



Department  
for Education

# Childcare and early years survey of parents 2017

Technical Report  
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**Ipsos MORI**

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# 1 Survey background and history

## 1.1 Aims of the study

This Technical Report describes the methodology of the 2017 survey in the Childcare and early years survey of parents series.

The survey was funded by the Department for Education (DfE), and carried out by Ipsos MORI. The study had two key objectives. The first is to provide salient, up-to-date information on parents' use of childcare and early years provision, and their views and experiences. The second is to continue the time series statistics – which have now been running for over ten years – on issues covered throughout the survey series. With respect to both of these objectives, the study aims to provide information to help monitor effectively the progress of policies in the area of childcare and early years education.

## 1.2 Time series of the Childcare and early years survey of parents

The current study is the ninth in the Childcare and early years survey of parents series, which began in 2004. The time series in fact stretches back further than 2004, as the current series is the merger of two survey series that preceded it: i) the Survey of Parents of Three and Four Year Old Children and Their Use of Early Years Services, of which there were six waves between 1997 and 2004, and ii) the Parents' Demand For Childcare survey, of which there were two waves, the first in 1999 and the second in 2001.

Previous waves of the Childcare and early years survey of parents were conducted in 2004, 2007, 2008, 2009, 2010-11, 2011-12, 2012-13, and 2014-15. Prior to the 2010-11 survey the fieldwork period fell into the survey calendar year, while for the 2010-11 to 2014-15 surveys the fieldwork straddled two calendar years, beginning in the autumn of the survey year, and continuing until the spring/summer of the following year. The 2017 survey has reverted to fieldwork taking place in the survey calendar year.

Changes to the questionnaire over time mean that in many instances it is not possible to provide direct comparisons that extend to the beginning of the time series. Questions for which trend data does extend to the beginning of the time series include the use of childcare by families and children, and parents' perceptions of local childcare (the level of information about local childcare, the availability of local childcare, the quality of local childcare, and the affordability of local childcare).

## 2 Overview of the study design

### 2.1 The sample

A total of 5,693 parents in England with children aged 0 to 14 were interviewed face-to-face between January and August 2017.

A probability sample of children aged 0 to 14 in England was drawn from the Child Benefit Register (CBR) maintained by Her Majesty's Revenue & Customs which, given its high take-up, provides very high coverage of dependent children in England. Interviews were sought with parents of these children. A small additional sample of parents in England was drawn from respondents to the Family Resources Survey (FRS) commissioned by the Department for Work and Pensions, who had consented to be re-contacted for future research<sup>1</sup>.

In order to achieve sufficient interviews with parents of children attending early years provision to enable separate analysis of this group, the number of 2- to 4-year-olds sampled was boosted by increasing their probability of selection by a factor of 2.

### 2.2 The interviews

Interviews were conducted face-to-face in parents' homes and lasted a mean of 50 minutes and 49 seconds, and a median of 47 minutes and 47 seconds. The main respondent was a parent or guardian of the sampled child with main or shared responsibility for making childcare decisions, and in most cases (86%) was the child's mother. In addition, in couple-households an interview was sought with the respondent's partner, if he or she was at home. Partners were asked about their employment and other socio-economic and demographic characteristics. Where this was not possible, the main respondent was asked to provide this information by proxy.

The study used an inclusive definition of childcare and early years provision. The respondent was asked to include any time their child was not with them (or their current spouse or partner), or at school. This covered both informal childcare (for instance grandparents, a friends, and an ex-partners) and formal childcare (for instance nursery

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<sup>1</sup> This was necessary because the eligibility criteria for Child Benefit changed in 2013 so that higher-income households (those where one or both partners earn £60,000 or more per year) ceased to gain financially from Child Benefit, resulting in them becoming disproportionately likely to be missing from the CBR. To avoid bias to survey estimates, higher-income households missing from the CBR were sampled from the FRS. For further details see Department for Education (2017) *Childcare and early years survey of parents: Sampling frames investigation* <https://www.gov.uk/government/publications/childcare-and-early-years-survey-of-parents-sampling-frames>

schools and classes, childminders, and before- and after-school clubs). Further detail about this definition is provided in section 2.3.

In families with two or more children, broad questions were asked about the childcare arrangements of all children, before more detailed questions were asked about the randomly sampled child (referred to as 'the selected child').

Because childcare arrangements vary between school term-time and school holidays, most of the questions focused on the most recent term-time week (the 'reference week'). Separate questions were asked about the use of childcare during the school holidays.

The interview covered the following topic areas:

▪ **For all families:**

- use of childcare and early years provision in the reference term-time week, school holidays (if applicable) and last year;
- payments made for childcare and early years provision (for providers used in the last week), the use of free hours of childcare, and use of tax credits and subsidies;
- sources of information about, and attitudes towards, childcare and early years provision in the local area; and
- if applicable, reasons for not using childcare.

▪ **For one randomly selected child:**

- a detailed record of child attendance in the reference week; and
- reasons for using and views of the main formal provider.

▪ **Classification details:**

- household composition;
- parents' education and work details; and
- provider details.

Among all those parents selected and eligible for interview (in other words, excluding families where the selected child had turned 15 during the fieldwork period) 52 per cent were interviewed. For further details on response see Chapter 0.

## 2.3 Defining childcare

The study uses an inclusive definition of childcare and early years provision. Parents were asked to include any time that the child was not with a resident parent or a resident parent's current partner, or at school. In order to remind parents to include all possible

people or organisations that may have looked after their children, they were shown the following list:

### **Formal providers**

- nursery school
- nursery class attached to a primary or infants' school
- reception class at a primary or infants' school
- special day school or nursery or unit for children with special educational needs
- day nursery
- playgroup or pre-school
- childminder
- nanny or au pair
- baby-sitter who came to home
- breakfast club
- after-school clubs and activities
- holiday club/scheme

### **Informal providers**

- my ex-husband/wife/partner/the child's other parent who does not live in this household
- the child's grandparent(s)
- the child's older brother/sister
- another relative
- a friend or neighbour

### **Other**

- other nursery education provider
- other childcare provider

### **Definitions of main formal providers for pre-school children**

A short definition for each of the main formal providers for pre-school children is included below. The definitions were not provided to parents in the survey but these are included here to help the reader differentiate between the most common categories.

- nursery school – this is a school in its own right, with most children aged 3 to 5. Sessions normally run for 2 ½ to 3 hours in the morning and/or afternoon;

- nursery class attached to a primary or infants' school - often a separate unit within the school, with those in the nursery class aged 3 or 4. Sessions normally run for 2½ to 3 hours in the morning and/or afternoon;
- reception class at a primary or infants' school - this usually provides full-time education during normal school hours, and most children in the reception class are aged 4 or 5;
- special day school/nursery or unit for children with special educational needs - a nursery, school or unit for children with special educational needs;
- day nursery - this runs for the whole working day and may be closed for a few weeks in summer, if at all. This may be run by employers, private companies, community/voluntary group or the Local Authority, and can take children who are a few months to 5-years-old; and
- playgroup or pre-school - the term 'pre-school' is commonly used to describe many types of nursery education. For the purposes of this survey, pre-school is used to describe a type of playgroup. This service is often run by a community/voluntary group, parents themselves, or privately. Fees are usually charged, with sessions of up to 4 hours.

Providers were classified according to the service for which they were being used by parents, for example daycare or early years education. Thus, providers were classified and referred to in analysis according to terminology such as 'nursery schools' and 'day nurseries', rather than as forms of integrated provision such as Children's Centres. Reception classes were only included as childcare if it was not compulsory schooling, that is the child was aged under 5 (or had turned 5 during the current school term).

This inclusive definition of childcare means that parents will have included time when their child was visiting friends or family, at a sport or leisure activity, and so on. The term early years provision covers both 'care' for young children and 'early years education'.

Deciding on the correct classification of the 'type' of provider can be complicated for parents. The classifications given by parents were therefore checked with the providers themselves in a separate telephone survey, and edited these classifications where necessary. Detail about the provider edits can be found in section 7.3.

## **2.4 Interpreting the data in the SFR Report and Tables**

The majority of findings in the SFR Report, and the separate data tables, relate to one of two levels of analysis:

- the family level (e.g. proportions of families paying for childcare, parents' perceptions of childcare provision in their local areas); and



- the (selected) child level (e.g. parents' views on the provision received by the selected child from their main childcare provider).

