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Breaking the cycle of disadvantage

Early childhood interventions and progression to higher education in Europe

Benoit Guerin



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The research described in this report was prepared for the European Commission, Directorate-General for Employment, Social Affairs and Inclusion.

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Preface

This policy brief was developed by RAND Europe, which in 2011 was appointed by the European Commission's Directorate-General for Employment, Social Affairs and Inclusion to provide content and technical support for the European Alliance for Families platform, which became the European Platform for Investing in Children (EPIC) in 2013.

The European Platform for Investing in Children (EPIC) was set up to explore demographic and economic challenges in the EU from a child and family-focused perspective. Its purpose is to share the best of policymaking for children and their families, and to foster cooperation and mutual learning in the field. This is achieved through information provided on the EPIC website, which enables policymakers from the Member States to search evidence-based child-focused practices from around the EU and to share knowledge about practices that are being developed, and also by bringing together government, civil society and European Union representatives for seminars and workshops to exchange ideas and learn from each other.

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The document is designed to provide insights into issues of interest to policymakers. It has been reviewed by one of the EPIC external experts in child and family policy, and internally, following RAND's quality assurance processes.

The opinions expressed do not necessarily reflect the position of the European Commission.

Breaking the cycle of disadvantage: early childhood interventions and progression to higher education in Europe

Executive summary

- This brief looks at the impact of child-targeted interventions in early childhood education and care (ECEC) as well as initiatives to widen access to higher education in Europe, and their impact on social mobility in later years.
- Rapid brain development in the early years presents both challenges and opportunities to invest in children – in particular for those from poorer backgrounds – to develop both academic and social-behavioural skills for long-term returns.
- In the context of economic uncertainty, investing in high-quality ECEC appears to be an effective evidence-based social policy tool, although it should not be considered a panacea.
- The level of ECEC provision is very unequal across the EU: to be effective, it needs to be of high quality.
- One way to break the cycle of disadvantage would be to develop ambitious indicators and policy goals, that link ECEC provision for underrepresented groups to access to higher education.

Introduction

Extensive research has shown that inequality affects children from an early age, with lasting personal and societal consequences, and that early childhood education and care (ECEC) is effective in tackling it, with significant long term returns on investment (Walker et al. 2011; Allen 2011). One of the major aims of the Europe 2020 strategy is to lift 20 million people out of poverty and social exclusion. By helping to improve educational outcomes in the long term, ECEC can help reduce inequalities associated with a child's background, and can increase the productivity of society as a whole (Heckman 2008). Ultimately, one of the measures of success for ECEC's role in *breaking the cycle of disadvantage*¹ could be improved access to higher education, particularly for underrepresented groups.² Although access to higher education among disadvantaged groups has increased in past decades, assuming the progression rate remains stable it would take about 100 years for students from poorer backgrounds to reach the same participation rates as those with a high socioeconomic background (Bohonnek et al. 2010; Koucký et al. 2010).

Experts have noted that most behavioural and cognitive ability gaps that can explain discrepancies in adult outcomes already exist at age five, and emphasise that schooling plays a minor role in either limiting or widening those gaps (Heckman 2008). This points to the crucial role of early years in helping to improve outcomes. This policy brief focuses on two aspects of breaking the cycle of disadvantage: (i) early childhood education and care – defined broadly³ as institutions set up for children (usually under the age

¹ See the European Commission Recommendation 'Investing in Children – Breaking the Cycle of Disadvantage', C(2013)/778 final, available at: http://europa.eu/epic/about/index_en.htm

² Underrepresented groups may be defined as those from lower socioeconomic status (low SES) backgrounds, which includes the children of migrants.

³ This brief covers one of the types of early years (or early intervention) measures to foster childhood development, namely early childhood education and care (ECEC). In so doing, it specifically studies child-targeted interventions. Although early childhood education leads to a range of positive societal outcomes (relating to crime or substance abuse, for instance), this brief focuses on

of three, but also sometimes between 3 and 6 years old), encompassing both formal learning and informal development – and (ii) interventions at school (primary and secondary, age 4-6 to 17) and beyond to widen access to higher education, particularly for children from underrepresented groups. The links between ECEC provision for disadvantaged children and its impact on improving access to higher education in Europe have not yet been explored in depth. This brief aims to review the literature on how ECEC and school years interventions can contribute to social mobility through greater access to higher education in the EU-28. To do so, it first provides an overview of what works in ‘breaking the cycle of disadvantage’, before turning to Member States’ policies on both ECEC and widening access to higher education to encourage the participation of children from underrepresented groups and disadvantaged backgrounds. Similarities and differences between countries are examined, and examples of best practice in ECEC and widening access in EU Member States are highlighted.

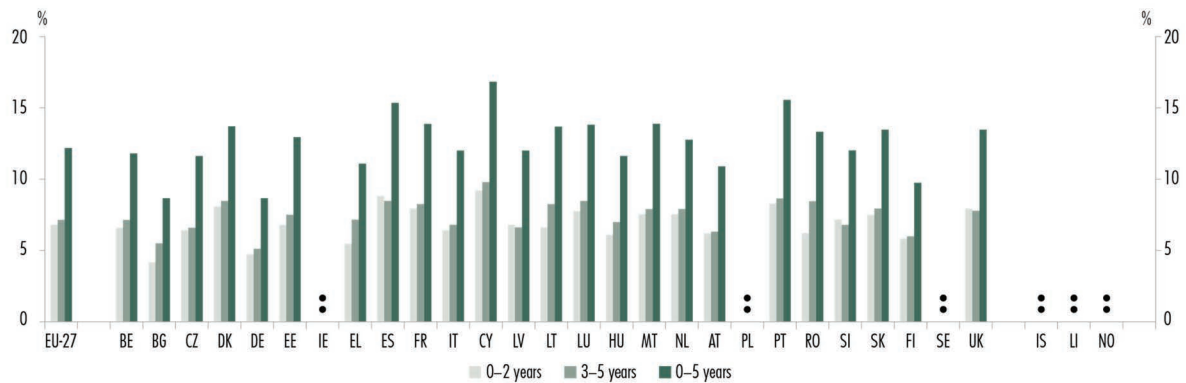
1. What works in ‘breaking the cycle of disadvantage’: an overview of the literature

1.1. Understanding the cycle of disadvantage

Although the intergenerational transmission of disadvantage varies across countries, it seems that education is a major contributor to it, and educational outcomes persist across generations (d’Addio 2007). Family status and income remain consistently strong indicators of later success at school, with academic success being correlated with social class, parental qualifications, income and other factors (Sharples et al. 2011; Mongon & Chapman 2008; Strand 2008, Sammons et al. 2011). Data from the UK confirm that children from low socioeconomic status (SES) are more likely to leave school early and less likely to attend higher education, but also show that money itself (as opposed to differences between richer and poorer students) has an impact on a child’s outcomes such as cognitive development and attainment at school (The Sutton Trust 2008; Carter-Wall & Whitfield 2012; Cooper & Stewart 2013).

educational outcomes and access to higher education, which is only one of the factors contributing to breaking the cycle of disadvantage.

