



**Performance and Quality  
Monitoring Report**  
July to September 2011

**Labour  
Force  
Survey**

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# Executive Summary

## July to September 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 July to September 2011 (JS11) was **100,543** individuals in **43,264** households. Compared with the previous quarter (AJ11), this represents an increase of 0.26 per cent in achieved person interviews and a 0.85 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 JS11, the total response rate for GB excluding imputed cases was **50.5** per cent. This is up 1.9 percentage points on the previous quarter, and down by 1.7 percentage points on JS10.

The total response rate in JS11 for GB including imputed cases was **57.7** per cent. This compares with 56.9 per cent in AJ11 and 57.9 per cent a year ago.

The response rate varied across each wave of the survey, ranging from **62.8** per cent for wave 1 cases to **43.9** per cent for wave 5 (excluding imputed cases). Comparative response rates for the previous quarter are 60.9 per cent and 42.4 per cent respectively and for the same period 12 months ago, 63.9 per cent and 45.7 per cent.

In terms of the composition of non-response (Fig. 2.8), outright refusals account for a high percentage at 54 per cent, 1.8 percentage points higher than last quarter. Refusals made directly to HQ were down on last quarter, 12.1 per cent from 13.3 per cent, and were down by 6 percentage points on the same period 12 months ago (18.1 per cent). Non-contacts decreased by 0.4 percentage points from 16 per cent in AJ11 to 15.6 per cent in JS11. Refusal to re-interview for the same period a year ago was higher at 12.5 per cent, compared to 10.9 per cent in JS11. Circumstantial refusals, at 7.5 per cent, decreased by 0.1 percentage points compared to 7.6 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 **62.8** per cent, this is up by 2 percentage points on the previous quarter, and down by 1.1 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 65.8 per cent in West Yorkshire. The highest wave one response rate was achieved in South Yorkshire (75.7 per cent), followed by West Yorkshire (70.6 per cent). The lowest wave 1 response rates were in Inner London, at 50.7 per cent, followed by Outer London at 58.8 per cent, and the lowest wave 5 response rates were for Inner London, at 40.6 per cent, followed by Outer London (43.6 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

