HOUSEHOLDS AND FAMILIES

Introduction

This thematic guide is designed to explain the use of the ONS Longitudinal Study (LS) for household and family related studies. After reading it you should be able to:

- Ascertain whether the LS is a suitable data source for your household/family study
- Explain exactly what counts as a 'household' and a 'family' in the LS
- Determine the structure of complex households and families, as far as is possible given the information obtained from the census
- Specify the sample population for your study
- Specify the variables that you will need to extract from the LS for your study.

The ONS Longitudinal Study (LS) is a very good data source for research on household and family composition. This is because it contains data not only on its members, but also on the "non-members" – that is, the people who live in the same household as the LS member at the time of the relevant census. Each individual record in the non-member files (files in the Data Dictionary that begin with NM) contains the same data categories (i.e. variables) as the LS member's own record, so there is a wealth of information available about these other household members.

However, census definitions of households, families and dependent children have changed with each census, so you must be careful that you are comparing like with like. Also, the limitations of the data collected on the census forms mean that it can sometimes be difficult to determine the relationships between different household members, especially in large households or where there are unusual combinations of family members. There have also been changes in the data that were collected at each census; information on marital status and the relationships between household members is more detailed in later censuses.

Structure of this document

This document starts by looking at the idea of a 'household', both as it is defined on the census form, and as it is used for analysis in the LS. Next, after looking at marital status, it explores the LS data on the relationships between household members; specifically, the relationship of each household member to the head of household and to the LS member (remember, the LS member may occupy any position in the household and may be a child or an adult).

Then it defines a 'family' and looks at the family variables that are derived during census processing. It also looks briefly at the concept of a 'minimal household unit'.

It then looks at specific examples of complex households, in which it can be difficult to determine the relationships between individuals, or within which whole families may be 'concealed'.

The document finishes with three different example studies using the LS, which show how the issues above are applied in practice.

Households

Who should be entered on the census form?

The criteria for inclusion have varied slightly over the years, so the definition of a 'household' in this sense has also varied.

Until 1991 the completed forms were collected in person by enumerators, who were responsible for ensuring that the form filler had included all the household members, and only those people.

Definition of the household on the census form

1971	"A household comprises either one person living alone or a group of persons (who may or may not be related) living at the same address with common housekeeping. Persons staying temporarily with the household are included."
1981	"A household comprises either one person living alone or a group of persons (who may or may not be related) living at the same address with common housekeeping. Persons staying temporarily with the household are included."
1991	"A household comprises either one person living alone or a group of people (not necessarily related) living at the same address with common housekeeping – that is sharing at least one meal a day or sharing a living room or sitting room. People staying temporarily with the household are included."
2001	"A household is either one person living alone, or a group of people (not necessarily related) living at the same address with common housekeeping – share either a living room or sitting room, or at least one meal a day."
2011	"A household is one person living alone; or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area."
2021	"A household is one person living alone; or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area."

[**NB**: in 1971 and 1981, the definition of household included the term "common housekeeping", but no definition of what this meant was included on the form. Instead, the census enumerator, who collected the forms, was told that it meant "*any regular arrangement to share at least one meal a day, including breakfast*". In 1981, the meaning of common household that was given to the census enumerators was extended to also include "*people who shared a common living room*", so in effect the definition of 'household' changed.

In 1991 and 2001 a definition of "common housekeeping" was explicitly written into the definition of "household" on page 1 of the form, so the form filler would know exactly whom to include. This was important in 2001 because census forms were returned by post rather than being collected by enumerators, so it was important to be clear what was meant by "common housekeeping".

In 2011 and 2021, while the term "common housekeeping" was not explicitly used on the form, but the definition of a household included the meaning of common housekeeping (i.e. "share cooking facilities and share a living room or sitting room or dining area").]

Individual forms

At every census people could choose, for reasons of privacy, to enter their personal data on an individual census form rather than being included on a household form. These people are added to the household during census processing.

Absent residents and visitors

The previous section considered how a household could not be defined simply as a group of people sharing a dwelling. The difference between these determines the people that can be entered on the same census form. This Guide now looks at the residence criteria for inclusion in the household.

Usual residents who are absent on census night

From the table below you can see a change in the status of people who usually live in the household but are temporarily absent on census night. In 1971 they are listed at the end of the form but omitted from the bulk of the individual questions (i.e. they are only included in Part C of the form). From 1981 onward, such people are included in the main part of the form. In 1981 (question 6) and 1991 (question 6) they can nevertheless be identified as absent on census night, but in 2001, 2011 and 2021 the question about whereabouts on census night has been dropped and there is no difference made between usual residents who did or did not happen to be somewhere else that night.

Visitors

The status of temporary residents, or visitors, also changes (see below). From 1971 to 1991 anyone who spends census night with the household is included in the individual questions, but because there is a question on Usual Address (question B4 in 1971, and question 7 in 1981 and 1991), visitors can be distinguished from usual residents at this address.

In 2001, 2011 and 2021 there is no question on Usual Address in the main part of the form, but usual residents and visitors must be listed separately on the form and only basic information is collected about visitors. Information collected on visitors includes their name and surname, and their usual address in 2001; in 2011 and 2021 the information collected on visitors includes their first name, last name, sex, date of birth and usual UK address or country of residence if their usual address is not in the UK. However, from 2001 visitors are included with usual residents (and answer the individual questions) if they have no other usual address. In 2011 and 2021 this is still the case, but temporary residents from overseas are also explicitly included so long as they will be in the UK for at least three months.

You can see that there has been a gradual shift from counting people wherever they happen to be on census night, to counting them at their usual address (if any) irrespective of their whereabouts on census night. This makes the data increasingly helpful to the researcher wishing to study households or families.

Instruction on whom to include in the census form

1971	"Complete a line in part B for every person who:
	a) Spends Census night 25/26 April 1971 in this household
	or b) joins this household on Monday 26 April and has not been included as present on a Census form elsewhere.

	For any other person who usually lives in this household complete a line in Part C on the back page."
1981	"Include on your census form: - all the persons who spend Census night 5-6 April 1981 in this household (including anyone visiting overnight and anyone who arrives here on the Monday and who has not been included as present on another census form). - any persons who usually live with your household but who are absent on census night. For example, on holiday, in hospital, at school or college. Include them even if you know they are put on another census form elsewhere. Include any newly born baby even if still in hospital."
1991	"In answering the rest of the questions please include: - every person who spends census night (21-22 April) in this household, including anyone staying temporarily. - any other people who are usually members of the household but on census night are absent on holiday, at school or college, or for any other reason, even if they are being included on another census form elsewhere. - anyone who arrives here on Monday 22nd April who was in Great Britain on the Sunday and who has not been included as present on another census form. - any newly born baby born before the 22nd April, even if still in hospital."
2001	<u>Household members:</u> "List all members of your household who usually live at this address, including yourself. - Start with the Householder or Joint Householders. - Include anyone who is temporarily away from home on the night on 29 April 2001 who usually lives at this address. - Include schoolchildren and students if they live at this address during the school, college or university term. - Also include schoolchildren and students who are away from home during the school or university term and for whom only basic information is required. - Included any baby born before 30 April 2001, even if still in hospital. - Include people with more than one address if they live at this address for the *majority of time*. - Include anyone who is staying with you who has no other usual address. - Remember to include a spouse or partner who works away from home, or is a member of the armed forces and usually lives and *this address*."