Figure 1. Number of households with at least a single child aged 0 to 2, 3 to 5 and 0–5 as a percentage of total households (2005)



	EU-27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	LI	NO
0-2 years	6.9	6.7	4.2	6.5	8.2	4.8	6.8	:	5.6	9.0	8.1	6.6	9.3	6.8	6.7	7.9	6.3	7.6	7.7	6.3	:	8.3	6.3	7.3	7.7	6.0	:	8.0	:	:	:
3-5 years	7.2	7.2	5.5	6.7	8.5	5.2	7.6	:	7.2	8.6	8.4	6.9	9.9	6.6	8.3	8.5	7.1	7.9	8.0	6.4	:	8.8	8.6	6.9	8.0	6.1	:	7.9	:	:	:
0-5 years	12.2	11.8	8.8	11.7	13.8	8.8	13.0	:	11.2	15.4	14.0	12.0	16.9	12.1	13.7	13.9	11.7	14.0	12.8	11.0	:	15.7	13.4	12.1	13.6	9.8	:	13.5	:	:	:

Additional note

EU-27: Estimates based on countries for which data is available

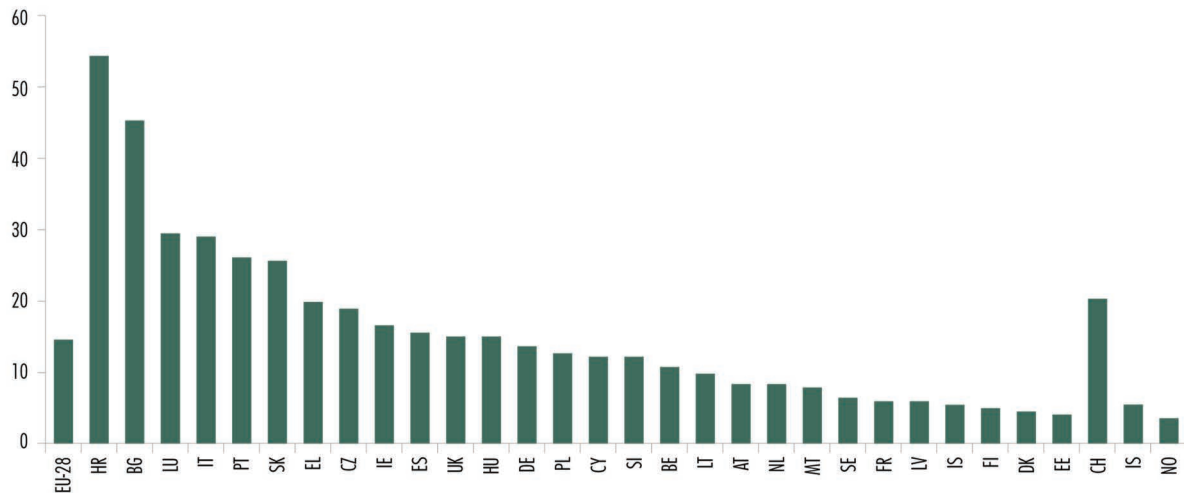
SOURCE: Eurydice (2009, 52)

The links between the well-being of parents and whether their children are locked in a cycle of deprivation are complex (Ross 2009). Experts acknowledge that both pre-birth factors (such as genetics and cultural environment) and post-natal familial and environmental contexts can contribute to linkages across generations and persistent intergenerational earnings inequality (Bowles & Gintis 2002; Björklund et al. 2007). Family and environmental factors can influence children’s development before they enter early education: these factors can include bequests in terms of material wealth, but also cultural dimensions such as beliefs and values, by which ‘parents actively or passively create and select environments for their children in manners that reproduce parents’ well-being outcomes’ (OECD 2009, 154). Specifically, the literature notes that the presence of risks in the family or environment can negatively affect a child’s intellectual, social and emotional development. Parental-level ‘risk factors’ include unemployment, low income, job stress, marital conflict and broader disruption in the family, such as divorce, which has been shown to impact negatively on attainment (Ham 2003; Albertini & Dronkers 2009). Other environmental factors such as poor housing conditions and an experience of violence (or discrimination in the case of migrants) can also play a major role in the development of preschool children (Eurydice 2009). The absence of opportunities for informal education in the home – be it situations of play, or informal problem solving – can foster early differences in academic achievement, intelligence and even language acquisition (Hoff 2006; Melhuish et al. 2008). Data indicates that before the age of 3, children from well-off backgrounds possess a vocabulary 30 million words larger than children from poorer families (The Economist, 2014). Other reasons for the transmission of disadvantage include consequences of market imperfections, segregation into unequal communities or migrant status (which is correlated with lower educational performance compared to children of native-born individuals), and the structure of the welfare system, which when combined with low mobility in lower-income classes can

increase the risk of transmission of disadvantage (Piketty 2000; OECD 2009; d'Addio 2007; Lemaitre 2010).

In short, children born into low SES families are more likely to be insufficiently stimulated owing to a poor home learning environment (HLE). Such insufficient stimulation in early childhood can result in significant differences in brain size and abnormal cortex development by the age of 3, reflected in poorer cognitive and social development (Perry 2002). The gap in cognitive performance across socioeconomic groups at 22 months has been found to correlate with schooling outcomes at the age of 26 (Feinstein 2003). It contributes to inadequate preparation for formal schooling, poorer educational achievement and lower levels of participation in higher education, which then ultimately affects career prospects and increases the likelihood that children from disadvantaged backgrounds become disadvantaged adults. As these children grow up and become parents, the cycle of deprivation is reproduced. In the EU-28, data suggest that the ability to 'make ends meet' financially for adults at risk of poverty relates to an extent to their parents' ability to do so, although there is variation across the EU, and that the likelihood that someone coming from a family with parents with low levels of education have a 34.2% probability of being low educated themselves, while the probability for someone with highly educated parents to be low educated is just 3.4% (Grundiza & Lopez-Vilaplana 2013). Data reveals that the likelihood of persistence of low educational attainment varies greatly depending on the Member State; for instance, the chance of being low educated when having low educated parents (as opposed to highly educated parents) is lower than 10% in countries like Finland, Denmark or France, but higher than 20% in Portugal, Slovakia or Italy- see Figure 2 (Grundiza & Lopez-Vilaplana 2013). British studies (National Children's Bureau 2013) have found that, similarly to 50 years ago, disadvantaged children still perform less well than wealthier students; yet, being born in a disadvantaged family does not completely predict future outcomes. Rather, poor quality in the socio-demographic early years context increases the likelihood of poor quality in other contexts ranging from parental support to the nature of the school (Duckworth 2008). The long-term effects of negative childhood experiences (such as childhood abuse or violence) have been documented in numerous studies, including the Adverse Childhood Experiences (ACE) Study conducted by the American Centers for Disease Control and Prevention, and include social or medical problems ranging from alcohol abuse and mental illness to crime (Dube et al. 2006). Follow-up studies reveal a correlation between such early experiences and medical care costs, job performance, well-being, alcoholism and the performance of future generations (Shonkoff & Phillips 2000; Heckman 2008).

