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Nursery education and reducing social inequalities: an international comparison

Report

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Nursery education and reducing social inequalities: An international comparison

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Abstract

In recent decades early childhood education and care (ECEC) has had a high political and policy profile at national and supranational levels. A growing body of research has found that ECEC can improve children's cognitive abilities, make children's learning outcomes more equitable, reduce poverty and improve social mobility from one generation to the next (OECD, 2013). In France, nursery education is very well-embedded and has progressively catered for 4 and 3 year olds: attendance at nursery school has become the norm, with universal uptake. This report examines the evidence from international studies and provides a more in-depth comparison of the ECEC policies that have been adopted in Denmark, France, England and Québec. The paper presents evidence suggesting that universal access to nursery education has the potential to reduce social inequalities in French schools given that it tends to have a greater impact on children from disadvantaged backgrounds. A move towards universal provision for 2 year olds could mean that, over time, attendance would become the norm for this age group as it is for 3 and 4 year olds, so offering enhanced opportunities for children from disadvantaged families and at the same time reducing inequalities and fostering social mixing.

Introduction

In recent decades early childhood education and care (ECEC) has had a high political and policy profile at national and supranational levels. It has varied policy goals: these can relate to children's development, educational outcomes and maternal employment (Heckman, 2011; Lewis, 2009).

The multiple benefits of ECEC have been highlighted at a supranational level. The European Commission (2011) has noted that participation in high quality ECEC leads to better attainment in international tests; it can enable parents to reconcile work and family responsibilities so increasing employability; and it can support children in terms of integration into society, fostering well-being, and contributing to later employability (cf. Council of the European Union, 2009a).

Whilst many inequalities are present when children enter formal schooling (see OECD, 2010) a growing body of research has found that ECEC can improve child cognitive abilities, make children's learning outcomes more equitable, reduce poverty and improve social mobility from one generation to the next (see OECD, 2013).

This report is concerned primarily with ECEC policy and social inequalities in school outcomes and as such adopts an international comparative perspective. It is divided into four main sections. The first part provides an overview of the European Union (EU) policy context as it relates to ECEC along with contextual data on ECEC. The second part provides a review of recent research concerned with the relationship between ECEC and social inequalities in educational outcomes. This focuses on developed countries and builds on earlier work published by Eurydice (2009). The third section outlines the ECEC systems and evaluations relating to educational outcomes associated with ECEC policies in four jurisdictions – Denmark, France, England and Québec. The final section examines recent policy developments in France and, drawing on the research reviewed in previous sections, provides a reflection on French pre-primary education policy.

It is important to stress that the literature may distinguish between early years education, early education, pre-primary education, preschool, childcare and ECEC; in this report, reference is made to research relating to varying types of provision with educational content.

I. European Union policy and context

EU policy context

Early childhood education and care (ECEC) has had a high profile within the European Union especially since the early 2000s. At a European level, action has been towards increasing the quantity of ECEC to enable more parents especially mothers to enter labour market. A key outcome of the European Council in 2002 was that ‘Member States should...strive, taking into account the demand for childcare facilities and in line with national patterns of provision, to provide childcare by 2010 to at least 90% of children between 3 years old and the mandatory school age and at least 33% of children under 3 years of age’ (European Council, 2002, p. 12).

By 2010 only 10 Member States¹ had achieved the Barcelona objective for children under 3. There were marked changes in France where the participation rate went from 31% in 2006 to 43% (European Commission, 2013a). For children between 3 and the beginning of compulsory education, 11 Member States (again including France)² achieved the objective of 90% (European Commission 2013a).

Whilst *quantity* of provision has been a concern, *quality* has become an especially important issue. In 2009, Ministers adopted a strategic framework for cooperation in education and training until 2020. As part of this it was stated that ‘educational disadvantage should be addressed by providing high quality early childhood education and targeted support, and by promoting inclusive education’ (Council of the European Union, 2009b, p. 3).

The associated EU benchmark on pre-school participation stipulated that by 2020 at least 95% of children between the age of 4 years and the starting age of compulsory primary education should participate in early childhood education. Participation is seen as a foundation for later educational success, especially in the case of those from disadvantaged backgrounds (Council of the European Union 2009b).

More recently, the European Commission (2011) has reiterated the importance of ECEC, viewing it as ‘the essential foundation for successful lifelong learning, social integration, personal development and later employability’ (p. 1). The importance of investing in ECEC to reduce inequality has also been stressed by the European Commission (2013b); ‘access to high-quality, inclusive early childhood education and care’ is stressed along with incentivising ‘the participation of children from a disadvantaged background (especially those below the age of three years), regardless of their parents’ labour market situation, whilst avoiding stigmatisation and segregation (pp. 3-4).

Contextual data

All EU countries finance or co-finance ECEC provision for children over 3 years of age from public sources; however, less than half cover most of the costs without requiring family contributions. Provision for children under 3 years of age tends to be privately financed (European Commission/EACEA/Eurydice/Eurostat, 2014).

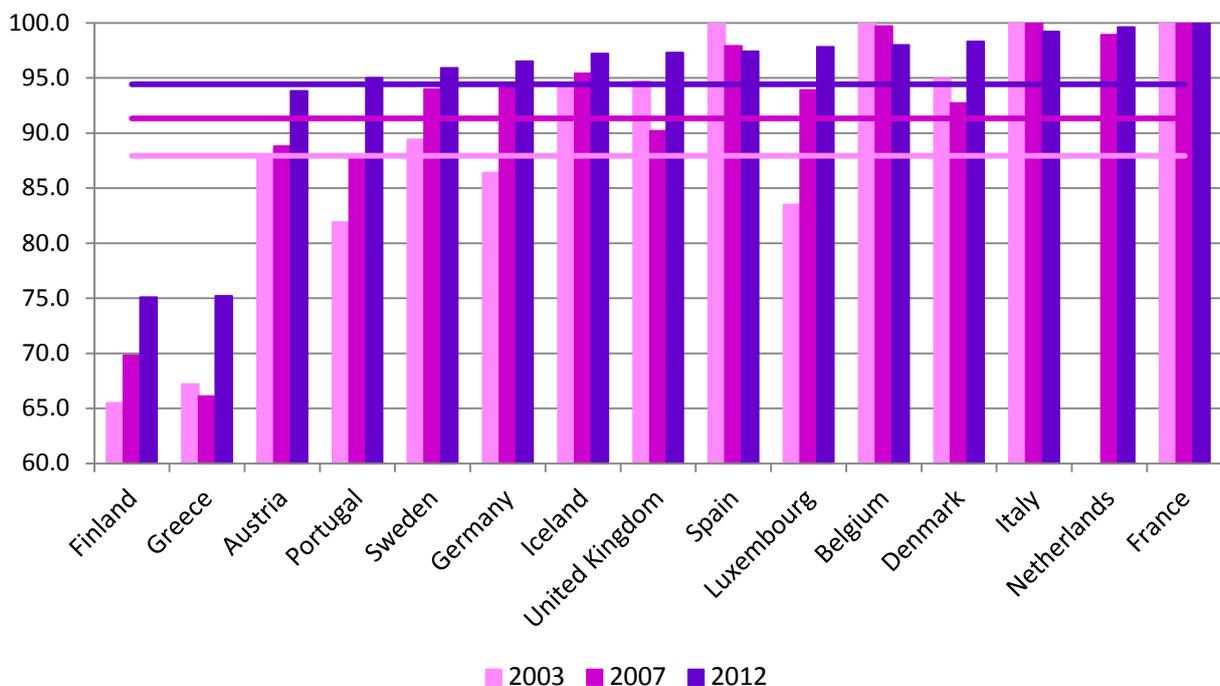
Participation rates vary between countries. Table 1 provides data on participation rates in early education of children between the age of 4 years and the start of compulsory education

¹ DK, SE, NL, FR, ES, PT, SI, BE, LU and UK.

² BE, ES, FR, SE, DE, EE, NL, SI, IE, DK and UK.

in the EU-15 countries between 2003 and 2012.³ Across virtually all countries, participation has increased over time; the exception is France where participation was already universal between the age of 4 until the start of compulsory education. In 2012, only in France and the Netherlands were all children from the age of 4 until the start of compulsory primary education participating in early education.⁴

Figure 1. Participants in early education (aged between 4 years and the starting of compulsory education) as a percentage of corresponding age group for selected countries and years



Source: Eurostat, 2014b

Notes: Compulsory education begins at age 6 in most of the above-selected countries. The exceptions are Ireland (age 4), the Netherlands and United Kingdom (age 5), and Finland and Sweden (age 7).

