the Table).

¹³⁹ Budgets are not corrected for purchasing power parities.

chance education or basic skill provision, whereas this is less the case in other countries. However, evidence for this explanation is difficult to gather.

Reasons for non-participation

The data on pick-up rates are indicative for the low participation levels. While individual's average costs of adult learning are rather limited in most of the countries, cost issues are important but should not be overestimated as stumbling block for participation. Therefore, it appears suitable to briefly reflect on other reasons for non-participation in adult learning.

As a first examination of barriers low-qualified are reporting, the Adult Education Survey 2007 provides a good starting point. The survey data makes it possible to compare ISCED 0-2 with the other levels (medium educational attainment: ISCED 3-4 and high educational attainment: ISCED 5-6). In the figure below a distinction is made between the answers provided by respondents with ISCED level 0-2 and all ISCED levels.

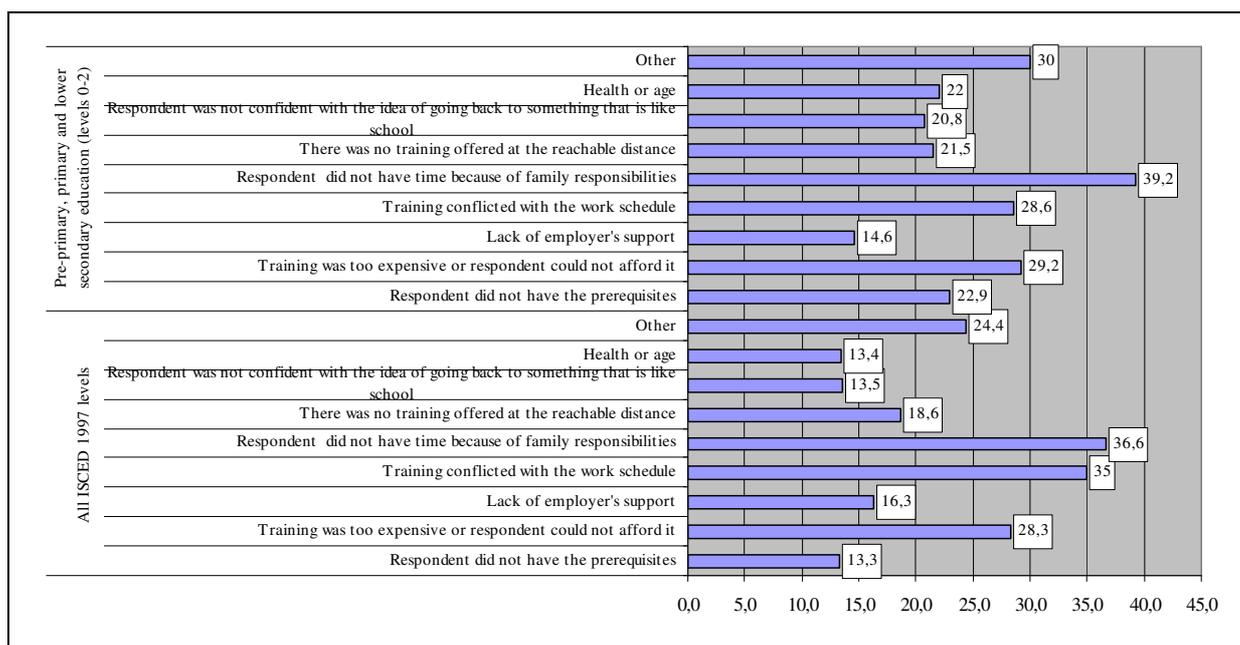


Figure 60: Type of obstacles by participation and the highest level of education attained 2007, EU-27, multiple answers (Eurostat: Adult Education Survey: Type of obstacles by participation and the highest level of education attained [trng_aes_178], calculation by authors).

What can be seen is that for both, ISCED level 0-2 and all ISCED levels 'no time due to family responsibilities' is the most mentioned barrier for participation. Also conflicts with the work schedule is mentioned often in both groups, but more often mentioned in all ISCED levels than only for ISCED 0-2 (35% vs. 28.6%).¹⁴⁰ The costs are

¹⁴⁰ A first review of the AES 2011-data suggests that in most countries the newly introduced answer „no need for training because of job reasons“ has replaced the „time conflict“ answers and is thus the most import factor for non-participation in adult learning.

also mentioned often by both groups, but ISCED 0-2 reports a slightly higher percentage (29.2% and 28.3%). Noticeable differences between the groups can be found with regard to the barrier health or age (ISCED 0-2: 22%; all ISCED 13%); not confident with the idea of going back to something that is like school (ISCED 0-2: 21%; all ISCED 14%); not having the prerequisites (ISCED 0-2: 23%; all ISCED 13%).

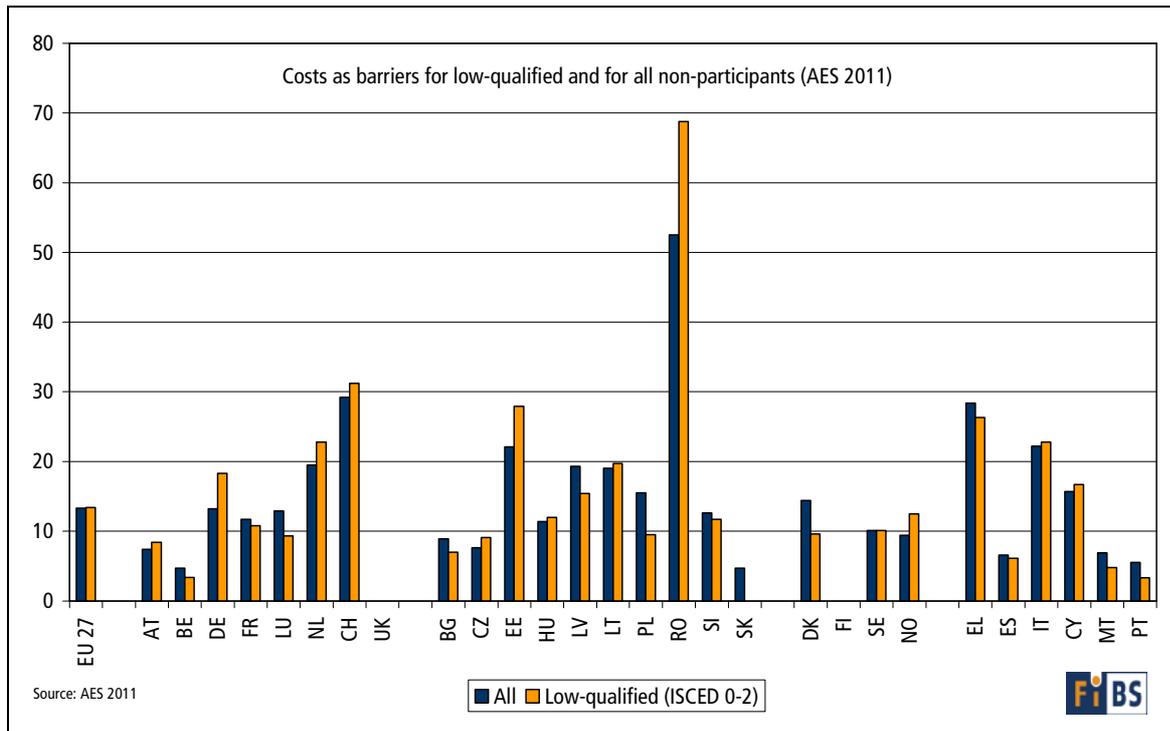


Figure 61: 'Costs or affordability' as obstacles to participation for low qualified by country (AES 2011) (multiple answers).

Reviewing more specifically the costs as a barrier to participation based on the AES 2011, Figure 61 reveals that the role of this barrier varies a lot across regions and, more important, across countries. Romania is out-standing for all non-participants, but even more for low-qualified non-participants; more than two thirds mention costs are too high or affordability as a barrier. For comparison, the figure is slightly above 30% for Switzerland, the country with the second highest rate, though with a small difference to all non-participants. Further countries, where costs or funding are more of a problem for low-qualified are NL, EE, as well as DE and Norway; the gap is particularly huge in the latter two countries (DE and NO), compared to other countries, such as AT, CH, CZ, HU, LT, or IT and CY. In most remaining countries, low-qualified mention costs or affordability less often than all non-participants. Overall, the relevance of costs is rather low in many countries, where participation rates of low-qualified are rather low in general.

It can be concluded that costs or affordability plays a more important role for low qualified in some countries than in others, particularly, RO, CH, EE, EL, IT, NL, where rates are above 20% and, thus, almost as double as high than the European average. Furthermore, low-qualified are more disadvantaged than all groups in some countries,

particularly RO, CH, DE, NO, EE, and NL. However, dispositional barriers (not confident with the idea of going back to something that is like school; not having the prerequisites) are commonly more important for the low-qualified, how diverse this group may be in terms of age, socio-cultural and economic background, compared to medium and higher educated people.

This, however, provides only information concerning which barriers are mostly reported, it does not indicate which barriers are the *most important* in terms of effectively restraining people from taking up learning. According to the literature (Cross 1981, Darkenwald/Merriam 1982, McGivney 1990), lack of time may just be a convenient and socially accepted reason for not taking part in education and training, covering up other reasons. In this respect it is noteworthy that according to the Adult Education Survey 2007 even 74% of EU-27 citizens state that they do not have access to information about learning possibilities (institutional barrier). This problem is more serious for adults with the lowest levels of education. In total, 84% of adults with pre-primary, primary and lower secondary education reported this problem in comparison to 57% of adults with tertiary education. It is even so that large parts of the target group may have no information because they do not search for it – which would mean that information would have to be delivered to the target group in a pro-active way.

Cedefop's report on Lifelong learning: citizens' views in close-up reports that survey findings from the Eurobarometer (2003) show that indecision, poor self-confidence and negative previous education and training experience are the main obstacles to taking up education and training in the future. Demotivated learners note lack of knowledge of what could be interesting or useful to study (41% versus 11% for the whole population) as well as perception that one is too old to learn (31% versus 13%), that they were never good at studying (13% versus 8%) or are reluctant to go back to something that feels like school (12% versus 9%). These features are part of the definition of demotivated learners.

Other studies on barriers for low-qualified indicate that dispositional barriers are the most important ones. Literature concerning basic skills education and widening participation studies indicate that the lack of confidence on the part of large numbers of adults is, without doubt, a crucial factor in learning (Norman/Hylland 2003). To overcome in particular dispositional barriers for low-qualified, the following key motivating factors need to be taken into account (which are closely related to the key principles underlying quality adult learning) (Owens 2000):

- Providing individual responses to individual need;
- Restoring self belief and 'agency' in the learner;
- Building facilitator/tutor- learner relationships on a foundation of mutual respect and trust;
- Providing a non-threatening, non-competitive flexible and confidential environment;
- Facilitating the acquisition of skills in a purposeful and meaningful way;

Owens (2000) concludes that the “lack of confidence and low self esteem are key dispositional barriers to participation in education and training” and “the greatest barriers to participation in education may be located deep within the self”.

However, an important finding of section 3.5 on the wider benefits of adult learning is that positive adult learning experiences are a means to overcome such negative and disappointing initial education learning experiences and to motivate further learning.

6.1.5 Funding policies for second chance education

Policies

Awareness that educational disadvantages resulting from early leaving school or a failure to acquire basic skills forms a necessary precondition for policy-making. Countries differ in the extent to which they are aware of ‘second chance’ as a promising tool for addressing basic skills deficits that prevent adults and young adults from entering the labour force. Overall, the participation in formal training by low-qualified people in general and ‘second chance’ education programmes in specific remains limited in many countries. Some countries in the EU, like Bulgaria, Czech Republic, Slovakia, Austria, Switzerland or Germany have recognized that literacy is a concern for a small but significant portion of the disadvantaged population, including the Roma minority in Slovakia and Hungary, for example, and have begun to extend their literacy programmes in response.

Also cultural aspects explain the variety in awareness and problem perception. The Czech Republic has a long tradition of a highly differentiated education system. Traditionally the school system has been very selective. Early selection is perceived as the best way to achieve good educational outcomes. As tracking occurs very early, it is possible for parents to choose, apart from mainstream basic schools, other schools for students with special educational needs. Early tracking is one of the explanations behind a lower level of low qualified people in society, as compared to other EU member states. The concept of school failure as envisaged in the current study is unfamiliar to Czech society. As a result, no special second chance schools exist in the Czech education system. Students that failed, in principle, re-enter the system on the same basis as before. These young people can also utilize retraining schemes organized by labour offices. Moreover, they can obtain a qualification without attending school or course by passing the relevant examinations. Recently, procedures concerning recognition of non-formal and informal learning have been piloted. The main objective of the pilot has been to support transformation of vocational schools into lifelong learning centers (OECD 2011b). Like other new member states (Slovakia, Latvia, Poland, and Hungary) the Czech Republic belongs to the group of EU countries with a low share of low-qualified people.

In fact, countries differ to the extent whether policies in the field of adult education (lifelong learning and ‘second chance’ education) are embedded in an institutional framework. Especially countries from the new member states appear to have intro-

duced a designated legal framework for adult education only ‘recently’. Whereas adult education is already regulated in old EU member states like Germany, the UK and the Netherlands, since the 1960s, in the Baltic States an Adult Education Act where introduced during the early 1990s. The law stipulates the right of every person for lifelong learning within entire lifetime, laying out obligations of central and local governments but also that of the employers in the coordination and implementation of adult education and mandating financing of adult education from the national budget. In Latvia, adult education and training is regulated mainly by the Law on Education which was adopted in 1998. This is not to say that adult training did not exist in these countries during communist ruling.¹⁴¹

As these new member states have only recently begun to regulate, this policy area is not yet as institutionalized as compared to older member states. This means that the division of responsibilities and executive powers between federal, state, regional and municipal authorities, training providers, companies and individuals is not always clear-cut. These countries still differ in some respects to older Member state countries where for example the municipalities have the responsibility for providing language courses, the Labour and Welfare Administrations have a whole range of programmes, courses and measures at disposal for its clients fully financed by the state, and where the Social Partners have the responsibility for providing most of the continuing education at the workplace.

Targeted policies

According to Eurydice (2011), without exception, every country in Europe provides some opportunities for people who left initial education without lower or upper secondary qualifications to upgrade their level of education at a later stage in life. However, across Europe, these ‘second chance’ programmes follow different organisational patterns. Overall, it is rather difficult to evaluate the extent to which public authorities across Europe ensure the provision of primary and lower secondary education for adult learners. The following patterns can be found at country level:

- In some countries, legislation expressly refers to basic, primary or lower secondary education for adults. The legislation designates bodies responsible for its provision and, in some cases, it specifies the extent of the provision that should be made (for instance Poland, Sweden, Norway).
- In several countries, it is reported that relatively extensive provision for courses leading to a lower secondary school leaving certificate is provided (for instance, Spain, Greece and Hungary).
- In some countries, publicly-funded lower secondary education for mature students is organised mainly on an ad hoc basis, depending on local needs and available financial resources (for instance, in the Czech Republic, Slovakia and Romania).

¹⁴¹ Adult training under communism was exclusively focusing on continuing vocational training of workers. Unemployment was nonexistent, with the exception of socialist Yugoslavia where open unemployment was tolerated. Hence, adult training of the non-employed was not a feature of socialist economies.

There are also countries where courses or qualifications for adults covering the learning outcomes traditionally associated with ISCED levels 1 and 2 are not expressed in terms of their equivalence to basic, primary or lower secondary education and/or certificates. This applies in particular to countries, where the completion of lower secondary education is not a necessary condition for progression towards upper secondary studies and qualifications (see for instance Belgium, United Kingdom and Iceland).

The Eurydice analysis (2011) reveals that in many European countries, adults who have not completed basic or lower secondary education have only very limited opportunities to progress through the formal education and training system towards higher qualification levels, in particular towards upper secondary qualifications. However, some countries also facilitate access to different stages of the educational system, by making their educational system more flexible (e.g. fast tracks, recognition of prior learning, special admission tests for adults, portfolios).

Some countries have developed a common framework which embraces 'second chance' programmes for adult learning at various educational levels. Such a framework can consist of general adult education (e.g. in Denmark) or can include general as well as vocational provision. Vocational courses are often embedded in the framework of active labour market programmes. Finally, second chance programmes include formal provision (at various levels) as well as non-formal courses (e.g. Education for Social Advancement in the French Community of Belgium).

Many of the countries under research have implemented one or more targeted policy schemes referring to 'second chance' education. 'Second chance' education and training programmes often involve behavioral and social skills training, especially for young people who have failed to enter the workforce and for other long-term unemployed who have attained some basic level of education. Many such individuals are from disadvantaged backgrounds and lacked the opportunity to develop the social and behavioral skills needed to effectively hold down a job. For example, Czech employers cited irregular job attendance and low work motivation as reasons for not hiring (especially young) Roma. Similar problems are reported for migrants as well as non-migrants in other countries, e.g. Germany.

In Spain, educational administrations (regional and central) provide programmes and possibilities for adults to follow or to gain access to general education programmes from primary to higher education. In Greece and France second chance schools are specifically designed for adults who had previously dropped out of school to return to education. In less institutionalized countries such as Czech Republic and Slovakia policies tend to be delivered more on an ad-hoc basis, through 'second chance' projects (instead of in the framework of a comprehensive program) which are directed at marginalized groups, such as Roma, and unemployed with a distant to labour market. These projects are mainly financed through contributions from ESF.

In Belgium, in the French Community, Education for Social Advancement (*enseignement de promotion sociale*) is aimed at people over the age of 16 who would like to

improve their educational level or career prospects. Programmes delivered under this framework can lead to formal qualifications corresponding to those delivered in mainstream initial education and training, or to certificates specific to Education for Social Advancement (e.g. upon the completion of ICT courses, foreign language courses, language preparation for immigrants, etc.). Social advancement programmes are provided under various institutional arrangements. A similar system exists in the Flemish Community.

Courses provided in Denmark under the framework of general adult education are open to people over the age of 18 and consist of three levels: preparatory adult education (FVU), general adult education (AVU) and higher preparatory single subject courses (HF). Preparatory adult education is non-formal and includes short courses in the Danish language, reading, writing and mathematics at primary and lower secondary levels. General adult education consists of single subject courses that can be completed by taking an examination corresponding to the leaving examinations of the Folkeskole.

In the Netherlands, adult general secondary education (VAVO) consists of part-time lower and upper secondary programmes aimed at mature students who left uninterrupted initial education and training without a mainstream qualification. Programmes delivered in the framework of VAVO cover pre-vocational secondary education (VMBO, ISCED 2), senior general secondary education (ISCED 2 and 3) and pre-university education (ISCED 2 and 3).

Preventive versus curative measures

In most countries the major causes of educational failure which are publicly discussed are individual deficits of the young people dropping out. They do not meet basic competence requirements, they lack language skills, their social competences are underdeveloped and their motivation is not sufficient. Last but not least their family did not support them properly. Most of the explanations of school failure do not address the educational system and its characteristics like early tracking and year repetition or its overall selectivity as such (compare the earlier described example of the selective school system in Czech Republic). The only systematic failure that is discussed on a broader basis is the lack of apprenticeship places.

Consistent with this individualized approach most interventions in the context of school failure are deficit-compensation-oriented and curative instead of preventative. In international comparison this combination of individualized explanation and deficit-oriented intervention strategy has been characterized as 'employment centered'. The universalistic approach implemented e.g. in Denmark more or less forms the opposite.

In the UK and other countries, public funding for adult learning is increasingly orientated towards providing remedial support to those who left compulsory education with no or low level qualifications and facilitating access to higher level qualifications through self-help or publicly backed loans. In countries like France, Norway and the

Netherlands, programmes are also more directed at prevention, such as programmes targeted at early school leavers.

In France, this group is offered a 'contrat d'autonomie', which meets the needs of unemployed younger till 25 years of age. The successful Norwegian program for Basic Skills in Working Life ('BCWL- Basiskompetanse I arbeidslivet – BKA' 2006) aims to prevent employees and job-seekers from being excluded owing to lack of basic skills from a labour market that demands knowledge to an even greater extent. Through the program training and education at the workplace is made possible (companies apply for grants), which often gives the best results for persons with low level of formal education.

In the Netherlands, reducing the dropout rate is an important aspect of lifelong learning policy. In 2006 the government initiated a program to tackle dropout and a number of important measures have been taken since. For instance, the school-leaving age has been raised to 18, and young people are obliged to attend a training course that leads to a basic qualification, i.e. a minimum of two years secondary vocational education or a senior general secondary or pre-university education certificate (HAVO/VWO). The registration of dropout has also been substantially improved. The government is aiming to halve the number of early school-leavers in 10 years time. Also the German federal and state governments have agreed to cut the share of early school leavers by half until the mid of this decade.

In Denmark production schools target their activities to young people under the age of 25 who have not completed a qualifying youth education and who, at the time, are not qualified to start such education, or who have dropped out of a youth education program. The production schools are mainly, but not exclusively, for vulnerable, marginalised adolescents; adolescents with social problems, adolescents who did not really profit from their basic schooling, but also ordinary well-functioning people looking to find their bearings while they determine which job or education to pursue. The aim is to strengthen the personal development of the participants and improve their chances in the education system and the ordinary labour market. This educational option is organised with a view that (young) people obtain qualifications that can enable them to complete an education on upper secondary level leading up to a professional qualification.

Austria supports upper secondary graduation programmes, aiming at university entrance examination for employed people, so-called "Specific school support for the employed" („Besondere Schulbeihilfe für Berufstätige). Funding is up to 6 months prior to the final examination in order to prepare for the final examination, provided the learner is on unpaid educational leave and has been in employment for at least one year. Importantly, no age limit exists, which is also of interest for higher education later in life.

Under normal circumstances, the individual pupil is entitled to a maximum of one year at a production school. After ending their stay at a production school, a large part of the students pursue some line of youth education i.e. general upper secondary edu-

cation, vocational education and training, social and health care training programmes or agricultural education. By far the majority go on to vocational education and training.

Decentralized systems

In some countries with a decentralized system, like Spain, Norway and the Netherlands, there is dedicated funding for target groups, but municipal/county authorities receive a lump sum from central government. Spain is a decentralised state in which competences in education are distributed among the State and the 17 Autonomous Communities. The State is responsible for the general legislation in education, but the management of the educational system and the development of the national legislation to regulate the non-basic aspects of the education system have been transferred to the Autonomous Communities.

The situation of funding principles in the Netherlands is complex and blurred, as after a longer period in which adult education (second chance education, non-formal learning) has been more centralised, a reverse trend towards (again) decentralization of responsibilities to decentral levels can be noticed during the last decade. Central state funding is channeled both through municipalities and schools. The way these budgets are spent is the responsibility of respectively schools and municipalities. In addition, the government does not focus on specific groups, but on specific problems where the general aim of most funding schemes is to get people in employment. So, although at a large number of initiatives and funds directed at target groups with regard to 'second chance' education exist at a municipal level, the exact amount and people addressed by these are not easy to determine, given the (spending) autonomy at the decentralist level.

In Norway, municipal/county authorities receive a lump sum covering all central government expenditure such as pre-primary, primary and secondary school education, health services (except hospitals) and culture. Like in the Netherlands, municipalities and counties have considerable autonomy in their expenditure decisions. The municipalities are responsible for the implementation of formal education at primary and secondary level. The municipalities are also responsible for courses to adult immigrants of Norwegian as a second language. The counties are responsible for the implementation of formal adult education at upper secondary level. Public authorities cooperate with study associations representing non-governmental organizations.

Formal versus non-formal learning

Although the defined scope of 'second chance' education differs between countries, practice shows that 'second chance' education is both delivered through formal education and training programmes (leading to formal qualifications), that are provided by public funded adult education institutes, public schools, as well as publicly funded private training providers, and non-formal programmes (not resulting in formal qualifications). The non-formal general education courses (of different lengths for young people and adults education and training) are provided by folk high schools for example. 'Second chance' education, focusing on training of behavioral and social skills, is predomi-

nantly delivered through non-formal training and education programmes. One could think of the delivery of special preparatory special courses for lower secondary, upper secondary, intermediate and superior vocational, and even certain programmes preparing for university, but also language courses, literacy programmes, entrepreneurship training, ICT's, active citizenship, etc.

Another difference in scope of what can be defined as 'second chance' education is related to the difference made between non-vocational and vocational tracks (the latter not being the focal point of attention in this study). In Austria, for example, second chance schools offer two main routes to obtain upper secondary qualifications. Former graduates from options not offering a university entry certificate (apprenticeship system, intermediate technical and vocational schools) and people who did not finish an education on upper secondary level (early school leavers or dropouts) can enroll in an AHS (Academic secondary school) or a fulltime intermediate technical and vocational school for adults/employed people. These types of schools for adults, respectively employed people, provide the same curricula and education than the regular ones. The second chance schools described above are an offer within the standard formal educational system.

The second main route to obtain upper secondary qualifications for lower qualified people (initially on the apprenticeship level) – the vocational matriculation examination (Berufsreifeprüfung) – is partly implemented in the non-formal system. The 'Berufsreifeprüfung' is an examination to obtain a university (tertiary education) entry certificate.

In Greece, second chance schools correspond to lower secondary education, but are embedded in a structure of lifelong learning. Second chance schools have become very popular and function as a link between formal and non-formal learning. This is also true for Norway where over recent years adult education has been integrated, as a result of several reforms, in the public education system. In addition, the tradition of cooperation between grant-aided providers of adult education and public authorities has been maintained.

Providers

In some countries, formal education and training programmes for mature students are most often provided in institutions that are separate from those delivering initial education and training to young people. Such institutional arrangements apply to adult secondary and higher vocational education in the Flemish Community of Belgium. In the Flemish Community of Belgium there are 111 centres for adult education (Centra voor Volwassenenonderwijs). These centres focus their provision on adult participants and are entirely separate from the compulsory school system. Approximately one third of these CVOs are authorised to offer courses of general education at upper secondary level (Eurydice 2011).

In Denmark, general education for adults up to upper secondary level is mainly provided by separate self-governing educational establishments (adult education centres-

VUC). Basic skill training is delivered through an independent school form (since 1978); so called production schools organized by municipalities. The fundamental aim of this schooltype is to create a practical learning environment that can qualify young people to complete general and vocational upper secondary education or maintain a normal job in the labour market. The students are offered the opportunity to develop professional, social and personal skills using counseling, participation in practical work and production in different workshops ranging from metal, carpentry and textiles to media, theatre and music workshops.

The objective of production schools is to strengthen the personal development of the participants and improve their chances in the education system and the ordinary labour market. This educational option is organized with a view that the young people obtain qualifications that can enable them to complete an education at upper secondary level leading up to a professional qualification. There are over 100 production schools in Denmark, mainly located in small and medium-sized towns, with a total capacity to accept more than 6.000 students annually. Generally speaking the schools are quite small, with half of the schools accepting fewer than 50 students. As a general rule, there are no tests or examinations at production schools, unless the pupil completes courses that grant credits and where there are tests. In one form or another, similar approaches – with various names, e.g. ‘city as school’, productive learning in Germany – have spread across countries (for a cost-effectiveness- analysis of this approach see Dohmen 2001a).

In Austria, formal education and training programmes for adults can be delivered by schools for working age adults, operating mainly in school premises that deliver secondary technical and vocational education to young people, or by other institutions such as Volkshochschulen, Berufsförderungsinstitute as well as by some NGOs. The three latter providers mainly deliver second chance programmes, in particular basic skills education, preparatory courses for the lower secondary school leaving certificate (ISCED 2) and courses preparing for the special matriculation examination (Berufsreifepfung) (Eurydice 2011).

In Slovenia, programmes for adults leading to an upper secondary qualification can be organised in mainstream schools delivering initial education to young people as well as in separate institutions focusing their provision primarily on adults (folk high schools, education units within enterprises or Chambers).

In Norway, primary and lower secondary adult education courses can be taken at local primary and lower secondary schools as well as at municipal adult education centres. Upper secondary education for adults can be delivered by traditional upper secondary schools or county-based adult education centres. In addition, some study associations, distance education institutions and labour market authorities offer units of study, which are recognised components of the secondary education programme (Eurydice 2011).

The division of provision of adult education by public and private institutes is getting more blurred. In Belgium (Flanders) public and private institutes for adult education

have been merged with schools providing secondary education for young people. In Canada and the USA adult learning and training is offered in a variety of formal and non-formal environments, including colleges and school boards, adult education centres and community learning centres, volunteer and/or not-for-profit organizations.

In Australia, the providers of education and training to adults are largely in publicly supported institutions. The adult and community education (ACE) sector and technical and further education (TAFE) institutes are providing programs for (young) people that re-connect them with education. Students are attracted to the programmes by for example intensive counseling, flexibility in the mode of delivery, choice of study areas and opportunities for personal autonomy. A small but rapidly growing share of students is with private providers who are supported with public funds.

6.1.6 Funding instruments and volumes for second chance education

6.1.6.1 Which role does funding play in order to successfully engage these groups in adult learning or not?

Completing upper secondary education at public education and training institutions, including alternative modes of study (e.g. part-time courses), is in some countries free of charge for individuals, regardless of age (e.g. Czech Republic, Estonia, Germany, Spain, Sweden and Norway). Other countries, such as, for example, Belgium; Switzerland, Finland, and Hungary, generally expect mature students to contribute towards their upper secondary tuition and/or examinations, provided they do not belong to any category of disadvantaged learner. However, these contributions for courses leading to the completion of upper secondary education are relatively modest and are often regulated by legislation or fixed by public authorities.

Given the target group, public (state) funding is critical to engaging the second chance population. In the majority of countries, 'second chance' programmes for the completion of basic or lower secondary education are provided free of charge. This is because adults who have not completed these levels of education often belong to the most vulnerable groups in society. Public funding allows local providers of services to offer services at no or low cost. This is important given the socio-economic status of many members of the second chance population.

In the Belgium French speaking community, students over the age of 18 contribute towards the costs of second chance education by paying an enrolment fee calculated on the basis of the length and level of the program they have chosen. Some categories of adult learners (such people with disabilities or job-seekers) are exempt from such contributions. In the German-speaking Community, mature students must pay a registration fee to enroll in an institute for adult education (Schulische Weiterbildung). The amount to be paid depends on the type and length of the program and on the learner's status. Student contributions have increased since September 2010 due to the financial crisis. Currently, the maximum registration fee applicable to formal education programmes is € 200 (course based). In the Flemish Community, secondary adult educa-

tion is organized by subsidized private or public institutions (centers for adult education). Those who take general education courses are exempt from registration fees. However, for diploma-oriented vocational courses, participants must pay a registration fee of € 1 per teaching period. Since 2008/09, registration fees have been capped at € 400 per course and per academic year, or at € 1.200 for a period of four academic years. The most vulnerable groups are eligible for various reductions (Eurydice 2011).

In Hungary, students over the age of 18 in part-time adult education must pay a contribution of 20 to 40% of the cost of the course from grade 11. They must also pay an extra tuition fee (in grade 11 and above) if repeating the year for the third time (or successive times) because of not meeting the study requirements. However, the fee cannot be higher than the cost of the course and may be reduced depending on the performance of the student.

In Finland, reasonable fees can be charged for further and specialist vocational qualifications (i.e. nationally recognized vocational qualifications that build on upper secondary vocational education). In the case of general upper secondary education, adult learners who take individual courses without enrolling in an entire upper secondary program leading to the Matriculation Examination have to pay course fees of approximately € 30-50. For those who do enroll in an entire program, the tuition fees are waived, and only the cost of the Matriculation Examination (whose amount varies between € 118 and € 184) has to be covered by students.

In the United Kingdom (England, Wales and Northern Ireland), students over the age of 19 may be charged fees. In England, there is an expectation that approximately 50% of the cost of a course will be met by tuition fees. However, under the Education and Skills Act 2008, there is an entitlement (a guarantee of a course place and free tuition) for adults who have yet to achieve qualifications. The entitlement for basic skills programmes applies to learners of any age. These funding arrangements are expected to change. Although provision for learners with very low levels of skills will continue to be fully funded, provision for many learners over the age of 24 and studying at Level 2 and above will not; instead, government-backed loans will be provided through a 'Life-long Learning Account' (see section 5.5.2.2).

In Spain, formal education for adults is free throughout the country. The cost of non-formal and informal teaching depends on the institution that organizes the courses and on the type of course, but in general they are subsidized by the public budget, or in the case of vocational programs for employed and unemployed, they are financed primarily by the compulsory funds taken from the companies and complemented with funds from the State Employment public service (SPEE) and by the aid of the European Social Fund. The amount of funding received by companies for training depends on their previous years' contribution and on their size.

6.1.6.2 Which funding instruments are employed and how successful are they?

As already indicated, 'second chance' education is mainly the domain of public authorities through supply-side funding to learning providers with regard to institutional

costs. However, since individuals have to contribute to institutional funding through fees in some countries and have to cover their costs of living, it is necessary to review also the funding sources that are available to cover individuals' costs of living. In the new EU member states ESF funding plays a more dominant role in financing 'second chance' education as compared to the older EU member states; some countries, such as Slovenia, seem to finance around half of its budget for adult learning by EU money, though not for non-vocational adult learning. As already outlined above, limited use is made of cost-sharing instruments in financing 'second chance' education, instead covering institutional costs as well as students costs of living through public sources is more the case.

6.1.6.3 Supply side funding to learning providers

Although various learning providers, ranging from mainstream schools to specialised (public and private) providers, running such courses exclusively or in combination with other programmes, exist, funding to learning providers is basically through conditional supply-side funding. The following overview provides some examples, how this funding functions.

In Denmark, the taximeter system is employed as a flexible mechanism, combining various goals and intentions, to all learning providers across all sectors (see the general description in this regard in the box above). Based on the information provided, more short-term oriented basic education/skill provision seems to cost between € 500 and 800 per participant; while qualification oriented second chance education appears to cost € 10,000 to 11,500. If our information is correct, the number of second chance education participants is well below 10,000 annually over the last few years; in contrast preparatory adult learning reaches up to 30,000 (see Table 24).

In addition to the fact, that second chance education-students have to pay no fee in Denmark – other than for other parts of adult education – they are like any other participant in adult education entitled to a grant of about € 420 per week, which is equal to 80% of the highest unemployment benefits.

Since we touched briefly the production schools in Denmark it might be worth noting that those pupils are not entitled to the Danish State Education Grant and Loan Scheme, but may instead receive a school allowance. The students receive payments for their contribution to the workshops. This payment amounts to € 170 per week for students who are 18 or more years old, and to € 70 EUR for students under 18 years of age. All payment is subject to taxation. This school allowance is regarded as 'wage' for the commodity/service sold by the school. The allowance is also to be used as an instrument for consequent pedagogical repercussions, as the young people's wages are to be cut if they do not attend or come late.

In Norway, education in public institutions is free of charge, but costs for textbooks and examination fees in upper secondary education have to be covered; though funding is provided by state sources, which are transferred as lump-sum payment to municipalities, concrete regulations vary across municipalities.

Because of the local responsibility no detailed information is available on funding regulations and volumes for second chance education; around 25,000 individuals have participated in school-based second chance education, around 20% in primary and lower secondary and 80% in upper secondary education. These appear to be rather modest numbers, given the legal right to acquire formal qualifications. Furthermore, linking this figure to the comparatively high share of low-qualified adult learners this suggests that the large bulk of them is not engaged in second chance education or basic skill provision but in other kinds of adult learning.

In Australia, there are a range of schemes directed at the less advantaged, such as recent migrants from non-English speaking background, unemployed persons with low levels of literacy and employed persons with low literacy levels.

'*Adult Migrant English Program*' (AMEP) is fully funded by the Australian government to provide settlement-focused English training to eligible humanitarian entrants and migrants. Those assessed as not having functional English are provided with 510 hours of instruction that can be taken full or part time within a five year period. Additional instruction is available in particular cases. The program delivered under contract by registered training organisations using a national curriculum approved under the Australian Vocational Training Framework (www.immi.gov.au/media/fact-sheets/94amep.htm).

The annual program cost is over AUD 220 million in 2012-13. It provided training for 55,000 clients in 2010-11 (DIAC Annual Report 2010-11), indicating an average cost of around Aus\$ 4,000 (€ 3,200 PPP). The program has evolved from another programme that started in 1948 following the first wave of non-English speaking migrants after World War II. Free English lessons were provided by the Australian government to assist migrants to assimilate into Australian society (Review of Settlement Services for Migrants and Humanitarian Entrants 2003)

The *Language Literacy and Numeracy Program (LLNP)* is designed to assist job seekers whose skills are below the level considered necessary to secure sustainable employment or pursue further education and training. LLNP providers are registered training organisations that are contracted by the Australian government. Current face-to-face services are available from 37 training and assessment providers at over 386 sites around Australia. LLNP services are also available by distance education, across Australia. Courses are on a part-time or full-time basis (part-time being between 10 and 19 hrs per week).

All eligible clients are entitled to up to 800 hours of free training. The Program provides initial, basic and advanced accredited English language training, as well as basic and advanced literacy and numeracy training. Clients' language, literacy and numeracy skill levels are assessed and individual training plans are developed to meet their learning. The budget for the program in 2012-13 is Aus\$108 million for 24,000 clients, which is Aus\$ 4,500 (€ 3,600 (PPP)).

Austria has introduced the so-called 'Initiative Adult Education' which has established enrolment targets and a recorded 'no-fee-policy' for basic skills, adult literacy

and qualification, however enrolment targets appear to remain rather low with up to 4,500 in 2014 nationwide, for which € 20m are foreseen to be spent, i.e. almost € 6,500 per person on average, which strong discrepancies between basic education (€ 2,200) and lower secondary qualification (€ 9,200). Costs are shared half each by federal level and states.¹⁴²

6.1.6.4 Supply-side funding in combination with cost-sharing with employers

An important programme with regard to low-skilled in Norway is BCWL/BKA, which has had between 6,000 and 7,250 individual beneficiaries per annum over the last years, receiving skill training while working. The state funding of € 1,300 to € 1,700 on average per participant covers the costs of the learning provider, including mapping of skill needs, and some wage costs of the employer, if training occurs during working time.

A comparable approach is the Australian *Workplace English Language and Literacy Program (WELL)* delivering vocational training integrated with language, literacy and numeracy training in the workplace. Training is generally delivered in the workplace and is tailored to the needs of both the individual and the workplace. Funding for WELL training projects is available for enterprises (or registered training providers that have enterprise support) to provide workers with English language and literacy skills training to help them meet their current and future employment and training needs.

Employers are expected to make a cash contribution (between 25 per cent and 50 per cent) to the costs of WELL training. WELL training targets employees who have low levels of language, literacy and numeracy which impact on their capacity to perform workplace tasks and/or undertake work-related training. The budget for 2012-13 is nearly AUS\$30 million (€ 24,000m (PPP)) and is to provide for a little less than 20,000 workers, i.e. around AUS\$ 1,500 (€ 1,200 (PPP)) per learner.

6.1.6.5 Loans

Loans do not play a role of importance in the financing 'second chance' education. The only exception, we have been able to identify is Liechtenstein, where the government provides financial support in the form of scholarships and interest-free loans equally to learners in both initial education and adult second chance education. However, the entitlement to financial support depends on income and assets, and education must be self-funded if the student has sufficient personal financial means. The scholarship office determines the extent of reasonable support for the applicant based on fiscal data.

¹⁴² All in all, € 55m will be spent and 13,000 people are planned to reach either basic education or compulsory school qualification, i.e. on average € 4,230.

6.1.6.6 Vouchers for low qualified people

Even though vouchers are employed with regard to low-qualified people in a number of cases, e.g. in the German state of Hesse, by the German Federal Employment Agency, in Austria etc., it appears that they are less used for second chance education. Furthermore, overall evidence suggests that low qualified are challenged too much by this instruments, their take-up rates are usually (much) lower than those of other groups (see also section 0 above). This applies even to the Further Education voucher of the German Federal Employment Agency (BA), which addressed unemployed people, intending to enhance their qualification; a second programme, which is applied for low qualified unemployed in Germany, is so-called WeGebAU.

WeGebAU has been initiated in 2006 by the BA to promote training amongst low qualified as well as SME workers above 45 years of age. In this funding scheme, the BA bears the total amount of training costs and, in the case of workers without vocational qualification, may provide additional financial compensation on top of the regular salary. Since its initiation, the WeGebAU programme was restructured several times. Today, workers who completed vocational qualification at least four years ago or who failed to engage in any publically sponsored training in the past four years can apply for funding. Further, part-time workers can apply for continued financial support even after the completion of their part-time work contract (Dohmen/Ramirez-Rodriguez 2011). A 2010 study on WeGebAU documents that the number of approved funding applications increased considerably over the years, from 21,900 approvals in 2007 to 102,000 in 2008. This increase in funding approvals is essentially attributable to a second economic stimulus package. From 2007 until May 2010 217,000 funding applications were approved by the WeGebAU programme, whereby funding was predominantly granted to low qualified and men. Nevertheless, statistics show that the proportion of women receiving sponsoring from WeGebAU rose over the past years, from 28.1% in 2007 to 34.7% in 2010. The same positive trend can be observed in the number of beneficiaries in the new Laender. The opposite holds for older workers, whose proportion decreased considerably over the past years (BA 2011).

Two Cantons in Switzerland have implemented voucher schemes, in one of them only targeted at low-qualified people. Control group based research on labour market effects of adult education vouchers reveals that especially individuals with low levels of educational attainment might benefit from participating in adult education (Messer et al. 2010). A characterization of the complier population shows, however, that predominately individuals with higher levels of educational attainment take up the voucher option to participate in adult education. The results cast strong doubt that unrestricted voucher programmes for adult education are effective in improving labour market outcomes. In particular, the potential of voucher programmes to generate large positive average effects on labour market outcomes is questionable. In the case of an unrestricted voucher programme, the voucher will mainly affect the behavior of highly educated individuals. This population might, however, not be the primary target group for government interventions in the adult education market. The results suggest that indi-

viduals with lower levels of educational attainment might benefit more from voucher-induced adult education, but participate not enough in such voucher programmes.

The Austrian state of Upper-Austria employs preferential treatment to low qualified persons (see the particular section above).

6.1.6.7 Allocation mechanisms

Public funding mechanisms that are in place in most countries are block funding for agreed on inputs (e.g. operational costs), outputs (e.g. number of courses by the provider) or a mix of both; specific funding for centrally planned courses; project based proposals from providers against call for tenderers.

Given the generic character of 'second chance' education, funding is mainly channeled through mainstream schools of specific training courses (funding object), and the funding is usually public (conditional) supply-side funding. Examples of demand-side funding, which is channeled through the employers/individuals, are limited. The 'Program for Basic Skills in Working Life' in Norway offers grants to companies to train employees at the workplace. This funding is demand driven as companies apply for grants.

The funding from federal or state level to providers of 'second chance' education normally follows according to lump sums and formula allocations. In the Flemish community, secondary adult education is organised by subsidised private or public institutions (centres for adult education). The centres for Basic Education are reimbursed on the basis of teaching periods/course participants.

In the Netherlands, adult general secondary education (VAVO) is delivered through regular schools, which are directly funded from the central budget. The budgeting formula for VAVO trainings is partly based on enrolment numbers (80% input), and partly on output figures (20%).

The funding of basic skills trainings in the Netherlands has become part of a bundled stimulation budget which targets participation by vulnerable groups, and for which the spending authority lies with the individual municipalities. The formula used to allocate this decentralized participation budget is based on the number of adults registered in the municipality, the number of immigrant adults, and the number of adults with educational disadvantage (indicated by the education attainment level). Municipalities decide on the spending of the lump sum budgets, and act as buying agents for education on behalf of adults. Since recently the market for publicly financed adult education has been opened up also for nontraditional schooling institutes, which has introduced a more competitive environment.

Allocation of central funding to providers in Denmark is both input and output oriented, such as in the case of the production schools for example. The municipality (possibly together with another or several other municipalities) must contribute an annual basic subsidy of approximately € 60 thousand to the school operations budget (input). If these and certain other conditions are met, the state will contribute a financial

subsidy from the central budget. The subsidy from the state is given in the form of a taximeter subsidy per annual student (partly in- and output). The taximeter subsidy for teaching and buildings granted per annual student totals approximately € 11,000. Additionally there is the so-called departure taximeter of approximately € 1,000, which is released if the young person has continued with an education or been in a job for a minimum of 12 weeks within four months after stopping at the production school. Furthermore, the state grants a subsidy for the student's school fee by refunding the school's expenses on this account.

The residential municipality must pay a subsidy based on how many annual students participate in production school courses. The subsidy is € 75 per annual student when the student is 18 years or more and € 175, when the student is under 18 years of age. The aim is to lay the financial burden of a production school stay on the municipality whose young citizens actually make use of its services. The view being that the young person's residential municipality has a special responsibility for those young people who have not yet embarked on an education which will lead to qualifications and who therefore risk being marginalized.

In order to finance some of the tasks that the state imposes on the municipality, large block grants are transferred to the municipalities. These are distributed according to a scale which takes into consideration the individual municipality's situation in certain areas.

Included in the state's block grant is an amount the size of which is nearly equivalent to the municipalities' total expenses for production schools (municipality basic subsidy and municipality contribution). The amount is paid out to all municipalities so that everyone receives a share of the block grant according to a particular scale. To some, the expense of running a production school is greater than the share of block grant that they receive while the opposite is true for other municipalities.

In most federally organized states, contributions from the central level are matched by the individual States. In the USA for example, federal resources are competitively distributed to local providers (public and private) for direct service delivery. The US system is based on formula allocations, competitive grants, and competition within State to distribute grants to local providers. Some local private non-profit providers are eligible providers and make up an important part of the publicly supported local delivery system within States.

6.1.7 Summary

Second chance education and basic skill provision address low qualified people, having left the initial education system with utmost lower secondary education degree, i.e. this segment of adult education aims to curate early school leaving and low (basic) skill levels, which are the basis for any more demanding learning, is vocational or non-vocational. This target group comprises around 73m Europeans. The section reviews the funding policies and instruments employed in the countries of this study. Although the need and importance of second chance education/basic skill provision has been

recognised across countries, it is worth noting that progress appears somewhat limited in most countries.

A review of the economic benefits of upper secondary education later in life reveals that the public and, particularly, the private returns are substantial and sometimes quite high and – surprisingly – in certain cases even higher than for initial secondary education. In addition, various wider benefits can be observed if low-qualified people get engaged adult education as section 3.5 showed more in detail. These findings strongly support claims for second chance education and basic skill provision even later in life, although country-specific differences in pay-off rates need to be accounted for.

Looking more in-depth at participation figures and costs per participant, results in this section suggest that costs are often quite high, while participation numbers seem often surprisingly low. Only very few countries seem to reach larger share of low-qualified, e.g. HU around 12%, Canada and the US around 7%; interestingly though this seems negatively correlated with overall participation rates of low-qualified in adult learning. The latter suggests that many low-qualified adults are not enrolled in learning that is officially recognised as second chance education or basic skill provision in countries with high participation rates, which is e.g. the case in the Nordic countries, even though these countries also report comparatively high figures for participation rates in formal adult learning (see Figure 59). Alternatively, statistics for second chance education and basic skill provision are limited or inconclusive.

A majority of countries employs special and targeted policies with regard to second chance education and basic skill provision, providing this qualification on a full-cost covering basis, often based on (conditional) supply-side funding, though variance can be identified. Furthermore, it appears that ‘traditional’ supply-side funding has been replaced by conditional public funding, either performance- and/or demand-based; some countries even employ tender- or project-based funding, which is likely not to result in lasting and sustainable learning structures.

Furthermore, participants are expected to contribute own means in some countries, which is probably not very supportive to high participation rates, though evidence is not very conclusive. Another costing issue concerns coverage of other costs, such as participants’ costs of living and travel/accommodation etc. While costs of living are often covered through various sources, especially grants to the individual (e.g. unemployment or social welfare benefits), (special) provision for travel and accommodation is rarely available, which might hamper participation rates, if learning providers are unevenly distributed across a country, and particularly, across urban and rural areas, which is the case in several European countries and particularly as it seems in the newer member states.

