

# Labour Force Survey performance and quality report: Oct to Dec 2016

Response rates, sample size and quality assessment of the Office for National Statistics's quarterly Labour Force Survey.

Contact:

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# 1 . Executive summary October to December 2016

## Summary of achieved sample size

The achieved sample size for the UK Labour Force Survey (LFS) during October to December 2016 (OD16) was 88,406 individuals in 37,342 households. Please note that there were no NHS households in this period. Compared with the previous quarter July to September 2016 (JS16) this represents a decrease of 0.2% in household interviews and a decrease of 0.1% in achieved person interviews.

## Summary of response rates

[Please note that historical reports can be accessed on the ONS website.](#)

In OD16 main response rates were as follows:

- the total response rate for Great Britain excluding imputed cases (Table 4.1) was 42%; this is up 0.5 percentage points on the previous quarter
- the response rate excluding imputed cases (Fig 4.2) was 54.9% in wave 1 and 36.8% in wave 5; this compares with 54.8% and 36.8% respectively in the previous quarter
- the total response rate for Great Britain including imputed cases (Table 4.3) was 49%, down 0.4 percentage points on the previous quarter
- of non-response in OD16 (Fig 4.4), non-contacts comprised 16.4%, circumstantial refusals were 11.9%, (up 0.2 percentage points), outright refusals comprised 53.1% (down 0.1 percentage points on the previous quarter) and other refusals comprised the remainder
- the region with the highest accumulated response rate across the 5 waves (Table 4.7, page 8) was "Rest of Yorkshire and Humberside" (53.6%); the lowest was "Outer London" (44.6%)
- the overall proxy response rate (Table 4.8) is 33.8%; the highest proxy response rates occur in the 16 to 17 age group (88%), in males (38.5%) and in the non-white ethnicity group (42.7%)
- the average income response rate (Table 4.9) was 86%
- the data on attrition rates are shown in Table 4.10; these data reveal in percentage change terms that those who drop out of the survey between waves 1 and 5, tend to be distributed fairly evenly by main characteristics, but are over-represented in the 20 to 29 age bands, in households with 6 or more people and amongst those living in Inner London

### Note:

Methodological changes in January to March 2011 (JM11) and July to September 2010 (JS10) have impacted response rates. From JM11 a proportion of initial interviews have been conducted by the telephone unit rather than face-to-face as an efficiency measure. Telephone interviews generally have higher levels of non-response. The removal of households with residents aged 75 and older after their initial interview from JS10 also impacts response as these households generally have high response rates. See the 'Questionnaire changes' section for more detail.

## Questionnaire changes

Changes to State Pension age were introduced in 2010, which affected labour market and LFS publications, as well as other social surveys. Under the Pensions Act 2011, women's State Pension age will increase more quickly (than originally planned) to 65 between April 2016 and November 2018. From December 2018, the State Pension age for both men and women will start to increase to reach 66 by October 2020.

From JS10, households that only contain respondents aged 75 and older are removed from the sample after their wave 1 interview. This change was introduced to reduce the cost of the survey and reduce the burden on respondents. Households only containing individuals aged 75 or older are largely economically inactive and therefore the value of interviewing these households is greatly reduced when considering the main aims of the LFS. The wave 1 interviews from 75 and older households will receive a larger weight to make them representative of the UK population. This change results in around a 10% reduction in the household sample size and a 7% reduction in the individual sample size.

From JS10, the treatment of “concealed multi-households” on the LFS has also changed. Previously if one sampled address turned out on inspection to be, for example, not one house but 6 flats, all 6 flats would be recorded as households and interviews would be attempted with each household. The number of households encountered could be in the hundreds. This was not a practical approach. We decided to harmonise the approach to multi-households across all our social surveys. From JS10, if a concealed multi-household is recorded only one household will be randomly selected to be interviewed.

Following a pilot run in JS10, from JM11 onwards a proportion of wave 1 cases (around 15 to 20%) have been interviewed by the Telephone Unit (TU) as opposed to the traditional face-to-face method (FtF). Sampled addresses are matched to telephone numbers in order to do this. Potential concerns associated with this approach are twofold; that response rates will fall as sampled respondents may be more likely to refuse a telephone survey and that mode effects may be observed in the data collected. This situation will be monitored.

Details of fieldwork issues and new, amended and deleted questions can be found in Section 7.

## 2 . Summary of quality

### 2.1 Relevance

The degree to which the statistical product meets user needs for both coverage and content.

#### Primary purpose

The primary purpose of the Labour Force Survey (LFS) is "the prompt publication of key aggregate, whole economy, indicators, for the integrated assessment of labour market conditions" (Review of the Labour Force Survey, ONS, 2002). The “labour market” covers all aspects of people's work, including the education and training needed to equip them for work, the jobs themselves, job-search for those out of work and income from work and benefits.

#### Users and uses

Users of LFS data often combine it with related data from other sources to provide an overall view of the state of the labour market. One of the most important users of this sort of assessment is the Bank of England's Monetary Policy Committee, which sets interest rates in order to meet the government's inflation target.

Other important users of LFS data are HM Treasury and the Department for Work and Pensions, because they are responsible for UK economic and labour market policy. They are interested in a variety of indicators of the state of the labour market, including the number of people in employment, the number of hours worked and the number of unemployed people (defined according to the International Labour Organisation - ILO). They often analyse these series by age groups, by regions and by sex. Other government users include the Department for Business, Energy and Industrial Strategy (BEIS), the Home Office, the Health and Safety Executive, the Scottish government, and the Welsh government.

At the international level, LFS data are used by the European Parliament, Council and Commission, the European Central Bank and DG Employment (Directorate-General for Employment, Social Affairs and Equal Opportunities). It is also used by the Organisation for Economic Co-operation and Development (OECD) and the International Labour Organisation.

Other users include local authorities, the Trades Union Congress (TUC), the Employer's Association, the Confederation of British Industry, the Institute of Employment Studies, the Institute for Public Policy Research, the National Institute of Economic and Social Research, the Policy Studies Institute, the Institute for Fiscal Studies, academic researchers, the media and the general public.

