

# Performance and Quality Monitoring Report

October to December 2011

Labour  
Force  
Survey

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# Executive Summary

## October to December 2011

**Note:** Due to the move from processing the LFS on a seasonal quarter basis to processing on a calendar quarter basis from January 2006, all time series data have a break in series which corresponds to this change.

### Summary of achieved sample size

The achieved sample size for the UK LFS during October to December 2011 (OD11) was **102,056** individuals in **43,632** households. Compared with the previous quarter (JS11), this represents an increase of 1.51 per cent in achieved person interviews and a 0.86 per cent increase in household interviews. **Note:** The achieved sample size fell dramatically in JS10, this can be explained by methodological changes to the LFS. From JS10, households that only contain respondents aged 75 and older are removed from the sample after their wave one interview. See the 'Questionnaire Changes' section below for more details.

### Summary of response rates

**Note:** Recent methodological changes in JM11 and JS10 have impacted response rates. From JM11 a proportion of initial interviews will be conducted by the telephone unit rather than face to face, this was an efficiency measure. Telephone interviews generally have higher levels of non-response. The removal of 75 and older respondents after their initial interview from JS10 also impacts response as these respondents generally have high response rates. See the 'Questionnaire Changes' section below for more details.

In OD11, the total response rate for GB excluding imputed cases was **51.5** per cent. This is up 1.0 percentage points on the previous quarter, and up by 0.3 percentage points on OD10.

The total response rate in OD11 for GB including imputed cases was **57.9** per cent. This compares with 57.7 per cent in JS11 and 57.7 per cent a year ago.

The response rate varied across each wave of the survey, ranging from **62.6** per cent for wave 1 cases to 45.0 per cent for wave 5 (excluding imputed cases). Comparative response rates for the previous quarter are 62.6 per cent and 43.9 per cent respectively and for the same period 12 months ago, 63.5 per cent and 44.4 per cent.

In terms of the composition of non-response (Fig. 2.8), outright refusals account for a high percentage at 54.6 per cent, 0.6 percentage points higher than last quarter. Refusals made directly to HQ were down on last quarter, 11.1 per cent from 12.1 per cent, and were down by 5.9 percentage points on the same period 12 months ago (17.0 per cent). Non-contacts increased by 0.4 percentage points from 15.6 per cent in JS11 to 16.0 per cent in OD11. Refusal to re-interview for the same period a year ago was higher at 11.7 per cent, compared to 11.1 per cent in OD11. Circumstantial refusals, at 7.1 per cent, decreased by 0.3 percentage points compared to 7.5 per cent last quarter, and were 0.8 percentage points higher than the same time a year ago.

The wave 1 response rate for the UK was **62.6** per cent, this is down by 0.2 percentage points on the previous quarter, and down by 0.9 percentage points on the previous year.

Regional response rate patterns (Fig. 2.11) indicate that the highest accumulated response rate across the five waves is 67.2 per cent in West Yorkshire. The highest wave one response rate was achieved in West Yorkshire (73.5 per cent), followed by South Yorkshire (67.8 per cent). The lowest wave 1 response rates were in Inner London, at 50.3 per cent, followed by South East at 59.7 per cent, and the lowest wave 5 response rates were for Inner London, at 42.6 per cent, followed by Outer London (43.0 per cent).

## Executive Summary (Continued)

The overall proxy response rate is 33.2 per cent. Proxy response rates by the key characteristics: age, sex, ethnicity and economic activity - reveal that the highest rates are for the 16-17 age band at 85.8 per cent, the 18-19 age band at 71.4 per cent, for respondents on government training schemes (49.5 per cent) and for non-white respondents (41.3 per cent). The lowest proxy response rates are for unpaid family workers (20 per cent), females (27.9 per cent), respondents aged 20 and over (30.3 per cent), and economically inactive respondents (31.4 per cent).

The average income response rate for JS11 was 86.6 per cent. Generally, there is only a small difference in the rates of the NS-SEC groups. The total level of response to the income questions has decreased slightly over the past 12 months (response in JS10 was 87.1 per cent).

The data on attrition rates reveal that those who drop out of the survey between waves 1 and 5, tend to be distributed fairly evenly by key characteristics, but are over-represented in the 16 - 19 and 20 - 29 age bands, in households with 4 or more people, in those on government schemes or unemployed and amongst those living in Inner and Outer London.

### Delivery dates of data

The client data file for the quarter for the United Kingdom was delivered on time (see Section 3 for further details).

### Questionnaire Changes

As of April 2010 the state pension age for women will change in a stepwise fashion, going up by one month every two months, until 65 is reached in April 2020. The LFS will change its definition of 'pension age' from April 2010 to be all those aged 65 and over irrespective of gender.

From JS10, households that only contain respondents aged 75 and older are removed from the sample after their wave one 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 one interviews from 75 plus 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 six flats, all six 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. ONS decided to harmonise the approach to multi-households across all ONS 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 15-20%) will be 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 for 2010 can be found in Section 5 (page 15).