Figure 2. Chance of being ‘low educated’ when having low educated (as opposed to highly educated) parents, age bracket 25-59 (2011)



SOURCE: Grundiza & Lopez-Vilaplana 2013

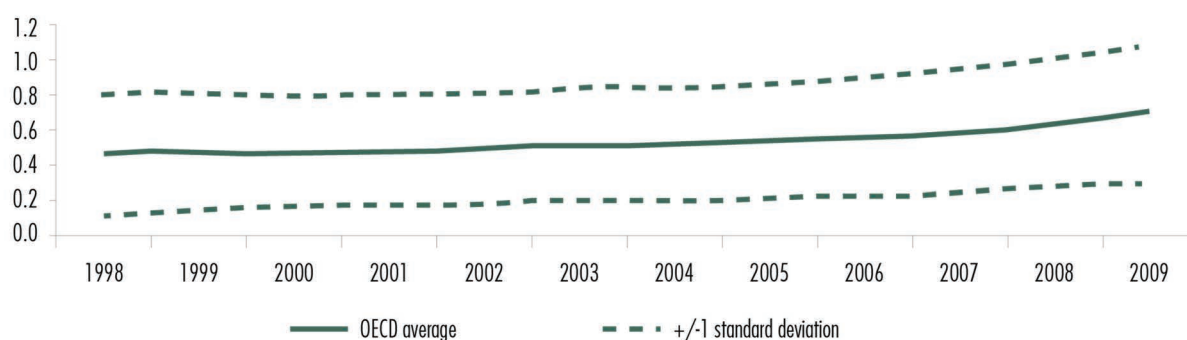
Early childhood experiences can be seen as a potential source of risk for certain groups of children, and even temporary deprivations can have irreversible negative effects on a child’s cognitive abilities later in life (Perry 2002). However, the brain’s fast development and malleability during the earliest years of life – as cells mature, and synapses between brain cells form neuronal pathways – thus also provides a unique window of opportunity for investing in the development of children (Rees et al. 2012). Brain and cognitive development data have reinforced the evidence that early education (particularly for disadvantaged children) plays a crucial role in securing a good start in life, notably in terms of school preparedness and success in primary school and beyond. This is achieved by facilitating academic attainment and social development, helping to prevent early school leaving, and ultimately strengthening children’s ability to access higher education (Molfese & Westberg 2008; Bennett et al. 2012; Sylva et al. 2004). Children from families where stimulation and intellectual challenge is lower gain more from high-quality ECEC than children from intellectually stimulating homes, which points to the potential for a longer-term effect on achievement and social mobility (Sylva et al., 2012). The evidence suggests that one additional year of high-quality preschool can deliver as much impact as about one year of normal schooling (OECD 2011). Quality ECEC raises both cognitive and ‘soft’ behavioural skills (including socio-emotional factors such as attention, motivation and perseverance), which helps raise children’s academic achievement (Heckman 2012). The OECD (2011, 1) noted when observing educational attainment across 65 countries that literacy at age 15 is correlated with preschool participation in states where preschool provision is longer, more widespread and of high quality – students who had attended preschool scored 30 points higher than others, which is equivalent to a full year of formal schooling – and concluded that widening access to preschool could help reduce socioeconomic disparities (OECD 2011; Melhuish & Barnes 2012).

1.2. Effective strategies in early childhood development and widening access

With almost half of the inequality in lifetime earnings is explained by factors determined by age 18, ECEC becomes a powerful, high-return policy tool for narrowing the gap in socioeconomic outcomes

between rich and poor children (Heckman 2010). There is much international evidence showing that ECEC is effective in enhancing school readiness and in improving educational outcomes, and investment in ECEC has steadily increased, as shown in Figure 3 (Naudeau et al. 2011; Nores & Barnett 2010; Engle et al. 2007). However, there are also numerous studies suggest that the ‘return on investment’ in education diminishes as the child grows older (Psacharopoulos & Patrinos 2004; Colcough et al. 2009).

Figure 3. Average public spending (and standard deviation) on childcare and preschool services for children (0 to 5 years) in the OECD as a percentage of GDP (1998–2009)



SOURCE: OECD (2014)

However, ECEC should not be considered the ‘silver bullet’ in social policy: first, it only forms part of a range of activities that can help foster child development; second, a host of other factors play a major role in child development, many of which are not associated with childcare. For instance, a healthy mother, warm and responsive family relationships, a stimulating environment and the availability of safe outdoor play also help to secure a ‘good start’ for children (Marmot et al. 2012; Blanden 2006).

In drawing conclusions from the available data on ECEC, it is useful to distinguish between results for children aged 0 to 3, which are mixed, with some studies pointing to negative or null outcomes, and studies assessing the impact of ECEC on children aged 3 and over, which generally indicate positive results from group-based ECEC, in playgroups, nursery schools, etc. (Melhuish 2004; Melhuish 2011a). This has been the source of debates at the national and international level. For instance, Bruer (2013) contends that based on findings from neuroscience (such as the high speed and density of synapses created in the brain between age 0 and 3), a ‘myth of the first three years’ was developed from the 1990s onwards. The ‘myth’ is said to have contributed to overemphasising the importance of ECEC for children aged 0-3, and its critics argue that while ECEC can be effective, its evidence base should be solid, and it should not be treated as a panacea for long-term social issues. While it is beyond the scope of this brief to review debates on the effectiveness of ECEC at different ages, the evidence suggests that pre-school provision for children aged over 3 is beneficial to children in terms of social and educational development. In contrast, childcare for the first three years produces diverse effects ranging from high quality childcare having no strong effect on language and cognitive development to some forms of childcare for children under 3 resulting in increased antisocial behaviour (Melhuish, 2004).

