



Where's the daddy?

Fathers and father-figures in UK datasets

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Full Report

This document summarises the findings and recommendations from our review of the ways in which sixteen UK large-scale repeated cross-sectional and longitudinal quantitative datasets identify and collect data about fathers in varied forms of co-residence and relationships with their dependent and adult children.

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About the Fatherhood Institute



The Fatherhood Institute (founded 1999, charity number 1075104) is a world leader in the fatherhood field, with a unique grasp of policy, practice and research. Our twin focus is child wellbeing and gender equality. Our research summaries, published free of charge on our much-visited website www.fatherhoodinstitute.org, are drawn on and cited all over the world; and our trainings in father-inclusive practice (online and face-to-face) are highly praised and evaluated by service providers. We work directly with fathers and couples in community, education and health settings, and train local facilitators to undertake this work. We also work with fathers and mothers in the workplace (seminars/ webinars/company intranet materials) and offer HR support to organisations aiming to develop competitive edge and reduce gender inequalities at work, through recognising and supporting male employees' caring responsibilities.

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Disclaimer: The views expressed here are those of the authors. Statements about each quantitative dataset are based on the authors' interpretations of online documentation reviewed in 2014-15.

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Introduction

(i) Why focus on fathers in UK datasets?

Referring to UK datasets, researchers have written about “a growing requirement for new statistics that reflect the complexity of ‘family’ relationships including relationships outside each household” (Wilson, 2010, p57) and that “there are revolving doors to family life with many parents and children living together only some of the time” (Kiernan, 2006, p666). Our work relates to an international literature on how social surveys can take into account individuals living at more than one address, and couple and family relationships across households (Baxter, Edwards and Maguire, 2012; Brown and Manning, 2012; Callister and Birks, 2006; Manning, 2015; Noël-Miller, 2013; Qu and Weston, 2005; Schmeeckle et al, 2006; Stewart, 2001; Stykes, Manning and Brown, 2013; Toulemon and Pennec, 2010).

Limitations in the identification of so-called ‘non-resident’ fathers, as well as limitations in the differentiation of resident birth fathers and stepfathers in major European harmonised datasets, restrict the potential for evidence-based social policy (Sigle-Rushton et al., 2013). Failing to identify and collect data about a range of fathers also limits analyses of UK data. Official Statistics publications give figures for families which include resident dependent children, focusing on ‘family type’ rather than on the specific parental status of mothers and fathers (ONS, 2014a; ONS, 2014b; ONS, 2015a). Little is known about demographic trends in the numbers of fathers of dependent children who do not primarily reside with them (an estimated 5% of UK men aged 16-64 in 2009-11: Poole et al, 2016). In particular, fathers who never, or only briefly, lived in the same household with their infant and their infant’s mother have been called “largely statistically invisible” (Kiernan, 2016). A welcome innovation is that the Census for England and Wales introduced questions on second addresses in 2011 (ONS, 2010a; ONS, 2014c).

The relationship categories we use in our review (birth/biological, adoptive and ‘social’ parents such as stepparents), our ‘co-residence’ typology (see below) and some of the questionnaire and data collection issues that we discuss in this working paper apply to mothers as well as to fathers. However, given the gendered aspects of contemporary family life in the UK, the issues apply more often to fathers. Fathers are more likely to fall into categories such as resident step-parents, full-time non-resident birth parents (of dependent children), parents working away or in prison, and parents who are resident part-time with their children (for example for one or two nights per week due perhaps to parental separation, working away, or cohabiting part-time with their child’s mother).

(ii) The scope of our review

The Fatherhood Institute has reviewed how sixteen UK large-scale repeated cross-sectional and longitudinal quantitative datasets identify and collect data about fathers in varied forms of co-residence and relationships with their dependent and adult children. This datasets

review is part of a wider project, *Contemporary Fathers in the UK*, funded by the Nuffield Foundation, which has assessed evidence on UK fathers, including an extensive literature review.

We reviewed repeated cross-sectional datasets and longitudinal studies (see Table 1, below) that collect data about fathers. We selected repeated cross-sectional research datasets whose main purpose is not specific to parents or children, for example the 2011 Census for England and Wales, British Social Attitudes (BSA), and the Labour Force Survey (LFS)³. Identifying a full range of fathers among the research respondents provides valuable nationally representative time series data about their demographics, health, health behaviours, time use, wellbeing, employment, social attitudes and finances. We also looked at Birth Registrations, an annual administrative dataset held by the Office for National Statistics (ONS). We selected longitudinal studies, for example Understanding Society and the Millennium Cohort Study (MCS), which collect a variety of contextual data and ‘outcomes data’ about fathers, mothers and children that can be used in analyses of fathers and their impacts. We looked at both childhood and adulthood sweeps.

So that the findings of our review might be applied to new waves and sweeps, we prioritised continuing repeated cross-sectional datasets and ongoing longitudinal studies, and excluded one-off ‘ad hoc’ cross-sectional surveys. Four of the cross-sectional datasets we examined, the Labour Force Survey (LFS), the Family Resources Survey (FRS) and the 2000/2014-15 United Kingdom Time Use Surveys (UKTUS) are harmonised for cross-national comparability by Eurostat (Sigle-Rushton et al., 2013).

Our aims for this review are two-fold. Firstly, for funders and providers of large-scale quantitative datasets, we have documented questions and fieldwork practices which enable researchers to identify specific categories of fathers and collect data directly from fathers. Where relevant, these precedents could be used (or adapted) and tested for use in future studies, and in future waves and sweeps of ongoing datasets. There is an ongoing Economic and Social Research Council (ESRC) Longitudinal Studies Review to look at scientific needs for future longitudinal studies including how data is collected in cohort studies (Townsend, 2017). A recent Nuffield Foundation-funded project has concluded that a new bespoke longitudinal study may be needed to fill evidence gaps on separated families in the UK (Bryson et al, 2017).

Secondly, for researchers planning secondary analyses to study fathers, we have assessed whether different categories of fathers can be identified in the data. That, however, would not be the end of the matter: researchers would need to look at sample sizes; response and attrition including item non-response (which may bias the achieved sample and make it less representative, as well as reduce sample size); and the quality of individual data items. Bespoke scoping work would be required for each dataset in relation to specific research questions.

³ As explained in section 1A, we classified the LFS as a cross-sectional dataset for the purposes of our review, but looked at elements of its panel design which potentially enable the identification of non-resident fathers.

(iii) Our research questions

We examined research instruments (questionnaires) and published fieldwork documentation in relation to two research questions:

(1) How can biological/birth, adoptive and social fathers⁴ (relationship categories), and resident (full-time and part-time) and non-resident fathers (residence categories), be identified and differentiated in these datasets?

(2) How is data about fathers collected?

In relation to (1) above, we assessed in particular how these datasets take account of less extensively researched categories, for example adoptive fathers, non-resident stepfathers, temporarily non-resident fathers, and fathers having part-time overnight care of their children. We have a broad definition of ‘father’, and include men sometimes described as ‘father-figures’ or ‘social’ fathers.

In relation to (2) above, researchers may collect data directly from the men themselves, for example through questionnaires, interviews, psychological tests and medical examinations. They may also collect data about fathers from other research participants, for example mothers, children, health professionals and teachers. There is potential bias when mothers are asked to report on fathers’ characteristics, perceptions, attitudes and behaviours (Kiernan, 2016).

Most of the research datasets we have included in our review collect data in face to face or telephone interviews, with self-completion components. We will see that the mode of data collection (interviewer-mediated or postal) and the introduction of Computer Assisted Personal Interviewing (CAPI)⁵ in the 1990s to replace paper interview schedules have influenced questionnaire design. The current shift to online (web-based) data collection in many of these datasets and potentially to an Administrative Data Census will offer new possibilities and challenges in the future.

We reviewed research instruments (questionnaires and interview schedules) and (where available online) interviewer instructions and technical reports⁶ (‘fieldwork documentation’) for each dataset that was published at the time of our investigations in 2014-15. We used variable documentation (‘codebooks’) where required to clarify details about the data

⁴ Social fathers include stepfathers and foster fathers.

⁵ And its variants CATI for telephone interviews, and CASI for self-completion components of face to face interviews.

⁶ These were obtained from study websites and the UK Data Service website. They may not exist as a discrete document for every dataset. The Census and Alspac have used self-completion questionnaires.

collected⁷. We focused on information that is made available to current and potential users, and so could be readily accessed and scrutinized by our readers. There may also be internal guidance and manuals, including interviewer training documents and responses to interviewers' fieldwork queries. Where online documentation was unclear, we contacted dataset organisations for clarification.

We focused in more detail on the identification of fathers than on fieldwork practices, to complement recent reviews of the recruitment and retention of fathers in research studies (Kiernan, 2014; Bryson, 2014).

(iv) Our 'co-resident' typology

For the purposes of our datasets review, we developed a 'co-residence' typology of fathers. We use the terms **resident** to refer to the parent's residence (full-time or part-time) with their child/ren; and **non-resident** to refer to a parent who spends no regular overnights with the child, including temporary non-residence. This contrasts with the dichotomous classification of 'resident' and 'non-resident' parents more often used in the research and policy literature to refer to residence with the child's other *parent*. Our finer-grained typology takes into account when fathers and children have more than one residence; and allows for a subtler and more accurate understanding of relationships and care-patterns where fathers and children do not live together full-time. Thus we included in our category of **resident** fathers separated birth/ adoptive fathers whose dependent children regularly stay overnight with them. We hope that our typology contributes to addressing the need for "more nuanced" terms when collecting data on separated families (Bryson et al, 2017).

Structure of this Working Paper

Part One introduces the datasets reviewed; and defines the categories of fathers within scope of our investigations. Part Two presents our findings on the repeated cross-sectional datasets. Part Three presents our findings on the longitudinal studies. Part Four summarises the findings for resident and non-resident fathers across all the datasets (cross-sectional and longitudinal) and presents conclusions and suggestions for future data collection. Appendix A comments on, and gives examples of, different types of large-scale quantitative datasets in relation to the study of fathers.

NOTE: Readers who wish to gain an understanding of our main points without too much detail might focus on Part One and Part Four. A degree of repetition in different sections, as well as cross-referencing, means that a reader interested solely in cross-sectional datasets or longitudinal datasets, or (for example) in cohort members and sample members as fathers, can focus on relevant sections without needing to read the whole report.

⁷ We examined questionnaires, and therefore focus on the data collected. We did not use codebooks to investigate which variables (including derived variables) are included in the datasets compiled by the dataset owners for their own analysis or for other researchers' secondary analysis. Questionnaire and variable documentation is sometimes inconsistent. Some survey variables are left out of publicly available datasets (for example, those deposited in the UK Data Service) so as to avoid any sampled individuals being identified. This data may be available on special request to the study owners or the Data Service.

Glossary of terms

The term **father** includes birth, adoptive and ‘social’ fathers.

Social fathers include stepfathers, mothers’ boyfriends, legal guardians and foster fathers, but not birth or adoptive fathers. To specify a category of fathers, such qualifiers are added.

A **resident** father is co-resident full- or part-time in a household with his child/ren. This includes separated fathers whose dependent child/ren regularly stay overnight with him.

A **non-resident** father spends no regular overnights in a household with his child/ren. He may have daytime-only contact, or indirect contact (internet, telephone, mail).

We use quotation marks around ‘**resident**’ and ‘**non-resident**’ when referring to the identifiable category used in a dataset where this does not accord with our definitions of resident/ non-resident.

We use the term **cohabiting** to describe parents’ co-residence (full- or part-time) with each other as a couple. This includes where a parent lives full- or part-time with a male partner who is not perceived to be a “stepfather” or “parent” in relation to co-resident child/ren, because this partner is included within our category of **social fathers**.

We use the term ‘**partner**’ to include male partners of the child’s mother in an opposite sex relationship, as well as male partners of the child’s father in a same sex relationship.

When we refer to **the cross-sectional datasets** or **the cohort studies**, we mean the sixteen datasets examined for this review. We use the term **sweep** to refer to each time point in a longitudinal study and **wave** to refer to each time point in a repeated cross-sectional dataset.

For the longitudinal studies, the term **study household** refers to the household/s in which data is collected about cohort members or sample members and their families.

For the cohort studies, **cohort child** refers to a cohort member (of whatever age) in relation to their father/s in childhood. The term **cohort member** refers to the same person in the teenage years or adulthood in relation to their children (‘the children of cohort members’).

For Understanding Society, we use the term **young sample member** to refer to those sample members aged 10-15 from whom data is directly collected through youth questionnaires.

By **childhood**, we mean birth to age 18. By **dependent child** we mean under age 16 or 18 (varying by dataset). By **adult child** we mean children older than 16 or 18 years.

Acronyms for datasets are given in Table 1.

NOTES: (1) Part-time resident fathers are also part-time non-resident, but for the purposes of this datasets review, we have termed them ‘part-time resident’. This is consistent with the Millennium Cohort Study (MCS) using this term for fathers who regularly spend “one or two days a week” in the cohort child’s household. (2) Some datasets have their own complex definitions of dependent children, for example including children aged 16-18 who are in full-time education and not resident with their own partner or child. (3) Each dataset’s questions and household definitions affect the identification and classification of fathers: e.g. a subset of temporarily non-resident fathers is often included among the identifiable ‘resident’ fathers, and a subset of part-time resident fathers is often included among the identifiable ‘non-resident’ fathers. (4) A few longitudinal studies, for example Understanding Society, use the term ‘wave’ instead of ‘sweep’.

We must stress that our critique in this working paper is not meant as criticism of the decisions made previously by research funders and directors. These are made in a specific historical context, and according to resources, available methodologies and priorities at the time.

Part One: The datasets and categories of fathers

Section 1A: Which datasets did we look at?

The datasets we reviewed, which are listed in Table 1 (below), fall into two main categories: repeated cross-sectional datasets (which we cover in detail in Part Two of this document) and longitudinal studies (which we cover in Part Three).

These datasets are large-scale in terms of:

- having a large sample size⁸ which (i) potentially enables subgroup analysis of different categories of families, children and fathers, and sometimes for different UK countries and smaller geographic areas; and (ii) increases the likelihood of sufficiently powered multivariate analysis when controlling for multiple confounding variables in analyses of statistical correlation;
- collecting data from, and being designed to be representative of, a defined population across a UK country (e.g. Scotland), countries (e.g. England and Wales) or a county (e.g. the former county of Avon).

All but one of these repeated cross-sectional datasets are research datasets, in which interviews or questionnaires are the main tools to collect data specifically for research analyses. In contrast, the ONS Birth Registrations dataset is an administrative dataset based on information collected in interactions between local register offices and parents.

The Labour Force Survey (LFS) combines aspects of both cross-sectional and longitudinal data (Rafferty et al., 2015). The study follows household members living at a sample of addresses quarterly for five consecutive quarters, after which new addresses enter the panel. So the survey can be used either as a repeated cross-sectional dataset or as a short-term household panel study. We decided to include the LFS only within the sections of this working paper that relate to repeated cross-sectional datasets; and comment on elements of its panel design which potentially enable the identification of non-resident fathers.

⁸ The ONS Opinions and Lifestyle Survey (OPN) achieves a sample of around 1000 individuals per month, but the modules asking about specific topics, for example family separation, are repeated across a number of months. The other datasets we looked at have sample sizes at each sweep or wave of at least a few thousand households or individuals. The LFS and Understanding Society have the largest sample sizes, each comprising more than 25,000 households.

Our primary classification of the LFS as a cross-sectional dataset is because the panel element aims primarily to provide statistically robust cross-sectional data, as well as longitudinal economic activity data at the individual level. An ONS guide (ONS, 2015b, p7) states that “household longitudinal analysis cannot be carried out using LFS data”, and we did not find questions or variables explicitly identifying changes in the individuals living at the sampled address. Furthermore, samples of households experiencing family separations (and other changes in household members) over the fifteenth months of the LFS panel would be small⁹ relative to changes occurring over the decades covered by other longitudinal studies in our review.

Table 1. The included datasets

Repeated cross-sectional datasets	Longitudinal studies		
	Household panel studies	Birth cohort studies	Age cohort studies
British Social Attitudes (BSA): core questions (2014 questionnaire); and child maintenance topic module* in 2012 (30th) survey	Understanding Society (USoc) (also called the UK Household Longitudinal Survey, UKHLS) (up to and including wave 7): incorporates the British Household Panel Survey (BHPS)	1958 National Child Development Study (NCDS)	First Longitudinal Study of Young People in England (LSYPE) (also called Next Steps)**
Labour Force Survey (LFS): 2015 questionnaire	Labour Force Survey (LFS): 2015 questionnaire	1970 British Cohort Study (BCS)	Growing Up in Scotland (GUS)
Health Survey for England (HSE): 2013 questionnaire		2000 Millennium Cohort Study (MCS)	
Family Resources Survey*** (FRS): 2013/14 questionnaire		Growing Up in Scotland (GUS)	

⁹ Around 2% of UK families with dependent children experience a parental separation each year (Bryson et al., 2017).

Repeated cross-sectional datasets	Longitudinal studies
Opinions and Lifestyle Survey (ONS Omnibus Service) (OPN): core demographic questions (2015), and three modules on family separation in the Omnibus Survey/ Opinions Survey in 2006-7, 2007-8 and 2008-9	Avon Longitudinal Study of Parents and Children (Alspac)
2011 Census for England and Wales (which we refer to as The Census)	
UK Time Use Surveys (UKTUS): 2000 Time Use Survey (ONS) (also called the National Survey of Time Use) and 2014-15 UK Time Use Survey (University of Oxford/ESRC)	
2014 Birth Registrations dataset (England and Wales) compiled by ONS	

**Repeated cross-sectional research datasets usually have a core of questions that are repeated (sometimes with adaptations) in each wave. They may also include one-off, time limited or infrequently repeated topic modules collecting information on a specific topic of interest.*

***The Centre for Longitudinal Studies in the Institute of Education at University College London is now managing the first LSYPE cohort and has renamed it Next Steps. There was an eighth sweep in 2015/16 when the cohort members were 25 years old. DfE has commissioned a second LSYPE cohort from 2013. For our datasets review, we looked at the first seven sweeps of the first LSYPE (Next Steps) cohort study, and abbreviate its name to the LSYPE.*

****The FRS is a Department for Work and Pensions survey.*

*****As reported in Lader, 2008; Peacey and Hunt, 2008a; and Wilson, 2010.*

We refer to Understanding Society's 'split-off' households in several places within this working paper. Understanding Society is the only ongoing¹⁰ UK large-scale longitudinal study that aims to track eligible sample members (adults and dependent children) who move from a sampled household into a new 'split-off' household¹¹. The leaving individuals include adults who had lived with their dependent child/ren moving to another household; dependent children leaving the first household with their resident mother or father following parental relationship separation; and young adult children leaving their parental home. The aim is that adults and children aged 10-15 in 'split-off' household/s are interviewed or given questionnaires whilst they reside with the sample member/s who have moved out of the original household. These individuals include any new cohabiting partner and stepchildren of the sample member/s.

For each cross-sectional dataset, we examined the most recent wave for which final versions of questionnaires and technical documentation were available at the time of our dataset investigations in 2014-15. For the ONS Opinions and Lifestyle Survey¹² (OPN) and British Social Attitudes (BSA), we looked at the core questions; and also at past 'ad hoc' topic modules in specific years (again, see Table 1) that collected information about family separation, and in which fathers who did not live with their children full-time could be identified among the samples of parents interviewed. Although sample sizes for the survey respondents eligible for these topic modules (parents who had experienced family separation) were small and subject to sampling error and response bias, the questions asked could be used or adapted for future larger-scale surveys.

Appendix A provides a commentary for readers less familiar with these types of datasets, and gives examples of how different types of dataset are relevant in the study of fathers.

¹⁰ Understanding Society incorporates the most recent sweeps of the British Household Panel Survey (BHPS) which has used this strategy to track sample members for some years in a smaller panel of households.

¹¹ This strategy in Understanding Society, a panel of individuals in the context of their households, contrasts with that in the LFS panel, in which it is the sampled address which is the focus of data collection. As a result, if individuals leave the sampled LFS address, they are not followed or interviewed at their new address/es. They are no longer sample members, and are replaced by any new individuals living at the sampled address, who may comprise an entirely new household.

¹² The ONS Opinions and Lifestyle Survey (OPN), hosting the ONS Omnibus Service, is the only random probability omnibus survey in Great Britain (at the time of writing). It was previously the ONS Opinions Survey, and before that, the ONS Omnibus Survey.

Section 1B: Categories of fathers - relationships and residence with their children

In the context of measuring parenthood and childlessness, parenthood has been defined, in addition to biological parents, as including those who adopt or foster children or have stepchildren (Hakim, 2005). Similarly, fatherhood has been defined as “biologically fathering a child, adopting a child or being a stepfather” (Speight et al, 2013). We too have a broad definition of ‘father’, including men sometimes described as ‘father-figures’, for example stepfathers (who live with, or have lived with a child and remain in contact), and men cohabiting part-time with a child’s mother or father, who are not the child’s biological father.

We were interested in the extent to which large-scale datasets collect the information necessary to identify and differentiate the following categories among fathers of adult and dependent children (see Table 2):

- birth fathers, adoptive fathers and social fathers, which we call **relationship** categories
- resident fathers (men whose only household is also the child’s only household, or who spend regular overnights with the child) and non-resident fathers (who spend no regular overnights with the child), which we call **residence** categories.

Table 2: Categories of fathers

	Resident (full-time/part-time) - to include separated fathers who have regular overnight care of their child/ren			Non-resident (including long-term temporary non-residence) - no regular overnight stays with child/ren		
	Birth	Adoptive	Social	Birth	Adoptive	Social
Dependent Children						
Adult Children						

Except in relation to the identification of stepfathers, we have not documented whether (in each dataset) fathers can be categorised as cohabiting or not with a partner (as a couple). Household grid questions in most (but not all) research datasets can ascertain whether an

individual who has been identified as a ‘resident’¹³ father lives with a partner, and also whether his resident child/ren have a mother living in the same household¹⁴.

At the beginning of the review we developed working definitions for these categories to guide us when investigating datasets. We found however that the research datasets rarely use explicit definitions when presenting terms such as ‘own child’, ‘natural child’, ‘adoptive parent’, ‘step-parent’, ‘father figure’, ‘lives with’ or ‘shared care 50/50’ to research respondents in research instruments. Instead, research respondents use their own interpretations of the meaning of these terms when selecting a category, sometimes guided by interviewer instructions. Respondents may also be influenced by disclosure issues and social desirability bias, for example whether they want to disclose themselves or a family member as a non-biological father, adoptive father or non-resident father, or that a child regularly stays overnight with the other parent.

Therefore, our statements and tables in this working paper reflect these varied meanings and disclosures. For example, when we state that a dataset enables us to identify adoptive fathers, not all the fathers so identified may be named on an adoption certificate, and adoptive fathers may be undercounted if a proportion of research respondents prefer not to disclose that a child is adopted. Cognitive interviewing¹⁵ (an interviewing technique used by researchers during questionnaire development) would be required to establish how closely respondents’ interpretations of question terms are consistent with our working definitions.

Some of the categories of fathers that we look at in our datasets review are sufficiently rare that, even if they can be identified, the subsample of observations may be too small to support a separate in-depth analysis. Examples are adoptive fathers, foster fathers, male guardians, ‘equal overnight care’ fathers, stepfathers not declared as such by research respondents, non-resident stepfathers and long-term away fathers (definitions of these categories follow below).

Based on Understanding Society data, the annual separation rate for two-parent families with dependent children is around two per cent (Bryson et al., 2017). Published analyses of the datasets can give an indication of sample sizes (e.g. Goisis et al, 2016 and Haux et al, 2015 for MCS children). There was little scope for a longitudinal analysis of separated fathers using

¹³ As explained in the Glossary, use of quotation marks indicates that we refer to the identifiable category of ‘resident’ fathers in a dataset, which may include subsets of non-resident fathers according to our definitions.

¹⁴ Categorisations as cohabiting or not would need to take account of resident mothers and fathers who continue to live in the same dwelling after relationship separation, for example whilst arranging future housing.

¹⁵ Also called “cognitive testing” of survey questions. In the 1990s, the UK Census Offices carried out cognitive testing of household relationship codes for the 2001 Census (General Register Office for Scotland, 2003). The ONS used this technique for the development of new questions on second addresses (ONS, 2010a) and new household inclusion instructions (ONS, 2010b) in the 2011 Census.

Understanding Society data due to the fathers' high rate of drop-out from the research between sweeps (Poole et al, 2016).

However, our view is that questions which make it possible to establish the prevalence of these subsets of parents in the UK population, and carry out descriptive analysis of their characteristics, is important as a baseline for future demographic change. 'Equal overnight care' fathers and stepfathers who are not co-residing with the child/ren are under-studied groups that may become more prevalent among future generations of children, and so be increasingly relevant to the design of future studies.

(1) Working definitions for relationship categories (birth, adoptive and social fathers)

A **birth father** is biological father to a child, or believed to be a biological father, or a man otherwise named on a birth certificate. Some fathers categorised by research respondents as birth fathers, "natural fathers" or biological fathers may not be biological fathers.

An **adoptive father** has legally adopted a child i.e. is named on an adoption certificate, as distinct from a foster father or male legal guardian. He is not biologically linked to the child and is therefore in one sense a 'social father', but his legal relationship to the child is more like that of a birth father, so he is placed in a category of his own.

A **social father** can be:

- a **stepfather**
- a **foster father** or other **male guardian** (including relatives/ kinship carers and **legal guardians** such as Special Guardians) when neither birth parent is resident with a dependent child.

A **resident stepfather**, living with the child full-time or part-time, is a male cohabiting partner or former cohabiting partner¹⁶ of a child's birth/ adoptive parent (mother or father) **who is not himself a birth father or adoptive father¹⁷ in relation to that child**. The stepfather may not be married (or have been married) to the child's birth/ adoptive parent. Our resident stepfather category therefore includes the groups often described as married stepfathers and cohabiting (non-married) stepfathers in the research literature.

Our broad category of **resident stepfathers** has **not** been defined according to whether a research respondent declares a "step" or parental relationship in relation to the child, but

¹⁶ We include those resident stepfathers who previously cohabited with a child's birth/ adoptive parent, and live with their stepchild full-time or part-time. This may occur for example if the birth/ adoptive parent has died or is non-resident; or if the birth/ adoptive parent and a long-established step-parent (for example, from the early childhood years) have separated, and the child subsequently lives part-time with each in separate households (as in overnight care with non-cohabiting birth/ adoptive parents).

¹⁷ Step-parents may have legally adopted their step-child/ren. We categorise such individuals as adoptive parents rather than step-parents, although they may differ from other adoptive parents (Hadfield and Nixon, 2013).

according to his cohabiting relationship (currently or previously) with the child's birth/ adoptive parent. We therefore differentiate resident stepfathers into:

- **'declared stepfathers'**: these are stepfathers described as a "stepfather"¹⁸ or "parent/ guardian" (not a birth or adoptive father) to a child¹⁹ by the father himself or by the mother, the father's partner, child or other household member who is the research respondent. Stepfathers, for example those living with their stepchild/ren from the early childhood years, may self-identify or be described as generic "parents/ guardians" (where they haven't legally adopted their step-child), rather than as "step-parents";
- **'other cohabiting partners'** (male) not declared by the research respondent to be a "stepfather" or "parent/ guardian" in relation to the child, but who may be identified, for example, as a generic "non-relative" in relation to the child²⁰. Family members may think that a 'step' relationship requires marriage to the child's birth/ adoptive parent, especially those interviewed in the earlier cohort studies²¹. Or they may not regard the relationship as "step" or parental if the birth/ adoptive parent's partner has only recently started cohabiting with the birth/ adoptive parent or cohabits part-time. These 'other cohabiting partners' may instead be called "my [mother's/ father's] boyfriend/ partner".

Australian, Irish and US researchers have drawn attention to the distinction between 'declared step-parents' and 'other cohabiting partners' (Baxter, Edwards and Maguire, 2012; Hadfield and Nixon, 2013, citing Marsiglio, 2004; Qu and Weston, 2005; King and Lindstrom, 2016). If a dataset identifies resident stepfathers by asking research respondents to identify themselves or another individual as a "step-parent" (or "stepchild"), the stepfather category will exclude 'other cohabiting partners', and stepfathers described as a generic "parent/ guardian", and so be incomplete (Hadfield and Nixon, 2013; King and Lindstrom, 2016).

Despite low prevalence in their study in Ireland, Hadfield and Nixon (2013) suggest that these categories of step-parents should be included and differentiated in research. In England, as a result of identifying a substantial group of 'other cohabiting partners', the LSYPE extended

¹⁸ We define this 'declared stepfather' status through the relationship that is named by the research respondent. We make the assumption that the respondent's label reflects at least in part their perception of the relationship and the label used in the family to describe the relationship, in addition to disclosure issues, perceived linguistic norms for the meaning of "stepfather", and any survey instructions for interviewers and research respondents.

¹⁹ And/ or where the child is described as a "stepchild" or "son/ daughter" of the stepfather.

²⁰ And/ or where the child is described as a "non-relative" in relation to the stepfather.

²¹ See Kiernan, 2001, and Haskey, 2001, for analyses of the rise of non-married cohabiting relationships in Western Europe and England since the 1970s. In the National Child Development Study (NCDS), which is the earliest dataset that we look at, it may be that (particularly in the earlier sweeps) almost all 'declared stepfathers' identified through questionnaires were married to the cohort child's mother. In the more recent studies and sweeps, the category of 'declared stepfathers' may have also included parents' cohabiting (non-married) partners who were perceived within the family as 'stepfathers'. We shall look at this issue later in this paper.

partner interviews in their second sweep to all cohabiting partners of the young person's resident "main parent", regardless of whether the household interview respondent had declared a parental relationship (birth/ step/ adoptive/ foster) between this cohabiting partner and the young person (Collingwood et al, 2010).

We included within our scope two distinct groups of **non-resident stepfathers** who are not co-resident with the child full-time or part-time:

- **Group 1: former cohabiting partners:** a male **former** cohabiting partner of a child's birth/ adoptive parent²² who lived with the birth/ adoptive parent and child previously as a resident stepfather, and now maintains contact with the child. This category may be most relevant to cohort studies.
- **Group 2: current cohabiting partners of a non-resident parent:** the current male cohabiting partner of a child's **non-resident** birth/ adoptive parent (regardless of whether the cohabiting partner is called a "stepfather" by family members) who is not himself a birth or adoptive father to that child, where the child and non-resident birth/ adoptive parent are in contact. This includes:
 - male cohabiting partners of the non-resident mothers/ fathers of **adult** children (who may have been co-resident with the child at a time when the pre-adult or young adult child lived with their now non-resident birth/ adoptive parent);
 - male cohabiting partners of the non-resident birth/ adoptive mothers/ fathers of **dependent** children: this group of non-resident stepfathers will be very small because relatively few non-resident parents of dependent children are mothers, and relatively few non-resident fathers will be in a same sex relationship.

Bryson et al. (2017) suggest that research studies of family separation might include separations from a step-parent. We found only one UK research study of fatherhood which included Group 1 former cohabiting partners (Lee, 2008, described in Lewis and Lamb, 2007 as an "exemplary innovative approach"). US longitudinal studies have been analysed to investigate relationships and contact between adults and their "former stepparents"²³ (Schmeeckle et al., 2006; Noël-Miller, 2013). In the larger-scale analysis, one fifth of adult children perceived their former step-parent (mother or father) at least partially as a parent (Schmeeckle et al., 2006). This was more likely when the adult 'stepchild' and former

²² The birth/ adoptive parent may now be non-resident with their child, for example if an adult child subsequently left their parent's home. So the former cohabiting partner may have been a Group 2 non-resident stepfather (no longer living with the child) when their cohabitation with the birth/ adoptive parent ended.

²³ These "former stepparents" may not have lived with their 'former' stepchild, nor maintain contact, so it is a broader category than our Group 1 non-resident stepparents (Schmeeckle, et al., 2006). In Noël-Miller's study of older married or formerly married stepparents (average age 70 years), marriage to the birth parent had ended in the great majority of cases due to death (of the birth parent), rather than divorce.

stepparent had co-resided²⁴. The authors interpret this as meaning that “even a former stepparent’s relationship with a child can take on a life of its own, independent of the biological parent” (p606).

Researchers in the US and Australia have used quantitative datasets of adults to describe the prevalence and characteristics of so-called ‘non-resident’ step-parents (both fathers and mothers) who are the current cohabiting partners of ‘non-resident’ birth/ adoptive parents (our Group 2 category) (Stewart, 2001; Qu and Weston, 2005; Schmeckle et al, 2006; Noël-Miller, 2013). Around a fifth of Australian and US adults with dependent ‘non-resident’ stepchildren were male (Stewart, 2001; Qu and Weston, 2005).

Despite our broad definition of fathers, we did not include the following relationship categories as ‘social fathers’, nor within the scope of our review. These men may in some cases be perceived as a ‘father-figure’ or ‘like a father to me’ by dependent or adult children:

- resident grandfathers, older male siblings and male adult relatives in extended families (where a dependent child also lives with one or both birth/ adoptive parents);
- ‘non-cohabiting’ male partners of resident parents i.e. not cohabiting with the resident parent, and who are not birth/ adoptive parents nor Group 1 non-resident stepfathers (previously lived with the resident parent and child) - these individuals may be referred to as a parent’s “boyfriend” or as a long-term ‘living apart’ partner of their parent;
- fathers-in-law.

(ii) Our ‘co-residence’ typology: the residence categories

Much of the policy and research literature on fathers, including that derived from analyses of quantitative datasets, classifies fathers as either ‘resident’ or ‘non-resident’, sometimes referring to residence with the child’s other birth/ adoptive parent rather than residence with the child. This dichotomous classification overlooks the complexities of contemporary family life and couple relationships. For example, a father can be resident with some of his children (including step-children) and non-resident in relation to other children (including when a father has adult and dependent children). Additionally, in relation to a specific child, the distinction between resident and non-resident may not be straightforward, for example when a father or child regularly lives or stays at more than one address²⁵ (Wilson, 2010), as we now discuss.

²⁴ In contrast, Noël-Miller (2013) found that there were no statistically significant relationships between decline in contact following divorce and (i) whether the stepchild was younger than 18 years when their biological parent married the former stepparent nor (ii) the length of marriage. They found that children had less contact with divorced former stepfathers than with divorced former stepmothers. These are indicative findings based on a small sample of 110 older divorced former stepparents.

