User Guide

VOLUME 6 – ANNUAL POPULATION SURVEY (LOCAL AREA DATABASE)

Version 1: March 2017

ANNUAL POPULATION SURVEY/LOCAL AREA DATABASE

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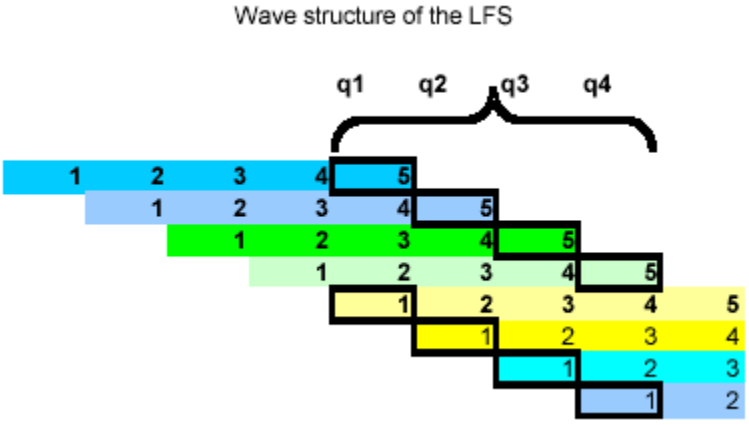
SECTION 1: INTRODUCTION

The Labour Force Survey (LFS) is a key source of information of labour supply – that is, on individuals who supply their labour. The LFS is a quarterly survey of approximately 41,000 UK households per quarter. Each household is surveyed over five quarters, with the final (fifth) interview one year after the first. It is designed to provide robust national labour market and macroeconomic information, but its sample size is insufficient to provide reliable data at local level. Therefore, annual datasets are produced for local area analysis, originally from the quarterly datasets and then with additional boost surveys.

SECTION 2: ANNUAL LOCAL AREA DATABASE (LADB)

The Local Area Database (LADB) was first created in 1996, with the aim to make available more accurate data for Unitary Authority/local authority districts (UA/LADs).

The first design of the annual database consisted of responses from four quarters of the quarterly LFS.
Each quarter's LFS sample of households is made up of 5 waves. Each wave is interviewed in 5 successive quarters, such that in any one quarter, one wave will be receiving their first interview, one wave their second, and so on, with one receiving their fifth and last interview (see diagram below). The LADB was created by taking waves 1 and 5 from each of four consecutive quarters to obtain an annually representative sample. Over the period of four consecutive quarters, waves one and five will never contain the same households, and so this avoids the inclusion of responses from any household more than once in an annual dataset.



When the LADB was first introduced, the quarterly LFS was based on seasonal quarters: Spring (including the months March to May), Summer (June to August), Autumn (September to November), and Winter (December to February). Therefore, the LADB covered the period March to February. This changed to a calendar quarter basis (January to March, April to June, July to September, and October to December) in 2004.

Annual Local Area Labour Force Survey (ALALFS)

For the period from March 2000 to February 2001, extra respondents were included in the LADB (but not in the quarterly LFS data). This first sample boost covered only respondents in England, and was called the English Local LFS (ELLFS) boost. In March 2002 a similar boost was introduced in Wales (the WLFS boost), and in 2003/04 the SLFS boost was introduced in Scotland. The combined surveys were called the Annual Local Area LFS (ALALFS).

The ELLFS was designed in such a way to give an expected minimum sample size of 875 economically active adults in each Local Education Authority (LEA) (450 in London Boroughs and 300 in Rutland). The WLFS is designed to have an expected minimum sample size of 875 economically active adults in each Unitary Authority (UA) (700 for Anglesey and Ceredigion, 575 for Blaenau Gwent, and 500 in Merthyr Tydfil). The sample size in each UA in Scotland is boosted to produce an expected minimum of 875 economically active adults. However, to avoid saturation sampling, this figure is reduced to 300 in Clackmannanshire, 600 in Stirling, 700 in Inverclyde and Midlothian, and 800 in East Lothian and East Renfrewshire.

Each household in the boost samples is interviewed annually for four years. To build up the sample, in 2000/01 for England (and 2001/02 for Wales and 2003/4 in Scotland), the sample was divided into four groups or waves. Over the following three years they dropped out one by one, so that only one of the original four waves was actually in the survey for all four years. A new wave is then sampled every year.

More information on the methodology behind the ELLFS is available in articles on the ONS website and in the May 2000 issue of *Labour Market Trends*, pp195-199 and the January 2002 issue of *Labour Market Trends*, pp33-41.

The Annual Population Survey (APS)

Although the quarterly LFS started using a calendar quarter basis in 2006, the LADB moved to a calendar quarter basis in 2004. In January 2004, a sample boost was introduced in England only. The aim of the boost was to provide an expected minimum sample size of 875 economically active adults in each UALAD in England instead of in each LEA. This allowed more accurate precision for the newly launched ONS Neighbourhood Statistics.

The boost was called the Annual Population Survey boost (APSB), and combined with the Annual Local Area LFS (which included the ELLFS, WLFS, and SLFS) was called the Annual Population Survey. To avoid confusion between the whole dataset and the new boost, the whole dataset was called the Annual Population Survey (APS), and the new boost was called the APS(B).

The respondents included in the APS(B) boost did not answer all the questions included in the main LFS and other sample boosts (ELLFS, WLFS and SLFS). Therefore, some estimates from the APS – such as those relating to qualifications - are based on a subset of the database excluding the APS(B) cases.

With the introduction of the APS, it was decided that the annual data should be published four times a year rather than just once, as had been the case with the ALALFS. Data are now published quarterly for overlapping annual periods (January to December; April to March; July to June; and October to September).

In 2006, funding for the APS(B) was withdrawn, and so the structure of the Annual Population Survey reverted to the same as the ALALFS (that is, waves 1 and 5 of the quarterly LFS plus the Local Labour Force Survey (LLFS) for England, Wales and Scotland). However, the name 'Annual Population Survey' has been retained, and the data continue to be published four times a year (and all questions are now based on the complete database).

The figure below shows the current structure of the APS, with highlighted waves forming part of the APS January – December 2016 dataset.

	APS Dataset: January – December 2016			
	Jan – March 2016	**April – June 2016**	**July – Sept 2016**	**Oct – Dec 2016**
LFS cohort 1 *(first sampled January – March 2015)*	**Wave 5**			
LFS cohort 2 *(first sampled April – June 2015)*	**Wave 4**	**Wave5**		
LFS cohort 3 *(first sampled July – Sept 2015)*	**Wave 3**	**Wave 4**	**Wave 5**	
LFS cohort 4 *(First sampled Oct – Dec 2015)*	**Wave 2**	**Wave 3**	**Wave 4**	**Wave 5**
LFS cohort 5 *(First sampled Jan – March 2016)*	**Wave 1**	**Wave 2**	**Wave 3**	**Wave 4**
LFS cohort 6 *(first sampled April – June 2016)*		**Wave 1**	**Wave 2**	**Wave 3**
LFS cohort 7 *(first sampled July – Sept 2016)*			**Wave 1**	**Wave 2**
LFS cohort 8 *(First sampled Oct – Dec 2016)*				**Wave 1**
LLFS cohort 1 *(first sampled Jan– Dec 2013)*	**Wave 4**			
LLFS cohort 2 *(first sampled Jan– Dec 2014)*	**Wave 3**			
LLFS cohort 3 *(first sampled Jan– Dec 2015)*	**Wave 2**			
LLFS cohort 4 *(first sampled Jan– Dec 2016)*	**Wave 1**			

Weighting and Structure of the Local Area Annual Datasets

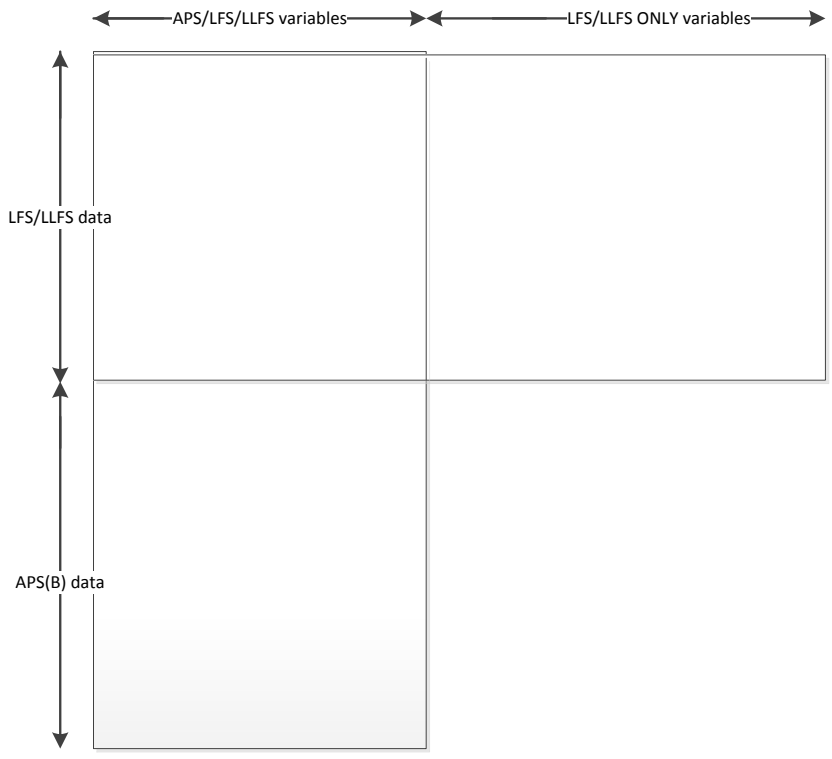
Weighting of the data is done in order to allow the sample to provide estimates relating to the total population and to minimise non-response bias. Each record's weight is the number of people in the population represented by that one sample member. The weights are based on the age and sex structures of the sample and of the population. More information on the weighting procedure can be found in Volume 1 of the User Guide.

For the LADB, it is desirable to improve the 'weighted totals' at the local area level. This is done by using mid-year population estimates for local authorities and taking account of local authority populations as well as the age and sex structures of the sample and population.

The basic methodology which is used for weighting the datasets is the same as the method used for the quarterly LFS datasets, where the weights are calibrated to the population totals using a Generalised Estimation System (GES).

For the periods January-December 2004 (JD04) to January-December 2005 (JD05), there are two weighting variables on the datasets (PWAPS14 and PWLFS14). This is due to the different data sources which make up the final dataset, as illustrated in the diagram below:

The structure of the APS dataset



The LFS/LLFS comprises of the main LFS data (waves 1 and 5 from each quarter in the year) and all the data from the English, Scottish and Welsh enhancements (ELLFS/SLFS/WLFS).

The APS boost (APS(B)) only covers a subset of topics covered in the LFS and the Local Labour Force Survey (LLFS), however all of the variables appear on the dataset. The variables that are covered in both the APS (B) core and the LFS/LLFS questionnaire are known as the CORE variables. NON CORE variables are those that are solely on the LFS/LLFS. A list of CORE variables from JD04 to JD05 can be found in Annex A.

The LFSSAMP variable can be used to identify these cases-
LFSSAMP=1=LFS cases
LFSSAMP=2=LLFS cases
LFSSAMP=6=APS Boost

The two weights on the APS person datasets for the periods from JD04 to JD05 are:

- PWAPS14 – there is a weight for all cases on the dataset, which can be used when looking only at the CORE variables (e.g. age, sex, ethnic group).
- PWLFS14 – there is only a weight for the LFS/LLFS cases. The APS boost cases have a 0 value for this weight. This weight should be used only when looking at NON-CORE variables, or when looking at a combination of CORE and NON-CORE.

From April 05-May06 (A05M) the APS boost was removed, with the structure of the APS dataset comprising of LFS and LLFS data. As these data were asked both the CORE and NON CORE questions, a single weight (PWTA14) was present on subsequent APS dataset.
The 2011 census resulted in revisions to the population estimates and in 2014/15 a reweighted exercise was carried out to reweight the APS historical datasets from JD04 to update the population totals. Datasets from this exercise will have a weight with a 14 as the last two digits. Another reweighting exercise was undertaken in 2016 going back to A12M, the last two digits on the weight for these datasets is 16.

Sampling variability of the Local Area Annual Datasets

As the LFS is a sample survey, all estimates from it are subject to sampling variability. Sampling variability is dependent on several factors, including the size of the sample, the size of the estimate as a proportion of the population, and the effect of the design of the sample on the variable of interest. Standard errors calculated from simple random samples will, typically, differ from those calculated from more complicated sample designs, such as clustered or stratified samples. In the case of the LFS sample design, there is a clustering effect. This reflects the fact that addresses are sampled, but results are estimated for individuals. For example, ethnic group is particularly clustered, since it is likely that all members of a household living at a particular address will share the same ethnic group.

The sampling fraction is also important in determining sampling variability. A sampling fraction is the proportion of households in an area that are interviewed. For example, if

there are 10,000 households and 50 of these are interviewed, then the sampling fraction would be 50/10,000 or 1/200. The greater the sampling fraction, the larger the sample size and hence the more reliable are the estimates.

The sampling fraction of the main LFS is consistent across Great Britain. However, the design of the local area annual samples means that sampling fractions may vary by area; English, Scottish and Welsh UALAs (or LEAs / UALADs prior to 2012) receiving a larger boost will have a higher sampling fraction. Northern Ireland will see no change. The sampling fraction varies so that a pre-determined target of economically active adults is achieved across UALAs.

Where the sampling fraction is consistent over all areas, the standard error of an estimate of a level is proportional to the size of the estimate. It is not possible to provide a table of size of estimate against standard error for the later, boosted, annual LFS datasets because of the different sampling fractions in different areas; however, there is a simple conservative formula that can be used to derive the standard errors of estimates of levels.

A useful benchmark to assess the relative magnitude of a standard error is to calculate the ratio of the standard error derived from a particular (complex) sample design with the standard error that would have arisen from a simple random sample of the same size. This ratio (of the standard errors) is the design factor. It indicates the relative gain (or loss) in the estimate of standard error which results from the use of a particular complex sample design compared to a corresponding simple random sample. A design factor (or DEFT) of, say, 1.20 indicates that the standard error of the estimate in question is 20% greater than would have been the case for a simple random sample of the same size. The design factor (DEFT) should not be confused with the design effect (DEFF); the design effect is the design factor squared and is calculated by the ratio of variances instead of standard errors.

SE estimates for levels

An approximation to the standard error for an estimate of M thousand (MT) from the annual data can be given by:

$\sqrt{(MT * Wi/1000)}$ (1)

where Wi is the average grossing factor (mean of the weights) for cases in a specific area i.

Average grossing factors, from the 2015 APS, are given in Annex *B*. If the area of interest spans several UA/LADs then the average grossing factor for several areas W can be given by:

$$W = \frac{\sum_i w_i s_i}{\sum_i s_i}$$

where wi is the average grossing factor for area i and si is the 16+ sample size in area i.

The 95 per cent confidence interval for an estimate of M thousand (MT) is given by:

MT ± 1.96 * s.e.

