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Who reaps the benefits? The social distribution of public childcare in Sweden and Flanders

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ABSTRACT

The main goal of this paper is to unravel the social distribution of childcare policies: who benefits from government investment on public childcare? If childcare policies are mainly used by those already working, and (scarce) budgetary resources thus end up with the higher income brackets, genuine concern arises about the distributional consequences of childcare policies on the one hand, and its effectiveness as an instrument to activate mothers with young children into the labour market on the other. Answering this question is a complex endeavour, because one has to simultaneously take into account the (possibly income-differentiated) tariff structure of childcare services and private childcare costs (parental fees), government expenditures (subsidies to childcare providers) and tax concessions. In this contribution, we develop a fine-grained analysis to reveal the distributional impact of public childcare for two countries (Flanders/Belgium and Sweden) already reaching the Barcelona targets for under 3s and interpret the results in a European perspective. We find that, although both cases report high coverage rates, Sweden and Flanders have very different and even opposite distributional outcomes. Both examples provide us with valuable lessons on the redistributive nature of “new risk policies” and the effectiveness of childcare as an instrument of labour market activation.

Keywords: childcare; services; subsidies; distribution; labour market activation; expenditures; Flanders; Sweden

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1. Introduction

In the last decades, childcare policies emerged in the midst of several parallel evolutions in industrialized nations. Increasing female labour market participation coincided with shifting gender inequalities and a change from the male breadwinner model to a generalization of dual earnership, among more broad developments such as a shift to service employment (Bonoli, 2005; Crompton and Lyonette, 2006; Esping-Andersen, 1999). Consequently, the (gendered) problem of accommodating responsibilities at work and at home became an important policy issue and European welfare states adapted to this 'new social risk' in mutual interaction with European strategies to further increase (female) employment rates. Childcare is a focal point in this strategy, as it is generally considered an efficient labour market instrument removing disincentives to labour market participation for mothers while at the same time contributing to gender equality and investment in young children (Lewis et al., 2008; Vandenbroucke and Vleminckx, 2011). After being firmly put on the European agenda in 1992 with the adoption of the Childcare Recommendation, which reflected a *discours* on economic efficiency and labour market opportunities, explicit childcare targets to provide childcare by 2010 to at least 33% of children under 3 years old were adopted at the Barcelona Summit in 2002 (Bleijenbergh et al., 2006; European Council, 2002). In some countries this took place amidst (and contributed to) a shift in social expenditures from "passive" cash-related benefits to "activating" noncash services (Cantillon, 2011). More generally speaking, social policy became to be seen as a 'productive factor' rather than solely a device for protecting citizens against the occurrence of certain 'old' social risks, all this under the umbrella of safeguarding the 'European Social Model' and ensuring competitiveness and growth (European Commission, 2000; Lewis, 2009).

It has been documented earlier that changes in employment behaviour of married women, especially with dependent children, have predominantly accounted for rising female employment rates (Blossfeld, 1995). Yet, dual earnership has (to date) been adopted in a socially uneven way in most European societies, with higher educated women being more often employed and living in a dual earner household (Cantillon et al., 2001; Evertsson et al., 2009). By the same token, recent research revealed that public childcare provisions are in most European countries unevenly distributed among households, with a clear bias against low-income families (Ghysels and Van Lancker, 2010). Taking both observations together raises new questions: if childcare policies are mainly used by those already working, and (scarce) budgetary resources thus end up with the higher income brackets, genuine concern is warranted about the distributional consequences of childcare policies on the one hand, and its effectiveness as an instrument to activate mothers with young children into the labour market on the other. Broadly speaking, the expansion of childcare and its distribution within European welfare states touches upon issues of both *social inequality* and *efficiency*.

The main goal of this article is to take both issues into account and to look into the social distribution of public childcare: *who benefits from government investment on public childcare services?* Answering this question is a complex endeavour, because one has to simultaneously take into account the tariff structure of childcare services and private childcare costs (parental fees), government expenditures (subsidies to childcare providers) and tax concessions along with data on households' use of childcare. In this article, we present for the first time (to our knowledge) evidence on this question for two countries: Sweden and the Belgian region of Flanders. Both countries belong to the European forerunners regarding public childcare for young children (they have surpassed rather easily the Barcelona targets), display similar childcare characteristics and have a long-standing history of childcare expansion. As such, our approach can be considered as a weak version of Mill's method of difference. If the outcome (the social distribution of public childcare) turns out to be different in countries with similar coverage rates, it will provide us with valuable lessons on the nature, design and implementation of "new risk policies" in light of European-led initiatives to increase childcare coverage (and thus female labour market participation) throughout Europe.

Before we start, a general limitation of our article has to be clarified. In this investigation, we are concerned with families with young children, defined as households having a youngest child under 3. Not only is the work-family conflict most pressing for parents having very young children, we also want to compare relatively homogenous groups in both our cases. Moreover, after the age of 3 the diverse role of the educational system comes fully into play which makes it much more complex to obtain comparable results. We will elaborate on this restriction in the methodological section. The outline of the article is as follows. First, we discuss in some more detail the theoretical background of our arguments and review previous literature on both redistributive effect of childcare and its association with increasing female employment. This is followed by a brief overview of childcare expansion in Sweden and the Belgian region of Flanders and a sketch of the context in which our analysis has to be situated. Third, we present our data, the applied methodology and the results of our analysis. The article closes with a discussion of the further implication of our results.