²⁵ See Toulemon and Pennec (2010); and Callister and Birks, 2006 for discussion in relation to France and New Zealand respectively, which may have different patterns of part-time residence.

For the purposes of our datasets review, we developed a typology of fathers which incorporates those who are resident part-time or who are temporarily non-resident with at least one of their children. Our aim was to contribute to a non-dichotomous classification of ‘resident fathers’ and ‘non-resident fathers’. We have restricted the scope of our review to the identification of fathers, but this typology could also be used to describe mothers.

The categories we developed, which are described in more detail below, are as follows:

RESIDENT FATHERS

Full-time resident fathers (i.e. no regular overnight absences)

Part-time resident fathers (regular part-time residence with child)

- Part-time away fathers (father changes residence)
- Fathers of part-time away children²⁶ (child changes residence)
- Overnight care fathers²⁷ (dependent child of non-cohabiting birth/ adoptive parents changes residence, alternately staying overnight with each parent):
 - Minority overnight care fathers (child stays with him for minority of nights)
 - Equal overnight care fathers
 - Majority overnight care fathers (child stays with him for majority of nights)

NON-RESIDENT FATHERS

Temporarily²⁸ (full-time) non-resident fathers (longer term non-residence)

- Long-term away fathers
- Fathers of long-term away children

Other non-resident fathers

²⁶ These fathers cohabit with the child’s mother, with the child living part-time in their household and part-time elsewhere (not with another parent). An adult child may be away for work or study during the working week, or a dependent child at weekly boarding school or in institutional care may come home at weekends. We did not consider this group of fathers in any detail in our investigations of datasets.

²⁷ In contrast to our approach in categorising these fathers as a subset of part-time resident fathers, such fathers are usually termed ‘non-resident fathers’, ‘separated fathers’ or ‘single fathers’ in research and policy discourse.

²⁸ i.e. expected to be temporary (at the time of the period of non-residence).

Within our datasets review, we use overnight contact between a father and his child/ren to define the residence categories. We shall see that many large-scale datasets do not explicitly define 'residence'. However, when a definition is provided, there is typically some reference to spending the night or sleeping at an address.

The part-time resident fathers are part-time resident and part-time non-resident. For the purposes of this datasets review, we term them 'part-time resident'. This is consistent with the MCS which uses this term for 'part-time away' fathers regularly spending "one or two days a week" in the cohort child's household (see Kiernan, 2006 for an analysis).

We intended these categories to be broad characterisations of different residence situations, and they will not describe the situation of all fathers.

(a) Part-time away fathers (father changes residence)

We will now define the first group of fathers who are not full-time resident, who we call the 'part-time away' fathers²⁹. In this case, the father may be considered part-time resident and part-time non-resident (with his child/ren) on a regular basis, and the other parent may be full-time resident with the child/ren. The father switches regularly between residences (e.g. during each week or fortnight), and each address may be described as one of his 'usual households'. Some 'part-time away' fathers will work away from home during the working week and return regularly at weekends, regarding their child's address as their permanent home. Others may maintain their own separate home and cohabit part-time with the child/ren's other resident parent.

(b) Overnight care fathers (child changes residence)

The second group of part-time resident fathers we call '**overnight care' fathers**. In contrast to 'part-time away' fathers (when it is the father who changes residence), it is the dependent children of 'overnight care' fathers who **regularly** switch residence, alternately staying overnight (e.g. during each week or fortnight) with each of their non-cohabiting³⁰ birth/

²⁹ When MCS cohort children were nine months old, 2% of all biological 'natural' fathers (and 10% of biological fathers who had not been cohabiting with the child's mother at the time of birth) were living part-time with the child (Kiernan, 2006). Wilson (2010) found, on the basis of a small-scale ONS Opinions Survey sample, that around 3% of 'non-resident' parents stayed overnight at least once a week in their 'non-resident' child's household, as reported by an adult in the child's household.

³⁰ We use the term 'non-cohabiting parents' rather than 'separated parent/s' in the context of this part-time overnight care of their children. These birth/ adoptive parents have usually separated from their previous couple relationship together (and may have since re-partnered), or were never together in an ongoing couple relationship. However, a subset of non-cohabiting birth/ adoptive parents will remain in a couple relationship with one another whilst living separately ('living apart together').

adoptive parents³¹. In this case, each birth/ adoptive parent may be considered part-time resident and part-time non-resident (with their children) on a regular basis, and the child/ren are part-time resident in each birth/ adoptive parent's separate household. It is the child who has more than one residence, and both parental addresses may be described as 'usual households' for the child.

We use the term 'non-cohabiting parents' rather than 'separated parent/s' in the context of this part-time overnight care of their children. These birth/ adoptive parents have usually separated from their previous couple relationship together (and may have since re-partnered), or were never together in an ongoing couple relationship. However, a subset of non-cohabiting birth/ adoptive parents will remain in a couple relationship with one another whilst living separately ('living apart together').

These children have been called "two household children" in New Zealand (Callister and Birks, 2006). UK researchers have also noted the limitations of the usual 'resident' and 'non-resident' dichotomy, with a particular emphasis on children with substantial overnight care with each parent (Bryson et al, 2017; Masardo, 2009).

We differentiate 'overnight care fathers'³² into '**minority overnight care**' fathers, '**equal overnight care**' fathers and '**majority overnight care**' fathers. This differentiation is possible in research datasets that ask about the number of nights of co-residence of father and child, or ask where the child stays for the majority of overnight stays (with a response category for equal/ near equal time). A caveat is that there are differences³³ in estimates of the prevalence of regular overnight stays (and of contact more generally) derived from interviews with resident parents (mainly mothers) and interviews with non-resident parents (mainly fathers) (Peacey & Hunt, 2008a; Wilson, 2010; Bryson et al., 2017). Less frequent overnight stays are generally derived from resident parents' reports. There may be inaccuracies in estimates of the numbers of nights per week or month when parents have complex overnight arrangements for their children.

- '**Minority overnight care**' fathers: A common arrangement in the UK is for dependent children (whose birth/ adoptive father and mother live separately) to stay with

³¹ It is likely that the great majority of parents with an overnight care arrangement are non-cohabiting birth/ adoptive parents of the child/ren concerned. A proportion may be long-established step-parents who have separated from the birth/ adoptive parent of the child/ren.

³² The 'part-time away' fathers could be similarly differentiated according to how many nights they regularly reside with their child, but we have not done so for the purposes of our datasets review.

³³ Samples of 'non-resident' fathers over-represent those with more contact with their non-resident children, and under-represent those fathers without contact. This may be partly due to reluctance among separated fathers with less or no contact to identify themselves as non-resident parents, or take part in research (especially studies focusing on family separation), compared to more representative samples achieved among separated mothers. This leads to over-representation of 'overnight care' fathers within the sample of 'non-resident' fathers. Different estimates derived from fathers' reports and mothers' reports may also be due to fathers over-reporting and mothers under-reporting contact and overnight stays. For a good discussion, see Peacey and Hunt, 2008a/b.

their birth/ adoptive father (and potentially this father's cohabiting partner, whom we have categorised as a step-parent) for one or two nights per week on average (e.g. stays on alternate weekends), and with their birth/ adoptive mother (and potentially her cohabiting partner) for a majority of nights. The children of these 'minority overnight care' fathers may have an equivalent number of regular overnight stays with their father as do the children of 'part-time away' fathers who, for example, are away during the working week and home on weekends. They are however usually termed 'non-resident' fathers in the research literature and policy discourse. They are often not differentiated from non-resident birth/ adoptive fathers who have no regular overnight care of their children, or no contact at all. Shared arrangements where there are at least 52 overnight stays (an average of one night per week, or two nights per fortnight) with the paying birth parent have been taken into account by the Child Maintenance Service in setting maintenance levels (Bryson et al., 2015).

- **'Equal overnight care'** fathers. Data from a topic module of the ONS Omnibus Survey in 2006-07 (Peacey & Hunt, 2008a) reported that about nine per cent³⁴ of parents (mothers and fathers) who lived separately from their dependent child/ren's other parent had at least one child who spent the equivalent of "three or more days and nights per week, or for around half the year each overall" with each parent (and any cohabiting partners of these parents). We call the fathers of these children 'equal overnight care' fathers. Other researchers and policy commentators have called this "shared parenting (time)", "shared/ dual residence", "[equal] shared care", or "50:50 care", sometimes taking into account daytime care as well as overnight stays, although this may not be explicit. In line with the UK approach of "an equal division of time" described in the report of a Nuffield Foundation-funded project (Fehlberg et al, 2011), and with our focus on overnight stays, we use a definition of equal or near-equal distribution of nights between birth/ adoptive parents (three or four nights per week), rather than the 30% to 50% or 35% to 65% of time or nights sometimes used by researchers (Trinder, 2010; Fehlberg et al, 2011; Masardo, 2009). Our definition does not require a shared residence court order³⁵ or other legal arrangement.

³⁴ This 'conservative estimate' derives from a relatively small sample (Peacey and Hunt, 2008a), but is based on responses both from (i) 'resident' parents categorising their 'equal overnight care' child/ren as resident with them in the sampled household, and (ii) 'non-resident' parents categorising these child/ren as living "with their other parent for all or most of the time". In contrast, estimates of the frequency of "shared care 50-50" derived from large-scale, Understanding Society data are based only on 'non-resident' fathers or parents who have categorised these child/ren as mainly living elsewhere (Fehlberg et al., 2011; Poole et al., 2013a/b). Yet it may be more likely that a parent categorises these children as resident (Fehlberg et al., 2011), which may differ by gender. We shall see in section 3Cii that this dataset also collects reports of "shared care 50/50" and the frequency of overnight stays from 'resident' parents in relation to each resident child, although this is in later sweeps, and sample sizes may be small and subject to attrition bias.

³⁵ For arrangements made through the courts (which is a minority of all parental separations), child arrangements orders replaced residence and contact orders from April 2014. Children and fathers in the research datasets we looked at, especially in the childhood sweeps of the cohort studies, may have been subject to the residence orders and contact orders made by the courts before that date. Shared residence orders do not require an equal or near-equal distribution of overnight stays.

- **‘Majority overnight care’** fathers. Another less frequent UK arrangement is when children stay with a birth/ adoptive father (and any cohabiting partner) for five or six nights per week on average, and with a birth/ adoptive mother (and any cohabiting partner) for a minority of nights. This category of fathers may be included in research and policy discourse along with ‘sole care’ fathers within the category of resident ‘lone fathers’ or ‘single parent’ fathers, if they do not have a cohabiting partner.

Almost half of fathers of ‘non-resident’ dependent children say that these children regularly stay overnight with them (Poole et al, 2016 using Understanding Society data). Most of these ‘non-resident’ fathers will be part-time resident ‘minority overnight care’ fathers. Based on the report of their primarily resident parent, a third of dependent children with a ‘non-resident’ parent regularly stay overnight with them³⁶ (Bryson et al., 2017, using Understanding Society data from a later sweep). This means that these children’s primarily resident parent (often called a ‘lone parent’ or ‘single parent’ if they do not have a cohabiting partner) is (in the main) a part-time resident ‘majority overnight care’ parent.

Our third and fourth groups of fathers are related to the **continuous longer-term temporary non-residence** of either the father or the child. The absence from the ‘family home’ is expected (during the time of non-residence) to be temporary. This contrasts with the regular weekly or fortnightly pattern of part-time residence and non-residence which defines the ‘part-time resident’ fathers.

(c) Long-term away fathers

Long-term away fathers temporarily live away, for example for work, in prison or another institution, perhaps making occasional visits home. They may be the partner of the children’s resident parent, and may regard the child’s home as their permanent residence. They expect (or are expected by family members) to return at some point to live in the child’s home.

Researchers carrying out analyses would need to define the length of a ‘long-term’ period of non-residence³⁷ in relation to specific research questions and ages of children. We do not intend it to include ad hoc (non-regular) short stays for less than a fortnight away from home for work, holiday or in hospital.

(d) Fathers with long-term away children

Fourthly, children may temporarily live away for ‘long-term’ periods, for example for work, or at college, university or boarding school, or in hospital, institutional care or prison. The child may make occasional visits home but expects (or is expected by family members) to return. We call these fathers ‘fathers with long-term away children’.

For the purposes of this review, we have defined these two last categories of fathers as non-resident. However, resident family members may consider the temporarily away fathers or

³⁶ “Sex”/ gender not specified but the great majority will be fathers.

³⁷ Using cognitive interviewing, ONS found that Census respondents’ interpretations of the term “temporarily” were in terms of time away, ranging from “at least three nights” to six months (ONS, 2010b).

children to remain part of the household. Therefore these fathers might be counted in research as household members, and included among the identified resident fathers in research datasets. We look later in this working paper at whether the datasets we reviewed can identify and differentiate these categories of fathers, and whether they are included among the identifiable resident fathers and/or the identifiable non-resident fathers.

(e) The potential to extend our typology for non-cohabiting parents of dependent children

As already mentioned, we have restricted the scope of our datasets review to the identification of fathers, and focused on residence categories defined by overnight stays. Yet, for the non-cohabiting birth/ adoptive parents of dependent children, our typology of resident and non-resident fathers could be extended by other researchers to incorporate daytime care, and also applied to mothers. Additional categories might include:

- **Sole Care** mothers/ fathers (where there is no daytime care or overnight care from the other parent, with the potential for other forms of contact if the parent is alive)
- **Daytime Care** fathers/ mothers, whose involvement may include regular school runs; care or activities after school, at weekends and in school holidays; and all day care of pre-school children
- **Indirect Contact** fathers/ mothers who are a recognised category in some surveys (Blackwell & Dawe, 2003). For reasons of safeguarding, or because their geographical location renders regular face-to-face contact impossible, these parents may connect with their children through a range of communication technologies.
- **No contact** fathers /mothers.

Such categories, along with those which we defined earlier for our review, could be of interest to researchers or policymakers. They go beyond the ‘resident’/ ‘non-resident’ dichotomy more often used in analyses of cross-sectional and longitudinal datasets.

Part Two: Fathers in the repeated cross-sectional datasets

Section 2A: Identifying a broad-brush category of fathers among survey respondents

There is an implicit or explicit dichotomous classification of parents into ‘resident’ and ‘non-resident’ in most datasets. When identifying fathers and mothers among research respondents, it is common for the datasets to separately identify ‘resident’ parents (usually through questions asking about all household members and their relationships) and ‘non-

Part Two covers our findings on the **repeated cross-sectional datasets** that we introduced in Part One, examining how these datasets can identify, among the research respondents and (where relevant) other household members:

Section 2A: a broad-brush categorization of fathers which includes all the relationship and residence categories within the scope of our review

Section 2B: resident fathers (including part-time resident fathers) (

Section 2D: non-resident fathers (including ‘long-term away’ fathers, and fathers of ‘long-term away’ children).

Section 2C covers the methodological reasons for variations in how datasets identify resident fathers, and examples of questionnaire content which could be adapted for future data collections.

Section 2E looks at how data about fathers is collected in these cross-sectional datasets, directly from fathers, and also from other research respondents.

resident’ parents (usually through questions specifically about children living outside the household); or to identify only ‘resident’ parents.

Yet for some analytic purposes (for example, see Hakim, 2005), a single inclusive ‘declared parenthood’ question might establish broad ‘father’ and ‘non-father’ categories among research respondents (including birth fathers, adoptive fathers and social fathers, and resident and non-resident fathers i.e. all the categories in scope of our review), and similarly for mothers. Such a question would lessen respondent burden, and may reduce non-disclosure, compared with asking separately about different types of parenthood.

The broad-brush identification of fathers in British Social Attitudes (BSA) 2001-2014

*“Which, if any, of these types of relatives do you yourself have alive at the moment? Please include adoptive and step relatives:”
Son/ Daughter*

- The identified group includes resident and non-resident fathers. It includes fathers of dependent children and fathers of adult children.
- There are however a few omissions, generally of categories that are likely to be small relative to the fathers who are identified through this question:
 - It may not include foster fathers and male guardians who have no other children and who do not consider their looked after child/ren to be their son or daughter.
 - It does not include ‘other cohabiting partners’ (of resident or non-resident parents) who do not self-identify as an individual with resident or non-resident ‘stepchildren’ and who have no other children.
 - In common with all survey efforts to identify non-resident fathers, it will not include non-resident fathers who do not know that they have a child or who do not wish to report it (Berrington et al, 2005; Poole et al, 2013a/b)
 - In common with many large-scale cross-sectional research datasets, it will not include fathers who live in institutions rather than in private households.
 - It will not identify fathers aged under 18 years because these younger people are not within the scope of BSA.

Among the repeated cross-sectional research datasets, only BSA has included³⁸ a single broad-brush 'declared parenthood' question. This asks the research respondent whether they have a living child.

Section 2B: Identifying and differentiating resident fathers³⁹ (repeated cross-sectional datasets)

Cross-sectional research datasets can be used to identify resident fathers among the respondents completing a questionnaire or interview. According to our definitions (see section 1B), if the questions asked can identify that a male research respondent and/or their cohabiting partner (living full-time or part-time in the sampled/ Census household) has a parental relationship to at least one child (dependent or adult) who lives full-time or part-time in that household, then that respondent can be categorised as a resident father (including 'other cohabiting partners').

Additionally, household-based datasets, and individual-based datasets with a full household grid (see section 2C), can be used to identify resident fathers among any household members who are not available or eligible to complete a questionnaire or interview. Demographic data about these household members (and sometimes more detailed data, for example in a proxy interview) are usually collected from research respondents.

This includes identifying any younger teenaged resident fathers (under the age of 16 or 18 years) among household members who are not eligible to receive an interview or questionnaire due to their age. These youngest resident fathers are a subset of 'young fathers' aged up to 25 years, and will be a group likely to be too small for separate detailed analysis.

We look later in this working paper (section 2C) at the datasets' categorisations of parent-child relationships and criteria for household inclusion (residence). These affect the identification and classification of fathers. For example, a subset of temporarily non-resident fathers are often included among the identifiable 'resident' fathers; and a subset of part-time resident fathers are often included among the identifiable 'non-resident' fathers but not among the identifiable 'resident' fathers. For this reason, we use quotation marks around 'resident' and 'non-resident' when we refer to the identifiable category in a dataset which does not comprise solely resident or solely non-resident fathers according to our definitions (see the Glossary and Section 1B).

³⁸ This question has not been included as a core question from the 2015 BSA onwards as the external funding has come to an end.

³⁹ Including part-time resident fathers who have regular overnight care of their dependent children.

(i) Relationship categories among resident fathers⁴⁰

Most of the cross-sectional research datasets can identify birth, adoptive and social fathers (among research respondents and other household members) as ‘resident’ fathers (see Table 3).

However, BSA cannot include ‘other cohabiting partners’ in the identifiable group of ‘resident’ fathers. BSA and the Census cannot include foster fathers and male guardians who do not identify their looked after children as “sons/ daughters”. These men cannot be identified as ‘resident’ fathers, nor as fathers, when they have no other children assessed as resident in the sampled household.

All the cross-sectional research datasets can differentiate fathers of ‘resident’ dependent children from fathers of ‘resident’ adult children through a question about the age of each household member.

Only one of the cross-sectional research datasets we investigated, the HSE, is able to separately identify ‘resident’ birth fathers and ‘resident’ adoptive fathers (see Table 4). Instead, the majority of the datasets differentiate three relationship categories among ‘resident’ fathers (in relation to at least one child assessed as living in the household):

- birth fathers/ adoptive fathers/ male guardians (combined in a single category of “parents/ guardians”⁴¹)
- stepfathers (‘declared stepfathers’ and ‘other cohabiting partners’⁴²)
- and usually also foster fathers.

A resident father can fall into more than one of these categories, for example he may live (full-time or part-time) with both his birth children and stepchildren. However, only one of these categories can apply to his relationship with a specific child in the household.

These datasets can separately identify ‘resident’ stepfathers, in contrast to some European harmonised survey datasets (Sigle-Rushton et al., 2013). However, the identifiable group of stepfathers (for example, the analysis in ONS, 2014b) will exclude any long-established stepfathers whose relationship is perceived by the research respondent as a ‘parent/ guardian’/‘son/daughter’ relationship (rather than a ‘step-parent’/ ‘step-child’ relationship)

⁴⁰ Since the relationship codes used in these cross-sectional datasets are gender-neutral, these points apply equally to differentiating relationship categories among the identifiable ‘resident’ mothers.

⁴¹ Or just “mothers/ fathers” in the Census.

⁴² We have defined stepfathers as current or former male cohabiting partners of a child’s resident birth or adoptive parent. However since most of these repeated cross-sectional datasets cannot separately identify birth or adoptive parents, the identifiable categories of ‘other cohabiting partners’ and stepfathers may include a small number of cohabiting partners of male guardians who are not themselves considered to be a parent or guardian to a child in the household.

Exceptions in differentiation of relationship categories

- Only the HSE collects the information necessary to fully differentiate birth fathers, adoptive fathers, other male legal guardians, and stepfathers (including other cohabiting partners) among the identifiable ‘resident’ fathers. This may be related to its focus on health i.e. the need to reliably differentiate a category of biological fathers and mothers. Legal guardians are identified in the HSE so they can give consent to collection of biomedical data from the children in the sampled household.
- It is not possible to use BSA to differentiate relationship categories among the identifiable resident fathers. Consequently, it is not possible to compare, for example, resident birth fathers’ and resident stepfathers’ attitudes towards family life, or analyse changes over successive years.
- It is not possible to use the Census to identify resident foster fathers.

(personal communication with ONS). Instead, these stepfathers are included in the “parent/guardian” category, and cannot be separately identified.

Including adoptive fathers, guardians and a small proportion of stepfathers together with birth fathers in one category may not make any substantive difference to the results of analyses focusing on resident birth fathers. This is because adoptive fathers, the included stepfathers and other ‘guardians’ are rare in comparison to birth fathers. But it means that enumeration and separate analysis cannot be carried out for resident adoptive fathers, even in the Census and LFS where there will be larger numbers⁴³, nor by combining waves in relatively smaller data collections.

With the exception of BSA, the cross-sectional research datasets can differentiate married and cohabiting (non-married) ‘resident’ stepfathers (except for any long-established stepfathers included in the “parent/guardian” category). They cannot reliably differentiate ‘declared stepfathers’ from ‘other cohabiting partners’.

(ii) Residence categories among resident fathers

On the whole, it is possible using the cross-sectional datasets to identify two categories of resident fathers (our definitions) among research respondents and household members as ‘resident’ (dataset definitions). These are:

⁴³ Nandy and others (2011) used the Census to estimate that there were around 173,000 children in the UK who were living with adult relatives (male and/or female) (‘kinship carers’) when they were not co-resident with a mother or father. This small group in the population was analysed in tables according to UK country, local authority, “sex”, age and family relationship/ “sex”/ social class/ marital status/ ethnicity/ educational qualifications of the carer/s (Nandy et al., 2011). However, a similar analysis of the large-scale Understanding Society dataset yielded a sample of just 77 children in 68 households (Aziz & Roth, 2012). This used just one sweep of the study, and the sample size could have been increased by combining across sweeps.

- full-time resident fathers (i.e. both the father and child/ren live full-time in the sampled household, excluding ad hoc short absences);
- part-time resident fathers where the father and/or child/ren live part-time in the sampled household, and this household is regarded as the father's and child/ren's "main residence" so that both they and their children are included (for research purposes) as household members. These part-time resident fathers who can be counted as 'resident fathers' are likely to comprise 'majority overnight care' fathers⁴⁴, and a proportion of 'equal overnight care' fathers. 'part-time away' fathers and fathers of 'part-time away' children (see Table 5 for datasets covered by Government Statistical Service (GSS) harmonised household definitions (GSS, 2017)). They are likely to include but not be limited to⁴⁵ the part-time resident fathers who are resident with their children in the sampled household more often than they are non-resident with them.

However:

- The cross-sectional datasets are rarely able to differentiate the full-time resident fathers and the part-time resident fathers included among the identifiable 'resident' fathers.
- The identifiable group of 'resident' fathers may also include some 'long-term away' fathers (among household members in the household-based datasets) and fathers of 'long-

Exceptions in the identification of part-time resident fathers as 'resident'

In the Census, 'part-time away' fathers are included among the identifiable 'resident' fathers if their "permanent or family home" (the household in which their Census form is completed) is the household where their children live, even if it is not the father's 'main' or 'usual' address (in terms of time) nor where he is on Census night. This is likely to include fathers who work away from their child/ren's household during the week.

In BSA, it appears from the published questionnaire that 'overnight care' fathers are included among the identifiable resident fathers if their children live regularly in the sampled household. So the identifiable 'resident' fathers may include 'minority overnight care' fathers and 'equal overnight care' fathers as well as 'majority overnight care' fathers.

term away' children (see Table 5). We have defined such fathers as temporarily non-resident. This varies for each dataset according to the length of non-residence (often included among

⁴⁴ For simplicity within the text relating to cross-sectional datasets, we have used the term 'overnight care' fathers to include the male cohabiting partners of 'overnight care' birth/ adoptive mothers/ fathers, whom we would categorise as part-time resident stepfathers.

⁴⁵ Some of the 'part-time away' fathers and children away during the week for work or study, and resident on weekends only, may be included in the sampled household on the basis of it being a temporary absence from their "main residence" even when they are away for the majority of the week. We shall see that, based on published documentation, the repeated cross-sectional surveys do not explicitly define "main residence", for example in terms of time spent there.

the ‘resident’ fathers if less than six months) and the reason for non-residence (for example fathers of children away at boarding school or university during term-time may be included among the ‘resident’ fathers). These temporarily non-resident fathers (who remain household members for research purposes) can rarely be differentiated from the full-time and part-time resident fathers within the group of ‘resident’ fathers.

Where the sampled household is **not** regarded as the father’s and child/ren’s “main residence”⁴⁶, part-time resident fathers among survey respondents/ household members will **not** be identifiable as ‘resident’ fathers, unless they have other children (e.g. full-time resident or ‘majority overnight care’) included among the members of their sampled/ Census household. These resident fathers (not identifiable as ‘resident’) are likely to comprise ‘minority overnight care’⁴⁷ fathers and a proportion of ‘equal overnight care’⁴⁸, ‘part-time away’ fathers and fathers of ‘part-time away’ children. These are generally the part-time resident fathers who are resident with the children in the sampled household less often than they are non-resident with them.

- The part-time resident children of the ‘minority overnight care’ fathers have their “main residence” elsewhere with the other parent. These children are not included as household members (for research purposes) at ‘dad’s house’ (the sampled/ Census household), where they spend one or two nights a week. These fathers are usually called ‘non-resident’ fathers in the research and policy literature.
- Some ‘part-time away’ fathers among research respondents are not identifiable as ‘resident’ fathers because it is their ‘away’ address (assessed to be their “main residence”) which has been sampled for the research. Likewise, ‘part-time away’ fathers of children resident in a sampled household may not be included among household members (and counted as resident fathers of these children) if their “main residence” is not the sampled household.

The ‘minority overnight care’ fathers, ‘equal overnight care’ fathers and ‘part-time away’ fathers among research respondents who are not counted as ‘resident’ fathers (but are resident according to our definitions) might instead be identifiable as ‘non-resident’ fathers (see section 2D). However, since (as we shall see later) the cross-sectional datasets rarely ask questions to identify parents of non-resident children, these individuals cannot generally be identified as fathers unless they have other children included among the members of their sampled/ Census household.

⁴⁶ Or, in the Census, the individual’s “permanent or family home”.

⁴⁷ A small proportion (3%) of ‘overnight care’ parents (mothers and fathers) categorised as ‘resident’ parents in the ONS Opinions Survey (Wilson, 2010) said that their child stayed for more than 20 days per month with the other parent i.e. were ‘minority overnight care’ parents.

⁴⁸ Using Understanding Society data (a longitudinal study), around 3% of all fathers of dependent children stated that they had ‘non-resident’ dependent children for whom they “shared care 50/50” with the other ‘resident’ parent (Poole et al, 2013a/b). Respondents’ interpretations of “shared care 50/50” may include daytime care.

ONS Omnibus/ Opinion Survey: past topic modules identifying ‘overnight care’ parents (also see Table 6)

Omnibus Survey topic modules on family separation (Peacey & Hunt, 2008a; Lader, 2008) could identify those ‘overnight care’ fathers (their child stayed overnight with their other parent at least once a week) who had been categorised as a ‘resident’ father or as a ‘non-resident’ father, so including ‘majority overnight fathers’, ‘equal overnight care’ fathers and ‘minority overnight care’ fathers. The module in Lader (2008) did not ask about the proportion or number of nights in the child’s other household so clear differentiation of ‘majority overnight care’ fathers and ‘minority overnight care’ fathers was not possible.

An Opinions Survey topic module (Wilson, 2010) could identify only those ‘overnight care’ fathers whose part-time resident children had been included in the sampled household. These fathers are likely to comprise ‘majority overnight care’ fathers and a proportion of ‘equal overnight care’ fathers, but rarely ‘minority overnight care’ fathers. A question was asked about the number of nights of overnight care, so the data could be used to differentiate ‘majority overnight care’ fathers and ‘equal overnight care’ fathers (and any included ‘minority overnight care’ fathers).

Identification of full-time resident, part-time resident and temporarily non-resident fathers included among the identifiable ‘resident’ fathers

The 2011 Census data can be used to identify resident fathers whose child/ren spend more than 30 days per year at a second address with a parent or guardian. These fathers include full-time resident fathers living with the same child/ren at more than one address (e.g. a permanent home and a holiday home) (ONS, 2014c). Or the child/ren may regularly live at the second address with their other parent or guardian (‘majority overnight care’ fathers and ‘equal overnight care’ fathers); or have a few periods of temporary residence or a number of ad hoc short stays with their other parent, for example in the school holidays. If Census forms are linked, it may be possible to differentiate where a second address is with the same or different parents/ guardians.

The FRS differentiates survey respondents included among the ‘resident’ fathers whose resident dependent child/ren were looked after overnight in the previous week by the child/ren’s ‘non-resident’ parent (or the survey respondent’s ex-partner). However, we do not know if this is regular overnight care.

The Census identifies resident fathers who stay at another address for more than 30 days per year without their resident children (those in the Census household). It separately identifies those staying at an armed forces base address, and those at “another address when working away from home”. However, it is not known whether, at the time of the Census, these fathers have a ‘part-time away’ pattern of residence; are ‘long-term away’ from their permanent home, the Census address (i.e. temporarily non-resident); had a recent long-term absence (i.e. currently resident); or have a number of short absences each year away from home (included within our definition of full-time residence).

The LFS and Census can separately identify fathers of ‘long-term away’ children away at boarding school or as a student (halls of residence only in the LFS) during term-time. These children are included (for research purposes) among household members.

We expect that the great majority of the identifiable ‘resident’ fathers will be full-time resident fathers, reflecting the population of resident fathers. So the inclusion of part-time resident fathers and temporarily non-resident fathers together with full-time resident fathers in one category of ‘resident’ fathers may not make any substantive difference to the results of analyses focusing on full-time resident fathers. However (see table 6), the datasets are rarely able to separately identify those survey respondents or household members who fall into part-time residence categories (majority overnight care, equal overnight care, minority overnight care, part-time away) and are identifiable as ‘resident’ and/or ‘non-resident’ fathers. This means that enumeration and separate analysis for each of these categories of fathers cannot be carried out, even in the largest datasets where a sufficiently sized sample might be achieved by combining waves.

Among the cross-sectional research datasets (Table 6), only past ‘family separation’ topic modules of the ONS Omnibus Survey/ Opinions Survey (now the OPN) have collected the information necessary to identify ‘overnight care’ fathers. These modules differ in how comprehensively they identify these fathers among survey respondents, according to whether they ask (i) only those survey respondents identified as ‘resident’ parents about overnight stays (Wilson, 2010) - i.e. their part-time resident children have been assessed as living in the sampled household; or (ii) also ask those survey respondents identified as ‘non-resident’ parents about overnight stays (Peacey & Hunt, 2008a; Lader, 2008) - i.e. their part-time resident children have been assessed as living outside the household. As mentioned in section 1.2, a caveat on the data from these questions is that there are differences in estimates of the prevalence of regular overnight stays derived from interviews with resident parents (mainly mothers) and interviews with non-resident parents (mainly fathers) (Peacey & Hunt, 2008a; Wilson, 2010; Bryson et al., 2017), with less frequent overnight stays derived from mothers’ reports.

Questions in the Census and the FRS go part-way to identifying ‘overnight care’ fathers. These datasets also ask questions which can identify subsets of fathers of ‘long-time away’ children (who are included among the identifiable ‘resident’ fathers).

(iii) The Birth Registrations dataset

By definition, all fathers in the annual Birth Registrations dataset are birth fathers of babies i.e. named on birth certificates. Fathers married to mothers are automatically listed as the father of the child. The addresses of the mother and father are collected when a father and mother register the birth jointly. It is not asked whether the mother or father lives at the same address as the infant. Therefore the data collected identifies resident and non-resident birth fathers (i.e. resident or non-resident with the infant) if we assume that when a non-married birth father lives at a different address from the birth mother, the infant lives with the birth mother. Data collected about fathers through Birth Registrations, including whether they live with the child’s mother, exclude those fathers who are not married to the birth mother and do not jointly register the birth.

Table 3: CROSS-SECTIONAL: Can birth, adoptive and social fathers be identified as 'resident' fathers?

	'Resident'...					
	Birth fathers	Adoptive fathers	Social fathers		Foster fathers	Male guardians
			Declared stepfathers (married and cohabiting: non-married)	Other cohabiting partners'		
British Social Attitudes	✓	✓	✓		**	**
Health Survey England	✓	✓	✓	✓	✓	✓
Labour Force Survey	✓	✓	✓	✓	✓	✓
Family Resources Survey	✓	✓	✓	✓	✓	✓
2011 Census for England and Wales*	✓	✓	✓	✓		
Opinions and Lifestyle Survey - core demographic questions	✓	✓	✓	✓	✓	✓
Birth Registrations dataset	✓					
2000 and 2014 -15 UK Time Use Surveys	✓	✓	✓	✓	✓	✓

✓✓ = includes these fathers within the identifiable category of 'resident' fathers (subject to respondents' disclosures and interpretations of questionnaire terms); ✓ = includes a subset of these fathers within the identifiable category of 'resident' fathers. *The Census may not identify resident fathers in a proportion of large households (more than 6 people) completing continuation questionnaires. **BSA includes foster fathers and male guardians as 'resident' fathers only if they identify their foster child/ren as their 'son' or 'daughter'.

