

The impact of policy measures and coaching on the availability and accessibility of early child care: A longitudinal study

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We conducted a study of changes in the availability, accessibility and enrolment of children from low-income, single-parent and ethnic minority families in early child care centres. The study was carried out in Brussels which offers unique possibilities to study accessibility in a context in which quality and costs are controlled across centres. A survey on access policies in 89 day care centres, and on 150 mothers regarding their search process, was complemented by two focus groups attended by centre directors. The results were compared with data from a similar study we conducted in 2005. The results show that while inequality in availability has remained, centre directors' awareness of social priority criteria has changed, resulting in a significant increase in the enrolment of children from single-parent and ethnic minority families, and – to a lesser extent – an increase in the enrolment of children from low-income families. The results support the hypothesis that policy measures, combined with support, can influence inequalities in enrolment rates.

Michel Vandenbroeck, Naomi Geens, Hans Berten

Department of Social Welfare Studies, Ghent University, Ghent, Belgium

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Michel Vandenbroeck, Department of Social Welfare Studies, Dunantlaan 2, BE 9000 Gent, Belgium
E-mail: Michel.Vandenbroeck@UGent.be

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Rationale and theoretical framework

It is well documented that early childhood education can make a substantial contribution to children's developmental opportunities, and that this is most salient for children of low-income families (Adams & Rohacek, 2002; Burchinal & Cryer, 2003; Burchinal, Vandergrift, Pianta, & Mashburn, 2010a; Burger, 2010; Duncan & Brooks-Gunn, 2000; Shlay, Tran, Weinraub, & Harmon, 2005). There is also a substantial body of research documenting the fact that this is the case only when early childhood education is of a sufficiently high quality (Burchinal, Vandergrift, Pianta, & Mashburn, 2010b; Gormley, 2007). It is not surprising that academics are becoming increasingly interested in analysing the accessibility of high-quality early childhood education for children from low-income families for these educational reasons, but also for economic reasons, that is, for a high return on investments from a human capital perspective (Heckman, 2006; Hernandez, Takanishi, & Marotz, 2009), and as an arrangement that enables parents to work (Allen, 2003), and for reasons of social support such as enabling an exchange with professionals and other parents about

parenting (Bromer & Henly, 2009). From a social welfare perspective, it is worrying that low-income children are less likely than their more affluent counterparts to receive high-quality non-parental care (Greenberg, 2010; Hernandez et al., 2009; Magnuson & Shager, 2010), and that 'affordability can outrank quality' (Allen, 2003, p. 270). More recent research also suggests that high-quality early childhood education can benefit even the youngest children (Greenberg, 2011; Heckman, 2006; Mistry, Benner, Biesanz, Clark, & Howes, 2010; Shonkoff, 2011; Sylva, Stein, Leach, Barnes, & Malmberg, 2007). However, there is still very little research on the enrolment in child care centres of infants and toddlers living in low-income families (Sylva et al., 2007).

A large part of the research on differential enrolment rates has concentrated on the individual characteristics of children and families with respect to child care 'choice' (Hofferth & Wissoker, 1992; Peyton, Jacobs, O'Brien, & Roy, 2001; Shlay et al., 2005). Overall, there is a consensus that socio-economic demographic variables and maternal education levels are associated with enrolment in early childhood education: The children of more highly educated mothers

and mothers with higher income levels are more likely to be enrolled in high-quality early childhood education than are their peers from less wealthy families. Findings concerning the relationship between ethnicity and child care choice are less consistent and seem to depend on context and sample selection (Greenberg, 2010; Huston, Chang, & Gennetian, 2002; Kim & Fram, 2009; Sylva et al., 2007; Yesil-Dagli, 2011). This focus on family characteristics often leads to the conclusion that certain families need support to choose high-quality non-parental care (e.g., Peyton et al., 2001).

From a social welfare perspective, however, there is a growing critique on the use of the concepts of individual 'choice' or 'preference', as what is perceived as choice might in fact reflect inequalities in availability and accessibility (Greenberg, 2011). For many mothers, there simply is no choice (Kröger, 2010). Several studies have suggested that mothers adapt their beliefs to the decisions they have already made (Himmelweit & Sigala, 2004; Pungello & Kurtz-Costes, 2000; Riley & Glass, 2002; Vandenbroeck, De Visscher, Van Nuffel, & Ferla, 2008). As Allen (2003) pointed out, there is a need for funding policies that will enable parents to make a choice. Consequently, more ecological models are preferred that include the policy level (Axford, 2012; Kröger, 2010) and do not reduce enrolment to the result of choice. Pungello and Kurtz-Costes (1999) developed an ecological model, which was later adapted by Sylva et al. (2007) who added a macro policy level to the model. In this article, we look at influences of the macro level and the national level, rather than the global social policy level (Axford, 2012), as recent studies have shown that funding policies influence both the quality of provisions and the enrolment of low-income children – even those under 3 years of age – in non-parental care (Greenberg, 2010; Sylva et al., 2007). Allen (2003) compared child care policies in Sweden, Japan and the United States, and found that availability is influenced by the level of government support, with Sweden having the highest rate of state support and consequently the highest availability for all segments of the population.