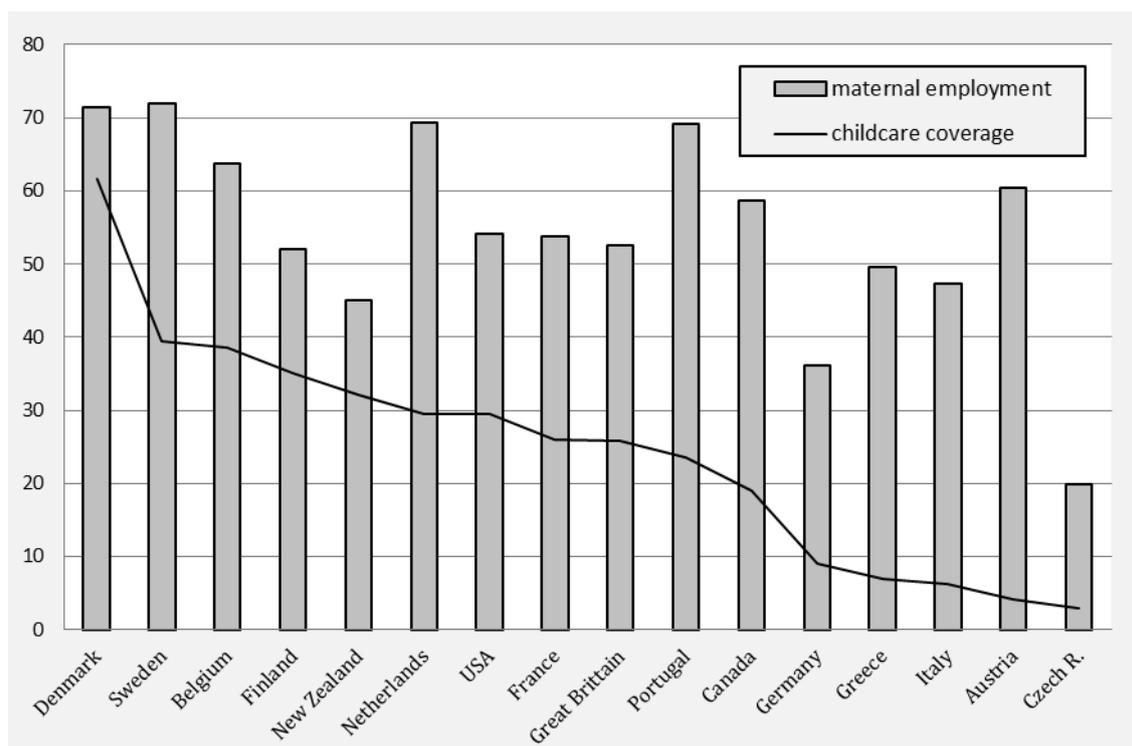
2. Theoretical background

The rationale behind the promotion of childcare as an instrument to increase female employment rates is quite obvious. Women still face the main burden of care for the children, and without the possibility to externalize care duties (be it through informal or formal channels) they simply cannot engage in paid employment. A vast amount of research has shown that especially the level of *public childcare* provision is the strongest determinant of female labour supply in industrialized countries

(Gornick et al., 1998; Jaumotte, 2003; Kreyenfeld and Hank, 2000; van der Lippe and van Dijck, 2002). Indeed, in the absence of decent care provisions, women often cut back on their working hours or quit the labour force to take care of their children, especially when they are of preschool age. This so-called child effect has been observed in all countries and for all women, although not necessarily to the same extent (for an overview, see Uunk et al., 2005). It has also been established that not the cost of childcare *per se*, but access and availability is of uttermost importance (De Henau et al., 2007). The role of external care in allowing mothers to work is often evaluated in tandem with parental leave schemes, which foster parents' bond with the labour market by maintaining the contractual link when they retreat temporarily from the labour market to take care of their children (Ghysels and Van Lancker, 2010). Leave rules allow previously employed mothers to return to their working place if they are able to 'outsource' parental care when the child is old enough.

In sum, the correlation between childcare provisions and female (maternal) employment is quite established although it is difficult to disentangle the direction of causality in this respect. Moreover, the association is not an iron law of nature, as exemplified in figure 1. The figure shows employment rates for mothers with a child under 3 and childcare coverage for children under 3 in industrialized countries. Although the general pattern reflects more or less the expected association between childcare coverage and maternal employment, we observe that countries with similar coverage rates can display different employment rates (compare for instance Sweden, Belgium and Finland). One of the explanation for this results could lie in the different distribution of care use *within* those high-coverage countries. Indeed, when a similar childcare supply is distributed in a dissimilar way (evenly among income groups in Sweden versus biased against low incomes in Belgium, as has been shown earlier in Ghysels and Van Lancker (2010)), the argument can be made that the efficiency of childcare as a productive social policy instrument depends on the mechanisms and the design of the service, i.e. the way government investment in childcare is allocated over families with children.

Figure 1 Maternal employment rates and childcare coverage, OECD countries



Source: OECD (2007b; 2007a). *Note:* employment rate for mothers with a youngest child under 3 (as a percentage of mothers aged 15-64), childcare coverage for children under 3. Mothers classified as “employed” include those on maternity and other short-term leave. Data refer to 2005.

In a recent study, Mandel (forthcoming) supports this argument by stating that not every woman can be expected to benefit to the same extent from family policy, but that this is often overlooked when assessing the impact of family policy on employment and the work-family balance. Likewise, in an illuminating study on the effect of subsidized child care on maternal employment in Norway, Havnes and Mogstad report that “the large expansion in subsidized child care had little, if any, effect on maternal employment” (2009: 3). The reason for this is quite straightforward: the highest demand for childcare expansion came from mothers already at work. Hence we iterate our argument: if the social distribution of public childcare benefits first and foremost the higher income families (which report more working hours and are more often dual earner families, e.g. Cantillon et al. (2001) and *infra*), doubt can be cast on its effectiveness as a labour market instrument to increase women’s employment rates. Obviously, the labour market integration of mothers does not depend solely on childcare availability as other factors are also at play, especially for low-income families: the state of the labour market and the unemployment rate, the gendered distribution of household work, labour market policies (financial incentives, low-wage subsidies) *et cetera* (Gornick et al., 1998; Eriksson and Neramo, 2010; Gesthuizen and Scheepers, 2010). However, taking into account that childcare may not be a *sufficient condition*, it certainly is a *necessary condition* to engage in paid work. Childcare as an instrument of labour market activation should thus be able to reach those facing the greatest barriers to employment.

This also touches on the issue of (vertical) government redistribution. Welfare states have in the past decades, albeit not in an equal way, reacted to broader evolutions such as the generalization of dual earnership, and consequently adapted their policies to accommodate the growing need to reconcile work and family. Policies addressing new social needs are more service-oriented, as is certainly the case with childcare, and concerns about the potential loss of redistributive capacity due to a shift from benefits-in-cash to services-in-kind have been raised earlier on theoretical grounds (Esping-Andersen and Myles, 2009). This shift from cash to services was however not necessarily a universal evolution. In Sweden, which is often characterized as being an epigone of the Scandinavian "social service model" (see Rauch, 2007) and where services as part of the broader social policy package were much earlier developed than in other welfare regimes, 1,7% of GDP was spent on childcare services in 2007 according to the OECD Social Expenditure statistics (OECD, 2010). This is the same proportion of GDP as in the mid-nineties but a modest decline of 0.3 percentage points compared to 1990. A contrasting evolution took place in Belgium where 0.8% of GDP was spent on childcare in 2007, an increase of 0.7 percentage points compared to the mid-nineties. Given the relative importance of childcare services in Sweden and the growing government outlays in Belgium, the issue of the redistributive effect of services is not a trivial one, especially so in a European context where the expansion of childcare services is encouraged. And if (scarce) government resources spent on childcare services benefit the higher incomes, concern is certainly warranted.