Table 4: CROSS-SECTIONAL: Can 'resident' birth, adoptive and social fathers be differentiated as separate categories for analysis?

	Categorised as 'resident'				
	Birth fathers	Adoptive fathers	Social fathers	Foster fathers	Male legal guardians
			Stepfathers (married and cohabiting: non-married, including 'other cohabiting partners')		
British Social Attitudes					
Health Survey England	✓✓	✓✓	✓✓	✓✓	✓✓
Labour Force Survey			✓*	✓✓	
Family Resources Survey			✓	✓✓	
2011 Census for England and Wales*			✓		
Opinions and Lifestyle Survey - core demographic questions			✓	✓✓	
Birth Registrations dataset	✓				
2000 and 2014 -15 UK Time Use Surveys			✓	✓✓	

✓✓=identifies these fathers (subject to respondents' disclosures and interpretations of questionnaire terms); ✓ = identifies subset of these fathers.

*In the ONS datasets, the FRS and the 2000 and 2014-15 UKTUS, a proportion of stepfathers will be excluded from this category if they are identified generically as a 'parent' or 'guardian' of their stepchildren, and their stepchild is identified as their 'son/ daughter' rather than their 'stepchild'.

Table 5: CROSS-SECTIONAL RESEARCH DATASETS: How does the identifiable category of ‘resident’ fathers relate to our residence categories (Government Statistical Service harmonised definitions)?

Full-time resident fathers	Part-time resident fathers	Temporarily non-resident			Other full-time non-resident
	Part-time away fathers	Overnight care fathers			
		Majority overnight care	Equal overnight care	Minority overnight care	
✓✓	✓	✓✓	✓	✓	

✓✓ = includes these fathers within the identifiable category of ‘resident’ fathers (subject to respondents’ disclosures and interpretations of questionnaire terms); ✓ = includes a subset of these fathers within the identifiable category of ‘resident’ fathers.

Table 6: CROSS-SECTIONAL RESEARCH DATASETS: Can full-time resident fathers, part-time resident fathers and temporarily non-resident fathers be differentiated as separate categories for analysis?

	Full-time resident fathers	Part-time resident fathers	Temporarily non-resident		
		Part-time away fathers	Overnight care fathers (of dependent children)		
			All 'overnight care' fathers	Majority overnight care fathers	Equal overnight care fathers
					Minority overnight care fathers
British Social Attitudes					
Health Survey for England					
Labour Force Survey					✓
Family Resources Survey					
2011 Census for England and Wales					✓
Opinions and Lifestyle Survey - core demographic questions					
ONS Omnibus/ Opinions Survey past topic modules		✓(Lader; Peacey & Hunt*)	✓(Wilson**) ✓(Peacey & Hunt)	✓✓(Peacey & Hunt) ✓(Wilson)	✓✓(Peacey & Hunt)
UK Time Use Surveys					

✓✓=identifies these fathers (subject to respondents' disclosures and interpretations of questionnaire terms); ✓ = identifies subset of these fathers.

*The identifiable categories of regular 'overnight care' (at least one night per week on average) (Peacey and Hunt, 2008a; Lader, 2008) and 'majority overnight care' fathers (Peacey and Hunt, 2008a) may miss fathers whose child stays with the 'minority overnight care' parent for a regular fortnightly weekend (average one night per week), but categorise the frequency of stays as 'at least once a month' rather than 'at least once a week' (there is no fortnightly code).

**The identifiable categories of 'majority overnight care' fathers and 'equal overnight care' fathers (Wilson, 2010) exclude any fathers whose children have been categorised as 'non-resident' in the study household.

Section 2C: Methodology and Survey Practice: identifying and differentiating resident fathers (repeated cross-sectional research datasets)

We have looked at whether the repeated cross-sectional datasets identify and differentiate categories of resident fathers. This may be of interest to those who will analyse the datasets. Now we turn to the methodological reasons for this variation. We find examples of questionnaire content which could be adapted for future data collections to identify and differentiate resident fathers, when relevant to priorities and research questions.

(i) Which questions identify resident fathers?

Cross-sectional datasets and some longitudinal studies often identify resident fathers and mothers among research respondents and other household members through the household grid questions. The household grid (Table 7) is usually one of the first sections of the questionnaire. It asks the research respondent (or, in a household survey, the household member completing the household-level questions - called the household grid respondent or household informant) to identify all household members (i.e. the individuals assessed as living in the household), their age, “sex”⁴⁹ and relationship to one another, and sometimes also characteristics such as marital status and economic activity.

Table 7: A household grid

Names	Sex	Age/ Date of birth	Marital status (adults)
Person 1			
Person 2			
Person 3			
Person 4			

In the Census and household surveys (as well as in household panel studies), data is usually collected to enable both household-level analysis (i.e. about households as a whole) and individual-level analysis (i.e. across individual household members).

- In current large-scale UK household surveys⁵⁰, household grid questions usually ask the household grid respondent about the relationship of each household member to **every other** household member, which we call a full relationships grid (Table 8). The respondent

⁴⁹ Research datasets usually label this variable as “sex”. It is coded subjectively by the respondent, or identified by the interviewer.

⁵⁰ Household surveys may alternatively use a partial relationships grid asking for the relationship of each household member only to the “head of household” or “household reference person”. This did not apply to recent waves of the cross-sectional research datasets that we investigated. A full relationships grid has been used in the Census since 2001.

is asked to select from a list of relationship codes to describe each relationship. The relationship codes for parents are sometimes gender-neutral, for example “step-parent”, or may combine “father” and “mother” in a single code.

- When the dataset collects a **full** relationships grid, data from the household grid question identifying the “sex” or gender of each household member can be combined with the relationship code data to identify:
 - men who are assessed (for research purposes) as co-resident in the household with their child/ren (dependent or adult) i.e. they are identified as a parent (birth/ adoptive/ step/ foster) or other guardian in relation to at least one ‘resident’ child
 - men who are assessed (for research purposes) as co-resident in the household with their cohabiting partner’s child/ren (dependent or adult) but not declared (through the relationship codes) to be a parent/ guardian in relation to these child/ren (he may instead be named as a “non-relative”). These are the ‘other cohabiting partners’, a subset of resident stepfathers.

In surveys of individuals (and also, as we shall see, in cohort studies), household grid questions may establish a full relationships grid (as in the OPN), or a ‘partial relationships grid’ (Table 9) (as in BSA). The partial relationship grid asks only about the relationship of each household member to the survey respondent (or cohort member).

With a partial relationships grid, it is not possible to definitively identify as ‘resident’ fathers those survey respondents or household members who are ‘other cohabiting partners’, leading to incomplete identification of resident stepfathers and of resident fathers. This is because the parental relationship between the child and the survey respondent’s cohabiting partner is unknown⁵¹. The exception is when parent-child relationship codes specifically include “parent’s partner” and/or “child of partner” (see the next section on relationship codes used in the HSE).

⁵¹ An assumption could be made for some analyses that (with a small number of exceptions) when a survey respondent lives only with his cohabiting partner and household member/s under the age of 16 or 18 (dependent child/ren), the respondent and/or his cohabiting partner is a parent/ guardian in relation to those children. This would identify ‘other cohabiting partners’ of dependent children, but ‘other cohabiting partners’ of adult children (e.g. young adults remaining in their parent’s home) will be missed.

Table 8: A full relationships grid: ASK OR CODE [NAME'S] RELATIONSHIP TO [NAME]

	Person 1	Person 2	Person 3	Person 4
Person 1				
Person 2				
Person 3				
Person 4				

Table 9: A partial relationships grid: ASK OR CODE [NAME'S] RELATIONSHIP TO SURVEY RESPONDENT/ COHORT MEMBER

	Survey Respondent/ Cohort Member
Person 1	
Person 2	
Person 3	
Person 4	

In addition to the usual household grid questions, a few datasets ask which adults in the household are the resident parents or guardians of each household member under the age of 16 or 18.

Specific questions to identify resident parents of dependent children

“Are you or your spouse/partner the parent or guardian of any children aged under 16 in the household?” (OPN core questions)

“Which of the people in this household is (name of respondent’s) parents or have legal parental responsibility for him/her on a permanent basis?” (HSE)

“Are you the parent of [name of child]?” (ONS Opinions Survey December 2008 and January 2009)

(ii) The design of relationship codes in identifying father-child relationships

The degree of differentiation in the set of codes used in each dataset to describe parent-child relationships determines how well the dataset can differentiate relationship categories (birth, adoptive and social) among the identifiable 'resident' fathers within the household.

The majority of the cross-sectional research datasets that we investigated use the generic relationship codes "parent/ guardian" and "son/ daughter including adopted"⁵². They additionally use the codes "step-parent"/ "step child", and usually also "foster-parent"/ "foster-child". They generally have separate codes for "parent-in-law" and "son/ daughter-in-law".

- Therefore 'resident' birth fathers cannot be differentiated from 'resident' adoptive fathers and male guardians in the FRS; nor in the Government Statistical Service (GSS) harmonised relationship codes for social surveys⁵³ (GSS, 2017) which are used, for example, in the LFS and OPN. There is no differentiation of 'resident' birth fathers and adoptive fathers in the Census.

- These datasets can **potentially** separately identify:

(a) 'declared stepfathers' through the "step-parent"/ "step-child" codes (since the codes do not include "partner of parent" or "child of partner", cf. the HSE, see below)

(b) 'other cohabiting partners' where there is no parent-child relationship code selected (neither "parent/ guardian" nor step nor foster) in relation to other household members, but the individual is the cohabiting partner of a resident "parent/ guardian" within the household (as identified through the full relationships grid) and so is a stepfather of a household member according to our definition.

However:

- Since the generic "parent/guardian" and "son/ daughter including adopted" categories do not refer to birth or biological parents / children, household grid respondents may choose to select these generic "codes (in preference to the specific "step-parent"/ "step-child" codes) to describe the relationship between a stepfather and his stepchild (personal communication

⁵² The 2011 Census for England and Wales used the simpler codes "mother or father" and "son or daughter" in addition to "step-mother or step-father" and "step-child". The development of the Census relationship codes is described in a working paper submitted on behalf of the UK Census Offices (General Register Office for Scotland, 2003). In cognitive testing of the codes carried out in the 1990s, some people who were adopted as children said that their adoptive parents should be regarded as "real parents", whereas other adopted people thought that they should have a separate "adopted" category. In contrast, the US Census has used the terms "natural", "adopted" and "step" (Hadfield and Nixon, 2013), as do most large-scale UK longitudinal studies.

⁵³ These codes had a greater degree of differentiation in past ONS surveys. In the 2002 LFS, the relationship codes included "son/ daughter (natural)" but there was no code for adopted children. There were separate codes for "parent" and "guardian" instead of the current "parent/ guardian".

with ONS; also see Hadfield and Nixon, 2013). For example if the relationship is long-established since the child's early years. This is why a proportion of 'declared stepfathers' are included in the generic "parent/ guardian" category (together with birth fathers, adoptive fathers and other male guardians), and cannot be identified as stepfathers (see section 2B). So there will be incomplete identification of 'resident' stepfathers and stepchildren in these datasets.

- Despite the respondent's selection of relationship code generally taking priority, interviewers and office coders may intervene to re-code relationship responses given by respondents for 'other cohabiting partners' (e.g. "other non-relative") to "step-parent"/ "step-child" (see the text box below). So it appears that 'other cohabiting partners' cannot reliably be differentiated from 'declared stepfathers' in the cross-sectional research datasets that we investigated. Instead, the 'declared stepfathers' category in the data available for analysis (i.e. coded as "step-parent" and "step-child") may include 'other cohabiting partners'.

Differentiation of parent-child relationships

- The HSE has the most highly differentiated set of codes for parent-child relationships. Additionally, legal guardians who are not birth or adoptive parents can be identified. This enables the dataset to separately identify birth fathers, adoptive fathers and other legal guardians. However, the HSE explicitly combines 'other cohabiting partners' (child of partner/ parent's partner) with 'declared step-parents' (stepson/ stepdaughter/ stepparent) in the step-parent/ stepchild codes, so it is not possible to differentiate these groups of stepfathers:
 - Birth ('natural') son/ daughter/ parent
 - Adopted/ adoptive son/ daughter/ parent
 - Foster child / parent
 - Stepson/ stepdaughter/ child of partner/ step-parent/ parent's partner
- The Census has an instruction for the respondent that they should code foster children as "unrelated" individuals, and there is no "foster parent" code as in ONS surveys. There is no explicit instruction concerning the coding of any other unrelated guardians of dependent children.
- BSA uses only the relationship code "son/ daughter (incl. step/ adopted)" so does not differentiate parental relationship categories.

Differentiation of 'declared stepfathers' and 'other cohabiting partners'

In ONS interviewer-mediated surveys, it is the respondent's assessment of relationships which takes priority (personal communication with ONS). Interviewers are instructed (GSS, 2017) not to "make assumptions about any relationship" and "You should probe on this question [the household relationships question], but be sensitive..... Where possible we want to know the true relationship. If you have doubts about any relationship, record as much information as possible to allow changes to coding later if appropriate".

However, interviewers may guide respondents who are unsure how to categorise step-parent-stepchild relationships (for example when such labels are not used in the family) on the basis of another instruction (GSS, 2017; also in the FRS) that relatives of one of the cohabiting members of the household (opposite and same sex) should be treated as though the cohabiting partners were married. For example, the parent of a respondent's cohabiting partner (non-married) would be coded as their parent-in-law. The children of a household member's cohabiting partner might be coded as that household member's stepchildren, even if the respondent thinks that the term "step" only applies when a birth parent and their partner are married and so does not usually use it. This may lead to 'other cohabiting partners' being coded within the interview as 'declared stepfathers' through use of the "step-parent" and "stepchild" codes.

Additionally, for the FRS and the Census, a declared "other non-relative" or "unrelated" relationship between an 'other cohabiting partner' and a "son/ daughter" of their partner may be edited to "step-mother or step-father" and "step child" during office coding (personal communications with DWP and ONS).

(iii) The design of household grid questions in identifying residence

Inclusion rules

The dataset's inclusion rules for whether an individual (father or child for our purposes) is counted as resident ('living') in the household (for research purposes) influence whether 'overnight care' fathers, 'part-time away' fathers, 'long-term away' fathers and fathers with 'long-term away' children are included among the identifiable 'resident' fathers (among survey respondents and other household members).

- The GSS harmonised definitions (GSS, 2017), covering a number of government social surveys, state that in deciding whether an individual with more than one address is resident (for research purposes) in the household, the interviewer should rely on the household grid

respondent's assessment⁵⁴ of whether the sampled address is a person's "main residence". The exception is in specific circumstances relating to continuous temporary absence from an individual's "main residence" when there are household inclusion rules for interviewers to apply. The definitions do not state whether the term "main residence" refers to a permanent home (as in the Census) or the time spent at the address.

- The Census has more explicit criteria for research respondents to apply in identifying who is resident in each household, although instructions on self-completion forms may not always be read, understood or followed (ONS, 2010b). These criteria, introduced for the 2011 Census, help to avoid double-counting and under-counting of individuals with more than one address in population statistics (see ONS, 2010b, Wilson, 2010, and Toulemon and Pennec, 2010). For our purposes, they mean that fathers are more likely to be counted as resident at the address which includes their children. The inclusion rules apply to part-time residence as well as longer-term temporary absences. They state that "People with more than one UK address, for example people who live away from home while working, should be included on the questionnaire at:

- their permanent or family home;
- or the address where they spend the majority of their time if they do not have a permanent or family home."

The Census does not define whether "the majority of their time" (noted in ONS, 2010b as a subjective term) refers to overnight stays only, or also incorporates time at the household during the day.

- The household inclusion rules in the GSS harmonised definitions, and for individual cross-sectional surveys and the Census, generally relate to individuals who are:
 - short-term absent at the time of contact (e.g. work trips, holiday, respite care or hospital) - these individuals (including those who are regularly 'part-time away') are included in the household if it is assessed to be their "main residence" (GSS harmonised definitions) or "family/ permanent home" (Census).
 - absent continuously longer-term (e.g. students and boarding school pupils in term-time, working away for a longer period, or in hospital, a care home or prison) i.e. the individuals whom we have defined as 'long-term away' - the GSS harmonised definitions include continuous absences of less than 6 months if the household is the "main residence", but

⁵⁴ We did not find reports of cognitive testing for "main residence" in repeat cross-sectional surveys. Focus groups and cognitive interviewing conducted in development work for the 2011 Census found that respondents generally understood the term "usually live" although there was a range of interpretations (ONS, 2010b). This was interpreted to mean "people who sleep there most of the time or live there permanently, the family members, or the people who pay rent, and not people who are visiting or have another address".

exclude individuals away for longer even if they consider the household their “main residence”.

Therefore, depending on the household grid respondent’s assessment of “main residence” or “permanent or family home” for each household member, and application of the household inclusion rules:

- a part-time resident child may not be included within the sampled/ Census household, and so the father in the household is not counted as a ‘resident’ father if he has no other children assessed as ‘resident’; or
- a part-time resident father may not be included within the sampled household, and so is not counted as a ‘resident’ father among survey respondents and other household members. Their children in the household are identified to be without a resident father; or
- a ‘part-time away’ father is interviewed or assessed as resident at the address where his children do not live, and so is not counted as a ‘resident’ father among survey respondents and other household members.

Among the repeated cross-sectional datasets, only the Census is specific in the published documentation which we accessed on-line about whether dependent children “with parents who live apart and spend part of their time living with each parent” (ONS, 2014d) should be included as household members for research purposes.

Part-time resident dependent children of non-cohabiting parents

- The Census guidance states that a child counts as “usually resident” in a parent’s household if the child spends “the majority of their time” at their parent’s address. It does not specify whether the assessment of the time spent at the address is to include both daytime care and overnight stays. For example, a pre-school child may be looked after for substantial portions of the day by a parent without overnight stays.
- In cases of equal overnight care (“equally living with each parent”), the child is counted as resident at the address where they were staying overnight on Census night. The 2008 Eurostat manual covering the harmonised 2014-15 UKTUS has a similar rule.
- By contrast, the FRS has an unpublished manual for coders (personal communication with DWP) which does not explicitly take account of the amount of time that the child spends at the sampled address. Instead it errs on the side of inclusion and advises that:

“In households where parents are divorced/separated and there is joint custody of the children, meaning that the children live part of the week with one parent and part with the other parent, the interviewer should have established the “main residence” of the children by questioning the resident at the sampled address. The resident at the sampled address should therefore make the decision. If this has not been established, then the children should be included and a note made”.

For other repeated cross-sectional surveys, we did not find specific rules in published fieldwork documentation (available online) for the household inclusion of part-time resident dependent children.

- In BSA, according to the questionnaire, all individuals (adults and dependent children) are counted as ‘resident’ with the survey respondent if they stay regularly as a “member of this household”. So on the basis of this question⁵⁵, ‘minority overnight care’ fathers (regular overnight stays of their child) and ‘equal overnight care’ fathers will be included among the identified ‘resident’ fathers.
- In the other cross-sectional surveys, part-time resident dependent children are generally defined as ‘resident’ in the household only if it is reported by the household grid respondent to be the children’s “main residence”. It is unclear how the child’s residence is determined in the case of ‘equal overnight care’ (where there is not just one “main residence”), although there may be internal documentation used by interviewers to guide respondents that was not accessed for our review.

Identifying part-time resident fathers and temporarily non-resident fathers

We found only a few questions across the cross-sectional datasets that enable separate identification of part-time resident fathers (whom we have defined as resident fathers); and of the ‘long-term away’ fathers and fathers of a ‘long-term away’ child (whom we have defined as temporarily non-resident fathers) who are included or excluded among household members.

Questions identifying ‘overnight care’ fathers

“How often does the other parent look after your child overnight?” (*Past topic module of ONS Omnibus Survey, see Peacey and Hunt, 2008a*)

“How often does this child stay overnight at your home?” (*Past topic module of ONS Omnibus Survey, see Lader, 2008*)

“Can I just check, does the child split their time more or less evenly between you and the other parent? Caring for the child for one or two days and nights per week does not count as an even split. Please only answer yes if you each look after the child for three or more days and nights per week, or for around half the year each overall.” (*As above, see Peacey and Hunt, 2008a*)

Past topic modules of the ONS Omnibus/ Opinions Surveys (now the OPN) on family separation have asked survey respondents with a ‘resident’ and/or ‘non-resident’ dependent child from a previous relationship whether the child regularly stays overnight with the respondent (if ‘non-resident’) or with the other parent (if ‘resident’).

With the exception of the 2011 Census, it is rare among the cross-sectional datasets that questions are asked, for example in the household grid, about whether each individual

⁵⁵ There may be unpublished BSA interviewer instructions which provide additional rules and definitions for household inclusion of part-time resident adults and dependent children.

included among household members lives in the household full-time, regularly spends nights away or has other regular addresses, or is temporarily non-resident, the reasons, and for how long (see Toulemon and Pennec, 2010 for inclusion of such questions in the French version of the European Statistics on Income and Living Conditions , EU-SILC⁵⁶). Despite few identifying questions in questionnaires, interviewers may record “away during fieldwork” outcomes and collect proxy interview data about temporarily non-resident individuals who have been included as household members but are not interviewed.

Identifying second addresses of individuals included among household members

- The 2011 Census (for England & Wales) had a question about each individual resident at the Census address asking whether they spent more than 30 days per year living at another address. A question in the Census Test asked about the length of time spent at the second address (ONS, 2010a), and an early draft question differentiated regular part-time residence and longer-term stays. These questions were omitted from the final version because they were demanding for respondents to answer accurately (although similar questions have been asked in the French version of the EU-SILC).
- The LFS and Census have questions to identify pupils and students away during term-time.

It is also rare that questions are asked in the household grid to identify where the household grid respondent (sometimes with interviewer input in applying household inclusion rules) has not included ‘part-time away’ and ‘long-term away’ individuals among household members (see Toulemon and Pennec, 2010, for inclusion of such a question in the French version of the EU-SILC). Enumeration of these individuals not counted as household members, and collection of demographic data about them, may be useful.

Identifying part-time resident and ‘long-term away’ family members not included among household members

The FRS and LFS ask about spouses and Civil Partners of household members who have been assessed as not living in the household. These individuals may be ‘part-time away’, ‘long-term away’ (expected to return), or maintain separate full-time residences (‘living apart together’).

A ONS Opinions Survey topic module on family separation asked fathers and mothers whether their resident dependent child’s ‘non-resident’ parent (“sex”/ gender not asked), who had been assessed (for survey purposes) as not living in the sampled household, ever stayed overnight in the sampled household, and the frequency of overnight stays (Wilson, 2010).

We will see later that there are examples of such questions in the longitudinal studies.

⁵⁶ Patterns of part-time residence may be different in France.

(iv) Who identifies resident fathers in the household-based cross-sectional research datasets?

In household-based research datasets such as cross-sectional household surveys and the Census, all household members may receive an individual interview or questionnaire. However, as discussed earlier, household grid data about who is 'resident' in the household and household relationships are typically collected in the household interview (or household questions in the Census) from just one member of the household⁵⁷ (called the household grid respondent or household informant) who may not be the resident father.

- In circumstances where there are no explicit definitions or household inclusion rules for interviewers or respondents, the household grid respondent may determine whether:
 - a child is coded as 'son/ daughter', stepchild, 'other relative' or 'non-relative' in relation to their cohabiting partner
 - 'part-time away' fathers, part-time resident children and 'long-term away' fathers and children are included or excluded among household members.
- These categorisations by another household member may not reflect the father's or child's own categorisations and relationship/ residence descriptors.
- We also saw that interviewers and office coders intervene and recode responses to varying extents. For example, they may allocate 'other cohabiting partners' to the 'step-parent' relationship code in relation to the survey respondent's cohabiting partner's resident children.
- It could be interesting to analyse the gender and other characteristics of household grid respondents.
 - The HSE and FRS have a variable recording which respondent completes the household grid or broader household questions (which incorporates the household grid). However the LFS does not record this (personal communication with ONS).
 - It might be assumed that Person 1 in the household grid is the person being interviewed or completing questions about household members. However, this cannot be relied on even when instructions are given to the respondent as in the Census (ONS, 2010b; personal communication with ONS).

⁵⁷ Surveys may encourage other household members to be present and contribute to the household grid and household interview, for example in the FRS.

Section 2D: Identifying and differentiating non-resident fathers (repeated cross-sectional datasets)

Questions may be asked in cross-sectional research datasets to identify non-resident fathers among research respondents and/or other household members. As in the previous sections on resident fathers, we use quotation marks around ‘non-resident’ when we refer to the identifiable category in a dataset which does not comprise solely non-resident fathers according to our definition (see the Glossary and section 1B).

In some of these datasets, it is possible to identify research respondents categorised as ‘resident’ fathers⁵⁸ (through the household grid questions) who also have children assessed (for research purposes) as living at another address (including ‘minority/ equal overnight care’ children). These fathers are identifiable as ‘resident’ and ‘non-resident’ in relation to different children.

(i) Datasets identifying substantial⁵⁹ subsets of non-resident fathers, including temporarily non-resident fathers

(a) Fathers of non-resident dependent children

Across the cross-sectional datasets we investigated, only the FRS, the 2014-15 UKTUS, and past topic modules on family separation in BSA and the ONS Omnibus Surveys (now the OPN), have asked questions with the aim of identifying (among research respondents) fathers of non-resident dependent children⁶⁰ (see Table 10). Some of these identifying questions limit the category to non-resident child/ren living with another parent, so exclude dependent children living away elsewhere, for example in foster homes or institutions.

These questions about dependent children living in a different household are asked in the individual interview conducted with the father himself. This contrasts with the identification of resident fathers using household grid questions in the household interview, potentially answered by another household member (the household grid respondent).

Depending on the wording of the question, the research respondents identifiable as ‘non-resident’ fathers of dependent children may include temporarily non-resident ‘long-term away’ fathers (interviewed in their ‘away’ household) and fathers of ‘long-term away’ children.

⁵⁸ As we have seen, this group of identifiable ‘resident’ fathers includes ‘long-term away’ fathers and fathers of ‘long-term away’ children i.e. temporarily non-resident fathers.

⁵⁹ We have not checked sample sizes, but the groups of non-resident fathers which can be identified in these datasets are likely to be substantial relative to the smaller subsets of non-resident fathers (e.g. those of disabled children, or those who have had a relationship separation in the past 15 months) which can be identified in the HSE, 2000 UKTUS and panel LFS.

⁶⁰ In the FRS, up to age 20.

These identifiable ‘non-resident’ fathers however may also include ‘overnight care’ fathers (likely to be mainly ‘minority overnight fathers’ and a proportion of ‘equal overnight care fathers’⁶¹), ‘part-time away’ fathers, and fathers of ‘part-time away’ children. These are all categories which we have defined as part-time resident. The ‘minority overnight care’ fathers, and ‘equal overnight care’ fathers have children who, whilst regularly staying overnight in the sampled household, have not (for research purposes) been counted as household members. The ‘part-time away’ fathers have been assessed as living in the sampled household as their ‘main/ usual residence’ (and so are interviewed there), but the children with whom they are part-time resident live elsewhere.

With the exception of Omnibus Survey past topic modules (see Sections 2B and 2C), it is not possible to separately identify the part-time resident fathers who are included among the identified ‘non-resident’ fathers. These fathers are likely to be resident in relation to their dependent children less often than they are non-resident, and are often called ‘non-resident’ in the research and policy literature. Yet the ‘minority overnight care’ fathers are likely to be a substantial subset of the identifiable ‘non-resident’ fathers, and it might be relevant to differentiate them from fathers who have no regular overnight care of their children.

(b) ‘Long-term away’ fathers and fathers of ‘long-term away’ children

As we saw in Sections 2B and 2C, according to GSS harmonised definitions, a proportion of ‘long-term away’ fathers and fathers of ‘long-term away’ children (among research respondents) will not be included among any identifiable ‘non-resident’ fathers, for example if the father or child is away for less than six months, or the child is away in term-time. Instead, they will be identified as ‘resident’ fathers (Table 5) because they or their ‘long-term away’ child are included among household members.

The LFS and Census can separately identify the fathers of ‘long-term away’ children who are away in term-time at boarding school or as a student (Table 6). We did not find questions in the questionnaires for cross-sectional datasets which separately identify other ‘long-term away’ fathers and fathers of ‘long-term away’ children among research respondents or household members. Temporarily non-resident individuals (fathers or children) among household members may be identified in fieldwork outcomes, and proxy information may be collected about them from other household respondents.

(c) Other substantial subsets of non-resident fathers

Up to 2015, the broad-brush ‘declared parenthood’ question asked in BSA combined with household grid questions enabled the identification of survey respondents who were non-resident fathers with no resident children among household members. This subcategory of non-resident fathers would have included men with non-resident adult and/or dependent

⁶¹ Using Understanding Society data, around 3% of all fathers of dependent children stated that they had ‘non-resident’ dependent children for whom they shared care 50/50 with the other ‘resident’ parent (Poole et al, 2013a/b). Respondents’ interpretations of “shared care 50/50” may include daytime care.

children. On the basis of the questionnaire⁶², it is likely that it would have excluded ‘overnight care’ fathers.

The FRS asks a question to identify fathers of non-resident young adult children (16 to 24 years) in education.

(ii) Datasets which do not identify non-resident fathers, or only small subsets

In the other cross-sectional research datasets, substantial categories of non-resident fathers cannot be identified among research respondents (nor among other household members) (see Table 10). This means that non-resident fathers cannot generally be identified as fathers unless they are assessed (for survey purposes) as living with at least one of their other children. Unlike the FRS, neither the LFS nor the HSE asks questions to identify the fathers of ‘non-resident’ or ‘minority overnight care’ dependent children, even though child maintenance and relationships with these children may be related to employment decisions and parents’ mental and physical health (Bryson et al., 2017).

- The HSE, the FRS and the 2000 UKTUS can identify fathers who provide help or support to sick/ disabled dependent children assessed as ‘non-resident’ in the sampled household. This identifiable group of fathers may include those with ‘part-time away’ or ‘long-term away’ children, for example those in institutional care or residential education, who have not been included (for research purposes) among household members.
- The data collected in the panel LFS enables the identification of ‘assumed non-resident’ fathers. These are fathers whose resident (dependent or adult) children at an earlier sweep have left the sampled household (or are part-time resident or ‘long-term away’ and no longer counted as household members) by a later sweep i.e. within the fifteen months of data collection. In the case of previously resident stepfathers⁶³, we do not know whether contact is

More on ‘assumed non-resident’ fathers in the LFS

We call the identifiable category ‘assumed non-resident’ fathers because it is not known whether the departing child/ren are alive at later sweeps, although an assumption that they are alive is likely to be valid for nearly all dependent or young adult children who have left the household. These child/ren could be adult children leaving the parental home, or dependent children going to live with their other parent or elsewhere (including part-time resident or ‘long-term away’ and categorised as ‘non-resident’) (i.e. a potential Group 2 non-resident stepfather); or there could have been a parental separation in which case a former cohabiting partner may have also left the LFS sampled address (i.e. a potential Group 1 non-resident stepfather).

The identifiable subset is of fathers who remain living at the LFS sampled address after their child’s departure. However, when parents separate, the mother and child/ren may remain living at the address whilst the father does not, or all family members may move to new addresses. In these cases, the newly non-resident fathers leave the LFS panel. Given this, and that the parental separation rate per year for two parent families with dependent children is only about 2% (Bryson et al., 2017), the number of non-resident fathers of dependent children identified in this way is likely to be small.

maintained with the children who have left the sampled household, and so we cannot define these research respondents as non-resident stepfathers according to our definitions.

(iii) Relationship categories among non-resident fathers

The cross-sectional research datasets which can be used to identify ‘non-resident’ fathers do not generally differentiate whether the identified respondents are birth, adoptive or step fathers in relation to their ‘non-resident’ children.

Identifying non-resident birth fathers and temporarily non-resident stepfathers

- One of the Omnibus Survey topic modules (see Lader, 2008) and the ONS birth registrations dataset can identify non-resident birth fathers of dependent children.
- The LFS and Census can identify stepfathers whose stepchild/ren (counted as resident household members) are away during term-time at boarding school or university.

(iv) Sample size and representativeness for fathers of non-resident dependent children

Researchers have drawn attention to the data limitations when non-resident fathers of dependent children (who know that they have a non-resident child⁶⁴) are identified in surveys:

- Samples of these fathers may be small when they result from screening a representative sample of households (see Table 10 for Omnibus Survey topic modules).
- It is challenging to achieve a representative sample of self-identifying non-resident fathers (Bryson et al., 2017). The ONS Omnibus Survey-based studies have reported a lower response rate among ‘non-resident’ parents of dependent children than among ‘resident’ parents of dependent children for the screening questions which identify each category among survey respondents (Peacey & Hunt, 2008a/b). Non-resident parents may be less likely than resident parents to participate in surveys. Those who do participate may be reluctant to disclose in research that they have non-resident children (Clarke et al., 1998; Peacey & Hunt, 2008b) especially if there are emotional issues, issues relating to child maintenance, or the existence of the children has not been disclosed to resident family members. Non-resident parents with no contact with their children are especially unlikely to be included in the achieved sample of non-resident parents (Peacey and Hunt, 2008a/b; Bryson et al., 2017).

⁶⁴ A survey of over 5,000 new mothers found that in only 2% of cases, according to the mother, was the father unaware that he had a new child (Redshaw & Heikkila, 2010).

- Analyses of the British Household Panel Survey (BHPS) (Rendall et al., 1999) suggest that (in the 1990s) “under-reporting of around 12 percent of all births, 36 percent of births outside marriage, and 39.5 percent for marital births where the marriage had broken down prior to the survey” (Berrington et al., 2005, p6; also see Poole et al, 2013a/b).
- It is possible that a survey such as the FRS, which collects data on finances and child maintenance, might be associated with greater non-disclosure by non-resident fathers not paying child maintenance (Peacey and Hunt, 2008a/b; Bryson et al., 2017) than surveys focusing on other topics such as health and relationships. Non-disclosure may also be a greater issue when interviews are conducted jointly or in the presence of other family members.
- Additionally, these surveys are of private households and so will not include non-resident fathers who live in institutions.

(v) The youngest non-resident fathers

None of the cross-sectional research datasets, even those which can identify substantial categories of non-resident fathers among research respondents, identify the youngest non-resident fathers under the age of 16 or 18 years. This is likely to be a parental category which is too small in size for separate analysis.

