Office for
National Statistics

Labour
Force
Survey

User Guide
VOLUME 6 – ANNUAL POPULATION SURVEY (LOCAL AREA DATABASE)

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 23,000 responses from UK households per quarter (based on 2023). 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.

Wave structure of the LFS
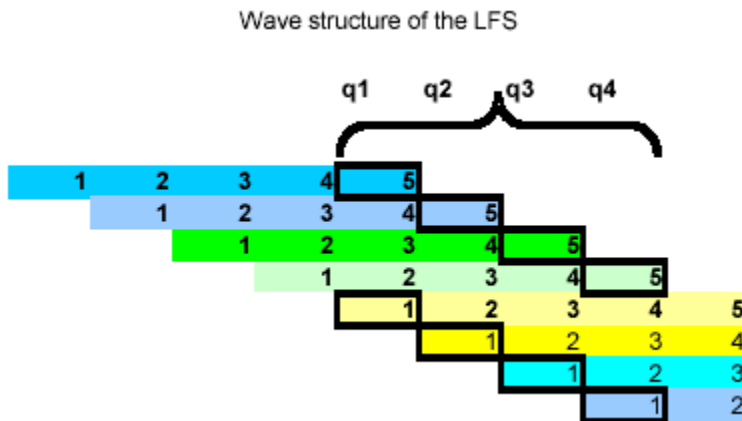
When the LADB was first introduced, the quarterly LFS was based on seasonal quarters: Spring (including the months March to May), Summer (June to August), Autumn (September to November), and Winter (December to February). Therefore, the LADB covered the period March to February. This changed to a calendar 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 2023 dataset.

	APS Dataset: January – December 2023			
	Jan – March 2023	April – June 2023	July – Sept 2023	Oct – Dec 2023
LFS cohort 1 *(first sampled January – March 2022)*	Wave 5			
LFS cohort 2 *(first sampled April – June 2022)*	Wave 4	Wave5		
LFS cohort 3 *(first sampled July – Sept 2022)*	Wave 3	Wave 4	Wave 5	
LFS cohort 4 *(First sampled Oct – Dec 2022)*	Wave 2	Wave 3	Wave 4	Wave 5
LFS cohort 5 *(First sampled Jan – March 2023)*	Wave 1	Wave 2	Wave 3	Wave 4
LFS cohort 6 *(first sampled April – June 2023)*		Wave 1	Wave 2	Wave 3
LFS cohort 7 *(first sampled July – Sept 2023)*			Wave 1	Wave 2
LFS cohort 8 *(First sampled Oct – Dec 2023)*				Wave 1
LLFS cohort 1 *(first sampled Jan– Dec 2020)*	Wave 4			
LLFS cohort 2 *(first sampled Jan– Dec 2021)*	Wave 3			
LLFS cohort 3 *(first sampled Jan– Dec 2022)*	Wave 2			
LLFS cohort 4 *(first sampled Jan– Dec 2023)*	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
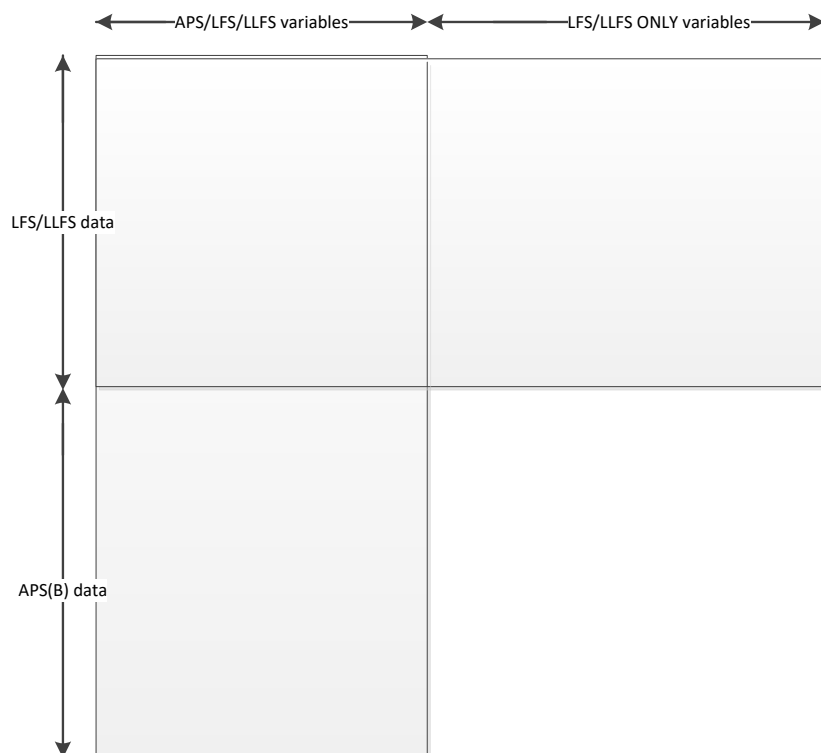
The LFS/LLFS comprises of the main LFS data (waves 1 and 5 from each quarter in the year) and all the data from the English, Scottish and Welsh enhancements (ELLFS/SLFS/WLFS).

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. Over the course of 2020 and 2021, some interim adjustments were introduced to the weighting process to mitigate the impact of the non-response bias in the Labour Force Survey (LFS). These interim adjustments have been superseded by a reweighting exercise applied to the July 2022 to December 2023 data incorporating our latest estimates of size and composition of the population, increasing the representativeness of the data. For more information, see our Impact of reweighting on Labour Force Survey key indicators: 2024 article published in February 2024. The last two digits on the weight for these datasets is 22.

From JD12 there is also an income weight included on the JD datasets, more information can be found in the section APS income weight below.

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:

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

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

Average grossing factors, from the 2023 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:

$\sqrt{(p(1 - p)/n)}$

For instance, in the January to December 2023 APS dataset, the estimate of the total number of people aged 16 and over who are in employment is 32,965,304. This is 60.9% 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 124,276. The standard error of 0.1% is calculated as:

$\sqrt{((0.61 * 0.39)/ 124,276)}$

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 2023 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% * 54,089,509= 54,089 (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.

Thresholds for earnings data

For estimates of the number of people in a small group, which is a count, for example employed people in a small ethnic group, we can use an approximation of the variance to derive the minimum number of cases that is required in a group to achieve a relative standard error of less than 20%. However, Earnings cannot be regarded as a count, it is a continuous variable, and hence the method for counts does not apply. There is no approximation method that can be used to derive a reliability threshold of variables that are not counts. Instead, we propose a threshold based on values of relative standard errors of small groups that were computed using recent APS earnings data.

Relative standard errors were obtained for estimates of mean gross earnings for groups defined by UALAD and age (grouped) and by UALAD and ethnicity (grouped). In both sets of groups, all groups with 25 or more cases had a relative standard error less than 20%. On the other hand, in groups with fewer than 25 cases, a proportion of the groups had a relative

standard error higher than 20%. Estimates of counts also have a reliability threshold of 25 cases per group.

The threshold depends on the variation of earnings, the sample design and weighting method, and hence may need to be revised in the future. We, therefore, recommend using a reliability threshold of 25 cases for estimates of earnings and monitor its value regularly, every two years, for example.

APS Income weight (PIWTA**)

From 2012 an income weight (PIWTA**) is included on the JD period datasets. From JD18 it will be included on every quarter.

The income weight is calculated in a similar way to the LFS income weight. More information on this can be found in the volume 1 user guide. The main differences are there are six calibration groups used to calculate the APS income weight, whereas for the LFS income weight there are four.

It is worth remembering that the primary source of data for earnings analysis in the UK is still the Annual Survey of Hours and Earnings. This business survey collects detailed information on the composition and distribution of earnings among employees, however as a business survey, ASHE collects only a limited range of personal characteristics regarding individual employees. This limits its usefulness in analysing earnings for instance by education and/or by different protected characteristics.

As a result, the Labour Force Survey is still heavily used as a source of data on earnings. Though it is accepted that the accuracy and detail of earnings information captured by the LFS falls short of that obtained by ASHE, the greater range of personal and household characteristics broaden its potential uses. However, one drawback of earnings analysis on the LFS is that the achieved sample is relatively small. This is because earnings questions are asked only to employees and only in forty percent of the interviews carried out in each quarter. Furthermore, earnings questions on the LFS are known to have particularly poor response rates. The achieved sample for the LFS earnings questions is usually around 9,000, compared with approximately 150,000 respondents on ASHE. This limited sample size then restricts the extent to which you can perform multivariate analysis of earnings on the LFS, particularly where the variables of interest have many categories.
It is this desire to have a sample size sufficient for more detailed analysis, alongside information on a wider range of personal characteristics which drives the user need for earnings weights on the APS.

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** (this used to be known as the Eurostat one, as it was used for the variables in the ad hoc modules. Further information on this can be found in Annex G).

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/Orientation 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 Orientation 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

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/2022

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)

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 to JD11) and PHHWTA18 (from JD12-JD19). Household level weight PHHWTA22 has been applied from JD20 onwards. 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

From January 2023 there are some additional geography variables to take into account the 2021 census. For now, both the 2011 and 2021 geography information will be on the datasets. The difference between these variables will be seen in areas in England and Wales, for Scotland and Northern Ireland there will be information in the census 2021 variables, but this will be related to the 2011 census.

The new geography variables can be seen in the table below:

Variable name	Description
OA21	2021 Census Output Area (9 Digit)
LSOA21	2021 Census Lower layer super output area (9 Digit)
MSOA21	2021 Census Middle layer super output area (9 Digit)

CTYcensus2021	Countycensus2021
LAUAcensus2021	Local Authoritycensus2021
WARDcensus2021	Wardcensus2021
CEDcensus2021	County Electoral Divisioncensus2021
GOR9dcensus2021	Regioncensus2021
PCON9dcensus2021	Westminster parliamentary consistuencycensus2021
LAU1census2021	Local Administrative Unit_Level 1census2021
CCGcensus2021	Clinical Commissioning Groups_Sub ICB Locationscensus2021
LEP1census2021	Local Enterprise Partnership (1st instance)census2021
LEP2census2021	Local Enterprise Partnership (2nd instance)census2021
ITL321census2021	International Territorial Level (3 Digit)census2021
ITL221census2021	International Territorial Level (2 Digit)census2021
On the APS 3 year pooled dataset	
METCTYcensus2021	Metropolitan Countiescensus2021
UTLAcensus2021	English Upper Tier Local Authoritiescensus2021
WIMD2019quintilecensus2021	2019 quintile within the Welsh UAcensus2021
decile2019census2021	2019 English IMD2019 decilecensus2021
CombinedAuthoritiescensus2021	Combined Authorities in Englandcensus2021

The reweighted historical LFS and APS government datasets (pre-2023) do not contain any of these geographies. If you require these geographies pre-2023 a lookup can be provided on request to allow you to merge these onto historical datasets.

