PF3.2: Enrolment in childcare and pre-schools

Definitions and methodology

The organisation of childcare provision differs greatly from country to country (see PF4.1). The enrolment rates presented here for 0 to 2 year olds concern formal childcare arrangements such as group care in childcare centres, registered child-minders based in their own homes looking after one or more children and, care provided by a professional child-minder at the home of the child.

Enrolment rates for 3 to 5 year olds concern those enrolled in formal childcare, as mentioned above but mainly in formal pre-school services, and also in some countries in primary schools for children aged 4 and 5 year (PF4.3 discusses out-of-school-hours provision). Thus, in this indicator, all children aged 3-5 enrolled in day-care facilities and pre-schools are included.

To get more comprehensive view of childcare across countries, participation rates are also presented as the full-time equivalent (FTE) of the proportion of children if they were receiving formal childcare for 30 hours per week. Thus the full-time equivalent rate (FTE) is defined as: *FTE = Proportion of children attending formal childcare * average number of hours of attendance per week / 30.*

For some countries enrolment rates can be calculated by single years of age, but for many other countries enrolment rates for children under 3 years are only available for the three-year age cohort. Thus, for the youngest children (under 3) we only present aggregated age group data. By contrast, for children aged 3 to 5, yearly enrolment rates have been calculated as data are available by single years of age for most OECD countries.

Key findings

Chart PF3.2.A presents average enrolment rates for the age-groups 0-2 (panel A) and 3-5 (panel B). Panel A shows wide variation in childcare participation among children under 3 year across OECD countries. On average, across OECD countries for which data is available, around 33% of children under the age of three used childcare facilities in 2010. However, while enrolment rates of young children were less than 10% in Bulgaria, the Czech Republic, Mexico, Poland, Romania and the Slovak Republic, more than 50% of children in this age group were enrolled in formal childcare in Denmark, Iceland, Korea, the Netherlands and Norway. (*For data on federal countries, see the comparability and data issues section.*)

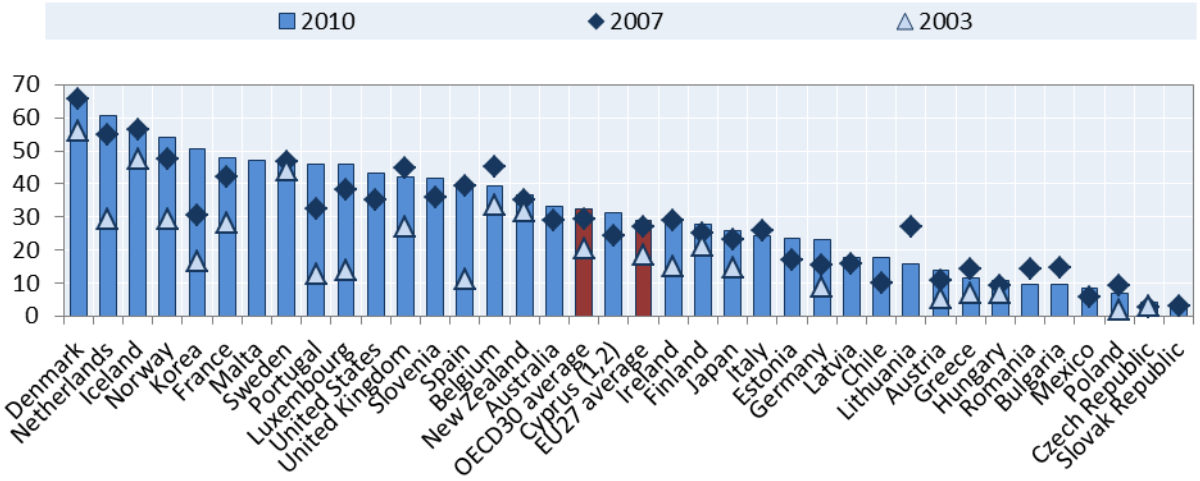
The proportion of children aged 3-5 enrolled in pre-school services is much higher than childcare participation for very young children. In around two-third of all OECD countries, at least 70% of children in this age group were enrolled in formal childcare or pre-school programmes in 2010. Enrolment rates were particularly high, with practically universal coverage, in Belgium, France and Spain. Conversely, participation rates among 3-5 year olds are close to or below 50% in Canada, Greece, Switzerland and Turkey.