- Firstly, many of the surveys have a lower age limit of 16 or 18 years for interview. Interview respondents are not asked whether household members not eligible for interview (such as teenaged children under 16 or 18 years) have non-resident children.
- Secondly, in those surveys that do interview or collect data directly from younger teenaged children (for example, the HSE and 2014-15 UKTUS), only adult research respondents are asked the questions about non-resident children.

Table 10: CROSS SECTIONAL DATASETS identifying research respondents who are ‘non-resident’ fathers including temporary non-residence

	Subset identified	Examples of questions to identify	Analytic purpose	Relationship categories (birth/ adoptive/ step) differentiated for analysis
British Social Attitudes	<p>Subset 1 (main BSA until 2015): Fathers (of living dependent or adult children) ('declared parenthood, see section 2A of this working paper) who have no 'resident' children (adult or dependent, including any part-time 'resident' children who stay regularly)</p> <p>Subset 2 (module on child maintenance in 2012 BSA): Fathers of dependent children living with other parent. Identified 250 parents (mothers and fathers) who had never been 'non-resident' (Bryson et al, 2013)</p>	<p>Subset 2 (topic module in 2012): "During their childhood, has there ever been a time when any of your children lived with their other parent, but you lived elsewhere?"</p> <p>Currently/ in the past/ never</p>	<p>Subset 2 (topic module in 2012): Child maintenance</p>	None

	Subset identified	Examples of questions to identify	Analytic purpose	Relationship categories (birth/ adoptive/ step) differentiated for analysis
Health Survey England	Fathers of sick/ disabled 'non-resident' dependent children (under 16) whom they personally help or support	Questions about help or support provided by household members	Help and support between individuals for reasons of sickness, disability and older age	None
Labour Force Survey	<p>Subset 1: Fathers of 'long-term away' children at boarding school or university (halls of residence) during term-time</p> <p>Subset 2: 'Assumed non-resident' fathers in panel LFS whose 'resident' child/ren (adult or dependent) at earlier sweep have left sampled LFS household by later sweep</p>	<p>Subset 1: Through household grid questions</p> <p>Subset 2: Through analysis of household composition (household grid questions) at different sweeps</p>		<p>Birth/ adoptive fathers and guardians (may include long-established stepfathers)</p> <p>Stepfathers (declared stepfathers/ other cohabiting partners)*</p>

	Subset identified	Examples of questions to identify	Analytic purpose	Relationship categories (birth/ adoptive/ step) differentiated for analysis
Family Resources Survey	<p>Subset 1: Fathers of dependent children/ young adults (under 20) living with other parent</p> <p>Subset 2: Fathers of young adults (16-24) in education - includes 'non-resident' stepfathers</p> <p>Subset 3: Fathers of sick/disabled 'non-resident' children whom they help or support</p>	<p>Subset 1: "Do you have any (other) children aged 19 or under (and in non-advanced education or training) who live outside this household with their other parent?"</p> <p>Subset 2: "Have (either of) you any (other) children aged 16-24 outside this household, who are currently receiving full- or part-time education?"</p>	<p>Subset 1: Child maintenance</p> <p>Subset 2: Payments by parents for children's higher education</p> <p>Subset 3: Help and support between individuals for reasons of sickness, disability and older age</p>	None
2011 Census for England and Wales	Fathers of 'long-term away' children at boarding school or university during term-time	Questions asking whether full-time students and schoolchildren live elsewhere during term-time		<p>Birth/ adoptive fathers and guardians (may include long-established stepfathers)</p> <p>Stepfathers (declared stepfathers/ other cohabiting partners)</p>

	Subset identified	Examples of questions to identify	Analytic purpose	Relationship categories (birth/ adoptive/ step) differentiated for analysis
ONS Omnibus Survey modules (2006-7 and 2008) as described in Lader (2008) and Peacey & Hunt (2008a)	Fathers of dependent children living with other parent for most or all of the time Each module identified approx 150 'non-resident' fathers**.	"...do you have any children under 17 who don't live with you but live with their other parent for all or most of the time?" (Peacey & Hunt, 2008a) "Do you have child/ren from a previous relationship whose main residence is with the other parent?" (Lader, 2008) (birth children only)	Parental separation and child maintenance	Birth fathers (Lader, 2008)
Birth Registrations dataset	Fathers of babies where father is not co-resident with mother, and father is named on birth certificate	Person completing birth registration asked about addresses of infant's birth mother and father	[Administrative records]	Birth fathers
2000 UK Time Use Survey	Fathers of sick/ disabled 'non-resident' dependent children (under 15) to whom they provide a regular service or help	Through questions about help or support provided by household members	Help and support between individuals for reasons of sickness, disability and older age	None

	Subset identified	Examples of questions to identify	Analytic purpose	Relationship categories (birth/ adoptive/ step) differentiated for analysis
2014-15 UK Time Use Survey	Fathers of 'non-resident' dependent children (under 18) with whom they have contact - includes children living in institutions, foster care etc	"Do you have any children under 18 who do not live here with you and with whom you have contact?"	Classificatory variable	None

**There is no data about whether the previously 'resident' stepfather and the (previously 'resident') children remain in contact at the later sweep, so we do not know whether the respondent meets our definition of non-resident stepfathers.*

***Although more than 85% of Omnibus Survey respondents answered the screening questions, there was a lower identification rate for 'non-resident' parents than for 'resident' parents (of children with a 'non-resident' parent).*

SECTION 2E: How is data about fathers collected in the cross-sectional datasets?

The repeated cross-sectional research datasets that we have examined provide a wealth of data about resident and non-resident fathers if these fathers can be identified among research respondents and other household members. However, we have seen in previous sections of this working paper that the identification of fathers is often limited to full-time resident fathers and subsets of part-time resident fathers and temporarily non-resident fathers, and that there is inadequate differentiation of relationship and residence categories among those identified.

(i) Direct data collection from fathers

There is rich data collected directly from resident and non-resident fathers in the research datasets, reflecting the aims and objectives of the particular study. Much of this data is not related specifically to parenthood, and is collected regardless of the research respondent's parental status.

- The FRS can tell us about resident and non-resident fathers' financial circumstances; the LFS can tell us about resident fathers' employment; the HSE about resident fathers' health and health behaviours; and BSA about resident fathers' social attitudes including attitudes to family life. Several surveys now collect data about wellbeing.

- The fathers have completed interviews, questionnaires, Census forms, medical examinations and diaries, depending on the dataset.

Since most of the cross-sectional research datasets that we investigated have a lower age limit of 16 or 18 years for interview (e.g. BSA, OPN, LFS, FRS), there is little data collection⁶⁵ directly from any young teenaged resident fathers identified in the household grid.

In the Birth Registrations dataset (an administrative dataset), those fathers who jointly register the birth with the birth mother, and if married, those fathers who solely register the birth on behalf of the father and mother, provide data on their occupation, place of residence, country of birth and age.

(ii) Data collected about fathers from other research respondents

The cross-sectional research datasets also collect data from fathers' partners and other household members about fathers who are identified among research respondents and/or household members.

- As already discussed in this working paper, demographic information (including father-child relationship categories) about fathers will be provided in household research datasets by a household grid respondent who may be, for example, the father's cohabiting partner. This applies even where the father himself later completes an individual interview or Census form.
- The time diaries completed by older children for the 2014-15 UKTUS contain information about time spent with their resident, but **not** their non-resident, fathers⁶⁶.
- In household-based surveys, proxy interviews may be conducted with eligible research respondents' cohabiting partners (or other household members) when this respondent is eligible for interview but is not available or cannot or does not want to be interviewed during the fieldwork period. These interviews collect data from the 'proxy respondent' about the non-interviewed eligible respondent, but usually ask only a subset of the questions that would have been asked had the eligible respondent been interviewed.

The consequence of proxy interviews is that published analyses (for example on resident fathers' employment hours) may appear to be based on data collected directly from fathers, but a proportion of that data has instead been collected from their partners⁶⁷. This also applies to data collected about mothers, but fathers are more likely to be working full-time or

⁶⁵ The exceptions are the HSE (a shorter interview for 13-15 year olds), the UKTUS (2000 and 2014-15- interviews and diaries for asking older children) and the Census (a full individual form for all in the household).

⁶⁶ In the 2014-15 UKTUS, codes in fathers' diaries can reveal time spent with their non-resident children.

⁶⁷ The proportion of data gained from 'proxy informants' may be reported in the 'measurement of variables' sections of research papers.

be long-term away, and so be unavailable during the fieldwork period. A 1997 LFS methodology report found that there were substantive differences in data given directly by individuals and data provided in proxy interviews for detailed variables such as qualifications, hours worked and income (Dave & Knight, 1997).

We found substantial variation in the rates of proxy interviews across the included household surveys, which may be related to the type of data collected.

Proxy interview rates

In the LFS, about 30% of data about household members is provided in proxy interviews, many of which are with female partners on behalf of their male partners. Additionally, parents provide proxy interviews on behalf of children away in student halls of residence in term-time.

In contrast, in the FRS, which has a focus on income and savings, proxy responses have been obtained only for about 18% of adult household members in fully co-operating households. Much effort is made in the FRS to obtain an interview with the Household Reference Person. In the 2011 Census, 83% of Household Reference Persons in couple households with dependent children in England and Wales were male (*Office for National Statistics. DC6115EW. NS-SeC of Household Reference Person by household composition by "sex". Table on NOMIS database. https://www.nomisweb.co.uk/census/2011/DC6115EW/view/2092957703?rows=c_sex&cols=c_bhcbuk11*).

Similarly, in the 2000 UKTUS individual interview data was obtained in proxy interviews for only 7% of eligible individuals. The 2014-15 UKTUS documentation states that: ‘This should be a last resort as it means we miss the answers to some important questions about satisfaction and enjoyment’.

Some of the cross-sectional research datasets collect data about fathers who are not survey respondents or household members:

- Resident parents of dependent children are asked about their children’s non-resident/ ‘overnight care’ parent. The “sex” or gender of the non-resident parent is usually not identified, for example in past topic modules of the ONS Omnibus/ Opinions Survey on family separation, but is most likely to be male.
- Adult survey respondents are asked about their fathers (resident and non-resident) in relation to caring and helping behaviours, for example in the HSE.
- Adult survey respondents are asked about their fathers (resident and non-resident) in childhood, for example smoking behaviour in the HSE, and occupation and whether he was the main wage earner in the LFS.

The Birth Registrations dataset includes indirect data about fathers. Mothers registering a birth who are married to the birth father can give the name of that father, and other data about him, without him being present at birth registration. However, if the mother registers

the birth alone and is not married to the birth father, data about the birth father (including his name) is not recorded⁶⁸.

⁶⁸ Except in specific circumstances such as the mother bringing a statutory declaration of parentage form, or court document.

Part Three: Fathers in the longitudinal studies

In **Part Three**, we present our findings on the **longitudinal studies** we introduced in Part One:

Sections 3B and 3D examine how these studies identify and collect data about the full-time and part-time resident fathers of cohort members in childhood; and the full-time and part-time resident fathers of the young sample members aged 10-15 in Understanding Society. If identified as a member of the cohort member's/ young sample member's sole or main household (the study household), the resident father may be eligible for interview or other data collection.

Section 3E examines the identification of cohort members and young sample members who have a non-resident father during childhood

Section 3G looks at how data is collected about their non-resident fathers. We include 'long-term away' fathers, and fathers of 'long-term away' children in this section.

Section 3H looks at identifying and collecting data from those cohort members and sample members who, as teenagers and adults, are fathers themselves.

Sections 3C and 3F cover the methodological reasons for variations in how datasets identify the resident and non-resident fathers, with examples of questionnaire content which could be adapted for future data collections.

NOTE: In these sections about the fathers of cohort children and young sample members, unless stated otherwise, we have defined the relationship and residence categories of the father in relation to the cohort child/ young sample member. This father may also be resident (full-time or part-time) and/or non-resident in relation to other children in and outside the cohort child's/ young sample member's household.

SECTION 3A: A glossary of terms (revisited)

As explained in our Glossary (in the Introduction to this Working Paper), we use the following terms for longitudinal studies:

- **Study household** refers to the household/s in which data is collected about cohort members or sample members and their families.
- **Cohort child** refers to a cohort member (of whatever age) in relation to their father/s in childhood.
- **Adult cohort member** refers to the same person (in the teenage years or adulthood) in relation to their children (the children of cohort members).

- For Understanding Society, we look at identification and data collection in relation to the fathers of **young sample members** aged 10-15. These older children are research respondents in the study (completing youth questionnaires); whereas younger children are sample members but do not provide data themselves.
- For clarity, we use the term **sweep** to refer to each time point in a longitudinal study (including for Understanding Society and the LSYPE which use the term 'wave') so that these are differentiated from the **waves** (independent samples) of repeated cross-sectional datasets.

As for the cross-sectional datasets, we look in Part Three of the working paper at categorisations of parent-child relationships and criteria for household inclusion (residence) in the longitudinal studies. These affect the identification of cohort children and young sample members with a resident and/or non-resident father. For example, children with a temporarily non-resident 'long-term away' father may be identified as having a 'resident' father; and children with a part-time resident father may be identified as having a 'non-resident' father. For this reason, we use quotation marks around 'resident' and 'non-resident' when we refer to the identifiable category in a dataset which does not comprise solely resident or solely non-resident fathers according to our definitions.

Section 3B: Identifying and differentiating cohort children and young sample members with a resident⁶⁹ father

In this section, we look at how the longitudinal studies identify those cohort children and young sample members who have a resident father at the time of each sweep interview. We also discuss how the relationship and residence categories of these fathers are differentiated. For the cohort studies, we looked only at questions asked in the childhood sweeps. The older cohort studies and Understanding Society may also include retrospective questions that cohort members and sample members are asked in adulthood about which family members (including birth/ adoptive/ foster/ step fathers) they lived with during their childhood.

According to our definitions (see the Glossary and section 1B), if the questions asked can identify that a cohort child or young sample member is co-resident full-time or part-time with a male individual who has a parental relationship to the child, or is co-resident with the male partner (cohabiting full-time or part-time) of their resident parent, then that child can be identified as having a resident father.

(i) Conceptualising 'father' over time: the NCDS and the BCS

Changes in how fathers are conceptualised in the NCDS and BCS questionnaires from one childhood sweep to the next may reflect family demographic changes taking place during the early years of these studies. In the childhood sweeps of these cohort studies, the question establishing whether the cohort child has a "father", "father substitute" or "father figure" (and

⁶⁹ Including separated fathers who have regular overnight care of their children

the relationship category of this father) is separate from the household grid questions establishing which individuals (including ‘fathers’/ cohabiting partners of the resident mother) “normally live” in the cohort child’s household.

- In the age 7 sweep of the NCDS in 1965, when the cohort child does not have a ‘resident’ birth father, another male family member or adult (for example a grandfather or older sibling) can be categorised both as the male “head of household” and the cohort child’s “father substitute” (“under the care of”). The “father substitutes” potentially include any ‘other cohabiting partners’. However, cohabitation without marriage was much rarer at that time than currently, and any “cohabitees” may not have been regarded as a “head of household” or “father substitute”. In contrast, we have excluded from our definition of ‘social fathers’ those resident grandfathers, older male siblings and male adult relatives where a dependent child also lives with one or both birth parents, for example with their birth mother.
- There is a gradual change in terminology over the NCDS and BCS childhood sweeps from “father substitute” to “father figure”, with both terms being used in the later childhood sweeps of the NCDS and the earlier childhood sweeps of the BCS.
- The BCS childhood sweeps from 1975 and the NCDS from 1969 appear to identify the cohort child’s “father figure” subjectively as the “person now acting as his/her father” according to the mother⁷⁰. The “father-figures” therefore include ‘declared stepfathers’ (married and cohabiting; non-married), but exclude any ‘other cohabiting partners’ (not perceived by the mother as a “father figure”). In the BCS, a temporarily non-resident father (away for work, in hospital etc.) can be categorised as the cohort child’s “father figure”. However, BCS interviewer instructions for sweep 2 in 1975 (cohort child at five years) state that “if the [birth] father is divorced, separated or has ‘deserted’ the mother, he is not considered as a ‘father figure’ even if visiting the child daily”.

(ii) Relationship categories among resident fathers

In all the longitudinal studies, the identifiable category of cohort children and young sample members with a ‘resident’ father includes children with a ‘resident’ birth father, adoptive father, foster father or ‘declared stepfather’. With the exception of the NCDS, these studies (in at least one sweep) can also identify a broader set of ‘resident’ fathers by including male cohabiting partners of the ‘resident’ parents of cohort children/ young sample members, regardless of whether the partner is categorised by the interview respondent as the child’s father, “father figure” or “father substitute” (birth/ adoptive/ foster/ step). This broader set of ‘resident’ fathers therefore includes ‘other cohabiting partners’.

Unlike the repeated cross-sectional datasets, nearly all the longitudinal studies can differentiate birth fathers, adoptive fathers, stepfathers and foster fathers among the ‘resident’ fathers of cohort children/ young sample members in childhood (see Table 9). The

⁷⁰ The user guide for the BCS 1975 sweep states that “there may be a grandfather or other adult male person in the household whom the mother did not consider to be a father figure”.

LSYPE, GUS, the MCS and Understanding Society, and the BCS in two sweeps⁷¹, can identify a category of ‘resident’ stepfathers which comprises both ‘declared stepfathers’ (married/cohabiting: non-married) and ‘other cohabiting partners’. With the exception of the NCDS and BCS⁷², these datasets can differentiate married and cohabiting (non-married) stepfathers in at least one sweep.

However, in contrast to the cross-sectional Health Survey for England, none of these longitudinal studies explicitly identifies the male legal guardians of cohort children or young sample members.

Differentiating relationship categories

- Alspac (perhaps due to its medical emphasis) focuses in its childhood sweeps on differentiating resident birth (“biological”/ “natural”) fathers from other resident fathers. This study rarely explicitly differentiates other relationship categories (adoptive/ step/ foster) which are grouped together as resident ‘father-figures’.
- The age 5 sweep of the BCS and later childhood sweeps of the NCDS (those asking about “father-figures”) can be used to identify ‘declared stepfathers’ (married or cohabiting: non-married). Only the age 10 and 16 sweeps of the BCS can separately identify any ‘other cohabiting partners’ (not described as the cohort member’s “father figure”), but this category would have been rarer than today. In the age 16 BCS sweep, cohabiting partners of the mother living in the household were coded as “stepfather” and “mother’s boyfriend”.
- It is not clear from the published fieldwork documentation that we accessed whether it is possible to use GUS, Understanding Society and the LSYPE, in at least one sweep, to reliably differentiate ‘declared stepfathers’ (married and cohabiting: non-married) from ‘other cohabiting partners’ of the ‘resident’ parent. This differentiation is not possible in the MCS.

In contrast to the cross-sectional HSE (see sections 2B and 2C), none of these longitudinal studies explicitly identify the legal guardian/s of any cohort children or young sample members who do not live with a birth, adoptive or foster parent, although this will be a small category. Instead, whether or not the child has a resident parent, most of the studies establish which adult household member (male or female) has the ‘main responsibility’ for care of the cohort child or young sample member.

(iii) Residence categories among resident fathers

In the longitudinal studies, the identifiable category of cohort children and young sample members with a ‘resident’ father includes:

⁷¹ Using BCS data from both the “father figure” question and household grid

⁷² The age 16 sweep of the NCDS and BCS sweeps can differentiate “stepfathers” from “cohabitees” but (especially in later BCS sweeps) the “stepfather” code may include cohabiting (non-married) stepfathers.

- children whose father lives with them full-time
- children with a part-time resident father or a temporarily non-resident ‘long-term away’ father who is counted (depending on the dataset) among household members and/or as the resident mother’s cohabiting partner and/or the child’s “father figure”/ “father substitute”⁷³.

Where the child lives across two households (i.e. has regular overnight stays in each household), this applies only to the study household (which is the site of data collection). The study household is the young sample member’s ‘main household’ in Understanding Society, and usually a cohort child’s mother’s household in cohort studies.

(a) Part-time away fathers

Only the MCS specifically includes (i) ‘part-time away’ fathers (later sweeps) or (ii) ‘part-time away’ birth fathers (earlier sweeps) among the identifiable ‘resident’ fathers of cohort children.

- These ‘part-time away’ fathers include men “living” in the cohort child’s household for one or two days⁷⁴ each week; and (in later sweeps) includes men who are a declared stepfather or ‘other cohabiting partner’.
- Cohort children with a ‘part-time away’ father can be separately identified. In the earlier sweeps, it is possible to separately identify those with a ‘part-time away’ father who is not initially included as a household member by the research respondent (usually the mother). In the later sweeps, a wider set of ‘part-time away’ fathers among household members can be identified.
- We shall see in a later section of this working paper that a ‘part-time away’ father is eligible for a partner interview if he cohabits in the household with the child’s “main carer” (nearly always the mother), or for a “main respondent” interview if he is the sole resident parent.

In the other longitudinal studies, cohort children and young sample members with a ‘part-time away’ father may not be identifiable as having a ‘resident’ father. Instead, in some datasets, a birth/ adoptive ‘part-time away’ father may be categorised as the child’s ‘non-resident’ father.

- In these studies, cohort children/ young sample members with a ‘part-time away’ father who has been categorised as their ‘resident’ father or ‘non-resident’ father cannot be separately identified.

⁷³ In the NCDS and BCS, a category of ‘resident’ fathers/ “father figures”/ “father substitutes” can be derived, and additionally a separate category of the fathers included among ‘resident’ household members. In the BCS, the “father figures” category can include ‘long-term away’ fathers, but these ‘long-term away’ fathers are not counted as household members (in the household grid) if away, even if they come home for short visits.

⁷⁴ The questionnaire does not mention overnight stays.

- Depending on the dataset, a 'part-time away' father is categorised as the child's 'resident' father if the resident mother or household grid respondent assesses that (i) he '(normally) lives' with the cohort child/ their mother, or (ii) he has his 'main'/ 'usual' residence' in the child's study household. There is often no explicit definition of 'main/usual' residence or "(normally) lives" in published documentation, but a few datasets specify that this applies if an individual is resident more often than he is away, or is away for work or study.

(b) Overnight care fathers

Where a cohort child lives part-time with an 'overnight care' birth father at one address, and part-time with an 'overnight care' birth mother at a different address, we shall see in Section 3D of this working paper that it appears (from published fieldwork guidance) to be the mother's household which is most likely to be the site of data collection, unless (as specified for the later GUS and MCS sweeps) the father provides the 'majority overnight care'. So the cohort child would be most likely identified as having a 'resident' birth/ adoptive mother and a 'non-resident' birth/ adoptive father.

In Understanding Society, dependent children who stay overnight part-time with a (birth/ adoptive) parent in a study household are included in the study only if they have been assessed (by the household grid respondent) as having that household as their 'main residence'. This means that the identifiable category of young sample members with a 'resident' father is likely to include those children living part-time with a 'majority overnight care'⁷⁵ father in a study household (a small subset of children), but not the larger category of children living part-time with a 'minority overnight care' father in a study household. Young sample members living part-time with their 'majority overnight care' birth/ adoptive mother in a study household, and having a second residence elsewhere with their 'minority overnight care' birth/ adoptive father, are likely to be categorised as having a 'non-resident' birth/ adoptive father.

The three most recent longitudinal studies, GUS, the MCS and Understanding Society, can separately identify cohort children or young sample members with an 'overnight care' (birth/ adoptive) father (categorised by the dataset as resident and/or 'non-resident') to differing degrees of completeness and accuracy (see the text box below).

⁷⁵ It does not appear clear in published fieldwork documentation for Understanding Society whether children who reside equally part-time with each of their non-cohabiting birth/ adoptive parents should be included (for research purposes) as household members.

GUS⁷⁶ and Understanding Society⁷⁷ can differentiate ‘majority overnight care’, ‘minority overnight care’ and/or ‘equal overnight care’ by the ‘resident’ birth/ adoptive parent and/or the ‘non-resident’ birth/ adoptive parent in at least one sweep. Identification of different categories of ‘overnight care’ is subject to a caveat that there are differences in estimates of the prevalence of regular overnight stays (and of contact more generally) derived from interviews with resident parents (mainly mothers) and interviews with non-resident parents (mainly fathers) (Peacey & Hunt, 2008a; Wilson, 2010; Bryson et al., 2017), with less frequent overnight stays derived from mothers’ reports.

Where the cohort child/ young sample member’s ‘resident’ overnight care birth/ adoptive parent (most likely to be a ‘majority overnight care’ mother) lives with a male cohabiting partner, they can identify this cohabiting partner as a part-time resident (‘majority overnight care’) stepfather. We shall see in section 3E of this working paper that these datasets do not generally reliably identify the smaller categories of children whose birth or adoptive parent categorised as ‘non-resident’ (mother or father) lives with a male cohabiting partner (‘non-resident’ stepfather) who, where there are regular overnight stays with the ‘non-resident’ birth/ adoptive parent, could be identified as a part-time resident (‘minority/ equal overnight care’) stepfather. The exception is Understanding Society for the small subset of young sample members who were resident with their ‘minority/ equal overnight care’ birth parent (now categorised as ‘non-resident’) at an earlier sweep of the study, and where the ‘minority/ equal overnight care’ (‘non-resident’) birth parent continues to participate in the study, because the “sex” or gender of the ‘non-resident’ birth parent’s cohabiting partner is known in these cases. The small subset of children with a ‘minority/ equal overnight care’ birth parent (mother or father) and male cohabiting partner categorised as ‘non-resident’ are subject to further sample reduction and bias through attrition.

Other cohort studies do not ask about overnight stays where a cohort child has been identified as having a ‘non-resident’ parent. The childhood sweeps of the NCDS and the BCS childhood took place in historical periods when overnight stays were less common than currently.

⁷⁶ The identifiable categories in GUS of (i) cohort children with a ‘resident’ ‘majority overnight care’ father and (ii) cohort children with a ‘non-resident’ ‘minority overnight care’ father may both exclude cases where the cohort child stays for a regular fortnightly weekend with the ‘minority overnight care’ parent. The ‘majority overnight care’ parent may categorise the frequency of stays as “less often than once or twice a week but at least once a month” rather than “at least once or twice a week” (there is no fortnightly code, in contrast to Understanding Society).

⁷⁷ Adult sample members categorised as ‘resident’ parents were asked about “shared care 50/50” with a ‘non-resident’ (birth) parent (in relation to each ‘resident’ child in the study household) in Understanding Society’s third sweep. We do not know whether “shared care 50/50” was interpreted by respondents in line with our definition of ‘equal overnight care’. At later sweeps, data on the number of nights per week (3 or 4) spent with the ‘non-resident’ birth/ adoptive parent could be used to derive this category. Published estimates of the prevalence of “shared care 50/50” have instead used an equivalent question asked of adult sample members in relation to any ‘non-resident’ children (Fehlberg et al., 2011; Poole et al., 2013a/ b).

Identifying cohort children and young sample members with an ‘overnight care’ birth/ adoptive father

- Understanding Society and GUS can be used to identify the small proportions of young sample members/ cohort children who live in the study household with a ‘majority overnight care’ or ‘equal overnight care’ birth/ adoptive father categorised as their ‘resident’ father (although in GUS, an ‘equal overnight care’ father’s household is unlikely to be the site of data collection).
- GUS can separately identify cohort children who stay overnight on a weekly basis with an ‘overnight care’ birth father categorised as ‘non-resident’.
- Understanding Society can identify young sample members who regularly stay overnight (on a weekly or fortnightly basis) with an ‘overnight care’ birth or adoptive parent categorised as ‘non-resident’, and differentiate whether this is ‘equal’ or ‘minority’ overnight care. We did not find a question asking about this ‘non-resident’ parent’s “sex”/ gender (the great majority of these parents are fathers if the child lives in the study household with a resident birth mother; and “sex”/gender can be reliably identified for a subset of young sample members whose birth mother and birth father separated earlier in the study). One sweep of this dataset can identify young sample members whose ‘resident’ mother and ‘non-resident’ father have “shared care 50/50” for them.
- The MCS can identify cohort children who stay overnight “often” or “sometimes” with a birth father categorised as their ‘non-resident’ father. This dataset can also identify cohort children who live in the study household with a birth/ adoptive father categorised as their ‘resident’ father, and stay “often” or “sometimes” with a non-resident birth mother. Since questions are not asked about the frequency of stays, we do not know whether they fit our definition of part-time residence (regular overnight stays). Parents may select ‘often’ to refer to school holiday stays.

(c) ‘Long-term away’ fathers categorised as ‘resident’ fathers of cohort children and young sample members

As with the cross-sectional datasets, specific sub-categories of ‘long-term away’ fathers, whom we have categorised as temporarily non-resident, are generally included among the identifiable ‘resident’ fathers of cohort children/ young sample members. These sub-categories are defined by specific inclusion rules relating to factors such as the reason for and length of non-residence. For example fathers away for less than six months and/or fathers working away or in prison may be included. This is often not consistent in published documentation across all sweeps of one dataset.

Survey questions in the MCS, GUS and Understanding Society⁷⁸ enable separate identification of ‘long-term away’ fathers who are eligible for interview (as ‘resident’ household members or cohabiting partners of a parent) but away during fieldwork. They therefore can differentiate ‘long-term away’ fathers from the full-time and part-time resident fathers also included as household members. The longitudinal studies may also record temporary non-residence (“absent” or “away”) within fieldwork outcome codes. In the MCS, LSYPE and Understanding Society, the cohort child’s or young sample member’s resident parent (or another household member) may complete a proxy interview relating to the ‘long-term away’ father, in which the reason for the proxy interview (e.g. working away, in prison, in hospital) is recorded.

(iv) Resident fathers with non-resident children

Four of the longitudinal studies (GUS, MCS, Understanding Society and Alspac) can identify ‘resident’⁷⁹ fathers (of cohort children or young sample members) who have ‘non-resident’ children⁸⁰ (dependent and/or adult) assessed as living at another address.

Fathers with both ‘resident’ and ‘non-resident’ children

- Except for the first pregnancy sweep and the age seven sweep, Alspac childhood sweeps identify ‘resident’ fathers with ‘non-resident’ children only when these children come to visit the cohort child’s household. Both the cohort child’s main carer (mother) and her partner are asked the identifying questions.
- The MCS and GUS identify ‘resident’ fathers with ‘non-resident’ birth children
- Understanding Society identifies ‘resident’ fathers with ‘non-resident’ stepchildren and/or ‘non-resident’ adopted children with whom they were previously ‘resident’. However, we do not know whether the father remains in contact with his ‘non-resident’ stepchildren so may not fit our definition of a non-resident stepfather.

⁷⁸ In Understanding Society, ‘long-term away’ fathers categorised as ‘non-resident’, who have moved out of a young sample member’s household during the study, are also eligible for interview but in a different ‘split-off’ household.

⁷⁹ As we have seen, this group of identified ‘resident’ fathers includes ‘long-term away’ fathers and fathers of ‘long-term away’ children i.e. temporarily non-resident fathers.

⁸⁰ May include ‘long-term away’ children and ‘minority/ equal overnight care’ children.

Table 11: LONGITUDINAL STUDIES: Can cohort children/ young sample members with a 'resident' birth father, adoptive father or social father be differentiated as separate categories in at least one (childhood) sweep?

	Cohort child/ young sample member with a 'resident'...			
	Birth father	Adoptive father	Stepfather (married and cohabiting: non- married) including 'other cohabiting partners'	Foster father*
LSYPE	✓✓	✓✓	✓✓	✓✓
GUS	✓✓	✓✓	✓✓	✓✓
NCDS	✓✓	✓✓	✓**	✓✓
BCS	✓✓	✓✓	✓✓***	✓✓
MCS	✓✓	✓✓	✓✓	✓✓
Alspac	✓✓	****	(✓✓)*****	****
USoc	✓✓	✓✓	✓✓	✓✓

✓✓=identifies these fathers (subject to respondents' disclosures and interpretations of questionnaire terms); ✓ = identifies subset of these fathers; (✓)(tick/s in brackets) = subset identified if assumptions made.

*The MCS and GUS specify that "blood relationships" take priority over the foster parent/ child codes when categorising relationships between the cohort child and other household members. So a 'resident' grandfather who is the child's foster carer where birth parents are not present would be categorised as a grandfather rather than as a foster father. This is different from the FRS (a cross-sectional dataset) which prioritises fostering relationships for the purposes of defining benefit units within households.

**Restricted to 'declared stepfathers' (married and cohabiting: non-married) in the age 11 and age 16 sweeps (described by the mother as the cohort child's "father figure"), but 'other cohabiting partners' would have been rare at that time. At the second sweep (age 7), any 'other cohabiting partners' may have been included with 'declared stepfathers' in a "stepfather/ cohabitee" category of "father substitute"/ male "head of household".

***Restricted to 'declared stepfathers' (married and "cohabiting: non-married") in the age 5 sweep (described by the mother as the cohort child's "father figure"). The BCS household grids at age 10 and age 16 enable identification of any 'other cohabiting partners' (who were not described by the mother as the cohort child's "father figure").

****In many but not all Alspac childhood sweeps (carer and partner questionnaires), stepfathers, adoptive fathers and foster fathers are included among the cohort child's identifiable 'resident' fathers ("father-figures"), but these relationship categories cannot be explicitly differentiated. Assumptions could be made for some analyses, for example using variables about whether the cohort child is adopted or fostered.

*****Analyses of 'resident' stepfathers could use the assumption that if the cohort child's 'resident' birth mother has a cohabiting partner who is not a biological or "natural" father, that cohabiting partner is a stepfather (a proportion of these cohabiting partners may be a stepfather who formally adopted the child and is now an adoptive father).

Table 12: LONGITUDINAL STUDIES: Can cohort children/ young sample members who are part-time resident with a ‘part-time away’ father or ‘overnight care’ birth/ adoptive father be differentiated as separate categories in at least one (childhood) sweep?

	Part-time away father	Overnight care father	Majority overnight care father	Equal overnight care father	Minority overnight care father
	All overnight care fathers as one category (combining majority/ equal/ minority overnight care)				
LSYPE					
GUS		✓*	✓*	✓✓	✓*
NCDS					
BCS					
MCS	✓	(✓)**			
Alspac					
USoc		(✓)***	✓✓	(✓)****	(✓)***

✓✓=identifies these fathers (subject to respondents' disclosures and interpretations of questionnaire terms); ✓= identifies subset of these fathers; (✓)(tick/s in brackets) = subset identified if assumptions made.

*May exclude cases where child stays for a regular fortnightly weekend with ‘minority overnight care’ parent.