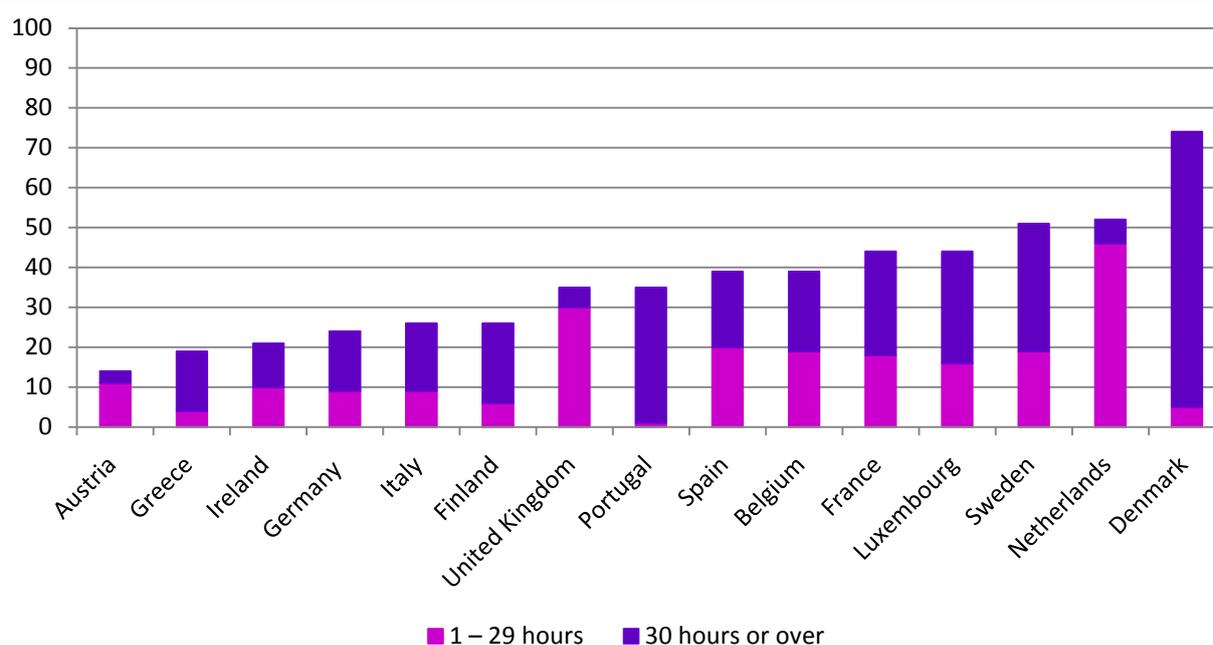
Data from 2003 for the Netherlands have been left out of this figure as definitions used for data collection changed in 2007.

Table 2 presents the participation rates in ECEC for children under 3 years of age in terms of the number of hours per week. As can be seen, the highest participation rates are in Denmark, the Netherlands, Sweden, France and Luxembourg. In Denmark, 69% of children under the age of 3 attend for 30 hours or more a week, which is far higher than any other country. On the other hand, in the Netherlands, 46% of children under the age of 3 attend for between 1 and 29 hours a week. The reasons for these differences are complex and related to national policy goals and a range of factors including on the one hand attitudes, norms and behaviour, and on the other policies such as parental leaves, benefits and the availability and cost of ECEC (see Lewis, 2009).

³ The restriction to the EU-15 countries is to facilitate comparisons.

⁴ High levels of children attending pre-primary education generally correspond with high employment rates of women (Eurostat, 2014a).

Table 2. ECEC participation rates by hours per week in 2011 (% of children under 3 years of age)



Source: European Commission/EACEA/Eurydice/Eurostat, 2014 (from EU-SILC)

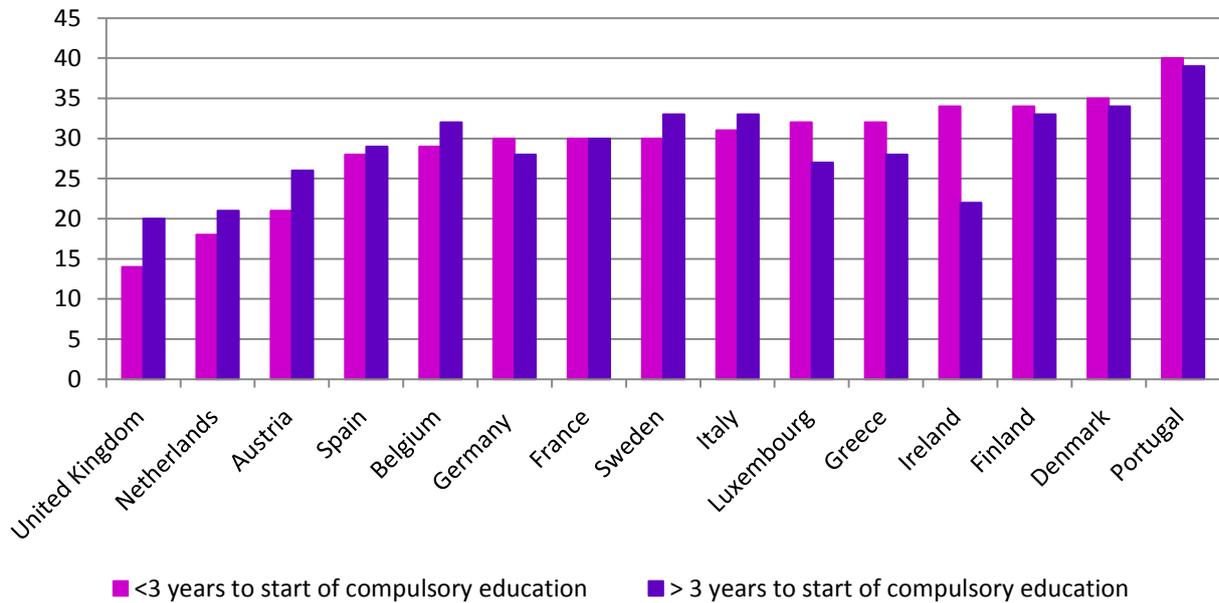
In the majority of countries where children under 3 years of age are in ECEC, they participate for 30 hours or more a week. Of children over the age of 3 in ECEC, participation is around 30 hours a week in the majority of countries.⁵ Hours are especially low in the UK and in the Netherlands for children under 3 years of age, and for those between 4 and the start of compulsory education.⁶

⁵ In some countries, use of ECEC varies according to household income. In France in 2010, 64% of households in the top income quintile with at least one child under 3 years of age used childcare services compared with 15% of households in the bottom quintile (in the UK figures were 53% and 20% respectively). In Denmark, the figures were broadly similar at 87% and 83% respectively (European Commission, 2013a).

⁶ Similarities between the UK and the NL have been identified in previous research (e.g. Lewis, 2009). It is notable that in the UK, costs are especially high (see Appendix).

The average numbers of hour spent per week in ECEC varies according to age group (see Table 3).

Table 3. Average number of hours spent per week in ECEC by age group (2011)

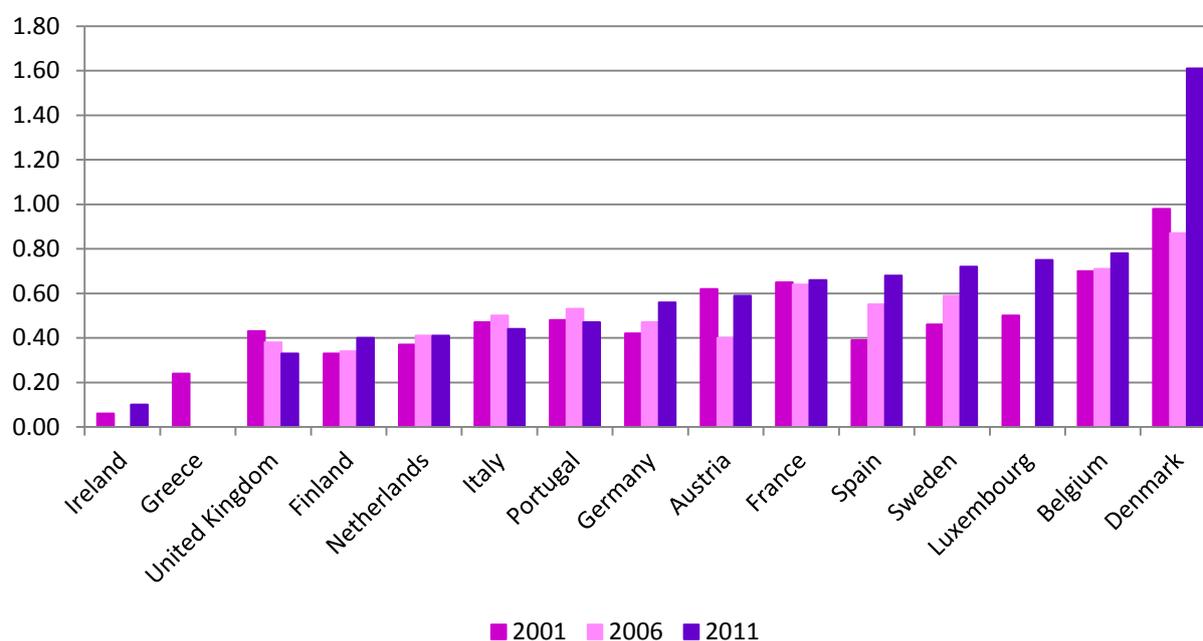


Source: European Commission/EACEA/Eurydice/Eurostat, 2014 (from EU-SILC)

Expenditure data on pre-primary education (ISCED 0) are difficult to interpret as pre-primary education lasts for differing lengths of time due to variation in the starting age of compulsory education (ISCED 1): this ranges from 4 (Ireland) to 7 (Finland, Sweden). Nevertheless the data in Table 4 give some indication as to the priority given to pre-primary education.