## **Strengths and limitations**

The strengths of the LFS are that it has the largest coverage of any household survey in the UK and can thus generate statistics for small geographical areas. In addition, the sampling errors are relatively small, as a result of the wave structure and the size of the survey. The survey covers a large range of employment-related variables and non-employment-related variables, allowing cross-linking analyses to be undertaken (for example, earnings against educational attainment).

One of the limitations of the LFS is that the sample design provides no guarantee of adequate coverage of any industry, as the survey is not industrially stratified. The LFS coverage also omits communal establishments, except NHS housing, students in halls of residence and at boarding schools. Members of the armed forces are only included if they live in private accommodation. Also, workers under 16 are not covered.

## **Main definitions**

The definitions of the 3 economic activity groups - employed, unemployed and economically inactive - that are used in the LFS are the standard International Labour Organisation (ILO) definitions. It should be noted that although the LFS uses ILO definitions, these definitions are not interpreted and applied in exactly the same way in different countries. For example, although "working age" is a common term, different countries have different statutory school leaving and retirement ages. However, Eurostat collects data from member states and adjusts them to produce comparable estimates.

## **2.2 Summary of quality**

The closeness between an estimated result and the (unknown) true value.

The main threats to accuracy are sources of error, namely sampling error and non-sampling error, where non-sampling error includes: coverage error, non-response error, measurement error, processing error and model assumption error.

Many of the sources of non-sampling error are difficult to measure. However, the LFS publishes detailed response rates for all waves of the survey and an overall response rate, including time-series (Tables 4.1 to 4.6). Response rates are also published by government region for each wave during the particular quarter (Table 4.7). The LFS also publishes proxy response rates (Table 4.8), response rates for income questions by National Statistics (NS) Socio-Economic Classification (Table 4.9) and attrition rates (Table 4.10).

Surveys, such as the LFS, provide estimates of population characteristics rather than exact measures. In principle, many random samples could be drawn and each would give different results, due to the fact that each sample would be made up of different people, who would give different answers to the questions asked. The spread of these results is the sampling variability, which generally reduces with increasing sample size. A confidence interval is a range of values, defined by a lower and upper bound, which indicates the variability of an estimate. Statistical methods are used to calculate the sampling variability from which the confidence interval can be determined. For example, with a 95% confidence interval, it is expected that in 95% of the survey samples, the resulting confidence interval will contain the true value that would be obtained by surveying the whole population.

The LFS routinely publishes details of achieved sample sizes in terms of achieved number of household and person interviews (Tables 3.1, 3.2 and 3.3) and sampling variability for estimates of main variables. Sampling variability (95% confidence intervals) can be found in the 'Sampling variability' section (Table A11) of the [Labour Market Statistics Bulletin](#).

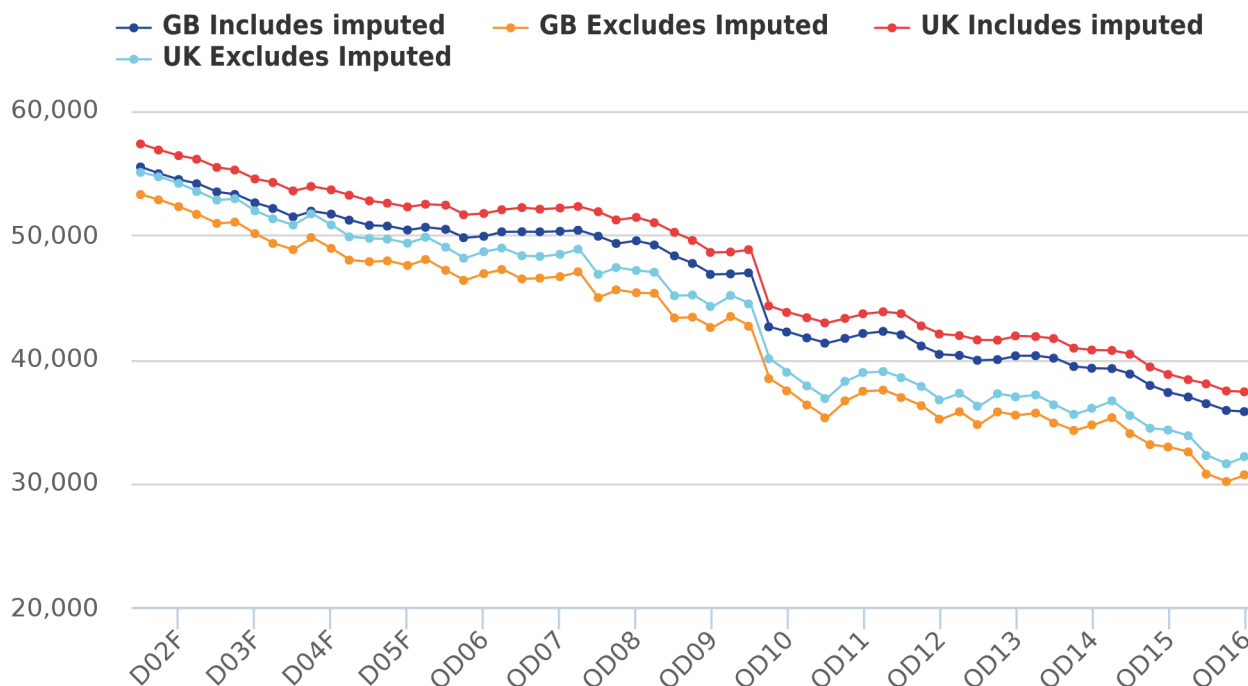
## 3 . Achieved sample

### 3.1 Achieved sample by type of household, OD16

	GB		UK	
	Includes imputed	Excludes imputed	Includes imputed	Excludes imputed
Private households	35,746	30,646	37,342	32,114
Individuals in private households	84,518	70,707	88,406	74,225
NHS Households	0	0	0	0
Individuals in NHS households	0	0	0	0
Total households	35,746	30,646	37,342	32,114
Total individuals	84,518	70,707	88,406	74,225

