



**HOUSEHOLD SATELLITE ACCOUNT  
(EXPERIMENTAL)  
METHODOLOGY  
Chapter 6 Providing Childcare**

Sue Holloway  
Sandra Short  
Sarah Tamplin  
Office for National Statistics

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## 6. PROVIDING CHILDCARE

This is part of the principal function, providing care and education, where the output is “care services to children, the sick and the elderly”. We have divided it into two main categories – childcare and adult care. Providing education is conceptually different from providing care, but is not currently separately identified in this account.

### Output

#### *Concepts*

We have information on the numbers of children in each age group in the population. We know that the requirement for childcare varies with age, the cost and availability varies throughout the day and that different levels of provision are required in term-time and school holidays. We are able to calculate the number of population (child) hours in a year and to allocate them to four different types of day – weekday (term-time), weekday (school holiday but working week), weekday (holiday), weekend day. These are multiplied by the appropriate number of days in the year, to give the total child hours which need to be accounted for in each year.

We can allocate all the information we have on formal care (childminders, nurseries, school places, hospital beds, foster care, out of school clubs etc.) to the different types of day and different times of the day. By subtracting this from our child hours, we can estimate informal care by time of day and type of day, including assumptions about time spent alone as children grow older.

The definitions of formal and informal childcare vary between different surveys and projects. Formal childcare can be defined as provision that is registered and paid for, e.g. registered childminder places for the under 8s. Information on registered and paid childcare provision is collected by national surveys such as the DfEE (now DfES) Children’s Day Care Facilities. Another definition of formal childcare is care which is formalised by payment but unregistered, e.g. unregistered childminders (childminders who work for less than 2 hours a day, as defined by the Care Standard Bill 99/00) and nannies.

Informal childcare is often defined as unpaid care. This usually refers to care given by family members such as grandparents and siblings, as well as friends. Babysitting is probably the most significant example of this type of care, although carers could be “paid” in favours or by small gifts. (Babysitters are defined in the Care Standard Bill as looking after a child between the hours of 6.00 p.m. and midnight on day one and 12.01 to 2.00 a.m. on day two, and at no other time on these days acting as a childminder.) This definition of informal care does not usually include care given by parents. Alternatively, informal childcare can be defined as care which is unregistered even if paid for, so paid babysitters could fall into this category. This is still referred to as informal care because the arrangements are not formalised with contracts or employment rights.

As most of the childcare carried out by the household members or their networks (family members or neighbours) could be delegated to another person, it is deemed to be part of the productive role of households. We have not tried to distinguish between physical acts of supervision or help and the building of parent-child relationships, which obviously cannot be delegated. Therefore the HHS definition of informal childcare is all care which does not involve a monetary transaction. It is the total amount of childcare required (total number of

children in the population multiplied by twenty four hours a day) less any formal childcare, defined as all paid childcare, whether it is registered or unregistered. However, we have not been able to include in our estimates some paid care, which we know takes place, but for which we have been unable to find any data. This includes care by babysitters and au-pairs, as well as out-of-school clubs and holiday play schemes for children over 8 years old. If and when such data becomes available, it will be included in the estimates.

As children get older, some of them are left unsupervised for varying amounts of time. An allowance has been made for this, so that the amount of informal care is reduced for older children. There is limited hard data on the actual amount of unsupervised time. If, in fact, the assumptions we have made lead to informal childcare being underestimated (i.e. we have included too much unsupervised time), this will be offset to some extent by the unmeasured formal care which has not been included.

By using a residual approach to estimate informal childcare we are accounting for all the time a child needs supervision. This supervision can be 'active' or 'passive'. Passive care includes the time when an adult may not be directly interacting with the child, but is still responsible for them. The important point is that if no unpaid carer were available, a third person would have to be paid to take their place. Therefore passive care is part of the productive role of households and is included in our estimates.

One simple way of distinguishing between passive and active childcare is to look at waking and sleeping time. If we assume a child under 5 sleeps for twelve hours, we can say that 50 per cent of their childcare is passive, and so on. Using a set of assumptions about the relative proportions of waking and sleeping time for children of different ages as proxies, we can value separately active and passive informal childcare.

## **Inputs**

### *Intermediate consumption*

This includes toys and books etc., as well as any relevant housing and transport costs.

### *Household capital consumption*

This includes specialist equipment – cots, pushchairs etc.

### *Related services*

This includes any shopping related to childcare.