However, measuring the redistributive effect of services is a difficult undertaking. Earlier work on the distributional consequences of childcare, such as Marical et al. (2008) and Matsaganis and Verbist (2009), looked at overall distributional consequences in terms of Gini-coefficient and poverty outcomes by assigning a monetary value to childcare services and treating these as benefits-in-cash. The results tend to point into the same direction: services are redistributive albeit less so than cash transfers (Esping-Andersen and Myles, 2009). Exactly the same conclusion has been formulated in Scandinavian research in the eighties and nineties: "social services (...) are not as effective in income redistribution as direct transfers" (Kröger, 1997: : 486). This approach thus yields valuable insights, yet falls short for our purpose. We are not interested in the income distribution *per se*, but aim to have a genuine grasp of the real impact of public childcare services on different households in society. To make decisive statements about its social distribution, a much more detailed analysis is indispensable.

3. A brief sketch of childcare and its expansion

Although crèches for children of single mothers were existent already in the second half of the nineteenth century, the expansion of childcare as *we know it* in Sweden started from the seventies onwards to mitigate falling birth rates and accommodate the growing demand by parents. In 1963 only 3 per cent of all pre-school children (1-5) were in childcare but from the 1970s onwards this share tripled to around 30% in 1980. Nowadays, about 85 per cent of young children participate in public childcare (Bergqvist and Nyberg, 2002; Skolverket, 2010; Ferrarini and Duvander, 2010).

Childcare in Sweden has the twin aim of making it possible for parents to combine paid work and parenthood on the one hand and supporting the development of children on the other (Skolverket, 2000a). The latter has grown even more important when responsibility for childcare was transferred to the Ministry of Education (*Skolverket*) in 1996. Childcare has traditionally been provided publicly: Before the nineties, there was almost no private provision of childcare, and even now private facilities occupy only a minority place in the childcare landscape (Ferrarini and Duvander, 2010). Children under 1 year are almost always cared for in their own home due to the system parental leave (when a child is born, the parents are entitled to 450 days of paid leave); for children yet to start school (aged 1-5), three public childcare services can be distinguished: Preschool (*förskola*), family daycare home (*familjedaghem*) and open preschool (*öppna förskolan*). Preschools are the most widespread form of childcare, are open the year round and have varied opening hours to correspond as good as possible with parents' working times. These services also have to comply to a national curriculum. Family daycare concerns public childcare in the home of childminders. This variety is more often used in rural areas or areas lacking access to an adequate preschool offer. Finally, open preschools are a form of 'pedagogical playgroups' for children whose parents are at home during the day. Because there is mostly no registration obligation, no regular hours of attendance and the service is mostly free of charge, our analysis is not concerned with this form of preschool care.

Childcare in Sweden is conform its distinct concept of local self-government organised at the municipal level with centrally set curricula, regulations and the financial framework. Municipalities are obliged to provide childcare to the extent necessary for parents to be able to work and study, without "unreasonable delay" which means usually within 3-4 months. In the beginning of the 2000s, major reforms took place. While parental fees for childcare showed considerable variation between municipalities (and a tendency to increase over time) before that time, the reforms imposed a ceiling on parental fees (*'maxtaxa'*) and by the year 2003 all municipalities had implemented a uniform system which

abolished most of the regional differences in fees¹ (Skolverket, 2007). Another important part of the reform was the additional obligation for municipalities to provide childcare for children whose parents are unemployed or on parental leave.

In Belgium, too, childcare services for young children emerged in the mid nineteenth century but only matured and developed rapidly since 1970s (Morel, 2007). Contrary to the Swedish case, childcare and education are separate policy areas. In general, education starts at age 2.5 when almost all children attend kindergarten until the age of 6. Kindergartens are free of charge and entirely state funded, although many are privately organised (Vandenbroeck, 2006). Childcare for children under 3 is a responsibility of the welfare department (a competence transferred to the Belgian regions since the 1980 state reform). In what follows, we focus exclusively on the Belgian region of Flanders which covers about 60% of Belgian inhabitants. In Flanders, responsibility for monitoring care for under threes is entrusted by decree to the public organization Child and Family (*Kind en Gezin, K&G hereafter*) which sets forward three aims: the reconciliation work and family; supporting the development of children; and social inclusion of vulnerable groups. It has to be noted that K&G does not organise childcare services by itself and that there is no such thing as a legal childcare entitlement for young children (unlike in Sweden).

Flemish parents are entitled to 3 months of parental leave, which means that most infants enter childcare services before their first birthday. In 1980, about 20% of children below 3 (0-2.5) were in childcare. This number increased to 20% around 1990 and 63% nowadays (45% for Belgium as a whole) (Moss, 1990; Kind en Gezin, 2009). Two important childcare arrangements can be distinguished: facilities accredited and subsidised by K&G; and facilities registered with and supervised by K&G but not subsidised² (Vanpée et al., 2001). Subsidized services comprise nurseries (*kinderdagverblijf*) and child-minding services (*onthaalouder*). The ratio between the two is more or less 33% vs 66% respectively. These receive subsidies covering staff (salaries) and running costs but cannot set their own fees (these are centrally fixed and income-related) and have to meet strict quality requirements. Consequently, there is no regional variation in parental contributions among subsidized services. Subsidized services also have to give priority to vulnerable groups, such as low-income families and single parents (Ghysels and Van Lancker, 2009). Finally, parents can claim tax deductions for their childcare expenses which is not the case in Sweden.

¹ 'Maxtaxa' limits parental fees for childcare to 1–3 per cent of gross parental income below a fixed maximum for the first three children. No fee has to be paid for any subsequent child. For more information about the maxtaxa reform, see Skolverket. (2007) *Five year with the maximum fee*, Stockholm: Skolverket.

² Officially, there is also a third variety (child-minding facilities that have only complied with their duty to register, but which are not accredited and not subsidised by K&G) which is however very scarce.

In sum, while childcare in Sweden is aimed at children aged 1-5, almost entirely publicly-provided and integrated in the educational curriculum, in Belgium a particular form of public-private partnership has emerged with services aimed at children 0-2.5 either funded by the state or privately and organised by municipalities or privately (Vandenbroeck, 2006: 2). In the following analysis, we are concerned with subsidized childcare in Flanders and public childcare in Sweden (both will be denoted 'public childcare') because these are the kernel of government investments in childcare.