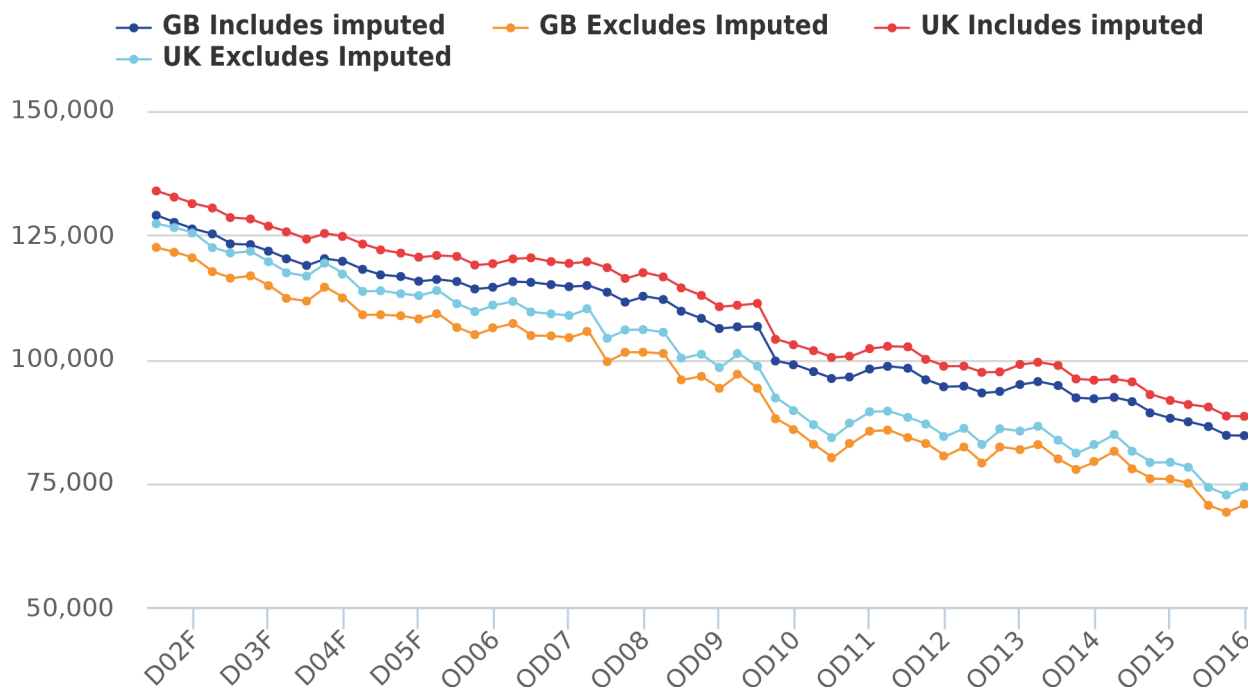
Source: Office for National Statistics

### 3.2 Achieved number of household interviews, GB and UK, JA02 to OD16



Source: Labour Force Survey, Office for National Statistics

### 3.3 Achieved number of person interviews, GB and UK, JA02 to OD16



Source: Labour Force Survey, Office for National Statistics

## 4 . Response rates

### 4.1 Wave specific response rates, GB, excluding imputed households OD16

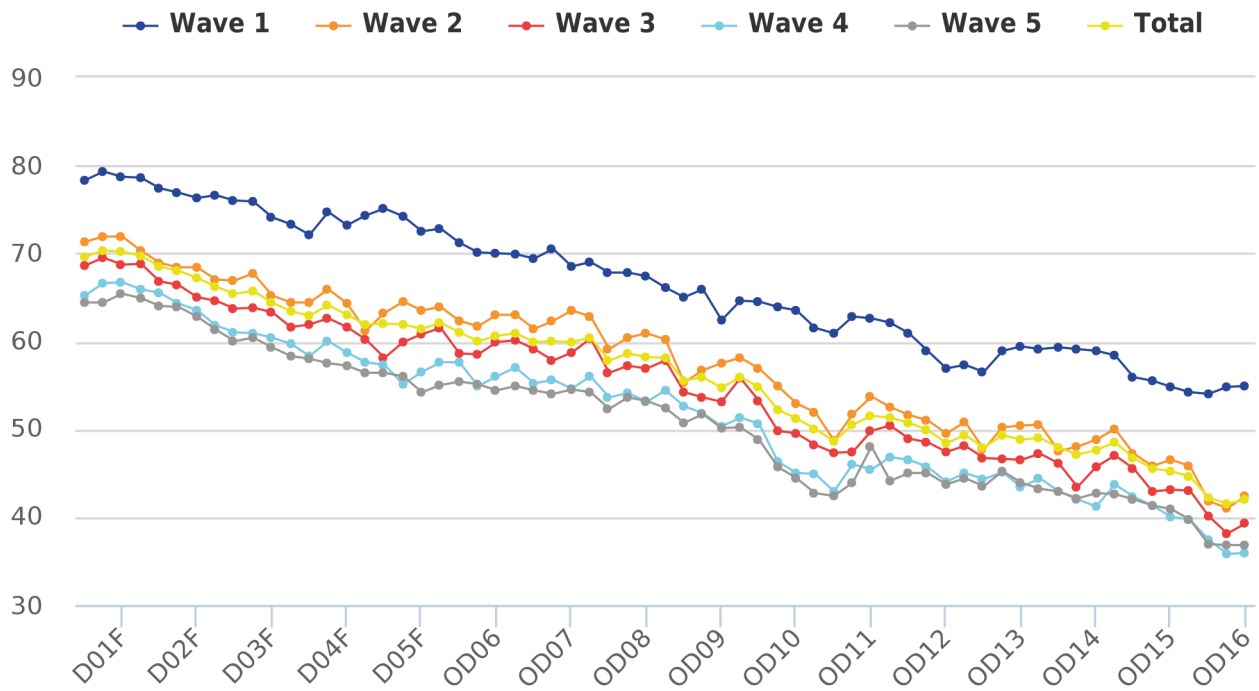
	Wave 1 in OD16		Wave 2 in OD16		Wave 3 in OD16		Wave 4 in OD16		Wave 5 in OD16		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Eligible households found at selected units	15371	100	14414	100	14361	100	14384	100	14403	100	72933	100
Responding units												
Total	8432	54.9	6105	42.4	5643	39.3	5164	35.9	5302	36.8	30646	42.0
Full	8020	52.2	5481	38.0	5068	35.3	4640	32.3	4673	32.4	27882	38.2
Partial	412	2.7	624	4.3	575	4.0	524	3.6	629	4.4	2764	3.8
Non-responding units												
Circumstantial refusal	1710	11.1	1623	11.3	1433	10.0	1243	8.6	917	6.4	6926	9.5
Outright refusal	2570	16.7	3569	24.8	4184	29.1	4619	32.1	4799	33.3	19741	27.1
Refusal to HQ	630	4.1	669	4.6	729	5.1	749	5.2	774	5.4	3551	4.9
Non-contact	2029	13.2	1878	13.0	1557	10.8	1599	11.1	1628	11.3	8691	11.9
Addresses not issued for interviewing												
Refusal to re-interview	n/a	n/a	570	4.0	815	5.7	1010	7.0	983	6.8	3378	4.6
Co-operation rate	63.2		51.0		47.1		43.9		45.0		50.4	
Contact rate	82.7		81.6		83.1		82.4		82.1		82.4	