Finally, in order to be effective, ECEC initiatives have to meet certain criteria:

- Effective ECEC needs to be good *quality*, particularly since poor-quality ECEC may actually result in negative outcomes for lower SES children. Evidence from the United States suggests this was the case for lower-quality Head Start centres, and similar findings emerged from the UK's EPPE 3–7 (1997–2003) and EPPE 3–11 (2003–2008) studies (Haskins & Barnett 2010; Sylva et al. 2012). In contrast, high-quality early years provision for poorer children is a fruitful strategy for closing the attainment gap (Sharples et al. 2011; Duckworth et al. 2009). Quality indicators include the staff to child ratio and the educational level of childminders (preferably degree level). Other hallmarks of effective preschool programmes are processes that help promote the involvement of parents; a clear structure and teaching objectives; a combination of initiatives led by teachers and by the children themselves (such as work on oral language development); and a focus on academic results (Schweinhart 2012; Chambers et al. 2010; Sylva et al. 2010).
- ECEC may need to be effectively *targeted*, particularly to children at risk due to their disadvantaged background which does not adequately stimulate their development. Such targeting may take the form of additional input or intensity to an existing universal service. The benefits of preschool for disadvantaged children are higher than for more privileged children, and thus targeting contributes to reducing socioeconomic inequalities (Dumas & Lefranc, 2010). This is in line with OECD (2009, 17) recommendations that advise that even within universal systems, greater targeting should be undertaken towards higher-risk children and parents. The OECD (2009) also recommends targeting not only towards certain groups, but also certain skills, particularly cognitive skills given their malleability in early stages of life, and notes that programmes implemented in the United States such as the Perry Project targeted such skills and favoured long-term development. In certain European countries, including the Netherlands, ECEC is specifically targeted towards children at risk between the age of 2 and 5, chiefly those from ethnic minorities or with poorly educated parents (Eurydice 2009).
- *Other factors* affecting impact, particularly for disadvantaged children include (aside from staff training and ratios) longer and more intensive periods of ECEC (Sylva et al. 2010; Moss et al. 2012; Urban 2009; Eurydice 2009). Based on international evidence examining various forms of ECEC (centre-based, parent–child programmes, etc.), Engle et al. (2007) point to the importance of systematic training, collaboration between government and civil society, intensity and duration, and involving parents and carers as partners.

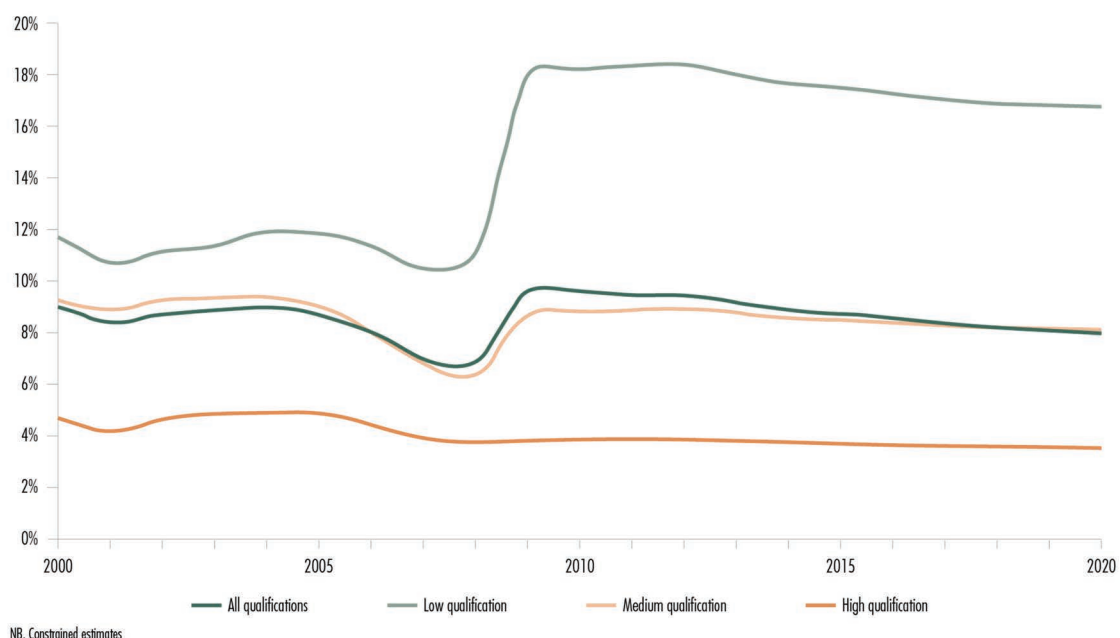
1.3. Long-term benefits of ECEC and access to higher education

The potential of ECEC to help deliver wider access to university, particularly for underrepresented groups (including disadvantaged children) has not yet been studied in Europe, although the long-term returns of ECEC and their ability to raise academic standards have been documented. A number of longitudinal studies of ECEC programmes in the United States, such as the Abecedarian Program (aimed at disadvantaged children in the 1970s) and the High/Scope Perry Preschool Project (which focused on disadvantaged African-American children aged 3 to 4 in the 1960s) found significant evidence of beneficial effects later in life (Melhuish 2004; Barnett 1995; Temple & Reynolds 2007), including broader societal returns such as a higher university attendance rate (Kilburn & Karoly 2008). For instance, in a long-term randomized controlled trial for the Abecedarian Program, it was found that 36

per cent of the children who had attended either (i) childcare or (ii) childcare and school age treatment were now attending a four-year college, compared to 14 per cent for those who did not receive either treatment (Masse & Barnett 2002). A similar study on High/Scope Perry found that 70 per cent of the group that had received high-quality childcare planned to graduate from college, compared to 36 per cent of those who had not (Schweinhart et al. 2005). More generally, the rate of return of the High/Scope Perry programme was estimated to be \$16.14 per dollar invested by the time the sample population reached 40 years of age, and the Abecedarian was estimated to yield social benefits of about \$3.78 for each dollar invested by age 21 (Schweinhart 2012). Currently, European studies have emphasised the positive effect of quality ECEC provision on academic achievement in later years – particularly in the UK – with an impact up to the ages of 11, 14 and 16 in certain domains (literacy, maths and social development) but not in others, or with effects diminishing in some instances. Overall good preschool attendance increased chances of succeeding against the odds for specific groups like lower-income boys (Sammons et al. 2012; Goodman & Sianesi 2005; Sylva et al. 2012).

Evidence from ‘natural experiments’ in Switzerland has shown that preschool expansion resulted in increased social mobility, owing partly to the greater benefit to disadvantaged children (Bauer & Riphahn 2009). In France, preschool expansion was correlated with increased qualifications, and employment until the age of 33 (Dumas & Lefranc 2010; Melhuish 2011b), and in Norway, preschool attendance had yielded similar benefits, and increased the probability of attending college by 7 per cent (Havnes & Mogstad 2009). In the long run, such benefits could result in better outcomes in the job market (see Figure 4).