## SUMMARY OF QUALITY

### 1 RELEVANCE

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

#### **Primary Purpose**

The primary purpose of the 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 (section 6 provides more information about the reconciliation of LFS data with data from other sources). 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 key 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 gender. Other Government users include the Department for Business, Innovation and Skills (BIS) (formerly the Department for Innovation, Universities & Skills (DIUS) and the Department for Business, Enterprise and Regulatory Reform (BERR)), the Home Office, the Health & Safety Executive, the Scottish Government, and the Welsh Government.

At the international level, LFS data is 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 (ILO).

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 (e.g. 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.

## Relevance

### **Key Definitions**

The definitions of the three economic activity groups - employed, unemployed and economically inactive - which 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 ACCURACY

*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 2.5 - 2.10). Response rates are also published by Government Office Region (GOR) for each wave during the particular quarter (Table 2.11). The LFS also publishes proxy response rates (Table 2.12), response rates for income questions by National Statistics (NS) socio-economic classification (Table 2.13) and attrition rates (Table 2.14).

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 per cent confidence interval, it is expected that in 95 per cent 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 2.1, 2.2 & 2.3) and sampling variability for estimates of key variables, where it is expected that in 95 per cent of samples the range would contain the true value (Table 2.4). In Table 2.4, the sampling variability gives the range above and below the estimate at a 95 per cent confidence level.

## Accuracy

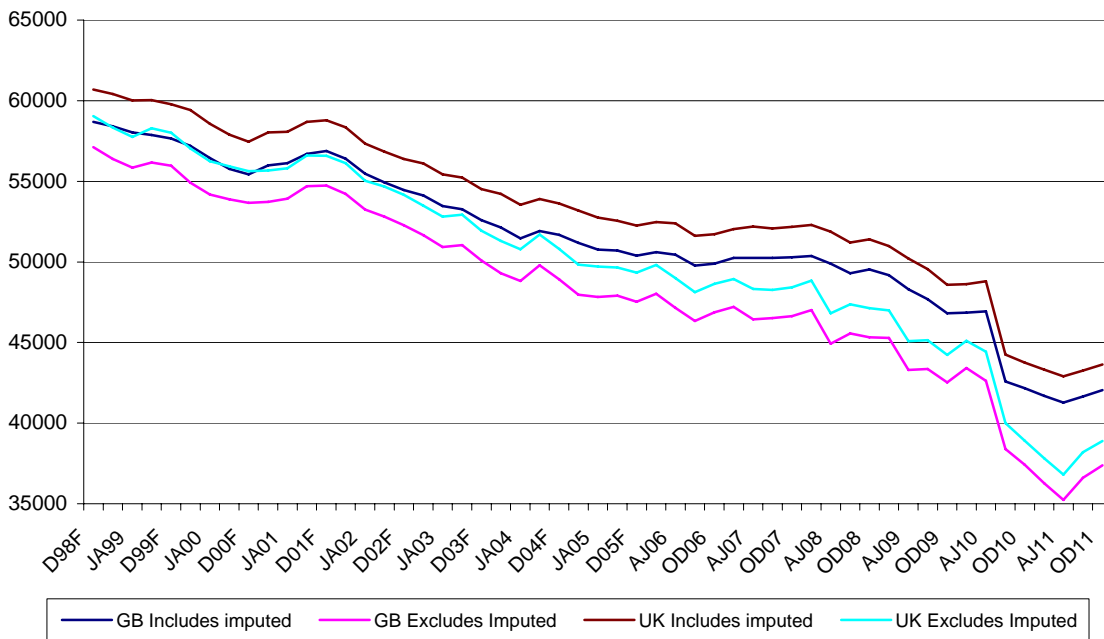
### 2.1 LFS QUARTERLY SURVEY

Achieved sample by type of household, OD11

	GB		UK	
	Includes imputed	Excludes imputed	Includes imputed	Excludes imputed
Private households	42,044	37,381	43,632	38,897
Individuals in private households	97,947	85,413	102,056	89,325
NHS Households	3	3	3	3
Individuals in NHS households	3	3	3	3