Source: Office for National Statistics

Notes:

1. Excludes households for which response has been imputed. The total response rate is the aggregate response rate for the quarter across all waves, based on all eligible, in-scope households. For a full definition of response categories and the method used to calculate the response rates, see Technical Definitions pg17.

#### 4.2 Wave specific response rates, GB, excluding imputed households JA01 to OD16



Source: Labour Force Survey, Office for National Statistics



### 4.3 Wave specific response rates, GB, OD16, including imputed households

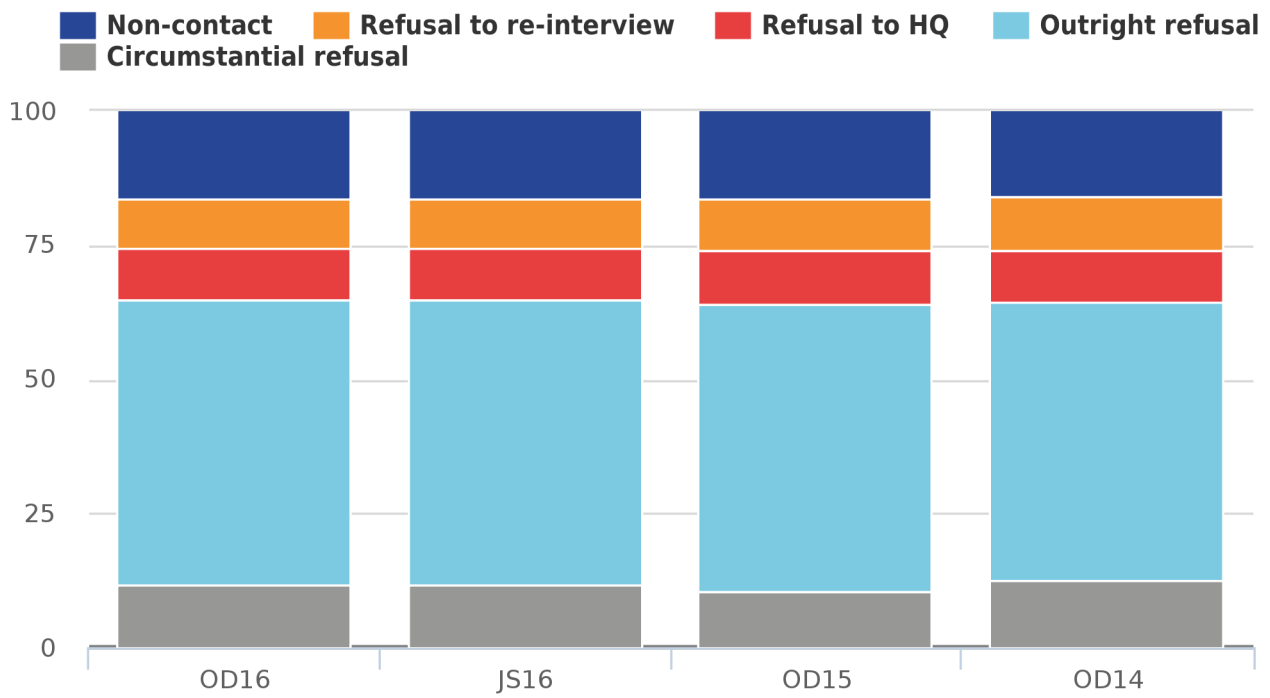
	Wave 1 in OD16		Wave 2 in OD16		Wave 3 in OD16		Wave 4 in OD16		Wave 5 in OD16		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Eligible households found at selected units	15371	100	14414	100	14361	100	14384	100	14403	100	72933	100
Responding units												
Total	8432	54.9	7952	55.2	6874	47.9	6306	43.8	6188	43.0	35752	49.0
Full	8020	52.2	5481	38.0	5068	35.3	4640	32.3	4673	32.4	27882	38.2
Partial	412	2.7	624	4.3	575	4.0	524	3.6	629	4.4	2764	3.8
Imputed	-	-	1847	12.8	1231	8.6	1142	7.9	886	6.2	5106	7.0
Non-responding units												
Circumstantial refusal	1710	11.1	725	5.0	776	5.4	673	4.7	523	3.6	4407	6.0
Outright refusal	2570	16.7	3569	24.8	4184	29.1	4619	32.1	4799	33.3	19741	27.1
Refusal to HQ	630	4.1	669	4.6	729	5.1	749	5.2	774	5.4	3551	4.9
Non-contact	2029	13.2	929	6.4	983	6.8	1027	7.1	1136	7.9	6104	8.4
Addresses not issued for interviewing												
Refusal to re-interview	n/a	n/a	570	4.0	815	5.7	1010	7.0	983	6.8	3378	4.6
Co-operation rate	63.2		61.6		54.7		51.1		50.4		56.3	
Contact rate	82.7		88.5		87.4		86.7		85.8		86.1	

Source: Office for National Statistics

Notes:

1. The total response rate is the cumulative response rate for the quarter across all waves, based on all eligible, in-scope households. For a full definition of response categories and the method used to calculate the response rates, see Technical Definitions pg 17.

