

## Understanding Society Geographical Lookup Tables

Date: 18/06/2018

### Introduction

Understanding Society source data when collected from respondents contains postcode information. These postcodes are used as the basis for producing various geographical data files which are released with the relevant individual Special Licence datasets. Appropriate geographical information is extracted from ONS Postcode Directories and in one case from an Acorn classification file.

For the latest release, geographic data has been included for the harmonised BHPS waves for the first time. While they have not been fully harmonised in this release their inclusion means that researchers do not have to separately request the required geography files from the BHPS stand-alone version to use in the harmonised release and subsequently have to amend variable names in order to match the naming convention used in the harmonised data.

### ONSPD Files Used

#### *UKHLS*

The geographical data files for all waves of UKHLS are derived, where possible, from ONS Postcode Directories corresponding to the approximate mid-point covered by each wave, as follows:

- Wave 1: ONSPD\_MAY\_2010
- Wave 2: ONSPD\_MAY\_2011
- Wave 3: ONSPD\_MAY\_2012
- Wave 4: ONSPD\_MAY\_2013
- Wave 5: ONSPD\_MAY\_2014
- Wave 6: ONSPD\_MAY\_2015
- Wave 7: ONSPD\_MAY\_2016

There are cases, however, for certain variables for certain waves, where it has been necessary to utilise ONSPD Postcode Directories from later years, for example, if the specific variable is not available in the earlier directory or if the format is different. Table 1 shows the ONS Postcode Directory used for each variable / wave combination. Combinations that deviate from the general rule are shown in blue and are italicised.

**Table 1: ONSPD Directory used for UKHLS Variable / Wave Combinations**

| Variable  | Wave 1                | Wave 2                | Wave 3                | Wave 4                | Wave 5                | Wave 6         | Wave 7         |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|----------------|
| casward   | ONSPD_MAY_2010        | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| lea       | ONSPD_MAY_2010        | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| lsoa01    | <i>ONSPD_MAY_2013</i> | <i>ONSPD_MAY_2013</i> | <i>ONSPD_MAY_2013</i> | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| lsoa11    | <i>ONSPD_MAY_2015</i> | <i>ONSPD_MAY_2015</i> | <i>ONSPD_MAY_2015</i> | <i>ONSPD_MAY_2015</i> | <i>ONSPD_MAY_2015</i> | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| msoa01    | <i>ONSPD_MAY_2013</i> | <i>ONSPD_MAY_2013</i> | <i>ONSPD_MAY_2013</i> | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| msoa11    | <i>ONSPD_MAY_2013</i> | <i>ONSPD_MAY_2013</i> | <i>ONSPD_MAY_2013</i> | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| oac01     | ONSPD_MAY_2010        | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| oac11     | <i>ONSPD_MAY_2015</i> | <i>ONSPD_MAY_2015</i> | <i>ONSPD_MAY_2015</i> | <i>ONSPD_MAY_2015</i> | <i>ONSPD_MAY_2015</i> | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| oshlthau  | <i>ONSPD_MAY_2011</i> | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| oslaua    | <i>ONSPD_MAY_2011</i> | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| pcon      | <i>ONSPD_MAY_2011</i> | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| pct       | <i>ONSPD_MAY_2011</i> | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| ttwa      | <i>ONSPD_MAY_2011</i> | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| ur01ind   | <i>ONSPD_MAY_2013</i> | <i>ONSPD_MAY_2014</i> | <i>ONSPD_MAY_2013</i> | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| ru11ind   | <i>ONSPD_MAY_2014</i> | <i>ONSPD_MAY_2014</i> | <i>ONSPD_MAY_2014</i> | <i>ONSPD_MAY_2014</i> | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| oseast1m  | ONSPD_MAY_2010        | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| osnrth1m  | ONSPD_MAY_2010        | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |
| osgridind | ONSPD_MAY_2010        | ONSPD_MAY_2011        | ONSPD_MAY_2012        | ONSPD_MAY_2013        | ONSPD_MAY_2014        | ONSPD_MAY_2015 | ONSPD_MAY_2016 |

### **Harmonised BHPS**

The BHPS geography files included for the first time in this release have not yet been fully harmonised with the approach used in UKHLS, consequently the approach taken is as exists in the stand-alone BHPS release, i.e. a single ONS Postcode Directory (ONSPD\_Nov\_2013) is used as the source for all geographies in all eighteen BHPS waves. Four of the UKHLS geography datasets do not contain BHPS data which reflects the data available in the stand-alone BHPS release (see Table 2). The names of the BHPS geography files and the variables in them have, however, been harmonised with the harmonised BHPS files included in the Understanding Society release.

**Table 2: ONSPD Directory used for Harmonised BHPS Variable / Wave Combinations**

| Variable  | Waves 1 to 18  |
|-----------|----------------|
| casward   | ONSPD_NOV_2013 |
| lea       | ONSPD_NOV_2013 |
| lsoa01    | ONSPD_NOV_2013 |
| lsoa11    | Not applicable |
| msoa01    | ONSPD_NOV_2013 |
| msoa11    | Not applicable |
| oac01     | ONSPD_NOV_2013 |
| oac11     | Not applicable |
| oshlthau  | ONSPD_NOV_2013 |
| oslaua    | ONSPD_NOV_2013 |
| pcon      | ONSPD_NOV_2013 |
| pct       | ONSPD_NOV_2013 |
| ttwa      | ONSPD_NOV_2013 |
| ur01ind   | ONSPD_NOV_2013 |
| ru11ind   | Not applicable |
| oseast1m  | ONSPD_NOV_2013 |
| osnrth1m  | ONSPD_NOV_2013 |
| osgridind | ONSPD_NOV_2013 |

The ONS Postcode Directories and corresponding documentation can be downloaded from the UKDS, if required.

