



# **Growing Up in Scotland: Birth Cohort 2, Sweep 2**

## **User Guide**

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# 1 Overview of the survey

Growing Up in Scotland (GUS) is a longitudinal research study aimed at tracking the lives of three cohorts of Scottish children from the early years, through childhood and beyond. Funded by the Scottish Government Education Directorate, its principal aim is to provide information to support policy making, but it is also intended to be a broader resource for secondary analysis.

The overarching aim of the study is set out in its purpose, which is:

“To generate, through robust methods, specifically Scottish data about outcomes throughout childhood and into adulthood for children growing up in Scotland across a range of key domains:

- Cognitive, social, emotional and behavioural development
- Physical and mental health and wellbeing
- Childcare, education and employment
- Home, family, community and social networks
- Involvement in offending and risky behaviour

Such data will encompass, in particular, topics where Scottish evidence is lacking and policy areas where Scotland differs from the rest of the UK.”

## 1.1 Study Design

GUS was designed to provide cross-sectional and longitudinal data at a national level about children who were born in particular year and who had survived until the first point of data collection.<sup>1</sup>

GUS was initially based on two cohorts of children. The first (known as ‘birth cohort 1’) was aged approximately 10 months at the time of first interview and involved around 5217 children at the first sweep of data collection. The second (known as the ‘child cohort’) was aged approximately 34 months at the first interview and involved around 2800 children at the first sweep. The second birth cohort ‘birth cohort 2’ of 6127 children aged around 10 months at the time of the first interview, was recruited in 2011.

All cohorts were named samples drawn from Child Benefit records. The configuration of cohorts and sweeps for all sweeps of data collection launched to date is summarised in Table 1.1.

Throughout the text BC1 refers to the younger of the two birth cohorts (‘birth cohort one’), and BC2 to the most recent birth cohort (‘birth cohort two’).

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<sup>1</sup> Because the study does not include children who were stillborn or who died prior to the first contact, and because it includes children who were born outside of Scotland, the sample is not representative of *all births* in Scotland the reference period. Rather it is representative of children of the relevant age living in Scotland at the time of data collection who also lived in Scotland at the age of 10 months.

Child's age at data collection	Cohort/Year of data collection		
	Child cohort	Birth cohort 1	Birth cohort 2
10 months		2005/06	2011
1-2 yrs (22 months)		2006/07	
2-3 yrs (34 months)	2005/06	2007/08	2013
3-4 yrs (46 months)	2006/07	2008/09	2014*
4-5 yrs (58 months)	2007/08	2009/10	2015
5-6 yrs (70 months)	2008/09	2010/11	
7-8 yrs		2012/13	
9 yrs (Primary 5)		2013/14*	
10 yrs (Primary 6)		2014/15	
11 yrs (Primary 7)		2016/17*	
12 yrs (Secondary 1)		2017/18	

\*All data collection conducted face-to-face except in years indicated when data was collected via web and telephone surveys.

A key aim of using multiple cohorts is to allow the study to provide three types of data:

- Cross-sectional time specific data – e.g. what proportion of 3 year old children lived in single parent families in 2013?
- Cross-sectional time series data – e.g. is there any change in the proportion of 3 year old children living in single parent families between 2007/08 and 2013?
- Longitudinal cohort data – e.g. what proportion of children who were living in single parent households aged 0-1 are living in different family circumstances at age 5-6?

## 1.2 Sample Design

The sample design for BC2 was similar, but not identical, to that used for the two previous cohorts (BC1 and the child cohort). The initial area-level sampling frame of Primary Sampling Units (PSUs) was created by aggregating Data Zones. Data Zones are small geographical output areas created for the Scottish Government. Data Zones are used to release data from the Census 2001 and other neighbourhood statistics. Each PSU was roughly equal in size ('size' = expected number of births, based on the average number of births in each Data Zone for the preceding 3 years). 160 PSUs were selected with equal probability.

Child Benefit records held by HMRC were used to identify ALL children who were within the eligible age range (born between 1<sup>st</sup> March 2010 and 28<sup>th</sup> February 2011) and living in the selected PSUs. In households with twins only one child was selected to reduce burden on the parents.

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A letter was sent to the Child Benefit recipient in all eligible households informing them that they had been selected for inclusion in the study. Recipients were able to opt-out of the study at this stage. Those cases which did not opt out were deemed eligible for interview.<sup>2</sup>

Further information on the BC2 sample design is provided in the BC2 sweep 1 User Guide.

## 1.3 Data collection

Data collection involved a face to face interview with the child's main carer, cognitive assessments conducted with the child and height and weight measurements taken of the child. Interviewers also recorded observations of the child's behaviour and parent-child interactions.

Interviews were carried out in participants' homes by trained social survey interviewers using laptop computers (otherwise known as CAPI – Computer Assisted Personal Interviewing). The interview was quantitative and consisted almost entirely of closed questions. Overall, the average interview (including the cognitive assessments and height and weight measurements of the child) lasted 70 minutes<sup>3</sup>. There was a brief, self-complete section in the interview in which the respondent, using the laptop, input their responses directly into the questionnaire program.

Further details of the cognitive assessments, height and weight measurements and interviewer observations are provided in section 1.4.

At sweep 2, primarily because of the use of data fed forward from previous sweep, interviewers were instructed as far as possible to undertake the interview with the person who took part in the sweep 1 interview. Where the previous respondent was not available, interviews were undertaken with another resident carer. In the vast majority of cases, interviews were conducted with the child's mother (98% of cases). In most of the remaining cases the respondent was the child's father. A small number of interviews were conducted with the child's grandparent.

Fieldwork was undertaken over a fourteen month period commencing in January 2013. The sample was issued in twelve monthly waves at the beginning of each month and each month's sample was in field for a maximum period of two and a half months. For example, sample 2 was issued at the beginning of February 2013 and remained in field until mid-April 2013.

To ensure that respondents were interviewed when their children were approximately the same age, each case was assigned a 'target interview date'. This was identified as the date on which the child turned 34 months old. Interviewers were allotted a four-week period based on this date (two weeks either side) in which to secure the interview. In difficult cases, this period was extended up to and including the child's subsequent birthday which allowed a further four weeks.

The majority of interviews took place when the child was aged 34 months (69%). A further 24% took place at 35 months and just under 4% at 36 months. Just 2% of interviews took place before the child turned 3 months. The remainder of interviews (around 2%) took place when the child was aged between 37 and 41 months.

## 1.4 Objective assessments and measurements

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<sup>2</sup> Details of the number of eligible cases identified, the number of opt-outs and so on, is provided in section 1.4

<sup>3</sup> The median length of the household visit was 70 minutes.