The study presented here looked at the relationship between policy and practice regarding availability, accessibility and the enrolment rates of very young children (infants and toddlers) in the specific context of a European continental welfare state where quality and affordability can be assumed to be equal across the funded day care centres. This is often not the case in countries where child care is more a private affair, such as Japan or the United States (Allen, 2003). In an earlier study based on data from 2005, we documented the non-intentional exclusion of parents with low levels of education, ethnic minority parents and – to a lesser extent – single parents (Vandenbroeck et al., 2008). As

a result of these findings, some policy changes were made, leading to policy measures relating to funding priorities as well as initiatives providing support for child care managers. A description of these changes is given under the heading 'Actions since 2005'. In the present study, we compared the data from 2005 with data from 2010 on availability, accessibility and enrolment in order to analyse the relationship between policy and practice in this field. We hypothesised that changes in funding priorities would result in better availability of child care for single-parent families, ethnic minority families and low-income families (Sylva et al., 2007). We also hypothesised that providing coaching for managers would result in increasing their awareness of unintentional discrimination in the access policies of centre directors and ultimately in raising enrolment rates for single-parent families, ethnic minority families and low-income families. In doing so, we adopted Himmelweit and Sigala's (2004) assumption that policies which lift existing constraints and enable choices are more likely to have long-term effects than are coercive policies that impose new behaviour. However, before outlining the results from 2010, we briefly review the context of the 2005 study and our findings.

The context of Brussels

Infant and toddler care (newborn to 3 years) in Belgium is the responsibility of the welfare department and is entirely separate from the education department, which is responsible for the care and education of children from 3 years old to compulsory school age, as is the case in most continental European countries (Organisation for Economic Co-operation and Development, 2006). Flanders (the Northern part of Belgium) is considered to be fairly average as regards child care coverage (Avdeyeva, 2006; Unicef Innocenti Research Centre, 2008) and the number of funded provisions. In total, 63.2 per cent of children up to 3 years of age are regularly (at least once a week) cared for by a non-parent; 73.4 per cent of them attend formal care; and approximately 99 per cent of children from 3 years to compulsory school age attend kindergarten (Kind en Gezin, 2011). In contrast to the USA and the UK, funded child care in Flanders is not a targeted provision, but rather is aimed at the general population. Funded infant care can be municipally or privately organised, or set up by the state. In all three cases of funded care, costs (salaries as well as operating costs) are funded in full. In all funded day care, parents pay a fixed contribution according to their income, varying between €1.50 and €25.75 per full day (Kind en Gezin, 2010), including meals. As the central funding authorities regulate parental contributions, the cost to parents does not vary across funded centres. In addition, there are over 3,000 places in private non-funded centres. As

there are few quality regulations in the non-funded centres (e.g., no regulations on qualifications and parental fees are fixed at a high level, on average €500 per month), these centres are ill equipped for participating in a study on the enrolment of children from deprived backgrounds in high-quality early childhood care. Consequently, they were not included in the present study.

Regulations on quality in funded child care centres are also centralised. Consequently, legal requirements are strict (regarding, e.g., adult-child ratio, group size, staff qualifications, infrastructure and quality assurance systems), regardless of the neighbourhood or target group, and the centres are inspected regularly. Process quality is a matter of self-evaluation, but is also monitored by the central inspection. Research shows that there is little variation in quality across the funded centres (Laevers, Debruyckere, Silkens, & Snoeck, 2005). The funded centres offer a unique possibility to study availability, accessibility and enrolment, independent of costs and quality.