4. Data and methodology

To investigate the social distribution of government investment on public childcare, detailed data on childcare use, parental contributions, the tax system and government expenditures is vital. This excludes the use of the EU-SILC dataset, which is used by Eurostat to monitor childcare coverage in European countries. Hence we use two specific datasets which contain the necessary variables (income, childcare costs, childcare use) to conduct our analysis. For Flanders, we rely on the *Flemish Families and Care Survey* (FFCS) of 2004-2005. The FFCS sample is a randomly drawn representative survey containing 1.222 families with a child under three. For Sweden, we draw data from the *Swedish Level of Living Survey* (LNU), year 2000 wave. The LNU is a random sample representing 1/1000 of the Swedish population between 18-75 year and contains 435 families with a child under three. For Swedish data on childcare expenditure, we use government-provided expenditure statistics for the year 2000 made available by the Swedish National Agency for Education (Skolverket, 2000b). For Flanders, we rely on a detailed and complete overview of the Flemish budget for the year 2003 (Cantillon et al., 2006) which we have updated to include expenditures for the year 2005.

As mentioned in the introduction, we limit the scope of our article to families with a youngest child under 3. These families often have older children whether or not using public childcare. Because we want to assess how government funding for public childcare is allocated among *households* with a youngest child under 3, we also include in our analysis the older children living in those families and using public childcare. Moreover, the fact that we are looking at families and not at children, obviously has some consequences. First, our figures on childcare coverage may differ from official statistics. Second, the Swedish system of preschool childcare is explicitly aimed at children between 1 and 6 years old. Focusing on under threes inevitably means a distortion of Swedish preschool reality. Yet, we don't expect this to have much consequences because we are not interested in childcare use as such, but in the social distribution of its funding³.

³ Because of the long leave length in Sweden (1 year vs 3 months in Flanders), we are *de facto* comparing children between 3 months and 3 years old in Flanders with children between 1 and 3 years old in Sweden. To test whether this influences our findings, we replicated our analysis

For our analysis, we divide the Flemish and Swedish households in our sample into five income groups (quintiles) using disposable household income⁴. Then we compile information of the budgetary outlays on public childcare for families with a youngest child under three and consequently distribute the total budget over the income quintiles taking into account both the use of public childcare and parental contributions. The final result is a close estimate of the *genuine* government subsidy per income group in both countries.

Finally, one important caveat has to be mentioned. Our data for Sweden concern the income year 1999. This is before the Swedish childcare reform carried out between 2001 and 2003. This reform entailed inter alia the introduction of maximum parental fees and the obligation for municipalities to keep available pre-school slots for certain groups (*supra*). We have to bear in mind that we cannot say anything about these reforms in our analysis, and we will get back to this issue in our concluding discussion. In effect, our exercise consists of three parts. First, we elaborate somewhat more on the use of public childcare by the families in our two samples; Second, we dig deeper into the tariff system and parental contributions in both countries; finally, we present our analysis of the social distribution of government expenditures on public childcare.

5. Care use in Sweden and Flanders

To frame our analysis, we begin with a discussion of some relevant characteristics and care use of the households in our two samples as shown in Table 1 and Table 2. Generally, both countries resemble each other's characteristics. The average number of children, the proportion of lone parents and the average working hours in the household show the same pattern per income group. The lowest income groups have on average more children and are less active in paid employment in both Sweden and Flanders. Comparing the working hours in Sweden and Flanders, we observe that the total hours worked per week are generally lower in the former than in the latter, but that Swedish households in the lowest income group tend to work more than their Flemish counterparts. Next to this, the proportion of lone parents in Flanders is concentrated in the lowest income quintile while they are somewhat more spread among the first and second quintile in Sweden. Yet, it is clear in both countries that the disadvantage of being a lone parent is skewed towards the lowest incomes. This preliminary shows that childcare services intended to foster social inclusion have to succeed in covering the lowest income families.

including only 1 and 2 year old children. The results show that the Swedish distribution of public childcare becomes even more pro-poor (care use is skewed towards lower income groups instead of equally dispersed among all income groups), but the gist of our story does not change.

⁴ Household income (yearly basis) is corrected for economies of scale with the so-called OECD modified equivalence scale (assigning a value of 1 to the household head, of 0.5 to each additional adult member and of 0.3 to each child).

Table 1 Characteristics and care use of families with a youngest child under 3, Sweden

Quintiles	No. of children	Working hours*	Lone parents	Childcare			Childcare costs
		(total, last week)	%	Public	Private	Total	(Proportion of monthly income, %)
1	2.3	30	11.6	62.6	3.4	63.7	13.0
2	2.2	39	10.1	57.6	7.4	63.5	8.7
3	1.9	50	3.5	60.5	8.0	65.0	8.2
4	1.7	55	1.2	59.7	7.5	66.0	8.6
5	1.6	59	0.0	57.5	19.3	74.2	7.1
<i>Average</i>	<i>1.9</i>	<i>46</i>	<i>5.3</i>	<i>59.6</i>	<i>9.1</i>	<i>66.3</i>	<i>9.0</i>
<i>N</i>	<i>435</i>	<i>435</i>	<i>435</i>	<i>435</i>	<i>435</i>	<i>435</i>	<i>277</i>