Expenditure on pre-primary education increased in the majority of the EU-15 countries between 2001 and 2011. In 2011, expenditure was the greatest in Denmark, Belgium, Luxembourg, Sweden, Spain and France. In those countries where compulsory education begins at the age of 6 years, expenditure was highest in Denmark, Belgium, Luxembourg, Spain and France. In France, expenditure increased fractionally during this period.

Figure 4. Total public expenditure on pre-primary education as % of GDP, in selected countries and years



Source: Eurostat, 2014c

Notes: Total public expenditure on pre-primary education (and not allocated by level in some countries) as a percentage of GDP. Ireland: expenditure was 0% from 2004 to 2008 (compulsory education begins at 4). Greece: data are missing after 2004. Luxembourg data are missing from 2002 to 2007.

II. Review of recent relevant research on the impact of ECEC on later educational outcomes

This section outlines international research focusing on ECEC and later outcomes. As noted by Van Laere et al. (2012): ‘Early years policies and practices take place in an international context of ‘schoolification’ where ECEC is increasingly conceptualised as preparation for compulsory schooling’ (p. 527). Much recent research has focused on the importance of ECEC in developed countries (and beyond). The research reported here builds on work carried out by Eurydice (2009) and for the European Commission (Lazzari and Vandembroeck, 2012).

Country level research

Burger et al. (2010) carried out a comprehensive systematic review of research on ECEC across a range of different contexts focusing in particular on its effects on the child’s cognitive development and whether different programmes can help to overcome inequalities among children from different social backgrounds. The findings of the review were not limited to educational provision (they also include studies requiring parent participation) and included studies that began as far back as the 1950s, when the policy context was very different. Burger et al. (2010) found that the majority of ECEC programmes had positive short-term effects, but smaller long-term effects on cognitive development. Children from disadvantaged families made as much or more progress than their more advantaged peers. The researchers concluded that although many studies have focused on the influence of

ECEC on child development and educational outcomes, they have often not sought to disentangle ‘potentially distinctive effects of diverse effects of preschool experience’ (p. 161). They suggest that future research needs to take account of quality of institution, the curriculum, the effects of age at entry, the duration and intensity of attendance.

It is important to stress that much of the research on the potential benefits of ECEC has been carried out in the US where there is no universal early years education. Nevertheless, evaluations have been carried out both on specific interventions and on federal programmes that have been aimed at children from disadvantaged backgrounds

Lloyd and Potter (2014) reviewed research findings focusing in particular on ECEC for children from disadvantaged backgrounds. They highlight findings from a number of US longitudinal studies of specific interventions that claimed long-term educational and economic benefits including the High/Scope Perry Preschool Study⁷ and the Carolina Abecedarian project (see Barnett, 1995; Barnett and Masse,⁸ 2007). The latter with a well-designed curriculum and well-paid staff (comparable to US public school staff) provided full-time ECEC to children from 0 to 5 years. At the age of 30, various outcomes were explored.⁹ The programme was associated with significant educational gains: more participants had obtained at least a Bachelor’s degree and they were four times more likely to be college graduates (Campbell et al., 2012). However, these studies have limited external validity (Burger 2010; Lloyd and Potter, 2014) as they were targeted experimental programmes.

A larger targeted federal programme, including education, health and family support services is Head Start introduced from 1965 for 3 and 4 year olds from low income families. However, equivocal evidence of longer-term outcomes has not been found. Thus, Puma et al. (2012) found that the programme improved children’s preschool outcomes across different developmental domains, but had few impacts on children in kindergarten through to the 3rd grade (8/9 years). Early Head Start, another federal programme, introduced in 1994, is aimed at children under 3 years of age; modest impacts on cognitive and language outcomes when children were 3 years of age were identified¹⁰ but in the follow-up at the 5th grade (ages 10/11) the broad pattern of positive impacts had disappeared (Vogel et al., 2010, p. xvii).¹¹

The problems of generalising from evaluations of targeted programmes have been highlighted by Cascio (2015). She stresses that positive long-term findings from education interventions for low income children in US, may have limited applicability to early years education policy more generally as such programmes only serve disadvantaged children. Whilst most of the US research relates to evaluations of specific targeted interventions, in Georgia and Oklahoma, universal preschool education has been on offer since the 1990s. Cascio and Schanzenbach (2013) found that these state programmes had increased the preschool enrolment rates of children from both lower- and higher-income families. Among lower-income families, their findings suggested that the programmes had increased children’s

⁷ The positive outcomes of this programme have been highlighted by Heckman (2011).

⁸ Barnett and Masse (2007) have argued that preschool education for children in low-income families can be a good public investment: such programmes are not provided to low-income families by the private sector.

⁹ Of the 111 enrolled (98% of whom were African American) 101 took part in age 30 follow up.

¹⁰ The children who had participated continued to perform below national norms on cognitive and language assessments.

¹¹ However, within racial/ethnic groups, there was evidence that being in a mixed-race school was associated with better outcomes than being in a high- or low-minority concentration school, particularly for African American and Hispanic pupils, indicating the importance of the subsequent educational environment (Vogel et al., 2010, p. xvii).

test performance up to the 8th grade (ages 13/14).¹² Among higher-income families, the programmes resulted in children moving from private to public preschools; for these children there was no positive effect on children's later test scores.

Differences in the impact of ECEC on children from different social groups, has also been identified in European research. Thus, Biedinger et al. (2008) used school entrance test data for the years 2000 to 2005 to analyse the school readiness of children aged 6 to 7 years in one city in Germany. They found a positive relationship between the amount of preschool¹³ experience and school readiness, that is, more pre-school was associated with being better prepared, even after controlling for family background. This was found to be the case for all children, although immigrant children (predominantly Turkish) obtained lower scores when controlling for other factors. Further analyses showed that the influence of the preschool depends on its social composition: preschools with a more 'positive' social composition (based on an index including parental education level, parental employment, proportion of non-immigrant children) promoted children's development to a greater extent than others. Immigrant children in particular benefited from a longer period of preschool attendance: in short, for this group of children the quantity and the 'quality' of preschool mattered.

Dustmann et al. (2012) studied the effects of a German universal childcare programme (aimed at children aged 3 to 6 years on school readiness. As a result of a federal policy reform every child from his or her third birthday to the beginning of compulsory education is entitled to a largely subsidised part-time childcare place. Using administrative data for children who were about to start school in one large region, they found that participation in childcare reduced problems with language and motor skills and improved overall school readiness for children of immigrant origin (i.e., children who themselves or whose parents were born outside Germany); however, it had no significant effects on other children. Their findings suggest that universal childcare programmes can help to narrow the achievement gap between children of immigrant and non-immigrant origin and thus have the potential to reduce inequalities between these two groups.

In a similar vein, a review of research by Ruhm and Waldfogel (2012) found beneficial effects of changes in ECEC policies at school entry, in adolescence and for adults, with gains generally being largest for those from disadvantaged families (e.g., immigrant households, low income). They stress that whilst targeted approaches may be advocated, there are advantages from universal programmes: they may increase political support for maintaining high quality programmes and 'foster a unity of national early childhood experiences' (p. 47). Moreover most of the benefits identified by their research came from universal programmes and it cannot be concluded that narrowly targeted programmes would have the same effects.

International comparative research

On average across OECD countries 72% of 15 year olds assessed as part of the Programme for International Student Assessment (PISA) reported having attended a preschool setting for more than one year. In France 93% of pupils reported having done so. Other countries with participation rates above 90% included Japan, the Netherlands, Hungary, Belgium and Iceland. In most countries there was a clear association between pupil performance on reading and preschool attendance (OECD, 2010).

¹² The programmes also increased the amount of time mothers and children spent together on activities such as reading, and the likelihood of mothers working.