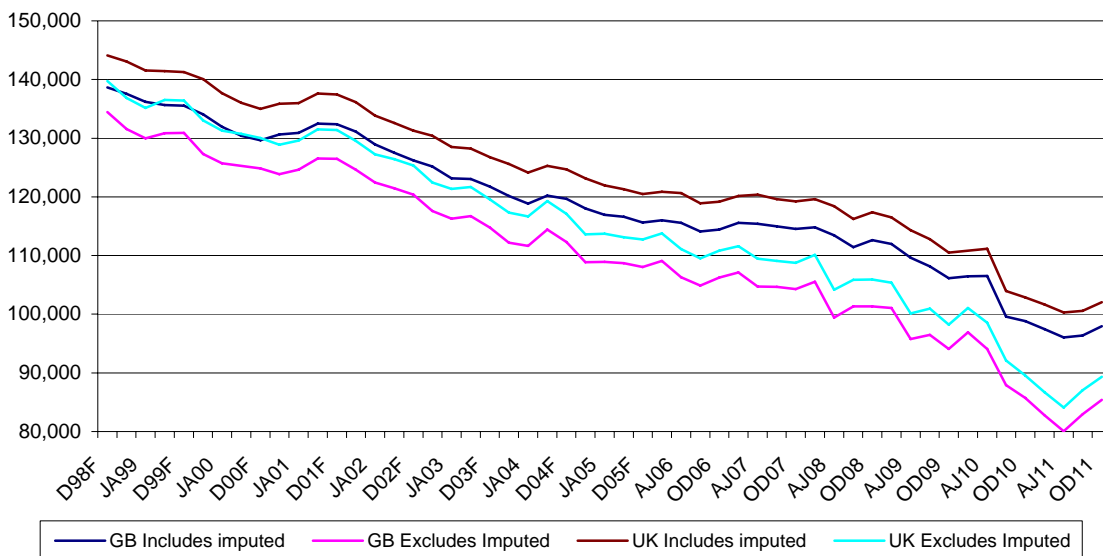
### 2.2 LFS QUARTERLY SURVEY

Achieved number of household interviews, GB and UK, D98F to OD11



### 2.3 LFS QUARTERLY SURVEY

Achieved number of person interviews, GB and UK, D98F to OD11





## Accuracy

### 2.4 LFS QUARTERLY SURVEY Sampling Variability, UK, OD11

Variable	Estimate	Sampling variability +/-	Change on estimate last quarter	Sampling var. last qtr +/-	Change on estimate last year	Sampling var. last year +/-
Employment (000s)	29,172	158	12	158	-125	152
Employment rate	70.5%	0.4	0.1%	0.4	-0.5%	0.4
Average weekly hours worked (16+)	31.2	0.2	-0.5	0.2	0.1	0.2
Unemployment (000s)	2,718	86	245	81	184	80
Unemployment rate	8.5%	0.3	0.7%	0.3	0.6%	0.2
Economically Active (000s)	31,890	145	258	147	59	140
Economic activity rate	77.2%	0.3	0.7%	0.3	-0.1%	0.3
Economically Inactive (000s)	9,159	136	-270	138	85	131
Economic Inactivity rate	22.8%	0.3	-0.7%	0.3	0.1%	0.3
Inactive, not wanting a job (000s)	6,887	121	-236	125	215	116
Inactive, wanting a job (000s)	2,272	77	-34	77	-129	76
Redundancies (000s)	147	19	-7	20	2	20

Note: Estimates in Table 2.4 are not seasonally adjusted. The sampling variability estimates published in the quarterly PQM are direct estimates, whereas the sampling variability estimates published in the monthly Labour Market Statistics Statistical Bulletin are based on monthly approximations. This may result in small differences when comparing similar periods.