SE estimates for rates

A simple formula for producing standard errors for proportions (assuming a simple weighted random sample) is:

√ (p(1 - p)/n)

For instance, in the January to December 2015 APS dataset, the estimate of the total number of people aged 16 and over who are in employment is 31,174,871. This is 59.9% of all people in the UK who are aged 16 and over. The number of people aged 16 and over in the UK sample is 247,853. The standard error of 0.1% is calculated as:

√ ((0.60 * 0.40)/247,853)

ONS methodologists have produced more precise standard errors allowing for the design of the LFS including the different sampling fractions. However, this involves much more complex calculations than those described here for the approximate standard errors. Annex C shows the estimate, standard error and design factor (based on the precise standard errors) for the employment and ILO unemployment (of persons aged 16+) for UA/LADs using the 2013 APS data.

The standard error of the level of the estimate is simply the standard error of the proportion (or rate) multiplied by the population aged 16 and over:

0.1% * 52,081,868 = 52,082 (2)

The formulae (1) in the section above is an approximation of (2).

Thresholds

It is the nature of sampling variability that the smaller the group whose size is being estimated, or from which an estimate is being derived, the less precise that estimate is. Put another way, the size of the standard error increases with the level of the estimate, so that the larger the estimate the larger the standard error. But the larger the sample estimate, the smaller will be the standard error in percentage terms (relative standard error being the standard error as a percentage of the estimate). Thus, larger sample estimates will be relatively more reliable than smaller estimates: an estimate of 500,000, while having a standard error of 13,800, will have a relative standard error of 3%, whereas an estimate of 25,000 which has a standard error of 3,100 has a relative standard error of 12%.

Before 2005, publication thresholds were applied to quarterly and annual LFS estimates; any estimate smaller than the threshold was considered unreliable and hence not published. Since 2005, no estimates are suppressed due to lack of statistical reliability. All estimates are published along with 95% corresponding confidence intervals.

These thresholds are no longer applied by ONS in the dissemination of LFS and APS estimates, but this section is retained as thresholds can be used as a simple way of identifying cells with high sampling variability.

These thresholds were calculated to be approximately equivalent to publishing estimates which had a relative standard error of 20% or less. The threshold for quarterly LFS estimates was 10,000, and the thresholds for the annual LFS, before the sample boosts were introduced in 2000/01, was 6,000.

However, since 2000/01, the nature of LFS enhancement has meant that some areas have seen a very large increase in sample size, and others very small increase or none at all. This means that a single threshold for all areas is no longer appropriate.

For England, each area was allocated to one of three threshold bands - 2,000, 4,000 or 6,000. For Wales from 2001/02, each UA was given its own threshold. These ranged from 1,000 to 4,000. From 2003/04, each UA in Scotland was given its own threshold ranging from 1,000 to 5,000. Annex D shows how the thresholds were calculated for the local authorities in each of the three countries.

These thresholds can also be applied to the APS.

Thresholds for data on ethnicity

It has long been known that the effect on the LFS of clustering within households (or ‘design effects’) for ethnic group and for totals segregated by ethnic group can be substantial. For the annual LFS-based surveys it is appropriate to take account of the design effects in the thresholds for estimates of variables by ethnic groups. The local design effects may be different from the regional and national design effects because of local variations in household size and because of variations in the proportions of households in multi-occupied dwellings in different areas.

It is recommended for the ALALFS datasets in England that a single multiplier of 2.5 is applied to the general thresholds for most ethnic estimates1. A separate analysis of the WLFS recommended a multiplier of 4.0 in Cardiff and 2.5 in the rest of Wales. The SLFS uses the same multipliers of the standard thresholds as in England, and hence a multiplier of 2.5 is applied to the existing threshold.

These thresholds can also be applied to the APS.

Eurostat Ad-hoc module variables and weight.

From 2009, the JD APS person datasets have had additional variables added to the government cuts; these are known as the Eurostat Ad Hoc Modules (AHM) and the Eurostat wave 1 weight (EWEIGH**), where ** denotes the year that the weight was published.

Under Regulation (EC) No 577/98, Eurostat includes a number of variables each year which provide information on aspects of the labour market that do not form part of the standard questionnaire. These set of variables constitute an "*ad hoc* module". The different themes since 2009 are:

Year	**Theme**
2009	Transition from school to work life
2010	Reconciliation between work and family life
2011	Employment of disabled people
2012	Transition from work into retirement
2013	Accidents at work and other work-related health problems
2014	Labour market situation of migrants and their descendants
2015	An ad-hoc module didn't run this year [1]
2016	Young people on the labour market

A brief description of the ad hoc module variables can be found in the volume 9a user guide *(which will be published soon).* More information about the Eurostat aspect of the survey (including the background, the regular variables and ISCO country classification) can be found in user guide volume 9.,Both of these user guides can be found here: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/labourforcesurveyuserguidance

The Eurostat variables are collected in the first wave only on the LFS, and this means a separate weight is required (EWEIGH**) to use along with the AHM variables.

The calculation of the Eurostat weight is similar to the method used for the calibration of the LFS and APS weights (GES). However, with the Eurostat weight the bounded option in GES is included, so the calibration weights cannot exceed the value 9999, a constraint set by Eurostat; this affects some multiple occupancy households from Q3 2010 due to changes to the LFS at that time. Since the Eurostat variables are based on wave 1 data only, the 75+ adjustment which is applied to wave 1 LFS data (as households where all residents are aged 75 and over are no longer interviewed in subsequent waves) is removed.

[1] The wave 1 weight and variables are still included on the JD15 dataset

Wave 1 variables

From JD08, various wave 1 LFS variables have been added to the JD APS person datasets (on the Government cuts). A list of the wave 1 variables can be found in Annex E.

It is worth noting that several of these variables have only recently (in quarters in 2014) been asked in wave 1 only. However, in order to do some analysis with other years, they have been included in earlier periods of the APS dataset where they may have been asked in Wave 1 and Wave 5 of the LFS.

When analysis is carried out based on these variables the Wave 1 weight should be used: EWEIGH** (the Eurostat one that can also be used for the ad hoc modules).

There may be a discrepancy between the unweighted and weighted results, as the Wave 5 cases will be included in the unweighted counts but not in the weighted counts (This is because only Wave 1 cases have weights).

Personal Well-Being variables

From April 2011 the mainstream APS person datasets now contains Personal Well-Being questions (satis, worth, happy, anxious), along with the Well-Being non-proxy weight (NPWT**), which should be used when analysing these variables. Previously (from 2011) a specific 'APS Well-Being micro dataset' was created, however the production of this separate dataset ceased from A14M. The APS person datasets (from A11M12 onwards) are now the official source for the Well-Being variables previously released as part of the 'APS Well-Being micro dataset'.

It is important to note that the size of the achieved sample for the Well-being questions within the APS dataset is approximately half that of the full APS file. This reduction is due to the Well-Being questions being only asked of persons aged 16 and over, who gave a personal interview; proxy answers are not accepted. As a result some caution should be used when analysing responses to Well-Being questions at detailed geography areas, or other variables, where unweighted respondent numbers are relatively small. It is recommended that for lower level geography analysis the variable ‘UACNTY09’ is used.

It is not possible to combine other single year APS/Personal Well-Being datasets together to carry out longitudinal analysis. The Personal Well-being datasets are not designed for longitudinal analysis, e.g. they are not designed to track individuals over time.

The ONS produce a Statistical Bulletin on Personal Well-Being in the UK, which is available from the ONS website. It provides an overview and analysis of UK personal well-being data and also includes information on how personal well-being data can be used:

https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing

Sexual Identity variables

From January 2011 the APS person datasets now also contains a Sexual Identity variable (SIDV), along with the Sexual Identity weight (SIDWT**), which should be used when analysing this variable. Previously Sexual Identity variables were released as part of the Integrated Household Survey (IHS).

Again like the Personal Well-Being questions it is important to note that the size of the achieved sample for the Sexual Identity is much smaller than the full APS file. This reduction is due to the Sexual Identity questions being only asked of persons aged 16 and over, who gave a personal interview; proxy answers are not accepted. As a result any analysis by geographical area below regional level is not recommended, and that caution should be used for analysing Sexual Identity responses by other variables where unweighted respondent numbers are relatively small.

The ONS produce an experimental Statistical Bulletin on Sexual Identity in the UK, which is available from the ONS website. It provides an overview and analysis of UK Sexual Identity data and also includes information on how Sexual Identity data can be used

https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/sexuality

Veteran variables

Since 2014 questions listed below have been asked on the APS to try and measure the UK Armed Forces Veterans residing in Great Britain.

- **VETCURR** (Currently serving in the armed forces)
- **VETSERV** (Ever served in armed forces)
- **VETYEARLFT** (Year left armed forces)
- **VTYRLFT2** (Age left the UK Regular Armed Forces or the UK Reserve Armed Forces)
- **VTYRLFT3** (Year left the UK Regular Armed Forces or the UK Reserve Armed Forces).

Due to the sensitive nature of these variables the Veteran questions are currently only released on APS Government level datasets.

Other Integrated Household Survey (IHS) variables

Other variables previously released via the IHS now been included in the APS person datasets. Use the APS person weight (PWTA**) for analysing these:

Smoking Variables

- **CIGEVER** (Ever Smoked) from JM16, previously **SMOKEVER**
- **CIGNOW** (Smoke at all nowadays) from April 2009
- **CIGSMK16** (Smoking Status) from JM16, previously **CIGSMK1**

The ONS produce a Statistical Bulletin on Smoking Prevalence in the UK, largely based on source information from the APS

https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2015

Health Variable

- **QHEALTH1** (How is the respondent's health) from July 2009

APS Household datasets

Household level APS datasets are also available for the January-December periods (which allow labour market analysis to be carried out on families and households, at local area levels and for small sub-groups of the population across the UK). , Additional information can be found in user guides volume 1 (background and methodology) and 8 (household and family data)

https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/labourforcesurveyuserguidance

The main points to remember between the person and household datasets are:

- For the household data set, non-responders are included, as they are necessary to identify relationships between household members, assign them to complete family units within the household, and derive family and household variables.
- Unlike in the person data sets, weights for each person in the same household are equal. This ensures that weighted estimates at the household level are consistent

The APS household level weight is PHHWTA14 (from JD 2006). Similar weighting methodology is used to the household-level LFS dataset, but with a more detailed set of calibration groups.

Note due to changes from JD11, there are some additional cases included in the dataset (compared to JD06-JD10). These cases are:

1) households where everyone has an IOUTCOME of 6 (data brought forward from previous quarter) and THISWV=2,3 or 4,

2) households where everyone has an IOUTCOME of 3 (non-response)

3) households where everyone has an IOUTCOME of either 6 or 3 and THISWV=2,3 or 4. This won't have any impact on weighted analysis, since these cases have a zero weight, but it could have an impact if looking at the unweighted data.

Geography variables

There have been changes to the geography variables, which has involved some existing variables being removed and new ones added. This will affect the APS government datasets (both person and household level) from JD14. The change is due to ONS Geography moving to using a nine-digit coding structure in 2011, and the availability of new geographies following the 2011 Census

The new geography variables (mostly nine-digit) can be seen in the table below:

Variable name	Description
PARK	National Parks
LEA	Local Education Authority
CTRY9D	Country
NUTS102	NUTS 2 areas (2010)
NUTS103	NUTS 3 areas (2010)
NUTS104	NUTS 4 areas (2010)
TTWA9D	Travel to work area
RU11IND	2011 Census rural-urban classification
OA11	2011 Census output area
GOR9D	Region
PCON9D	Westminster parliamentary constituency (UK)
LAUA	Local Authority District
TECLEC	Local Learning and Skills Council (England) Enterprise Region (Scotland) DCELLS (Wales)
LSOA11	2011 Census Lower layer super output area
MSOA11	2011 Census Middle layer super output area
WARD	Electoral Ward
CCG	Clinical Commissioning Groups
CTY	Counties
LEP	Local Enterprise Partnerships (DV not supported by ONS Geography)

ONS unsupported geographies (listed in Annex F) are no longer provided on APS datasets from A15M16 onwards.

The reweighted historical LFS and APS government datasets (pre-2014) do not contain any nine-digit geographies. If you require these geographies pre-2014 a lookup can be provided on request to allow you to merge these onto historical datasets.

APS 3 Year Pooled datasets

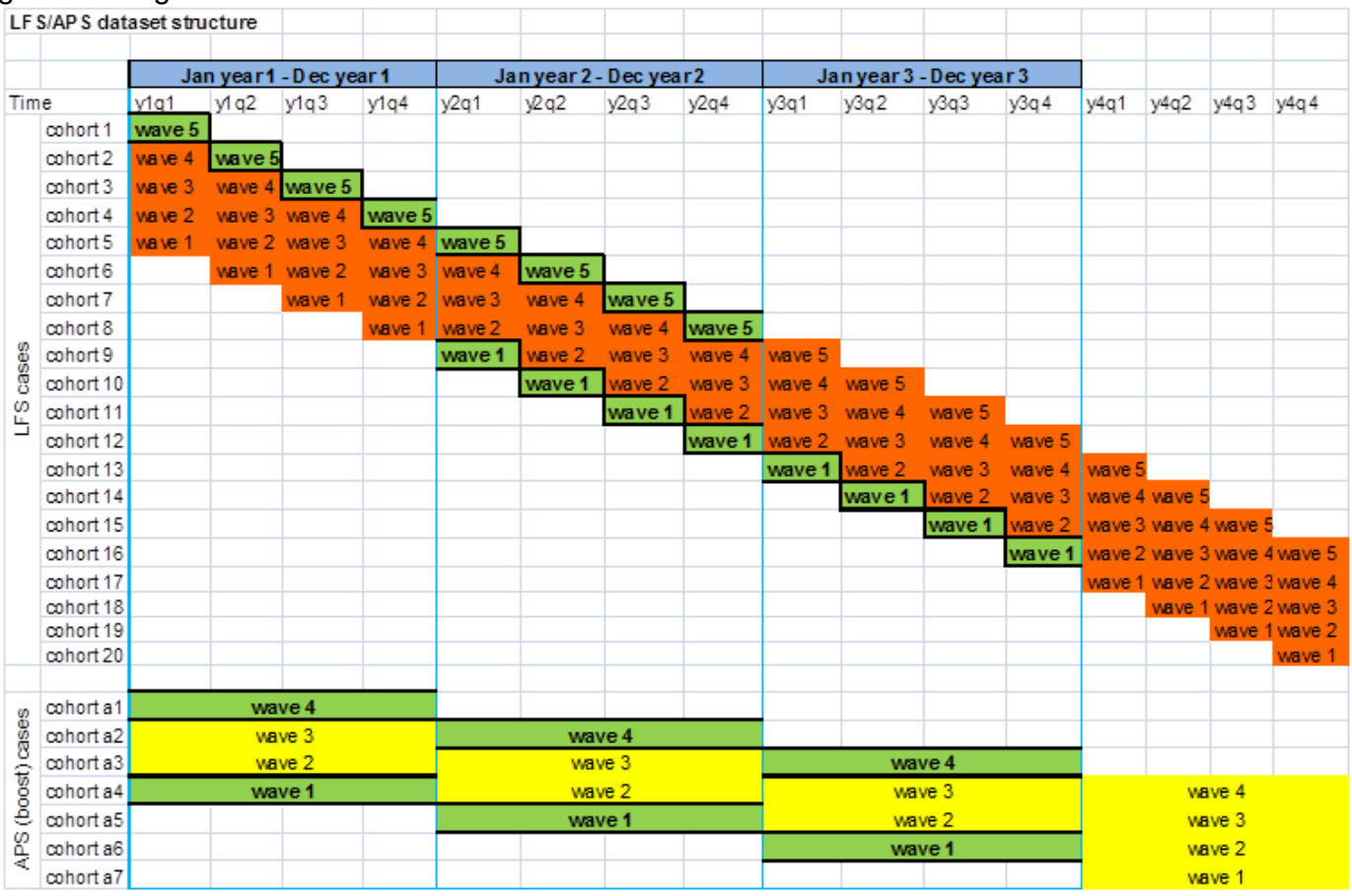
The APS 3 year pooled dataset is designed to allow more robust analysis at lower level geographies, that isn't always possible using the single year APS dataset, especially for certain topics whose achieved sample size is smaller.