## 1.4.1 Cognitive assessments: British Ability Scales (BAS3) – Naming Vocabulary and Picture Similarities

### Overview

As part of the data collection for sweep 2, the birth cohort children were asked to complete two cognitive assessments. The assessments – Naming Vocabulary and Picture Similarities – were taken from the Early Years battery of the ‘British Ability Scales Second Edition’ (BAS II). The British Ability Scales (BAS) is a battery of individually administered tests of cognitive abilities and educational achievements suitable for use with children and adolescents aged from 2 years 6 months to 17 years 11 months. The assessments are normally employed by educational psychologists in a classroom or clinical setting but have been adapted for use in a survey setting, and modified to be administered with the help of a CAPI program pre-determining the complex set of rules for routing children through each assessment. The purpose and method of each assessment is described in Table 1.2. The data is used to estimate an approximate score for each child.

Table 1.2 Details of cognitive assessments used at sweep 2

Assessment name	Assesses	Method	Max no of items
BAS – Picture Similarities	Non-verbal reasoning	Child is shown a row of 4 pictures and is given a card with a 5 <sup>th</sup> picture. The child places the card under the picture which shares an element or concept with the card.	33
BAS – Naming Vocabulary	A verbal task which concerns knowledge of names	Child is shown a picture and asked to say its name.	36

### Comparison with BC1

BC1 children also carried out Naming Vocabulary and Picture Similarities exercises when they were the same age (34 months). However, different editions of the assessments were used: For BC1, the 2<sup>nd</sup> edition assessment was used (BAS-II), whereas for BC2 the 3<sup>rd</sup> edition was used (BAS3). Whilst the assessments are almost identical, there are a small number of differences – for example in the individual items, the order of the items and the stopping points – which would introduce caveats when making a straightforward comparison of ability scores.

To allow for comparison between the cohorts, the assessment authors provided the GUS team with a calibration formula to be applied to the BC1 scores. Once applied, the revised scores can be used in comparisons between the cohorts. No adjustment is required to the BC2 scores.

**Note that any comparisons of cognitive ability scores across the cohorts MUST use the adjusted BC1 scores. If you are using an old BC1 dataset this variable may not be available. If you need the revised BC1 score variables and these are not available in**

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***your BC1 dataset, please contact the ScotCen Research Team using the details given in section 4.1.***

Note also that because of this adjustment, it is not possible to convert differences in average cognitive ability scores to developmental age in months.

## **BAS Naming Vocabulary**

Naming Vocabulary assesses the spoken vocabulary of young children. The test items consist of a booklet of coloured pictures of objects which the child is shown one at a time and asked to name. The scale measures expressive language ability, and successful performance depends on the child's previous development of a vocabulary of nouns. Picture recognition is also crucial; however, the pictures are large and brightly coloured and are unlikely to cause problems except for children with major visual impairments or with no experience of picture books. The items require the child to recall words from long-term memory rather than to recognise or understand the meaning of words or sentences.

Naming Vocabulary score may reflect:

- Expressive language skills
- Vocabulary knowledge of nouns
- Ability to attach verbal labels to pictures
- General knowledge
- General language development
- Retrieval of names from long-term memory
- Level of language stimulation

Low scores may reflect reluctance to speak.

## **BAS Picture Similarities**

Picture Similarities measures the reasoning ability of young children. The test items consist of a booklet with four images on each page and a set of cards each with a single image printed on. The child is shown the row of pictures, given a corresponding card and asked to place the card under the image on the page which shares an element or concept with the image on the card. To undertake the task, the child must identify various, potentially relevant, features of the images and determine which feature the target picture on the card shares with only one of the four possible images on the page. Whilst speech is not required, good verbal-encoding may well help the child solve the problems.

Picture Similarities scores may reflect:

- Non-verbal problem solving (inductive reasoning)
- Visual perception and analysis
- Ability to attach meaning to pictures
- Ability to develop and test hypotheses
- Use of verbal mediation
- General knowledge

Low scores may also reflect impulsiveness (responding without checking the response).

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## Further information

For more information about the development, administration, scoring and interpretation of the BAS assessments see:

- Elliott, C.D., Smith, P, and McCulloch, K (2011) British Ability Scales Third Edition
- (BAS II): Technical Manual. London: NFER-Nelson.

## Obtaining consent for child assessments

Before undertaking the assessments with the child, the child's parent or carer was required to give informed consent. A bespoke information leaflet detailing the object and content of the assessments was given to parents by the interviewer. After reading the leaflet, parents were then asked to sign a consent form permitting the assessments to go ahead. Levels of consent to undertake the assessments were very high at 94% for Picture Similarities and 95% for Naming Vocabulary.

### 1.4.1 Height and weight measurements

#### Overview

The relationship between general build and health is of great interest to the Scottish Government, especially in relation to children. This is particularly so, as both the height and the weight of the population appear to have been changing very rapidly over the last two decades. These changes reflect things like changes in children's diet and lifestyle. Although many parents do know their child's height and weight, these measurements are not always up to date or are not known with the precision required for detailed analyses. By including objective measurements of height and weight, GUS provides a reliable and extensive source of data for researchers interested in matters related to children's health.

#### Carrying out the measurements

Interviewers were asked to measure the height and weight of all children in the study. However, in some cases it may not have been possible or appropriate to do so, for example if it was clear that the child was unwilling or that the measurement would be far from reliable.

It was recommended that height and weight measurements be taken on a floor which was level and not carpeted. If all rooms in the household were carpeted, a floor with the thinnest and hardest carpet was chosen (usually the kitchen or bathroom).

For the weight measurements, there was an option to weigh the child whilst being held by an adult. In this case, the adult was weighed on his/her own first and then the adult and the child were weighed together. Both weights were entered into the interviewer's laptop which calculated the child's weight.

The interviewer was asked to code whether they experienced problems with the height and/or weight measurements and, if they did, to indicate whether they felt the end result was reliable or unreliable at WcXhei14 and WcXwei19. As a rough guide, if the measurement was likely to be more than 2 cms (3/4 inch) from the true figure for height or 1 kg (2 lbs) from the true figure for weight, it was coded as unreliable.

If the respondent was not willing to allow the sample child to have his/her height or weight measured, for example saying that they were too busy or already knew their measurements, a

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Refusal code was entered for the measurements variables WcXhei01 and WcXwei01, with the reason for refusal at WcXhei02 or WcXwei02.

If the height or weight was refused or not attempted, the respondent was asked to estimate their child's height or weight, in metric or imperial measurements.

Detailed protocols of how to take height and weight measurements are included as appendices to the main interviewer instructions deposited with the dataset and available from the data archive website.

The data has been used to estimate an approximate BMI (Body Mass Index) score for each child. Details on the data and variables associated with the height and weight measurements can be found in section 3.6.

