

Collegio Carlo Alberto



Comparative childcare statistics in Europe.
Conceptual and methodological fallacies

Wolfgang Keck
Chiara Saraceno

No. 229

December 2011

Carlo Alberto Notebooks

www.carloalberto.org/working_papers

© 2011 by Wolfgang Keck and Chiara Saraceno. Any opinions expressed here are those of the authors and not those of the Collegio Carlo Alberto.

Comparative childcare statistics in Europe

Conceptual and methodological fallacies*

Wolfgang Keck and Chiara Saraceno

Abstract

• EU-SILC data, which are used by the Social Protection Committee to monitor the achievement of Barcelona targets in childcare coverage, are neither adequate to assess policy efforts nor suitable for cross-country comparisons. • From a policy point of view, childcare costs should be investigated in order to assess inequalities in access to and quality of childcare. Childcare statistics should account for considerable regional variation in childcare supply.

Key words: child care, comparative data sources, Eurostat, harmonized statistics

Introduction

In March 2002, the Barcelona European Council stressed the importance of childcare services as a means of supporting women's labour force participation. "Member States should remove disincentives to female labour force participation and strive, taking into account the demand for childcare facilities and in line with national patterns of provision, to provide childcare by 2010 to at least 90% of children between 3 years old and the mandatory school age and at least 33% of children under 3 years of age" (European Commission 2002: 12). The empirical basis for assessing the Barcelona targets was, however, fragmented and heterogeneous. A report from Eurostat (2004) on the collection of harmonized statistics on childcare concludes: "These figures on [childcare] indicators should be treated with a great deal of caution, especially as regards their comparability between countries" (p. 29). Problematic features involved, among other things, the type and amount of care provision considered, accounting rules, the distinction between public and private provision or financing, time schedules, cost to families and, in some cases, even data availability at the national level.

As a consequence of the insufficient statistics on childcare provision in EU member states, the Employment Committee turned to the European Union Statistics on Income and Living Conditions (EU-SILC) as a source of data. The objective was to measure how many children attend formal childcare arrangements, which comprise compulsory education, preschools or equivalents, centre-based services outside school hours, collective day care or other form of daycare centre, and professional certified childminders.

Since 2005, the EU-SILC has collected information on childcare usage annually. This information has become the basis for monitoring the so-called Barcelona process (see European Commission 2008) as well as the main – and for large country comparisons the only – source for comparative childcare statistics (e.g. Plantenga and Remery 2008). Even the OECD, which had carried out its own data collection for the "Babies and Bosses" series (OECD 2007), at the beginning of the millennium, adopted the EU-SILC statistics (OECD 2011).

The EU-SILC data on childcare overcome some of the limitations arising from the previous comparative data sources developed on the basis of national sources. The EU-SILC solves the problem of badly harmonized and, for some countries, unreliable data, which hitherto limited cross-country comparisons (see Plantenga et al. 2008, p. 30; Lohmann 2009, pp. 109ff).

But are the EU-SILC data on childcare an adequate measurement for evaluating whether or not a country has achieved the Barcelona targets? A detailed examination of the data reveals both

conceptual and methodological problems, which call this new source of childcare statistics into question.