In spite of the fact that participation is usually free-of-charge, but covered through performance or demand-based supply-side funding and costs of living are covered at somehow reasonable rates through additional grants, participation rates appear modest, even if legal entitlements are established. This clearly indicates that (individual) costs are not the problem hampering participation, but that other barriers intervene

probably even more strongly, being it time constraints or dispositional barriers. This suggests that a stronger focus might have to be laid to additional barriers than funding.

However, funding volumes would have to be increased strongly in order to increase participation rates substantially, if aiming to reduce the size of low-qualified substantially. That such policies pay-off, financially as well as non-monetary, is an important result of the section on the wider benefits indicating that public and particularly private rates of return are substantial and sometimes even impressive. In this regard the limited participation numbers are striking and are likely to be too low to meet increasing labour market demand for medium qualifications, while the share of low qualified remains much higher than the labour market can absorb. Yet, the results of this chapter may also suggest to call for more research, as the data situation appears dissatisfactorily.

6.2 Higher Education (for the first time) later in life

The following section provides an overview on the funding policies and instruments for people entering higher education for the first time later in life, based upon short summaries (policy briefs) prepared by the national experts but also through additional inquiry of publicly available information. First of all this section starts with a very brief statistical overview, indicating the range in participation rates of older students in higher education; though it should be noted that these statistical data cannot guarantee that these mature students are non-traditional or even studying for the first time.

6.2.1 Statistical overview on mature students

Two approaches are possible to review the share of mature students in higher education. The first is to consider the share of the age cohort of those aged 30 to 39 and those aged 40+ students enrolled in tertiary education; the second analyses the distribution of students by age group. The following section will follow both lines to identify the major pictures.

Figure 62 is ranked by the share of students aged 40+, revealing that New Zealand and Australia have the highest share in this age group in tertiary education, with 4.7%, followed by Belgium and Finland as the European countries with highest rates of 3.7 and 3.6%. The next two countries are Sweden and Portugal with 2.8%. Another percentage point lower are the rates in Norway, the United Kingdom, the United States and Denmark, with rates between 1.7 and 1.5%. The rates are rather low in France, Italy and Germany with utmost 0.15%.

Looking at age cohort 30 to 39, a slightly different pattern emerges. In this case, Finland and Sweden show the highest rates of 15.4 and 13.7%, respectively. Australia and New Zealand follow with, 12.0 and 11.8%, respectively. The next group reveals rates which are another three to five percentage points lower, comprising Portugal, Belgium, Denmark and Norway. At the bottom ends are Korea, France, Germany and the Netherlands with utmost 3.0%.

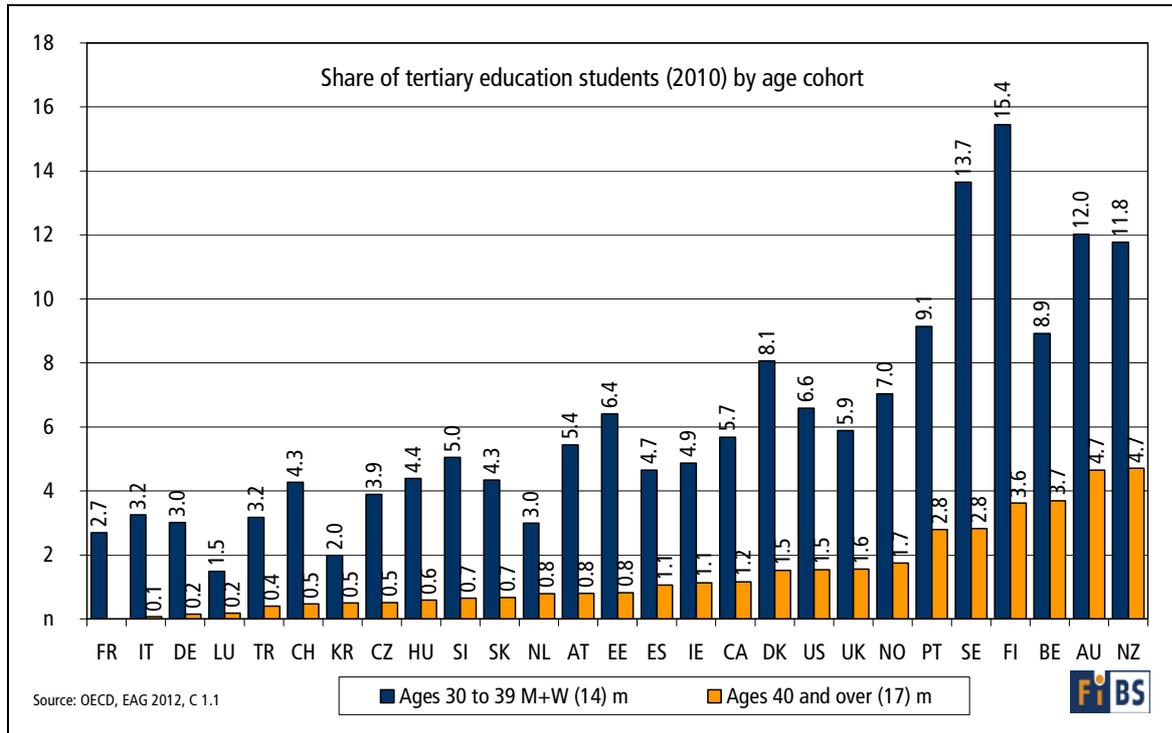


Figure 62: Share of tertiary students by age cohort (ranked according the share of age 40+).

Clustering countries by both sub-indicators, share of students aged 40+ and share of students aged 30-39, six countries appear in the top group, though already with varying participation rates: AU, NZ, FI, BE, SE and PT, while six countries reveal comparatively rates, CH, DE, IT, FR and particularly LU and KR. The remaining countries fall in between with varying relevance of one or the other group. While DK, US, NO are doing better in both age groups, EE, ES, IE, CA and UK show relatively higher rates in one of the two groups. The majority of the newer member states is slightly less advanced than the countries mentioned before.

30-39\40+	>4%	3-4%	2-3%	1-2%	0,5-1%	< 0.5%
>12	AU	FI	SE			
9-12%	NZ	BE	PT			
6-9%				DK, US, NO	EE,	
3-6%				ES, IE, CA, UK	CZ, HU, SI, SK, NL, AT	CH, DE, IT, FR,
<3%						LU, KR,

Table 23: Country clusters concerning age groups 30 to 39 and 40+

The following Figure 63, ranked by the share of students aged 40+, provides another perspective and reviews the share of mature tertiary education students in relation to all 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 rela-

tively clear demarcation lines. At the top are all four Northern European 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% margin, 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 above 10%. 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 by the two different age cohorts (see Table 24). As in the previous case, some countries are clearly ahead of others. In this case, 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.

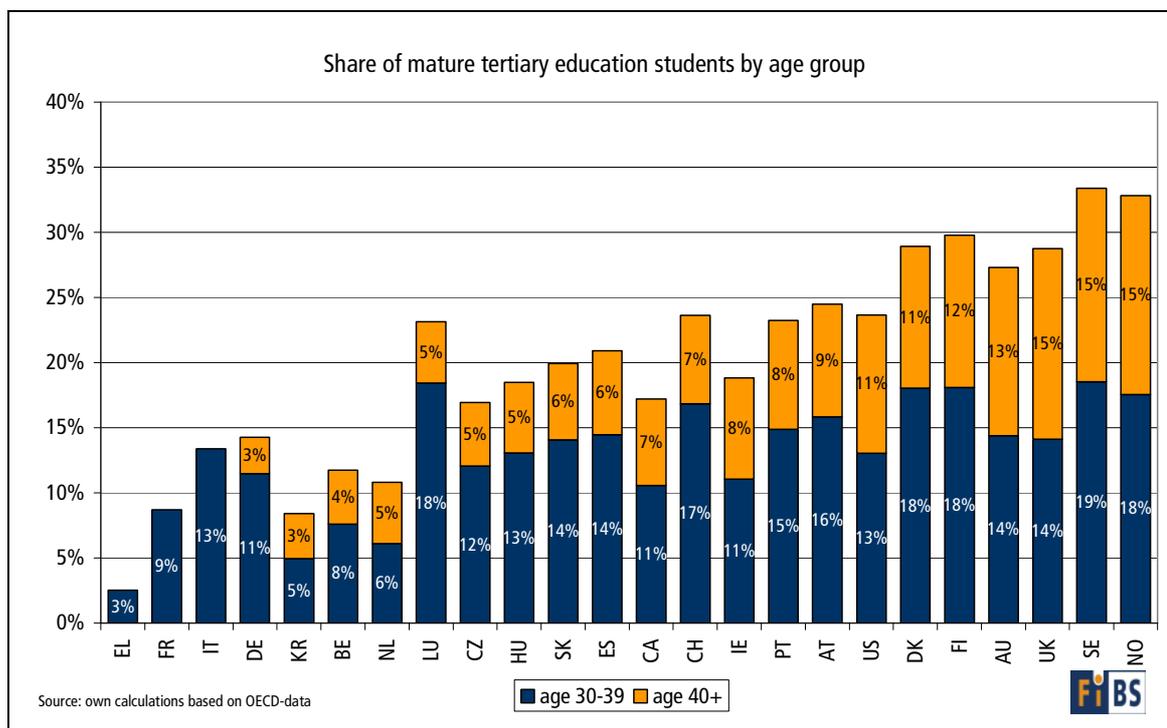


Figure 63: Share of mature tertiary education students by age group.

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), Central European (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.

Comparing the findings of both approaches, several countries show similar results, while others ‘perform’ rather differently. Some countries are clearly ahead of all others, which is valid for all four Northern European countries as well as for Australia. The UK shows high rates in the latter but not in the former category, suggesting that high shares in relation to all tertiary education students are not necessarily in line with high shares of particular age cohorts. However, several countries are at the lower end in both reviews; this is valid for KR, NL, FR, DE, and IT, while most newer member states rank in the lower medium ranges, though the relatively high shares of mature students aged 30 to 39 might be surprising somehow. A possible explanation lies in the fee policy, requesting no fee for around a fourth or a third of students, who then study early in their life, while the rest has to pay full-cost fee, requiring either parents who can afford to pay, or an own income from employment, resulting in post-poned enrolment.

40+	Upper (>10%)	Medium (>5%)	Low (<5%)
30-39			
Upper (>15%)	SE, NO, DK, FI,	CH, AT, PT,	LU,
Medium (>10%)	AU, UK, US	IE, CA, ES, SK, HU, CZ	IT, DE,
Low (<10%)			EL, KR, FR, NL, BE,

Table 24: Country clusters concerning shares of mature students in relation to all tertiary students.

Another striking case is Belgium, ranking at the top concerning the share of mature students in relation to the same age population, while they constitute only a very low share of the whole student body. Another surprising example is Portugal showing good to top results in this case. Unfortunately, Portugal is not included as case in this study, thus we have to rely on Spain, which is not as advanced as Portugal.

However, it should be noted that there is also a complementary issue to be taken into account, since countries have very different levels of tertiary education attainment, which indirectly impacts on the shares entering higher education later in life for the first time. For example, Korea has shares of 65% for the 25 to 34 year olds and of 47% for those aged 35 to 44 (see Figure 64). Canada and Japan are the following countries, whose shares are 56% for both cohorts in Canada, and 57 and 50% for Japan. All other countries remain under the 50% threshold for the younger and mostly below the 40% margin for the older group. Many Western, newer member states as well as Southern European countries hardly reach the 30% or even 20% ratio, e.g. Portugal or Italy.

Linking the information provided in the previous paragraphs on participation rates of mature students in higher education with the shares of tertiary educated by age groups, suggests for some countries that the comparatively high figures of mature students compensates for low initial education attainment, e.g. Portugal, or corresponds to

(comparatively) high rates of initial higher education, like in Korea. However, high rates of initial and further higher education (later in life) are obviously not necessarily a contradiction.

Before reviewing the role funding opportunities and regulations play in explaining the various participation rates, the next chapter investigates the rates of return to higher education later in life.

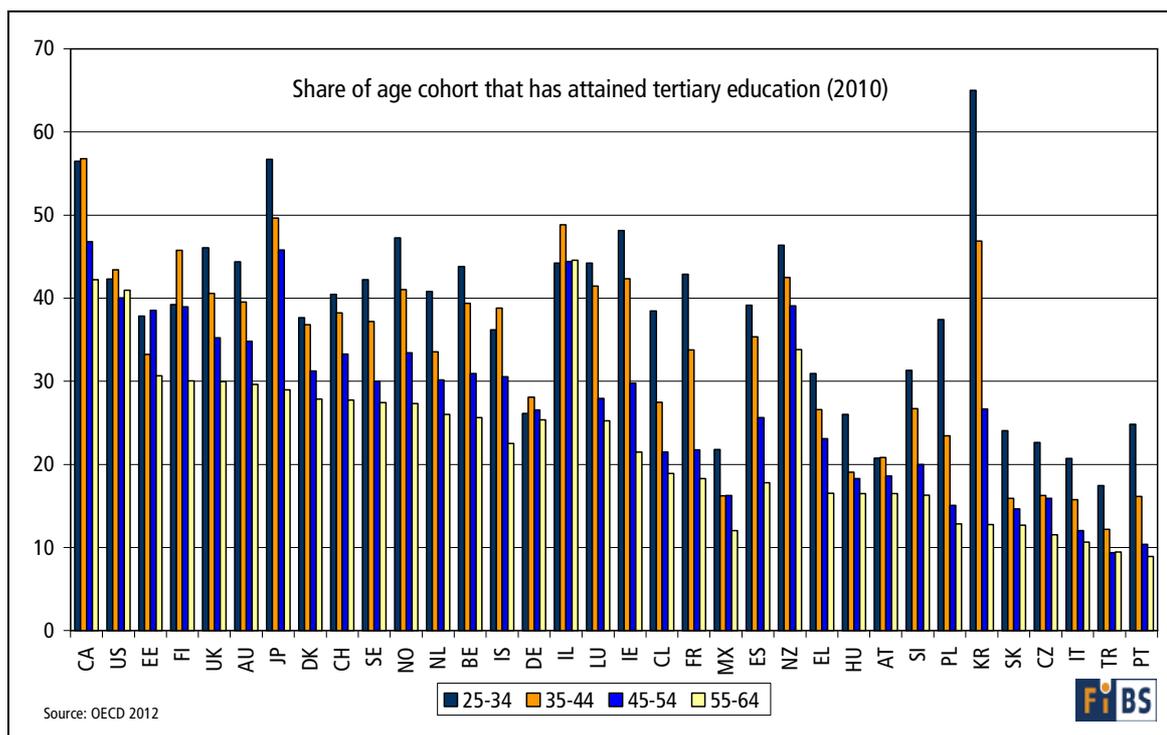


Figure 64: Share of the population with tertiary education attainment by age (2010).

6.2.2 Rates of return to higher education later in life

Some years ago the OECD (2008) reviewed the public and private benefits of graduation from higher education at age 40. The overarching result concerning enrolment in higher education during the late thirties (see Table 25) is that returns are higher than for upper secondary education, since the returns to upper secondary education are opportunity costs in the rate of return estimations for higher education, i.e. any positive rate of return is identical with higher returns to higher education than to secondary education. In fact, the net return is often even higher than the net return for upper secondary education, even if the individual has to bear the cost by him- or herself and often well beyond 10%. The return rates increase further if income foregone is covered by half or to the level of unemployment benefits.

Not surprisingly, if individuals are partially compensated, e.g. receive public subsidies compensating half of the foregone income (see columns 3 and 4), private returns go up to two digit figures in most countries. In some cases private rates of return exceed even the 20% level. Eventually, private rates of return increase even more, if par-

Participants receive a subsidy equal to unemployment benefits. Thus, from a private perspective, individuals would benefit in all countries if they would enrol in higher education while unemployed; only in very few countries the rates of return are comparatively low, i.e. below 10%, e.g. FI, DE (female), IE (male). At least the former two are countries with well established social security systems, providing on the one hand a lower income threshold and reducing the private returns on the other. In contrast, in several countries individual rates of return exceed 20 and sometimes even 25%. On average, female returns' are (much) higher than those of male; sometimes almost double as high (e.g. Canada or Ireland). In some countries female rates of return are much higher, e.g. Korea, Spain, and the United Kingdom; in few cases they turn higher, when income is compensated, for example, France, Ireland, and Sweden.

Country	Year	Private rate at age 40 if ...						Public returns	
		... if the foregone earnings are at the level s/he could have earned with an upper secondary education		... if the foregone earnings are compensated by an arbitrary public subsidy amounting to 50% of the level s/he could have earned with an upper secondary education		... if the foregone earnings are compensated by a public subsidy amounting to unemployment benefits		Male	Female
		Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	(7)	(8)
Belgium	2004	7,1	9,2	14,3	16,0	16,2	24,4	9,7	11,5
Canada	2004	4,4	0,1	9,9	4,3	10,9	5,9	2,7	-1,5
Czech Republic	2004	13,3	10,6	21,6	18,0	19,7	16,9	9,3	8,4
Denmark	2004	2,3	2,5	8,4	8,5	9,3	16,1	4,4	-1,4
Finland	2004	9,0	7,6	16,8	14,6	20,4	19,1	8,8	5,0
France	2004	10,5	8,9	17,6	15,4	21,1	21,5	8,1	6,6
Germany	2004	6,5	8,2	13,6	14,9	13,1	16,4	8,0	8,7
Hungary	2004	16,1	10,3	23,9	16,6	22,1	15,6	18,3	13,7
Ireland	2004	9,5	8,5	16,9	15,6	12,6	14,1	13,2	9,4
Korea	2003	7,1	15,8	13,0	21,8	12,8	22,2	15,5	15,7
New Zealand	2004	4,1	3,3	10,2	8,4	8,5	8,6	16,4	2,2
Norway	2004	4,9	6,1	11,7	12,9	16,8	17,2	6,1	2,0
Poland	2004	15,5	13,2	24,3	21,3	19,7	19,2	18,9	10,3
Portugal	2004	14,6	13,4	22,9	21,3	28,7	27,7	11,0	11,3
Spain	2004	5,4	8,4	10,8	14,4	14,0	24,6	5,5	6,1
Sweden	2004	5,1	4,7	11,5	10,5	17,8	21,1	6,4	1,0
Switzerland	2004	6,6	8,4	13,6	15,3	20,2	38,6	2,5	1,4
United Kingdom	2004	6,3	9,0	12,7	15,4	7,8	12,1	4,9	8,0
United States	2004	8,3	4,7	13,1	8,0	13,2	8,7	10,7	6,4

Source: OECD 2008 (www.oecd.org/edu/eag2008)

Table 25: Public and Private internal rate of returns to higher education at age 40.

Though public returns are commonly lower than private returns, particularly in the case of unemployment benefits while enrolled in higher education, they are positive in the vast majority of cases. In very few cases returns are lower than for other investments, e.g. in Canada, Switzerland and Denmark, for both sexes, for men in UK and women in SE and NO. In contrast, public returns are particularly high (above 10%) in HU, KR, PT, for both sexes, whereas they reach this level only for female in BE and for male in IE, NZ, PL and the US.

Adding up, higher education later in life has comparable rates of returns to other investments in a vast majority of countries, only CA, CH and DK fall completely apart.

Comparing rates of return between initial and later higher education, the returns are almost entirely higher for initial higher education, but in few cases the differences are rather small.

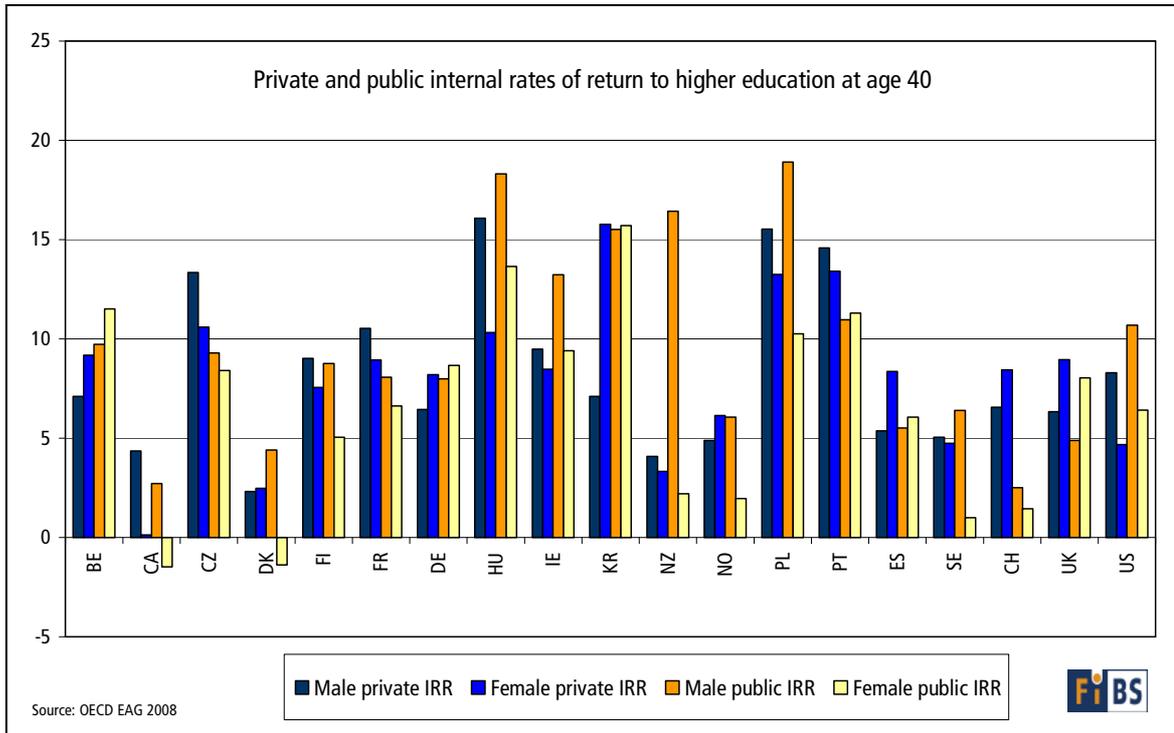


Figure 65: Private and public Internal Rates of Higher Education later in life for male and female.

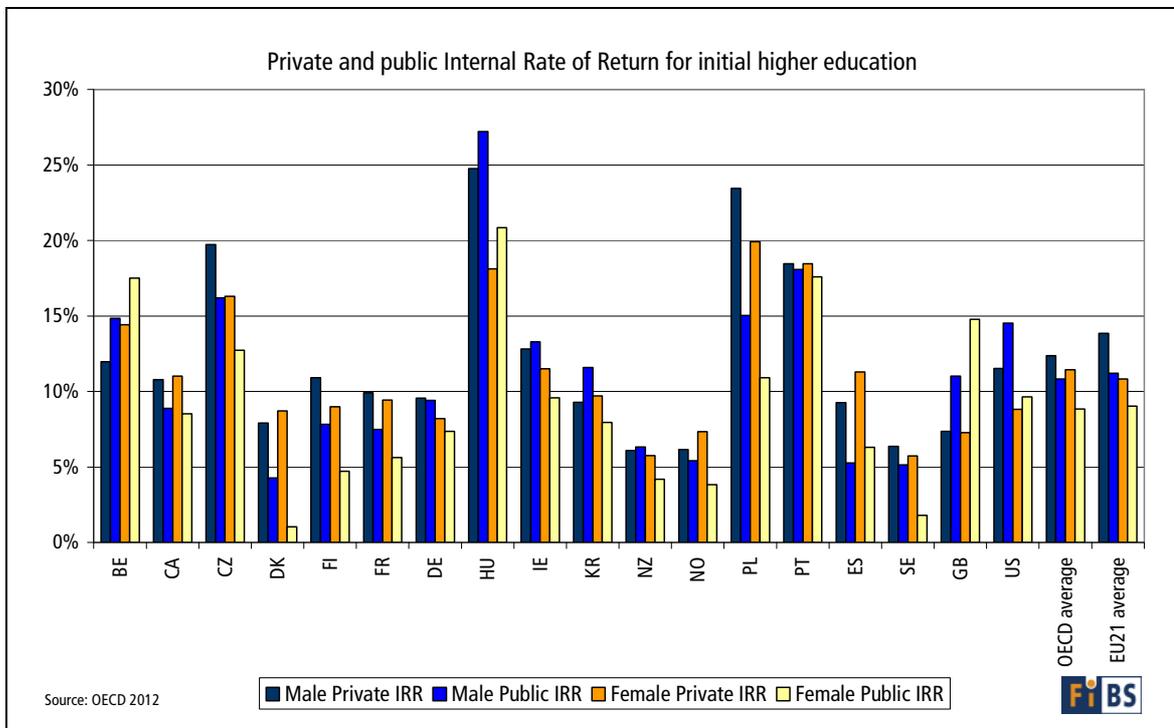


Figure 66: Private and public Internal Rates of Initial Higher Education male and female.

6.2.3 Funding approaches for higher education later in life

Analysing the links between funding policies and instruments and participation rates more closely, it turns out that countries can be clustered into three groups, mirroring almost exactly the funding regulations. The first group of countries has very high attainment levels of students aged 40 and above; this concerns the Nordic countries, Australia and the UK, all having very open and flexible funding systems (almost) without any age restriction, while the United Kingdom is somewhat less open. Since it appears that some minor differences in funding policies and modalities may be responsible for differences in the share of mature or non-traditional students, this issue will be discussed in the beginning of the next section. Furthermore, in this group, it appears the fee policies are of minor importance, provided that they are covered by the funding policies. While the Nordic countries do not have fee policies for students, apart from further education studies, students have to pay (substantial) fees in two Anglo-american countries, though participation rates are not much lower. However, concerns have been raised with regard to part-time students in the UK, who are not or insufficiently addressed through the newly introduced funding policies (Callender 2013).

The second group includes countries doing quite well in relation to students aged 30 to 39 or 40+; the latter concerns particularly the US, while the former is valid for countries, such as AT, CH, LU, and DE – though the latter with some difference to the other countries in this cluster – several newer member states but also ES and PT. The share of students aged 30 to 39 is between 10% and 20%. Commonly, the funding schemes in these countries are either open to students of this age cohort and at the same time also limited to this age group, i.e. no funding is available for students aged 40+.¹⁴³ Eventually, the third cluster consists of countries with very low rates of students aged 30+, such as BE, NL, KR, IT, and FR and whose student support schemes are limited to younger student cohorts, commonly enrolled in initial higher education.

With regard to funding approaches helping mature students to enter universities for the first time later in life, several cost components – and additional factors – need to be taken into consideration:

- Tuition fees
- Costs of living (incl. for family members, if applicable)
- Student support

Apart from costs and funding opportunities, study organization is likely to play an important role, e.g. part-time study, recognition of prior learning, child care opportunities, and didactics etc. (e.g. DIE/HU Berlin 2013), work-based learning (Hartmann/Light 2010). However, even though these factors may be important, the following section concentrates on costs and funding.

¹⁴³ From January 2013 onwards, the German KfW-study loan is open to almost all students up to aged 44 enrolled in universities. It remains to be seen whether this results in increasing participation rates of students aged 40+. The result from this study at hand would suggest this.

6.2.3.1 Countries with high participation rates of students aged 40+

This group consists particularly of the Northern European and the three Anglo-american countries (AU, UK, US), showing comparatively high to very high shares in both categories and in particular with regard to students aged 40+, i.e. in relation to the share per age cohort as well as the share of all tertiary education students. All these countries apply (almost) open-ended funding policies, employing either no or late age limits. For example, Australia and Norway do not seem to employ any age restriction, Sweden limits availability of funding for adult education as well as higher education to age 54, though reduction of funding periods starts at age 45. While the Northern countries do not charge any tuition fee, the fee rates in Australia are substantial and cover around 40% of the full costs of studies, the remainder is covered through public supply-side funding of universities. While funding for students is a combination of grants and loans in Sweden and Norway, Denmark does not employ any loan policy, but provides substantial grants to all students. However, it does not appear that this distinction results in differences in enrolment rates. Instead, enrolment rates in Sweden and Norway are even higher than in Denmark.

Repayment of the loan is income-contingent in **Australia**, while mortgage types are employed in Sweden and Norway. Interest rates are relatively low, hardly exceeding the inflation rate, i.e. the real interest rate is (close to) zero; furthermore, despite its mortgage-type loans it is possible to reduce repayment rates, if income is below certain thresholds. Both options, income-contingent repayment or reduction of repayment in case of low income, may be rather important in order to motivate adults to enter higher education. One of the results of the financing training study (PPMI/FiBS, 2012) was that funding instruments addressing insecurity are significantly and positively correlated with participation rates in adult learning. Countries employing more such instruments, e.g. through income-contingent loans, have higher participation rates.

Furthermore, students do not have to pay tuition fees in the **Nordic countries**, except for part-time or further education studies. Consequently, total costs of studying are low, compared to many other countries, where – sometimes very substantial – fees have to be paid.

The fact that only countries with such open enrolment and public support policies, are in this group of high participation countries suggests that it plays at least a very important role.

However, a striking finding is that public as well as private rates of return to higher education are rather limited in all these countries (see Figure 65). Yet, even the internal rates of return to initial higher education in these countries are usually comparatively limited (see Figure 66).

The other countries employ different strategies. For example, the **UK** has two loan programmes to enter university. The first is the traditional student loan; the second is the Personal Career Development Loan (PCDL), which can be used for non-university adult learning but also university studies.

6.2.3.2 Countries with medium participation rates of mature students

The medium cluster consists of countries from Western and Southern Europe as well as several newer member states; furthermore it comprises the USA, which has participation ratios, which are slightly below those of the first cluster. However, it appears that the reasons for the comparatively high participation rates in the newer member states is less because of particular funding modalities for mature students but because of its special approach to higher education. Based on the previous Soviet approach to higher education, a certain share of students, commonly the students with best marks can study without tuition fees – and often receiving a complementary grant to finance the costs of living – while all other students have to pay full-cost fees. As a consequence, many students, often more than half, sometimes even 80 or 90%, can enter university only if parents are wealthy enough to cover the costs of studying or students have to earn their income high enough to cover costs of living and studying. This results in postponed studies and may explain the comparatively high share of mature students in these countries. Only very few newer member states provide funding opportunities for mature students, an exception in this regard is Hungary, where funding is available till age 40.

In the **USA**, a huge number of different funding opportunities exists; many are publicly funded, others are from charities or other organization. Because of the completely different approach, compared to European countries, the following paragraphs will provide a slightly more comprehensive overview on funding to enter higher education (for the first time) later in life. According to the country study 66% of public student support comes from federal level, the remainder comes from the states, bearing the major responsibility for higher education. As a consequence, fee and funding regulations are extremely heterogeneous, making a general overview rather difficult. Furthermore, the market consists of public and private institutions for which different regulations apply.

Undergraduate as well as graduate students have to pay a tuition fee, varying from \$ 5.000 to \$ 50,000 per year; the amount depends on the legal status of the university, its reputation and its location. Furthermore, fees vary between students originating for the state of the university or not.

Though funding opportunities often are directed particularly at traditional undergraduate or graduate students, they are obviously also open for mature students (aged 25+). This comprises, for example, several grant as well as subsidized and non-subsidized loan schemes, loan forgiveness, cancellation or discharge programmes etc. Another form are work-study programmes, involving e.g. community services of students. Furthermore, tax credits exists, allowing tax deductions of up to \$2,500 for education spending, either called “American Opportunity Credit” for the first four years of college, or the “Lifetime Learning Credit” for sub-sequent phases in higher education, including part-time studies. The following Table 26 provides a brief overview about some parameters of the tax credit.

Maximum credit	Up to \$2,000 credit per return
Limit on modified adjusted gross income (MAGI)	\$122,000 if married filing jointly; \$61,000 if single, head of household, or qualifying widow(er)
Refundable or nonrefundable	Nonrefundable—credit limited to the amount of tax you must pay on your taxable income
Number of years of postsecondary education	Available for all years of postsecondary education and for courses to acquire or improve job skills
Number of tax years credit available	Available for an unlimited number of years
Type of degree required	Student does not need to be pursuing a degree or other recognized education credential
Number of courses	Available for one or more courses
Felony drug conviction	Felony drug convictions are permitted
Qualified expenses	Tuition and fees required for enrollment or attendance (including amounts required to be paid to the institution for course-related books, supplies, and equipment)
Payments for academic periods	Payments made in 2011 for academic periods beginning in 2011 or beginning in the first 3 months of 2012

Table 26: Conditions of the Lifetime Learning Tax Credit.

In addition, also some loan repayments are tax deductible within certain limits. Eventually, certain funding opportunities are available for particular groups, e.g., war veterans. These federal funding schemes are complemented by state-level programmes, varying in each of the 51 states. Though often also more targeted at younger students, they commonly do not explicitly mention age limits. For example, the Delaware Higher Education Office manages 23 state-sponsored financial aid programmes and six private scholarship programmes to help in particular Delaware residents continue their education after high school. In contrast, New York State offers a broad variety of instruments. While some are more general in nature, some target very specific groups, for example, the “Flight 587 Memorial Scholarships” which offer access to a college education for the families and financial dependents of victims of the crash of American Airlines Flight 587 on November 12, 2001, or the “NYS World Trade Center Memorial Scholarship program” enabling access to a college education to the families and financial dependents of the victims on Sept. 11, 2001. Moreover, there are manifold awards and private opportunities of loans, grants, scholarships etc. Through the “New York State Tuition Tax Credit/Deduction” resident taxpayers may claim a deduction or refundable credit for allowable undergraduate tuition paid for themselves, their spouses, or their dependents enrolled in qualified institutions” as the New York State Higher Education Services Cooperation announces on its website.¹⁴⁴

Another example for a scholarship for non-traditional students is the *Tennessee HOPE Scholarship for Non-traditional Students*, offered by the Tennessee Student Assistance Corporation. This scholarship supports students who are returning to school after a hiatus of several years by making tuition assistance available. Eligible are Tennessee students age 25 or older, permanent residents of the state for a minimum of one year by September 1 or February 1 of the year in which they apply and pursuing

¹⁴⁴ An interesting feature in addition to funding itself is FAFSA (“Free Application Format for Federal Student Aid”), which is used for the application procedure and which provides students automatically with an overview, which funding opportunities might be available, given his particular situation, i.e. income, household size, etc. Thus, s/he receives a directory with funding sources and information, which is a useful tool given the complexity of funding opportunities in the USA.

their first undergraduate degree at a college within the state, either beginning their freshman year or resuming undergraduate study after an interruption of at least two years. The students must maintain continuous enrollment in the fall and spring semesters. They have a cumulative GPA of at least 2.75 after attempting 12 semester hours, and again after attempting 24 and 48 semester hours, furthermore, a cumulative GPA of 3.0 by the time they have attempted 72 hours. Students may renew the scholarship for no longer than five years after they first enrolled in college as a non-traditional student. Their adjusted gross income must not exceed \$36,000 according to federal tax returns; a married student with a spouse who has an adjusted gross income of greater than \$36,000 may be ineligible. Application is possible by filling out a FAFSA or by calling the Tennessee Student Assistance Corporation. There are 4,254 actual recipients in 2011-2012 who are supported by \$11m.¹⁴⁵ Furthermore, there are also programmes and initiatives at local level, i.e. organisations offering scholarships for specific target-groups on site. For example, women in transition age 25 or older are addressed by the Beavercreek Women's League in Ohio or the organisation Washington State Home and Community Educators.

At university level, in most states at least one school – often a state institution – offers reduced or free tuition for senior students. The fees for not credit-bearing courses are often reduced. Besides, there are auditing classes. According to eHow referring to the American Council on Education, about 60% of accredited schools are waiving tuition for adults over age 60, as of 2008, i.e. as a senior citizen on a fixed income you can go to college and take tuition-free classes and even get a degree. Some state colleges require you to be 65 to qualify for senior status. Free classes for seniors are often offered on a space-available basis; class or course fees, and books or other material have to be paid by the senior students.

Senior citizen associations are another major source of grants for elderly, and some professional organisations support specified target groups to strengthen their profession. An example is the *Society of Women Engineers* which supports women who want to become engineers including some scholarships for older women returning to college; the applicants come from any year of college or graduate school.

There are further scholarships and grants for women returning to college or mostly supporting women working on their first degrees. An example for a women's organisation spending money for women in transition returning to a college or entering it for the first time is the *Jeannette Rankin (Women) Scholarship Foundation*. It offers \$2,000 scholarships for women over 35. Unlike many other scholarships that are dedicated only for tuition the Jeannette Rankin award can be used for any purpose, such as childcare or transportation. Since 1976 700 women have been awarded by \$1.8 million. Application requirements for the *Jeannette Rankin Women Scholarship* are

- to be a woman, age 35 or older;

¹⁴⁵ (http://www.tn.gov/CollegePays/mon_college/Sch_Data_PDF/TELS%20Board%20Report%20-%202011-2012%20AC%20Year%20Ending.pdf)

- with low-income;
- a U.S. citizen or permanent resident of the U.S.;
- seeking a technical or vocational education, an associate's degree, or a first bachelor's degree;
- enrolled in, or accepted to, a regionally or ACICS accredited school, such as Middle States Commission on Higher Education, New England Association of Schools and Colleges, Higher Learning Commission of the North Central Association of Colleges and Schools, Northwest Commission on Colleges and Universities, Southern Association of Colleges and Schools, Western Association of Schools and Colleges, or Accrediting Council for Independent Colleges and Schools; applicants are requested to *check with their school's enrollment or financial aid office to confirm regional or ACICS accreditation.*

Selection criteria are the individual goals and plans for achieving these goals as well as information on how the individual is going to give her education benefits back to the community. The definition of low-income is based on the Department of Labor's Lower Living Standard.

The *Adult Students in Scholastic Transition (ASIST) Grant* has been created by Executive Women International (EWI) and is said to be one of the leading higher-education grants targeting specifically female adult students. Local area chapters of EWI administer the program, i.e. applicants have to live in an area with a participating EWI chapter. The application for one of thirteen scholarships ranging from \$2,000 to \$10,000 must include an essay and recommendation form as well as detailed information on career goals. Students first apply and compete at the local Chapter level. These winners are submitted to the corporate level for the opportunity to be selected.

Also the *Business and Professional Women's Foundation Career Advancement Scholarships*, the *Women's Opportunity Award* of the Soroptimist Club and the *International Fellowship of University Women (IFUW) Grants* are targeting adult women. The *American Association of University Women (AAUW)* is another source of private funding for working women returning to college. Need- and merit-based scholarships and grants are available for all Americans, but mostly designed to working women over the age of 35. The awards range from \$250 to \$1,000 annually.

The *Hispanic Scholarship Fund* supports deserving students of Latino heritage to foster college degrees. Students who are U.S. citizens or legal permanent residents with a permanent resident card or passport stamped I-551 (not expired) and are planning on attending an accredited school full-time and pursuing their first undergraduate or graduate degree can be awarded. There is no age limit but the students must have a GPA of at least 3.0 on a 4.0 scale to receive, for example a *General Hispanic College Scholarship*. The award amount is approximately \$1,000-\$5,000.

There are further privately funded grants for adult students only, and grants for which they may compete with traditional students; they all may be based on financial needs, academic performance, area of study, geographic criteria or diversity character-

istics, such as specific ethnicity, gender, religious orientation, disability etc. Sometimes, recommendation letters have to be provided.

Though this overview covers more examples than those of other countries, it is far from being complete.

The difficult situation mature students in **Canada** may be best described through the following statement: “Despite considerable rhetoric around the importance of life-long learning, the average age of Canadian college and university students has remained remarkably constant over the past 40 years. Most post-secondary institutions have policies such as flexible admission and prior learning assessment and recognition to encourage the participation of older adults. Some institutions have innovative programmes for adult learners without high-school diplomas or other prerequisites. But there is little evidence on the implementation and effectiveness of these policies. [...] One of the most significant disincentives to participation in post-secondary education for potential mature students may be Canada’s financial aid system, which is designed for learners following a traditional path from secondary to post-secondary. One of the key problems is that older students, especially those with dependents, may be unwilling to give up the savings and assets that they worked hard to accumulate in order to be eligible for government loans, making them too vulnerable to economic misfortune. [...] Moreover, in most provinces, the expected contribution required from a spouse rises rapidly even from fairly low level of spouse’s income preventing many married students with working spouses to be eligible for student loans. The proportion of older students with private bank loans and lines of credit suggests that the current system is not meeting their needs” (Myers/de Broucker 2006, p. iv).

Tuition fees are varying between HE institution (HEI), i.e. students have to pay different rates for attending colleges, institutes, universities and research universities. The simple average of tuition fees for full-time students at colleges and institutes in the academic year 2012/13 is \$2,809, the weighted average is \$3,166. The annual tuition fee at universities and research universities is much higher; here the simple average is \$4,386 and the weighted average \$4,529.

However, in spite of the sceptical view presented above some interesting funding opportunities exist in Canada. Loans are available for different target groups, e.g. Canadians, U.S. students, students with disabilities etc. Government student loans consider income and assets, tuition, mandatory fees, and book costs as well as living expenses. While students are registered in full-time studies are not required to make payments on the loan; the government pays the interest during this time. Canadians, for example, may apply for federal and provincial loans. It is required a student has to take at least 60% of a full-time course load to receive a loan or qualify for interest-free status. Dropping below the threshold can cause a student to lose his or her funding and have to begin repayment.

In addition to public funding, there are private initiatives, often designated to a specific target group. A Canadian-American initiative is the P.E.O. (Philanthropic Educational Organization) “Program for Continuing Education (PCE)”, established in 1973. It

awards grants of up to \$3,000 to women in the United States and Canada. The grant is designated to women whose education pathway has been interrupted and who are returning to school to gain skills to support themselves and/or their families and improve their marketable skills for employment. The maximum one-time grant is \$3,000. Lesser amounts may be awarded according to individual needs and available funds. The funds are given for tuition assistance, books, transportation, or childcare, necessary to reach the applicant's educational goal. The grant is neither to be used for living expenses nor to repay educational loans nor to cover the cost of prerequisite courses. Applicants have to be a woman with financial needs sponsored by a P.E.O. chapter, a citizen of the United States or Canada studying in the United States or Canada. She has had at least 24 consecutive months as a non-student sometime in her adult life, is within 24 consecutive months of completing her educational goal, and is not enrolled in a doctoral degree program, e.g. educational, law, medical or clinical, but in an educational program leading to employment or job advancement. Grants may be awarded for academic or technical courses. When a local chapter identifies a prospective recipient, the chapter's P.E.O. chairman executes an interview to determine eligibility. If sponsorship is approved the chairman completes and submits the PCE Eligibility Form through the official P.E.O. website, i.e. eligibility must be established before the electronic application. The Board of Trustees of the P.E.O. Program for Continuing Education evaluates the applications.

Austria employs a so-called "Finalisation/Examination stipends" for non-traditional students, helping them to graduate from HE if they are not older than 41 years of age and if they were employed (at least part-time) for at least 36 months during the last four years; child care periods are taken into account. Students are not allowed to work during the time frame when the stipend is awarded. Usually, only the first study program can be supported at the end, but an exemption is made for consecutive Master programmes.

Another programme, targeted at younger, non-traditional students, is the *Self-preservation stipend*, available for first-time students who financed themselves for at least four years (minimum income: € 7,272 p.a.). In case that the student has financed him- or herself for more than four years or has born/raised a child the age limit can rise from 30 to 35 years.

Another and possibly relatively unique feature to help entering higher education is the educational leave scheme "Bildungskarenz" (effective since 1998). "Bildungskarenz" allows a leave of up to 12 months for education during an interval of four years by providing maintenance subsidies equivalent to unemployment benefit.

Another option to finance HE later in life in Austria is the combined saving scheme-loan regulation, which is adjunct to the so-called 'savings for buildings'-regulation, which foresees that individuals can save money, subsidised by the government. The core of this regulation is that people can take-up a loan at reduced interest rates (compared to market-rates), immediately if they sign a savings contract. However, this regu-

lation has obviously no real practical impact, as take-up rates are rather limited in general, and particularly with regard to adult learning (Cedefop 2012)

Hungary equips 10% of best school graduates with tuition-free places (Eurydice 2012), while the remaining 90% have to pay tuition fees, ranging from € 580 to € 10,800 per year; though the most common fee is € 1,250 for Bachelor and almost € 1,600 for Master programmes. Even part-time and distance education students have to pay fees. 18% of students are aged 30+.

A student loan is available, limited to age 40 – this means that funding ends when students arrive age 40, wherever they are in their studies. Lowest interest rate ever was 8.5% in summer 2010 and repayment is income-contingent with 6 to 8% of their average income. Furthermore, an interest-subsidised loan (2%) was introduced to students up to age 35, only available to cover education cost, i.e. tuition fees. Repayment is 4% of income.

Slovenia provides 80% of its students with tuition-free places, though they have to pay a registration fee. Remaining students, as well as part-time students have to pay fee, ranging from € 1,250 to € 12,400 for the first and from € 2,200 to € 11,500 for Master programmes (Eurydice 2012). Although no support scheme is in a place for students aged 26 and older, 5,0 of those aged 30 to 39 and 0,7% of those aged 40+ are enrolled in tertiary education (OECD 2012); these shares are slightly higher than in Hungary and Slovakia, for example.

20% of students in **Spain** are mature students, which is equivalent to 4,7% and 1,1% of the population aged 30 to 39 and 40+, respectively. Mature students have to pass additional examinations or test to enter universities in the annex for more details). 75% of the students have to pay fees for HE. In the first cycle the fees are ranging from € 572 (PPS) to € 1398 (PPS) – accordingly from € 881 (PPS) to € 1989 (PPS) in the second cycle, though fee amounts vary a lot according to subject, region and number of ECTS (European Credit Transfer System) taken. Adult students in Spain have the right to receive student grants from the state and autonomous communities like all other students. There are different student grants for HE on national and regional level according to students' income and family situation. However, it appears that number of mature students relying on such grants and loans is rather limited.

Despite very little public funding is available for adult learning in general (see section 4) and only 5% of students with public support for studying are aged 30 and above, almost 25% of students belong to this age group. In total, 4.3% of the population aged 30 to 39 and 0.5% of those aged 40+ are enrolled in tertiary education. Commonly support depends on parents' and students' income. This suggests, as noted already above, that either a special education (lifelong learning) cultural and/or a high GDP per capita might overcome limitations in public funding.

According to (Eurydice 2011) second cycle students in Spain can receive loans but the amount of students who take advantage of this is very low. The maximum amount is € 12.000 (half of this for the Spanish masters programme), in addition € 800 monthly

for 21 months. Three years after finishing HE study the student has to start repayment. Beside that there are no tax reliefs for parents or family allowances.

Eventually, **Germany** has a combination of student support, called BAfoeG (Federal Law on Student Support) and child allowances for parents, composed of benefits and tax allowances. For long, student aid was limited to age 30 and has been raised to age 35 only few years ago. However, higher education for non-traditional students has gained more attention in recent years, resulting in several initiatives. First of all, the federal government introduced the so-called Aufstiegsstipendium (“advancement stipend”) as second strand to support further education for talented graduates from the vocational education and training track. Though most students granted are in their twenties, some are aged 30+. Furthermore, from January 2013 onwards, KfW raised the age limit for its study loan to age 44 and broadened coverage of university programmes, now covering almost all university studies, not restricted to degrees.

Furthermore, the new Federal Education Minister started an initiative aiming to tailor the BAfoeG more towards part-time and mature students. However, it will have to be seen whether – or probably better: when – this results in changes.