Table PF3.2.A provides further breakdown of enrolment rates for children aged 3, 4 and 5 years individually, for countries for which data are available.

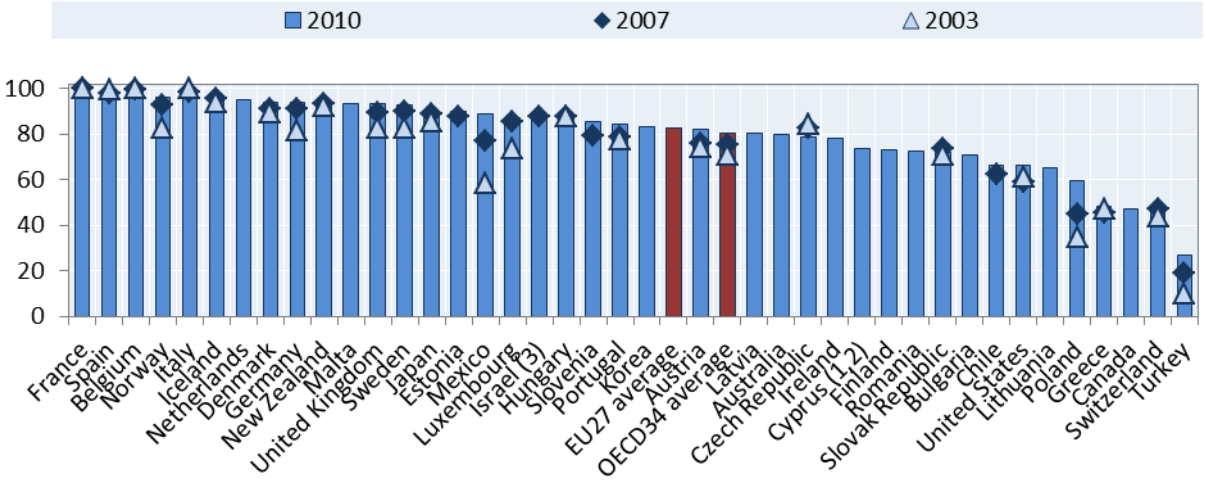
Other relevant indicators: PF3.1: Public spending on childcare and early education; PF3.4: Childcare support; PF4.1: Typology of childcare and early education services; PF4.2: Quality of childcare and early education services; and, PF4.3: Out-of-school-hours care.

Chart PF3.2.A: Participation rate in childcare and pre-school services among children aged 0-5 years, 2010

Panel A: Average enrolment rate of children under 3-years of age in formal childcare



Panel B: Average enrolment rate of children aged 3-5 years of age in pre-school educational programmes



1) Footnote by Turkey: The information in this document with reference to « Cyprus » relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of United Nations, Turkey shall preserve its position concerning the "Cyprus issue". 2) Footnote by all the European Union Member States of the OECD and the European Commission: The Republic of Cyprus is recognized by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus. 3) The data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Sources: For children 0-2: Australia, ABS Childcare service (2010); Canada, National Longitudinal Survey of Children and Youth (2010); Japan, Statistical Report on Social Welfare Administration and Services (2010); New Zealand, Education Counts' statistics (2010); the US, Early Childhood Program Participation Survey (2010); Nordic countries: NOSOSCO (2010-11); Other: National Authorities. For children 3-5: OECD Education database; Canada, National Longitudinal Survey of Children and Youth (2010); Korea, Ministry of Health and Welfare (2010), and EU-SILC 2010 for other European countries.