This 3 year dataset will contain a sample size of around 550,000 respondents and will largely only include variables that appear in all of the 3 years it covers.

When combining multiple single year APS datasets together it is important to account for the rotational design of the APS, and ensure that no person appears more than once in the multiple-year dataset.

For this reason, the three-year dataset has been designed to include only a selection of the cases from the individual-year APS datasets, chosen in such a way that no individuals are included more than once and the cases included are approximately equally spread across the three years. This is done by selecting wave 5 LFS from year 1, wave 1 and 5 LFS from year 2, wave 1 LFS from year 3, and waves 1 and 4 APS boost from all waves.

This is illustrated in the diagram below, where the cases selected are those in bold/in a green background:



Any analysis produced from the pooled dataset should be treated solely as point-in-time estimates. The use of the pooled datasets is not recommended for any time series analysis. This is due to consecutive pooled datasets will contain two years of data from the same year (e.g. J13D15 estimates and J14D16 will both contain 2014 and 2015). Therefore any estimates of change will effectively be between 2013 and 2016, which is hard to interpret.

The APS pooled dataset is weighted to UK population totals just like the single year APS dataset (the same calibration groups and design weights are also used). The population totals used are the average of the 6th month of each of the three years (e.g. for J13D15 the mean of the population totals for June 2013, June 2014 and June 2015 is used).

There are several different weights on the dataset:

- **PWTA16C**: Person Weight for 3 year pooled APS dataset
- **SIDWT16C**: Sexual Identity weight for 3 year APS pooled dataset
- **NPWT16C**: Non-proxy weight for 3 year APS pooled dataset

The APS pooled datasets are available via the ONS Virtual Microdata Laboratory (VML) and the UKDS.

SECTION 3: ACCESSING LOCAL AREA DATA

Local area LFS data are available via four routes:

(i) ONS website

The 'Local labour markets: statistical indicators' publication can be found at: http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Local+Labour+Market+Indicators

This publication gives an overview of labour markets indicators for local areas, and the APS is used for estimates of labour supply. The publication includes some summary tables and analysis, plus downloadable Excel spreadsheets containing data for all local authorities and parliamentary constituencies.

ONS's on-line guide to labour market statistics http://www.ons.gov.uk/ons/rel/lms/labour-market-guidance/guide-to-labour-market-statistics/guide-to-lm-statistics.html also contains information on local area data, including information on the annual LFS and APS.

The Guide to Regional and Local Labour Market Statistics can be found at: http://webarchive.nationalarchives.gov.uk/20110218135832/http:/statistics.gov.uk/downloads/theme_labour/Guide_regional_local_lms.pdf

(ii) Nomis

Nomis contains tables of both annual LFS and APS data for a wide range of geographies. To access these data visit www.nomisweb.co.uk. Regular users are encouraged to register

and obtain a user account, but the data can be accessed without registering. The most recent annual data on Nomis allows some additional functionality, such as allowing user defined areas and variables. Estimates from the 2003/04 annual LFS and all APS datasets are output, along with corresponding 95% confidence intervals.

Annual LFS/APS data are available for the following geographies:

- Countries
- Government Office Regions
- Counties
- Unitary authorities
- Local authority districts
- Parliamentary constituencies
- NUTS areas
- Learning and policy geographies (eg ELWAs and local learning and skills councils)

(iii) ONS local area LFS Dataservice

The estimates from the annual LFS/APS available from the ONS web site and from Nomis are pre-defined aggregates. For users who want to specify their own analyses and tabulations, ONS runs a service to provide these. There is a charge for this service. To request a table from this service or obtain more information about the service e-mail socialsurveys@ons.gov.uk

(iv) Access to APS micro-data

The UK Data Service (UKDS) manages access to the APS microdata, offering a Secure Data Service (SDS) and an End–User Licence (EUL) procedure which allow users access to microdata files containing various levels of APS variables. Information on accessing APS data from the UKDS can be found here:
https://www.ukdataservice.ac.uk/get-data/how-to-access

The more detailed versions of the APS microdata are also available via the ONS Virtual Microdata Laboratory (VML). Information on how to access the VML files can be found here:
https://www.ons.gov.uk/aboutus/whatwedo/paidservices/virtualmicrodatalaboratoryvml

Further Information

For general information about LFS local area data please telephone the Labour Market Statistics Helpline on 020 7533 6094, e-mail labour.market@ons.gov.uk.

For further information about the ONS tabulation services contact socialsurveys@ons.gov.uk or Tel: 01633 455678.

For more information on Nomis contact info@nomisweb.co.uk or Tel: 0191 334 2680.

ANNEX A – Core variables for JD04 to JD05 periods

aage	Dteofbth	gorwk2r	lktima	numhhld	quals401	Samelad	typhst4	xr12
add	Durum	Govtof	lktimb	numol4	quals402	sc2kmmj	typhst5	xr13
addjob	durun2	Govtor	lkyt4	numol5	quals403	sc2kmmn	Uacnty	xr14
advhst	Edage	Hallres	look4	numol5f	quals404	schm04	Uala	xr15
age	Emplen	hdpch19	manager	numolfo	quals405	Scotpca	Ualdgb	ystart
agedfe	Empmon	Hhld	mardy	numsce	quals406	sctvec	Ualdwk	ytetjb
ages	Enrol	Higho	marsex	nuts2	quals407	sector	Ukpca	ytetmp
amarstt	eth01	hitqua05y	marstt	nuts3	quals408	sectro03	Undabl	
aofl16	Ethas	hitqua4	mpnr02	nuts4	quals409	self1	Undnst	
aofl19	Ethbl	hitqua5	natidb	nvqlev	quals410	self2	undskhr	
aohl16	ethcen15	Hohid	natide	nvqsvq	quals411	self3	Undst	
aohl19	ethcen6	Home	natidi	nvqun	quals601	self4	Uresmc	
appr4	Ethmx	Hout	natido	nvqun2	quals602	sex	Urind	
attend	Ethwh	Hrp	natids	oacode	quals603	smsxfu	w1yr	
ayfl19	Everwk	Hrpid	natidw	oneten	quals604	soa1	Wait	
ayhl19	Extfu	Hst	nation	ownbus	quals605	soa2	ward03	
Befor	Famunit	Ilodefr	nato	pca	quals606	soc2km	ward05	
Beforf	fdpch15	ilodefr05	natox	pcode	quals607	solo2	ward98	
Btec	fdpch16	ilodefr05y	ndtype4	pdwage	quals608	solor	Wavfnd	
caind	fdpch19	indd92m	newdea4	persno	quals609	start	Week	
cameyr	fdpch2	indg92m	nolook	prxrel	quals610	stat2	Wnleft	
candg	fdpch4	indm92m	nolowa01	publicr	quals611	statr	wnleft2	
caseno	fdpch9	inds92m	nolowa02	pwaps05a	Quota	stucur	workage	
casward	Fmplus	Indsect	nolowa03	qgcse41	Recno	supvis	worst30	
conmon	Ftpt	inecac05	nolowa04	qgcse42	Refdte	supvis2	worst30n	
conmpy	Ftptwk	inecac05y	nolowa05	qgcse43	Refwkd	teach41	Wrkage	
consey	Furn	Inecacr	nolowa06	qgcse44	Refwkm	teach42	Wrking	
country	gcse41	Ioutcome	nolowa07	qgcse45	Refwky	teach43	xr00	
course	gcse42	Jbaway	nolowa08	qgnvq	Regwkr	teach44	xr01	
cry01	gcse43	Jobbeg	nolowa09	qrtr	Relbus	teach45	xr02	
cryo	gcse44	land96	nolowa10	qualch41	Relhfu	teach46	xr03	
cryox	gcse45	Lea	nolwm	qualch42	Relhrp	teclec4	xr04	
cured	gcseful1	Leftm	nolwmy	qualch43	Relig	ten96	xr05	
degcls	gcseful2	Leftw	nowant	qualch44	rent96	thiswv	xr06	
degree4	gcseful3	Leftyr	nsecm	qualch51	Resbby	tlec98	xr07	
difjob	gcseful4	Leiscl	nsecmmj	qualch52	Resmth	ttwa	xr08	
dobd	gcseful5	Lfssamp	num5up	qualch53	Respno	typhst1	xr09	
dobm	gnvq4	Likewk	numal	qualch54	Restme	typhst2	xr10	
doby	Gorwkr	Livtog	numas	qualch55	Rsa	typhst3	xr11	

2005 Only
Ilodef05y
Inecac05y
hitqual05y
hiqual05y
levqual05y

Weight to use: **PWAPS – Core Only** **PWLFS – Non Core or Non Core & Core**

ANNEX B – Average grossing factors (mean weights) for Unitary Authorities/ Local Authority District areas from the January-December 2015 APS data

Note: The Local Authority AA City of London hasn't been included in this table due to the small sample size (number of respondents).

Local Authority Area	Average Grossing Factor	AGF / 1000
England	235.9	0.24
AB Barking and Dagenham	215.9	0.22
AC Barnet	436.6	0.44
AD Bexley	307.3	0.31
AE Brent	279.8	0.28
AF Bromley	323.5	0.32
AG Camden	305.1	0.31
AH Croydon	417.6	0.42
AJ Ealing	345.5	0.35
AK Enfield	368.9	0.37
AL Greenwich	374.0	0.37
AM Hackney	289.8	0.29
AN Hammersmith and Fulham	222.5	0.22
AP Haringey	294.6	0.29
AQ Harrow	259.8	0.26
AR Havering	293.4	0.29
AS Hillingdon	325.0	0.32
AT Hounslow	339.6	0.34
AU Islington	292.7	0.29
AW Kensington and Chelsea	148.1	0.15
AX Kingston upon Thames	216.7	0.22
AY Lambeth	511.4	0.51
AZ Lewisham	382.7	0.38
BA Merton	251.9	0.25
BB Newham	328.3	0.33
BC Redbridge	285.3	0.29
BD Richmond upon Thames	240.9	0.24
BE Southwark	323.7	0.32
BF Sutton	315.6	0.32
BG Tower Hamlets	352.1	0.35
BH Waltham Forest	465.8	0.47
BJ Wandsworth	412.5	0.41
BK Westminster	269.5	0.27
BL Bolton	176.4	0.18
BM Bury	143.5	0.14
BN Manchester	261.1	0.26
BP Oldham	142.7	0.14
BQ Rochdale	114.3	0.11
BR Salford	159.2	0.16
BS Stockport	155.0	0.15
BT Tameside	114.9	0.11

Local Authority Area	Average Grossing Factor	AGF / 1000
BU Trafford	131.8	0.13
BW Wigan	209.6	0.21
BX Knowsley	89.4	0.09
BY Liverpool	265.8	0.27
BZ St. Helens	113.2	0.11
CA Sefton	168.9	0.17
CB Wirral	218.6	0.22
CC Barnsley	137.2	0.14
CE Doncaster	202.9	0.20
CF Rotherham	166.0	0.17
CG Sheffield	380.6	0.38
CH Gateshead	133.3	0.13
CJ Newcastle upon Tyne	173.3	0.17
CK North Tyneside	135.5	0.14
CL South Tyneside	91.2	0.09
CM Sunderland	178.1	0.18
CN Birmingham	522.1	0.52
CQ Coventry	207.5	0.21
CR Dudley	200.3	0.20
CS Sandwell	185.8	0.19
CT Solihull	115.3	0.12
CU Walsall	160.0	0.16
CW Wolverhampton	140.3	0.14
CX Bradford	295.8	0.30
CY Calderdale	126.6	0.13
CZ Kirklees	279.7	0.28
DA Leeds	374.5	0.37
DB Wakefield	189.0	0.19
EB Hartlepool	44.9	0.04
EC Middlesbrough	74.3	0.07
EE Redcar and Cleveland	82.6	0.08
EF Stockton-on-Tees	147.9	0.15
EH Darlington	55.4	0.06
ET Halton	68.7	0.07
EU Warrington	139.5	0.14
EX Blackburn with Darwen	78.4	0.08
EY Blackpool	92.9	0.09
FA Kingston upon Hull, City of	166.2	0.17
FB East Riding of Yorkshire	221.5	0.22
FC North East Lincolnshire	82.3	0.08
FD North Lincolnshire	110.4	0.11
FF York	108.1	0.11
FK Derby	169.0	0.17
FN Leicester	189.0	0.19
FP Rutland	68.0	0.07
FY Nottingham	167.9	0.17

Local Authority Area	Average Grossing Factor	AGF / 1000
GA Herefordshire, County of	89.8	0.09
GF Telford and Wrekin	113.6	0.11
GL Stoke-on-Trent	183.9	0.18
HA Bath and North East Somerset	88.3	0.09
HB Bristol, City of	323.7	0.32
HC North Somerset	156.7	0.16
HD South Gloucestershire	190.7	0.19
HG Plymouth	123.6	0.12
HH Torbay	71.7	0.07
HN Bournemouth	125.9	0.13
HP Poole	95.4	0.10
HX Swindon	128.3	0.13
JA Peterborough	116.9	0.12
KA Luton	107.7	0.11
KF Southend-on-Sea	139.6	0.14
KG Thurrock	110.6	0.11
LC Medway	153.5	0.15
MA Bracknell Forest	64.6	0.06
MB West Berkshire	101.8	0.10
MC Reading	99.4	0.10
MD Slough	85.0	0.09
ME Windsor and Maidenhead	79.9	0.08
MF Wokingham	108.8	0.11
MG Milton Keynes	160.5	0.16
ML Brighton and Hove	171.5	0.17
MR Portsmouth	127.8	0.13
MS Southampton	164.6	0.16
MW Isle of Wight	62.2	0.06
09UC Mid Bedfordshire	282.3	0.28
09UD Bedford	308.4	0.31
09UE South Bedfordshire	332.5	0.33
11UB Aylesbury Vale	316.6	0.32
11UC Chiltern	271.0	0.27
11UE South Bucks	251.0	0.25
11UF Wycombe	304.3	0.30
12UB Cambridge	431.0	0.43
12UC East Cambridgeshire	322.6	0.32
12UD Fenland	415.6	0.42
12UE Huntingdonshire	373.4	0.37
12UG South Cambridgeshire	318.6	0.32
13UB Chester	425.2	0.43
13UC Congleton	406.4	0.41
13UD Crewe and Nantwich	455.7	0.46
13UE Ellesmere Port and Neston	382.2	0.38
13UG Macclesfield	433.3	0.43
13UH Vale Royal	385.0	0.38

