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Population and Household Forecasts 2017 Methodology and Summary Report

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1. Summary

This document outlines the process of population and household projections undertaken by CACI for South Staffs Water as part of the 2019 Water Resource Planning process. Trend-based and plan-based projections were produced following UKWIR guidelines and taking into account further availability of data from the company and relevant local government bodies.

The primary outputs from the project are two spreadsheets showing detailed projection workings, one for the South Staffs area and one for the Cambridge area, and in particular giving baseline plan-based projections of population and billed households for each area for financial years from the current year to FY 2044-2045.

2. Requirements

South Staffs Water supply water to two distinct Water Resources Zones

- a) South Staffordshire
- b) Cambridge Water Area

Specific requirements were:

- To provide population forecasts for the South Staffordshire and Cambridge regions separately.
- To update the Company's current population in the base year and to forecast population projections over the 25 year planning period based on:
 - Local Authority housing projections
 - Company housing projections
- To provide a comparison of the population forecasts produced by the Consultant against Cambridge County Council's population projections identifying any differences and reasons for this.
- To ensure the forecasts include the most up to date ONS, household and census data.
- Where OAs are identified as being split by the Company's supply area boundary the Consultants are required to agree with the Company the percentage of population in each OA that is within the Company's supply area
- Base year population and forecasts split by component local authority.
The population outputs should be in an excel format and an appropriate format to enable OA postcodes to be modelled around Company supply boundaries.
- Methodology and summary report
- Written explanatory factors where 'unusual' population projections exist in overall results.

3. Methodology Overview

The project was undertaken in four main stages

- 1) *Area reconciliation*

The geographical area covered by each of the two water area was defined in terms of individual unit postcodes. Postcodes that were found to straddle the boundary were split, and treated as partly inside the area. Postcodes are smaller than Output Areas, and definition in terms of postcodes provides a detailed assessment of which Output Areas, and parts of Output Areas, lie within the boundary. This process used area boundaries as supplied by SSW, the SSW

household billing file and postcode geography datasets held by CACI.

2) *Trend-Based Forecasts*

Forecasts were produced based on ONS trend-based projections of population and DCLG trend-based projections of households. These fulfil the requirements for trend-based population, household and billed household forecasts as specified in UKWIR guidance.

3) *Plan-Based Forecasts*

Forecasts were produced based upon Local Authority and County Council plans and forecasts. These fulfil the requirements for plan-based population, household and billed household forecasts as specified in UKWIR guidance. Plan-based forecasts project higher levels of growth than trend-based-forecasts in both of the water areas.

4) *Reconciliation of plan-based forecasts with most recent billed household counts*

The plan-based forecasts were adjusted to agree with SSW counts of billed households for mid-year 2016-2017.

4. Area Reconciliation

The billing areas were defined in terms of unit postcodes and part unit postcodes. The area reconciliation process used CACI 2017 postcode geography, which corresponds to the Royal Mail Postal Address File (PAF) of end September 2016. CACI population and household projections provide forecasts through to 2045 and beyond which are mapped onto this fixed geography.

The outline steps in the process are:

- 1) Identify postcodes that lie within each area boundary
- 2) Identify postcodes that lie close to (centroid within 200m) of the area boundary
- 3) Merge the postcodes identified above with CACI population and household forecasts and with the SSW household billing files
- 4) Agree with SSW a set of local authorities to be included, or part-included in each of the two areas. Any postcodes lying outside these authorities were excluded from the analysis.

The agreed local authority lists are:

Cambridge Water:

Cambridge
Huntingdonshire
South Cambridgeshire

South Staffordshire:

South Derbyshire
Cannock Chase
East Staffordshire
Lichfield
South Staffordshire
Tamworth

North Warwickshire
 Bromsgrove
 Birmingham
 Dudley
 Sandwell
 Walsall
 Wolverhampton

5) Determine

- a. Which postcodes are entirely within the billing areas, which are entirely outside, and which should be considered partly inside.
- b. Which supply type each included postcode corresponds to, whether households, non-households or private supply

The decision process followed the following rules:

Criteria			How postcode is treated		Counts of billed households	
Postcode's relation to boundary	Whether postcode is in billing file	Whether postcode is remote rural?	Inclusion Status	Supply Type	South Staffs	Cambridge
Local authority not on included list	Any	Any	Exclude	n/a	134	21
Well within	Yes	Any	Include	Billed households	509,603	124,886
Well within	No	No	Include	Non-households	0	0
Well within	No	Yes	Include	Private supply	0	0
Postcode unknown, sector within boundary	Yes	Any	Include	Billed households	552	311
Close to boundary	Yes	Any	Part include	Billed households	20,691	1,131
Close to boundary	No	Any	Exclude	n/a	0	0
Well outside boundary, or other unknown postcodes	Yes	Any	Exclude	n/a	75	17

Notes:

- a) 'Part Include' postcodes are treated by including:
 - All billed household in the postcode
 - A CACI / ONS household count equal to the total billed household in the postcode, or the total CACI / ONS household count in the postcode, whichever is smaller.