Below are the geographies that were introduced on the datasets in 2014 and are still included. The change in 2014 was due to ONS Geography moving to using a nine-digit coding structure in 2011, and the availability of new geographies following the 2011 Census

Variable name	Description
PARK	National Parks
LEA	Local Education Authority
CTRY9D	Country
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)
ITL221/NUTS162/NUTS132	International Territorial Levels (2 digit) / NUTS 2 areas (2016/13)
ITL321/NUTS163/NUTS133	International Territorial Level (3 digit) / NUTS 3 areas (2016/13)

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

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 430,000 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:

LFS/APS dataset structure

		Jan year1 - Dec year1				Jan year2 - Dec year2				Jan year3 - Dec year3							
Time		y1q1	y1q2	y1q3	y1q4	y2q1	y2q2	y2q3	y2q4	y3q1	y3q2	y3q3	y3q4	y4q1	y4q2	y4q3	y4q4
LFS cases	cohort 1	wave 5															
	cohort 2	wave 4	wave 5														
	cohort 3	wave 3	wave 4	wave 5													
	cohort 4	wave 2	wave 3	wave 4	wave 5												
	cohort 5	wave 1	wave 2	wave 3	wave 4	wave 5											
	cohort 6		wave 1	wave 2	wave 3	wave 4	wave 5										
	cohort 7			wave 1	wave 2	wave 3	wave 4	wave 5									
	cohort 8				wave 1	wave 2	wave 3	wave 4	wave 5								
	cohort 9					wave 1	wave 2	wave 3	wave 4	wave 5							
	cohort 10						wave 1	wave 2	wave 3	wave 4	wave 5						
	cohort 11							wave 1	wave 2	wave 3	wave 4	wave 5					
	cohort 12								wave 1	wave 2	wave 3	wave 4	wave 5				
	cohort 13									wave 1	wave 2	wave 3	wave 4	wave 5			
	cohort 14										wave 1	wave 2	wave 3	wave 4	wave 5		
	cohort 15											wave 1	wave 2	wave 3	wave 4	wave 5	
	cohort 16												wave 1	wave 2	wave 3	wave 4	wave 5
	cohort 17													wave 1	wave 2	wave 3	wave 4
	cohort 18														wave 1	wave 2	wave 3
	cohort 19															wave 1	wave 2
	cohort 20																wave 1
APS (boost) cases	cohort a1	wave 4															
	cohort a2	wave 3				wave 4											
	cohort a3	wave 2				wave 3				wave 4							
	cohort a4	wave 1				wave 2				wave 3				wave 4			
	cohort a5					wave 1				wave 2				wave 3			
	cohort a6									wave 1				wave 2			
	cohort a7													wave 1			

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. J18D20 estimates and J19D21 will both contain 2019 and 2020). Therefore any estimates of change will effectively be between 2018 and 2021, 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 J19D21 the mean of the population totals for June 2019, June 2020 and June 2021 is used).

There are several different weights on the dataset:
- **PWTA**C**: Person Weight for 3 year pooled APS dataset
- **SIDWT**C**: Sexual Identity weight for 3 year APS pooled dataset
- **NPWT**C**: Non-proxy weight for 3 year APS pooled dataset

Where ** denotes the year that the weight was published, for example the 2022 weight is pwta22C.

The APS pooled datasets are available via the Secure Research Service (SRS) 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 Secure Research Service (SRS). Information on how to access the SRS files can be found here:
https://www.ons.gov.uk/aboutus/whatwedo/statistics/requestingstatistics/secureresearchservice/accessthedatasecurely

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	
Before	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

llodef05y
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 2023 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	540.5	0.54
AB Barking and Dagenham	581.7	0.58
AC Barnet	1305.8	1.31
AD Bexley	701.8	0.70
AE Brent	1717.0	1.72
AF Bromley	802.0	0.80
AG Camden	933.0	0.93
AH Croydon	913.3	0.91
AJ Ealing	2609.4	2.61
AK Enfield	1385.2	1.39
AL Greenwich	780.9	0.78
AM Hackney	1671.1	1.67
AN Hammersmith and Fulham	736.9	0.74
AP Haringey	776.8	0.78
AQ Harrow	1106.4	1.11
AR Havering	577.8	0.58
AS Hillingdon	1975.8	1.98
AT Hounslow	1827.9	1.83
AU Islington	795.1	0.80
AW Kensington and Chelsea	522.0	0.52
AX Kingston upon Thames	716.0	0.72
AY Lambeth	1513.1	1.51
AZ Lewisham	1024.2	1.02
BA Merton	918.8	0.92
BB Newham	1306.9	1.31
BC Redbridge	721.9	0.72
BD Richmond upon Thames	602.7	0.60
BE Southwark	1271.0	1.27
BF Sutton	591.6	0.59
BG Tower Hamlets	1084.9	1.08
BH Waltham Forest	975.2	0.98
BJ Wandsworth	1042.8	1.04
BK Westminster	1117.9	1.12
BL Bolton	584.2	0.58
BM Bury	311.4	0.31
BN Manchester	1158.1	1.16
BP Oldham	381.9	0.38
BQ Rochdale	376.0	0.38
BR Salford	538.2	0.54

BS Stockport	452.5	0.45
BT Tameside	361.1	0.36

Local Authority Area	Average Grossing Factor	AGF / 1000
BU Trafford	394.5	0.39
BW Wigan	595.1	0.60
BX Knowsley	313.3	0.31
BY Liverpool	805.7	0.81
BZ St. Helens	309.4	0.31
CA Sefton	386.6	0.39
CB Wirral	680.5	0.68
CC Barnsley	313.8	0.31
CE Doncaster	483.1	0.48
CF Rotherham	413.9	0.41
CG Sheffield	685.2	0.69
CH Gateshead	284.6	0.28
CJ Newcastle upon Tyne	428.4	0.43
CK North Tyneside	292.4	0.29
CL South Tyneside	166.1	0.17
CM Sunderland	318.6	0.32
CN Birmingham	977.5	0.98
CQ Coventry	423.4	0.42
CR Dudley	631.5	0.63
CS Sandwell	631.4	0.63
CT Solihull	236.2	0.24
CU Walsall	673.1	0.67
CW Wolverhampton	594.4	0.59
CX Bradford	840.6	0.84
CY Calderdale	456.7	0.46
CZ Kirklees	618.0	0.62
DA Leeds	877.8	0.88
DB Wakefield	495.7	0.50
EB Hartlepool	133.0	0.13
EC Middlesbrough	172.0	0.17
EE Redcar and Cleveland	167.9	0.17
EF Stockton-on-Tees	353.5	0.35
EH Darlington	137.3	0.14
ET Halton	233.3	0.23
EU Warrington	451.2	0.45
EX Blackburn with Darwen	266.2	0.27
EY Blackpool	187.8	0.19
FA Kingston upon Hull, City of	490.9	0.49
FB East Riding of Yorkshire	366.7	0.37
FC North East Lincolnshire	257.2	0.26

FD North Lincolnshire	246.7	0.25
FF York	233.2	0.23
FK Derby	324.5	0.32
FN Leicester	478.7	0.48
FP Rutland	131.9	0.13
FY Nottingham	369.5	0.37

Local Authority Area	Average Grossing Factor	AGF / 1000
GA Herefordshire, County of	214.9	0.21
GF Telford and Wrekin	315.8	0.32
GL Stoke-on-Trent	415.4	0.42
HA Bath and North East Somerset	226.6	0.23
HB Bristol, City of	552.4	0.55
HC North Somerset	248.2	0.25
HD South Gloucestershire	339.8	0.34
HG Plymouth	351.4	0.35
HH Torbay	123.1	0.12
HN Bournemouth	263.4	0.26
HP Poole	209.7	0.21
HX Swindon	332.3	0.33
JA Peterborough	370.5	0.37
KA Luton	272.6	0.27
KF Southend-on-Sea	230.0	0.23
KG Thurrock	234.6	0.23
LC Medway	453.1	0.45
MA Bracknell Forest	133.7	0.13
MB West Berkshire	261.4	0.26
MC Reading	322.4	0.32
MD Slough	431.5	0.43
ME Windsor and Maidenhead	155.9	0.16
MF Wokingham	232.6	0.23
MG Milton Keynes	316.9	0.32
ML Brighton and Hove	549.6	0.55
MR Portsmouth	332.6	0.33
MS Southampton	357.8	0.36
MW Isle of Wight	156.5	0.16
09UC Mid Bedfordshire	485.0	0.48
09UD Bedford	470.1	0.47
09UE South Bedfordshire	537.3	0.54
11UB Aylesbury Vale	838.8	0.84
11UC Chiltern	587.4	0.59
11UE South Bucks	494.5	0.49
11UF Wycombe	564.7	0.56
12UB Cambridge	652.3	0.65
12UC East Cambridgeshire	827.4	0.83
12UD Fenland	665.3	0.67

12UE Huntingdonshire	653.8	0.65
12UG South Cambridgeshire	479.7	0.48
13UB Chester	1,043.8	1.04
13UC Congleton	892.4	0.89
13UD Crewe and Nantwich	1,379.8	1.38
13UE Ellesmere Port and Neston	1,163.1	1.16
13UG Macclesfield	1,095.5	1.10
13UH Vale Royal	1,098.1	1.10

Local Authority Area	Average Grossing Factor	AGF / 1000
15UB Caradon	599.1	0.60
15UC Carrick	648.6	0.65
15UD Kerrier	518.0	0.52
15UE North Cornwall	830.2	0.83
15UF Penwith	754.1	0.75
15UG Restormel	682.3	0.68
16UB Allerdale	393.8	0.39
16UC Barrow-in-Furness	402.0	0.40
16UD Carlisle	492.4	0.49
16UE Copeland	487.6	0.49
16UF Eden	403.0	0.40
16UG South Lakeland	356.7	0.36
17UB Amber Valley	644.2	0.64
17UC Bolsover	1,049.5	1.05
17UD Chesterfield	1,230.3	1.23
17UF Derbyshire Dales	756.6	0.76
17UG Erewash	755.0	0.75
17UH High Peak	792.2	0.79
17UJ North East Derbyshire	797.1	0.80
17UK South Derbyshire	640.4	0.64
18UB East Devon	451.6	0.45
18UC Exeter	683.3	0.68
18UD Mid Devon	513.6	0.51
18UE North Devon	720.6	0.72
18UG South Hams	853.0	0.85
18UH Teignbridge	473.6	0.47
18UK Torridge	811.3	0.81
18UL West Devon	645.2	0.65
19UC Christchurch	425.0	0.42
19UD East Dorset	393.8	0.39
19UE North Dorset	437.6	0.44
19UG Purbeck	490.0	0.49
19UH West Dorset	517.8	0.52
19UJ Weymouth and Portland	484.2	0.48
20UB Chester-le-Street	570.9	0.57
20UD Derwentside	559.0	0.56

20UE Durham	552.6	0.55
20UF Easington	642.4	0.64
20UG Sedgefield	537.3	0.54
20UH Teesdale	776.5	0.78
20UJ Wear Valley	436.1	0.44
21UC Eastbourne	700.0	0.70
21UD Hastings	724.6	0.72
21UF Lewes	563.7	0.56
21UG Rother	707.0	0.71
21UH Wealden	486.1	0.49