## **1.4.2 Interviewer observations: Parent-child interactions and child behaviour**

In other studies of child development, observation measures have been demonstrated as a reliable and useful method of reporting on child and parent behaviour during the course of a home visit. The set of observation items included in sweep 2 with BC2 were a highly efficient means of gaining further data about the child's home environment. The observational data strengthens other sources of data in GUS, providing further objective information on the relationship between child characteristics, the family environment and child outcomes. They are designed to be used in combination with related items from the main carer interview rather than standalone items. Observation data was recorded after the interviewer finished the interview and left the respondent's home. Items on parent-child interactions and child behaviour were only completed if the child was present during the interview.

Guidance provided to interviewers can be found in Appendix D of the project instructions, in the accompanying documentation.

Details about the observation data collected at sweep 2 are provided in section 3.7.

## 1.5 Response rates

Details of the number of cases issued and achieved and the response rates are presented in Table 1.3.

Table 1.3 Response	
Achieved interviews at sweep 1	6127
Cases issued at sweep 2	
All issued to field	6071 <sup>a</sup>
Eligible (i.e. child is alive and still living in Scotland)	6007
Cases achieved at sweep 2	5020
Response rate at sweep 2	
% of all eligible cases at sweep 2	84%
% of all sweep 1 cases	65%

<sup>a</sup> 56 cases which were productive at sweep 1 were not issued to field at sweep 2. These were cases where the research team had been made aware that a family was no longer eligible (e.g. because the cohort child had died or the family was no longer living in Scotland) or where the family had contacted the research team to opt out of the study.

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## 2 Using the data

### 2.1 Documentation

The documentation is provided as 4 PDF files organised into the following sections:

- A representation of the CAPI questionnaire with variable names added and the show cards used during the interview.
- The Data Documentation comprising
  1. list of variables in the dataset (including derived variables)
  2. list of derived variables with their SPSS syntax
- Project instruction containing interviewer and coding instructions.

### 2.2 The data file

The GUS BC2 sweep 2 data consists of one SPSS file:

GUS_BC2_SW2	5019 cases	Birth Cohort 2
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### 2.3 Variables on the data file

The data file contains questionnaire variables (excluding variables used for administrative purposes) and derived variables. The variables included in the file are detailed in the “Variable List” document in the data section of the documentation. As far as possible, they are grouped in the order they were asked in the interview. As such, following the questionnaire design, they are grouped according to topic. This document is the best place to look/search for variables when planning your analysis.

Once you have decided which variables to include in your analysis, you should look up details of the question wording using the questionnaire documentation (all variables on the data file are given by name in the copy of the interview schedules provided), or use the data documentation to find the syntax which produced the derived variables. You cannot rely on the individual variable and value labels to always capture the detail of the question asked, or the answer categories used, so reading the interview documentation is essential.

For variables with answers following a scale, such as ‘Strongly agree’ to ‘Strongly disagree’ it must be noted that the order of the answer categories may not follow systematically an ascending or descending scale throughout the list of variables. Also the answers may equally refer to positive or negative statements. The phrasing of the question and the list of answers provided on the show cards - if any - shape the variables. The user must therefore take these variations into account when creating derived variables.

## 2.4 Variable names and labels

### 2.4.1 Variable naming convention

Variable names are normally made up of 8 characters, the first indicates the source of the variable, the second the sweep of data collection and the rest is an indication of the question topic. Therefore where the same question was asked in the different sweeps, the names will usually be the same apart from the second character. If the same question was asked of BC1 respondents at the equivalent sweep, the variable name will be identical. If a variable name has changed substantially between sweeps or cohorts this is marked in the variable list. The naming convention is summarised in Table 2.1

Source of data		Sweep/Sweep		Key theme prefix	Sub-theme stem	Variable number/ abbreviation
Non- sequential Capitals: M, D, AL		Sequential lower case: a, b, c.		Non-sequential Capitals: e.g. C, P, N...	Abbreviated lower case: e.g. hea	e.g. 01 – 99 or lp, nc, cb
Source code	Details	Sweep code	Details			
AL	Area Level variable	a	Sweep 1 (2011)			
D	Derived variable	b	Sweep 2 (2013)			
M	Main carer interview	c	Sweep 3 (2015)			

### 2.4.2 Variable labels

The variable labels have been shortened to be 80 characters or fewer as far as possible; the first two show the source and year of the data (as in the variable name). Although the labels give an indication of the topic of the question it is essential to refer to the questionnaire to see the full text of the question and the routing applied to that variable.

### 2.4.3 Derived variables

Derived variables included in the dataset are listed with the questionnaire variables for the same topic. The SPSS syntax used to create them can be found in the “Derived Variables” section of the documentation.

## 2.5 Survey weights

Weighting has been used to correct for different selection probabilities (in households with twins) and for non-response. After applying the weights, results from the GUS sample will be representative of all children who were aged just under 3 years old during the fieldwork period (2013) and who were living in Scotland at age 10 months.

### 2.5.1 Weighting method

The sweep 2 weights were generated using a model-based weighting approach; the weights were derived from the estimated response propensities generated by a logistic regression model. This method is the same as that used for weighting sweeps 2-7 with BC 1, as it makes best use of the data that are available for weighting.

All sweep 2 respondents had taken part in the sweep 1 interview, meaning there is a wealth of information available for both respondents and non-respondents at sweep 2 that can be used to model response behaviour. The final weights were generated in a number of stages. The first stage was to carry out bivariate analysis. Crosstabs and chi square tests were used to identify variables that were related to response behaviour. The variables that were significant were entered into a non-response model.

The second stage was to model non-response behaviour using logistic regression. The model was used to generate a predicted probability for each respondent. This is the probability the respondent would take part in the interview, given the characteristics of the respondent and the household collected at sweep 1.

Respondents with characteristics associated with non-response (such as being a private tenant) are under-represented in the sample and will receive a low predicted probability. The non-response weights are then generated as the inverse of the predicted probabilities; hence respondents who had a low predicted probability get a larger weight, increasing their representation in the sample.

Table 2.2 sets out the key characteristics associated with response and non-response.

Table 2.2	
Characteristics associated with response	Characteristics associated with non-response
High income ( $\geq$ £10,833)	Lower income or withheld income
From a white ethnic background	From any other ethnic background
Older mother $>30$	Younger mother $<20$
Live as a couple	Lone parent family
Respondent has a degree	Respondent has no quals or standard quals
Mother not working	Working mother
Lives in house/bungalow	Lives in a flat/maisonette
Owner occupiers	Rent – social/private landlord
One parent in employment	Neither parent in employment

## 2.5.2 Sample efficiency

Adding weights to a sample can affect the sample efficiency. If the weights are very variable (i.e. they have both very high and very low values) the weighted estimates will have a larger variance. More variance means standard errors are larger and confidence intervals are wider, so there is less certainty over how close the estimates are to the true population value.