¹³ Socialisation, education and care underpin the curricula which have been adopted in childcare in Germany across all Länder (European Commission, 2014).

PISA 2012 showed an advantage of an average of 35 points for pupils aged 15 who had previously attended a preschool setting for one year or more, compared with those who have not attended or had done so for less than one year. For France, the advantage was high, at 73 points. Having controlled for socio-economic background the advantage remained. Moreover, it appears that longer periods of pre-primary education result in better results (Ho and Lefresne, 2014).

It has been hypothesised that differences between countries are due to the *quality* of pre-primary education. This hypothesis is supported by the fact that relationship between pre-primary attendance and performance tends to be greater when in school systems with a longer duration of pre-primary education, smaller pupil to teacher ratios and higher public expenditure per child at pre-primary level (OECD, 2010).

The following section examines in more depth these and related issues in four different countries/regions; it also provides a summary of key research findings relating early education to educational outcomes. These jurisdictions vary in terms of a number of variables including both the age at which pre-primary education normally begins and staff-to-child ratios.

III. Systems in comparative perspective: linking policy and outcomes – Denmark, France, Québec, England

This section explores research relating to ECEC systems in an international comparative perspective outlining the following dimensions: curriculum/pedagogy, training of teachers/staff, and children's outcomes.¹⁴ It focuses specifically on countries/regions that have different models of pre-school education, namely Denmark, France, Québec and England. France and Québec have separate systems for childcare and pre-primary education and Denmark has an integrated system. Québec and England both have substantial private sector involvement in childcare and in England there is also substantial involvement in pre-primary education.

The countries have been selected on account of their different systems but also because of the evidence base relating to child outcomes. A focus on these four countries enables a comparison not only of child outcomes but also of the ways in which different aspects of the systems may ameliorate or otherwise the achievement of children, especially those from disadvantaged backgrounds. The following sections briefly highlight the policy approaches that have been adopted in each country before outlining relevant research on educational outcomes.

Denmark

Overview

Children in Denmark can either be cared for by regulated childminders (in the provider's home) or in daycare institutions. The daycare settings are divided into three levels according to the age of the child. There are nurseries for children from 6 months to the age of 3 years; kindergartens for children between the ages of 3 and 5/6 years; and integrated institutions for children from 1 to 5/6 years of age. Daycare institutions are generally open for around 12 hours a day. Normally, three to four pedagogues/daycare assistants are assigned to each group of 11 to 12 children (Eurydice, 2015a). There are virtually no private commercial centres; those that exist are religious and legally required to adopt identical standards to centres in the public sector (Esping-Andersen et al., 2012).

Curriculum

Day-care services aim to provide children with academic skills, general competences and opportunities for personal development; they focus on the well-being of children. There is a democratic dimension – day care services must by law provide children with an understanding of the key components of democracy, and foster an atmosphere of equality (Jensen et al., 2010). All day-care facilities are obliged to have an educational curriculum; this must relate to six main themes: the personal development of the child; social competencies; language; body and movement; nature and natural phenomena; and cultural expressions and values (Eurydice, 2015a).

Qualifications

In Denmark 60% of the staff in daycare institutions are day care professionals (pedagogues); they undertake three and a half years training and graduate with a Bachelor's degree; the remainder do not have this qualification. Childminders are not required to have any professional training or specific level or type of education (Jensen et al., 2010).

¹⁴ Ratios are provided in the Appendix.

Research on ECEC and educational outcomes

Three recent research studies have explored the effect of ECEC on children's educational outcomes in Denmark. Esping-Andersen et al. (2012) utilised a panel study of over 6,000 children born in 1995 to mothers with Danish citizenship and living in Denmark. They divided childcare into high and low quality: high quality care was that provided in institutional settings and low quality that provided in private homes by childminders (see above). They found that high quality formal care at the age of 3 years was associated with higher reading test scores at the age of 11 years. Importantly, high quality formal care appeared to have a stronger effect at the age of 11 years than low quality care for children from the lowest-income families (and for children at the bottom of the reading test score distribution).¹⁵

Bauchmüller et al. (2014) also explored the role of pre-school on school performance at the end of primary school, this time using Danish administrative register data. They followed a cohort of children born in 1992 and focused on children who attended a centre based preschool or a preschool section of an age integrated institution in 1998. They found that a higher staff-child ratio, a higher proportion of male staff, and a higher proportion of staff with a formal preschool training were associated with significant improvements in children's test results in written Danish at the end of primary school. Their results also showed that children from minority ethnic groups benefited from greater staff stability, an indicator of the quality of the provision.

Most recently, Datta Gupta and Simonsen (2015) evaluated the impact of non-parental care at the age of 2 years again using Danish register based data; they found that being enrolled in centre-based care at the age of 2 significantly increased the score obtained in Danish language at the age of 14 years. They also found some evidence that the probability of being enrolled at school at 16 was increased as a result of centre-based childcare.

The findings from these studies suggest that centre-based childcare in Denmark has positive impacts on children's later test results. Moreover, the research indicates that the effects are greater for children from the lowest income families.

France

Overview

Nursery school is part of primary education and is free.¹⁶ Since 2014, there has been a 4.5 day week. A full school day lasts 6 hours – from 8.30 to 11.30 and from 13.30 to 16.30; there are extended hours after 16.30 and during the lunch break (with a highly subsidised lunch) (Goux and Maurin, 2010).

Nursery education is not compulsory, but regulations specify that schools have to admit children in September of the year in which they become 3 whenever parents ask for their child to be admitted. If spaces are available schools can also admit children in the year in which they become 2 (see also Section IV).

¹⁵ In the US, Esping-Andersen et al. (2012) found that enrolment in school or centre based care was associated with higher cognitive scores at school entry, but the beneficial effects had eroded by the age of 11, particularly for disadvantaged children. This may be because low income children attend poorer quality care settings and subsequently attend lower quality schools.

¹⁶ 90% of places are in the public sector (Abdouni, 2014).

The number of places available is set by the *commune*, which is responsible for nursery schools. The current government aims to significantly increase the proportion of children aged 2 years in nursery education, above all in education priority areas in order to reduce inequalities associated with children's differing cultural and socio-economic backgrounds (see also Section IV). The recruitment of 1,000 additional school teachers at the start of the 2012 academic year was aimed in part at attaining that objective (Eurydice, 2015b).

Curriculum

The curriculum for nursery (pre-primary) education in France is established at a national level by the Ministry of Education. Teachers in primary and nursery schools all are civil servants who have taken an examination after three years of university education and who have received two years training in specific universities (Goux and Maurin, 2010). The main objective of nursery education is the acquisition and development of spoken language. The curriculum focuses on the following themes: acquisition and development of language: discovering writing: becoming a pupil; acting and expressing with the body; discovering the world; and perceiving, feeling, imagining, creating (Ministère de l'éducation nationale et ministère de l'enseignement supérieur et de la recherche (MENESR), 2008).

Qualifications in institutional settings

A major reform of initial teacher training in 2010 raised the qualification required for nursery, primary and secondary teachers (ISCED 0, 1, 2 and 3) to a Master's degree. Students with a Master's degree need to sit a competitive examination to become a teacher (Eurydice, 2015b).

Research on nursery education and educational outcomes

A number of studies have explored the impact of nursery education in France. Dumas and Lefranc (2010) estimated the impact of the time spent in nursery school on a variety of outcomes. During the 1960s and 1970s, there was a large-scale expansion of nursery education. Participation of 3 year old children rose from 35% to 90% and that of 4 years old from 60% to virtually 100%. Using French government data relating to cohorts between the 1950s and 1970s, Dumas and Lefranc focused on the impact of the age of nursery school enrolment on grade repetition, test scores in secondary school and completion of secondary education. The effect of earlier enrolment in nursery education was found to be positive. Delaying enrolment by one year led to a higher occurrence of grade repetitions, and lower test scores at entry to the 6th grade (age 11/12); children who enrolled later also had a lower probability of successfully completing secondary school. Regarding the chances of repeating first grade, nursery school had the same effect for children from lower and middle socio-economic groups. Thus, universal nursery school was not found to close the gap between these two groups; however, as it does not affect the outcomes of children from higher social groups, it does reduce inequalities between social groups. The researchers concluded that nursery school can be a tool for reducing inequalities.

Three studies have addressed the effect of children starting nursery school at the age of 2 year. Goux and Maurin (2010) found that school enrolment at the age of 2 has no adverse effect on children's subsequent educational achievement.