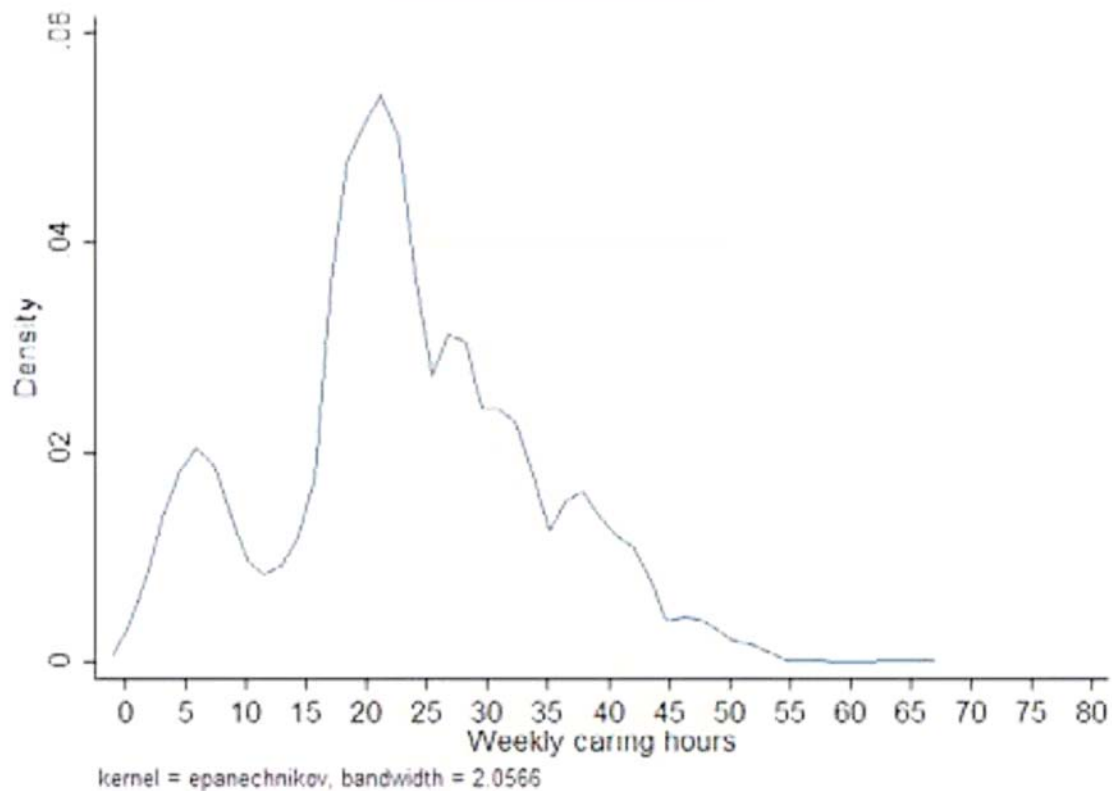
Statistical fallacies of EU-SILC data

In the EU-SILC survey, if a child younger than 13 years of age lives in the household, the respondent to the household questionnaire is asked about the different forms of care provision used for the child and how much time per week the child spends in each of the care arrangements.¹

Analysing the micro-data, we found a number of decisive shortcomings. From a methodological perspective, the main problem is that for more than half of the countries the data are not reliable. According to documentation from Eurostat (2011), the information on childcare usage for children aged 0 to 2 years is based on “uncertain or unreliable” data in 14 of 26 countries. Eurostat does not present its reasons for finding the data unreliable. Most probably the national samples draw on too few cases of children in the specific age brackets to provide robust estimates. The EU-SILC does not attempt to minimize selection errors by covering a large sample of households with children of specific ages.

For fourteen countries we found fewer than five hundred cases of children younger than three years old, and for children aged three to five there are eleven countries with fewer than five hundred cases in the sample. Only in France, Italy, the Netherlands, Poland and Spain are the sub-sample sizes around one thousand or above. Moreover, some of the children live in the same household. This circumstance requires special statistical treatment, because the observations are not independent of each other. Unfortunately, there is no information about whether and how this is reflected in the aggregate figures published by Eurostat (2011). Furthermore, in some countries we observed small peaks in formal care provision of between four and seven hours per week (see figure 1 for Germany). There may be reasons why parents opt for only a few hours of formal care per week. But for children aged three to five years, who regularly attend childcare services during the week, the distributions suggest that respondents gave the number of hours per day rather than the requested hours per week.²

Figure 1: Caregiving hours for children aged three to five years in Germany



Source: EU-SILC, sample for Germany.

Most of the studies and databases presenting the EU-SILC data on childcare usage do not mention these methodological problems, which greatly undermine the reliability of these data for comparative and monitoring purposes.

Conceptual misspecification

In addition to statistical fallacies, EU-SILC data present conceptual problems from the point of view of policy assessment, insofar as they do not distinguish between public and private-market provision. A comparison of institutional coverage rates with usage rates from the EU-SILC – both of them are part of the new Multilinks Database on the institutional framework of intergenerational obligations (<http://multilinks-database.wzb.eu/info/project-info>) – reveals that in 16 of 25 countries the figures deviate by 5 percentage points or more (see table 1). In eight countries the deviation is more than 10 percentage points.

Table 1: Comparison of childcare coverage rates and childcare usage rates for children aged 0 to 2 years (around 2004)

Country	Coverage rates^a	Usage rates
Austria	9	4 ^b
Belgium	34	42
Cyprus	18	19 ^b
Czech Republic	8	2 ^b
Denmark	56	73
Estonia	22	12 ^b
Finland	21	27
France	43	32
Germany	10	16
Greece	7	7 ^b
Hungary	6	7 ^b
Ireland	15	20 ^b
Italy	11	25
Latvia	16	18 ^b
Lithuania	18	11 ^b
Luxembourg	14	22
Netherlands	15	40 ^b
Norway	37	33
Poland	2	2 ^b
Portugal	19	30
Slovakia	18	3 ^b
Slovenia	27	24
Spain	17	39
Sweden	50	53
United Kingdom	26	29

Source: Multilinks Database 2011. (a) Specific data problems are not mentioned in the original source, but in general problems in data harmonization and reliability are mentioned (see Eurostat 2004: 29). (b) Unreliable or uncertain data.