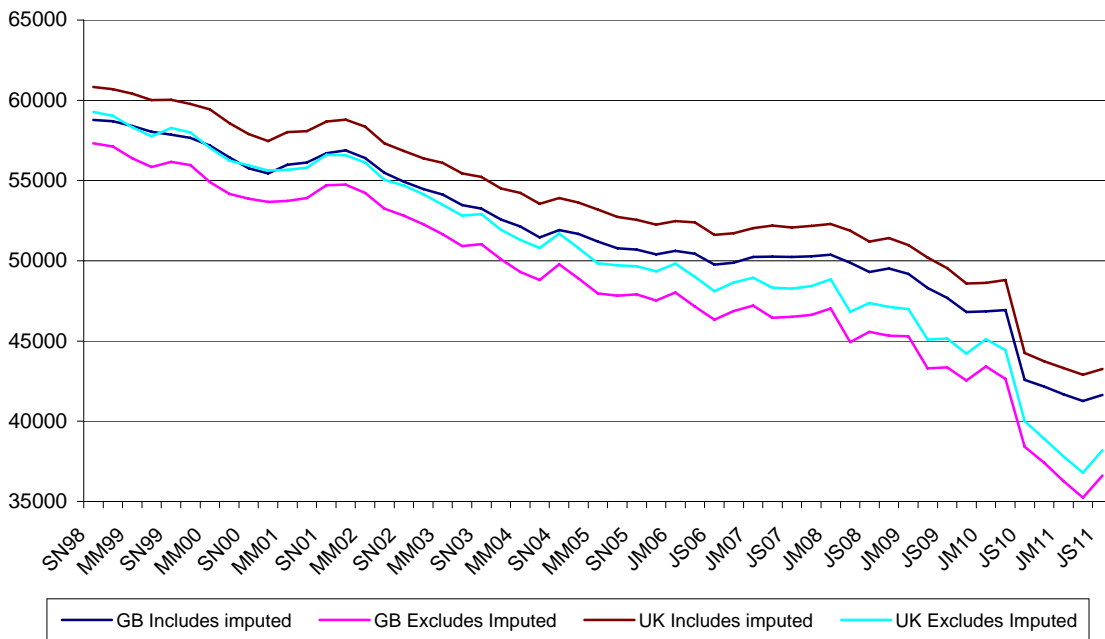
### 2.1 LFS QUARTERLY SURVEY

Achieved sample by type of household, JS11

	GB		UK	
	Includes imputed	Excludes imputed	Includes imputed	Excludes imputed
Private households	41,649	36,614	43,261	38,187
Individuals in private households	96,340	82,938	100,540	87,047
NHS Households	3	1	3	1
Individuals in NHS households	3	1	3	1

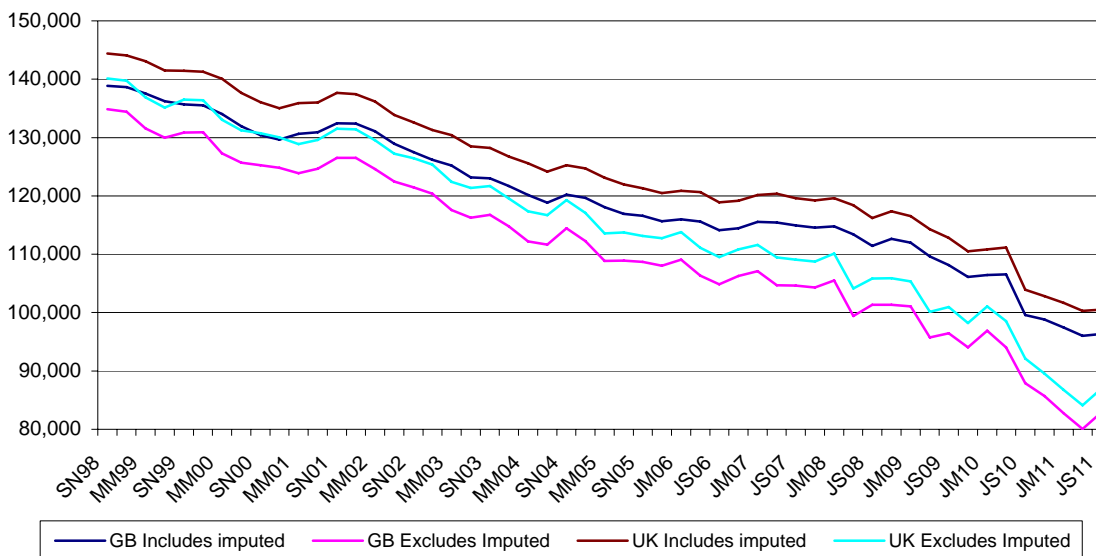
### 2.2 LFS QUARTERLY SURVEY

Achieved number of household interviews, GB and UK, SN98 to JS11



### 2.3 LFS QUARTERLY SURVEY

Achieved number of person interviews, GB and UK, SN98 to JS11



## Accuracy

### 2.4 LFS QUARTERLY SURVEY Sampling Variability, UK, JS11

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.