### *Labour*

Typically time spent caring for children is underestimated in Time Use diaries because it is an activity which often takes place at the same time as other activities. Allowing respondents to list main and secondary activities will hopefully improve the estimates.

## **Methodology**

### *Data sources*

Administrative data on formal childcare places, including schools, is available from the Department for Education and Skills for England and the constituent countries for the rest of the UK. Data on hospital, children's homes and foster places comes from the Department of Health for England and the constituent countries for the rest of the UK. Much of this

information is available for the last 10 years or more. Other information – on out-of-school clubs etc. – is collected by surveys. It is available only on a UK basis and is collected only sporadically. We have pro-rated this data to give a more complete pattern of childcare in the constituent countries and over time.

### *Formal Hours*

Information on different types of formal care has been collected for each UK country. This mainly takes the form of the numbers of childcare places available, and in all cases we have assumed 100 per cent take-up of places. The requirement for and use of formal childcare varies for children of different ages, so the places have been allocated to the following categories:

Age Group 1	under 5 years old
Age Group 2	5-10 years old
Age Group 3	11-15 years old

As formal childcare availability varies by the time of the year, the year has been split into four types of day:

Weekend	= 104 days
Week Day - School Day	= 180 days (36 weeks x 5 days)
Week Day - Working Holiday	= 28 days (4 weeks x 5 days plus 8 bank holidays)
Week Day - School Holiday	= 53 days (12 weeks holiday minus working holiday and bank holidays)

The estimates for each age group by time and type of day have been aggregated to obtain a figure for the total number of hours spent by all children in the UK in formal care in any one year.

### *Assumptions*

For each separate type of day and age group, assumptions have been made about the length of time the various types of childcare provision are available. For example, an average school day is assumed to be 6.5 hours long, and includes lunchtime supervision at school. Assumptions about the average length of day spent with a childminder are based on the childcare module from the DSS (now DWP) Family Resources Survey, which asks for average weekly hours used in term-time and during school holidays. This suggests that, in those households using childminders, on average under 5s spend 25 hours per week with them, while 5-10s and 11-15s spend 10 hours per week with them. Information from the DfES on Children's Day Care Facilities suggest that, on average, playgroups offer 5 sessions per week, so we have assumed one 3-hour session per day per playgroup place. We have assumed that day nursery places are filled for 5 hours each day, that out-of-school clubs run for two hours on each weekday in term-time, and that holiday clubs are open for 6 hours each weekday during the school holidays.

We have assumed those children in foster places and children's homes are cared for 24 hours a day all year round, with the exception of attending school for 6.5 hours a day. Similarly, full time boarders are assumed to be in formal care 24 hours a day on school days and at weekends. Weekly boarders are assumed to be in formal care 24 hours a day on weekdays in term time. This means that for some individual children we may be double counting the total number of hours spent in formal care. For example, a foster child, a child living in a children's home or a boarder may attend other formal care activities. They may attend a

holiday play scheme, or out of school club. Due to this double counting, the total number of formal hours may be slightly over estimated, which will result in an underestimate of informal hours.

Assumptions have also been made in order to divide the data on places between the three different age groups. If the data is already broken down into different age groups from the ones outlined above, then the data is prorated using the UK country and year specific population age structure. If only the total number of children in a care category is available, then the proportion in each age group from the England data has been applied to the total numbers. Finally, if data is split down into the age groups for only some years, then the average split between the age groups has been applied to the years when only the total is available. Missing data points have been estimated by predicting the trend between existing data points.

The total number of children in the population in Great Britain (as estimated by the Population Estimates Unit, ONS) is higher than the total number of pupils on the school rolls (aggregating estimates from DfES, the Scottish Executive and the Welsh Assembly). We have assumed that the number of children who are not accounted for in the school rolls are those children who are taught at home, children who are under special arrangements for the education of travellers' children, or refugees and asylum seekers. As the population figures are estimates only and the school rolls and population figures are often taken at different times of the year, this will also account for some of the differences. For Northern Ireland, however, there is the additional problem that the number of pupils attending school from across the land-border cannot be separated from those resident in Northern Ireland. The number of school places in Northern Ireland is much higher than the relevant population figures. Therefore we have assumed that all 5-15 year olds resident in Northern Ireland attend school there, and the population figures have been used in place of the number of school places.

Full details of the data sources and assumptions made about each type of formal provision can be found in Annex 6.1, at the end of the chapter.