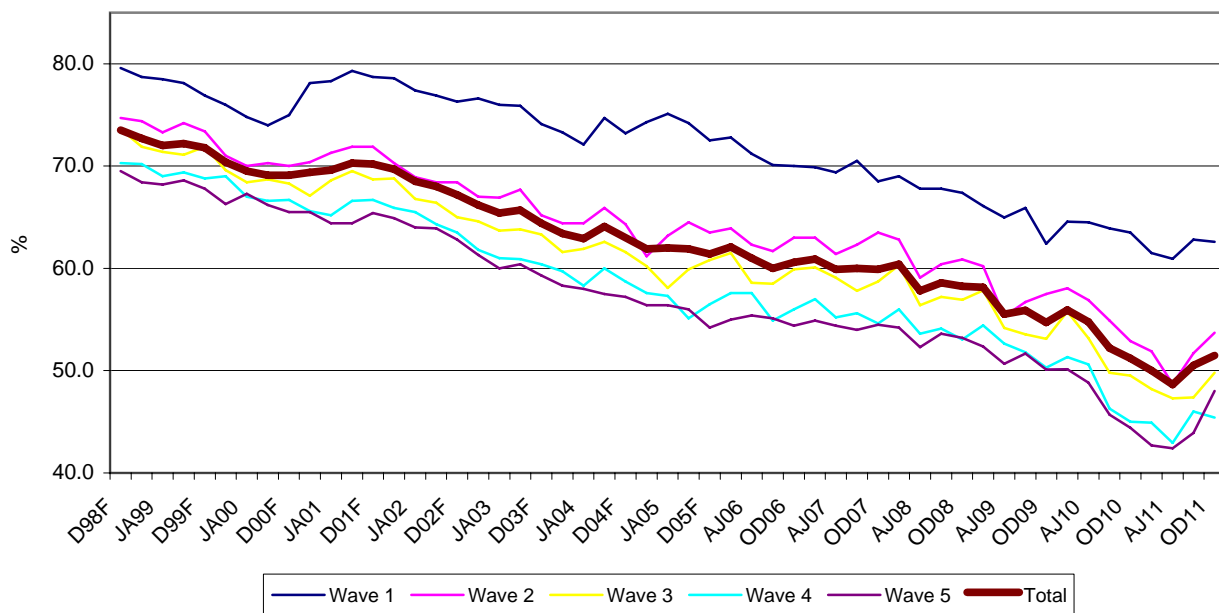
## Accuracy

### 2.5 LFS QUARTERLY SURVEY Wave specific response rates, Great Britain, excluding imputed households OD11

	Wave 1 in OD11		Wave 2 in OD11		Wave 3 in OD11		Wave 4 in OD11		Wave 5 in OD11		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Eligible households found at selected units</b>	15,355	100.0	14,318	100.0	14,370	100.0	14,420	100.0	14,169	100.0	72,632	100.0
<b>Responding units</b>												
Total	9,617	62.6	7,690	53.7	7,153	49.8	6,552	45.4	6,372	45.0	37,384	51.5
Full	8,969	58.4	6,927	48.4	6,430	44.7	5,836	40.5	5,747	40.6	33,909	46.7
Partial	648	4.2	763	5.3	723	5.0	716	5.0	625	4.4	3,475	4.8
<b>Non-responding units</b>												
Circumstantial refusal	1,318	8.6	1,114	7.8	841	5.9	707	4.9	575	4.1	4,555	6.3
Outright refusal	2,123	13.8	2,897	20.2	3,549	24.7	4,124	28.6	4,011	28.3	16,704	23.0
Refusal to HQ	523	3.4	584	4.1	663	4.6	729	5.1	902	6.4	3,401	4.7
Non-contact	1,774	11.6	1,445	10.1	1,433	10.0	1,355	9.4	1,186	8.4	7,193	9.9
<b>Addresses not issued for interviewing</b>												
Refusal to re-interview	n/a	n/a	588	4.1	731	5.1	953	6.6	1,123	7.9	3,395	4.7
Co-operation rate		70.8		62.6		58.6		54.1		53.7		60.3
Contact rate		85.0		85.2		84.6		84.5		84.0		84.7

Note: 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.