Figure 4. Unemployment rates by qualification category in the EU-27



SOURCE: Cedefop (2010, 74)⁴

⁴ In this figure, qualifications thresholds are derived from International Standard Classification of Education (ISCED) levels defined by UNESCO. ‘Low qualification’ refers to individuals having completed primary education and lower secondary (ISCED

1.4. The role of initiatives to widen access to university

In short, ECEC does appear to boost the academic potential of disadvantaged students in the longer term, enabling them to consider further studies. The benefits of access to higher education and the way in which it can help break the cycle of disadvantage have been estimated through the impact of extra years of education on income, etc. The OECD has found that among EU OECD members in 2010, the net gains from participation in tertiary education (after school fees, taxes, etc.) were around €90,000⁵ for an individual over their lifetime, and 2013 data indicate that the 'net private returns associated with a male individual attaining tertiary education compared with the returns from upper secondary or post-secondary' (OECD 2013) for EU OECD countries could represent €120,000 (Bohonnek et al. 2010, 104; OECD 2013).

Other initiatives in later years also attempt to help secure progression to higher education for disadvantaged students. Although the level of evidence varies and appears weak, research from the UK has shown that the assumption that poorer children and their parents have low aspirations when it comes to educational attainment is incorrect: many wish to go to university and go on to obtain managerial or skilled jobs (Kintrea et al. 2011; Goodman & Gregg 2010). A number of access initiatives have been developed in recent decades to facilitate access to higher education specifically for underrepresented groups. Osborne (2003) distinguishes between in-reach provision (such as summer schools); flexible provision (part-time studies, open learning, etc.), and outreach provision (links between schools and higher education institutions, community-based outreach, etc.). These initiatives are undertaken either as pre-entry stage (in primary or secondary schools), at entry stage (preparing students for the application process), or at post-entry stage (helping underrepresented students adapt to university life) (Foong Lee 2010). They are mostly designed to counterbalance the overrepresentation of wealthier children in universities.

Whereas ECEC can help increase 'supply' levels by enabling disadvantaged children to reach a higher academic potential, these initiatives seek to deal with the 'demand' side, specifically by convincing able students that they should consider studying at university. In addition, loans and grants systems have been developed, notably to facilitate participation in higher education for lower income students. In Sweden, Great Britain and the Netherlands in 2010, more than 80 per cent of students received state support (either a scholarship, grant or loan), while fewer than 30 per cent did in Austria, Germany and Slovakia (Bohonnek et al. 2010). Although it appears that little data are available for other parts of Europe, evidence indicates that such schemes improve retention and participation in higher education, notably for students from disadvantaged backgrounds, and that there may be a correlation between the provision of loans and grants and the degree of representation of students whose fathers have a blue-collar occupation (Usher 2006; Steiner & Wrohlich 2008; Winter-Ebmer & Wirz 2002; Bohonnek et al. 2010; Eurydice 2013).

0–3c short), 'Medium qualification' encompasses individuals educated to the second cycle of secondary education (ISCED 3–4 other than 3c short) and 'High qualification' designates individuals educated to tertiary levels (ISCED 5–6).

⁵ Calculated from an exchange rate of US\$1 = €0.71 (see Bohonnek et al. 2010, 104).

2. EU Member States' national policies and programmes

2.1. European-level goals on ECEC and practices in place

2.1.1. European policy on early childhood education and care

The EC's interest in ECEC has existed since the 1980s, but has increased in recent times (Urban 2012). One of the seminal European-level initiatives on ECEC are the Barcelona Targets for childcare provision. In 2002, the Barcelona European Council developed common objectives to remove disincentives to the participation of women in the labour force, taking into account childcare provision patterns, and recommended that by 2010, there should be capacity for childcare for at least 90 per cent of children aged between 3 and the mandatory age for starting school, as well as for 33 per cent of all children under 3 (DG JUST 2013). In 2006, EU Ministers agreed to promote ECEC in view of the high returns for disadvantaged children, and an EU cooperation, notably to increase the quality of ECEC, was launched in 2008. Achieving the Barcelona targets was placed at the heart of European policymaking when, in 2009, the promotion of equitable access and reinforcement of quality of pre-primary provision was included as part of the Europe 2020 strategy. At that moment, the Barcelona targets were revised, and now stipulate that by 2020, 95 per cent of children between the age of 3 and the compulsory school age take part in ECEC, and 33 per cent of children under 3 by 2020 (DG JUST 2013; Milotay 2012).

In 2011, the Commission issued a Communication on ECEC, which highlighted the importance of high-quality ECEC, effectiveness, and ECEC's role in enabling parents to reconcile work and family life (European Commission 2011). In 2012, a report from the Social Protection Committee proposed a strengthening of ECEC intervention policies to 'help break the transmission of disadvantage across generations', which led in 2013 to the European Commission's Recommendation on 'Investing in Children – Breaking the cycle of disadvantage' (SPC 2012, 20–21). The Recommendation recognised the importance of tackling disadvantage in early years to help address social exclusion and poverty, and called for an intensification of efforts to ensure that all families can have access to affordable and high-quality ECEC (European Commission 2013).

2.1.2. Diversity across Member States in the provision of ECEC

The models for ECEC provision in Europe vary greatly. 'Early childhood services' encompass a range of services from basic childcare to parenting support, all of which are influenced by national beliefs and attitudes to childcare. However, two broad models of ECEC in Europe can be identified. First, those that includes all age groups from birth to school age within a single service. This model is operated in several Nordic countries (except Denmark), as well as Latvia and Slovenia. The second ECEC model is most prevalent in the EU-28, and consists of two stages, dividing care into services for children aged 0 to 3 years (overseen by social and health services) and 3 to 6 years (under the aegis of education services). Some Member States combine both models: these include Denmark, Spain, the UK, Cyprus and Lithuania (Eurydice 2009). Other ways in which ECEC in Europe varies are briefly examined below:

- Although all EU states have subsidised and accredited ECEC services, *funding for public ECEC* is higher in some countries than others; publicly funded provision for children aged 0 to 3 seems lower in Ireland, the Czech Republic and Poland than in other European Member States.
- *Access to ECEC* is also variable in Europe: over the last decade, the percentage of children attending the final year of early education across the EU-27 has grown from 85.1 per cent in

2000 to 93.2 per cent in 2010 (Eurostat, 2013a). As of 2009, '74 % of 3-year-olds, 87 % of 4-year-olds, and 93 % of 5-year-olds in Europe attend a formal ECEC or primary education programme' (Eurydice 2009, 14). However, the percentage of children at risk of poverty and social exclusion in Europe ranges from 15.9 per cent in Sweden to 51.8 per cent in Bulgaria (Eurostat, 2013a), and a divide still exists in that access rates for quality ECEC are higher in Western European Member States (including Southern Europe) than in Central and Eastern European Member States (Eurostat 2013b; Bennett et al. 2012).