Adding up, this medium cluster consists of a heterogeneous mix of countries where either some public or private funding is available, as in the USA, Austria or Hungary, or where restrictions in the commission of state-funded places force potential students from non-wealthy families to commence their working career first and enter higher education later in life, once income is high enough to allow for. The third alternative is based on the example of Switzerland, where very limited public support is compensated through high GDP per capita, enabling to enter higher education. However, it is important to note that all indicators on mature students show limited enrolment. In order to increase the number or share of mature students these countries are likely in need of enhanced funding opportunities for this target group. However, the experience from the first cluster does not necessarily suggest that this support may also have a large loan component, as, for instance, the Australian example shows. However, income-contingent repayment conditions seem advantageous.

Neither of these countries employs easily available and state regulated funding schemes for mature students, because its schemes are restricted to students aged 30, by and large. Instead funding for mature students is available through specific programmes for this target group, either publicly regulated or established through charities.

6.2.3.3 Countries with low participation rates of mature students

The core characteristics of the low participation countries is their focus on initial higher education, which is highlighted by age restrictions for access to funding for higher education and – at least in relevant number of countries – a strong reliance on means-testing as well as on support schemes helping parents to finance the studies of their children. Furthermore, funding is often explicitly or implicitly limited to full-time studies. This applies to the remaining countries France, the Netherlands, Romania and

Slovakia. For example, needs-based grants in France are restricted to age 28, in the Netherlands to age 27.

6.2.4 Summary

The core results of this section are: higher education later in life has substantial rates of return in most countries, which are though often, but not necessarily (much) lower than for initial higher education. The shares of mature students vary a lot across countries and depend on the particular indicator reviewed. Overall, three clusters can be identified. The first cluster comprises the Nordic and two Anglo-American countries (Australia and the United Kingdom), where more than 25% of the student body are 30 years and older and/or where the share of students aged 40+ is above 10%. All these countries employ more or less dedicated open policies, i.e. funding is available almost without any age restriction and where grants and/or loans are not means-tested. Furthermore, lifelong learning culture seems to play a role in this regard.

A second cluster, covering a regional heterogeneous group of countries, provides either some (public and/or private) funding opportunities for (certain groups of) mature students or provides only limited shares of students with fully state-funded study places, forcing students whose families are not in a position to cover the costs of studying to enter the labour market without studying. A substantial share returns to university later in life. Eventually, it appears that Switzerland is a special case, where people can afford to study later in life, even without (almost) any public support. However, modest fee rates may support this situation. As a result of the various policies, between 15 and 25% of the student population are 30 years and above and more than 5% of age cohort 30 to 39 and more than 0.7% of 40+ agers are enrolled in universities.

Another exception in this group is the USA, which is to extent very close to the first cluster, but it appears that means-testing makes an important difference, because the participation rates are visibly lower than for all countries in the first cluster. It is therefore sorted in the second cluster, although there may room for discussion.¹⁴⁶

Eventually, the third cluster is composed of countries having a strong – if not even an exclusive – focus on initial higher education. Apart from very few exceptions, public support is limited to age 30 at best and parental income plays a core role in relation to needs. Furthermore, some support is dedicated to parents, helping to finance their share in funding. Even though Germany provides funding up to age 35 and has some special programmes which are even more open, it falls in this category. The core indicators for this cluster are: Less than 15% of the student body is at least in its thirties and the shares of those aged 30 to 39 are below 5% and those aged 40+ are up to 0.7%.

Interestingly, the following chapter will reveal that a similar policy can be identified concerning older people.

¹⁴⁶ However, in this case several other countries, e.g. AT, might have to sorted as well in the first cluster.

6.3 Older/retired people

6.3.1 Introduction

Europe is characterised by an on-going socio-demographic change with a birth rate that declined for long, however, it appears that this is changing (Demography report 2011), and a growing life expectancy leading to a higher average age of the population. Moreover, improvements in health care ensure that older people have the possibility to stay active, in private as well as in labour contexts, for a longer time.

Beside the increase of the average life expectancy, there is also an increase of the “active” life expectancy (Kruse 2006). Therefore, it is not only important to provide older people with care and other support needed, but additionally and primarily to support them concerning labour, education and training offers (Heyse/Erpenbeck 1997) to ensure their participation in society. These offers for older people of course need financing, which will be further outlined in this text.

A few years ago, ageing was still perceived by many as a danger for personal career and health and the growing number of older people and paying pensions was considered a burden on the working-age population. However, today, these fears subside and the chances for society and economy emerging from this older generation are paid more attention. The fact that a growing number of older people is in still good health, have valuable skills, experience and knowledge, and are willing to make a significant contribution to society further pushes this perspective.

Older people will thus be and already are, in regard of their volunteer work, social commitment, and family support (e.g. taking care of grand children or other relatives), an indispensable component of the social and economic system of our society in Europe.

Additionally, it should be noted that an important part of today’s and the future’s labour force are older people and that legal retirement age is very likely to be increased in the years to come.

The European Union also recognised the importance of increasing the participation of older people in society and the labour market and decided to designate 2012 as the “European Year for Active Ageing and Solidarity between Generations” (European Commission 2012g).

Closely connected to the demographical development is the shortage of (highly) qualified workers and experts (Heyse/Erpenbeck 1997; Klös/Plünnecke 2003) as well as a long-predicted general lack of labour force (Bauer et al. 2006).

Today’s challenge is to increase competitiveness and to create a realignment of the social systems, especially in countries which possess only few natural resources, such as e.g. Belgium, France or Germany. This challenge is closely connected with competences in a society. Competences need to be preserved and increased with education. Additionally, groups need to be taken into account, whose potential in competences are

insufficiently emphasised so far. One of these groups are older people, whose financing should be of central concern for the development of modern policies.

The following chapter provides a closer look on current statistical data, policies and funding regarding adult learning for older and retired people. It thus comprises five different but cohesively linked parts, dealing with the relevance of older learners, providing insight on the target group in society and labour market, outlining motives and barriers (especially financial barriers), and presenting policies to overcome financial barriers and their efficiency.

6.3.2 Relevance of the target group

This chapter provides a closer look on older and retired people. It is important to note that the group of the older people (which will be defined precisely in the sub-chapter below) overlaps with the group of retired people. Retired people are people who have stopped working in their previous employment, commonly because of age, but also because of health or other reasons. The group of retired can not be assigned to a specific age group, however with increasing age more people enter into retirement.

Definition of older people

When searching for definitions of “older people” it turns out that there is no generally agreed definition in politics, economy, and society. The first and most logical way of defining “old” is to look at the chronological age of a person. This approach is mainly used when looking at people’s participation in the labour market, which decreases with age, though varying a lot across countries (see below).

Taking the age limits of the European Commission, a person is an „older employee” when s/he exceeds the age of 54. However, the Organisation for Economic Cooperation and Development (OECD) considers those as older employees who are aged 50 and over: “The age of 50 is not meant to be a watershed in and of itself in terms of defining who is old and who is not, but it does correspond to the age, after which labour force participation rates begin to decline in many countries.” (OECD 2006).

Another possibility to define age is to consider the situational dimension of life and not only the chronological age of a person. Peter Laslett divides the life span of a person into four parts and coined the term “Third Age”. It describes a period in a life “[...] of personal achievement and fulfilment [...]” (Laslett 1991). The “[...] life career [...] has its culmination in the Third Age” (Laslett 1991). Laslett further differentiates the four ages: “First comes an era of dependence, socialization, immaturity and education; second an era of independence, maturity and responsibility, of earning and of saving, third an era of personal fulfilment; and fourth an era of final dependence, decrepitude and death.” (Laslett 1991).

From an individual point of view a situational definition is advantageous, as a person’s health, mental abilities, work motivation, and activity varies greatly even among

people of the same chronological age. Thus, “elderly people” are not a homogeneous group, but enclose a wide range of behaviour types.

Thus all in all, older people can be defined in different ways and are a very heterogeneous group to deal with, even when the same definition is used. In the following we will use a pragmatic definition with regard to chronological age: older people are between age 55 and 64. As mentioned before, retired people are part of the defined group of older people, depending on the moment when a person of this age group is not any longer in an employment but enters retirement.

6.3.3 Older and retired people in society and labour market

The following chapter gives an outline of older and retired people concerning their part in society, their qualification, employment, and retirement.

Size of the group

Older people represent an important part of the total as well as the working population in Europe. Middle and older-aged adults (45-64 years) represent more than 25% of the total and almost 40% of the working population in the EU Member States. Some EU-27 member States have working populations where more than 40% are 45 years old and above (Bulgaria, Germany, Sweden, and Finland), while this level is almost reached in others (e.g. Belgium, Czech Republic, Denmark, Latvia, Lithuania, Estonia, and UK). Malta is the country with the lowest share of older-aged adults in its working population (still 33%). Looking more narrowly on those aged 55+, the share goes down to 13% on average. Shares of more than 15% can be found in SE, FI, and the UK, while shares are up to approximately 10%, for example in BE, LU and AT. This indicates that the role older people play in society and/or labour market varies a lot across countries.

The employment rate in the age cohort between 25 and 54 is far higher than in the 55 to 64 age cohort; in most countries the difference is 20 percentage points and more, apart from SE. While 68% to 86% of those aged 25 to 54 are in employment, the share decreases for the age groups 55 to 64 from more than 70% in Sweden to slightly more than 30% in SI and MT. On average the employment rate of 55-64 year olds is approximately 45%.

Figure 69 reveals that the employment rate of female is far lower than for male, except for EE and FI, where male employment is comparatively low at around 57%. The largest differences between both sexes can be observed in MT, CY, and EL with 25% and more. Figure 70 provides a contrasting picture and reviews the shares of inactive male population by age groups. Across all age groups, Norway and CH have comparatively low rates of inactive people.

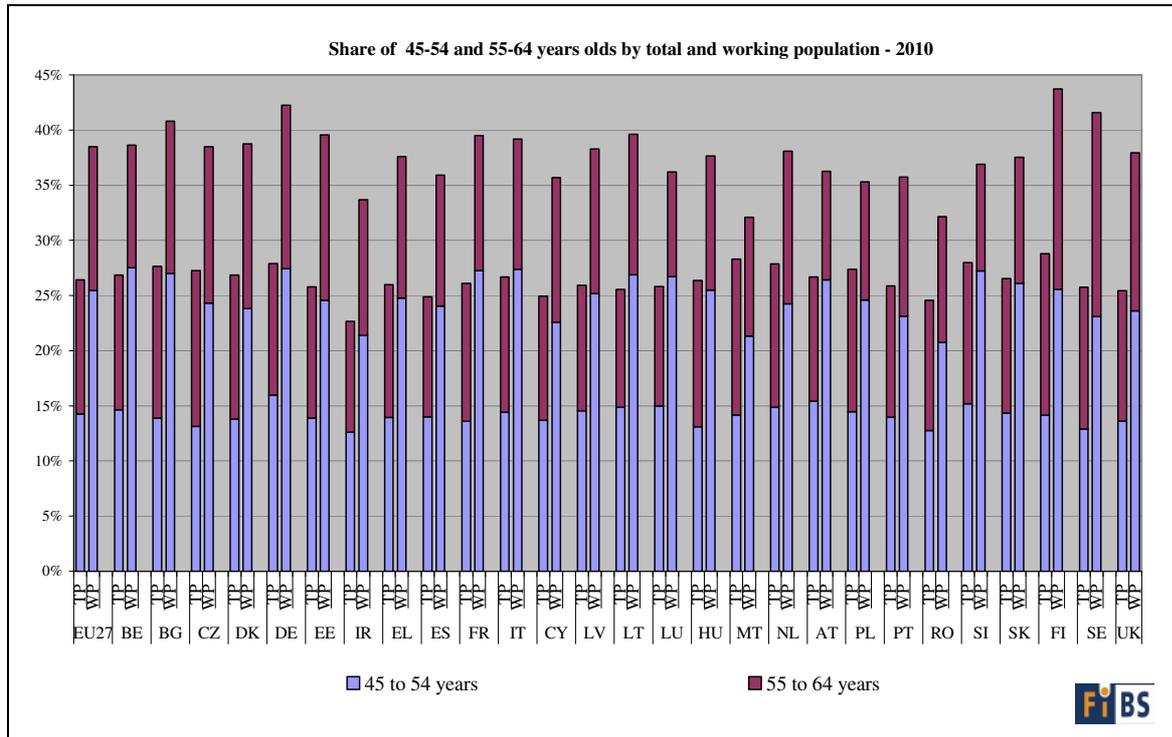


Figure 67: Share of 45-54 and 55-64 years olds by total and total working population – 2010 Source: LFS 2010.

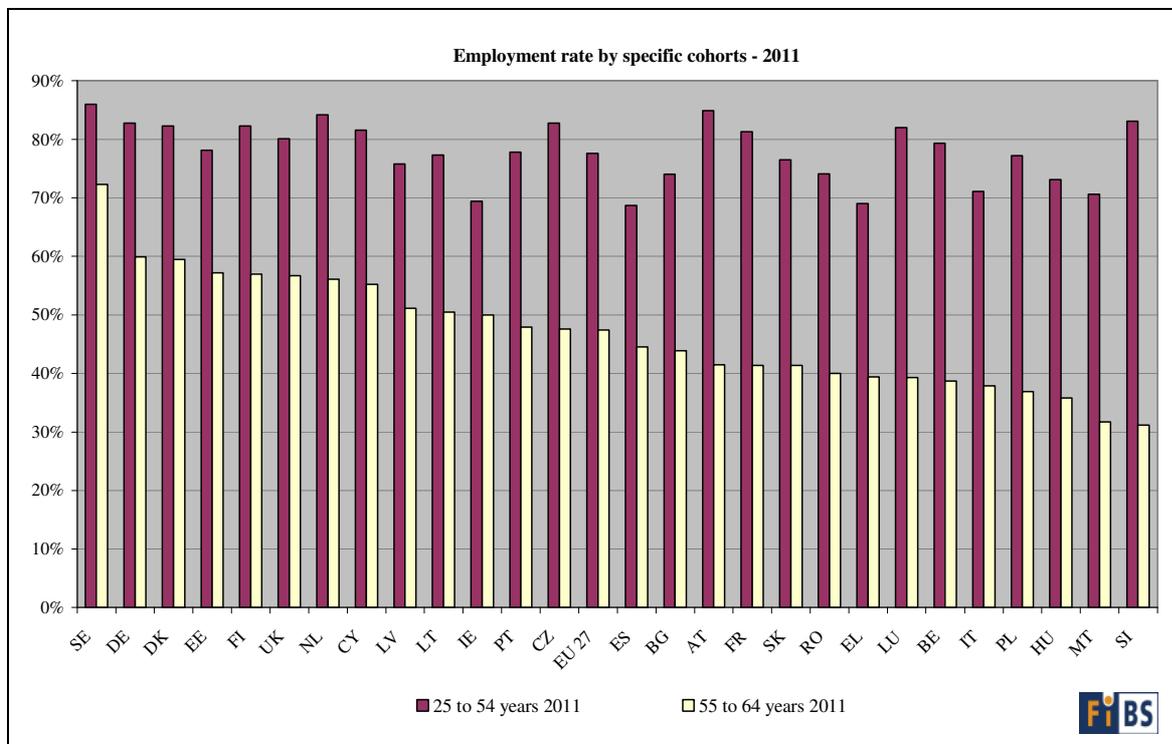


Figure 68: Employment rates by specific cohorts – 2011. Source: LFS, Eurostat.

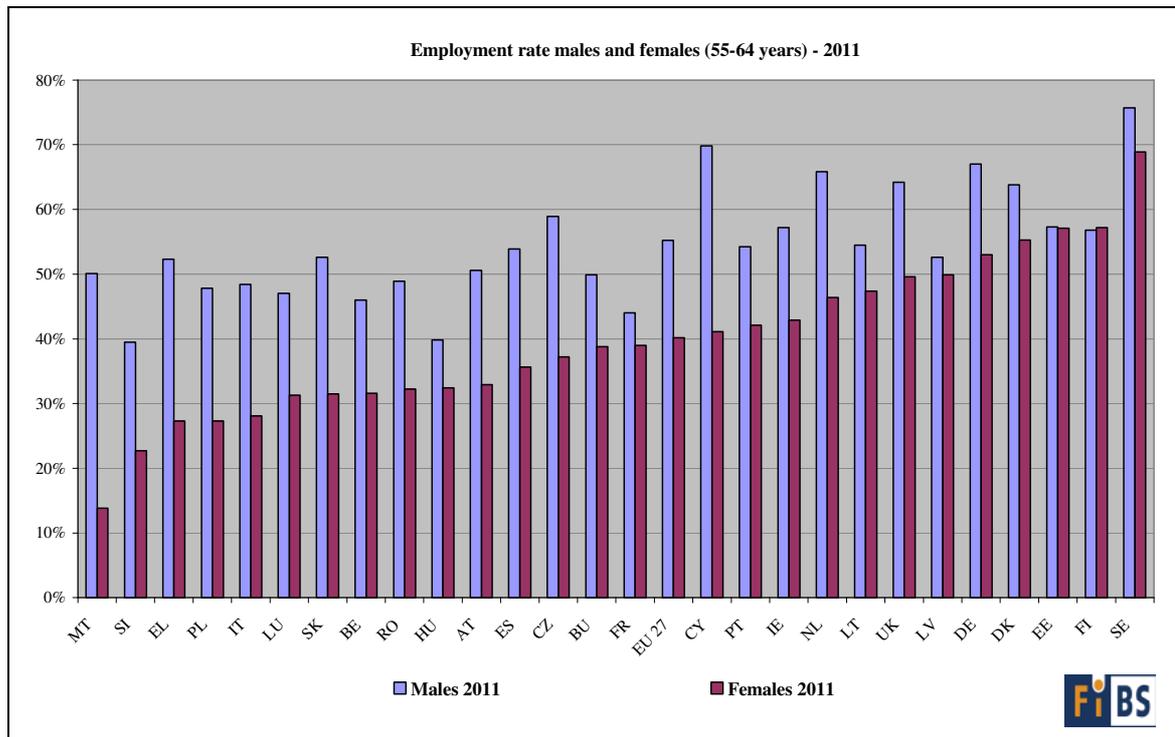


Figure 69: Employment rates by of age cohort 55-64 by gender – 2011. Source: LFS, Eurostat.

In most European countries, the average effective age of retirement is between 58 and 62 years. As there are no general European statistics about retirement rates, the European rate of inactive persons¹⁴⁷ may help to overcome this bottleneck. Only male people were considered in the inactivity rates, as the inactivity rate of women is substantially higher (being housewife or houseman in the EU definition is not an economic activity). Figure 70 shows that 40.5% of older male belong to the group of inactive persons. Countries with very low inactivity rates for older male are Sweden, Cyprus and Germany with less than 30 percentage points. Hungary and Slovenia have extremely high inactivity rates with over 56%. In an even older age group of people between 65 and 74, inactivity among men increases compared to the group of the older people. The EU average rate is 89.3%. Countries with the lowest rates in this older age group are Portugal, Romania and Cyprus with below 80%; those with the highest rates are France, Slovakia, Spain and Belgium with over 95%.

¹⁴⁷ Definition of "inactive person": A person is economically inactive, according to the International Labour Organisation's definition, if he or she is not part of the labour force, i.e. inactive people are neither employed nor unemployed. The inactive population can include pre-school children, school children, students, pensioners and housewives or -men, for example, provided that they are not working and not available or looking for work either; some of these may be of working-age. (source: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:Inactive)

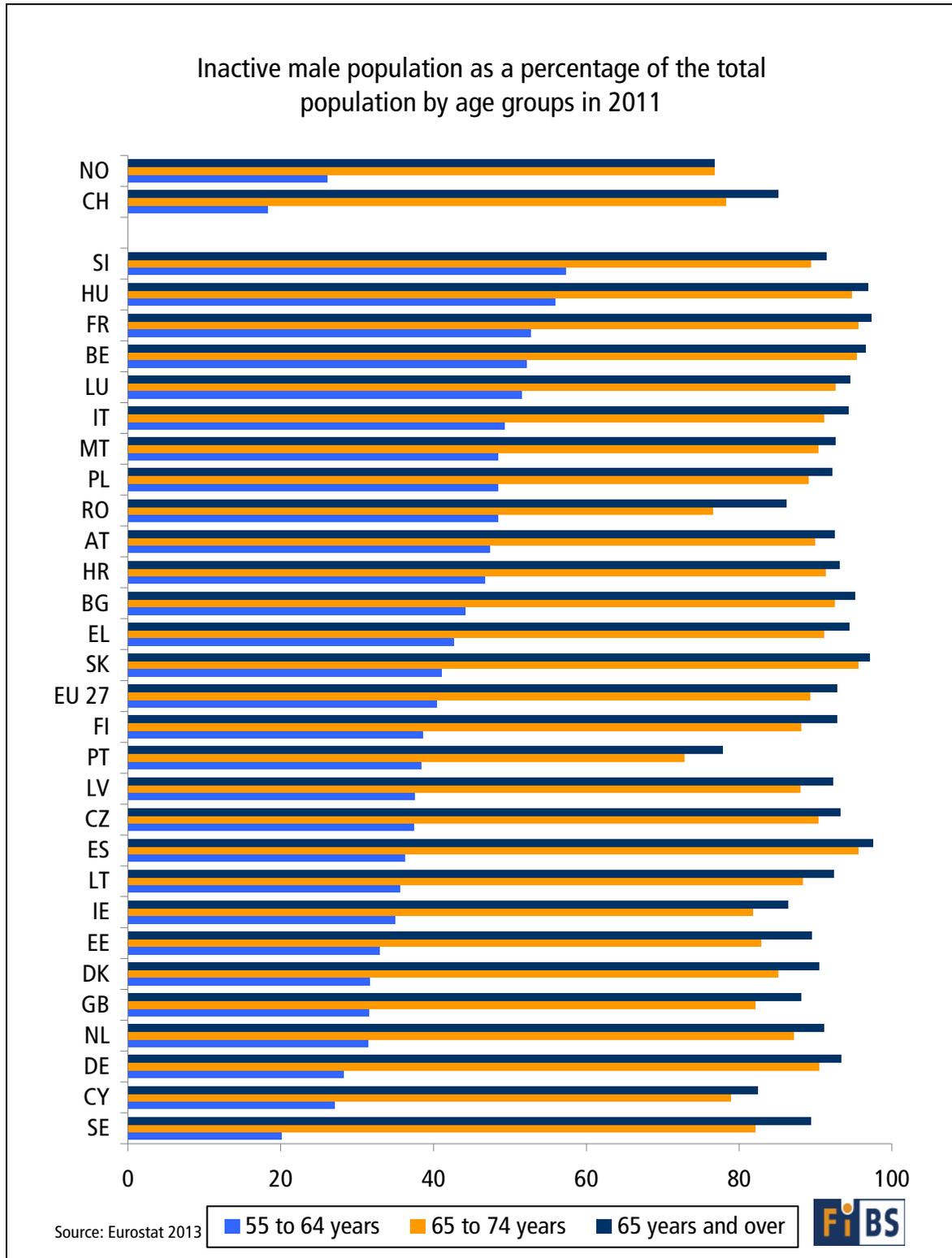


Figure 70: Inactive male population as a percentage of the total population by age groups in 2011.

Qualification structure

As can be seen in Figure 71, the percentage of older people (55-64 years) who have attained at least upper secondary education is much smaller in all countries than in the

younger cohorts, though the share varies a lot across countries. While the USA and several other countries (CZ, EE, SK, DE, CAN, CH) have reached a share of more than 80% already in the cohort aged 55 to 64, Portugal and Turkey are below 20%, Spain and Italy below 30%. It might be worth to note that in these countries, as well as in Greece, even the age group 25 to 34 has not yet reached the 80% level; instead Portugal has just surmounted the 50% threshold, Spain the 60% and Italy the 70% mark. This clearly suggests that the high youth unemployment rates in these countries are also a matter of limited qualification, though only to some extent.¹⁴⁸

The complementary image of Figure 71 has been implicitly shown above for the low qualified; Figure 71 shows also that the share of low qualified older people increases from the left to the right and it is important that the share among low qualified male is usually lower, while that of female is much higher than the average shown in the Figure 71. Vice versa, this means also that the share of female with at least upper secondary education is lower than depicted in Figure 71. Not surprisingly, the core message of this figure is that large parts of the older cohorts are low qualified. Because low qualified people participate much less in adult learning than the medium and highly qualified (see section 2 in this regard), this is even more valid for retired groups.

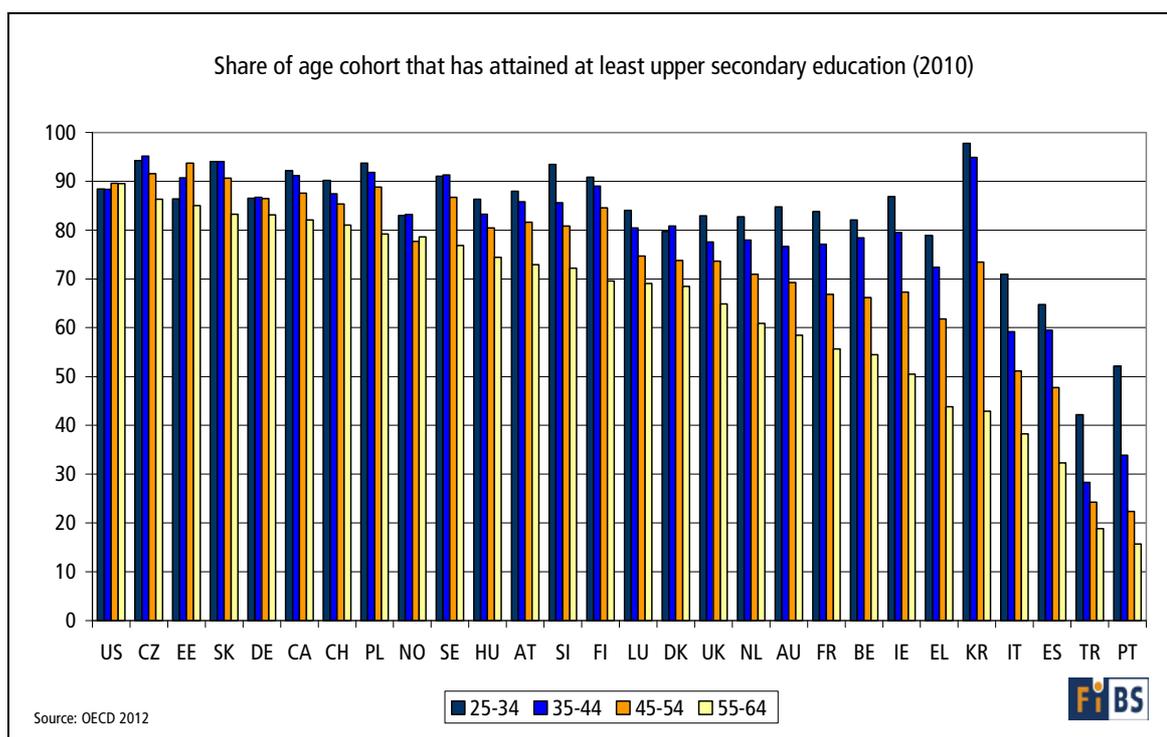


Figure 71: Share of the population that has at least upper secondary education attainment by age (2010).

¹⁴⁸ In contrast, it might be worth noting that the low youth unemployment rates in some other countries are kept 'artificially' low by special programmes for young people, with very limited effect in relation to getting into employment.

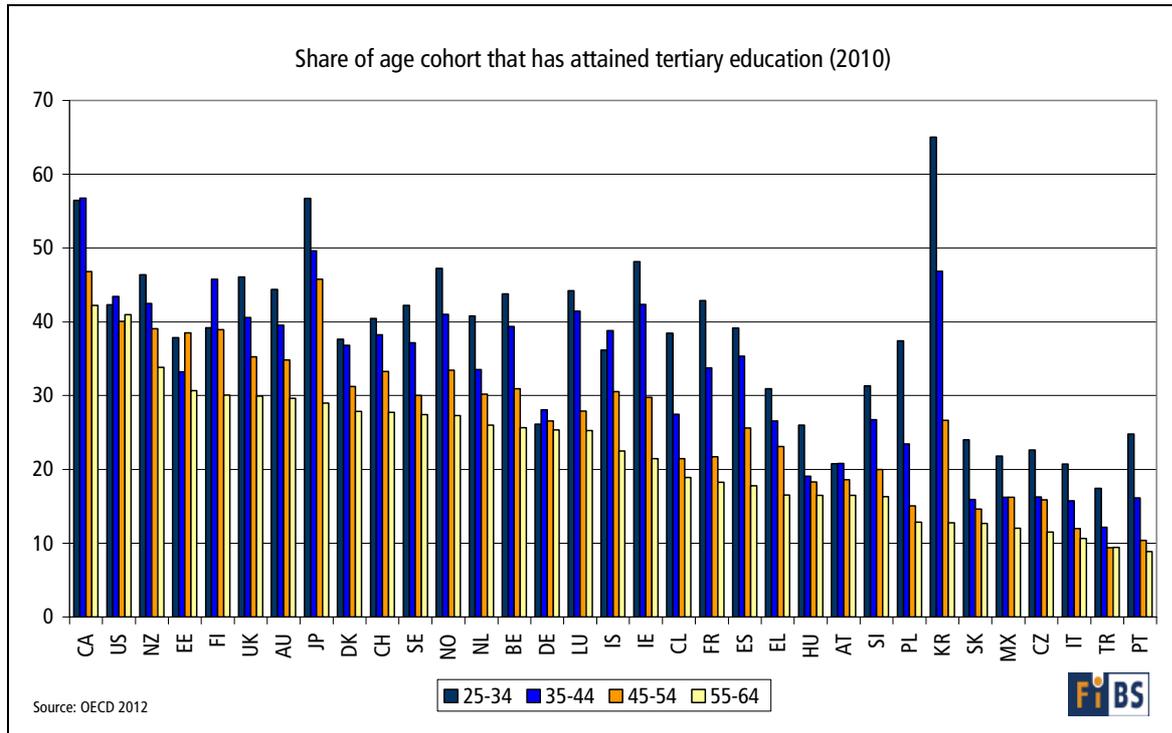


Figure 72: Share of the population with tertiary education attainment by age (2010).

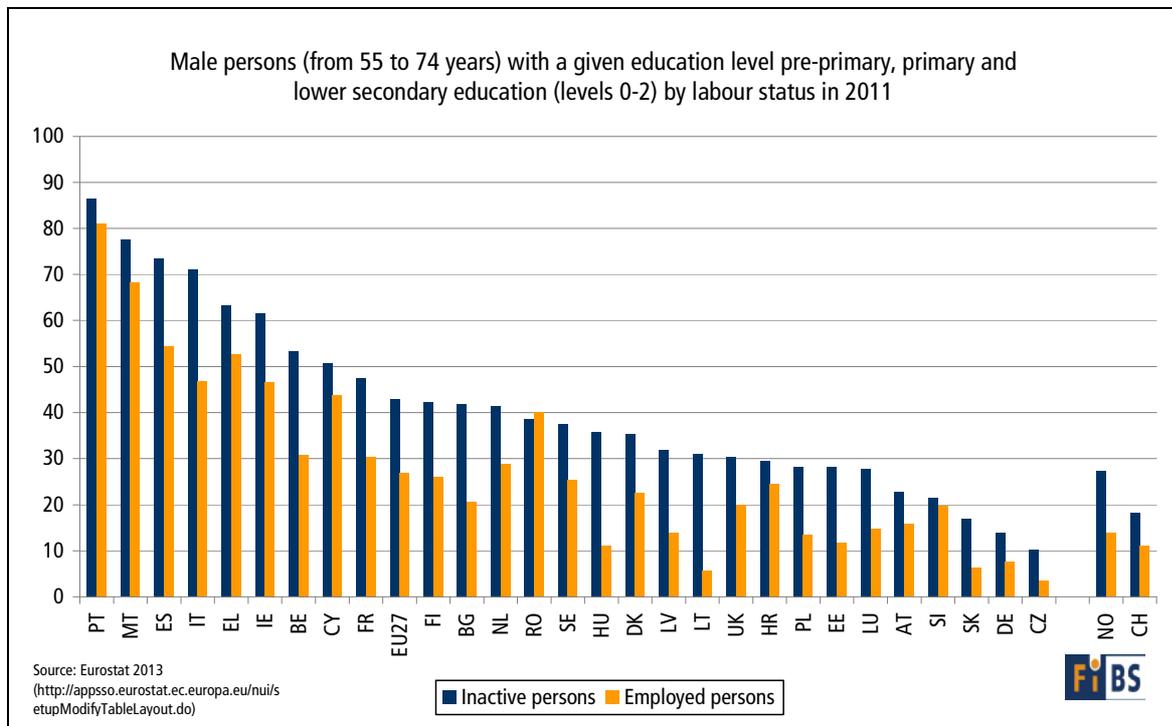


Figure 73: Male persons (from 55 to 74 years) with a given education level pre-primary, primary and lower secondary education (levels 0-2) by labour status in 2011.

Figure 72 presents the share of the population that has attained tertiary education, indicating that the overall picture does not change very much; commonly countries having comparatively high levels of upper secondary education attainment show also high

shares of tertiary attainment. Though, some important variations can be observed, for example, SK and CZ show rather low rates of tertiary education attainment among the older as well as the younger cohorts; also the UK and DE show modest rates compared to the previous figures. In contrast, Australia has moved upwards.

Eventually, it might be worth noting that some countries reached tertiary education attainment levels of 40% already for those aged 55-64, while many European countries have not yet reached this level for their youngest cohorts. However, this is largely due to very different education and training systems.

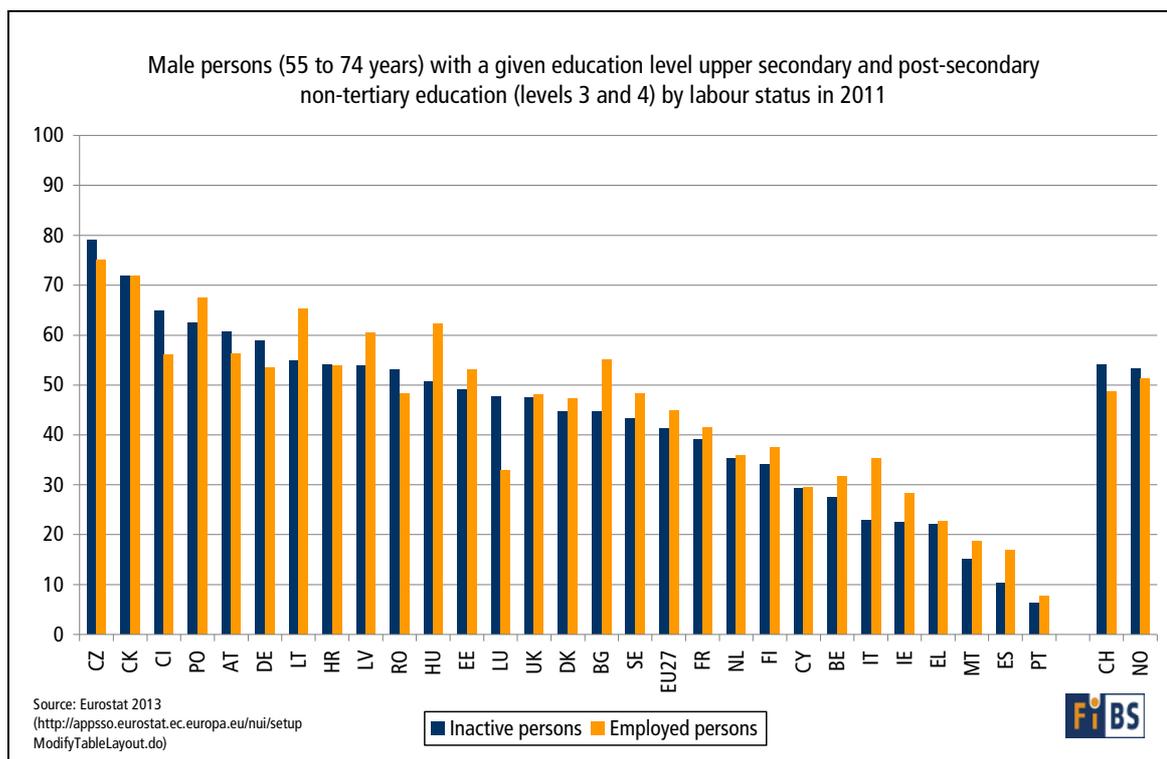


Figure 74: Male persons (55 to 74 years) with a given education level upper secondary and post-secondary non-tertiary education (levels 3 and 4) by labour status in 2011

Looking at the retired persons, again the group of inactive persons in the group of older people is interesting to consider.¹⁴⁹ Figure 73, Figure 74 and Figure 75 show this age group in different European countries across three educational levels. The percentage of inactive persons in the EU average decreases with increasing education. Whereas older persons with the lowest educational level (pre-primary, primary and lower secondary education, see Figure 73) have an average inactivity rate of 42.9%, those upper secondary or post-secondary non-tertiary education (see Figure 74) have a rate of 41.3%: However, the largest difference can be observed for those with the highest educational qualification, whose inactivity rate is only 15.8% (see Figure 75). It can be assumed that retired people and inactive persons in the age group of 55 to 74

¹⁴⁹ In Figure 73, 74 and 75 only the age group 55 to 74 was available in the Eurostat statistics, therefore older people are here as an exception not only those in the group of the 55 to 64 year old people but also those until the age of 74.

are highly overlapping. This means that people with higher education retire later than those with a lower level of education. One issue here is that low-qualified people work more often in physical demanding jobs, in which they are not able to stay for such a long time as people working in more mentally demanding jobs.

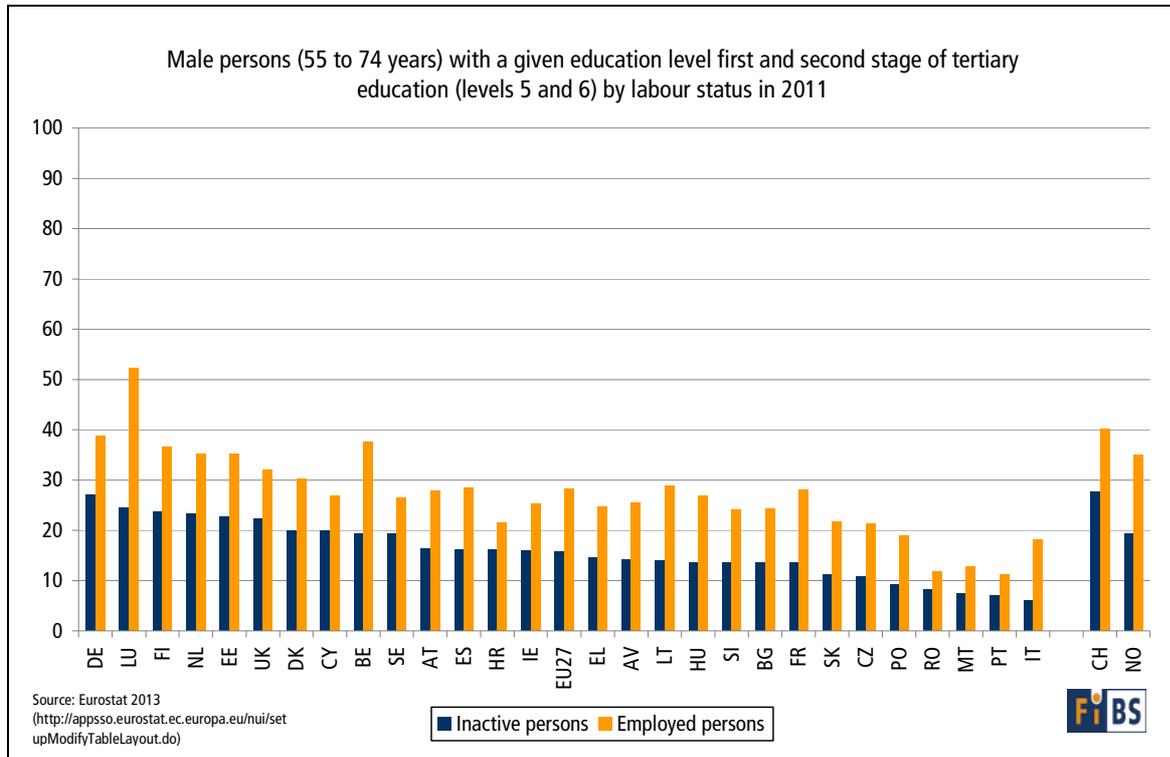


Figure 75: Male persons (55 to 74 years) with a given education level first and second stage of tertiary education (levels 5 and 6) by labour status in 2011.

Employment rates

The average employment rate of older workers in the EU¹⁵⁰ is 47.4%. Sweden, Germany and Denmark have the highest rates with 72.3%, 59.9%, and 59.5% (see Figure 76), though the gap between SE and the other countries is already huge. Similar rates than for Sweden can be observed in the EEA countries Norway and Switzerland, while Japan, Korea, Australia and the US reveal similar or slightly higher levels than Germany and Denmark. The lowest rates show up for Slovenia and Malta with 31% and 32%, followed by Hungary, Poland, Italy and some other countries which are still below the 40% mark. Even without presenting detailed figures, it is evident that the

¹⁵⁰ The employment rate of older workers is calculated by dividing the number of persons in employment and aged 55 to 64 by the total population of the same age group. The indicator is based on the EU Labour Force Survey. The survey covers the entire population living in private households and excludes those in collective households such as boarding houses, halls of residence and hospitals. Employed population consists of those persons who did any work for pay or profit for at least one hour during the reference week, or were not working but had jobs from which they were temporarily absent (source Eurostat 2012).

employment rates of female will be lower than those shown in the Figure 76, while that of men are higher.

Comparing these rates with age groups beyond age 65 (see Figure 77), the employment rate decreases rapidly. In the group of people aged 65 years and older, the EU average rate of employment is 4.9%. However, the country figures vary a lot. For example, the employment rate among the elderly (55 to 64 years) in Finland is 57%, whereas in the group aged 65 to 69 12.8% are still employed, and in the group 65 to 74 only 9.1% are still employed.

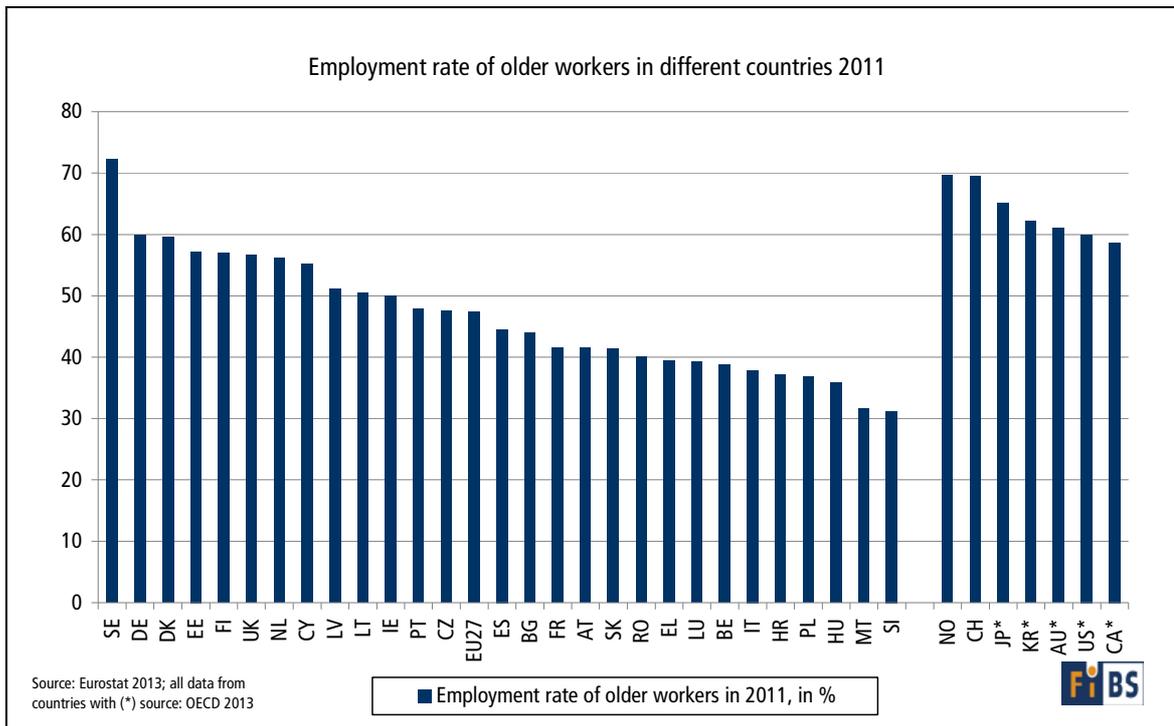


Figure 76: Employment rate of older workers in different countries 2011.

Considering the groups aged 65 to 69 and 65 to 74, the employment rates are still higher than in the “general” group of 65 years and older (see Figure 77). Countries with high employment rates beyond the age of 65 are Portugal (14%), Romania (11%), Cyprus (11%), Estonia (10%), Ireland (9%), and the United Kingdom (9%). However, their rates are still lower than the top non-EU country Norway with 20%. Countries with very low employment rates beyond the age of 65 are Slovakia and Spain with 2%. Hungary, France, Belgium, Bulgaria and Greece are still under the rate of 3%.

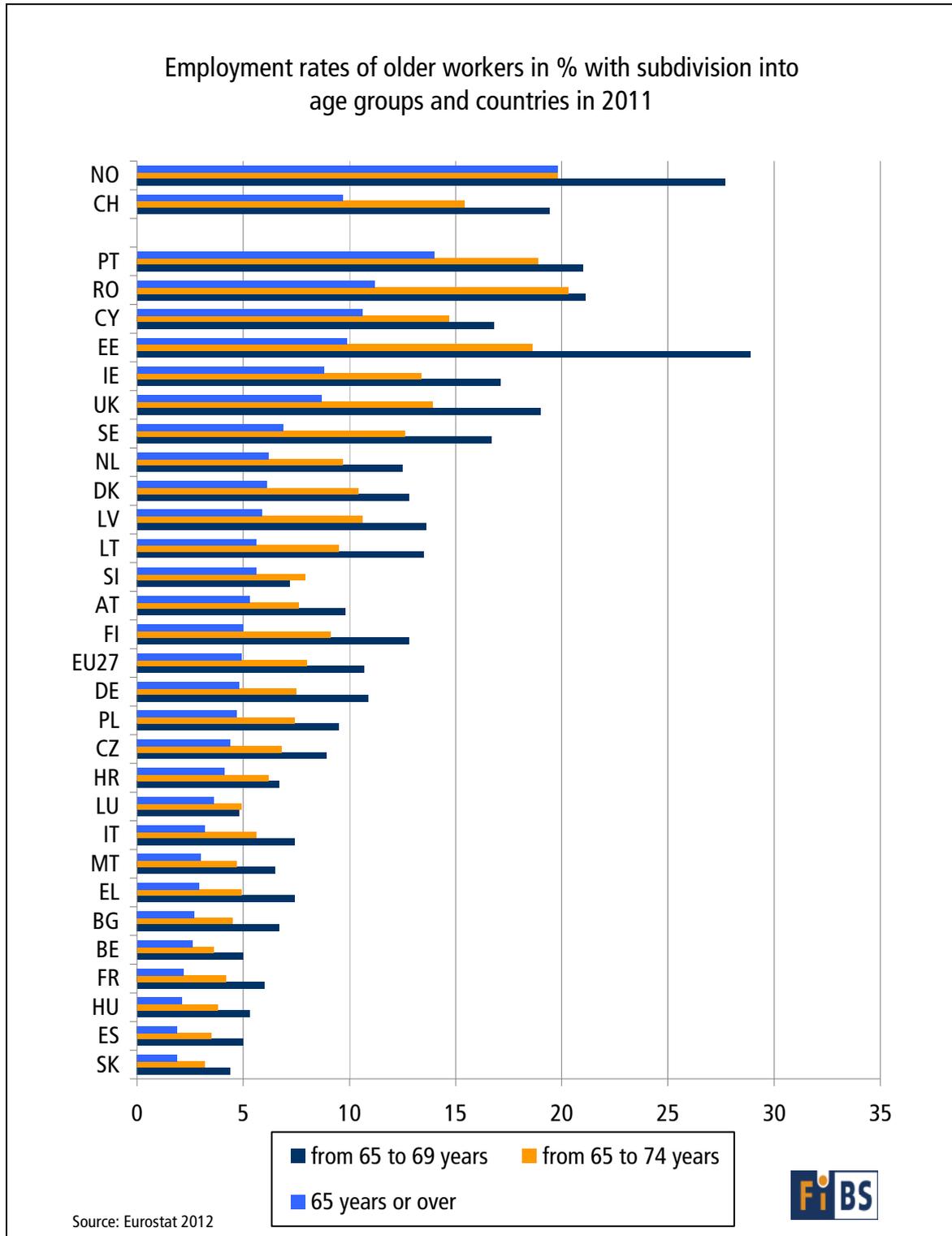


Figure 77: Employment rates of older workers in% with subdivision into age groups and countries in 2011.