		<u>Visitors:</u> "To help you complete the form you may use Table 2 to list any visitors at this address on the night of 29 April 2001, who usually live elsewhere. If there are only visitors at this address, please complete questions H1 to H5 on page 3. No further questions need to be answered."
	2011	<u>Household members:</u> Household members were individuals who usually lived at the address. A list of these was in H1 of the form: - The householder, who was responsible for completing the form. "The householder is the person who lives or is present at this address who owns/ rents (or jointly owns/ rent) the accommodation; and/ or is responsible (or jointly responsible) for paying the household bills and expenses." - Family members including partners, children and babies born on or before 27 March 2011 - Students and/ or schoolchildren who live away from home during term time - Housemates, tenants or lodgers - People who usually live outside the UK who are staying in the UK for 3 months or more - People who work away from home within the UK, or are members of the armed forces, if this is their permanent or family home - People who are temporarily outside the UK for less than 12 months - People staying temporarily who usually live in the UK but do not have another UK address, for example relatives, friends - Other people who usually live here, including anyone temporarily away from home Children with parents who live apart were included in the questionnaire for the address where they spent the majority of their time. If they lived equally between two addresses, they needed to be included at the address where they were staying overnight on 27 March 2011. The individual questions needed to be answered for every person who usually lived in the household. Every person who was, or intended to be, in the UK for 3 months or more needed to be included in the individual questions at their usual address. <u>Visitors:</u> Visitors were all other people staying overnight in the household on 27 March 2011, and questions V1-V4 needed to be completed for each of them. Visitors included:

		- People who usually live somewhere else in the UK, for example, boy/ girlfriends, friends, relatives
		- People staying here because it is their second address, for example, for work. Their permanent or family home is elsewhere
		- People who usually live outside the UK who are staying in the UK for less than 3 months
		- People here on holiday
2021		Household members:

Household members:

Household members were individuals who usually lived at the address. A list of these was in H1 of the form:

- The householder, who was responsible for completing the form. "The householder is the person who lives or is present at this address who owns/ rents (or jointly owns/ rent) the accommodation; and/ or is responsible (or jointly responsible) for paying the household bills and expenses."
- Family members including partners, children and babies born on or before 21 March 2021
- Students and/ or schoolchildren who live away from home during term time
- Housemates, tenants or lodgers
- People who usually live outside the UK who are staying in the UK for 3 months or more
- People who work away from home within the UK, or are members of the armed forces, if this is their permanent or family home
- People who are temporarily outside the UK for less than 12 months
- People staying temporarily who usually live in the UK but do not have another UK address, for example relatives, friends
- Other people who usually live here, including anyone temporarily away from home

Children with parents who live apart were included in the questionnaire for the address where they spent the majority of their time. If they lived equally between two addresses, they needed to be included at the address where they were staying overnight on 21 March 2021.

The individual questions needed to be answered for every person who usually lived in the household. Every person who was, or intended to be, in the UK for 3 months or more needed to be included in the individual questions at their usual address.

Visitors:

| | Visitors were all other people staying overnight in the household on 21 March 2011, and questions V1-V4 needed to be completed for each of them. Visitors included: |
| | |

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- People who usually live somewhere else in the UK, for example, boy/ girlfriends, friends, relatives
- People staying here because it is their second address, for example, for work. Their permanent or family home is elsewhere
- People who usually live outside the UK who are staying in the UK for less than 3 months

People here on holiday

Students: where should they be?

Students constitute the largest group of people who are away from their usual address for a substantial part of the year. The effect on the census varies:

- 1971 - the census took place during some (but not all) student holidays
- 1981 - it was during term-time
- 1991 - during the holidays
- 2001, 2011 and 2021 - during term-time.

Some, but not all, students have a different address in term-time and holidays. Since census night is usually a Sunday night, some students will be at their holiday address (or elsewhere) even during term-time. Therefore the potential for double-counting or missing students is clear. Students who are away from home during term-time may live in communal establishments during term-time (e.g. a university hall of residence or a boarding school).

Where students should be enumerated, by census

	Term-time address	Home address	Notes
1971	Yes, if present on census night (but recording home as Usual Address)	Yes, if present on census night; otherwise basic details recorded as Absent Member	In the LS, there is no data on Absent Members in 1971
1981	Yes, if present on census night (but recording home as Usual Address)	Yes, regardless of whether present on census night (but there is a Whereabouts question).	In the LS, most students were enumerated at their Usual Address but it is not always clear whether this is their home or term-time address or both.
1991	Yes, if present on census night (but recording home as Usual Address)	Yes, regardless of whether present on census night (but there is a Whereabouts question).	There is also a specific question on Term-Time Address for students (question 8).
2001	Yes, regardless of whether present on census night	Yes, regardless of whether present, but only basic details (name, sex, date of birth, marital status, whether a school child or student in full-time education) are recorded for students who have a separate term-time address	Students who have a term-time address are regarded as living there.

2011	Yes, regardless of whether present on census night.	Yes, regardless of whether present, but only basic details ((name, sex, date of birth, marital status, whether a school child or student in full-time education) are recorded for students who have a separate term-time address.	Students who have a term-time address are regarded as living there.
2021	Yes, regardless of whether present on census night.	Yes, regardless of whether present, but only basic details (name, sex, date of birth, marital status, whether a school child or student in full-time education) are recorded for students who have a separate term-time address.	Students who have a term-time address are regarded as living there.

Household definition in the LS

The household census form can include all sorts of people associated with that household, including absent residents, visitors and people completing individual forms, and can exclude people temporarily absent.

De facto and de jure

There are two main definitions of a household for LS analysis purposes, *de facto* and *de jure*. A *de facto* household consists of <u>all people</u> present in the household on census night, including visitors (and resident domestic servants and their families). A *de jure* household contains <u>only those people that are usually resident</u> in the household, regardless of whether they are present or absent on census night. Researchers usually want to study the *de jure* household (i.e. people that are usually resident).

As explained on previous pages, in 2001 all households are *de jure* because everyone was (supposed to be) enumerated at their usual address, irrespective of their actual whereabouts on census night. In 2011 and 2021 the same is true but the definition of "usual residence" is elaborated to take account of different kinds of visitors of people with more than one home.

Variables for selecting household members

1971		
ME71	JURE7	Number of people usually resident in household. 1971
ME71	FACTO7	Number of people present in household on census night. 1971
ME71	HHDCH7	Number of dependent children usually resident in the household. 1971
ME71	HHNDCH	Number of non-dependent children usually resident in the household. 1971
ME71	VISIND7	Usual residence or visitor indicator for private households. 1971
NM71	NVISIND7	Usual residence or visitor indicator for private households (non-member). 1971
1981		
ME81	DEPCHN8	Dependent child indicator. 1981
ME81	DEPCHNB8	Number of dependent children in household. 1981 (children <19)
ME81	DJHO8	Number of persons usually resident in household. 1981
ME81	NOOTHH8	Number of other people (i.e. not LS member) enumerated in the household. 1981
ME81	NOVISIT8	Number of visitors. 1981
ME81	URESIND8	Usual address indicator. 1981

		(This address; Elsewhere in GB or Northern Ireland, Outside UK; Elsewhere (details not stated))
NM81	NURESID8	Usual address indicator (non-member). 1981 (This address; Elsewhere in GB or Northern Ireland, Outside UK; Elsewhere (details not stated))
ME81	WERABOU8	Whereabouts on census night. 1981 (At this address; Elsewhere; Outside GB; In a communal establishment)
NM81	NWERABO8	Whereabouts on census night (non-member). 1981 (At this address; Elsewhere; Outside GB; In a communal establishment)
1991		
ME91	ADULT9	Number of adults usually resident in the household. 1991
ME91	DFNDJHH9	Number of persons enumerated in the household. 1991
ME91	DJHH9 (=ADULT9+DPNCHND9)	Number of usually resident persons in household. 1991
ME91	DPNCHND9	Number of usually resident dependent children aged 0-18 in household. 1991
ME91	URESIND9	Usual residence indicator. 1991 (This address (same as address of enumeration); Elsewhere – postcoded within GB; Elsewhere – No address details supplied)
ME91	WERABOU9	Whereabouts on Census night. 1991 (This address; Elsewhere in GB; Outside GB)
NM91	NURESID9	Usual residence indicator (non-member). 1991 (This address (same as address of enumeration); Elsewhere – postcoded within GB; Elsewhere – No address details supplied)
NM91	NWERABO9	Whereabouts on Census night (non-member). 1991 (This address; Elsewhere in GB; Outside GB)
2001*		
ME01	ADTH0	Number of adults in household. 2001
ME01	ADTHIMP	Number of adults in household imputation indicator. 2001
ME01	DPCH0	Number (and age) of dependent children in household. 2001
ME01	DPCHIMP	Number of dependent children in household imputation indicator. 2001
ME01	SIZH0	Household size. 2001 (excludes students with a separate term-time address)

ME01	STAH0	Number (and age) of students living away from home. 2001 (These LS members are not counted in the enumeration household).
ME01	STAHIMP	Students living away from home imputation indicator. 2001
2011*		
ME11	ADTH11	Number of adults in household. 2011
ME11	DPCH11	Number of dependent children in household. 2011
ME11	NSTAH11	Number of schoolchildren and students in household living away during term time. 2011 (Included in USULRSID11 but not SIZH11)
ME11	SIZH11	Number of people usually resident in household (from question P8 and P12 in census form (excludes students with a separate term time address and shorter-term visitors from overseas). 2011
ME11	URESINDP11	Usual resident indicator for LS member. 2011 If this is not the usual address for the LS member but they are not enumerated elsewhere, they will still have individual data.
ME11	USULRSID11	Number of usual residents. 2011 (from question H2 in census form – includes everyone except short-term visitors).
ME11	VISITNUMH11	Number of visitors in household. 2011 (a count of visitors recorded on the back of the household form).