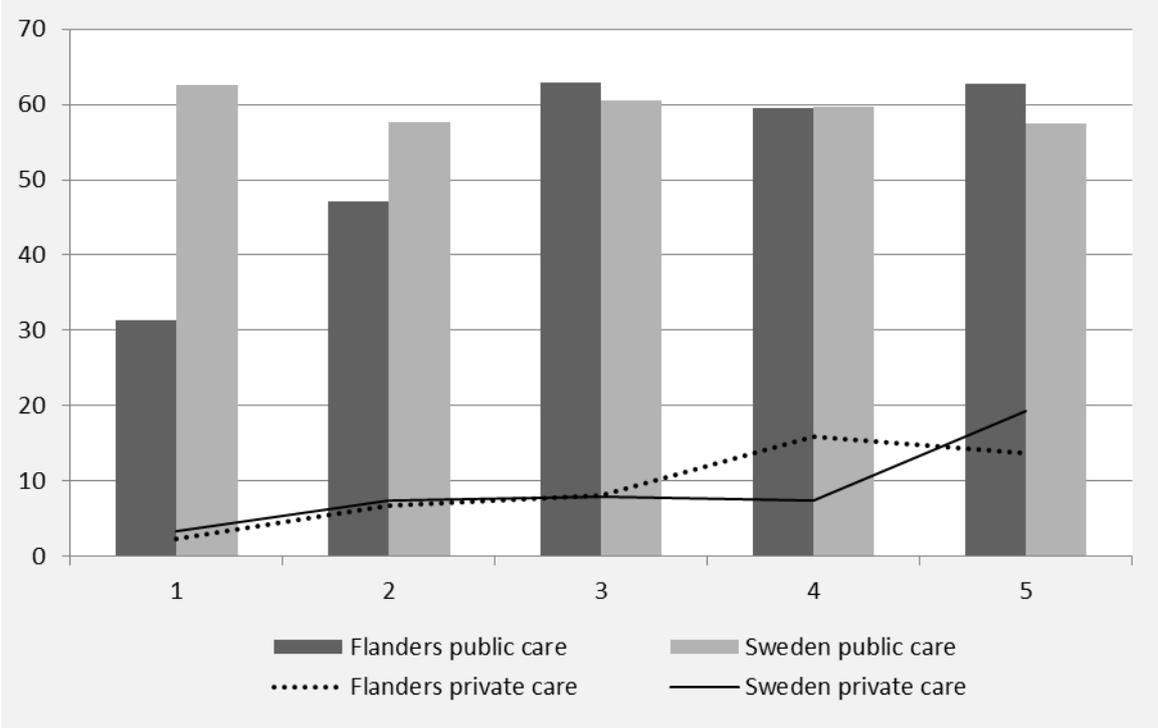
Source: LNU 2000. Note: working hours is the sum of working hours of both parents (if applicable) in the last week. Childcare costs are measured as a proportion of monthly disposable income and include only families using childcare services (public and/or private).

Table 2 Characteristics and care use of families with a youngest child under 3, Flanders

Quintiles	No. of children	Working hours*	Lone parents	Childcare			Childcare costs
		(total, last week)	%	Public	Private	Total	(proportion of monthly income, %)
1	2.2	21	20.05	31.3	2.4	32.3	9.1
2	2.1	45	8.2	47.1	6.8	52.1	5.3
3	1.8	56	3.25	62.9	8.2	67.6	5.5
4	1.7	64	1.2	59.5	15.9	70.5	5.8
5	1.4	65	2.04	62.7	13.6	71.2	5.5
<i>Average</i>	<i>1.9</i>	<i>50</i>	<i>6.9</i>	<i>52.7</i>	<i>9.4</i>	<i>58.7</i>	<i>5.9</i>
<i>N</i>	<i>1.222</i>	<i>1.222</i>	<i>1.222</i>	<i>1.222</i>	<i>1.222</i>	<i>1.222</i>	<i>776</i>

Source: FFCS 2005. Note: working hours is the sum of working hours of both parents (if applicable) in the last week. Childcare costs are measured as a proportion of monthly disposable income and include only families using childcare services (public and/or private).

Figure 2 Public and private care use in Flanders (2005) and Sweden (2000), %



Source: own calculations on LNU 2000 and FFCS 2005.

The data on care use allow us to distinguish between public (for Flanders: subsidised) care and private (for Flanders: non-subsidised) care in a regular week. Formal care represents the total proportion of families using one of both varieties of childcare. The data are provided by the respondent (one of the parents of the children) and does not concern intensity of use, only whether there is care use during the week or not. Here we do observe clear differences between Sweden in Flanders. Both report high total care use figures (66.3% and 58.7% respectively), but the use of public childcare is very much biased against the lower incomes in Flanders while this does not hold in the case of Sweden. The distribution of care use is also visualised in figure 2 which makes it very clear that the use of public childcare is quite evenly distributed among income groups in Sweden, while clearly biased against the lowest incomes in Flanders: they make to a much smaller extent use of public childcare (31.3% and 47.1% for the first two quintiles). This coincides with less working hours among low-income families in Flanders compared with Sweden and demonstrates the close relationship of childcare use and labour supply. It is, given our cross-sectional data, not possible to disentangle cause and effect in this respect. However, previous analyses on the FFCS data revealed that 70% of non-working mothers in the lowest quintile who do not use public childcare provisions, report that they would prefer to be employed if they had the possibility to (Ghysels and Van Lancker, 2009). This points to a large untapped labour supply among the lowest income families. The middle and higher incomes in Flanders report equal or somewhat higher coverage rates than their Swedish counterparts. The pattern of private care use, then, is rather similar

between the two. It shows an increasing trend with income: the higher one's disposable income, the higher one's use of private care provisions.

Finally, childcare costs as the proportion of monthly disposable income (SEK is converted to EUR using 2000 prices) shows in both countries a rather digressive pattern, and this is especially so in Sweden. There, the lowest income families spend on average 13% of their monthly income on childcare (taking both public and private care into account) which is almost twice the proportion of the highest incomes (7.1%). Overall, Swedish families spend a higher proportion of their income than their Flemish counterparts (ranging from 9% in the lowest to 5% in the highest quintile). In the next section, we will look more in-depth into those parental fees.