### *Informal Hours*

We estimate the volume of informal care by subtracting the hours spent in formal care plus an allowance for the hours a child aged 12-15 may be left unsupervised, from the child population multiplied by the total number of hours in a year. As with formal care, the total hours of informal care can be broken down by age group and time and type of day.

### *Assumptions*

The assumption about the time children aged between 11 and 15 spend unsupervised is critical in calculating informal hours, and is perhaps the hardest to support with hard evidence. To estimate the number of hours spent in informal care, the number of hours a child is left unsupervised needs to be subtracted from the total population hours in addition to the hours spent in formal childcare activities. This time unsupervised by adults could be when a child is spending time with their friends, being looked after by an older sibling or on their own.

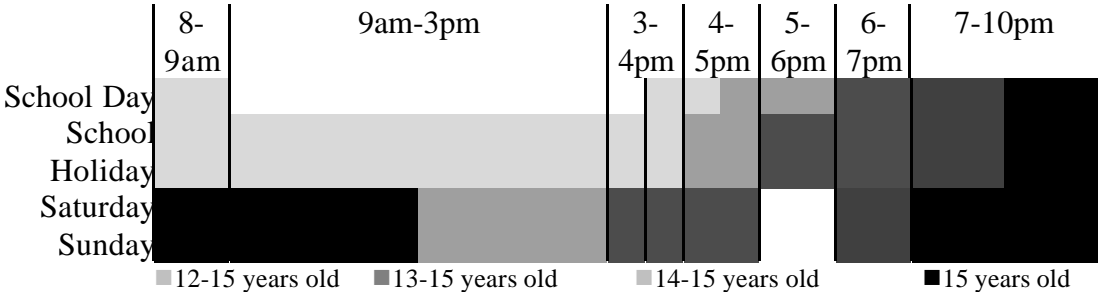
The data available on when children are left unsupervised by their parents is very sensitive to reporting errors, due to social norms and beliefs about the amount of time children should spend alone. A survey carried out by Kids. Club Network in 1997, sponsored by Nestlé, estimated that 6 per cent of children return home to an empty house. The sensitivity of the

issues suggests that there is under-reporting by parents, which leads Kids. Club Network to estimate that the true figure would be closer to 9 per cent. The Family Working Lives Survey carried out by DfES in 1996 found that 5 per cent of respondent households reported that their school age children look after themselves in term-time and school holidays, and 2 per cent reported that they were looked after by an older sibling. Because of the lack of data about the length of time left unsupervised, we have started from the working assumption outlined below.

In the HHSA we have assumed that no child aged 11 or under is left unsupervised and that 10 per cent of 12 year olds, 20 per cent of 13 year olds, 30 per cent of 14 year olds and 50 per cent of 15 year olds spend time without adult supervision. In every case, we have not included any allowance for time spent unsupervised during four weeks holiday plus Bank Holidays. These assumptions can be interpreted as a mix of two extremes. We could say that 10 per cent of children aged 12 are left unsupervised all the time. We could also say that out of 337 days (365 days minus 4 weeks paid holiday of carer minus 8 days bank holiday) an individual 12-year-old would spend a total of 10 per cent of their time unsupervised.

As Chart 6.1 (below) shows, for a 12 year old, this unsupervised time could typically include an hour in the morning before school, plus an hour and a half after school (e.g. walking themselves to and from school), plus being left unsupervised by an adult between 8.00 a.m. and 4.00 p.m. in the school holidays, while a parent is at work. This scenario assumes no time unsupervised in the evenings or at the weekends. For a 15-year-old, the assumption includes the same times of day as a 12-year-old, plus additional hours after school on school days, in the evenings in the school holidays and at the weekend.

**Chart 6.1 Unsupervised time**



Source: HHSA assumptions

Informal care in the HHSA is therefore care of children by adults, as care of children by other children is included in the assumption of time unsupervised.

*Value*

As mentioned earlier the requirement for and use of informal childcare varies for children of different ages, as well as by different times of the day and different days of the year. It is possible to value all informal hours at a single market price or to take into consideration the time of the year, time of the day and the age of the child. Because we are valuing the output of childcare, i.e. the number of children cared for multiplied by the total time in a year when they receive this care, the market price must also be a rate per child.

The services provided by an employed live-in nanny are deemed to be the nearest market equivalent to the services provided by parents and other informal carers, so their rate per child hour has been used to value informal care. The wages of live-in nannies have been taken from the Professional Nanny/Nannytax Annual Survey, which gives average wages by geographical area and for the UK. The average weekly net wages are given in Table 6.2.