However, for most of the analyses carried out for the data tables in Chapters 9 and 10 the data was restructured so that 'all children' in the household were the base of analysis. This was done to increase the sample size and enable the exploration of packages of childcare received by children in different age groups in more detail. This approach is not used for other analyses because much more data was collected on the selected child compared with all children in the household.

## Weights

A 'family level' weight is applied to the family level analysis. This weight ensures that the findings are representative of families in England in receipt of Child Benefit, and re-balances families with children aged 2 to 4 and children of other age groups to their proportion in the population.

A 'child level' weight is applied to the analysis carried out at the (selected) child level. This weight combines the family level weight with an adjustment for the probability of the child being randomly selected for the more detailed questions.

## Bases

The data tables show the total number of cases that were analysed (e.g. different types of families, income groups). The total base figures include all the eligible cases (in other words all respondents, or all respondents who were asked the question where it was not asked of all) but, usually, exclude cases with missing data (codes for 'don't know' or 'not answered'). Thus, while the base description may be the same across several data tables, the base sizes may differ slightly due to the exclusion of cases with missing data.

Unweighted bases are presented throughout. This is the actual number of parents that responded to a given question for family-level questions, and the actual number of children about whom a response was provided by parents for child-level questions.

In some tables, the column or row bases do not add up to the total base size. This is because some categories might not be included in the table, either because the corresponding numbers are too small to be of interest or the categories are otherwise not useful for the purposes of analysis.

Where a base size contains fewer than 50 respondents, particular care must be taken, as confidence intervals around these estimates will be very wide, and hence the results should be treated with some caution. In tables with bases sizes below 50, these figures are denoted by squared brackets [].

## Percentages

Due to rounding, percentage figures may not add up to 100 per cent. This also applies to questions where more than one answer can be given ('multi-coded' questions).

## **Continuous data**

Some SFR data tables summarise parents' responses to questions eliciting continuous data; for instance, the number of hours of childcare used per week (see Table 1.10 in the Additional SFR data tables) and the amount paid for childcare per week (see Table 4.5 in the Additional SFR data tables). For these data, both median and mean values are included in the data tables, but median values are reported in the SFR Report as they are less influenced by extreme values, and are therefore considered a more appropriate measure of central tendency. It should be noted that 'outlier' values, those identified as being either impossible or suspect responses, were removed from the dataset prior to data analysis. As such, the extreme values which remain can be considered as valid responses which lie at the far ends of their respective distributions.

Where significance testing has been conducted on continuous data, this has been carried out using mean values rather than medians. This is because the continuous data is subject to 'rounding' by respondents, for instance where payments are rounded to the nearest ten pounds, or where times are rounded to the nearest half hour; this rounding can result in similar median values where the underlying distributions are quite different, and testing for differences between means is more appropriate in these instances as it takes the entire distribution into account. It should be noted however that although mean values are more influenced than median values by extreme values, significance testing on mean values accounts for extreme values by widening the standard error of the mean, which is used in the calculation of the test statistic, thereby reducing the likelihood of finding a significant result. As such, it is not the case that a significant change will be reported between years or between sub-groups simply due to a small number of respondents reporting an extreme value on a continuous variable.

## **Statistical significance**

Where reported survey results have differed by sub-group, or by survey year, the difference has been tested for significance using the complex samples module in SPSS 24.0, and found to be statistically significant at the 95 per cent confidence level or above. The complex samples module allows us to take into account sample stratification, clustering, and weighting to correct for non-response bias when conducting significance testing. This means that 'false positive' results to significance tests (in other words interpreting a difference as real when it is not) is far less likely than if the standard formulae were used.

## **Symbols in tables**

The symbols below have been used in the tables and they denote the following:

n/a    this category does not apply (given the base of the table)

- [ ] percentage based on fewer than 50 respondents (unweighted)
- \* percentage value of less than 0.5 but greater than zero
- 0 percentage value of zero.

## 3 Questionnaire development

### 3.1 Changes to the questionnaire

A number of changes were made to the most recently fielded Childcare and early years survey of parents questionnaire (from the 2014-15 survey wave) to reflect changes in policy, and to improve the quality of data captured.

Overall, 39 new questions were added, six existing questions were amended, and 46 existing questions were deleted. The amended and deleted questions applied to 14 per cent of the 2014-15 questionnaire (52 questions out of a total of 367 questions). The questionnaire changes are described the bullet points that follow, in which question names are provided in brackets.

#### New questions

##### **Questions about the government funded entitlement to early education (free hours)**

- A question was added (FrSplWhy) to ascertain why parents using free hours from more than one provider split their child's free hours across more than one provider.
- A question was added (FreeAw2y) to ask whether those parents with a 2-year-old, who had not used free hours for their 2 year-old, were aware that free hours are available for some 2-year-olds.
- A question was added (Free30aw) to ascertain whether parents with a child aged 3 to 4 were aware that 30 free hours would be available to working parents from September 2-17.
- Questions were added (F30LkWk, F30LkWkS, F30SpINW) to be asked of non-working parents (i.e. one or both parents not working) with a child aged 3 to 4 to ascertain whether they would try to find paid work to become eligible for the 30 free hours, and if so whether they would use more than one provider to use the additional free hours if their current provider could not offer the additional hours at the times they needed them.
- Questions were added (Free30De, Free30SP, Free30GO, Free30Wy, Free30SW, Free30Em, Free30ES, Free30Fn) to be asked of working parents (i.e. both parents are working, or lone parent is working) to ascertain whether they would use the additional free hours available under the 30 free hours scheme (and if so how many); to ascertain what difference they felt these free hours would make for how well their child(ren) are prepared for school and how well their child(ren) get on with other children and adults; to ascertain the reasons why some parents wouldn't use these additional free hours, to ascertain whether they would use more than one provider to use the additional free hours if their current provider

could not offer the additional hours at the times they needed them, to ascertain the ways in which they might change their job(s) if the additional free hours were available, and to ascertain the difference these additional free hours would make to their family's finances.

- Questions were added (Free30L3, Free30L4) to ascertain whether parents of children aged 3 to 4 feel that 30 hours per week is too long, too short, or about the right amount of time for a 3-year-old, or a 4-year-old, to spend with a formal childcare provider.

### **Question about awareness of Universal Credit**

- A question was added (UCawar) to ascertain whether parents are aware of Universal Credit.

### **Questions about the home learning environment**

- Questions were added (HLRead, HLReadOf, HLBooks, HLabc, HLabcOf, HLNum, HLNumOf, HLPoem, HLPoemOf, HLPaint, HLPaintO) to be asked of parents with a child aged 0 to 5, to understand how often (if at all) someone at home: looks at books with, or reads to the child; helps the child to learn the alphabet or recognise words; helps the child to learn numbers or to count; helps the child to learn songs, poems or nursery rhymes; and paints or draws together with the child.
- A question was added (ProvSupD) to ascertain whether parents who receive information from their formal childcare provider about learning and play activities they could do with their children at home ever carry out these activities.
- Questions were added (HLCCen, HLCCenO) to ascertain whether anyone at home takes the selected child (if aged 0 to 5) to a Children's Centre, and if so, how often.
- Questions were added (TV, Game) to ascertain how much time each day the selected child (if aged 0 to 5) spends watching television or playing computer games.
- Questions were added (LAMode, LAUsed) to ascertain whether parents had obtained information about childcare from their Local Authority, and in which way they had obtained such information.
- Questions were added (TaxFCSAw, TaxFCSAp, TaxFCSAy, TaxFCSWy) to ascertain whether parents were aware of the Tax-Free Childcare scheme, had applied for (or intended to apply for) the scheme, and for those not intending to apply, the reasons why.

### **Amended questions**

- (Learninfo) This question asks from where parents have ever got information and ideas about learning and play activities they could do with their child. This

question was amended to be asked of parents with a selected child aged 0 to 5 (previously aged 2 to 5); the following codes were added: “Parenting classes or groups”, “Local Authority /Family Information Service”, “Parenting or child development app”, “The “What to expect, when?” guide to children’s learning and development”, and “Social media (e.g. Facebook or Twitter)”; and the following codes were deleted “Children's Information Services /Family Information Service”, and “Local Authority”.