### 2.6 LFS QUARTERLY SURVEY Wave specific response rates, GB, excluding imputed households, D98F to OD11



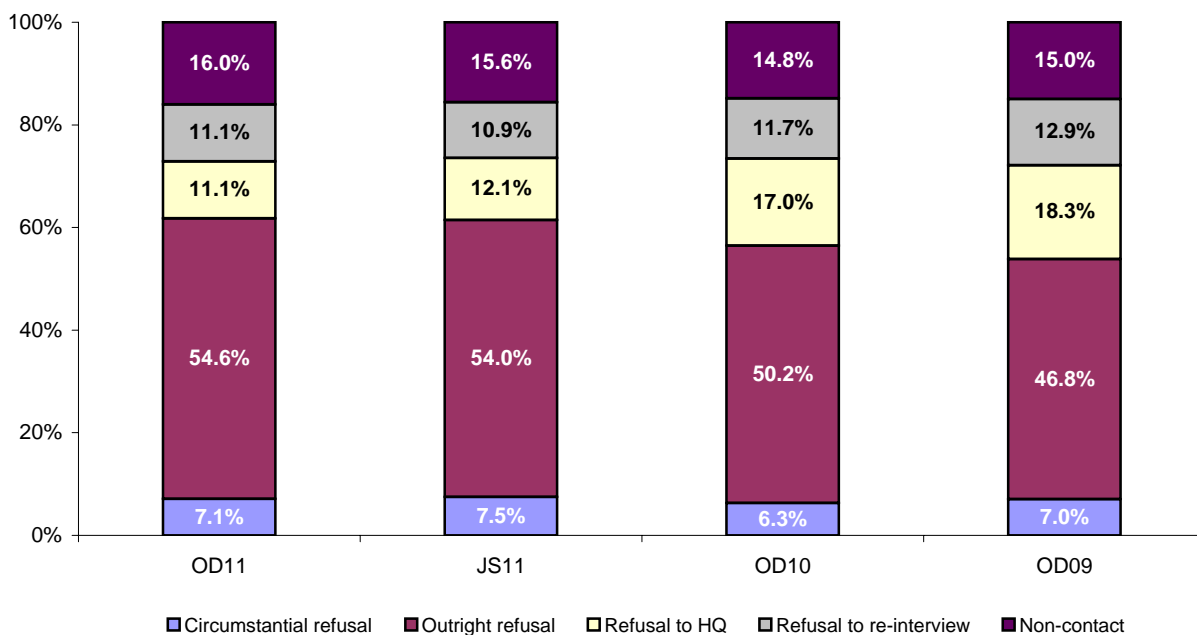
## Accuracy

### 2.7 LFS QUARTERLY SURVEY Wave specific response rates Great Britain, OD11, including imputed households

	Wave 1 in OD11		Wave 2 in OD11		Wave 3 in OD11		Wave 4 in OD11		Wave 5 in OD11		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Eligible households found at selected units</b>	15,355	100.0	14,318	100.0	14,370	100.0	14,420	100.0	14,169	100.0	72,632	100.0
<b>Responding units</b>												
Total	9,617	62.6	9,218	64.4	8,378	58.3	7,597	52.7	7,237	51.1	42,047	57.9
Full	8,969	58.4	6,927	48.4	6,430	44.7	5,836	40.5	5,747	40.6	33,909	46.7
Partial	648	4.2	763	5.3	723	5.0	716	5.0	625	4.4	3,475	4.8
Imputed	-	-	1,528	10.7	1,225	8.5	1,045	7.2	865	6.1	4,663	6.4
<b>Non-responding units</b>												
Circumstantial refusal	1,318	8.6	315	2.2	210	1.5	181	1.3	160	1.1	2,184	3.0
Outright refusal	2,123	13.8	2,897	20.2	3,549	24.7	4,124	28.6	4,011	28.3	16,704	23.0
Refusal to HQ	523	3.4	584	4.1	663	4.6	729	5.1	902	6.4	3,401	4.7
Non-contact	1,774	11.6	716	5.0	839	5.8	836	5.8	736	5.2	4,901	6.7
<b>Addresses not issued for interviewing</b>												
Refusal to re-interview			588	4.1	731	5.1	953	6.6	1,123	7.9	3,395	4.7
Co-operation rate		70.8		64.6		59.3		53.7		53.1		60.3
Contact rate		85.0		88.6		87.2		86.6		85.8		86.4

Note: 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.

### 2.8 LFS QUARTERLY SURVEY Composition of non-response, Great Britain, OD11, including imputed households



Note: For definitions of the types of non-response, see Technical Definitions. Figures are based on the aggregate response for the quarter covering all waves.

## Accuracy

### 2.9 LFS QUARTERLY SURVEY Wave specific response rates, UK, OD11, excluding imputed households

	Wave 1 in OD11		Wave 2 in OD11		Wave 3 in OD11		Wave 4 in OD11		Wave 5 in OD11		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Eligible households found at selected units</b>	15,909	100.0	14,624	100.0	14,641	100.0	14,679	100.0	14,433	100.0	74,286	100.0
<b>Responding units</b>												
Total	9,960	62.6	7,996	54.7	7,424	50.7	6,811	46.4	6,636	46.0	38,827	52.3
Full	9,298	58.4	7,223	49.4	6,692	45.7	6,090	41.5	6,006	41.6	35,309	47.5
Partial	662	4.2	773	5.3	732	5.0	721	4.9	630	4.4	3,518	4.7
<b>Non-responding units</b>												
Circumstantial refusal	1,347	8.5	1,125	7.7	846	5.8	714	4.9	579	4.0	4,611	6.2
Outright refusal	2,208	13.9	2,927	20.0	3,562	24.3	4,132	28.1	4,014	27.8	16,843	22.7
Refusal to HQ	529	3.3	586	4.0	664	4.5	732	5.0	902	6.2	3,413	4.6
Non-contact	1,865	11.7	1,486	10.2	1,657	11.3	1,613	11.0	1,457	10.1	8,078	10.9
<b>Addresses not issued for interviewing</b>												
Refusal to re-interview			750	5.1	789	5.4	974	6.6	1,138	7.9	3,651	4.9
Co-operation rate		70.9		63.3		59.4		55.0		54.7		61.0
Contact rate		85.0		85.3		83.6		83.3		82.6		84.0

Note: 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 for a full definition of response categories and the method used to calculate the response rates.

### 2.10 LFS QUARTERLY SURVEY Wave specific response rates, UK, OD11, including imputed households

	Wave 1 in OD11		Wave 2 in OD11		Wave 3 in OD11		Wave 4 in OD11		Wave 5 in OD11		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Eligible households found at selected units</b>	15,909	100.0	14,870	100.0	14,942	100.0	14,976	100.0	14,726	100.0	75,423	100.0
<b>Responding units</b>												
Total	9,960	62.6	9,542	64.2	8,665	58.0	7,873	52.6	7,518	51.1	43,558	57.8
Full	9,298	58.4	7,223	48.6	6,692	44.8	6,090	40.7	6,006	40.8	35,309	46.8
Partial	662	4.2	773	5.2	732	4.9	721	4.8	630	4.3	3,518	4.7
Imputed	-	-	1,546	10.4	1,241	8.3	1,062	7.1	882	6.0	4,731	6.3
<b>Non-responding units</b>												
Circumstantial refusal	1,347	8.5	325	2.2	213	1.4	185	1.2	162	1.1	2,232	3.0
Outright refusal	2,208	13.9	2,927	19.7	3,562	23.8	4,132	27.6	4,014	27.3	16,843	22.3
Refusal to HQ	529	3.3	586	3.9	664	4.4	732	4.9	902	6.1	3,413	4.5
Non-contact	1,865	11.7	740	5.0	1,049	7.0	1,080	7.2	992	6.7	5,726	7.6
<b>Addresses not issued for interviewing</b>												
Refusal to re-interview			750	5.1	789	5.4	974	6.6	1,138	7.9	3,651	4.9
Co-operation rate		70.9		71.3		66.1		60.9		59.7		66.0
Contact rate		85.0		90.6		87.9		87.1		86.1		87.3