Local Authority Area	Average Grossing Factor	AGF / 1000
22UB Basildon	1,020.2	1.02
22UC Braintree	1,017.9	1.02
22UD Brentwood	849.2	0.85
22UE Castle Point	731.0	0.73
22UF Chelmsford	1,176.7	1.18
22UG Colchester	1,084.6	1.08
22UH Epping Forest	811.2	0.81
22UJ Harlow	763.1	0.76
22UK Maldon	963.2	0.96
22UL Rochford	861.1	0.86
22UN Tendring	652.6	0.65
22UQ Uttlesford	793.6	0.79
23UB Cheltenham	514.4	0.51
23UC Cotswold	575.1	0.58
23UD Forest of Dean	550.7	0.55
23UE Gloucester	689.5	0.69
23UF Stroud	581.0	0.58
23UG Tewkesbury	557.3	0.56
24UB Basingstoke and Deane	699.0	0.70
24UC East Hampshire	724.6	0.72
24UD Eastleigh	759.3	0.76
24UE Fareham	605.0	0.60
24UF Gosport	676.9	0.68
24UG Hart	550.1	0.55
24UH Havant	801.7	0.80
24UJ New Forest	531.5	0.53
24UL Rushmoor	1,118.0	1.12
24UN Test Valley	569.8	0.57
24UP Winchester	597.4	0.60
26UB Broxbourne	1,050.4	1.05
26UC Dacorum	919.2	0.92
26UD East Hertfordshire	667.4	0.67
26UE Hertsmere	1,056.1	1.06
26UF North Hertfordshire	667.3	0.67

26UG St. Albans	679.4	0.68
26UH Stevenage	1,265.4	1.27
26UJ Three Rivers	948.1	0.95
26UK Watford	991.9	0.99
26UL Welwyn Hatfield	955.3	0.96
29UB Ashford	804.8	0.80
29UC Canterbury	1,032.0	1.03
29UD Dartford	1,311.8	1.31
29UE Dover	755.4	0.76
29UG Gravesham	1,206.9	1.21
29UH Maidstone	1,116.8	1.12
29UK Sevenoaks	1,004.3	1.00

Local Authority Area	Average Grossing Factor	AGF / 1000
29UL Shepway	1,033.0	1.03
29UM Swale	1,177.7	1.18
29UN Thanet	932.0	0.93
29UP Tonbridge and Malling	792.0	0.79
29UQ Tunbridge Wells	769.2	0.77
30UD Burnley	1,102.4	1.10
30UE Chorley	674.3	0.67
30UF Fylde	669.1	0.67
30UG Hyndburn	1,103.4	1.10
30UH Lancaster	694.9	0.69
30UJ Pendle	804.7	0.80
30UK Preston	840.0	0.84
30UL Ribble Valley	888.7	0.89
30UM Rossendale	793.6	0.79
30UN South Ribble	624.4	0.62
30UP West Lancashire	982.4	0.98
30UQ Wyre	866.3	0.87
31UB Blaby	565.7	0.57
31UC Charnwood	662.0	0.66
31UD Harborough	359.1	0.36
31UE Hinckley and Bosworth	525.8	0.53
31UG Melton	587.3	0.59
31UH North West Leicestershire	570.7	0.57
31UJ Oadby and Wigston	600.1	0.60
32UB Boston	749.4	0.75
32UC East Lindsey	767.2	0.77
32UD Lincoln	1,142.3	1.14
32UE North Kesteven	747.2	0.75
32UF South Holland	732.8	0.73
32UG South Kesteven	674.2	0.67
32UH West Lindsey	817.6	0.82
33UB Breckland	667.0	0.67

	Average Grossing Factor	AGF / 1000
33UC Broadland	722.6	0.72
33UD Great Yarmouth	802.4	0.80
33UE Kings Lynn and West Norfolk	805.5	0.81
33UF North Norfolk	698.6	0.70
33UG Norwich	967.9	0.97
33UH South Norfolk	601.6	0.60
34UB Corby	805.4	0.81
34UC Daventry	619.5	0.62
34UD East Northamptonshire	622.0	0.62
34UE Kettering	600.9	0.60
34UF Northampton	711.3	0.71
34UG South Northamptonshire	544.1	0.54
34UH Wellingborough	637.8	0.64
35UB Alnwick	302.3	0.30
35UC Berwick-upon-Tweed	269.5	0.27

Local Authority Area	Average Grossing Factor	AGF / 1000
35UD Blyth Valley	327.7	0.33
35UE Castle Morpeth	243.4	0.24
35UF Tynedale	346.3	0.35
35UG Wansbeck	365.0	0.36
36UB Craven	523.5	0.52
36UC Hambleton	574.9	0.57
36UD Harrogate	525.5	0.53
36UE Richmondshire	479.2	0.48
36UF Ryedale	419.4	0.42
36UG Scarborough	482.2	0.48
36UH Selby	759.1	0.76
37UB Ashfield	628.8	0.63
37UC Bassetlaw	894.6	0.89
37UD Broxtowe	550.7	0.55
37UE Gedling	496.0	0.50
37UF Mansfield	1,135.3	1.14
37UG Newark and Sherwood	1,094.4	1.09
37UJ Rushcliffe	468.7	0.47
38UB Cherwell	952.5	0.95
38UC Oxford	1,263.4	1.26
38UD South Oxfordshire	1,252.6	1.25
38UE Vale of White Horse	899.9	0.90
38UF West Oxfordshire	1,141.8	1.14
39UB Bridgnorth	492.3	0.49
39UC North Shropshire	454.9	0.45
39UD Oswestry	441.6	0.44
39UE Shrewsbury and Atcham	360.5	0.36
39UF South Shropshire	361.7	0.36
40UB Mendip	589.2	0.59

40UC Sedgemoor	676.3	0.68
40UD South Somerset	523.5	0.52
40UE Taunton Deane	604.3	0.60
40UF West Somerset	374.6	0.37
41UB Cannock Chase	1,061.3	1.06
41UC East Staffordshire	910.9	0.91
41UD Lichfield	834.0	0.83
41UE Newcastle-under-Lyme	1,134.6	1.13
41UF South Staffordshire	1,366.0	1.37
41UG Stafford	745.3	0.75
41UH Staffordshire Moorlands	969.4	0.97
41UK Tamworth	536.4	0.54
42UB Babergh	622.4	0.62
42UC Forest Heath	679.8	0.68
42UD Ipswich	857.0	0.86
42UE Mid Suffolk	748.5	0.75
42UF St. Edmundsbury	725.5	0.73
42UG Suffolk Coastal	614.2	0.61

Local Authority Area	Average Grossing Factor	AGF / 1000
42UH Waveney	702.9	0.70
43UB Elmbridge	650.7	0.65
43UC Epsom and Ewell	1,384.9	1.38
43UD Guildford	1,118.0	1.12
43UE Mole Valley	919.9	0.92
43UF Reigate and Banstead	814.4	0.81
43UG Runnymede	1,569.2	1.57
43UH Spelthorne	621.1	0.62
43UJ Surrey Heath	876.6	0.88
43UK Tandridge	707.4	0.71
43UL Waverley	902.0	0.90
43UM Woking	664.6	0.66
44UB North Warwickshire	643.6	0.64
44UC Nuneaton and Bedworth	489.0	0.49
44UD Rugby	444.6	0.44
44UE Stratford-on-Avon	497.2	0.50
44UF Warwick	404.8	0.40
45UB Adur	1,076.0	1.08
45UC Arun	773.5	0.77
45UD Chichester	1,053.9	1.05
45UE Crawley	807.8	0.81
45UF Horsham	901.6	0.90
45UG Mid Sussex	863.1	0.86
45UH Worthing	769.4	0.77
46UB Kennet	461.3	0.46
46UC North Wiltshire	514.2	0.51

46UD Salisbury	577.2	0.58
46UF West Wiltshire	501.5	0.50
47UB Bromsgrove	519.4	0.52
47UC Malvern Hills	513.4	0.51
47UD Redditch	501.8	0.50
47UE Worcester	710.9	0.71
47UF Wychavon	626.8	0.63
47UG Wyre Forest	672.9	0.67

Local Authority Area	Average Grossing Factor	AGF / 1000
Wales	198.7	0.20
NA Anglesey, Isle of	82.7	0.08
NC Gwynedd	172.1	0.17
NE Conwy	149.0	0.15
NG Denbighshire	117.3	0.12
NJ Flintshire	261.8	0.26
NL Wrexham	217.4	0.22
NN Powys	245.2	0.25
NQ Ceredigion	131.8	0.13
NS Pembrokeshire	128.1	0.13
NU Carmarthenshire	184.4	0.18
NX Swansea	283.0	0.28
NZ Neath Port Talbot	204.2	0.20
PB Bridgend	251.6	0.25
PD Vale of Glamorgan, The	176.0	0.18
PF Rhondda, Cynon, Taff	329.5	0.33
PH Merthyr Tydfil	105.0	0.11
PK Caerphilly	223.6	0.22
PL Blaenau Gwent	149.4	0.15
PM Torfaen	124.5	0.12
PP Monmouthshire	122.7	0.12
PR Newport	193.2	0.19
PT Cardiff	610.1	0.61

Local Authority Area	Average Grossing Factor	AGF / 1000
Scotland	341.5	0.34
QA Aberdeen City	441.5	0.44
QB Aberdeenshire	557.7	0.56
QC Angus	220.1	0.22
QD Argyll & Bute	175.1	0.18
QE Scottish Borders, The	217.2	0.22
QF Clackmannanshire	138.8	0.14

QG West Dunbartonshire	137.2	0.14
QH Dumfries and Galloway	300.7	0.30
QJ Dundee City	270.8	0.27
QK East Ayrshire	244.3	0.24
QL East Dunbartonshire	141.2	0.14
QM East Lothian	243.3	0.24
QN East Renfrewshire	223.6	0.22
QP Edinburgh, City of	742.5	0.74
QQ Falkirk	293.7	0.29
QR Fife	433.6	0.43
QS Glasgow City	1,035.0	1.03
QT Highland	553.5	0.55
QU Inverclyde	192.8	0.19
QW Midlothian	259.0	0.26
QX Moray	192.5	0.19
QY North Ayrshire	243.6	0.24
QZ North Lanarkshire	672.5	0.67
RA Orkney Islands	437.4	0.44
RB Perth and Kinross	256.9	0.26
RC Renfrewshire	347.4	0.35
RD Shetland Islands	282.8	0.28
RE South Ayrshire	210.8	0.21
RF South Lanarkshire	545.3	0.55
RG Stirling	143.9	0.14
RH West Lothian	358.7	0.36
RJ Eilean Siar (Western Isles)	108.3	0.11
Northern Ireland	188.3	0.19