Local Authority Area	Average Grossing Factor	AGF / 1000
15UB Caradon	281.0	0.28
15UC Carrick	326.9	0.33
15UD Kerrier	361.0	0.36
15UE North Cornwall	270.8	0.27
15UF Penwith	350.1	0.35
15UG Restormel	328.4	0.33
16UB Allerdale	292.6	0.29
16UC Barrow-in-Furness	292.3	0.29
16UD Carlisle	280.0	0.28
16UE Copeland	275.7	0.28
16UF Eden	320.2	0.32
16UG South Lakeland	251.0	0.25
17UB Amber Valley	425.1	0.43
17UC Bolsover	570.1	0.57
17UD Chesterfield	432.9	0.43
17UF Derbyshire Dales	388.1	0.39
17UG Erewash	548.6	0.55
17UH High Peak	381.0	0.38
17UJ North East Derbyshire	447.0	0.45
17UK South Derbyshire	433.8	0.43
18UB East Devon	532.8	0.53
18UC Exeter	473.3	0.47
18UD Mid Devon	453.1	0.45
18UE North Devon	454.4	0.45
18UG South Hams	396.2	0.40
18UH Teignbridge	397.5	0.40
18UK Torridge	459.4	0.46
18UL West Devon	321.0	0.32
19UC Christchurch	269.1	0.27
19UD East Dorset	251.1	0.25
19UE North Dorset	273.4	0.27
19UG Purbeck	323.7	0.32
19UH West Dorset	262.0	0.26
19UJ Weymouth and Portland	310.6	0.31
20UB Chester-le-Street	293.9	0.29
20UD Derwentside	329.6	0.33
20UE Durham	310.9	0.31
20UF Easington	342.3	0.34
20UG Sedgefield	360.1	0.36
20UH Teesdale	402.0	0.40
20UJ Wear Valley	332.1	0.33
21UC Eastbourne	336.6	0.34
21UD Hastings	349.4	0.35
21UF Lewes	327.2	0.33
21UG Rother	331.4	0.33
21UH Wealden	281.8	0.28

Local Authority Area	Average Grossing Factor	AGF / 1000
22UB Basildon	505.1	0.51
22UC Braintree	373.1	0.37
22UD Brentwood	586.5	0.59
22UE Castle Point	500.8	0.50
22UF Chelmsford	386.7	0.39
22UG Colchester	415.6	0.42
22UH Epping Forest	451.4	0.45
22UJ Harlow	522.0	0.52
22UK Maldon	505.5	0.51
22UL Rochford	479.0	0.48
22UN Tendring	438.6	0.44
22UQ Uttlesford	415.1	0.42
23UB Cheltenham	356.7	0.36
23UC Cotswold	374.8	0.37
23UD Forest of Dean	322.7	0.32
23UE Gloucester	348.2	0.35
23UF Stroud	366.6	0.37
23UG Tewkesbury	343.6	0.34
24UB Basingstoke and Deane	387.7	0.39
24UC East Hampshire	415.2	0.42
24UD Eastleigh	433.3	0.43
24UE Fareham	506.0	0.51
24UF Gosport	482.9	0.48
24UG Hart	406.3	0.41
24UH Havant	439.0	0.44
24UJ New Forest	405.8	0.41
24UL Rushmoor	407.5	0.41
24UN Test Valley	425.9	0.43
24UP Winchester	476.4	0.48
26UB Broxbourne	423.5	0.42
26UC Dacorum	426.5	0.43
26UD East Hertfordshire	405.6	0.41
26UE Hertsmere	503.7	0.50
26UF North Hertfordshire	420.3	0.42
26UG St. Albans	452.2	0.45
26UH Stevenage	389.5	0.39
26UJ Three Rivers	490.3	0.49
26UK Watford	551.7	0.55
26UL Welwyn Hatfield	381.6	0.38
29UB Ashford	439.4	0.44
29UC Canterbury	505.7	0.51
29UD Dartford	514.0	0.51
29UE Dover	404.4	0.40
29UG Gravesham	611.4	0.61
29UH Maidstone	388.9	0.39
29UK Sevenoaks	545.9	0.55

Local Authority Area	Average Grossing Factor	AGF / 1000
29UL Shepway	443.6	0.44
29UM Swale	422.6	0.42
29UN Thanet	409.5	0.41
29UP Tonbridge and Malling	445.7	0.45
29UQ Tunbridge Wells	481.3	0.48
30UD Burnley	435.0	0.43
30UE Chorley	452.2	0.45
30UF Fylde	348.0	0.35
30UG Hyndburn	479.2	0.48
30UH Lancaster	440.2	0.44
30UJ Pendle	435.5	0.44
30UK Preston	425.5	0.43
30UL Ribble Valley	461.0	0.46
30UM Rossendale	390.9	0.39
30UN South Ribble	385.5	0.39
30UP West Lancashire	496.9	0.50
30UQ Wyre	440.3	0.44
31UB Blaby	361.5	0.36
31UC Charnwood	427.3	0.43
31UD Harborough	348.1	0.35
31UE Hinckley and Bosworth	462.6	0.46
31UG Melton	352.0	0.35
31UH North West Leicestershire	362.2	0.36
31UJ Oadby and Wigston	354.2	0.35
32UB Boston	463.4	0.46
32UC East Lindsey	374.9	0.37
32UD Lincoln	467.1	0.47
32UE North Kesteven	441.1	0.44
32UF South Holland	375.4	0.38
32UG South Kesteven	397.1	0.40
32UH West Lindsey	327.6	0.33
33UB Breckland	326.5	0.33
33UC Broadland	392.1	0.39
33UD Great Yarmouth	468.9	0.47
33UE Kings Lynn and West Norfolk	386.2	0.39
33UF North Norfolk	408.1	0.41
33UG Norwich	366.1	0.37
33UH South Norfolk	433.6	0.43
34UB Corby	393.3	0.39
34UC Daventry	403.6	0.40
34UD East Northamptonshire	356.5	0.36
34UE Kettering	407.7	0.41
34UF Northampton	391.3	0.39
34UG South Northamptonshire	331.8	0.33
34UH Wellingborough	309.0	0.31
35UB Alnwick	151.8	0.15
35UC Berwick-upon-Tweed	195.7	0.20

Local Authority Area	Average Grossing Factor	AGF / 1000
35UD Blyth Valley	171.2	0.17
35UE Castle Morpeth	173.2	0.17
35UF Tynedale	185.4	0.19
35UG Wansbeck	190.7	0.19
36UB Craven	316.8	0.32
36UC Hambleton	424.3	0.42
36UD Harrogate	358.1	0.36
36UE Richmondshire	443.5	0.44
36UF Ryedale	322.2	0.32
36UG Scarborough	388.3	0.39
36UH Selby	332.9	0.33
37UB Ashfield	501.5	0.50
37UC Bassetlaw	510.4	0.51
37UD Broxtowe	408.2	0.41
37UE Gedling	464.3	0.46
37UF Mansfield	448.9	0.45
37UG Newark and Sherwood	442.0	0.44
37UJ Rushcliffe	427.0	0.43
38UB Cherwell	389.2	0.39
38UC Oxford	522.4	0.52
38UD South Oxfordshire	384.1	0.38
38UE Vale of White Horse	405.4	0.41
38UF West Oxfordshire	409.3	0.41
39UB Bridgnorth	220.6	0.22
39UC North Shropshire	195.2	0.20
39UD Oswestry	207.9	0.21
39UE Shrewsbury and Atcham	199.5	0.20
39UF South Shropshire	192.5	0.19
40UB Mendip	368.0	0.37
40UC Sedgemoor	366.2	0.37
40UD South Somerset	371.9	0.37
40UE Taunton Deane	395.9	0.40
40UF West Somerset	314.2	0.31
41UB Cannock Chase	425.2	0.43
41UC East Staffordshire	444.6	0.44
41UD Lichfield	471.0	0.47
41UE Newcastle-under-Lyme	469.3	0.47
41UF South Staffordshire	448.5	0.45
41UG Stafford	368.1	0.37
41UH Staffordshire Moorlands	446.2	0.45
41UK Tamworth	446.4	0.45
42UB Babergh	375.1	0.38
42UC Forest Heath	389.9	0.39
42UD Ipswich	329.7	0.33
42UE Mid Suffolk	405.7	0.41
42UF St. Edmundsbury	368.6	0.37
42UG Suffolk Coastal	321.9	0.32

Local Authority Area	Average Grossing Factor	AGF / 1000
42UH Waveney	352.0	0.35
43UB Elmbridge	374.8	0.37
43UC Epsom and Ewell	523.2	0.52
43UD Guildford	477.4	0.48
43UE Mole Valley	374.8	0.37
43UF Reigate and Banstead	433.3	0.43
43UG Runnymede	400.4	0.40
43UH Spelthorne	366.1	0.37
43UJ Surrey Heath	364.2	0.36
43UK Tandridge	568.1	0.57
43UL Waverley	395.1	0.40
43UM Woking	399.3	0.40
44UB North Warwickshire	463.3	0.46
44UC Nuneaton and Bedworth	379.4	0.38
44UD Rugby	347.8	0.35
44UE Stratford-on-Avon	326.3	0.33
44UF Warwick	394.9	0.39
45UB Adur	428.8	0.43
45UC Arun	515.0	0.51
45UD Chichester	456.3	0.46
45UE Crawley	507.4	0.51
45UF Horsham	365.3	0.37
45UG Mid Sussex	377.0	0.38
45UH Worthing	414.7	0.41
46UB Kennet	250.7	0.25
46UC North Wiltshire	244.3	0.24
46UD Salisbury	262.3	0.26
46UF West Wiltshire	229.8	0.23
47UB Bromsgrove	326.1	0.33
47UC Malvern Hills	307.4	0.31
47UD Redditch	328.5	0.33
47UE Worcester	346.9	0.35
47UF Wychavon	372.9	0.37
47UG Wyre Forest	351.3	0.35

Local Authority Area	Average Grossing Factor	AGF / 1000
Wales	86.7	0.09
NA Anglesey, Isle of	38.6	0.04
NC Gwynedd	82.2	0.08
NE Conwy	58.8	0.06
NG Denbighshire	52.4	0.05
NJ Flintshire	87.5	0.09
NL Wrexham	82.4	0.08
NN Powys	90.5	0.09
NQ Ceredigion	45.0	0.04
NS Pembrokeshire	73.0	0.07
NU Carmarthenshire	106.2	0.11
NX Swansea	145.0	0.14
NZ Neath Port Talbot	86.9	0.09
PB Bridgend	92.5	0.09
PD Vale of Glamorgan, The	83.5	0.08
PF Rhondda, Cynon, Taff	140.2	0.14
PH Merthyr Tydfil	51.5	0.05
PK Caerphilly	104.5	0.10
PL Blaenau Gwent	48.6	0.05
PM Torfaen	60.4	0.06
PP Monmouthshire	52.4	0.05
PR Newport	114.0	0.11
PT Cardiff	205.1	0.21

Local Authority Area	Average Grossing Factor	AGF / 1000
Scotland	134.5	0.13
QA Aberdeen City	186.7	0.19
QB Aberdeenshire	241.4	0.24
QC Angus	97.3	0.10
QD Argyll & Bute	56.6	0.06
QE Scottish Borders, The	80.8	0.08
QF Clackmannanshire	72.1	0.07
QG West Dunbartonshire	68.3	0.07
QH Dumfries and Galloway	78.5	0.08
QJ Dundee City	99.5	0.10
QK East Ayrshire	92.6	0.09
QL East Dunbartonshire	75.5	0.08
QM East Lothian	80.2	0.08
QN East Renfrewshire	70.3	0.07
QP Edinburgh, City of	439.4	0.44
QQ Falkirk	97.3	0.10
QR Fife	288.5	0.29
QS Glasgow City	509.9	0.51
QT Highland	174.7	0.17
QU Inverclyde	65.1	0.07
QW Midlothian	87.5	0.09
QX Moray	66.0	0.07
QY North Ayrshire	96.5	0.10
QZ North Lanarkshire	227.5	0.23
RA Orkney Islands	87.3	0.09
RB Perth and Kinross	116.8	0.12
RC Renfrewshire	118.5	0.12
RD Shetland Islands	88.9	0.09
RE South Ayrshire	76.8	0.08
RF South Lanarkshire	207.2	0.21
RG Stirling	70.0	0.07
RH West Lothian	122.3	0.12
RJ Eilean Siar (Western Isles)	54.4	0.05
Northern Ireland	305.3	0.31

ANNEX C – Sampling Variability for employment and ILO unemployment (of persons aged 16+) for Unitary Authorities/Local Authority District areas from the January-December 2015 APS data

Note: The Local authority AA City of London hasn't been included in this table due to the small sample size (number of respondents).
Some of the figures may differ slightly from publication due to seasonal adjustment
[1] The total estimate and standard error have been divided by 1000.

