Survey data:  
Technical documentation

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# Introduction

This document describes the survey responses data table. This table includes the original survey responses data in addition to several columns that describe, summarise or attempt to clean some of the responses. Files currently available relating to the survey data are:

* *SERL\_survey\_data\_v01.csv*: the survey data collected during the SERL pilot study - the first phase of recruitment, described in this document
* *SERL\_survey\_responses\_summary\_v01.csv*: a report on the number of each type of response to each question in the survey, including information about response rates.

This document is structured as follows. First we describe the data collection process. The next section details the survey response columns and the meaning of the values they can take, the final section describes the remaining data fields.

## Data collection

The SERL pilot study recruited the first wave of participants during September and October 2019. 18,000 households in central and southern England and in Wales were sent up to 4 letters inviting them to participate in SERL. All mailings encouraged sign-up online, and some of the mailings provided a paper consent form and survey to sign up by post. The consent form giving access to their smart meter data was mandatory for participation. Completion of the survey was encouraged but not required.

The survey dataset contains 1673 rows (one per participant who responded) and 155 columns.

# Survey data fields: question responses

Table 1 describes:

* *Survey field:* the survey question fields in the survey data table whose number corresponds to the question numbers in the survey. In some cases the questions come in multiple parts, in which case they have names such as “A13\_01” and “A13\_02” or “A1501” and “A1502”. Some questions allowed for multiple options to be selected, in which case each option has its own column in the table with possible answers yes (selected) and no (not selected). For example question A3 has ten options, with columns named A301 - A310. There is also a box for participants to write free text. In this case that option is called “A3\_Other”.
* *Approximate question:* The corresponding survey question (sometimes with approximate wording for brevity). See the electronic copy of the paper survey for the exact question wording and options.
* *Freetext option:* a binary TRUE/FALSE indicating whether participants could write free text as part of their response to the question.
* *Possible values:* the pre-defined values that code different response options (where the responses are pre-defined). If free text is available then this may be “NA” (such as for *A3\_Other*) or the free text response may not be listed (such as for *A5* which asks for the temperature households set their thermostat to).
* *Value meanings:* the response option in the survey corresponding to each value code.