A number of reasons account for this divergence. There are different reference times – although for most countries the year of measurement deviates only by one year. There are also different definitions: coverage rates provide information on the number of places available, whereas usage rates report the actual use of childcare places. Some available places may not be used, or a full-time

place may be shared and used by more than one child. Finally, there are different definitions of the services covered by different measures.

A key issue is that the usage rates provided by the EU-SILC include private care arrangements that are exclusively paid by the parents (although the parents may receive tax allowances for childcare costs or childcare allowances). For example, according to national statistics for Italy in 2004, the coverage rate by public or publicly funded services was 11 percent (Istituto degli Innocenti 2010). For the year 2005, the EU-SILC reports a childcare usage rate of 25 percent. The 14 percentage points difference mainly reflects the inclusion of private childcare providers and childminders in the EUSILC data.

The inclusion of private childcare is a crucial issue insofar as private-market services, particularly if they are not subsidized, may hide inequalities in access to and quality of services. One may argue that the Barcelona targets are not specifically framed as a public policy issue. As long as the “national patterns of provision” (European Commission 2002: 12) are sufficient to fulfil the Barcelona targets, there is no need to ask how childcare arrangements are composed at the national level. The EU member states have quite different organizational structures of childcare. At least four types of formal childcare arrangements can be distinguished:

1. Public primary education is generally provided by public schools, in some countries starting from the age of four.
2. Public childcare provision, as distinguished from school education, is mostly administered at the municipal level. Copayments by the parents are usually expected, often on the basis of a sliding scale based on household income.
3. Publicly subsidized childcare may be offered by private or social welfare organizations. Copayments by the parents are usually expected, often on the basis of a sliding scale based on household income.
4. Fully private childcare, the cost of which must be fully borne by the parents. In some countries, there may be more or less generous tax allowances for these costs.

Public policies matter for both accessibility and general quality of childcare. In countries where there is a prevalence of unsubsidized market provision, leaving families to pay a high share of childcare costs, only parents with a sufficient household income are able to afford extended and high-quality childcare. In particular, mothers with low earnings – either because of low-paid jobs or because they work part time – are disincentivized to be in paid work or to work additional hours, as a large share of their market income is absorbed by childcare fees (e.g. Del Boca and Locatelli 2006). From the perspective of children, costly childcare provision leads to unequal access of early care and education depending on their parents’ income (Moss 2005).

In order to promote equal opportunities between men and women, as well as between women in different economic circumstances (and, we would add, between children) – which is the key motivation behind the Barcelona targets on childcare – we must focus on and address the cost of childcare. It is therefore important to distinguish between fully paid, partly paid and fully subsidized childcare provision. With the EU-SILC data it is not possible to make these distinctions.³

How to facilitate comparative childcare analyses?

EU-SILC data overcome several disadvantages of previous statistics on childcare usage. The data , in fact

- are highly standardized and therefore improve comparability between countries,
- differentiate various types of childcare provisions,
- allow one to distinguish differences in weekly usage time,
- cover a large number of countries.

On the other hand, the methodological and conceptual shortcomings of the data greatly undermine their reliability both as a policy monitoring tool and as a comparative data source with regard to childcare coverage. The data are far from useless, and they should be used for the rich information they do offer (taking into account the statistical problems); but they should not be used as a substitution for institutional data.

With regard to the latter, many European countries provide well-documented registered data on available childcare places or enrolment rates, which are more analytical and comprehensive than the EUSILC statistics. MISSOC and similar institutions should encourage this kind of information collection and the ability of countries to provide it, rather than de facto disincentive them by suggesting that EUSILC data are enough. Moreover, researchers should check national statistical sources against EU-SILC data in their comparative exercises.

Other indicators should also be considered in order to enrich the description of childcare provision. One important aspect is whether there is individual entitlement to a childcare place. If parents can go to court in case their childcare demand is not answered, there is a strong policy incentive for local or national governments to develop and strengthen the supply of childcare. If public policy investment and equal opportunities are of interest, it is essential to know about the costs of childcare to parents and whether, and to what degree, childcare costs are publicly subsidized.