**Table 6. 2**  
**Average Weekly Net and Gross Wages - Live-in Nanny 1995 – 1999**

Year	Net	Gross wage and National insurance contributions
1995	£113	£119
1996	£131	£171
1997	£136	£177
1998	£139	£180
1999	£169	£223

Source: PN/Nannytax Annual Survey of Nannies' Wages 1999, Nanny Tax Payroll Services

As the table shows, there have been sharp increases in average wages between 1995 and 1996, and between 1998 and 1999. While there are likely to be many factors which have caused this growth, one of the key influences in the latest increase is the introduction of the National Minimum Wage in April 1999. A shortage of nannies may also have led to an increase in their average wage.

The averages in Table 6.2 conceal considerable variation. Daycare Trust found that, in 2000, the average monthly cost of a nanny ranged from £540 to £1340 per month, an estimated £135-£335 per week. The PN/Nannytax Annual Survey also found considerable regional variation, with the net mean hourly wage for the East Midlands at £3.90 but £4.30 in the South East. We have used the average wage for other cities, i.e. excluding London.

#### *Payment in kind*

A live-in nanny is paid not just in wages but also in accommodation and food, with some nannies receiving additional perks such as the use of a car. Because of this, the live-in nanny wage rate is lower than the daily nanny rate. The PN/Nannytax Annual Survey of nannies' wages found that the net weekly wage rate for 1999 for a live-in nanny was £169. For a daily nanny this was £196 per week. We have made an adjustment for payment in kind using data from the Agency Nannies Training Survey 1999, comparing the live-in and daily rate for nannies working the same number of hours per week. This results in an upward adjustment to the net wage rate of 8.5 per cent and the gross wage rate of 10 per cent.

#### *Rate per child hour*

Nannies do not charge for their services by the hour or per child. Based on the findings of the Annual Nannies Survey 1999, we have assumed that the average live-in nanny works 48 hours a week looking after an average of 2 children. This information is used to adjust the gross and net weekly wages and the rate per child hour is shown in Table 6.3 below. In order to be consistent with the other output measures, which are at purchasers' prices, the gross wage is used to value informal childcare.

**Table 6.3 Estimated rate per child hour (net and gross) 1995 - 1999**

Year	Net	Gross wage and National insurance contributions
1995	£1.28	£1.38
1996	£1.48	£1.97
1997	£1.54	£2.03
1998	£1.57	£2.07
1999	£1.91	£2.56

Source: HHSa estimates

#### *Sensitivity Analysis*

We tested for the sensitivity of our results to the time 11-15 spend alone, by altering our assumptions about the numbers of children who are left unsupervised. Firstly, we increased the proportions of each age group by 10 percentage points, so that 10 per cent of 11 year olds, 20 per cent of 12 year olds, 30 per cent of 13 year olds, 40 per cent of 14 year olds and 50 per cent of 15 year olds spend their non-school time unsupervised. Secondly, we assumed that no child under 16 is ever left unsupervised.

We tested our assumption, that the difference between the number of school places and the child population is accounted for by informal childcare, by assuming that no informal care of school age children occurs during the school day, i.e. between the hours of 9.00 a.m. and 3.30 p.m.

Our assumption that all children in foster homes and children's homes are not receiving any additional formal care is likely to have a negligible impact on the estimates, as less than 0.5 per cent of the UK under 16 population are in care.

We tested our assumption about 100 per cent take-up of formal places, by assuming that only three-quarters of formal childcare places are taken up.