*In 2001 and 2011, all these variables included imputed data (data that was edited by ONS during the census coding process). The imputation indicators indicate if a variable has been imputed/ edited (coded 1).

Marital status

One source of information about family structures within households is the census question on marital status.

The marital status variables in the LS describe only the legal status of an LS member. Couples may be identified as cohabiting (from 1981 onwards), but this information is derived from the question on relationship to head of household, rather than the one on marital status. This issue is discussed in more detail in the following section on Families.

The categories of marital status have been different at every census (see table below).

Categories of marital status by census:

	1971	1981	1991	2001	2011	2021
Single	√	√	√			
Single (never married)				√		
Single (never married and never registered a same sex civil partnership)					√	
Never married and never registered a civil partnership						√
Married	√				√	√
Married (first marriage)		√	√	√		
Married (first marriage) with no usually resident spouse on Census form		√				
In a registered same sex civil partnership					√	
In a registered civil partnership						√
Remarried		√	√	√		
Remarried with no usually resident spouse on Census form		√				
Separated (but still legally married)				√	√	√
Separated, but still legally in a same-sex civil partnership					√	
Separated, but still legally in a civil partnership						√
Divorced	√	√	√	√	√	√
Formerly in a same-sex civil partnership which is now legally dissolved					√	
Formerly in a civil partnership which is now legally dissolved						√
Widowed	√	√	√	√	√	√
Surviving partner from a same-sex civil partnership					√	
Surviving partner from a registered civil partnership						√

[**NB**: <u>1971</u> – If separated and not divorced write 'MARRIED'.

<u>1981 and 1991</u> – If separated but not divorced please tick 'Married (1st marriage)' or 'Re-married' as appropriate.

2021 – An additional question added for individuals who do <u>not</u> tick 'Never married and never registered a civil partnership'. The additional question (question 5) asks 'Who is (was) your legal marriage or registered civil partnership to?', with tick boxes for 'Someone of the opposite sex' and 'Someone of the same sex'.]

Marital status variables in the LS

	Variable name	**Range of values**
1971	MARCON7	Codes 0 - 3
1981	MARST8	Codes 1 – 7 There are separate codes for 'Married (first marriage)' and 'Married (first marriage) with no usually resident spouse on census form'; and 'Remarried' and 'Remarried with no usually resident spouse on census form'.
1991	MARSTAT9	1, 3 - 6
	MARSTTT9	1, 3 – 6 This variable was imputed during the 10% edit stage (which edits the 100% 'hard to code' items) if MARSTAT9 was found to be inconsistent with other data.
2001	MSTP0	1 – 6 -7: Missing
2011	MSTP11	1 – 9 -6: Missing

[**NB:** It will clear from the above that care needs to be taken when looking to identify changes in marital status between censuses]

Household relationships

Each census contains a question capturing each person's relationship to at least one other member of the household. In 1971, 1981 and 1991 such relationships were specified relative to a single household member, who is referred to in the LS as the *head of household*. In 2001, 2011 and 2021 such relationships were specified relative to the person completing the household form (person 1 on the form), who is referred to as the *household reference person* in the LS, and every other person listed as usual household members in Table 1 (2001) or question H3 (2011 and 2021).

1971-1991: relationship of each person to head of household
Question B5 of the 1971 form instructs the head of household to write 'Head', and all other members to write in their relationship to the head, with no pre-coded responses.

Question 5 of the 1981 and 1991 forms asks for relationships of all other members of the household to be given relative to the first person on the form. However, since the form instructs the "head or joint head" to enter themselves first on the form, this question is really giving the relationship to the head of household, just as in 1971.

2001-2021: relationship grid
From 2001 a relationship grid was introduced to identify the relationship of each person in the household to all the other members of the household (see below).

Format of relationship grid (page 4-5 of 2001, 2011 and 2021 Census forms):

Name of Person 1	**Name of Person 2**	**Name of Person 3**
First name:	First name:	First name:
Surname:	Surname:	Surname:

	Relationship of Person 2 to Person → **1**	**Relationship of Person 3 to Person** → **1 2**
ENTER NAME OF PERSON 1 ABOVE	Husband or wife ☐	Husband or wife ☐☐
	Partner ☐	Partner ☐☐
	Son or daughter ☐	Son or daughter ☐☐
	Step-child ☐	Step-child ☐☐
	Brother or sister ☐	Brother or sister ☐☐
	Mother or father ☐	Mother or father ☐☐
	Step-mother or step-father ☐	Step-mother or step-father ☐☐
	Grandchild ☐	Grandchild ☐☐
	Grandparent ☐	Grandparent ☐☐
	Other related ☐	Other related ☐☐
	Unrelated ☐	Unrelated ☐☐

Name of Person 4	**Name of Person 5**
First name:	First name:
Surname:	Surname:

Relationship of Person 4 to Person → **1 2 3**	**Relationship of Person 5 to Person** → **1 2 3 4**
Husband or wife ☐☐☐	Husband or wife ☐☐☐☐
Partner ☐☐☐	Partner ☐☐☐☐
Son or daughter ☐☐☐	Son or daughter ☐☐☐☐
Step-child ☐☐☐	Step-child ☐☐☐☐
Brother or sister ☐☐☐	Brother or sister ☐☐☐☐
Mother or father ☐☐☐	Mother or father ☐☐☐☐
Step-mother or step-father ☐☐☐	Step-mother or step-father ☐☐☐☐
Grandchild ☐☐☐	Grandchild ☐☐☐☐
Grandparent ☐☐☐	Grandparent ☐☐☐☐
Other related ☐☐☐	Other related ☐☐☐☐
Unrelated ☐☐☐	Unrelated ☐☐☐☐

In 2001, if there were more than five people in the household, a continuation questionnaire needed to be requested for the additional household members (person 6 onwards). The sixth person on the form and each subsequent person was then asked to give their relationship to the first person on the grid (head or joint head of household) and the previous two people on the grid. Eleven relationship categories were given (Husband or wife, Partner, Son or daughter, Step-child, Brother or sister, Mother or father, Step-mother or step-father, Grandchild, Grandparent, Other related, Unrelated).

In 2011 there was space on the household form for six people rather than five, so a continuation questionnaire needed to be requested for the additional household members (person 7 onwards). As in 2001 each subsequent person was then asked to give their relationship to the first person on the grid (head or joint head of household) and the previous two people on the grid. Alternatively, the entire questionnaire could be completed online in which case there was no need to request continuation forms, since these were automatically added to the online form based on the number of individuals given in H2 of the form. There were two extra relationship categories (Husband or wife, Same-sex civil partner, Partner, Son or daughter, Step-child, Brother or sister, Step-brother or step-sister, Mother or father, Step-mother or step-father, Grandchild, Grandparent, Relation - other, Unrelated (including foster child)).

In 2021 there was space on the household form for five people, so similarly to 2001 a continuation questionnaire needed to be requested for additional household members (person 6 onwards). The sixth and each subsequent person on the form was then asked to give their relationship to the first person on the grid (head or joint head of household) and the previous two people on the grid. Alternatively the entire questionnaire could be completed online in which case there was no need to request continuation forms, since these were automatically added to the online form based on the number of individuals given in H2 of the form. The relationship category 'Same-sex civil partner' was renamed 'Legally registered civil partner', but otherwise the relationship categories were the same as in 2011.

Having a relationship grid means that much more detailed information is available, although there is also more missing information than in earlier censuses. Some people had difficulty completing the grid and so there are quality issues relating to the relationship information, in particular with people from large and complex households, which have a large number of imputed relationships.

Special cases

De facto spouses

In 1981, where respondents ticked the "other relative" or "unrelated" box of question 5, they were required to write in their relationship to the head. People who wrote in relationships such as "fiancée", "common-law husband", "girlfriend" were coded as de facto spouses (see variable HRC8 in ME81 and NHRC8 in NM81). In addition, those who ticked husband/wife but were not recorded as married were also classed as de facto spouses. However, many cohabiting couples may have simply ticked the

"unrelated" box, and so would not be identified as de facto spouses. Therefore, the de facto specification can really only be used to put a lower limit on the number of cohabiting couples in 1981.

To estimate the number of cohabiting couples, you could look in the non-members' file to find unrelated opposite-sex co-residents of a similar age to the LS member, and classify such people as probable cohabiting couples.