Table 1: Questions, options and possible responses to all survey questions

| *Survey field* | *Approximate question* | *Freetext option* | *Possible values* | *Value meanings* |
| --- | --- | --- | --- | --- |
| L1 | Please select your language preference | FALSE | -9 | Not applicable |
| FALSE | 1 | English |
| FALSE | 2 | Cymraeg |
| A1 | Before we contacted you about this study, did you know you had a smart meter? | FALSE | -2 | No answer |
| FALSE | 1 | Yes |
| FALSE | 2 | No |
| A2 | Having a smart meter has affected the way you use gas or electricity? | FALSE | -9 | Not applicable |
| FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | A lot |
| FALSE | 2 | Some |
| FALSE | 3 | A little |
| FALSE | 4 | Not at all |
| A301 | Type of central heating - None | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A302 | Type of central heating - gas, gas boiler | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A303 | Type of central heating - electric storage heaters | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A304 | Type of central heating - electric radiators | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A305 | Type of central heating - other electric | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A306 | Type of central heating - oil | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A307 | Type of central heating - solid fuel | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A308 | Type of central heating - biomass | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A309 | Type of central heating - district or community | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A310 | Type of central heating - other | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A3\_Other | TRUE |  |  |
| A401 | Central Heating controls - timer | FALSE | -9 | Not applicable |
| FALSE | 0 | No |
| FALSE | 1 | Yes |
| A402 | Central Heating controls - temperature setting | FALSE | -9 | Not applicable |
| FALSE | 0 | No |
| FALSE | 1 | Yes |
| A403 | Central Heating controls - smart device | FALSE | -9 | Not applicable |
| FALSE | 0 | No |
| FALSE | 1 | Yes |
| A404 | Central Heating controls - manually | FALSE | -9 | Not applicable |
| FALSE | 0 | No |
| FALSE | 1 | Yes |
| A405 | Central Heating controls - none of the above | FALSE | -9 | Not applicable |
| FALSE | 0 | No |
| FALSE | 1 | Yes |
| A406 | Central Heating controls - dont know | FALSE | -9 | Not applicable |
| FALSE | 0 | No |
| FALSE | 1 | Yes |
| A5 | Temperature controller set at for late afternoons or evenings | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| TRUE | -1 | Don't know / Doesn't apply |
| A6 | Does your household use any standalone heaters | FALSE | -2 | No answer |
| FALSE | 1 | No |
| FALSE | 2 | Yes |
| A7 | Do any of your standalone heaters have their own source of power | FALSE | -9 | Not applicable |
| FALSE | -2 | No answer |
| FALSE | 1 | Yes, some or all have their own source of fuel (e.g. logs, coal, bottled gas, etc.) |
| FALSE | 2 | No, all are powered by mains gas or electric |
| A8 | In very cold winter weather, how often are these standalone heaters typically used | FALSE | -9 | Not applicable |
| FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Daily |
| FALSE | 2 | Most days |
| FALSE | 3 | Rarely - only if I/we really have to |
| FALSE | 4 | Never |
| FALSE | 5 | Varies - depends on temperature or other reasons |
| A901 | Do you adjust your heating - When is is especially cold | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A902 | Do you adjust your heating - Because of children, infants, babies | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A903 | Do you adjust your heating - Visitors | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A904 | Do you adjust your heating - Pets | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A905 | Do you adjust your heating - Stress | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A906 | Do you adjust your heating - Working at home | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A907 | Do you adjust your heating - None of these | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A10 | How do you adjust heating controls when house in unoccupied | FALSE | -2 | No answer |
| FALSE | 1 | Always |
| FALSE | 2 | Very often |
| FALSE | 3 | Quite often |
| FALSE | 4 | Not very often |
| FALSE | 5 | Never |
| FALSE | 6 | Not applicable, cannot do this |
| A11 | During the winter, are there living spaces not normally heated | FALSE | -2 | No answer |
| FALSE | 1 | Yes |
| FALSE | 2 | No |
| A12\_Shower\_DK | Shower water heated (Dont Know) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Shower\_EH | Shower water heated (Electrical Heater) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Shower\_GB | Shower water heated (Gas Boiler) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Shower\_NA | Shower water heated (Not applicable) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Shower\_Other | Shower water heated (Other) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Shower\_SWH | Shower water heated (Solar Water Heater) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Taps\_DK | Tap water heated (Dont Know) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Taps\_EH | Tap water heated (Electrical Heater) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Taps\_GB | Tap water heated (Gas Boiler) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Taps\_NA | Tap water heated (Not applicable) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Taps\_Other | Tap water heated (Other) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A12\_Taps\_SWH | Tap water heated (Solar Water Heater) | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A13\_01 | How often do you .. Switch off lights | FALSE | -2 | No answer |