ANNEX C – Sampling Variability for employment and ILO unemployment (of persons aged 16+) for Unitary Authorities/Local Authority District areas from the January-December 2023 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	45,396	27,916	82.3	0.94	61.3	0.2	1.07	1,504	1,081	34.0	1.41	2.4	0.1	1.42
AB Barking and Dagenham	159	103	4.7	0.81	63.7	2.9	0.99	6	4	1.5	1.04	2.3	0.9	1.04
AC Barnet	139	182	10.3	0.88	63.1	3.6	1.08	6	15	6.4	1.45	5.2	2.2	1.47
AD Bexley	153	124	5.6	0.83	58.6	2.7	0.93	10	12	3.6	1.28	5.6	1.7	1.29
AE Brent	83	153	8.9	0.74	58.3	3.4	0.86	5	7	4.6	1.34	2.7	1.8	1.34
AF Bromley	180	176	5.7	0.67	65.5	2.1	0.80	8	8	3.1	1.17	3.1	1.1	1.17
AG Camden	141	142	7.5	0.95	65.0	3.5	1.10	6	6	2.4	1.03	2.7	1.1	1.04
AH Croydon	219	206	7.8	0.81	69.7	2.6	1.02	12	14	4.0	1.15	4.7	1.4	1.15
AJ Ealing	63	194	11.2	0.74	65.2	3.8	0.83	5	14	5.8	0.97	4.6	1.9	0.98
AK Enfield	104	160	10.0	0.91	57.9	3.6	1.03	3	5	3.2	1.18	1.9	1.2	1.18
AL Greenwich	206	169	4.9	0.64	74.6	2.2	0.84	6	6	2.4	1.16	2.6	1.1	1.16
AM Hackney	99	185	8.6	0.80	73.4	3.4	0.94	6	10	4.4	1.06	4.1	1.7	1.07
AN Hammersmith and Fulham	114	99	4.5	0.79	69.2	3.2	0.95	4	4	2.1	1.23	2.7	1.4	1.23
AP Haringey	185	156	7.1	0.95	69.7	3.2	1.16	4	6	3.8	1.76	2.7	1.7	1.76
AQ Harrow	89	120	8.1	0.97	58.1	3.9	1.08	8	11	4.2	1.22	5.5	2.1	1.23
AR Havering	215	138	3.8	0.61	70.7	2.0	0.79	3	2	1.4	1.22	1.2	0.7	1.23
AS Hillingdon	78	154	9.2	0.72	59.0	3.6	0.81	7	16	6.8	1.22	6.1	2.6	1.22
AT Hounslow	76	150	6.9	0.61	74.3	3.4	0.81	*	*	*	*	*	*	*
AU Islington	164	148	4.2	0.61	72.9	2.1	0.74	8	7	2.4	1.05	3.3	1.2	1.05
AW Kensington and Chelsea	116	68	4.0	0.90	50.1	2.9	0.95	6	4	1.5	1.09	2.8	1.1	1.09
AX Kingston upon Thames	131	102	4.0	0.70	69.9	2.8	0.85	6	5	2.2	1.20	3.3	1.5	1.21
AY Lambeth	114	189	8.9	0.79	65.9	3.1	0.90	6	11	4.5	1.10	4.0	1.6	1.10
AZ Lewisham	150	166	7.5	0.83	67.3	3.0	1.01	9	13	4.4	1.21	5.4	1.8	1.22
BA Merton	110	111	6.4	0.91	62.2	3.6	1.03	7	8	3.3	1.25	4.3	1.9	1.26
BB Newham	145	187	8.5	0.78	67.2	3.1	0.95	3	6	3.4	1.24	2.0	1.2	1.25
BC Redbridge	189	146	6.4	0.85	61.4	2.7	1.01	5	5	2.1	1.17	2.0	0.9	1.17
BD Richmond upon Thames	138	102	4.2	0.75	66.7	2.7	0.92	8	6	2.1	1.11	4.0	1.4	1.11
BE Southwark	144	189	8.4	0.83	70.7	3.1	0.99	4	5	2.2	0.93	1.7	0.8	0.93
BF Sutton	154	111	3.9	0.69	65.2	2.3	0.81	5	5	2.5	1.43	3.1	1.5	1.44
BG Tower Hamlets	147	163	8.6	0.91	60.2	3.2	1.03	9	12	3.8	1.07	4.5	1.4	1.08
BH Waltham Forest	152	149	8.4	1.01	64.5	3.6	1.17	4	4	2.0	1.01	1.8	0.9	1.01
BJ Wandsworth	182	205	6.5	0.72	78.9	2.5	0.97	7	9	3.8	1.22	3.6	1.5	1.22
BK Westminster	99	127	6.5	0.77	60.8	3.1	0.86	7	9	3.3	1.05	4.4	1.6	1.06
BL Bolton	172	120	6.3	0.98	51.0	2.7	1.07	10	8	2.5	1.20	3.3	1.1	1.20
BM Bury	241	87	3.7	0.95	59.4	2.5	1.10	7	4	1.5	1.44	2.5	1.0	1.44
BN Manchester	228	289	12.1	0.94	65.4	2.7	1.12	10	12	4.0	1.07	2.7	0.9	1.08
BP Oldham	272	114	3.9	0.81	59.8	2.0	0.92	8	4	1.5	1.23	2.1	0.8	1.23
BQ Rochdale	216	98	3.7	0.82	55.8	2.1	0.91	7	4	1.3	1.10	2.0	0.7	1.10
BR Salford	219	123	5.2	0.88	60.1	2.5	1.01	16	11	3.4	1.46	5.3	1.7	1.47
BS Stockport	289	137	4.6	0.80	60.8	2.1	0.94	9	8	2.6	1.35	3.6	1.1	1.36
BT Tameside	244	106	4.0	0.89	56.9	2.2	0.98	6	3	1.2	1.16	1.5	0.6	1.16

| | 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	246	115	3.7	0.76	60.8	2.0	0.88	9	5	1.8	1.28	2.8	1.0	1.28
BW Wigan	199	144	5.8	0.83	55.4	2.2	0.93	4	4	1.8	1.19	1.5	0.7	1.20
BX Knowsley	201	67	3.4	0.99	55.2	2.8	1.10	9	4	1.4	1.25	3.5	1.2	1.25
BY Liverpool	252	232	9.6	0.95	57.8	2.4	1.08	21	22	5.0	1.21	5.4	1.2	1.21
BZ St. Helens	226	83	3.9	1.03	56.1	2.6	1.15	6	3	1.4	1.44	2.1	1.0	1.44
CA Sefton	263	132	3.9	0.74	60.1	1.8	0.85	*	*	*	*	*	*	*
CB Wirral	167	148	6.2	0.83	54.6	2.3	0.90	3	4	2.1	1.38	1.3	0.8	1.38
CC Barnsley	313	112	3.8	0.85	55.5	1.9	0.95	10	5	1.6	1.28	2.5	0.8	1.28
CE Doncaster	261	142	4.7	0.77	56.2	1.9	0.85	10	5	1.6	1.02	2.0	0.6	1.02
CF Rotherham	240	113	4.9	0.94	52.5	2.3	1.03	11	7	2.0	1.24	3.1	0.9	1.24
CG Sheffield	386	294	10.3	1.02	62.2	2.2	1.17	8	9	3.1	1.26	1.8	0.6	1.26
CH Gateshead	293	102	3.2	0.83	61.5	1.9	0.94	9	4	1.2	1.17	2.2	0.7	1.17
CJ Newcastle upon Tyne	276	149	5.9	1.05	61.4	2.4	1.19	8	4	1.5	1.22	1.5	0.6	1.22
CK North Tyneside	280	96	3.9	1.00	56.6	2.3	1.10	9	5	2.4	2.05	2.9	1.4	2.06
CL South Tyneside	338	60	2.4	0.98	50.8	2.0	1.08	23	6	1.3	1.32	5.1	1.1	1.33
CM Sunderland	355	127	4.0	0.84	54.9	1.7	0.92	11	5	1.5	1.22	2.1	0.7	1.22
CN Birmingham	498	501	14.9	0.89	59.4	1.8	1.05	31	43	8.1	1.26	5.1	1.0	1.27
CQ Coventry	379	186	5.9	0.93	62.9	2.0	1.09	25	15	3.1	1.24	5.0	1.0	1.25
CR Dudley	228	160	5.2	0.73	60.4	2.0	0.82	7	5	1.9	1.07	1.9	0.7	1.07
CS Sandwell	216	152	6.2	0.85	57.2	2.3	0.96	10	9	2.8	1.17	3.6	1.1	1.18
CT Solihull	364	103	2.8	0.79	59.3	1.6	0.89	10	4	1.2	1.30	2.2	0.7	1.30
CU Walsall	178	135	6.1	0.87	54.6	2.4	0.94	10	10	2.6	1.03	3.9	1.0	1.03
CW Wolverhampton	173	119	5.2	0.83	52.1	2.3	0.89	13	10	3.2	1.32	4.5	1.4	1.32
CX Bradford	248	237	9.2	0.87	55.7	2.2	0.97	15	18	5.1	1.35	4.1	1.2	1.35
CY Calderdale	199	108	4.1	0.83	59.9	2.3	0.92	3	2	1.0	1.15	1.0	0.6	1.15
CZ Kirklees	323	212	6.8	0.82	61.0	2.0	0.95	11	8	2.6	1.15	2.4	0.8	1.15
DA Leeds	419	392	12.5	0.94	62.8	2.0	1.10	12	11	3.6	1.14	1.8	0.6	1.15
DB Wakefield	268	157	5.1	0.77	57.9	1.9	0.88	12	8	2.2	1.15	2.8	0.8	1.15
EB Hartlepool	253	40	1.7	0.96	52.6	2.2	1.05	8	1	0.6	1.31	2.0	0.8	1.32
EC Middlesbrough	269	57	2.7	1.13	54.0	2.6	1.28	19	6	1.4	1.49	5.3	1.3	1.50
EE Redcar and Cleveland	267	61	2.1	0.87	56.4	1.9	0.98	7	2	0.8	1.40	1.8	0.7	1.40
EF Stockton-on-Tees	218	92	3.3	0.80	56.8	2.1	0.89	10	4	1.5	1.21	2.7	0.9	1.21
EH Darlington	322	53	1.5	0.78	58.9	1.6	0.86	11	2	0.6	1.15	2.0	0.6	1.15
ET Halton	195	56	2.6	0.94	52.1	2.4	1.02	10	4	1.2	1.39	3.3	1.2	1.39
EU Warrington	189	106	3.6	0.73	62.1	2.1	0.84	6	4	1.5	1.21	2.1	0.9	1.21
EX Blackburn with Darwen	204	64	2.8	0.91	54.7	2.4	1.02	8	3	1.0	1.14	2.3	0.8	1.14
EY Blackpool	253	58	2.1	0.84	50.2	1.8	0.90	5	2	0.7	1.27	1.3	0.6	1.27
FA Kingston upon Hull, City of	233	126	5.1	0.91	62.8	2.6	1.06	4	3	1.3	1.18	1.3	0.7	1.18
FB East Riding of Yorkshire	365	157	4.7	0.84	58.1	1.7	0.95	8	4	1.7	1.37	1.5	0.6	1.37
FC North East Lincolnshire	228	73	2.9	0.92	53.6	2.1	0.99	12	4	1.2	1.26	2.7	0.9	1.26
FD North Lincolnshire	275	80	2.6	0.80	54.8	1.8	0.86	8	3	1.1	1.34	1.8	0.7	1.35
FF York	393	112	3.3	0.93	63.7	1.9	1.06	13	3	1.0	1.15	1.8	0.6	1.16
FK Derby	367	135	3.2	0.70	65.3	1.6	0.83	10	5	1.5	1.24	2.3	0.7	1.24
FN Leicester	304	161	6.5	0.98	57.7	2.3	1.13	26	16	3.2	1.17	5.8	1.1	1.18
FP Rutland	121	18	0.9	0.84	55.1	2.9	0.90	3	-	0.2	1.10	1.2	0.8	1.10
FY Nottingham	381	155	5.6	1.02	57.2	2.1	1.14	21	10	2.4	1.26	3.6	0.9	1.26