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
England	104,331	26,374	51.3	0.91	60.3	0.1	1.03	5,699	1,430	22.3	1.23	3.3	0.1	1.23
AB Barking and Dagenham	368	85	2.6	0.81	58.0	1.8	0.95	43	10	1.6	1.10	6.8	1.1	1.11
AC Barnet	384	181	6.1	0.95	60.7	2.1	1.10	33	16	3.0	1.16	5.5	1.0	1.17
AD Bexley	354	117	3.1	0.73	58.6	1.6	0.81	29	9	1.9	1.15	4.8	1.0	1.15
AE Brent	520	157	4.0	0.83	62.2	1.6	0.97	41	13	2.0	1.07	5.0	0.8	1.08
AF Bromley	472	159	4.0	0.78	63.5	1.6	0.92	26	9	1.6	0.97	3.4	0.6	0.97
AG Camden	353	122	4.1	0.96	60.7	2.0	1.07	18	5	1.2	1.01	2.5	0.6	1.01
AH Croydon	430	193	4.8	0.76	63.9	1.6	0.89	18	8	2.0	1.10	2.7	0.7	1.11
AJ Ealing	459	171	4.3	0.80	64.9	1.7	0.95	28	10	2.0	1.06	3.9	0.8	1.06
AK Enfield	387	156	3.8	0.70	63.5	1.6	0.84	17	6	1.6	1.10	2.5	0.7	1.10
AL Greenwich	343	135	3.5	0.69	64.5	1.7	0.82	31	12	2.1	1.03	5.6	1.0	1.04
AM Hackney	409	136	4.2	0.95	65.3	2.0	1.13	25	8	1.7	1.15	3.9	0.8	1.16
AN Hammersmith and Fulham	393	101	2.6	0.85	70.5	1.8	1.03	23	5	1.1	1.06	3.4	0.8	1.06
AP Haringey	417	141	4.6	1.03	64.5	2.1	1.20	28	9	1.8	1.15	3.9	0.8	1.16
AQ Harrow	429	121	3.1	0.77	60.4	1.5	0.87	20	6	1.3	1.05	2.9	0.6	1.05
AR Havering	387	121	3.0	0.70	59.7	1.5	0.79	21	7	1.4	1.02	3.3	0.7	1.03
AS Hillingdon	421	148	4.0	0.81	64.6	1.7	0.96	23	9	1.9	1.15	3.9	0.8	1.16
AT Hounslow	395	140	3.5	0.73	64.8	1.6	0.86	18	6	1.5	1.03	2.9	0.7	1.04
AU Islington	379	125	3.5	0.88	64.5	1.8	0.98	18	6	1.5	1.18	3.0	0.8	1.18
AW Kensington and Chelsea	453	78	2.1	0.86	60.7	1.6	0.96	19	3	0.8	1.14	2.6	0.6	1.14
AX Kingston upon Thames	369	88	2.3	0.76	64.5	1.7	0.89	17	4	1.1	1.19	3.0	0.8	1.19
AY Lambeth	333	192	4.9	0.78	73.3	1.9	0.96	20	12	3.0	1.22	4.6	1.1	1.23
AZ Lewisham	381	161	3.9	0.73	69.5	1.7	0.90	23	10	2.0	1.04	4.2	0.9	1.05
BA Merton	398	110	2.5	0.70	68.7	1.6	0.85	19	5	1.2	1.08	3.3	0.8	1.08
BB Newham	420	153	4.3	0.83	61.4	1.7	0.98	44	15	2.3	1.04	6.0	0.9	1.05
BC Redbridge	438	137	3.7	0.81	59.0	1.6	0.93	34	12	2.2	1.22	5.0	0.9	1.22
BD Richmond upon Thames	404	103	2.4	0.69	69.0	1.6	0.85	16	4	1.0	1.07	2.7	0.7	1.08
BE Southwark	472	170	3.9	0.79	67.1	1.5	0.92	37	14	2.4	1.13	5.5	0.9	1.13
BF Sutton	321	105	2.6	0.67	67.2	1.7	0.80	19	6	1.4	0.99	3.9	0.9	0.99
BG Tower Hamlets	392	154	4.0	0.78	67.2	1.7	0.94	39	15	2.5	1.13	6.6	1.1	1.14
BH Waltham Forest	273	136	4.4	0.78	64.2	2.1	0.92	14	8	2.1	1.10	3.6	1.0	1.10
BJ Wandsworth	396	184	4.8	0.86	72.6	1.9	1.04	27	11	2.5	1.16	4.4	1.0	1.17
BK Westminster	378	117	3.9	0.99	58.8	2.0	1.09	31	11	2.2	1.31	5.6	1.1	1.32
BL Bolton	676	127	2.9	0.82	58.1	1.3	0.94	48	9	1.4	1.13	4.2	0.6	1.13
BM Bury	568	86	2.1	0.81	57.4	1.4	0.91	33	5	0.9	1.06	3.4	0.6	1.07
BN Manchester	817	234	5.4	0.93	56.1	1.3	1.04	69	21	2.4	1.07	4.9	0.6	1.07
BP Oldham	621	94	2.4	0.85	52.7	1.3	0.95	49	8	1.3	1.21	4.7	0.7	1.22
BQ Rochdale	719	89	2.2	0.90	52.1	1.3	0.99	56	7	1.0	1.10	4.2	0.6	1.11
BR Salford	664	114	2.7	0.86	59.1	1.4	0.98	58	10	1.3	1.03	5.4	0.7	1.03
BS Stockport	882	140	2.4	0.72	61.6	1.1	0.83	48	8	1.2	1.11	3.7	0.5	1.11
BT Tameside	818	102	2.1	0.84	57.5	1.2	0.94	42	5	0.9	1.10	3.1	0.5	1.10

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
BU Trafford	873	119	1.9	0.69	64.9	1.0	0.81	40	6	0.9	1.06	3.2	0.5	1.07
BW Wigan	721	158	3.2	0.77	61.4	1.2	0.88	39	9	1.4	1.05	3.3	0.5	1.06
BX Knowsley	691	64	1.5	0.84	54.8	1.3	0.93	43	5	0.8	1.20	3.9	0.6	1.20
BY Liverpool	670	199	6.2	1.12	51.5	1.6	1.21	49	16	2.5	1.22	4.2	0.7	1.23
BZ St. Helens	685	80	1.9	0.84	55.5	1.3	0.93	44	6	0.9	1.10	4.1	0.6	1.11
CA Sefton	681	126	2.8	0.84	55.8	1.3	0.92	23	5	1.0	1.13	2.1	0.4	1.13
CB Wirral	600	141	3.4	0.82	54.6	1.3	0.91	22	6	1.3	1.20	2.2	0.5	1.20
CC Barnsley	777	113	2.4	0.86	57.6	1.3	0.96	49	8	1.1	1.07	3.8	0.5	1.07
CE Doncaster	634	137	3.3	0.84	55.6	1.3	0.93	49	11	1.8	1.19	4.6	0.7	1.19
CF Rotherham	666	118	2.6	0.81	55.4	1.2	0.89	41	8	1.3	1.17	3.5	0.6	1.17
CG Sheffield	667	264	6.3	0.86	58.8	1.4	0.98	55	23	3.2	1.10	5.1	0.7	1.11
CH Gateshead	698	96	2.1	0.80	57.8	1.2	0.88	47	7	1.0	1.03	4.0	0.6	1.04
CJ Newcastle upon Tyne	698	132	3.4	0.96	55.5	1.4	1.07	65	13	1.8	1.22	5.6	0.8	1.23
CK North Tyneside	696	99	1.9	0.74	59.9	1.2	0.84	40	6	1.0	1.08	3.6	0.6	1.09
CL South Tyneside	703	67	1.5	0.79	55.3	1.2	0.88	62	6	0.9	1.14	5.2	0.7	1.15
CM Sunderland	629	118	3.0	0.86	52.2	1.3	0.94	55	11	1.5	1.08	5.0	0.7	1.08
CN Birmingham	802	440	10.7	0.91	52.6	1.3	1.03	74	44	5.5	1.16	5.3	0.7	1.17
CQ Coventry	685	149	3.8	0.91	54.9	1.4	1.02	32	7	1.3	1.07	2.6	0.5	1.07
CR Dudley	650	140	3.4	0.85	55.0	1.3	0.95	50	12	1.6	1.10	4.6	0.6	1.10
CS Sandwell	690	135	3.0	0.79	54.2	1.2	0.89	53	11	1.7	1.17	4.5	0.7	1.17
CT Solihull	739	95	1.9	0.78	54.8	1.1	0.86	29	4	0.8	1.21	2.5	0.5	1.21
CU Walsall	668	111	2.8	0.87	51.6	1.3	0.96	61	11	1.4	1.10	5.1	0.7	1.11
CW Wolverhampton	663	105	2.6	0.88	50.6	1.2	0.96	78	13	1.6	1.18	6.3	0.8	1.19
CX Bradford	725	223	5.4	0.88	55.7	1.4	1.00	73	24	2.8	1.08	5.9	0.7	1.09
CY Calderdale	744	102	1.9	0.75	59.3	1.1	0.84	35	5	0.9	1.10	2.9	0.5	1.10
CZ Kirklees	658	198	4.3	0.78	57.3	1.2	0.88	31	10	1.7	1.04	2.8	0.5	1.04
DA Leeds	1013	392	7.0	0.83	64.0	1.1	0.97	56	24	3.3	1.12	3.9	0.5	1.13
DB Wakefield	766	149	3.2	0.82	55.6	1.2	0.91	58	12	1.5	1.03	4.4	0.6	1.03
EB Hartlepool	804	38	0.9	0.85	51.3	1.2	0.94	83	4	0.5	1.16	5.7	0.7	1.17
EC Middlesbrough	715	57	1.5	0.93	52.3	1.3	1.02	90	8	0.8	1.13	7.1	0.8	1.14
EE Redcar and Cleveland	635	57	1.4	0.84	51.0	1.2	0.91	55	5	0.7	1.04	4.5	0.6	1.04
EF Stockton-on-Tees	567	91	2.1	0.79	59.9	1.4	0.90	37	7	1.1	1.11	4.3	0.7	1.11
EH Darlington	817	48	0.9	0.76	57.2	1.1	0.85	50	3	0.5	1.18	3.9	0.6	1.18
ET Halton	855	61	1.1	0.72	59.7	1.0	0.82	43	3	0.5	1.03	3.1	0.5	1.03
EU Warrington	703	104	2.0	0.73	61.5	1.2	0.83	30	5	0.9	1.18	2.7	0.6	1.18
EX Blackburn with Darwen	737	60	1.4	0.84	53.2	1.2	0.93	57	5	0.6	1.03	4.3	0.6	1.04
EY Blackpool	628	63	1.4	0.81	53.9	1.2	0.88	42	5	0.7	1.13	3.9	0.6	1.14
FA Kingston upon Hull, City of	658	114	2.8	0.86	55.9	1.4	0.96	61	11	1.4	1.11	5.2	0.7	1.12
FB East Riding of Yorkshire	696	161	3.2	0.75	58.6	1.2	0.84	30	7	1.4	1.08	2.7	0.5	1.08
FC North East Lincolnshire	800	72	1.4	0.80	55.7	1.1	0.89	70	6	0.8	1.11	5.0	0.6	1.11
FD North Lincolnshire	623	78	1.7	0.77	55.8	1.2	0.85	24	3	0.6	1.09	2.3	0.5	1.10
FF York	937	106	1.8	0.79	62.0	1.1	0.88	41	5	0.8	1.11	2.8	0.5	1.11
FK Derby	662	119	2.4	0.75	59.0	1.2	0.85	48	10	1.5	1.18	4.8	0.7	1.19
FN Leicester	718	147	3.6	0.91	54.3	1.3	1.01	68	15	1.7	1.05	5.5	0.6	1.06
FP Rutland	230	17	0.6	0.72	55.1	1.8	0.78	10	1	0.2	1.03	2.4	0.8	1.03
FY Nottingham	762	140	3.5	0.98	54.5	1.4	1.08	71	14	1.7	1.14	5.5	0.7	1.15

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
GA Herefordshire, County of	983	92	1.7	0.84	58.1	1.1	0.92	34	4	0.7	1.26	2.3	0.5	1.26
GF Telford and Wrekin	680	81	1.9	0.86	60.3	1.4	0.98	37	5	0.8	1.09	3.6	0.6	1.10
GL Stoke-on-Trent	543	110	2.9	0.85	54.7	1.4	0.94	39	9	1.7	1.37	4.5	0.9	1.38
HA Bath and North East Somerset	978	93	1.6	0.80	61.4	1.1	0.90	35	4	0.7	1.25	2.6	0.5	1.25
HB Bristol, City of	691	237	5.1	0.85	64.8	1.4	0.98	32	13	2.6	1.30	3.5	0.7	1.31
HC North Somerset	614	100	2.1	0.74	57.7	1.2	0.82	21	4	0.8	1.02	2.2	0.4	1.02
HD South Gloucestershire	698	141	2.4	0.67	64.3	1.1	0.78	21	4	0.9	1.01	2.0	0.4	1.02
HG Plymouth	977	127	2.6	0.90	59.6	1.2	1.02	51	8	1.3	1.31	4.0	0.6	1.31
HH Torbay	753	59	1.2	0.78	53.9	1.1	0.86	35	3	0.5	1.13	2.9	0.5	1.13
HN Bournemouth	657	94	2.1	0.87	57.3	1.3	0.95	19	3	0.7	1.16	1.8	0.4	1.16
HP Poole	711	72	1.5	0.77	58.2	1.2	0.86	24	3	0.5	1.09	2.1	0.4	1.10
HX Swindon	820	112	2.0	0.76	65.2	1.2	0.90	37	5	0.8	0.99	2.9	0.5	0.99
JA Peterborough	733	92	1.9	0.78	60.8	1.2	0.90	39	5	0.9	1.11	3.5	0.6	1.11
KA Luton	832	96	2.0	0.82	57.2	1.2	0.93	50	6	0.9	1.15	3.7	0.6	1.16
KF Southend-on-Sea	571	88	1.9	0.75	58.2	1.2	0.83	32	5	0.9	1.09	3.5	0.6	1.09
KG Thurrock	663	79	1.7	0.79	59.9	1.3	0.90	48	6	0.8	1.07	4.4	0.6	1.08
LC Medway	788	128	2.7	0.84	57.2	1.2	0.94	72	13	1.6	1.16	5.7	0.7	1.17
MA Bracknell Forest	990	66	0.9	0.66	70.1	1.0	0.79	26	2	0.3	0.98	1.8	0.3	0.98
MB West Berkshire	781	84	1.4	0.69	69.7	1.1	0.84	26	3	0.6	1.09	2.4	0.5	1.10
MC Reading	768	82	1.8	0.88	63.5	1.4	1.02	40	5	0.7	1.09	3.5	0.6	1.09
MD Slough	805	73	1.3	0.74	67.0	1.2	0.91	37	3	0.6	1.08	3.1	0.5	1.08
ME Windsor and Maidenhead	876	75	1.2	0.69	65.6	1.0	0.81	33	3	0.6	1.15	2.7	0.5	1.16
MF Wokingham	713	82	1.5	0.72	64.9	1.2	0.84	18	2	0.6	1.12	1.8	0.4	1.13
MG Milton Keynes	763	132	2.4	0.75	62.7	1.1	0.86	32	7	1.4	1.37	3.2	0.7	1.38
ML Brighton and Hove	791	146	4.2	1.20	61.4	1.8	1.34	46	10	1.6	1.29	4.1	0.7	1.29
MR Portsmouth	694	100	2.4	0.94	58.4	1.4	1.05	37	6	1.0	1.19	3.5	0.6	1.19
MS Southampton	740	133	2.9	0.90	63.7	1.4	1.01	40	8	1.3	1.18	3.9	0.6	1.19
MW Isle of Wight	889	60	1.2	0.80	51.9	1.0	0.86	40	3	0.5	1.18	2.6	0.4	1.19
09UC Mid Bedfordshire	261	76	2.3	0.73	66.0	2.0	0.87	8	3	1.0	1.20	2.3	0.9	1.20
09UD Bedford	254	82	2.4	0.67	65.3	1.9	0.80	14	5	1.3	1.10	3.8	1.0	1.10
09UE South Bedfordshire	193	67	2.1	0.63	65.2	2.0	0.74	3	1	0.6	1.04	0.9	0.6	1.04
11UB Aylesbury Vale	306	97	2.6	0.69	65.6	1.8	0.81	8	3	0.9	1.05	1.7	0.6	1.05
11UC Chiltern	173	46	1.5	0.57	60.7	1.9	0.66	*	*	*	*	*	*	*
11UE South Bucks	133	33	1.4	0.68	59.2	2.6	0.78	3	1	0.4	1.05	1.2	0.8	1.06
11UF Wycombe	325	91	2.9	0.79	65.1	2.1	0.93	24	7	1.4	1.00	5.0	1.0	1.00
12UB Cambridge	161	76	3.6	0.98	70.8	3.3	1.15	5	2	1.0	1.06	2.0	1.0	1.06
12UC East Cambridgeshire	131	44	1.9	0.73	63.9	2.8	0.84	4	1	0.7	1.00	2.0	1.0	1.00
12UD Fenland	107	47	2.3	0.73	60.4	3.0	0.84	7	3	1.2	1.04	4.3	1.6	1.05
12UE Huntingdonshire	244	96	2.8	0.69	66.9	1.9	0.80	6	2	1.0	1.06	1.7	0.7	1.07
12UG South Cambridgeshire	259	80	2.4	0.68	67.7	2.0	0.84	7	3	0.9	1.02	2.3	0.8	1.02
13UB Chester	136	59	3.2	0.88	56.7	3.1	0.97	5	2	0.9	1.01	2.0	0.9	1.01
13UC Congleton	107	43	2.6	0.84	56.1	3.5	0.94	*	*	*	*	*	*	*
13UD Crewe and Nantwich	128	60	2.4	0.65	61.1	2.5	0.76	5	2	1.0	0.99	2.4	1.0	0.99
13UE Ellesmere Port and Neston	96	36	2.1	0.75	56.9	3.3	0.85	8	3	1.1	1.02	4.7	1.7	1.03
13UG Macclesfield	177	79	3.4	0.81	60.1	2.5	0.90	6	3	1.3	1.17	2.3	1.0	1.17
13UH Vale Royal	159	60	2.4	0.68	60.9	2.4	0.79	5	2	0.7	0.90	1.8	0.7	0.90