#### 4.4 Composition of non-response, Great Britain, including imputed households



Source: Labour Force Survey, Office for National Statistics

#### 4.5 Wave specific response rates, UK, OD16, excluding imputed households

	Wave 1 in OD16		Wave 2 in OD16		Wave 3 in OD16		Wave 4 in OD16		Wave 5 in OD16		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Eligible households found at selected units	16043	100	15006	100	15055	100	15061	100	15098	100	76263	100
Responding units												
Total	8812	54.9	6372	42.5	5942	39.5	5422	36.0	5566	36.9	32114	42.1
Full	8383	52.3	5744	38.3	5356	35.6	4891	32.5	4930	32.7	29304	38.4
Partial	429	2.7	628	4.2	586	3.9	531	3.5	636	4.2	2810	3.7
Non-responding units												
Circumstantial refusal	1710	10.7	1623	10.8	1433	9.5	1243	8.3	917	6.1	6926	9.1
Outright refusal	2719	16.9	3605	24.0	4209	28.0	4644	30.8	4815	31.9	19992	26.2
Refusal to HQ	640	4.0	676	4.5	732	4.9	750	5.0	774	5.1	3572	4.7
Non-contact	2701	16.8	2470	16.5	2251	15.0	2276	15.1	2323	15.4	12021	15.8
Addresses not issued for interviewing												
Refusal to re-interview			837	5.6	1114	7.4	1268	8.4	1247	8.3	4466	5.9
Co-operation rate	63.5		51.9		48.2		45.0		46.1		51.3	
Contact rate	79.9		78.7		79.5		78.9		78.5		79.1	

Source: Office for National Statistics

Notes:

1. Excludes households for which response has been imputed. The total response rate is the aggregate response rate for the quarter, based on all eligible, in-scope households. See Technical Definitions (pg 17) for a full definition of response categories and the method used to calculate the response rates.

#### 4.6 Wave specific response rates, UK, OD16, including imputed households

	Wave 1 in OD16		Wave 2 in OD16		Wave 3 in OD16		Wave 4 in OD16		Wave 5 in OD16		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Eligible households found at selected units	16043	100	15006	100	15055	100	15061	100	15098	100	76263	100
Responding units												
Total	8812	54.9	8250	55.0	7214	47.9	6596	43.8	6476	42.9	37348	49.0
Full	8383	52.3	5744	38.3	5356	35.6	4891	32.5	4930	32.7	29304	38.4
Partial	429	2.7	628	4.2	586	3.9	531	3.5	636	4.2	2810	3.7
Imputed	-	-	1878	12.5	1272	8.4	1174	7.8	910	6.0	5234	6.9
Non-responding units												
Circumstantial refusal	1771	11.0	754	5.0	798	5.3	692	4.6	531	3.5	4546	6.0
Outright refusal	2719	16.9	3605	24.0	4209	28.0	4644	30.8	4815	31.9	19992	26.2
Refusal to HQ	640	4.0	676	4.5	732	4.9	750	5.0	774	5.1	3572	4.7
Non-contact	2101	13.1	998	6.7	1059	7.0	1086	7.2	1201	8.0	6445	8.5
Addresses not issued for interviewing												
Refusal to re-interview			723	4.8	1043	6.9	1293	8.6	1301	8.6	4360	5.7
Co-operation rate	63.2		62.1		55.7		52.0		51.4		57.1	
Contact rate	82.9		88.3		87.2		86.7		85.7		86.1	

Source: Office for National Statistics

Notes:

1. The total response rate is the aggregate response rate for the quarter, based on all eligible, in-scope households. For a full definition of response categories and the method used to calculate the response rates, see Technical Definitions (pg 17).

#### 4.7 Wave specific response rates, OD16, including imputed households, by Region

Region	Wave 1 in OD16	Wave 2 in OD16	Wave 3 in OD16	Wave 4 in OD16	Wave 5 in OD16	Total
Tyne & Wear	54.4	54.4	53.1	44.8	46.5	50.7
Rest of North East	52.8	51.5	48.6	42.9	45.8	48.3
Greater Manchester	56.1	54.6	47.9	44.7	40.1	48.8
Merseyside	55.6	51.2	43.0	45.3	36.5	46.3
Rest of North West	58.7	60.1	48.6	42.4	42.5	50.5
South Yorkshire	59.5	58.3	44.6	47.6	42.6	50.7
West Yorkshire	61.4	64.8	48.1	44.1	48.2	53.3
Rest of Yorkshire and Humberside	61.8	59.6	52.0	47.1	47.0	53.6
East Midlands	59.1	58.7	49.3	43.6	42.1	50.7
West Midlands Metropolitan Council	52.9	54.3	46.3	39.6	42.8	47.2
Rest of West Midlands	56.4	57.1	50.5	42.3	43.1	49.9
East of England	56.8	55.2	48.2	46.7	45.8	50.7
Inner London	42.6	53.2	45.3	41.6	41.0	44.8
Outer London	47.8	52.5	45.6	38.3	38.6	44.6
South East	52.3	53.6	47.9	45.9	42.2	48.4
South West	59.3	54.4	51.1	47.2	46.0	51.7
England	55.1	55.5	48.2	44.1	43.1	49.3
Wales	55.0	53.6	48.6	44.2	43.5	49.1
Strathclyde	56.3	54.6	47.2	40.3	40.8	48.0
Rest of Scotland	50.1	51.0	41.8	41.3	41.6	45.2
Scotland	52.7	52.5	44.1	40.9	41.3	46.4
Northern Ireland	56.5	50.3	49.0	42.8	41.4	47.9

Source: Office for National Statistics

Notes:

1. The total response rate is the aggregate response rate for the quarter, based on all eligible, in-scope households. Each wave reported here is an independent sample; for example, the wave 2 response in OD16 is based on response in that quarter plus the previous quarter (JS16) where it was issued as a wave 1 case.