Filatriau et al. (2013) measured the effect of entering pre-school education at age 2 rather than 3. They used the Panel d'élèves du premier degré 1997, a survey carried out by the Direction de l'Évaluation, de la Prospective et de la Performance (DEPP, MENESR). All children in the survey entered compulsory primary education in 1997; the sample used for this study were children born in France in 1991 who had spent three or four years in pre-

primary education (nursery schools). Their findings revealed that children who spent four rather than three years in pre-primary education had significantly higher numeracy test scores at the age of 6 with stronger effects being identified in both literacy and numeracy at 8, 11 and 14 years of age.

By way of contrast, Ben Ali (2012) using the DEPP Panel 2007 found that, in general, the effects of schooling at the age of 2 were limited in terms of achievement; thus, there was no difference at the age of 11 between those who started at age 2 versus age 3, although those who started at 4 scored a little less well. Controlling for background characteristics did not affect the results. However, further analyses revealed that older 2 year olds did benefit compared with 3 year olds, whilst younger 2 year olds performed less well. In short, even though there were no overall benefits in terms of educational achievement, children who started nursery school at the age of 2 had a better educational trajectory than 3 year olds: more were a year ahead and fewer a year behind at the age of 11.

In summary, the French research suggests that a longer duration of nursery education has a positive impact on educational outcomes; there is also evidence to suggest that universal nursery education has positive effects on the outcomes of children from lower social groups but not those from higher social groups, implying that it can be a tool for reducing inequalities. With respect to enrolment at the age of 2 years, the research findings differ – a positive effect on subsequent literacy and numeracy scores was found in one study but not in another, but other positive outcomes were identified in the latter.

Québec

Overview

Québec's ECEC services are under two ministries, the *Ministère de l'Éducation, du Loisir et du Sport* (MELS) and the *Ministère de la Famille et des Aînés* (MFA). There are full day nursery classes (*maternelle*) for all 5 year olds. There are also some classes for four year olds (*pre-maternelle*); these provide half-day care in some disadvantaged communities, mainly in the Montréal area. In 2013, approximately 1,200 4 year old children began full-day classes in selected disadvantaged neighbourhoods (Atkinson Centre 2015).

The MFA is responsible for childcare of children aged 0 to 4 years. Regulated provision includes *centres de la petite enfance* (CPEs) which are small not-for-profit networks with several centres. CPEs often include regulated family childcare. There are also for profit centres or *garderies* (Atkinson Centre, 2015; see also Government of Québec, 2015a). In 1997 substantial funding to childcare programmes for children 0 to 4 years was introduced with parental fees of \$5 a day for children in childcare centres and regulated family childcare. In 2004, the daily parent fee was raised to \$7/day per child and in October 2014 to \$7.30 a day (Government of Québec, 2014a).

Curriculum

In Québec 'educational childcare' provision must include activities aimed at (1) fostering children's overall development, particularly their emotional, social, moral, cognitive, language, physical and motor development; and (2) helping children gradually adapt to life in society and integrate harmoniously. It must also aim to provide an environment conducive to the development of a healthy lifestyle, healthy eating habits and behaviour that have a positive effect on children's health and well-being (Government of Québec 2015b; see also MFA, 2007).

Nursery education in Québec caters for 4 and 5 year old children and aims to develop psychomotor, emotional, social, language, cognitive and methodological competencies related to self-knowledge, life in society and communication. Children participate in learning situations drawn from their world of play and life experiences and begin to act as pupils (Government of Québec, 2001).

Qualifications in institutional settings

In centres, two-thirds of staff are required to have a college or university early childhood education qualification; this can be a three year *Diplôme d'études collégiales* (DEC) or a one year *Attestation d'études collégiales* combined with three years' experience (Childcare Resource and Research and Canadian Union of Postal Workers, 2015). Teachers in nursery schools are required to have a four-year Bachelor's degree in education with specialisation in nursery and primary education and to have had 750 hours of teaching practice (Atkinson Centre, 2015).

Research on ECEC and educational outcomes

Three studies are particularly noteworthy with respect to ECEC and outcomes in Québec. Geoffroy et al. (2010) set out to establish if participation in childcare could attenuate the gap in academic readiness and achievement between children whose mothers had low and high levels of education.¹⁷ A cohort of children born in Québec in 1997/1998 was selected through birth registries and followed up each year until the age of 7 years. Children receiving formal childcare were distinguished from those receiving informal childcare.¹⁸ Analyses revealed that unless they received formal childcare, children of mothers with low levels of education showed a consistent pattern of lower scores on a range of tests at 6 and 7 years than those of highly educated mothers. In short, among children of mothers with low levels of education, those who received formal childcare obtained higher scores in tests of cognitive school readiness, receptive vocabulary and reading than those who were cared for by their parents.

Other researchers have failed to find positive effects of childcare in Québec. Lefebvre et al. (2011) used a non-experimental evaluation framework to estimate the policy effects of the universal ECEC policy on school readiness. They found that the policy did not enhance school readiness or children's early literacy skills; indeed there were significant negative effects on vocabulary test scores of children aged 5 and possible negative effects on those aged 4.

Haeck et al. (2012) using a similar approach explored the effects of the policy on children's cognitive development. To estimate the effects of the reform they compared children in Québec before and after the reform with a control group of children of the same age from the rest of Canada over the same time period. They found negative impacts of the reform on the cognitive development of children aged 5. They note that they were 'estimating the effects of a complex daycare policy, which increased number of hours of care and offered at best average quality care, as opposed to the effects of childcare per se' (p. 31). Interestingly however, estimates for children aged 5 in school settings suggested that schools raised the achievement of children and reduced the ability gap observed prior to school entry between children of less educated and highly educated mothers. In short, their findings suggest that the

¹⁷ Mother's education level is an important indicator of children's educational outcomes (Serafino and Tonkin, 2014).

¹⁸ Children who were not Caucasian or did not speak French or English at home were excluded.

school setting was more successful at raising children's cognitive ability than the daycare setting.

In summary, the findings from Québec indicate that institutional childcare, compared with care by parents, had a positive effect on the outcomes of children with mothers with low levels of education. However, studies comparing institutional childcare in Québec with that in the rest of Canada indicate that it has a negative impact on educational outcomes. By way of contrast, nursery education in schools has been found to have a positive impact. It is likely that this is related, at least in part, to higher quality staff in nursery classes.

England

Overview

An entitlement to free part-time education for 4 year olds was introduced in England in 1998 and extended to 3 year olds in 2004 (House of Commons, Children, Schools and Families Committee, 2010; see also West, 2006). From 2013, local authorities have had a legal obligation to secure provision for the 20% most disadvantaged 2 year olds and from 2014, the 40% most disadvantaged (see Department for Education (DfE), 2014a, 2014b). Provision can be taken in publicly-funded (maintained) nursery schools and nursery classes or in private and voluntary centres or independent schools. Providers may offer part-time sessions or full day care.¹⁹

Local authorities are required to make available sufficient free places of 570 hours a year over no fewer than 38 weeks of the year (15 hours a week) for every eligible child in their area (i.e., disadvantaged 2 year olds, all 3 year olds and all 4 year olds) (DfE, 2014b). In the year in which the child reaches the age of 5, she or he generally enters the reception class of primary school (compulsory education begins the term after the child's 5th birthday).

Providers in the maintained sector (nursery schools, nursery classes and reception classes in primary schools), like schools, are generally open for 38 weeks of the year, Monday to Friday. Many private providers, such as day nurseries, which receive subsidies for providing free part-time early education²⁰ and charge fees for the additional time, are open all year round (Eurydice, 2015c; see also West et al., 2010).

Curriculum

Educational programmes must cover three main areas: communication and language; physical development; and personal, social and emotional development. Children must also be supported in four other areas: literacy; mathematics; understanding the world; and expressive arts and design. These areas must be implemented through planned, purposeful play and using a mix of adult-led and child-initiated activities (DfE, 2014c).

For children whose home language is not English, providers must provide opportunities for children to develop and use their home language in play and learning. They must also ensure that children have sufficient opportunities to learn and reach a good standard in English language so that they will be ready for compulsory education (DfE, 2014c).

Qualifications in institutional settings

¹⁹ Parents may purchase additional hours to supplement the early education entitlement as necessary.

²⁰ Whilst provision is universal, this has been achieved by paying private and voluntary providers a fixed amount for eligible children (the amount varies between local authorities): there is thus demand-led rather than supply-led funding (Blanden et al., 2015; see also West et al., 2010) unlike in countries such as France.

For children aged 3 years and over in maintained nursery schools and nursery classes in maintained schools: there must be at least one member of staff for every 13 children and at least one member of staff must be a legally defined school teacher (DfE, 2014c). In other settings – private voluntary and independent early years centres – the qualification levels are far lower: the manager must hold an appropriate upper secondary education qualification (level 3) and at least half of all other staff must hold a relevant lower level qualification (level 2) (DfE, 2014c; see also Stewart and Gambaro, 2014; West et al., 2010).