Brussels, the capital of both Belgium and Flanders, offers some additional advantages for the present study. It has a long history of immigration and houses many different socio-economic, ethnic and cultural groups. The city comprises 19 municipalities with a high degree of diversity in population and income level; in the richest municipality, the average yearly income per capita is over €35,700, while in the poorest municipality it is €16,740. On average, a household with young children spends 0.66 per cent of the household budget on child care (Algemene Directie Statistiek en Economische Informatie (Directorate General of Statistics and Economic Information), 2009a). Out of a total population of approximately 1 million, there are 47,440 children from newborn to 3 years old living in Brussels (Algemene Directie Statistiek en Economische Informatie, 2009b). In total, 18.4 per cent of these children live in a single-parent family (16.2% live with their mother and 2.2% with their father). Some 28 per cent of the entire population of Brussels and 21 per cent of the young children (up to 4 years of age) in Brussels do not have Belgian nationality, and 13 per cent of the young children are citizens of countries outside of the European Union. Race and origin are not registered in Belgium; therefore, nationality is the only formal indicator of origin. In reality, many children in immigrant families have Belgian nationality, and the number of children from ethnic minorities is much higher than these figures show. It is estimated that over 40 per cent of newborns belong to ethnic minority families (Algemene Directie Statistiek en Economische Informatie, 2009b). Furthermore, 72.6 per cent of men and 58.5 per cent of women work (Algemene Directie Statistiek en Economische Informatie, 2009a). Child care can be organised by both

the Flemish- and the French-speaking communities. In total – funded and private, Flemish- and French-speaking – there were over 15,000 child care places for children from newborn to 3 years old, at the time of writing, resulting in a coverage rate of 33 per cent (Kind en Gezin, 2010; Office de la Naissance et de l'Enfance, 2010). This study looks at the availability and accessibility of the Flemish-funded day care centres, responsible for 3,141 child care places in Brussels (according to 2010 statistics). The number of places funded by the French-speaking community is about twice as large, but is beyond the scope of this study.

The study in 2005

The data from 2005 focused on all 83 Flemish-funded centre-based provisions, for which costs play a minor role and quality can be assumed to be consistent. A questionnaire was devised for centre directors based on previous qualitative interviews, assessing 12 priority criteria that centre directors indicated they used in their access policy: siblings (brothers and sisters of children already enrolled); working parents; date of application (first come, first served); crisis (problematic situations in the family, including perceived risks to the child); regularity of needs (full-time care or care on the same days each week); choice of future school (parents who promise to have their child enrolled in the kindergarten attached to the centre at the age of 3, or with older children already enrolled in that school); parents studying or in training; inhabitants of the municipality; workplace (parents with a specific employer, such as the municipality); family composition (priority is given to single parents); family income (priority is given to low-income parents); and nationality (priority is given to ethnic minorities). Centre directors assessed each of these criteria on a 5-point Likert scale varying from 1 = *completely unimportant* to 5 = *extremely important*. The questionnaire also asked the centre directors to give an account of the demographic characteristics of the children enrolled in their centres, including income, ethnicity (defined as the nationality of the mother's mother at birth) and family composition (single- or two-parent family). In addition, a representative sample of 100 mothers of children of 3 years of age, living in the central Brussels area, was drawn. The mothers received a questionnaire regarding their previous search process for child care.

We will not examine all of the results of the study from 2005, as they have been reported elsewhere (Vandenbroeck et al., 2008). Here we focus on three types of results that are the object of the present follow-up study. The first result concerns availability. The 2005 study showed a strong correlation between the average income in a municipality and the coverage

of funded child care places: Richer families had a higher chance of finding a place in high-quality child care in their neighbourhood than did less wealthy families. A second result was that centre directors overwhelmingly agreed that they gave priority to siblings, to those who apply first and to working parents. They also agreed that they did not give priority to poor families, single-parent families or ethnic minority families. As ethnic minority families, low-educated mothers and single-parent families started their search process significantly later than did the Belgian families, the more highly educated mothers and the two-parent families, the priorities set by the centre directors led to the involuntary exclusion of these children. Indeed, we found that children from low-income families, ethnic minority families and (albeit to a lesser extent) single-parent families were significantly under-represented in the 83 child care centres in the 2005 study.

Actions since 2005

Following this study, both the local Brussels government (Vlaamse Gemeenschapcommissie, Commission of the Flemish Community in Brussels) and the Flemish Parliament took a number of policy decisions in order to enhance the accessibility of child care to low-income families, ethnic minority families and single-parent families. The welfare minister decided that from 2008 onwards, Flemish-funded facilities would be expected to reserve at least 20 per cent of their capacity for children from these three groups (Vanackere, 2007). In addition, the local Brussels policy makers made two decisions. First, when new funds become available for the expansion of Flemish-funded child care places, priority is to be given to those centres that have developed a policy of equal access (following the 20% regulation). Second, the Flemish Research and Resource Centre for Early Childhood Care and Education (<http://www.vbjk.be>) was asked to establish a comprehensive support programme for centre directors regarding accessibility issues. Centre directors participated in the programme on a voluntary basis, but participation was considered as an indicator of the development of an equal access policy, which made those centres eligible for priority funding. At the start of the project in 2007, all centre directors of Flemish-funded provisions in Brussels were invited to a meeting at which the trainer and local policy makers explained the project and asked for their commitment. Forty directors attended the meeting and 29 of them agreed to participate. They had monthly meetings in two subgroups with a trainer who supported them in analysing the local population in their area and the possible thresholds for enrolment. They were also supported with coaching to help them take into account the diversity of family cultures. Each