- The *design of ECEC services* matters: such services may be either targeted or universal. It has been suggested that features like universal childcare may facilitate access to ECEC for excluded groups (such as migrants), thereby contributing to tackling social exclusion. One indicator of the targeted vs. universal approach is the allocation of places, which can be universal or based on well-defined criteria such as parental employment status.
- Another point of variation across Europe concerns the *age when ECEC begins*: in some EU countries ECEC provision is available from 3 months old, in others (such as Denmark and Slovakia) it begins at around 6 months, while in other countries (Bulgaria, Austria and Sweden, among others), ECEC provision begins from the age of 1 (Eurydice 2009). In this area, systemic features of the national social system such as parental leave arrangements have a major influence since they may incentivise parents to stay at home with their children, and allow parents greater choice in choosing between childcare and home care.
- The *opening hours for ECEC services* can be tailored to parent's working hours and feature flexible arrangements or are available only on a part-time basis; in the Netherlands, for instance, toddler playgroups operate on the basis of half-days, while primary education (*basisonderwijs*) for children aged 4 to 6 is on a full-time basis.
- *Fees for ECEC* may vary, although they do not exist in most EU Member States (Eurydice 2009). In Spain, for example, education is free of charge for children aged 3 to 6, but parents have to pay for care for children aged 0 to 3 since 2005 (although grants are available). Other countries like France, the UK, and Scandinavian countries have chosen to make preschool provision universal and free for 3 to 6 year olds.

2.1.3. Case studies of specific practices for ECEC in Europe

A range of practices has developed in Europe in the provision of ECEC for disadvantaged students. Urban (2009) studied the way in which various types of programmes (in Croatia, Germany, Ireland, Poland, Spain, Sweden and the Netherlands) created change at the local level. Although it is indicated that these studies cannot be taken as 'best practices', they do highlight a range of interesting approaches. For instance, in the German state of Saxony-Anhalt, researchers were commissioned in 2002 to develop a framework for professional development (*bildung: elementar*) for services funded publicly. In contrast, in Poland, from 2003 onwards, the Comenius Foundation for Child Development focused on setting up educational services for children aged 3 to 5 in areas of high unemployment and where there were no preschools through the Where There Are No Preschools (WTANP) programme (Urban 2009).

The array of models used by national services to deal with children at risk of poverty of social inclusion is vast. For instance, Ireland chooses to directly facilitate access to childcare for disadvantaged children as part of the National Childcare Investment Programme, which takes the socioeconomic profile of a given area into account when making decisions on funding. In Hungary, disadvantaged children (as defined by

the educational and economic status of parents) have been given priority access to ECEC since 2008 (Eurydice 2009). In Lithuania and Poland, special training for staff working with children at risk is provided, while in other countries, care services are targeted towards preschool children whose mothers are facing difficulties to enter the labour market (EPIC 2013).

In this section, a number of specific European level case studies of ECEC are presented.

- The **Step by Step (SbS) programme** is an early childhood education project that aims to reform provision of early education. It was launched by the Open Society Foundations (OSF) in fifteen Central European and Eurasian countries in 1994, and is now active in 30 countries. The project sought to foster social inclusion and child-centred practices by strengthening local communities to help them provide quality ECEC with a focus on disadvantaged children, and promoting child-centred teaching. About 1.5 million children have been exposed to the child-centred approach advocated by the Step by Step programme, with 68,000 educators being trained (Moss et al. 2012). The NGOs involved have produced a number of guidelines for educators on quality practice in early years provision, as well as online resources. Evaluations of the programme in Romania, Bulgaria and Ukraine have shown that disadvantaged children attending Step by Step programmes had made greater gains than better off students and been able to enter primary school equally well prepared (Moss et al. 2012).
- In Lithuania, the **National Minority Integration into Lithuanian Society Programme**, targeted towards the children of migrant workers and immigrants, is being implemented. These children receive both social and cultural integration sessions as well as language training. A separate programme was designed to cater to the needs of Roma children and to help them integrate into Lithuanian society. The programme is funded partly through money received from the European Structural Funds, notably for the period 2007–2013 (Eurydice 2009).
- The UK's **Sure Start programme** was a flagship programme set up between 1999 and 2003, when 524 centres were created with a view to enhancing the well-being and health of young children from disadvantaged areas, and to help break the intergenerational transmission of inequalities. The programme was initially targeted towards families with children aged below 4 in disadvantaged areas. Sure Start centres interacted with communities in various ways, notably through the improvement of existing services or provision of home visiting, learning and childcare, etc. The programme initially had mixed results, but following feedback from an evaluation, implementation improved (NESS 2005). Positive child outcomes were found later (Melhuish et al. 2008). Subsequently the programme suffered cuts as the result of the economic recession and policy changes. Subsequent evaluations found that Sure Start centres faced significant challenges when it came to catering to disabled, minority, BAME and other disadvantaged children (House of Commons Children, Schools and Families Committee 2010).