| | 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	379	99	2.8	0.88	57.6	1.6	0.94	7	1	0.6	1.11	0.8	0.4	1.11
GF Telford and Wrekin	226	86	3.1	0.83	57.5	2.1	0.91	8	3	1.3	1.24	2.2	0.8	1.24
GL Stoke-on-Trent	236	121	4.3	0.83	55.8	2.0	0.91	10	5	1.7	1.17	2.4	0.8	1.17
HA Bath and North East Somerset	360	98	2.6	0.80	61.0	1.7	0.90	10	3	1.0	1.30	1.7	0.6	1.31
HB Bristol, City of	423	251	6.7	0.83	68.2	1.8	1.01	15	10	2.9	1.24	2.7	0.8	1.25
HC North Somerset	368	105	3.1	0.83	55.7	1.6	0.90	13	5	1.4	1.23	2.6	0.7	1.24
HD South Gloucestershire	426	161	3.7	0.74	66.1	1.5	0.84	6	3	1.6	1.50	1.4	0.7	1.50
HG Plymouth	295	124	4.8	1.00	56.4	2.2	1.10	7	3	1.3	1.21	1.6	0.6	1.21
HH Torbay	438	59	2.0	1.00	51.5	1.8	1.07	9	1	0.5	1.16	1.2	0.4	1.16
HN Bournemouth	327	104	2.9	0.79	63.6	1.7	0.90	13	4	1.2	1.17	2.6	0.7	1.17
HP Poole	311	73	2.1	0.76	57.8	1.7	0.84	8	2	0.8	1.18	1.8	0.7	1.18
HX Swindon	316	117	3.0	0.69	63.3	1.6	0.79	6	2	1.0	1.07	1.3	0.5	1.07
JA Peterborough	262	106	3.5	0.80	62.2	2.1	0.91	9	4	1.2	1.07	2.2	0.7	1.07
KA Luton	341	105	3.3	0.85	59.4	1.9	0.97	18	6	1.5	1.19	3.4	0.9	1.20
KF Southend-on-Sea	316	89	2.8	0.84	57.6	1.8	0.94	12	4	1.1	1.19	2.5	0.7	1.19
KG Thurrock	330	89	2.2	0.68	65.2	1.6	0.82	13	3	0.9	1.05	2.2	0.6	1.05
LC Medway	299	144	4.1	0.73	63.4	1.8	0.85	12	6	1.8	1.05	2.8	0.8	1.06
MA Bracknell Forest	446	64	1.6	0.77	69.4	1.7	0.96	15	3	0.9	1.46	2.9	0.9	1.47
MB West Berkshire	284	85	2.4	0.73	65.0	1.8	0.85	4	1	0.6	1.03	0.9	0.4	1.04
MC Reading	272	98	2.1	0.59	74.4	1.6	0.75	10	3	1.0	1.05	2.4	0.8	1.05
MD Slough	163	79	2.8	0.68	66.4	2.3	0.81	9	5	1.6	1.13	4.2	1.4	1.14
ME Windsor and Maidenhead	462	79	1.7	0.70	67.4	1.4	0.84	13	3	0.9	1.33	2.6	0.8	1.33
MF Wokingham	306	83	2.6	0.82	64.4	2.0	0.97	7	2	0.7	1.13	1.3	0.5	1.13
MG Milton Keynes	387	134	3.7	0.79	63.4	1.8	0.94	14	5	1.3	1.08	2.1	0.6	1.08
ML Brighton and Hove	245	163	6.9	1.09	64.7	2.7	1.22	6	7	3.0	1.52	2.8	1.2	1.52
MR Portsmouth	277	119	3.2	0.77	62.8	1.7	0.84	9	3	1.1	1.13	1.6	0.6	1.13
MS Southampton	334	137	3.9	0.81	63.2	1.8	0.92	11	5	1.4	1.13	2.1	0.7	1.14
MW Isle of Wight	284	60	2.3	0.99	48.8	1.9	1.05	11	3	0.8	1.32	2.1	0.7	1.32
09UC Mid Bedfordshire	154	82	3.2	0.72	65.1	2.5	0.84	4	3	1.5	1.31	2.3	1.2	1.32
09UD Bedford	170	89	3.2	0.70	67.8	2.4	0.87	9	6	2.3	1.33	4.7	1.7	1.34
09UE South Bedfordshire	138	78	3.2	0.74	70.8	2.9	0.91	*	*	*	*	*	*	*
11UB Aylesbury Vale	124	107	5.3	0.80	66.0	3.3	0.95	3	4	2.2	1.21	2.4	1.3	1.21
11UC Chiltern	79	46	2.2	0.59	63.7	3.1	0.71	3	2	1.2	1.16	2.5	1.7	1.16
11UE South Bucks	65	35	1.7	0.56	75.4	3.5	0.79	*	*	*	*	*	*	*
11UF Wycombe	156	90	3.3	0.66	66.7	2.5	0.80	*	*	*	*	*	*	*
12UB Cambridge	102	67	3.8	0.84	71.5	4.1	1.06	6	4	1.9	1.10	4.7	2.0	1.11
12UC East Cambridgeshire	50	47	3.2	0.73	60.6	4.2	0.81	*	*	*	*	*	*	*
12UD Fenland	60	45	3.7	0.88	55.0	4.5	0.98	3	2	1.3	1.03	3.0	1.6	1.03
12UE Huntingdonshire	143	100	4.0	0.73	70.0	2.8	0.90	3	2	1.4	1.19	1.5	1.0	1.19
12UG South Cambridgeshire	169	83	3.5	0.80	67.8	2.9	0.99	10	6	2.2	1.34	4.7	1.8	1.34
13UB Chester	54	64	3.3	0.57	66.2	3.4	0.70	*	*	*	*	*	*	*
13UC Congleton	60	52	2.9	0.64	66.7	3.8	0.74	*	*	*	*	*	*	*
13UD Crewe and Nantwich	36	64	5.3	0.80	61.4	5.0	0.88	*	*	*	*	*	*	*
13UE Ellesmere Port and Neston	19	32	5.4	1.11	53.2	9.0	1.27	*	*	*	*	*	*	*
13UG Macclesfield	66	84	3.9	0.59	55.8	2.6	0.62	*	*	*	*	*	*	*
13UH Vale Royal	61	65	4.3	0.72	69.3	4.6	0.91	*	*	*	*	*	*	*

| | 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	60	38	3.0	0.84	51.9	4.1	0.91	*	*	*	*	*	*	*
15UC Carrick	62	50	3.5	0.85	59.1	4.1	0.95	*	*	*	*	*	*	*
15UD Kerrier	87	52	3.2	0.86	58.3	3.6	0.95	3	1	0.9	1.03	1.5	1.0	1.03
15UE North Cornwall	45	38	4.6	1.03	44.2	5.4	1.07	*	*	*	*	*	*	*
15UF Penwith	37	32	2.6	0.71	52.5	4.3	0.76	*	*	*	*	*	*	*
15UG Restormel	78	58	3.0	0.68	60.8	3.1	0.75	*	*	*	*	*	*	*
16UB Allerdale	123	49	2.2	0.70	60.0	2.7	0.78	4	2	1.0	1.19	2.4	1.3	1.19
16UC Barrow-in-Furness	67	30	2.4	0.91	56.6	4.5	1.02	3	1	0.7	1.08	1.9	1.3	1.08
16UD Carlisle	112	57	3.0	0.81	66.9	3.5	0.96	4	2	1.0	1.07	2.2	1.2	1.07
16UE Copeland	54	32	2.2	0.76	54.4	3.7	0.81	*	*	*	*	*	*	*
16UF Eden	56	28	1.3	0.56	60.4	2.8	0.61	*	*	*	*	*	*	*
16UG South Lakeland	118	50	1.8	0.59	61.0	2.2	0.67	*	*	*	*	*	*	*
17UB Amber Valley	90	61	3.6	0.78	61.1	3.6	0.90	3	2	1.3	1.13	2.2	1.3	1.13
17UC Bolsover	34	37	3.1	0.68	53.2	4.5	0.73	4	4	1.7	0.87	5.1	2.4	0.88
17UD Chesterfield	33	46	4.3	0.75	51.4	4.8	0.81	*	*	*	*	*	*	*
17UF Derbyshire Dales	40	36	2.8	0.76	58.1	4.6	0.83	*	*	*	*	*	*	*
17UG Erewash	71	57	2.8	0.58	64.7	3.1	0.70	3	2	1.3	1.01	2.3	1.4	1.01
17UH High Peak	52	48	3.2	0.73	60.4	4.1	0.81	*	*	*	*	*	*	*
17UJ North East Derbyshire	47	43	4.8	1.06	48.9	5.4	1.12	3	3	1.6	1.04	3.2	1.8	1.04
17UK South Derbyshire	81	55	2.5	0.60	67.1	3.1	0.73	*	*	*	*	*	*	*
18UB East Devon	138	65	3.1	0.77	58.4	2.8	0.89	3	1	0.8	1.04	1.0	0.7	1.04
18UC Exeter	90	72	3.6	0.74	71.0	3.5	0.93	*	*	*	*	*	*	*
18UD Mid Devon	82	44	2.2	0.67	70.7	3.6	0.85	3	2	1.1	1.09	3.0	1.7	1.09
18UE North Devon	48	44	3.9	0.93	54.3	4.9	1.00	*	*	*	*	*	*	*
18UG South Hams	46	44	3.4	0.79	57.1	4.5	0.85	*	*	*	*	*	*	*
18UH Teignbridge	128	63	3.1	0.77	65.0	3.1	0.94	*	*	*	*	*	*	*
18UK Torridge	35	34	3.1	0.80	56.2	5.1	0.87	*	*	*	*	*	*	*
18UL West Devon	39	27	2.5	0.84	62.4	5.8	0.97	*	*	*	*	*	*	*
19UC Christchurch	38	20	1.7	0.71	50.0	4.1	0.78	*	*	*	*	*	*	*
19UD East Dorset	107	44	1.7	0.56	57.4	2.2	0.62	*	*	*	*	*	*	*
19UE North Dorset	59	30	2.0	0.74	52.0	3.5	0.80	*	*	*	*	*	*	*
19UG Purbeck	52	24	2.3	0.94	62.6	5.8	1.06	*	*	*	*	*	*	*
19UH West Dorset	80	47	2.4	0.67	54.2	2.8	0.73	*	*	*	*	*	*	*
19UJ Weymouth and Portland	60	30	2.1	0.74	58.4	4.1	0.85	4	1	0.7	0.81	2.6	1.3	0.81
20UB Chester-le-Street	36	26	2.6	0.91	52.9	5.2	0.96	*	*	*	*	*	*	*
20UD Derwentside	71	47	3.3	0.90	61.9	4.3	1.02	*	*	*	*	*	*	*
20UE Durham	71	50	3.6	0.97	61.5	4.4	1.09	*	*	*	*	*	*	*
20UF Easington	56	46	3.9	0.97	59.4	5.0	1.11	*	*	*	*	*	*	*
20UG Sedgefield	78	42	2.7	0.78	60.2	3.9	0.91	*	*	*	*	*	*	*
20UH Teesdale	14	11	1.2	0.53	49.2	5.2	0.56	*	*	*	*	*	*	*
20UJ Wear Valley	61	28	2.2	0.81	50.0	3.8	0.86	3	2	1.7	1.79	3.7	3.0	1.79
21UC Eastbourne	53	47	3.2	0.74	54.4	3.6	0.81	5	4	2.4	1.40	4.9	2.7	1.41
21UD Hastings	62	48	3.5	0.84	65.9	4.8	1.01	*	*	*	*	*	*	*
21UF Lewes	68	43	3.6	0.92	51.4	4.2	1.02	*	*	*	*	*	*	*
21UG Rother	40	38	5.1	1.26	42.8	5.7	1.29	*	*	*	*	*	*	*
21UH Wealden	150	80	3.5	0.79	63.2	2.8	0.93	3	2	1.2	1.28	1.4	0.9	1.28