From 1991 onwards cohabiting couples are more easily identified. In 1991, there was a "living together as a couple" category (see RELAT9 in ME91and NRELAT9 in NM91) and from 2001 a "partner" category in the relationship grid (plus, in 2011, a "same-sex civil partner" category, and in 2021, a "legally registered civil partner") (see HRELAT0 in ME01 and NHRELAT0 in NM01 in 2001; HRELAT11 in ME11 and NHRELAT11 in NM11 in 2011; and HRELAT21 in ME21 and NHRELAT21 in NM21 in 2021).

Joint heads
In 1981 and 1991, people were only coded as "Joint Head" in the LS if they had ticked the "unrelated" box and then written "Joint Head" in the accompanying space on the form. People who ticked the "other relative" box and wrote "Joint Head" afterwards were re-classified as "spouse" if their sex and marital status was compatible with this. Therefore, there are very few people in the LS who are actually coded as "Joint Head", and so it is not a particularly useful concept. There were only 49 LS members (0.01%) coded as "Joint Head" in 1981, and 106 (0.02%) in 1991.

Adopted, foster and step-children
In 1971-1991, adopted and step-children were included with other children, while foster-children were classed as 'unrelated'.

However, in 2001, 2011 and 2021 the relationship grid has a tick-box for step-children. Regarding adopted and foster children, there are no explicit instructions in 2001, so it is possible that respondents might have ticked "other related" or even "unrelated" in this case. However in 2011 and 2021, respondents are instructed to include foster children as "unrelated".

Re-assigning the head of household
To be a valid "head of household", a person must be usually resident at that address, be aged 16 or over, and not be a domestic servant (or part of their family). If the person specified as head of household on the census form is not a valid head, then the headship must be reassigned to another member of the household.

In 1971, the head is specified explicitly in question B5. If that person is not a valid head, then the headship passes to the first valid person on the census form. The same process applies in 1981 and 1991, where the head is the first valid person named on the form. Where the headship was reassigned in this way, the relationships of other household members to the head were revised as far as possible, although in some cases this was not possible.

In 2001, the "head of household" was replaced by the "household reference person". This is defined in the section on families (below).

To illustrate re-assignment of the head of household, consider the following example. On the completed 1991 census form for a private household, the first person on the form is a 42 year old male who gives his usual address as "elsewhere" and writes down the address of an army camp where he lives for most of the year. The second person is his daughter, aged 15, and the third person is his sister aged 32, both of whom are usually resident in the private household. The first person cannot be the head of household because his usual address is "elsewhere". The next person on the form is aged 15 and therefore the headship cannot be reassigned to her. The third person on the form is aged 32 and this is her usual address, therefore the headship is reassigned to the third person on the form.

Relationship values in the LS

The table below shows how categories and codes have changed in the LS as each new wave of census data has been added. From 1971 to 1991, if relationship was unclear, it was either allocated or left as unknown; from 2001, new categories were introduced showing the presumed alternatives, such as "child or step-child".

Values in the LS 1971-2021 for relationship to head of household or household reference person

(LS variables: HRC7B7 in ME71, HRC8 in ME81, RELAT9 in ME91, HRELAT0 in ME01 and HRELAT11 in ME11)

	1971	1981	1991	2001	2011	2021*
Head	1	1	0			
Household reference person				0		
Spouse	2	2			1	
Same sex civil partner					2	
Husband or wife			1	1		
Living together as a couple			2			
Partner				2	3	
Child	3				4	
Son or daughter		3	3	3		
Child of cohabitee of head of household			4			
Step-child				4	5	
Child or step-child				13		
Child in law	4					
Son-in-law or daughter-in-law		4	5			
Living with son or daughter			6			
Parent/ Parent-in-law	5					
Parent			7		8	
Parent-in-law			8			
Mother or father		5		6		
Step parent					9	
Step-mother or step-father				7		
Mother-in-law or father-in-law		6				

	1971	1981	1991	2001	2011	2021*
Sibling	7				6	
Brother or sister		7	9	5		
Step brother/ Step sister					7	
Sibling in law	8					
Brother-in-law or sister-in-law		8	10			
Grandchild	9	9	11	8	10	
Grandparent				9	11	
Nephew/Niece	10	10	12			
Other relative/ other related	11	11	13	10	12	
Partner or spouse				12	14	
Parent, Step parent, Grandparent					15	
Child or grandchild					16	
Both persons in generation 2 of family					17	
Unrelated				11	13	
Resident domestic servant and family	12	12				
Boarder		13				
Boarder, lodger			14			
De facto spouse		14				
Joint head		15	15			
Other unrelated	16	16	16			
Visitor to private household	17					
Resident of institution	18					
Person in communal establishment		-9				
Not traced at NHSCR in 1971	20					

	1971	1981	1991	2001	2011	2021*
Not applicable or missing	-9		-9			
Not applicable (people in communal establishment)				-9		
No code required (communal establishment, household reference person, No person household)					-9	
No usual residents in household				-8		
Missing (initial extract only)				-6		
Unable to code				-1		
No retained record					-8	

*Not yet allocated

Relationship to LS member

In the LS we are interested in the relationship between the LS member and other household members. The relationship between two household members who are not head of household can be derived to some extent by comparing their relationships to the head. For example, if household member A is the son of the head, and household member B is the wife of the head, then it is clear that A is also the son (or step-son) of B.

These derived relationships are coded in the variables LSRELAT7 in NM71, NLSRELT8 in NM81, NLSRELT9 in NM91, LSRELAT0 in NM01 and LSRELAT11 in NM11. However, it is not recommended that researchers use LSRELAT7 if they wish to study siblings of the LS member as these will not be identified if ever-married. In this case a new derivation can be made using the relationships of the LS member and non-members to Head of Household - consult a CeLSIUS User Support Officer if this is required.

The limits of derivation

Derivation will not always be accurate. Suppose for example, a household in 1971, 1981 or 1991 contains a lone mother (the LS member), her son, her mother, and her father who is also head of household. From the census form we can tell that the head of household is her father, and that the boy is the grandson of the head of household. However, we cannot tell from that information whether the LS member is the mother or the aunt of the boy.

In 1971 and 1981, an ambiguous relationship of this nature would be coded simply as "unrelated" or "other relative" since it cannot be safely assigned to a single relationship category like "parent" or "aunt or uncle". In 1991, by contrast, there is an NLSRELT9 category for "parent, aunt or uncle" that accounts for this situation. However, these categories were not found very useful in practice; in 2001 and 2011, joint categories were restricted to closer pairs such as "child or step-child".

In 2001 and 2011 the relationship grid solved some of the derivation problems. However, some respondents found it confusing and gave conflicting responses; moreover in larger households only some relationships were asked for in the grid (see the beginning of this section). Uncertainties therefore remain.

Coding

The relationship codes used at each census for LS members (or non-members) are not necessarily the same as those used for the Head of Household (or Household Reference Person).

LS relationship variables

	1971	**1981**	**1991**	**2001**	**2011**	**2021***
Relation of non-member to LS member	LSRELAT7	NLSRELT8	NLSRELT9	LSRELAT0	LSRELAT11	LSRELAT21
Relation of LS member to HoH	HRC7B7	HRC8	RELAT9	HRELAT0	HRELAT11	HRELAT21
Relation of non-member to HoH	NHRC7B7	NHRC8	NRELAT9	NHRELAT0	NHRELAT11	NHRELAT21
Relation of Head of LSM's Family to HoH	RELAT7/ NRELAT7	RELAT8/ NRELAT8				

HoH = Head of household/ Household reference person

*Not yet allocated, but expected variable name

Families

A family is a sub-division of a household. The definition has changed over the years, but for 1971-1991 can be summarised as follows. A family was either:

- A couple (married or co-habiting), alone, or with their never-married child/ children (dependent or non-dependent), or
- A lone parent with their never-married child/ children (dependent or non-dependent), or
- One or more grandparent with their grandchild/ grandchildren, where the middle generation is absent.

The child can be of any age. The changes in definition amount to changes in the definition of a "couple". In 1971 and 1981, a couple had to be married. In 1991, unmarried, opposite-sex cohabiting couples were also added, and in 2001, same-sex couples were added.
[**NB:** a family cannot consist of one person; this means that not everybody in a household is necessarily in a family.]

In 2001, there was an important change in the definition of a child to include ever-married children as long as they did not have a partner or child of their own in the household. This means that a child who is married, separated or divorced, and living with their parents without a partner or any children of their own, would be included in a family with their parents. A widowed mother living with her divorced daughter would also be counted as a family.