The effect of the sample design on the precision of survey estimates is indicated by the effective sample size (neff). The effective sample size measures the size of an (unweighted) simple random sample that would have provided the same precision (standard error) as the design being implemented. If the effective sample size is close to the actual sample size then we have an efficient design with a good level of precision. The lower the effective sample size, the lower the level of precision. The efficiency of a sample is given by the ratio of the effective sample size to the actual sample size. The range of the weights, the effective sample size and sample efficiency for both sets of weights are given in Table 2.3.

Table 2.3	Minimum	Maximum	Mean	N	Neff	Efficiency
<b>Birth Cohort 2</b>						
Sweep 2 weight	0.49	2.87	1.00	5020	4566	91%

## 2.5.3 Final weights

The final sweep 2 weights are the product of the sweep 2 non-response weights and the sweep 1 interview weights. The sweep 1 weights correct for different selection probabilities (in households with twins) and non-response to the first interview, hence the final sweep 2 weights correct for non-response at sweep 1 and 2 plus any unequal selection probabilities.

The final GUS BC2 sweep 2 weights are contained in the variable DcWTbrth. These should be used for all analyses of sweep 2 data, including analysis of combined sweep 1 and sweep 2 data. Further details on the weighting procedure can be provided on request.

## 2.6 Comparing data between cohorts

Sweep 2 of BC2 is equivalent to sweep 3 of BC1. At both sweeps the cohort children were aged approximately 34 months old. It is therefore possible to compare data between the cohorts where the same questions have been asked.

The variable name does not identify the cohort it was asked of in any way but does identify the sweep/age at which the data was collected (see Section 2.4.1). Therefore where the same question was asked of both cohorts, or the same variable was derived for each, the names will be the same. For example, DcHGnp04 indicates whether the respondent is living with a spouse or partner at the time of the interview. This variable is available both in the BC2 sweep 2 and the BC1 sweep 3 data.

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## Multicoded questions

Some questions in the survey enabled participants to give more than one answer. In the final dataset each of the answer options has been converted into a binary variable with the people who selected that option coded 1 and the rest coded 0.

## 2.7 Dropped Variables

All variables in the questionnaire documentation with '[not in dataset]' next to their name have been deleted from the archived dataset (or have been transformed into derived variables instead).

The following types of variables have been deleted or replaced with a derived variable coded into broader categories in order to reduce the potential to identify individuals:

- Those containing text
- Those which contained a personal identifier (e.g. name/address)
- Those considered to be disclosive, such as:
  - Detailed ethnicity
  - Detailed religion
  - Language spoken at home
  - Full interview date
  - Full date of birth
  - Timing variables

There are no geographical variables in the archived dataset beyond area urban-rural classification, the Scottish index of multiple deprivation summary variable, and a derived variable identifying some of the Scottish Health Board areas. Some of these variables may be available on request, including via the UKDS Secure Data Service.

## 2.8 Missing values conventions

- 1 Not applicable: Used to signify that a particular variable did not apply to a given respondent, usually because of internal routing.
- 8 Don't know/Can't say.
- 9 No answer/ Refused

These conventions have also been applied to most of the derived variables.

## 3 Data content

### 3.1 Information about the household

In addition to questions asked about the child and parents, the respondent was also asked to provide basic demographic information for each household member including their gender, age and marital status, along with their relationship to each other and to the cohort child (see the questionnaire for details of the relationship variables). Each person was identified by their person number, which they will retain through each sweep of the survey.

A set of derived summary household variables is also included in the data. Amongst other things these detail the number of adults, number of children or number of natural parents in the household. A list of these variables is included in Table 3.1. A set of variables which allow identification of the respondent and their partner (if present) in the household grid are also included. These permit easier analysis of respondent's and partner's age, marital status and relationship to other people in the household. The age variables have been banded for all persons in the household except the study child.

Variable name	Variable label
DcHGrsp01	Dc - Whether respondent is natural mother
DcHGrsp02	Dc Whether respondent is natural father
DcHGrsp05	Dc Resp is child's mother? (incl. adopt./foster/step-mothers)
DcHGrsp06	Dc Resp is child's father? (incl. adopt./foster/step-fathers)
DcHGrsp07	Dc Respondent relationship to study child
DcHGrsp08	Dc Respondent partner relation to the child
DcParTyp	Dc Indicate whether respondent is child's mother / father / other
DcRspGpa	Dc - Whether resp is grandparent of child
DcHGnmad	Dc Number of adults (16 or over) in household
DcHGnmad2	Dc Nbr of adults other than resp in hhold - banded
DcHGnmkd	Dc Number of children in household
DcHGnmk2	Dc Nbr of children in household - Banded
DcHGhsiz	Dc Household size
DcHGnmsb	Dc - Number of siblings in household
DcHGnp01	Dc - Number of natural parents in hhold
DcHGnp02	Dc - Natural mother in household
DcHGnp03	Dc - Natural father in household
DcHGrsp04	Dc - Family Type
DcHGnp04	Dc - Respondent living with spouse/partner
DcHGprim	Dc Whether child was mother's first-born

Variable name	Description
DcHGbord	Dc - Study child's birth order
DcHGmag3	Dc Child's nat mother's age at interview (banded)
DcHGmag5	Dc Nat mother age at birth of cohort child (banded)
DcRespAg	Dc - Respondent age (banded)
DcRPage	Dc - Respondent partner age (banded)
DcRsex	Dc - Respondent's sex
DcRPsex	Dc - Respondent partner's sex
DcMothID	Dc - Mother's ID (person number in household grid)
DcFathID	Dc - Father's ID (person number in household grid)
DcRespID	Mc - Respondent ID (person number in household grid)
DcPartID	Dc - Partner ID (person number in household grid)

## 3.2 Main socio-economic variables

### 3.2.1 National Statistics Socio-economic Classification (NS-SEC)

(NS-SEC) is a social classification system that attempts to classify groups on the basis of employment relations, based on characteristics such as career prospects, autonomy, mode of payment and period of notice. There are fourteen operational categories representing different groups of occupations (for example higher and lower managerial, higher and lower professional) and a further three 'residual' categories for full-time students, occupations that cannot be classified due to a lack of information or other reasons. The operational categories may be collapsed to form a nine, eight, five or three category system.

The Growing Up in Scotland dataset includes the five category system, in which respondents and their partner, where applicable, are classified as managerial and professional, intermediate, small employers and own account workers, lower supervisory and technical, or semi-routine and routine occupations. A sixth category 'never worked' is also coded on this variable. The decision on whether or not this category should be included as a separate category, incorporated with category 5 'Semi-routine or routine' or set to 'missing' is dependent on the particular analysis to which it is being applied.