## Annex 6.1 Childcare Assumptions

CARERS	Coding Issues	Assumptions	Other Data Issues
Childminders	<p>England</p> <ul style="list-style-type: none"> <li>Raw Data - DfEE: 1988-1991 under 5s. 1991-1999 under 8s.</li> <li>HHSA age split - Percentage split for 1991 and 1992 for the two age groups applied to all years (90% under 5s, 10% 5-7).</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>Raw Data – DHSSPSNI<sup>1</sup>: 1988-1997 under 8. 1997-1999 under 5 and "other" category. 1997 -1999 data on sponsored childminders and registered childminders. No data on sponsored childminders prior 1997.</li> <li>Calculations - Estimate 1998 childminder figures. To be consistent with other country data assume all childminder places are for under 5s or 5-7s: childminders for under 8s are recorded in 5-7 age group. 1997-1999 assumes "other category" is 5-7's.</li> <li>HHSA age split - Percentage split 1997-1999 for the two age groups applied to all years.(51% under 5s, 49% 5-7)</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>Raw Data - Scottish Abstract of Statistics: 1988-1998 under 8s. 1997 age split for under 5s and under 8s.</li> <li>Calculations - Estimate 1998. To be consistent with other country data assume that all childminder places for under 5s or 5-7s: childminders for under 8s are recorded in 5-7 age group.</li> <li>HHSA age split - Applied 1997 age split to all years(58% under 5s, 42% 5-7)</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>Raw data -Welsh Office:1988-1998 total places.</li> <li>HHSA age split - no data points to estimate an age breakdown so assume 50/50 split base on the evidence that Northern Ireland and Scotland is approximately 50/50 %.</li> </ul>	<p><b>Under 5's</b> 9 hours per day (0800-1700): school day &amp; school holiday</p> <p><b>5-7s</b> 3 hours per day (0800-0900 &amp; 1500-1700): school day 9 hours per day: school holiday.</p> <p><b>7-11s</b> assume no childminder places (data on places for under 8s only)</p> <p><b>All</b> Assume 100% take up of places. This may be an over estimate in the number of childminders but could offset unregistered paid childminders.</p>	<ul style="list-style-type: none"> <li>Using an estimate to calculate the split between under 5's and 5-7 from the total childminders figure affects the total number of informal hours spent in childcare.</li> <li>If the valuation of childcare for under 5s is at a higher rate than the 5-7s, then the total hours spent in care with a childminder is more crucial.</li> </ul>
Nannies	<p>UK</p> <ul style="list-style-type: none"> <li>Raw Data - Labour Force Survey:1988-1999 number of nannies.</li> <li>Calculations - applied average number of dependent children (1.8) to approximate number of children looked after.</li> </ul>	<p><u>8 hours per day:</u> <u>school day, school</u> <u>holiday and</u> <u>weekend</u></p> <p>Assume under 8 only.</p>	<ul style="list-style-type: none"> <li>Estimate may include other jobs such as Dinner supervisor</li> </ul>

UNDER 5s	Coding Issues	Assumptions	Other Data Issues
Day Nursery	<p>England</p> <ul style="list-style-type: none"> <li>• Raw Data - DFEE:1988-1999 total places.</li> <li>• HHSa age split - all day nursery for under5's.</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>• Raw Data - Scottish Abstract of Statistics:1994-1997 total places.</li> <li>• HHSa age split - all day nursery for under5's</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>• Raw Data - Health Statistics and Analysis Welsh Office:1988-1998 total places.</li> <li>• HHSa age split - all day nursery for under5's</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>• Raw Data - DHSSPSNI: 1998-1999 total places.</li> <li>• HHSa age split - all day nursery for under5's</li> </ul>	<p>8 hours per day (0900-1700): school day and school holiday</p> <p>Assume 100% take up of places.</p>	
Nursery School	<p>England</p> <ul style="list-style-type: none"> <li>• Raw Data - DFEE:1988-1998 total places given.</li> <li>• HHSa age split - assume under 5.</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>• Raw Data - NI Education Department:1988-1999 total places given.</li> <li>• HHSa age split - assume under 5</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>• Raw Data - Scottish Education Board:1988-1999 total places given.</li> <li>• HHSa age split - assume under 5.</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>• Raw Data - Welsh Education Board:1988-1999 total places given.</li> <li>• HHSa age split - assume under 5.</li> </ul>	<p><b>Full-time</b> <u>6 hours a day:</u> <u>school day</u></p> <p><b>Part-time</b> <u>3 hours a day:</u> <u>school day</u></p> <p>Assume under 5s only.</p>	
Play Groups	<p>England</p> <ul style="list-style-type: none"> <li>• Raw Data - DFEE:1988-1999 total places.</li> <li>• HHSa age split - Assume under 5s.</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>• Raw Data - Department of Education:1989-1999 total places.</li> <li>• HHSa age split - Assume under 5s.</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>• Raw Data - Department of Scottish Education:1988-1999 total places</li> <li>• HHSa age split - Assume under 5 year olds.</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>• Raw Data - Welsh Office: 1988-1999.Registered and L.A. figures given.</li> <li>• HHSa age split - assume under 5 year olds.</li> </ul>	<p><u>6 hours per day:</u> school day</p> <p><u>Assume under 5s only.</u></p> <p>Assume 100% take up.</p>	