For more information, see this article:

[“Households and families: Implications of changing census definitions for analyses using the ONS Longitudinal Study” (2010), Emily Grundy, Rachel Stuchbury and Harriet Young.](#)

The census questions that are used to define families in the LS are the same ones that are used to derive relationships between household members, so the same issues arise.

Head of family (1971-1991) or Family reference person (2001-2011)

Each family has a head of family, and again the definition of this has changed over time:
- 1971 and 1981 - the head of family was defined as the husband in a married couple, or a lone parent or lone grandparent.
- 1991 – the definition changed so that the first member of a couple recorded on the form was the head of family, regardless of sex.
- 2001 and 2011- the head of family was replaced by the Family Reference Person. The Family Reference Person (FRP) was either a lone parent (or grandparent) or in a couple family, the highest-ranking member of the couple (ranking was done first by economic activity (in descending order: full-time job, part-time job, unemployed, retired, other), then by age, and finally by order on the form).

Household Reference Person (HRP)

This leads on to the concept of the Household Reference Person (HRP) (mentioned earlier), which was used in the 2001 and 2011 Censuses. The HRP replaced the head of household used in the 1971-1991 Censuses. The HRP is defined as the highest-ranking FRP, if more than one family is present in the household, or else the highest-ranking person in the household, using the same criteria for ranking as are used for the FRP.

The identifier variables are FRPP0 and HRPP0.

Census-derived family variables
Some of the family variables in the LS are derived during census processing, rather than being derived specifically for the LS. In some cases this means that they provide information that could not be derived at the LS stage, because the census coders have access to the census forms themselves and so can cross-check information where necessary. Therefore these variables can reveal more about family structures than is apparent from the relationship variables themselves. This is useful for identifying concealed families, i.e. those which do not contain the head of household (household reference person).

For example, consider the household below, enumerated in 1991. Person 1 is the lone parent of person 2, and person 3 is the lone parent of person 4. The table shows the LS variables RELAT9 (to person 1), FANUM9 (the number of the family within the LS member's household) and GENINFM9 (generation within the family).

Example of a household in 1991

Person	Sex	Age	RELAT9	FANUM9	GENINFM9
Person 1	F	30		1	1
Person 2	F	3	Son/daughter	1	2
Person 3	F	25	Unrelated	2	1
Person 4	M	5	Unrelated	2	2

Persons 3 and 4 are not related to the head of household, therefore it is not possible to tell if they are related to each other based on the values of RELAT9. However the variable FANUM9 reveals that they are in the same family as each other, and GENINFM9 shows that person 3 is the parent and person 4 their child.

More information on the use of these variables will be addressed in the section on complex households.

Minimal household units

A minimal household unit (MHU) is a subdivision of a family, devised by Overton & Ermisch (1984)[1].

A MHU is defined as:
- An unmarried individual, or
- A lone parent with their dependent child/ children, or
- A 'couple', alone, or with their dependent child/ children.

NB: this definition refers to dependent children, as opposed to the definition of a family which refers simply to children.

The definition of "dependent child/ children" has been different at each census:

1971	A child under 15 years, or a student under 25 years
1981	A child under 16 years, or an unmarried student under 25 years
1991	A child under 16 years, or a never married, economically inactive, full-time student under 19 years
2001	A child under 16 years, or a full-time student under 19 years living in a family with a parent or parents
2011	A child under 16 years, or a full-time student under 19 years living in a family with a parent(s) or grandparent(s) and with no spouse, partner or child of their own.
2021	A child under 16 years, or a full-time student under 19 years living in a family with a parent(s) or grandparent(s) and with no spouse, partner or child of their own.

The definition of "couple" also changes (see Families section).

The idea behind MHUs is that they make useful units for analysis because an individual will move from one type of MHU to another by means of simple demographic transition event (e.g. a marriage, or birth). However, MHUs have not been used extensively as a research tool. Most research focuses on families instead. The variables containing information on MHUs are MHUPOS# (position of LS member in MHU), MHUTYP# (MHU type) and MHUCOM# (combinations of MHUs in household).

It is possible for CeLSIUS user support officers to derive new household or family variables, using definitions or algorithms specified by users, for use in their analyses.

[1]Population Trends 35, pp18-22, 1984

Complex households

This section looks at increasingly complex examples of households to investigate the extent to which the LS can inform you about the families that they contain.

The information available in the LS is ultimately determined by the questions that appear on the census form. In 1971, 1981 and 1991, this means that the relationships between household members must be determined by comparing their relationships to the head of household. The examples in this section show the limitations that this imposes on a study. From 2001 the relationship grid offers more information.

In a simple household containing one family, all relationships between family members can be derived from their relationship to the head of household, because that person is also the head of family.

Consider this family, present at the 1991 census, in which Harry is the head of household (HoH) and Jo is the LS member (LSM):
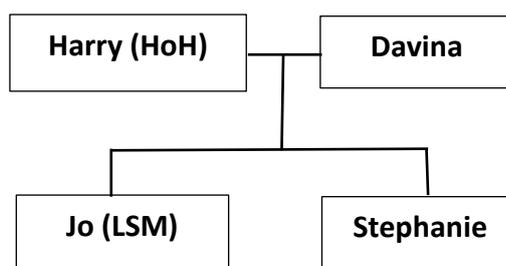
- RELAT9 is the LS variable that gives the relationship of an LS member to the head of household and NRELAT9 gives the relationship of the non-member to the head of household.
- NLSRELT9 is the relationship of each non-member to the LS member, derived from the values of RELAT9/ NRELAT9.

[NB: NLSRELT9 does not distinguish between the sexes, but you can do this using the SEX variable for each person.]

The relationships in this family can be summarised as follows:

Name	Relationship to HoH	Derived relationship to LSM (NLSRELT9)	True relationship to LSM
Jo	Son	-	LSM
Harry	HoH	Parent	Father
Davina	Wife	Parent/ Step-parent	Mother
Stephanie	Daughter	Brother or sister	Sister

Multi-generational households

Consider this more complicated household from the 1991 Census:
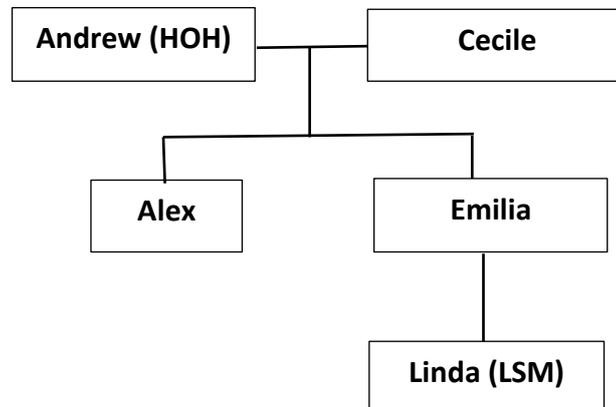
The relationships in this household can be summarised as follows:

Name	Relationship to HOH (RELAT9/NRELAT9)	Derived relationship to LSM (NLSRELT9)	True relationship to LSM	Marital status
Linda	Granddaughter	LSM	LSM	Single
Andrew	HOH	Grandfather	Grandfather	Married
Cecile	Wife	Grandmother	Grandmother	Married
Alex	Son	Father/ Uncle	Uncle	Divorced
Emilia	Daughter	Mother/ Aunt	Mother	Divorced

Concealed families

Now consider a household that contains a lone-parent family lodging with another married couple who have a daughter:
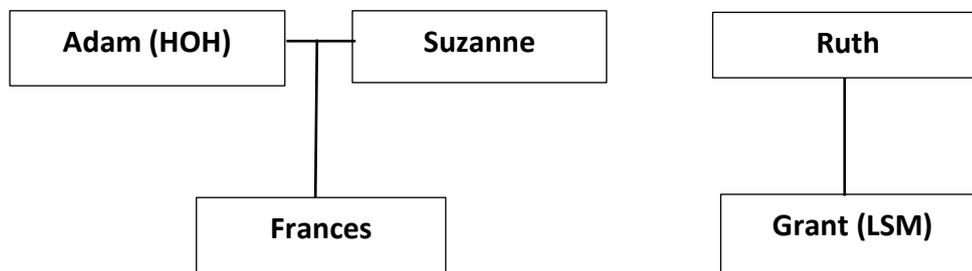
The relationships in this household can be summarised as follows:

Name	Relationship to HOH (RELAT9/NRELAT9)	Derived relationship to LSM (NLSRELT9)	True relationship to LSM
Grant	Unrelated	LSM	LSM
Ruth	Unrelated	Unrelated/ Related	Mother
Adam	HOH	Unrelated	Unrelated
Suzanne	Wife	Unrelated	Unrelated
Frances	Daughter	Unrelated	Unrelated

Cohabiting parents

Next, consider a family in the 1991 census in which the couple are not married but are cohabiting, and have a child. This is shown below (the dotted line indicates that the couple are unmarried).
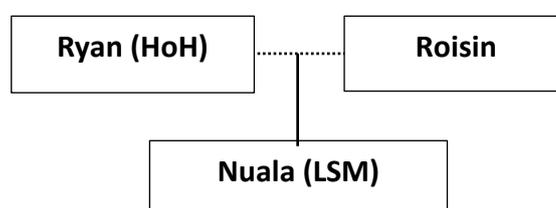
This family would give us the following data:

Name	Relationship to HOH (RELAT9/NRELAT9)	Derived relationship to LSM (NLSRELT9)	True relationship to LSM
Nuala	Daughter	LSM	LSM
Ryan	HoH	Parent	Father
Roisin	Living together as a couple	Parent or other unrelated	Mother

In this case you cannot tell from RELAT9 whether Roisin is actually the mother (by birth or adoption) of Nuala, or unrelated. The term "step-parent" as defined in the census can only apply to the legal spouse of a blood parent; so if Roisin is not the natural mother of Nuala, she must be unrelated. Therefore the NLSRELT9 category for Roisin is ambiguous.