Retirement age and early retirement

Official retirement age in Europe varies across countries. Most EU countries have an official retirement age of 65 years; some have an official retirement age even be-

yond, e.g. Ireland. However, some countries still have official retirement ages below 65, e.g. Estonia, Czech Republic, Slovenia, Slovakia, Hungary and France (see Table 27). In response to the economic development of the last year(s) and because of demographic change, some countries increased their official retirement age for future generations. According to the European Commission (2012), most EU citizens (61%) agree that one should be able to work past the official retirement age, if this is required. However, there are large differences between countries. At one end of the scale, nine out of ten respondents in Denmark and the Netherlands feel they should be able to continue working, whereas in Greece, Slovenia, Romania and Italy around two thirds feel they should not.

According to Eurofound (2010), almost 60% of workers in the EU27 feel that they will be able to carry on their current job at the age of 60. This number has risen marginally since the year 2000, from 57% to 59%. Unsurprisingly, workers in different sectors feel differently: Around 72% of highly skilled clerical workers and 61% of lower-skilled clerical workers say that they could accomplish their current job at age 60. However, this is the case for only 49% of highly skilled manual workers and 44% of lower skilled manual workers. Agreement declines with qualification on the one hand and with the physical demand of the job on the other.

Even though the readiness to work at older ages increases, the problem of early retirement persists all across Europe. In fact, real retirement age is often much lower than the legal retirement age. As can be seen in Table 27, European countries mainly have an effective exit age between 58 and 64 years which is clearly below the official retirement age. Countries with the highest effective exit age are Sweden, Portugal, Estonia, the Netherlands, United Kingdom, Denmark and Ireland with rates above 63 years. In Sweden, Portugal and Estonia the effective retirement age is even above the official one. The lowest effective exit age from labour market can be found in Luxembourg, France, Belgium, Hungary, Austria, Slovakia and Italy with an average age below 61 years. In contrast, effective retirement is extremely high in some non-European countries, such as Korea and Japan, for example, with 71.4% and 69.3%. In the United States and in Switzerland, the effective retirement age is above 65 years. Table 27 reports also that effective retirement age varies substantially between male and female. Women retire between one and two years earlier than men in most countries. However, in France, Finland, Ireland and Luxembourg female retire slightly later than male.

One can assume that social, legislative or economical structures in the countries contribute to effective retirement age. In some countries people are even not allowed to work beyond legal retirement age, for example when they work as civil servants or are members of a trade/labour union.

Average effective age of retirement versus the official age, 2006-2011 ¹⁵¹					
Men			Women		
	Effective	Official			
			Effective	Official	
Korea	71,4	60	Korea	69,9	60
Japan	69,3	64	Japan	66,7	62
Sweden	66,3	65	Portugal	65,1	65
Portugal	66,2	65	United States	64,8	66
New Zealand	65,9	65	Sweden	64,4	65
Switzerland	65,5	65	Norway	64,3	67
United States	65,2	66	Switzerland	64,1	64
Australia	65,2	65	Ireland	63,5	66
Estonia	64,5	63	Spain	63,4	65
Norway	64,2	67	Australia	62,9	64
Canada	63,8	65	Estonia	62,6	61
United Kingdom	63,6	65	Canada	62,5	65
Netherlands	63,6	65	United Kingdom	62,3	60,7
Denmark	63,5	65	Netherlands	62,0	65
Ireland	63,3	66	Finland	62,0	65
Czech Republic	62,6	62,30	Germany	61,4	65
Spain	62,3	65	Denmark	61,4	65
Germany	61,9	65	Greece*	59,9	62
Greece*	61,8	65	France*	59,5	60
Finland	61,8	65	Poland	59,4	60
Slovenia	61,7	63	Italy*	59,2	60
Poland	61,5	65	Czech Republic	59,1	61
Italy*	60,8	65	Belgium*	59,0	65
Slovak Republic	60,4	62	Hungary	58,9	63
Austria	60,4	65	Luxembourg	58,6	65
Hungary	60,4	63	Austria	58,4	60
Belgium*	59,6	65	Slovenia	58,0	61
France*	59,1	60	Slovak Republic	57,7	62
Luxembourg	58,0	65			

*For Belgium and France, workers can retire at age 60 with 40 years of contributions; for Greece, at age 59 with 35 years of contributions; and for Italy, at age 57 (56 for manual workers) with 35 years of contributions.

Table 27: Average effective age of retirement versus the official age. Source: OECD estimates derived from the European and national labour force surveys (http://www.oecd.org/els/emp/Summary_2011+values3dec2012.xls, 04.04.2013).

¹⁵¹ "The average effective age of retirement is defined as the average age of exit from the labour force during a 5-year period. Labour force (net) exits are estimated by taking the difference in the participation rate for each 5-year age group (40 and over) at the beginning of the period and the rate for the corresponding age group aged 5-years older at the end of the period. The official age corresponds to the age at which a pension can be received irrespective of whether a worker has a long insurance record of years of contributions." (URL: http://www.oecd.org/els/emp/Summary_2011+values3dec2012.xls (04.04.2013))

Statistical analyses

To complete the analyses of participation in adult learning by old(er) adults, educational attainment and labour status, bivariate and multivariate analyses were conducted within the context of this study, which arrived at the following results.

When regarding the relationship between participation in adult learning and educational attainment¹⁵² for adults aged 55 to 64, a positive relationship is suggested for the share of (older) adults with first and second stage tertiary education (ISCED levels 5 and 6) and (AES/OECD or LFS) participation in adult learning, even after accounting for differences in economic performances between countries. Consequently, countries with higher shares of high qualified old(er) adults appear to also be those with higher participation rates in adult learning. The opposite holds when regarding the AES/OECD 2007 participation of the same age group of adults, yet with a primary education level. Here a significant negative relationship is observed, even after controlling for GDP per capita. This in turn suggests that participation in adult learning is not (as) common amongst old(er) low qualified adults, and consequently, lower in countries with high shares of this particular group. 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 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 for, 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 the importance of lifelong learning, i.e. highly educated individuals continuing to engage in further education and training with old(er) age.

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 likely to increase participation rates of older people in adult learning.

6.3.4 Older and retired learners: Participation, motives, and barriers

The subsequent chapter deals with the learning of older and retired people, their participation, preferences, and motives for learning, as well as barriers for participation in adult learning.

¹⁵² Data based on Eurostat figures on persons with a given education attainment level by sex and age groups.

Participation rates in adult learning

As presented more in detail in section 2.3, participation rates in adult learning went up from 35 in 2007 to 41% in 2011, according to AES. Dividing the overall picture into different rates for formal and non-formal adult learning reveals that average rates in formal learning decreased from 6.6 to 4.9%, which was over-compensated by an increase in non-formal learning from 31.3% in the AES 2007 to 38.4 (see Figure 78) (values do not add-up because of people participating in formal as well as in non-formal adult learning are counted twice; this concerns 3.0% in 2007 and 2.5% in 2011). Considering only the people aged 55 to 64 years the average rate in non-formal adult learning increased from 19.8% in 2007 to 25.7% in the AES 2011, whereas the average participation rate in formal adult learning decreased from 2 to 1% (no more detailed figure available). Figure 78 reveals also that participation rate in non-formal learning drops dramatically between age groups 45-54 and 55-64, while the decline is much lower in absolute terms for formal learning; however, in relative terms drop is much larger.¹⁵³

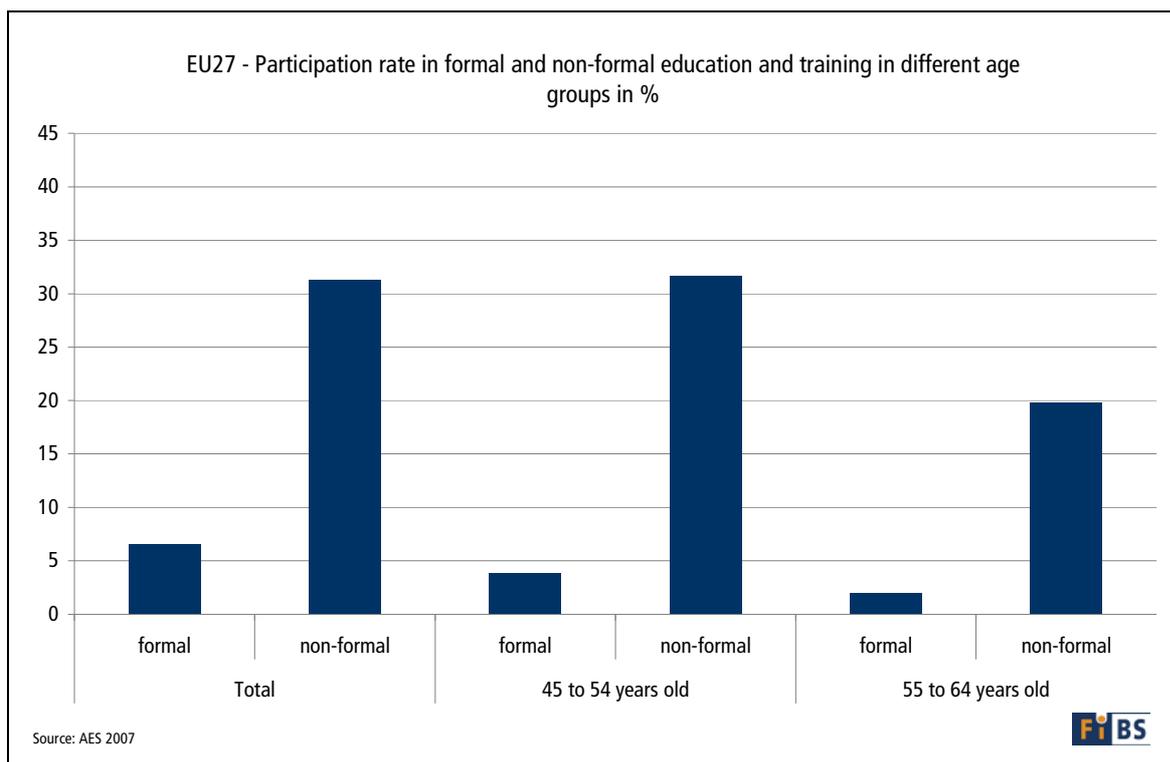


Figure 78: EU27 - Participation rate in formal and non-formal education and training in different age groups in%.

Figure 79 below reviews changes in the participation rates of older people by country and region, revealing a similar pattern than for all adults. Participation rates of older people increased in almost all Western and Southern European countries, as above

¹⁵³ Reviewing LFS 2010 confirms that the participation rate decreases by age. Across EU27, the participation rate of adults aged 45-54 years is above 7% whereas it is below 4% for adults aged 55-64. This holds for all countries and regions in Europe.

apart from Belgium and Greece. A different pattern can be observed in the Northern countries, where rates dropped in SE and NO (while overall rate increased in NO). Though the newer member states can be again divided into two groups, the number of countries with declining rates is much higher for older people. Increasing rates are visible for EE, HU, SI and PL (with SI showing decreasing overall rates), whereas rates for older people declined in SK, CZ, LV, LT, BG and RO (with RO diverging from above). This suggests that disparities in participation rates grew in some countries.

In relation to participation in (general) adult education and (vocational) training, this trend is even more visible in Finland, where the group of people aged 55 to 64 has a participation rate of only 33% compared to the group of people aged 45 to 54 with a participation rate of 56%. Especially pensioners have a low participation rate; 21% in contrast to students with a participation rate of 57% (Heinonen 2007, orig. Statistics Finland).

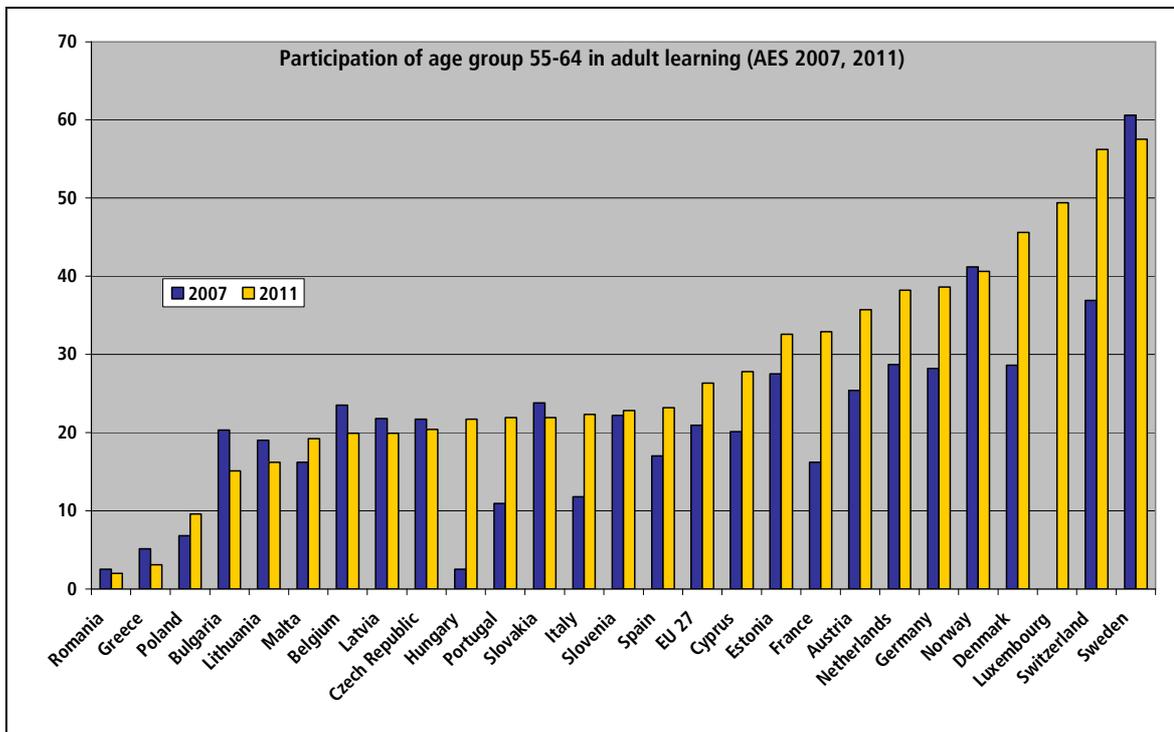


Figure 79: EU27 - Participation rate in formal and non-formal education and training in different age groups in %.

Comparing the EU countries as well as some other countries, the participation rate in non-formal education among the elderly in 2007 varies strongly (see Figure 80). The top country for participation in non-formal education and training for older people as well as for the general population is Sweden with a participation rate of 60.1%. Norway and Finland follow with 40.3% and 37.1%. At the end of the scale are countries like Greece, Hungary and Romania with participation rates among the elderly below 6%.

Not surprisingly, a close relationship can be identified between the general participation rate and the participation rate of older people in a country; the issue will be further discussed below. The results of the AES 2011 (see Figure 81) show a general trend for

an increase of the participation rate among the elderly. The EU 27 average rate increased from 19.8% to 25.7% in the group of the older people. In some countries the increase is even higher. For example, participation of the older people increased in the Netherlands by 7.5, in Germany 10.9, in France 16.8 and in Denmark even 17.1 percentage points.

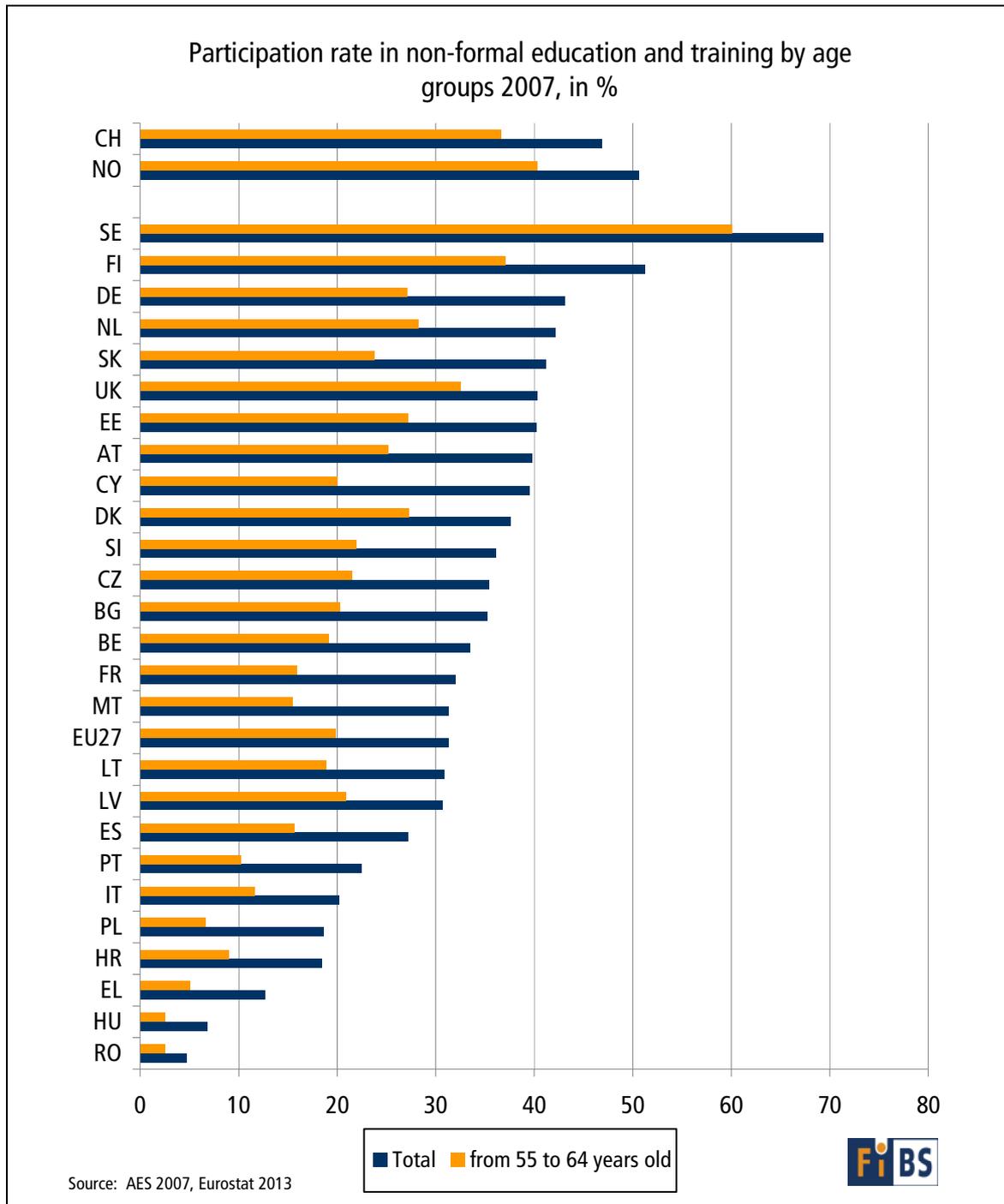


Figure 80: Participation rate in non-formal education and training by age groups in%.

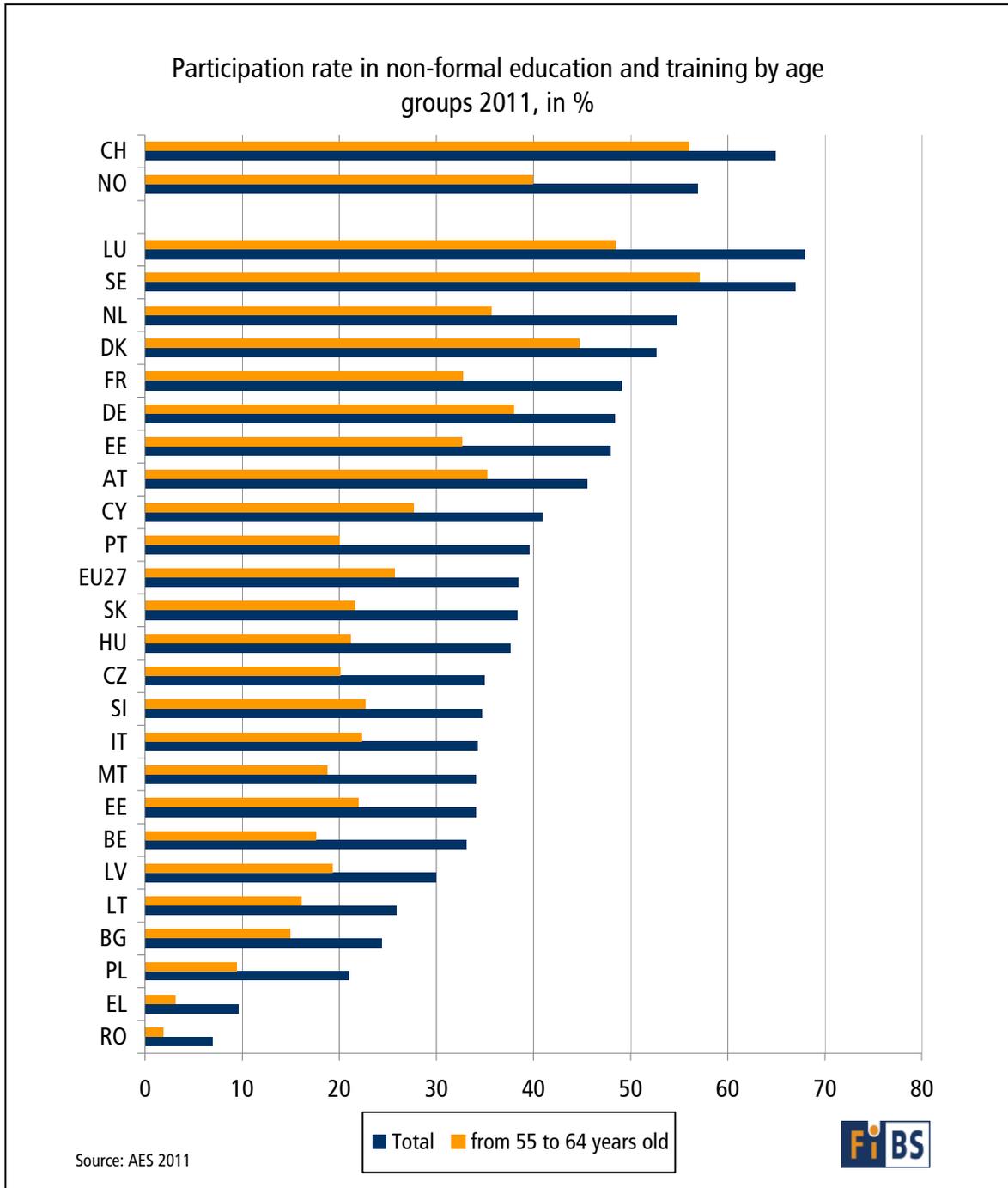


Figure 81: Participation rate in non-formal education and training by age groups in%; not all countries were available at editorial deadline.

An interesting question is, what do the changes in participation rates mean for differences across age cohorts, i.e. has the gap between the high participation group of young people aged 25-34 and the older people aged 55-64 widened or narrowed? Figure 82 provides evidence that the gap has narrowed on average across all European countries for which AES 2011-data is readily available. Furthermore, the gap narrowed substantially in AT, DE, CH, DK, IT, MT and CY, where the orange bar at the right side is much higher than the left blue bar. However, some countries show increas-

ing differences, such as, for example, BE, RO, LT, LV, CZ, SK, EE, NO, SE and EL. Thus, the gap has widened in the vast majority of newer member states, but also in two Nordic countries, whereas in narrowed in almost all Western and Southern European countries.

Considering formal education, for both – AES 2007 and 2011 – only a few country statistics were available. The European average rate for older people in 2007 was only 2%. For the few countries where numbers of formal education and training of the elderly were available for 2007 and 2011, no general trend can be identified. Three of them have an increasing participation among the elderly (Spain, Portugal and the Netherlands), however two of them have decreasing rates (France and Belgium).

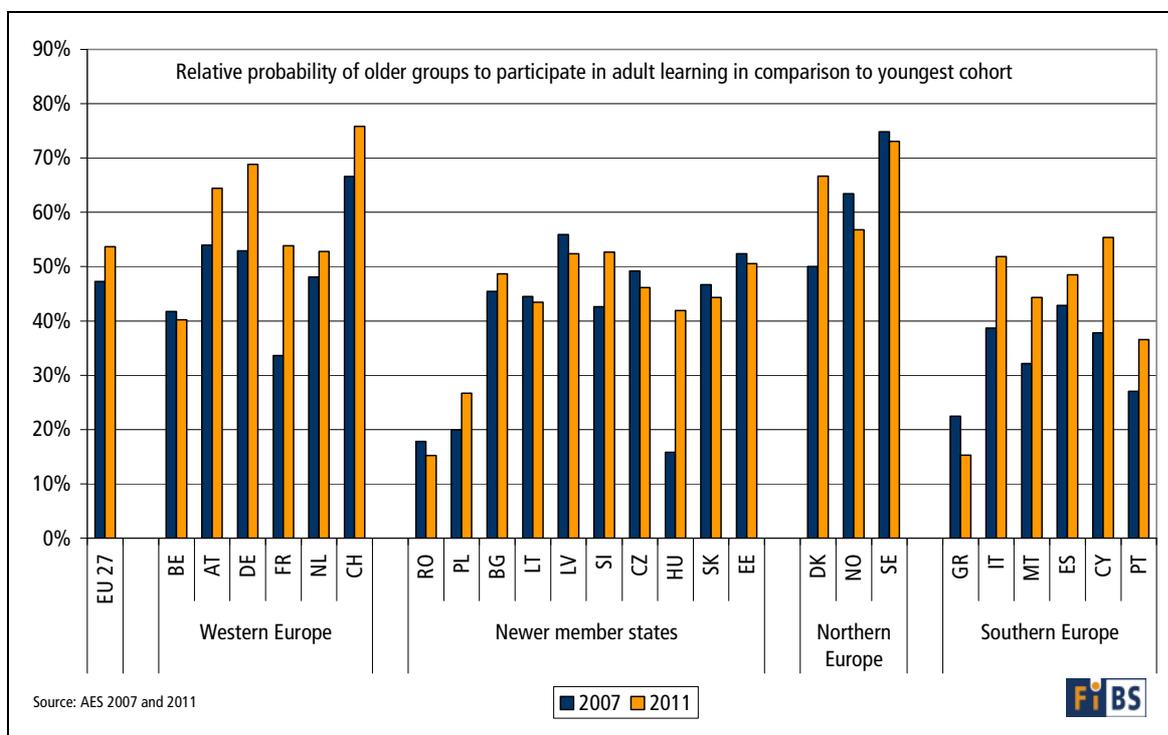


Figure 82: Relative difference between youngest and oldest age cohort to participate in adult education.

When reviewing the patterns in the previous paragraphs and figures, it might be worth noting that research from Germany (Schröder et al. 2004) as well as from international organisations and researchers (OECD 2004; Hansson 2008) suggests that age itself does not explain the low participation rate, when controlled for other factors. This finding seems to be confirmed, when comparing the participation rates in non-formal education in different countries with the average exit age from the labour market in those countries, it can be noted that there seems to be a causal link between those two states. The top country with regard to participation, Sweden, has also the highest average exit age from labour market in Europe. The Netherlands and the United Kingdom have also high participation rates and are in the group European countries with the highest exit age from labour market, as well as Norway as a non-EU-member state. This suggests that a causal link between employment and education and learning exists, and that learning mainly happens because of reasons which are job-related. In

those countries, in which a high number of older people are still working, the participation in non-formal education and training of the elderly tends to be higher. However, there is also a country contradicting this theory: Portugal has a relatively high exit age from the labour market but a low rate of participation in non-formal education and training among the elderly, here low educational attainment may overcompensate labour market exit age.

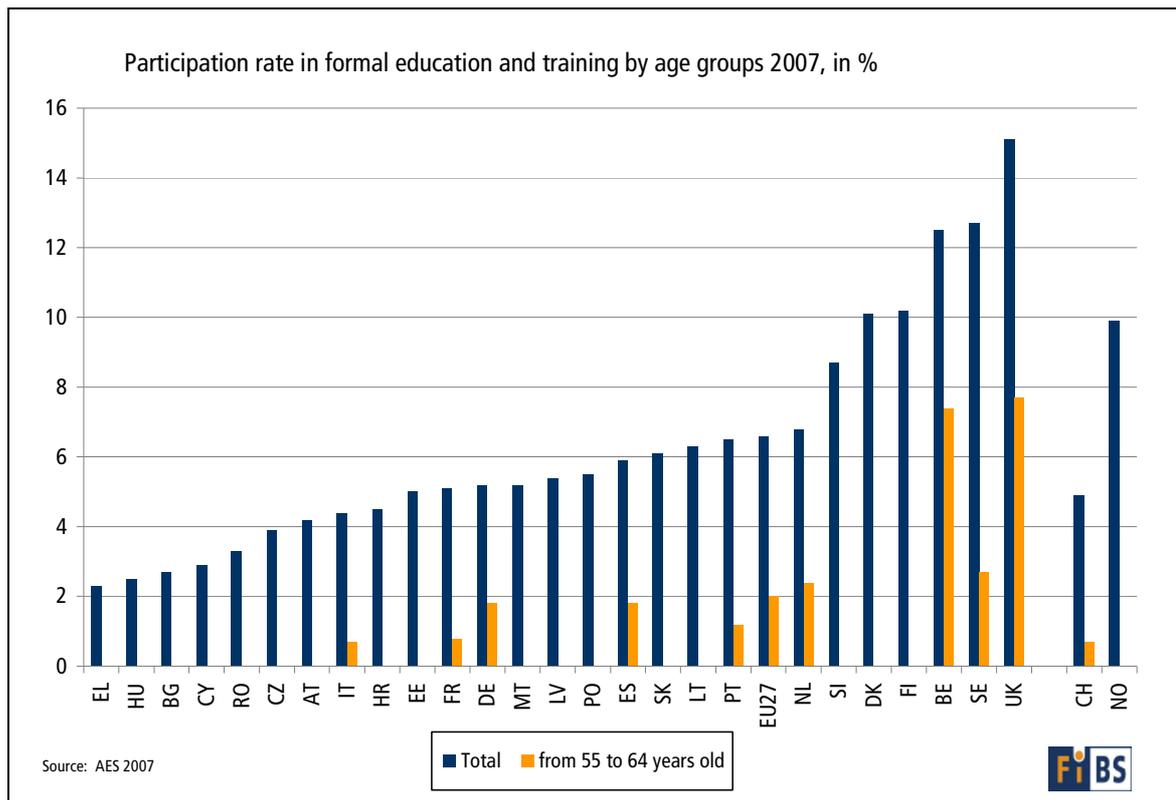


Figure 83: Participation rate in formal education and training by age groups in%; not all age groups of countries were available.

Returning to the previously mentioned possible positive relation between the general participation rate in education and training and the participation among the elderly, Figure 85 reveals a strong nexus, suggesting that participation rates of older people in adult learning depend on employment. While the previous figure refers to AES 2011 and LFS 2010, the following Table 28 refers to AES data from 2007. The participation ratio in Sweden and United Kingdom are ahead with a high participation ratio, closely followed by Denmark and Finland. In those countries, the difference between the general group and the group of the older concerning participation in non-formal education and training is not very large – or in other words – the participation of the older people does not decrease much compared to the general participation. In contrast, Poland, Hungary, Greece, Portugal, Croatia, Malta and France have a very low participation ratio, meaning that there are larger differences between participation rates of the general group and the group of the older people concerning participation in non-formal education and training. In general, mainly those countries are ahead in the participation

ratio, which are also ahead in the general participation rate of the elderly. Similarities can also be seen between the order of the countries in Table 28 and those countries with a relatively high effective exit age from labour market, which suggests a connection between participation in education and employment status.

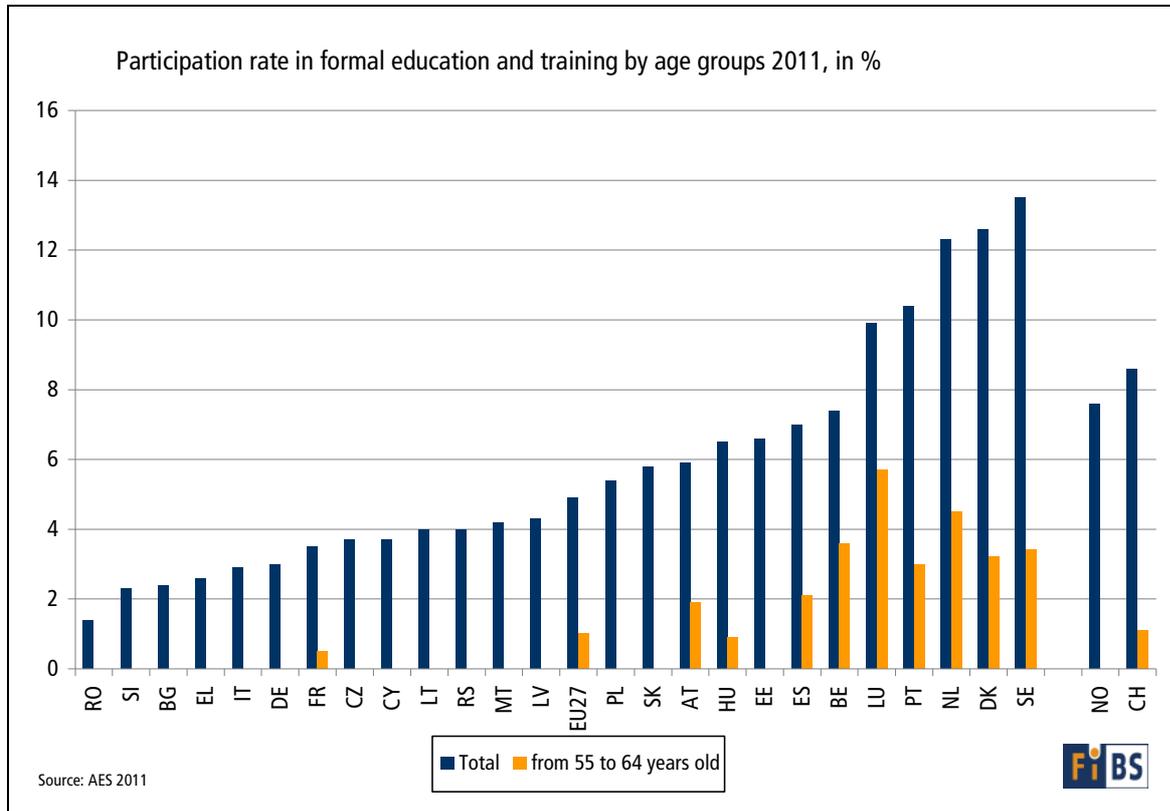


Figure 84: Participation rate in formal education and training by age groups in%; not all countries were available at editorial deadline.

The participation in non-formal education of retired people in the age group of the older people is 9.6% in the AES 2007¹⁵⁴ (see Figure 86). This is much lower than the average rate of participation in non-formal education and training of older people which was 19.8% in the AES 2007 and 25.7% in the AES 2011, as mentioned before. People still carrying out a job or a profession have clearly the highest participation rate in non-formal education and training among the elderly with 33.9%, what is above the average participation rate of older people. This leads to the assumption that non-formal education and training is needed by people mainly in professional contexts or that it is demanded by their employer or also that people can afford non-formal education easier when they are still in a profession (because of the own financial situation or because

¹⁵⁴ In the following text, data from the 2007 Adult Education Survey (AES) is used. The analysis of the AES data cited in this text lies in the responsibility of the Germany Institute for Adult Education (DIE). The data is weighted by COEFINDW (whole part of the final weighting factor for individual) and COEFINDD/1000 (decimal part of the final weighting factor for individual). Eurostat has no responsibility for the results and the conclusions calculated and written by the authors of this text.

the employer pays (part) of the education/training). Some of those assumptions will be further discussed in the following chapters.

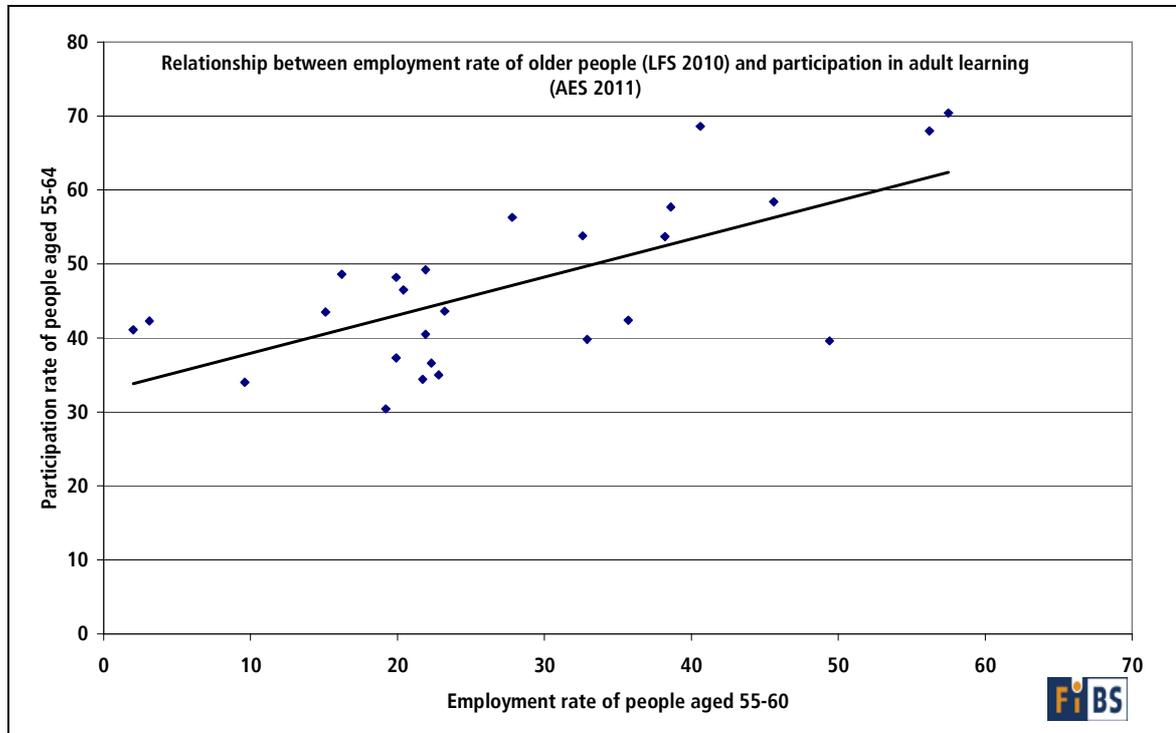


Figure 85: Relationship between employment rate of people aged 55-64 and AES 2011 participation rate.

Eventually, it is of interest to have a look at the mean time of instruction, where section 2.3 indicated that mean time decreased in many countries, particularly in those countries with increasing participation rates. Figure 87 shows firstly that the mean time of instruction is much lower for older people than for all adults; the blue bar on the left is much higher than the others bars, and particularly the right bar in yellow. Secondly, although the mean number of instruction hours increased across all countries, two groups can be identified – in the first groups the mean hours of instruction increased (e.g. in the Nordic countries, DK and SE, in Western European countries (e.g. DE), in several newer member states (CZ, HU, EE, SI) and in some Southern European countries (e.g. MT, CY). In contrast, mean hours of instruction decreased in some Western European countries (e.g. AT, BE), and particularly in newer member states (e.g. LT, LV, BG). Often this is in line with overall development, though not necessarily.

Country	Participation ratio
Sweden	0,87
United Kingdom	0,81
Denmark	0,73
Finland	0,72
Latvia	0,68
Estonia	0,68
Netherlands	0,67
Austria	0,63
EU27	0,63
Germany	0,63
Lithuania	0,61
Slovenia	0,61
Czech Republic	0,61
Slovakia	0,58
Spain	0,58
Bulgaria	0,58
Italy	0,57
Belgium	0,57
Romania	0,53
Cyprus	0,51
France	0,50
Malta	0,50
Croatia	0,49
Portugal	0,45
Greece	0,40
Hungary	0,37
Poland	0,36
Norway	0,80
Switzerland	0,78

Table 28: Participation ratio of different countries, participation ratio = Participation in non-formal education and training from 55 to 64 years old/ total participation in non-formal education and training. Source: Calculation by the authors with data from AES 2007, Eurostat 2012.

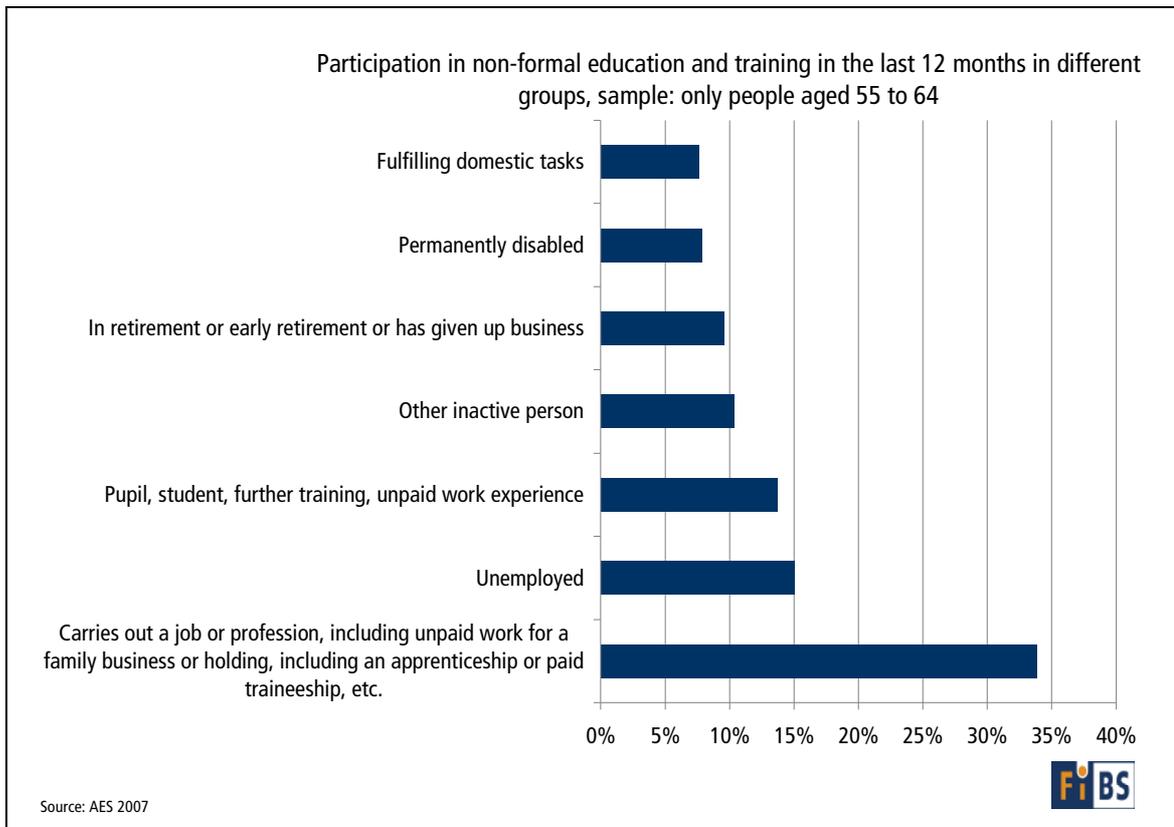


Figure 86: Participation in non-formal education and training in the last 12 months in different groups, sample: only people aged 55 to 64. Source: Calculation by the authors with data from AES 2007.

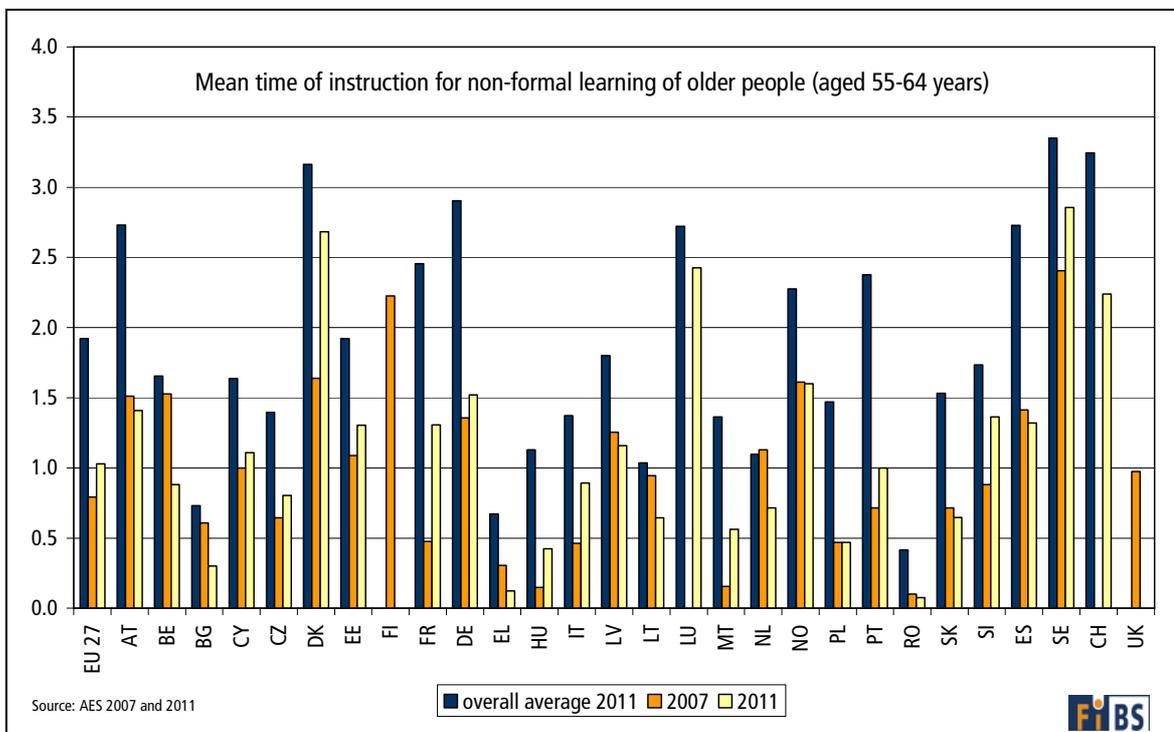


Figure 87: Mean time of instruction for older people (aged 55-64) 2007 and 2011.

Reasons for participation in adult education

In Figure 88 and Table 29, the reasons for participation in adult learning are listed. Elderly people tend not to have high percentages in reasons which are clearly job-related (first four reasons of Table 29). In contrast, the values concerning social reasons, such as “to meet new people or fun”, individual interest reasons like “increase knowledge [...] on a subject of interest”, or “to get knowledge and skills useful in the everyday life” are higher than most of the other reasons.