| FALSE | 1 | Always |
| FALSE | 2 | Very often |
| FALSE | 3 | Quite often |
| FALSE | 4 | Not very often |
| FALSE | 5 | Never |
| FALSE | 6 | Not applicable, cannot do this |
| A13\_02 | How often do you .. Put on more clothes when cold | FALSE | -2 | No answer |
| FALSE | 1 | Always |
| FALSE | 2 | Very often |
| FALSE | 3 | Quite often |
| FALSE | 4 | Not very often |
| FALSE | 5 | Never |
| FALSE | 6 | Not applicable, cannot do this |
| A14 | How much effort do you say your household makes to limit energy usage | FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | A great deal of effort |
| FALSE | 2 | Some effort |
| FALSE | 3 | A little effort |
| FALSE | 4 | No effort at all |
| A1501 | How often will your household open the windows .. on a typical cold day | FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Always |
| FALSE | 2 | Very often |
| FALSE | 3 | Quite often |
| FALSE | 4 | Not very often |
| FALSE | 5 | Never |
| A1502 | How often will your household open the windows .. on a typical warm day | FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Always |
| FALSE | 2 | Very often |
| FALSE | 3 | Quite often |
| FALSE | 4 | Not very often |
| FALSE | 5 | Never |
| A1601 | Considering replacing or adding heating or energy- Not considering | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1602 | Considering replacing or adding heating or energy- Not applicable | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1603 | Considering replacing or adding heating or energy- Gas Boiler | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1604 | Considering replacing or adding heating or energy- Solar panels for electricity | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1605 | Considering replacing or adding heating or energy- Solar water heating | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1606 | Considering replacing or adding heating or energy- Wood or fuel burner | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1607 | Considering replacing or adding heating or energy- Heat pump | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1608 | Considering replacing or adding heating or energy- Micro combined HPU | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1609 | Considering replacing or adding heating or energy- Wind turbine | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A1610 | Considering replacing or adding heating or energy- other specify | FALSE | 0 | No |
| FALSE | 1 | Yes |
| A16\_Other | Considering replacing or adding heating or energy- other | TRUE |  |  |
| B1 | What type of accomodation do you live in | FALSE | -2 | No answer |
| FALSE | 1 | detached |
| FALSE | 2 | semi detached |
| FALSE | 3 | terraced (including end terrace) |
| FALSE | 4 | in a purpose-built block of flats or tenement |
| FALSE | 5 | part of a converted or shared house (including bedsits) |
| FALSE | 6 | in a commercial building (e.g. in an office building, hotel or over a shop) |
| B2 | Is your accomodation self contained | FALSE | -2 | No answer |
| FALSE | 1 | Yes, all the rooms are behind a door that only my household can use |
| FALSE | 2 | No |
| B3 | How many other households do you share with | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| B4 | Do you own or rent this accomodation | FALSE | -2 | No answer |
| FALSE | 1 | Own it outright / buying it with a mortgage/loan |
| FALSE | 2 | Part own and part rent (shared ownership) |
| FALSE | 3 | Privately |
| FALSE | 4 | From council (local authority) or housing association |
| FALSE | 5 | Live here rent free |
| B5 | How many rooms are available for use by this household | TRUE | -2 | No answer |
| TRUE | -4 | Unusable |
| B6 | How many of these rooms count as bedrooms | TRUE | -2 | No answer |
| TRUE | -4 | Unusable |
| B7 | During the cold winter weather can you keep comfortably warm | FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Yes |
| FALSE | 2 | No |
| B8 | Do you have problems with condensation, damp or mould | FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Yes |
| FALSE | 2 | No |
| B9 | When was your accomodation built | FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Before 1900 |
| FALSE | 2 | 1900 to 1929 |
| FALSE | 3 | 1930 to 1949 |
| FALSE | 4 | 1950 to 1975 |
| FALSE | 5 | 1976 to 1990 |
| FALSE | 6 | 1991 to 2002 |
| FALSE | 7 | 2003 onwards |