year, all centre directors were re-invited and in 2008, 23 additional centres participated. Since then, the 52 directors have met with the trainer on a monthly basis in six different subgroups, grouped according to their geographical area. They discuss their plans for accessibility, exchange good practices and meet with social workers who work with diverse populations in their area, such as employment agencies, language courses for immigrants, welfare workers and so forth. They were also offered the opportunity to let their staff participate in a 2-day training course on accessibility and social inclusion. In 2010, at the time of the follow-up study, an additional 18 centre directors had joined the programme, resulting in a total of 70 out of 89 participating centres.

Methodology of the follow-up study

The follow-up study aimed to evaluate the impact of policy measures and the intervention programme on the centre directors' access policies and on enrolment rates. As in the 2005 study, this study concentrated on funded provisions only. The focus of the present study was therefore on all 89 Flemish-funded centres, 31 of which are organised by state schools (in 2010; 32 in 2005), 16 by municipalities (the same in 2010 as in 2005) and 42 by private Christian organisations (in 2010; 35 in 2005). In total, the centres at that time accounted for 3,141 child care places. In autumn 2010, the centre directors received the same postal questionnaire as in 2005 asking them to assess 12 priorities for access on a 5-point Likert scale. They were also asked to report the number of children enrolled in their facilities according to income, ethnicity and family composition, just as they had done in 2005. Non-responses were followed up via telephone calls until valid data were obtained from all centres, except for one. The data analysis on accessibility and enrolment is therefore based on 88 of the 89 centres. However, data on family income were obtained from only 49 centres, as many centre directors did not report income due to the administrative work it takes to generate these data.

To test whether changes in priorities or in enrolment were related to participation in the programme, the centres were divided into four groups: non-participants ($n = 19$); early participants (since 2007; $n = 29$); middle participants (since 2008; $n = 23$); and late participants (since 2010; $n = 18$).

All analyses were conducted using correlation analyses, ANOVA or paired sample t-tests. When comparing results from 2005 with those from 2010, the new centres were not included in the paired-samples t-test. Bootstrapping was used to derive robust estimates of standard errors for all parameter estimates, a resampling technique that allows the researcher to simulate the underlying sample distribution when the sample

Table 1. Sample description (in percentages).

		Sample		Brussels' population ^a	
		Mothers	Fathers	Women	Men
Employment	Employed	62	82	58.5 ^a	72.6 ^a
	Unemployed	34	7	15.8 ^a	15.9 ^a
	In training	4	2		
	n/a		9		
Education	Less than secondary education	12	13	14.22 ^b	12.56 ^b
	Secondary education	35	27	39.92 ^b	45.16 ^b
	Post-secondary education	53	51	45.85 ^b	42.28 ^b
	n/a		9		
Nationality	Belgian	85.7	86	72	
	Non-Belgian	14.3	14	28	
Country of birth of mother's mother	Belgium	45			
	Morocco	25.5			
	Turkey	10.7			
	Others	18.8			
Family composition	Two-parent family	89	98	81.6	
	Single-parent family	11	2	16.2	2.2
Number of children	1	15			
	2	45			
	3	25			
	4	9			
	5 or more	1			

^a % of the 15–64 years old. ^b % of the 25–49 years old.

size is insufficient for statistical inference or when there is doubt about the validity of the usual distributional assumptions and asymptotic results (Davidson & Hinkley, 1997).

In addition, two focus groups of centre directors were organised. At the end of the survey, the centre directors were asked if they were interested in participating in a focus group to discuss the results. Twenty-four centre directors answered positively and 13 centre directors actually attended the focus group: one centre run by a state school, two centres run by municipalities and 10 privately funded centres participated. The focus groups were led using semi-structured questions to explore the views of the centre directors on the main results of the study and especially on how they interpreted the results of the questionnaire for centre directors and the questionnaire for parents. The focus groups were tape-recorded, transcribed and coded by two of the authors. Informed consent was obtained from all the centre directors.

Finally, a sample of mothers of children of 3 years of age was recruited and asked retrospectively about their search process and the result and possible implications of not finding a suitable place. Their experience therefore covered the period of policy changes (2007–2010). To obtain a balanced sample representing the ethnic and socio-economic diversity of Brussels, 16 kindergarten schools were selected, located in geographically representative regions of Brussels. In these 16 schools, all the mothers of first-year kindergarten students received a postal survey through the kindergarten teacher, either in Dutch, French or English according to one of the

languages known by the respondent. Out of the 409 surveys distributed, 150 mothers returned the postal survey, leading to a response rate of 36.67 per cent.