In other words, from what NLSRELT9 tells us, the family structure could equally well be as follows:
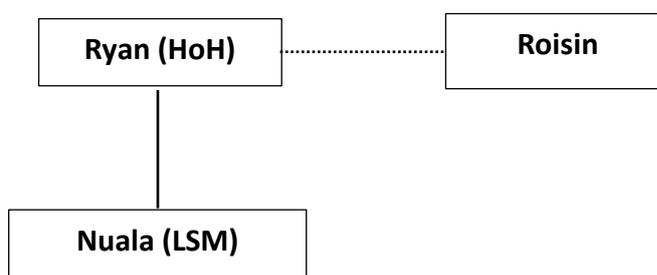
The family variables don't help here because any cohabiting couple automatically counts as a family. Whatever the relationship between Roisin and Nuala, this group will be coded as a single family.

Things are simpler in the case where Nuala is the daughter of Roisin but not of Ryan. In most cases Nuala will take the RELAT9 code for "child of cohabitee" (although this category does not appear on the census form, it can be coded manually during census processing if Roisin and Nuala have the same surname). Then you would be able to say that Roisin is the mother of Nuala.

De facto spouses

A similar situation occurs in 1981, where certain cohabiting couples can be identified as *de facto* spouses. In 1981, such couples were not considered to constitute a family, and so the *de facto* spouse will be identified in the LS as being "not in a family" (FANUM8 = 6). This means that a child is only associated with one of the two older household members, either the head of household or the de facto spouse. The two possibilities are illustrated below:
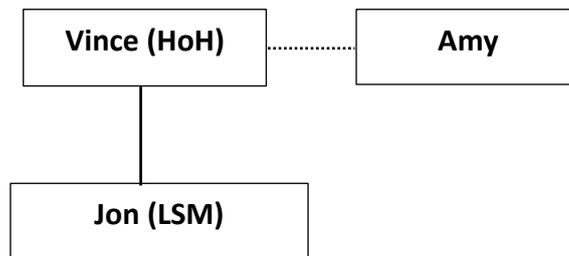

In the first case, the following coding results, which gives the relationships correctly according to the 1981 definition of a family:

Name	Relationship to HOH (HRC8/ NHRC8)	Derived relationship to LSM (NLSRELT8)	True relationship to LSM
Jon	Son	LSM	LSM
Vince	HoH	Parent	Father
Amy	*De facto* spouse	Other unrelated	Unrelated

Amy is 'unrelated' to Jon since she is not married to Vince, so she is not Jon's step-mother.

The second case has Jon as Amy's son:
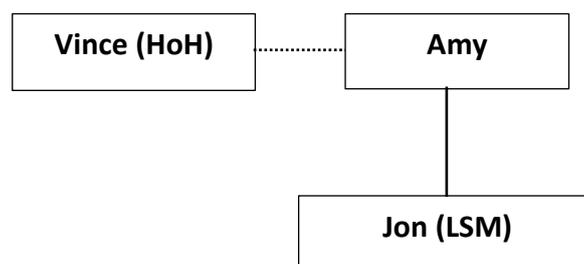
In this case, the relationships work out as follows:

Name	Relationship to HOH (HRC8/ NHRC8)	Derived relationship to LSM (NLSRELT8)	True relationship to LSM
Jon	Unrelated	LSM	LSM
Vince	HoH	Unrelated	Unrelated
Amy	*De facto* spouse	Unrelated/Related	Mother

Complex families

Suppose a household contains a married couple with their never-married daughter, who is herself the lone parent of an infant boy. Such a household is illustrated below.
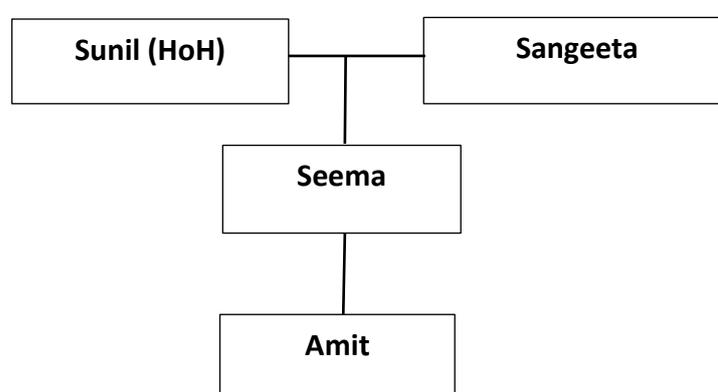
Based on the definition of family used by ONS, Sunil and Sangeeta, together with Seema, form a married couple family. However, Seema could also form a lone parent family with Amit. This would put Seema in two families simultaneously, but this is not possible in the LS because each individual only has one set of family variables.

It would be consistent with the definition of a family to place all three generations in the same family in this case. However, there are certain LS variables that indicate a person's position within their family, and these variables (such as FAMSTAT7, LSPRIND8, GENINFM9, GENINF0 or GENINF11) are based on two-generation families. There is no way any of these variables could be coded for Amit, because their coding schemes do not allow for three-generation families.

To find the solution you have to identify households like this one in the LS and see how the variables are coded in practice. What emerges is as follows:
- In 1971, there were too few of these families to draw any conclusions about how they were coded.
- In 1981, such households were coded as a single family. Also, LSPRIND8 is not coded for non-members in 1981, so the fact that there is no suitable code for Amit does not present a problem.
- From 1991, however, the younger two generations were coded as a lone parent family, while the older generation formed a separate married couple family. GENINFM9 is coded for non-members and is not problematic in this situation.

Cross-sectional studies

You have seen what household and family data are in the LS. Using several different research questions, this section demonstrates how these data are used practically. The first question refers to a cross-sectional study:

What proportion of children aged 16 and under and living in private households were in each type of family (married parents, cohabiting parents, lone parent, no parent) in 1971, 1981, 1991, 2001 and 2011?

The LS is not necessarily the most suitable data source for a cross-sectional study such as this, but it is included here as an illustrative example. In practice you might be better off using the [Samples of Anonymised Records (SARs)](#) for cross-sectional studies of 1991, 2001 or 2011 data.

The types of family you might classify children into are:
- married couple families
- cohabiting families
- lone parent families
- those not in a family.

The latter category includes those in communal establishments, children being fostered and other children staying with a family to whom they are not related.

Exclusions from the sample

There is one further category, i.e. those children aged 16 or under who are parents themselves. These people will be excluded from this study.

The census takes a "snap-shot" of a household on a particular date, so a child who is visiting an address other than their usual one is likely to appear as being "non-family". This would cause the "non-family" category to be over-sampled, so it is also necessary to exclude visitors from this study (~0.6% of the subjects in 1971). Furthermore, as the study question specifies private households, you need to exclude children living in communal establishments (~1.3% of the subjects in 1971).

Cohabitating parents

The issue that varies most between censuses is the identification of cohabiting couples. In 1971, there is no data on cohabitation available. An unmarried couple would be recorded as "unrelated". If they have a child, that child might be coded as "unrelated" or as "son or daughter", depending on how the form-filler regards the relationship between the child and the head of household.