Further information on NS-SEC is available from the National Statistics website at:

<http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-3-ns-sec--rebased-on-soc2010--user-manual/index.html>.

The relevant variables in the GUS BC2 sweep 2 dataset are given in Table 3.2

Variable name	Description
DcMsec01	Dc Respondent NSSEC - 6 Category
DcYsec01	Dc Partner NSSEC - 6 Category
DcMsec10	Dc Household NSSEC - 6 Category

## 3.2.2 Equivalised household annual income

The income that a household needs to attain a given standard of living will depend on its size and composition. For example, a couple with dependent children will need a higher income than a single person with no children to attain the same material living standards.

'Equivalisation' means adjusting a household's income for size and composition so that we can look at the incomes of all households on a comparable basis. Official income statistics use the 'Modified OECD' equivalence scale, in which an adult couple with no dependent children is taken as the benchmark with an equivalence scale of one. The equivalence scales for other types of households can be calculated by adding together the implied contributions of each household member from the table below.

Household member	Equivalence scale
Head	0.67
Subsequent adults	0.33
Each child aged 0-13	0.20
Each child aged 14-18	0.33

For example, a household consisting of a single adult will have an equivalence scale of 0.67 - in other words he or she can typically attain the same standard of living as a childless couple on only 67 percent of its income. In a household consisting of a couple with one child aged three, the head of the household would contribute 0.67, the spouse 0.33, and the child 0.20, giving a total equivalence scale of 1.20. In other words this household would need an income 20 percent higher than a childless couple to attain the same standard of living.

The distribution of income for the population of the United Kingdom as a whole is taken from the most recent available data from the Family Resources Survey. The data and methodology are the same as those used by the Government in its annual Households Below Average Income publication.

GUS collects a banded version of total net household income from all sources in the main CAPI interview. This income data is adjusted, using the above equivalence scale, according to the characteristics of the household, to produce an equivalised annual household income value. Variables with the full equivalised income scale (DcEqvinc) and quintiles of the scale (DcEqv5) are available in the datasets.

## 3.3 Area-level variables

### 3.3.1 Area-level variables: Scottish Government Urban/Rural Classification

The Scottish Government Urban Rural Classification was first released in 2000 and is consistent with the Government's core definition of rurality which defines settlements of 3,000 or less people to be rural. It also classifies areas as remote based on drive times from settlements of 10,000 or more people. The definitions of urban and rural areas underlying the classification are unchanged.

The classification has been designed to be simple and easy to understand and apply. It distinguishes between urban, rural and remote areas within Scotland and includes the

categories shown in Table 3.4. The variables indicating the urban-rural classification of the child's home address is ALcURin2.

Table 3.4 Scottish Government Urban Rural Classification	
Classification	Description
Large Urban Areas	Settlements of over 125,000 people
Other Urban Areas	Settlements of 10,000 to 125,000 people
Accessible Small Towns	Settlements of between 3,000 and 10,000 people and within 30 minutes' drive of a settlement of 10,000 or more
Remote Small Towns	Settlements of between 3,000 and 10,000 people and with a drive time of over 30 minutes to a settlement of 10,000 or more
Accessible Rural	Settlements of less than 3,000 people and within 30 minutes' drive of a settlement of 10,000 or more
Remote Rural	Settlements of less than 3,000 people and with a drive time of over 30 minutes to a settlement of 10,000 or more

For further details on the classification see the Scottish Government website:

<http://www.scotland.gov.uk/Topics/Statistics/About/Methodology/UrbanRuralClassification>

### 3.3.2 Scottish Index of Multiple Deprivation

The Scottish Index of Multiple Deprivation (SIMD) identifies small area concentrations of multiple deprivation across Scotland. It is based on 37 indicators in the seven individual domains of Current Income, Employment, Health, Education Skills and Training, Geographic Access to Services (including public transport travel times for the first time), Housing and a new Crime Domain. SIMD is presented at data zone level, enabling small pockets of deprivation to be identified. The data zones, which have a median population size of 769, are ranked from most deprived (1) to least deprived (6,505) on the overall SIMD and on each of the individual domains. The result is a comprehensive picture of relative area deprivation across Scotland.

SIMD is regularly updated reflecting local changes in the various indicators. The classificatory variables contained in the BC2 sweep 2 dataset is based on the 2012 version of SIMD. It should be noted that prior GUS datasets contain variables which use earlier versions of SIMD.

Two variables are included in the dataset. In the first, the data zones are grouped into quintiles. Quintiles are percentiles which divide a distribution into fifths, i.e., the 20th, 40th, 60th, and 80th percentiles. Those respondents whose postcode falls into the first quintile are said to live in one of the 20% least deprived areas in Scotland. Those whose postcode falls into the fifth quintile are said to live in one of the 20% most deprived areas in Scotland. The variable is ALcSNim2. A common SIMD comparison also made in Scottish Government research is that between households in the most deprived 15% of area and those in the remaining 85%. This classification is included in variable ALcLow15.

Further details on SIMD can be found on the Scottish Government Website:

<http://www.scotland.gov.uk/Topics/Statistics/SIMD/Overview>

### 3.3.3 Scottish Health Board indicator

To provide some geographic information which would allow comparison across the sweeps for the Birth Cohort, a Scottish Health Boards derived variable 'ALChBdBc' has been added to the dataset. In order to reduce the risk of potential disclosure, only those Health Boards which had 250 cases or more at Sweep 1 were identified, the rest being aggregated into a single category called 'Other'. The 9 Health Boards identified, out of the original 14 Scottish Health Boards, are listed in table 3.5 below.

Health Board	Identified or aggregated in the dataset
Ayrshire and Arran	Identified
Borders	Aggregated
Dumfries and Galloway	Aggregated
Fife	Identified
Forth Valley	Identified
Grampian	Identified
Greater Glasgow and Clyde	Identified
Highland	Identified
Lanarkshire	Identified
Lothian	Identified
Orkney	Aggregated
Shetland	Aggregated
Tayside	Identified
Western Isles	Aggregated

## 3.4 Topic measurements and instruments

### 3.4.1 Pianta Child-Parent Relationship Scale

The Pianta scale (Pianta, 1992) is used to measure the mother-child relationship at year 8. The scale is constructed using the responses on the extent to which the respondent feels a series of statements apply to her relationship with her child (such as 'I share an affectionate, warm relationship with [my child]').