6. Parental contributions and the tariff system

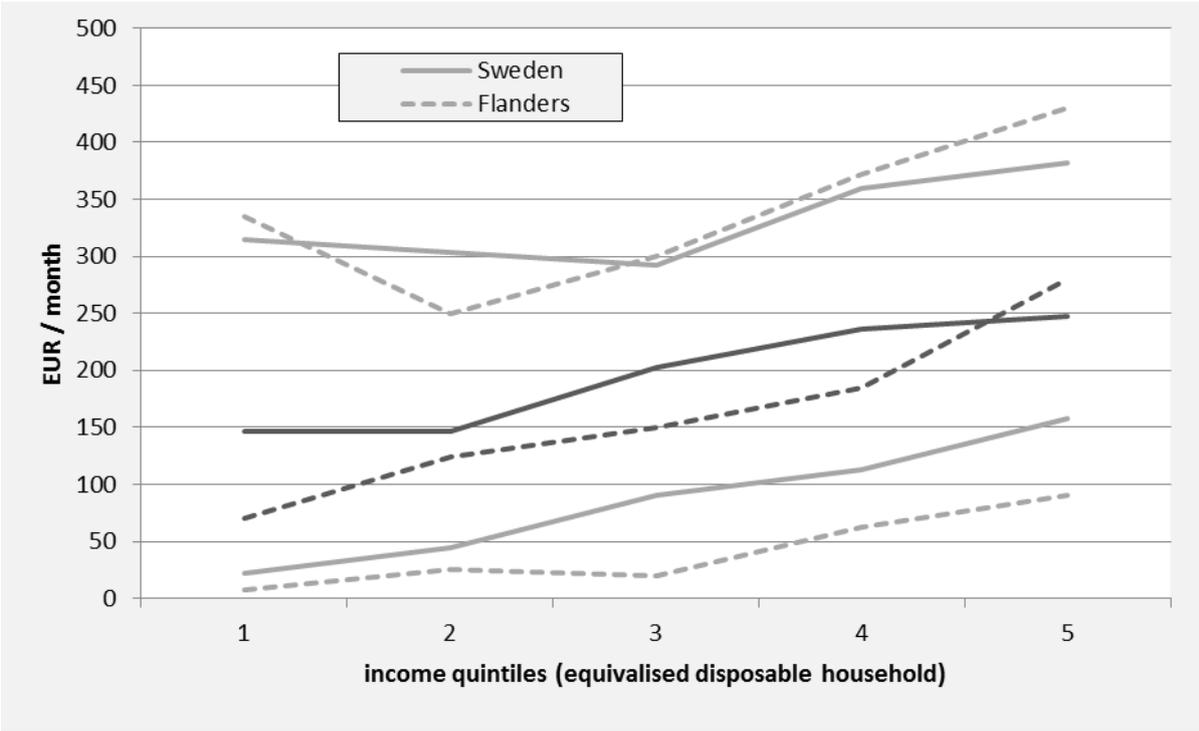
It is important to take parental fees into account in our analysis: the share paid by parents is a reduction of the total childcare cost for the government. Hence, when parental contributions are high, costs for the government will be lower and *vice versa*. As mentioned above, before the reforms in the 2000s, Sweden lacked a uniform tariff system. Municipalities were free to set their own tariffs which were however mostly income-related and time-related (depending on the intensity of use) (Brink et al., 2007). This led to considerable differences in parental contributions between municipalities: while some households almost paid nothing, others paid up to SEK 6.000 (€698) per month in 2001 (Skolverket, 2007). Moreover, the share of childcare costs covered by parents increased from 10% in the 1990s to approx. 18% in 1999 (Skolverket, 2000b). It is only since the *maxtaxa* reform (*supra*) that a maximum ceiling on parental contributions was imposed and that fees ought to be related to gross income. In Flanders, childcare tariffs for public childcare services are centrally set and vary with household income and intensity of use (thus resembling Swedish practice). For the year 2005, this translated in a cost between €1.41 and €25.18 per child per day (Kind en Gezin, 2005). Both tariff systems should, hence, be pro-poor.

How does the distribution of parental contributions for public childcare look like if we compare Flanders and Sweden? Figure 3 shows the childcare cost in EUR per income group, subdivided into the median parental contribution (the middle line), the 10% most paying families (top line) and the 10% least paying families (bottom line). This way we can easily see whether the general pattern of parental fee is related to disposable income, and also what happens at the extremities.

Despite the differences between the centrally set and explicit pro-poor design in Flanders and the municipal variation in the Swedish tariff system, the pattern of childcare costs among the different income groups

resembles each other. The median line shows that in both systems the lower incomes tend to pay less than the higher incomes, although childcare costs in Sweden seem to be somewhat higher in general. However, and this is also a remarkable resemblance, some families in the first quintile face extremely high childcare costs: they pay even more than highest paying families in the third quintile. Combined with the observation made above (Table 1 and Table 2) that the lowest incomes spend on average a higher share of their monthly income on childcare, this demonstrates that for some low-income families there may be a genuine problem of costs. Because we are looking solely at public childcare here, this is even more problematic given the explicit pro-poor design of the Flemish tariff system. One possible explanation for this result could be that adaptations in childcare tariffs lag behind evolutions in disposable incomes⁵. For Sweden, we have to bear in mind that we are not taking into account the recent *maxtaxa* reforms.

Figure 3 Monthly childcare cost by income group for public childcare, Sweden and Flanders



Source: own calculations on LNU 2000 and FFCS 2005. Note: the middle (dark) line represents the median parental contribution, the bottom and upper line represents the 10% most and 10% least paying families.

⁵ The allocation of families into five income groups is based on disposable household income. In the Flemish dataset, this is based on the income from last month. Suppose that in a dual earner family with high intensity of public childcare use, one of the parents lost his or her job in the month before the survey was carried out. Then this family would report a rather low disposable income, but because the adaption of the childcare tariff to the household income takes some time, they report high childcare costs. However, this explanation only holds for Flanders, because the Swedish income data relies on yearly income data drawn from the income register. It could thus be that in the Swedish case the problem is real.

The bottom lines in the graph show childcare costs among the lowest paying families, and one can observe that in Flanders some families in the third quintile pay almost no childcare fees, despite their higher disposable income. In Sweden, the bottom line seems to be more related to income. Yet, broadly speaking, both countries represent an income-related tariff system, despite their differences in design.

7. The social distribution of government funding for public childcare

In the final part of this analysis, we combine the above findings on use and parental fees with government outlays on public childcare for families with a youngest child below 3. The result reflects the social distribution of government subsidies for public childcare. In effect, this exercise consists of two parts. First, we compile information of the budgetary outlays of the underlying policy measures (budgetary years 1999 and 2005 for Sweden and Flanders respectively). Second, we distribute the total budget over five income quintiles taking into account both the use of public childcare, tax deduction (only in Flanders) and the fees parents pay.

In Sweden, Skolverket (2000b) reports an expenditure of SEK 39,721 billion on childcare services in 1999. This amount includes all expenditures at the level of the municipalities and also comprises grants for private childcare initiatives. The latter amounts to SEK 3,3 billion. Because we are only interested in the social distribution of public childcare, we deduct this amount from the total expenditure. As the resulting budget applies to all children between 0 and 12 in different public care facilities and our investigation is focused on families with young children, we have to fine-tune the budget one step further. Based on LNU 2000, we estimate the share of households with a youngest child under 3 using subsidized care relative to the total share of households using subsidized care in Sweden. The resulting proportion (34,02%) is then applied to derive an estimate of the government budget on public childcare for these households: SEK 12.391.785.000 or €1.440.905.233.

In 2005, the federal and Flemish government spent about €130 million in direct subsidies on childcare for families with a youngest child under 3 in the Flemish region. Besides these direct subsidies, we also have to take tax deductions for childcare into account. Micro-simulation exercises with the MISIM-model⁶ provide an estimate of €61 million of government expenses for tax deductions for the year 2005 (see Ghysels and Van Lancker, 2009: 15, for more information on the estimation). These concern tax reductions as a result of childcare expenses for children under 3 in the income year 2004 for families living in the Flemish region⁷. This

⁶ The MISIM (MicroSimulationModel) is developed at the Herman Deleeck Centre for Social Policy.