**We do not know whether this is a regular pattern of stays.

***We did not find a question asking about the ‘non-resident’ parent’s ‘sex’/gender.

****Except for sweep 3, it does not appear that the ‘sex’/gender of the ‘non-resident’ parent can be identified. In sweep 3, ‘shared care 50/50’ may not be the same as our definition of ‘equal overnight care’.

Section 3C: Methodology and Survey Practice: Identifying and differentiating resident fathers of cohort children and young sample members

We have looked at whether the longitudinal studies identify and differentiate the resident fathers of cohort children and young sample members. Now, as we did previously in relation to the cross-sectional datasets (see Section 2C), we turn to the methodological reasons for this variation. We find examples of questionnaire content which might be adapted for future data collections to identify and differentiate resident fathers. The reader is referred to Section 2C (above) for an explanation of household grids, full and partial relationship grids, and relationship codes.

(i) Which questions identify resident fathers?

Longitudinal studies usually identify ‘resident’⁸¹ fathers of cohort children/ young sample members (in childhood) at the time of a sweep interview by asking questions that could also be asked in cross-sectional datasets:

- In almost all the cohort studies⁸², and in Understanding Society, by identifying the members of the cohort child/ sample member’s household (included for research purposes), and the relationships of these individuals to the cohort child/ sample member and/or their resident mother, often as part of a household grid. These questions can potentially identify ‘other cohabiting partners’ as well as other categories of ‘resident’ fathers.

MCS 3 years sweep: Question to main respondent, almost always the mother:

“Including yourself, how many people live here regularly as members of this household?
What is ^name given at PNAM’s relationship to [cohort child]?”

- Questions that establish whether or not a resident parent (usually the mother) has a male cohabiting partner who may be a birth, adoptive or social father (including ‘other cohabiting partner’) to the cohort child (in Alspac childhood sweeps).

Alspac 21 months sweep: Question to mother/ main carer:

“Do you currently have a partner?” “Does your partner live with you?”

⁸¹This refers to residence in the child’s study household. Part-time resident ‘overnight care’ fathers may be identified but categorised as ‘non-resident’ fathers in these datasets.

⁸² The exception is the NCDS (childhood sweeps), which has a simple household grid in the paper questionnaires, but household relationships data from this grid was not entered onto data files at any childhood sweep. Similarly, in the BCS age 7 sweep, relationship variables in the household grid were not entered onto data files.

BCS 10 years sweep: Question to mother/ main carer “What is the relationship to the child of the person now acting as his/her father?” [“...a parent should only be counted as such if he or she is normally resident in the study child’s household”]

- Questions about the ‘resident’ fathers and guardians of the cohort child (in the BCS, the NCDS and some Alspac childhood sweeps)⁸³. These questions cannot identify ‘other cohabiting partners’.

The same questionnaire design issues apply to household grids in longitudinal studies as we described earlier for cross-sectional studies.

- In the cohort studies, there may be a question asking about the relationship of each household member only to the cohort child (NCDS and BCS childhood sweeps) or only to their resident mother (Alspac childhood sweeps) i.e. a partial relationships grid - see Table 9). These older studies used paper questionnaires/ interview schedules in which a full household grid would be complex for the respondent to complete and an interviewer to record.

Identifying ‘other cohabiting partners’ in the BCS

The relationship codes for the age 10 and age 16 BCS household grids (into which free text data was coded) include a separate code for “cohabitee of parent”/ “mother’s boyfriend”. This enables identification of ‘other cohabiting partners’ (‘resident’ cohabitees/ boyfriends not reported by the mother at a separate question to be a “father figure” to the cohort child) despite only a partial relationships grid being collected.

- Alternatively, there may be a full relationships grid (see Table 8), asking about the relationship of each household member to every other household member, as in the MCS, GUS, the LSYPE and Understanding Society. These more recent studies use CAPI which facilitates use of a detailed full grid.

As in the cross-sectional datasets, use of a partial relationships grid may mean that it is not possible to identify ‘other cohabiting partners’ in relation to cohort children, depending on the relationship codes used.

(ii) The design of relationship codes in identifying father-child relationships

As in the cross-sectional datasets, the relationship codes used in the longitudinal studies differ in their degree of differentiation of relationship categories among the ‘resident’ fathers of the cohort children/ young sample members. Relationship codes may be used in questions about household relationships (often using gender-neutral codes in the household grid), and also when questions are asked specifically about the ‘resident’ father or “father figure” of the

⁸³ Additionally, the MCS, GUS and Understanding Society have a direct question to identify the adult in the household with main responsibility for care of the cohort child or dependent children in the household.

cohort child. What differs most is whether the codes can differentiate categories of stepfathers.

(iii) The design of questions in identifying residence of father

In common with the cross-sectional datasets, published questionnaires and the fieldwork documentation that we accessed for the longitudinal studies are more likely to include specific ‘inclusion/ exclusion rules’ about whether temporarily absent individuals are to be counted as ‘resident’ (for research purposes) in the cohort child’s household or sampled household, than they are to offer any guidance in relation to part-time resident individuals.

Guidance in relation to adults influences whether ‘part-time away’ and ‘long-term away’

Relationship codes for ‘resident’ fathers

- At most childhood sweeps, Alspac has just two relevant relationship codes, differentiating “biological”/ “natural” fathers from either “father-figures” or (less commonly) other partners of the resident mother. There is an additional free text “other” category that may include some fathers (e.g. other cohabiting partners and foster fathers) but this does not appear from published documentation to have been coded.
- The BCS childhood sweeps and the age 16 sweep of the NCDS offer an example of differentiation of stepfather categories. They can differentiate “stepfathers” from the small numbers of “cohabitees” at the “father figure” question (i.e. for ‘declared stepfathers’) and, in the BCS later childhood sweeps, also for individuals included among household members. It is possible that in the later BCS sweeps, a proportion of cohort children’s mothers categorised cohabiting; non-married partners as “stepfathers” whereas in the earlier sweeps, this category was limited to their married spouses.
- The MCS cannot differentiate ‘other cohabiting partners’ and ‘declared stepfathers’ because it has the integrated relationship codes “step-son/ step-daughter/ child of (current/ previous) partner” and “step-parent/partner of parent” in the household grid. This is similar to the HSE among the cross-sectional datasets.
- In contrast, GUS, the LSYPE (childhood sweeps) and Understanding Society, have “step-parent” and “step son/ daughter” codes in the household grid to identify ‘declared stepfathers’, and in principle can separately identify ‘other cohabiting partners’ through the full relationships grid. However, in Understanding Society (as in the cross-sectional datasets), the interview respondent may be guided by an interviewer instruction to “treat relatives of cohabiting members of the household as though the cohabiting couple were married”. Published documentation for sweep 2 of the LSYPE instructs interviewers to

fathers are identified as ‘resident’ fathers of cohort children and young sample members. Guidance in relation to children influences whether part-time resident and ‘long-term away’ children are included as members of the study household (in Understanding Society), and as ‘resident’ siblings of the cohort child (in the study household) in cohort studies.

Inclusion rules relating to temporary non-residence

Where we found them in published documentation (Understanding Society, the NCDS, the BCS, the LSYPE and the MCS), household inclusion rules relating to continuous temporary absence (including our ‘long-term away’ category) describe the specific circumstances in which an individual is to be:

- counted as resident in the household, or (less commonly)
- categorised as a ‘resident’ father/ “father figure” of the child/young person, or
- categorised as a cohabiting partner of the resident parent.

As in the cross-sectional datasets, these inclusion rules often depend on the length of continuous non-residence, the reason for non-residence, and an assessment of the individual’s main address/ “main residence”. There are sometimes different criteria at different sweeps. The BCS explicitly includes short visits home, for example in the holidays or as leave, within the scope of a family member being temporarily non-resident and not counted among household members.

Inclusion rules relating to part-time residence

For all but two of the longitudinal studies (in published fieldwork documentation⁸⁴ we accessed), we did not find household inclusion rules for interviewers or research respondents to apply which referred specifically to whether a ‘part-time away’ adult is counted as ‘resident’ in the household. In these datasets without ‘part-time away’ inclusion rules, the inclusion rules for continuous temporary non-residence less than six months may lead to ‘part-time away’ individuals being counted as ‘resident’ if the study household is their ‘main residence’, for example those away for work or study. Otherwise, the datasets appear to leave it up to the interview respondent to assess who “usually lives”⁸⁵ in the household.

Specific inclusion or exclusion of ‘part-time away’ adults

The MCS specifically includes ‘part-time away’ adults in the cohort child’s household.

Understanding Society excludes adults working away and coming “home” only at weekends when the study household is not their “main address”.

⁸⁴ There may be unpublished documentation for interviewers and office coders.

⁸⁵ Focus groups and cognitive interviewing conducted in development work for the 2011 Census found that respondents generally understood the term “usually live” although there was a range of interpretations (ONS, 2010b). This was interpreted to mean “people who sleep there most of the time or live there permanently, the family members, or the people who pay rent, and not people who are visiting or have another address”.

The most recent longitudinal studies (the MCS, the GUS and Understanding Society) include specific rules in published fieldwork documentation for whether part-time resident dependent children are to be included as ‘resident’ in the household for research purposes. However, in contrast to the Census, and the Eurostat manual covering the 2014-15 UKTUS, we could not find a published rule that research respondents or interviewers might apply if a dependent child (other than a cohort child) resides equally with each of their non-cohabiting (birth/ adoptive) parents. There may be internal documentation used by interviewers to guide respondents that we did not access for our review.

Part-time resident dependent children of non-cohabiting birth/ adoptive parents

Understanding Society: “Parents living separately may have joint custody of their children who divide time between two households. Subject to survey-specific instructions...the child’s main residence is usually where they have spent the most time in the last six months”. This rule does not specify whether assessing the amount of time spent at the address is to take account of both daytime care and overnight stays. For example, a pre-school child may be looked after for substantial portions of the day by a ‘minority overnight care’ parent. The documentation states in relation to all individuals that “to be included in the household an individual must sleep at the address when s/he is in residence; anyone who sleeps at one address but has all their meals elsewhere must therefore be included at the address where they sleep”.

In contrast, the MCS inclusively states that household members should include all children living in the household for some of the time (“shared custody”/ residence).

Identifying part-time resident fathers, and temporarily non-resident fathers

Questions in the longitudinal studies (which might be adapted for cross-sectional datasets where relevant) identify cohort children/ young sample members with a part-time resident father or ‘long-term away’ father categorised as ‘resident’ or ‘non-resident’. They ask:

- whether the cohort child/ young sample member has regular or frequent overnight stays with a parent categorised as ‘non-resident’ (the MCS, GUS and Understanding Society) (see details in the text box in section 3B iii); “shared care 50-50”⁸⁶ between their non-cohabiting (birth/ adoptive) parents; and lives in the study household full-time or has a second address (the MCS and GUS)

⁸⁶ Unlike in the ONS Omnibus Survey modules described in Peacey and Hunt (2008a / b), the Understanding Society question does not give the respondent a definition of “shared care 50/50”, for example whether it includes equally shared daytime care and/or overnight stays, or has to be an exact 50-50 split.

- whether the cohort child has a ‘part-time away’ birth father not included initially as a member of the household - these ‘part-time away’ birth fathers are then included among MCS household members
- whether each individual included among household members lives in the household full-time or part-time or has a second address (the MCS), or is temporarily non-resident (Understanding Society and the MCS in questionnaires, and also in other datasets as fieldwork outcome codes and reasons for proxy interviews)
- whether a cohort child’s ‘resident’ father has been ‘long-term away’ in the past year (GUS)
- where a part-time resident or ‘long-term away’ individual has not been counted as ‘resident’ in the household. For example a ‘long-term away’ individual (or specifically a father of a cohort child) who was included as a household member at the previous sweep but not in the current sweep (the BCS, GUS, Understanding Society and the MCS); or a ‘non-resident’ dependent child staying overnight in the sampled household with their ‘non-resident’ father (included among household members) for a minority or equal/ near-equal share of nights (Understanding Society).

Identifying part-time resident individuals included among household members

Part-time away’ adults and children

MCS later sweeps: “Can I check, does [name of person] live here all of the time, or does [he/she] also live somewhere else?”

A similar question is asked in GUS about the cohort child only.

MCS earlier sweeps: [if not included initially in the household] “We would like to interview [cohort child’s] father if he ever lives here, so can I just check, does he live here at all, even if it’s only for one or two days a week?”

Dependent ‘overnight care’ children of non-cohabiting parents

MCS: “Does ‘cohort child’ ever stay overnight with [name of absent parent]?” Yes, often; Yes, sometimes; Yes, rarely; Yes, never.

GUS: “Can you tell me how often, if at all, [cohort child’s natural father] has [cohort child] to stay overnight?” Every day; 5-6 times a week; 3-4 times a week; Less often but at least once a month; Less often than once a month; Never.

Understanding Society: “About how many nights each week, fortnight or month does [child name] usually stay overnight with their [mother/father] during term-time?” Number of nights per week/ fortnight/ 4 weeks/ calendar month

Identifying ‘long-term away’ individuals excluded among household members

BCS childhood sweeps have a table on their paper questionnaires to collect data (including “sex” and age) about temporarily non-resident adults and children not included among household members in the household grid: “List below any members of the family not included in the above table, for example those who are only home for holidays or leave, and enquire or state from your own knowledge the reason for absence, for example at residential school or working away”. Reason for temporary non-residence and relationship to the cohort child (entered as free text) have been coded for sweeps 3 and 4. A ‘long-term away’ father can be counted as a “father figure” to the cohort child.

MCS: “Can I check, what happened to [name of person in household at previous sweep]?: Deceased; Long-term absence (i.e. 6 months or more) eg hospital, army, prison; Lives somewhere else (include moved out, never lived at this address, relationship ended...).

Identifying ‘long-term away’ individuals included among household members

MCS: “Will [name of PARTNER] be away from home until after the end of the fieldwork period?” (if proxy interview carried out): “Why is a proxy interview rather than a personal interview being conducted?”: Codes reason for absence from the study household.

Understanding Society: “And is there anyone else who normally lives here but is away at the moment or anyone who you would normally consider to be part of your household and who is presently living in institutional accommodation... In Understanding Society, we would normally include someone away at boarding school / working away from home as part of this household if it is their main residence. Is this the main residence for [leaver's name], even if they are now somewhere else?”. Then codes each household member as resident, student away, absent (temporarily away). Questions ask the reason for absence from the study household, including on holiday, hospital, student, working away, institutions, prison.

Long-term away in the past year

GUS: “Since we last spoke to you, have you (or your partner) been away from ^childname for three months or more at a time?”, then codes reason for temporary non-residence.

(iv) Who identifies resident fathers in the longitudinal studies?

In most of the cohort studies, the ‘resident’ father of the cohort child is identified through questions in the interview or questionnaire completed by the child’s ‘main parent’/ guardian as defined for research purposes. This individual is usually the resident mother when the child lives with both a mother and father.

In the MCS, the LSYPE (childhood sweeps) and Understanding Society, the ‘resident’ father of the cohort child/ young sample member is identified by the household grid respondent.

Section 3D: Collecting data in childhood about resident fathers of cohort children and young sample members

We look in this section at how data is collected about the resident fathers of cohort children and young sample members. We use the term ‘resident’ in terms of the dataset’s categorisation of the father as a ‘resident’ father and/or cohabiting partner of the child’s resident mother. Depending on the dataset, these fathers may include ‘part-time away’ fathers, ‘majority overnight care’ fathers and ‘equal overnight care’ fathers. They may also include temporarily non-resident ‘long-term away’ fathers, who may be eligible for proxy interviews.

As we discuss further in section 3G, none of the cohort studies that we reviewed have set out to interview ‘minority overnight care’ fathers (living outside the child’s study household), who are generally categorised by the datasets as ‘non-resident’ fathers. This means that ‘equal overnight care’ fathers categorised in the dataset as ‘non-resident’ are also not interviewed.

Data collection is directly from the resident fathers themselves (section 3Di) and also from other research respondents (section 3Dii). When mothers - and other research respondents - are asked to give information about fathers, this may result in item non-response for factual questions because a mother does not know the answer or does not know whether her partner would want her to disclose the information⁸⁷. There may be systematic reporting biases in information given by mothers. As part of development work for Life Study (Kiernan, 2016), Prady and Kiernan reviewed the concordance between mothers’ and partners’ responses in research studies. The concordance decreased when respondents were asked about engagement with their children, for detailed or precise information (for example, amount of alcohol consumed, and weight) and questions with complex wording. Kiernan concluded that reducing proxy information from mothers is important.

Some of the data collected only from the resident mother is about the child rather than about the father, but even here, it may be valuable to collect reports from both mother and father. They may have different perspectives and biases in reporting their children’s development and behaviours. We acknowledge that symmetrical data collection is expensive and increases respondent burden and, for some measures and analytic purposes, data provided by mothers may be sufficient.

(i) Direct data collection from resident fathers

Most of the longitudinal studies we examined have (in at least one sweep) collected data directly from the resident fathers of cohort children and young sample members, whether or

⁸⁷ The BCS user guide for the age 5 sweep states that item non-response for a question asking the mother whether the father has ever been unemployed was 30%. This could be due to the mother not knowing the answer, or reluctance to disclose unemployment.

not the father has been defined as the child's 'main parent' for research purposes. Data has been collected through interviews and/or self-completion questionnaires; (in the MCS)

Household grid respondents

- In most MCS sweeps and in the earlier LSYPE childhood sweeps, there is a separate household interview (which includes the household grid) which interviewers can administer to either the cohort child's "main" parent/guardian (nearly always a resident mother in the MCS) or a "main" parent/guardian's cohabiting partner. In Understanding Society, any adult household member can answer the household grid questions.
- In the MCS (from the age 5 sweep), the LSYPE and Understanding Society, there is a variable showing which parent/ household member completed the household grid questions. In the first sweep of the LSYPE, which also coded when household interviews were conducted jointly by two 'resident' parents, 19% of household interview respondents were resident fathers (Based on data received from Department for Education: First Longitudinal Study of Young People in England: Wave 1).
- In some Alspac childhood sweeps, questions identifying resident fathers are solely in the "carer questionnaires", completed mainly by mothers. In other sweeps, equivalent questions are also asked to mothers' partners (cohabiting or non-cohabiting). This enables the mothers' and partners' responses to be compared, for example in identifying whether the mother's partner is a biological ("natural") father to the cohort child and resident siblings, whether the partner cohabits with the mother, and whether the partner has any non-resident children who visit.

cognitive assessments (in the MCS); and biomedical tests and samples (in the MCS, Alspac and Understanding Society). The interview/ questionnaire data collected from fathers may be about the father's cohabiting partner (the child's resident mother), their couple relationship and the children in the household (including the cohort child/ young sample member), as well as about the father himself.

The exceptions are the NCDS and BCS (the oldest two longitudinal studies that we looked at) which did not collect data directly from resident fathers at any childhood sweep, unless the father had been defined as the 'main parent', or when two resident parents jointly completed interviews or questionnaires (both occurring in a small proportion of cases).

Despite most of the cohort studies collecting data directly from fathers, fewer survey variables have been directly collected from fathers in these studies than from resident mothers when a cohort child lives with both a resident father and a resident mother. Additionally a narrower set of information has been collected about resident fathers than about resident mothers, even including information gained about fathers from mothers. We shall see that, for the great majority of cohort children, it is the resident mother who meets the fieldwork definition of the child's "main parent", "main carer" or "main respondent" (the term used differing across studies) for a full parental interview or questionnaire at every

childhood sweep. At some or all childhood sweeps, the resident father is instead usually asked to complete a shorter partner interview⁸⁸ or partner questionnaire.

Fewer survey variables collected directly from resident fathers in cohort studies

- In the MCS nine months sweep, although mothers were asked retrospectively about pregnancy and the birth in “main respondent” interviews (average length 65 minutes), the only questions that cohabiting partners (almost all of whom were birth fathers) were asked on this topic in their 30 minute interview were about their smoking and jobs during pregnancy.
- In the LSYPE childhood sweeps, when a mother received a “main parent” interview, and a father received a partner interview, it was the mothers who gave data on the father’s attendance at school parents’ evenings.

For a small proportion of children in the cohort studies, the resident father provides much of the same data that would be collected from a resident mother, with the exception of data specific to pregnancy, birth and women’s health. The resident mother or resident father’s cohabiting partner may complete a partner interview. Depending on the study, this may occur when:

- the cohort child solely or primarily lives with their birth father (who may be a ‘majority overnight care’ father), and the birth mother lives elsewhere (or is not counted among household members) or has died
- the cohort child solely or primarily lives with a resident father without a cohabiting partner, or with a resident father in a same sex cohabiting relationship i.e. there is no mother (birth/ adoptive/ foster/ step) included among household members in the study household
- the cohort child’s resident mother does not want to or cannot participate in the study.

In the NCDS, the BCS and the third sweep of the LSYPE (which did not include partner data collection), interviews or questionnaires intended for the ‘main parent’ could be completed jointly by both resident parents. Take-up of joint interviews was generally low.

In contrast to the cohort studies, Understanding Society collects broadly the same set of data from the resident fathers of young sample members (those fathers categorised as ‘resident’ in the study household) as from their resident mothers. This includes question modules about parenting behaviours and parent-child relationships. Nevertheless, in Understanding Society, child-specific questions about childcare, schools, child development and behaviour (including a question about whether the father reads with the child) are asked only of the resident

⁸⁸ In some datasets, for example the MCS, the partner interview includes a self-completion element, which the interview respondent enters directly into the interviewer’s laptop. We call the combined data collection instrument a ‘partner interview’.

“responsible adult” (one per household) for that dependent child. The “responsible adult” is defined in questionnaires as the birth mother if resident.

Collection of biomedical samples from fathers

- The MCS (only from biological fathers of cohort children) and Understanding Society collect biomedical data (with the potential for genetic analysis) from resident fathers whilst cohort children or young sample members are in childhood.
- As far as we are aware, Alspac, despite its biomedical focus, did not systematically collect such data from cohort children’s biological fathers during these children’s childhood years.
- Through its Focus on Fathers project, Alspac is currently collecting biomedical data from fathers (“those who take on the role of parent”) when cohort children are young adults.

Joint completion of parental interviews and questionnaires by resident fathers and resident mothers

- For the third sweep of the LSYPE in 2006, joint parental interviews appeared to have been carried out in only 5% of the sample.
- The proportions of resident fathers completing joint interviews were similarly low in earlier decades in the NCDS and the BCS. In 1965, the proportion of NCDS fathers being interviewed jointly in the age seven sweep was only 1.3%. In 1975, fathers were present in only 7% of BCS age five sweep interviews with or without the mother.
- A much higher proportion (24%) of the fathers in the age five sweep jointly completed, with the mother, a self-completion questionnaire which could be left at home for the interviewer to collect later.

(a) Partner data collection in the cohort studies

The resident fathers completing partner interviews or questionnaires in the cohort studies include birth fathers, adoptive fathers and social fathers (stepfathers, foster fathers and male guardians). Reflecting the population of fathers, the majority will be birth fathers, especially in early childhood sweeps of cohort studies.

Most studies have collected partner data from any cohabiting partner of the resident ‘main parent’, whether or not the cohabiting partner is coded as a “parent” of the cohort child, so including ‘other cohabiting partners’. The studies rarely state explicitly in the published documentation that we accessed whether part-time cohabiting partners are eligible for a partner interview i.e. those who are ‘part-time away’ fathers to the cohort child.

Eligibility for a partner interview or questionnaire

- In Alspac childhood sweeps, it was left up to the resident mother to define who was her partner (cohabiting or non-cohabiting) for completion of a partner questionnaire. Questions were not asked in all early sweeps to establish whether the partner completing the questionnaire is cohabiting with the mother i.e. resident with the cohort child, nor their “sex”/gender.
- In the LSYPE’s first sweep, partner interviews were with “an [resident] adult other than the main parent who had a parental relationship to the young person”. For partner interviews at later sweeps, the study broadened this to any cohabiting partner of the cohort child’s “main parent”, so including ‘other cohabiting partners’.
- The MCS has carried out partner interviews with ‘part-time away’ fathers who can be interviewed at the cohort child’s address, including those staying for one or two days a week.
- GUS interviewer instructions states that for the parental interviews with mothers that if the child’s mother is “sometimes resident (e.g. they spend one or two nights a week there) we do want to interview them at that address”. We did not find an equivalent instruction (in published documentation for the second sweep) specifying whether all ‘part-time away’ fathers are eligible for partner interviews.

There are two reasons why fewer survey variables have been collected directly from resident fathers (completing partner interviews or questionnaires) than from resident mothers (completing ‘main parent’ interviews or questionnaires).

The **first reason** is that, in the studies we reviewed, partner interviews are less detailed and shorter than ‘main parent’ interviews. For example, in the first sweep (nine months) of the MCS, the average length of the “main respondent” interview was 65 minutes, whereas that of the partner interview was about 30 minutes. Alspac was an exception, with lengthy questionnaires for mothers’ partners in some pregnancy and childhood sweeps. This enabled Alspac to collect data symmetrically both from fathers and from mothers for many variables. Life Study had planned 45 minute interviews with both resident and non-resident fathers (Kiernan, 2016) but, due to discontinuation of this study before the mainstage fieldwork, we do not know how successful this would have been.

The **second reason** is that three of the studies have not carried out ‘partner interviews’ or issued ‘partner questionnaires’ at every sweep.

Table 13 (overleaf) shows the high published response rates for partner interviews in the MCS and GUS, which began their data collection in the 2000s. This is at a time of decreasing response rates in research surveys and in the context of substantial drop-out of families from the cohort studies over time.

Frequency of partner interviews

- In its first birth cohort, GUS has had partner interviews only in the second sweep.
- The LSYPE (first seven sweeps) interviewed cohabiting partners of the resident “main parent” only at three sweeps, including one sweep where the “main parent” could provide proxy data about his/her partner if s/he wished. Joint interviews (i.e. a resident mother and father interviewed together) could be carried out in the sweep when there were no partner interviews.
- In Alspac, resident mothers received questionnaires at a greater number of childhood sweeps than did their partners. Additionally, a subsample of cohort children in Alspac attended clinics with their mothers, at which observational data was collected on mother-child interactions. Observational data was not collected for an equivalent subsample of fathers. In contrast, in the Generation R study in the Netherlands, father-child and mother-child interactions were observed separately during a home visit to the four year old cohort children (University of Vienna, 2010).

- These cohort studies used interviewers who could be persistent in efforts to obtain face to face interviews, by returning to the household at different times of day and on different days of the week, and answering parents’ and partners’ queries if unsure whether to participate.
- GUS allowed for small numbers of telephone interviews with cohabiting partners who could not be contacted during a home visit.

Table 13: TWO COHORT STUDIES: Response rates for face to face ‘partner’ interviews⁸⁹

	% of eligible partners interviewed
GUS sweep 2 in 2006-07	79%
MCS sweep 1 in 2001-03	86%
MCS sweep 5 in 2012	87%

In contrast, from the 1990s onwards, Alspac collected all data in childhood sweeps from mothers’ partners through self-completion paper questionnaires rather than interviews. The partners were not directly recruited by the researchers. Instead, mothers were asked to pass questionnaires to them *if they wished*.

⁸⁹ The figures in this table are not necessarily equivalent in their derivation. Taken from technical report for each sweep.

Partner questionnaires in Alspac

- The Alspac researchers were not in direct contact during childhood sweeps with mothers' partners to encourage response. Mothers were informed that if they had no partner at one sweep or they did not wish to pass a questionnaire to their partner, they were not sent a partner questionnaire at subsequent sweeps.
- The Alspac partner response rate (% of issued partner questionnaires returned) remained between 40% and 52% up to and including the final partner questionnaire during childhood at the 12 years sweep in 2004-05. These figures may include households where the resident mother did not have a partner.
- Washbrook (2007) used Alspac mothers' reports of whether their partner was present at antenatal classes despite Alspac collecting equivalent partners' reports. She says that this was due to the differential response rate for partners according to how involved they were with their children, introducing systematic bias into her particular analysis.

The Nuffield Foundation/ ESRC-funded project on fathers in Life Study has reviewed how cohort studies internationally and UK research studies have recruited and retained resident and non-resident fathers (Fathers and partners in the Life Study: a review; see Kiernan, 2016 and associated dataset reviews: Kiernan, 2014 and Bryson, 2014), including a discussion of methodological work on online (web-based) survey technologies (Bryson, 2014). UK cohort studies, such as the MCS, have published information about recruitment and retention in technical reports, including the findings of qualitative research and fieldwork pilots among resident fathers prior to mainstage data collection.

(b) Fieldwork guidance for selecting the 'main parent'

With the exception of the LSYPE, it is nearly always the cohort child's resident mother who receives a 'main parent' interview or questionnaire.

This might reflect a high proportion of families in which mothers provide the greater part of direct childcare and self-identify as the 'main parent'. However, following fieldwork guidance⁹⁰ in these cohort studies would usually result in the mother receiving a 'main parent' interview or questionnaire at each sweep when a cohort child lives with a mother and a father

⁹⁰ In more recent studies such as the MCS, the CAPI interview program integrates these fieldwork 'rules' to suggest to the interviewer which parent should receive the 'main parent' interview and which parent the partner interview.

Proportion of “main” parents who are mothers or fathers

- In the first (nine months) and second (age five) sweeps of the MCS in 2001/02 and 2006, 97-98% of “main respondents” were birth mothers. This percentage has decreased slightly in later sweeps to 95% in the age 11 sweep in 2012.
- The equivalent figures for the age seven sweep of the NCDS (1965), the age five sweep of the BCS (1975), and the ten months sweep of the GUS first birth cohort (2002) were all 92%-98%, although NCDS documentation notes that their figure may be an over-estimate.
- In the first sweep of the LSYPE, 17% of “main parent” interview respondents and 19% of household interview respondents were resident fathers (based on data provided by Department for Education).

in the study household. The exceptions are specific circumstances which are likely to apply to a small proportion of cases⁹¹.

- This guidance, which varies across studies, is that generally: (i) The mother is prioritised for ‘main parent’ data collection in the first sweep⁹² (pregnancy/ infancy) (the MCS, GUS, Alspac, the NCDS and the BCS) and subsequent sweeps (Alspac, the NCDS and the BCS) (ii) Subsequent sweeps prioritise the parent defined as the ‘main parent’ at the previous sweep (the MCS and GUS), rather than newly categorising the ‘main parent’ at each sweep, so that longitudinal analysis can be carried out.
- When a cohort child lives with a birth/ adoptive father and a stepmother, fieldwork guidance may differ between studies. For example, MCS guidance prioritises birth/ “legal” fathers over stepmothers for “main respondent” interviews.
- If the mother cannot or does not want to participate in the sweep or the parents prefer that the father is interviewed as the ‘main parent’, this fieldwork guidance may not be followed.

⁹¹ Depending on the study, the exceptions are when (i) a cohort child lives with a resident birth father and a resident step/ adoptive mother (ii) the father is the ‘main carer’ of the child when aged 18 months or younger (iii) the cohort child lives with an adoptive/ foster father and an adoptive/ foster mother, and the father provides the majority of childcare.

⁹² This is usually because data is collected in the first sweep about pregnancy and birth. Additionally, cohort children were usually recruited through their birth mothers. Details of cohort children in the MCS and GUS were taken from Child Benefit records, which at that time generally had mothers’ name and contact details where there were two resident parents. The mothers of cohort children in Alspac, the BCS and the NCDS were recruited in pregnancy or around the time of the birth, through maternity and health services.

In contrast, the LSYPE guidance from the first sweep onwards was that generally⁹³ the parent completing the “main parent” interview should be the parent most involved in the cohort child’s education. This non-gendered guidance⁹⁴, specifying neither mothers nor fathers, may be related to the cohort beginning in the teenage years and the study focus on education and employment. So, for the more involved resident fathers (those who are categorised as “main parents”), there is data from the substantially longer “main parent” interview on educational aspirations for their teenaged children, and other information relating to fatherhood and father involvement. However, which parent completed the “main parent” interview was more likely than in the other studies to change between sweeps, limiting the sample for some longitudinal analyses.

Fieldwork guidance in the earlier cohort studies

- In Alspac, “carer questionnaires” in the pregnancy sweeps and early infancy sweep were to be completed only by mothers. At the 8 months and 21 months sweeps, carer questionnaires were to be completed by the parent who was mostly responsible for/ most involved with the cohort child. Whereas, from the 33 months sweep, the carer questionnaires were again to be completed only by mothers, and the partner questionnaires were to be completed only by fathers including single parent fathers. The carer questionnaire and partner questionnaire at these sweeps were of similar length and content.
- In the BCS age ten and age 16 sweeps in an earlier historical period, it was expected that the “home interviews” would be carried out with resident mothers. If the mother wasn’t available, the interview should be carried out with someone who had “knowledge of the child’s health and development”, and the “maternal self-completion” questionnaire by the father or someone who knew the child well.

In the published fieldwork documentation we accessed, only the most recent sweeps of the the MCS and GUS included guidance on selection of the study household when a cohort child regularly stays overnight with each of their non-cohabiting parents. It is not clear whether this guidance applied in earlier sweeps.

Selection of the study household for ‘overnight care’ children of non-cohabiting birth/ adoptive parents

The MCS and GUS specify that it is the ‘majority overnight care’ parent’s household (mother or father) that would usually be the site of data collection.

If a cohort child has ‘equal’ overnight care with each of their birth/ adoptive mother and father, it appears that it is the part-time resident mother’s household that would usually be the site of data collection. This is due to an instruction to prioritise the “main parent” at the previous sweep, with the birth mother usually having been prioritised in and since the first sweep. Parental interviews would then be carried out with the cohort child’s part-time resident mother (‘main parent’ interview) and any cohabiting partner of the mother (partner interview). So any stepfather in the mother’s household may be interviewed whilst no data is collected from the part-time resident birth father.

(ii) Data collected about resident fathers from other research respondents

The longitudinal studies (including the NCDS and BCS childhood sweeps) have collected substantial amounts of data about ‘resident’ fathers from resident mothers and other study respondents such as the cohort children / sample members (in childhood and adulthood), other household members, teachers and health professionals.

As discussed earlier in section 3C, resident mothers often identify the ‘resident’ fathers of cohort children and young sample members, and provide demographic data about these fathers, for example in household grid questions.