The full scale has 30 items and looks at 3 dimensions of the relationship – warmth, conflict and dependency. The 15 items used in the BC2 sweep 2 questionnaire were first included in the sweep 7 BC1 questionnaire and are a subset of the full scale and were also used in the Millennium Cohort Study (MCS2; 2004/05). They relate to warmth and conflict. Measures can be constructed for these two dimensions, with a high score corresponding to a high degree of warmth or conflict. Each measure uses seven items as shown below.

**Table 3.6** Constituent and derived variables associated with the Pianta Child-Parent Relationship Scale

Variable name	Description
Warmth	
McPpia01	I share an affectionate, warm relationship with [Child's name]
McPpia03	[Child's name] will seek comfort from me
McPpia04	[Child's name] is uncomfortable with physical affection or touch from me
McPpia05	[Child's name] values his/her relationship with me
McPpia06	When I praise [Child's name], he/she beams with pride
McPpia07	[Child's name] spontaneously shares information about [him/herself]
McPpia09	It is easy to be in tune with what [Child's name] is feeling
McPpia15	[Child's name] openly shares his/her feelings and experiences with me
Conflict	
McPpia02	[Child's name] and I always seem to be struggling with each other
McPpia08	[Child's name] easily becomes angry at me
McPpia10	[Child's name] remains angry or is resistant after being disciplined
McPpia11	Dealing with [Child's name] drains my energy
McPpia12	When [Child's name] wakes up in a bad mood, I know we're in for a long and difficult day
McPpia13	[Child's name]'s feelings towards me can be unpredictable or can change suddenly
McPpia14	[Child's name] is sneaky or manipulative with me

### 3.4.2 Child Development: Strengths and Difficulties Questionnaire

The Strengths and Difficulties Questionnaire (SDQ)<sup>4</sup> is a brief behavioural screening questionnaire designed for use with 3-16-year-olds (Goodman, 1997). The scale includes 25 questions which are used to measure five aspects of the child's development – emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behaviour. A score is calculated for each aspect, as well as an overall 'difficulties' score which is generated by summing the scores from all the scales except pro-social. For all scales, except pro-social where the reverse is true, a higher score indicates greater evidence of difficulties. The dataset includes the constituent items, and the derived variables including the various composite scores and total score. Details of these variables are included in Table 3.7, with syntax illustrated in the derived variables documentation.

<sup>4</sup> Further details on the SDQ can be found at: <http://www.sdqinfo.com/>

Table 3.7 Derived variables associated with the Strengths and Difficulties Questionnaire	
Variable name	Description
DcDsdem1	Dc SDQ: Emotional symptoms score
DcDsdco1	Dc SDQ: Conduct problems score
DcDsdhy1	Dc SDQ: Hyper-activity or inattention score
DcDsdpr1	Dc SDQ: Peer problems score
DcDsdps1	Dc SDQ: Pro-social score
DcDsdto1	Dc SDQ: Total difficulties score

### 3.4.3 Parental Health: Medical Outcomes Study 12-Item Short Form (SF-12)

Health-related quality of life was measured by the Medical Outcomes Study 12-Item Short Form (SF-12). This has also been used in the Scottish Health Survey, and has previously been used in population surveys on many occasions (for example, the Health Survey for England and the National Survey of NHS Patients). The SF-12 is a widely used self-reported generic measure of health status, yielding both a physical component (PCS) and a mental health component (MCS) summary scale score. It is tailored for use in large health surveys of general populations. Higher scores on both the physical and mental health component scales are indicative of better health-related quality of life, the indicator is based on informants' self-reports of their own physical and mental functioning and as such are subjective. This may lead to differential reporting between informants with equivalent status.

Table 3.8 Constituent and derived variables associated with SF-12	
Variable name	Description
McHpgn01	Mc - How is resp health in general
McHlmt01	Mc - Resp health limits moderate activities
McHlmt02	Mc - Resp health limits climbing stairs
McHlmt03	Mc - Resp health limited accomplishments past 4 wks
McHlmt04	Mc - Resp health limited reg activities past 4 wks
McHlmt05	Mc - Resp mental health limited accomplishments past 4 wks
McHlmt06	Mc - Resp mental health limited quality of work/activ past 4 wks
McHlmt07	Mc - Resp physical pain limited normal work past 4 wks
McHpgn02	Mc - Time resp felt calm in past 4 wks
McHpgn03	Mc - Time resp felt energetic in past 4 wks
McHpgn04	Mc - Time resp felt down in past 4 wks
McHpgn05	Mc - Time resp health interfered socially in past 4 wks
DcSF12ph	Dc - Physical PCS - 12 Scale
DcSF12mn	Dc - Mental MCS - 12 Scale

### 3.4.4 Questionnaire items developed for other studies

Further to the measures outlined above, the GUS BC2 sweep 2 questionnaire contained a number of other items which were developed for the use in other studies and/or as part of standardised instruments. These items are listed in Table 3.9.

Table 3.9 Questionnaire items developed for other studies and/or validated instruments		
Variable name(s)	Description/source	References
McPfsqC1 McPfsqC2 McPfsqC3 McPfsq11 McPfsq12 McPfsqC4	Selected items from the Parental Feeding Styles Questionnaire. 'Control over eating': items McPfsqC1, McPfsqC2, McPfsqC3 and McPfsqC4. 'Instrumental feeding': items McPfsq11 and McPfsq12. Further information at: <a href="http://www.ucl.ac.uk/hbrc/diet/resources.html">http://www.ucl.ac.uk/hbrc/diet/resources.html</a>	Wardle <i>et al.</i> , 2002
McCebS1 McCebF1 McCebFR1 McCebS2 McCebF2 McCebFR2	Selected items from the Children's Eating Behaviour Questionnaire (CEBQ47)	Cooke <i>et al.</i> , 2004
McPeff1 McPeff2 McPeff3 McPeff4	Selected items from the 'Efficacy' sub-scale of the Parenting Sense of Competence Scale Further information at: <a href="https://researchingparents.wordpress.com/2013/02/15/parenting-sense-of-competence-psoc/">https://researchingparents.wordpress.com/2013/02/15/parenting-sense-of-competence-psoc/</a>	Gilmore and Cuskelly, 2008 Johnston and Mash, 1989
McPpyc1 McPpyc2 McPpyc3 McPpyc4 McPpyc5 McPpyc6 McPpyc7 McPpyc8 McPpyc9	Selected items from the Parenting Young Children (PARYC) questionnaire. The PARYC cover three separate parenting scales, namely 'Supporting positive behaviour', 'Proactive parenting' and 'Setting limits'.	McEachern <i>et al.</i> , 2011
McPpas1 McPpas2 McPpas3 McPpas4	Selected items from the overreactivity factor of the Parenting Scale. Further information available at: <a href="https://researchingparents.wordpress.com/2013/02/16/parenting-scale-ps/">https://researchingparents.wordpress.com/2013/02/16/parenting-scale-ps/</a>	Arnold, 1993

## 3.5 Cognitive assessments: British Ability Scales (BAS3) – Naming Vocabulary and Picture Similarities

As noted in section 1.4.1, cognitive assessments were carried out with the cohort children. Details about the variables provided in the dataset are given below.