Note: 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.

## Accuracy

### 2.11 LFS QUARTERLY SURVEY Wave specific response rates, OD11, including imputed households, by GOR

	Wave 1 in OD11	Wave 2 in OD11	Wave 3 in OD11	Wave 4 in OD11	Wave 5 in OD11	Total
<b>Government Office Region (GOR)</b>						
Tyne & Wear	65.6	66.8	60.0	58.9	61.8	62.6
Rest of North East	63.6	65.9	64.7	52.5	56.7	60.8
Greater Manchester	60.3	64.3	56.3	48.7	47.4	55.4
Merseyside	61.6	64.9	54.1	51.1	52.6	57.0
Rest of North West	64.5	63.0	61.7	54.0	52.8	59.3
South Yorkshire	67.8	70.1	61.5	53.6	55.3	61.7
West Yorkshire	73.5	72.9	66.9	61.0	60.8	67.2
Rest of Yorkshire and Humberside	65.1	73.1	62.1	55.5	59.1	63.0
East Midlands	67.3	65.5	59.4	49.9	53.6	59.2
West Midlands Metropolitan Council	60.8	61.4	58.0	49.9	49.2	56.0
Rest of West Midlands	65.3	67.6	59.7	55.9	54.2	60.6
East of England	64.6	65.7	58.1	55.5	52.1	59.3
Inner London	50.3	55.4	53.0	49.5	42.6	50.2
Outer London	60.4	57.4	51.2	47.5	43.0	52.0
South East	59.7	63.0	55.7	52.2	49.8	56.1
South West	62.2	64.4	59.9	56.3	52.5	59.1
<b>England</b>	<b>62.7</b>	<b>64.1</b>	<b>58.1</b>	<b>52.9</b>	<b>51.4</b>	<b>57.9</b>
<b>Wales</b>	<b>64.2</b>	<b>68.0</b>	<b>60.1</b>	<b>54.6</b>	<b>51.3</b>	<b>59.7</b>
Strathclyde	61.2	64.6	61.0	49.3	46.1	56.5
Rest of Scotland	62.2	65.0	58.4	50.5	49.7	57.3
<b>Scotland</b>	<b>61.8</b>	<b>64.8</b>	<b>59.5</b>	<b>50.0</b>	<b>48.2</b>	<b>57.0</b>
<b>Northern Ireland</b>	<b>61.9</b>	<b>58.7</b>	<b>50.2</b>	<b>49.6</b>	<b>50.4</b>	<b>54.1</b>

Note: 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 OD08 is based on response in that quarter plus the previous quarter (JS08) where it was issued as a wave 1 case.

## Accuracy

### 2.12 LFS QUARTERLY SURVEY Proxy response, OD11, GB

		All responses	Proxy	%
<b>Age</b>	Total (16+)	76,940	25,633	33.3
	16-17	2,386	2,048	85.8
	18-19	2,217	1,578	71.2
	20+	72,337	22,007	30.4
<b>Sex</b>	Total	76,940	25,633	33.3
	Male	36,751	14,288	38.9
	Female	40,189	11,345	28.2
<b>Ethnicity</b>	Total	76,940	25,633	33.3
	White	69,359	22,476	32.4
	Non-white	7,531	3,137	41.7
	Refused	50	20	40.0
<b>Economic activity (INECAC05)</b>	Total	76,940	25,633	33.3
	Employees	38,908	13,202	33.9
	Self-Employed	6,501	2,313	35.6
	Government schemes	131	65	49.6
	Unpaid family workers	170	35	20.6
	ILO Unemployed	3,858	1,368	35.5
	Inactive	27,372	8,650	31.6

Note: For definition of 'unpaid family workers', see Section 5.

### 2.13 LFS QUARTERLY SURVEY Income Response Rates by NS-SEC, GB, OD11

	Wave 1 in OD11	Wave 5 in OD11	Total
<b>NS-SEC</b>	%	%	%
Higher managerial and professional	87.0	86.5	86.8
Lower managerial and professional	86.6	89.1	87.7
Intermediate occupations	86.7	87.8	87.2
Small employers and own account workers	72.7	100.0	88.0
Lower supervisory and technical	86.8	85.3	86.0
Semi-routine occupations	84.3	86.1	85.0
Routine occupations	86.6	84.6	85.8
<b>Total</b>	<b>86.3</b>	<b>87.1</b>	<b>86.6</b>

Note: The percentages in Table 2.13 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.