## Acorn type

The geodemographic variables *w\_acorn type*, *w\_acorn category* and *w\_acorn group* for all UKHLS waves are provided from the June 2015 version of the Acorn classification file. For the BHPS harmonised waves only *w\_acorn type*, which is extracted from the 2013 version of the Acorn classification files, is provided. This mirrors the stand-alone BHPS release. The Acorn classification files and the corresponding User Guides can be obtained from the UKDS if required.

## Matching, Missing and Unmatched Postcodes

The table below shows the number of households with a matching, missing or unmatched postcode for each wave. The main reason for missing postcodes is untraced moves. Geographical codes are unavailable for the Crown dependencies.

**Table 3: Matching, Missing and Unmatched Postcodes per Household per Wave**

| Wave            | Wave Letter | Match | Postcode missing | Unmatched | Crown Dependencies | Total |
|-----------------|-------------|-------|------------------|-----------|--------------------|-------|
| UKHLS           |             |       |                  |           |                    |       |
| 1               | a           | 95308 | 0                | 0         | 0                  | 95308 |
| 2               | b           | 37496 | 3305             | 90        | 2                  | 40893 |
| 3               | c           | 34366 | 3334             | 45        | 0                  | 37745 |
| 4               | d           | 30693 | 2426             | 24        | 0                  | 33143 |
| 5               | e           | 28145 | 2052             | 23        | 0                  | 30220 |
| 6               | f           | 46752 | 2728             | 9         | 0                  | 49489 |
| 7               | g           | 30961 | 4749             | 43        | 1                  | 35754 |
| Harmonised BHPS |             |       |                  |           |                    |       |
| 1               | ba          | 8523  | 1                | 0         | 0                  | 8524  |
| 2               | bb          | 5697  | 283              | 4         | 0                  | 5984  |
| 3               | bc          | 5886  | 638              | 10        | 0                  | 6534  |
| 4               | bd          | 6238  | 279              | 41        | 0                  | 6558  |
| 5               | be          | 6223  | 306              | 24        | 0                  | 6553  |
| 6               | bf          | 5512  | 974              | 1         | 0                  | 6487  |
| 7               | bg          | 6350  | 1240             | 6         | 0                  | 7596  |

|    |    |       |      |    |   |       |
|----|----|-------|------|----|---|-------|
| 8  | bh | 6325  | 959  | 11 | 0 | 7295  |
| 9  | bi | 10867 | 1070 | 7  | 0 | 11944 |
| 10 | bj | 10540 | 1729 | 13 | 0 | 12282 |
| 11 | bk | 12325 | 1641 | 20 | 0 | 13986 |
| 12 | bl | 10415 | 1785 | 9  | 0 | 12209 |
| 13 | bm | 10132 | 2017 | 27 | 0 | 12176 |
| 14 | bn | 9868  | 2189 | 33 | 2 | 12088 |
| 15 | bo | 9567  | 2323 | 25 | 3 | 11912 |
| 16 | bp | 9416  | 2073 | 18 | 2 | 11505 |
| 17 | bq | 9115  | 2340 | 43 | 2 | 11496 |
| 18 | br | 8834  | 2541 | 40 | 2 | 11413 |

At UKHLS Wave 1, a total of 95,308 households were issued in the screening process for the Ethnic Minority Boost sample and only a subset of these were selected into the sample. Only productive households from Wave 1 were followed up at Wave 2. The following rules for later waves are documented in the user guide.

### Geography Variables

```

+-----+
| name          type varlab          |
+-----+-----+
| acorncategory byte acorn category 2015 |
| acorngroup    byte acorn group 2015   |
| acorntype     byte acorn type 2015    |
| casward       str6 census area statistics ward |
| lea           str3 local education authorities/education and library boards |
| lsoa01        str9 census 2001 lower layer super output area |
| lsoa11        str9 census 2011 lower layer super output area |
| msoa01        str9 census 2001 middle layer super output area |
| msoa11        str9 census 2011 middle layer super output area |
| oac01         str3 census 2001 output area classification |
| oac11         str3 census 2011 output area classification |
| oshlthau      str9 strategic health authority |
| oslaura       str9 local authority district |
+-----+-----+

```

|          |  |  |
|----------|--|--|
| pcon     | str9 westminster parliamentary constituencies    |  |
| pct      | str9 primary care organisations                  |  |
| ttwa     | str9 travel to work areas                        |  |
| ur01ind  | str1 census 2001 urban/rural indicator           |  |
| rullind  | str2 census 2011 urban/rural indicator           |  |
| oseast1m | long national grid reference - easting           |  |
| osnrth1m | long national grid reference - northing          |  |
| osgrdind | byte national grid reference - quality indicator |  |
| +-----+  |  |  |