| | Employment | | | | | | ILO Unemployment | | | | | | |
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	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	89	94	5.5	0.77	60.1	3.5	0.87	6	9	3.6	1.19	6.0	2.3	1.19
22UC Braintree	71	74	4.6	0.73	54.4	3.5	0.79	*	*	*	*	*	*	*
22UD Brentwood	49	42	2.8	0.68	64.3	4.3	0.78	*	*	*	*	*	*	*
22UE Castle Point	59	47	2.6	0.62	59.4	3.3	0.69	*	*	*	*	*	*	*
22UF Chelmsford	75	101	5.0	0.67	66.2	3.3	0.77	*	*	*	*	*	*	*
22UG Colchester	71	95	4.4	0.59	60.7	2.8	0.68	*	*	*	*	*	*	*
22UH Epping Forest	77	66	4.4	0.83	66.9	4.5	1.03	3	3	2.3	1.48	2.9	2.3	1.49
22UJ Harlow	45	36	3.0	0.73	59.3	4.9	0.89	4	3	1.9	1.27	5.0	3.2	1.28
22UK Maldon	35	34	3.0	0.76	65.4	6.1	0.93	*	*	*	*	*	*	*
22UL Rochford	57	45	3.4	0.78	60.9	4.7	0.88	*	*	*	*	*	*	*
22UN Tendring	66	54	4.6	0.96	48.5	4.1	1.06	*	*	*	*	*	*	*
22UQ Uttlesford	53	45	2.8	0.64	64.1	4.0	0.76	4	5	2.3	1.19	6.8	3.3	1.20
23UB Cheltenham	104	62	2.5	0.63	69.7	2.8	0.79	5	2	1.2	1.06	2.7	1.3	1.06
23UC Cotswold	69	41	3.1	0.85	54.3	4.1	0.92	*	*	*	*	*	*	*
23UD Forest of Dean	79	44	2.5	0.71	61.4	3.5	0.81	*	*	*	*	*	*	*
23UE Gloucester	104	77	3.8	0.79	70.9	3.4	0.95	6	5	2.3	1.26	4.5	2.1	1.27
23UF Stroud	92	67	2.6	0.61	67.4	2.6	0.70	*	*	*	*	*	*	*
23UG Tewkesbury	66	42	2.3	0.63	55.7	3.0	0.71	*	*	*	*	*	*	*
24UB Basingstoke and Deane	140	97	3.9	0.70	67.5	2.7	0.84	4	4	1.8	1.14	2.5	1.3	1.14
24UC East Hampshire	77	62	3.5	0.74	64.3	3.6	0.86	*	*	*	*	*	*	*
24UD Eastleigh	79	71	3.5	0.68	68.0	3.4	0.83	*	*	*	*	*	*	*
24UE Fareham	87	61	3.2	0.74	66.9	3.6	0.91	3	2	1.8	1.67	2.0	2.0	1.68
24UF Gosport	69	46	3.1	0.81	65.3	4.4	0.95	*	*	*	*	*	*	*
24UG Hart	85	50	2.1	0.59	67.4	2.9	0.72	3	2	1.3	1.14	3.0	1.7	1.15
24UH Havant	65	48	5.7	1.14	45.8	5.4	1.22	*	*	*	*	*	*	*
24UJ New Forest	168	90	3.8	0.77	63.3	2.7	0.90	6	3	1.5	1.15	2.3	1.1	1.16
24UL Rushmoor	52	58	3.4	0.66	72.9	4.3	0.79	*	*	*	*	*	*	*
24UN Test Valley	111	68	2.8	0.65	67.7	2.8	0.79	*	*	*	*	*	*	*
24UP Winchester	97	64	3.1	0.70	68.5	3.3	0.87	*	*	*	*	*	*	*
26UB Broxbourne	44	47	2.8	0.55	59.1	3.6	0.64	*	*	*	*	*	*	*
26UC Dacorum	72	75	4.7	0.77	58.4	3.7	0.87	*	*	*	*	*	*	*
26UD East Hertfordshire	100	75	3.9	0.78	65.1	3.4	0.94	6	4	1.5	0.95	3.2	1.3	0.95
26UE Hertsmere	52	54	4.7	0.87	60.3	5.1	0.95	*	*	*	*	*	*	*
26UF North Hertfordshire	95	70	3.7	0.78	68.5	3.7	0.97	3	4	1.9	1.28	3.5	1.9	1.28
26UG St. Albans	110	80	4.1	0.81	70.7	3.7	1.03	*	*	*	*	*	*	*
26UH Stevenage	32	43	3.4	0.63	65.7	5.2	0.78	*	*	*	*	*	*	*
26UJ Three Rivers	51	47	3.7	0.76	55.8	4.4	0.83	*	*	*	*	*	*	*
26UK Watford	61	58	3.8	0.75	71.1	4.6	0.91	*	*	*	*	*	*	*
26UL Welwyn Hatfield	64	67	4.9	0.88	66.4	4.8	1.05	*	*	*	*	*	*	*
29UB Ashford	78	60	4.4	0.85	59.1	4.4	0.99	4	3	1.5	1.01	2.8	1.5	1.01
29UC Canterbury	61	73	5.6	0.85	54.7	4.2	0.95	3	5	3.3	1.41	3.9	2.4	1.42
29UD Dartford	43	62	4.3	0.71	69.0	4.8	0.85	*	*	*	*	*	*	*
29UE Dover	58	49	4.9	1.04	53.6	5.3	1.16	3	2	0.8	0.77	1.6	0.9	0.77
29UG Gravesham	43	66	4.6	0.81	67.2	4.8	0.90	*	*	*	*	*	*	*
29UH Maidstone	65	79	5.0	0.71	61.9	3.9	0.85	*	*	*	*	*	*	*
29UK Sevenoaks	54	58	4.4	0.78	54.5	4.1	0.83	*	*	*	*	*	*	*

| | Employment | | | | | | ILO Unemployment | | | | | | |
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	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
29UL Shepway	38	44	4.4	0.84	49.4	4.9	0.92	5	8	3.3	1.21	8.6	3.7	1.22
29UM Swale	65	80	5.7	0.86	62.2	4.5	0.96	*	*	*	*	*	*	*
29UN Thanet	55	60	4.7	0.81	51.0	4.0	0.89	6	6	2.6	1.11	5.2	2.2	1.11
29UP Tonbridge and Malling	86	68	3.8	0.74	68.7	3.8	0.92	*	*	*	*	*	*	*
29UQ Tunbridge Wells	78	62	4.3	0.91	67.8	4.7	1.10	*	*	*	*	*	*	*
30UD Burnley	33	40	3.9	0.79	62.2	6.1	0.96	*	*	*	*	*	*	*
30UE Chorley	77	52	5.3	1.20	56.1	5.7	1.35	*	*	*	*	*	*	*
30UF Fylde	46	35	3.1	0.86	52.5	4.5	0.88	*	*	*	*	*	*	*
30UG Hyndburn	32	40	4.8	1.01	63.1	7.6	1.17	*	*	*	*	*	*	*
30UH Lancaster	86	64	5.4	1.07	54.8	4.6	1.18	*	*	*	*	*	*	*
30UJ Pendle	37	30	4.9	1.20	42.0	6.9	1.29	5	4	1.7	0.96	5.4	2.4	0.96
30UK Preston	72	75	4	0.72	68.1	3.6	0.87	*	*	*	*	*	*	*
30UL Ribble Valley	35	32	3.3	0.91	61.2	6.1	0.96	*	*	*	*	*	*	*
30UM Rossendale	35	33	2.6	0.67	60.5	4.7	0.78	*	*	*	*	*	*	*
30UN South Ribble	89	59	3.2	0.77	74.8	4.1	1.05	*	*	*	*	*	*	*
30UP West Lancashire	49	56	4.3	0.82	58.5	4.6	0.91	3	3	1.8	1.05	3.3	1.9	1.05
30UQ Wyre	49	47	4.6	0.94	49.7	4.9	1.00	3	4	2.2	1.21	3.8	2.3	1.22
31UB Blaby	93	56	2.6	0.69	69.9	3.3	0.86	*	*	*	*	*	*	*
31UC Charnwood	155	103	4.6	0.83	67.0	3.0	0.96	*	*	*	*	*	*	*
31UD Harborough	130	46	2.6	0.88	68.0	3.7	1.09	4	2	0.8	1.02	2.4	1.1	1.02
31UE Hinckley and Bosworth	97	58	3.1	0.78	64.9	3.5	0.93	*	*	*	*	*	*	*
31UG Melton	32	24	2.2	0.79	57.8	5.3	0.89	*	*	*	*	*	*	*
31UH North West Leicestershire	73	51	3.4	0.88	61.3	4.1	1.00	*	*	*	*	*	*	*
31UJ Oadby and Wigston	44	26	1.8	0.64	62.3	4.4	0.75	3	1	0.9	0.96	3.5	2.1	0.96
32UB Boston	38	31	3	0.83	60.9	6.0	0.99	3	3	1.4	0.97	5.3	2.7	0.98
32UC East Lindsey	69	64	5.1	0.98	49.7	4.0	1.01	*	*	*	*	*	*	*
32UD Lincoln	45	50	5.5	1.03	61.6	6.7	1.16	*	*	*	*	*	*	*
32UE North Kesteven	73	58	3	0.63	61.3	3.2	0.73	*	*	*	*	*	*	*
32UF South Holland	56	49	2.5	0.60	62.7	3.3	0.70	*	*	*	*	*	*	*
32UG South Kesteven	80	59	4.1	0.82	52.7	3.7	0.92	4	5	2.4	1.33	4.4	2.2	1.33
32UH West Lindsey	42	38	4.8	1.10	48.9	6.3	1.21	4	6	3.2	1.44	8.4	4.2	1.46
33UB Breckland	86	63	4.2	0.87	54.2	3.7	0.95	*	*	*	*	*	*	*
33UC Broadland	82	63	3.4	0.70	63.5	3.5	0.83	*	*	*	*	*	*	*
33UD Great Yarmouth	55	42	3.9	0.87	51.3	4.8	0.95	*	*	*	*	*	*	*
33UE Kings Lynn and West Norfolk	86	75	4.1	0.73	57.0	3.1	0.79	3	3	1.6	1.02	2.3	1.2	1.02
33UF North Norfolk	50	42	5	1.19	48.0	5.8	1.28	*	*	*	*	*	*	*
33UG Norwich	83	82	4.5	0.77	66.7	3.7	0.88	4	5	2.3	1.08	3.9	1.9	1.08
33UH South Norfolk	107	67	4.2	0.90	59.2	3.7	1.01	5	4	1.8	1.14	3.6	1.6	1.14
34UB Corby	42	41	2.6	0.67	65.9	4.3	0.78	*	*	*	*	*	*	*
34UC Daventry	58	38	2.7	0.75	55.6	3.9	0.82	*	*	*	*	*	*	*
34UD East Northamptonshire	79	52	2.9	0.76	63.8	3.6	0.85	*	*	*	*	*	*	*
34UE Kettering	87	50	3.3	0.84	60.7	4.0	0.96	*	*	*	*	*	*	*
34UF Northampton	150	112	4.9	0.76	63.9	2.8	0.91	8	7	2.6	1.17	3.9	1.5	1.17
34UG South Northamptonshire	83	51	2.5	0.69	64.8	3.1	0.78	3	1	0.9	0.96	1.8	1.1	0.96
34UH Wellingborough	57	38	3.1	0.85	56.7	4.6	0.94	*	*	*	*	*	*	*
35UB Alnwick	35	12	1.6	1.05	45.8	6.0	1.13	*	*	*	*	*	*	*
35UC Berwick-upon-Tweed	35	12	1.1	0.79	52.9	4.6	0.85	3	1	0.6	1.17	4.3	2.6	1.18