- b) A sample of 'postcode unknown, sector within boundary' billing records were examined, and usually found to be incomplete postcodes, or postcodes not on the CACI postcode geography
- c) A sample of billing records well outside the boundary were examined. The majority were records with incorrect postcodes, while a few were unusual cases of properties lying outside the boundary which are supplied by the company, such as housing at the Hampton Lode pumping station. The numbers were considered too small to warrant further examination or correction.
- d) A sample of postcodes well within the boundary but not on the billing file was examined. Population in non-remote postcodes of this kind was generally found to correspond to addresses that are likely to be billed as non-households, such as university accommodation. A small number of households in remote areas are categorised as being served by private water supplies.

5. Trend-Based Forecasts for Water Areas and Local Authorities

CACI's Population and Household Estimates and Projections for the UK give population split by age and sex, and a count of the number of households, for a range of geographical breakdowns of the UK including unit postcode. They are based on ONS estimates and projections, and are compliant with the UKWIR guidelines for trend-based projections.

CACI projections are described in more detail in CACI's *UK Population and Household Estimates and Projections: Technical Guide*¹. In England, at local authority level and above, CACI population projections follow the ONS (trend-based) subnational population projections, and CACI household projections follow the DCLG household projections, which are themselves built to be consistent with ONS subnational population projections.

The production of trend-based forecasts followed the following steps:

At postcode level:

- a) Merge CACI mid-year population and household projections with SSW billing counts at postcode level.
- b) Add postcode flags indicating inclusion status and supply type, as calculated in the *area reconciliation* stage.
- c) Sum CACI population and household forecasts, and SSW billing counts for included postcodes to local authority, taking into account the degree of partial inclusion when summing CACI forecasts.

At local authority level (these steps appear within the supplied spreadsheets):

- d) Tabulate CACI mid-year population and household forecasts, and SSW billing counts, split by local authority and supply type (whether households, non-households or private supplies). This appears in the worksheet CACI *ONS base projections*

¹ Included in this document as Appendix 1

- e) Calculate the ratio between the CACI/ONS household count and the SSW billing file counts, by local authority. To do this the number of CACI/ONS households at the billing file extraction date, 15th February 2017, was estimated by interpolation between the mid-year figures for 2016 and 2017. These ratios appear in the worksheet *Billed hhs ratios*
- f) CACI/ONS household counts are generally larger than the SSW billing file counts because of the different definitions of households used. Some dwellings counted by ONS as private households are billed as non-households.

Samples of postcodes with the largest excess of ONS household counts over billed household counts were examined in both areas. In the Cambridge area the excess is believed to be student accommodation, and this led to a decision, following discussion between CACI and SSW, to treat this excess in the Cambridge area as being properties likely to be billed as non-households. A significant proportion of the excess in the South Staffs area appeared however to be ordinary dwellings, and a decision was taken to treat 70% of the excess as corresponding to billed households, while the remainder are counted as being billed as non-households.

These decisions on how to treat the excess of ONS households over billed households make no difference to the projections of billed households, but do have a minor effect on the projections of population. The projected population in billed households in the South Staffs area using this method is, for example, around 2% higher than it would have been had the entire excess been treated as non-households.

- g) Mid-year trend-based projections are created. These appear in the worksheet *Trend-based, mid-year*. This shows projections of:
 - a. Billed households.
 - b. ONS household count corresponding to billed households
This appears in the South Staffordshire spreadsheet only. In the Cambridge area these counts are equal to the billed household counts, because of the different treatment of the excess of ONS over billed households described above
 - c. Population in billed households
 - d. ONS households billed as non-households
 - e. Population in premises billed as non-households
 - f. ONS household count: private supplies
 - g. Population in households with private supplies
- h) Financial year trend-based projections are created, by interpolation of mid-year figures created in the previous step. These appear in the worksheet *Trend-based, financial year*.