- (Sources) This question asks from where in their local area parents have obtained information about childcare. The following codes were added: “Social media (e.g. Facebook or Twitter)”, and “Local Authority / Family Information Service”; and the following codes were deleted: “Family Information Services (support services in local authorities)”, and “Local Authority”.
- (RetWk1 and RftWk1) These questions ask why parents entered employment, or increased their working hours. The code “Became eligible for Tax Credits or Family Credit” was replaced with “Became eligible for Tax Credits or Universal Credit”, as Family Credit no longer exists.
- (VocQual and VocQualS) These questions asked the respondent (and the partner) to choose which (if any) vocational qualifications or apprenticeships they have. The question was simplified to ask “Do you have any vocational qualifications, or an apprenticeship?” with response options of ‘Yes’ and ‘No’.

## Deleted questions

### Questions about providers used in the reference week

- (AcadFree) These question asked whether nursery and reception classes were part of, or linked to, an academy or a free school.
- (ExtSb4, ExtSaf) These questions asked whether schools provided access to any childcare or activities before school, and after school.
- (Nur8to9, Nur3to6, Nurwhy, Nurwhy2) These questions asked whether parents would use childcare provided in a nursery class attached to a primary or infants school or a maintained nursery school between 8am and 9am, between 3pm and 6pm, and if not (or if it depended on something) the reasons why.

### Questions about childcare costs

- (Inv) This questions asked whether the parents received an invoice from their provider.
- (CMAaware, CMAaware2, CMAaware3) These questions asked parents if they were aware of childminder agencies, if they would use one, and if not, the reasons why.

### The attendance record for the selected child in the reference week

- (Inv) This question asked whether the parents received an invoice from their provider.
- (DeduCk, EduDiv) These questions asked if a childcare session at a day nursery was for nursery education only, childcare only, or both, and if both, whether the time the child spent at the provider was divided into separate periods of nursery education and childcare.

### **Questions about the main provider used by the selected child in the reference week**

- (StrtYB, StartM, Skacad, Sksoci) These questions asked when the child started to be looked after by the provider, and whether the provider encouraged the child to learn and develop particular academic and social skills.
- (PayFreq, PayFreq2, PayFreq3) These questions asked how frequently the parent paid the provider, whether payment was made in advance or in arrears, and whether the parent paid an upfront refundable deposit.

### **Questions about the home learning environment**

Note that the following questions were replaced by new questions on the home learning environment, as previously specified.

- (Togboo, Togsin, Togrec, Togpai, Toglil, Toggam, Togcom) These questions asked whether the parent, or their partner, engaged in a range of home learning activities with the selected child, including looking at books, reciting nursery rhymes, recognising letters, words, numbers or shapes, painting or drawing, going to the library, playing indoor and outdoor games, and using a computer.

### **Questions about the availability of informal childcare**

- (AvailIn1, AvailIn2) These questions asked those parents who had not used childcare in the last year which (if any) informal childcare providers would be available to them, if needed, as a one off, and for regular childcare.

### **Questions about attitudes and use of childcare in the local area**

- (AvailIn1, AvailIn2) These questions asked those parents who had not used childcare in the last year which (if any) informal childcare providers would be available to them, if needed, as a one off, and for regular childcare.
- (CIS, CISY) These questions asked whether parents were aware of Family Information Services, and whether they had used this service.
- (QualFact3) This question asked which approach to early learning the parent thought should be the main approach taken to help the selected child learn.

### **Questions about work**

- (Leave, Leave2) These questions asked whether the parent, and the partner, was on annual leave in the reference week.
- (CWrkEmpM, LWrkEmpM, CWrkCarM, LWrkCarM, MWrkCcX) These questions asked for the main reason influencing the parent's decision to work, the most important childcare arrangement that helped the parent to work, and the single most important factor behind the parent's decision to work.
- (CNoWrkM, LNoWrkM, NoWrkCcM, NWrkCcX) These questions asked for the main economic- and childcare-related reason why the parent was not working, and the single most important reason why the parent was not working.

### **Questions about the household**

- (Vehicle) This question asked whether the parent had a car, van or motorcycle normally available for his or her use.

### **Questions about Tax-Free Childcare**

Note that the following questions were replaced by updated questions about Tax-Free Childcare, as previously specified.

- (TaxFCS, TaxFCS2, TaxFCS3) These questions asked whether the parent was aware of the Tax-Free Childcare scheme, whether they intended to apply for it, and if not, why not.

## **3.2 Questionnaire content**

The questionnaire was structured as follows:

- Household composition (and selection of the selected child in FRS households)
- Household's use of childcare in the reference week, and the past year.
- Household's childcare costs, for providers used in the reference week.
- Household's use of the existing (15 hours) entitlement to government funded early education.
- Respondent's awareness of the upcoming (30 hours) entitlement to government funded early education for working parents, intentions to use the scheme, and predicted impact of the scheme.
- Household's receipt of Tax Credits, and awareness of Universal Credit
- Selected child's attendance record (the day-by-day 'diary' of childcare use in the reference week).
- Selected child's experiences at their main provider, reasons for choosing the main provider, and reasons for the patterns of provision used.



- Selected child's home learning environment.
- Respondent's attitudes towards childcare in the local area.
- Respondent's and child(ren)'s demographic characteristics.
- Respondent's employment history.
- Respondent's awareness of and intention to use Tax-Free Childcare.
- Consent to data linkage; consent for follow-up research; contact details for pre-school providers.
- Partner's employment status and details (partner interviewed directly).

## 4 Sampling

### 4.1 Survey population

The survey population was children aged 0 to 14 living in private residential accommodation<sup>2</sup> in England. Although the sampling units were children, the interview for each selected child was conducted with an appropriate adult (defined as an adult within the child's household with 'main or shared responsibility for making decisions about the child's childcare').

### 4.2 Sample frames

In past waves of the Childcare and early years survey of parents, up to and including the 2014-15 wave, children were sampled exclusively from the Child Benefit Register (CBR). This was a highly efficient approach given the near universal take-up of Child Benefit among parents of children aged 0 to 14 in England, and hence the near total coverage of the sample population by the sample frame. In 2013 this coverage was damaged by the introduction of the High Income Child Benefit Charge (HICBC), the effect of which has been to decrease the likelihood that children born since 2013 to higher income parents (those where one or both partners earn £60,000 or more per year) are listed on the CBR.

DfE commissioned Ipsos MORI to write a report investigating the potential impact of this change, and to explore potential solutions.<sup>3</sup> The report found that persisting with the CBR as the sole sampling frame would introduce non-coverage bias that would damage both the accuracy of survey estimates, and the ability to compare changes in estimates over time. The report recommended that a sample of children should be drawn from the CBR, as per previous survey waves, but should be supplemented with a sample of respondents to the Family Resources Survey (FRS) with children for whom a claim for Child Benefit had not been made, or had been made but where the family had subsequently opted-out of receiving Child Benefit due to having a high income. These families would have little or no chance of being selected in the CBR sample.

The 2017 wave therefore used a dual-frame approach, sampling from both the CBR and the FRS.

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<sup>2</sup> Children living in communal establishments such as children's homes are excluded.

<sup>3</sup> <https://www.gov.uk/government/publications/childcare-and-early-years-survey-of-parents-sampling-frames>

## Selection of the CBR sample

The sample of children from the CBR was selected by HMRC from all children in England that would be aged 0 to 14 on the first day of fieldwork (16 January 2017) for whom a Child Benefit claim had been made.

A small number of children were excluded from the sampling frame before selection took place. The exclusions were made according to HMRC procedures and reasons included: death of a child, cases where the child has been taken into care or put up for adoption, cases where the child does not live at the same address as the claimant and cases where there has been any correspondence by the recipient with the Child Benefit Centre (because the reason for correspondence cannot be ascertained and may be sensitive).

The sample of children was selected in two stages: selection of Primary Sample Units (PSUs) and selection of individual children within each PSU. Ipsos MORI randomly selected 434 PSUs, plus an additional 434 PSUs that could be used as a reserve sample if needed. The PSUs were based on postcode sectors. HMRC provided a full list of postcode sectors in England with counts for each of the number of children on Child Benefit records aged 0 to 14 and number of children aged 2 to 4 rounded to the nearest five. In order to reduce clustering, postcode sectors containing fewer than 250 children were grouped with neighbouring postcode sectors. The list of grouped postcode sectors was stratified by Region, population density, proportion of households in managerial professional and intermediate occupations, and, proportion of the population that were unemployed. A size measure was calculated for each PSU based on the population of children in each size group. Sample points were selected with probability proportionate to size (random start and fixed interval using cumulative total of the size measure).