| | Employment | | | | | | | ILO Unemployment | | | | | | |
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35UD Blyth Valley	107	40	2.1	0.82	67.3	3.6	1.03	5	2	0.8	1.08	3.1	1.4	1.08
35UE Castle Morpeth	62	22	1.5	0.85	50.9	3.5	0.92	*	*	*	*	*	*	*
35UF Tynedale	64	27	1.7	0.74	52.0	3.3	0.80	*	*	*	*	*	*	*
35UG Wansbeck	54	20	2.7	1.21	37.6	5.1	1.26	3	2	0.8	1.10	3.0	1.6	1.10
36UB Craven	51	28	2.1	0.77	60.4	4.7	0.88	*	*	*	*	*	*	*
36UC Hambleton	68	45	2.9	0.80	61.3	3.9	0.90	*	*	*	*	*	*	*
36UD Harrogate	141	76	2.7	0.60	59.0	2.1	0.68	*	*	*	*	*	*	*
36UE Richmondshire	34	21	3.1	1.26	55.4	8.0	1.43	*	*	*	*	*	*	*
36UF Ryedale	68	31	1.3	0.56	65.9	2.9	0.64	*	*	*	*	*	*	*
36UG Scarborough	86	49	3.3	0.90	55.9	3.7	1.00	*	*	*	*	*	*	*
36UH Selby	54	49	2.6	0.63	61.3	3.4	0.69	*	*	*	*	*	*	*
37UB Ashfield	73	50	4.9	1.09	50.6	4.9	1.21	3	3	2.0	1.39	3.4	2.0	1.39
37UC Bassetlaw	66	59	3.8	0.75	56.6	3.7	0.80	*	*	*	*	*	*	*
37UD Broxtowe	92	58	2.8	0.70	71.3	3.4	0.91	*	*	*	*	*	*	*
37UE Gedling	128	56	2.8	0.73	63.9	3.2	0.89	3	1	0.9	1.07	1.7	1.0	1.07
37UF Mansfield	40	53	5.8	1.03	55.5	6.0	1.10	*	*	*	*	*	*	*
37UG Newark and Sherwood	58	65	4.8	0.83	61.9	4.6	0.91	*	*	*	*	*	*	*
37UJ Rushcliffe	114	60	2.8	0.75	64.0	3.0	0.87	*	*	*	*	*	*	*
38UB Cherwell	82	80	4.1	0.69	68.2	3.5	0.83	*	*	*	*	*	*	*
38UC Oxford	69	89	5.2	0.76	68.9	4.0	0.88	*	*	*	*	*	*	*
38UD South Oxfordshire	59	81	5.5	0.82	66.3	4.5	0.92	*	*	*	*	*	*	*
38UE Vale of White Horse	76	71	3.7	0.67	63.7	3.3	0.75	5	5	2.4	1.08	4.9	2.1	1.08
38UF West Oxfordshire	65	71	3.8	0.71	78.1	4.1	0.88	*	*	*	*	*	*	*
39UB Bridgnorth	41	28	2.1	0.80	60.8	4.6	0.91	*	*	*	*	*	*	*
39UC North Shropshire	58	31	2.4	0.87	58.5	4.5	0.97	*	*	*	*	*	*	*
39UD Oswestry	29	18	2.7	1.23	53.2	7.9	1.35	*	*	*	*	*	*	*
39UE Shrewsbury and Atcham	129	52	2.3	0.74	66.3	2.9	0.91	6	3	1.5	1.52	3.6	1.9	1.53
39UF South Shropshire	47	22	1.8	0.86	53.7	4.3	0.91	*	*	*	*	*	*	*
40UB Mendip	95	58	2.3	0.55	59.8	2.4	0.61	*	*	*	*	*	*	*
40UC Sedgemoor	75	60	4.2	0.89	60.3	4.2	1.02	*	*	*	*	*	*	*
40UD South Somerset	139	78	4.1	0.87	56.6	3.0	0.97	6	4	1.6	1.15	2.6	1.1	1.15
40UE Taunton Deane	98	58	2.6	0.61	65.3	2.9	0.74	*	*	*	*	*	*	*
40UF West Somerset	43	16	1.1	0.61	61.8	4.3	0.73	*	*	*	*	*	*	*
41UB Cannock Chase	47	56	2.5	0.49	69.9	3.3	0.60	*	*	*	*	*	*	*
41UC East Staffordshire	57	60	3.2	0.62	68.5	3.7	0.78	*	*	*	*	*	*	*
41UD Lichfield	54	53	3.4	0.72	66.1	4.3	0.87	*	*	*	*	*	*	*
41UE Newcastle-under-Lyme	46	74	3.8	0.61	65.9	3.4	0.70	*	*	*	*	*	*	*
41UF South Staffordshire	35	56	4.5	0.71	58.7	4.7	0.78	*	*	*	*	*	*	*
41UG Stafford	80	66	3.9	0.77	62.1	3.7	0.90	*	*	*	*	*	*	*
41UH Staffordshire Moorlands	45	52	3.4	0.69	62.4	4.1	0.77	*	*	*	*	*	*	*
41UK Tamworth	63	42	2.7	0.84	72.2	4.6	1.06	*	*	*	*	*	*	*
42UB Babergh	59	38	3.4	0.90	51.4	4.6	0.98	4	3	1.4	1.05	3.8	1.9	1.05
42UC Forest Heath	42	33	2.3	0.67	58.6	4.2	0.74	*	*	*	*	*	*	*
42UD Ipswich	79	79	3.6	0.65	71.7	3.3	0.81	*	*	*	*	*	*	*
42UE Mid Suffolk	51	43	3.7	0.86	49.3	4.3	0.93	*	*	*	*	*	*	*
42UF St. Edmundsbury	75	54	3.8	0.83	58.6	4.1	0.93	6	4	1.9	1.04	4.8	2.0	1.04
42UG Suffolk Coastal	88	59	3.5	0.78	57.6	3.4	0.88	*	*	*	*	*	*	*

	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	65	54	3.4	0.73	54.7	3.4	0.80	*	*	*	*	*	*	*
43UB Elmbridge	92	64	3.7	0.77	63.0	3.7	0.94	*	*	*	*	*	*	*
43UC Epsom and Ewell	33	49	3.2	0.61	79.7	5.3	0.87	*	*	*	*	*	*	*
43UD Guildford	72	86	4.4	0.68	68.0	3.6	0.82	*	*	*	*	*	*	*
43UE Mole Valley	42	49	3.5	0.77	62.4	4.5	0.84	*	*	*	*	*	*	*
43UF Reigate and Banstead	97	86	3.1	0.57	74.6	2.7	0.74	*	*	*	*	*	*	*
43UG Runnymede	28	49	4.5	0.73	69.1	6.4	0.88	*	*	*	*	*	*	*
43UH Spelthorne	79	49	3.7	0.91	60.2	4.6	1.05	3	2	1.0	1.01	2.0	1.3	1.01
43UJ Surrey Heath	48	46	2.9	0.66	68.5	4.4	0.82	*	*	*	*	*	*	*
43UK Tandridge	57	45	3.2	0.78	60.8	4.4	0.88	*	*	*	*	*	*	*
43UL Waverley	62	62	3.8	0.70	62.9	4.0	0.83	*	*	*	*	*	*	*
43UM Woking	81	54	3.1	0.75	65.1	3.8	0.88	3	3	1.8	1.34	3.2	2.2	1.35
44UB North Warwickshire	43	31	2.6	0.78	54.8	4.6	0.84	*	*	*	*	*	*	*
44UC Nuneaton and Bedworth	120	64	3.5	0.88	62.8	3.5	1.03	*	*	*	*	*	*	*
44UD Rugby	120	56	2.7	0.78	69.7	3.4	0.99	*	*	*	*	*	*	*
44UE Stratford-on-Avon	132	64	3.0	0.75	63.2	2.9	0.86	5	2	1.0	0.96	2.1	1.0	0.96
44UF Warwick	172	72	4.0	1.04	65.3	3.6	1.23	7	3	1.4	1.16	3.1	1.2	1.16
45UB Adur	23	32	3.6	0.83	50.4	5.6	0.85	*	*	*	*	*	*	*
45UC Arun	88	75	5.0	0.89	60.1	4.0	1.03	5	5	2.6	1.29	4.3	2.1	1.29
45UD Chichester	43	54	6.3	1.07	45.5	5.3	1.09	*	*	*	*	*	*	*
45UE Crawley	81	59	2.9	0.60	73.3	3.5	0.79	*	*	*	*	*	*	*
45UF Horsham	71	73	5.1	0.87	58.5	4.1	0.95	*	*	*	*	*	*	*
45UG Mid Sussex	79	73	4.0	0.69	63.2	3.5	0.82	*	*	*	*	*	*	*
45UH Worthing	64	57	3.3	0.69	71.3	4.1	0.91	3	4	2.3	1.31	5.0	2.8	1.32
46UB Kennet	96	46	2.4	0.74	65.3	3.4	0.89	*	*	*	*	*	*	*
46UC North Wiltshire	140	71	3.7	0.85	60.9	3.1	0.96	4	2	0.9	0.93	1.6	0.8	0.93
46UD Salisbury	101	64	3.4	0.80	63.0	3.4	0.92	*	*	*	*	*	*	*
46UF West Wiltshire	125	72	2.6	0.62	66.6	2.4	0.74	*	*	*	*	*	*	*
47UB Bromsgrove	84	53	2.7	0.77	65.4	3.3	0.87	*	*	*	*	*	*	*
47UC Malvern Hills	68	37	1.9	0.61	61.1	3.2	0.71	4	3	1.7	1.30	5.5	2.8	1.31
47UD Redditch	83	46	2.3	0.69	70.1	3.5	0.86	*	*	*	*	*	*	*
47UE Worcester	65	53	4.2	0.97	63.9	5.0	1.12	*	*	*	*	*	*	*
47UF Wychavon	73	60	4.1	0.90	57.2	3.9	1.00	*	*	*	*	*	*	*
47UG Wyre Forest	70	52	3.3	0.79	59.8	3.8	0.88	*	*	*	*	*	*	*