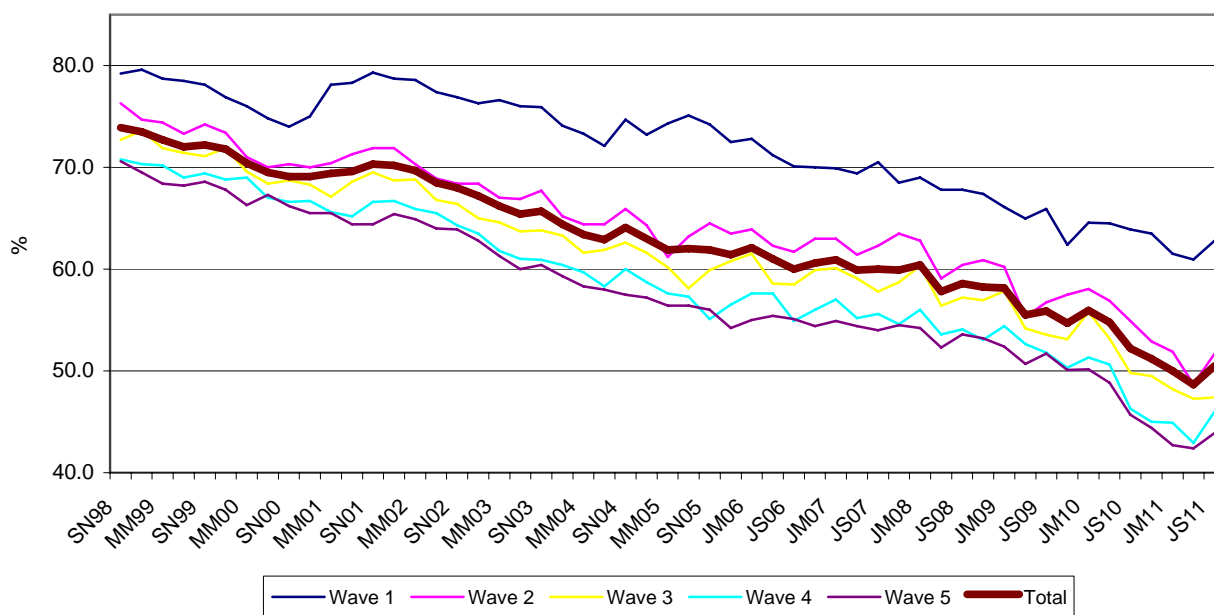
## Accuracy

### 2.5 LFS QUARTERLY SURVEY Wave specific response rates, Great Britain, excluding imputed households JS11

	Wave 1 in JS11		Wave 2 in JS11		Wave 3 in JS11		Wave 4 in JS11		Wave 5 in JS11		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Eligible households found at selected units</b>	15,378	100.0	14,330	100.0	14,293	100.0	14,144	100.0	14,295	100.0	72,440	100.0
<b>Responding units</b>												
Total	9,651	62.8	7,407	51.7	6,779	47.4	6,507	46.0	6,273	43.9	36,617	50.5
Full	8,993	58.5	6,674	46.6	6,081	42.5	5,903	41.7	5,588	39.1	33,239	45.9
Partial	658	4.3	733	5.1	698	4.9	604	4.3	685	4.8	3,378	4.7
<b>Non-responding units</b>												
Circumstantial refusal	1,442	9.4	1,130	7.9	935	6.5	759	5.4	621	4.3	4,887	6.7
Outright refusal	1,903	12.4	2,981	20.8	3,743	26.2	3,762	26.6	4,235	29.6	16,624	22.9
Refusal to HQ	504	3.3	644	4.5	718	5.0	900	6.4	945	6.6	3,711	5.1
Non-contact	1,878	12.2	1,658	11.6	1,338	9.4	1,234	8.7	1,143	8.0	7,251	10.0
<b>Addresses not issued for interviewing</b>												
Refusal to re-interview	n/a	n/a	510	3.6	780	5.5	982	6.9	1,078	7.5	3,350	4.6
Co-operation rate		71.5		60.9		55.7		54.6		52.0		59.2
Contact rate		84.5		83.3		84.8		83.8		84.2		84.1