When cohort children, young sample members and teachers are asked about fathers, it is not always specified whether the questions relate only to the child’s ‘resident’ father or birth/adoptive father, or can also include ‘non-resident’ fathers and ‘social fathers’. So for those children having more than one father (for example a birth father and a stepfather), it is not possible to link the data collected to any specific category of father, nor to any individual father interviewed and/or identified as a household member, parent’s partner or ‘resident’ father.

In the MCS, the LSYPE (childhood sweeps) and Understanding Society, data is collected about ‘resident’ fathers in proxy interviews with another household member when the father cannot be interviewed. This includes data about temporarily non-resident ‘long-term away’ fathers who have been counted as ‘resident’ in the cohort child’s/ young sample member’s household, for example if they are away for less than six months. In the cohort studies, the proxy respondent is usually the cohort child’s resident mother. As in the cross-sectional datasets, proxy interviews are conducted only in defined circumstances. They are much

Proxy interviews in the longitudinal studies

- In the second sweep of GUS, if a partner interview could not be conducted with an eligible cohabiting partner of the “main carer”, there were a few proxy questions in the “main carer” interview (e.g. partner’s employment and ethnicity), rather than a discrete proxy interview.
- Proxy interview rates in the MCS and Understanding Society appear to be lower than in the cross-sectional datasets investigated. In the first sweep (nine months) of the MCS, proxy interviews with partners were carried out for only around 1% of cohort children for whom at least one parental interview was gained. In Understanding Society, proxy interviews were carried out for 6% of individuals eligible for an individual interview in responding households at sweep 1 (compared to 80% receiving a full interview). This may reflect fieldwork rules:
 - The MCS: A proxy partner interview can be carried out only when the resident father is temporarily away for the whole fieldwork period or is incapacitated. Proxy interviews cannot be carried out if the father doesn’t want their own interview or can’t be contacted at home because they are out a lot or ‘part-time away’.
 - Understanding Society: Proxy interviews are carried out “only as a last resort”.

shorter than partner interviews or full Understanding Society interviews, and collect highest priority data about the father or household member.

Section 3E: Identifying and differentiating cohort children and young sample members with a non-resident father

In this section, we look at how the longitudinal studies identify those cohort children and young sample members who have a non-resident father at the time of each sweep interview. For the cohort studies, we looked only at questions asked in the childhood sweeps. The older cohort studies and Understanding Society may also include retrospective questions that cohort members or sample members are asked in adulthood about non-resident fathers in childhood.

If separating families in these studies are less likely to participate in the first sweep, and are more likely to drop out of the study over time or not participate in every sweep, the proportion of children who are identified as having a non-resident father will be an underestimate relative to the population. For example, documentation for the BCS age five sweep reports that the strongest response bias was a failure to trace children of mothers who were single, separated, widowed or divorced at the time of birth.

As in previous sections of this working paper, we use the term ‘non-resident’ in quotation marks to indicate that this is the dataset’s categorisation of residence. The identifiable category of ‘non-resident’ fathers may include part-time resident ‘overnight care’ fathers and ‘part-time away’ fathers who cannot be differentiated from the non-resident fathers in the category.

(i) Non-resident birth and adoptive fathers, and ‘long-term away’ fathers

Nearly all of the longitudinal studies can identify (in at least one sweep) cohort children or young sample members with a ‘non-resident’ birth father, where the father is known to be alive because the child and/or their resident parent has current contact with the father and/or the father pays child maintenance⁹⁵ (see Table 14).

In all the longitudinal studies, a larger category of cohort children or young sample members with an ‘**assumed** non-resident’ birth father can be defined for analysis. The assumption made is that the birth father is alive if the research respondent (usually the child’s resident mother) has not reported their death when asked a relevant question. These questions (varying across the datasets) ask about life events or “family difficulties”; why the child doesn’t live with their birth (or adoptive) father; why a previously resident birth father no longer lives in the child’s household; and about current contact or the relationship with the birth father.

⁹⁵ Or, in Understanding Society, the non-resident birth father participates in the study at that sweep.

However, a small proportion of these **assumed** living birth fathers will have died⁹⁶, including where the research respondent reports no current contact.

Depending on the dataset, this identifiable ‘non-resident’ category may include:

- children with a temporarily non-resident ‘long-term away’ father
- children with a part-time resident ‘overnight care’ or ‘part-time away’ father.

In the MCS, GUS and Understanding Society, it is possible (with differing degrees of completeness and accuracy) to separately identify those cohort children and young sample members with an ‘overnight care’ father categorised as ‘non-resident’ (through questions about overnight stays, as detailed in sections 3Biii and 3Ciii). These ‘overnight care’ fathers are most likely to give ‘minority overnight care’, a category which can be differentiated from ‘equal overnight care’ and ‘majority overnight care’ in GUS and Understanding Society.

In the BCS, MCS, GUS and Understanding Society, it is possible to identify subsets of cohort children and young sample members who have a ‘long-term away’ father (birth, adoptive, foster or step) categorised in the dataset as ‘resident’ (i.e. included among members of the study household) - see section 3Biii - or ‘non-resident’ (i.e. not included among household members). For example fathers away for more than six months may be categorised as ‘non-resident’, but as ‘resident’ if less than six months⁹⁷. The methodological issues (household inclusion criteria and identifying questions) are discussed in section 3Ciii.

Identifying children with a living non-resident birth father

- Neither the NCDS (the oldest study we looked at) nor the LSYPE (in its childhood sweeps) ask questions about current contact with a non-resident birth father, nor about child maintenance, that can establish that the father is alive. The childhood BCS asks these questions only at the age 16 sweep, which had a poor response rate. The NCDS asks why the child does not live with their birth or adoptive father, but the father may have died since a divorce or separation.
- In the most recent sweeps, Understanding Society asks about current contact with a non-resident birth or adoptive parent. It does not appear from documentation available online that a variable specifies the “sex” of this non-resident parent (assumptions can be made that the great majority of these parents are fathers if the child lives with a resident birth mother).

Understanding Society can identify young sample members whose ‘non-resident’ birth father has birth children and/or other children in his household.

⁹⁷ This means that a father categorised as ‘resident’ at one sweep and ‘non-resident’ at a subsequent sweep may be temporarily non-resident at one or both sweeps.

Identifying children with a ‘long-term away’ father categorised as ‘non-resident’

The MCS, GUS and Understanding Society can identify cohort children/ young sample members with a ‘long-term away’ father (birth, adoptive, foster or step) who:

- was included for research purposes as a ‘resident’ household member (and so as a ‘resident’ father of the child) at the previous sweep - he may at that point have been temporarily away from the child’s household for less than six months, and
- who is not included as ‘resident’ in the child’s household at the current sweep (for example because he has been away from the household for six months or more) and so is categorised as a ‘non-resident’ father.

The BCS childhood sweeps can identify cohort children who have a ‘long-term away’ father (including if he comes home for short periods) who is not included as a ‘resident’ household member but can be categorised as a father or “father figure”.

(ii) Group 1 Non-resident stepfathers: former cohabiting partners

In our definitions of relationship categories (section 1B), we defined a Group 1 non-resident stepfather as the former male cohabiting partner of a child’s birth/ adoptive parent who lived with the birth/ adoptive parent and child previously as a resident stepfather, and now maintains contact with the child.

- Only the MCS can identify cohort children who have a previously resident stepfather (resident part-time or full-time with the child at a previous sweep, and has since left the child’s household) with whom they remain in contact (but do not stay overnight ‘often’) at a subsequent sweep; and where the cohort child remains co-resident with their birth/ adoptive parent. This includes where the stepfather is ‘long-term away’ and categorised as ‘non-resident’ (can be differentiated); or becomes a non-cohabiting partner of the birth/adoptive parent.
- Other cohort studies and Understanding Society can, to varying extents, identify former cohabiting partners of a cohort child or young sample member’s ‘resident’ birth/ adoptive parent. Some former partners will have been resident with the cohort child/ young sample member (as a stepfather) at an earlier sweep in the study (see Table 14). Other former partners will have cohabited with the birth/ adoptive parent between sweeps (but not by the time of the subsequent sweep), or before the study began (for example in the LSYPE which began when cohort children were teenagers).
- However, these studies usually ask insufficient questions to identify whether a former cohabiting partner of a parent is a non-resident stepfather to the cohort child/ young sample member at the current sweep. With the exception of the subset of non-resident stepfathers identified in the MCS, the studies do not establish:

- whether the former partner is still alive;
- whether they remain in contact with the child;
- and (where not ‘resident’ at a previous sweep):
 - their “sex” or gender;
 - their relationship category (birth/ adoptive/ step/ foster) in relation to the cohort child/ young sample member;
- whether they previously lived with the child.

(iii) Group 2 Non-resident stepfathers: current cohabiting partners of a non-resident parent

In our definitions of relationship categories (section 1B), we defined a Group 2 non-resident stepfather as the current male cohabiting partners of a child’s non-resident birth/ adoptive parent (regardless of whether the cohabiting partner is called a ‘stepfather’ by family members) who is not himself a birth or adoptive father to that child, where the child and non-resident birth/ adoptive parent are in contact (but with no regular overnight stays, which would categorise the stepfather as part-time resident rather than non-resident). We said that this category of non-resident stepfathers is likely to apply to only a small proportion of dependent children (cf. adult children) as it is relevant only to those children with a non-resident birth mother in an opposite sex relationship, or with a non-resident father in a same sex relationship.

The second GUS birth cohort, the MCS and Understanding Society can (in at least one sweep) identify cohort children or young sample members whose ‘non-resident’ birth mother or father (with whom they are in contact but do not regularly or ‘often’ stay overnight) has a cohabiting partner who may be considered to be a ‘non-resident’ step-parent to the child. However, these datasets do not establish the “sex” or gender of the cohabiting partner. The majority will be ‘non-resident’ stepmothers when the ‘non-resident’ parent is (most commonly) a birth father.

On the basis of its ‘split-off’ households, Understanding Society can identify a small subset of young sample members whose non-resident step-parent (the cohabiting partner of their non-resident birth parent) is known to be male. However this small subset is subject to a high level of attrition, resulting in even smaller sample sizes and a likelihood of response bias (see Table 14).

(iv) Resident birth parents’ non-cohabiting partners

- GUS, the MCS and Alspac can (at some sweeps) identify cohort children whose resident mother has a ‘non-cohabiting’ male partner who is their birth father i.e the birth father does not cohabit with but is in an ongoing couple relationship with the child’s mother. These ‘non-cohabiting partner’ birth fathers may include ‘part-time away’, ‘minority overnight care’ and ‘long-term away’ fathers not counted as ‘resident’ in the child’s study household.

Understanding Society ‘split-off’ households: Limited potential to identify young sample members with...

...a Group 1 non-resident stepfather (former cohabiting partner)

Understanding Society can identify young sample members with a ‘resident’ stepfather at a previous sweep where either the young sample member (with their resident birth/adoptive parent) or the stepfather (without the birth/adoptive parent) subsequently moved out of the study household into a ‘split-off’ household retained in the study. If interviewed at the current sweep, the previously resident stepfather is asked about contact and overnight stays with all his ‘non-resident’ children aged under 16 years. So if he has other ‘non-resident’ children (birth and/or step), it is not established whether he and his newly non-resident step child/ren remain in contact, or have regular overnight stays (i.e. part-time resident rather than non-resident). The young sample member’s resident birth/ adoptive parent is asked about contact with a ‘non-resident’ birth/ adoptive parent, but not with a previously resident step-parent.

...a Group 2 non-resident stepfather (current cohabiting partner of a non-resident parent)

Understanding Society can identify young sample members who lived with their (now non-resident) birth mother or father at a previous sweep of the study, and one of them subsequently moved out into a new ‘split-off’ household retained in the study. The young sample member’s resident birth parent at the current sweep reports that the child sees their non-resident birth mother or father at least once a year but with no regular overnight stays. If the non-resident birth mother/ father and/or their cohabiting partner are interviewed at the current sweep, the “sex” of the cohabiting partner (a non-resident step-parent) can be established.

However, the parental separation rate per year is low (Bryson et al., 2017), and the response (retention) rates for ‘split-off’ households, and for ‘non-resident’ parents (Poole, 2016), especially following a relationship separation during the study (Bryson, et al., 2017), are low. So the category is likely to be small and subject to attrition bias.

- Alspac childhood sweeps can identify cohort children whose resident mother has a non-cohabiting male partner who is not the child’s birth father. We have not included these men as non-resident stepfathers (see section 1B), unless they are an adoptive parent, or a Group 1 non-resident stepfather (previously lived with the resident mother and child).

(v) Analytic implications of missing information about non-resident fathers and cohabiting partners

Where data is not collected about the characteristics of resident mothers’ former cohabiting partners or of non-resident parents’ current cohabiting partners, assumptions may be made

for some analyses about “sex”/ gender and (for former cohabiting partners within the child’s lifetime) that they lived with the cohort child as well as the mother, and are alive. Similarly, it may be reasonable to assume that fathers resident with the cohort child at previous sweeps and who have since moved out, and non-resident birth fathers not in current contact or paying child maintenance, are alive.

However, even when these assumptions are made, it isn’t possible to establish that a child has a non-resident stepfather unless a question is asked about current contact.

If sample sizes across several sweeps in a large longitudinal study are adequate, a question about the “sex” or gender of cohabiting partners of non-resident parents would enable analysis specifically of the small subset of children whose non-resident birth father lives with a male cohabiting partner i.e. children with a Group 2 non-resident stepfather.

Table 14: LONGITUDINAL STUDIES: Can cohort children/ young sample members with a 'non-resident' birth father or 'non-resident' stepfather be differentiated as separate categories in at least one childhood sweep?

	Cohort child/ young sample member with a...			
	Living 'non-resident' birth father	Non-resident' stepfather (Group 2) (current cohabiting partner of child's 'non-resident' birth/ adoptive parent)	Previously 'resident' stepfather no longer 'resident' in the child's household for reason other than death	Non-resident' stepfather (Group 1) (former cohabiting partner who moved out of the child's household and remains in contact)
LYSPE	(✓)*		✓	
GUS	✓	(✓)**	✓	
NCDS	(✓)***		(✓)	
BCS	✓		✓	
MCS	✓	(✓)****	✓	✓*****
Alspac	✓		✓	
USoc	✓	✓*****	✓	

✓✓=identifies these fathers (subject to respondents' disclosures and interpretations of questionnaire terms); ✓= identifies subset of these fathers; (✓)(tick/s in brackets) = subset identified if assumptions made.*No questions asked about 'non-resident' birth fathers so cannot identify that the father is alive; nor establish that he is known to have died unless he lived with the cohort child at an earlier sweep of the study.

**In second GUS birth cohort; Don't know "sex" or gender of cohabiting partner of 'non-resident' birth parent.

***Not known whether alive if reason given for not living with cohort child is divorce/ relationship separation. No questions asked about current contact or child maintenance.

****Don't know "sex" or gender of cohabiting partner of 'non-resident' birth parent.

*****When the stepfather was resident with the cohort child at an earlier sweep of the study.

*****Subset of young sample members with Group 2 'non-resident' stepfather. Subject to attrition bias.

Section 3F: Methodology and Survey Practice: identifying non-resident fathers of cohort children and young sample members

We have looked at whether the longitudinal studies identify and differentiate the non-resident fathers of cohort children and young sample members. Now we turn to the methodological reasons for this variation. We find examples of questionnaire content which might be adapted for future data collections to more adequately identify these fathers. Questions specifically identifying 'long-term away' fathers are discussed in section 3Ciii.

(i) Which questions identify non-resident fathers?

There are three main ways in which cohort children and young sample members with a ‘non-resident’ father (i.e. categorised as ‘non-resident’ in the datasets) can be identified in the longitudinal studies.

- **Questions** establishing that the child has a living or assumed living ‘non-resident’ birth father **at the time of a sweep interview**. These questions usually ask about contact with the child’s birth father, and also child maintenance, if the child is not ‘resident’ (in the study household) with their birth father. They usually have a code for the interviewer to record death if mentioned by the research respondent. None of the studies⁹⁸ ask directly whether the birth father is known to be alive at the time of the current sweep. Only a small proportion of the fathers will have died.
- Using **retrospective questions** (relationships histories, residence histories and past life events) to establish whether before the study began, between sweeps⁹⁹, or at previous sweeps, the child had a ‘resident’ father who is longer ‘resident’ with the child. Retrospective questions can also identify ‘resident’ fathers at the time of a sweep who have had periods of non-residence with the cohort child/ young sample member. Retrospective data is subject to recall biases.
- Examining **changes between sweeps** in the child’s ‘resident’ fathers, for example comparing household grid data, to identify fathers who were ‘resident’ at the time of a previous sweep but are no longer ‘resident’ with the child at a later sweep. Questions may be asked about changes to the child’s household since the previous sweep, for example the reason for an individual leaving it. This type of household change data can also identify birth fathers ‘resident’ at a current sweep who were not ‘resident’ at a previous sweep. Understanding Society is unique among the datasets we reviewed in tracking and interviewing leaving individuals in their new household.

The first and second of these identification methods can also be used in cross-sectional datasets to identify children with ‘non-resident’ fathers, although few repeat cross-sectional datasets include detailed retrospective questions. The third identification method is based on an analysis of longitudinal data, and so could not be carried out using a cross-sectional research dataset.

(ii) Retrospective questions

⁹⁸ See Toulemon and Pennec (2010) for a question that has been asked in the French version of the EU-SILC: “Is the father of [first name] still alive?”.

⁹⁹ There are a number of years between consecutive sweeps of the NCDS, BCS and MCS.

The retrospective data that can identify ‘non-resident’ fathers derives from different types of questions. In GUS, retrospective questions are limited, and do not cover the resident mother’s previous relationships, except for her relationship with the birth father.

- Some datasets include a **relationships history** module of questions about former cohabiting partners of the child’s resident parent, before the study began and/or between sweeps. This applies in the LSYPE (childhood sweeps), the MCS and Understanding Society, and to a limited extent in Alspac childhood sweeps (at one sweep). It is easier to ask detailed questions about past cohabiting relationships, and to tailor them according to responses in the previous sweep, in the more recent studies which use CAPI.
- Other datasets¹⁰⁰, for example the BCS and LSYPE childhood sweeps and GUS, include a **residence history**, asking who has lived with the child before the study began and/or between sweeps. The NCDS childhood sweeps ask about maternal separations between sweeps (i.e. between the cohort child and their main carer, nearly always their mother) but not about equivalent paternal separations.
- In GUS and in Alspac childhood sweeps¹⁰¹, there is a set of questions asking about a variety of past life events which may have occurred for the cohort child (GUS and Alspac) or their resident mother (Alspac) between sweeps. These life event questions identify parental deaths and recent family separations (divorces, other parental relationship separations and parent-child separations, including temporary non-residence of a parent in relation to the child’s home).

Collecting retrospective history data about the time before the study began, often in the first sweep, is most important in a longitudinal study that begins when cohort children or young sample members are in the teenage years, such as the LSYPE and Understanding Society. However, it also applies to the MCS and GUS where data collection started at nine/ ten months after the birth, rather than at birth (the NCDS and BCS) or in pregnancy (Alspac).

(iii) Examining changes between sweeps

When changes in household grid composition or ‘resident’ fathers between sweeps are examined, unique identifiers for individual household members are required to comprehensively identify that individuals have left or joined the child’s household. For example, a resident mother may have a different cohabiting partner at consecutive sweeps, and so the child will have a different resident stepfather at each of these sweeps.

¹⁰⁰ The first sweep of Understanding Society had a residence history for adult sample members, asking about living arrangements in childhood; but did not ask young sample members aged 11-15 for their residence history before entry into the study.

¹⁰¹ There is one life event question in the childhood BCS asking about the ‘reasons for any past changes in [the cohort child’s] circumstances’. In sweep 2 (age 7) of the NCDS, the health visitor recorded ‘family difficulties’

The recent longitudinal studies all use a unique ‘person number’ for each individual in the

Examining household changes in the earlier cohort studies

- For changes between the age ten and age 16 sweeps, the BCS collected the date of birth of household members. These can be matched across sweeps, although this is not as accurate as the use of person numbers.
- Similarly, Alspac partner questionnaires asked for the partner’s date of birth. However, the carer questionnaires did not collect identifiers for household members. The 8 months sweep of the carer questionnaire asked which household changes had taken place if any.

household grid which is carried over from one sweep to the next. This is facilitated by the use of CAPI rather than paper questionnaires.

(iv) Methodology in identifying non-resident stepfathers

We discussed in section 3Eii that the longitudinal studies cannot usually identify whether a former cohabiting partner of a resident birth/ adoptive parent, or a current cohabiting partner of a non-resident birth/ adoptive parent, is a non-resident stepfather to the cohort child/ young sample member according to our definitions. Questions about non-resident birth/ adoptive parents do not establish the “sex”/ gender of any current cohabiting partner of this parent. The residence and relationship histories, life event questions, and household grid questions about individuals leaving the cohort child/ young sample member’s household (since the previous sweep) do not establish all of the following details:

- o whether a former cohabiting partner or previously resident step-parent is alive at the time of a sweep;
- o whether they remain in contact with the child;

and (if not using household grid data when resident at a previous sweep):

- o the “sex” or gender;
- o their relationship category in relation to the cohort child/ young sample member;
- o (when using data from relationships histories and life event questions) whether they previously lived with the child as well as with the resident birth/ adoptive parent.

It is easier when using CAPI, such as in the more recent studies, to ask these types of questions by tailoring them to specific household and relationship changes mentioned in the interview, than when using paper questionnaires in earlier studies.

Sometimes the datasets establish instead whether:

- o a previously resident stepfather left the child's household because they died, or for some other reason such as divorce or relationship separation (for example in the BCS, LSYPE and MCS);
- o a resident birth/ adoptive parent's cohabiting relationship ended due to death, or another reason such as divorce or relationship separation (for example in the MCS).

This does not give information on whether the individual is still alive by the time of a later sweep, although deaths will be rare so assumptions may often be made for analysis.

Resident birth/ adoptive parents may mention the death of their partner or of the cohort child's father, and divorces or other relationship separations, in the life event questions, or in response to questions asking about past household changes. This applies in GUS and in Alspac childhood sweeps. However, these events cannot be linked accurately to specific individuals.

Precedents in the longitudinal studies for asking details about former cohabiting partners and previously resident stepfathers

- The age five and seven sweeps of the MCS asking about the "sex" of former cohabiting partners. These sweeps also asked the cohort child's resident mother whether their former cohabiting partner was a birth father, adoptive father, foster father or stepfather in relation to the cohort child. These questions were not continued into the age 11 sweep. Similarly, Understanding Society and adulthood sweeps of the NCDS and the BCS ask about the "sex" of a current non-cohabiting partner. The adulthood NCDS and BCS ask about the "sex" of the adult cohort member's former partners when identifying cohabiting relationships since the previous sweep.
- The MCS has established at some sweeps whether a stepfather who was 'resident' with the cohort child at the previous sweep but has since left the household, is still alive and remains contact with the cohort child at the time of the sweep. The MCS does not however ask equivalent questions in relation to former cohabiting partners of the mother who have been identified through retrospective relationships history questions.
- The MCS asks in the relationships history (age 11 sweep) whether the resident mother and her former cohabiting partner/s were living with the cohort child at the time of cohabitation. In contrast, in the LSYPE, the cohort child's resident mother is not asked this question in the relationships history module. In other cohort studies, dates can be matched but these will be subject to recall errors and potentially biases.
- Understanding Society endeavours to find out whether individuals who have left a study household since the previous sweep) are still alive at the time of the subsequent sweep, for example using death registrations data. The aim is to trace them for fieldwork in their new 'split-off' household unless they are deceased, they have left the UK, or they are in prison.

(v) Who identifies non-resident fathers in the longitudinal studies?

Most commonly, the questions which allow researchers to determine whether cohort children or young sample members have a ‘non-resident’ father are asked in the interview with the child’s resident birth mother. The exception is the data from household grid questions, which may be obtained from another household member in the MCS, LSYPE and Understanding Society, as discussed above in Section 3Civ relating to identifying resident fathers.

Section 3G: Collecting data in childhood about non-resident fathers of cohort children and young sample members

(i) Direct data collection from non-resident fathers

None of the cohort studies we examined has set out to collect data in their childhood sweeps directly from the non-resident fathers of cohort children. This has led to a lack of data collection from ‘equal overnight care’ fathers and ‘minority overnight care’ fathers categorised as ‘non-resident’ but whom we have defined as part-time resident. We have seen that in cases of ‘equal overnight care’, it is generally the cohort child’s mother’s household which is the sole site of data collection. Consequently much more data is collected about (and directly from) resident stepfathers than about (and directly from) non-resident and ‘minority/ equal overnight care’ birth fathers. The lack of fieldwork with cohort children’s non-resident fathers applies to cohort studies internationally (Kiernan, 2014).

Collecting data from ‘non-resident’ fathers

- Alspac collected data in childhood directly from mothers’ non-cohabiting partners (including ‘non-resident’ birth fathers) through the partner questionnaires. However, questions in the published questionnaires do not differentiate at all early sweeps whether the partner completing the questionnaire is cohabiting with the mother and so, if not a birth father, meets our definition of a stepfather.
- Alspac’s Focus on Fathers project is now collecting data directly from birth fathers who are not the cohort child’s mother’s partner when the child is in young adulthood. A proportion of these fathers will have been non-resident in childhood.
- GUS considered interviews with ‘non-resident’ parents (Bradshaw et al., 2008) but decided against based on the experience of other studies, including those in the US.
- The MCS trialled postal questionnaires to involved ‘non-resident’ fathers for the age five sweep but report being unsuccessful with a 14% response rate to a postal survey, although 77% of mothers did give contact details (Calderwood, 2010).

Dependent children whose birth/ adoptive parents do not live together may have two households in which they regularly stay overnight (are part-time resident) or in which they have substantial daytime care. In terms of the long-term effects of childhood experiences¹⁰², these children's protective and risk factors include those associated with both households. Disentangling genetic and environmental effects of parents on children's characteristics, health and behaviours may require collecting genetic samples from non-resident and part-time resident biological fathers, as well as from resident biological fathers.

In contrast, the discontinued Life Study was to be the first UK birth cohort to collect such data from non-resident fathers, including genetic samples. The Nuffield Foundation funded a report of the development work carried out in anticipation of recruiting resident and non-resident fathers during pregnancy and the cohort child's first year (Kiernan, 2016).

As mentioned in Section 1A, Understanding Society is the only ongoing UK large-scale longitudinal study that aims to track eligible sample members who leave study households, and interview them and members of their new 'split-off' household, for example following relationship separation. So, despite not being designed as a study of child development, Understanding Society aims to collect data directly from subsets of the 'non-resident' fathers (including 'minority overnight care' fathers) of young sample members.

Firstly, from men who are 'resident' with their child/ren in a study household (in line with the study's household inclusion rules) and become categorised in a later sweep as 'non-resident' in relation to at least one previously resident child (who is also a sample member), including where there are regular overnight stays, or when an adult child has left their household. These non-resident fathers include birth, adoptive and step fathers. Secondly, from any new cohabiting partners of these 'non-resident' / previously 'resident' birth or adoptive parents, whom we have defined as non-resident stepfathers (Group 2) where contact is maintained between the two households

For a child whose birth/ adoptive parents separate during the study and subsequently the child has regular overnight stays with each of them, Understanding Society attempts to collect data symmetrically from each of the two households in which the child resides part-time.

However, this potential of 'split-off' households is restricted in practice. The annual separation rate for two-parent families with dependent children is around two per cent (Bryson et al., 2017). Even though using face-to-face interviews, extensive tracing of sample members who have moved, and with trained interviewers encouraging sample members to participate, there is a low response rate reported for 'split-off' households. In this fifth sweep, 70% of 'original households' (productive at the previous sweep) were fully productive in fieldwork (with 7% refusing and 1% no contact). Yet only 36% of 'split-off' households (productive at the previous sweep) were fully productive (with 22% refusing and 21% no contact). Only a small proportion of the non-resident parents of dependent children remain

¹⁰²A scientific priority for future studies under consideration in the ongoing Longitudinal Studies Review is the "long-term effects of childhood experience".

in the study following a relationship separation (Bryson et al, 2017). This creates potential for attrition bias in the achieved small samples, for example for example under-representing those fathers with little or no contact with their children (Peacey and Hunt, 2008a/b; Bryson et al., 2017).

(ii) Data collected about non-resident fathers from other research respondents

With the exception of the LSYPE, the cohort studies have collected varying amounts of data about cohort children's 'non-resident' birth fathers from resident birth mothers¹⁰³. Data about mothers' former cohabiting partners and cohort children's previously 'resident' fathers has also been collected from resident mothers in relationship and residence histories. Understanding Society and the MCS (age 14 sweep) have collected data about 'non-resident' birth fathers from their children (young sample members and cohort children). The MCS has collected data about previously resident stepfathers who moved out of the cohort child's household during the study.

When cohort children or their teachers are asked about the child's 'father' in the NCDS and BCS childhood sweeps, earlier MCS childhood sweeps, and Understanding Society, it is not always stated whether the children or teachers can answer questions in relation to any father, whether resident or non-resident, and include a stepfather if that applies. The research respondent is not asked to code which father/s they refer to in their response¹⁰⁴.

The breadth of information that resident mothers are asked to provide about 'non-resident' fathers varies greatly across datasets. GUS and Understanding Society each ask at least 15 questions per sweep about 'non-resident' fathers, including child maintenance and agreements in detail, whereas the other studies have asked a smaller number of questions. Alspac childhood sweeps have collected a great number of survey variables from mothers about their non-cohabiting partners, but have asked only three questions per sweep about 'non-resident' birth fathers who are not the mother's current partner. These differences in data collection are likely to be influenced by differing historical periods.

Even more than with data about resident fathers, collecting data about non-resident fathers from resident mothers is methodologically weak (Kiernan, 2016). It may be especially problematic for issues such as the father's contact with the children and co-parental decision-making (Peacey & Hunt, 2008a/b; Bryson et al, 2017), where both mother and father may be biased in their responses and memories. It can create systematic bias or item non-response in factual data such as the age, employment and health of non-resident fathers. Additionally, resident mothers cannot provide the non-resident father's perspective on his relationship with and feelings towards the cohort child, nor in-depth reports of joint activities and fathering interactions when she is not present.

¹⁰³ Alspac later childhood sweeps also asked the resident mother's current partner about the cohort child's non-resident birth father.

¹⁰⁴ Whether the cohort child has a non-resident birth/ adoptive father, resident birth/ adoptive father and/ or resident stepfather may be known from other questions.

Section 3H: Cohort members and sample members as fathers in the longitudinal studies: resident and non-resident

In this section of our working paper, we look at identifying and collecting data in the longitudinal studies from those **cohort members and sample members who, as teenagers and adults, are fathers themselves**. We focus on Understanding Society, and the four cohort studies in which (at the time of our dataset investigations) cohort members had grown into adulthood. These are the NCDS, the BCS, Alspac and the LSYPE.

The terms 'cohort member' and 'sample member' in this section refer to those who are male, unless otherwise specified.

As in the rest of this paper, we use quotation marks around **'resident'** and **'non-resident'** when referring to the identifiable category in a dataset which does not comprise solely resident or solely non-resident fathers according to our definitions (see the glossary in the introduction).

(i) Collecting data about resident and non-resident fathers among cohort members and sample members

'Resident' and 'non-resident' fathers can be identified among teenaged and adult cohort members and sample members in the five longitudinal studies we reviewed.

- The four cohort studies have collected a wealth of data about these cohort members-who-become-fathers, following their development and contextual factors from pregnancy (Alspac), infancy (the NCDS and BCS) or the teenage years (the LSYPE) into adulthood.
- Understanding Society has collected data about these fathers' circumstances, attitudes and behaviours at each sweep, and also retrospective data on their childhoods and earlier lives.
- Data collected about fathers covers a wide range of topics, including family and romantic relationships, physical and mental health and wellbeing, health behaviours, education, social and political attitudes, and economic activity. As in the cross-sectional datasets, much of this data is not about parenthood or children, and is collected regardless of the cohort member's or sample member's parental status.
- There are varying amounts of data collected in relation to the adult cohort member's or sample member's children and family life, including the cohort member or sample member's attitudes and behaviours concerning parenting and family relationships.

There is the potential in all these datasets for cross-sectional and longitudinal analyses:

- comparing fathers and non-fathers at a specific point in time and longitudinally, including for specific age cohorts, where sample sizes allow

- analysis of fathers according to their characteristics and earlier lives, including their own family circumstances and parents during childhood
- linking data about the fathers with data about their children and, where relevant, cohabiting partner and other family members in adulthood.

Longitudinal analyses for certain subsets of fathers may be limited or precluded by small sample sizes, and low response rates or high drop-out from the study (see Poole et al., 2016 and Bryson et al., 2017). Attrition from longitudinal studies often results in more disadvantaged cohort members and sample members dropping out, so limiting the representativeness of the resulting sample for analysis (see Sigle-Rushton, 2005).

As we discussed in Section 2D in relation to identifying non-resident fathers in cross-sectional datasets, non-resident fathers, especially those with no or little contact with their children, may be reluctant to identify themselves as such (Berrington et al, 2005; Poole et al, 2013a/b), and may be less likely to participate in dataset sweeps. The resulting samples of non-resident parents are subject to response bias (in the first sweep) and attrition bias. There is methodological work in progress to see whether the proportion of Understanding Society sample members who self-identify as a non-resident parent can be improved (Bryson et al., 2017).

(ii) Data collected about these fathers

Data has been collected directly from cohort members or sample members in all these longitudinal studies.

- Cohort members and sample members have completed interviews, questionnaires and diaries (depending on the dataset) from later childhood or the teenage years onwards in the cohort studies; and from age 10 in Understanding Society for adult sample members who have been in the study at earlier sweeps as young sample members (dependent children).
- Most of the studies have collected cohort members or sample members' physical measurements and other biomedical and genetic data. They have carried out medical examinations, psychological and behavioural assessments, and educational and developmental assessments of the cohort members or sample members over the childhood years and/or in adulthood.

Data about the cohort members and sample members has also been collected from **other research respondents**, including:

- o their resident mothers in childhood (cohort childhood sweeps, and if a young sample member in earlier sweeps of Understanding Society)
- o their resident fathers in childhood (childhood sweeps of the LSYPE and Alspac, and if a young sample member in earlier sweeps of Understanding Society)
- o health practitioners and teachers (cohort childhood sweeps)

o their own cohabiting partners and resident children (cohort adulthood sweeps, and Understanding Society); and other household members ¹⁰⁵(including any resident parents of the sample members) in adulthood (Understanding Society).