At the second stage, prior to the start of fieldwork 26 children per PSU were selected by HMRC from the selected PSUs (both the 434 main PSUs and 434 reserve PSUs). A list of all eligible children aged 0 to 14 in the PSU was created and was sorted by postcode and child benefit number to help to avoid children from the same household being selected. A weighted design was used to increase the number of children aged 2 to 4 in the sample. Each child aged 2 to 4 on the Child Benefit records on the first day of fieldwork was given a weighted chance value of 2 and all other children had a value of 1.

The mainstage sample was drawn from the August 2016 extract of Child Benefit data.

Each sampled child was the 'selected child' about whom detailed child-specific questions in the CAPI interview was asked. In a small number of cases, the CAPI programme re-selected this child, from among all children in the household, at the start of the interview. This occurred in the following instances:

- i. Where a child had been born between the date that the sample was drawn and the date of the interview. As there was approximately a five-month gap between the sample being drawn and the start of fieldwork, children that were born during this time, that is all children around five months old or younger, were not

represented in the sample of children drawn from Child Benefit records. To account for this, in households where a child had been born since the sample was drawn, the CAPI programme re-selected the child that was to be the focus of the child-specific questions from all children (including the new-born child) in the household. This re-selection occurred at 233 households.

- ii. Where the number of children in the household was found to be greater than the number of children recorded on the child benefit database, excluding new births, and child benefit was found to be received for some, but not all children in the household. In these instances, a non-new-born child in the household did not have a chance of selection at the sampling stage, as said child was not on the child benefit database. Such instances may reflect a child in the household for whom the parents had decided not to claim, and error on the child benefit database, or a family event such as adoption. In these households, the CAPI programme re-selected the child that was to be the focus of the child-specific questions from all children in the household. This re-selection occurred at 27 households.

## **Selection of the FRS sample**

The sample of FRS respondents was selected by DWP from those who had consented to be re-contacted for the purposes of further research at the time they took part in their FRS interview, and who had a child (or children) born since 1st January 2013 (that is, since the HICBC was introduced) for whom they either:

- had not made a claim for Child Benefit, or
- had opted out of receiving Child Benefit payments due to having a high income.

Those opting out were included to ensure that all children in FRS households that could not be covered via the CBR were captured. Specifically, while families opting out of receiving Child Benefit remain listed on the CBR and are therefore available to be sampled, their contact details are more likely to be out of date as these families have little reason to inform HMRC of a change of address if they move, and as a result, they are likely to be under-represented in the CBR achieved sample. The FRS sample therefore boosts the sample of households that have opted-out of Child Benefit as they would otherwise be under-represented in a sample selected from the CBR alone.

While the intention was that the FRS sample would be selected from among all eligible FRS 2015/16 cases, the sample size was smaller than expected ( $n = 70$ ) as some of the FRS sample for April to September 2015 had already been selected for the European Union Statistics on Income and Living Conditions survey (EU-SILC), and could not be re-selected. The sample size was therefore increased by adding eligible FRS 2014/15 sample members as well, increasing the selected sample by 43, to 113 in total. Of these some had incomplete contact details, and 99 cases were ultimately issued.

## 5 Fieldwork

### 5.1 Briefings

Prior to the start of fieldwork, all interviewers who had not worked on the 2014-15 Childcare and early years survey of parents attended a full day briefing led by the Ipsos MORI research team. In order to maximise fieldwork capacity, Ipsos MORI partnered with the research agency GfK, who provided additional interviewers to deliver the fieldwork. All GfK interviewers attended a full day briefing, as they had not worked on the survey before.

The briefings covered an introduction to the study and its aims, an explanation of the samples and procedures for contacting respondents, full definitions of formal and informal childcare, and a section on securing participation. All briefing sessions covered discussion on conducting research with parents, issues of sensitivities and practical information, and gave interviewers the opportunity to ask any questions.

Ipsos MORI interviewers who had worked on the 2014-15 Childcare and early years survey of parents participated in a refresher telephone briefing, which lasted approximately one hour. This briefing served as a reminder of the key aspects of the survey, explained the new procedures relating to the Family Resources Survey (FRS) sample, and gave interviewers the opportunity to ask questions.

### 5.2 Contact procedures

#### **Opt-out letter, advance letter, and leaflet**

For the Child Benefit Register (CBR) sample, an 'opt-out letter' introducing the survey was mailed prior to the start of fieldwork, in January 2017, addressed to the named benefit recipient of each child sampled from the CBR. This letter provided details about how the household could opt-out of the survey, should they not wish to participate. Those households that did not opt-out were issued for interview. Interviewers sent a separate 'advance letter' to each household in their assignment shortly prior to making their calls. Enclosed with the advance letter was a 'survey leaflet', which provided further details about the study.

Equivalent procedures were followed for the FRS sample, with an 'opt-out letter' mailed to the named adult who had completed the FRS survey. These letters were mailed in two batches (the first in March 2017, the second in April 2017), reflecting the provision of two separate batches of FRS sample from DWP. An advance letter, with an enclosed leaflet, was subsequently sent by interviewers to those households not opting out.

## Interviewer visits

For the CBR sample, interviewers were provided with the selected child's name, address, and the name of the person in the household listed as the recipient of Child Benefit for that child. An interview could be conducted with an adult with 'main or shared responsibility for making decisions about childcare for the selected child'. This adult did not have to be the Child Benefit recipient.

In cases where the selected child had moved from the sampled address, interviewers attempted to trace the child's new address. If the new address was local the interviewer visited the new address and attempted to conduct an interview there. If the new address was no longer local to the interviewer, the case was allocated to another interviewer where possible.

For the FRS sample, interviewers were provided with the FRS respondent's name, address, telephone number (if available), and the name of a second adult in the household who have carried out the FRS interview (if available). An interview could be conducted with an adult with 'main or shared responsibility for making decisions about childcare for the child or children aged 0 to 4 in the household'.

## 5.3 Interviewing

Interviews were conducted face-to-face using Computer Aided Personal Interviewing (CAPI). The CAPI script was programmed using Quancept for Windows software. A set of showcards were provided as an aid to interviewing.

In situations where respondents could not speak English well enough to complete the interview, interviewers were able to use another household member to assist as an interpreter, or another interviewer in the area who was able to speak their language was asked to conduct the interview. If this was not possible, the interview was not carried out.

The interviews lasted for a mean of 51 minutes, and a median of 48 minutes. Interviews were relatively longer for parents where the selected child was of pre-school age (aged 0 to 4): mean of 55 minutes, median of 52 minutes, and were relatively shorter for parents where the selected child was of school age (aged 5 to 15): mean of 48 minutes, median of 45 minutes.

## 6 Response

### 6.1 Outcomes and response for CBR sample

11,284 children were sampled from the Child Benefit Register – 26 for each of 434 Primary Sampling Units (PSUs). Opt-out letters were sent to these addresses, leading 485 respondents to opt out. These addresses were removed from the sample, and a total of 10,799 addresses were issued to interviewers, who sent advance letters before starting their calls.

The overall response rate for the CBR sample was 52 per cent. This figure reflects the proportion of productive interviews across all eligible addresses. The full fieldwork outcomes are shown in Table A.1 overleaf. Table A.2 then presents various response metrics for the CBR sample, showing trend data since the 2009 survey.