SCHOOLS	Coding Issues	<u>Assumptions</u>	Other Data Issues
Nursery Classes	England <ul style="list-style-type: none"> <li>Raw Data - DFEE. 1988-1998 totals given.</li> <li>HHSA age split - assume under 5.</li> </ul> Northern Ireland <ul style="list-style-type: none"> <li>Raw Data- no data</li> </ul> Scotland <ul style="list-style-type: none"> <li>Raw Data - no data</li> </ul> Wales <ul style="list-style-type: none"> <li>Raw Data - no data</li> </ul>	<u><b>Full-time</b></u> <u>6 hours per day:</u> <u>school day</u> <u><b>Part-time</b></u> <u>3 hours per day:</u> <u>school day</u>  Assume under 5s only.	
Maintained Schools	England <ul style="list-style-type: none"> <li>Raw Data - DFEE:1988-1998 number of pupils by age.</li> <li>HHSA age split - aggregate ages.</li> </ul> Northern Ireland <ul style="list-style-type: none"> <li>Raw Data - NI Education Department:1988-1999 number of pupils split down by HHSA age groups.</li> <li>HHSA age split - given in age splits</li> </ul> Scotland <ul style="list-style-type: none"> <li>Raw Data - Scottish Education Board:1988-1999 number of pupils by education level.</li> <li>HHSA age split - Aggregate education level data.</li> </ul> Wales <ul style="list-style-type: none"> <li>Raw Data - Welsh Education Board:1988-1999 primary places for 5-10s and 11-15s.</li> <li>HHSA age split - split using population proportions.</li> </ul>	<u><b>Full-time</b></u> <u>6 hours per day:</u> <u>school day</u> <u><b>Part-time</b></u> 3 hours per day: school day	Assumption the children not included in the school education rolls but are counted in the population estimates are being cared for informally. The population is estimated and takes place mid April whilst the school statistics count children at the start of September.
Special Needs	England <ul style="list-style-type: none"> <li>Raw Data - DFEE:1988-1998 total places for individual ages.</li> <li>HHSA age split - aggregate ages.</li> </ul> Northern Ireland <ul style="list-style-type: none"> <li>Raw Data - NI Education Department:1988-1999</li> <li>HHSA age split - given in age splits</li> </ul> Scotland <ul style="list-style-type: none"> <li>Raw Data - Scottish Education Board:1988-1999 numbers of pupils by education level.</li> <li>HHSA age split - Aggregate education level data.</li> </ul> Wales <ul style="list-style-type: none"> <li>Raw Data - Welsh Education Board:1988-1999 number of pupils by primary places, 5-10 and 11-15s.</li> </ul>	<u><b>Full-time</b></u> <u>6 hours per day:</u> <u>school day</u> <u><b>Part-time</b></u> 3 hours per day: school day	