Table 1 gives an overview of this sample. The sample represented the diversity of the population of Brussels, but it should be noted that two-parent families were overrepresented (one sample t-test: $t = 2.808$; d.f. = 146; $p < 0.05$), as were working fathers ($t = 6.487$; d.f. = 114; $p < 0.01$) and high-educated fathers ($t = 2.988$; d.f. = 114; $p < 0.01$). Ethnic minority parents were under-represented in the sample ($t = 6.849$; d.f. = 148; $p < 0.01$). This implies that results from the sample could not be generalised to the population of Brussels, but the sample did allow us to study the differences between subgroups (reference populations are according to Algemene Directie Statistiek en Economische Informatie, 2009c, 2009d, 2009e, 2010).

Results

Availability

The number of child care places funded by the Flemish community had increased by 306 places between 2005 and 2010. As in 2005, we calculated an index per municipality, representing the coverage of funded places, with 100 as the average coverage for the entire Brussels area. The results of the index of coverage varied from 31 to 251, suggesting a wider range than in 2005, when the results varied from 33 to 241. We also calculated an index representing family income per municipality, with 100 as the average income in Brussels. The income index varied from 70 to 149,

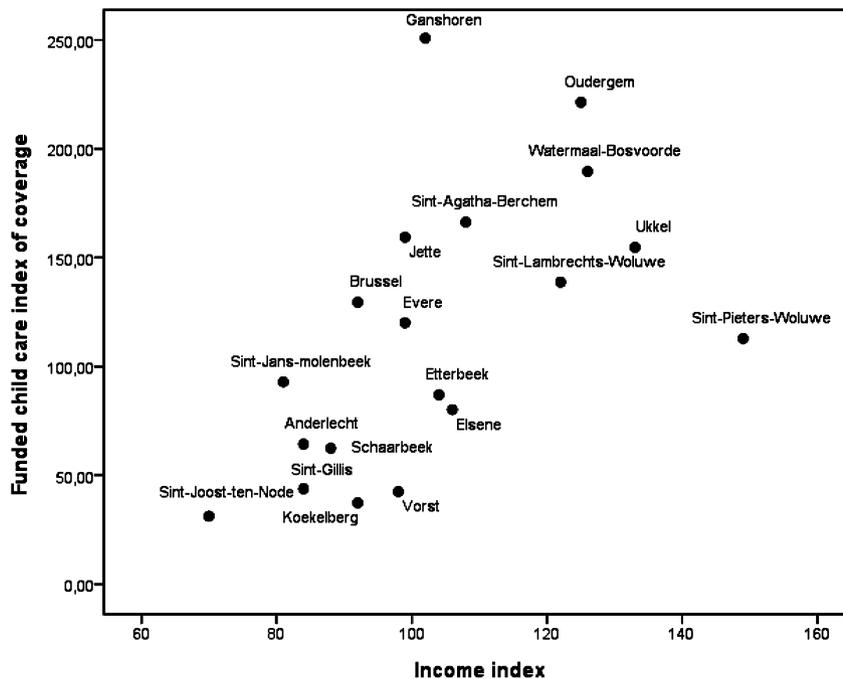


Figure 1. Relation between coverage and income.

which is also a wider range than in 2005 (82 to 141). Figure 1 represents the 19 municipalities on these two axes. The ranking of municipalities according to income did not change since 2005, yet the gap between rich and poor municipalities had widened, as the poorest municipality became even poorer.

Pearson's bivariate correlation between family income and funded child care coverage was significant ($r = 0.523$; $p < 0.001$), indicating that municipalities with a higher average income had more funded child care places than municipalities with a lower average income. The results were similar to 2005 ($r = 0.541$; $p < 0.001$), suggesting that the additional child care places that were created did not alleviate the inequality of their distribution despite the new funding priorities. In the focus groups, centre directors suggested that additional places were created mainly by expanding existing centres and therefore tended to create higher coverage where centres were already available. In addition, some poorer municipalities had faced higher birth rates over recent years (Studiedienst Vlaamse Regering, 2010), whereas the number of places available remained constant in many of these areas, resulting in even lower coverage.