**Table A.1 Survey response figures, Child Benefit Register sample**

		<b>Population in scope of study</b>	<b>Population in scope of fieldwork</b>
	<b>N</b>	<b>%</b>	<b>%</b>
<b>Full sample pre opt-out (FS)</b>	<b>11,284</b>		
<b>Ineligible (I)</b>	<b>312</b>		
No children of relevant age	112		
Child deceased	2		
Other ineligible	198		
<b>Eligible sample (ES)</b>	<b>10,972</b>	<b>100</b>	
<b>Opt-outs before fieldwork started (OO)</b>	<b>485</b>	<b>4</b>	
<b>Eligible sample – issued to interviewers (EI)</b>	<b>10,487</b>	<b>96</b>	<b>100</b>
<b>Non-contact (N)</b>	<b>2,601</b>	<b>24</b>	<b>25</b>
Respondent moved	1,616		
Other non-contact	985		
<b>Refusals (R)</b>	<b>2,021</b>	<b>18</b>	<b>19</b>
Office refusal	37		
Refusal to interviewer	1,885		
Information about eligibility refused	99		
<b>Other unproductive (OU)</b>	<b>211</b>	<b>2</b>	<b>2</b>
Ill at home during survey period	25		
Language difficulties	51		
Other unproductive	135		
<b>Productive interviews (P)</b>	<b>5,654</b>	<b>52</b>	<b>54</b>
Full interview – lone parent	1,373		
Full interview – partner interview in person	898		
Full interview – partner interview by proxy	2,685		
Full interview – unproductive partner	698		



**Figure A.2 Survey response metrics, Child Benefit Register sample**

	2009	2010-11	2011-12	2012-13	2014-15	2017
	%	%	%	%	%	%
Overall response rate (P/ES)	52	57	58	59	57	52
Co-operation rate (P/(P+OU+R+OO))	67	76	72	73	70	68
Contact rate ((R+OU+P)/EI)	77	77	80	80	80	75
Refusal rate ((R+OO)/EI)	24	18	22	21	23	24
Eligibility rate (ES/FS)	98	97	98	97	97	97

## 6.2 Outcomes and response for FRS sample

99 valid addresses were sampled from the Family Resources Survey (FRS). Opt-out letters were sent to these addresses, leading 8 respondents to opt out. These addresses were removed from the sample, and a total of 91 addresses were issued to interviewers, who sent advance letters before starting their calls.

The overall response rate for the FRS sample was 39 per cent. This figure reflects the proportion of productive interviews across all eligible addresses. The full fieldwork outcomes are shown in Table A.3 overleaf. Table A.4 then presents various response metrics for the FRS sample.

**Table A.3 Survey response figures, Family Resources Survey sample**

		Population in scope of study	Population in scope of fieldwork
	N	%	%
<b>Full sample pre opt-out (FS)</b>	<b>99</b>		
<b>Ineligible (I)</b>	<b>0</b>		
No children of relevant age	0		
Child deceased	0		
Other ineligible	0		
<b>Eligible sample (ES)</b>	<b>99</b>	<b>100</b>	
<b>Opt-outs before fieldwork started (OO)</b>	<b>8</b>	<b>8</b>	
<b>Eligible sample – issued to interviewers (EI)</b>	<b>91</b>	<b>91</b>	<b>100</b>
<b>Non-contact (N)</b>	<b>28</b>	<b>28</b>	<b>30</b>
Respondent moved	16		
Other non-contact	12		
<b>Refusals (R)</b>	<b>21</b>	<b>21</b>	<b>23</b>
Office refusal	0		
Refusal to interviewer	20		
Information about eligibility refused	1		
<b>Other unproductive (OU)</b>	<b>3</b>	<b>3</b>	<b>3</b>
Ill at home during survey period	0		
Language difficulties	0		
Other unproductive	3		
<b>Productive interviews (P)</b>	<b>39</b>	<b>39</b>	<b>42</b>
Full interview – lone parent	0		
Full interview – partner interview in person	7		
Full interview – partner interview by proxy	25		
Full interview – unproductive partner	7		

**Table A.4 Survey response metrics, Family Resources Survey sample**

	2017
	%
Overall response rate (P/ES)	39
Co-operation rate (P/(P+OU+R+OO))	55
Contact rate ((R+OU+P)/EI)	69
Refusal rate ((R+OO)/(EI+OU))	31
Eligibility rate (ES/FS)	100

### 6.3 Implications of the response rate for data quality

The sample design for the 2017 Childcare and early years survey of parents assumed that a total of 6,300 interviews would be achieved, and that of these, 6,219 interviews would be achieved from the CBR sample, based on a response rate to the CBR sample of 57 per cent, as was achieved in the 2014-15 survey.

As shown in Table A.1, the response rate achieved for the CBR sample was 52 per cent, which equated to 5,654 interviews. This resulted in the total achieved sampled (across both the CBR and FRS samples) to be 5,693, lower than the 6,300 which had been assumed.

The lower than expected response rate was primarily due to a deterioration in the quality of the CBR sample. In the 2014-15 survey, at 12 per cent of addresses the selected child was found to have moved address, and could not be traced. In the 2017 survey, this proportion rose to 15 per cent. This deterioration may be due to the introduction of the High Income Child Benefit Charge in 2013, which has removed the incentive for parents with higher incomes, who are not eligible to receive Child Benefit, to update HMRC when they move address.

The implications of the lower than anticipated response rate on the quality and accuracy of the survey data can be considered first as a function of a potential increase in non-response bias, and second as a function of an increase in sampling error due to the lower than expected sample size.

#### Impact of non-response bias on data quality and accuracy

The lower the response rate, the greater the potential for non-response bias to affect survey estimates. In the present context, the relevant question is to what extent might a fall in the response rate from 57 per cent, to 52 per cent, have introduced a meaningful additional amount of non-response bias into survey estimates?

The available evidence is that there is only a very weak relationship between response rates and non-response bias. For instance, Sturgis, Williams, Brunton-Smith, and Moore

(2016)<sup>4</sup> found that for six UK surveys, survey estimates based on data collected after only a limited number of interviewer calls had been made were remarkably close to the final estimates obtained after all calls had been made. Specifically, after one call only (when the notional “response rate” was between seven per cent and 22 per cent, depending on the survey considered) estimates differed from final survey estimates (based on final response rates of between 54 per cent and 76 per cent) by only 1.6 percentage points. Other studies that have obtained data on both respondents and (initial) non-respondents have led to similar conclusions.<sup>5</sup>

The available evidence therefore suggests that the slight fall in the response rate (from 57 per cent in 2014-15, to 52 per cent in 2017) is unlikely to have introduced additional non-response bias into survey estimates to the extent that the survey estimates will be compromised in any meaningful sense.

### **Impact of reduced sample size on data quality and accuracy**

The lower than anticipated sample size means that sampling error will be higher than expected, and consequently, that confidence intervals around survey estimates will be wider. This form of error is random error, as distinct from the more damaging systematic error; it leads survey estimates to be slightly less precise (or accurate) than they otherwise would have been, but will not cause them to be skewed or biased in a particular direction.

The total sample size, of 5,693, remains large for a face-to-face survey employing random probability sampling, and survey estimates based on all respondents, or using sub-groups for which there is still a large sample size, for all intents and purposes will be unaffected in terms of their accuracy. For instance, in 2014-15 the survey estimate for families using any childcare (base size 6,198) was 79.2%  $\pm$  1.6 percentage points (ppts), and in 2017 (base size 5,693) it was 79.4%  $\pm$  1.6 ppts. And in 2014-15 the survey estimate for take-up of free early years provision among eligible 2- to 4-year-olds (base size 1,332) was 86.8%  $\pm$  2.1 ppts, whereas in 2017 (base size 1,237) it was 87.3%  $\pm$  2.3 ppts.

The reduction in accuracy resulting from the reduced sample size will be comparatively greater for analyses where base sizes are relatively smaller (for instance, in the hundreds), because sampling error varies with the square root of the sample size.

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<sup>4</sup> Sturgis, P., Williams, J., Brunton-Smith, I. and Moore, J. (2016). Fieldwork effort, response rate, and the distribution of survey outcomes: a multilevel meta-analysis. *Public Opinion Quarterly* advanced access <https://academic.oup.com/pog/article-abstract/doi/10.1093/pog/nfw055/2676922/Fieldwork-effort-response-rate-and-the?redirectedFrom=PDF>

<sup>5</sup> For instance, see: Groves, R. (2006). Nonresponse Rates and Nonresponse Bias in Household Surveys. *Public Opinion Quarterly* 70:646–75.

Groves, R., and Peytcheva, E. (2008). The Impact of Nonresponse Rates on Nonresponse Bias. *Public Opinion Quarterly* 72:167–89.  
Schouten, B., Cobben, F. and Bethlehem, J. (2009). Indicators for the Representativeness of Survey Response. *Survey Methodology* 35:101–13.