Research on ECEC and educational outcomes

The Effective Provision of Pre-School Education (EPPE) project (Sylva et al., 2004) found that preschool attendance, compared with none, led to better cognitive and non-cognitive outcomes at the age of 7 years. Nursery schools and ‘integrated’ centres²¹ tended to promote better cognitive outcomes for children: these had the highest scores on preschool quality whilst playgroups and private and local authority day nurseries had lower scores (Sylva et al., 1999). It was also found that starting earlier – below the age of 3 years – was related to better intellectual outcomes, but that full time attendance was no more advantageous than part-time. The outcomes of children from disadvantaged backgrounds were better in settings with a mixture of children from different social backgrounds. The most effective pedagogy combined both ‘teaching’ and providing freely chosen yet potentially instructive play activities. Centres which put particular emphasis on literacy, maths, science/environment and children’s ‘diversity’ (catering to children of different genders, cultural backgrounds and abilities or interests) promoted better outcomes for children in their subsequent academic attainment, especially in reading and mathematics at age 6 years.

Recent research by Blanden et al. (2014) using government administrative data (which did not distinguish types of preschool setting) found a limited impact of free early education for 3 and 4 year olds on educational outcomes at age 5. The effects were somewhat larger for boys than girls and for children from lower rather than higher socio-economic backgrounds. However, the effects were very small at the age of 7 and there were no effects at the age of 11. In contrast, the Effective Pre-school, Primary and Secondary Education project (EPPSE) found an impact on educational attainment until the age of 16 (Sylva et al., 2014). This is likely to be because of the varying quality of pre-school education in England. Whilst the pattern of impacts identified in EPPSE varied at different stages (e.g. Sylva et al., 2012; Sammons et al., 2008) one of the most consistent findings was the importance of the quality of early education. Indeed, Sammons et al. (2015) found that having benefited from pre-school education, especially of a higher quality made it significantly more likely that the disadvantaged students would attain higher results at the end of upper secondary education.

In summary, the English evidence suggests that participation in high quality pre-primary education has a positive impact on later attainment. Moreover, high quality provision is found most frequently in nursery schools and integrated centres which combine nursery schools and care.

²¹ The integrated centres in the EPPE sample were all registered as nursery schools but had extended their provision to include flexible hours for childcare along with substantial health and family support services (Sylva et al., 2004).

Organisation and models of provision

It is clear that there are differences between these four jurisdictions in terms of the organisation of childcare and pre-primary education. The approaches vary – in France there is a clear division between education and care, while in Denmark there is not. In others still there is a more fluid approach with childcare including education. Thus in England, there is a common curriculum framework, the early years foundation stage for all preschool settings, but providers vary in terms of their qualifications with school-based providers employing teachers and non-school providers generally employing staff with lower level qualifications (or none). In Québec there is ‘educational childcare’ followed by nursery education in schools.

The four jurisdictions can be seen to represent different models of *pre-primary education*, which for international comparative purposes begins at the age of 3 years (Eurostat, 2015b). In Denmark, pre-primary provision is available for long hours and can notionally be seen as a ‘childcare’ model. In France and Québec, pre-primary education is available during the academic year in publicly-funded *écoles maternelles*. This might be seen as a ‘nursery school/class’ model (cf. West et al., 2010). In England, there is a ‘hybrid’ model – free part-time pre-primary education is available during the academic year and is provided not only in schools but also in private for-profit and not-for profit centres.

The outcomes of preschool attendance vary considerably. However, the evidence points to positive impacts where provision is high quality with respect to staff qualifications. Qualifications are low in Québec’s educational childcare, much of which is for profit, and in England’s private, voluntary and independent providers. In Denmark and in France, qualification levels are high – especially in France. In both countries, there are positive effects of preschool attendance with stronger effects for children from disadvantaged backgrounds having been identified.

IV. Pre-primary education in France

Pre-primary education and ECEC

In France, institutional settings for children under 3 years of age comprise *crèches*²² and *structures collectives* (e.g. *jardins d'éveil*, *classes passerelles*). From age 3, children attend nursery schools (*écoles maternelles*) under the auspices of the Ministry of Education. The aims of *l'école maternelle* and childcare are distinct. The former aims to provide instruction for all children whilst the second aims primarily to enable work/family reconciliation for parents. These aims impact on the opening times of these two types of provision and the number of staff employed. Childcare establishments cover a longer time period than schools and involve more staff (*Caisse nationale des allocations familiales* (Cnaf), 2014).

Development of pre-school education for 2 year olds

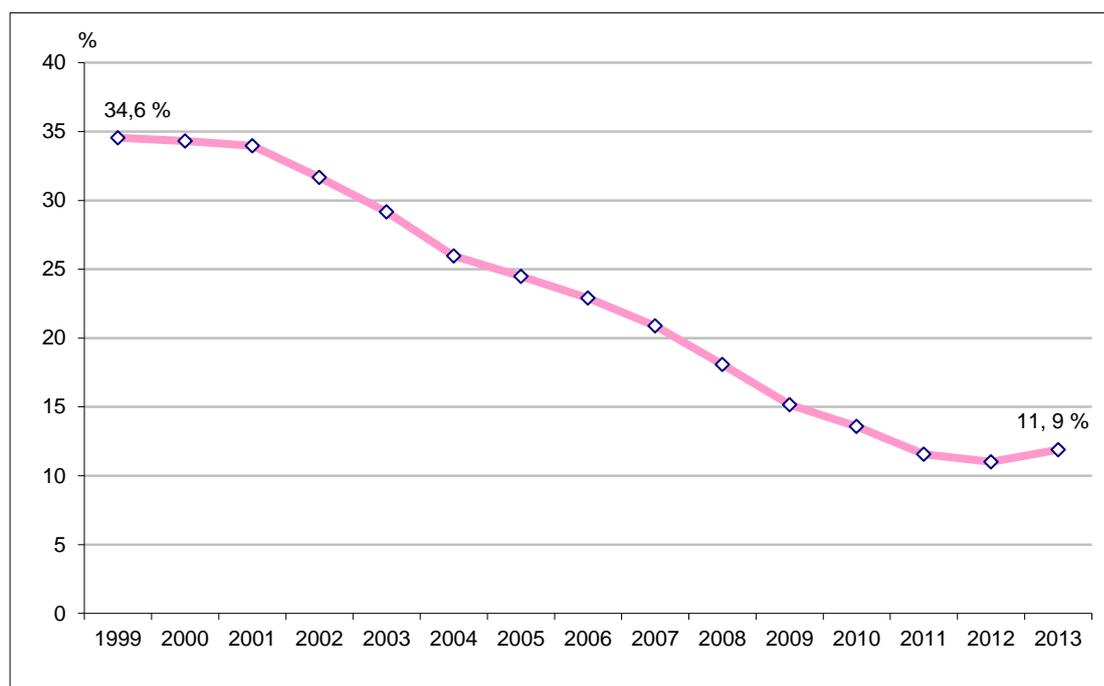
The right to *école maternelle* (nursery education) for children at the age of 2 years was made possible by a circular in 1833 and decree in 1881. However, policy relating to the education of 2 year olds was developed much later.

Participation of 2 year olds increased from 1960 until 2002. In 1960, participation was 10%. It increased to 18% in 1970 and to 27% in 1975 as a result of demographic pressure, the increase in women working, and evidence pointing to the positive effects of early years education for the child's development and later educational progress. By 1981 participation had risen to 35.5% and remained broadly stable until around 2002. It then decreased to 20% due to demographic change in 2007. Then, between 2008 and 2012 there was a reduction in staff posts and participation dropped to 11% in 2012 (Inspection générale de l'éducation nationale (IGEN), 2014). In 2013, participation increased to 11.9% (Abdouni, 2014).

Figure 1 gives the changes over time from 1999 until 2013.

²² The majority of *crèches* are not-for-profit: in 2010, only 3% were run as businesses (UNAF, 2013).

Figure 4. Schooling of children aged 2 since 1999



Champ : France métropolitaine et DOM hors Mayotte.

Source : MENESR DEPP, Enquête dans les écoles publiques et privées de l'enseignement préélémentaire et élémentaire de 1999 à 2013

Recent policy has sought to address the education of 2 year olds. In 2013, the Law for the Restructuring of the School (La loi du 8 juillet 2013 pour la refondation de l'École) was enacted; this foresaw the prioritisation of the education of children aged 2 years, particularly in education priority areas. In these zones the rate of schooling of 2 year olds reached 20.7% in 2013, the objective being to reach 30%. There is marked variation between *départements* – in 11 participation was less than 5%, whilst in the west, north and *Massif Central* more than one in five 2 year olds participated (Abdouni, 2014).