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
15UB Caradon	133	40	1.7	0.71	56.2	2.5	0.78	3	1	0.6	1.14	1.4	0.8	1.14
15UC Carrick	122	44	2.9	1.02	53.6	3.4	1.09	14	5	1.6	1.29	6.1	2.0	1.30
15UD Kerrier	127	51	2.3	0.77	61.5	2.8	0.87	3	1	0.8	1.14	1.5	0.9	1.14
15UE North Cornwall	160	44	2.1	0.84	62.4	3.0	0.98	6	2	0.7	1.06	2.5	1.0	1.07
15UF Penwith	86	30	1.8	0.75	56.3	3.4	0.84	4	1	0.7	0.95	2.8	1.3	0.95
15UG Restormel	125	44	2.5	0.87	50.5	2.9	0.95	7	3	1.2	1.16	3.9	1.4	1.16
16UB Allerdale	168	49	1.8	0.69	62.5	2.4	0.80	5	1	0.7	1.00	1.9	0.8	1.00
16UC Barrow-in-Furness	110	31	1.8	0.81	57.4	3.4	0.92	9	2	0.7	0.91	4.4	1.4	0.91
16UD Carlisle	200	57	2.0	0.73	64.3	2.3	0.83	*	*	*	*	*	*	*
16UE Copeland	118	32	2.0	0.93	56.3	3.6	1.03	10	3	1.1	1.28	5.4	2.0	1.29
16UF Eden	81	30	1.7	0.85	65.5	3.8	0.95	*	*	*	*	*	*	*
16UG South Lakeland	176	49	2.0	0.79	56.8	2.3	0.86	5	1	0.7	1.25	1.6	0.9	1.25
17UB Amber Valley	132	60	2.9	0.79	60.5	2.9	0.90	*	*	*	*	*	*	*
17UC Bolsover	57	36	2.8	0.83	60.7	4.6	0.96	3	2	1.2	1.08	3.4	1.9	1.08
17UD Chesterfield	112	49	2.7	0.80	54.7	3.0	0.86	6	3	1.1	1.04	3.0	1.2	1.04
17UF Derbyshire Dales	102	39	2.2	0.83	66.7	3.8	0.98	*	*	*	*	*	*	*
17UG Erewash	109	61	3.1	0.79	63.1	3.3	0.89	3	2	1.0	1.02	1.8	1.0	1.02
17UH High Peak	119	46	1.9	0.64	63.4	2.6	0.75	5	2	0.8	0.96	2.6	1.1	0.96
17UJ North East Derbyshire	104	48	2.5	0.74	59.1	3.0	0.83	4	2	0.9	1.02	2.3	1.1	1.03
17UK South Derbyshire	111	49	2.6	0.80	61.8	3.4	0.93	6	3	1.2	1.09	3.6	1.5	1.09
18UB East Devon	110	67	3.2	0.74	58.0	2.7	0.81	*	*	*	*	*	*	*
18UC Exeter	138	71	2.9	0.74	69.6	2.8	0.90	7	4	1.4	1.05	3.7	1.4	1.05
18UD Mid Devon	91	42	2.0	0.67	64.0	3.1	0.76	*	*	*	*	*	*	*
18UE North Devon	111	51	2.7	0.83	64.9	3.5	0.94	3	1	0.8	0.99	1.7	1.0	0.99
18UG South Hams	96	37	2.2	0.76	54.7	3.3	0.85	*	*	*	*	*	*	*
18UH Teignbridge	163	65	2.6	0.72	61.2	2.4	0.80	*	*	*	*	*	*	*
18UK Torridge	53	26	2.6	0.96	47.2	4.7	1.02	4	2	1.3	1.32	4.0	2.4	1.32
18UL West Devon	80	26	1.4	0.69	57.5	3.2	0.77	4	1	0.6	0.94	2.7	1.3	0.94
19UC Christchurch	80	21	1.1	0.59	56.6	2.9	0.68	*	*	*	*	*	*	*
19UD East Dorset	165	42	1.7	0.72	61.4	2.5	0.84	*	*	*	*	*	*	*
19UE North Dorset	122	33	1.5	0.68	56.5	2.5	0.74	5	1	0.6	0.95	2.3	1.0	0.95
19UG Purbeck	59	23	1.4	0.71	57.8	3.5	0.77	*	*	*	*	*	*	*
19UH West Dorset	161	47	2.3	0.89	54.7	2.6	0.94	12	3	1.0	1.04	4.0	1.1	1.05
19UJ Weymouth and Portland	83	28	1.5	0.66	56.8	3.0	0.75	4	1	0.7	1.04	2.7	1.3	1.04
20UB Chester-le-Street	92	28	1.5	0.76	63.0	3.5	0.87	7	2	0.8	1.02	4.6	1.8	1.02
20UD Derwentside	111	39	2.6	0.95	54.7	3.6	1.07	12	4	1.1	0.97	5.9	1.6	0.98
20UE Durham	125	42	2.8	1.05	53.9	3.6	1.15	7	2	0.9	1.10	3.0	1.2	1.11
20UF Easington	107	40	2.4	0.86	51.6	3.1	0.94	8	3	1.3	1.24	4.3	1.7	1.24
20UG Sedgefield	109	39	2.3	0.82	52.0	3.1	0.89	10	4	1.2	1.06	5.3	1.7	1.06
20UH Teesdale	28	12	1.3	0.78	57.2	6.0	0.86	*	*	*	*	*	*	*
20UJ Wear Valley	77	28	2.2	0.93	54.1	4.2	1.04	7	3	1.1	1.13	5.3	2.1	1.14
21UC Eastbourne	131	45	2.4	0.81	54.2	2.9	0.89	6	2	0.8	0.98	2.6	1.0	0.99
21UD Hastings	99	40	2.3	0.84	53.4	3.1	0.92	7	2	0.8	0.92	3.2	1.1	0.92
21UF Lewes	137	45	2.4	0.86	55.0	3.0	0.95	6	2	1.1	1.22	3.0	1.3	1.22
21UG Rother	123	42	2.0	0.74	52.9	2.6	0.80	3	1	0.4	0.84	0.9	0.5	0.84
21UH Wealden	251	73	2.6	0.78	59.5	2.1	0.89	10	3	0.9	1.01	2.3	0.7	1.01

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
22UB Basildon	170	89	3.7	0.77	64.5	2.7	0.94	10	6	1.8	1.08	4.2	1.3	1.08
22UC Braintree	196	79	3.0	0.79	66.6	2.5	0.92	6	2	0.9	1.01	2.0	0.8	1.01
22UD Brentwood	67	39	2.4	0.71	64.8	4.0	0.84	3	2	1.1	1.00	3.3	1.8	1.00
22UE Castle Point	84	46	2.1	0.61	60.3	2.8	0.69	*	*	*	*	*	*	*
22UF Chelmsford	214	86	2.7	0.67	63.0	2.0	0.78	8	3	1.2	1.06	2.3	0.8	1.06
22UG Colchester	227	95	3.2	0.74	67.9	2.3	0.90	4	2	1.0	1.07	1.4	0.7	1.07
22UH Epping Forest	149	64	3.1	0.82	63.3	3.1	0.95	8	3	1.3	1.04	3.4	1.3	1.04
22UJ Harlow	82	42	2.3	0.68	63.0	3.4	0.80	6	3	1.2	0.97	4.7	1.8	0.97
22UK Maldon	63	33	2.2	0.77	62.6	4.1	0.86	*	*	*	*	*	*	*
22UL Rochford	85	42	2.1	0.67	58.2	3.0	0.73	*	*	*	*	*	*	*
22UN Tendring	111	54	3.3	0.87	45.5	2.8	0.93	7	4	1.3	1.04	3.2	1.1	1.04
22UQ Uttlesford	99	42	2.1	0.69	61.3	3.0	0.79	6	2	0.9	0.96	3.5	1.4	0.96
23UB Cheltenham	148	56	2.8	0.88	58.2	2.9	0.97	3	1	0.7	1.12	1.1	0.7	1.13
23UC Cotswold	108	43	2.6	0.91	59.1	3.5	0.98	*	*	*	*	*	*	*
23UD Forest of Dean	127	43	1.9	0.74	61.6	2.8	0.84	4	2	0.8	1.07	2.2	1.1	1.08
23UE Gloucester	173	63	2.3	0.69	67.9	2.5	0.86	13	5	1.5	1.15	5.1	1.6	1.16
23UF Stroud	167	63	2.2	0.66	64.6	2.3	0.76	5	2	0.8	0.97	1.8	0.8	0.97
23UG Tewkesbury	122	45	1.7	0.63	64.2	2.5	0.75	7	2	0.8	0.90	3.2	1.1	0.90
24UB Basingstoke and Deane	247	93	2.9	0.70	68.4	2.1	0.85	10	4	1.2	0.97	2.9	0.9	0.97
24UC East Hampshire	131	57	2.4	0.68	61.1	2.6	0.78	10	5	1.5	1.11	4.9	1.6	1.11
24UD Eastleigh	154	72	2.6	0.70	70.9	2.6	0.87	3	1	0.8	1.06	1.4	0.8	1.06
24UE Fareham	120	60	2.9	0.77	59.0	2.9	0.82	7	4	1.7	1.22	3.7	1.6	1.23
24UF Gosport	75	42	2.5	0.76	62.1	3.7	0.88	4	3	1.3	1.16	3.8	1.9	1.16
24UG Hart	115	49	2.0	0.65	68.0	2.8	0.79	*	*	*	*	*	*	*
24UH Havant	121	56	3.0	0.81	57.7	3.1	0.91	5	2	1.1	1.05	2.4	1.1	1.05
24UJ New Forest	209	86	3.2	0.75	59.4	2.2	0.85	10	4	1.3	1.00	2.9	0.9	1.01
24UL Rushmoor	135	56	1.9	0.64	77.9	2.7	0.88	5	2	1.0	1.15	2.9	1.5	1.15
24UN Test Valley	138	62	2.5	0.70	65.2	2.6	0.82	3	1	0.8	1.03	1.4	0.8	1.03
24UP Winchester	125	66	2.4	0.64	71.3	2.6	0.79	*	*	*	*	*	*	*
26UB Broxbourne	114	48	2.8	0.87	68.9	4.0	1.10	3	1	0.8	1.06	2.1	1.2	1.06
26UC Dacorum	183	81	2.3	0.57	69.2	2.0	0.70	4	2	0.8	0.99	1.4	0.7	0.99
26UD East Hertfordshire	191	82	2.4	0.64	72.7	2.1	0.78	*	*	*	*	*	*	*
26UE Hertsmere	97	49	2.8	0.78	56.3	3.2	0.85	6	3	1.1	0.90	3.5	1.3	0.90
26UF North Hertfordshire	162	69	2.7	0.72	65.5	2.6	0.85	7	3	1.4	1.25	3.0	1.3	1.25
26UG St. Albans	160	75	2.4	0.59	63.9	2.1	0.69	3	1	0.8	1.01	1.2	0.7	1.01
26UH Stevenage	126	47	2.2	0.76	69.8	3.3	0.94	4	1	0.7	0.95	2.1	1.0	0.95
26UJ Three Rivers	83	47	2.2	0.65	66.3	3.2	0.80	*	*	*	*	*	*	*
26UK Watford	106	58	2.0	0.56	73.3	2.6	0.69	3	2	1.1	1.05	2.4	1.3	1.05
26UL Welwyn Hatfield	141	56	3.0	0.91	59.3	3.2	1.03	6	3	1.0	1.02	2.6	1.0	1.02
29UB Ashford	142	59	2.6	0.71	62.9	2.8	0.85	7	3	1.2	1.04	3.4	1.3	1.04
29UC Canterbury	130	67	4.5	1.01	51.6	3.5	1.10	13	8	2.3	1.20	6.0	1.8	1.21
29UD Dartford	93	49	2.7	0.73	63.1	3.4	0.87	5	2	1.0	0.92	3.2	1.3	0.92
29UE Dover	124	51	2.8	0.83	56.5	3.1	0.93	7	3	1.0	0.89	3.2	1.1	0.89
29UG Gravesham	72	48	3.1	0.76	56.5	3.7	0.86	7	5	1.7	1.00	5.8	2.0	1.00
29UH Maidstone	218	86	2.8	0.71	64.9	2.2	0.83	11	4	1.3	0.99	3.2	0.9	0.99
29UK Sevenoaks	93	56	2.5	0.63	57.9	2.7	0.71	4	2	1.1	0.97	2.4	1.1	0.98