Table PF3.2.A: Participation rates in formal care and pre-school for children under six, 2010

	Enrolment in formal care and pre-school by age (%)					Expected years in education for 3 to 5 year olds
	Under 3 years	3 years	4 years	5 years	3 to 5 years	3 to 5 years
Australia	33.2	37.6	78.1	100.0	80.1	1.6
Austria	13.9	56.7	89.9	99.1	81.9	2.3
Belgium	39.2	98.8	99.1	99.0	99.0	3.0
Bulgaria	9.6	64.3	71.7	76.1	70.7	2.1
Canada	..	6.2	32.2	89.7	47.3	1.6
Chile	17.6	27.1	84.7	87.9	66.5	1.9
Cyprus (1,2)	31.4	45.1	75.2	100.0	73.4	2.2
Czech Republic	4.0	57.5	86.0	94.3	78.9	2.4
Denmark	65.7	96.7	97.9	87.8	94.1	2.7
Estonia	23.6	86.1	92.0	91.2	89.8	2.7
Finland	27.7	..	..	..	73.0	2.2
France	48.0	100.0	100.1	102.1	101.1	3.0
Germany	23.1	88.0	96.5	96.9	93.9	2.8
Greece	11.3	1.7	54.1	89.7	48.3	1.4
Hungary	10.9	71.7	92.1	96.2	86.7	2.6
Iceland	55.7	95.2	95.3	96.5	95.6	2.9
Ireland	28.8	35.2	76.8	100.0	78.5	1.7
Israel (3)	..	79.8	86.5	95.0	87.0	2.6
Italy	24.2	93.0	96.8	97.3	95.7	2.9
Japan	25.9	75.8	96.1	98.5	90.3	2.7
Korea	50.5	76.6	82.5	89.5	83.1	2.4
Latvia	17.7	71.0	78.6	92.1	80.6	2.4
Lithuania	15.6	61.4	65	70.0	65.5	2.0
Luxembourg	45.8	70.7	96.6	94.8	87.3	2.6
Malta	47.2	83.0	97.6	100.0	93.5	2.8
Mexico	8.3	40.5	99.4	100.0	88.9	2.5
Netherlands	60.6	28.3	99.5	99.3	95.3	2.0
New Zealand	36.8	86.9	94.6	99.4	93.6	2.8
Norway	54.0	94.0	97.1	97.6	96.2	2.8
Poland	6.9	48.5	60.5	70.2	59.7	1.4
Portugal	45.9	68.0	86.2	97.5	84.1	2.4
Romania	9.7	55.3	75.8	86.4	72.5	2.2
Slovak Republic	3.0	61.1	73.0	81.6	71.7	2.2
Slovenia	41.8	77.8	87.6	92.0	85.8	2.3
Spain	39.3	98.3	99.4	100.0	99.3	3.0
Sweden	46.7	90.4	93.6	94.7	92.9	2.7
Switzerland	..	8.5	38.5	92.1	46.5	1.4
Turkey	..	5.9	16.2	58.6	27.0	0.7
United Kingdom	42.0	83.0	97.9	99.4	93.3	2.8
United States	43.2	47.1	68.4	84.2	66.5	1.7
OECD -average	*32.6*	*63.0*	*82.4*	*92.1*	*80.6*	*2.3*
EU 27 -average	*29.0*	*68.2*	*85.1*	*91.3*	*82.6*	*2.5*