2.2. European-level goals on access to higher education, and practices in EU Member States

2.2.1. European policy on widening access to higher education

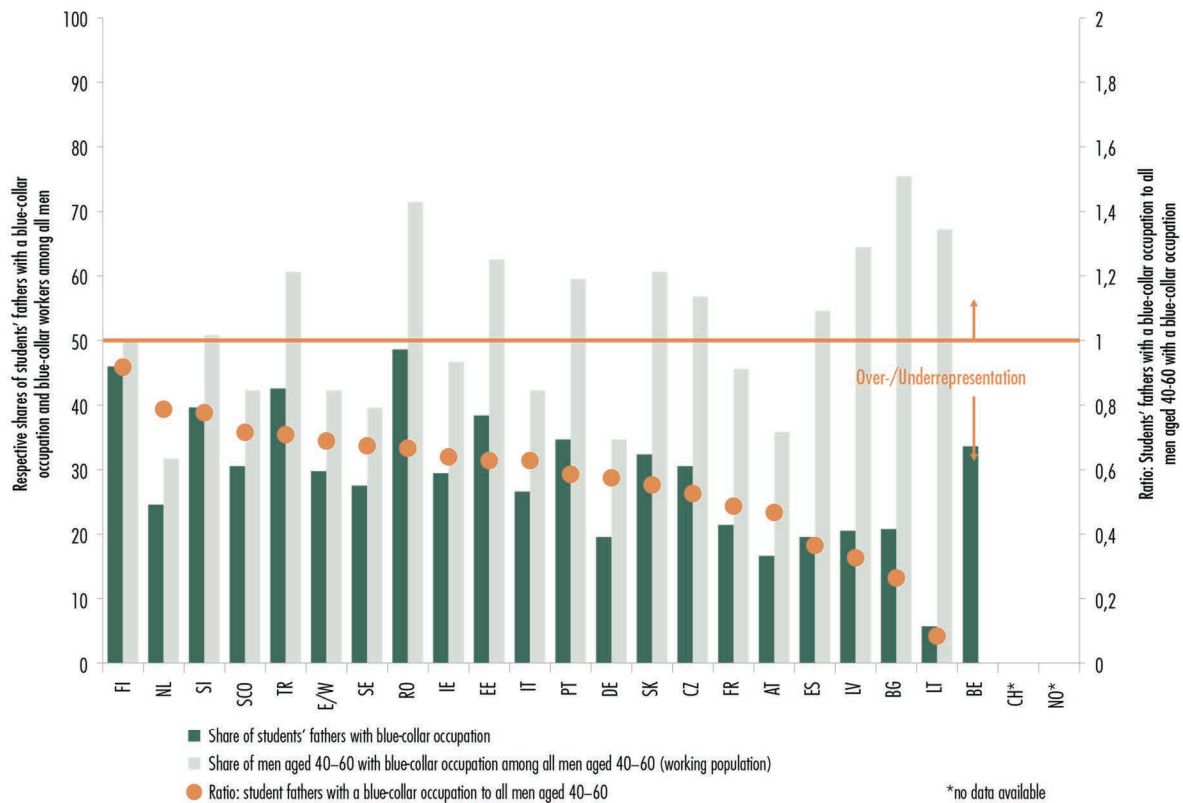
The Commission has also developed a range of policy goals relating to widening access to higher education in Europe. Although the social mobility dimension of higher education has existed as a policy concern since 2001, it was only defined in 2007. The main driver for this has been the Bologna Process

for higher education, which launched in 1999 to help the European higher education system become more compatible, comparable and competitive. The Leuven/Louvain-la-Neuve Communiqué of 2009 was a major step in the development of goals for widening access, and recommended that ‘measurable targets to widen participation and widening participation of under-represented groups’ should be set within the next decade (Leuven/Louvain-la-Neuve Communiqué 2009, 2). Later in 2009, the Council of the European Union also approved a new strategic framework for education and training (named ET 2020), where one of the four major strategic objectives was to promote equity, active citizenship and cohesion, notably to enable all citizens regardless of their background to acquire and develop job-related skills and competencies required for employment. The ET 2020 framework states that ‘educational disadvantage should be addressed by providing high-quality early childhood education and targeted support, and by promoting inclusive education’ (OJEU 2009, 4). In addition, the Council adopted two benchmarks, notably on tertiary level attainment (that by 2020, 40 per cent of 30- to 34-year-olds should have attained tertiary education) and on ECEC (in line with the Barcelona targets of 95 per cent participation in ECEC for children aged 4 to mandatory school age) (OJEU 2009). More recent documents from the Bologna Process appear to signal greater focus on not only participation in higher education in terms of numbers, but also in terms of access: the ministers for higher education have agreed that an important goal for 2020 is to ensure the ‘maximisation of talent’ by investigating the social dimension of higher education (Eurostudent 2012). The 2012 Bucharest Communiqué highlighted the information gap on measures in place at the institutional, national and regional levels to strengthen the social dimension of higher education, and ministers committed to collecting and sharing data to monitor progress in the area.

2.2.2. Diversity across Member States in access to higher education

Access to university also varies throughout Europe, and higher education systems are characterised by diverging degrees of participation by students from low education backgrounds – see Figure 5 (Eurostudent 2012). The scarcity of data makes it difficult to make comparisons on participation in higher education owing to variation across countries. However, a general trend over appears to be the reduction in socioeconomic group inequalities in access to higher education, notably in countries such as the UK, Finland and France (Clancy & Goastellec, 2007). The trend can be partly explained by educational expansion and the ‘massification’ of higher education in Europe, which have increased the likelihood that educationally underprivileged groups can study at university. Whereas only 13 per cent of all individuals with a low educational background were able to attend higher education in the generation now aged 55 to 64, the share increased to 23 per cent for the generation aged 25 to 34, although it still remains low overall (Bohonnek et al. 2010).

Figure 5. Ratio of student's fathers with manual-labour occupational status to manual-labour workers in the total population (2005)

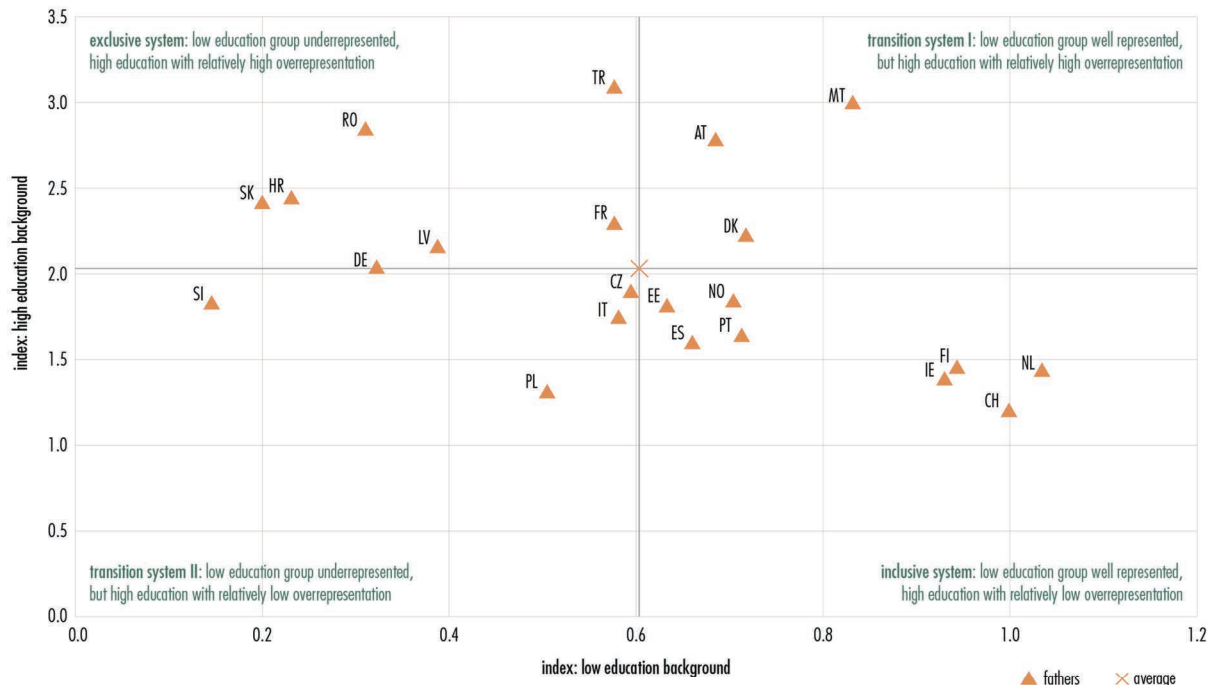


SOURCE: Bohonnek et al. (2010, 48)