Reason for participating in non-formal adult education	All participants	55 to 64 years old	55 to 59 years old	60 to 64 years old
To do a better job or improve career prospects	41.6%	32.7%	36.1%	26.3%
To be less likely to lose a job	9.6%	7.7%	9.2%	5.1%
To increase possibilities of getting a job, or changing a job/profession	9.8%	4.3%	5.3%	2.4%
To start own business	2.2%	1.3%	1.5%	1%
Participation was obligatory	18.3%	20.9%	23%	17%
To get knowledge and skills useful in the everyday life	23.8%	22.3%	21.9%	23%
To increase knowledge or skills on a subject that interests the respondent	30.4%	31.3%	29.9%	33.9%
To obtain certificate	9.9%	6.3%	7.1%	4.8%
To meet new people or for fun	7.1%	9.1%	7.6%	11.9%
Other reasons	5.3%	6.2%	6.4%	68%

Table 29: Reasons for participating in non-formal adult education in different age groups, source: AES 2007.¹⁵⁵

¹⁵⁵ The survey asked for the main reasons of the first selected non-formal education activity of the participants. Only the answers of those participants were regarded who took part in at least one non-formal education activity.

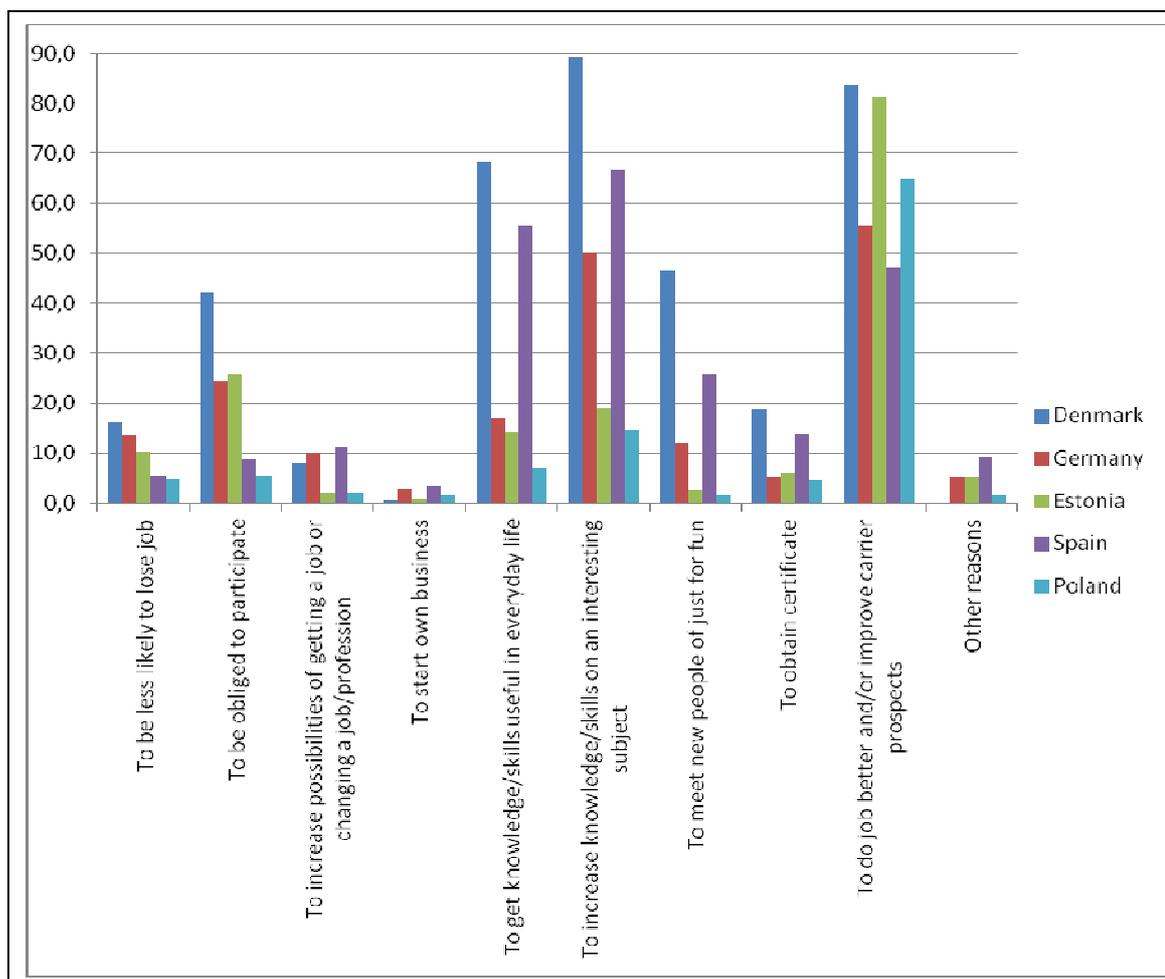


Figure 88: Reasons for participating in non-formal adult education and training in percent in the age group 55 to 64 years old in selected countries in 2007. Source: Eurostat 2012.

Reasons for non participation in adult education – financial barriers

In addition to the reasons for participation in adult education, the AES of 2011 also shows different barriers for the participation in education and training. 18.7% of the older respondents (aged 55-64) see their age and health as an obstacle, about 12.9% did not have time because of family responsibilities, and for 9.5% training still conflicted with the work schedule (see Figure 89).

Financial barriers are mentioned from 7.8% of the group of elderly people often as well and are for both age groups (older people and the general sample) in the top 6 of obstacles. For some countries, such as Romania (30.8%), Greece (15.5%), Estonia (15.2%) and Italy (14.3%), financial reasons are named by more than 14% of the older people who wanted to participate in education and training but did not (see Figure 90). In those countries, financial reasons are one of the major obstacles, which seem to be difficult to cross. However, even if financial reasons are an important obstacle, its role is commonly less important than for other age groups and all non-participants, respectively

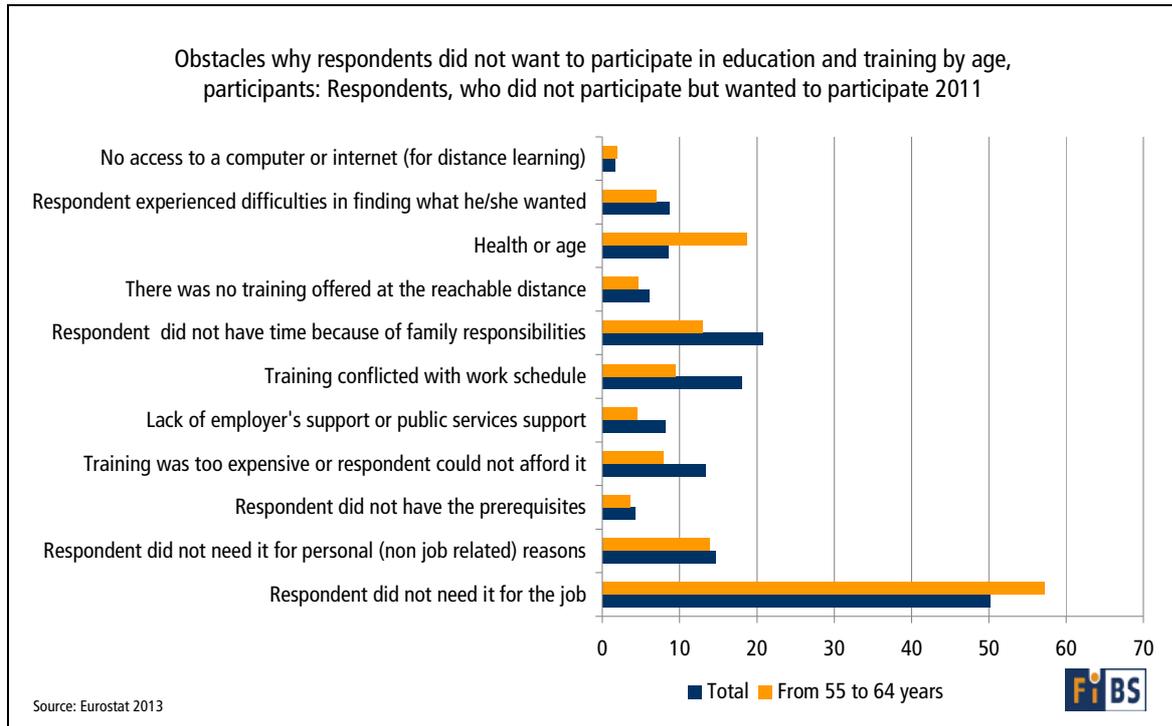


Figure 89: Obstacles why respondents did not want to participate in education and training by age, participants: Respondents, who did not participate but wanted to participate 2011.

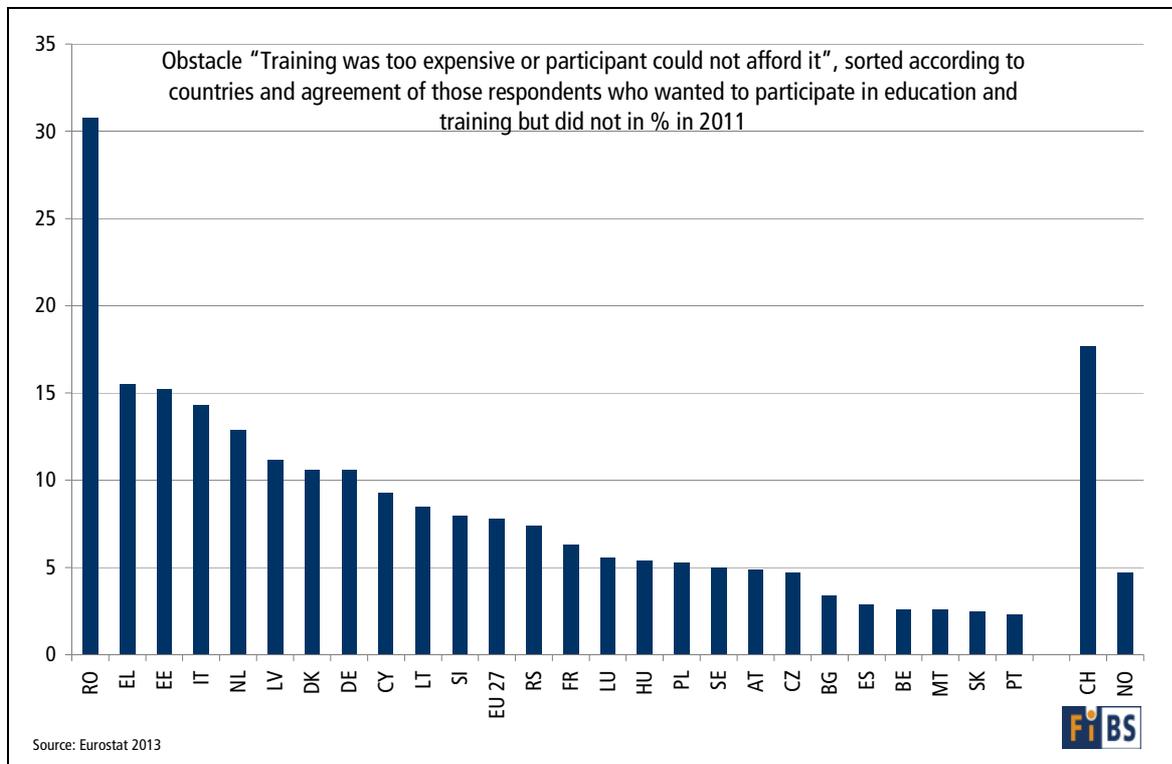


Figure 90: Obstacle "Training was too expensive or participant could not afford it", sorted according to countries and agreement of those respondents who wanted to participate in education and training but did not in % in 2011.

Even though financial reasons are obviously still an important barrier for older people to take part in learning, there are policies to facilitate a participation of the elderly in adult learning, some policies directly working against financial obstacles. Policies of different countries are further addressed in the following chapter.

Role of adult learning for older people

A survey from UK reveals that participation in learning is for adults a matter of choice and is balanced between other interests and obligations, like family and work. The study furthermore shows that adults participating regularly in learning activities are also more involved in social, cultural and community activities (Sargant 2002). Additionally, older people who become involved in educational, cultural and social activities are also healthier than their “inactive” counterparts and have a higher level of self-esteem, confidence, and a greater sense of well-being (McKenna 2007). Therefore, educational activities positively influence mental and physical activities (Sloane-Seale/Kops 2010).

Regarding the proportion of older people within Europe, it should be assumed that there are numerous possibilities of education and training in later life. In fact, reality is different. “Although no comparative studies on curricula in late-life learning are available” (Formosa 2012), it is highly likely that the topics of the learning options available do not meet the expectations of older learners. This is due to the fact that the group of elderly was for long considered to be a homogenous group with rather reduced interest in learning and less potential use of learning. Moreover “[i]t is assumed that [particular groups, for example A.D.] only ‘healthy’ older adults are capable of engaging in learning initiatives” (Formosa 2012). In these cases, it are especially the ill or restrained elderly who benefit from learning activities.

Benefits of adult learning for older/retired people

Learning in later life can help “to adjust, and at times overcome, the physical, social, and psychological challenges brought on by the onset of later life” (Formosa 2012: 36).

“However, aiding older people to remain in paid work represents only one goal amongst others for late-life learning, with other possible objectives being recognizing the diversity of older persons, challenging stereotypes of aging, maximizing social inclusion, maintaining personal independence, and retaining a sense of purpose and meaning” (Formosa 2012: 39).

The idea of the University of the Third Age “to enable older people, mainly pensioners, to live a better and longer life” (Ratman-Liwerska 1996) was already based on the idea that there is a “close connection between intellectual activity, physical activity and health” (ibid.)¹⁵⁶. The transition from work to retirement is an important passage in later stage of life as it reshapes e.g. the time-scheme as well as nature and extent of social contacts with colleagues (Coleman 1992 and Setoi et al. 2011).

¹⁵⁶ For further reading on this topic see Fry (1992)

Additionally, retirement has a considerable effect on participation in learning: Only 20% of those retired were involved in current or recent learning in 2010 while around 50% of those in employment and working either full-time or part-time were involved (Aldridge/Tuckett 2010). This can be attributed to the considerable importance of vocational education and training within adult learning.

Adult learning has benefits on both, the individual level and the social level. Findeisen (2005), from the Slovenian Third Age University points out: “Educating elderly people supports local, economic and social development, and ensures social cohesion”. For development in all sectors it is essential to “transfer [...] knowledge to different generations (ibid., p. 19; also Niederfranke 1992).

Furthermore, there are typical barriers on further education for the elderly. These are not quite easy to grasp as they are among of highly complex motivational structures. Empirical surveys on barriers to, and wishes for, further education are exposed to distortions towards social desirability (Tippelt et al. 2004). The topic of barriers has been further outlined in a previous section.¹⁵⁷

Self-perception, perception of ageing and learning of the elderly

Despite the finding of interests in specific learning contents and preferred forms of learning, one still needs to consider the strong heterogeneity of the elderly.

With regard to a re-analysis of the so-called “EdAge-Study” Schmidt (2010) found – based on a cluster analysis – five different learning subgroups of people from 65 to 80 years of age (Schmidt-Hertha/Strobel/Gnahs 2011):

- non-learners (27%). This group shows less learning activities in the non-formal and the informal area, uses a low degree of media and read little;

¹⁵⁷ Even though benefits of adult learning are kind of obvious in contrast as to how complex barriers are, the scientific field of both is largely unexplored. In order to explore personal and social benefits of adult learning the BeLL- project (Benefits of Lifelong Learning) was started in 2011. BeLL is directly linked to several EU and OECD policy objectives, especially in respect of the follow-up indicators of the Lisbon strategy and new Europe 2020-strategy. The project aims at producing results, which will support actors and policy makers at local, national, and international level to make informed decisions about non-formal adult education provision, to develop organisational and other structures, and to promote higher participation rates. In addition, the project aims to get a better understanding about the importance of the non-formal adult education sector in terms of its potential to contribute to adult wellbeing, active citizenship, lifelong learning, and to the challenges of globalisation. First results are expected by the end of 2012.

The preparation of the project proposal is based on two developments. First, at the European level, the European Association for the Education of Adults (EAEA) and its national member organisations are working in the field of Lifelong Learning, promoting learning opportunities for adults, especially in the field of non-formal adult education. This includes data collection, promotions and policy development, working in close cooperation with policy makers, adult education providers and adult learners. Second, in Finland, the national member organisation (Finnish Adult Education Association) undertook a wider benefits study, which documented the benefits of non-formal adult education in Finland. As these results are country specific and cannot be applied on other countries, the BeLL project will build additionally on previous research (re-using the theoretical framework and data collection procedure to create an European comparative study) and make use of existing levels of cooperation amongst the consortium members. More information can be found under the following link: <http://www.die-bonn.de/Weiterbildung/Forschungslandkarte/Projekt.aspx?id=650> (09.04.2013).

- self-directed learners (17%). This group focuses as a main activity on informal learning-settings with “social touch” (travelling, learning from friends and relatives);
- time-consuming learners (12%). This group invests significantly more time in learning activities than the self-directed learners. These learners emphasise on informal learning and sometimes on short-term non-formal courses;
- learners “en passant” (30%). This group uses as a main learning channel social contacts (friends, relatives). The second priority lies on media use in all its forms (reading, TV, computer/internet);
- multifunctional active learners (14%). This group is exposed for a broad range of learning activities (all forms of informal learning, visiting courses) accompanied by a high degree of social and political engagement.

Not only forms and interests of learning may differ, but also challenges of everyday life, general level of activity, and state of health as well as state of wealth vary from individual to individual. “Particularly social dimensions of inequality have an influence on educational choices” (Friebe/Schmidt-Hertha 2012). Nonetheless, in the context of the aforementioned publication, Friebe and Schmidt-Hertha make up a classification of adult education types based on self-perceptions and perceptions of ageing: The makers, the helpers and the driven.

“Only within the group of “makers” with a positive perception of ageing, older adults, who perceive themselves still as active designers, make sometimes use of organized educational programmes as a learning opportunity. [They] [...] learn in [...] adult education agencies as well as self-regulated [...]. These kinds of informal learning are often related to daily life problems, but partly also result from an interest in a certain topic. These interests usually result from a search for new challenges or are completely independent from current demands of action.

“Makers” with a negative perception of ageing [...] identify exclusively informal contexts as learning opportunities. [...] [T]he exchange with friends and relatives and especially the use of media is central for their learning [...] which [...] show predominantly a close relation to daily life but are not always linked to a pestering problem.

Learning for “helpers” is first linked to effort and hard work. They see learning as an absolutely necessary investment of time and power, which seems to be inevitable to solve current problems. Learning here means always self-directed learning, often by trial and error e.g. when dealing with new technologies and machines. Next to these goal-oriented forms of learning, which are tied up to situational challenges, incidental learning for them plays an important role to increase their own capacity to act.

Incidental and non-intentional [...] learning [...] dominate learning activities within the group of the “drivers”. [...] [L]earning seems to be not more than a by-product of problem solving, in which learners experience themselves in the role of a person reacting to a certain situation, but not constructively arranging it” (ibid.).

Another fact is, that “[l]iving space and environment become increasingly significant at an older age due to the decreasing mobility and the resulting increasing importance of accessibility of service structures” (ibid.). Thus, it is essential to have more commu-

nity services. However, accessibility does not only mean geographic proximity of adult education agencies, but also accessibility of information in the spirit of transparency, attractive programme schedules and low costs. It is therefore important that adult education agencies cooperate with different local protagonists connected to the living environment of the elderly (ibid.).

Associating these results with expertise from different countries, regarding the United States, we find the following: Education of the elderly plays a great role within the United States. It is therefore not surprising that there is a wide choice of programmes (at least roaming within urban centres) and a great acceptance of high participation fees. The arrangement of educational facilities for the elderly refers to both age-homogenous (e.g. Osher Lifelong Learning Institutes and Retirement Centres) and age-segregated learning groups (e.g. Community/City Colleges and extra-mural courses). The nature of offers range from lectures, workshops, joint interest groups and educational tourism to blended learning with new media and up to special events like 'Open Houses' and services on all aspects involving retirement. So-called Elderhostels provide also special programmes concerning intergenerational learning and service learning (voluntary work, museum work, tutoring). Currently there has also been an evaluation of participation in continuing training of people aged 55 to 79 (Doetinchem 2010).

6.3.5 Policies regarding adult learning of older/retired people (e.g. initiatives and developments) and their financing

Marvin Formosa of the European Centre of Gerontology at the University of Malta, maps a small sample of Grundtvig projects on learning in later life, which he describes as mainly focused on "information and communication technology, volunteering, and intergenerational learning" (Formosa 2012: 34). In contrast, "no call is made for governments to reach those persons who [...] are precluded from participating in lifelong learning. Indeed, there seems to be no place for frail elders and careers in EU policy on lifelong learning, and as far as the available literature indicates, no Grundtvig-funded project has yet focused exclusively on fourth agers" (Formosa 2012: 41).

Considering in contrast the municipal level, for example in Austria, a couple of projects on learning in later life can be found (Hechl 2005):

- LISA (Learning in Senior Age) as a transnational EU project to extend existing networks with a view to learning in old age
- LENA (Learning in the phase of post-employment) to develop a curriculum with different age-based modules
- 'Monday-College' as a lecture series on topic of intergenerational learning
- 'Women's autumn' as a series of seminars on topic of personality development in the third age of women
- 'Becoming and staying active – lifelong' to boost, reactivate and receive cognitive and motor-competences
- 'Security of seniors' as a training of multipliers

- ‘Education in old age’ as a research project

And yet, in the Austrian country report Lenz states that due to the demographic changes there has to be made more effort in providing learning options especially for older people (Lenz 2005).

Also Finland offers a programme in this context, the so called NOSTE programme, which is not only for low-skilled, but also for older people aged up to 59 years (Heinonen 2007). Also the ‘Universities of the Third Age’ should be mentioned in this context (Heinonen 2007).

But there are also some countries, which just started to place target-group specific provisions as a topic. Switzerland, for example, has set itself the goal to expand offers for older workers and seniors (Schläfli/Sgier 2008).

Considering countries outside Europe, Australia plays a predominant role concerning educational offers for older learners. In 2010 the Australian Government announced a Productive Ageing Package, funded with \$43.3 million (National Seniors Australia 2010). Some examples for measures are:

- Free professional career advice to support effective decision-making and planning for successful career transitions
- Grants to employers to increase the capacity of their mature age workers to provide supervisory or mentoring support to apprentices or trainees in the workplace
- Funding to deliver skills assessments and training to up-skill existing workers aged 50 over.
- Funding for adult learning of older/retired people

Projects concerning funding of adult learning play a certain role within some countries such as, for example, Austria. Co-financing the EU project “Innsbrucker Akademie für Ältere” (College of the elderly) was one attempt to allocate academic education for the elderly with costs beneath regular contribution fees (Hechl 2005).

In general, the funding for individual adult education changes, when different age groups are regarded. Compared with the average financing, older people tend to finance non-formal education privately with their own money or from their own family. The employer-financing decreases with age (see Table 30).

It is not only that the employer-financing decreases slightly with age, but also that employer-financing is accounting for the bulk of adult learning, at least of vocational training.

In Austria, companies and employees additionally have the largest share in expenditures associated with vocational training (Lenz 2005). Associated with the early retirement ages within the EU, it seems reasonable to assume that therefore older people have less funding opportunities.

However, there are also countries providing funding options especially for older people. Finland, for example, does not only has an act on funding students regardless of age, but also a specific act on funding adult students (Heinonen 2007).

Financing of non-formal education activity (fully/partly) by...		All participants	55 to 64 years old	55 to 59 years old	60 to 64 years old
...employer or a prospective employer	For tuition, registrations or exam fees	31.9%	27.8%	30.4%	23%
	For expenses of books or technical study means	15.2%	14.5%	15.3%	13.1%
...respondent or any member of the family	For tuition, registration or exam fees	18.1%	28.1%	18.6%	27.9%
	Expenses of books or technical study means	11.4%	13.7%	12.5%	15.9%

Table 30: Financing (fully or partly) of non-formal education activities in different age groups, source: AES 2007.¹⁵⁸

In Switzerland, adult learning focusing on training is mainly funded by the participants and by employers (Schläfli/Sgier 2008), as you can see in the following Table:

Ideas about future models on financing adult learning in Switzerland focus in particular on demand-side financing, just as vouchers do. An evaluation of the use of vouchers show that the typical users are female, not more than 45 years old, unmarried and well qualified (Schläfli/Sgier 2008). This might be an indicator that vouchers are not the best possible instrument or kind of financial support to strengthen the participation of older learners.

Financing of non-formal continuing education and training by...	All participants
...participants, exclusively	20%
...employers, exclusively	63%
...employers, partially	6%
...other types of financing	11%

Table 31: Financing of non-formal continuing education and training by different groups in Switzerland. Source: Schläfli/Sgier 2008, orig. Bundesamt für Statistik, www.bfs.admin.ch, Weiterbildung/Indikatoren 2007.

Another interesting aspect is the financing and partnership rules within the EU funding programmes. According to Lenz (2005), a central instrument of the EU in order to carry out its educational “mission”, are programmes in the field of education. EU educational programmes aim - concerning their contents - on a cross-border cooperation and mobility, as well as transnational exchange of experience, and the development of in-

¹⁵⁸ The survey asked for the source of financing for the first selected non-formal education activity of the participants. Only the answers of those participants were regarded who took part in at least one non-formal education activity and who made statements concerning their first activity.

novative models (Lenz 2005). It thus makes sense to integrate also financial adaptation goals into EU funding programmes.

The subsequent Table 32 provides a summary of policy measures concerning the learning of older people in different countries, with a differentiation between general policies and policies concerning funding of educational offers for older/retired people. As can be seen in Table 32, many countries do not have specific policies for older/retired people or a special funding for them. Even those countries with high participation rates in non-formal education and training among the elderly, such as Norway, Switzerland, United Kingdom and the Netherlands do not or have such policies or programmes only barely. One can assume that general (not-target-group specific) programmes might also have a positive effect on the participation of the elderly. Another conclusion might be that there is a great unused potential within the group of the elderly, and that with specific policies for them the participation could raise significantly.

To sum up, there is a great variety of policies concerning the learning of older people. Incentives to increase participation of older people in adult learning can be divided into three forms, the monetary incentives, the non-monetary incentives, and the personal incentives (see Figure 91).

Financial incentives and policies aiming to improve and create them are important to encourage older people to participate in adult learning. However, the other levels should also be considered. Policies to increase personal and non-monetary incentives might also make an important contribution to increase participation of the elderly in adult learning.

Reviewing the funding instruments for older people somewhat more in-depth, it appears that the overarching framework applies here as well. The countries with a 'comprehensive LLL policy' employ the same (more or less generous) funding instruments to this target group, such as Norway, Denmark, Finland and Sweden or Australia fare quite well with this policy as participation rates appear higher than in other countries. Advancing LLL countries employ additional funding schemes targeting this groups either exclusively or in jointly with other groups. However, data suggest that take-up rates of such policies are rather limited and that they do not contribute much to increased participation rates.

For example, the German state of Rhineland-Palatine supports continuous training for workers above 45 years of age and SME employees. Similar as in the case of the "Bildungsscheck NRW" discussed above, beneficiaries receive grants amounting to a maximum of 50 per cent of their training costs, up to 500 € per year. In contrast to the *Bildungsscheck NRW*, a minimum level of 60 € annually is given and engagement in the training programme of interest must occur three months after the issuing of the education cheque. In the case of the "QualiScheck RP" a private provider, Die RAT GmbH, is responsible for examining documentation and transferring grants. The main focus of training is directed at improving language and technical skills, as in the case of the "Bildungsscheck NRW". Given its short duration, since July 2009, no evaluation has yet been published.

In addition, between 2006 and 2014, the Government of Canada will have invested \$270 million in TIOW to assist unemployed workers aged 55 to 64 with their return to work.

Countries	Policies	Programmes yes/no ¹⁵⁹	Funding
AT	<ul style="list-style-type: none"> Working group on topic “improve quality of life by education for retired persons” Targeted courses for the elderly, e.g. “Train your Brain” (other courses are mainly in the range of history and culture) 	<ul style="list-style-type: none"> 160 	<ul style="list-style-type: none"> Publicly subsidised participation fee
BE	<ul style="list-style-type: none"> Time credit on federal-level 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Extra funding for people above 55 in all regions
CA	<ul style="list-style-type: none"> TIOW – Targeted Initiative for Older Workers to assist unemployed workers aged 55 to 64 with their return to work Some community base groups and universities target elderly/retired people 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Government funds provinces to deliver this programme No specific funding for the elderly or retired other than TIOW
CH		-	<ul style="list-style-type: none"> Scholarships for people older than 35 years are supported only by three Cantons (Waadt, Zurich, Basel) No public funding instruments in adult education aimed specifically at elderly people
DE	<ul style="list-style-type: none"> Programme “WeGebAU”: Continuing education for non-skilled employees and employees in SME Senior office: Computer courses for older people University for older people Advanced Training Courses 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Programme “WeGebAU”: Employees in the age 45 plus get 75% of the cost Redemption of tuition fee/Land Bremen redemption of tuition fee/Land Bremen redemption of tuition fee); Land Baden-Württemberg
EE	<ul style="list-style-type: none"> State commissioned study places for job related courses since 2012 prioritized for the elderly (55+) 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> ESF co-funded program Also other programmes are ESF-funded
ES	-	<ul style="list-style-type: none"> Yes 	-

¹⁵⁹ Country explicitly marked the option “yes” for the question “Are there special publicly funded programmes for older and retired persons?”

¹⁶⁰ In this Table, “-” means no data available.

FR	<ul style="list-style-type: none"> No specific devices for the elderly 	-	<ul style="list-style-type: none"> Additional subsidy for job training contracts offered to job seekers over the age of 45 Retired people can attend courses within university by paying fees on a voluntary basis
HU	<ul style="list-style-type: none"> No specific policies for older people Increasing number of offers for older people outside the “formal” system, but mainly in bigger cities not on the countryside; one of the most popular programmes is “Click on it Grandma” 	• No	<ul style="list-style-type: none"> No special funding for older people
IT	<ul style="list-style-type: none"> Third Age Universities Age Platform Italy 	-	-
NL	<ul style="list-style-type: none"> No specific policies for older people Only scheme which can include education for elderly is the Law on societal support (Wet Maatschappelijke Ondersteuning: WMO), a law providing support for elderly, disabled and sick persons, which can include socio-cultural work in community centres. 	-	<ul style="list-style-type: none"> No specific funding for older people
NO	-	• No	-
RO	<ul style="list-style-type: none"> No specific policies for older people 	-	<ul style="list-style-type: none"> No specific funding for older people
SK	<ul style="list-style-type: none"> Programmes planned for employment service delivery and training for employees at risk of collective redundancy, with special regard to older workers and workers with poor education 	-	-
UK	<ul style="list-style-type: none"> “University of the third age” as an institution outside the formal system 	-	<ul style="list-style-type: none"> No specific funding for older people; however older people benefit more and more from mainstream funding, as they stay in their job for a longer time of their life
US	<ul style="list-style-type: none"> Adult Education and Family Literacy Act (under the title: II of the Workforce Investment Act of 1998) 	• No	-

Table 32: Overview of policies concerning the learning of older people and their funding. Source: Policy briefs and mappings of the countries.

Canada – *The Targeted Initiative for Older Workers (TIOW)* aims to bring unemployed older worker, aged 55 to 64, back into employment through provision of employment assistance services and employability improvement activities, such as skills upgrading and work experience, to assist unemployed workers with their return to work. Funding covers fees, training materials and formulation of training plan. Core evaluation results “The labour market outcomes for participants were largely positive. Most survey respondents (75%) who were no longer participating in the project had found employment during or after their participation in the TIOW. Twenty-four percent found employment while in the project, 38% within three months of completing the project and

12% took more than three months to find employment. Nearly one-quarter of participants had not found employment at the time of the survey.

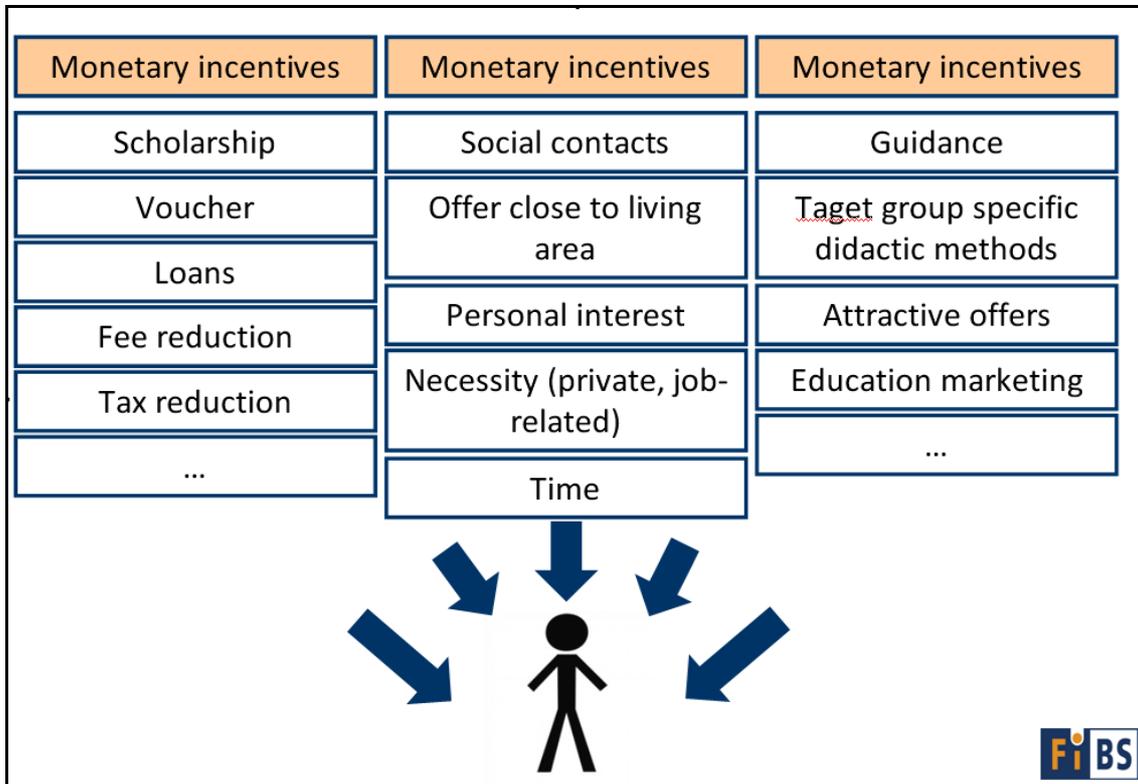


Figure 91: Three levels of incentives to increase the participation of older people in adult learning. Source: Own Figure.

At the time of survey, the respondents had been out of the projects for 8.2 months on average. Three-quarters worked in paid employment after the project and, on average, were employed for 45% of the weeks following the project. Nearly two-thirds of the survey respondents who had found employment indicated their programme participation had helped them find employment.

Although a substantial percentage of the respondents were still employed, many had lost their employment in the post-project period. At the time of the survey, 45% of the respondents were employed; 30 percentage points lower than the percentage who had worked in paid employment at some time during the post-project period. Following participation in the TIOW, 25% of the survey respondents received EI for an average of 3.5 weeks.

Respondents who were unemployed for a longer period (more than 12 months) prior to the TIOW project were less likely to work following the project and, on average, worked for a shorter percentage of time. While this finding suggests the importance of early intervention after job loss, it also indicates that respondents who were out of work

for a longer period were most in need of TIOW assistance, and were an appropriate target group for the program.”¹⁶¹

6.3.6 Summary

This section shows that older/retired have special barriers, which are on average less due to financial issue, but e.g. because of health, though funding is a barrier in some countries.

Although research on the benefits of adult learning for older and low-qualified people is less clear cut than for the previous target groups, some research findings indicate enhanced employability and reduced lay-off numbers of those groups.

Reviewing the funding policies, it turns out that three lines of policies can be distinguished. The first does not make any distinction between target groups in relation to age but addresses all target groups by the same and commonly available funding instruments. These countries have been clustered as ‘comprehensive LLL countries’.

The second group of countries targets older people through special instruments, sometimes in addition to other instruments, but often exclusively. It might even be that age is not the only requirement, but others have also to be met. An example in this regard is the German state of Rhineland-Palatinate or Hesse, where only people are targeted which are older and low qualified at the same time, while Rhineland-Palatinate or Hesse support older people more in general, in both cases only employees in SME are addressed. Reviewing the figures, it appears that take-up is rather limited.

Eventually, a third group of countries does neither target this group by commonly available nor by targeted instruments. Reviewing the policies and linking them to participation rates it appears that the more ‘open’ countries, with the overarching (funding) strategies are more successful in engaging this group. However, another important impact factor might be that older people remain longer in the workforce; analyses indicate that employment is the core driver of participation of older people, though this finding may be at odds with the share of people arguing that they do not need learning for the work, which is only slightly higher among older people. In contrast, fewer people argue that they do not need learning for private reasons. Of particular relevance for this study is, that costs or affordability are less a problem, across all countries, than for other age groups, which also applies to time (because of family or working responsibilities); instead health or age are more important.

Comparing participation rates between older and younger people, a striking finding is that disparity has even increased in some countries, despite a focus on older people from the EU and supported e.g. through ESF-funding.

¹⁶¹http://www.rhdcc-hrsdc.gc.ca/eng/publications_resources/evaluation/2010/sp_958_07_10e/page08.shtml.

6.4 Funding situation of learning providers

6.4.1 State of Information

Within the European Union, the state of information and research on continuing education providers remains highly dissatisfactory. An initial accounting attempt to gather information through surveys and secondary analysis of national statistics on the number of providers, their turnover, number of staff, programme volume and number of registered participants was incomplete and fragmentary (NIACE 2006, p. 18). The result provides merely an impression of the situation in the individual countries but no aggregated and consistent overview. Based on the plurality of structures in adult education and the independence from the government, almost no country has statistics comparable to statistics for the school and university system.

In order to arrive at a more comprehensive and comparable overview, country reports provide an additional insight into providers' structures. The reports are available for Finland (Heinonen 2007), Spain (Gomez 2001), Austria (Lenz 2005), Switzerland (Schläfli/Sgier 2008), Germany (Nuissl/Pehl 2004) and Romania (Sava/Matache 2003). In the same way EAEA (European Association for the Education of Adults) has published a range of country-reports.

The introduction of the Adult Education Survey (AES) principally supports the opportunity to develop new provider data. Continuing educational activities, which were queried and more closely analyzed, also contain the providers characteristics. The validity of the information gained in the AES needs to be, at least for the first, non-obligatory survey in 2007, put in a relative perspective for the following reasons:

- Some countries did not participate in the survey (e.g. Denmark, Estonia).
- The survey was not conducted homogeneously.
- The precise characterization of institutions by participants is questionable.
- The number of adult learning activities included is not homogeneously.

Some of the issues are solved for the AES 2011 but at the moment (May 2013) the data is not available for all countries (e.g. Finland, UK, Croatia are still missing). Furthermore, the possibilities of detailed and differentiated analysis is limited, because the Eurostat database does not deliver all possible crosstabs and the micro dataset is likely to be available in late 2013 only.

Similar to the country reports mentioned above, the surveys of national experts ("policy briefs" and mapping of learning providers) for additional data acquisition provide the opportunity of illustrating contexts and using expert knowledge about developments and frameworks. In addition, an experimental provider survey in seven European countries (Austria, Germany, Hungary, Italia, Netherlands, Slovenia, and Slovakia) delivers information about the structure of financing and the impact of economic crisis on the financial situation of learning providers.

6.4.2 Overview on Learning Providers

Providers of adult education organize educational processes and accomplish, through didactical implementation, the complementation of the contents' logic and the psycho-logic of the participants. For programme planning, they pick up on social requirements and convey them to the target group with adequate marketing measures. Adult educational know-how is used in the programmes to organize and perform learning processes, which lead to sustainable learning achievements and broaden the activity and behavioral repertoire of learners.

The adult educational system includes a large segment of non-formal learning environments. In general, non-formal learning environments can be divided into institutions that offer educational programmes as their primary function and are therefore categorized as educational institutions. On the other hand, some institutions offer educational programmes as a secondary function and have other primary institutional purposes. Thus, the field of continuing education is characterized by a large variety of providers, which leads to the following structure:

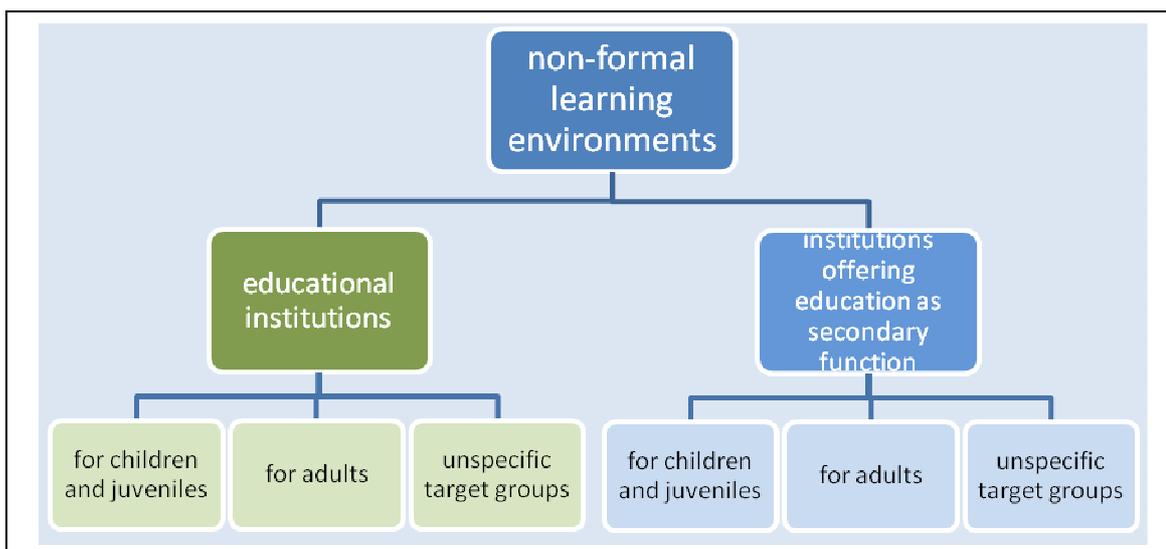


Figure 92: Non-formal learning environments.

Educational institutions which primarily offer adult education cover a diverse and pluralistic area. They include denominational stakeholders, educational centres run by chambers and trade unions, boarding-schools for adult students and regular adult education centres.

Group of institutions	Examples
Businesses	Computer shops, travel agencies, organic shops, public utilities
Institutions of the economic and social system	Chambers, trade unions, employers associations, employers liability insurance associations, business and professional associations, pension insurance institutions
Cultural institutions	Theatres, museums, libraries, monu-

	ments/memorials, art and culture associations
Recreational and sports facilities	Amusement parks, zoos, nature trails, sports clubs, sports and fitness centres, other recreational clubs
Public institutions	Parties, churches, foundations, associations
Health care facilities and self-help institutions	Hospitals, nursing homes, charity organizations, relief agencies

Table 33: Institutions with educational secondary function.

In addition, various institutions offer educational programmes as a secondary function. Basically all businesses and institutions can offer continuing educational programmes. But only those areas aimed at a public audience are of interest for this study. Accordingly, all programmes aimed at a closed group (e.g. internal vocational training, continuing education of party officials) are excluded (see the list in Table 33).

After this categorical description the policy briefs and mapping survey results show concrete forms of provider in the different countries. Table 34 shows a wide spectrum of providers with country-specific patterns. Four types of providers are widely spread in many countries:

Country	Predominant non-vocational	Predominant vocational
Austria	<ul style="list-style-type: none"> • “Bildungshäuser” • Folk high schools • Forum for catholic adult education • Schools and colleges for employed persons 	<ul style="list-style-type: none"> • “Werkmeisterschulen” (Foremen courses) • “Meisterschulen” (master craftsmen courses) • Institute of Economic Promotion of the Austrian Economic Chamber
Belgium	<ul style="list-style-type: none"> • Centers of adult education • Centers of basic education • Dutch-language houses • Social-cultural organisations 	<ul style="list-style-type: none"> • Private agencies
Denmark	<ul style="list-style-type: none"> • Folk high schools • Evening schools and study associations • University extramural Departments • Adult education centers 	<ul style="list-style-type: none"> • Labour Market Training Centers • Danish Net-School (DANSK Netskole)
Estonia	<ul style="list-style-type: none"> • Adult secondary schools • Folk schools 	<ul style="list-style-type: none"> • Vocational schools • Private training centers
France	<ul style="list-style-type: none"> • Folk universities • Local courses for Adults • Second Chance Schools 	<ul style="list-style-type: none"> • Training centers (GRETA) • National Association for Vocational Training of Adults (AFPA) • Agricultural Training Centers
Germany	<ul style="list-style-type: none"> • Folk high schools • Catholic and protestantic centers of learning 	<ul style="list-style-type: none"> • Learning centers of the chambers • Private training centers • Learning centers of the trade unions
Hungary	<ul style="list-style-type: none"> • Folk high schools • Public cultural houses • Secondary grammar schools 	<ul style="list-style-type: none"> • Vocational secondary schools • Vocational training schools
Italy	<ul style="list-style-type: none"> • Permanent territorial centers (CPT) • Folk universities 	<ul style="list-style-type: none"> • Private associations in cooperation with public authorities
Netherlands	<ul style="list-style-type: none"> • Folk universities • Private providers 	<ul style="list-style-type: none"> • Private providers • Regional Training Centers (ROC) • Dutch Open University (E-Learning

		provider)
Norway	<ul style="list-style-type: none"> • Folk high schools • Study associations 	<ul style="list-style-type: none"> • Trade unions and employers' organisations • Opening universities
Romania	<ul style="list-style-type: none"> • Folk universities • NGOs 	<ul style="list-style-type: none"> • Vocational training centres of the National Agency for Employment • Vocational schools (often cooperating with business)
Slovakia	<ul style="list-style-type: none"> • Adult education institutions (AIVD) 	<ul style="list-style-type: none"> • Company institutes
Switzerland	<ul style="list-style-type: none"> • Popular Universities • Catholic adult learning centers • Adult learning center Migros 	<ul style="list-style-type: none"> • Education and training center Movendo • NGOs • Private institutions
Spain	<ul style="list-style-type: none"> • Educational centers for adult people (CEPA) • Aula Mentor • Secondary education institutes for adults • Training centers • Popular universities 	<ul style="list-style-type: none"> • Public and no-profit organisations in cooperation with the Labour Administration • Workshop-schools • Trade-schools
United Kingdom	<ul style="list-style-type: none"> • Universities • Community and voluntary organisations 	<ul style="list-style-type: none"> • Private providers • Further Education Colleges • Training Agencies
Australia	<ul style="list-style-type: none"> • University of the Third Age • Community Colleges • Community learning center 	<ul style="list-style-type: none"> • Technical and Further Education (TAFE) colleges • Private provider (publicly supported) • Universities
Canada	<ul style="list-style-type: none"> • Community based organisations (NGOs) • School boards • Private Colleges 	<ul style="list-style-type: none"> • Community colleges • Vocational centres • Private companies
USA	<ul style="list-style-type: none"> • Public institutions • Private non-profit institutions • Private for-profit institutions 	<ul style="list-style-type: none"> • Private institutions • Trade schools

Table 34: Key provider of non-vocational and vocational adult learning (source: EAEA 2010-2012, policy briefs, mapping survey).

Adult Education Centres/Communal Learning Centres/Folk High Schools

Adult education centres are mostly public (municipal) organizations and registered associations or enterprises. The public hand virtually includes public support in form of state and municipal funding. Programmes are open to all those interested and participation is voluntary. The programme range covers mostly non-work activities even though work-related and professional contents, and consequently certification-related programmes (certificate programmes, preparatory courses for training examinations) become increasingly important. Participant and subject-oriented continuing education programmes are evenly balanced.