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, SN98 to JS11



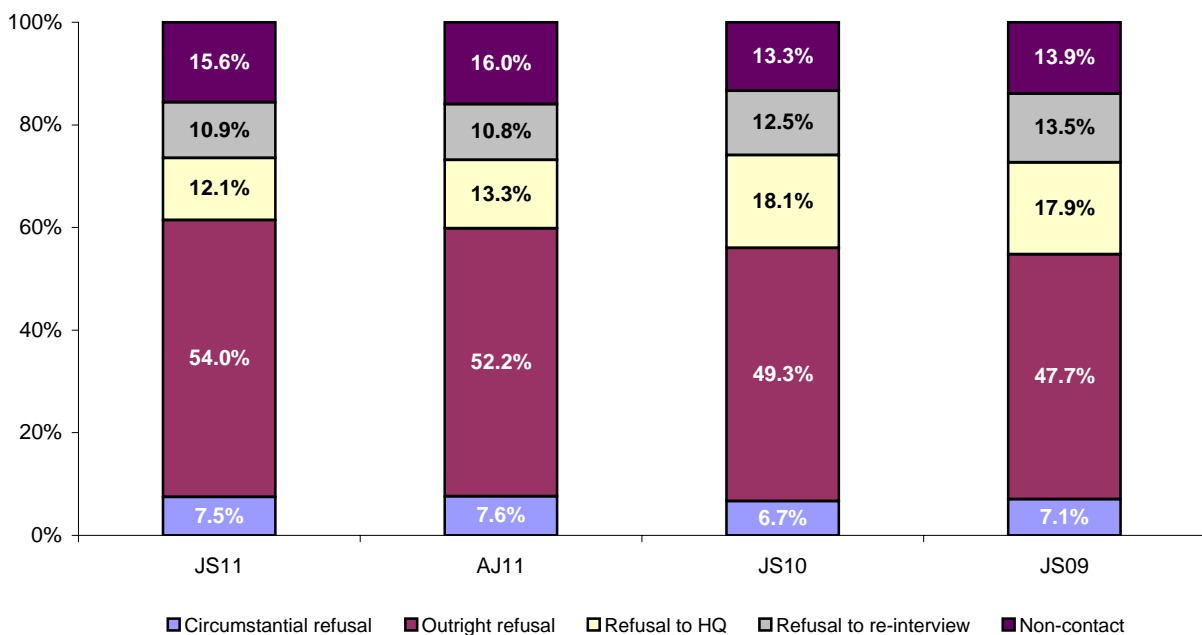
## Accuracy

### 2.7 LFS QUARTERLY SURVEY Wave specific response rates Great Britain, JS11, including imputed households

	Wave 1 in JS11		Wave 2 in JS11		Wave 3 in JS11		Wave 4 in JS11		Wave 5 in JS11		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Eligible households found at selected units</b>	15,378	100.0	14,330	100.0	14,293	100.0	14,144	100.0	14,295	100.0	72,440	100.0
<b>Responding units</b>												
Total	9,651	62.8	9,102	63.5	8,057	56.4	7,655	54.1	7,189	50.3	41,654	57.5
Full	8,993	58.5	6,674	46.6	6,081	42.5	5,903	41.7	5,588	39.1	33,239	45.9
Partial	658	4.3	733	5.1	698	4.9	604	4.3	685	4.8	3,378	4.7
Imputed	-	-	1,695	11.8	1,278	8.9	1,148	8.1	916	6.4	5,037	7.0
<b>Non-responding units</b>												
Circumstantial refusal	1,442	9.4	305	2.1	232	1.6	169	1.2	153	1.1	2,301	3.2
Outright refusal	1,903	12.4	2,981	20.8	3,743	26.2	3,762	26.6	4,235	29.6	16,624	22.9
Refusal to HQ	504	3.3	644	4.5	718	5.0	900	6.4	945	6.6	3,711	5.1
Non-contact	1,878	12.2	788	5.5	763	5.3	676	4.8	695	4.9	4,800	6.6
<b>Addresses not issued for interviewing</b>												
Refusal to re-interview			510	3.6	780	5.5	982	6.9	1,078	7.5	3,350	4.6
Co-operation rate		71.5		62.9		56.4		55.0		51.2		59.5
Contact rate		84.5		87.4		87.2		86.2		85.9		86.0