Accessibility

All child care providers experienced more demand than they could manage. At the time of the study, there were 1,663 children on waiting lists. As in 2005, the parents were asked to reconstruct their recent search process,

and significant differences were found regarding the timing of the search process. Of the parents, 10.2 per cent started their search process 3 months or less before the desired start date, while 66 per cent started 9 months or more before they wanted the day care to start. More importantly, significant differences were found between the subgroups, similarly to 2005. Ethnic minorities ($M = 6.52$ months; $SD = 4.69$) started their search significantly later than Belgian parents ($M = 10.26$ months; $SD = 3.54$) ($F(1, 86) = 17.032$; $p < 0.001$). Low-educated mothers (lower than secondary school; $M = 5.33$ months; $SD = 6.11$) and middle-educated mothers (secondary school; $M = 6.73$ months; $SD = 4.71$) started their search significantly later than high-educated mothers (tertiary education; $M = 10.13$ months; $SD = 3.65$) ($F(2, 82) = 7.115$; $p < 0.01$). No difference was found between single-parent families and two-parent families ($F(1, 86) = 0.313$; $p = 0.578$). In addition, 15 per cent of the parents in the sample searched for a child care place but were unable to find one. Among these parents, ethnic minorities (88.9%) and single parents (22.2%) were over-represented, but the sample was too small to make further analysis meaningful. An obvious reason for ethnic minorities in particular and low-educated parents in general to start their search later is the strong correlation between education and job stability. While unemployment is 10 per cent for high-educated individuals in Brussels, it is over 30 per cent for low-educated individuals. Moreover, work opportunities have risen by 60 per cent for the high educated, but have decreased by 40 per cent

Table 2. Priorities set by centre directors.^a

	2005 N = 83		2010 N = 89		2005–2010 Paired-samples t-test	
	Mean	SD	Mean	SD	t	d.f.
Siblings	4.36	1.07	4.11	0.99	n.s.	
Working parents	3.75	1.41	2.98	1.19	-3.405**	71
Date of subscription	3.58	1.34	2.91	1.30	n.s.	
Crisis	3.02	1.42	3.70	1.02	3.345**	70
Regularity of ECE needs	2.78	1.18	2.57	1.16	n.s.	
Choice of future school	2.65	1.70	2.77	1.32	n.s.	
Parents are studying	2.58	1.46	3.32	1.02	3.806**	72
Inhabitant of municipality	2.19	1.63	2.58	1.54	2.408*	72
Workplace	1.84	1.50	2.05	1.55	n.s.	
Family composition	1.84	1.50	3.79	1.14	12.873**	72
Family income	1.58	1.11	3.10	1.40	9.213**	69
Nationality	1.27	0.86	1.72	0.86	4.383**	71

^a A paired-samples t-test was used to compare the figures of 2005 and 2010. Significance levels are shown in the table: * $p < 0.05$; ** $p < 0.01$. ECE, early childhood education.

for the low educated. There is also a strong correlation between ethnicity and educational levels, with ethnic minority parents being significantly more often low educated (Thys, 2009). The figures suggest that distributing the available places according to the date of application can yield important yet unintended discriminatory effects.

Table 2 provides an overview of how the centre directors assessed the 12 possible priorities, compared with 2005.

Paired samples t-tests suggest that the assessment of several criteria changed significantly. Centre directors gave higher priority to single-parent families in 2010 compared with 2005 ($t = 12.837$; $d.f. = 72$; $p < 0.01$), as well as to low-income families ($t = 9.189$; $d.f. = 69$; $p < 0.01$), ethnic minority families ($t = 4.386$; $d.f. = 71$; $p < 0.01$), parents in training ($t = 3.805$; $d.f. = 72$; $p < 0.01$), families in crisis situations ($t = 3.344$; $d.f. = 70$; $p < 0.01$) and inhabitants of the municipality ($t = 2.419$; $d.f. = 72$; $p < 0.05$). They assigned significantly less importance, compared with 2005, to working parents ($t = -3.396$; $d.f. = 71$; $p < 0.01$). They also attached less importance, compared with 2005, to the date of application (first come, first served), but the paired samples t-test was only significant at the 0.10 level ($t = -1.900$; $d.f. = 67$; $p = 0.10$). Linear regression analysis showed no relation between the changes in the directors' priorities and the income index or coverage index in their municipality, except for a relationship between the income index (2010) and the priority given to single-parent families ($t = 2.054$; $d.f. = 80$; $p < 0.05$).

In the focus groups, centre directors were asked why these significant changes had occurred. The directors unanimously attributed the changes to a combination of policy measures and coaching support. The funding priorities, favouring the expansion of day care centres

that had an equal access policy, had prompted them to attend the support programme, albeit sometimes initially against their will but under the pressure of their board of directors. Once in the programme, they agreed that the programme made them aware of unwanted discrimination, and peer pressure from colleagues also pushed them to reconsider their access policies.