Other data about the cohort members and sample members (in childhood and adulthood) is taken from linked administrative and statistical records, such as birth and death registrations, health records (including pregnancy/ birth records), educational records, economic/ employment/ benefit receipt, and area-based socio-demographic Census data.

(iii) Data collected about these fathers' children and other family members

To varying extents across these five longitudinal studies, there is potential for cross-sectional and longitudinal analyses to relate the characteristics, attitudes and behaviours of the fathers among cohort members and sample members to data collected about these fathers' own children, cohabiting partner (where relevant), and other family members.

The children of cohort members and sample members

- The NCDS and BCS adulthood sweeps have collected a much narrower set of information about cohort members' 'resident' children than about their 'non-resident' children. This mirrors the much greater amount of data collected in all the cohort studies about cohort children's resident fathers than about their non-resident fathers.
- These two studies have collected rich data about cohort members' children and parenting/ family relationships in the early years and primary years, but much less data about cohort members' teenaged and adult children. These studies each had a sweep (at ages 33 and 34 years respectively) focused on collecting data about cohort members' 'resident' birth/ adopted children when most of these children were in the primary years. The NCDS collected this data primarily from male cohort members' female partners, whereas the BCS collected this data primarily from cohort members regardless of their "sex" and how involved they were in caring for the children.
- Alspac's ongoing Children of the Children of the 90s (G2/ COCO90s) study, is collecting in-depth longitudinal data (including developmental assessments and biomedical samples) from pregnancy and in subsequent years about the children of cohort members. Information for cohort members and their partners taking part in the study (available at the time of writing) suggests that fathers (male cohort members, and the male partners of female cohort members) will receive questionnaires at a smaller number of infancy/ early childhood sweeps than will the mothers (female cohort members, and the female partners of male cohort members).

¹⁰⁵ Including shorter proxy interviews with their partner or another household member in Understanding Society when the sample member cannot be interviewed ("only as a last resort", and carried out for 6% of adults eligible for a full interview in a responding household in sweep 1). This includes data about temporarily non-resident 'long-term away' sample members who have been counted as 'resident' in their child/ren's household (the study household), for example if they are away for less than six months.

The children of cohort members and sample members

With the exception of the LSYPE¹⁰⁶, the cohort studies have collected data about cohort members' 'resident' and 'non-resident' children.

In Understanding Society, the 'resident' children of teenaged and adult sample members (i.e. living in the same "main" household) are themselves sample members. A full set of data is collected directly from any 'resident' adult children of (adult) sample members. A more restricted set of data is collected about:

- the 'resident' dependent children of teenaged and adult sample members, including questionnaires completed by children aged 10-15 years (young sample members)
- the 'non-resident' adult children and dependent children of adult sample members (the Family Networks question module):- fewer survey variables are collected than about 'resident' children of sample members, unless a sample member ceased to live with his 'resident' child/ren during the study (see the text box below).

Understanding Society 'split-off' households: Potential for a fuller set of data about 'non-resident' (previously 'resident') children of sample members

As we have discussed in relation to the fathers of young sample members (sections 2E and 2F), if an adult or teenaged sample member and his child/ren (dependent or adult) in Understanding Society were co-resident in a study household at a previous sweep, but are no longer primarily living together at a subsequent sweep, both the newly 'non-resident' father (the adult/ teenaged sample member) and his newly 'non-resident' child/ren remain sample members and are tracked into new addresses ('split-off' households). Data will continue to be collected at subsequent sweeps from the father and from the child/ren, subject to tracing and response. The study also aims to collect a full set of data from any other individuals (including new cohabiting partners and/or dependent children) counted as 'resident' in the father's and child/ren's households.

However, response (retention) rates for 'split-off' households are low. Additionally, in relation to 'non-resident' dependent children, the parental separation rate per year is low (Bryson et al., 2017), and the response rate for 'non-resident' parents is low (Poole, 2016), especially following a relationship separation during the study (Bryson, et al., 2017). So samples will be small and subject to attrition bias.

NOTE: This sample is subject to high attrition/ low sample numbers: see Bryson, 2017.

¹⁰⁶ The teenage and young adulthood sweeps of the LSYPE until cohort members were aged 19-20 years collected information only about whether cohort members' "own" (birth) child/ren are 'resident'. We did not examine the age 25 sweep because the final version of the questionnaire was not available at the time of our dataset investigations.

Other family members

- Data was collected in childhood sweeps of the cohort studies about cohort members' mothers and (to a lesser extent) fathers during childhood, both 'resident' and (to a much lesser extent) 'non-resident'.
- In Understanding Society, if a teenaged or adult sample member was a young sample member at an earlier sweep, extensive data would have been collected about all members of his childhood "main residence" including 'resident' parents and siblings; and, to a lesser extent (unless he ceased to live with his parent/s during the study), about a 'non-resident' birth or adoptive father or mother during childhood.
- Retrospective data about their fathers, mothers and any parental relationship separations during childhood has been collected from adult cohort members and sample members in the BCS, the NCDS and Understanding Society.
- Understanding Society, the NCDS and the BCS ask about adult cohort members or sample members' 'non-resident' fathers and mothers at the time of (adulthood) sweeps, for example in terms of contact, care, and help given and received.
- Understanding Society collects a wealth of data about parents with whom sample members are 'resident' in adulthood, for example as young adults. The cohort studies collect more limited data about cohort members' 'resident' parents in adulthood.

(iv) Identifying and differentiating fathers among cohort members and sample members

We focus in Section 3H(ii) on those issues specific to identifying fathers among cohort members and sample members in the longitudinal studies, or where Understanding Society and the adulthood sweeps of the cohort studies offer precedents for potential use in future data collections.

The age at which male cohort members are first asked whether they are a parent (birth, resident and/or non-resident, depending on the dataset) varies across the cohort studies.

Four of the longitudinal studies ask adult cohort members or sample members for a 'fertility history' - a set of questions (including date of birth) about all children they have 'fathered'. These questions therefore identify birth fathers (resident and non-resident), including fathers of children who have died (including stillbirths). The fertility histories can retrospectively identify those who were birth fathers during the teenage years, although fatherhood during the youngest teenage years (under 16 years) will have been rare (see Sigle-Rushton, 2005).

As in the cross-sectional datasets, a proportion of cohort members and sample members who are fathers according to our definitions may not be identified as such. This is most likely if they are a 'part-time away' father, 'long-term away' father or non-resident stepfather in relation to their (current/former) partner's birth/ adoptive child/ren (in a household not participating in the research) with whom they co-reside part-time or are in contact, but do not perceive a 'parental' or 'step' relationship.

Questions about parenthood and biological children

- The LSYPE and Alspac first asked cohort members whether they were a parent (a birth parent in the LSYPE) when cohort members were aged 16. The NCDS and the BCS first asked cohort members whether they were a birth parent at ages 23 and 26 respectively.
- A fertility history is first collected at age 23 in the NCDS, age 30 in the BCS and age 21 in Alspac.
- Understanding Society asks adult sample members aged 16 years and over for a fertility history at the first sweep in which they participate. Questions also ask about adoptive and step children with whom the individual previously lived.

Terms used when asking about birth children include ‘own child’, ‘natural child’ and ‘biological parent’. The first two of these terms are used in the recent adulthood sweeps of the NCDS, BCS and Understanding Society. It could be that they are more meaningful ‘lay language’ to the cohort members in interviews than ‘birth child’ or ‘biological child’¹⁰⁷, but their meaning may be unclear. Certain adulthood sweeps of the NCDS and BCS have an interviewer instruction “only code CM’s natural child here” for “own child”.

(v) Identifying a broad-brush category of fathers

We saw earlier that only BSA among the repeated cross-sectional datasets has asked a single broad-brush ‘declared parenthood’ question which can establish broad ‘father’ and ‘non-father’ categories among research respondents.

Three of the longitudinal studies (Alspac, the BCS and the NCDS) have asked cohort members a similarly broad question about whether they are a parent or have a living child, with resident fathers, non-resident fathers, birth fathers, adoptive fathers, foster fathers, stepfathers, adult children and dependent children within scope. Understanding Society asks almost the same question as previously used in BSA, but restricts its scope to non-resident children.

As in BSA, these ‘declared parenthood’ questions cannot identify as fathers those cohort members whose cohabiting partner has resident or non-resident children to whom the cohort member does not regard himself as a ‘stepfather’ or ‘parent’, unless the cohort member has other children.

As we shall see in the following sections, the BCS and NCDS ask detailed questions about the cohort member’s children to identify resident fathers, non-resident fathers, and fathers in different relationship categories. Alspac asks the ‘catch-all’ parenthood question to screen

¹⁰⁷ Using the terms “biological parent” and “natural parent” may exclude small numbers of birth fathers (named on birth certificates) who are known not to be biological parents but have met legal requirements for birth registrations.

cohort members for participation in the Children of the Children of the 90s study (G2/ COCO90s).

Broad-brush identification of fathers in longitudinal studies

Alspac questionnaire at age 23 years: “Are you a parent? (include biological, step, foster and adopted children)”

NCDS interview at age 55 years “Do you have any [other] children? Please include any adopted children, step-children or foster children of whom you consider yourself to be a parent. Please include grown up children.”

Understanding Society: “Excluding relatives who are living in this household with you at the moment, can you tell me which of these types of relatives you have alive at the moment? Include step/ adoptive/ half relations.” Son(s)/ daughter(s).

(vi) Questions identifying resident fathers

According to our definitions (see section 1B), if the questions asked can identify that a male cohort member/ sample member and/or their cohabiting partner (living full-time or part-time in their household) has a parental relationship to at least one child (dependent or adult) who lives full-time or part-time in that household, then that cohort member or sample member can be categorised as a resident father (including ‘other cohabiting partners’).

In these five longitudinal studies, it is possible to identify ‘resident’ fathers among cohort members and sample members through a combination of:

- household grid questions identifying relationships between the cohort member/ sample member and other household members¹⁰⁸:- ‘other cohabiting partners’ can be identified as ‘resident’ fathers when the dataset sweep includes a full relationships grid¹⁰⁹ and/ or uses relationship codes incorporating ‘parent’s partner’ and/or ‘partner’s child’¹¹⁰, as detailed in section 2C for the cross-sectional datasets

¹⁰⁸ Individuals included for research purposes as members of the study household, taking into account the dataset’s specific household inclusion criteria and definitions.

¹⁰⁹ With a partial relationships grid, an assumption could be made for some analyses that when a cohort member lives only with his cohabiting partner and household member/s under the age of 16 or 18, but does not declare parenthood (birth, adoptive, foster, step) in relation to these dependent children, that the cohort member is an ‘other cohabiting partner’. Such an assumption would not identify cohort members who are ‘other cohabiting partners’ in relation to their partner’s adult children (e.g. young adults remaining in their parent’s home).

¹¹⁰ Understanding Society has a full relationships grid and uses the term “step-parent”. Adulthood sweeps of the NCDS and BCS have a partial relationships grid but use the inclusive terms “child of current spouse/ partner” and “child of previous spouse/ partner”.

- questions asking whether the children of the cohort member or sample member who have been identified through a ‘declared parenthood’ question or a fertility history¹¹¹ are ‘resident’ or ‘non-resident’.

These questions are in the interview with the cohort member or sample member, or (in Understanding Society) the household grid respondent.

We have not documented household inclusion criteria, nor study definitions of ‘household’, ‘main household’ and ‘usual address’. These vary across the five datasets where specified in published documentation. As in the cross-sectional datasets, these criteria and definitions, combined with the household grid respondent’s assessments, may lead to:

- the identifiable category of ‘resident’ fathers (among cohort members and sample members) including subsets of temporarily non-resident ‘long-term away’ fathers and fathers of ‘long-term away’ children (for example, if away for less than six months); but excluding subsets of part-time resident fathers
- the identifiable category of ‘non-resident’ fathers (among cohort members and sample members) including these subsets of part-time resident fathers, but excluding these subsets of temporarily non-resident fathers.

(vii) Questions identifying non-resident fathers

Depending on the dataset and sweep, ‘non-resident’ fathers (including ‘non-resident’ stepfathers) among cohort members and sample members can be identified through:

- questions asking whether the children of the cohort member or sample member who have been identified through a ‘declared parenthood’ question or a fertility history¹¹² are resident or non-resident
- questions asking whether the cohort member or sample member (or their cohabiting partner) has any ‘non-resident’ children (living in a separate household), as in the cross-sectional datasets
- combining information from a ‘declared parenthood’ question (identifying fathers) with information from household grid questions (identifying ‘resident’ fathers) to identify ‘non-resident’ fathers with no ‘resident’ children
- using longitudinal data on children leaving the cohort member’s/ sample member’s household between sweeps to identify ‘resident’ fathers (at earlier sweeps) whose children have become ‘non-resident’ by a subsequent sweep.

However, in order to identify cohort members and sample members as ‘non-resident’ fathers, it is necessary to know whether ‘non-resident’ or previously ‘resident’ children are alive at a

¹¹¹ Or, in Understanding Society, questions asking about adoptive and step children with whom the sample member previously lived.

¹¹² Or, in Understanding Society, questions asking about adoptive and step children with whom the sample member previously lived.

subsequent sweep (could be assumed to be the case) and, for ‘non-resident’ or previously ‘resident’ stepchildren, whether the adult and children remain in contact. This information is not always collected¹¹³.

(viii) Differentiating relationship and residence categories

The longitudinal studies (see Table 15) differ widely in the extent to which they differentiate relationship and residence categories among cohort members and sample members who are fathers.

The NCDS, the BCS and Understanding Society can separately identify the following categories of fathers in at least one sweep:

- ‘Resident’ fathers in different relationship categories i.e. ‘resident’ birth fathers (“your own child” in the NCDS and BCS); ‘resident’ married and cohabiting (non-married) stepfathers¹¹⁴ (‘declared stepfathers’ and ‘other cohabiting partners’ together¹¹⁵ in one category); (resident) foster fathers; and ‘resident’ adoptive fathers;
- ‘Non-resident’ fathers in different relationship categories i.e. ‘non-resident’ birth fathers; ‘non-resident’ adoptive fathers; and subsets of Group 1 and Group 2¹¹⁶ ‘non-resident’ stepfathers;
- Fathers categorised as ‘resident’ fathers¹¹⁷ who also have children assessed (for research purposes) as living at another address;

¹¹³ Questions in Understanding Society’s Family Networks module about contact with and overnight stays of non-resident children are not child-specific, nor linked to fertility/ adoption histories/ questions about previously resident stepchildren. They do not ask whether the non-resident children are birth, adoptive and/or step children.

¹¹⁴ Married and cohabiting (non-married) ‘resident’ stepfathers can be differentiated in these three studies. In the NCDS and BCS, ‘declared stepfathers’ cannot be differentiated from ‘other cohabiting partners’. Recent adulthood sweeps of the NCDS and BCS include as ‘stepfathers’ those men whose stepchild (‘resident’ or ‘non-resident’) is the child of their former partner, and can usually differentiate children of current partners from children of former partners.

¹¹⁵ Understanding Society has “step-parent” and “step son/ daughter” codes (household grid) to identify ‘declared stepfathers’ (no mention of children of partners or parent’s partner), and in principle can separately identify ‘other cohabiting partners’ through the full relationships grid. However, in Understanding Society (as in the cross-sectional datasets), the interview respondent may be guided by an interviewer instruction to “treat relatives of cohabiting members of the household as though the cohabiting couple were married”.

¹¹⁶ Married and cohabiting (non-married) Group 2 ‘non-resident’ stepfathers can be differentiated.

¹¹⁷ As we have seen, this identifiable category of ‘resident fathers’ is likely to include a proportion of ‘long-term away’ fathers and fathers of ‘long-term away’ children i.e. temporarily non-resident fathers.

- Fathers who are ‘long-term away’ or whose children are ‘long-term away’ (for example, for less than six months) from the study household in which the cohort member or sample member is categorised as ‘resident’ with his children;
- Fathers who have lived previously (assessed as ‘resident’) with currently ‘non-resident’ children.

In questionnaires available at the time of our dataset investigations, the LSYPE¹¹⁸ and Alspac had not asked questions which enable detailed differentiation of residence and relationship categories. Cohort members were too young to adopt or foster children at that time. A greater degree of differentiation may be possible for Alspac cohort members who agree to participate in the Children of the Children of the 90s (G2/ COCO90s) study. The G2 questionnaires were not available at the time of writing.

Differentiation of categories of fathers in the LSYPE and Alspac

- The LSYPE sweeps from age 17/18 to 19/20 years identify only birth fathers (“children of your own”) among cohort members.
- Both Alspac and the LSYPE identify ‘resident’ birth fathers in at least one sweep. They can identify ‘non-resident’ birth fathers who have no ‘resident’ birth children.
- Alspac can identify ‘declared stepfathers’ (resident or non-resident) in at least one sweep, but not ‘other cohabiting partners’. It may be possible to separately identify ‘resident’ stepfathers if free text household grid data has been coded as such.

Overnight care fathers

For the most recent NCDS and BCS adulthood sweeps in our review, a specific rule in questionnaires states that dependent children “where custody is shared between you/ respondent and an ex-partner” are to be included in the cohort member’s household for research purposes. If this instruction is interpreted by the cohort member as referring to any regular overnight stays, cohort members in these two studies who are ‘overnight care’ fathers (minority, equal or majority) would all be identified as ‘resident’ fathers, in contrast to most of the repeated cross-sectional datasets and Understanding Society. However, the term might be interpreted as referring just to those children with ‘equal overnight care’, or those with formal agreements or court orders for shared care or overnight stays; and may exclude ‘overnight care’ children of the cohort member’s cohabiting partner (see the next section on ‘non-resident’ stepfathers).

In Understanding Society, dependent children who regularly stay overnight part-time with a (birth/ adoptive) parent in a study household are included in the study only if the study household has been assessed (by the household grid respondent) to be their ‘main

¹¹⁸ Until cohort members were aged 19-20 years.

residence' (spending the most time there in the last six months¹¹⁹). This means that an adult sample member who is an 'overnight care' father will most likely be identified as a 'resident' father if his child lives with him in the study household for a majority of nights ('majority overnight care' fathers), and possibly also in cases of 'equal overnight care' (no published rule¹²⁰ found). The larger category of 'minority overnight care' fathers will be identified as 'non-resident' fathers.

We could not find equivalent published household inclusion rules on 'overnight care' children for the young adulthood sweeps of Alspac or LSYPE.

It is not possible to separately identify 'overnight care' fathers among adult cohort members in any of the four cohort studies. Questions are not asked about whether the cohort member's 'non-resident' dependent children (where identified) stay overnight with him, nor whether his 'resident' dependent children stay overnight with a 'non-resident' birth/ adoptive parent. Despite the relevant household inclusion rule, adulthood sweeps of the NCDS and BCS ask about the frequency with which a dependent child sees their 'non-resident' parent, but not about overnight stays.

Understanding Society can be used to separately identify 'overnight care' fathers (categorised by the dataset as 'resident' and/or 'non-resident'), with differentiation of 'majority overnight care', 'equal overnight care' and 'minority overnight care', as detailed in section 3B(iii) for the fathers of young sample members. Those 'overnight care' fathers categorised as 'resident' (mainly 'majority overnight care') can be differentiated in terms of their relationship (birth/ adoptive/step) to the part-time resident child/ren. Identification of different categories of 'overnight care' is subject to a caveat that there are differences in estimates of the prevalence of regular overnight stays (and of contact more generally) derived from interviews with 'resident' parents (mainly mothers) and interviews with 'non-resident' parents (mainly fathers) (Peacey & Hunt, 2008a; Wilson, 2010; Bryson et al., 2017), with less frequent overnight stays derived from mothers' reports.

Non-resident stepfathers

The adulthood sweeps of the BCS and the NCDS can identify subsets of 'non-resident' stepfathers among cohort members, both Group 1 (former cohabiting partners) and Group 2 (current cohabiting partners of a non-resident parent). Definitions of these categories are given in section 1B.

Depending on the respondent's interpretation of the household inclusion rule stating "where custody is shared" (see above), a proportion of these 'non-resident' stepfathers may be part-time resident with stepchild/ren who regularly stay overnight in the cohort member's household (likely to be 'minority overnight care'). This may in particular apply to Group 2 'non-resident' stepfathers (cohort members) whose current cohabiting partner is a 'minority

¹¹⁹ Subject to sweep-specific instructions. This rule does not specify whether assessing the amount of time spent at the address is to take account of both daytime care and overnight stays.

¹²⁰ There may be internal documentation used by interviewers to guide respondents that we did not access for our review.

overnight care' birth or adoptive parent of dependent children. These part-time resident 'overnight care' stepfathers cannot be separately identified.

Subsets of 'non-resident' stepfathers identified in the BCS and NCDS

Group 1: former cohabiting partners (of a birth/ adoptive parent)

Recent adulthood sweeps can identify male cohort members who consider themselves to be a parent or guardian to a 'non-resident' child of a former partner (not the cohort member's birth or adoptive or foster child), where they previously lived with the child and currently see them. Earlier adulthood sweeps asked about current contact only for 'non-resident' birth ("natural") children of the cohort member, and for 'non-resident' children of the cohort member's current cohabiting partner from the partner's "previous relationship" (see Group 2 below).

Group 2: current cohabiting partners of a non-resident birth/ adoptive parent

Adulthood sweeps can identify cohort members whose current cohabiting partner has a 'non-resident' child (identified as the partner's birth/ adoptive child in the most recent BCS sweep) who is not the cohort member's birth or adoptive or foster child (or is from the partner's "previous relationship"), where the cohort member or his partner currently sees the child. In the most recent NCDS sweeps, these 'non-resident' stepfathers are identified only if they consider themselves to be a parent or guardian to their partner's 'non-resident' children.

Understanding Society identified sample members in the first sweep who had previously lived with currently non-resident stepchildren (as part of the 'fertility history'), but did not establish whether these are children of a former partner (potentially Group 1) or current cohabiting partner (potentially Group 2¹²¹), nor whether they and the stepchildren are currently in contact. The Family Networks module asks sample members and their cohabiting partners (who are also sample members) about contact and overnight stays with non-resident children at the time of the current sweep, but does not establish whether these children are birth, adoptive, foster or stepchildren. Instead, the questions are asked in relation to all their non-resident dependent children (who may include non-resident stepchildren), and/or the non-resident adult child with whom they have most contact.

This means that subsets of non-resident stepfathers can be identified only where assumptions are made to link information from different questionnaire sections and sweeps; or on the basis of children or parents moving out of study households (i.e. during the study) into 'split-off' households which continue to participate. However, these samples may be too small for separate analysis. In particular, for subsets identified on the basis of 'split-off' households, the response (retention) rate for individuals in 'split-off' households is low, and the retention rate

¹²¹ Assumptions can be made using data collected about when the sample member last lived with the stepchild, and the dates during which the sample member has lived with any current cohabiting partner.

Examples of identification of non-resident stepfathers in Understanding Society*Group 1 (former cohabiting partners of a birth/ adoptive parent)*

Understanding Society can be used to derive a category of assumed Group 1 non-resident stepfathers. These sample members (in the study at the first sweep) are in contact (but no overnight stays) with at least one 'non-resident' dependent or adult child (named as their "son" or "daughter" including step relatives); previously lived with a stepchild (who is now 'non-resident') before any current relationship with a cohabiting partner; and they do not have a 'non-resident' birth or adoptive child, and (if partnered) their cohabiting partner does not have a 'non-resident' birth or adoptive child.

Group 2 (current cohabiting partners of a non-resident birth/ adoptive parent)

On the basis of its 'split-off' households, Understanding Society can in principle identify subsets of Group 2 'non-resident' stepfathers among adult sample members who have become a 'non-resident' stepfather during the study in relation to birth/ adoptive child/ren of their current cohabiting partner (for example, a previously 'resident' adult stepchild moved out, or previously 'resident' dependent stepchild/ren moved to live primarily with their other birth/ adoptive parent). Their 'non-resident' stepchild/ren are now sample members in another participating study household. Information about contact between the sample member's cohabiting partner and this partner's birth/ adoptive child/ren is provided by the 'non-resident' adult stepchild (assuming they do not have more contact with a non-resident adoptive/ step parent), or by a 'non-resident' dependent stepchild's 'resident' birth/ adoptive parent (in the Child Maintenance question module).

for 'non-resident' parents of dependent children following a relationship separation during the study is low (Bryson, 2017). These low response rates give the potential for attrition bias.

Table 15: LONGITUDINAL STUDIES: Can adult cohort members/sample members who are 'resident' and/or 'non-resident' birth, adoptive and social fathers be differentiated as separate categories in at least one (adulthood) sweep?

	Categorised as 'resident'				Categorised as 'non-resident'	
	Birth fathers	Adoptive fathers	Foster fathers	Stepfathers (married and cohabiting: non-married) including 'other cohabiting partners'	Birth fathers	Stepfathers
LSYPE	✓✓	n/a*	n/a	**	✓***	
NCDS	✓✓	✓✓	✓✓	✓✓	✓✓	✓
BCS	✓✓	✓✓	✓✓	✓✓	✓✓	✓
Alspac****	✓✓	n/a	n/a	✓*****	✓***	
USoc	✓✓	✓✓	✓✓	✓✓	✓✓*****	✓

✓✓=identifies these fathers (subject to respondents' disclosures and interpretations of questionnaire terms); ✓ = identifies subset of these fathers

*In the early adulthood sweeps of the LSYPE (excluding the 8th sweep at age 25), and in the early adulthood Alspac sweeps with published questionnaires at the time of our dataset investigations, cohort members were too young to adopt or foster children.

**At age 16/17 sweep when likely to be especially rare, but not subsequently.

***If they have no 'resident' birth children.

****Based on Alspac questionnaires. We did not access questionnaires for the Children of the Children of the 90s (G2/ COCO90s) study.

*****One early adulthood sweep included a household grid, but stepfathers would be identified only if free text data on intra-household relationships has been coded.

*****For sample members who were in the study at the first sweep, and for "late entrants" to the study who have no 'resident' birth children (using data from fertility history/ household grid questions). Questions in the Family Networks module do not differentiate birth, adoptive and step for 'non-resident' fathers.

PART FOUR: Conclusions and suggestions for future data collection

Part Four summarises the findings for resident and non-resident fathers across all the datasets (cross-sectional and longitudinal) and presents conclusions and suggestions for future data collection.

Section 4(A): Identifying fathers

We started off at the beginning of this paper asking how sixteen UK large-scale repeated cross-sectional and longitudinal datasets identify and collect data about fathers, including less extensively researched categories. We have looked at different fathering relationships (birth fathers, adoptive fathers, stepfathers and foster fathers); and categories of fathers' co-residence with their children (full-time resident, part-time resident and full-time non-resident, including temporary non-residence).

Whilst Parts Two and Three present findings separately for cross-sectional and for longitudinal datasets, Part Four of this paper summarises the findings for resident fathers and for non-resident fathers across all these datasets, and presents our conclusions and suggestions for future data collection.

Firstly, for funders and providers of large-scale quantitative datasets, we have documented questions and fieldwork practices which enable researchers to identify specific categories of fathers and collect data directly from fathers. Where relevant, these precedents could be used (or adapted) and tested for use in future studies, and in future waves and sweeps of ongoing datasets. Secondly, for researchers planning secondary analyses to study fathers, we have assessed whether different categories of fathers can currently be identified in the data.

As we said in our introduction, our critique in this working paper is not a criticism of the decisions made by research funders and directors in a specific historical context, and according to resources and priorities. Most of the research datasets we have included in our review collect data in face to face or telephone interviews, with self-completion components. The current shift to online (web-based) data collection in many of these datasets, and potentially to an Administrative Data Census, will offer new possibilities and challenges in the future.

(i) How are fathers identified and differentiated in the datasets?

When examining cross-sectional research datasets, we looked at how fathers among research respondents and other household members can be identified and differentiated. When examining longitudinal studies, we looked, firstly, at these issues for the fathers of the cohort children and young sample members in childhood; and, secondly, for cohort members and sample members who, as teenagers and adults, are fathers themselves.

(a) Broad-brush inclusive identification of fathers

When identifying fathers among research respondents, it is common for the datasets to separately identify ‘resident’ fathers and ‘non-resident’ fathers¹²², or to identify only ‘resident’ fathers. Only BSA among the cross-sectional research datasets, and three of the longitudinal studies¹²³, have asked a broad-brush ‘declared parenthood’ question that establishes whether the research respondent considers him/ herself to be a father or a mother or have a living child:

“Which, if any, of these types of relatives do you yourself have alive at the moment? Please include adoptive and step relatives: Son/ Daughter” (British Social Attitudes, 2001-2014)

(b) Resident fathers

Categories of residence

- On the whole, it is possible using the **cross-sectional research datasets** to identify two categories of resident fathers (our definition) among research respondents and household members as ‘resident’ (dataset definitions). These are (i) full-time resident fathers (the great majority of the ‘resident’ fathers); and (ii) part-time resident fathers where the sampled household is regarded as the father’s and children’s ‘main residence’, so that both they and their children are included (for research purposes) as household members. However:
 - these **cross-sectional datasets** are rarely able to differentiate the full-time resident fathers and these part-time resident fathers
 - these part-time resident fathers are likely to comprise ‘majority overnight care’ fathers, and a proportion of ‘equal overnight care’ fathers, ‘part time away’ fathers and fathers of ‘part-time away’ children
 - the identifiable group of ‘resident’ fathers may also include a proportion of ‘long-term away’ fathers and fathers of ‘long-term away’ children included as household members (for example temporarily absent from the household for less than six months), who can rarely be differentiated from the full-time and part-time resident fathers within the group.
- Part-time resident fathers where the sampled household is not regarded as the father’s and children’s ‘main residence’ will not¹²⁴ generally be identifiable as ‘resident’ fathers. Furthermore, key **cross-sectional datasets** such as the Census and LFS do not identify as fathers those men whose children do not primarily live with them. These are likely to

¹²² There is an implicit or explicit dichotomous classification of parents into ‘resident’ and ‘non-resident’ in most datasets.

¹²³ Recent adulthood sweeps of Alspac, the NCDS and the BCS.

¹²⁴ Unless they have other children (e.g. full-time resident or ‘majority overnight care’) included among the members of their sampled/ Census household.

comprise ‘minority overnight care’ fathers, and a proportion of ‘equal overnight care’ fathers, ‘part time away’ fathers and fathers of ‘part-time away’ children.

- ‘Part-time away’ fathers and ‘overnight care’ fathers cannot be separately identified through questions asked routinely¹²⁵ in the **cross-sectional research datasets**. Questions in the Census and the FRS go part-way to identifying ‘overnight care’ fathers. The Census also identifies ‘resident’ fathers who stay at another address for more than 30 days per year without their resident children (those in the Census household).
- It is rare for the **cross-sectional research datasets** and **longitudinal studies** to state in published documentation (as does the Census) whether children who reside equally part-time with each of their non-cohabiting parents should be included (for research purposes) as household members.
- Among the **longitudinal studies**, only the MCS specifically includes (as ‘resident’) and differentiates (among the identifiable ‘resident’ fathers of cohort children) ‘part-time away’ fathers. These include men staying in the cohort child’s household for one or two days each week; and (in later sweeps) include men who are a ‘declared stepfather’ or ‘other cohabiting partner’.
- Only the three most recent **longitudinal studies** (the MCS, GUS, and Understanding Society) can separately identify cohort children or young sample members with an ‘overnight care’ birth/ adoptive father (categorised by the dataset as ‘resident’ and/or ‘non-resident’), but to differing degrees of completeness and accuracy. The latter two studies differentiate¹²⁶ ‘majority overnight care’, ‘minority overnight care’ and/or ‘equal overnight care’ in at least one sweep. Where a cohort child or young sample member’s resident ‘overnight care’ birth/ adoptive parent (most likely to be a ‘majority overnight care’ mother) lives with a male cohabiting partner, this cohabiting partner is identified as a part-time resident stepfather.
- In the other **longitudinal datasets**, cohort children and young sample members with a ‘part-time away’ or ‘overnight care’ father may not be identifiable as having a ‘resident’ father. Instead, a ‘part-time away’ or ‘minority overnight care’ birth or adoptive father may be categorised as the child’s ‘non-resident’ father. As in the **cross-sectional datasets**, the identifiable category of cohort children and young sample members with a ‘resident’ father may include temporarily non-resident fathers.
- Understanding Society can be used to separately identify ‘overnight care’ fathers among adult sample members, differentiating ‘majority overnight care’, ‘equal overnight care’ and

¹²⁵ ‘Overnight care’ fathers can be identified in family separation question modules included in the ONS Omnibus/ Opinions Surveys (now the Opinions and Lifestyle Survey) over the period 2006-09, which we discuss in earlier sections of this working paper.

¹²⁶ Subject to a caveat that there are differences in estimates of the prevalence of regular overnight stays (and of contact more generally) derived from interviews with resident parents (mainly mothers) and interviews with non-resident parents (mainly fathers) (Peacey & Hunt, 2008a; Wilson, 2010; Bryson et al., 2017), with less frequent overnight stays derived from mothers’ reports.

‘minority overnight care’. It is not possible to separately identify ‘overnight care’ fathers among adult cohort members in the four cohort studies with adulthood sweeps.

- In both **cross-sectional datasets** and **longitudinal studies**, the questions identifying ‘resident’ fathers (and relationship categories among ‘resident’ fathers) may not be answered by the father but by another member of his household (for example his cohabiting partner/ mother of his children) who completes the ‘household grid’ section of the questionnaire or a ‘main parent’ questionnaire (cohort studies). This applies even when the father later completes an individual interview or questionnaire.

Relationship categories

- Most of the **cross-sectional research datasets** can identify birth, adoptive and social fathers as ‘resident’ fathers in relation to each dependent or adult child who is also ‘resident’ in the household. They usually differentiate three categories: (i) birth fathers/ adoptive fathers/ male guardians (combined in a single category of “parent/ guardian”); (ii) stepfathers (‘declared stepfathers’ combined with ‘other cohabiting partners’) and (iii) foster fathers. The “parent/ guardian” category may include (and consequently the “stepfather” category may exclude) long-established stepfathers for whom this generic code (rather than the “step-parent” code) is selected by the research respondent.
- The **cross-sectional research datasets** can generally differentiate married and cohabiting (non-married) ‘resident’ stepfathers, but cannot reliably differentiate ‘declared stepfathers’ from ‘other cohabiting partners’.
- Only the HSE collects the information necessary to fully differentiate birth fathers, adoptive fathers, other male legal guardians, and stepfathers (including ‘other cohabiting partners’) among the identifiable ‘resident’ fathers in a sampled household.
- In contrast, most of the **longitudinal studies**¹²⁷ include and differentiate birth, adoptive, foster and step fathers (‘declared stepfathers’ combined with ‘other cohabiting partners’) among the identifiable ‘resident’ fathers of cohort children and young sample members in childhood. These datasets can generally differentiate ‘resident’ married and cohabiting (non-married) stepfathers.
- Three datasets (the NCDS, the BCS and Understanding Society) differentiate ‘resident’ birth, adoptive, foster and stepfathers among male adult cohort members and sample members in relation to each child identified as ‘resident’ in his household.