## 7 Data processing

### 7.1 Coding and editing of the data

The CAPI script ensured that the correct routing was followed throughout the questionnaire and applied range checks, which prevented invalid values from being entered. It also included consistency checks, which prompted interviewers to check answers that were inconsistent with information provided earlier in the interview. These checks allowed interviewers to clarify and query any data discrepancies directly with the respondent and were used extensively throughout the questionnaire.

The data collected during interviews was coded and edited. The main task was the back-coding of 'other' answers. This was carried out when over 10 per cent of respondents at a particular question provided an alternative answer to those that were pre-coded; this answer was recorded verbatim during the interview and was coded during the coding stage using the original list of pre-coded responses and sometimes additional codes available to coders only.

Coding was completed by a team of Ipsos MORI coders who were briefed on the survey. If the coder could not resolve a query, this was referred to the research team.

After the dataset was cleaned, the analysis file of question-based and derived variables was set up in SPSS and all questions and answer codes labelled.

### 7.2 Analysis and significance testing

Data tables showing survey results were created. These were generated in SPSS, and significance testing was undertaken using SPSS version 24. The complex samples module in SPSS was used to take into account the impact of stratification, clustering and non-response on the survey estimates. This means that 'false positive' results to significance tests (in other words interpreting a difference as real when it is not) is far less likely than if the standard formulae were used.

### 7.3 Provider edits

Checks were carried out on respondents' classifications of the pre-school childcare providers they used in order to improve the accuracy of the classifications. During the main survey, parents were asked to classify the childcare providers they used for their children into types (for example nursery school, playgroup and so on). Given that some parents may have misclassified the pre-school providers they used, Ipsos MORI contacted providers by telephone, where possible, and asked them to classify the type of provision they offered to children of different ages. Telephone interviews with providers

were carried out in three separate batches, the first two during the face-to-face fieldwork period, and the third and final batch immediately after face-to-face fieldwork had finished.

The following provider types (as classified by parents) were contacted:

- Nursery school
- Nursery class
- Reception class
- Special day school or nursery unit
- Day nursery
- Playgroup or pre-school

The process of checking providers started by extracting data from the CAPI interview regarding the providers used and the parents' classification of them. This was only done in cases where parents had agreed to Ipsos MORI contacting their providers. Each provider remained linked to the parent interview so that they could be compared and later merged to the parent interview data.

Ipsos MORI received information on 2,262 providers from the interview data. Because different parents may have used the same provider, the contact information for that provider was potentially repeated. As such, Ipsos MORI de-duplicated the list of providers, which was done both manually and automatically. 504 providers were duplicates and were therefore removed from the checks.

A full list of 1,758 providers was generated, and telephone interviewers were briefed. Interviews with providers were approximately three minutes long, and covered the services provided and the age range of the children who attended each service. Interviews were achieved with 1,387 providers, which constitutes a response rate of 79 per cent<sup>6</sup>.

The classification of pre-school providers was compared between the parent face-to-face interviews and the provider checks telephone interviews, and final classifications were derived by following pre-agreed editing rules. Table A.5 compares parents' classification of providers with the final classification of providers after the edits had been carried out.

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<sup>6</sup> This compares with response rates of between 82% and 89% for previous surveys in the series. The lower response rate for the 2017 survey can be attributed to the fieldwork period for the face-to-face survey ending in early August, meaning that those providers telephoned in the final batch of telephone interviews (immediately following the face-to-face fieldwork period) were relatively more difficult to contact due to the summer holidays.

**Table A.5 Summary classification of providers before and after provider checks**

	<b>Parents' classification</b>	<b>Final classification after all checks</b>
	<b>%</b>	<b>%</b>
<i>Base: All formal institutional providers identified by parents</i>	2,254	2,254
Nursery school	25	12
Nursery class attached to a primary or infants' school	15	16
Reception class	30	30
Special day school or nursery or unit for children with SEN	1	1
Day nursery	15	26
Playgroup or pre-school	13	14

While these data illustrate the gross change in provider classifications before and after the provider edits, they do not show the net changes; that is, how exactly each provider as classified by parents is ultimately reclassified after the provider edits are complete. This is shown for those provider mentions which were subjected to the provider edits (i.e. where provider contact details were provided and an interview with the provider was sought) in Table A.6.

This table shows that where parent(s) classified providers as either reception classes or day nurseries, in the great majority of cases (94%) they were correct. Parents were least accurate where they classified a provider as a nursery school – only 23 per cent of the time did this prove to be correct, with 49 per cent of these classifications ultimately proving to be a day nursery, and 16 per cent a nursery class.

**Table A.6 Detailed classification of providers before and after provider checks. Parents' classifications (bold) and final classifications (not bold)**

		Per provider	Of total
	N	%	%
<b>Nursery school</b>	<b>562</b>	<b>100</b>	<b>26</b>
Nursery school	206	23	6
Nursery Class	75	16	4
Reception Class	12	3	1
Special day school/nursery	1	0	0
Day Nursery	227	49	13
Playgroup or pre-school	39	8	2
Other	2	0	0
<b>Nursery Class</b>	<b>342</b>	<b>100</b>	<b>15</b>
Nursery school	23	9	1
Nursery Class	267	72	11
Reception Class	20	7	1
Special day school/nursery	0	0	0
Day Nursery	19	7	1
Playgroup or pre-school	13	5	1
Other	0	0	0
<b>Reception Class</b>	<b>686</b>	<b>100</b>	<b>29</b>
Nursery school	7	1	0
Nursery Class	8	2	0
Reception Class	654	94	27
Special day school/nursery	0	0	0
Day Nursery	9	2	1
Playgroup or pre-school	5	1	0
Other	3	1	0
<b>Special day school/nursery</b>	<b>24</b>	<b>100</b>	<b>1</b>
Special day school/nursery	24	100	1
<b>Day Nursery</b>	<b>345</b>	<b>100</b>	<b>17</b>
Nursery school	10	3	1
Nursery Class	4	1	0
Reception Class	0	0	0
Special day school/nursery	0	0	0
Day Nursery	327	94	16
Playgroup or pre-school	4	1	0
Other	0	0	0
<b>Playgroup or pre-school</b>	<b>295</b>	<b>100</b>	<b>12</b>
Nursery school	14	7	1
Nursery Class	8	4	0
Reception Class	0	0	0
Special day school/nursery	1	0	0
Day Nursery	25	12	1
Playgroup or pre-school	247	77	9
Other	0	0	0
<b>GRAND TOTAL</b>	<b>2,254</b>		<b>100</b>



## 7.4 Weighting

### Summary of the weighting

The sample was selected from two sources: the main component was sampled from the Child Benefit Register (CBR) as for previous years of the survey, with an additional sample from respondents to the Family Resources Survey (FRS) that were identified as not receiving Child Benefit because of the introduction of the High Income Benefit Charge. These two components of the survey were weighted separately.

The sample is analysed at both the family and child-level, and hence there are two final weights; a family weight for family-level analyses, and a child weight for analyses of data collected about the selected child.

### Child Benefit sample: Family weights

#### Family selection weight

The Child Benefit sample was designed to be representative of the population of children of parents receiving Child Benefit, rather than the population of parents or families themselves. This design feature means that larger families are over-represented in the sample<sup>7</sup>. In addition, the sampling was designed so that the sample of children aged 2 to 4 was boosted by a factor of two. The first stage of the weighting for the family weights corrects for these design features by calculating the appropriate selection weights. These selection weights also corrected for families for which the number of children on the sample frame differed from the number of children found in the family at interview.

The family selection weight is the inverse of the family's selection probability, so larger households and those containing children aged 2 to 4 are weighted down:

$W1 = 1/\text{Pr}(F)$ ; where

$\text{Pr}(F) = (\# \text{ children not aged 2 to 4}) + 2 \times (\# \text{ children aged 2 to 4})$

The counts of the children were based on the sampling frame information, but were adjusted up (or down) if more (or fewer) children were found in the family at interview – this adjustment was trimmed to reduce the variance of the child weights.