'Second Chance' Institutions

Evening secondary schools and colleges are generally publicly funded and supported. The voluntary participation in these institutions is aimed at acquiring a subse-

quent school-leaving certificate, and thus mostly part of school-oriented adult education. Programmes are generally offered in day courses without boarding facilities.

Education Businesses

Education businesses are companies organized under private law providing adult education. The wide range of programmes is dominated by activities aimed at vocational training and continuing education. Among these are:

- language schools,
- institutes for acquiring basic business skills,
- private technical schools,
- institutes for the vocational training of managers (management academy).

The private nature of these institutions does not exclude public funding in general. Quite often, participants can apply for individual funding. Programmes are aimed at acquiring a certificate or subject-related and offered in day courses (e.g. language schools) as well as in residential schooling (e.g. management academies). Participation is generally voluntary and open to everybody.

Universities and Colleges

Universities and colleges develop adult education activities in three areas:

- further studies/contact studies,
- adult learning at universities (Open University), and
- further training of employees.

Further studies can be regarded a form of vocational training at university level, whereas the third category represents a type of internal workplace continuing education and continuing education in public services, respectively, including the relevant typification. Continuing education at universities utilizes the universitarian capacities for wide strata of the population. Using seminar course centres in cooperation with adult education centres and other continuing education establishments, programmes are provided on various topics, conducted and under the responsibility of university members.

With regard to this study there is another interesting type of provider: the specialised provider focussed on a single target group. Illustrating this you find some examples in the following list:

- For elderly there are Universities of the Third Age (e.g. in UK and Italy). These are self-managed, self-funding learning groups, organising courses and learning events of interest to the older members. The teachers belong to the same age group as the participants (see EAEA Country Report Italy; Soulsby 2012).
- The intention of further education and training of courses for building worker (“Bauhandwerkerschulen”) in Austria is to secure employment and to raise qualification standards of employees in small and medium-sized enterprises (EAEA Country Report Austria).

- Radio ECCA is a distance-learning-concept with a particular focus on disadvantaged people in Spain. The arrangement includes utilization of radio and other technologies (Computer, Internet) to surmount distances and to overcome social barriers (EAEA Country Report Spain, and Gomez 2001).
- The Swiss Adult Literacy Association organizes training courses, focused on illiterate persons and their relatives, with the aim that people will be able to better manage their life (EAEA Country Report Switzerland).
- In Hungary the Belvárosi Tanoda Secondary School offers an informal and flexible environment and alternative teaching methods for students who have had problems in upper secondary education schools and had dropped out. The Belvárosi Tanoda School is maintained by a private foundation and supported by the state bearing half of the operating costs (Policy Brief Hungary, p. 13)

Each of these examples shows possibilities to address target groups by supply side funding.

6.4.3 Country Specific Differences

All EU member states have a variety of learning providers, as the 2007 AES, demonstrate. The AES logic divides between adult learning activities, which are attended for professional or private motivation. Professional motivation is classified as vocational adult learning, private motivation in a negative definition as non-vocational adult learning. On a provider level this distinction is also prevalent; institutions are grouped into vocational and non-vocational (general) adult education even though the demarcation line is not as clear since all institutions are at least partially active in both segments.

To gain an initial insight, all recorded learning activities are assigned to the corresponding provider group. To reduce such complexity the Adult Education Survey (AES) uses the following categories to collect data about classes of providers:

- Institutions for formal education (e.g. schools or universities)
- Institutions for non-formal education/further education (e.g. learning centres or training centres)
- Business institutions where education and further education do not play a central role (e.g. supplier industry)
- Employers
- Chambers of commerce
- Federations of trade unions
- Non-profit associations (e.g. cultural associations, political parties)
- Individuals (e.g. students giving tutoring)
- Non-commercial institutions where education and further education do not play a central role (e.g. libraries, museums, ministries)
- others

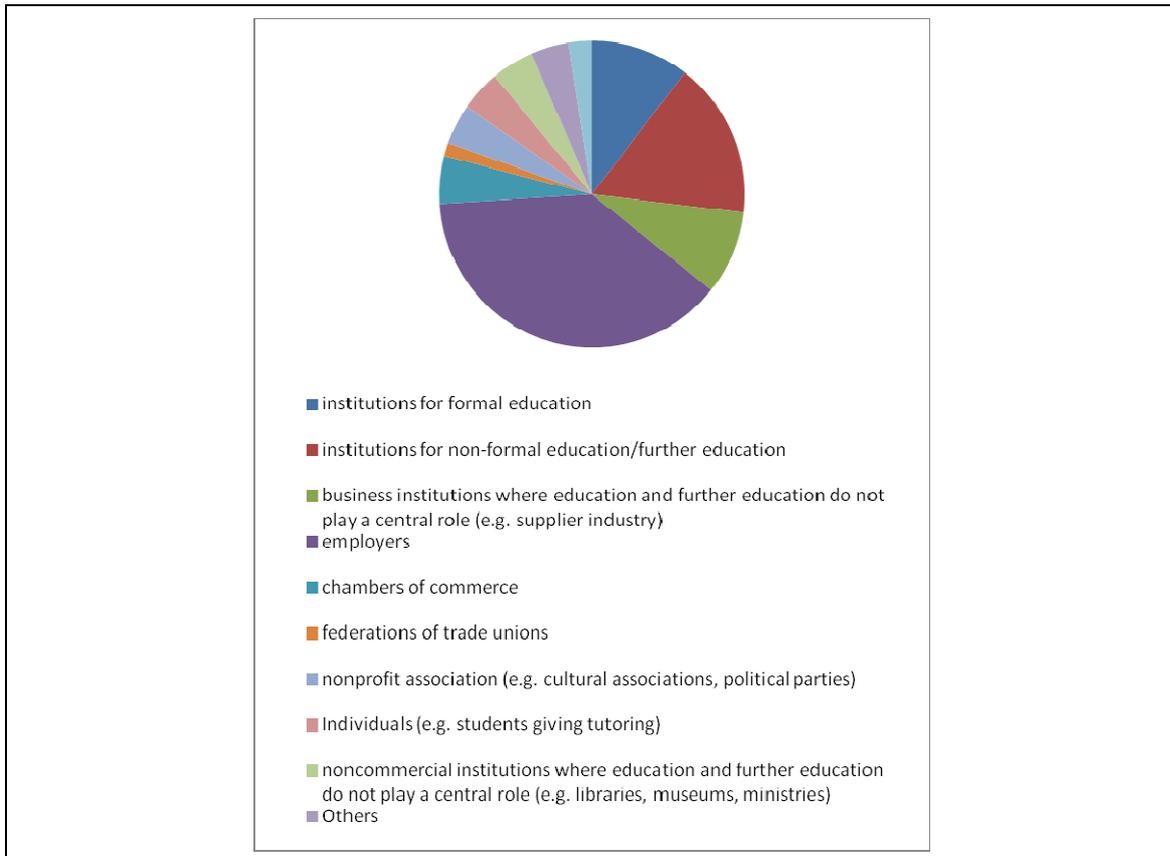


Figure 93: European Union: percentages of non-formal activities in education and further education offered by different providers (Source: AES 2007).

Figure 93 and Table 35 present a European-wide overview about the distribution of the providers by categories. The dominant provider group is the employers' group (almost 40%), followed by institutions for non-formal education/further education (17%) and institutions for formal education (10%). The structure of providers changes from country to country. But it is striking that in nearly all countries the employers and special institutions for non-formal education are dominant. The percentage varies from nearly 70% to less than 10% (employers) and from 50% to almost 10% (further education institution).

It seems clear that the major share of employer-based further education is vocational. And it should be similar in the other categories taking into account that Europe-wide only 15% of all further education activities are non-vocational.

Focusing on provider groups, which are "suspicious" offering non-vocational education Figure 94 reviews the institutions of non-formal education/further education. The figures show a relatively high relevance in the newer member states (on the top Poland, Slovenia and Estonia), an average percentage in Southern European countries (e.g. Spain and Portugal) and a low relevance in the Northern and Western European countries (e.g. Belgium, UK and Finland). The strong emphasis in newer member states may depend on the former socialistic policy and a tradition based on this heritage.

		Institutions for formal education	Institutions for non-formal education/further education	Business institutions where education and further education is not the main activity (e.g. equipment suppliers)	Employers	Chambers of commerce	Trade unions	Non-profit associations (e.g. cultural society, political party)	Individuals (e.g. students giving tutoring)	Non-commercial institution where education and further education is not the main activity (e.g. libraries, museums, ministers)	Others	No response
Western Europe	European Union	10.4	16.5	8.9	38.3	5	1.4	4.3	4.3	4.5	4	2.5
	Austria	6.7	21.8	12.4	27.7	4.6	**	4.9	4.5	1.4	14.2	1.5
	Belgium	15.2	7.3	8.9	41.7	2.8	0.7	7.4	5.6	7.1	**	2.8
	Germany	4.8	14.7	13.8	42.4	4.8	1.1	5.3	5.8	6.2	0.5	0.7
	Netherlands	38.2	**	**	38.6	**	1.9	4.7	2.1	**	11.8	2.8
	United Kingdom	11.1	8.2	**	50.2	7	**	1.9	4.3	1.8	5.4	10.1
Newer member states	Croatia*	15.6	24.2	12.8	22.0	5.0	**	3.3	**	**	7.7	6.6
	Estonia	10.0	34.4	9.4	29.2	1.2	5.5	2.1	2.5	3.9	1.7	**
	Lithuania	20.8	28.7	15.0	14.5	9.2	**	1.4	8.7	**	**	1.4
	Romania	19.3	31.2	4.2	30.8	3.7	**	**	2.6	**	**	3.3
	Slovakia	17.0	28.2	7.5	40.0	2.8	**	0.7	1.8	**	1.1	0.8
Southern Europe	Italy	12.9	8.5	8.0	27.6	12.9	1.3	4.4	6.3	2.2	11.3	4.7
	Malta	11.0	13.7	**	5.1	**	**	**	**	**	**	56.2
	Spain	9.7	26.2	5.0	19.9	6.7	4.2	5.4	2.9	4.5	11.5	3.9
Northern Europe	Finland	8.8	10.1	1.1	36.0	6.7	3	0.8	3.0	29.5	**	1.0
	Sweden	4.2	14.6	17.1	45.5	3.9	2	5.6	2.5	3.4	0.5	0.5
* not members of the European Union												
** not data available												

Table 35: Percentages of non-formal activities in education and further education offered by different providers (Eurostat: AES 2007).

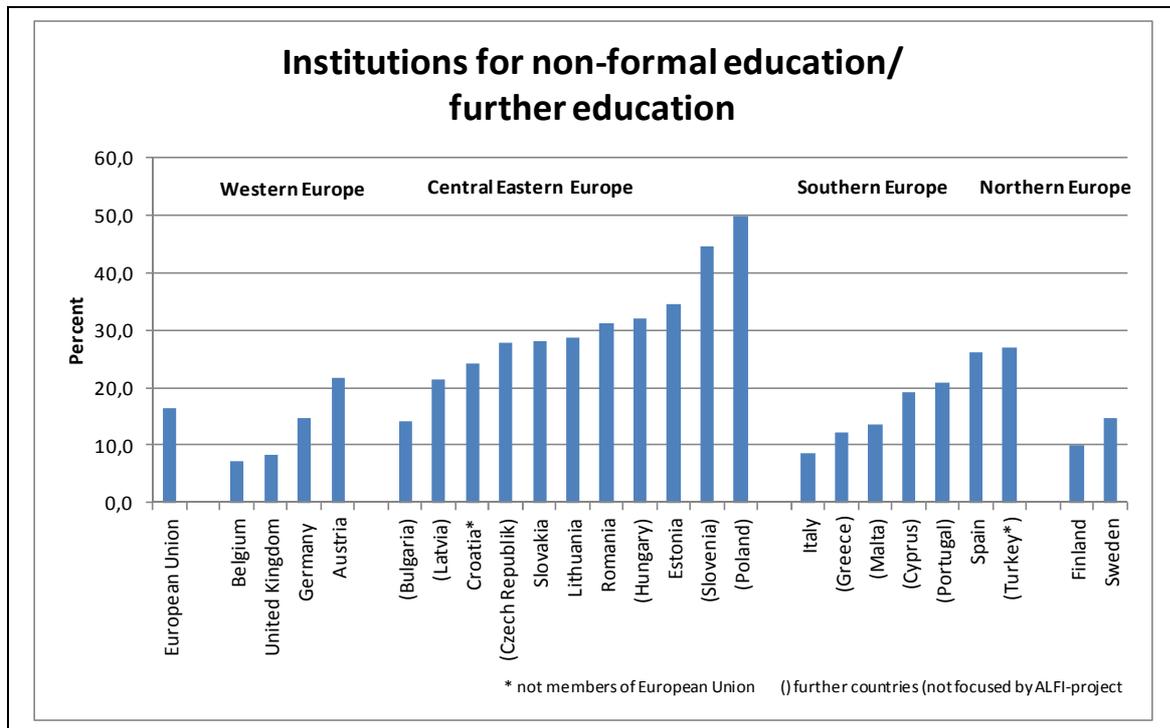


Figure 94: Institutions of non-formal education/further education (Eurostat: AES 2007).

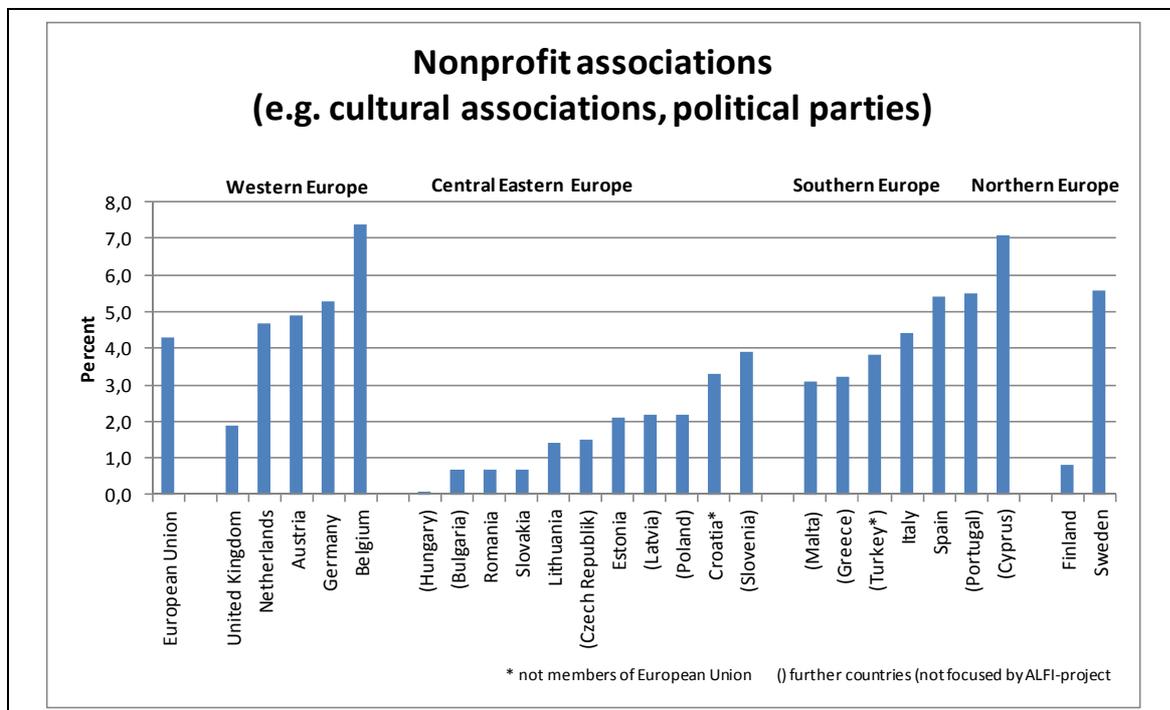


Figure 95: Non-profit associations (Eurostat: AES 2007).

Figure 95 looks at non-profit-organizations. All over the relevance is low, but there are some typical differences. We notice a relatively high percentage in the Northern, Southern and Western European countries with Belgium on the top followed by Cyprus and Sweden. A remarkable exception is Finland with a percentage of less than 1%. In

contrast, the newer member states, such as Romania, Slovakia and Lithuania, have very low percentages in this field. It seems likely that the same explanation holds as regards differences for category “institutions for non-formal education”.

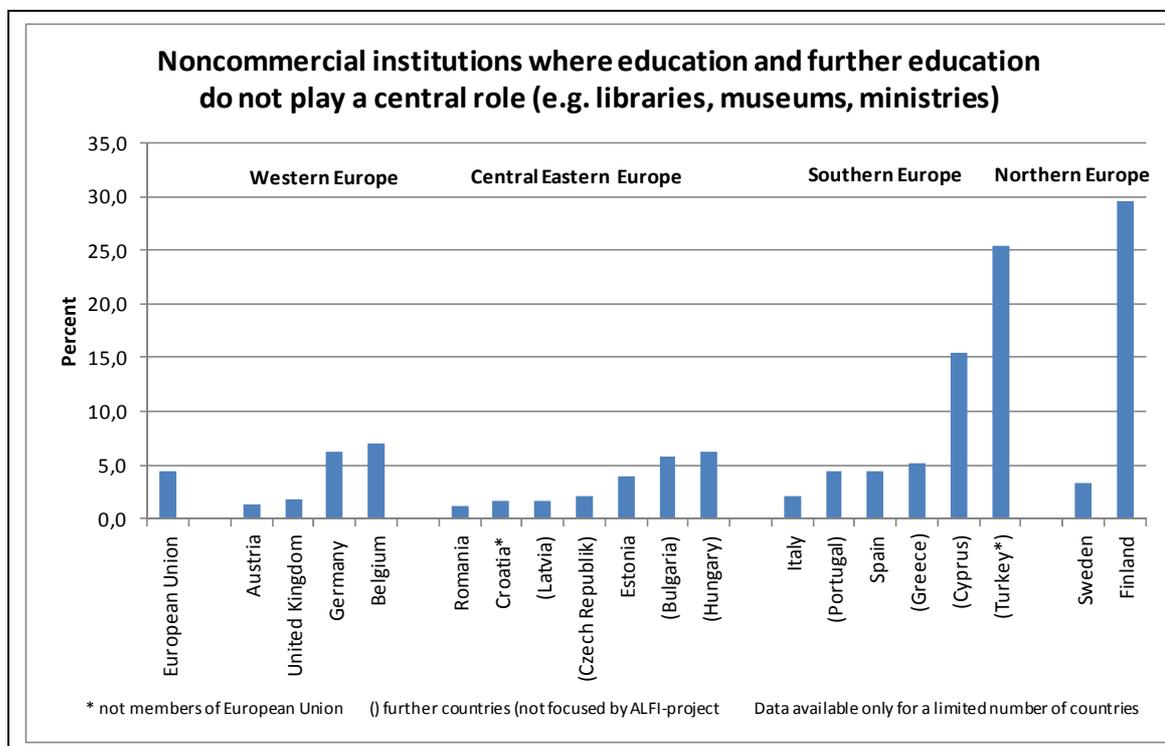


Figure 96: Non-commercial associations (Eurostat: AES 2007).

At last looking at the non-commercial institutions where education and further education do not play a central role (e.g. libraries, museums, ministries) (see Figure 96): The relevance is low all over Europe (around 5% and below). There are three exceptions in this category, Finland, Turkey, and Cyprus. Not surprisingly, the provider structure is relatively stable over the last five years, as Figure 97 shows. By comparing 2007 with 2011 there is one eye-catching exception: A decrease in the share of employers as learning providers can be observed, decreasing from 38 to 31%. Perhaps this is an effect of economic crisis, where enterprises are forced to reduce costs.

In nearly all countries, the provider scene is manifold including rather diverse provider types. Three country groups can roughly be distinguished:

- Group A: Countries with a long tradition of adult education and, in accordance, socially established learning providers
- Group B: Countries, in which adult education is based on the formal system (mostly Mediterranean countries)
- Group C: Countries, which re-established and re-organized the continuing educational system after the transition phase of the 1990s

Particularly countries in group A consistently show rather high participation rates, which is also based on the established and socially stabilized adult education system. Post-socialistic countries broke with traditions in the early 1990s and are setting up a

new structure, which is suffering some setbacks and is strongly supported by the European Social Fund. Adult education in Mediterranean countries is closely linked to the formal system. As a result, it shows certain institutional stability but the development possibilities are also slowed down by budgetary problems.

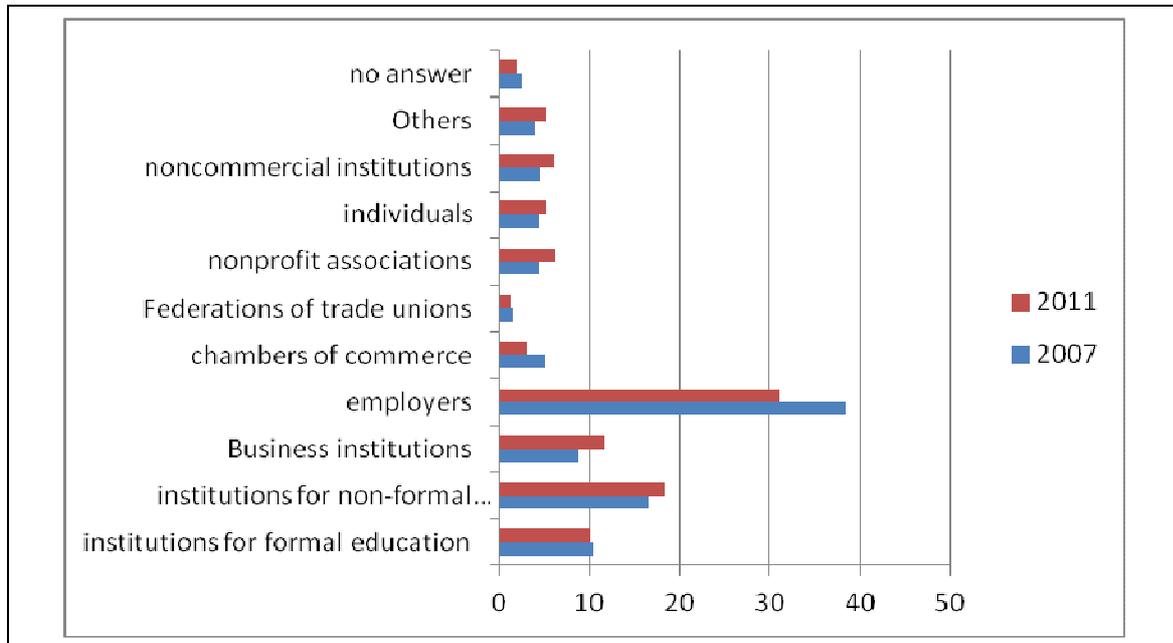


Figure 97: Percentage of non-formal activities in education offered by different providers (Contrast AES 2007 and 2011).

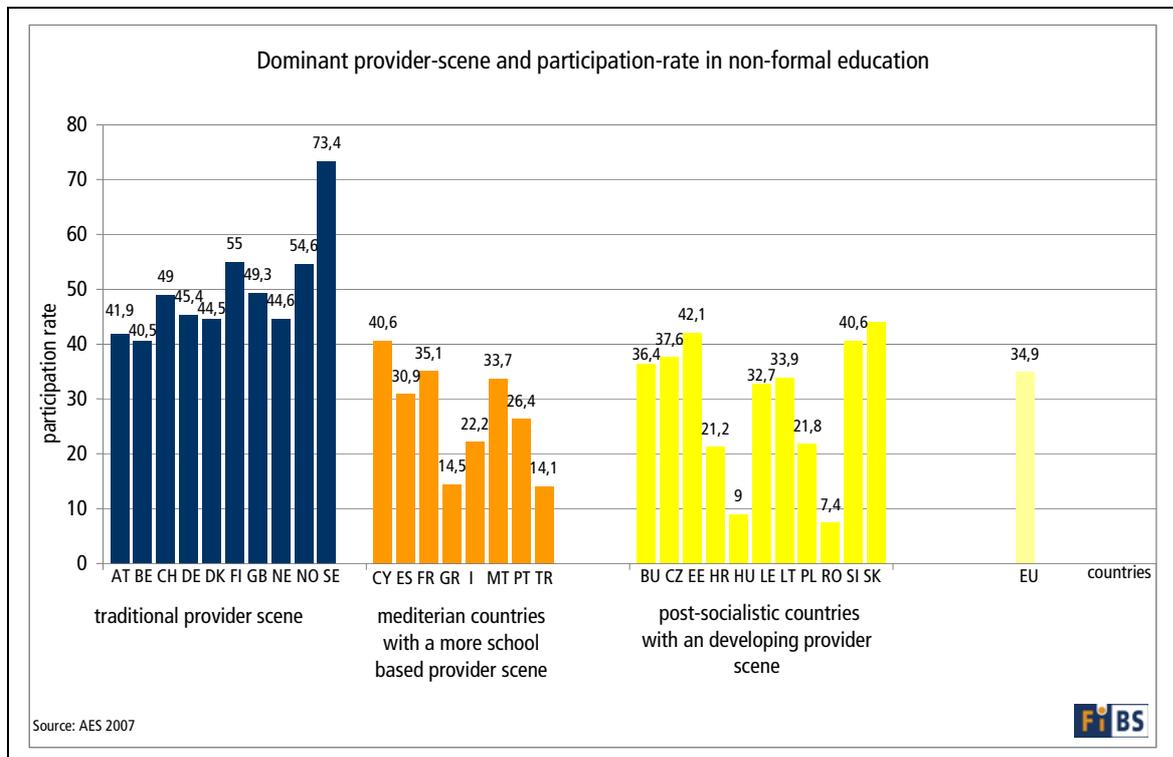


Figure 98: Dominant provider-scene and participation-rate in non-formal education (Source: AES 2007).

6.4.4 Orientation on Non-Vocational Adult Learning

In addition to the institutional diversity, adult learning institutions combine a common target profile. Whereas institutions of vocational adult learning focus on employability (reduction and prevention of unemployment, adaptation of competences and skills, facilitation of career promotion etc.), institutions of mostly non-vocational programmes aim at strengthening civil society and achieving the following sub-goals:

- Critical analysis of society,
- Stimulation of democratic and collective initiatives,
- Development of active citizenship,
- Exercise of cultural, social, environmental and economic rights,
- Individual and collective emancipation,
- Active participation and cultural expression.

The largely common understanding of the objectives is evident in the corresponding programme profile. Nearly all countries offer predominantly the following topics in the field of non-vocational adult learning:

- Language courses,
- Integration programmes for people with a migrant background
- Programmes for the late acquisitions of school leaving certificates and university entrance qualification,
- Basic education/literacy,
- Programmes of cultural and political education.
- Most of these programmes are closely related to the objectives mentioned above.

6.4.5 Financial Situation

Because almost no information is available concerning the financial situation of learning providers an (experimental) small-sized survey, conducted as part of this study, aims to provide an overview of the funding situation of learning providers. It was managed in seven countries (Austria, Germany, Hungary, Italy, Netherlands, Slovakia, Slovenia), where a list of nearly 3,000 addresses was linked to an online-questionnaire. More than 400 learning providers responded to the questionnaires (response rate: 13%). The sample is characterized by 41% public institutions, 24% non-profit organisations and 27% for-profit-organisations (others: 8%). Most learning providers (more than 70%) are strongly involved in adult education. The majority are small-sized enterprises with 1-9 employees. 56% offer programmes and seminars in the field of vocational adult learning as well as non-vocational adult learning. The empirical basis of this survey allows to formulate some statements showing tendencies.

As shown in Figure 99, the various sources of funding are not of equal relevance for the learning providers. The most important funding source are fees from individuals: 72% of the learning providers say they are relevant, while only 6% say they have no relevance. Of medium importance are public grants, fees from ministries and grants from the background institution; while sponsoring and other sources are of low impor-

tance. EU-grants are of relevance (important or less important) for more than 60% of the responding providers.

Not surprisingly, the relevance of different sources of funding varies from country to country as Table 36 shows. Fees from individuals are a very important source of funding in Austria and, particularly in Germany, though its relevance is high in all other countries as well (exception: Hungary). On the other hand, fees from enterprises are very important in Hungary, Slovakia and Slovenia, while of very limited relevance in Germany, which may be due to the sample for which contact details were available. Public grants (federal, state/region) are more important in Austria, Germany and Italy than in Hungary, Slovakia and Slovenia. EU-grants are of comparatively high importance for learning providers in these latter three countries and in Italy; possibly as compensation for limited public support. Background institutions have a particular high importance in Germany, a medium importance in Austria and Italy and only a very limited importance in Hungary, Slovakia and Slovenia. These results show again the explanatory power of the grouping of countries which was introduced in chapter 6.4.3.

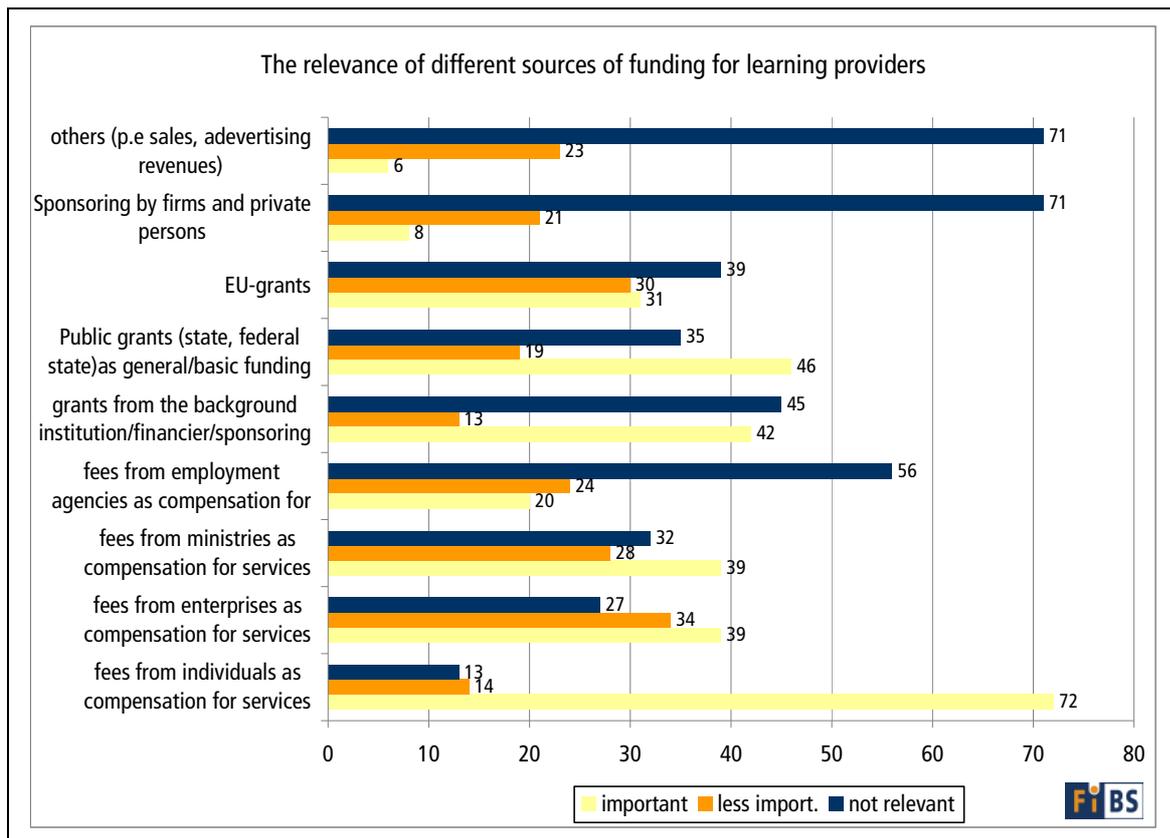


Figure 99: The relevance of different sources of funding for learning providers.

In the next step we asked the learning providers, how the different sources of financing were affected by the economic crisis. Figure 100 shows the results. It is easy to recognize that all kind of fees are more influenced by economic crisis than all kinds of grants. It is plausible that it is easier for an individual or a firm to cancel or to disarrange a decision with regard to participation in adult learning than to change a law or some

other kind of contract. However, the result that the majority of learning providers is not affected by public grants is somewhat surprising.

Type of revenue	Country	AT (59)	DE (128)	HU (20)	IT (13)	NL (42)	SK (75)	SI (89)	All (426)
Fees from individuals as compensation for services rendered		81	98	29	44	68	50	60	74
Fees from enterprises as compensation for services rendered		40	7	71	46	31	75	59	40
Fees from ministries as compensation for services rendered		42	39	27	38	26	33	49	41
Fees from employment agencies as compensation for services rendered		21	14	54	14	15	12	28	20
Grants from the background institution/financier/sponsoring body		32	84	9	33	6	22	18	48
Public grants (federal, state) as general/basic funding		47	64	33	83	33	41	21	48
EU-grants		22	24	50	50	12	42	40	32
Sponsoring by firm and private persons		9	3	8	11	9	15	9	7
Others		0	2	0	0	0	13	20	7

Table 36: percentage of provider in a particular country, which indicate that particular type of revenue was an important source of funding (Learning provider survey N = 384).

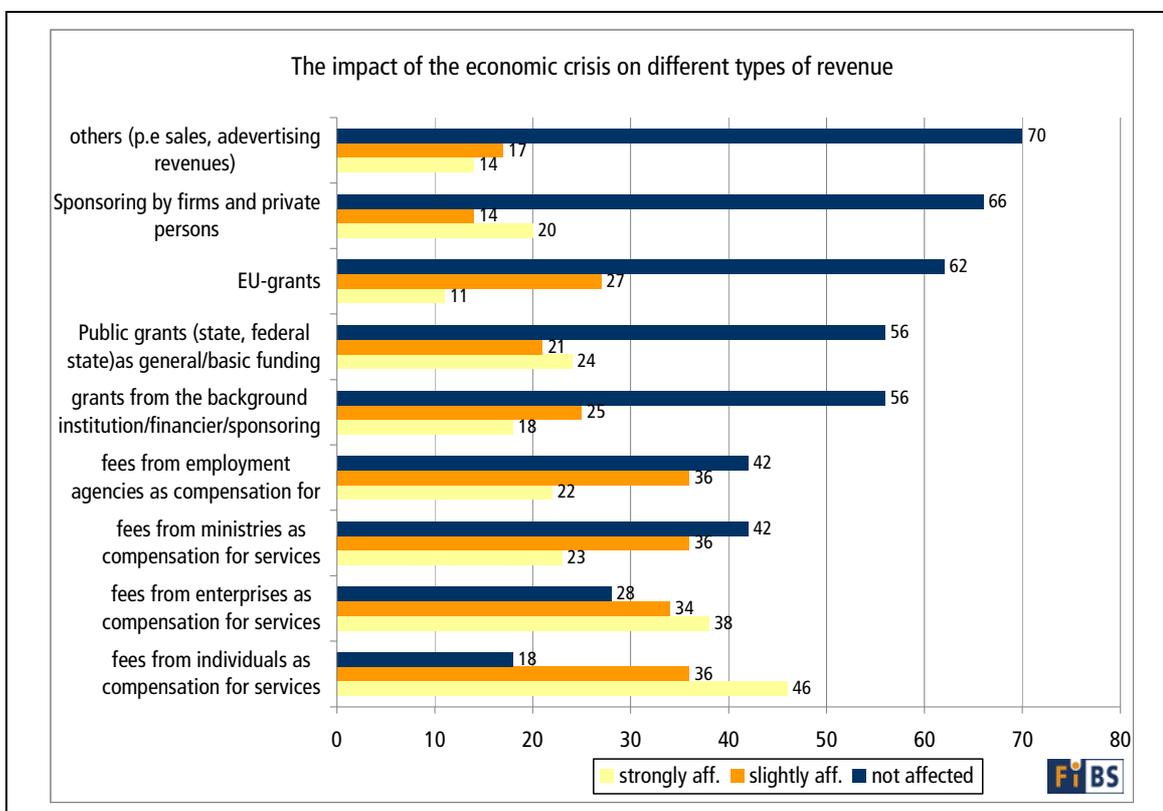


Figure 100: The impact of the economic crisis on different types of revenue.

Type of institution Type of revenue	Public institution	Private, non-profit organisation	Private, for-profit organisation	Others	Total
Fees from individuals as compensation for services rendered	42	38	62	40	46
Fees from enterprises as compensation for services rendered	27	34	64	30	39
Fees from ministries as compensation for services rendered	23	15	29	11	22
Fees from employment agencies as compensation for services rendered	32	20	20	11	25
Grants from the background institution/financier/sponsoring body	20	20	15	30	20
Public grants (State, federal state) as general/basic funding	19	17	28	48	24
EU-grants	10	8	17	22	12
Sponsoring by firm and private persons	21	29	18	25	23
Others	9	17	17	17	13

Table 37: Share of types of learning providers, indicating that the particular type of revenue was strongly affected by the crisis (Learning provider survey N = 384).

Type of revenue	Country	AT (59)	DE (128)	HU (20)	IT (13)	NL (42)	SK (75)	SI (89)	All (426)
Fees from individuals as compensation for services rendered		31	31	80	70	52	60	57	47
Fees from enterprises as compensation for services rendered		23	12	93	44	32	64	59	39
Fees from ministries as compensation for services rendered		16	14	40	29	22	36	28	22
Fees from employment agencies as compensation for services rendered		13	18	50	14	3	26	38	22
Grants from the background institution/financier/sponsoring body		13	13	10	25	9	21	37	18
Public grants (State, federal state) as general/basic funding		32	15	46	73	33	28	15	25
EU-grants		12	5	10	50	6	27	12	12
Sponsoring by firm and private persons		6	15	50	38	3	42	27	20
Others		0	6	0	0	13	31	30	13

Table 38: Share of providers, indicating that particular type of revenue was strongly affected by the crisis, by country (Learning provider survey N = 426).

Differences can be identified with regard to the type of institution: More than half of private, for-profit organisations are affected from fee revenues from individuals as well as enterprises; these are the only two cases where more than half of a certain type of learning provider stated that they were affected (see Table 37). Public grants play obviously a particular role for 'other' types of learning providers, not covered by the three types, public, private non-profit and private for-profit. Approximately 40% of public and private, non-profit organisations are affected from shrinking fee revenues from individuals and companies. Public institutions are more affected than any other type of provider from funding from employment agencies.

In the same way, country-specific differences exist (see Table 38): Austrian and German institutions are less affected from shrinking fee revenues than institutions in all other countries, where more than half and in Hungary and Italy even 80 and 70%, respectively, mention they were affected. Hungarian, Slovak and Slovenian providers are strongly affected from lower fee revenues from enterprises, which are, again, far less of a concern in Germany and Austria. Public grants strongly affect Italian learning providers, which are only a very small matter of concern in Germany. However, this pattern is also a mirror of the overall relevance of certain funding sources: shrinking amounts of less relevant sources are less of a problem than decreases of highly relevant sources.

The effects of the crisis are dominant in the challenges the learning providers could name at the end of the questionnaire: preventing cuts of public grants, acquiring additional funding, managing a more intensive market competition or fighting against bureaucracy and increasing requirements of clients. As market tendencies they observe a decrease in demand, a concentration of the provider scene fueled by insolvencies and fusions and increasing costs especially wages.

After delivering insight into the estimations of some learning providers across Europe, the next section turns into a more theoretical kind of argumentation. Simplified, the adult learning market has three segments: The first segment has marketable programmes. The provider obtains a price which covers at least the cost or generates even profits. Most programmes of vocational adult education are marketable since this kind of education is regarded as a personal or professional investment whose costs will pay-off in future profits (in form of income, profit, job security etc.). In addition there are general programmes, which provide large benefits for the participants (e.g. health educational programmes).

A second segment consists of programmes, which are generally not profitable but cover at least some of the costs. Large parts of general continuing education (e.g. language courses, political education, parts of health education) are part of this segment.

The third segment includes programmes, which do not cover the costs or only to a small extent. This is partly due to the target group not being financially capable of paying fees because of their limited income (e.g. refugees, asylum seekers, unemployed persons, convicts etc.), as well as due to the programmes' marginal level of appreciation and correspondently absent willingness to pay for the programmes (e.g. segments of political education).

The individual provider's financing profile depends widely on the programmes offered in the particular market segments. If the programme focus is within the first segment, the provider will achieve higher financing shares with service charges and participation fees, whereas public funding will be marginal. The reverse is true for providers of the third segment. Service charges and participation fees are relatively low; the need for public and background institution's subsidization is bigger. Most providers combine various funding sources based on the following list:

- Private participation fees,
- Service charges for institutional contracts (e.g. businesses),
- Sales profits (e.g. learning material) and services (e.g. counselling),
- Sponsoring, donations,
- Subsidies from the background organisation (for continuous operation or based on services rendered),
- Public subsidies (for continuous operation or based on services rendered),
- Project funding.

The provider's financial situation is also influenced by demand-orientated instruments such as educational leave, educational vouchers or scholarship programmes, which tend to increase the demand. In all countries under research there are public providers and publicly supported providers with an NGO or private background. This scene is completed by education companies, which do their job for profit, and voluntary providers based in the civic society. Supply-side funding has many profiles but is seen as decreasing: "Growing economic pressure has led to severe cuts in public budgets, and a general market-oriented shift in thinking. This kind of support for adult education is diminishing, losing ground to the other three types which target the individual learner and seek to promote demand rather than supply" (EAEA 2006).

As Table 39 shows, the national experts do not see a homogeneous trend in funding (supply-side plus demand-side funding). In the same way, the current economic crisis does not affect all provider groups. Some experience a decrease in demand and reductions of public funding, others benefit from additional programmes with regard to unemployed persons. The business climate index for the adult learning sector shows this for Germany exactly: In 2009, the main year of the crisis, providers which are dependent on companies as clients have a low index value, in contrast those providers which work in the field of the Labour Administration (Koscheck/Schade 2011).

Country	Funding trend	Impact of economic crisis
Australia	increase	n.a.
Austria	decrease	no
Belgium	No change	different
Canada	n.a.	different
Denmark	decrease	yes
Estonia	n.a.	yes
Germany	decrease	different
Hungary	decrease	n.a.
Italy	decrease	n.a.
Norway	No change	Not much
Netherlands		n.a.
Romania	No change	yes
Slovakia		yes
Spain	decrease	n.a.
Switzerland		n.a.
UK		n.a.
USA	increase	n.a.

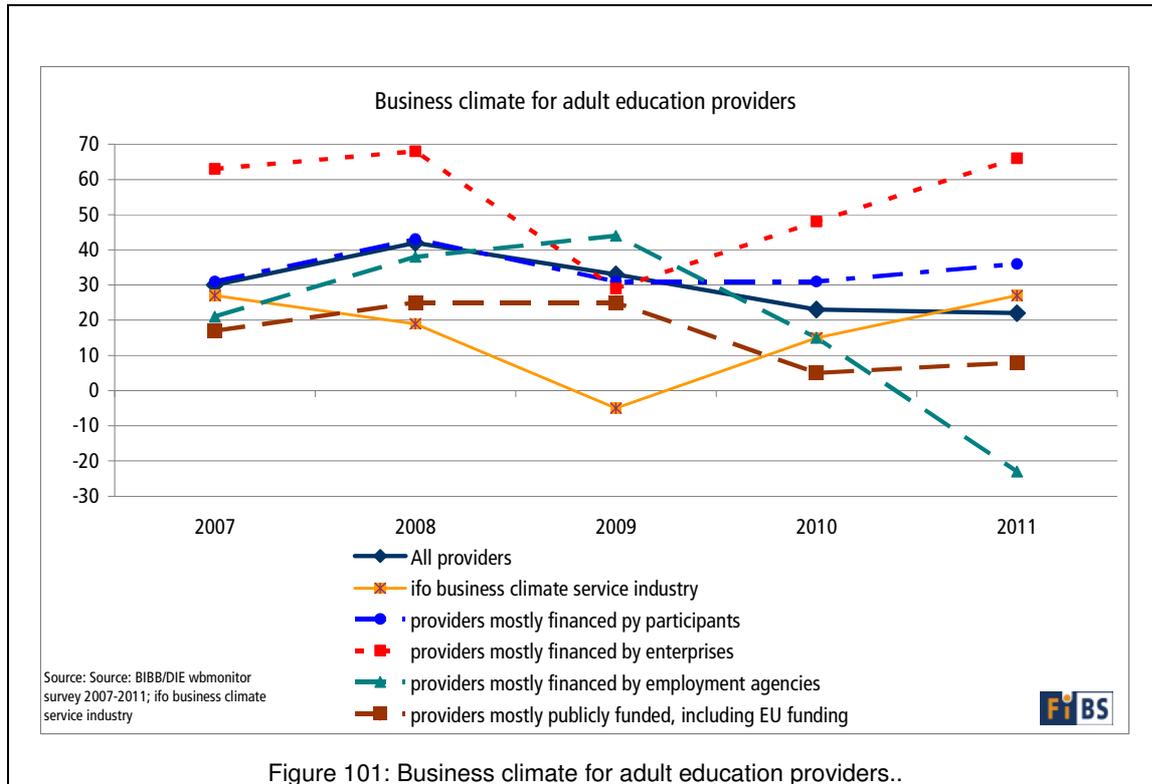
Table 39: Funding Trends (estimation of experts).

Excursus: Business index of learning providers in Germany

In Germany, an annual survey of continuing education providers is conducted as part of a cooperation project between the Federal Institute of Vocational Education (BIBB) and the German Institute for Adult Education (DIE). The content covers alternate current issues, the range of services and the business situation. In Europe, the business climate index in particular is a unique tool to assess the economic situation in the field of continuing education and training. It includes the current assessment of the economic situation as well as future business expectations. The values may vary between -100 and +100, higher values indicates a better climate. At present, the values between 2007 and 2011 are available. It is striking that different market segments of continuing education indicate different market assessments. As depicted in the following Table, this was particularly evident in the economic crisis in 2009.

The following patterns are evident:

- Providers funded by small businesses suffered the most significant slump in the wake of the economic crisis.
- Providers depending on individual demand also noticed a deterioration of the business climate, even though not as distinctive as the first group.
- Providers cooperating with employment services even benefit from the crisis.
- Providers, which are mostly publicly funded, are affected with a delay of one year



6.4.6 Assessment of funding forms from a providers' perspective

The analysis indicates various and quite different financing instruments applied in individual countries, which influence the providers' financing situation directly or indirectly. Providers can evaluate the different financing forms from five perspectives:

- Planning security: To what extent can a continuous cash flow be expected? To what extent can a reliable medium-term programme planning and the required funds be realized?
- Productivity: What is the relation of the expectable funding volume with regard to the required economic mass?
- Administrative burden: What are the costs of managing the finances (cost analyses, reporting duty etc.)?
- Flexibility: To what extent are the provided subsidies earmarked?
- Economic dependency: To what extent is the flow of subsidies depending on the economy?
- Based on this, the following Table 40 evaluates the individual funding types.

Not surprisingly, it seems clear that supply-side funding is more comfortable from providers' perspective than demand-side funding.

Financing forms.	Planning Security	Productivity	Administrative burden	Flexibility	Economic Dependency
Private fees	medium	high	simple	medium	yes
Service fees	medium	medium	simple	medium	yes
Operational carrier fund	high	high	simple	high	medium
Operational public funding	high	high	medium	high	medium
Project funding	low	low	very high	low	medium
Sponsoring	low	low	low	medium	medium
Sales	low	low	medium	high	medium
Vocational leave	low	low	medium	medium	high
Coupons	low	low	high	low	medium
Scholarships	low	low	low	medium	low
Loan	low	low	low	medium	low
Tax reduction	low	low	low	medium	medium
Educational Savings	low	low	low	medium	medium

Table 40: Financing forms from providers' perspective.