The traditional measure for access is the degree of representation of students based on parental educational and occupational status (e.g. the proportion of students in universities whose parents are highly skilled and hold managerial positions, or the proportion of students with parents who have lower education levels and less qualified jobs) – see Figure 6. It still remains the case that students from lower socioeconomic backgrounds have disproportionately low chances of accessing higher education in Europe; however, the underrepresentation of these students varies by country – it is lowest in the Netherlands and Finland, and highest in Bulgaria, Slovakia and the Czech Republic (Bohonnek et al. 2010, 46). Recent data point to the persistence of an educational attainment gap depending on parental level of education in the EU-28: it appears that in certain Southern European Member States (Portugal and Italy, among others), low levels of education persist across generations, while in some Central and Western European nations such as Cyprus, France, Greece and Ireland, a movement from ‘medium’ to ‘high’ levels of education⁶ can be observed (Eurostat 2013c). In the EU-28, 34 per cent of people with ‘low educated’ parents have low education (but 48 per cent have medium levels of education), 59 per cent of medium-educated parents have gone on to ‘medium’ levels of education, while 63 per cent of those with highly educated parents have ‘high’ levels of education (Eurostat 2013c).

⁶ Levels of education were classified in accordance with the International Standard Classification of Education (ISCED 1997), whereby a ‘low’ level of education corresponds to ISCED 1&2 (secondary education); ‘medium’ level of education designates ISCED 3&4 (upper secondary or post-secondary non-tertiary education); while ISCED 5 and 6 (first and second stage of tertiary education) is used to designate a ‘high’ level of education.

Figure 6. Highest educational attainment of student's fathers as a share of the corresponding age group in the total population in per cent (where 1 indicates a perfect balance)



Source: EUROSTUDENT IV, Subtopic C.3 and national statistics/LFS. No data: LT, SE, E/W. No part-time students in sample: DK, LV. High education background oversampled: DK. Low education includes ISCED 3C. CZ. Males of corresponding age are defined as males between the ages of 40 and 60 years old. Update 12.1.12

SOURCE: Eurostudent (2012, 1)

A number of measures have been taken at the national strategic planning level to widen participation in higher education, and numerous programmes have been set up at country or regional level (Osborne 2003). There are substantial differences in the way in which improving access is implemented throughout Europe: some countries have adopted reduced attendance fees or income-contingent grants, which favours students from low socioeconomic groups (e.g. Belgium); others have introduced a grant-based system for students with disabilities (e.g. Austria); while in others such as Germany, the emphasis has been placed on grants from foundations for disadvantaged children, such as the Konrad Adenauer Foundation, the Friedrich Naumann Foundation, etc. (Foong Lee 2010).

2.2.3. Case studies of specific practices to increase access to higher education in Europe

This section aims to summarise specific case studies of widening access to university in Europe. While these have slightly different goals, they contribute to bridging the gap between supply for higher education (academic ability) and demand for higher education (outreach and attracting applications from underrepresented groups). Several practices have been implemented to encourage applications to higher education from disadvantaged groups, and this selection is not exhaustive. Some approaches aim in part to reach individuals who believe that university is 'not for them', thereby countering 'dispositional barriers', while others take a different angle (Bohonnek et al. 2010, 61):

- One of the main UK programmes to widen participation in higher education was the **UK Aim Higher** initiative, which focused on children from lower socioeconomic backgrounds living in

areas characterised by low participation in higher education. The aim of the initiative was twofold: first, to raise the aspirations of potential candidates, and second, to develop the abilities of underrepresented groups so they could apply to university. The initiative was delivered through local partnerships, which gave flexibility to local actors to best tailor their strategy to local communities. In 2009–2010, the partnerships worked with about 2,700 schools through targeted mentoring, university visits, residential summer schools and open days (Carter-Wall & Whitfield, 2012). Although it is difficult to draw definitive conclusions from the available data, the programme appears to have delivered some improvements in exam results (GCSE scores), retention and progression to higher education (Moore & Dunworth, 2011). However, there appears to be little evidence that it was successful in influencing participants' attitudes to higher education (Morris et al. 2005).

- Throughout Europe, specific programmes have been set up by universities and usually target lower-income students, disabled students or potential candidates from ethnic minorities. As part of the **Stockholm University for All** programme, for example, student ambassadors from the university meet primary and secondary school students aged 12 to 16 and mentor them with homework, and an opportunity for pupils to do a two-week internship at the university is provided (Foong Lee 2010).
- Finally, other situations have required countries and individual institutions to adopt in-reach strategies by developing quotas for disadvantaged candidates. In Ireland, the **Higher Education Access Route** (HEAR) programme was implemented nationally in higher education institutions, and aims to foster entrance into university for applicants who demonstrate willingness to attend higher education and meet academic requirements to enrol (Bohonnek et al. 2010, 51)

Numerous policies, goals and programmes have been developed in Europe to help break the cycle of disadvantage by enhancing the cognitive and non-cognitive skills of Europe's most disadvantaged children, and help them access higher education in order to secure better employment opportunities and better wages. However, very few overarching policy aims have been specifically developed to create a link between high-quality ECEC and one of the indicators of its success, namely access to higher education.

Conclusion

This brief highlights the importance of ECEC in securing positive outcomes for disadvantaged children, and studies the variety of ECEC provision throughout Europe. At the same time, it explored the types of initiatives undertaken in recent years to help children from lower socioeconomic backgrounds to succeed in a specific domain, namely access to higher education, which is one of the many benefits that can be derived from effective, high-quality ECEC. However, it is emphasised that ECEC should not be thought of as a panacea for social issues, despite its positive effects on social mobility. It is tempting to overplay the importance of ECEC as a solution to social mobility given the difficulty of implementing alternative solutions involving dealing with income redistribution and inequality through social and economic policies (Penn 2009).

Evaluations of the 'social dimension' of the 2003 Bologna Process, under which the widening of access to tertiary education was first identified as a policy aim have shown that policy actions have come late and

have not yet found any evidence of wider access as a direct result of these policies (Bohonnek et al. 2010). Given this context, and the length of time it would take for the representation of low socioeconomic background students to reach the levels of their wealthier peers, it appears that adopting ambitious policy goals which link ECEC provision for underrepresented groups to specific indicators in terms of access to higher education could be a promising way forward.

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