A school accepting 2 year old children educates an average of 6 such children. In education priority areas they educate 11 children per school. When few children are admitted they are generally taught in classes with 3 year olds. Classes of 2 year olds are rare, but when they do exist they admit an average of 16 children. The most common organisation is a mix of 2 and 3 year olds, with an average of 24 children of whom 7 are aged 2 years (Abdouni, 2014). There is no maximum or minimum class size for 2 year olds – different localities have different policies (IGEN, 2014).

Whilst nursery education should normally be targeted on 2 year olds from disadvantaged families, this is not necessarily the case in practice. Thus, for children who started nursery school at 2 years of age in 1998 (DEPP panel 2007), there were more 2 year olds from manual backgrounds than from professional backgrounds, but the difference was not great (27% versus 21%). The children of teachers attend nursery school as much as children from manual backgrounds. The most important differences concern language spoken at home: participation is highest for children who speak only French compared with those who only speak another language (25% versus 15%) (Ben Ali, 2012).

In practice, it has been found that admissions criteria prioritise more mature children without necessarily prioritising those who should be targeted such as non-French speakers. Moreover, examples have been found of some nursery classes catering for 2 year olds from families where both parents were working in well-qualified occupations (IGEN, 2014).

A range of other concerns have been identified with respect to provision for 2 year olds: for example, 2 year olds in mixed age classes may be cared for by the nursery assistant not by the teacher whose focus is on the older children. Another important issue relates to the length of the nursery school day, with 2 year old children tending to attend the morning session only – afternoon attendance is weak or non-existent (IGEN, 2014).

Reflection on French pre-primary education in comparative perspective

In this final section, a number of specific themes are explored – participation in pre-primary education, staff qualifications, ratios, the curriculum and educational outcomes – some of which have been hypothesised as being important in terms of the quality of pre-primary education. Some broader issues are then discussed, namely the social mix of children in pre-primary education; targeted as opposed to universal policies; and the relationship between pre-primary education and inequalities in educational outcomes.

Participation rates in early education vary across the EU-15 countries. In only two countries are all children between the age of 4 years and the start of compulsory education in early education, namely France and the Netherlands. Indeed, in France all children are in full-time education from the age of 3. This is all the more remarkable as compulsory education does not begin until the age of 6; the result is that young children normally receive three years of education prior to starting compulsory school, and can receive four years if they start at the age of 2.

Quality is an elusive and subjective notion and can be interpreted in many different ways. However, staff qualifications are undoubtedly of paramount importance with regard to early education. These vary markedly between jurisdictions and between types of provision. Teachers employed in nursery schools in France were until recently required to hold a Bachelor's degree, but since 2010 a Master's degree has been required. In Denmark, the majority of staff in institutional daycare settings have a degree level qualification. A degree is also required for teachers employed in nursery schools and classes in England and in nursery classes in Québec; however, qualification levels are well below this level in non-school based settings in both these jurisdictions (see also Moss, 2014).

The regulatory frameworks vary between countries. With regard to staff: child ratios, these vary between and within jurisdictions. In Denmark there are no statutory requirements regarding ratios. In France, whilst there are ratios for childcare, there are none for nursery schools. In Québec and England there are ratios; these are lower in school-based settings, where qualified teachers are required. Turning to curricula, in Denmark day-care facilities are obliged to have an educational curriculum and in England the curriculum for all pre-primary provision is the same for all types of providers; in France and in Québec, there are national curricula for nursery schools.

One relevant dimension in relation to the curriculum is that of diversity. In England, research has found that children's attainment in reading and mathematics at 6 years is better if they have attended a preschool centre which puts particular emphasis on literacy, mathematics, science/environment and children's 'diversity' – that is, catering to children of different

genders, cultural backgrounds and abilities or interests (Sylva et al., 2004). The issue of diversity is also referred to in France and Denmark. In France, the Conseil Supérieur des Programmes (2015) in its *Projet de programme école maternelle*, states that the nursery school class provides the basis for building a citizenship which respects the rules of secularity and is open to the plurality of world cultures; it also builds the conditions for equality, notably between girls and boys.²³ In Denmark, daycare services have a legal obligation to provide children with an understanding of democracy and facilitate an atmosphere of equality.

With regard to educational outcomes of pre-primary provision, there is variation within and between jurisdictions. However, the evidence points to positive impacts where staff are highly qualified; this is the case in Denmark, France, England and Québec. In all cases, qualified teachers appear to be an essential element. Moreover, the research suggests that there are stronger effects for children from disadvantaged backgrounds. There is some indication that the mix of children in pre-primary settings is important for educational outcomes. Thus, in England, disadvantaged children achieve better outcomes in settings with a mixture of children from different social backgrounds rather than in settings catering mostly for children from disadvantaged families.²⁴ And in Germany, children from immigrant families have been found to benefit from childcare where there is a more advantaged mix of children (see Section II). This relates to the issue of the social mix of nursery schools in France. Considerable efforts are made with *crèches* to secure a socially-mixed intake.²⁵ A greater focus on seeking to ensure a social mix in nursery schools may reduce inequalities (see also IGEN, 2014).

A further issue concerns the targeting of provision. Policy goals regarding pre-primary education vary, but in France, Québec and England one policy goal has been to target children from disadvantaged families with a view to improving their educational attainment. In France, the focus has been on increasing participation in nursery schools of 2 year old children from disadvantaged families, and in Québec of disadvantaged children aged 4 years old. In England, there has also been targeting of disadvantaged 2 year olds, although in contrast to the situation in France, virtually all disadvantaged 2 year olds eligible for free early education in England are in non-school settings – that is private, voluntary and independent centres.

Targeted programmes segregate, may stigmatise and generally fail to provide for many of the children eligible for special programmes (OECD, 2006). There are also difficulties associated with a targeted approach. In France the beneficiaries may not be those most in need – this is likely to be because of demand for places and capacity; it may also be associated with local decision making with regards to who is prioritised, or a lack of demand by some disadvantaged families. In England, research has found that 3 to 4 year old children not accessing the free entitlement to early education were most likely to be from the most disadvantaged backgrounds (97% versus 87%) (Speight et al., 2010).²⁶ Other European

²³ In England the promotion of fundamental British values (democracy, the rule of law, individual liberty and mutual respect and tolerance of different faiths and beliefs) is a requirement of ECEC providers (DfE, 2014c).

²⁴ It has also been found that in private, voluntary and independent settings it is most difficult to achieve good quality provision when catering for high proportions of disadvantaged children (Speight et al., 2010).

²⁵ See for example Mairie de Paris 13 (2015).

²⁶ Huskinson et al. (2014) found that the reasons for not taking up the free early education for 3 and 4 year olds varied with 37% not being aware of the entitlement. Among those who were aware, the most common reasons given were that the child was too young (32%), the provider not offering the entitlement (23%), and parents not knowing that their child could receive free early education (e.g., because they were not aware of the eligibility criteria (12%)).

research also points to low levels of participation in ECEC by children from disadvantaged families and from minority ethnic backgrounds (Lazzari and Vandebroek, 2012). There are a number of reasons for the perpetuation of these inequalities. These include selection issues – who chooses to send their children to pre-primary education – and lack of information among disadvantaged families/communities.

In France, there is a mix of area-based targeting – on education priority areas – and targeting at an individual level. With targeted approaches, considerable effort needs to be made to try and ensure uptake of provision by children from eligible families, and even then targeting may not be effective (see IGEN, 2014). Similarly in England, where there is targeting of individual 2 year olds for free early education, only 13% of parents took up the offer for their children in 2013, compared with the target of 20% (DfE, 2014a).

Provision that is targeted as opposed to universal requires outreach to attract relevant families who meet relevant criteria; this can be time consuming and therefore costly. The authorities concerned also need to ensure that eligibility criteria are adhered to. However, in England, some local authorities did not confirm to the DfE how their 2 year olds were funded. Similarly in France, there is evidence that 2 year olds who are not disadvantaged are beneficiaries of the provision.

Whilst targeting of disadvantaged children has been promoted by the European Commission and by national governments in some jurisdictions, this is problematic if a policy goal is to seek to maximise social mixing. By definition targeting of disadvantaged children will – if effective – result in provision catering for disadvantaged children only, thus hampering social mixing.

Participation in nursery education has become normative for 3 year old children in France; in previous decades, participation of 4 year olds also became normative. One can surmise that if nursery school were to be made available universally for 2 year olds, over time it would become normative for all 2 year olds to attend. The research appears to suggest that this might have beneficial effects on children's educational outcomes and reduce inequalities. However, it is possible that part-time attendance could be encouraged. There are several reasons for this: first, some concerns about full-time nursery schooling for 2 year olds have been raised; second, there is evidence that children attend for the morning session only (IGEN, 2014); and third, there is evidence to suggest that part-time attendance in high quality pre-primary education has similar effects to full-time attendance (Sylva et al., 2004).