6. Plan-Based Forecasts for Water Areas and Local Authorities

6.1. South Staffordshire Area

The base data used for plan-based projections in South Staffordshire was a set of projections for gross completions of dwellings for each local authority, in each case estimated for that part of the local

authority lying within the SSW billing boundary. These were collected from local authority sources by SSW. The raw projections of gross completions extended to around 2030, and were then extrapolated by SSW to the planning horizon year 2045. Base data for plan-based projections is in the worksheet *Plan-based base data*.

The forecasts for gross completions were used as a proxy for the expected increase in the number of households in each local authority within the SSW billing area in each year through to 2045, so giving plan-based projections of total (ONS) household counts for each year, split by local authority.

A straightforward pro-rating formula was then used to convert these numbers to projections of ONS households in billed postcodes, excluding ONS households that are billed as non-households or have private supplies.

Projections of ONS households in billed postcodes were then converted to projections of billed households by applying the same approach used in trend-based projections, described above (5. f). The projections of ONS households and billed households are used as the basis for creating (i) plan-based projections of population in billed households, and (ii) projections of population and ONS household count billed as non-households. Forecasts of population and households with private supplies are set equal to the equivalent trend-based projections. Mid-year plan-based projections are in the worksheet *Plan-based (mid-year)*.

These mid-year figures are then converted to financial year figures by the same pro-rating formula used in the trend-based projections. These baseline financial year projections are in the worksheet *Plan-based, financial year*.

The final stage of calculation was to reconcile the baseline plan-based projection with the final statistics for *SSW Property numbers for mid-year ave 16/17 (Ofwat method)*. These statistics were not available until the later stages of the project, so were introduced as a final reconciliation stage in the modelling. The approach was to treat the difference between this target number (537,913) and the baseline financial year estimate for 2016-2017 (527,323) as a fixed number (10,590) by which to adjust all future projections of billed households.

The additional households were assumed to have an occupancy two-thirds of that calculated in the baseline projections, and one-half of the additional population allocated to these extra households was subtracted from the projections for population billed as non-households. These are unavoidable ad-hoc assumptions, which do not affect the final projections for billed households. Alternative reasonable choices for these parameters would make only a small difference to final projected population figures. These final plan-based projections are in the worksheet *Plan-based, fy, adjusted*

6.2. Cambridge Water Area

The base data used for plan-based projections in the Cambridge Water area was the Cambridgeshire County Council dwelling stock projections published February 2015. These were downloaded from the County Council web site. The dwelling stock projections are given at five-year intervals from 2016 to 2036.

The raw dwelling stock projections were converted to figures giving projections of the dwelling stock lying within the billing boundary by applying a ratio of the proportion of CACI trend-based projected households within each local authority that lie within the billing boundary. All of Cambridge lies within the boundary, along with almost all of South Cambridgeshire and around 28% of the households in Huntingdonshire.

The resulting projections of dwelling within the billing boundary were interpolated by CACI for intermediate years, and extrapolated to 2045. The growth rates shown in these projections are around 2.0% per year in each of the three relevant local authorities for the period 2016-2021, dropping to 0.4%-1.1% per year for the period 2031-2036. Years beyond 2036 were extrapolated assuming a continued rate of growth equal to that projected for 2031-2036.

These forecasts of dwellings were used to derive directly a forecast of billed households by applying a fixed ratio of dwellings to billed households in each local authority. The ratios for each local authority were calculated by comparison of the dwelling forecast calculated at the billing date with the number of billed households, and are as follows:

Local Authority	Ratio: billed households / forecast dwellings
Cambridge	0.870
Huntingdonshire	0.933
South Cambridgeshire	0.916

Projections for population in billed households are derived by assuming the same average household size as in trend-based projections.

Projections for (ONS) households and population billed as non-households are calculated by assuming the same growth rates in these categories as are projected for billed households. Forecasts of population and households with private supplies are set equal to the equivalent trend-based projections. Mid-year plan-based projections are in the worksheet *Plan-based (mid-year)*.

These mid-year figures are then converted to financial year figures by the same pro-rating formula used in the trend-based projections. These baseline financial year projections are in the worksheet *Plan-based, financial year*.