In 1981, there is some limited information on cohabitation in the form of the de facto spouse category. As you will see, the variables in the LS allow such families to be identified. However, the proportion of cohabiting partners successfully identified as such in this way is in some doubt, and for women may be as low as 60%. Cohabiting parents not identified as such will appear in the census coding either as

lone parent families, or else as not being in a family. Therefore, the number of children with *de facto* married parents in 1981 is to be regarded as a lower limit to the real figure. It is only from 1991, when cohabiting couples were first fully recognised in the census, that such families can be reliably identified.

LS variables for 1971 (ME71)

In 1971, the variable FMTYPE7, which gives the status of the head of family of the LS member, can be used to identify what type of family the LS member is in, and means that LS members can be split into those in married-couple families, those in lone parent families, and those not in a family. The visitor indicator VISIND7 can be used to exclude visitors, and MHUCOM7 is used to exclude those in communal establishments. However, FMTYPE7 is not enough in itself to determine whether the LS member is the child of the family, rather than being a parent themselves. The variables SONPRES7 and DAUPRES7 can be used to distinguish children from child-parents.

LS variables for 1981

In 1981, FFHTYPE8, the equivalent of FMTYPE7, can be used to identify the family type. As before, this variable allows us to distinguish between LS members in married-couple families, lone parents and those not in families. However, the code -9 includes not only those who are not in a family, but also those whose record for 1981 is missing. Therefore it is necessary to use another variable to separate those who are genuinely not in a family.

AGE8 can be used to limit the study to children aged 16 and under, and LSPRIND8, the 1981 equivalent of FAMSTAT7, can be used to identify them as children as opposed to parents within the family. LSPRIND8 can also be used to identify those non-family children that were insufficiently distinguished by FFHTYPE8. URESIND8 can be used to exclude visitors from the study, and MHUCOM8 to exclude people in communal establishments.

There is a further complication in 1981 because the identification of *de facto* spouses means it is possible to identify cohabiting couples in some cases. Such people are coded either as lone parents or as non-family by FFHTYPE8, but the variable DFACTSP8 can be used to indicate the presence of a *de facto* spouse in the household. Codes 1, 3, 5 and 7 indicate that the LS member is a child in a family containing a *de facto* spouse.

LS variables for 1991

In 1991 the variable GENINFM9, which gives the LS member's generation within their family, makes it easy to exclude any child-parents by removing those members with GENINFM9=1. Visitors can be excluded using the URESIND9 variable, and those in communal establishments using MHUCOM9. However, identifying the family type is more complex, but can be derived using the variables MHUTYPT9 and MHUPOS9.

LS variables for 2001

In 2001 instructions were to include on the census form everyone normally resident at the address, whether or not they happened to be there on census night, which means that the family status variable, FMSP0, can be used to identify the type family with greater confidence; visitors will not be included. The variable that shows the position of the LS member in their minimal household unit (MHUPOS0) can be used to discount children who are themselves parents and those in communal establishments. For the purposes of this study, imputed age values have been accepted, since under-sixteens are relatively easy to identify in a household from other characteristics such as school student status and presence of parents and siblings in the household. Family and minimal household unit are derived constructions and therefore not directly subject to imputation.

LS variables for 2011

Similarly to 2001, in 2011 instructions were to include on the census form everyone normally resident at the address, whether or not they happened to be there on census night, which means that the family status variable, FMSP11, can be used to identify the type family with greater confidence, and visitors will not be included. The variable that shows the position of the LS member in their minimal household unit (MHUPOS11) can be used to discount children who are themselves parents and those in communal establishments. Again, for the purposes of this study, imputed age values have been accepted since under-sixteens are relatively easy to identify in a household from other characteristics such as school student status and presence of parents and siblings in the household. Family and minimal household unit are derived constructions and therefore not directly subject to imputation.

Results

The Table 1 tab in the associated Excel file shows the results of the analysis for this study. The table shows the number of children aged 16 or under in each family type for each year. Remember that cohabiting couples in 1981 are identified via the *de facto* spouse indicator, so the figures in this column must be regarded as a lower limit only. Those cohabiting couples with children who were not identified as *de facto* spouses in 1981 will appear in this study as lone parent families. In most cases, the head of household will be male and so the family will appear as a lone father family. Therefore, the lone father category is inflated in the same way that the cohabiting category is under-sampled.

The table shows a trend towards increasing numbers of children living with lone mothers. Also, the number of children born to cohabiting couples increased greatly between 1981 and 2011. The decreasing total reflects the fact that fertility levels declined over the 1971-2011 period.

Longitudinal studies

This section considers a study that follows up individual LS members between censuses. The research question is:

For lone parents in 1981, is their likelihood of being in a couple family by 1991 related to their family size in 1981?

The aim of this is to test the idea that prospective partners of lone parents might be discouraged if the parent already has a large family.

[**NB**: the lone parent may obtain a partner at any point during the period between the 1981 and 1991 censuses, and the family size may change throughout this period, with children joining the family through birth or adoption, and leaving through death or leaving the parental home. Therefore you might decide to measure the same person's family size in 1991 and use the average of the 1981 and 1991 family sizes to estimate the average family size throughout the follow-up period.]

However, forming a partnership may itself affect family size, therefore you might be confusing the cause with the effect if you were to use the average family size in this way. Women who gain a partner early in the follow-up period might be more likely to have further children than those who remain single throughout. Therefore for the purposes of this example we have used the 1981 family size as the explanatory variable.

[**NB**: Also, since partners can be gained and lost rapidly there is scope for undetected changes in partnership status between censuses. This is discussed further on the results page.]

Study population

The unit of analysis for this study is lone parents at the 1981 census, who must be present at both the 1981 and 1991 censuses.

Where the lone parent is head of family, they can be identified using the family type variable. However, if the subject is themselves the never-married child of a married couple family, then that subject's family type will appear as "married couple" in the LS. You can account for this by using the non-members' file to identify those people who are living with their own child(ren), but who are themselves coded as the child of a family. Alternatively you could simply restrict the study to members who are themselves heads of family.

You recall from earlier in this Guide that families containing de facto spouses were not all identified in 1981. Where the de facto spouse was not identified, the family would appear to be a lone parent family instead. For this study, it means that some of our study subjects will actually have been cohabiting in 1981.

Although this study is not attempting to track changes in the family size during the follow-up, you can set up the study so that children who are present at the start of the period are likely to remain there throughout. You can do this by defining "family size" as being the number of children aged 0 – 6 years

in 1981, then they will remain dependent throughout the follow-up. A few of these children will still leave the parental home (e.g. those that die during the period), but the majority will be present throughout.

You will again need to exclude visitors from the study, both in terms of the parents themselves and their children, and you will need exclude people in communal establishments, because you do not have any family data for these LS members.

In summary, the study population will be: LS members who were lone parents and at their usual address in 1981, who were present at their usual address in 1991, and who have at least one usually-resident child aged 0 – 6 years in 1981.

LS variables

This example uses the non-members' file (NM81) to identify all the subjects who are living with their own children in 1981 (NLSRELT8). The code 2 identifies LS members who are living with their children. The members' file (ME81) can then be used to identify lone parents (LSPRNID8); codes C - F identify lone parents who are also heads of family, but it is necessary to include codes K- P because they represent children within families who could themselves be parents. However, using this method means that some LS members will appear as lone parents when in fact they are not because there is a de facto spouse present. Therefore it is necessary to exclude anyone for whom DFACTSP8 is not 0.

LS members who are visitors in 1981 or 1991 can then be excluded using the variables URESIND8 and URESIND9, and those in communal establishments in 1981 or 1991 can be excluded using MHUCOM8 and MHUCOM9, as we have seen previously.

Now you need to work out the family size (i.e. number of children up to 6 years old in the LS member's family) and see what the LS member's partnership status is in 1991. The number of children in an LS member's family can be derived from the non-members file in 1981, by adding the number of children each LS member has (NLSRELT8). Finally you can use MHUTYP9 (ME91) to derive a family type variable (coded: 1-Not in a family, 2-Lone parent, 3-Married, 4-Cohabiting). Then it is a matter of cross tabulating family size in 1981 by family type in 1991.

Results

The Table 2 – Longitudinal Study tab in the associated Excel file shows the distribution of the study subjects between the different family types in 1991, broken down according to family size in 1981.

The row percentages in Table 2A show that the proportion of lone parents in 1981 who are still lone parents in 1991 does increase with increasing family size. It is possible that some of these lone parents did in fact have partners during the follow-up period and lost them again, but because the data only shows their status at the end of the follow-up period, it is not possible to determine where this is the case.