Enrolment

At the time of the survey, 3,789 children were enrolled in the 88 funded day care centres in the study. Table 3 gives an overview of the percentages of enrolment for different subgroups of children. The first column gives the 2005 figures. The next three columns represent 2010, divided into three subgroups according to when the centres participated in the project. A paired samples t-test revealed that the percentage of children from single-parent families ($t = 4.532$; $d.f. = 66$; $p < 0.001$) and ethnic minority families ($t = 2.202$; $d.f. = 43$; $p < 0.05$) had increased significantly. This was not the case for children from low-income families ($t = 1.674$; $d.f. = 36$; $p = 0.116$), although the number of children from low-income families had increased from 402 (16.85%) in 2005 to 676 (26.4%) in 2010. The small number of day care centres for which data on income from 2005 and 2010 were comparable ($n = 37$) might explain why the increase was not found to be significant.

Enrolment is related to the average income of the municipality. In municipalities with a higher average income, there are fewer single-parent families ($r = -2.52$; $p < 0.05$), low-income families ($r = -3.34$; $p < 0.05$) and ethnic minority families ($r = -2.54$; $p < 0.05$) than in less affluent municipalities. A linear regression analysis, with participation in the programme (four groups) as the independent variable and the difference

Table 3. Enrolment rates.

	2005 n = 83		Early participants n = 29		Middle participants n = 23		Late participants n = 18		Non-participants n = 19	
	Mean %	SD	Mean %	SD	Mean %	SD	Mean %	SD	Mean %	SD
Single-parent families	7.73	8.490	17.35	7.977	11.56	6.232	12.02	8.584	10.71	8.656
Ethnic minority families	13.71	19.586	28.98	20.328	14.26	10.168	26.20	26.519	23.10	24.672
Low-income families	15.63	20.526	32.94	21.888	18.97	9.720	35.68	26.009	11.23	10.478

in enrolment percentages between 2005 and 2010 of children from single-parent families, ethnic minority families and low-income families as the dependent variable, showed no significant result. No relationship was found with either the income index or the coverage index of the municipalities in which the centres were located. We then divided the centres into two groups (participants, regardless of the date on which they enrolled in the programme, versus non-participants), but this yielded no significant results.

Discussion

The issues of availability, accessibility and enrolment of children from low-income, single-parent and ethnic minority families in day care are subjects of increasing interest due to research demonstrating the potential beneficial effects of even very early childhood education for these children. However, studies focusing on younger children are still scarce, and studies analysing the influence of context, including political context, on enrolment from a social welfare perspective are only recently developing. The situation in Brussels provides unique opportunities to shed light on ecological models, describing the relationship between policy and practice. Moreover, the situation in Brussels allows us to study availability, access and enrolment in a context which controls for costs and quality across day care centres, which is not the case in the USA (Allen, 2003) or in other European countries such as Italy or Portugal where 'access to quality services seems to depend on luck or financial resources' (Kröger, 2010, p. 397). We conducted a study on changes in availability, access and enrolment over a 5-year period, during which time new policies were developed to enhance the accessibility of child care to children from low-income families, single-parent families and ethnic minority families.

The changes in funding priorities did not influence the geographical inequalities in the availability of child care in this study. As in 2005, in 2010 poor families in Brussels continued to have lower levels of access to child care in their neighbourhood than did wealthier parents. In fact, policies that expand existing centres have tended to widen the gap between richer and poorer areas, in contrast to policies that would concentrate

funding in more targeted ways in the poorer districts. Our findings support the theory that, when looking at explanations for the differential use of early childhood education, attention must be focused on where the programmes are located in the neighbourhood (Hernandez et al., 2009), and it must be acknowledged that studies looking at parental choice may in fact be capturing, not choice, but differences in supply (Greenberg, 2011).

During the period of 2005 to 2010, during which time policies urged centre directors to rethink their access policies, combined with support from peer groups, the attitudes of the centre management towards equalising accessibility changed substantially. Centre directors valued 'social' access criteria (e.g., low income, crisis situations, single parents, ethnicity) significantly more highly than before, and gave a lower priority to economic criteria (working parents) and practical criteria (first come, first served) than in 2005. This significant change in mentality occurred regardless of the participation rate in the programme.

The analysis of enrolment figures show that the change was not limited to a change in attitudes, but was also reflected in actual behaviour. The average percentages of children enrolled in child care from single-parent families, low-income families and ethnic minority families nearly doubled. Despite the fact that substantial inequalities remain in supply and some groups remain under-represented in funded child care in Brussels, this study showed substantial effects in relatively short periods of time. Once again, the relationships between these effects and participation in the programme were not significant. However, descriptive statistics indicate that early participants and late participants showed higher enrolment rates of children from low-income families, while centre directors who joined the programme in 2008 and non-participants reported lower enrolment rates of children from low-income families.