The final stage of calculation was to reconcile the baseline plan-based projection with the final statistics for *Cambridge Property numbers for mid-year ave 16/17 (Ofwat method)*. These statistics were not available until the later stages of the project, so were introduced as a final reconciliation stage in the modelling. The approach was to treat the difference between this target number (127,881) and the baseline financial year estimate for 2016-2017 (125,362) as a fixed number (2,519) by which to adjust all future projections of billed households.

The additional households were assumed to have an occupancy two-thirds of that calculated in the baseline projections, and one-half of the additional population allocated to these extra households was subtracted from the projections for population billed as non-households. These are unavoidable ad-hoc assumptions, which do not affect the final projections for billed households. Alternative reasonable choices for these parameters would make only a small difference to final projected population figures. These final plan-based projections are in the worksheet *Plan-based, fy, adjusted*.

7. Appendix 1: CACI UK Population and Household Estimates and Projections: Technical Guide

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7.1. Introduction

CACI's Population and Household Estimates and Projections for the UK give population split by age and sex, and a count of the number of households, for a range of geographical breakdowns of the UK. For most geographical breakdowns the figures are available for every year from the base year (2015) through to 2065.

The data is available for:

- a) Census Output Areas. These are the most detailed census statistical areas, typically having around 150 households.
- b) Postcode sectors, districts and areas
- c) Unit postcodes: statistics for the current year (2017) and the base year (2015) only.

These component areas can be aggregated to provide estimates and projections for any larger geographical areas.

The general approach that CACI takes is to base estimates and projections on the most recent population estimates and projections available from official sources such as ONS and the other government statistical bodies in the UK. The various official estimates and projections are however not generally available for all detailed geographical areas, or for every year until the farthest future dates for which long-term planning may be required, and may not be consistent with each other because of different release cycles. CACI produces a consistent set of projections for small areas based upon the most recent and most reliable set of official statistics available, also taking into account other reliable sources of information about population distribution. The product is complete for both detailed geographies and for years, so gives total flexibility for aggregation to any geography or times series required.

The resulting dataset has the following general properties:

- a) At the geographical level of local authorities or unitary authorities, both for the current year and for future years, CACI population projections closely follow official statistics by age and sex.

Official population projections use cohort survival models that estimate the separate effects of ageing, births, deaths and migration in order to estimate future population, and age and sex

profiles, for each local government area. The statistical bodies also consult with the authorities to take into account local characteristics

- b) For small areas, such as census output areas or postcodes, for the *current year* (or for a recent year), CACI figures are primarily based upon census data, ONS mid-year estimates for super output areas, and other small-area data sources such as the Postcode Address File. The census data is accurate at small-area level but is only collected once every ten years, while the Postcode Address File and other sources show changes in the location of housing on a continual basis and can be used to track small-area population changes between censuses. The net result is that current-year population can normally be estimated to a high level of accuracy for small areas.
- c) For small areas in future years, there are unavoidable limitations upon how accurately population projections can be made, since the location of future build and future demolitions of housing are subject to political influences and other factors that can change. For our standard population projections product, CACI uses ONS projections at local authority level, and makes the general assumption that future growth (or decline) in population distribution within each local government area takes place in broadly the same locations where the population currently is. We further make the assumption that the age profiles in each small area stay broadly the same, except that they are constrained to add to the changing age profile projected for the local government area. We do not run separate cohort survival models for small areas since there is no practical way of reliably determining an accurate migration model for small areas.

For specific projects, CACI is able to investigate local development plans in order to enhance the standard product with specific local planning knowledge of where developments are expected to take place.

7.2. Main changes in this release

The major change in 2017 is the introduction of further splits to the 85+ age band, which is now split into 85-89, 90-94, 95-99, 100+. There are in 2017 only small numbers of people in the top two bands, but these numbers are projected to increase substantially in future years. The oldest age band splits are therefore more significant in future projections than in current year statistics.

All other changes are within the usual range of updating input sources to the most recent version.

7.3. What is available?

7.3.1. Unit postcodes

For the current year (mid 2017) and the base year (mid 2015)

- Population split by age (see below) by residence type (whether living in households or in communal establishments) by sex

- Total households

7.3.2. Census Output Areas

Census output areas are used by the Office for National Statistics (ONS) and the equivalent bodies in Scotland and Northern Ireland for the dissemination of census statistics.