## Accuracy

### 2.14 LFS QUARTERLY SURVEY Summary of attrition by key characteristics, OD11, GB

Column percentages

		Wave 1 in AJ09	Wave 5 in AJ10	Responds all waves	Non-responder
		Responds	Responds		
<b>Age</b>	<16	21.0	19.8	17.1	22.2
	16-19	5.4	4.2	3.7	6.6
	20-29	12.0	8.3	5.9	16.0
	30-39	13.1	11.7	8.8	14.5
	40-49	15.3	15.3	14.1	15.4
	50-59	13.9	14.8	15.5	12.9
	60-69	13.1	17.2	22.6	8.9
	70+	6.1	8.6	12.2	3.6
<b>Sex</b>	Male	49.3	49.3	49.4	49.3
	Female	50.7	50.7	50.6	50.7
<b>Econ Activity (INECAC05)</b>	Employees	39.1	38.7	34.9	39.4
	Self Emp	6.4	6.8	6.5	6.1
	Gov Sch.	0.2	0.2	0.1	0.2
	UPFW	0.1	0.1	0.1	0.1
	ILO Unemp	3.6	3.0	2.8	4.2
	Inactive	26.7	30.6	38.6	22.6
	<16	23.9	20.6	17.1	27.4
<b>Number of people in household (TOTNUM)</b>	1	8.7	10.4	12.0	6.9
	2	30.1	34.9	39.5	25.1
	3	21.4	19.7	17.4	23.2
	4	24.1	22.2	19.9	26.0
	5	9.6	8.0	6.8	11.2
	6 or more	6.1	4.7	4.3	7.6
<b>Region (GOVTOR)</b>	Tyne & Wear	2.4	2.4	2.1	2.4
	Rest of North East	2.8	2.7	2.9	2.8
	Greater Manchester	4.2	4.1	3.6	4.4
	Merseyside	2.3	2.1	2.0	2.5
	Rest of North West	5.5	5.5	5.2	5.6
	South Yorkshire	2.7	2.8	3.0	2.5
	West Yorkshire	4.0	4.3	4.0	3.7
	Rest of Yorkshire and Humberside	3.1	3.3	3.4	2.8
	East Midlands	7.6	8.2	8.5	6.9
	West Midlands Metropolitan Council	3.8	4.0	4.1	3.7
	Rest of West Midlands	5.0	5.5	5.5	4.5
	East of England	9.7	9.9	10.7	9.4
	Inner London	4.1	3.0	2.8	5.2
	Outer London	7.5	5.7	5.4	9.5
	South East	12.7	13.5	14.0	11.9
	South West	8.1	8.9	9.6	7.2
Wales	5.1	5.2	4.4	5.0	
Strathclyde	4.1	3.4	3.3	4.9	
Rest of Scotland	5.3	5.6	5.5	5.0	

Note: The column, Wave 1 in XXXX Responds, shows the percentage of responders in each key characteristics category at wave 1. The column, Wave 5 in XXXX 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.

### 3 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.*

#### 3 Delivery dates of data

##### 3.1 To ONS Household and Labour Market Division (HLMD)

Scheduled delivery date for file: January 23, 2012

Achieved delivery date for file: January 20, 2012

Time lag between delivery date and the end of the reference period: 19 days

##### 3.2 Data file for other users

Scheduled availability date for Regional Public & Government normal release user files: February 15, 2012

*Recipients*

Economic and Social Research Council / Data Archive

Department for Business Innovation and Skills

Department for Enterprise, Trade and Investment (Northern Ireland)

Health and Safety Executive

Home Office

Department for Work and Pensions

Bank of England

Her Majesty's Treasury

Scottish Government \ Scottish Executive

Low Pay Commission

Welsh Government



## 4 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 and can be contacted via the website: <http://www.data-archive.ac.uk>

A highly disaggregated dataset, which covers a wealth of data for local areas, is available free from NOMIS: <http://www.nomisweb.co.uk>

The Social Surveys Team provide LFS data for a fee, and can be contacted by phone (01633 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 (formerly First Releases). These include text, tables and charts. Data contained within the Bulletins are available to download, free of charge, from the National Statistics website. Paper copies are available through subscription from the ONS Press Office, by phone (01633 455957) or email: [press.office@ons.gsi.gov.uk](mailto:press.office@ons.gsi.gov.uk). All the main series contained within the releases are available from the website: <http://www.statistics.gov.uk/hub/labour-market/index.html>

The Labour Market helpline can be contacted by phone (01633 456901) or email: [labour.market@ons.gov.uk](mailto:labour.market@ons.gov.uk)

## 5 COMPARABILITY

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

### **Background**

The 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 three 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 four weeks and are available to start work in the next two weeks; or are out of work but have found a job and are waiting to start it within the next two 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.