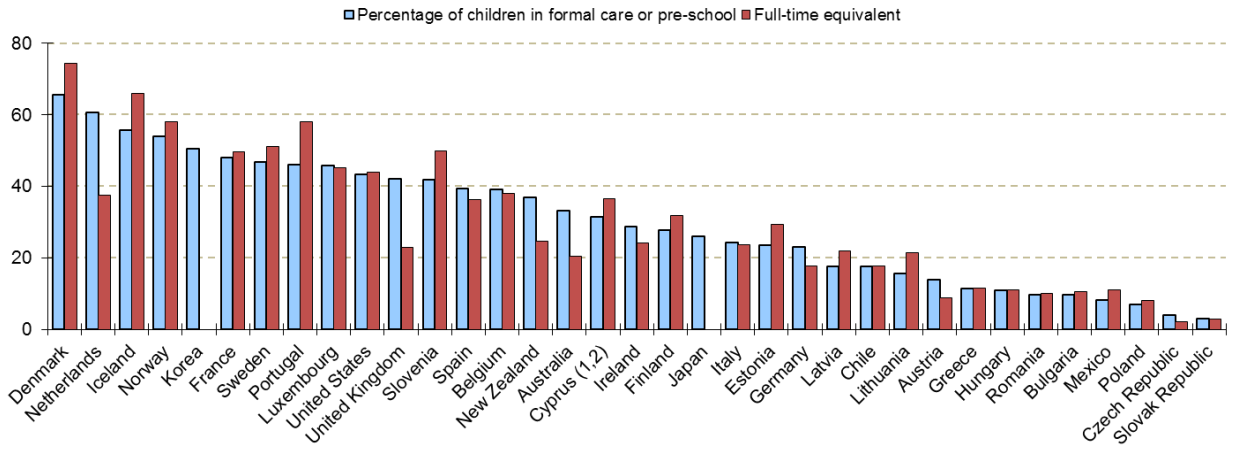
Notes: 1) and 2) see notes (1) and (2) for Chart PF3.2.A. 3) see note (3) for Chart PF3.2.A. Sources: see sources for Chart PF3.2.A.

The intensity of childcare use varies considerably across countries, and is not fully reflected in Chart PF3.2.A and Table PF3.2.A. For example, in Sweden very young children typically participate for 6 hours per day for 5 days a week, while in the Netherlands participation in formal childcare for only one or two days per week is not uncommon. The full-time equivalent rates (FTE) in Chart PF3.2.B try to capture differences in intensity of childcare use for children not yet 3 year of age for those countries based on expected length of 30 hours of childcare per week for a child (see *Definitions and methodology*).

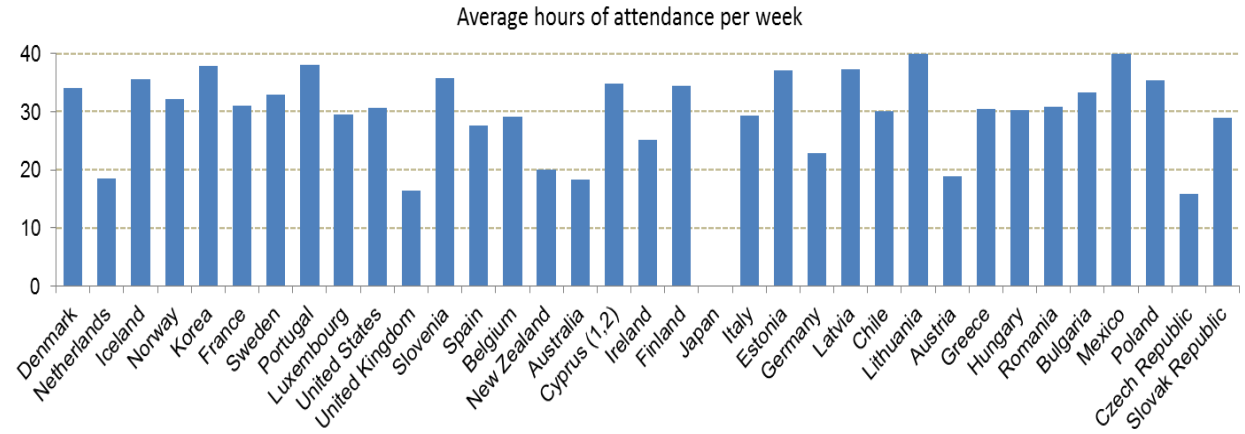
Participation rates decrease in several countries after adjusting for intensity of use. For instance, in the Netherlands, 61% of children ages 0-2 attend formal childcare services, but the average number of hours in childcare is 19 hours per week (Panel B), which leads to a full-time equivalent enrolment rate of 37% in the Netherlands. Similarly, in the United Kingdom, while 42% of very young children received formal childcare in 2010, the full-time equivalent rate was 23%. By contrast, in countries like Denmark, Iceland and Portugal, full-time equivalent rates are considerably higher than participation rates as many children use formal childcare for over 30 hours per week.