6.4.7 Action Strategies of Adult Learning Providers

What could be the consequences if public authorities decrease their funding (supply-side as well as demand-side funding)? What are the reactions of the providers and which side-effects can be expected? The knowledge about the reaction-patterns could be helpful in balancing political strategies.

Lines of Conflict

Dwindling tax revenues and necessary crisis intervention measures decrease of public financial capabilities and cause saving requirements. Since adult education is generally not mandatory, this constellation causes a decrease in spending for adult education and narrows the financial range. At the same time, similar considerations are evident on the demand side: An insecure economic situation causes businesses and individuals to abandon or postpone continuing education plans causing reduced demand for adult education providers. During a crisis, public funding as well as participation and service fees are reduced (e.g. for business or administrative orders).

Naturally, there are beneficiaries during a crisis – particularly institutions which benefit from crisis-related public interventions. As a rule, qualification programmes are initiated for people who are unemployed or at risk of unemployment, generating additional demand for institutions with a suitable programme profile. To put it poignantly, public funds are redistributed: reduction for one provider group, additional funding for another group (see above with reference to the German adult education monitoring system).

This line of conflict is maintained independently from a crisis-related climax. In case of doubt, vocationally oriented programmes and providers have a better chance of ob-

taining public funds than cultural, political or general educational programmes, since the immediate benefit of vocational continuing education as a tool for economic and work market development is easier noticed by political actors than the benefit of other programmes.

A third line of conflict is obvious between the plurally organized continuing education providers and formal institutions (especially schools, universities and colleges). At least in those countries suffering from a decreasing birth rate and a shortage of human resources, providers of formal learning opportunities suffer from a capacity surplus and attempt to balance the demographically based decline in demand by a change into other educational segments, particularly adult education. Due to their public basic funding, these institutions have an advantage over other continuing education providers on the market and can often offer cost-effective and thus cheaper programmes, which might lead to ruinous competition and elimination from the market.

The pressure on providers is also increased from the demand side. On the one hand, institutional clients, such as businesses and authorities, attempt to exercise their market power by lowering the prices with suitable specifications and pass their pressure to continuing education. On the other hand, the individual client also has an increased awareness for costs and prices. This development is a result of the recent quality debate and the consequent consumer protection activities (checklists, continuing education tests, data bases and counselling).

Adjustment Strategies

Some providers are only active in one of the segments; most providers may offer programmes in two or all segments. Their action and adjustment strategies are accordingly diverse. Basically, an institution can react to income reductions as follows:

- It can attempt to lower the costs in order to adjust the expenses. In the personnel intensive continuing educational field, this strategy is mostly at the expense of the staff, which has to accept lower wages, a reduction of working hours or even layoffs. The result is a fragile structure with a reduced quality particularly for participants and a problem of justice.
- They can try to open new market segments with an affluent demand to compensate for reduced profits. This strategy can usually not be realized on a short-term basis and redirects resources from those areas which are necessary for specific target group work in the third market segment.
- They can attempt to increase the demand with marketing measures to offer more efficiently based on quantity effects. The success of this strategy depends mostly on the successful adjustment of programmes to the needs of individual target groups. In extreme cases, the additional costs caused by marketing cannot be compensated by additional profits and the situation deteriorates.
- They can try to find new sources of income. They can participate in calls for tender (project funding) or persuade remaining financiers (public authorities, background institutions) by referring to political arguments (e.g. pointing out problem groups, fol-

low-up costs, positive effects of social cohesion) with regard to actual or potential needs.

- They can attempt to lower costs through networks and cooperation, to find new groups of clients and access to new financing resources. This strategy is also no guarantee for the success of the additional efforts.
- They can try to subsidize losses in one market segment with surpluses from the work in the first market segment thus providing lucrative vocational continuing education to enable e.g. programmes for political education or “second chance” education.

However adding up, all adjustment strategies have only a limited range and cannot ensure the permanent economic sustainability of providers. Under the present circumstances, continuing education providers operate in a fragile situation and mostly depend on public funding. Major reductions in public funding and a stop-and-go policy with unreliable planning perspectives endanger the preservation of effective structures, which are difficult to re-install once discontinued.

7. Summary and conclusion – LLL clusters

This section summarises the findings of this study, draws the resulting conclusions and provides recommendations to enhance the financing of the adult learning sector.

7.1 Summary of findings

Participation rates in adult learning: The average participation rate in EU-27 countries increased between 2007 and 2011 from 35 to 41%¹⁶². This trend is also shown for most countries, though with very different rates in detail. In Northern, Western and Southern Europe all countries, with one exception in each region (Sweden, Belgium and Greece) show increasing rates, while the new Member states are split into two groups. One group (EE, HU¹⁶³, PL, and RO) reveals increasing rates, while the rates declined in the other group (BG, LT, LV, SI, and SK). In contrast, many countries show a reduction in participation rates for formal adult learning, probably due to a shift towards more non-formal learning.

Furthermore, mean hours of instruction decreased in countries with increasing participation rates in adult learning in 2011 compared to 2007, while they increased in most countries with declining participation rates. This suggests a trade-off between participation rates and the number of mean hours of instruction.

Wider benefits of adult learning: Adult learning is beneficial for society, individuals and the economy. Strong correlations can be identified between adult learning and innovation performance indicators. Although learning in the workplace („learning on the job“) through task complexity is the most important driver for innovation performance, also other adult learning indicators, such as AES 2007 or LFS 2010, show strong and significant correlations. There are some indications that adult learning is more important for innovation performance than (initial) higher education.

Furthermore, another positive relationship can be identified between adult learning and economic growth; countries with higher growth rates in 2007 and 2011 show higher adult learning participation rates. Since estimations with time-lag effects show even stronger correlations than models without; this suggests that participation in adult learning is important not only for short term but also for mid-term growth, even though it has a temporary effect only, i.e. to returns to adult learning depreciate over time, unless it is repeated from time to time. However, the findings should be considered preliminary, requiring further analysis; therefore, also the question of causality remains open.

Adult learning can have income benefits and reduce unemployment rates, though size varies, partially due to heterogeneity of adult learning itself. Substantial public and private (monetary) rates of return for second chance as well as for higher education

¹⁶² Taking the participation rate for the UK into account, published in mid-July, the average figure drops slightly to 40%.

¹⁶³ The increase in Hungary is due to a break in time series, prohibiting comparisons between participation rates in 2007 and 2011.

later in life can be observed. Importantly, public and private rates of return vary a lot across countries and for both sexes. However, it appears that returns to (adult) education are far lower in the Nordic countries than in the other regions. Our research indicates that returns are higher in countries where unemployment is lower. 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. A first and preliminary estimate of the macro-level wider benefits arrives at a figure of 0.1%, if not even 0.2% of GDP; a figure which is comparable to public spending in most countries for which funding volumes could be estimated in this study. Even non-vocational adult learning can have positive effects for individuals, employers and society, suggesting that all stakeholders should also contribute to the financing of adult learning.

Eventually, it is important to note that returns to adult learning are sometimes even higher than to initial education, challenging „the common wisdom“ that returns to education decrease over the life-span. Furthermore and of political importance is that returns to adult and higher education arise much faster than for school and early childhood education. This could suggest to invest in adult and higher education first and to utilise the increased fiscal returns to boost school and early childhood education a bit later, but much faster.

Funding volumes: amounts spent for adult learning vary between 1.3 and 0.5% of GDP and it appears that spending volumes have a strong nexus to participation rates according to AES 2011. Austria, Denmark and Sweden spend more than 1.2% of GDP, while CH, NL, and NO spend between 1.0 and 1.1% of GDP. HU, SI, DE, and FI allocate between 0.8 and 1.0% of GDP for adult learning, whereas EE, SK and the UK spend around 0.7% of GDP, only ES is at about 0.5%.

Another important finding is that all five countries with the highest participation rates (SE, CH, NO, NL, and DK) spend more than 1.0% of GDP, FI is only slightly below 1%, but had also lower participation rates in 2007. This could suggest that a spending level of 1.0% of GDP is required to arrive at a participation rate of (almost) 60%; the only other countries which such high funding volumes but lower rates are AT and the US (ASTD), indicating possible inefficiencies. 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 in SI.

Statistical analysis confirms that higher state funding is linked to higher participation rates, though this finding might be somewhat biased because of the high state funding in Nordic countries.

Reviewing development of funding volumes over time, and particularly during the crisis, no overarching development can be identified. Although many countries show decreasing state funding amounts, some countries increased public funding at least temporarily, e.g. Denmark and Germany. Australia and the USA increased public fund-

ing even substantially, though it remains to be seen whether this is a lasting or a temporary development.

Additionally, several other indicators were developed, e.g. expenditure per adult (by financier) or per hour of instruction. Overall, spending figures are higher in countries with higher participation rates, which is particularly valid for employer and state funding, while spending by individuals is lower (the only exception is Switzerland, where individuals pay the highest share). This clearly suggests that lower costs for individuals are conducive to higher participation rates, though also linked to substantial deadweight loss, because people would also participate without state (or employer) funding. Yet, in practice it is almost impossible to increase participation rates without subsidising those willing to pay themselves.

Funding instruments and systems: 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 (so-called ALFi-countries), 333 funding instruments, available for the financing of non-vocational adult learning, can be identified, of which 178 are cost-sharing and 155 are fully publicly funded. 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 countries at the core of this study (and 146 across all 33 countries, i.e. the 27 member states as well as Norway, Switzerland, Australia, Canada, Korea and the USA), of which 46 (66) are unconditional and 80 (80) are conditional; 93 (99) cost-sharing vouchers, spread over 12 (17) countries; 43 (63) training leave regulations, spread over 16 and 27 countries, respectively; 36 (37) loan schemes spread over 7 and 8 countries, respectively; 24 (25) 100% grants, which require no individual co-financing, in 8 and 9 countries, respectively; 5 (8) tax incentives in 5 (8) countries, 5 fee reduction/redemption regulations in 2 countries and 1 saving scheme.

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. In contrast, cost-sharing vouchers are available in all Non-European countries, but only in some European countries.

Looking at the relationship between funding instruments and systems and participation in adult learning, some preliminary findings emerge. Tax incentives and 100% grants (where no co-financing by individuals is required) correlate – though only weakly significant and for bi-variate statistical analyses – with participation rates in (more costly) formal adult learning (according to AES 2011), whereas loans (and particularly loans which are especially for continuing vocational education and training) correlate significantly with participation rates in total (formal or non-formal) as well as in non-

formal adult learning; in both cases according to AES 2011 as well as AES/OECD 2007.¹⁶⁴

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 (even or particularly for more costly adult learning),¹⁶⁵ (2) 100% grants play an important role for disadvantaged groups and second chance education, while (3) vouchers, which are commonly limited to smaller amounts of up to € 500, co-finance the much lower costs of non-formal non vocational learning. However, it should be noted that vouchers are a challenge to under-represented groups and may even serve as additional barrier, if no measures are taken to overcome this bottleneck.

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 seven countries with highest participation rates according to AES/OECD-data (2007); 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 a significant correlation with higher participation rates (LFS 2010), while the correlation for LFS 2011 is only weakly significant. The same applies to the relationship between total number of regional instruments and participation rates, according to LFS 2011. These results could be a first indication that decentral responsibility might help to increase participation rates; however, further research is necessary.

Second chance education/basic skill provision: second chance education has substantial public and private rates of return as well as wider benefits, even if graduation from upper secondary education is “only” at age 40. Even though many countries invest substantial amounts of money and participants are only rarely obliged to pay any contribution themselves, the share of low-qualified people in such programmes seems rather limited apart from Hungary, Canada and the USA. This suggests that additional barriers play an important role which need to be tackled through accompanying measures in addition to funding and at the same time. However, not much is known about successful measures in this regard.

Higher education (for the first time) later in life: also higher education has substantial, though varying rates of return to the individual and the public purse. In some countries the private rates of return exceed 15% and sometimes even 20%, while public rates of return are commonly lower, though in some countries still above 10%, and rarely even above 15%. The share of „mature students“, i.e. students aged 30 and above, varies between 3% of all students in Greece and 33% in Sweden and Norway,

¹⁶⁴ Furthermore, a weakly significant positive correlation between CVET-loans and participation in formal or non-formal adult learning can also be found for LFS 2010 and LFS 2011. In the other cases the correlation is much stronger for CVET-loans.

¹⁶⁵ However, it is a bit surprising that no correlation could be found between loans and participation rates in formal adult learning, but for non-formal. The only, though only weakly, significant correlation between loans and participation rates in formal adult learning concerns LFS 2010 and 2011.

almost zero and 25%, while the share in relation to the corresponding age cohort is up to 15% for those aged 30 to 39 and up to almost 5% for those aged 40+. Higher shares are obviously supported through availability of funding. All countries with more than 20% students aged 30+ among the student population employ open and flexible funding schemes, almost without any age restriction. Furthermore, no distinction is made between younger and 'older' students. It does not seem to make any difference whether this funding is provided through loans and/or grants. However, what seems to matter is means-testing-countries where grants and/or loans are means-tested show lower participation rates of mature students. In contrast, countries with low shares of mature students have no or very little funding for this target group available; instead funding for higher education is exclusively targeted at students below age 30 and often some funding is even addressing parents. In between these two ends are countries, where either some specific funding for mature students or state funding in initial higher education is limited to certain shares of the age cohort, e.g. 10 or 30%. In such cases, students can either enrol in higher education because of wealthier parents or they have to post-pone their studies until they have sufficient income to finance their (part-time) studies.

In contrast to availability of funding, it appears that existence of fees is not that important, provided that funding is available. Among the countries at the top are Nordic countries without tuition fees but also anglo-american countries with substantial tuition fees;¹⁶⁶ it seems plausible, though, that cultural aspects are important in this regard, provided that funding opportunities are available.

Older and retired people: Not much is known about the benefits of adult learning to 'older' people, aged 55 and above; preliminary findings are not very conclusive. As for the other target groups participation rates vary a lot across countries and are higher in the Nordic and Anglo-american countries than in Southern Europe and the newer member states. Even though open and flexible funding schemes, not distinguishing between target groups, seem supportive, effective retirement age and employment status are more important, i.e. raising effective retirement age and employment rates of older people would be more effective in order to increase adult learning participation rates of older people. In contrast to the countries with higher participation rates, countries with medium participation rates employ often some very specific and targeted funding, while low participation is often in line with no or very limited funding.

Learning providers: Research on learning providers is still very limited. Therefore, we conducted an explorative online-survey in seven countries (Austria, Germany, Hungary, Italy, Netherlands, Slovakia, and Slovenia), aiming to gain additional insight in the funding of learning providers, the major problems during the crisis and challenges ahead. Structure of learning providers and funding varies a lot, which is also due to

¹⁶⁶ It will have to be seen whether the increase of fee rates in UK and the hardly available funding opportunities for part-time students will impact on numbers and shares of mature students (Callender 2013).

different groups of learning providers addressed and different response rates. It appears that learning providers in Hungary and Italy are particularly affected by the crisis and shrinking public and EU funding, whereas overarching trend across countries cannot be identified.

7.2 The role of the lifelong/adult learning culture

One overarching key finding of this study is that a common pattern can be identified in relation to those countries having the highest participation rates in the particular category. The availability of open and flexible funding opportunities matters in the particular target group.

For example, higher education participation rates of mature students are high in countries where open and flexible funding for higher education is available; this is the case in the Nordic countries, in Australia, in the UK. In contrast, participation rates are low in countries, where no funding is available for students older than thirty or where restrictions apply, e.g. means-testing and/or focus on full-time studies.

When older people are concerned, the same finding can be observed; participation rates are higher in countries, where older people have open and flexible access to funding for adult learning, even though funding is not the major bottleneck for this group. Countries with lower participation rates have either no or very limited and, at best, commonly targeted funding for this group.

Furthermore, this very same pattern can also be observed for overall participation rates, by and large. Countries with open and flexible funding show higher participation rates than countries with specifically targeted or even almost no funding. This clearly indicates that the specific approach to funding is based on the adult or even lifelong learning culture of a country.

However, the availability of funding alone is likely not the only factor, others contribute as well, e.g. education attainment, employment, economic structure and development etc. Eventually, the learning culture in a country is also very likely to play a role and it seems that the learning culture and the availability of open and flexible funding are interlinked. We will therefore cluster countries according to their lifelong/adult learning culture, even though sorting countries into the one or the other group may in some cases give room for discussion.

According to the results of this study, countries can be grouped into three clusters. A first group of countries applies a policy, which appears rather open to all adults independent from age or level/segment of education aimed at etc. We name this group 'countries with practiced lifelong/ adult learning culture'; this group comprises largely the Nordic countries and Australia. Indicators in this direction are comparatively high funding levels on the one hand and high participation rates in adult learning across the lifespan and particularly for the core target groups reviewed in this study. With regard to the latter a milestone for LLL openness is access to higher education at any point in time or well as funding sources for older people and for second chance education, par-

ticularly with regard to the financing of individuals' cost of living. A second cluster is advancing towards a more comprehensive adult learning culture, but not yet as advanced as the first group. This cluster comprises many Western European countries as well as Slovenia, the United Kingdom and the United States of America, even though these latter two countries show some links to the first cluster. This group applies often specific and targeted funding for older people as well for entering higher education later in life resulting in medium level participation rates throughout the adult life course; however, some bottlenecks can be identified, e.g. in relation to the extent the various target groups are addressed. Eventually, a third group is more oriented towards initial education, i.e. funding opportunities are particularly addressing initial education, while funding for adult learning is often project/tender-based as well as seemingly more oriented towards companies. As a consequence participation rates in adult learning are limited in general, but even more concerning the specific target groups of this study. The following section provides a more detailed overview on the clusters and the countries' policies.

7.2.1 Comprehensive Lifelong/Adult Learning Culture

All four Nordic countries employ comprehensive and comparatively large state-funded adult education systems, as indicated in section 4.1, whereas the individual contribution is comparatively limited. Commonly more than 40% and up to 60% is state funding and employer contribute another roughly 40% - though DK has a very high employer share of more than 50%, whereas state funding is below 40%. In all countries, around 15% is contributed by individuals. The low individual contribution is confirmed through various indicators (see section 4). Australia seems to have even higher state funding shares, though it needs to be mentioned that overall participation rate is below average – this may give room to discuss Australia's sorting in this cluster. In all five countries, supply-side funding, in various forms, plays a major role and provides the basic funding for institutions, topped-up by participant and/or employer fees. Furthermore, funding for institutions is complemented through relatively generous grant and/or loan funding for individuals to cover the cost of living and participation fees, if applicable. The limited contribution from individuals serves either as driver for participation, or – turning it the other way around – keeps the role of funding as a barrier very limited.

From an economic point of view, deadweight loss is likely to be a concern, as many participants are probably willing and also able to cover higher individual costs, though the different understanding and role of the state in these countries needs to be taken into consideration in general. The following country-specific summary and remarks focus the countries at the core of this study.

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 large state 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, alternatively, special conditions preventing higher rates. Compared to other Nordic countries, costs/affordability plays a more important role as obstacle, particularly for women.

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 Norwegian as a second language for adult immigrants. 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 following 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.

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 an entitlement 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 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.

7.2.2 Advancing Lifelong/Adult Learning Culture

The countries in this cluster employ various funding instruments for adult learning, often targeted at some specific groups while overarching instruments are commonly missing. Consequently, participation rates are lower than in the previous cluster (except for Australia), particularly in relation to older learners and higher education later in life.

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.¹⁶⁷ 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 mainly with the regions/communities (though exceptions exist), policies are very similar; the federal level is only responsible for the paid training leave. Funding policies operate particularly through supply-side funding of learning providers, 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 train-

¹⁶⁷ 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

ing leave, time credit regulations and employer-oriented training and guidance vouchers.

	Type/name of instrument	Federal level	Regional															
			British columbia	Ontario	Quebeck	Alberta	Manitoba	Saskatche wan	Northwest Territories	Prince Edward Island	Newfoundl and and Labrador	Nova Scotia	New Brunswick	Yukon	Nunavut			
publicly funded	Voucher/LA																	
	Lifelong learning plan	+																
	100% Grants for Individuals																	
	Apprenticeship Completion Grant	+																
	Apprenticeship Incentive Grant	+																
	Skills, Loans and Grants	+																
	Allowance fo special needs program - adults					+												
	Merit Scholarship for foreign students taking technical training					+												
	Merit Scholarship for foreign students taking vocational training					+												
	Immigrants in Trades Training			+														
	Skills development - apprenticeship supports			+														
	Apprenticeship Completion Bonus - non Red Seal Trade					+												
	Ontario Bridging Participant Assistance Program					+												
	Learning Support for People with Disabilities									+								
	Millenium Adult Learner Bursary								+									
	Provincial Training Allowance									+								
	Scholarships for Apprentices and Occupational Trainees						+											
	Conditional Supply-Side Funding																	
	The Targeted Initiative for Older Workers (TIOW)	+																
	Language Instruction for Newcomers to Canada (LINC)	+																
	Aboriginal Training for Employment Program						+											
	The Targeted Initiative for Older Workers (TIOW) – BC						+											
	Jobs Options BC						+											
	Bridging Programs						+											
	ESU/FSL School Boards						+											
	Community Adult Learning Councils								+									
	Vocational Training																	
	Age Advantage Plus																	
	Community Schools																	
	Community Training Funds																	
	Comprehensive Arts and Science College Transition Program																	
	Canada-New Brunswick Agreement on Targeted Initiatives for Older Workers.																	
	Fee exemption/reduction																	
	Adult Learning Centres																	
	Adult Day School - Credit																	
	Graduated Students Adult Education																	
	Grant for companies																	
	Skills Plus																	
	Targeted Skills Shortages Pilot Program																	
	Employment Integration Program for Immigrants and Visible Minorities (PRIIME)																	
	Job Skills																	
	Workplace Education																	
	Cost-sharing grant																	
	Second Career																	
	Skill Development	+																
Skills Training Benefit (STB)																		
Grant for Companies																		
MACA Tuition Subsidy																		
National/multisectoral training funds																		
Payroll Tax																		
Tax incentives for companies																		
Training Tax Credits																		
Tax Incentives																		

Figure 102: Funding instruments in Canada

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

suggest to cooperate more in order to decrease costs per beneficiary or to increase the number of beneficiaries.

it is the only country in Europe showing this pattern.¹⁶⁸ 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) 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 table above. 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.

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 indi-

¹⁶⁸ Though Slovenia shows also decreasing figures for both indicators, the drop in mean instruction tim is much smaller.

viduals 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 appr. 5.5m people contributing own means to adult learning; tax incentives are probably the most important co-funding instrument, followed by the grants and loans for master craftsmen. This could indicate why particularly low-qualified point to costs and 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.

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 4.1 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 6.1.

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 for all countries, together with Denmark.¹⁶⁹

Slovenia has had comparatively high and above average participation rates 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 the newer member states and largely based on employers' and individual contributions. Only 0.2% of GDP is spent from public and EU sources. Despite these comparatively high 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 4; 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. 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.¹⁷⁰ However, Spain's spending indicators are comparable to other countries with similar participation rates.

¹⁶⁹ If MOE figures are more appropriate than CVTS 4-data on employer spending the Figure would even go up.

¹⁷⁰ For completeness, it might be the case that spending figures are underreported, because spending of only € 6.1m from employment agency seems rather low.

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 (see section 2.2.). 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; 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, which does not seem very likely; instead further decreases in participation rates seems more probable.

The **United States of America** has 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 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.¹⁷¹

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.

7.2.3 Catching-up Lifelong/Adult Learning Culture

These catching-up countries rely very much on external sources from ESF and are focussed largely on initial education.

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.

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%.

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%

¹⁷¹ However, there is no additional evidence that the spending volumes are as high as the ASTD-estimate

of non-participants mention this aspect and even more 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.

According to the country brief it appears really 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 supported 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.¹⁷²

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, complemented by training leave regulations addressing 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.

Adding up, the catching-up countries have a strong focus on companies or unemployed people but offer very little funding for employed people or other groups. As a consequence, all these countries rank at the lower ends concerning LFS participation rates, whereas AES-figures are sometimes close or even slightly above the European average. This indicates strong reliance on short non-formal programmes, lasting only very few hours on average. Furthermore, funding for companies is not conducive to support adult learning in general (PPMI/FiBS 2012) and particularly not for disadvantaged or underrepresented groups.

Funding in these countries is rather limited and much lower than for other countries, which is valid for all funding indicators; the major beneficiary are companies, while state and individuals contribute rather small amounts and shares; in contrast, costs or affordability play a more pronounced role as obstacle than in (most) other (groups of) countries; this is particularly the case for Romania. Eventually, even though the ESF is a major contributor as regards (public) funding the results, as far as participation is

suggest, except the better fit into the overall pattern.

concerned, are rather disappointing. This clearly calls for revision of policies in order to invest more public (and European) money in adult learning. Another concern is application of project-based funding, which is not supportive to sustainable structures, but to limited ability to benefit from increasing participation; all experience with funding instruments suggests that take-up in the starting phase is rather limited and grows over time. This “chance to grow” is missing in these countries, because of the short-term oriented tender- and project-based approaches mentioned.

As an important consequence of such policies, the probability of highly educated and/or younger learners to participate in adult learning is 10-times higher, and sometimes even more, than for low qualified or older people. In contrast, the difference is much lower than in other countries. Another interesting feature of these countries is a relatively high share of mature students, despite lack of funding for this group – apart from Hungary – which is due to restrictions in access to state-funded initial higher education.

¹⁷² 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.

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8. Annex: Methodological remarks and additional analyses and results

As outlined at the beginning of this report, the study is based on several methodologies and sources:

- Thorough literature review and analysis: this study is based on officially published research literature, so-called grey literature (i.e. studies which are not officially published, but as discussion papers etc.), unpublished documents as well as content available through websites only. A comprehensive list is provided in the bibliography.
- Statistical analyses of adult learning data in Europe and other countries, in particular e.g. Eurostat (AES 2007, 2011; LFS various years since 2002), OECD (in particular data provided in relation to Education at a Glance – various years), but also data collected additionally during this study.
- Brief summaries on the adult learning policy in the countries concerned: the research team consisted not only of the core team members but also on national experts, very knowledgeable about the adult learning and funding system in those countries, which were at the core of this study (see section 1.4): these experts are listed in section 8.6.
- Mapping surveys on cost-sharing and public funding instruments: two separate mapping survey were conducted, one for cost-sharing instruments and one for public funding instruments, requesting information on the availability of certain funding instruments and their specific number per country. Furthermore, core characteristics of the instruments were asked. Both questionnaires are presented in annex 2.
- Factual information on selected funding instruments: More detailed information was requested for one instrument per type and country, an example for the questionnaire is presented in annex 2 (which is a separate document).
- Expert overview/survey on the situation of learning providers: national experts were asked to provide a short overview on the situation of learning providers in their countries (see the questionnaire in annex 2 – learning provider survey part 1)
- Online survey of learning providers in 7 countries: see annex 2 for the questionnaire and section 8.5 for some additional information.
- Statistical data on funding volumes: see the detailed description of the methodology and the data sources per country in section 8.2 and the questionnaire in annex 2.

The following section reviews certain methodological aspects for some specific topics more in-depth.

8.1 Relationship between adult learning, growth and innovation

This chapter serves to provide detailed information on the estimation techniques and models used in the multivariate regression analyses of AES participation on **real GDP growth** over time. In this chapter, the first series of models, already briefly presented

within this study, is elaborated. Thereafter, the results of a second series of models, based on simulated data and discussed only within the annex, are briefly introduced.

First regression model series – based on 2007 and 2011 AES participation data

In the estimation presented in this study, the effect of AES participation on real GDP growth over time was analysed, considering data on the years 2007 and 2011¹⁷³. For such an investigation, the use of panel data is required, i.e. a dataset in which the behaviour of entities is observed over time. These entities can for example be states, companies, individuals or, as in our case, countries. Given the complexity of panel data, different forms of estimation methods may be necessary to use than when dealing with other forms of data, such as cross-sectional data. Several different forms of advanced panel estimation methods exist, the most common being pooled ordinary least squares (POLS), fixed effects (FE) and random effects (RE) estimation. The choice concerning which of these estimation methods to use depends on data characteristics.

In order to decide which of these estimation types is most suitable for the panel data at hand, poolability tests are crucial in order to ensure that the data can be pooled, and thus analysed. POLS is a suitable panel estimation method when observations are pooled over time or cross-sectional units – in our case years and countries. In the case of our analysis, poolability tests rejected the use of POLS estimates. When POLS cannot be used for analyses of panel data, random or fixed effects estimation is typically considered. The main difference between fixed and random effects estimation can be summarised as following. For each entity (in this case country), fixed effects (FE) estimation controls, i.e. accounts, for time independent characteristics which are possibly correlated with the independent variables included in the model. This could for example be the effects of certain structures in the adult learning sector, which do not vary over time and are possibly correlated with participation in adult learning (AL). To sum up, using fixed effects estimation removes the effect of constant variables over time, allowing us to analyse the impact of variables that vary over time. In contrast, random effects (RE) estimation allows the inclusion of time-invariant variables, as it considers the variation across entities, in this case countries, to be random.

As in the case of POLS, tests are used to confirm which estimation method is best suited for the data at hand. Concerning the use of RE estimation, the Lagrange Multiplier (LM) test confirmed the poolability of RE estimates, signaling these estimates to be more suitable for the regression analysis than POLS estimates. However, further testing is required to ensure that RE and not FE estimation is most suitable for the analysis of the panel data at hand. FE estimates are preferred to RE estimates when differences in coefficients are systematic. Using RE estimates in such a situation would

¹⁷³ In addition to AES participation rates retrieved via Eurostat, OECD data on GDP per capita and real GDP growth was used to form the data base on which both series of models were estimated.

imply the use of inconsistent estimates¹⁷⁴. In order to test for systematic differences in the coefficients of a certain model, the Hausman specification test is used. Given that test results did not confirm the existence of systematic differences, RE or FE estimates may be used for the analysis.

Due to these test results, Table 1 presents multivariate regression results (standardised beta coefficients and significance levels) retrieved using fixed and random effects estimation. All analyses, irrespective of their estimation method, aim to analyse the relationship between participation adult learning (independent variable) and real GDP growth (dependent variable) over time. Hence, participation in adult learning represents the main effect of interest. In addition to participation in adult learning, a set of different control variables are included in all models, in order to reduce possible bias caused by omitted variables, i.e. endogeneity. In order to account for differences in economic performance across countries, GDP per capita – which represents one of the most commonly used variables in this respect – is included. Furthermore, it is important to keep in mind that trends and/or seasonality may play a role when the relationship between different variables over time is analysed. Many variables are likely to be trending over time and may fluctuate in similar patterns. Failing to account for this, i.e. not accounting for time effects, may result in (significant) relationships being suggested between variables only because similarities in trending exist between them (Wooldridge 2009). Time effects can be accounted for either by including a so-called year trend or year dummies. In the case of this study, the latter method was chosen¹⁷⁵.

While the previously mentioned control variables, GDP per capita and time effects are included in all models, an additional variable to the variables in FE1 and RE1 – a time lag in participation in adult learning – is included in the models FE2 and RE2. The underlying reason for this is that in doing so, inferences on whether or not participation in 2007 may have contributed to affecting growth rates in 2011 can be made¹⁷⁶. This is interesting, as participation in AL is likely to affect growth with some delay. In addition, including a time lag ensures that the relationship between adult learning and growth is not merely a consequence of serial correlation, i.e. differences in participation rates of countries in later years being based on differences participation rates in the past.

Regarding the results of Table 41, all coefficients are interpreted in comparison to the base level, year 2007, all else equal ('ceteris paribus').

¹⁷⁴ If an estimator converges in probability to the population parameter as the sample size, N , "grows to infinity", it is considered to be a consistent estimator (Wooldridge 2009).

¹⁷⁵ When using year dummies, one year dummy less than the total number of years in the data is omitted to form the so-called base level. In the case of our analyses in both series of models, the year dummy 2007 forms the base level.

¹⁷⁶ Please note that as only regard the years 2007 and 2011 are regarded in our first series of models, the time lag in participation in 2011 is the participation rate in 2007. However, when data on a greater number of years, as in the second series of (simulation) models, is included, the time lags of participation refer to participation rates in the previous years. Hence, the one year time lag of participation in 2011 is the participation rate in 2010, the two year time lag of participation in 2011 is the participation rate in 2009, etc.

Regardless of which of the four models are regarded, a positive effect of AES participation on real GDP growth is visible. This effect holds even when controlling for the time lag of AES participation (FE2, RE2). Furthermore, both AES participation and the time lag of AES participation are significant, which suggests that participation in adult learning has a positive impact on short term as well as long term impacts on growth.

Regarding the coefficients of the other variables in the different models, the significance of the year dummy 2011 demonstrates the importance of controlling for time effects in our model. The coefficient of this year dummy shows us the change in real GDP growth between 2007 and 2011, which was not caused by changes in AES participation in AL or GDP per capita. Regarding the negative beta coefficient on the year dummy 2011, we can infer that real GDP growth was significantly lower in 2011 than in 2007 (controlling for AES participation and GDP per capita). While the previously discussed effects of participation in AL (positive) and time effects (negative) hold across all models, the picture is not as clear, when regarding GDP per capita.

Regarding the two FE models, a barely significant positive relationship (at the 10 percent significance level) between GDP per capita and growth is only visible when regarding FE1, the FE model with the comparatively lower goodness of fit (R^2) value. In contrast, both RE models suggest significant negative relationships between real GDP growth and GDP, although the coefficient of GDP per capita in RE1 is only barely significant (at the 10 percent significance level). However, the model with the higher goodness of fit of both RE models, RE2, suggests a highly significant negative relationship.

	FE1		FE2		RE1		RE2	
	Real growth	GDP						
AES participation	0.827***		1.048***		0.569**		0.542**	
Time lag of AES participation			0.274**				0.355****	
GDP per capita	3.248*		1.142		-0.389*		-0.477***	
2011	-0.898****		-0.819****		-0.545****		-0.526****	
N	44.000		37.000		44.000		37.000	
r2_w	0.627		0.731		0.489		0.609	
r2_o	0.000		0.066		0.411		0.582	

* p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

Table 41: Fixed effects estimation results of AES participation on growth. Years 2007 and 2011.

First regression model series – based on 2007 and 2011 AES participation data

The previous estimation analysed the effect of AES participation on **real GDP growth** over time on the basis of data on the years 2007 and 2011, given that AES participation data exists only for these two years. However, if one is interested in ana-

lysing a broader range of time, i.e. the time frame 2007-2011 including data on each of the five years, respective data can be created by means of a simulation. In order to simulate data, assumptions are required. In our analysis, we regarded the participation rates in 2007 and 2011 and assumed that between these two rates participation increased (decreased) steadily, i.e. by the same rate each year (the difference in the rates in 2007 and 2011 divided by four). For example, participation in AL in EE increased from 42% in 2007 to 50% in 2011, hence by 8%. Assuming a steady rise in participation rates by 2% (8/4) each year, we arrive at following participation rates for EE: 42% in 2007, 44% in 2008, 46% in 2009, 48% in 2010 and finally 48% in 2011. For other countries, data on participation in AL in the years 2008-2010 was simulated accordingly. For the case that data on participation in AL was available only for one of the two years in a particular country, it was assumed that rates increased (if only data on 2007 was specified, e.g. in the case of IE), or decreased (if only data on 2011 was specified, as in the case of LU) according participation rates of the average European country¹⁷⁷.

Despite dealing with different data than those underlying the estimation of the previously introduced series of models, tests again confirmed the use of RE over POLS estimation. Similarly, test results did not confirm the existence of systematic differences between RE or FE estimates, so that both estimation methods may be used for the analysis of the second series of models. In comparison with the first series of models, variables in the tested second series of models are similar, with the difference that a higher number of year dummies as well as time lags (due to the higher number of years analysed) are included.

Regarding the regression results in the comparatively large number of simulated RE and FE models in the following two tables, an interesting result is that participation in adult learning is found to have a positive effect on real GDP growth in all but one FE model (FE), while the opposite holds when regarding the RE estimation results. Both FE and RE estimation results suggest that there is no significant effect of GDP per capita on real GDP growth. The same holds for lags in AES participation. While significant relationships with growth can be seen in few exceptional (FE5, RE5), the significant effect fades once additional lags are included (models FE6, RE6, FE7, FE7, FE8, RE8). Although one could argue that dropping (individually) insignificant time lags from the model would increase efficiency, tests prove (all) time lags to be jointly significant (FE8, RE8).

Overall, this second series of estimation provides very ambiguous results. Based on simulated data, fixed effects estimation suggests that a positive relationship between participation and growth existed over half a decade, i.e. countries with higher participation rates in this time frame also had higher growth rates. The same conclusion can however not be derived, when regarding RE estimation results. All in all, one could argue that the higher goodness of fit values of the FE estimation models give reason to

¹⁷⁷ Regarding the EU-27 average (data provided by Eurostat), total participation in AL increased from

believe that their results are better suited to draw conclusions on the relationship between participation in adult learning and growth than their RE counterparts. However, regression results must be interpreted with caution as they are based on simulated data. In addition, it is important to keep in mind that results of all models assume a steady change in participation over the time frame 2007-2011. In future studies, an interesting new approach could be to assume non-linear changes in the participation rate over time. This, however, is beyond the scope of this study.

35% in 2007 to 41% in 2011, i.e. by 1.5% each year.

	FE3	FE4	FE5	FE6	FE7	FE8
	Real GDP growth					
Participation in AL	0.542**	0.592**	0.678***	0.751***	0.747***	0.566
GDP per capita	1.554	1.442	1.562	1.345	1.353	1.763
2008 (simulated)	-0.453****	-0.466****	-0.461****	-0.462****	-0.461****	-0.486****
2009 (simulated)	-0.989****	-1.013****	-1.014****	-1.003****	-1.001****	-1.018****
2010 (simulated)	-0.359****	-0.381****	-0.396****	-0.394****	-0.366****	-0.401****
2011 (simulated)	-0.418****	-0.440****	-0.467****	-0.476****	-0.481****	-0.502****
One year lag in participation in AL		0.032	-0.076	-0.069	-0.070	-0.053
Two year lag in participation in AL			0.159**	0.072	0.071	0.097
Three year lag in participation in AL				0.145	0.160	0.171
Four year lag in participation in AL					-0.032	-0.057
Five year lag in participation in AL						0.550
N	115.000	112.000	109.000	106.000	103.000	101.000
r2_w	0.731	0.732	0.743	0.745	0.746	0.753
r2_o	0.119	0.123	0.110	0.133	0.128	0.106

Standardized beta coefficients; Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, **** $p < 0.001$

Table 42. Fixed effects estimation results of AES participation on growth. Years 2007-2011 (simulation).

	RE3	RE4	RE5	RE6	RE7	RE8
	Real GDP growth					
Participation in AL	0.190 [*]	0.155	0.174	0.192	0.189	0.180
GDP per capita	-0.101	-0.102	-0.105	-0.114	-0.116	-0.113
2008 (simulated)	-0.350 ^{****}	-0.355 ^{****}	-0.352 ^{****}	-0.358 ^{****}	-0.357 ^{****}	-0.355 ^{****}
2009 (simulated)	-0.938 ^{****}	-0.947 ^{****}	-0.943 ^{****}	-0.942 ^{****}	-0.941 ^{****}	-0.938 ^{****}
2010 (simulated)	-0.245 ^{****}	-0.251 ^{****}	-0.253 ^{****}	-0.253 ^{****}	-0.239 ^{****}	-0.236 ^{****}
2011 (simulated)	-0.268 ^{****}	-0.277 ^{****}	-0.282 ^{****}	-0.291 ^{****}	-0.289 ^{****}	-0.290 ^{****}
One year lag in participation in AL		0.052	-0.050	-0.046	-0.047	-0.047
Two year lag in participation in AL			0.128 [*]	0.013	0.012	0.011
Three year lag in participation in AL				0.154	0.172	0.172
Four year lag in participation in AL					-0.027	-0.011
Five year lag in participation in AL						-0.024
N	115.000	112.000	109.000	106.000	103.000	101.000
r2_w	0.707	0.707	0.714	0.717	0.718	0.716
r2_o	0.630	0.627	0.635	0.643	0.642	0.643

Standardized beta coefficients; Standard errors in parentheses

^{*} $p < 0.10$, ^{**} $p < 0.05$, ^{***} $p < 0.01$, ^{****} $p < 0.001$

Table 43: Random effects estimation results of AES participation on growth. Years 2007-2011 (simulation).

The following table provide further estimates on adult learning and innovation

Dependent	Independent	C	Sig. C	B	Beta	Sig.	R ²
Innovation index (2010)	Labour productivity per hour (2009)	0.15	0.05	0.35	0.66	0.00	0.43
Innovation index (2010)	Participation in AL (LFS)	0.28	0.00	1.61	0.67	0.00	0.45
Innovation index (2010)	Other forms of learning in enterprises index (2005)	0.23	0.01	3.26	0.51	0.01	0.26
Innovation index (2010)	Costs of CVT as% of total labour cost (2005)	0.18	0.10	0.17	0.45	0.02	0.21
Innovation index (2010)	Share of training enterprises as% of total (2005)	0.08	0.38	0.61	0.66	0.00	0.43
Innovation index (2010)	Employee participation in CVT courses (2005)	0.17	0.04	0.83	0.57	0.00	0.32
Innovation index (2010)	Share of tertiary education (2005)	0.17	0.10	1.16	0.49	0.01	0.24
Innovation output index (2010)	HR index (2009)	0.05	0.46	0.35	0.50	0.01	0.25
Innovation index (2010)	HR index (2009)	-0.35	0.13	1.35	0.58	0.00	0.34

Innovation index (2010)	Other forms of learning in enterprises index (2005)	0.13	0.03	1.21	0.18	0.21	0.69
	R&D/GDP (2009)			0.14	0.73	0.00	
Innovation index (2010)	Work organisation index (2010)	0.63	0.04	-0.71	-0.23	0.24	0.48
	Participation in AL (2009)			1.99	0.82	0.00	
Innovation index (2010)	Other forms of learning in enterprises index (2005)	0.12	0.18	1.79	0.28	0.17	0.38
	Employee participation in CVT courses (2005)			0.64	0.42	0.04	
Innovation index (2010)	Other forms of learning in enterprises index (2005)	0.22	0.00	1.11	0.17	0.35	0.49
	Participation in AL (2009)			1.45	0.58	0.00	
Innovation index (2010)	Work organisation index (2010)	-0.08	0.76	-0.39	-0.13	0.39	0.71
	Participation in AL (2009)			0.01	0.35	0.07	
	Cognitive factors (all years)			1.06	0.64	0.00	
Innovation index (2010)	Work organisation index (2010)	-0.39	0.07	-0.12	-0.04	0.76	0.71
	Cognitive factors (all years)			1.32	0.74	0.00	
	Share of tertiary education (2005)			0.53	0.23	0.09	
Innovation index (2010)	Other forms of learning in enterprises index (2005)	-0.37	0.10	1.24	0.19	0.26	0.59
	HR index (2009)			0.94	0.38	0.03	
	GDP per capita (2010)			0.00	0.46	0.01	
Other forms of learning in enterprises index (2005)	Participation in AL (2009)	0.04	0.00	0.22	0.57	0.00	0.32

Dependent	Independent	C	Sig. C	B	Beta	Sig.	R ²
Participation in AL (2009)	Workplace Learning (2005)	0.00	0.87	1.47	0.57	0.00	0.32
Participation in AL (2009)	Innovation index (2010)	-0.02	0.45	0.28	0.67	0.00	0.45
Participation in AL (2009)	HR index (2009)	-0.21	0.03	0.53	0.56	0.00	0.31

Source: Cedefop (2011).

Table 44. Estimation results of the EU-27 and Norway

Dependent	Independent	C	Sig. C	B	Beta	Sig.	R ²
Innovation index (2010)	Labour productivity per hour (2009)	0.09	0.19	0.43	0.74	0.00	0.55
Innovation index (2010)	Participation in AL (LFS)	0.28	0.00	1.71	0.69	0.00	0.46
Innovation index (2010)	Other forms of learning in enterprises index (2005)	0.22	0.01	3.51	0.53	0.01	0.28
Innovation index (2010)	Costs of CVT as% of total labour cost (2005)	0.18	0.11	0.17	0.45	0.02	0.20
Innovation index (2010)	Share of training enterprises as% of total (2005)	0.05	0.57	0.67	0.70	0.00	0.49
Innovation index (2010)	Employee participation in CVT courses (2005)	0.17	0.05	0.83	0.57	0.00	0.32
Innovation index (2010)	Share of tertiary education (2005)	0.15	0.14	1.26	0.52	0.01	0.27
Innovation index (2010)	Other forms of learning in enterprises index (2005)	0.13	0.04	1.44	0.21	0.15	0.70
	R&D/GDP (2009)			0.13	0.72	0.00	
Innovation index (2010)	Work organisation index (2010)	0.55	0.08	-0.56	-0.18	0.36	0.50
	Participation in AL (2009)			1.99	0.81	0.00	
Innovation index (2010)	Other forms of learning in enterprises index (2005)	0.12	0.19	2.03	0.31	0.14	0.39
	Employee participation in CVT courses (2005)			0.60	0.40	0.06	
Innovation index (2010)	Other forms of learning in enterprises index (2005)	0.21	0.00	1.34	0.20	0.25	0.54
	Participation in AL (2009)			1.53	0.60	0.00	
Innovation index (2010)	Work organisation index (2010)	-0.11	0.70	-0.45	-0.14	0.34	0.72
	Participation in AL (2009)			0.71	0.29	0.14	
	Cognitive factors (all years)			1.17	0.68	0.00	
Innovation index (2010)	Work organisation index (2010)	-0.36	0.10	-0.04	-0.01	0.93	0.68
	Cognitive factors (all years)			1.21	0.71	0.00	
	GDP per capita (2010)			0.00	0.18	0.26	
Innovation index (2010)	Work organisation index (2010)	-0.36	0.09	-0.24	-0.08	0.55	0.72
	Cognitive factors (all years)			1.33	0.78	0.00	
	Share of tertiary education (2005)			0.46	0.19	0.16	
Other forms of learning in enterprises index (2005) (2005)	Participation in AL (2009)	0.04	0.00	0.21	0.55	0.00	0.30

Dependent	Independent	C	Sig. C	B	Beta	Sig.	R ²
Participation in AL (2009)	Workplace Learning (2005)	0.69	0.82	1.42	0.55	0.00	0.30
Participation in AL (2009)	Innovation index (2010)	-0.03	0.33	0.28	0.69	0.00	0.46
Participation in AL (2009)	HR index (2009)	-0.21	0.03	0.53	0.56	0.00	0.31

Source: Cedefop (2011).

Table 45: Estimation results of the EU-27

8.2 Funding volumes for adult education

8.2.1 Starting point – the data collected

For two reasons this section presents the figures that have emerged from the various sources: Firstly, it should provide some background information on how to understand and interpret data that is provided in the international discussion on the financing of adult learning. Secondly, it should highlight the importance of the remarks made in the previous introductory section.

Figure 103 presents funding figures in relation to GDP for adult learning for several countries – the indicator spending for education (here adult learning) in relation to GDP is a common international indicator to compare relevance of spending for certain sectors, including education (e.g. OECD 2012). At first glance, it suggests that spending levels for adult learning vary from 0.2% of GDP to almost 4%. More in detail, funding shares are far higher in the USA and the UK than in the other European or non-European countries. However, at second glance – and highlighted by the various colours in Figure 103 – the bars respond to very different understandings and definitions of adult learning – and are, thus, in fact, incomparable.

For example, the figures for UK and USA, presented in light blue, concern post-secondary (USA) or post-compulsory education (UK) and include spending for initial higher education, which is about 2.6% of GDP in the USA and 1.3% in the UK (OECD 2012). How important the differences are is highlighted by the second bar for the UK, placed left of the other. If accounting for funding that is spent for adults aged 25 and above only, the funding level goes down to 0.3% of GDP or – in absolute terms – from € 45.5bn to € 6.4bn, i.e. by about 86% to 14%.¹⁷⁸ In this case spending in the UK is still at the level of other countries, though also below many other countries, while the initial figure would have placed it at the very top of all countries.