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, JS11, 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, JS11, excluding imputed households

	Wave 1 in JS11		Wave 2 in JS11		Wave 3 in JS11		Wave 4 in JS11		Wave 5 in JS11		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Eligible households found at selected units</b>	15,930	100.0	14,619	100.0	14,575	100.0	14,428	100.0	14,561	100.0	74,113	100.0
<b>Responding units</b>												
Total	10,000	62.8	7,696	52.6	7,061	48.4	6,791	47.1	6,539	44.9	38,087	51.4
Full	9,331	58.6	6,953	47.6	6,359	43.6	6,183	42.9	5,847	40.2	34,673	46.8
Partial	669	4.2	743	5.1	702	4.8	608	4.2	692	4.8	3,414	4.6
<b>Non-responding units</b>												
Circumstantial refusal	1,466	9.2	1,137	7.8	942	6.5	760	5.3	623	4.3	4,928	6.6
Outright refusal	1,987	12.5	3,001	20.5	3,751	25.7	3,771	26.1	4,238	29.1	16,748	22.6
Refusal to HQ	510	3.2	653	4.5	720	4.9	901	6.2	947	6.5	3,731	5.0
Non-contact	1,967	12.3	1,751	12.0	1,558	10.7	1,474	10.2	1,425	9.8	8,175	11.0
<b>Addresses not issued for interviewing</b>												
Refusal to re-interview			664	4.5	817	5.6	1,004	7.0	1,098	7.5	3,583	4.8
Co-operation rate		71.6		61.6		56.6		55.6		53.0		60.0
Contact rate		84.5		83.1		83.8		82.7		82.8		83.4

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, JS11, including imputed households

	Wave 1 in JS11		Wave 2 in JS11		Wave 3 in JS11		Wave 4 in JS11		Wave 5 in JS11		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Eligible households found at selected units</b>	15,930	100.0	14,902	100.0	14,849	100.0	14,701	100.0	14,870	100.0	75,252	100.0
<b>Responding units</b>												
Total	10,000	62.8	9,404	63.1	8,352	56.2	7,943	54.0	7,462	50.2	43,161	57.4
Full	9,331	58.6	6,953	46.7	6,359	42.8	6,183	42.1	5,847	39.3	34,673	46.1
Partial	669	4.2	743	5.0	702	4.7	608	4.1	692	4.7	3,414	4.5
Imputed	-	-	1,708	11.5	1,291	8.7	1,152	7.8	923	6.2	5,074	6.7
<b>Non-responding units</b>												
Circumstantial refusal	1,466	9.2	312	2.1	239	1.6	170	1.2	155	1.0	2,342	3.1
Outright refusal	1,987	12.5	3,001	20.1	3,751	25.3	3,771	25.7	4,238	28.5	16,748	22.3
Refusal to HQ	510	3.2	653	4.4	720	4.8	901	6.1	947	6.4	3,731	5.0
Non-contact	1,967	12.3	868	5.8	970	6.5	912	6.2	970	6.5	5,687	7.6
<b>Addresses not issued for interviewing</b>												
Refusal to re-interview			664	4.5	817	5.6	1,004	7.0	1,098	7.5	3,583	4.8
Co-operation rate		71.6		70.3		63.9		62.1		58.3		65.4
Contact rate		84.5		89.3		88.0		86.8		86.1		86.9

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, JS11, including imputed households, by GOR