#### Family calibration weight

The next stage of the weighting adjusted the sample using calibration weighting, so that the weighted distribution for region and the number of children in the household at the family level matched the family-level Child Benefit counts, and the weighted distribution

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<sup>7</sup> This follows from children in England having an equal chance of selection, meaning that a family with two children has twice the chance of having a child selected as a family with one child, a family with four children has four times the chance of having a child selected as a family with one child, and so on.

for age groups at the child level matched child-level Child Benefit counts (Table A.7). HMRC provided Ipsos MORI with a breakdown of the sampling frame (before exclusions) for different variables at family and child level (see Tables A.7 and A.8).

The family selection weights (W1) were used as the starting weights for the calibration weighting stage.

**Table A.7 Control totals for the family calibration weights**

	Population	Population	Selection weight (W1)	Final weight (W2)
	N	%	%	%
<b>Region (families)</b>				
North East	257,430	4.7	4.8	4.7
North West	737,750	13.3	14.6	13.3
Yorkshire and the Humber	549,095	9.9	10.8	9.9
East Midlands	470,485	8.5	7.9	8.5
West Midlands	595,230	10.8	10.5	10.8
East of England	616,195	11.1	11.3	11.1
London	906,510	16.4	15.1	16.4
South East	885,070	16.0	16.0	16.0
South West	514,415	9.3	9.1	9.3
TOTAL	5,532,180			
<b>Children's age (children)</b>				
0-1	851,210	9.3	10.9	9.4
2-4	1,865,440	20.4	20.5	20.4
5-7	2,024,650	22.2	22.2	22.2
8-11	2,588,365	28.4	27.4	28.3
12-14	1,800,195	19.7	19.1	19.7
TOTAL	9,129,860			
<b>Number of children in household (families)</b>				
1	2,851,430	51.5	43.1	51.5
2	1,977,265	35.7	40.8	35.7
3	536,610	9.7	12.2	9.7
4+	166,875	3.0	3.9	3.0
TOTAL	5,532,180			

The adjustment for the calibration weight was trimmed to avoid extreme weights to give the Child Benefit family weight (W2).

## Child Benefit sample: Child weights

### Child selection weight

At each sampled address from the Child Benefit sample, a single child was selected at random to be the focus of the detailed childcare section of the questionnaire. Children

aged 2 to 4 were given a higher chance of selection (by a factor of 2) in order to boost the sample in that age range.

The child selection weight (W3) is the inverse of the child selection probabilities applied within each household:

$W3 = 1/Pr(C)$ ; where

$Pr(C) = 1 / [(\# \text{ children not aged 2 to 4}) + 2 \times (\# \text{ children aged 2 to 4})]$  if the child was aged 2 to 4

$Pr(C) = 2 / [(\# \text{ children not aged 2 to 4}) + 2 \times (\# \text{ children aged 2 to 4})]$  if the child was not aged 2 to 4

### **Child calibration weight**

The next stage was to produce calibration weights that adjusted the sample of selected children so that the weighted distributions for age/sex groups, region and number of children in the household matched child-level Child Benefit counts (Table A.8). The starting weights for the calibration stage (W4) were obtained by combining the family weight (W2) with the child selection weights (W3):  $W4 = W2 \times W3$ .

**Table A.8 Control totals for the child calibration weights**

	Population	Population	Pre-calibration weight (W4)	Final weight (W4)
	N	%	%	%
<b>Region (children)</b>				
North East	417,684	4.6	4.5	4.6
North West	1,222,328	13.4	13.2	13.4
Yorkshire and the Humber	917,568	10.1	9.7	10.1
East Midlands	773,839	8.5	8.5	8.5
West Midlands	1,007,758	11.0	10.9	11.0
East of England	1,011,463	11.1	11.0	11.1
London	1,488,798	16.3	16.8	16.3
South East	1,444,868	15.8	16.0	15.8
South West	845,554	9.3	9.3	9.3
TOTAL	9,129,860			
<b>Selected child's gender / age (children)</b>				
Males: 0-1	436,425	4.8	4.5	4.8
Males: 2-4	955,330	10.5	9.8	10.5
Males: 5-7	1,036,860	11.4	12.8	11.4
Males: 8-11	1,323,695	14.5	14.1	14.5
Males: 12-14	921,835	10.1	10.7	10.1
Females: 0-1	414,785	4.5	4.6	4.5
Females: 2-4	910,110	10.0	9.2	10.0
Females: 5-7	987,790	10.8	10.7	10.8
Females: 8-11	1,264,670	13.9	14.3	13.9
Females: 12-14	878,360	9.6	9.4	9.6
TOTAL	9,129,860			
<b>Number of children in household (children)</b>				
1	2,848,868	31.2	30.8	31.2
2	3,950,990	43.3	43.4	43.3
3	1,608,389	17.6	17.8	17.6
4+	721,613	7.9	7.9	7.9
TOTAL	9,129,860			

## FRS Sample: Family and child weights

Because the number of interviews carried out with the sample selected from the Family Resources Survey was relatively small (39), a complex weighting strategy was not appropriate. Instead, the child and family weights for the FRS sample were both set to be three times the corresponding mean value for the Child Benefit sample weights.

The weights for the two sample components were combined and re-scaled to have mean of 1, so the weights sum to the sample size. This gives the two sets of weights to use in the analyses: `wt_child` and `wt_family`.

## Effective sample size

Disproportionate sampling and sample clustering usually result in a loss of precision for survey estimates. All else being equal, the more variable the weights, the greater the loss in precision.

The effect of the sample design on the precision of survey estimates is indicated by the effective sample size ( $n_{eff}$ ). The effective sample size measures the size of an (unweighted) simple random sample that would have provided the same precision as the design being implemented. An effective sample size that is close to the actual sample indicates an efficient design with a good level of precision. The efficiency of a sample is given by the ratio of the effective sample size to the actual sample size.

The estimated 'average' effective sample size and sample efficiency were calculated for both weights (Table A.9). Note that this calculation includes only effects of the weighting; it does not include clustering effects, which will be question-specific. In addition, this is an 'average' effect for the weighting – the true effect will vary from question to question.

**Table A.9 Effective sample size and weighting efficiency**

	All
<i>Base: All cases</i>	5,693
<b>Child weight</b>	
Effective sample size	4,884
Sample efficiency	85.8%
<b>Family weight</b>	
Effective sample size	3,777
Sample efficiency	66.4%

## Confidence intervals

Confidence intervals (at the 95% level) for key estimates in the survey are shown in Table A.10. The confidence intervals have been generated using standard errors calculated using complex samples formulae.

**Table A.10 Confidence intervals (95%) for key estimates**

	Estimate	Standard error	Lower	Upper	Unweighted base
Use of any childcare	79.40%	0.01	77.83%	80.97%	5,693
Use of formal childcare	66.41%	0.01	64.69%	68.13%	5,693
Use of informal childcare	36.27%	0.01	34.37%	38.17%	5,693
Hours of childcare used (all)	15.87	0.31	15.27	16.47	3,641
Hours of childcare used (pre-school children)	11.42	0.36	10.72	12.12	1,633
Hours of childcare used (school-age children)	24.33	0.45	23.45	25.22	2,008
Take-up of free entitlement	87.28%	0.01	85.01%	89.55%	1,237
Weekly amount paid for childcare	60.15%	1.93	56.36%	63.95%	2,722
Use of any holiday childcare	43.76%	0.01	41.37%	46.15%	4,794

## Appendix: Socio-demographic profile

### Respondent characteristics

#### Gender

As in previous surveys in the series, the majority of parents who responded to the survey were female (86%).

#### Age

The mean age of respondents was 39, and of their partners, 41. Table B.1 shows the age bands of respondents by family type. It shows that respondents in couple families tended to be slightly older than lone parent respondents.

**Table B.1 Age of respondent, by family type**

	Family type		
	Couples	Lone parents	All
Age of respondent	%	%	%
<i>Base: All families with child(ren) aged 0 to 14</i>	4,321	1,372	5,693
20 and under	*	1	*
21 to 30	13	25	16
31 to 40	43	37	42
41 to 50	37	29	35
51+	7	8	7
Mean	39	37	39

#### Marital status

Two-thirds of respondents (68%) were married and living with their partners (Table B.2). The majority of the remainder (21%) were single without ever having being married (including persons who were cohabiting).