Impact of policy changes on inequalities

Turning to the question as to whether inequalities have increased or decreased over the past 15 years, it is important to consider both the policy changes that have been implemented and the evidence relating to their impact on access to and outcomes of nursery education.

In terms of government policy, the most significant change has been the reduction in access to nursery schools for 2 year olds. The policy change resulted in the participation rate decreasing markedly between 1999 and 2012 – from 34.6% to 11.0% – before increasing in 2013 to 11.9% (see Figure 1). Given that the policy has been to target children living in disadvantaged areas, the changes have, by definition, reduced access to nursery education for disadvantaged children.

This reduced access has implications for equality of educational outcomes. Research has found that children who receive 4 rather than 3 years in nursery education obtain higher literacy and numeracy test scores at 8, 11 and 14 years of age (Filatriau et al., 2013); there are also positive effects on children's educational trajectory (Ben Ali, 2012). Given the substantial reduction in the proportion of 2 year old children participating in nursery education between 1999 and 2012 – and the positive effects identified of longer periods of nursery education – it can be inferred that there has been an increase in educational inequalities.

There would thus seem to be a strong argument for increasing access to nursery education for 2 year olds. Current policy has focused on targeting children in disadvantaged areas; however, there are potential negative effects of targeting on social mixing.²⁷ On *a priori* grounds universal provision should ameliorate these negative effects. Universal provision can also be a tool for reducing inequalities as nursery education has positive effects on the outcomes of children from lower social groups but not those from higher social groups.

In light of this, there is scope for policy makers to consider piloting and evaluating an extension of pre-primary education to all 2 year olds. Given the evidence that children of this age tend to attend morning sessions only, provision on a part-time basis could be considered in lieu of full-time attendance.

Nursery education is very well-embedded in France and has progressively catered for 4 and 3 year olds. Attendance at nursery school has become the norm, with universal uptake. This is a remarkable achievement. A move towards universal provision for 2 year olds could mean that over time, attendance would become the norm for this age group too, so offering enhanced opportunities for children from disadvantaged families and at the same time reducing inequalities and fostering social mixing.

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²⁷ Albeit that the beneficiaries are not always from the intended target groups.

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Appendix

Denmark

Extracts from: European Commission/EACEA/Eurydice/Eurostat (2014)

Organisation

The ECEC system consists of day-care centres (*daginstitutioner*), which fall under the responsibility of the Ministry of Education and can be established either as age-integrated settings for children between 26 weeks and 6 years (*aldersintegrerede institutioner*), or separate settings for younger and older children (*vuggestuer* and *børnehaver*, respectively). In addition to centre-based ECEC provision, there is also a system of regulated home based provision (*dagpleje*) most of which is publicly funded. From 26 weeks, children are legally entitled to publicly subsidised ECEC provision.

Fees

Home based *dagpleje* cost on average PPS 226 per month (food included). Fees²⁸ in *daginstitutioner* depend on the child's age and are PPS 270 for children aged 0 to 2 years and PPS 152 for older children. The ECEC is predominantly public, only 5% of *daginstitutioner* are private (publicly subsidised).

Ratios

There is no national mandatory minimum ratio of staff to children.

Participation rates in ECEC

Table A1 gives participation rates in the main forms of formal ECEC.

Table A1 Participation rates by type and age (2012)

Daycare	Under 1	1	2	3	4	5
<i>Dagpleje</i>	9.7	39.1	33.1	0.4	0.2	0.2
<i>Aldersintegrerede institutioner</i>	8.9	49.6	59.8	96.1	96.6	79.7

Source: European Commission/EACEA/Eurydice/Eurostat, 2014.

²⁸ PPS 1 = DKK 10.1993.

France

Extracts from: European Commission/EACEA/Eurydice/Eurostat (2014) unless stated otherwise.

Organisation

The ECEC system includes various types of provision, especially for the youngest children. Provision for the under-3s consists of centre-based *crèches* and other *structures collectives* (group settings) (e.g. *jardins d'éveil*, *classes passerelles*, etc.), which are complemented by regulated home-based provision provided by *assistant(e)s maternel(le)s agréé(e)s*. From age 3, virtually all children are enrolled in pre-primary schools (*écoles maternelles*) which are coordinated by the Ministry of Education. Most children attend free public schools in their catchment area, while less than a third enrol in fee-paying (although subsidised) private schools.

Fees

Fees²⁹ in home-based care under *assistant(e)s maternel(le)s agréé(e)s*, catering for the majority of children under 3 years old, range between PPS 221 and 531 with an average of PPS 358 monthly (food included). The fees in centre-based *crèches* are PPS 89-336. ECEC for children over 3 years in the *école maternelle* is free, but parents are expected to contribute to the cost of meals and any additional hours of provision in the *halte-garderie*.

Ratios

In ECEC, the ratio of staff to children is one professional for 5 children who cannot walk and 1:8 for those who walk. In nursery school there is one teacher per class and help from an *agent territorial de service des écoles maternelles* (ATSEM) at certain times of the day (Cnaf, 2014).

Participation rates in ECEC

Table A2 gives participation rates in the main forms of formal ECEC.

Table A2 Participation rates (2013)

Formal childcare/education	Under 3	3 and over
<i>Assistant(e) maternel(le) agréé(e)</i>	19	
<i>Centre based crèche</i>	13	
<i>École maternelle</i>	3	100
Total	35	

Source: Cnaf, 2014.

²⁹ PPS 1 = EUR 1.12957.

Québec

Organisation

All children who turn 5 years of age by September 30 are eligible to attend *maternelle* (nursery school). The programme operates for a full school day and is voluntary. Half day *pré-maternelle* is available in some disadvantaged communities, mainly in the Montréal area, for 4-year-old children. In 2013, approximately 1,200 4 year old children began full-day classes in selected disadvantaged neighbourhoods (Atkinson Centre, 2015).

Educational childcare is offered in different settings: *Centres de la petite enfance* (CPEs) are non-profit centres are overseen by parent/community boards. *Garderies* are privately operated, for-profit regulated centres; both cater for children from infancy to nursery school. There are two unregulated types of childcare that opened before October 2005: *jardins d'enfants* are nursery schools that operate for a maximum of 4 hours per day; *haltes-garderies* offer 24-hour care (Atkinson Centre, 2015).

Ratios for ECEC

Ratios for educational childcare and nursery education are: one member of staff for 5 or fewer children under 18 months of age; one member for 8 or fewer children from 18 months of age to under 4 years of age; one member for 10 or fewer children from 4 years of age to under 5 years of age; and one member of staff for 20 or fewer children from 5 years of age and older (Government of Québec, 2015c).

Participation

In 2011/2012, 98% of children attended nursery school at the age of 5 years. The participation rate for 4 year olds was 21% in 2011/2012. Children aged 3 are not in school-based education (Government of Québec, 2014b). Participation rates in formal ECEC (including nursery school) are given in Table A3 for 2013/14.

Table A3 Participation rates in ECEC (%) 2013/14

Age	Percentage
0-1 years	40
2-4 years	74
5 years	97

Source: Atkinson Centre, 2015.

UK (England)

Extracts from: European Commission/EACEA/Eurydice/Eurostat (2014) unless stated otherwise.

Organisation

From birth to the age of 5 years (when compulsory education begins), children can attend day nurseries or children's centres, or they can be looked after by child-minders. From age 3, children are legally entitled to 15 weekly hours of free ECEC provision. This entitlement can be used in any of these types of ECEC. Free provision is also offered to the most disadvantaged 2 year-olds (see also Section III).

Fees

Children over 3 years of age (and the most disadvantaged 2 year olds) are entitled to 15 hours free ECEC a week for 38 weeks of the year. Monthly fees³⁰ for full-time ECEC by childminders range between PPS 776 and 1046. For children over 3 using the free entitlement, the fees decrease to PPS 486-641 for 25 additional hours of ECEC. Monthly fees for full-time nursery range between PPS 851 and 1063. For children over 3 using the free entitlement the fees decrease to PPS 532-622.

Ratios

The ratios for in England for institutional ECEC are: under 2 years of age 1 member of staff to 3 children; age 2 years, 1 to four children; age 3 years, 1 to 8 children if there is no member of staff with qualified teacher status (when the ratio is 1:13) (DfE 2014b).

Participation rates in ECEC

Table A4 gives participation rates in formal ECEC.

Table A4 Participation rates in ECEC (2011/12)

Formal childcare	Age 0-2	Age 3-4
Childminders	6	5
Day nursery	19	17
Playgroup/preschool	6	14
Nursery school	6	14
Nursery class	1	21
Reception class		22

Source: Huskinson et al., 2014.

³⁰ PPS 1 = GBP 0.870992.