	Wave 1 in JS11	Wave 2 in JS11	Wave 3 in JS11	Wave 4 in JS11	Wave 5 in JS11	Total
<b>Government Office Region (GOR)</b>						
Tyne & Wear	63.3	65.7	61.3	61.4	50.4	60.4
Rest of North East	62.6	69.4	59.8	60.5	52.6	61.0
Greater Manchester	62.0	61.5	52.3	49.8	46.6	54.5
Merseyside	64.2	61.1	55.2	57.1	52.9	58.3
Rest of North West	60.3	66.4	58.4	56.2	55.6	59.4
South Yorkshire	75.7	68.8	58.4	58.4	52.1	62.7
West Yorkshire	70.6	72.2	63.9	65.3	56.5	65.8
Rest of Yorkshire and Humberside	68.7	70.6	60.4	59.3	54.0	62.7
East Midlands	64.3	66.3	53.2	55.7	54.6	58.9
West Midlands Metropolitan Council	59.6	62.8	54.1	50.0	45.1	54.4
Rest of West Midlands	66.4	65.1	60.4	58.2	52.5	60.7
East of England	63.6	63.1	59.9	55.4	52.6	59.0
Inner London	50.7	56.3	52.4	45.3	40.6	49.1
Outer London	58.8	57.0	50.2	45.4	43.6	51.1
South East	59.8	59.9	55.9	52.7	47.7	55.3
South West	62.9	65.3	57.8	55.6	51.6	58.8
<b>England</b>	<b>62.3</b>	<b>63.4</b>	<b>56.5</b>	<b>54.2</b>	<b>50.1</b>	<b>57.4</b>
<b>Wales</b>	<b>64.3</b>	<b>63.2</b>	<b>57.9</b>	<b>56.3</b>	<b>51.3</b>	<b>58.7</b>
Strathclyde	69.1	66.2	54.3	52.0	49.8	58.4
Rest of Scotland	65.0	64.1	54.9	53.0	53.2	58.2
<b>Scotland</b>	<b>66.8</b>	<b>65.0</b>	<b>54.7</b>	<b>52.6</b>	<b>51.8</b>	<b>58.3</b>
<b>Northern Ireland</b>	<b>63.2</b>	<b>52.8</b>	<b>53.1</b>	<b>51.7</b>	<b>47.5</b>	<b>53.6</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, JS11, GB

		All responses	Proxy	%
<b>Age</b>	Total (16+)	75,777	25,148	33.2
	16-17	2,324	1,995	85.8
	18-19	2,129	1,521	71.4
	20+	71,324	21,632	30.3
<b>Sex</b>	Total	75,777	25,148	33.2
	Male	36,310	14,134	38.9
	Female	39,467	11,014	27.9
<b>Ethnicity</b>	Total	75,777	25,148	33.2
	White	68,407	22,103	32.3
	Non-white	7,325	3,027	41.3
	Refused	45	18	40.0
<b>Economic activity (INECAC05)</b>	Total	75,777	25,148	33.2
	Employees	38,134	12,885	33.8
	Self-Employed	6,371	2,256	35.4
	Government schemes	111	55	49.5
	Unpaid family workers	175	35	20.0
	ILO Unemployed	3,873	1,394	36.0
	Inactive	27,113	8,523	31.4

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

### 2.13 LFS QUARTERLY SURVEY Income Response Rates by NS-SEC, GB, JS11

	Wave 1 in JS11	Wave 5 in JS11	Total
<b>NS-SEC</b>	%	%	%
Higher managerial and professional	87.0	88.8	87.8
Lower managerial and professional	86.8	88.6	87.6
Intermediate occupations	86.8	87.6	87.1
Small employers and own account workers	88.2	86.7	87.5
Lower supervisory and technical	83.5	86.0	84.8
Semi-routine occupations	84.3	86.1	85.0
Routine occupations	84.2	87.8	85.6
<b>Total</b>	<b>85.8</b>	<b>87.8</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, JS11, GB