¹²⁷ In the childhood sweeps of cohort studies.

(c) Non-resident fathers

- Across the **cross-sectional research datasets** we investigated, only the FRS has asked a question in successive waves¹²⁸ with the aim of identifying (among research respondents) fathers of ‘non-resident’ dependent¹²⁹ children.
 - These identifiable ‘non-resident’ fathers may include a substantial subset of ‘minority overnight care’ fathers’ whose children, regularly staying overnight, have not (for research purposes) been counted as household members. It is not possible to differentiate these part-time resident fathers from the non-resident fathers with no regular overnight care of their children.
 - It is not differentiated whether these fathers are birth, adoptive or step fathers in relation to their ‘non-resident’ children.
- Up to 2015, the broad-brush ‘declared parenthood’ question asked in BSA combined with household grid questions enabled the identification of survey respondents who were non-resident birth, adoptive or step fathers with no resident children among household members. This subcategory of non-resident fathers would have included men with non-resident adult and/or dependent children.
- In other **cross-sectional research datasets**, including the Census, non-resident fathers of living dependent and/or adult children are generally not identified. These research respondents cannot be identified as fathers unless categorised (for research purposes) as a ‘resident’ father in relation to other children living in the sampled household.
- Nearly all of the **longitudinal studies** can identify (in at least one sweep) cohort children or young sample members with a ‘non-resident’ birth father. Depending on the dataset, this ‘non-resident’ category may include temporarily non-resident ‘long-term away’ fathers; and also fathers who have died¹³⁰ (by the time of the current sweep), ‘minority/ equal overnight care’ fathers and ‘part-time away’ fathers who cannot be differentiated from the non-resident fathers.
- Understanding Society and adulthood sweeps of the NCDS and the BCS¹³¹ can identify, among adult men, ‘non-resident’ birth fathers and adoptive fathers whose children live primarily or all the time in another household.

¹²⁸ Fathers of non-resident dependent children can also be identified in the 2014-15 UKTUS; and in family separation question modules in BSA and the ONS Omnibus/ Opinions Survey (now the Opinions and Lifestyle Survey) asked in 2012 and over the period 2006-2008 respectively.

¹²⁹ Up to age 20, “in non-advanced education or training” and living with their other parent.

¹³⁰ This applies to what is likely to be a small proportion of fathers not in current contact or paying child maintenance where death has not been reported by the research respondent.

¹³¹ Alspac and the LSYPE can identify only those ‘non-resident’ birth fathers who have no ‘resident’ birth children. A greater degree of differentiation may be possible for Alspac cohort members who agree to participate in the Children of the Children of the 90s (G2/ COCO90s) study.

- A number of the **longitudinal research studies**, but rarely the **cross-sectional datasets**¹³², differentiate (through survey questions) ‘long-term away’ fathers and fathers with ‘long-term away’ children. These fathers may be categorised as ‘resident’ or ‘non-resident’.
- GUS, the MCS and Alspac identify cohort children whose resident mother has a ‘non-cohabiting’ male partner who is their birth father i.e the birth father is in a couple relationship with the child’s mother. In GUS and Alspac, these ‘non-cohabiting’ birth fathers may include ‘part-time away’ fathers not counted as ‘resident’ in the child’s study household.
- The longitudinal studies have more infrequently identified non-resident stepfathers:
 - Only the MCS identifies cohort children with a Group 1 non-resident stepfather (former cohabiting partner of a birth/ adoptive parent). The child remains in contact (but does not “often” have overnight stays) with a previously resident stepfather (part-time or full-time resident with the child at a previous sweep, and has since left the child’s household. The child remains co-resident with the birth/ adoptive parent.
 - Other cohort studies and Understanding Society can, to varying extents, identify former cohabiting partners of a cohort child or young sample member’s ‘resident’ parent. However, these studies ask insufficient questions to identify whether these individuals are non-resident stepfathers to the cohort child/ young sample member at the current sweep.
 - The second GUS birth cohort, the MCS and Understanding Society can (in at least one sweep) identify cohort children or young sample members whose non-resident birth mother or father (with whom they are in contact) has a cohabiting partner who may be considered to be a Group 2 ‘non-resident’¹³³ step-parent to the child. However, these datasets do not establish the “sex”¹³⁴ or gender of the cohabiting partner. The majority will be ‘non-resident’ stepmothers when the ‘non-resident’ parent is (most commonly) a birth father; but male partners of non-resident fathers in same-sex relationships, and male partners of non-resident mothers, will also be in this group.
 - On the basis of its “split-off” households, Understanding Society can identify a small subset of young sample members whose non-resident step-parent (the cohabiting partner

¹³² The LFS and the Census can separately identify the fathers of birth, adoptive or step children who are ‘long-term away’ in term-time at boarding school or as a student. Temporarily non-resident individuals (fathers or children) among household members may be identified in fieldwork outcomes in all the datasets.

¹³³ Where there are regular overnight stays with the ‘non-resident’ birth parent, these part-time resident step-parents can be separately identified, with differentiation of ‘minority overnight care’ and ‘equal overnight care’ in GUS and Understanding Society.

¹³⁴ Research datasets usually label this variable as “sex”. It is coded subjectively by the respondent, or identified by the interviewer.

of their non-resident birth parent) is known to be male. However this small subset is subject to a high level of attrition, resulting in even smaller sample sizes and a likelihood of systematic bias in survey estimates.

- Three of the **longitudinal studies** (the BCS, the NCDS and Understanding Society) can identify subsets of non-resident stepfathers (Group 1 and Group 2) among adult cohort members and sample members.
- Where **cross-sectional and longitudinal research datasets** identify ‘non-resident’ fathers (among research respondents, adult cohort members, or the ‘resident’ fathers of cohort members and young sample members), they can generally identify ‘resident’ fathers who also have children assessed as living at another address. These fathers are ‘resident’ and ‘non-resident’ in relation to different children.
- It is challenging to achieve a representative sample of self-identifying non-resident fathers. Non-resident parents may be less likely than resident parents to participate in surveys and to be retained in **longitudinal studies**. Those who do participate may be reluctant to disclose in research that they have non-resident children. Non-resident parents with no contact with their children are especially unlikely to be included in achieved samples of non-resident parents. The resulting samples are subject to response bias and (in **longitudinal studies**) attrition bias.

We have seen that there is potential across the datasets we looked at to carry out secondary analyses focusing on a number of categories of fathers, should sample sizes be sufficient. However, we also identified gaps in the identification and differentiation of fathers which mean that researchers cannot fully exploit the potential in these large-scale datasets for analysing fathers. Datasets commonly fail to identify parent-child relationships across households. This applies particularly in the **cross-sectional research datasets**, but also in the **longitudinal studies**. So, for example:

- we can rarely compare all fathers (full-time and part-time resident/ non-resident/ birth/ adoptive/ step/ foster) with non-fathers among research respondents in the **cross-sectional datasets** (for example in relation to wellbeing or social attitudes)
- we cannot derive a continuous time series from large-scale repeated **cross-sectional datasets** for the prevalence of fatherhood at different ages
- we do not have a time series (derived from large-scale repeated **cross-sectional datasets**) for the numbers of non-resident fathers and ‘minority overnight care’ fathers of dependent children;
- we cannot use the HSE to look at the changing emotional health and health behaviours of different categories of fathers over time
- we cannot use the LFS to compare full-time resident fathers, ‘minority overnight care’ fathers and non-resident fathers of dependent children in terms of their employment

- we cannot use BSA to compare resident birth fathers, resident stepfathers and non-resident birth fathers in terms of their social attitudes concerning family life and children
- there is little opportunity to enumerate and examine subgroups of fathers such as adoptive fathers, non-resident stepfathers and ‘equal overnight care fathers’ by combining data from successive waves or sweeps (some subgroups are not identified at all sweeps of the **longitudinal studies**), nor by using the largest-scale population data in the Census
- only one or two **longitudinal studies** can be used to investigate the impacts on fathers, mothers and children of:
 - different categories of overnight care for the children of non-cohabiting parents (minority of nights, equal number of nights or majority of nights)
 - a father being part-time away
 - a child being in contact with a non-resident stepfather, for example a previously resident stepfather who becomes non-resident.

Some of the categories of father that we looked at in our datasets review may give sample sizes that are too small for separate analysis, or for complex longitudinal analyses. Examples are adoptive fathers, foster fathers, male guardians, ‘equal overnight care’ fathers, stepfathers not declared as such by research respondents, non-resident stepfathers and long-term away fathers.

However, our view is that establishing the prevalence of these subsets of parents in the UK population, and carrying out descriptive analysis of their characteristics, is an important baseline for future demographic change. ‘Equal overnight care’ fathers and non-resident stepfathers are under-studied groups that may become more prevalent among future generations of children, and so be increasingly relevant to the design of future studies. Similarly, the proportion of men who are not fathers may change. An analysis of Understanding Society data from 2009-11, using an inclusive definition of fathers, showed that, at that time, just over a third of men aged 16 and over (36%) had never fathered a child or played a significant fathering role in the life of a child (i.e. with no birth, adoptive or stepchildren); and 11% of men aged 70 years or older were ‘non-fathers’ (Speight et al., 2013).

(ii) Suggestions for future datasets, waves and sweeps to better identify and differentiate fathers

Our datasets review has pointed to a number of issues in questionnaire design which limit whether fathers, mothers and different categories of parents can be identified and differentiated for analysis by researchers. We acknowledge constraints on questionnaire space due to budget and the burden on respondents. However, fatherhood is a defining feature of men’s lives, and both fathers and mothers have substantial impacts on their children.

We know that male research respondents may under-report their non-resident dependent children, and that non-resident fathers may be under-represented in survey samples, introducing response bias into the achieved samples. However, sensitivities, under-reporting

and substantial bias in survey estimates apply to social research topics such as sexual behaviours, mental health problems and alcohol use which are measured with caveats.

We therefore propose that adequate parenthood questions for both men and women are viewed as a priority for research instruments, alongside other core variables such as “sex”/ gender, socioeconomic group and economic activity.

At minimum, in order to comprehensively identify fathers and mothers among research respondents, we propose that datasets routinely ask questions to identify fathers and mothers with dependent and/or adult children living wholly or primarily elsewhere. This could include where cohabiting partners have non-resident children with whom the research respondent or his partner is in contact. This is in addition to the routine household grid questions that identify parents whose children live wholly or primarily in their household, and any fertility history questions which identify birth parents.

We also suggest that datasets which collect substantive data about dependent children, for example the HSE, ask questions to identify those children with a living birth (or adoptive) father or mother living wholly or primarily elsewhere. They could establish whether these fathers and mothers are in contact and any overnight stays.

Using a broad-brush ‘declared parenthood’ question to differentiate parents and non-parents among research respondents (as in recent adulthood sweeps of Alspac, the BCS and the NCDS, and past waves of BSA) may be relevant to some research questions. Where appropriate, it reduces respondent burden, and may reduce non-disclosure, compared to asking separately about different types of parenthood. When combined with household grid data, it enables identification of ‘non-resident’ parents of dependent or adult children who have no ‘resident’ children among household members.

We also suggest (where relevant to the purposes of the dataset) that organisations funding and directing cross-sectional and longitudinal studies consider more comprehensively identifying and differentiating categories of fathers and mothers through the following adaptations and additions to questionnaires. Some of the precedents we found across the datasets could be used as household grid components in a range of surveys to identify any adults (not just parents) and children with second addresses. Whilst carrying out this review, we found an international literature making similar proposals for datasets in the US, Australia, New Zealand and France, as we noted in the introduction to this report.

Asking additional questions or more fully differentiating response codes to identify smaller categories of parents may be most relevant to the largest-scale datasets in which there may be sufficient numbers for analysis across consecutive waves or sweeps, for example the Census (in relation to differentiating resident birth, adoptive and step parents), LFS and Understanding Society. All the datasets we reviewed have changed incrementally over time between waves and sweeps, even though changes can cause discontinuities in cross-sectional time series and affect repeated measures in longitudinal analyses.

It is encouraging that, for many of these suggestions, at least one dataset provides an example of relevant questionnaire design. We have detailed these examples in earlier sections of our

working paper, and they provide precedents for future questionnaire design. Innovations would need to be tested and piloted.

Some of these examples are from the later studies and sweeps benefitting from the design advantages of Computer Assisted Personal Interviewing (CAPI). CAPI was introduced into UK survey practice in the 1990s, and greatly affects what is possible and affordable in questionnaire design. This is in contrast to the oldest cohort studies using paper questionnaires during a historical period when cohabitation of parents without marriage, and overnight stays with non-resident parents, were less common.

Some level of dataset harmonisation may be appropriate on these issues, taking into account the differing purposes of different datasets (see Walthery and Plewis, 2015 for family composition variables). This could also cover the use of consistent terms to describe birth parents¹³⁵, and resident and non-resident parents including where a child stays equally or near-equally with each of their non-cohabiting parents¹³⁶.

Cognitive interviewing (an interviewing technique used by researchers during questionnaire development) might explore the range of ways in which respondents interpret questionnaire terms. These include “own child”/ “natural parent” (include birth parents who are not biological parents, and adoptive parents?); “step-parent” (include cohabiting and not married?; include a parent’s cohabiting partner who is not termed a “stepfather” or “stepmother” by partner or child?); “live together” (include part-time cohabitation?); “main residence” (based on time or the concept of a permanent/ family home?); and “spent the most time” (include daytime as well as overnight stays?).

SUGGESTION	POTENTIAL BENEFIT
<p>Include a full relationships grid in the household grid, including in cohort studies and in cross-sectional surveys of individuals.</p> <p>This has been included in the most recent waves of the large-scale cross-sectional datasets and the most recent longitudinal studies included in our review.</p>	<p>To include as resident parents, and as step-parents, those ‘other cohabiting partners’ (of resident mothers and fathers) who have not been declared (household grid relationship codes) as a birth or adoptive parent, step-parent, foster parent or other guardian to resident children.</p>
<p>Use a fully differentiated set of relationship codes in the household grid; and in questions identifying resident or non-resident parents.</p>	<p>To differentiate birth parents, adoptive parents, step-parents and foster parents among fathers and mothers.</p>

¹³⁵ Questionnaires use the terms “own”, “natural” and “biological”.

¹³⁶ Relatively recent questionnaires sometimes use the term “joint custody” or “shared custody”, even though these terms are generally no longer used in law and professional practice. These terms may be intentionally used in questionnaires to reflect lay language, or may need to be updated with contemporary language.

SUGGESTION	POTENTIAL BENEFIT
<p>Have explicit household inclusion/ exclusion rules for interviewers or research respondents to apply in terms of whether part-time resident adults/ parents and part-time resident dependent children are counted as 'resident' (for research purposes) in the household. Be clear about dependent children who reside regularly or equally with each of their non-cohabiting parents.</p> <p>Include household definitions and inclusion criteria in online documentation</p>	<p>These would complement the household inclusion/ exclusion rules for temporarily non-resident individuals which are often included in questionnaires and other dataset documentation. They may avoid double counting or under-counting in family and household statistics.</p>
<p>Include (for example in household grids):</p> <ul style="list-style-type: none"> • questions asking whether household members (adults and dependent children) reside full-time or part-time in the household or have a second address, and whether they have a regular pattern of staying in the household or are long-term temporarily non-resident • questions which ask about any regular overnight stays* of dependent children with each of their non-cohabiting parents • questions which identify any 'part-time away' fathers and mothers of dependent children in the household (if questions are not asked about all household members, as suggested above) • questions which enumerate and collect demographics for any part-time resident adults and dependent children who have been excluded (for research purposes) among household members 	<p>To separately identify part-time resident adults and children for analysis ('part-time away' and 'overnight care').</p>
<p>Ask questions (for example, in household grids) which identify or enumerate those adults and dependent children temporarily absent** from the household who have been included or excluded (for research purposes) among household members. Collect demographics for temporarily absent individuals not categorised as 'resident' in the household.</p>	<p>To separately identify 'long-term away' adults and children for analysis.</p>
<p>Include a question for interviewers, and in self-completion questionnaires, to record who completes the household grid questions, and/or which household members are present during the interview in which household relationships are defined</p>	<p>To enable analysis of the characteristics of those research respondents who identify household members and household relationships</p>
<p>Have unique person numbers for household members in longitudinal studies. This has been standard practice in the most recent longitudinal studies included in our review.</p>	<p>To enable analysis of moves of specific categories of individuals into and out of households.</p>

SUGGESTION	POTENTIAL BENEFIT
<p>Identify the "sex"/ gender of the non-resident parents of dependent children.</p> <p>Ask (in particular in longitudinal studies) whether non-resident birth or adoptive parents (of cohort children or young sample members) have cohabiting partners (including their "sex"/ gender) and children resident in their household, and about the cohort child or young sample member's contact with these individuals.</p>	<p>To more reliably identify cohort children and young sample members with non-resident fathers, and those with non-resident mothers, including where parents have had a same sex relationship.</p> <p>To identify cohort children and young sample members with a Group 2 non-resident stepfather or stepmother (current male or female cohabiting partner of their non-resident birth/ adoptive parent).</p>
<p>Asking additional questions to birth/ adoptive parents in relationship and residence histories in longitudinal studies:-</p> <ul style="list-style-type: none"> • whether their former cohabiting partner also previously lived with the cohort child or young sample member; • the "sex"/ gender of each former cohabiting partner, and the relationship category of each partner in relation to the child/ren (birth/ adoptive/step/ foster); • whether the former cohabiting partner is currently in contact with the child/ren. 	<p>To identify cohort children and young sample members with a Group 1 non-resident stepfather or stepmother (former male or female cohabiting partner of a birth/ adoptive parent).</p>
<p>Asking questions to identify whether adult sample members and cohort members have lived previously with a stepchild (a child of a current or former cohabiting partner), whether they remain in contact with each previously resident stepchild and/or perceive a parental type of relationship, and whether their current cohabiting partner is in contact with any non-resident children from previous relationship/s.</p>	<p>To identify non-resident stepfathers and stepmothers among adult sample members and cohort members.</p>

**Where relevant to the dataset, questions could identify the average number of overnight stays per week of a child in each parent's household, to enable researchers to differentiate one to two nights per week ('minority overnight care') from equal or near-equal overnight care (three to four nights per week) or five or six nights per week ('majority overnight care').*

***Where relevant, questions could identify the length of continuous absence excluding short visits home*

Section 4B: Collecting data about fathers

(i) How is data about fathers collected?

- There is rich data collected in cross-sectional research datasets, the older cohort studies (the NCDS, the BCS, Alspac and the LSYPE) and Understanding Society about resident and non-resident fathers among research respondents and cohort members. Much of this data is not about parenthood, and is collected regardless of the research respondent's

parental status. Topics include health, health behaviours, wellbeing, time use, couple relationships, social networks, employment, caring for adults, social attitudes and finances.

- However, we have seen that identification of fathers is sometimes limited to full-time resident fathers and subsets of part-time resident fathers, and that relationship and residence categories are often inadequately differentiated among those identified.
- Some data about fathers has been obtained directly from fathers, for example through questionnaires, interviews, psychological tests and medical examinations. Other data has been collected from fathers' partners, their children and the resident mothers of cohort members, as well as from practitioners and administrative records.
- We found substantial variation in the rate of proxy interviews in cross-sectional household surveys, when interviewers are not able to interview eligible research respondents, for example because they are unavailable, temporarily away or incapacitated. In the LFS, about 30% of data about household members is provided in proxy interviews, many of which are with female partners to collect data about their male partners. So a substantial proportion of data about 'resident' fathers is given by mothers. In contrast, the FRS, MCS and Understanding Society appear to have much lower proxy interview rates.
- In the childhood sweeps of cohort studies, following fieldwork guidance¹³⁷ would usually result in the mother receiving a 'main parent' interview or questionnaire at each sweep when a cohort child lives with a mother and father in the study household.
- All the more recent cohort studies have collected data directly from cohort children's resident fathers (including all cohabiting partners of their 'main parent') whether or not the father has been categorised as the child's 'main parent' for research purposes. This was usually in shorter 'partner' interviews during childhood sweeps, with the exception of Alspac which had lengthy self-completion questionnaires for fathers. Partner interviews have mostly had relatively high response rates.
- Studies with partner data collection have not all carried out partner interviews or issued partner questionnaires in every sweep. Consequently they have collected a narrower set of data directly from resident fathers than from resident mothers. In contrast, Understanding Society collects broadly the same set of data from resident fathers and resident mothers.
- Additionally, even taking account of data about the fathers gained from cohort children's mothers and other individuals (which may be subject to item non-response and systematic biases; see Kiernan, 2016), we generally collect a narrower set of variables about cohort children's 'resident' fathers than about their 'resident' mothers.

¹³⁷ In recent studies such as the MCS, the CAPI interview program integrates these fieldwork 'rules' to suggest to the interviewer which parent should receive the 'main parent' interview and which parent the partner interview. However, if the mother cannot or does not want to participate in the sweep, or the parents prefer that the father is interviewed as the 'main parent', this fieldwork guidance may not be followed.

- None¹³⁸ of the cohort studies we examined has set out to collect data in their childhood sweeps directly from the ‘non-resident’ or ‘minority/ equal overnight care’ fathers of cohort children. This lack of fieldwork with non-resident fathers applies to cohort studies internationally (Kiernan, 2014). Varying amounts of data about these fathers have been collected from resident mothers.
- Dependent children whose birth or adoptive parents do not live together may have two households in which they regularly stay overnight (are part-time resident) or in which have substantial daytime care. In terms of the long-term effects of childhood experience¹³⁹, these children's protective and risk factors include those associated with parents, other adults (for example, parents' partners) and siblings in both households.
- However, in the cohort studies, each cohort child has only one study household in which research interviews take place. Only later GUS and MCS sweeps specify (in published fieldwork documentation we accessed) that the father's household is selected if he provides an equivalent of ‘majority overnight care’.
- In cases of ‘equal overnight care’ of a cohort child, an ‘overnight care’ step-parent in the mother's household may be interviewed, whilst no data is collected from the part-time resident birth father, nor from the birth father's cohabiting partner (if that applies) who is also an ‘overnight care’ step-parent.
- Understanding Society is the only ongoing UK large-scale longitudinal study that aims to track eligible sample members (adults and dependent children) who leave study households, and interview them¹⁴⁰ and all adult members of their new ‘split-off’ household at subsequent sweeps, for example following relationship separation. So, despite not being designed as a study of child development, Understanding Society collects data directly from subsets of ‘non-resident’ fathers (including ‘minority overnight care’ fathers and non-resident stepfathers) of young sample members.
- However, this potential of Understanding Society's ‘split-off’ households is restricted in practice. The annual separation rate for two-parent families with dependent children is around two per cent (Bryson et al., 2017). Even though using face-to-face interviews, extensive tracing of sample members who have moved, and with trained interviewers encouraging sample members to participate, there is a low response rate reported for ‘split-off’ households. Only a small proportion of the non-resident parents of dependent children remain in the study following a relationship separation (Bryson et al, 2017). This creates potential for attrition bias in the achieved small samples.

¹³⁸ Alspac collected data from non-resident fathers who were the non-cohabiting partner of their child's mother.

¹³⁹ A scientific priority for future studies under consideration in the ongoing ESRC Longitudinal Studies Review is the ‘long-term effects of childhood experience’.

¹⁴⁰ Children aged 10-15 living in the ‘split-off’ household/s are given questionnaires to complete, so include any new dependent children (e.g. stepchildren) now residing with eligible sample members.

- Data collected about fathers through Birth Registrations, including whether they live with the child's mother, exclude those fathers who are not married to the birth mother and do not jointly register the birth.

(ii) Suggestions for data collection in future datasets, waves and sweeps

Direct data collection from both resident and non-resident fathers can take account of the lessons learned from previous attempts both in the UK and abroad. In particular, it is clear that fieldwork among non-resident fathers will neither be easy nor cheap and is likely to be subject to response bias. A recently published Nuffield Foundation/ ESRC-funded project reviewed the literature, and found low response rates when non-resident fathers are contacted for research (Fathers and partners in the Life Study: a review; see Kiernan, 2016 and associated dataset reviews: Kiernan, 2014 and Bryson, 2014). Using smartphone or face to face interviews with a bespoke recruitment approach and financial incentives appears to maximise response in comparison to indirect recruitment through mothers or using postal questionnaires. Online (web-based) and smartphone survey technologies may reduce response rates and data quality, although could be useful for keeping in touch with fathers (resident or non-resident) between sweeps (Bryson et al., 2017; Bryson, 2014). There is methodological work in progress to see whether the proportion of Understanding Society sample members who self-identify as a non-resident parent can be improved (Bryson et al., 2017). This includes testing for differences by survey mode (face-to-face interview or online self-completion).

The differing proxy interview rates in cross-sectional surveys points to the importance of guidelines for interviewers. Funding is needed for repeat approaches to households at different times of day and on weekends over a substantial fieldwork period.

We suggest that, with increased budgets, cohort studies could trial data collection directly from 'minority overnight care' fathers and the most involved non-resident fathers. Responding 'non-resident' fathers in research are most likely to be those in contact and having good relationships with their children (see Kiernan, 2016; Bryson et al., 2017). A pattern of substantial or 'equal' overnight care of a cohort child could define a second household for data collection, including interviews with any cohabiting partner (step-parent) in this second household. This would enable the analysis of children's outcomes in the context of both households in which they are part-time resident.

Disentangling genetic and environmental effects of parents on children's characteristics, health and behaviours may require collecting genetic samples from non-resident and part-time resident biological fathers, as well as from resident biological fathers

Recruiting involved non-resident fathers and 'overnight care' fathers may have more success when cohort children are in the teenage years, and can themselves encourage their father to participate. Alternatively, Life Study had planned to recruit non-resident birth fathers during pregnancy and infancy, based on this being successful in studies abroad (Kiernan, 2016). In these earliest years, a substantial proportion of non-resident fathers remain romantically involved or friends with the mother.

Cohort studies might track the resident fathers and mothers of cohort children (who are resident during the study and may be interviewed at each sweep) into new households if they become non-resident during the study, and continue to interview them, regardless of their level of involvement with the child. However, based on the experience of Understanding Society, they will need to spend resources on maximising continued participation.

Increased funding may also enable longer interviews with full-time and part-time resident fathers, in order to establish a more comprehensive picture of how these fathers affect cohort members' childhoods and lives into adulthood. Data collection could include observational data on father-child interactions where this is collected for mother-child interactions. We acknowledge that symmetrical data collection is expensive and increases respondent burden and, for some measures and analytic purposes, data provided by mothers may be sufficient.

These proposals also might apply to cross-sectional studies of children and family life, although we have not looked at these in our datasets review.

Section 4C: Next steps

Many UK datasets continue to base both questionnaires and data collection on families comprising full-time resident adults and children in one household, despite the increasing prevalence of second addresses and couples and families split across households. With an ESRC review of longitudinal studies and preparations for the 2021 Census in progress, it may be an opportune time to re-evaluate how the design of data collections can take account of the much greater diversity of families in recent decades. In addition to input from individual studies¹⁴¹, there may be roles for the National Statistics Harmonisation Group, the CLOSER¹⁴² harmonisation stream, the UK Data Archive and the Royal Statistical Society in considering our findings.

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¹⁴¹ For example, an Understanding Society workshop in 2016 on "family formation and change" considered how data collection can reflect family diversity such as non-resident fathers and couples 'living apart together'.

¹⁴² The CLOSER network (Cohort & Longitudinal Studies Enhancement Resources), funded by the ESRC and Medical Research Council, and in partnership with the UCL Institute of Education, British Library and the UK Data Service, includes five of the longitudinal studies we examined.

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Appendix A: Types of large-scale quantitative datasets in relation to the study of fathers

(i) Repeated cross-sectional datasets

Cross-sectional datasets collect data at one point in time (across the fieldwork period) for each included individual and household. Repeated cross-sectional datasets collect the same core data from a different (but broadly comparable) sample of individuals and/or households each time that the data collection runs, for example on an annual, quarterly or monthly basis. Each annual, quarterly or monthly data collection is called a 'wave' of the dataset.

Researchers can analyse the data to look at aggregate changes over time (i.e. from one wave to another wave) for the population and subgroups of interest, for example the changing percentage of fathers who smoke. The Census is repeated every ten years, so enabling analysis of longer-term changes for a census of the population, including local area analyses.

All but one of our selected repeated cross-sectional datasets are research datasets, in which interviews or questionnaires are the main tools to collect data specifically for research analyses.

Although none of the datasets we consider were designed specifically to study fathers, valuable nationally representative information about the prevalence of different categories of fathers, and data about fathers' circumstances, relationships, attitudes and behaviours, can be extracted as long as fathers - and categories of fathers - can be identified within the overall sample of research respondents. Researchers may want to see whether being a father, or being a specific category of father, correlates with other data collected. For example, they may wish to look at the relationship of non-resident fatherhood with employment in the Labour Force Survey (LFS), or with health behaviours and wellbeing in the Health Survey for England (HSE) (see Bryson et al., 2017). They may want to analyse changes over time, for example resident stepfathers' changing attitudes about family life over successive years. Researchers can also combine data from consecutive waves to look at smaller subgroups of fathers such as foster fathers, fathers in same sex relationships, and adoptive fathers. Questions in cross-sectional datasets may also seek to identify fathers and different categories of fathers among research respondents, so that relevant questions about family life or children can be asked in the interview or questionnaire.

Repeated cross-sectional surveys usually have a core of questions that are included from wave to wave, but many also have one-off, time limited or infrequently repeated topic modules that collect information on a specific and timely topic of interest. There may be changes in fieldwork procedures, sample/ household definitions and individual data items that affect the comparability of the core data from different waves. Researchers who want to study changes over time would need to consider whether and how any such changes would affect the comparability of cross-sections they would like to analyse.

Unlike the other datasets that we reviewed, birth registration records are an administrative dataset, based on information collected in interactions between local registry offices and parents. This means that information is collected primarily for administrative rather than research needs although, in the case of birth registration, statistical requirements do influence the data collected from parents. The data is compiled continuously by the General Register Office from local birth registrations. The Office for National Statistics (ONS) uses these records to compile an annual Birth Registrations dataset (England and Wales) for statistical purposes, which relates to all births in a calendar year.

(ii) Longitudinal research studies

Longitudinal research studies collect data about the same individuals or households at several points over time, with each time point called a 'sweep' (the term we use in this paper for longitudinal studies to differentiate from the waves of repeated cross-sectional datasets) or 'wave'. Sweeps or waves may be annual, as in Understanding Society; every few years at key life stages, as in the National Child Development Study (NCDS), the British Cohort Study (BCS) and the Millennium Cohort Study (MCS); or more frequent, as in the Avon Longitudinal Study of Parents and Children (Alspac). Longitudinal studies can follow events,

transitions and trajectories in real time at individual and household levels, for example births and relationship separations. They can collect the same repeated measures from one sweep to the next, tracking circumstances, attitudes and behaviours in context.

Compared to cross-sectional datasets, longitudinal studies provide information that is better suited for causal inference. This is because 'causal' factors can be observed prior to outcomes, which is consistent with the hypothesis of cause and effect.

We included three main types of longitudinal study:

- Household panel studies follow individuals (called sample members) in a representative sample of households over time. We included Understanding Society, which tracks and aims to interview eligible sample members who move from a sampled household into a new 'split-off' household in the UK.
- Age cohort studies follow a generation of children or adults (called cohort members) born in a specific time period, for example from birth, the start of secondary school or older age, continuing until the end of the life phase or transition of interest.
- Birth cohort studies, starting in pregnancy, at birth or infancy, can investigate the long-term effects of childhood circumstances, events and experiences. They usually collect extensive data on children's development and the family context. Comparisons between birth cohorts can look at generational differences.

In these types of longitudinal study, information may be collected to enable differentiation of the fathers of the cohort members (in cohort studies) and sample members (in Understanding Society) in terms of varied forms of co-residence and relationships with their children. This means that these different categories of fathers (of cohort members and sample members) can be incorporated into analyses of fatherhood and family changes; impacts of fathers and family changes on child outcomes; and relationships and support between adult cohort members/ sample members and their fathers. Additionally, longitudinal studies may identify the relationship and residence categories of these fathers so that mothers, partners, children and other research participants can be asked relevant questions about them. The studies may approach these fathers for data collection such as interviews.

These types of longitudinal study may also identify cohort members and sample members who, as teenagers and adults, are fathers themselves, and differentiate the relationship and residence categories of these fathers. For example, researchers may want to analyse data from household panel studies, and from the teenage and adulthood phases of cohort studies, to see whether being a young father, stepfather or adoptive father is connected with later mental health and economic outcomes (e.g. Sigle-Rushton, 2005). They may want to track changes in attitudes to family life among fathers who experience unemployment. As with the repeated cross-sectional datasets, these longitudinal studies may ask the cohort members and sample members specific questions about family life and their children (i.e. the children of cohort members and sample members), but also collect a wealth of other data about them which is not dependent on their fatherhood status.

(iii) Household-based and individual-based datasets

A distinction between household-based datasets and individual-based datasets is relevant for understanding how the studies identify and collect data from fathers. In household-based datasets such as the LFS and Understanding Society, the core sample is of households, or individual household members within the context of their household. Usually data is collected directly from all adult household members, and sometimes also older children, for example by interview and/ or using self-completion questionnaires. There may be a household-level questionnaire or interview for one person within the household (the household informant or household interview respondent), and separate individual questionnaires or interviews for each eligible household member.

In surveys of individuals, such as British Social Attitudes (BSA) and the Opinions and Lifestyle Survey (OPN), there is just one research respondent per household, although this person may report household-level data for context, including demographics for other household members. In cohort studies, it is the cohort member who is the individual of primary interest. Data is also collected from other individuals because of their relationship with the cohort member (e.g. parent, sibling, partner or the cohort member's child/ren), or their ability to report data about the cohort member (e.g. teacher).