The quantitative results on priorities set by centre directors and on enrolment figures are in contrast to the qualitative results from the focus groups. Participants in the focus groups testified that the coaching in the peer groups had a significant influence on them, but no significant differences were found between participants

and non-participants. Several hypotheses can be formulated to explain this discrepancy. First, although the sample consisted of all Flemish-funded day care centres in the area, it was still a very small sample with limited statistical power. Second, centres enrolled in the programme voluntarily and were not assigned at random to one group or another, and therefore this study cannot be considered to have an experimental design with a control group. Consequently, it is possible that spill-over effects occurred between participants and non-participants. Indeed, the participants and non-participants met frequently on other occasions outside the programme, such as in consultancy meetings with policy makers, other training sessions and so forth. The peer pressure that affected the centre directors in the programme might therefore also have influenced the non-participants. It is possible that the combination of policy changes and a comprehensive support programme also influenced the non-participants. While top-down pressure gave a clear policy message concerning the way forward, the support groups might have created a safe place where resistance and questions could be discussed among peers. According to the centre directors, peer pressure also played an important role in these support groups. However, the limited scale of the sample does not allow finer analyses of these assumptions.

In addition, it is possible that the policy changes affected all of the centres and that the additional effect of the support programme is therefore unclear. The general policy that compelled all funded centres to have an enrolment list in which at least 20 per cent of the children belonged to one or more of the target groups (low-income, single-parent and ethnic minority families) was implemented in early 2008. It is possible that centres that joined the programme in 2008 did so against their will and consequently enrolled fewer children from these target groups than those who joined voluntarily in 2007 and 2010. Once again, the sample size is too limited to test these hypotheses and, as no non-participants joined the focus groups, no qualitative data on these centre directors' viewpoints are available so far.

Finally, it needs to be noted that the concurrence of policy measures and increased enrolment does not necessarily imply a causal relation. Other factors might interfere (e.g., an increased awareness of the importance of early childhood education in the targeted families). As the present study does not have an experimental design, no controlled conditions were created to confirm the causality.

Hence, the present study has several limitations and the results must be interpreted with some caution. Qualitative interviews with larger numbers of centre directors and with non-participants would have enabled a more finely tuned analysis of why the changes

occurred, and would therefore have shed more light on the complex relationships described in the ecological model that Pungello and Kurtz-Costes (1999) designed and Sylva et al. (2007) elaborated. One of the weaker points of this study is the small scale of the sample and its non-experimental design. As a result, it is difficult to establish causal relations between the interventions and the changes that were observed and, more specifically, to disentangle the effects of policy changes, coaching support and peer influence among centre directors. In addition, the questionnaire for the mothers was retrospective and did not allow a deeper analysis of the dynamic changes in maternal choices over time, which would have yielded potential insights into the relation between access policies and maternal beliefs. Obviously, the context in which this study took place is fairly specific, and caution is required when extrapolating the results to other socio-political contexts. As Sylva et al. (2007) rightly argued, more comparative research is needed in different socio-political contexts in order to untangle the conundrum and further explore theoretical models. Further analysis could also include an investigation on a more global policy level (Axford, 2012).

Despite these shortcomings, our study suggests that funding policies might be important factors to take into consideration when developing models of parental choice. We need to be cautious about drawing causal conclusions from the correlations in this study. However, these correlations might support the hypothesis that policy measures, combined with support, can significantly influence the general awareness of centre directors as well as their behaviour regarding more socially oriented priority criteria, over a relatively short period of time. Further research is needed to disentangle which aspects of the programme had the strongest influence. However, it is also clear that changes in funding priorities do not automatically result in the equalisation of the availability of child care to low-income families. Funding priorities are important, as several studies in different contexts have shown that non-funded provisions tend to concentrate coverage in richer areas (Moss, 2009; Noailly, Visser, & Grout, 2007; Sylva et al., 2007).

Our findings support a social welfare perspective, claiming that the use of child care cannot be attributed solely to family characteristics. From a social welfare perspective, as Himmelweit and Sigala (2004) and Allen (2003) argued, policies that lift existing constraints and enable choices are more likely to have long-term effects than are coercive policies that impose new behaviour.

This study could have implications for policy as well as practice. Policy makers might wish to consider accessibility as a structural quality criterion, thus encouraging centre management to rethink their access

policies. In addition, they might wish to consider support, allowing managers to develop reflective competences in peer groups. To do so, funding policies would need to take into account the funding of time to organise such groups, as well as external support from ‘critical friends’, as shown by a recent study on the professionalisation of the early years workforce in Europe on behalf of the European Commission (Urban, Vandenbroeck, Lazzari, Peeters, & Van Laere, 2011).

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