#### 4.8 Proxy response, GB, OD16

		All responses	Proxy	%
Age	Total (16+)	66472	22499	33.8
	16-17	1993	1753	88.0
	18-19	1780	1327	74.6
	20+	62699	19419	31.0
Sex	Total	66472	22499	33.8
	Male	31987	12303	38.5
	Female	34485	10196	29.6
Ethnicity	Total	66472	22499	33.8
	White	58897	19258	32.7
	Non-white	7514	3210	42.7
	Refused	61	31	50.8
Economic activity (INECAC05)	Total	66472	22499	33.8
	Employees	34603	12283	35.5
	Self-Employed	6366	2154	33.8
	Government schemes	87	36	41.4
	Unpaid family workers	165	44	26.7
	ILO Unemployed	1892	700	37.0
	Inactive	23359	7282	31.2

Source: Office for National Statistics

Notes:

1. For definition of 'unpaid family workers', see Section 7 (pg 13).

#### 4.9 Income Response Rates by NS-SEC, GB, OD16

	Wave 1 in OD16	Wave 5 in OD16	Total
NS-SEC	%	%	%
Higher managerial and professional	87.5	89.3	88.3
Lower managerial and professional	86.6	89.9	87.9
Intermediate occupations	84.3	86.6	85.2
Small employers and own account workers	85.0	90.9	87.1
Lower supervisory and technical	83.6	85.9	84.4
Semi-routine occupations	83.5	85.1	84.2
Routine occupations	82.2	82.6	82.4
Total	85.1	87.4	86.0

Source: Office for National Statistics

Notes:

1. The percentages in Table 4.9 are based on all eligible in-scope respondents at wave 1 and all eligible in-scope respondents at wave 5. The total response rate is the aggregate response rate for income for the quarter (wave 1 and wave 5), based on all eligible, in-scope respondents.





#### 4.10 Summary of attrition by key characteristics, GB, OD16

		Wave 1 in OD15	Wave 5 in OD16		
		Responds	Responds	Responds all waves	Non- responder
Age	<16	21.8	19.8	16.0	23.5
	16-19	4.8	4.0	3.6	5.4
	20-29	11.3	8.0	6.0	14.3
	30-39	13.3	11.6	9.4	14.7
	40-49	14.4	14.0	12.8	14.7
	50-59	14.2	15.0	15.8	13.4
	60-69	13.4	17.9	22.2	9.5
	70+	6.9	9.7	14.2	4.4
Sex	Male	48.7	48.6	48.7	48.7
	Female	51.3	51.4	51.3	51.3
Econ Activity (INECAC05)	Employees	41.2	39.2	36.1	43.0
	Self Emp	7.6	7.5	7.7	7.8
	GovTraining Scheme	0.1	0.1	0.1	0.1
	UPFW(Unpaid Family Workers)	0.2	0.2	0.3	0.1
	ILO Unemp	2.2	1.9	1.7	2.5
	Inactive	26.9	31.3	38.2	22.9
Number of people in household  (TOTNUM)	1	9.0	10.8	13.2	7.4
	2	29.3	34.5	40.7	24.6
	3	20.5	18.5	15.5	22.3
	4	25.1	24.0	22.4	26.0
	5	10.1	8.5	5.5	11.5
	6 or more	6.0	3.7	2.6	8.1
Region (GOVTOR)	Tyne & Wear	2.0	2.0	1.5	2.1
	Rest of North East	2.5	2.7	2.3	2.3
	Greater Manchester	4.5	4.3	4.3	4.8
	Merseyside	2.1	1.8	1.8	2.5
	Rest of North West	4.5	4.9	4.7	4.1
	South Yorkshire	2.0	2.4	1.8	1.8
	West Yorkshire	4.1	4.2	3.5	4.0
	Rest of Yorkshire and Humberside	3.1	3.1	3.3	3.0
	East Midlands	8.1	7.9	8.1	8.2
	West Midlands Metropolitan Council	4.4	3.9	3.3	4.8

Rest of West Midlands	5.2	5.4	6.0	5.1
East of England	10.1	10.5	10.8	9.9
Inner London	4.0	2.9	2.4	5.0
Outer London	7.9	6.5	6.7	9.1
South East	13.7	13.4	14.3	14.0
South West	8.9	10.3	11.5	7.7
Wales	4.9	5.5	5.5	4.4
Strathclyde	3.6	3.5	3.3	3.6
Rest of Scotland	4.2	4.8	4.7	3.7

Source: Office for National Statistics

Notes:

1. The column, Wave 1 in OD15 Responds, shows the percentage of responders in each key characteristics category at wave 1. The column, Wave 5 in OD16 Responds, shows the percentage of responders in each key characteristics category at wave 5. A significant decline in the values between waves 1 and 5 denotes a higher rate of attrition than where values are consistent between waves 1 and 5 or higher at wave 5.

## 5 . Timeliness and punctuality

Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the time lag between the actual and planned dates of publication.

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**To ONS Labour Market Division (LMD)**

Scheduled delivery date for file:	23 January 2017
Achieved delivery date for file:	23 January 2017
Time lag between achieved delivery date and the end of the reference period:	22 days

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**Data file for other users**

Scheduled availability date for regional public and government normal release user files:	15 February 2017
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Recipients

Bank of England

Department for Business, Energy and Industrial Strategy

Department for Communities and Local Government

Department for Education and Skills

Department for Enterprise, Trade and Investment (Northern Ireland) Department for Media, Culture and Sport

Department for Transport Department for Work and Pensions

Department of Finance and Personnel (Northern Ireland)

Economic and Social Research Council and Data Archive Health and Safety Executive

HM Treasury Home Office

Low Pay Commission

Office for Standards in Education

Scottish government and Scottish Executive Small Business Service

Welsh government

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## 6 . Accessibility and clarity

Accessibility is the ease with which users are able to access the data, also reflecting the format(s) in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.