	<ul style="list-style-type: none"> <li>• HHSa age split - split using population proportions</li> </ul>		
SCHOOLS	Coding Issues	<u>Assumptions</u>	Other Data Issues
Boarding School	<p>England</p> <ul style="list-style-type: none"> <li>• Raw data - DfEE: 1988-1999 total boarders (weekly and full)</li> <li>• Calculations - Applied ISIS<sup>2</sup> weekly/full time places split to raw data.</li> <li>• HHSa age split - ISIS age breakdown</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>• Raw Data - ISIS Data: 1988-1999 full boarders.</li> <li>• Calculations - Applied ISIS weekly/full time places split to raw data.</li> <li>• HHSa age split - ISIS age breakdown</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>• Raw Data - ISIS Data: 1988-1999 full Boarders</li> <li>• Calculations - Applied ISIS weekly/full time places split to raw data.</li> <li>• HHSa age split - ISIS age breakdown</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>• Raw data -Welsh Office: 1988-1999 total boarders (weekly and full)</li> <li>• Calculations - Applied ISIS weekly/full time places to raw data.</li> <li>• HHSa age split - ISIS age breakdown</li> </ul>	<p><b>Full-time</b> 24 hours per day : weekend and school day</p> <p><b>Weekly</b> <u>24 hours per day:</u> school day</p>	<ul style="list-style-type: none"> <li>• Data sensitive to the reliability of the ISIS split between weekly and full time boarders.</li> <li>• Northern Ireland and Scotland: the number of total boarders is underestimated as the ISIS census covers only 80% of all independent schools. This means that the number of day pupils (see independent schools) is over estimated, which results in an underestimation of total hours spent in formal care. This is partly offset by day pupils attending other formal care categories such as out of school clubs.</li> </ul>
Independent Schools	<p>England</p> <ul style="list-style-type: none"> <li>• Raw data - DfEE:1988 -1999 no. of pupils split down by individual age.</li> <li>• HHSa age split - aggregate ages.</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>• Raw Data - Welsh Education Department:1988-1999 number of pupils split down by individual age including borders.</li> <li>• Calculations - Subtract boarders from Independent schools (ISIS data)</li> <li>• HHSa age split - aggregate ages.</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>• Raw Data - Northern Ireland Education Department:1996-1999 number of pupils split down by individual ages including boarders.</li> <li>• <u>Calculations - Subtract boarders from Independent schools (ISIS data).</u></li> <li>• HHSa age split - aggregate individual ages.</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>• Raw Data - Scottish Education Department: 1994-1999 number of pupils by education level.</li> <li>• Calculations - Subtract boarders from Independent schools (ISIS data).</li> <li>• HHSa age split - aggregate individual ages.</li> </ul>	<p><b>Full-time</b> 7 hours per day: school day</p> <p><b>Part-time</b> 3 hours per day: school day</p>	<ul style="list-style-type: none"> <li>• The number of independent day pupils for Wales, Northern Ireland and Scotland has been calculated as the residual of all pupils in independent schools minus the boarders. As the number of boarders is calculated on only 80% of all independent schools, then the total hours spent in boarding schools and therefore formal care is underestimated. This is partly offset by the fact that day pupils may attend other care categories, and so still are formally cared for.</li> <li>• This assumption will have a marginal affect on the valuation of childcare, as the number of children under 5 who are boarders is small.</li> </ul>

24 HOUR	Coding Issues	<u>Assumptions</u>	Other Data Issues
Children's Homes	<p>England</p> <ul style="list-style-type: none"> <li>Raw data - DOH: 1988-1991 places for age groups under 5's, 5-9 and 11-15.</li> <li>HHSA age split - Applied the age split of the population in 5-7, 8-10 and 10-15, to raw data.</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>Raw Data – DHSSPSNI: 1997-1999 places for age groups under 5's, 5-11 and 12-15 age group.</li> <li>HHSA age split - Applied the proportion of the population in 5-7, 8-10 and 11 to raw data.</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>Raw Data - Education Statistics Directorate: 1988-1998 places for 0-4, 5-10, 11-15, age groups.</li> <li>HHSA age split - Applied age split from the population in 5-7, 8-10 to raw data.</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>Raw Data - Health Stats. and Analysis Unit: 1998-1999 total places only.</li> <li>HHSA age split - applied the proportion in each age group from England's Children's home data.</li> </ul>	<p><b>All</b>  <u>24 hours per day:</u>  school holiday,  working holiday  and weekend.  Assume no other  formal care.  <b>Under 5s</b>  <u>24 hours per day:</u>  school day  <b>5-15s</b>  <u>18 hours per day:</u>  school day</p>	<ul style="list-style-type: none"> <li>Assumption that no other care category is used if a child is resident in a children's home, means that the total hours spent in formal care is overestimated.</li> <li>This results in an under estimation of the total number of informal hours resulting in a lower valuation of informal childcare across all age groups.</li> </ul>
Foster Places	<p>England</p> <ul style="list-style-type: none"> <li>Raw Data - DOH:1988-1991 age group under 5s, 5-9 and 11-15. 1991-1999 data given in HHSA age split</li> <li>HHSA age Split - 1988-1991 applied the proportion of the population in 5-7, 8-10 and 10-15 age group to raw data.</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>Raw Data – DHSSPSNI:1997-1999 age group under 5s, 5-9 and 11-15.</li> <li>HHSA age Split - applied the proportion of the population in 5-7, 8-10 and 11 to raw data.</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>Raw Data - Scottish Board:1988-1998 under 5s, 5-10 and 11-15.</li> <li>HHSA age Split -applied population proportion in 5-7, 8-10 to raw data.</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>Raw Data - Health Statistics and Analysis:1988-1999 total foster places. HHSA age Split - applied the proportion in each age group from England's Foster Places data.</li> </ul>	<p><b>All</b>  <u>24 hours per day:</u>  school holiday,  working holiday  and weekend  <u>Assume no other  formal care.</u>  <b>Under 5s</b>  <u>24 hours per day:</u>  school day  <b>5-15s</b>  <u>18 hours per day:</u>  school day</p>	<ul style="list-style-type: none"> <li>Assumption that no other care category is used if a child is fostered, means that the total hours spent in formal care is overestimated.</li> <li>This results in an under estimation of the total number of informal hours and results in a lower valuation of informal childcare across all age groups</li> </ul>