In contrast, spending figures for several other countries, e.g. Norway or Finland, which are presented in yellow, comprise only public spending for adult learning. Although one might possibly expect that spending levels for these countries are (much) lower than for other countries, this is not necessarily the case. For example, Norway spends 0.6% only from public sources which is more than spent in total through all

¹⁷⁸ Both figures are drawn from Schuller/Watson (2009).

stakeholders in other countries. It is, though, very likely that total funding in such countries is under-reported, as private and company contributions are unclear; we will therefore provide 'adjusted' estimations on the basis of CVTS3, CVTS 4 and AES 2007¹⁷⁹.

The pink bars comprise funding data inclusive of enterprise training and the shining green bars include spending for adult higher education. In order to provide more comparable figures, the following sections try to provide comparable data specified for similar understandings of adult learning.

Before going more into detail, it seems worth to have a look at the consequences of varying figures in a few countries. For example, for DE the Federal Statistical Office (2011) indicates a total spending for adult education of € 12.2bn in 2008, which amounts to 0.5% of GDP. Comparing this figure with private spending according to AES 2010, which was estimated at € 6bn (Gnahs/von Rosenblatt 2011), it is likely that the official figure under-reports total spending for adult education in Germany. The difference is presented by a second German bar, placed right of the first one. As a consequence, total spending in relation to GDP would go up to 0.75%.

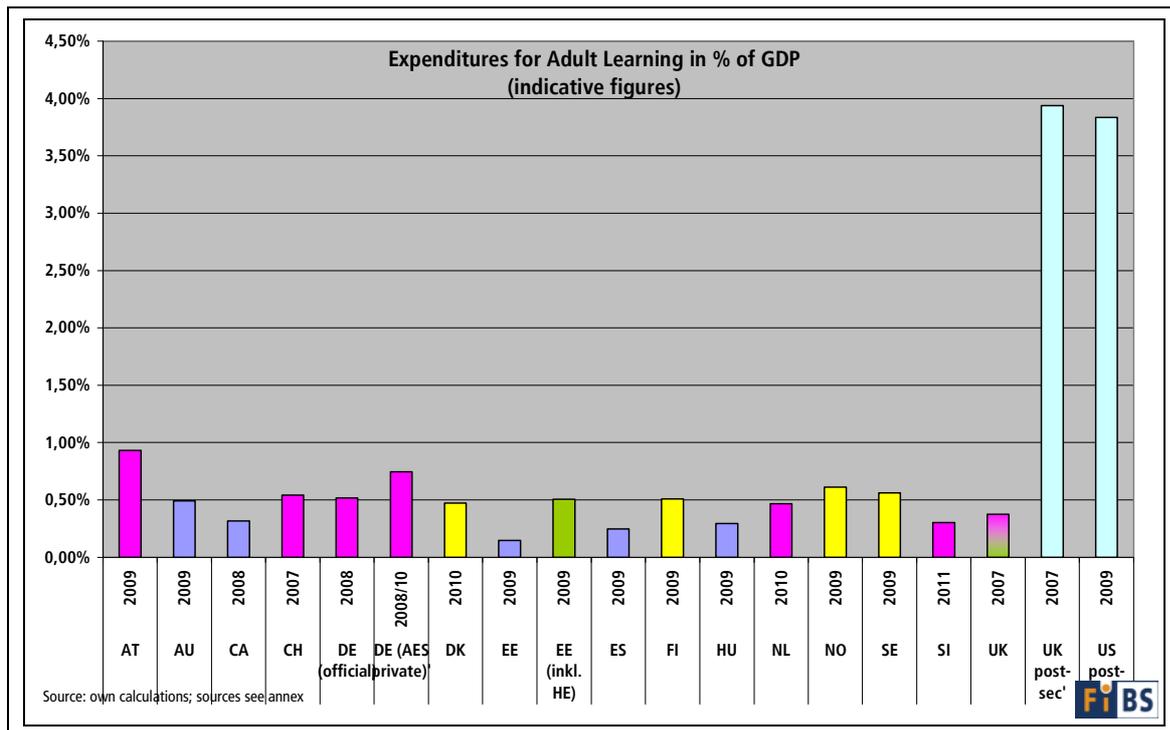


Figure 103: Expenditures for adult learning % of GDP

Disentangling overall spending in DE according to official statistics, Figure 103 includes companies' expenditures for training, which is the biggest share of around 60% of total spending (€ 7.3bn) and to be considered as vocational learning, by and large.

¹⁷⁹ No funding figures are yet available for AES 2011, which would allow to provide updated figures. However, based on the analyses of developments between AES 2007 and 2011 in section 2, it appears that changes are comparatively small in most countries. In countries with higher rates in AES

As a consequence, funding for adult learning (excl. of company training) would go down to 0.2% of GDP and contain still a certain share of expenditures for vocational learning. The best proxy with regard to non-vocational adult learning is probably the € 1.0m for the Folk high schools, though this also includes expenditures for younger target groups, not considered part of adult learning for those aged 25+. It might also be worth noting that much other adult learning, which is financed from other ministries than education or labour and social affairs, is not properly accounted for, since the Further Education Report Hesse, one of the German states, mentions several sources having a nexus to adult education but not included into the adult learning budget (Schemmann/Seitter 2010). Eventually, second chance education might not be accounted for in an appropriate manner, if this is financed as part of the (extended) initial education system by the ministries of education, e.g. in the case of evening programmes. This is likely to be the case in many other countries as well, e.g. Italy.

Another approach has been chosen by the UK Commission on Lifelong Learning (Schuller/Watson 2009), which in a first instance calculated the funding figures for post-compulsory education, amounting to £ 55bn (€ 69bn (PPP)) or 3.9% of GDP. Disaggregating this figure by age, funding for adult learning of those aged 25+ reduces this amount by 90% to £ 5.2bn (€ 6.6bn (PPP)) or 0.3% of GDP – as these figures refer to age, expenditures for higher education of mature students is included in this higher figure.

Even more difficult is a comparison with the US figures, though the US Department for Education has done a tremendous job and provided us with very detailed data on the financing of adult learning.¹⁸⁰ In a first instance, funding amounts to \$ 532bn or 4.8% of GDP; comparing this with overall spending for education in the US of 7.3% of

2011 mean hours of instruction are lower and vice versa. However, this can only be proven once data on funding amounts is published.

¹⁸⁰

It is worth mentioning that despite this very detailed data, the US Department for Education mentioned also that data should be interpreted with caution for a number of reasons: "Several factors should be taken into account in reviewing the data below. First, the original survey format was not congruent with the way in which adult learning data are collected and reported in the United States. In order to be able to provide a reasonable depiction of funding volumes and sources, we modified the reporting tables to provide a summative and longitudinal view of trends in adult learning financing and per capita investments. Secondly, we cannot ensure that the estimates of adult served are unduplicated counts as many students and institutions benefit from multiple sources of public and private financial support. A related issue is that financial support to states and institutions, which may be used for capacity building, infrastructure development, and other operational costs, may not directly benefit individual students thus making it difficult to generate an accurate estimate of per capita investments of federal and state education funds. Third, we do not have reliable national data sources that enable us to provide current estimates of vocational and non-vocational adult learning participation by age and prior levels of educational attainment. Finally, in regard to state financing and employer contributions, we have cited private data sources because of the lack of comprehensive measures at the national level. It should be noted that these estimates may differ significantly from those derived by other private and public entities; however, we have selected from among the most reputable organizations in their respective fields in making a determination as to which sources to cite. In summary, due to the limitations in our data sources, the information below should be interpreted with caution and should not be used to draw definitive conclusions about the state of adult learning financing in the United States" (see US funding questionnaire).

GDP for initial education (i.e. without funding of adult learning/further education), this is approximately two third of education spending in the USA. Removing spending for higher education from this budget, focussing adult learning more narrowly, decreases this budget to \$ 153bn or 1.4% of GDP. However, some insecurity remains as this figure is based on estimates about companies' investment in training, where, again, different estimates exist. While ASTD (2011) estimates on average costs of \$ 1,081 per employee,¹⁸¹ resulting in \$ 125bn, a more conservative estimate by Wilson (2010) suggests that company investment is between \$46 and 54bn. In this case, total spending would be 0.7% of GDP. Another, third, estimate by Carnevale/ Jayasundera/Hanson (2012) suggests even a total spending of \$141 billion per year on formal employee training and another \$313 billion on informal, on-the-job training. This latter figure would increase spending for adult learning (excl. of HE) to 4.3% and that of post-secondary education to 7.8%, which is even more than official total spending for (initial) education of 7.3% of GDP (OECD 2012). Since informal learning is not covered by this study at hand, we do not include the estimate of Carnevale/Jayasundera/Hanson (2012) in this study.

8.2.2 Financing adult learning (age 25+)

As has become evident in the previous section it is important to adjust the available information to arrive at funding information for various segments of adult learning, since the statistical information is provided in different forms, depending on national understanding of adult learning. This section intends to identify how much is spent for adult learning in the European sense of the notion, i.e. focussing on adult learning for those aged between 25 and 64 outside of formal (higher) education; though it should be noted that it is often difficult to disentangle the information to the extent necessary, i.e. it is not always possible to clearly remove spending for higher education or for those aged 65+. Thus, as above, the following figures should be read with caution and interpreted as approximation rather than as final figures.

Figure 104 provides an overview how much of GDP is spent for adult learning (aged 25+) and how it is distributed across the various stakeholders. First of all, the summarised figures indicate that according to the data delivered by the sources specified more in detail later in this section 8.2.3. 0.23% and 1.11% of GDP is spent for adult learning (aged 25+); EE as well as CA, ES and AU, are at the lower ends, while the US would be at the top, if the ASTD-estimate of \$ 1,081 spent by employer per employee is correct. If this is too optimistic, the more conservative estimate of Wilson (2010) spending for adult learning in the US would amount to 0.56% and fall short of CH, AT, DE (if relying on AES 2010 spending according to Gnahn/von Rosenblatt (2011) and not on the official figures of the Federal Statistical Office, NO and SE. The remaining countries are between these two ends, with HU, SK, DK, NL, DE (relying on the official figures of the

¹⁸¹ According to ASTD (2011), the figures refer to direct costs of learning, not including costs of working time.

Federal Statistical Office) and FI between 0.4 and 0.5% of GDP, SI (if our adjustment is appropriate) rank between 0.4 and 0.3% of GDP. It should be noted though that figures are not fully comparable, as, for example, Hungary's 0,5% include higher education, while the figures for the Nordic countries do not account for this, but concern almost only public spending with some adjustments for individual contributions.

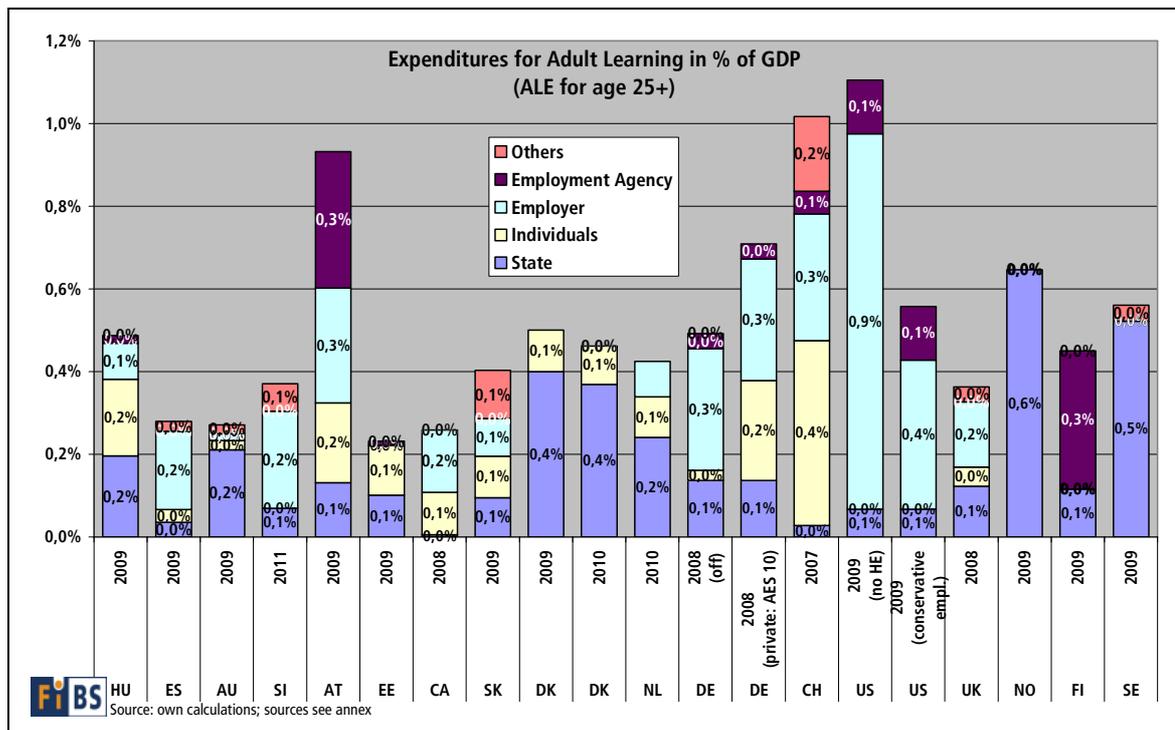


Figure 104: Expenditures for adult learning (Age 25+) by stakeholder as% of GDP

Since companies' and/or individuals' spending is obviously not properly included in a number of countries, it seems appropriate to adjust and complement the figures presented by the national experts or drawn from other sources through additional compilations.

8.2.3 Funding volumes – sources and methodological remarks by country

Australia – core data for public funding was provided by the national expert, who relied on statistics from the National Center for Vocational Education Research (NCVER), as well as available through the study of Lassnigg/Vogtenhuber/Osterhaus (2012).

Austria – core data for public funding was provided by the national expert, who relied on Lassnigg/Vogtenhuber/Osterhaus (2012). This data was complemented through own calculations for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of

GDP at current market prices (ALCD0)
(http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Canada – the national expert provided core data based on a study of Knighton et al. (2009).

Denmark – the national expert provided core data. Eventually, additional figures for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS3, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0))

Finland – core data for public funding was drawn from Lassnigg/Vogtenhuber/Osterhaus (2012) and complemented through own calculations for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0)) (http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Germany - the Federal Statistical Office (2011) indicates that a total of € 12.2bn was spent in 2008 for adult education, which amounts to 0.5% of GDP. Comparing this figure with private spending according to AES 2010, which was estimated at € 6bn (Gnahs/von Rosenblatt 2011), it is likely that the official figure under-reports total spending for adult education in Germany. Furthermore, own estimations in relation to this study at hand arrive at 0.5% of employer spending (based on CVTS4 data) and 0.3% of individual spending (based on AES 2007 and population statistics data). Eventually, comparing figures presented by Gnahn/von Rosenblatt (2011), drawn from AES 2010, with those estimated in this study through own calculations on the basis of AES 2007-data, could indicate that spending level slightly decreased during the crisis.

Eventually, additional figures for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0)) (http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Disentangling overall spending according to official statistics, it includes companies' expenditures for company training, which is the biggest share of around 50% of total spending (€ 7.3bn) and to be considered as vocational learning, by and large. As a consequence, funding for adult learning (excl. of company training) would go

down to 0.2% of GDP and contain still a certain share of expenditures for vocational learning. The best proxy with regard to non-vocational adult learning is probably the € 1.0m for the Folk high schools; however, this also includes expenditures for other (younger) target groups. Furthermore, it might be worth to note that much other adult learning, which is financed from other ministries than education or labour and social affairs, is not properly accounted for. For example, the Further Education Report Hesse, one of the German states, mentions several sources having a nexus to adult education but not included into the adult learning budget (Schemmann/Seitter 2010). Furthermore, section chance education might also not be accounted for in an appropriate manner, if this is financed as part of the (extended) initial education system by the ministries of education, e.g. in the case of evening programmes.

Hummelsheim (2010) even estimates that the overall budget, including direct and indirect costs for further education of the three financiers (state, individuals and employers), was 49,1 billion Euro or 2,02% of the German nominal GDP in 2007. In 1997, ten years earlier, the budget was 2.32% of the nominal GDP what means a slightly decrease of the budget over time. Yet, this figure is not comparable with those presented in this study and is therefore not taken into account.

Estonia – the national expert provided core data. This data was complemented through own calculations for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0)) (http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Hungary – the initial figures provided by the national expert and a ministry representative were not fully comparable; though spending level in relation to GDP is very similar.

Eventually, additional figures for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0)) (http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Norway – the national expert provided core data. Eventually, additional figures for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS3, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current mar-

ket prices (ALCD0))
(http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Slovenia – the figures for public spending are drawn from Perme’s (2012) presentation during a TWG Financing meeting, also presented during the conference “Adult Learning – Spotlight on Investment” (Brussels, December 12-13, 2012). Additional figures for company spending were provided by the national expert.

Eventually, additional figures for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0)) (http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Slovakia – The baseline data for spending levels and distribution across stakeholder was provided by the Ministry of Education, based on funding data provided by around 20% of learning providers. These figures were multiplied by appr. 5 to arrive at estimated full-country figures.

Additional figures for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0)) (http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Spain – the national expert provided core data. Additional figures for individual and company spending were estimated during this study, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0)) (http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Sweden – core data for public funding was drawn from Lassnigg/Vogtenhuber/Osterhaus (2012), which are based on interviews with the Swedish Ministry of Education and the Statistical Office. The adjusted figures were complemented through own calculations for individual and company spending, based on AES 2007 (average spending for non-formal or non-formal learning in conjunction with Eurostat population statistics as well as CVTS4, for share of employer spending in relation to wage bill, in conjunction with Eurostat adjusted wage bill in relation to GDP figures (statistic no. 7.6 - Total economy, percentage of GDP at current market prices (ALCD0)) (http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

Switzerland – core data was available through the study of Messer/Wolter (2009).

United Kingdom – Data is based on the UK Commission on Lifelong Learning (Schuller/Watson 2009).

United States of America – Baseline data was presented by the US Department for Education, adjustments made by the research team.

Funding of adult learning – cross country perspective

In order to derive the figures presented in the chapter on funding volumes, e.g. the share of expenditure on adult learning of GDP for different countries and years, several sources of data were taken into account. Firstly, the information provided by the national coordinators on the amounts of funding for adult learning¹⁸² in specific years (time frame 2007 – 2011) was used. Given that this information was indicated in national currency units, Purchasing Power Parity for GDP (PPP) (Eurozone=1) rates, published in the OECD publication series Education at a Glance (OECD 2009a; 2010b; 2011a; 2012), were used to transform funding volumes into comparable measures. As the latest available data presented in this publication series (OECD 2012) is from the year 2009, PPP rates of years later than 2009 were assumed to have remained equal to 2009 PPP rates¹⁸³.

To the extent possible, OECD data on GDP (in millions of local currency units) from the EaG series was used. When country data from a year later than 2009 was analysed, Eurostat data on GDP in millions of local currency was used instead for these particular countries in order to ensure the use of the most recent data available. In the exceptional case of EE, Eurostat data on GDP in millions of national currency were used in order to be in line with the information provided by the national coordinator and not provide unrealistically low numbers.

Furthermore, for adjusted numbers, CTVS4 data on direct spending for training as well as wage bill in relation to GDP concerning the year 2010 was used for calculations of employer spending in relation to wage bill whenever possible. However, for few countries (DK and NO), CVTS4 on direct spending for training was missing, while the respective CVTS3 data was available. In these cases, data from CVTS3 as well as wage bill in relation to GDP concerning the year 2005 was used in order to provide (comparable) results to those of other countries.

Finally, while AES 2007 and CVTS4 (or CVTS3) data were used to calculate the shares of individual and employer expenditure in relation to GDP for the great majority of the countries in the adjusted funding files, non-adjusted data, derived on the basis of the information provided by national coordinators, were used as an alternative when

¹⁸² This information includes data on total volumes allocation to all forms of adult learning as well as non-vocational and vocational adult learning in particular and the respective funding volumes provided by different actors, namely the state, individuals, employer agencies, employers and others.

¹⁸³ At this point we would like to note, that Eurostat does not provide data on PPP for GDP (Euro Zone=1), which is why this alternative data source could not be used for PPP for GDP (Euro Zone=1) rates after the year 2009.

none of the data sources were able to provide data on a country of interest or values were lower than the shares calculated on the basis of non-adjusted data.

To sum up, whenever possible, the most suitable and recent data was used for all analyses. Only in few exceptional cases, i.e. when data was missing or understated true values, alternative ways of calculation based on other data sources were used in order to offer results on as many countries as possible and in line with reality.

8.2.4 Statistical analyses on the relationship between funding and participation

The following tables provide the full set of statistical analyses concerning the relationship between funding and participation.

		total participation in adult learning (AES_OECD 2007)	total participation in adult learning (AES 2011)	total participation in formal adult learning (AES 2011)	total participation in non-formal adult learning (AES 2011)	total participation in adult learning (LFS 2010)	total participation in adult learning (LFS 2011)	total participation in formal adult learning (AES_OECD 2007)	total participation in non-formal adult learning (AES_OECD 2007)	total participation in non-vocational adult learning (OECD 2007)
GDP per capita 2010 in PPS	Korrelation nach Pearson	,591**	,727**	,516**	,735**	,519**	,503**	,466*	,565**	,557**
	Signifikanz (2-seitig)	.001	.000	.007	.000	.004	.005	.011	.001	.007
	N	29	26	26	26	29	29	29	29	22
GDP per capita 2010 in Euro	Korrelation nach Pearson	,587**	,777**	,571**	,779**	,639**	,615**	,494**	,553**	,553**
	Signifikanz (2-seitig)	.001	.000	.002	.000	.000	.000	.006	.002	.008
	N	29	26	26	26	29	29	29	29	22
mean expenditure by participant on total adult learning as a share of GDP per capita, PPS	Korrelation nach Pearson	-,555**	-,320	-,205	-,319	-,330	-,302	-,388	-,549**	-,439
	Signifikanz (2-seitig)	.005	.146	.361	.147	.116	.152	.061	.006	.068
	N	24	22	22	22	24	24	24	24	18
mean expenditure by participant on formal adult learning as a share of GDP per capita, PPS	Korrelation nach Pearson	-,227	-,200	-,359	-,170	-,305	-,307	-,489*	-,177	-,487*
	Signifikanz (2-seitig)	.286	.372	.101	.450	.147	.144	.015	.407	.041
	N	24	22	22	22	24	24	24	24	18
mean expenditure by participant of non-formal adult learning as a share of GDP per capita, PPS	Korrelation nach Pearson	-,356	-,045	-,038	-,042	-,239	-,201	-,342	-,337	-,322
	Signifikanz (2-seitig)	.088	.843	.866	.853	.260	.346	.101	.107	.192
	N	24	22	22	22	24	24	24	24	18

** Die Korrelation ist auf dem Niveau von 0,01 (2-seitig) signifikant. * Die Korrelation ist auf dem Niveau von 0,05 (2-seitig) signifikant.

Table 46: Correlations between expenditure data and participation

		total participation in adult learning (AES_OECD 2007)	total participation in adult learning (AES 2011)	total participation in formal adult learning (AES 2011)	total participation in non-formal adult learning (AES 2011)	total participation in adult learning (LFS 2010)	total participation in adult learning (LFS 2011)	total participation in formal adult learning (AES_OECD 2007)	total participation in non-formal adult learning (AES_OECD 2007)	total participation in non-vocational adult learning (OECD 2007)
instruments of costsharing total	Korrelation nach Pearson	.129	.322	.043	.346	.391	.361	-.133	.157	.222
	Signifikanz (2-seitig)	.482	.108	.834	.083	.036	.054	.469	.391	.285
	N	32	26	26	26	29	29	32	32	25
instruments total	Korrelation nach Pearson	.246	.330	.018	.354	.375	.340	.055	.259	.353
	Signifikanz (2-seitig)	.176	.100	.932	.076	.045	.071	.767	.153	.084
	N	32	26	26	26	29	29	32	32	25
total number of regional instruments	Korrelation nach Pearson	.228	.282	-.017	.307	.330	.297	.032	.245	.312
	Signifikanz (2-seitig)	.210	.163	.936	.127	.080	.117	.862	.177	.128
	N	32	26	26	26	29	29	32	32	25
FCE number of costsharing instruments	Korrelation nach Pearson	.159	.334	.142	.338	.211	.178	.161	.117	.376
	Signifikanz (2-seitig)	.386	.095	.490	.091	.271	.355	.380	.524	.064
	N	32	26	26	26	29	29	32	32	25
Total number of FCE instruments	Korrelation nach Pearson	.169	.288	.196	.282	.264	.240	.220	.135	.299
	Signifikanz (2-seitig)	.356	.154	.337	.163	.166	.209	.226	.461	.146
	N	32	26	26	26	29	29	32	32	25
fce number of tax incentives	Korrelation nach Pearson	.072	.268	.385	.262	.058	.074	.152	.069	.295
	Signifikanz (2-seitig)	.694	.186	.052	.196	.765	.704	.407	.709	.152
	N	32	26	26	26	29	29	32	32	25
fce number of vouchers, ILAs and grants	Korrelation nach Pearson	.115	.032	-.018	.029	.280	.237	.187	.088	.341
	Signifikanz (2-seitig)	.533	.875	.931	.890	.141	.216	.305	.632	.095
	N	32	26	26	26	29	29	32	32	25
fce number of loans	Korrelation nach Pearson	.386	.426	.140	.442	.284	.246	.343	.366	.121
	Signifikanz (2-seitig)	.029	.030	.494	.024	.136	.198	.055	.039	.564
	N	32	26	26	26	29	29	32	32	25
fce number of loans for CVET	Korrelation nach Pearson	.514	.449	.135	.469	.349	.322	.255	.528	.342
	Signifikanz (2-seitig)	.003	.021	.510	.016	.063	.088	.158	.002	.094
	N	32	26	26	26	29	29	32	32	25
fce number of free redemption	Korrelation nach Pearson	.063	-.061	.080	-.087	-0.082012703	-.094	.362	.007	-.144
	Signifikanz (2-seitig)	.730	.768	.697	.673	.672	.626	.042	.969	.492
	N	32	26	26	26	29	29	32	32	25
fce number of 100% grants	Korrelation nach Pearson	.140	.205	.347	.186	.396	.400	.174	.113	-.097
	Signifikanz (2-seitig)	.446	.316	.082	.363	.033	.032	.341	.538	.643
	N	32	26	26	26	29	29	32	32	25

** Die Korrelation ist auf dem Niveau von 0,01 (2-seitig) signifikant. * Die Korrelation ist auf dem Niveau von 0,05 (2-seitig) signifikant.

Table 47: Correlations between types of instruments and participation in adult learning

		total participation in adult learning (AES_OECD 2007)	total participation in adult learning (AES 2011)	total participation in formal adult learning (AES 2011)	total participation in non-formal adult learning (AES 2011)	total participation in adult learning (LFS 2010)	total participation in adult learning (LFS 2011)	total participation in formal adult learning (AES_OECD 2007)	total participation in non-formal adult learning (AES_OECD 2007)	total participation in non-vocational adult learning (OECD 2007)
cost per hour (by participant in formal adult learning) in relation to GDP per capita, PPS	Korrelation nach Pearson	0	-.285	-.409	-.252	-0.169055653	-.236	-.269	-.202	-.193
	Signifikanz (2-seitig)	0.369141335	.267	.104	.329	.489	.332	.266	.407	.473
	N	19	17	17	17	19	19	19	19	16
cost per hour (by participant in formal adult learning) in relation to GDP per capita, in Euro	Korrelation nach Pearson	-0.375245992	-.492*	-.557*	-.456	-.440	-.485*	-.497*	-.329	-.485
	Signifikanz (2-seitig)	.113	.045	.020	.066	.059	.035	.030	.169	.057
	N	19	17	17	17	19	19	19	19	16
cost per hour (by participant in non-formal adult learning) in relation to GDP per capita, PPS	Korrelation nach Pearson	-0.108378761	-.070	-.495*	-.016	-0.1248296	-.165	-.298	-.071	-.031
	Signifikanz (2-seitig)	.659	.790	.043	.953	.611	.501	.215	.773	.909
	N	19	17	17	17	19	19	19	19	16
cost per hour (by participant in non-formal adult learning) in relation to GDP per capita, in Euro	Korrelation nach Pearson	-.422	-.430	-.776**	-.369	-.525*	-.530*	-.647**	-.351	-.399
	Signifikanz (2-seitig)	.072	.085	.000	.144	.021	.020	.003	.141	.126
	N	19	17	17	17	19	19	19	19	16

** Die Korrelation ist auf dem Niveau von 0,01 (2-seitig) signifikant. * Die Korrelation ist auf dem Niveau von 0,05 (2-seitig) signifikant.

Table 48: Correlations between cost indicators and participation in adult learning

		total participation in adult learning (AES_OECD 2007)	total participation in adult learning (AES 2011)	total participation in formal adult learning (AES 2011)	total participation in non-formal adult learning (AES 2011)	total participation in adult learning (LFS 2010)	total participation in adult learning (LFS 2011)	total participation in formal adult learning (AES_OECD)	total participation in non-formal adult learning (AES_OECD)	total participation in non-vocational adult learning (OECD)
expenditure on adult learning by state, PPS	Korrelation nach Pearson	.211	.293	.018	.310	-.042	-.091	.194	.205	.504
	Signifikanz (2-seitig)	.416	.355	.957	.327	.886	.758	.455	.429	.039
	N	17	12	12	12	14	14	17	17	17
expenditure on adult learning by employer, PPS	Korrelation nach Pearson	.088	-.135	-.419	-.090	-.251	-.296	.019	.104	.436
	Signifikanz (2-seitig)	.737	.676	.175	.780	.387	.304	.941	.692	.080
	N	17	12	12	12	14	14	17	17	17
expenditure on adult learning by employment agency, PPS	Korrelation nach Pearson	.101	-.069	-.419	-.019	-.128	-.123	.008	.122	.453
	Signifikanz (2-seitig)	.701	.832	.175	.953	.662	.676	.977	.640	.068
	N	17	12	12	12	14	14	17	17	17
share of expenditure on adult learning by state in relation to total expenditure on adult learning as % of GDP	Korrelation nach Pearson	.131	.507	.495	.468	.174	.197	.414	.069	-.030
	Signifikanz (2-seitig)	.615	.092	.102	.125	.553	.500	.099	.792	.910
	N	17	12	12	12	14	14	17	17	17
share of expenditure on adult learning by individuals in relation to total expenditure on adult learning as % of GDP	Korrelation nach Pearson	-.213	-.225	-.546	-.145	-.046	-.077	-.326	-.190	-.391
	Signifikanz (2-seitig)	.411	.482	.066	.653	.876	.795	.202	.465	.121
	N	17	12	12	12	14	14	17	17	17
share of expenditure on adult learning by employer in relation to total expenditure on adult learning as % of GDP	Korrelation nach Pearson	-.142	-.487	-.004	-.534	-.375	-.395	-.197	-.111	.102
	Signifikanz (2-seitig)	.587	.108	.991	.074	.187	.162	.448	.671	.696
	N	17	12	12	12	14	14	17	17	17
Total expenditure on adult learning in relation to GDP	Korrelation nach Pearson	.380	.657	.491	.635	.581	.607	-.076	.433	.421
	Signifikanz (2-seitig)	.133	.020	.105	.026	.029	.021	.772	.083	.092
	N	17	12	12	12	14	14	17	17	17
share of expenditure on adult learning by state in relation to GDP	Korrelation nach Pearson	.403	.589	.557	.548	.309	.338	.349	.385	.214
	Signifikanz (2-seitig)	.108	.044	.060	.065	.282	.238	.169	.127	.411
	N	17	12	12	12	14	14	17	17	17
share of expenditure on adult learning by employer in relation to GDP	Korrelation nach Pearson	.160	.213	.464	.154	.272	.280	-.146	.206	.403
	Signifikanz (2-seitig)	.539	.506	.128	.633	.346	.332	.577	.427	.108
	N	17	12	12	12	14	14	17	17	17

** Die Korrelation ist auf dem Niveau von 0,01 (2-seitig) signifikant. * Die Korrelation ist auf dem Niveau von 0,05 (2-seitig) signifikant.

Table 49: Correlations between macro level funding data and participation in adult learning

		aes_oecd	aes_11_total_part	aes_11_part_formal	aes_11_part_nonformal
funding_per_adult_adjusted	Korrelation nach Pearson	,600	,715	,445	,706
	Signifikanz (2-seitig)	,039	,013	,171	,015
	N	12	11	11	11
adults_25plus_adjusted_state	Korrelation nach Pearson	,478	,574	,484	,545
	Signifikanz (2-seitig)	,099	,065	,131	,083
	N	13	11	11	11
adults_25plus_adjusted_ind	Korrelation nach Pearson	,281	,542	,054	,587
	Signifikanz (2-seitig)	,352	,085	,875	,057
	N	13	11	11	11
adults_25plus_adjusted_empl	Korrelation nach Pearson	,484	,524	,474	,487
	Signifikanz (2-seitig)	,094	,098	,141	,129
	N	13	11	11	11
adults_25plus_adjusted_emp_agency	Korrelation nach Pearson	,112	-,010	-,151	,011
	Signifikanz (2-seitig)	,716	,978	,657	,975
	N	13	11	11	11
adults_25plus_adjusted_oth	Korrelation nach Pearson	,172	,346	,097	,379
	Signifikanz (2-seitig)	,575	,297	,777	,250
	N	13	11	11	11

** . Die Korrelation ist auf dem Niveau von 0,01 (2-seitig) signifikant.

* . Die Korrelation ist auf dem Niveau von 0,05 (2-seitig) signifikant.

Table 50: Correlations between costs per adult and participation in adult learning

8.3 Returns to initial secondary education

Comparing international comparative data on the gains or benefits of education in monetary terms is recently presented by OECD (2012) for the reference year 2008, comparing the internal rates of return to initial upper secondary or post-secondary non-tertiary education. The figures compare total monetary benefits and monetary costs.

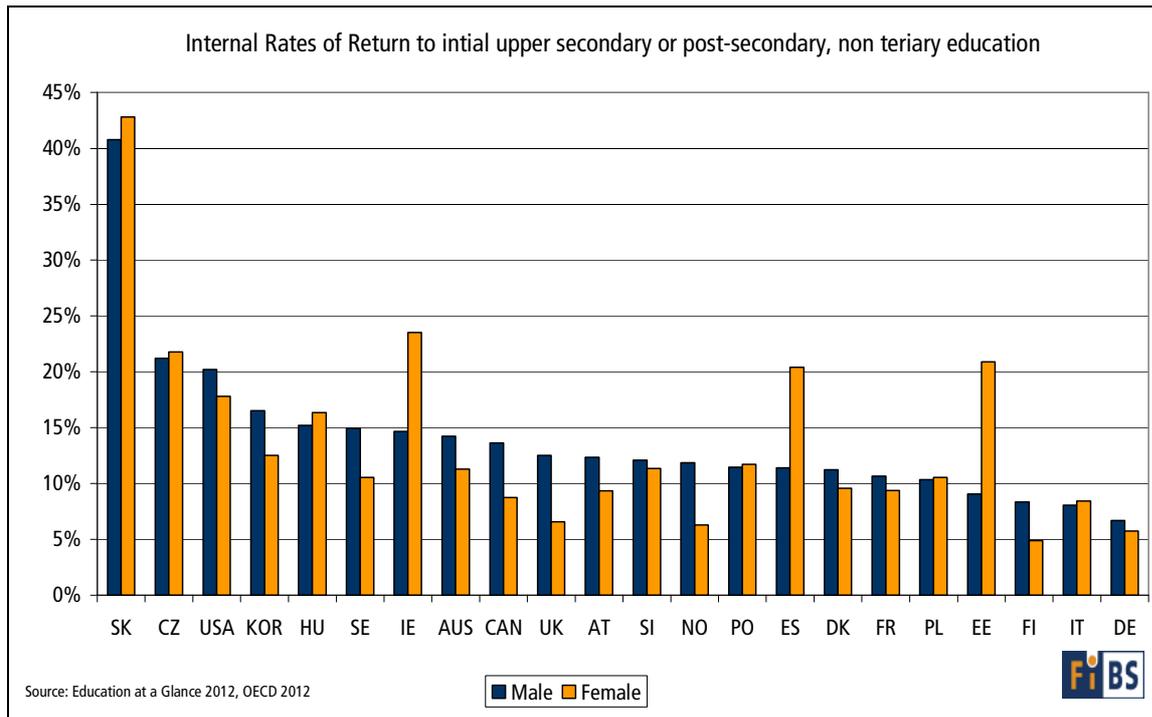


Figure 105: Internal rate of return of initial upper secondary or post-secondary, not tertiary education as compared to those who have not attained that level of education (in% by gender)¹⁸⁴. Net present value based on total costs versus total benefits (based on Table A9.1 EAG 2012)

Particularly high internal return rates of more than 40% for male and female can be found in Slovakia, which are double that of CZ, possibly indicating a special labour market or qualification structure. Another country with high rates of return for both sexes is Hungary, while the USA and Korea show higher IRRs for man than for women, though generally high for both genders. Ireland, Spain and Estonia show much higher rates of return between 20 to 25% for women than for Man (9 to 15%). The major non-EU countries USA, Canada, Australia and Korea all have above average return rates.

In contrast, DE reveals very low rates of return for both sexes, which is the case for women in FI, NO, and UK. Overall, returns are often (much) lower for female than for male. Comparing this results with the EU 21-average, showing a slight advantage for women, suggests that differences among countries outweigh each other. Aiming to identify patterns Figure 105 indicates that the rates of return for women in the Nordic

¹⁸⁴ Not available data for Belgium, Greece, Luxembourg, Netherlands and Switzerland.

countries, the UK but also in most non-European countries are substantially lower than those of male. The opposite applies to IE, ES and EE.

Linking data on internal return rates with the educational attainment level of adults shows a positive relation with the share of adults having attained at least upper secondary education (ISCED 3+). High returns on investment go together with higher educational attainment levels, suggesting that returns may be conducive to higher participation rates, while low returns are not supportive, but may even be a cause for non-investment. This is more true for men as compared to women (Pearson correlation 0.31 for men while 0.22 for women). Also when considering the change rate in the level of low-qualified 25-64 (2010/'03) the data indicate that the internal rate of return on educational investments is positively associated with the decrease in the level of low qualified (Pearson correlation 0.35).

So having an idea on the rewards of educational investment, we consider to what extent this relates to educational involvement. We herewith test the hypothesis that people will be more likely to invest in additional schooling, even later in life when the investment made (be it financially, allocated time or otherwise) is also rewarded. This is also true for people investing in second chance education. In order to answer this question we have linked OECD return rates figures on educational investments with relevant Eurostat data on social inclusion and living conditions that are instrumental in monitoring the Europe 2020 strategy. The indicators that are monitored are amongst others:

- activity rate
- employment rate¹⁸⁵
- VET enrolment¹⁸⁶
- lifelong learning¹⁸⁷
- social exclusion¹⁸⁸
- early school leavers¹⁸⁹

The figures in the Table below indicate that the internal return rates of educational investment and educational enrolment indicators (such as the share of VET enrolment) are positively associated. On the contrary, an increasing percentage of lower qualified

¹⁸⁵ The employment rate is calculated by dividing the number of persons aged 20 to 64 in employment by the total population of the same age group. The indicator is based on the EU Labour Force Survey.

¹⁸⁶ This indicator provides information on the percentage of boys and girls in upper secondary education who are enrolled in the vocational stream. It is indicative in the importance of initial vocational education and training in a country, taking into account also the gender dimension.

¹⁸⁷ This indicator refers to persons aged 25 to 64 who stated that they received education or training in the four weeks preceding the survey

¹⁸⁸ The Europe 2020 strategy promotes social inclusion, in particular through the reduction of poverty, by aiming to lift at least 20 million people out of the risk of poverty and social exclusion. This indicator corresponds to the sum of persons who are: at risk of poverty or severely materially deprived or living in households with very low work intensity. Persons are only counted once even if they are present in several sub-indicators.

¹⁸⁹ Percentage of the population aged 18-24 with at most lower secondary education and not in further education or training.

population, as well as early school leavers, tend to be negatively associated with higher internal return rates. This could be an indication of insufficient economic returns to invest in initial upper secondary education, but also in second chance education. Although there are many other factors explaining the internal return rate (of educational investments), the abovementioned associations underpin that people are more ready to invest in education if these investments are likely to pay-off in terms of higher monetary returns etc.; i.e. when the internal return rate on educational investment is positively associated.

Indicator	type of association ¹⁹⁰
% VET enrolment	0,34
% Life-long learning	-0,27
Lower secondary education	-0,33
% Social exclusion	n.s.
% Early schoolleavers	-0,33
Activity_rate_	n.s.
Low-qualified population (max. ISCED 2)	-0,37

Table 51: Association between internal return rate on education investment and some Europe 2020 strategy monitor indicators (EU, based on mean percentages 2003-2009)

The negative relation between the employment rate and internal return rates of educational investments seems somehow more difficult to explain. The relation could indicate that a higher employment rate diminishes the value added by investing in additional educational attainment. High employment rates could refer to labour market shortages, e.g. resulting from allocative inefficiencies, caused by a positive economic climate (e.g. Germany shows a rather low internal rate of return on educational investments). On the other hand, low internal rates of return do also exist in situations with low employment rates, as a result of which additional schooling can only pay-off if the economy can accommodate the up-skilled labour supply (e.g. the example of Italy). So, there are good reasons to consider the relation between educational investments and employment rate nonlinear, as other intervening factors (contextual issues and disturbing factors such as the social security benefits, fiscalities, and wage compression) need be taken into account for better understanding the relation between the two.

8.4 Older/retired people

The following sources were used to gather information about older and retired people in Europe and selected other countries:

- Analysis an re-analysis of literature as quoted in the text
- Analysis of the policy briefs of the national experts

¹⁹⁰ Pearson correlation figure.

- Analysis of the filled mapping survey questionnaires
- Analysis of the Country Reports on Adult Education by European Association for the Education of Adults (EAEA)
- Analysis of AES 2007 with data from the EUROSTAT data base
- Analysis of AES 2007 data on the base of the AES data-file
- Analysis of AES 2011 with data from the EUROSTAT data base
- Analyses of data from the year 2013 from the OECD data base

Concerning older a retired people, a wide range of literature and statistical sources were found. Data comparing European and non-European countries is more difficult to find. Some selected and all in all very few data is provided by OECD statistics.

8.5 Funding situation of learning providers

The following sources were used to gather information about the learning provider scene in Europe:

- Analysis an re-analysis of literature as quoted in the text
- Analysis of the policy briefs of the national experts
- Analysis of the filled mapping survey questionnaires
- Analysis of the Country Reports on Adult Education by European Association for the Education of Adults (EAEA)
- Analysis of AES 2007 with data from the EUROSTAT data base
- Analysis of AES 2007 data on the base of the AES data-file
- Analysis of AES 2011 with data from the EUROSTAT data base
- Analysis of data resulting from a learning provider survey in seven European countries (see the more detailed description below)

The state of information on learning providers is dissatisfying. It is particularly difficult to get a proper overview, as there are no lists or data bases with postal or electronic addresses from providers. These circumstances impede a survey enormously and hamper a census as well as a random sample. Our pragmatic and cost-limiting solution was a sample of selected providers in some countries (Austria, Germany, Hungary, Italy, The Netherlands, Slovakia and Slovenia). Consulting national experts, we gained access to addresses or pools of addresses:

- Concerning Austria, the addresses of providers which got the “Ö-Cert”, the national seal of quality were used. Those addresses are published on the homepage of Ö-Cert (about 150 addresses from all parts of the country and with different profiles). Additionally, addresses of providers of the Steiermark (a state in the federal structure of Austria) were used, which were compiled in the context of a research project managed by the University of Klagenfurt (about 270 addresses).
- For Germany, addresses from the Volkshochschulen (adult education centers) were used as well as some other providers of adult education from churches or trade union contexts (about 1000 addresses).

- For Hungary, an internet inquiry was managed with some support of the Hungarian national expert (about 150 addresses).
- In Italy an internet inquiry was managed with some support of Italian national experts and got more than 350 addresses with focus on the provinces Lazio, Veneto and Alto Adige.
- For The Netherlands a list of E-mail-addresses with round about 300 regional learning and training centers was used.
- For Slovakia a complete list of active learning providers (round about 600 providers) was used.
- In Slovenia a mailing list from the national expert with 570 learning providers was provided.

The questionnaire was translated into the national languages of the participating countries. The questionnaire itself was short and simple in order to ensure a high response-rate. In its contents, mainly closed questions were asked; in a few open questions estimations of the providers were demanded (see Annex).

In the subsequent table, response rates are shown. With exception of Italy, response rates are quite similar. Given to the short time for replying the questionnaire, this result is sufficient and usual.

Country	Mailed	Undeliverable	Net	Response	Response rate
Austria	428	10	418	59	14,1
Germany	949	20	929	128	13,8
Hungary	159	11	148	20	15,6
Italy	365	10	355	13	3,7
Netherlands	300	34	266	42	15,8
Slovakia	596	37	559	75	13,4
Slovenia	570	k.a.	570	89	15,6
Sum	3367	122	3245	426	13,1

Tabelle 52: Framework of the learning provider survey 2013

This compilation shows a broad range of arrangements country by country. The number and the structure of the national sub-samples vary. Therefore, the learning provider survey delivers an overview of the scene, but not a detailed picture.

8.6 List of national experts

Australia: Gerald Burke, former Director of the Center for the Economics of Education and Training, Monash University

Austria: Michael Tölle, Chamber of Labour, Vienna

Belgium: Barbara Vandeweghe, Daphne Valsamis, Idea Consult

Canada: Brigid Hayes, independent Consultant

Denmark: Jorgen Ole Larsen, Metropolitan University College

Estonia: Kalle Toom, Ministry of Education

Germany: Dieter Dohmen (FiBS), Dieter Gnahs (DIE)

Hungary: Eva Farkas, University of Szeged, independent consultant

Italy: Cristina Brecciaroli, independent consultant

Netherlands: Simon Broek, Panteia

Norway: Anne Skomedal, Ministry of Education

Romania: Razvan Ionut Cirica, independent consultant

Slovakia: Juraj Vantuch, independent consultant

Slovenia: Peter Beltram, Slovenian Institute for Adult Education

Spain: Pedro J. Perez, University of Valencia

Switzerland: Andre Schläfli, Schweizerischer Verband für Weiterbildung

United Kingdom: Nicholas Fox, The Individual Learning Company

USA: Johan Uvin, Department for Education

The learning provider survey was supported by:

Austria: Dieter Gnahs (DIE)

Germany: Dieter Gnahs (DIE)

Hungary: Eva Farkas, University of Szeged, independent consultant; György Szent-Léleky, Ministry for National Economy

Italy: Cristina Brecciaroli, Luisa Daniele, ISFOL

Netherlands: Bertien Götsche, FiBS; Simon Broek, Panteia

Slovakia: Gabriel Patho, SciEduNet, s.r.o., Ildikó Pathóová, Ministry of Education

Slovenia: Peter Beltram, Ema Perme, Ministry of Education

8.7 List of abbreviations

AL – Adult Learning

AES – Adult Education Survey

AES/OECD 2007 – refers to data retrieved from AES 2007 and complemented by data from OECD (2012) for the non-European countries, referring also to the year 2007 and based on comparable methodology

ALMP – Active Labour Market Policy

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

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

R&D – Research and Development

RE – Random effects

SCE – Second Chance Education

SME – Small and Medium Enterprises

VET – Vocational Education and Training

WTA – Willingness to Accept

WTP – Willingness to Pay