	Employment						ILO Unemployment						
	Total			Rate			Total				Rate		
	Sample Size	Estimate[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
29UL Shepway	119	54	0.77	59.0	3.0	0.87	3	2	0.9	1.09	1.7	1.0	1.09
29UM Swale	152	66	0.83	58.9	2.9	0.96	8	3	1.2	1.07	2.9	1.1	1.08
29UN Thanet	157	59	0.84	53.2	2.9	0.94	7	3	1.1	1.06	2.5	1.0	1.06
29UP Tonbridge and Malling	140	63	0.65	64.1	2.5	0.78	5	2	0.9	0.95	2.1	0.9	0.95
29UQ Tunbridge Wells	107	54	0.73	60.3	3.1	0.85	4	2	1.0	1.02	2.3	1.1	1.02
30UD Burnley	92	41	0.94	59.1	4.2	1.07	5	2	1.2	1.22	3.4	1.8	1.22
30UE Chorley	119	57	0.63	61.8	2.5	0.72	*	*	*	*	*	*	*
30UF Fylde	99	36	0.78	59.7	3.3	0.88	3	1	0.7	1.03	1.9	1.1	1.03
30UG Hyndburn	75	37	0.66	57.6	3.2	0.75	4	2	0.9	0.98	3.1	1.5	0.99
30UH Lancaster	136	65	0.93	56.6	3.2	1.03	4	2	1.0	1.07	1.9	0.9	1.07
30UJ Pendle	91	40	0.80	58.6	3.7	0.93	4	2	1.0	1.05	2.9	1.4	1.05
30UK Preston	151	65	0.91	58.0	3.1	1.02	8	3	1.3	1.10	3.1	1.2	1.10
30UL Ribble Valley	69	31	0.57	65.9	3.2	0.67	*	*	*	*	*	*	*
30UM Rossendale	80	32	0.78	59.7	3.7	0.89	*	*	*	*	*	*	*
30UN South Ribble	128	53	0.83	63.1	3.2	0.97	5	2	0.9	1.03	2.5	1.1	1.03
30UP West Lancashire	97	48	0.75	50.8	3.0	0.81	4	2	1.0	1.02	2.3	1.1	1.02
30UQ Wyre	108	48	0.78	54.1	3.0	0.86	*	*	*	*	*	*	*
31UB Blaby	126	47	0.74	61.4	2.9	0.85	4	2	0.7	1.00	2.0	1.0	1.00
31UC Charnwood	205	84	0.99	58.9	3.0	1.11	4	2	0.8	1.05	1.1	0.6	1.05
31UD Harborough	127	45	0.69	60.9	2.6	0.78	3	1	0.7	1.07	1.6	0.9	1.08
31UE Hinckley and Bosworth	110	54	0.61	61.3	2.5	0.69	3	2	1.0	1.09	2.0	1.1	1.09
31UG Melton	81	26	0.78	61.8	4.0	0.89	4	1	0.6	0.94	3.1	1.5	0.95
31UH North West Leicestershire	145	51	0.65	68.9	2.6	0.80	5	2	0.8	0.97	2.4	1.1	0.97
31UJ Oadby and Wigston	71	27	0.83	56.9	4.0	0.92	3	1	0.8	1.13	3.1	1.7	1.13
32UB Boston	62	30	0.85	53.2	4.2	0.93	*	*	*	*	*	*	*
32UC East Lindsey	140	52	0.85	49.0	2.8	0.93	14	6	1.6	1.10	5.3	1.5	1.10
32UD Lincoln	95	51	0.88	60.6	3.6	0.97	6	3	1.3	1.12	3.3	1.5	1.12
32UE North Kesteven	119	56	0.82	60.6	3.1	0.91	6	3	1.0	0.92	2.8	1.1	0.93
32UF South Holland	111	44	0.73	59.3	2.9	0.82	3	1	0.8	1.13	1.8	1.1	1.13
32UG South Kesteven	172	68	0.71	58.8	2.3	0.80	11	5	1.5	1.08	4.4	1.3	1.09
32UH West Lindsey	143	46	0.74	62.2	2.7	0.83	6	2	0.8	1.07	2.4	1.1	1.08
33UB Breckland	200	63	0.71	60.0	2.3	0.82	10	3	1.0	0.99	3.1	1.0	0.99
33UC Broadland	160	61	0.68	58.5	2.3	0.76	3	1	0.7	1.01	1.3	0.7	1.01
33UD Great Yarmouth	91	42	0.81	56.7	3.7	0.93	5	2	1.0	0.97	3.0	1.3	0.98
33UE Kings Lynn and West Norfolk	158	68	0.75	54.6	2.3	0.82	13	6	1.7	1.12	4.8	1.3	1.12
33UF North Norfolk	110	43	0.83	47.6	3.0	0.88	*	*	*	*	*	*	*
33UG Norwich	203	73	0.82	64.2	2.6	0.94	6	2	1.0	1.06	2.1	0.9	1.06
33UH South Norfolk	136	62	0.67	55.7	2.3	0.73	5	2	1.0	1.02	2.0	0.9	1.02
34UB Corby	81	32	0.65	63.0	3.3	0.78	8	3	1.2	1.07	6.2	2.3	1.08
34UC Daventry	90	39	0.64	60.5	2.8	0.72	*	*	*	*	*	*	*
34UD East Northamptonshire	120	44	0.77	64.8	3.2	0.92	6	2	0.9	1.01	3.5	1.4	1.02
34UE Kettering	128	49	0.77	65.4	3.2	0.91	7	3	1.1	1.02	4.2	1.5	1.02
34UF Northampton	282	116	0.68	64.9	1.8	0.79	5	2	0.9	1.04	1.1	0.5	1.04
34UG South Northamptonshire	133	43	0.63	62.6	2.5	0.74	3	1	0.6	1.00	1.4	0.8	1.00
34UH Wellingborough	126	37	0.70	63.6	3.0	0.84	*	*	*	*	*	*	*
35UB Alnwick	96	15	0.73	53.4	2.8	0.78	*	*	*	*	*	*	*
35UC Berwick-upon-Tweed	56	13	0.68	58.8	3.4	0.75	*	*	*	*	*	*	*

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
35UD Blyth Valley	203	37	1.4	0.74	54.6	2.0	0.81	15	3	0.8	1.11	4.6	1.2	1.11
35UE Castle Morpeth	137	25	1.2	0.78	57.9	2.7	0.85	4	1	0.4	1.04	1.7	0.9	1.05
35UF Tynedale	149	29	1.4	0.82	56.6	2.6	0.88	9	2	0.6	1.04	3.5	1.2	1.05
35UG Wansbeck	133	26	1.4	0.81	52.0	2.8	0.89	11	2	0.7	1.05	4.7	1.4	1.06
36UB Craven	88	27	1.6	0.75	59.0	3.5	0.84	*	*	*	*	*	*	*
36UC Hambleton	116	48	2.3	0.75	62.6	3.1	0.84	3	2	0.9	1.06	2.0	1.1	1.06
36UD Harrogate	223	79	3.3	0.88	64.1	2.5	0.97	5	2	0.9	1.13	1.5	0.7	1.13
36UE Richmondshire	54	25	1.5	0.65	63.7	3.9	0.76	*	*	*	*	*	*	*
36UF Ryedale	75	25	1.4	0.67	58.2	3.4	0.78	3	1	0.5	0.94	2.1	1.2	0.94
36UG Scarborough	144	56	2.8	0.88	61.8	3.1	0.98	*	*	*	*	*	*	*
36UH Selby	124	44	2.1	0.78	65.9	3.1	0.93	3	1	0.7	1.14	1.9	1.1	1.14
37UB Ashfield	128	60	2.9	0.75	61.5	3.0	0.87	6	2	1.0	0.89	2.4	1.0	0.89
37UC Bassetlaw	81	48	3.4	0.90	53.8	3.8	0.99	3	2	0.9	0.98	1.9	1.0	0.99
37UD Broxtowe	117	53	2.9	0.86	57.9	3.2	0.96	4	2	0.9	1.04	2.1	1.0	1.05
37UE Gedling	118	56	2.8	0.76	56.5	2.8	0.83	8	4	1.4	1.00	4.3	1.4	1.00
37UF Mansfield	114	55	2.6	0.74	65.2	3.1	0.87	*	*	*	*	*	*	*
37UG Newark and Sherwood	122	53	3.2	0.90	56.2	3.5	1.02	*	*	*	*	*	*	*
37UJ Rushcliffe	137	60	2.6	0.74	63.9	2.8	0.85	4	2	1.0	1.08	2.2	1.1	1.08
38UB Cherwell	180	72	3.1	0.82	66.9	2.9	1.00	3	2	0.9	1.18	1.5	0.9	1.18
38UC Oxford	170	95	4.1	0.93	74.6	3.2	1.15	9	6	1.9	1.06	4.7	1.5	1.07
38UD South Oxfordshire	193	76	2.6	0.73	69.2	2.4	0.87	5	3	1.3	1.30	2.3	1.2	1.30
38UE Vale of White Horse	153	62	2.9	0.81	65.1	3.0	0.97	5	2	1.2	1.36	2.1	1.3	1.37
38UF West Oxfordshire	151	59	2.3	0.68	70.9	2.7	0.85	*	*	*	*	*	*	*
39UB Bridgnorth	112	28	1.2	0.70	58.2	2.6	0.77	6	2	0.7	1.09	3.6	1.4	1.10
39UC North Shropshire	148	32	1.3	0.74	62.4	2.5	0.85	4	1	0.5	1.11	1.8	0.9	1.11
39UD Oswestry	85	20	1.2	0.81	61.2	3.6	0.92	4	1	0.5	1.14	3.2	1.6	1.14
39UE Shrewsbury and Atcham	266	54	1.6	0.69	64.3	1.9	0.79	11	2	0.7	1.03	2.9	0.9	1.04
39UF South Shropshire	120	23	1.0	0.71	62.1	2.8	0.80	*	*	*	*	*	*	*
40UB Mendip	141	54	2.2	0.69	60.0	2.4	0.77	4	2	0.9	1.04	2.0	0.9	1.05
40UC Sedgemoor	157	58	2.5	0.74	63.0	2.7	0.87	4	2	0.8	1.07	1.7	0.9	1.07
40UD South Somerset	222	82	2.6	0.66	63.1	2.0	0.78	8	3	1.0	0.94	2.3	0.8	0.95
40UE Taunton Deane	132	54	2.3	0.71	61.4	2.7	0.82	6	3	1.1	1.06	3.4	1.3	1.06
40UF West Somerset	43	15	1.4	0.88	56.2	5.3	0.99	*	*	*	*	*	*	*
41UB Cannock Chase	112	49	2.6	0.79	63.5	3.3	0.93	4	2	1.8	1.79	3.2	2.3	1.79
41UC East Staffordshire	123	58	2.5	0.70	61.6	2.6	0.79	3	1	0.8	0.99	1.4	0.8	0.99
41UD Lichfield	104	52	2.4	0.71	62.1	2.9	0.79	4	2	1.0	1.02	2.3	1.1	1.03
41UE Newcastle-under-Lyme	127	62	3.4	0.87	60.0	3.3	0.98	3	1	0.9	1.10	1.4	0.9	1.10
41UF South Staffordshire	125	55	2.5	0.71	57.6	2.6	0.77	10	5	1.4	1.00	4.9	1.5	1.00
41UG Stafford	168	63	2.3	0.66	60.2	2.2	0.76	6	2	0.9	0.98	2.1	0.8	0.98
41UH Staffordshire Moorlands	98	49	2.4	0.71	61.7	3.0	0.82	4	2	1.2	1.25	2.6	1.5	1.25
41UK Tamworth	76	39	2.3	0.79	61.7	3.7	0.90	4	3	1.3	1.19	4.2	2.0	1.19
42UB Babergh	100	41	2.4	0.82	57.2	3.4	0.92	5	2	1.1	1.25	3.1	1.6	1.25
42UC Forest Heath	86	31	1.6	0.66	64.0	3.4	0.78	*	*	*	*	*	*	*
42UD Ipswich	209	64	2.5	0.74	61.1	2.4	0.86	15	4	1.2	1.06	4.2	1.2	1.06
42UE Mid Suffolk	111	48	2.2	0.70	56.0	2.6	0.76	*	*	*	*	*	*	*
42UF St. Edmundsbury	148	56	2.2	0.68	62.4	2.5	0.79	4	2	0.8	0.98	1.8	0.8	0.99
42UG Suffolk Coastal	180	58	2.5	0.78	56.0	2.4	0.87	6	2	0.8	1.01	2.0	0.8	1.01

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
42UH Waveney	145	52	2.4	0.74	57.1	2.6	0.83	10	3	1.1	1.02	3.8	1.2	1.03
43UB Elmbridge	169	61	2.1	0.60	62.1	2.2	0.72	11	4	1.1	0.92	3.7	1.1	0.92
43UC Epsom and Ewell	75	39	1.8	0.56	63.0	2.9	0.66	*	*	*	*	*	*	*
43UD Guildford	134	69	3.8	0.92	57.1	3.2	1.02	6	3	1.5	1.19	2.8	1.2	1.19
43UE Mole Valley	111	41	2.5	0.86	60.8	3.7	1.00	5	2	0.9	1.03	3.1	1.4	1.04
43UF Reigate and Banstead	168	74	2.7	0.69	67.0	2.5	0.84	5	2	0.9	0.96	1.8	0.8	0.96
43UG Runnymede	100	43	2.7	0.92	59.9	3.7	1.01	5	2	1.0	1.14	2.9	1.4	1.15
43UH Spelthorne	137	52	2.0	0.65	66.4	2.5	0.78	4	1	0.7	0.99	1.8	0.9	0.99
43UJ Surrey Heath	117	42	2.1	0.74	60.0	3.0	0.84	5	2	0.7	0.89	2.2	0.9	0.89
43UK Tandridge	81	44	2.5	0.71	65.9	3.7	0.85	*	*	*	*	*	*	*
43UL Waverley	144	58	2.7	0.78	58.6	2.7	0.87	3	1	0.6	0.92	1.0	0.6	0.92
43UM Woking	125	51	2.0	0.64	65.8	2.6	0.76	*	*	*	*	*	*	*
44UB North Warwickshire	65	32	1.8	0.67	64.0	3.7	0.79	*	*	*	*	*	*	*
44UC Nuneaton and Bedworth	144	55	2.6	0.77	54.0	2.6	0.85	4	1	0.8	1.02	1.5	0.8	1.02
44UD Rugby	153	54	2.0	0.69	72.0	2.7	0.89	4	1	0.7	0.98	1.8	0.9	0.99
44UE Stratford-on-Avon	181	62	2.2	0.69	63.0	2.2	0.79	4	1	0.6	0.98	1.2	0.6	0.98
44UF Warwick	183	75	2.7	0.72	64.6	2.3	0.82	3	2	0.9	1.13	1.5	0.8	1.13
45UB Adur	70	32	1.7	0.64	64.5	3.5	0.77	5	2	1.0	0.97	4.8	2.0	0.97
45UC Arun	136	71	3.4	0.77	55.2	2.7	0.85	4	2	1.1	1.00	1.8	0.8	1.00
45UD Chichester	120	58	2.5	0.68	60.4	2.5	0.75	*	*	*	*	*	*	*
45UE Crawley	107	58	3.2	0.83	67.5	3.7	1.02	4	2	1.0	0.98	2.4	1.2	0.98
45UF Horsham	187	67	2.5	0.71	60.0	2.3	0.81	3	1	0.7	1.08	0.9	0.6	1.08
45UG Mid Sussex	199	75	2.6	0.71	64.6	2.3	0.83	4	1	0.6	0.90	1.1	0.5	0.90
45UH Worthing	118	51	2.4	0.70	60.4	2.9	0.83	4	1	0.6	0.85	1.6	0.8	0.85
46UB Kennet	175	45	1.7	0.71	65.3	2.4	0.83	6	1	0.6	0.98	2.0	0.8	0.98
46UC North Wiltshire	277	71	2.1	0.73	62.9	1.9	0.84	10	2	0.8	1.03	2.1	0.7	1.03
46UD Salisbury	219	61	1.8	0.65	65.7	2.0	0.78	6	2	0.7	1.03	1.7	0.7	1.03
46UF West Wiltshire	275	66	2.1	0.75	60.4	1.9	0.84	14	3	0.8	1.00	2.8	0.8	1.00
47UB Bromsgrove	134	44	2.0	0.72	57.1	2.6	0.80	4	1	0.8	1.19	1.8	1.0	1.19
47UC Malvern Hills	109	34	1.5	0.61	54.6	2.4	0.68	*	*	*	*	*	*	*
47UD Redditch	114	41	2.0	0.77	57.6	2.9	0.85	6	2	0.9	1.04	3.4	1.3	1.04
47UE Worcester	138	54	2.4	0.81	66.5	3.0	0.96	5	2	0.9	1.06	2.5	1.1	1.06
47UF Wychavon	160	62	2.7	0.79	62.2	2.6	0.88	3	1	0.7	1.03	1.1	0.7	1.03
47UG Wyre Forest	121	44	2.2	0.75	54.1	2.7	0.82	8	3	1.1	1.09	3.6	1.3	1.09