24 HOUR	Coding Issues	Assumptions	Other Data Issues
Long Stay Hospitals	<p>England</p> <ul style="list-style-type: none"> <li>Raw Data - DOH:1988-98 number of places.</li> <li>HHSA age split - prorated using population data for 5-7, 8-10 and 11-15 age split.</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>Raw Data - DHSSPSNI: 1994 -1998</li> <li>HHSA age split - data provided in HHSA age groups.</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>Raw Data - Scottish NHS:1988-1998</li> <li>HHSA age split - aggregate ages.</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>Raw Data -1995-1998 National Assembly for Wales.</li> <li>HHSA age split</li> </ul>	<p><u>24 hours per day:</u> all year</p>	
Short stay Hospitals	<p>England</p> <ul style="list-style-type: none"> <li>Number of bed-day given so divide by 365 to give average for one day.</li> </ul> <p>Northern Ireland, Wales and Scotland</p> <ul style="list-style-type: none"> <li>Grossed up England data to UK totals</li> </ul>	<p><u>24 hours per day:</u> all year</p>	
<b>CLUBS</b>			
Holiday Clubs	<p>England</p> <ul style="list-style-type: none"> <li>Raw Data – DfEE: 1988-1999 total 5-7s.</li> <li>HHSA age split – assume for 5-7s only.</li> </ul> <p>Scotland</p> <ul style="list-style-type: none"> <li>Raw Data – Scottish Abstract of Information: 1994 and 1996 total 5-7.</li> <li>HHSA age split – assume for 5-7s only.</li> </ul> <p>Northern Ireland</p> <ul style="list-style-type: none"> <li>Raw Data – no data available</li> </ul> <p>Wales</p> <ul style="list-style-type: none"> <li>Raw Data – Welsh Office: 1997 and 1998</li> <li>HHSA age split – assume for 5-7s only.</li> </ul>	<p>6 hours per day (0900-1500): school holiday</p> <p>Assume 100% take up of places.</p>	
Out of School Clubs	<p>England</p> <ul style="list-style-type: none"> <li>Raw Data - DFEE:1993-1998 places for 5-7s.</li> <li>Calculations - Estimate 1988-1993 and 1993 figure.</li> <li>HHSA age split - assume 5-7s.</li> </ul> <p>Northern Ireland, Scotland and Wales</p> <ul style="list-style-type: none"> <li>Grossed up England data to UK totals</li> </ul>	<p><u>2 hours per day:</u> school day</p> <p>Assume 5-7s only due to data availability.</p>	<ul style="list-style-type: none"> <li>Assume 5-7s only due to data availability. Kids Club Network suggests that the 40% of all clubs have a max. age limit of 11 years, implying an underestimation in the number of children in formal care</li> </ul>

OTHER	Coding Issues	Assumptions	Other Data Issues
Time Alone	<ul style="list-style-type: none"> <li>• UK- assume all children under 11 require 24-hour care throughout school day, weekend and school holiday and working holiday.</li> <li>• Children 11-15 applied estimate of time spent alone:  10% of children age 12(or 20% of an individual child's time)  20% of children age 13(or 40% of an individual child's time)  30% of children aged 14(or 60% of an individual child's time)  40% of children aged 15(or 80% of an individual child's time)</li> </ul>		<ul style="list-style-type: none"> <li>• The evidence on time children spend alone is sparse and the sensitivity of the question will mean that this is under reported, as social norms may suggest that a child should not be left unattended</li> <li>• 24% of children (1.5 million) are not accompanied home from school (1996 Latchkey Survey)</li> <li>• 350,000 5-12 year olds go home to an empty house i.e. 6-9 % children left alone after school</li> <li>• 5% of all school age children are left alone in term time(Family and Working Life Survey)</li> </ul>

<sup>1</sup> DHSSPSNI: Department of Health, Social Security and Personal Services in Northern Ireland

<sup>2</sup> ISIS: Independent Schools Information Service – Annual Census