For each year from 2015 to 2065 inclusive, estimates of:

- Population split by age (see below) by sex
- Total households

For the current year (2017) only:

- Population split by age (see below) by residence type (whether living in households or in communal establishments) by sex

7.3.3. Postcode Sectors and a wide range of other larger geographical areas

For each year from 2015 to 2065 inclusive, estimates of:

- Population split by age (see below) by sex
- Total households

For the current year (2017) only:

- Population split by age (see below) by residence type (whether living in households or in communal establishments) by sex

7.3.4. The standard age breakdown

For each of the geographies listed above, the following 23 age bands, or aggregates of them, are available:

0-4
5-9
10-14
15
16-17
18-19
20-24
25-29
30-34

...then 5-year bands up to

80-84
85-89
90-94
95-99
100+

7.3.5. Residence Type

For the base year (2015) and the current year (2017), total population can be further subdivided between population living in private households and population living in communal establishments such as university halls of residence, care homes, military barracks etc.

This breakdown is not usually supplied as part of the standard CACI product, but can be supplied as an additional product, split by age and sex, for any geography.

7.3.6. Geographical scope and building blocks

The geographical scope of the statistics is mainland Great Britain plus Northern Ireland. The Isle of Man and the Channel Islands are not covered.

There are around 1.5 million unit postcodes with population, around 232,000 Census Output Areas and around 9,600 postcode sectors.

7.3.7. JICPOPS

CACI develops Population and Household Estimates and Projections for the UK as a member of the Joint Industry Committee for Population Standards (JICPOPS).

JICPOPS is a joint industry committee that works towards harmonisation of small area population and household estimates in the UK. The key result of JICPOPS work has been a standard set of current year population (split by age and sex) and household estimates for Great Britain.

Further details of JICPOPS can be found at <http://www.jicpops.co.uk/>

7.3.8. Disclaimer

Projection results can only represent a view of a likely way forward at the time of preparation. Population change is affected by many social and economic factors and by local and central government policies. It is not possible to make exact predictions of changes in these factors over time.

The JICPOPS and CACI practice is to control our population estimates and projections to agree with those published for larger geographical areas by the UK national statistical offices, who make similar disclaimers about their population projections.

The methodology employed for this set of estimates and projections is dependent on the datasets available at the time and CACI Ltd. reserves the right to change the methodology in future years.

7.4. Summary of data sources

Data sources are given in detail in section 7.6.

In brief they are as follows:

The 2011 census of population gives population and household counts for 2011 at unit postcode level, and detailed information on 2011 population and household characteristics at census output area level.

Mid-Year Estimates give government estimates of 2015 population split by age and sex for lower level super output areas (LSOAs) in England and Wales, and 2015 population for LSOAs in Scotland and for local authority districts and unitary authorities across the UK.

National Statistics population projections give population projection statistics by age and sex based upon observed trends in fertility, mortality and migration. The national population projections give statistics until 2065 for the constituent countries of the United Kingdom. These are used together with the sub-national projections, which give statistics for local authority districts up to around 2039 depending on country.

A range of government projections of households are also used.

Royal Mail's Postal Address File (PAF) gives counts of small-user delivery points for postcodes.

Official statistics are sourced from:

ONS for statistics relating to England and Wales (<http://www.ons.gov.uk/ons/index.html>)

General Register Office for Scotland (<http://www.gro-scotland.gov.uk>)

NISRA for Northern Ireland statistics (<http://www.nisra.gov.uk>)

7.5. Overview of methodology

The approach to creating the estimates and projections is broadly as follows. Note that considerations are taken throughout the process regarding the following, which are not described in detail:

- a) Reconciliation of different versions of the postcode geography
- b) Reconciliation of different age bandings which appear in various input sources

7.5.1. Reconcile population projection data sources, and impute missing data:

Population data sources:

- Create smoothed time series in cases where data is supplied rounded
- Adjust published projection data to agree with most recent mid-year estimates
- Adjust results to agree with long-term national population projections.
- Make estimates of communal population by age and sex for UA/LA areas
- Fill in time series points for missing years in the published projections. This is required because some government projections are published only for 5 or ten year intervals. The time series are interpolated where necessary.
- Extrapolate UA/LA projections where necessary. This is required because long-term government forecasts are published only at the level of 'countries' (England / Wales / Scotland / Northern Ireland). For years beyond the horizon of the sub-national local authority level projections we extrapolate, using the national forecasts as control totals.

Household data sources:

- Extrapolate statistics to any years beyond the range of years for which they are supplied. In cases when the time series do not extend sufficiently far enough into the future, observed trends in the projections are extrapolated for all required years.
- Interpolate missing years in headship rate and household size projections. This is required because some of these projections are published only for 5 or ten year intervals. The time series are interpolated where necessary.