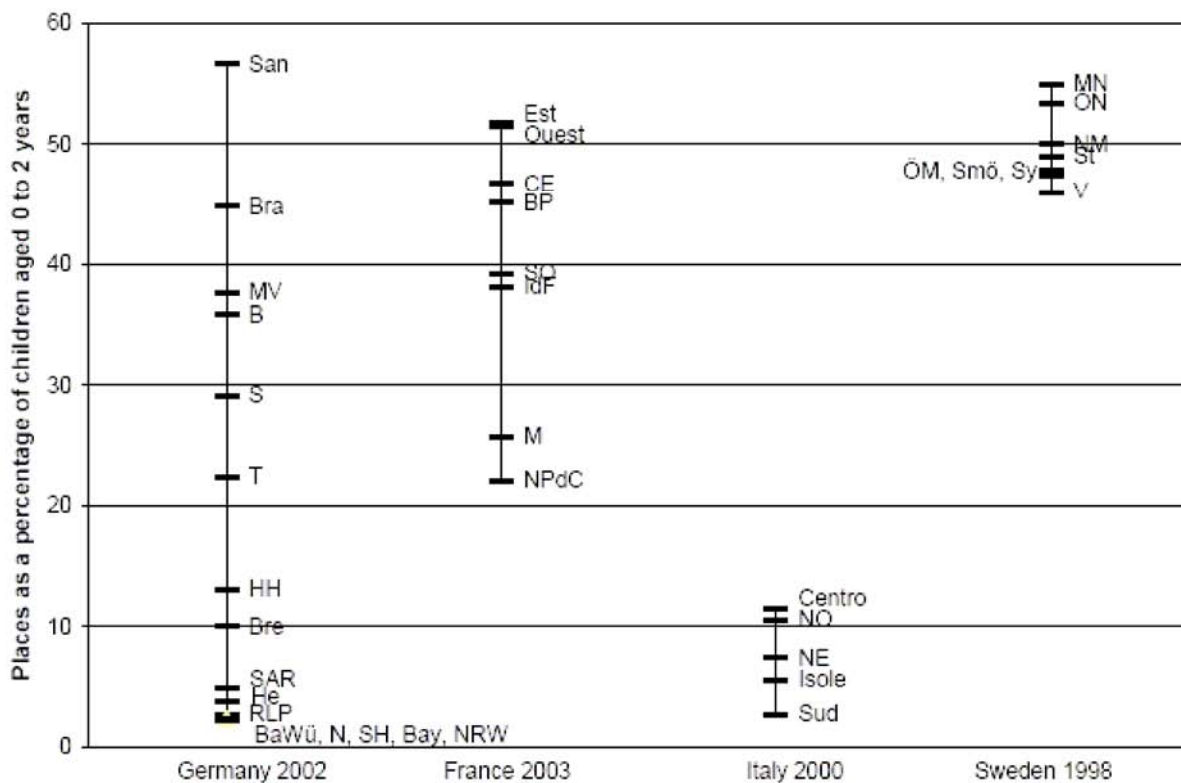
Some of this information is included in the new Multilinks Database on Intergenerational Policy Indicators. For instance, in addition to information on coverage by public or publicly subsidized formal services, the database includes information on individual entitlement to a childcare place and

on childcare costs for specific model families (at the moment for the year 2004 only). The database demonstrates the feasibility of a comprehensive database on childcare provision in Europe.

Future needs

For the future there is a need for better harmonized and more reliable data on childcare, which also take into account regional variations within countries. Data at the national level are often inadequate, in particular for countries where childcare provision is regulated by regions or municipalities and there are no national standards. The most striking case is Germany (see figure 2). Because of the divergent historical development of childcare policy in the former Federal Republic of Germany and the former German Democratic Republic, childcare provision in the “old” and the “new” federal states differs substantially. In some German federal states, the coverage rates for children aged 0 to 2 years were lower in 2002 than in southern Italy – which has one of the lowest coverage rates across Europe – whereas in two other federal states they were higher than, or as high as across Sweden, which in comparative terms has one of the most developed childcare provision systems for infants and toddlers. Apart from this historically unique situation in Germany, figure 2 shows that in three other countries there are large regional deviations within countries, in particular in France. Improved measurement should allow for differentiation at least of NUTS 1 regions, and thus enable more accurate insights.

Figure 2: Differences in public childcare coverage, by region



Germany (2002): BaWü (Baden-Württemberg); Bay (Bayern); B (Berlin); Bra (Brandenburg); Bre (Bremen); HH (Hamburg); He (Hessen); MV (Mecklenburg-Vorpommern); N (Niedersachsen); NRW (Nordrhein-Westfalen); RLP (Rheinland-Pfalz); SAR (Saarland); S (Sachsen); San (Sachsen-Anhalt); SH (Schleswig-Holstein); T (Thüringen).