| B1001 | Appliances in accomodation - Kitchen - Electric Oven | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1002 | Appliances in accomodation - Kitchen - Gas Oven | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1003 | Appliances in accomodation - Kitchen - Electric Hob | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1004 | Appliances in accomodation - Kitchen - Gas Hob | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1005 | Appliances in accomodation - Kitchen - Dishwasher | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1006 | Appliances in accomodation - Kitchen - Fridge or fridge-freezer | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1007 | Appliances in accomodation - Kitchen - Separate stand alone freezer | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1008 | Appliances in accomodation - Laundry - Combined clothes washer dryer | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1009 | Appliances in accomodation - Laundry - Washing machine | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1010 | Appliances in accomodation - Laundry - Tumble dryer | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1011 | Appliances in accomodation - Consumer electronics - Laptop, computer | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1012 | Appliances in accomodation - Consumer electronics - TV | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1013 | Appliances in accomodation - Cooling - all conditioning unit | FALSE | 0 | No |
| FALSE | 1 | Yes |
| B1014 | Appliances in accomodation - Cooling - cooling fan | FALSE | 0 | No |
| FALSE | 1 | Yes |
| C1 | How many people live in household | TRUE | -2 | No answer |
| C2\_Female\_0\_15 | Females in houshold (0-15) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Female\_16\_24 | Females in houshold (16-24) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Female\_25\_44 | Females in houshold (25-44) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Female\_45\_64 | Females in houshold (45-64) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Female\_65\_74 | Females in houshold (65-74) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Female\_75\_84 | Females in houshold (75-84) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Female\_85\_plus | Females in houshold (85+) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Male\_0\_15 | Males in houshold (0-15) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Male\_16\_24 | Males in houshold (16-24) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Male\_25\_44 | Males in houshold (25-44) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Male\_45\_64 | Males in houshold (45-64) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Male\_65\_74 | Males in houshold (65-74) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Male\_75\_84 | Males in houshold (75-84) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C2\_Male\_85\_plus | Males in houshold (85+) | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C301 | Working Status - Working 30 + hours per week | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C302 | Working Status - Working less than 30 hours per week | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C303 | Working Status - Not Working - long term sickness or disability | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C304 | Working Status - Unemployed but seeking work | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C305 | Working Status - Student | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C306 | Working Status - Retired / at home / not seeking work | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C307 | Working Status - Other | TRUE | -9 | Not applicable |
| TRUE | -2 | No answer |
| C4 | How many people in household hold a degree or higher qualification | TRUE | -2 | No answer |
| TRUE | -1 | Don't know / Prefer not to say |
| C5 | Does household have plug in electric vehicle | FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Yes |
| FALSE | 2 | No |
| C6 | When does household charge electric vehicle at home | FALSE | -9 | Not applicable |
| FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Mostly overnight (8pm to 7am) |
| FALSE | 2 | Mostly during the day (7am to 4pm) |
| FALSE | 3 | Mostly in the evening (4pm to 8pm) |
| FALSE | 4 | Varies - whenever it's needed |
| FALSE | 5 | Not applicable, charging is not done at home (e.g. at work) |
| CELL | Cell Number | TRUE |  |  |
| Collection\_Method | Data collection method | FALSE | 1 | Online |
| FALSE | 2 | Offline |
| D1 | Age Group | FALSE | -9 | Not applicable |
| FALSE | -2 | No answer |
| FALSE | 1 | Under 18 |
| FALSE | 2 | 18-24 |
| FALSE | 3 | 25-44 |
| FALSE | 4 | 45-64 |
| FALSE | 5 | 65-74 |
| FALSE | 6 | 75-84 |
| FALSE | 7 | 85+ |
| D2 | Gender | FALSE | -9 | Not applicable |
| FALSE | -3 | Prefer not to say |
| FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Male |
| FALSE | 2 | Female |
| FALSE | 3 | In some other way |
| D3 | Current Employment Status | FALSE | -9 | Not applicable |
| FALSE | -3 | Prefer not to say |
| FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Working (paid or unpaid): 30 hours a week or more |
| FALSE | 2 | Working (paid or unpaid): less than 30 hours a week |
| FALSE | 3 | Not working because of long-term sickness or disability |
| FALSE | 4 | Unemployed but seeking work |
| FALSE | 5 | A student |
| FALSE | 6 | Retired/at home/not seeking work (including looking after the home or family) |
| FALSE | 7 | Other |
| D4 | How well do you manage financially | FALSE | -3 | Prefer not to say |
| FALSE | -2 | No answer |
| FALSE | -1 | Don't know |
| FALSE | 1 | Living comfortably |
| FALSE | 2 | Doing alright |
| FALSE | 3 | Just about getting by |
| FALSE | 4 | Finding it quite difficult |
| FALSE | 5 | Finding it very difficult |