7.5.2. Local neighbourhood population base

From the census 2011 postcode head-count datasets, make an initial estimate of population in households, communal population and number of households for each postcode.

From 2011 census data, estimate 2011 population split by age band by residence type (i.e. whether in households or communal) for all output areas. This step was required because census data had not yet been supplied giving this split of population for output areas.

The output area split of population by age band by residence type is then applied to postcodes in each output area, to produce an initial estimate of population split by age band by residence type in each postcode. The objective is that this dataset should be consistent with the published census counts of

population and households at postcode level, and detailed population statistics published at output area and higher levels.

Postcode and PAF change data is then applied to postcodes to roll the initial estimates forward to the end of 2016. This process uses comparison of PAF between successive years for which it is available in order to identify change, and to infer whether it is change in communal population or in private households. This gives estimates for unit postcodes of total population, split by age and sex, and total households for years from the census year up to the current year.

7.5.3. Control Data

The 2017 release of CACI data uses ONS Mid-Year Estimates at super output area level in England and Wales and in Scotland. In Northern Ireland, Mid-Year Estimates are available only at local authority level. In previous years we used Mid-Year Estimates only at the coarser level of Local Authorities for the whole of the UK.

The first stage of processing is to apply known PAF changes from mid-2015 to the end of 2016 to the super output area level Mid-Year Estimates. By comparison of PAF year-on-year, an estimate is made of the proportion of change in a postcode which is due to communal population, and the proportion due to change of population in households.

Population projection controls remain at local authority and unitary authority level throughout the UK. These are reconciled with the current-year control data at this level to give control data for future projected years, and projection time series are adjusted accordingly.

7.5.4. Reconciliation of local neighbourhood estimates with control data

The key consistency constraints are:

1. Exact agreement with reconciled national counts of population by gender, age band and type of residence.
2. Close agreement with OA-level census counts of population by gender, age band and type of residence.
3. Close agreement with Census and PAF statistics at the level of individual postcodes.

7.5.5. Create projected future data for unit postcodes

Transfer the postcode base estimates to the most up-to-date geography. For totally new postcodes we derive households from the PAF small user delivery-point count, assume residential population from a UK profile, and assume zero communal population.

The postcode population (residential and communal children and adults) and household counts are scaled to match the LA/UA projections.

The postcode populations (residential and communal children and adults), split by age and gender, are scaled to match the LA/UA projections, and to match the postcode data created in the previous step.

Internal inconsistencies in this data are eliminated. A range of checks are applied, such as ensuring that the number of adults in households is always greater than or equal to the number of households.

7.6. Catalogue of data input sources

Data Source	Old/New
England	
Population:	
2015 Local Authority Population Mid-Year Estimates	New
2015 LSOA Population Mid-Year Estimates	New
2015-2039 2014-based Local Authority Population Projections	New
2015-2065 2014-based Principal National Population projections	New
2011 Census OA split between communal and household population	Old
Households:	
2015-2039 2014-based Local Authority Household Projections	New
2011 LSOA Census population and households	Old
Wales	

Data Source	Old/New
Population:	
2015 Local Authority Population Mid-Year Estimates	New
2015 LSOA Population Mid-Year Estimates	New
2015-2039 2014-based Local Authority Population Projections	New
2015-2065 2014-based Principal National Population Projections	New
2011 Census OA split between communal and household population	Old
Households:	
2015 Local Authority Household Mid-Year Estimates	New
2015-2036 2011-based Local Authority Household Projections	Old
2011 LSOA Census population and households	Old
Scotland	
Population:	
2015 Local Authority Population Mid-Year Estimates	New
2015 LSOA (lower-level datazones) Population Mid-Year Estimates	New
2015-2037 2012-based Local Authority Population Projections	Old
2015-2065 2014-based Principal National Population Projections	New
2011 Census OA split between communal and household population	Old
Households:	
2015 Local Authority Household Mid-Year Estimates	New
2011 LSOA (lower-level datazones) Census population and households	Old

Data Source	Old/New
2015-2037 2012-based Local Authority Household Projections	Old
Northern Ireland	
Population:	
2015 Local Authority Population Mid-Year Estimates	New
2015-2039 2014-based LGD Population Projections	New
2015-2065 Principal National Population Projections	New
Households:	
2015-2037 2012-based LGD Household Projections	Old