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
Wales	15,058	1,400	8.1	1.00	55.7	0.3	1.10	833	88	3.5	1.28	3.5	0.1	1.28
NA Anglesey, Isle of	746	32	0.7	0.80	55.8	1.1	0.88	43	2	0.3	1.13	3.4	0.5	1.13
NC Gwynedd	605	54	1.4	0.91	54.2	1.4	1.00	30	3	0.7	1.37	3.3	0.7	1.38
NE Conwy	812	50	1.0	0.79	52.8	1.1	0.86	46	3	0.4	1.03	3.2	0.5	1.03
NG Denbighshire	734	41	0.9	0.81	53.5	1.2	0.89	37	2	0.4	1.05	2.9	0.5	1.05
NJ Flintshire	774	72	1.3	0.73	58.0	1.1	0.82	20	2	0.5	1.11	1.6	0.4	1.11
NL Wrexham	757	66	1.3	0.79	60.6	1.2	0.90	32	3	0.6	1.14	2.7	0.5	1.15
NN Powys	657	64	1.3	0.77	58.7	1.2	0.86	21	2	0.6	1.22	2.1	0.5	1.22
NQ Ceredigion	690	32	1.0	1.12	51.1	1.6	1.20	26	2	0.3	1.26	2.5	0.5	1.26
NS Pembrokeshire	724	56	1.2	0.82	55.2	1.2	0.90	35	3	0.5	1.10	2.8	0.5	1.10
NU Carmarthenshire	716	82	1.9	0.86	54.7	1.3	0.94	38	5	0.8	1.08	3.2	0.5	1.09
NX Swansea	684	108	2.4	0.83	54.7	1.2	0.92	49	10	1.4	1.18	4.8	0.7	1.18
NZ Neath Port Talbot	620	59	1.5	0.88	51.0	1.3	0.96	39	4	0.7	1.11	3.7	0.6	1.11
PB Bridgend	660	64	1.3	0.75	56.5	1.2	0.84	47	5	0.7	1.04	4.2	0.6	1.04
PD Vale of Glamorgan, The	663	59	1.2	0.75	57.8	1.2	0.85	26	3	0.6	1.16	2.7	0.5	1.17
PF Rhondda, Cynon, Taff	746	107	2.4	0.83	55.8	1.2	0.92	50	8	1.1	1.05	4.1	0.6	1.05
PH Merthyr Tydfil	446	25	0.8	0.88	52.8	1.6	0.96	37	2	0.3	1.06	4.5	0.7	1.06
PK Caerphilly	701	78	1.8	0.86	53.8	1.3	0.95	49	6	0.8	1.06	3.9	0.6	1.07
PL Blaenau Gwent	556	29	0.8	0.88	51.5	1.4	0.96	52	3	0.4	1.14	5.3	0.8	1.15
PM Torfaen	645	41	0.9	0.78	55.8	1.2	0.87	41	3	0.4	1.06	3.9	0.6	1.06
PP Monmouthshire	812	46	0.8	0.72	60.2	1.0	0.81	26	2	0.3	1.08	2.0	0.4	1.08
PR Newport	531	65	1.8	0.89	55.4	1.6	1.00	34	5	0.8	1.13	3.9	0.7	1.14
PT Cardiff	779	168	4.8	1.13	58.4	1.7	1.27	55	12	1.8	1.17	4.2	0.6	1.17

	Employment							ILO Unemployment						
	Total				Rate			Total				Rate		
	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor	Sample Size	Estimate[1]	Standard Error[1]	Design Factor	Estimate	Standard Error	Design Factor
Scotland	17,750	2,577	14.5	1.09	58.8	0.3	1.21	976	159	6.9	1.51	3.6	0.2	1.51
QA Aberdeen City	639	125	3.7	1.14	65.1	1.9	1.29	26	6	1.7	1.74	2.9	0.9	1.74
QB Aberdeenshire	549	139	2.7	0.68	65.7	1.3	0.80	12	3	0.9	1.04	1.5	0.4	1.04
QC Angus	548	55	1.5	0.92	56.8	1.6	1.01	27	4	0.9	1.47	3.9	0.9	1.48
QD Argyll & Bute	630	41	0.9	0.81	56.5	1.2	0.89	27	2	0.4	1.19	2.9	0.6	1.19
QE Scottish Borders, The	647	55	1.1	0.75	58.2	1.2	0.83	28	2	0.5	1.07	2.5	0.5	1.07
QF Clackmannanshire	309	24	0.8	0.81	58.5	1.9	0.90	15	1	0.3	0.98	2.7	0.7	0.99
QG West Dunbartonshire	535	40	1.1	0.93	55.0	1.6	1.02	39	3	0.5	1.08	4.1	0.7	1.09
QH Dumfries and Galloway	874	71	1.4	0.81	57.4	1.1	0.89	40	4	0.6	1.14	3.0	0.5	1.14
QJ Dundee City	613	63	2.3	1.23	52.0	1.9	1.33	45	6	1.2	1.59	5.1	1.0	1.60
QK East Ayrshire	544	54	1.4	0.84	54.5	1.4	0.92	42	4	0.7	1.08	4.4	0.7	1.08
QL East Dunbartonshire	598	50	1.0	0.71	56.8	1.1	0.78	26	2	0.5	1.13	2.5	0.5	1.13
QM East Lothian	573	48	1.1	0.77	58.9	1.3	0.86	29	3	0.5	1.13	3.3	0.6	1.13
QN East Renfrewshire	565	43	0.9	0.74	58.5	1.3	0.83	22	2	0.4	1.11	2.4	0.5	1.12
QP Edinburgh, City of	546	250	6.3	0.86	60.6	1.5	0.96	29	14	2.9	1.18	3.4	0.7	1.19
QQ Falkirk	723	76	1.5	0.78	59.2	1.2	0.87	45	5	0.8	1.10	3.9	0.6	1.10
QR Fife	574	172	3.9	0.77	57.6	1.3	0.85	41	14	2.2	1.15	4.5	0.8	1.16
QS Glasgow City	525	280	8.3	0.96	56.5	1.7	1.06	48	25	3.9	1.10	5.1	0.8	1.10
QT Highland	598	121	2.4	0.77	63.7	1.3	0.88	19	4	1.1	1.25	2.3	0.6	1.26
QU Inverclyde	478	34	0.9	0.80	52.4	1.4	0.87	41	3	0.5	1.12	4.8	0.8	1.12
QW Midlothian	457	42	1.0	0.74	59.6	1.5	0.84	18	2	0.4	1.07	2.6	0.6	1.07
QX Moray	637	44	1.1	0.86	57.7	1.4	0.96	24	2	0.4	1.13	2.4	0.5	1.13
QY North Ayrshire	530	55	1.5	0.83	49.4	1.3	0.90	63	7	0.9	1.10	6.1	0.8	1.10
QZ North Lanarkshire	677	158	3.5	0.81	58.1	1.3	0.91	52	12	1.7	1.00	4.6	0.6	1.01
RA Orkney Islands	123	12	0.4	0.65	66.4	2.5	0.75	*	*	*	*	*	*	*
RB Perth and Kinross	617	74	1.5	0.72	61.2	1.2	0.81	29	4	0.7	1.12	3.2	0.6	1.13
RC Renfrewshire	662	85	1.8	0.77	59.1	1.2	0.86	38	5	0.8	1.09	3.3	0.6	1.09
RD Shetland Islands	137	13	0.5	0.64	69.8	2.4	0.76	*	*	*	*	*	*	*
RE South Ayrshire	622	51	1.2	0.81	55.0	1.3	0.88	35	3	0.5	1.11	3.3	0.6	1.11
RF South Lanarkshire	760	159	2.9	0.72	61.3	1.1	0.81	36	7	1.3	1.09	2.9	0.5	1.09
RG Stirling	563	42	1.1	0.86	56.7	1.5	0.95	26	2	0.5	1.29	2.9	0.7	1.30
RH West Lothian	676	86	1.9	0.82	60.8	1.3	0.94	46	6	1.0	1.11	4.5	0.7	1.12
RJ Eilean Siar (Western Isles)	221	13	0.5	0.78	58.8	2.1	0.87	6	1	0.2	1.40	2.5	1.1	1.41
Northern Ireland	2,584	823	9.6	0.81	56.9	0.7	0.93	158	52	4.3	1.09	3.6	0.3	1.09

ANNEX D - Calculating thresholds for England, Wales & Scotland

This Annex explains how the publication thresholds were calculated for different areas for annual LFS data in GB. ONS does not use these thresholds now, but they can still be used as a simple way of identifying cells with high sampling variability.

It is the nature of sampling variability that the smaller the group whose size is being estimated, or from which an estimate is being derived, the less precise that estimate is relative to its size. Put another way, the size of the standard error increases with the level of the estimate, so that the larger the estimate the larger is the standard error. But the larger the estimate, the smaller is the standard error in relative terms. The standard error as a proportion of the estimate is known as the relative standard error or coefficient of variation (c.v.).

When thresholds were applied (such that estimates with a lower value than the threshold were not published), estimates below 10,000 from the quarterly survey and below 6,000 for annual data prior to 2000/1 were not published, as they were considered to be unreliable. These thresholds equate to a sample size of about 30 and a relative standard error of about 20 per cent.

The boosted sample, which combines with data from Wave 1 and Wave 5 from the main LFS to make up the annual LFS data for England, Wales and Scotland in 2003/04, is not spread evenly across the country. This means that for each local authority in England and for each unitary authority in Wales and Scotland, there may be a different sampling fraction. This in turn means that the relative standard errors for the same estimate may vary across local authorities, resulting in a requirement for individual thresholds for each area.

Approximate thresholds may be calculated for each local authority with the aim of providing a threshold value that ensures that the relative standard error is at most 20 per cent.

For a small subgroup from a large simple random sample, the subgroup sample size, n, is approximately distributed as a Poisson variable. For such a variable, the mean and the variance are equal and are estimated by n.

If Wi is the average grossing factor (mean weight) for cases in subgroup i, the value of the grossed estimate is Wi * ni.

Then ignoring the variable weights and the clustered design (approximately):

$\text{Var}(Ei=Wi * ni) = Wi^2 * ni \quad (1)$

The effect of both the grossing and the clustered design is reflected in the design effect, and this has been calculated for the quarterly survey for a range of different estimates. These combined design effects vary substantially for different variables - for estimates of employment and economic activity they are substantially below 1, whereas for unemployment they are greater than 1.

So (1) should be modified to:

$Var(Ei) = Wi^2 * ni * deffi$ (2)

Thus:

Cv(Ei)=Square root (deffi/ni) (3)

For the threshold for this variable, we must have:

cv(Ei) < 0.2 (4)

So from (3) and (4) we obtain:

ni > 25 * deffi

Or in terms of the grossed estimate:

Ei > 25 * Wi * deffi (5)

The values of the right hand side of (5) provide the required thresholds.

Wi for a particular local authority is the average grossing factor taken directly from the annual LFS data.

One result of including the design effect in the calculation is to lead to different thresholds for different variables. However, variables are often used in combination - e.g. a tabulation of employment by ethnic group.

The design effect for employment is low, but the design effects for some ethnic groups are very high. This makes it very difficult to come up with design effects for every eventuality. For the quarterly LFS, a design effect of 1 is assumed for all estimates except those for characteristics of minority ethnic groups, where a design effect of 2.5 is assumed.

As noted above, this calculation leads to an individual threshold for each local authority. ONS recognises that this would be very complex to implement, and recommend the use of one of three threshold bands. The table below shows how the approximate thresholds have been used to assign areas to these bands.

Approximate threshold	Threshold band
5000+	6000
3000 – 4999	4000
0 – 2999	2000

For Wales, the theoretical threshold for each unitary authority was not banded as above but simply rounded to the nearest thousand. This resulted in thresholds for the 23 UAs in Wales ranging from 1,000 to 4,000.

For the 32 Scottish UAs, the ideal thresholds were rounded for the total employed and unemployed. Thresholds thus range from 1,000 to 5,000.

ANNEX E – Wave 1 variables

These are based on the JD14 dataset. These variables may have only been asked in wave 1 (in previous quarters they could have been asked in multiple waves).

Wave 1 variables only		**Wave 1 and Wave 5**	
Variable	**Variable Name**	**Variable**	**Variable Name**
ATFROM	Type of business if working from home	**DAYSPZ**	Number of different days per week worked
EVDAY	Work during day	**EVHM98**	Ever do any paid or unpaid work at home
EVENG	Work in evening in past 4 weeks	**FLEX10(1-3)**	Type of working hours arrangement
EVEVE	Work during evening	**HOMED(1-3)**	Locations of work in refwk (main job)
EVNGHT	Work during night	**LSSOTH**	Time off flexi or annual
EVSAT	Work on Saturdays	**NOLWF**	Main reason (family) for not looking for work
EVSUN	Work on Sundays	**OYCIRC**	Employment situation 12 months ago
NIGHT	Night work in the last 4 weeks	**OYMNGE**	Managerial duties 1 year ago
NWNCRE(1 -2)	Reason (care services) for not looking for work	**OYMPE02**	Number of employees where worked 1 year ago
PTNCRE7(1-2)	Reason (care services) for part time work	**OYMPS02**	Number of people employed 1 year ago
SATDY	How many Saturdays worked in past 4 weeks	**OYSIND**	Work for same firm in refwk as 12 months ago
SMESIT	Reason working from home	**OYSOCC**	Main occupation in refwek same as 12 months ago
SUNDY	How many Sundays worked in past 4 weeks	**OYSOLO**	On own or with employees 1 year ago
YNOTFT	Reason for not wanting a full time job	**OYSTAT**	Employee or self-employed 1 year ago
YPTCIA	Reason for part time job	**OYSUPVI**	Supervisory responsibilities 1 year ago.
		SHFTYP	Type of shift pattern
		SHFTWK99	Shiftwork in main job
		USUWRKM(1-3)	Regular/normal work pattern
		WCHDAY(1-7)	Which days usually worked

More information about these variables can be found in the user guide volume 3 (details of LFS variables):
https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/labourforcesurveyuserguidance

ANNEX F – Geographies removed from A15M16

A list of the unsupported geographies are no longer included on APS datasets from A15M16 onwards:

Variable name	Description and (new 9 digit replacement variable)
TLEC99	Training and Enterprise Council (None)
ELWA	Education and Learning Wales (None)
SCOTER	Scottish Enterprise Regions (TECLEC9D)
WALESPCA	Welsh Parliamentary Constituency Areas (None)
WARD03	Ward codes 2003 (WARD)
SCOTPCA	Scottish Parliamentary Constituency Areas (None)
URINDSC	Rural-urban classification Scotland (RU11IND)
UKPCA	UK Parliamentary constituency (PCON9D)
TTWA07	Travel to work 2007 (TTWA9D)
URINDEW	Rural-urban classification Eng & Wales (RU11IND)
PCA	UK Parliamentary Constituency Areas (PCON9D)
PCA2010	UK Parliamentary Constituency Areas 2010 (PCON9D)
TTWA08	Travel to work 2008 (TTWA9D)
NUTS	NUTS level (NUTS10)
NUTS2	NUTS level 2 (NUTS102)
NUTS3	NUTS level 3 (NUTS103)
NUTS4	NUTS level 4 (NUTS104)