| | 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	6,033	1,476	12.9	1.03	57.3	0.5	1.15	185	57	6.2	1.85	2.2	0.2	1.86
NA Anglesey, Isle of	398	32	0.9	0.86	54.8	1.6	0.94	9	1	0.3	1.23	1.3	0.5	1.24
NC Gwynedd	405	60	1.8	0.90	59.1	1.8	1.01	3	1	0.4	1.40	0.5	0.4	1.40
NE Conwy	364	52	1.5	0.82	52.8	1.6	0.89	6	1	0.4	1.19	1.0	0.4	1.19
NG Denbighshire	372	41	1.4	0.92	54.7	1.8	1.03	12	2	0.6	1.43	2.5	0.8	1.43
NJ Flintshire	329	75	2.3	0.81	58.5	1.8	0.91	9	2	0.7	1.14	1.6	0.6	1.14
NL Wrexham	349	64	2.0	0.83	56.8	1.8	0.93	12	3	0.9	1.30	2.6	0.8	1.30
NN Powys	284	59	2.1	0.88	54.2	1.9	0.96	9	3	1.1	1.64	2.5	1.0	1.64
NQ Ceredigion	283	37	1.5	1.05	54.3	2.1	1.11	7	1	0.4	1.31	1.6	0.6	1.31
NS Pembrokeshire	443	53	1.5	0.85	52.4	1.4	0.92	17	2	0.6	1.22	2.3	0.6	1.22
NU Carmarthenshire	549	82	2.5	0.96	54.5	1.6	1.07	10	2	0.6	1.24	1.2	0.4	1.24
NX Swansea	529	123	3.3	0.92	60.2	1.6	1.03	19	7	2.1	1.73	3.5	1.0	1.73
NZ Neath Port Talbot	365	62	2.1	0.93	54.6	1.9	1.04	16	3	0.8	1.24	2.4	0.7	1.24
PB Bridgend	311	65	2.2	0.86	53.8	1.8	0.94	6	1	0.5	1.12	1.1	0.5	1.12
PD Vale of Glamorgan, The	340	62	2.0	0.91	59.2	1.9	1.02	4	1	0.3	1.05	0.6	0.3	1.05
PF Rhondda, Cynon, Taff	344	107	3.6	0.90	55.1	1.8	1.00	7	3	1.0	1.21	1.4	0.5	1.21
PH Merthyr Tydfil	213	27	1.2	0.98	55.4	2.6	1.09	6	1	0.4	1.28	2.2	0.9	1.28
PK Caerphilly	443	82	2.3	0.83	56.4	1.6	0.93	16	3	0.9	1.34	2.0	0.6	1.34
PL Blaenau Gwent	219	33	1.2	0.83	56.1	2.1	0.91	4	1	0.3	1.18	1.2	0.6	1.18
PM Torfaen	310	42	1.5	0.97	56.4	2.1	1.09	13	2	0.6	1.47	2.2	0.8	1.47
PP Monmouthshire	334	44	1.2	0.75	54.1	1.4	0.80	4	1	0.3	1.13	0.6	0.3	1.13
PR Newport	430	70	1.9	0.83	60.1	1.7	0.96	22	4	0.9	1.21	3.2	0.8	1.21
PT Cardiff	422	184	6.4	1.02	60.8	2.1	1.17	8	3	1.2	1.05	1.1	0.4	1.05
Scotland	6,327	2,673	22.1	1.02	59.1	0.5	1.14	205	96	8.4	1.47	2.1	0.2	1.48
QA Aberdeen City	281	116	4.2	0.94	60.5	2.2	1.04	13	7	1.9	1.26	3.4	1.0	1.26
QB Aberdeenshire	331	137	4.4	0.89	62.2	2.0	1.01	13	7	2.3	1.41	3.3	1.0	1.42
QC Angus	321	53	1.6	0.80	53.5	1.6	0.87	7	1	0.5	1.24	1.4	0.5	1.24
QD Argyll & Bute	261	40	1.4	0.88	52.5	1.8	0.93	3	1	0.3	1.37	0.7	0.5	1.37
QE Scottish Borders, The	335	56	1.6	0.78	61.1	1.8	0.89	14	4	1.0	1.40	3.9	1.1	1.41
QF Clackmannanshire	177	22	1.1	0.95	56.1	2.9	1.09	5	1	0.4	1.46	2.2	1.1	1.47
QG West Dunbartonshire	322	44	1.4	0.85	55.7	1.7	0.90	10	1	0.5	1.17	1.7	0.6	1.17
QH Dumfries and Galloway	274	60	2.3	0.89	47.7	1.8	0.94	11	3	0.9	1.19	2.3	0.7	1.19
QJ Dundee City	301	67	2.8	1.05	55.7	2.3	1.15	19	6	1.6	1.53	4.9	1.4	1.54
QK East Ayrshire	296	54	2.3	1.04	54.9	2.3	1.15	7	2	0.7	1.33	1.6	0.7	1.33
QL East Dunbartonshire	403	51	1.4	0.86	55.3	1.6	0.95	8	1	0.5	1.31	1.3	0.5	1.31
QM East Lothian	266	52	2.0	0.94	59.8	2.3	1.06	4	1	0.4	1.12	1.0	0.5	1.12
QN East Renfrewshire	250	45	1.7	0.85	58.5	2.2	0.96	7	1	0.6	1.19	1.9	0.8	1.19
QP Edinburgh, City of	402	289	6.8	0.76	68.7	1.6	0.91	6	4	1.6	1.06	0.9	0.4	1.06
QQ Falkirk	300	79	2.4	0.78	59.9	1.9	0.88	14	5	1.6	1.46	3.6	1.2	1.46
QR Fife	410	174	5.2	0.86	58.5	1.8	0.97	13	7	2.3	1.37	2.5	0.8	1.37
QS Glasgow City	442	317	8.9	0.86	61.9	1.7	0.97	18	11	3.0	1.06	2.2	0.6	1.06
QT Highland	184	108	4.4	0.84	48.9	2.0	0.86	5	4	1.6	1.20	1.8	0.7	1.20
QU Inverclyde	243	37	1.5	0.92	55.7	2.2	1.00	5	1	0.4	1.27	1.4	0.7	1.27
QW Midlothian	210	47	1.7	0.79	61.4	2.2	0.90	3	1	0.5	1.18	1.1	0.6	1.18
QX Moray	289	47	1.4	0.76	58.2	1.7	0.84	13	2	0.7	1.22	2.9	0.9	1.23
QY North Ayrshire	314	60	2.0	0.83	54.4	1.8	0.91	6	1	0.4	0.97	0.9	0.4	0.97
QZ North Lanarkshire	268	152	6.0	0.92	55.1	2.2	1.02	7	5	1.7	1.12	1.6	0.6	1.13
RA Orkney Islands	31	11	0.9	0.60	56.0	4.2	0.63	*	*	*	*	*	*	*
RB Perth and Kinross	332	70	2.2	0.85	56.8	1.8	0.95	7	2	1.0	1.51	1.9	0.8	1.52
RC Renfrewshire	261	84	3.5	0.99	55.8	2.3	1.07	10	3	1.1	1.11	2.3	0.7	1.11
RD Shetland Islands	35	13	1.1	0.84	60.3	5.2	0.89	*	*	*	*	*	*	*
RE South Ayrshire	259	45	1.9	0.96	48.6	2.0	1.02	14	3	0.9	1.28	3.5	0.9	1.28
RF South Lanarkshire	367	161	4.1	0.74	62.9	1.6	0.85	11	5	1.8	1.31	2.0	0.7	1.31
RG Stirling	369	46	1.5	0.92	62.8	2.0	1.06	11	2	0.6	1.28	2.3	0.8	1.28
RH West Lothian	311	91	2.6	0.73	62.8	1.8	0.86	7	2	0.8	1.14	1.4	0.6	1.14
RJ Eilean Siar (Western Isles)	135	14	0.5	0.72	58.0	2.2	0.76	*	*	*	*	*	*	*
Northern Ireland	4,711	901	7.7	0.81	60.5	0.5	0.94	94	20	2.4	1.21	1.4	0.2	1.21

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 $W_i * n_i$.

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

$$Var (E_i = W_i * n_i) = W_i{}^2 * n_i \quad (1)$$

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:

$$\text{Var}(E_i) = W_i^2 * n_i * \text{deff}_i \qquad (2)$$

Thus:

$$Cv(E_i) = \text{Square root } (\text{deff}_i/n_i) \qquad (3)$$

For the threshold for this variable, we must have:

$$cv(E_i) < 0.2 \qquad (4)$$

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

$$n_i > 25 * \text{deff}_i$$

Or in terms of the grossed estimate:

$$E_i > 25 * W_i * \text{deff}_i \qquad (5)$$

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

W_i 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 JD20 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	
Variable	**Variable Name**
ATFROM	Type of business if working from home
DAYSPZ	Number of different days per week worked
EVDAY	Work during day
EVENG	Work in evening in past 4 weeks
EVEVE	Work during evening
EVHM98	Ever do any paid or unpaid work at home
EVNGHT	Work during night
EVSAT	Work on Saturdays
EVSUN	Work on Sundays
HOMED(1-3)	Locations of work in refwk (main job)
LSSOTH	Time off flexi or annual
NIGHT	Night work in the last 4 weeks
NOLWF	Main reason (family) for not looking for work
NWNCRE(1 -2)	Reason (care services) for not looking for work
OYCIRC	Employment situation 12 months ago
OYCRY	Country of residence 12 months ago
OYCRYO	Country of residence 12 months ago
OYCTY	County or Borough living at different address
OYEQM3	Whether living at same address 12 months ago
OYINDD	What the firm or organisation worked at 12 months ago mainly made or did.
OYINDT	Industry title of firm or organisation worked at 12 months ago
OYMNGE	Managerial duties 1 year ago
OYMPE02	Number of employees where worked 1 year ago
OYMPS02	Number of people employed 1 year ago
OYOCCD	What did respondent mainly do in their job 12 months ago?
OYOCCT	What was (main) job 12 months ago?
OYSIND	Work for same firm in refweek as 12 months ago
OYSOCC	Main occupation in refweek same as 12 months ago
OYSOLO	On own or with employees 1 year ago

OYSTAT	Employee or self-employed 1 year ago
OYSUPVI	Supervisory responsibilities 1 year ago.
PTNCRE7(1-2)	Reason (care services) for part time work
SATDY	How many Saturdays worked in past 4 weeks
SMESIT	Reason working from home
SUNDY	How many Sundays worked in past 4 weeks
TSUBJ4WK	Main subject received during nonformal tuition
T4PURP	Main purpose of training
T4WORK	Whether training during work hours
TAUTHRS	Total hours of instruction or tuition received
YNOTFT	Reason for not wanting a full-time job
YPTCIA	Reason for part time job

More information about these variables can be found in the user guide volume 2 and volume 3 (details of LFS variables):

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

ANNEX F – Geographies removed from A15M16

A list of the unsupported geographies that 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)

ANNEX G-Information about previous Eurostat AHM and Veterans variables

Eurostat Ad-hoc module variables and weight.

The EuroStat Ad-hoc module ceased being collected after the UK's withdrawal from the European Union in 2020. Eurostat module was collected for three quarters in 2020, however, this was not published

From 2009 until 2020, 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
2017	Self-employment
2018	Reconciliation between work and family life
2019	Work organisation and working time arrangements
2020	Accidents at work and other work-related health problems

A brief description of the ad hoc module variables can be found in the volume 9a user guide. 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/employmentandemploy eetypes/methodologies/labourforcesurveyuserguidance

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

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.

Veteran variables

Between 2014 and 2018 the 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).
- **VETERAN** (Final Veterans derived variable to be used)

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