Tables 2B and 2C show each sex separately, the main difference being in the overall distribution of family types at 1991 for males compared to females. Lone fathers in 1981 appear more likely than lone mothers to be married by 1991, while lone mothers are much more likely to remain as lone parents. It is difficult to draw any conclusions about the effect of larger families here because the numbers get quite small. Finally, Tables 2D and 2E divide the lone parents by age. These tables show that the older age group is less likely to get married and more likely to remain a lone parent than the younger age group, but again the small numbers make it difficult to draw any conclusions about the effect of larger families.

Cross-sequential studies

A cross-sequential study is a comparison of two or more equivalent longitudinal studies, each covering a different time period. The study question for this section illustrates this:

How did the proportion of elderly people (aged 65+) moving in with their adult children change between 1971-1981, 1981-1991, 1991-2001 and 2001-2011?

By looking longitudinally at an elderly person's household circumstances, it is possible to determine whether they have moved in with their children during the follow-up period; then, by comparing the proportions of people making such transitions over each period, it is possible to determine the trend over time.

You should make a distinction between elderly people who are moving in with their children, and the inverse situation, where the children move in with an elderly parent. In the former case, it is likely that the elderly person has moved in order to be supported by their children, whereas in the latter case there may be other reasons for the move. There are ways to determine the direction of the transition. For example, if the elderly person is head of household, you might assume that they are the incumbent resident, and that the children have moved in with their parent. Conversely, if the child (or their spouse) is head of household, then it is likely that the parent has moved to live with the child. Alternatively, you could look at the geographical data in the LS to see whether it is the parent or their child who is the one who has moved. However, this example assumes that any transitions where the parent and child end up living with each other are due to the parent moving in with their child.

Firstly, you need to identify specific types of situation that the elderly people are coming from and tabulate these against the situation they are moving to. The main categories to consider are:
- people living alone,
- people living with a spouse but no adult children
- people already living with their adult children,
- other (includes people cohabiting, living with other people)

Additionally, as a subsidiary study, this study will look specifically at those people who are widowed at the end of follow-up, to see if their pattern of transitions differs from that of the rest of the sample.

Study population

For this study each subject needs to be an LS member, so that they can be tracked longitudinally and you can see how their family type has changed by the end of follow-up. The subjects will be people aged 65 and over who are present and whose household circumstances are known at both the start and end of each follow-up period.

This study should only be looking at elderly parents, but unfortunately it is difficult to determine whether LS members have had children using the LS because only the 1971 Census provides fertility information for births to LS members before 1971. Furthermore, this information is only asked of women who were ever-married and were aged 60 at the time of the census (see questions B23 and B24 in the 1971 Census form). Therefore, to be sure that the study subjects were parents, you would have to restrict the study to ever-married women in a certain age range. Therefore, this example looks at all elderly people (i.e. all LS members aged ≥65 years). This means that not all of them will be parents, which needs to be remembered when discussing the results.

Remember that there are four separate periods being examined (1971-81, 1981-91, 1991-2001, 2001-11), and four separate cohorts:

- first cohort (for the first follow-up period): taken from LS members aged 65 and over in 1971.
- second cohort (for the second follow-up period): taken from LS members aged 65 and over in 1981.
- third cohort (for the third follow-up period): taken from LS members aged 65 and over in 1991.
- fourth cohort (for the fourth follow-up period): taken from LS members aged 65 and over in 2001.

There will be some people who appear in more than one cohort.

LS variables

You want to study elderly people making the transition from various types of living arrangement to living with adult children. The four categories of living arrangement that were identified above were:

- elderly LS members living alone.
- elderly LS members living with adult children.
- elderly LS members living with a spouse but no adult children.
- elderly LS members living with other people but no adult children

In 1971, you can identify members of the first category by requiring that the household size, as given by JURE7, be equal to 1. For category 2, you need to look in the non-members file (NM71) and see if there is at least one usually resident person aged 16 or over who is identified as a child of the LS member. For this you should look for non-members who have the following:

- NVISIND7 = space
- NAGE7 >= 16
- LSRELAT7 = 6 or 7 (children).

Amongst the remaining subjects, those that are co-resident with a usually resident spouse go into category 3. For this you can use the LS variable SPINDIC7 (spouse/ co-resident indicator), which is equal to 1 when a spouse is present. The remaining subjects are then put into category 4.

Similarly in 1981, members of the first category are identified by requiring that the household size (DJHO8) is equal to 1. The second category requires access to the non-members file (NM81) in order to see if there is at least one usually resident person aged 16 or over who is identified as a child of the LS member, see:

- NURESID8 = 1
- NAGE8 >=16
- NLSRELT8 = 2 or 3 (child and child-in-law)

Amongst the remaining subjects, people who are co-resident with a usually resident spouse go into category 3 (SPINDIC8 = 1). The remaining people go into category 4.

Similar methods are used to identify adult children and spouses in 1991, 2001 and 2011.

In order to categorise the results by sex (male versus female) and age at the start of follow-up (65-74 years versus 75 years and above) the variables SEX (CORE1) and AGE7 (ME71), AGE8 (ME81), AGE9 (ME91) and AGEP0 (ME01) are needed. This study also looks at the proportion of widows/ers moving in with their adult children, so marital status at the end of follow-up is also needed (MARST8, MARSTAT9, MSTP0, MSTP11).

Results (see the T3A – T3D and T4 tabs in the associated Excel file)

<u>1971-81 (T3A-X-sequential study (71-81) tab)</u>

In the first table on the 1971-81 sheet the numbers are concentrated on the diagonal, i.e. for most of the subjects there is no change in living arrangements over the 10 years of follow-up. It is notable how few people were living with their adult children at the end of the period (5.6% of those living alone in 1971, and 7.8% of those living with a spouse in 1971). Remember, though, that the sample includes people who do not have children and so could not possibly move into this category. However it is still possible to draw conclusions by looking at differences in this proportion between different groups.

<u>1981-91 (T3B-X-sequential study (81-91) tab)</u>

Turning to the first table on the 1981-91 sheet, the results are much the same as for the first cohort, except that there is a higher proportion of the "living with others" group in 1981 moving to living alone by 1991 (41.6%), and a much smaller proportion of the same group living with their adult children in 1991 (4.5%).

<u>1991-2001 (T3C-X-sequential study (91-01) tab) and 2001-2011 (T3D- X-sequential study (01-11) tab)</u>

In the first table on the 1991-2001 and 2001-11 sheets, the results are similar to the second cohort.

<u>Analysis by sex (tabs T3A-T3D)</u>

The second and third tables on each of sheets T3A-T3D in the associated Excel file compare the results for men with those for women. The tables show a similar pattern for all four cohorts, with men being more likely to end the follow-up period living with a spouse, whereas the women are more likely to be living alone. Note that in all four cohorts the greater longevity of women means there are many more women than men in this age group.

<u>Analysis by age group (tabs T3A-T3D)</u>

The fourth and fifth tables on each of sheets T3A-T3D in the associated Excel file compare the results for people aged 65-74 at baseline and those aged ≥75. The results for the first cohort show that the older age group is the one whose members are more likely to be living with adult children in 1981 (28.2% vs. 15.3% of the younger age group). This difference between the two age groups is much less pronounced in the 91-01 (10.6% vs. 13.5%) and 01-11 cohorts (10.6% vs. 12.5%). The cohorts show similar results, but the proportion of people living alone at the end of follow-up increases for the older age group. In the 1971-81 cohort, 47.0% of the older group were living alone at the end of follow-up, but in the 2001-11 cohort, it was 59.9% of the older group. This change was mirrored by a decrease in the number of people living with their adult children at the end of follow-up. There was also an increase in the proportion of the younger age group who were living with a spouse at the end of the follow-up. This was 34.7% of the younger age group in the 1971-81 cohort compared to 48.8% of the younger age group in the 2001-11 cohort.

<u>Widows and adult children (T4-X-sequential study-Widowed tab)</u>

The final tab in the associated Excel file shows the case of widows and widowers. This relies on the report of marital status at the end of the follow-up period to identify widowers, but it is also possible to

use the WDOW records. The proportion of widow(er)s who are living with their adult children at the end of follow-up is slightly higher than the proportion for the total sample, but still the majority of widow(er)s are living alone by end of the follow up period for all four cohorts.

Summary

This guide has shown:

- that the definition of "household" depends on the census year and the context in which the term is being used
- how the relationships between pairs of household members can be determined from the information on the census form
- how the categories of marital status have changed over time
- how the definition of a "family" has changed between censuses
- how limitations in the extent of the data on relationships can lead to ambiguity and concealed families, and how the census-derived family variables can help overcome this
- how the LS can be used in practice as a data source for cross-sectional, longitudinal and cross-sequential studies.