The [UK Data Archive](#) at Essex University provides free access to the various LFS datasets.

A highly disaggregated [dataset](#), which covers a wealth of data for local areas, is available free from NOMIS.

The Social Surveys Team provide LFS data [for a fee](#), and can be contacted by phone (+44 (0)1633 455678) or email: [socialsurveys@ons.gsi.gov.uk](mailto:socialsurveys@ons.gsi.gov.uk)

[Labour market data](#), including data from the LFS, are published every month through statistical bulletins. These include text, tables and charts. Data contained within the bulletins are available to download, free of charge, from the ONS website.

For questions relating to labour market statistics, please contact:  
[labour.market@ons.gsi.gov.uk](mailto:labour.market@ons.gsi.gov.uk)

For general queries about the LFS, please contact:  
[lfs@ons.gsi.gov.uk](mailto:lfs@ons.gsi.gov.uk)

## 7 . Comparability

The degree to which data can be compared over time and domain.

### Background

The Labour Force Survey (LFS) began in 1973 and was carried out every 2 years until 1983. Between 1984 and 1991, data were collected annually and the survey has been running in its present form, with quarterly sampling, since spring 1992. It is carried out under European Union regulations, which specify the way in which the survey should be conducted, the quality of the results that member states supply to Eurostat and the timetable for supplying results. Although the LFS began as a survey designed to meet international obligations, its primary purpose is now (as stated in section 1, Relevance), "the prompt publication of key aggregate, whole economy, indicators, for the integrated assessment of labour market conditions" (Review of the Labour Force Survey, ONS, 2002).

### Definitions

The definitions of the 3 economic activity groups – employed, unemployed and economically inactive – which are used in the LFS are the standard International Labour Organisation (ILO) definitions.

Economically active – those aged 16 or over, who are either employed or unemployed in the survey reference week.

Employed – those aged 16 or over, who are regarded as in employment if they did at least one hour of work in the reference week (as an employee, self-employed, unpaid workers in a family business or participants in government-supported training schemes) and those who had a job that they were temporarily away from (for example, if they are on holiday).

Unemployed – those aged 16 or over, who are without work, want a job, have actively sought work in the last 4 weeks and are available to start work in the next 2 weeks; or are out of work but have found a job and are waiting to start it within the next 2 weeks.

Economically inactive – those who are neither in employment nor unemployed. This group includes, for example, all those who are looking after a home or family, have a long-term illness or disability which prevents them working or are retired.

Unpaid family workers – those who are doing unpaid work in a family business.

## Questionnaire changes

New questions for July to September 2016 (JS16): Social mobility question added: SMERESE. Veteran question added: VETCURR. Agency worker question added: AGPYWRK. Follow up questions added: YOTH, YSOTH, FUNDOTH.

Amended questions for April to June 2016 (AJ16): Amendments have been made to the wording of the introduction in the Social mobility section, to make it easier for proxy interviews. Amendments have been made to the Religion questions, as they are now only asked to wave 1 or first contact interviews.

Deleted questions for AJ16: NOLOTH removed.

## Fieldwork issues

No field work issues for this period.

## Methodology

See Section 1 for full details of methodological changes; in January and March 2011 (JM11) a change was implemented to move some wave 1 interviews into the telephone unit, rather than being face-to-face interviews as would normally be the case.

## 8 . Coherence

The degree to which data that are derived from different sources or methods, but which refer to the same phenomenon, are similar.

### Data sources

The LFS is one of a number of sources of data about the labour market. Some sources provide data that overlap with LFS data on employment, unemployment and earnings. The Office for National Statistics (ONS) has published guidance about the strengths and limitations of each source in relation to these topics and has indicated which source is the most appropriate for different purposes. Details can be found in the [Labour Market Guide](#).

### Employment, unemployment and economic inactivity

The LFS is the source recommended by ONS for certain employment-related statistics (for example, estimates of the number of people in employment or unemployed). The LFS is also a unique source of comprehensive, coherent information about economic inactivity, where it provides information separately about people who want a job and those who do not.

## Number and industrial composition of jobs

The workforce jobs (WFJ) series provides estimates of the number of jobs in the UK economy and is the source recommended by ONS for both the number of jobs and the industrial composition of jobs. Workforce jobs consist of the sum of employee jobs, self-employment jobs, jobs in the armed forces and government-supported trainees. Civilian workforce jobs are available by geographical region, sex and broad industry. Total workforce jobs are available by sex and broad industry.

## Earnings

For estimates of change in earnings (for example, pay growth in the economy), a non-LFS source, the Average Weekly Earnings (AWE) (formerly the Average Earnings Index (AEI)) is the most suitable source. It provides industry and whole-economy information, but excludes small employers, the self-employed and government-supported trainees. Pay, commission, bonuses, overtime and pay award arrears are included, but redundancy payments and benefits in kind are excluded. The Annual Survey of Hours and Earnings (ASHE) includes information about the levels, distribution and make-up of earnings and hours worked for employees in different occupations, industries, ages and regions. It should be used when the information required is not available from the AWE (such as for occupational groups, or regional analyses), and is the preferred source of the earnings of full-time employees, and of the average hourly earnings of all employees. The LFS should be used when the information is not available from the AWE or from ASHE, and is the preferred source of data about the earnings of part-time and low-paid employees. There is an ONS guide to [sources of data on earnings and income](#).

## Summary of methods

The LFS covers private households, including persons who are temporarily absent. The resident population comprises persons who regard the sample address as their main address, and also those who have lived in the dwelling for more than 6 consecutive months, even if they do not regard this as their principal dwelling. Persons absent for more than 6 months are not regarded as members of the resident population. A private household comprises one or more persons whose main residence is the same dwelling and/or who share at least one meal per day. Students living in halls of residence and pupils at boarding school are sampled via the private households of their parents. In Great Britain, an additional sample is drawn from persons living in National Health Service accommodation.