## Comparability

### Questionnaire Changes

**New questions for OD11:** The question HOLSB was introduced for OD11. The question seeks to identify holiday entitlement including public holidays for those who did not know their holiday entitlement excluding public holidays at HOLS.

**Amended questions for OD11:** A minor revision was made to the wording of the first response option at the question TECLEC4. The amendment was necessary following updates to the titles of the government schemes which were being referenced (the variable name has remained the same).

A minor amendment was made to response option 31 at the questions SCQUAL, UNIQUAL, WOQUAL, GSQUAL and OTQUAL. Rather than reading 'Any other professional/work related qualification', the option now reads 'Any other qualification' (each of the variable names have remained the same).

The variable BNKH11 replaced the existing variable BNKHOL. The change was necessary following the inclusion of the recent 'Royal Wedding' as a new response option.

**Deleted questions for OD11:** No questions have been removed for OD11.

### Fieldwork Issues

Heavy snow in December 2010 and January 2011 caused numerous issues for both field and telephone interviewers. This is likely to have impacted response rates to some degree. An analysis of the impact of this disruption will be carried out.

### Methodology

See page iii for full details of methodological changes; in JM11 a change was implemented to move some wave one interviews in to the telephone unit, rather than being face to face interviews as would normally be the case.

## 6 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 which overlap with LFS data on employment, unemployment and earnings. 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, which can be accessed from the website:

<http://www.statistics.gov.uk/hub/labour-market/index.html>

### **Strengths and Limitations of the LFS**

The strengths of the LFS are that it has the largest coverage of any UK household survey 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 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 (e.g. 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, excepting NHS housing and students in halls of residence. Members of the armed forces are only included if they live in private accommodation. Also, workers under 16 are not covered.

### **Employment, Unemployment and Economic Inactivity**

The LFS is the source recommended by ONS for certain employment-related statistics (e.g. 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, gender and broad industry. Total workforce jobs are available by gender and broad industry.

### **Earnings**

For estimates of change in earnings (e.g. pay growth in the economy), 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 AEI (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 AEI or from ASHE and is the preferred source of data about the earnings of part-time and low-paid employees.

## 7 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 six consecutive months, even if they do not regard this as their principal dwelling. Persons absent for more than six 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: Q1 - January to March, Q2 - April to June, Q3 - July to September and Q4 - 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, the Rating and Valuation Lists (which serve for the administration of land taxes) are used.

In Great Britain, a systematic sample is drawn each quarter from the three 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 three strata, giving 650 addresses in all.

A rotation system comprising five waves is used. Respondents are interviewed five times at 13-week intervals and one-fifth of the sample is replaced each quarter. Interviews are carried out on a face-to-face basis with the help of portable computers (CAPI) 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 (CATI).

## 8 TECHNICAL DEFINITIONS

### Imputation

If 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 which have been rolled forward from the previous wave are denoted by the term 'including imputed'. Tables and charts which do not contain responses which 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 which 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 per cent confidence interval, it is expected that in 95 per cent of the survey samples, the resulting confidence interval will contain the true value that would be obtained by surveying the whole population. The statistical methodology used to calculate the sampling variability published in this report can be found at the website below:

<http://nswebcopy/about/data/methodology/default.asp>

### 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 which 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 (e.g. 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 which 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 which takes part in the survey (at one or more of waves one to four) but which, when asked to take part in the next wave (waves two to five), refuses.

## Technical Definitions

### **Method of Calculating Income Response Rates**

The income question is asked at wave 1 and wave 5 only. Individuals aged 16-69 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+) 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	<a href="http://www.ons.gov.uk/ons/guide-method/user-guidance/labour-market-statistics/index.html">http://www.ons.gov.uk/ons/guide-method/user-guidance/labour-market-statistics/index.html</a>
Labour Market Statistics Statistical Bulletin	<a href="http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-21589">http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-21589</a>
Labour Force Survey Summary Quality Report	<a href="http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/social-statistics/index.html">http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/social-statistics/index.html</a>
Methodology for the Calculation of Sampling Variability in the Labour Force Survey	<a href="http://nswebcopy/about/methodology_by_theme/downloads/LFS_SamplingVariability.pdf">http://nswebcopy/about/methodology_by_theme/downloads/LFS_SamplingVariability.pdf</a>
NOMIS	<a href="http://www.nomisweb.co.uk">www.nomisweb.co.uk</a>
Summary Quality Report for Labour Market Data Releases	<a href="http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/business-statistics/index.html">http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/business-statistics/index.html</a>
UK Data Archive, University of Essex	<a href="http://www.data-archive.ac.uk">http://www.data-archive.ac.uk</a>