Chart PF3.2.B: Full-time equivalent participation rates for children under 3 years of age, 2010

Panel A: Enrolment rates of children under 3 years of age, and full-time equivalent rates



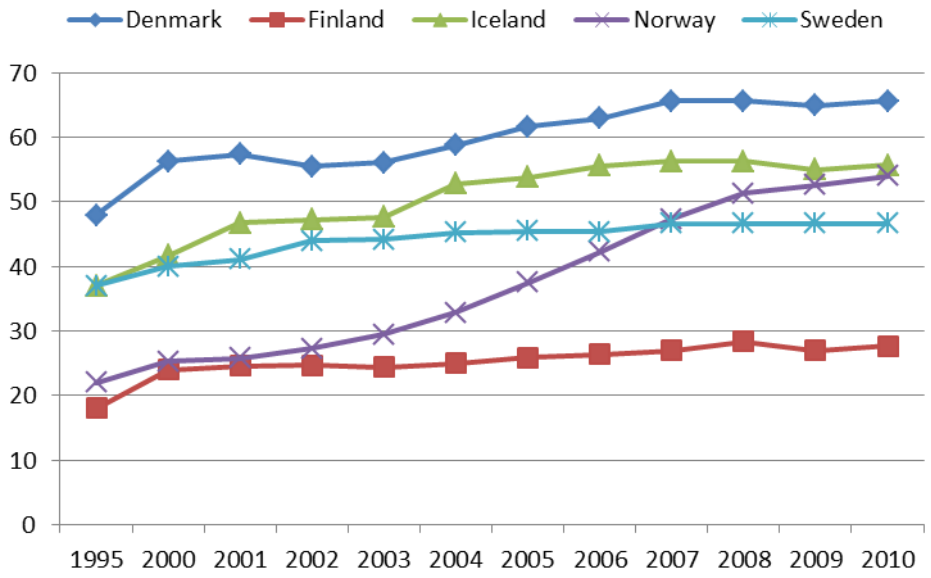
Panel B: Average weekly hours in child-care among children under 3 years of age



Countries are ranked in descending order of overall enrolment rates for children aged under 3 years.
Notes: 1) and 2) see notes (1) and (2) for Chart PF3.2.A.
Sources: See sources for Chart PF3.2.A.

In Nordic countries, the participation in formal childcare of children not yet 3 year olds has increased over time. Between 1995 and 2010, there has been an average rise of 18 percentage points across the five countries. The country with the largest increase over this period is Norway (32 percentage points). However, Denmark continues to be the country with the highest childcare enrolment rates for under-three-year olds among Nordic (and OECD) countries with a rate of 66% in 2010.

Chart PF3.2.C Participation in formal childcare and pre-school for children under 3 years of age, 1995-2010



Source: NOSOSCO (2012-2013) and NOMESCO (http://nom-nos-indicators.skl.se/sif/start/)

Comparability and data issues

Data on the participation of very young children (under 3 years) in formal day-care services have been taken from different sources: the ABS Childcare survey 2010 in Australia; the National Longitudinal Survey of Children and Youth 2010 in Canada; the Early Childhood Program Participation Survey 2010 in the US; EU-SILC 2010; Germany: administrative data; Korea: Ministry of Health and Welfare; the NOSOSCO reviews of social protection in Nordic Countries and various publications by National Statistical Offices and national sources.