The year is divided into quarters of 13 weeks. Prior to January 2006, these were seasonal quarters: winter (December to February), spring (March to May), summer (June to August) and autumn (September to November). From January 2006, the LFS has been conducted on the basis of calendar quarters: Quarter 1 - January to March, Quarter 2 - April to June, Quarter 3 - July to September and Quarter 4 - October to December.

For most of Great Britain, the survey base is the Royal Mail's PAF (Postcode Address File), a database of all addresses receiving mail. The list is limited to addresses receiving fewer than 25 items of post per day, so as to exclude businesses. Because of the very low population density in the far north of Scotland (north of the Caledonian Canal), telephone directories are used as sampling frames, and interviews are carried out by telephone because face-to-face interviews would be too expensive. In Northern Ireland POINTER, which is the government's central register of domestic properties, is used.

In Great Britain, a systematic sample is drawn each quarter from the 3 sampling bases, yielding 16,640 PAF addresses, 75 telephone numbers for the north of Scotland and 36 units of National Health Service housing. As the PAF is broken down geographically, the systematic sampling ensures that the sample is representative at regional level. In Northern Ireland, a simple random sample is drawn, each quarter, from each of 3 strata, giving 650 addresses in all.

A rotation system comprising 5 waves is used. Respondents are interviewed 5 times at 13-week intervals and one-fifth of the sample is replaced each quarter. Interviews are carried out on a face-to-face (CAPI) or telephone (CATI) basis with the help of portable computers for the interviews in the first wave. In the far north of Scotland (north of the Caledonian Canal) and for interviews in the second to fifth waves, wherever possible, interviews are carried out by telephone.

## Technical definitions

### Imputation

If a household (or someone within a household) is unavailable for interview, but was interviewed in the previous wave, responses from the previous wave are rolled forward. This is referred to as “imputation”. Imputation is carried out to minimise non-response bias in estimates, while simultaneously improving precision by boosting the sample size. The rationale is that most LFS variables do not change from one quarter to another for most people. Responses are rolled forward for one wave only. Data are not rolled forward after a second consecutive non-response. Tables and charts (at person or household level) containing responses that have been rolled forward from the previous wave are denoted by the term “including imputed”. Tables and charts which do not contain responses that have been rolled forward from the previous wave are denoted by the term “excluding imputed”.

### Method of calculating sampling variability

The sampling variability is the spread of results that would be obtained if different samples were drawn. A confidence interval is a range of values, defined by a lower and upper bound, which indicates the variability of an estimate. Statistical methods are used to calculate the sampling variability from which the confidence interval can be determined. For example, with a 95% confidence interval, it is expected that in 95% of the survey samples, the resulting confidence interval will contain the true value that would be obtained by surveying the whole population.

### Method of calculating response rates

The response rate indicates how many interviews were achieved as a proportion of those eligible for the survey. The formula used is as follows:

$$RR = (FR + PR)/(FR + PR + OR + CR + RHQ + NC + RRI^*)$$

where RR = response rate, FR = full response, PR = partial response, OR = outright refusal, CR = circumstantial refusal, RHQ = refusal to HQ, NC = non contact, RRI = refusal to re-interview, \*applies to waves 2 to 5 only.



## Definitions of response outcome categories

A full response denotes a household in which each household member has answered all applicable questions.

A partial response denotes a household in which questions were not completed because someone refused to be interviewed, refused part way through the questionnaire or refused to let someone else answer on his or her behalf. However, at least one question block must have been completed. If only part information has been collected for a one-person household, it is coded as a refusal or non-contact.

An outright refusal is a household that refuses to respond to the survey and the interviewer feels that there is no chance of an interview at the current or in any future wave.

A circumstantial refusal is a household where the respondent refuses to respond because of a temporary circumstance (for example, going on holiday, too busy during the field period). A circumstantial refusal enables an interviewer to call back at the next wave.

A refusal to HQ is a household that contacts headquarters to refuse to participate in the survey in response to the advance letter.

A non-contact arises when an address is occupied, but where it has not been possible to contact any member of the household in the field period.

A refusal to re-interview is a household that takes part in the survey (at one or more of waves 1 to 4) but which, when asked to take part in the next wave (waves 2 to 5), refuses.

## Method of calculating income response rates

The income question is asked at wave 1 and wave 5 only. Individuals aged 16 to 69 who are in employment in the reference week, form the sub-set of respondents who are eligible for these questions. The percentage response rates for the income questions are based on all eligible, in-scope respondents at wave 1 and all eligible, in-scope respondents at wave 5. The total response rate is the aggregate response rate for income for the quarter (wave 1 and wave 5), based on all eligible, in-scope respondents.

## NS-SEC

NS-SEC is the National Statistics Socio-Economic Classification, which replaces previous classifications which were based on social class and social and economic group.

## Proxy response

The LFS has to complete fieldwork to a tight timetable and interview as many of the sampled households as possible, which leaves limited time for recalls. LFS interviewers try to interview every adult (aged 16 and over) in each sampled household. However, when a household member is unavailable for interview, interviewers accept information by proxy from another responsible adult in the household. The proxy respondents are normally people living with a partner on behalf of their partner, and parents on behalf of their adult offspring who live with them.

## Attrition

Attrition is the term applied to respondents who begin the survey but subsequently drop out. It has been known for some time that these respondents tend to have different characteristics to those who remain in all waves of the survey, which can, therefore, result in attrition bias. For example, if respondents in a particular age band have a higher tendency to drop out (attrition rate) than respondents in other age bands, then they will be under-represented in subsequent waves of the survey and in estimates.

## Website references

[Labour Force Survey User Guides](#)

[Labour Market Statistics Statistical Bulletin](#)

[Labour Force Survey QMI \(Quality and Methodology Information\)](#)

[Methodology for the Calculation of Sampling Variability in the Labour Force Survey](#)

[NOMIS](#)

[Summary Quality Report for Labour Market Data Releases](#)

[UK Data Archive, University of Essex](#)