### 3.5.1 Score variables in the dataset

The dataset provides the following scores for each assessment:

- **Ability score** – Derived from a so-called ‘raw’ score (not provided) and the item set administered (using tables provided on the BAS Naming Vocabulary and Picture Similarities Score Sheets) this is an estimate of child’s level on the ability being measured. It reflects the raw score and the difficulty of the items administered. The ability score is not a normative score. The numbers used are arbitrary and simply provide a common scale of performance level, regardless of the items a child was given.
- **Normative scores (t-scores)** – Derived from standard BAS tables and defined with reference to the standardisation sample used in developing the assessment. T-scores (with mean=50 and standard deviation=10) are provided.

Variable name	Description
DcPSAbSc	Dc Picture Similarities Ability Score
DcPSTSc	Dc Picture Similarities T-Score
DcNVAbSc	Dc Naming Vocabulary Ability Score
DcNVTSc	Dc Naming Vocabulary T-Score

### 3.5.2 Influences on test scores

It is important to note that the child’s performance may have been affected by influences extraneous to those that the assessment is intended to measure. The conditions listed below can lead either to a higher or lower score than would normally be obtained.

- Non-standard administration of the scale
- Non-standard scoring algorithms used ensure standard scoring in all cases
- Administration disrupted by noise or other interruptions
- Difficulty in establishing rapport with the child
- Child has difficulty in concentrating on the tasks or is easily distracted
- Child is excessively anxious to the extent that concentration/flexibility of thought seem impaired
- Child is reluctant to respond and/or refuses to persevere on more difficult items
- Child has permanent/temporary sensory impairment (particularly vision/hearing) or motor impairment
- Child is on medication of a type that could affect performance

- Child is over-tired or ill.

In anticipation of these issues, the specification of CAPI program and the training of interviewers were designed to ensure standard administration of the assessment. The training of interviewers was also designed to ensure that risks were minimised. To allow for the consideration of such issues when analyzing the data, interviewers were asked to record details of any interruptions, distractions, behaviours or health circumstances in CAPI. Table 3.9 contains details of the relevant variables where this information is recorded.

Variable name	Label
CAcPrb01	Mc - No difficulties experienced during assessments
CAcPrb02	Mc - Difficulties experienced because: Assessment was interrupted
CAcPrb03	Mc - Difficulties experienced because: Child was ill
CAcPrb04	Mc - Difficulties experienced because: Child was tired
CAcPrb05	Mc - Difficulties experienced because: Parent interfered
CAcPrb06	Mc - Difficulties experienced because: Other reason

## 3.6 Height and weight and BMI data

### 3.6.1 Overview: BMI

Body Mass Index (BMI), i.e. weight divided by height squared, is a score that adjusts your weight for your height. Taken as a number in isolation, the BMI it does not actually represent anything medically. It is only meaningful in the context of a distribution of values for a population. Individuals are placed into bands to show where they stand in relation to the rest of the population, in particular whether they have unusually high or low BMI.

In adults BMI stays fairly constant on average as people get older. Therefore BMI categories for adults ignore age and calculate the same BMI for two people with the same weight and height regardless of the differences in their ages. However, among young children in particular, BMI changes quite significantly as the child ages. Since to have a certain BMI at one age may be the norm but be unusually high or low at another age, different centiles are calculated for different ages.

While the BMI measure has come under some scrutiny for not always being accurate, it remains the best non-invasive measure for obesity. Furthermore, a review of the measure by (Reilly et al., 1999) in the British Medical Journal suggests that the BMI is more likely to understate, rather than overstate, the true levels of obesity, as has been discussed by Prentice (Prentice, 1998) and Barlow and Dietz (Barlow & Dietz, 1998).

### 3.6.2 GUS BC2 sweep 2 BMI measures

The main child overweight and obesity variables available for GUS BC2 sweep 2 are outlined in Table 3.13. These variables were produced using the International Obesity Taskforce cut-offs. These cut-offs are based on BMI reference data from six different countries around the world (over 190,000 subjects in total aged 0 to 25 from UK, Brazil, Hong Kong, the

Netherlands, Singapore, and the United States). In summary, the BMI percentile curves that pass through the values of 25 and 30 kg/m<sup>2</sup> (standard adult cut-off points for overweight and obesity, respectively) at age 18 were smoothed for each national dataset and then averaged. The averaged curves were then used to provide age and sex-specific BMI cut-off points for children and adolescents aged 2 to 18. By averaging the distribution curves from each reference country, the international cut-offs for children purport to be representative of the countries but independent of the overweight or obesity level in each country. One of the benefits of using these international standards is the possibility of making international comparisons. However, the international classification is not without problems: international reference data differ from those for the UK population, and this is reflected in the sex-specific overweight and obesity estimates produced by the International classification.

In light of this lack of consensus on its use, variables have also been produced using the 85th (overweight cut-off) / 95th (obesity cut-off) BMI percentiles of the UK reference curves (referred to as the National BMI percentiles classification). The National BMI percentiles classification has been used in the past to describe childhood overweight and obesity prevalence trends in the UK and the 85th / 95th cut-off points are commonly accepted thresholds used to analyse overweight and obesity in children (detail on relevant cut-offs and their descriptions are included below). The National BMI percentiles classification has been shown to be reasonably sensitive (i.e. not classifying obese children as non-obese) and specific (i.e. not classifying non-obese children as obese). A key issue to bear in mind, however, is that the National BMI percentiles classification are based on the arbitrary assumption that the prevalence of overweight and obesity at the point when the reference data was compiled was 15% and 5%, respectively. Furthermore, there seems to be no indication that these cut-off points relate directly or indirectly to any physiological outcomes or health or disease risks. It is worth noting that the UK component of the international classification used the same sample as that used to construct the UK reference BMI data.

In addition to these International and National BMI classifications, the Information Services Division (ISD) at the Scottish Government uses an alternative method to produce BMI centiles, Cole's LMS method, which takes into account the fact that BMI data does not follow a normal distribution. Further information can be found at <http://www.isdscotland.org/isd/3640.html>

Note that only those height and weight measurements considered by the interviewer to be reliable were used to calculate the BMIs.