France (2003): IdF (Île de France); BP (Bassin Parisien); NPdC (Nord - Pas-de-Calais); Est (Est); Ouest (Ouest); SO (Sud-Ouest); CE (Centre-Est); M (Méditerranée).

Italy (2000): NO (Nord-Ovest); NE (Nord-Est); Centro (Centro); Sud (Sud); Isole (Isole).

Sweden (1998): St (Stockholm); ÖM (Östra Mellansverige); Sy (Sydsverige); NM (Norra Mellansverige); MN (Mellersta Norrland); ÖN (Övra Norrland); Smö (Småland med öarna); V (Väst sverige).

Source: Blome, Keck and Alber 2009, p. 220.

References

Blome, Agnes, Wolfgang Keck, and Jens Alber (2009). *Family and the welfare state*. Cheltenham: Edward Elgar.

Del Boca, Daniela, and Marilena Locatelli (2006). "The determinants of motherhood and work status: A survey." Bonn: IZA Discussion Paper No. 2414.

European Commission (2002). "Presidency conclusions: Barcelona European Council, 15 and 16 March 2002." <http://ec.europa.eu/research/era/docs/en/council-eu-30.pdf> (accessed on 7 October 2011).

European Commission (2008). "Implementation of the Barcelona objectives concerning childcare facilities for pre-school-age children."

"<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0638:FIN:EN:PDF> (accessed on 18 October 2011).

Eurostat (2004). "Development of a methodology for the collection of harmonised statistics on childcare." Office for Official Publications of the European Communities, Luxemburg.

Eurostat (2011). "Childcare arrangements."

<http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=0&pcode=tsisc100&language=en> (accessed on 23 June 2011).

Istituto degli Innocenti (2010). "Il Piano straordinario per lo sviluppo dei servizi socioeducativi per la prima infanzia." http://www.politichefamiglia.it/media/64823/sintesi_nidi_2_20cop.pdf (accessed on 7 October 2011), Florence.

Lohmann, Henning (2009). "Konzept und Messung von Defamilisierung in international vergleichender Perspektive," in *International vergleichende Sozialforschung*, ed. B. Pfau-Effinger, S. Sakac Magdalenic and W. Christof, pp. 93–128. Wiesbaden: VS-Verlag.

Moss, Peter (2005). "Getting beyond childcare and the Barcelona targets," in *Wellchi Network Conference*. Oxford: L'Institut d'Infància iMón Urbà (CIIMU).

http://www.ciimu.org/webs/wellchi/conferenc_e_1/c1_moss.pdf (accessed on 7 October 2011).

Multilinks Database (2011). Multilinks Database on Intergenerational Policy Indicators. Version 2.0, Multilinks Project and Wissenschaftszentrum Berlin für Sozialforschung (WZB). <http://multilinksdatabase.wzb.eu> (accessed on 7 October 2011).

OECD (2007). *Babies and bosses: Reconciling work and family life: A synthesis of findings for OECD countries*. Paris: OECD Publishing.

OCED (2011). "Enrolment in childcare and preschools."

<http://www.oecd.org/dataoecd/46/13/37864698.pdf> (accessed on 7 October 2011).

Plantenga, Janneke, and Chantal Remery (2008). "The provision of childcare services: A comparative review of thirty European countries." EU Expert Group on Gender and Employment (EGGE). Fondazione Giacomo Brodolini, Roma.

http://www.fgbegge.it/public/documets/Synthesis%20Report_the%20provisional%20childcare%20services.pdf (accessed on 7 October 2011).

Plantenga, Janneke, Chantal Remery, Melissa Siegel, and Loredana Sementini (2008). "Childcare services in 25 European Union member states: The Barcelona targets revisited," in *Childhood: Changing contexts*, ed. Arnlaug Leira and Chiara Saraceno. Bingley: Emerald, pp. 27–53.

Notes

* This paper has also been published as Insights n. 1 of the Multilinks data base at the WZB (<http://multilinks-database.wzb.eu/pdf/insight-no-1.pdf>)

¹ The results are intended to indicate use, not enrolment To describe the EU-SILC data on childcare usage as data on enrolment (as, for instance, in OECD 2011) is misleading. Enrolment refers to an administrative procedure and suggests that the data are based on registered information collected from childcare institutions, which is not the case for the EU-SILC data.

² Two country-specific problems emerge. According to the micro-data in Ireland, more than 20 percent of parents with children younger than six years of age do not respond to the question on preschool childcare. There seems to be a coding error. For Norway, it seems that the question on childminders was not asked, yet it appears as a non response in the data.

³ In some countries, such as Ireland, respondents are asked about the sum of their direct childcare costs, but there is no consistent approach across countries.