Column percentages

		Wave 1 in AJ09	Wave 5 in AJ10	Responds all waves	Non-responder
		Responds	Responds		
<b>Age</b>	<16	21.2	19.6	16.8	22.7
	16-19	5.3	4.3	3.6	6.2
	20-29	12.1	8.2	5.6	15.9
	30-39	13.6	11.8	9.3	15.4
	40-49	14.8	14.3	13.2	15.3
	50-59	13.3	14.8	15.5	11.8
	60-69	12.9	17.2	22.0	8.8
	70+	6.8	9.9	14.0	3.9
<b>Sex</b>	Male	49.4	48.9	48.9	49.9
	Female	50.6	51.1	51.1	50.1
<b>Econ Activity (INECAC05)</b>	Employees	39.1	37.6	34.0	40.4
	Self Emp	6.5	6.5	6.5	6.5
	Gov Sch.	0.1	0.1	0.1	0.2
	UPFW	0.2	0.2	0.3	0.1
	ILO Unemp	3.8	3.5	3.3	4.1
	Inactive	26.3	31.6	39.0	21.3
	<16	24.0	20.4	16.8	27.3
<b>Number of people in household (TOTNUM)</b>	1	9.3	11.0	13.3	7.7
	2	29.8	35.1	40.1	24.8
	3	21.5	20.3	17.2	22.7
	4	23.6	21.2	18.3	26.0
	5	10.0	8.6	8.5	11.4
	6 or more	5.7	3.9	2.6	7.4
<b>Region (GOVTOR)</b>	Tyne & Wear	2.0	1.7	1.6	2.2
	Rest of North East	2.6	2.6	2.2	2.7
	Greater Manchester	4.4	4.1	3.9	4.7
	Merseyside	2.3	2.5	2.2	2.2
	Rest of North West	5.7	5.6	5.7	5.8
	South Yorkshire	2.8	2.5	2.6	3.0
	West Yorkshire	4.0	4.2	3.9	3.9
	Rest of Yorkshire and Humberside	3.0	3.2	3.1	2.7
	East Midlands	8.0	9.3	8.4	6.8
	West Midlands Metropolitan Council	4.0	4.0	4.3	4.1
	Rest of West Midlands	4.9	5.2	5.9	4.7
	East of England	10.2	10.7	11.2	9.7
	Inner London	3.6	2.4	1.9	4.8
	Outer London	7.5	5.6	5.5	9.3
	South East	12.4	12.7	13.9	12.0
	South West	8.2	9.0	9.4	7.4
Wales	4.8	4.9	5.0	4.7	
Strathclyde	4.1	3.9	3.8	4.2	
Rest of Scotland	5.4	5.7	5.3	5.1	

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: October 25, 2011

Achieved delivery date for file: October 22, 2011

Time lag between delivery date and the end of the reference period: 21 days

##### 3.2 Data file for other users

Scheduled availability date for Regional Public & Government normal release user files: November 16, 2011

*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 2011:** The education section was extensively revised in JM11 and the 2011 User Guides should be consulted, among the new questions were: FORQUAL, QUALUK, QUALRE, FORTYP11, SCQUAL, UNIQUAL, WOQUAL, GSQUAL, OTQUAL, APPSTRT, NFE13WK, NFE4WK, TAUT3M, TLRN4WK and TLRN3M. To harmonise with the 2011 Census Ethnicity, National Identity and Religion questions were changed from JM11, the 2011 User Guides should be consulted for the full detail of the changes. In AJ11 further changes were made to the Ethnicity questions in order to bring them in line with the Scottish Census. AGWRK, HOLSB were also added.

**Amended questions for 2011:** QULCH11 replaces QUALCH9, QULS10 becomes QULS11, QLYR10 becomes QLYR11, EDINS11 replaces EDINS, TAUT4WK replaces TAUT4 and LEISCL, TAUTHRS replaces T4HRS and LEISHRS. There are numerous other amendments to education, ethnicity, national identity and religion questions in JM11 and AJ11 and the 2011 User Guides should be consulted.

**Deleted questions for 2011:** Numerous education questions were dropped as part of the revision of the education section for JM11, please see the 2011 User Guides for full details of these changes.

### 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>
Quality and Methodology Information	<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>