Table 3.12 BMI cut-off points	
Percentile cut-off	Description
At or below 5th percentile	Underweight
Above 5th percentile and below 85th percentile	Healthy weight
At or above 85th percentile and below 95th percentile	Overweight
At or above 95th percentile and below 98th percentile	Obese
At or above 98th percentile	Morbidly obese

Table 3.13 Child Derived BMI variables	
Variable name	Description
DcBMI	Dc BMI (reliable child weight measurements only)
DcUKbmi	Dc UK BMI national classification standards
DclINTbmi	Dc International BMI cut-offs
DclINTbmi2	Dc BMI status (ovrwt inc. obese) - international cut-offs
DclINTbmi3	Dc BMI status (non-obese vs obese) - international cut-offs
DclISDbmi	Dc ISD BMI 5 group classification
DclISDbmi	Dc ISD BMI 5 group classification (excl. far outliers)
DclSDHWt	Dc Study child weight within/outwith ISD healthy range
DclSDcHWt	Dc Study child weight within/outwith ISD healthy range (excl. far outliers)
DclSDovW	Dc Study child overweight, including obese (ISD)
DclSDcOvW	Dc Study child overweight, including obese (ISD excl. far outliers)
DclSDcOvW	Dc Study child overweight, including obese (ISD excl. far outliers)

## 3.7 Interviewer observations: Parent-child interactions and child behaviour

Details on observation items included at sweep 2 are provided in Table 3.14. Two items – McObsPa1 and McObsPa2 – form part of the HOME (Home Observation for the Measurement of the Environment) observational measures<sup>5</sup>. A further three items were adapted from the ‘Waiting Room Checklist’; an observational schedule developed by researchers at Glasgow University to recognise symptoms of ‘reactive attachment disorder’ in minors (McLaughlin *et al.*, 2010).

Table 3.14 Observation items: Parent-child interactions and child behaviour	
Variable name	Description
Items from HOME - Home Observation for the Measurement of the Environment	
McObsPa1	<p><b>Parental responsivity (warmth)</b></p> <p>This item forms part of the HOME Inventory observational measures of maternal responsivity (there are 6 items in total) and has been included as a single item measure in the National Evaluation of Sure Start (NESS), Millennium Cohort Study (MCS) and Growing Up in Australia (GUA).</p> <p><i>Observation text:</i> Respondent spontaneously praises child’s qualities or behaviour at least twice during the visit.</p> <p><i>Instructions:</i> Any praise spontaneously initiated by the parent across all sorts of behaviour (physical achievements, social behaviour, thinking and language skills and personal attributes) should be counted. The child does not need to be physically present for praise to be recorded.</p> <p><i>Response options:</i></p> <p>(1) Yes (at least twice)            (2) No            (3) Can't tell – including does not speak English</p>

<sup>5</sup> Further information available at: <https://www.nlsinfo.org/content/cohorts/nlsy79-children/topical-guide/assessments/home-home-observation-measurement>

Table 3.14 Observation items: Parent-child interactions and child behaviour	
McObsPa2	<p><b>Parental acceptance</b></p> <p>This item originates from the HOME ('Caregiver does not scold or criticize child during visit') observational measures and was adapted for NESS and MCS (response scale as below). To simplify the instructions, the word 'derogate' (NESS and MCS) was replaced with 'belittle' in GUA. The item as used by GUA is adopted here.</p> <p><i>Observation:</i> Respondent scolded, shouted at or belittled the child</p> <p><i>Instructions:</i> The reprimand must be made directly to the child, e.g. not simply tell the interviewer that the child is bad.</p> <p><i>Response options:</i></p> <ul style="list-style-type: none"> <li>(1) Not at all</li> <li>(2) Once</li> <li>(3) 2 or more times</li> <li>(4) Can't tell – including does not speak English</li> </ul>
Items from the Waiting Room Checklist (including filter question)	
McObsCPr	<p><b>Child's presence</b></p> <p><i>Observation:</i> Child was present during interview.</p> <p><i>Instructions:</i> This is a filter question only. If the answer is yes, you should go on to observation questions concerning behavior at the point of assessment. If the child was not present then finish.</p> <p><i>Response options:</i></p> <ul style="list-style-type: none"> <li>(1) Yes</li> <li>(2) No</li> </ul>
McObsBeh	<p><b>Child's behaviour</b></p> <p>Item adapted from the 'Waiting Room Checklist'. Only administered if child was present during interview.</p> <p><i>Observation:</i> How would you describe the child's behaviour towards you up to the point of assessment?</p> <p><i>Response options:</i></p> <ul style="list-style-type: none"> <li>(1) Distressed by your presence</li> <li>(2) Initially reserved, never approached you</li> <li>(3) Initially reserved, approached you later</li> <li>(4) No reserve</li> <li>(5) Unable to assess</li> </ul>

**Table 3.14 Observation items: Parent-child interactions and child behaviour**

<p>McObsEye</p>	<p><b>Child's eye contact</b></p> <p>Item adapted from the 'Waiting Room Checklist'. Only administered if child was present during interview.</p> <p><i>Observation:</i> Up to the point of assessment, did the child look at you as if to invite conversation?</p> <p><i>Instructions:</i> The child does not have to smile but, the eye contact must be of a quality that would invite you to communicate in a "normal" social setting.</p> <p><i>Response options:</i></p> <p>(1) Yes (2) No</p>
<p>McObsMov</p>	<p><b>Child's movements</b></p> <p>Item adapted from the 'Waiting Room Checklist'. Only administered if child was present during interview.</p> <p><i>Observation:</i> Up to the point of assessment, did the child spontaneously move towards and/or approach you?</p> <p><i>Response options:</i></p> <p>(1) Yes (2) No</p>

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## 4 More about GUS

All publications using GUS data are available from the study website:

[www.growingupinScotland.org.uk/publications](http://www.growingupinScotland.org.uk/publications)

Users might also be interested in viewing the rest of the GUS website:

[www.growingupinScotland.org.uk](http://www.growingupinScotland.org.uk). This contains a large amount of useful information including the background to the study, and a wide range of publications using existing data.

### 4.1 Contact details

You can email the study on [gus@scotcen.org.uk](mailto:gus@scotcen.org.uk) or contact a member of the ScotCen Research team:

- Line Knudsen (Senior Researcher): [line.knudsen@scotcen.org.uk](mailto:line.knudsen@scotcen.org.uk)
- Jackie Palmer (Data Manager): [jackie.palmer@scotcen.org.uk](mailto:jackie.palmer@scotcen.org.uk)
- Paul Bradshaw (Study Director): [paul.bradshaw@scotcen.org.uk](mailto:paul.bradshaw@scotcen.org.uk)

Alternatively you can call the ScotCen office on 0131 240 0210 and ask for a member of the GUS team.

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ScotCen Social Research  
Scotia Bank House  
6 South Charlotte Street  
Edinburgh  
EH2 4AW  
T 0131 240 0210  
[www.scotcen.org.uk](http://www.scotcen.org.uk)

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