**Table B.2 Marital status**

	All
<b>Marital status</b>	<b>%</b>
<i>Base: All families with child(ren) aged 0 to 14</i>	5,693
Married and living with husband/wife	68
Single (never married)	21
Divorced	6
Married and separated from husband/wife	4
Widowed	1

### Qualifications

Respondents in lone parent families tended to have lower qualifications than respondents in couple families (Table B.3). Lone parents were less likely to hold Honours and Masters degrees than were respondents in couple families, and were more likely not to hold any academic qualifications.

**Table B.3 Qualifications, by family type**

	Family type		
	Couples	Lone parents	All
<b>Qualifications</b>	<b>%</b>	<b>%</b>	<b>%</b>
<i>Base: All families with child(ren) aged 0 to 14</i>	4,198	1,327	5,525
GCSE grade D-G/CSE grade 2-5/SCE O Grades (D-E)/SCE	6	11	12
GCSE grade A-C/GCE O-level passes/CSE grade 1/SCE O	16	20	7
GCE A-level/SCE Higher Grades (A-C)	15	18	17
Certificate of Higher Education	9	7	16
Foundation degree	5	5	9
Honours degree (e.g. BSc, BA, BEd)	23	13	5
Masters degree (e.g. MA, PGDip)	12	6	20
Doctorate (e.g. PhD)	2	1	11
Other academic qualifications	2	1	1
None	10	18	1

## Family characteristics

### Size of the family

The median number of people in a family was four people. The smallest families comprised of two people (i.e. one parent and one child), and the largest comprised of twelve people.

### Number of children aged 0 to 14 in the family

Around half (51%) of families had one child aged 0 to 14, 36 per cent had two children, and 13 per cent had three or more children (Table B.4). Lone parents tended to have fewer children than couple families.

**Table B.4 Number of children in the household, by family type**

	Family type		
	Couples	Lone parents	All
Number of children	%	%	%
<i>Base: All families with child(ren) aged 0 to 14</i>	4,321	1,547	6,198
1	48	61	51
2	39	21	36
3+	13	12	13

Almost three in five (58%) families had school-age children only, 20 per cent had both pre-school and school-age children, and the remaining 22 per cent had only pre-school children (Table B.5).

**Table B.5 Number of pre-school and school-age children in the family, by family type**

	Family type		
	Couples	Lone parents	All
Age of children in family	%	%	%
<i>Base: All families with child(ren) aged 0 to 14</i>	4,321	1,372	5,693
Only pre-school children (0 to 4 years)	23	19	22
Both pre-school and school-age children	21	16	20
Only school-age children (5 to 14 years)	56	65	58



## Family annual income

Table B.6 shows the family annual income (before tax). Lone parents tended to have lower family annual incomes than did couple families.

**Table B.6 Family annual income by family type**

	Family type		
	Couples	Lone parents	All
Family annual income	%	%	%
<i>Base: All families with child(ren) aged 0 to 14</i>	4,103	1,336	5,439
Up to £9,999	4	20	8
£10,000 - £19,999	12	47	21
£20,000 - £29,999	17	21	18
£30,000 - £44,999	23	7	19
£45,000 or more	45	5	34

## Family type and work status

Table B.7 shows family type and work status. Half of respondents were from couple families where both parents worked (50%), and a further 21 per cent in couple families where one parent worked. In 13 per cent of families no-one was working (10% were non-working lone parent families and 3 per cent were couple families where neither parent was in work).

**Table B.7 Family work status**

	All
Family work status	%
<i>Base: All families with child(ren) aged 0 to 14</i>	5,692
Couple – both working	50
Couple – one working	21
Couple – neither working	3
Lone parent working	16
Lone parent not working	10

## Tenure

The tenure of respondents' families is shown in Table B.8. Families were most likely to be buying the property with a mortgage or loan (48%) or renting the property (41%). The majority of couple families were in the process of buying their home with the help of a mortgage or loan (59%), while the majority of lone parents were renting (73%).

**Table B.8 Tenure status, by family type**

	Family type		
	Couples	Lone parents	All
Tenure status	%	%	%
<i>Base: All families with child(ren) aged 0 to 14</i>	4,411	1,368	5,679
Buying it with the help of a mortgage or loan	59	18	48
Rent it	30	73	41
Own it outright	10	6	9
Live rent-free (in relative's/friend's property)	1	2	1
Pay part rent and part mortgage (shared ownership)	*	1	1

## Selected child characteristics

### Gender

There was a roughly even split of selected boys and girls (51% boys; 49% girls).

### Age

The age of the selected child was spread across all age categories (Table B.9).

**Table B.9 Age of selected child, by family type**

	Family type		
	Couples	Lone parents	All
Age of selected child	%	%	%
<i>Base: All child(ren) aged 0 to 14</i>	4,321	1,372	5,693
0 to 2	17	14	16
3 to 4	15	13	15
5 to 7	22	22	22
8 to 11	27	30	28
12 to 14	19	21	19

### Ethnic group

The majority of selected children in the survey were White British (69%) (Table B.10). Children from ethnic minority backgrounds were more likely to live in lone parent families than children from White backgrounds.

**Table B.10 Ethnicity of selected child, by family type**

	Family type		
	Couples	Lone parents	All
<b>Ethnicity of selected child</b>	<b>%</b>	<b>%</b>	<b>%</b>
<i>Base: All child(ren) aged 0 to 14</i>	4,313	1,368	5,681
<b>White</b>			
White British	70	66	69
White Irish	*	0	*
Other White	*	*	*
<b>Mixed</b>			
White and Caribbean	1	4	1
White and Black African	1	2	1
White and Asian	2	2	2
Other mixed	1	2	1
<b>Asian or Asian British</b>			
Indian	4	1	3
Pakistani	5	2	5
Bangladeshi	2	1	2
Other Asian	2	1	2
<b>Black or Black British</b>			
Caribbean	1	4	1
African	3	7	4
Other Black	*	*	*
<b>Chinese</b>	*	*	*
<b>Arab</b>	*	*	*
<b>Other</b>	1	1	1

### Special education needs and disabilities

Seven per cent of selected children had a special educational need<sup>8</sup>, and six per cent of children had a long-standing physical or mental impairment, illness or disability (Table B.11).

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<sup>8</sup> The selected child was categorised as having a special educational need (or not) during the interview via the parent's response to the question "Does [child's name] have any special educational needs or other special needs? [yes/no/don't know/refused]"

**Table B.11 Special educational needs or disabilities of selected child, by family type**

	Family type		
	Couples	Lone parents	All
<b>Special educational needs or disabilities of selected child</b>	<b>%</b>	<b>%</b>	<b>%</b>
<i>Base: All child(ren) aged 0 to 14</i>	4,321	1,372	5,693
Child has SEN	6	9	7
Child has long-standing physical or mental impairment, illness or disability	6	7	6

**Region, area deprivation and rurality**

Table B.12 shows the geographical spread of the surveyed families according to region.

**Table B.12 Region**

	All
<b>Region</b>	<b>%</b>
<i>Base: All families with child(ren) aged 0 to 14</i>	5,693
North East	5
North West	13
Yorkshire and the Humber	10
East Midlands	8
West Midlands	11
East of England	11
London	17
South East	16
South West	9

Interviewed families lived in a broad range of areas in terms of deprivation levels, as defined by the Index of Multiple Deprivation in England (Table B.13).

**Table B.13 Area deprivation according to the Index of Multiple Deprivation**

	All
<b>Area deprivation</b>	<b>%</b>
<i>Base: All families with child(ren) aged 0 to 14</i>	5,693
1 <sup>st</sup> quintile – least deprived	19
2 <sup>nd</sup> quintile	18
3 <sup>rd</sup> quintile	18
4 <sup>th</sup> quintile	21
5 <sup>th</sup> quintile – most deprived	24

Table B.14 shows that 85 per cent of families lived in urban areas, with the remaining 15 per cent living in rural areas.

**Table B.14 Rurality**

	<b>All</b>
<b>Rurality</b>	<b>%</b>
<i>Base: All families with child(ren) aged 0 to 14</i>	5,693
Rural	15
Urban	85
Urban - major conurbation	38
Urban - minor conurbation	3
Urban - city and town	44
Rural - town and fringe	9
Rural - town and fringe in a sparse setting	*
Rural - village and dispersed	5
Rural - village and dispersed in a sparse setting	*