⁷ The tax reduction related to cash expenditures for childcare services means that taxable income of the fiscal unit is reduced with the out-of-pocket costs of the childcare service, with a maximum though of €11.20 per day per child (for children younger than 3, extended to 12

leaves us with a government budget for public childcare of €190.906.297 million. It is important to note that we were not able to compile the total budget for Flanders because there exist numerous indirect expenses by other government bodies (e.g. municipalities) for which we don't have reliable data⁸. But as our calculations account for more than 70% of the total public efforts for childcare (Cantillon et al., 2006), we simply assume that the expenses not accounted for are distributed in a similar way. The huge difference between the budgets assigned in Sweden and Flanders is eye-catching (even if we would be able to take into account the total Flemish budget), especially given the high overall coverage rates of both countries. Demographics certainly play a role here, given the larger population in Sweden (and thus a higher number of young children)⁹, but the difference in total budget assigned is presumably best explained by the differences in the design of the service: 1) guaranteeing childcare slots is an expensive affair; 2) the Swedish child-to-staff ratio is smaller on average (5.5 versus 7 in Belgium according to the OECD Family Database) and 3) salaries of the staff (which have in majority an upper-secondary degree) are comparable to average wages in other occupations in Sweden, while this is not the case in Flanders.¹⁰

Subsequently, we divide the estimated budgets over the income quintiles in each country, according to the care use of households and taking parental contributions into account. The combined effect of this exercise is showed in Figure 4 for Flanders and Figure 5 for Sweden.

The very unequal distribution of public childcare efforts is striking. Barely half of the funds received by the higher incomes flow to the lowest quintile. This inequality can also be expressed in figures. The quintile ratio (Q5/Q1), for example, amounts to 2.1. In other words, households in the highest quintile profit more than twice as much of the public support for childcare than families from the lowest income quintile. The situation is completely opposite in Sweden. Here, the two lowest income quintiles benefit even more than twice as much (Q5/Q1=0.4) from government subsidies on public childcare than families in the highest quintiles. Phrasing the matter differently: 49,8% of the total budget on public childcare flows to the households in the first and second quintile. To sum

years in 2006). Families who do not deduct childcare fees qualify for a lump-sum raise of the income tax exemption with €480 (for every child younger than 3 at the end of the income year) See Ghysels J, Verbist G and Vanhille J. (2010) Taxing Care : enhancing the childcare time in the dual earner era. *CSB Working Paper 10/01*. Antwerp: Herman Deleeck Centre for Social Policy..

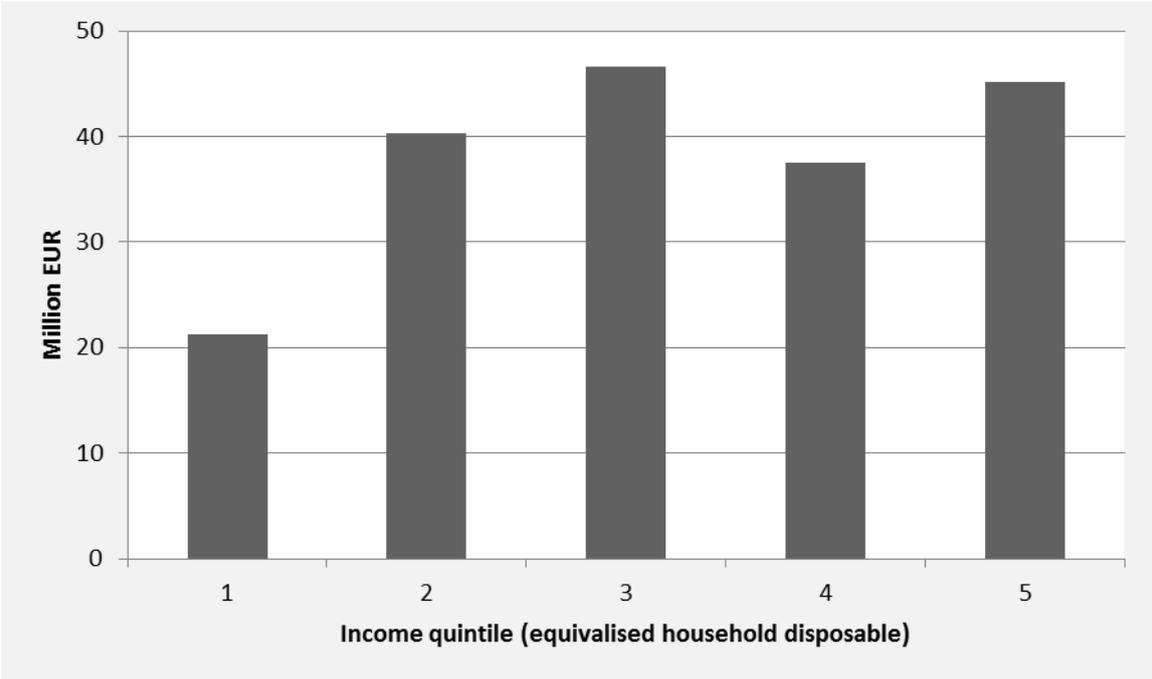
⁸ An example of the lacking information regards the incomplete social security status of child minders (they are not regarded as employees, but are not obliged to pay social security contributions as a self-employed either). To avoid the consequences of this lack of professional status, the Belgian government developed specific social security regulations for child minders. The costs of the latter are not reflected in the subsidies to childcare services, but are an indirect transfer to the sector.

⁹ To give an idea of the differences: 368.968 children between 1 and 6 were enrolled in 1999 in Sweden versus 95.538 children between 0 and 2.5 in 2005 in Flanders. See Kind en Gezin (2005) and Skolverket (2000b).

¹⁰ In Flanders there exist no general educational requirements for childcare staff. Especially child minders often have had no specific training (except their experience as a parent).