Estimates of childcare enrolment rates for children under 3 years using EU-SILC survey include the following type of services: childcare at a day-care centre, childcare by a professional child-minder at child's home or at a child-minder's office, and education at pre-school or equivalent (e.g. kindergarten, nursery school, assilo nido). According to EU-SILC's definitions the child-minder category may include a relative, friend, neighbour or baby sitter if the carer received a payment for this activity.

Where children are enrolled in more than one part-time programme the issue of double counting arises. For example, in some countries, kindergartens are only open for a half a day. It is therefore possible that a child could attend kindergarten in the morning and then family day care in the afternoon, which could over-estimate participation rates in certain countries if administrative data does not facilitate identification of the same child by the two systems. Estimates using EU-SILC data do not present this problem: when children are reported to attend more than one childcare service, the child is only counted once in overall enrolment rates.

In some countries (including Canada, Switzerland and the United States) where early care and education supports are delivered and/or partially or entirely financed by local government, central recording of enrolment data maybe incomplete, and thus the reported data may underestimate the "true" participation rate. In the case of Mexico, data does not include services provided by the private sector, which account for a substantial part of childcare participation.

Canadian data are from the National Longitudinal Survey of Children and Youth (2010). This survey does not include children living in the territories, children living on First Nations reserves and children living in institutions. Availability of kindergarten programmes vary by province since the Canadian educational system is provincially regulated.

Enrolment rates of 3-5 year olds are mainly sourced from the UOE Education data collection (an inter-organisational data collection undertaken jointly by UNESCO, OECD and EUROSTAT) based upon head counts. Pre-school programmes are classified as ISCED 0 (ISCED refers to education levels as described by the International Classification of Education) where education programmes must be centre- or school based and designed to meet the educational and developmental needs of children. In some countries however, a significant number of 4 and 5 year olds are enrolled in primary school programmes (ISCED 1), as for example, in Australia, Ireland, New Zealand and the United Kingdom. While in other countries, such as the Nordics, 6-year olds maybe be attending pre-school. Enrolment rates presented here include all children aged three to five inclusive, irrespective of the ISCED-level under which they are classified.

Different sources use different methods of data collection which may further hamper international comparisons. Enrolment in pre-school facilities presented in the *OECD Education database* is based upon actual numbers of students participating in these programmes and a percentage is calculated by using population data as a denominator. The same rule applies to some countries who collect actual enrolments in childcare facilities for the under threes. In other countries, however, data on childcare facilities has been collected through the medium of household surveys (EU-SILC, for example) and its quality may be affected by sample size and sample selection issues. Enrolment rates as in EU-SILC are broadly in line with the administrative data for countries for which both sources are available. For Nordic Countries, administrative data are used as it facilitates trend analysis. There are sample selection issues with the German EU-SILC survey (Hauser 2008), which suggest that EU-SILC is likely to overestimate childcare enrolment rates. For this reason the administrative data from the German Statistics Office are used (https://www-ec.destatis.de/csp/shop/sfg/bpm.html.cms.cBroker.cls).

Sources and further reading: OECD (2011) *Doing Better for Families*; OECD (2009) *Doing Better for Children*; *OECD Babies and Bosses* (various issues); *Early Childhood and Education in Europe: Tackling Social and Cultural Inequalities* (2009); NOSOSCO, *Social Protection in Nordic countries* (various issues); *OECD, Education at a Glance 2013*; *OECD Starting Strong* (4 issues and various country notes); and various national sources; Richard Hauser (2008)"Problems of the German Contribution to EU-SILC: A Research Perspective, Comparing EU-SILC, Microcensus and SOEP", SOEP papers 86, DIW Berlin, The German Socio-Economic Panel (SOEP).