# Added and derived survey data fields

In addition to the data fields described in the table above, the survey data also contains the following columns. Some of these are participant information columns, some have been computed from the survey response data to aid analysis, and some which attempt to clean the survey data for certain questions.

Table 3: Data field for those fields that are not survey question responses and those that are calculated from survey question response fields.

| *Field* | *Description* | *Class* | *Example value* |
| --- | --- | --- | --- |
| PUPRN | Pseudonymised participant identifier | character | 1VUXXXF1 |
| Cell | Pilot study test cell in 1:12 | integer | 7 |
| Collection\_method | 1 if survey completed online, 2 if offline | integer | 1 |
| IMD\_quintile | Index of Multiple Deprivation quintile (1 is most deprived, 5 is least deprived | integer | 2 |
| Region | Region in GB | character | East Midlands |
| LSOA | Lower Super Output Area in GB | character | E01015916 |
| A3\_sum | Number of response options selected for question A3 (ie the values of A301 + A302 + .. + A310) | integer | 2 |
| A3\_err | A3 error flag: TRUE if 'No central heating' and some other type of central heating specified. Otherwise FALSE | logical | FALSE |
| A301\_edit | TRUE if A301 was edited, otherwise FALSE | logical | FALSE |
| A4\_sum | Number of response options selected for question A4 (ie the values of A401 + A402 + .. + A406) | integer | 2 |
| A4\_err | A4 error flag: TRUE if 'none of these' was selected along with another option, otherwise FALSE | logical | FALSE |
| A401\_edit |  | logical |  |
| A5\_edit | TRUE if A5 response was very high and therefore assumed to be in Fahrenheit and converted to Celcius, otherwise FASLE. | logical | FALSE |
| A9\_sum | Number of response options selected for question A9 (ie the values of A901 + A902 + .. + A907) | integer | 4 |
| A12\_Taps\_sum | Number of response options selected for question A12 (taps) | integer | 0 |
| A12\_Shower\_sum | Number of response options selected for question A12 (shower) | integer | 1 |
| A16\_sum | Number of response options selected for question A16 (ie the values of A1601 + A1602 + .. + A1610) | integer | 2 |
| A16\_edit |  | logical | TRUE if any A16 responses were edited, otherwise FALSE. If 'not applicable' or 'Not considering any changes' were selected, any other response was removed (except for 'other' which was kept to prevent deleting potentially useful notes), |
| B5\_err | B5 error flag: TRUE if B5 < B6 (Number of rooms less than number of bedrooms) or if B5 == 0 (No rooms) | logical | FALSE |
| B6\_err | B6 error flag: TRUE if B5 < B6 (Number of rooms less than number of bedrooms) | logical | FALSE |
| B10\_sum | Number of response options selected for question B106 (ie the values of B1001 + B1002 + .. + B1014) | integer | 12 |
| C1\_new | C1 after error correction. | integer | 1 |
| C2\_sum | Number of response options selected for question C2 (ie the values all male and female age categories). Should be equal to C1. | numeric | 4 |
| C2\_sum\_diff | C2\_sum - C1 (total number of occupants across the age and sex categories minus number of reported occupants | numeric | 0 |
| C2\_error | C2 error flag: TRUE if C2\_sum\_diff is not equal to 0 (and both questions were answered) and if there isn't an obvious error easily corrected (case by case basis). | logical | FALSE |
| C2\_tot\_child | Sum of males and females aged 0-15 years. | numeric | 1 |
| C2\_tot\_adult | Sum of males and females aged 16+ years. | numeric | 1 |
| C2\_tot\_65\_plus | Sum of males and females aged 65+ years. | numeric | 1 |
| All\_65\_plus | TRUE if all occupants are 65+, FALSE if any under 65, NA if unable to determine | numeric | TRUE |
| C3\_sum | Number of response options selected for question C3 (ie the values of C301 + C302 + ... + C307 | numeric | 4 |
| C3\_sum\_diff | C3\_sum - C2\_tot\_adult (total number of adults across the working categories minus number of reported adults across both sexes. | numeric | 0 |
| C3\_error | C3 error flag: TRUE if C3\_sum\_diff is not equal to 0 (and both questions were answered) and if there isn't an obvious error easily corrected (case by case basis). | logical | FALSE |
| C3\_edit | TRUE if C3 response was edited in order to correct obvious mistakes, otherwise FALSE | logical | FALSE |
| None\_working | TRUE if no one in the working categories, FALSE if anyone in the working categories, NA if not able to determine | numeric | FALSE |
| C4\_error | C4 error flag: TRUE if C4 > C1\_new and C1 was answered (i.e. more occupants with a qualification than occupants. | logical | FALSE |
| D1\_new | Backfill of D1 with C1 data since D1 was optional if the participant had already given their data as a single occupant when reporting for the household (of 1). See D1 description for details. | numeric | 5 |
| D2\_new | Backfill of D2 with C2 data since D2 was optional if the participant had already given their data as a single occupant when reporting for the household (of 1). See D2 description for details. | numeric | 2 |
| D3\_new | Backfill of D3 with C2 data since D3 was optional if the participant had already given their data as a single occupant when reporting for the household (of 1). See D3 description for details. | numeric | 1 |