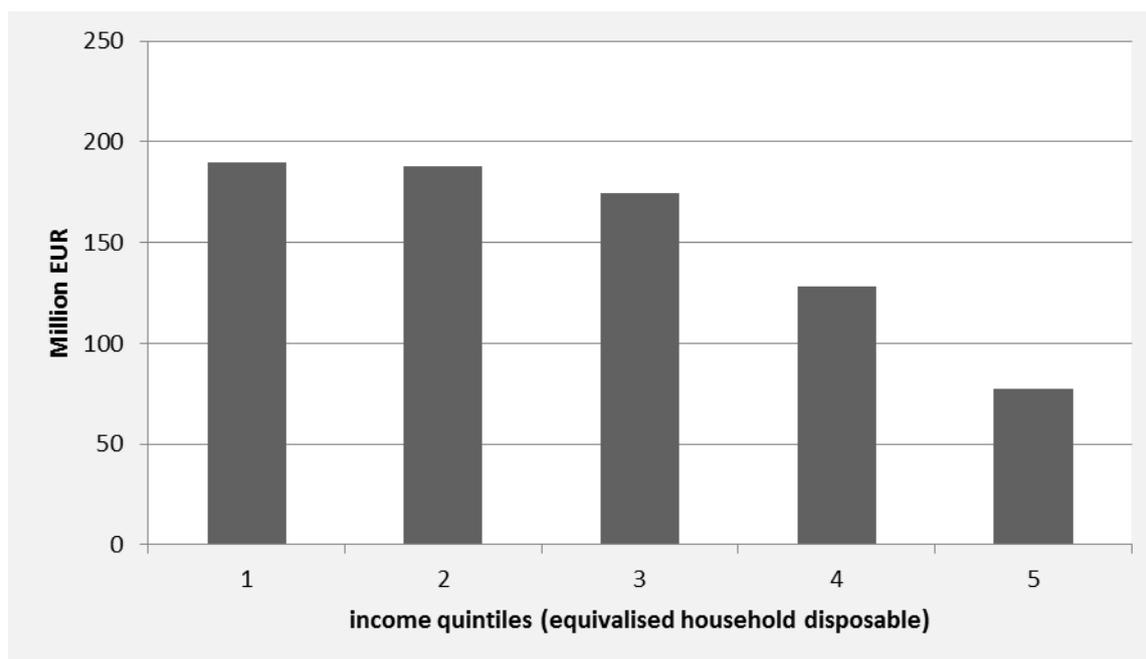
up, the Swedish public childcare system is unequivocally and successfully pro-poor: public funds flow in majority to families with the lower incomes which have guaranteed childcare slots, on average more children (cf. Table 1) and pay not as much parental contributions, while higher income families pay higher fees and fulfil their additional childcare demand with private care. In Flanders, this pattern is reversed: the bulk of government expenditures is allocated to the higher income families, despite the pro-poor design of the tariff system and the higher number of children among the lower income groups (cf. Table 2), because of the system of tax deduction and the right-skewed use pattern.

Figure 4 The social distribution of public childcare in Flanders



Source: own calculations.

Figure 5 The social distribution of public childcare in Sweden



Source: own calculations.

8. Discussion

In this article we unravelled the social distribution of government subsidies on public childcare for families with young children in Sweden and Flanders. Both have a long-standing history of heavily subsidised childcare services and belong to the highest-coverage countries in Europe. Yet, our results show that the impact of public childcare on families is quite different in the two cases.

First, we showed that the use of public childcare is unevenly distributed among families with young children in Flanders: lower income families tend to use public childcare to a much lesser extent than their higher income counterparts. In Sweden, public childcare use is quite evenly distributed. Private care facilities are in both countries mainly used by the higher incomes. Second, we found that some of the lowest-income families using public childcare face very high childcare costs, both in Flanders and Sweden, although in both countries the tariff system *is de facto* income related (although for Sweden the results stem from before the latest reforms in the tariff system). However, recent reviews have shown that childcare prices in Sweden have decreased in the past years due to the *maxtaxa* reform which improved the financial basis of families with young children (Brink et al., 2007; Mörk et al., 2009). Yet it remains to be seen whether the problem among low-income families that we observed in our data has been solved thoroughly. Third, and most importantly, we investigated government subsidies for public childcare services taking care use, parental fees and tax deductions (for Flanders) into account and showed that government expenditures on public childcare are very unevenly allocated among families with young children

in Flanders, especially benefiting the higher income categories. The combination of greater care use and the system of tax deductions undoes the pro-poor design that we could expect from the tariff structure. The exact opposite happens in Sweden: although care use is evenly distributed among all families, the two lowest income quintiles benefit more than twice as much from government subsidies than the highest incomes because of their lower parental contributions and their higher average number of children. While both systems of public childcare are intended to foster social inclusion, only the Swedish example manages to reach the most disadvantaged groups in society (e.g. concentration of lone parents among the lowest income groups), while the Flemish system does not.

We developed the argument that if childcare policies are mainly used by those already working, and scarce budgetary resources are allocated to those high up in the income distribution, genuine concern is warranted about its distributional consequences and its effectiveness as a productive social policy instrument. Our findings for Flanders indeed raise concern. Increasing government resources are used to fund services which mostly benefit the already well-off which means that the redistributive effect of those policies will be adverse, which is a validation of earlier findings on the effect of services in terms of Gini-coefficient (Matsaganis and Verbist, 2009; Marical et al., 2008; Esping-Andersen and Myles, 2009). While Saraceno in a recent contribution states that “subsidized care (..) has an important redistributive effect” (2011: : 85), we show that this assertion is not *automatically* true. But even if one only looks through a narrow economic lens to public services such as childcare and if we assume that the essential goal of services is not to redistribute income, but the promotion of equal access in relation to needs and demands (Kröger, 1997), worries about its social distribution in Flanders are still warranted from an *efficiency* point of view: there is a large untapped labour market supply in the lowest income groups who don't have access to public childcare. We find that in Sweden all income groups alike have access to public childcare places, which makes it evenly possible for all mothers alike to engage in paid employment, net of other barriers to paid employment not taken into account in this study. Broadly speaking, we showed that the benefits of 'productive family policy' such as childcare are more complex than often assumed.

This brings us to our final point. By zooming in on two high-coverage countries with a similar history of childcare expansion, we are able to provide preliminary evidence that the success of a public childcare service in terms of social inequality and efficiency indeed depends on the mechanisms and the design of the service, i.e. the way government investment in childcare is allocated over families with children, not on the coverage rates *per se*. The greatest difference between Flanders and Sweden is the combination of guaranteed childcare places and sufficient supply in the latter, not the tariff system or parental costs for childcare. Yet, the vast differences in the total budget allocated to public childcare between Sweden and Flanders shows that designing a comprehensive

childcare system comes at a great financial cost (and supposedly a good deal of 'political willingness').

The above explorations should however not distract us from our main finding. Both from a *social inequality* and an *efficiency* point-of-view, the Swedish system of public childcare for young children outperforms its Flemish counterpart.

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