

# Living Costs and Food Survey technical report: financial years ending March 2017 and March 2018

User guidance and technical information for the Living Costs and Food Survey.

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# 1 . Introduction

This report provides an update on the sampling, fieldwork and data processing for the financial years ending (FYE) 2017 and FYE 2018 Living Costs and Food Survey (LCF). The survey is undertaken by ONS Social Survey Operations, which is part of the Population and Public Policy Operations Directorate of Office for National Statistics (ONS).

This report contains response information, questionnaire changes and new or changed methodology for FYE 2017 and FYE 2018. However, it does not describe methodology that has changed prior to FYE 2017. For a more in-depth explanation of LCF processes and methodology, users should refer to the [FYE 2016 technical report](#).

The purpose of this report is to update the FYE 2016 technical report and accompanies the statistical bulletins [Family spending in the UK: financial year ending 2017](#) and [Family spending in the UK: financial year ending 2018](#). Section 5 of this update also provides an update to the [LCF National Statistics Quality Review \(NSQR\)](#).

Alongside this report, we are publishing [updated tables](#) that provide information on response, characteristics of the sample, confidence intervals and interview metrics.

## 2 . Response for the financial year ending 2017

As shown by [Table 4](#), the overall response rate for the Living Costs and Food Survey (LCF) in Great Britain was 45% in the financial year ending (FYE) 2017.

A total of 11,505 addresses were sampled for the LCF in Great Britain. Of these, 10% did not contain a private household and were therefore classified as ineligible. This category includes empty, demolished or derelict addresses; non-residential addresses; and temporary accommodation. Of the eligible sample, it was not possible to contact 15% of addresses and a further 40% refused to take part. Of the 4,641 responding households in Great Britain 4,516 cooperated fully, meaning they completed both interview and diary sections of the survey. This produced the overall response rate of 45% in Great Britain.

Response rates to household surveys have been declining over recent years ([Table 5](#)). In FYE 2017, the LCF's response rate for Great Britain was 45%, compared with 46% FYE 2016 and approximately 60% in FYE 2001. It should be noted that the LCF requires satisfactory completion of both the household questionnaire and diary, which affects the overall response rate.

In FYE 2017, partial responses accounted for 3% of all co-operating households. Of these 125 partials, 120 occurred because one or more adults in the household refused to keep the diary but were happy to take part in the interview ([Table 6](#)).

[Table 7](#) compares the main outcome categories in LCF samples over time. The proportion of households refusing to take part in the survey over the last five years has increased from 35% to 40%. Over the same period the percentage of households that could not be contacted has increased from 11% to 15%. However, this has been volatile as demonstrated by [Table 7](#).

[Table 8](#) shows quarterly response rates. In FYE 2017, response varied between quarters. Response was lowest for Quarter 2 (Apr to June) 2016 at 42% and highest in the quarter July to September 2016 at 48%. These quarterly changes are common due to seasonal effects.

[Table 9](#) shows response rates by region and country. As observed across many of our social surveys, London had the lowest response rate (33%). South West had the greatest response rate in the UK (54%). The average response rate for England was 47% and therefore higher than all the other UK constituent countries.

Interviewers on the LCF routinely collect information about respondents who do not take part in the survey, as shown in [Table 12](#). Interviewers record the main reason why people refuse before or during an interview from a list of pre-coded answers. The reasons are recorded at a household level but will reflect the comments made by the individual(s) the interviewer has spoken to. In FYE 2017, the three most commonly cited reasons for refusing to take part in the survey were:

- can't be bothered – 20%, a rise of 2% from the previous financial year
- genuinely too busy – 11%, a fall of 4% when compared with FYE 2016
- other – 11%, a fall of 2% when compared with the previous year

Falling response rates are an acknowledged problem, and we have various initiatives to help tackle these.

In particular, the incentive received for a complete LCF adult diary increased from £10 to £20 for August 2016 onwards to help tackle low response rates. Other initiatives to help response rates include:

- improving field capacity (such as improving recruitment processes)
- improving the skills of interviewers (such as rolling out new training programmes on achieving cooperation)
- survey-specific initiatives (such as trialling different types of unconditional incentives on certain surveys)

To gain a better understanding of the differences between responding and non-responding households, [Tables 13 to 16](#) compare these two sets of households by different characteristics.

### **3 . Response for the financial year ending 2018**

As shown by Table 4, the overall response rate for the Living Costs and Food Survey (LCF) in Great Britain was 43% in the financial year ending (FYE) 2018.

A total of 13,065 addresses were sampled for the LCF in Great Britain. Of these, 11% did not contain a private household and were therefore classified as ineligible. This category includes empty, demolished or derelict addresses; non-residential addresses; and temporary accommodation. Of the eligible sample, it was not possible to contact 15% of addresses and a further 42% refused to take part. Of the 5,013 responding households in Great Britain, 4,849 cooperated fully, meaning they completed both interview and diary sections of the survey. This produced the overall response rate of 43% in Great Britain.

Response rates to household surveys have been declining over recent years (Table 5). In FYE 2018, the LCF's response rate for Great Britain was 43%, compared with 45% in FYE 2017 and approximately 60% in FYE 2001. It should be noted that the LCF requires satisfactory completion of both the household questionnaire and diary, which affects the overall response rate.

In FYE 2018, partial responses accounted for 3% of all co-operating households. Of these 164 partials, 162 occurred because one or more adults in the household refused to keep the diary but were happy to take part in the interview (Table 6).

Table 7 compares the main outcome categories in LCF samples over time. The proportion of households refusing to take part in the survey over the last three years has increased from 37% to 42%. Over the same period the percentage of households that could not be contacted remained at 15%. However, this has been volatile as demonstrated by Table 7.

Table 8 shows quarterly response rates. In FYE 2018, response varied between quarters. Response was lowest for Quarter 3 (July to Sept) 2017 at 42% and highest in the quarter Jan to Mar 2018 at 44%. These quarterly changes are common due to seasonal effects.

Table 9 shows response rates by region and country. As observed across many of our social surveys, London had the lowest response rate (35%). South West had the greatest response rate in the UK (49%). The average response rate for England was 44%. Interviewers on the LCF routinely collect information about respondents who do not take part in the survey, as shown in Table 12. Interviewers record the main reason why people refuse before or during an interview from a list of pre-coded answers. The reasons are recorded at a household level but will reflect the comments made by the individual(s) the interviewer has spoken to. In FYE 2018, the three most commonly cited reasons for refusing to take part in the survey were:

- can't be bothered – 20%, which remains the top reason cited as the previous financial year
- temporarily too busy – 13%, a 2% increase when compared with the previous year
- invasion of privacy – 10%, a fall of 2% when compared with the previous year

Falling response rates are an acknowledged problem, and we have various initiatives to help tackle these. In particular, the incentive received for a complete LCF adult diary increased from £10 to £20 for August 2016 onwards to help tackle low response rates. Other initiatives to help response rates include:

- improving field capacity (such as improving recruitment processes)
- improving the skills of interviewers (such as rolling out new training programmes on achieving co-operation)
- survey-specific initiatives (such as trialling different types of unconditional incentives on certain surveys)

To gain a better understanding of the differences between responding and non-responding households, Tables 13 to 16 compare these two sets of households by different characteristics.

## 4 . Living Costs and Food Survey questionnaire changes for the financial year ending 2017

To ensure the Living Costs and Food (LCF) questionnaire is up to date, it is important that questions are regularly reviewed so that relevant changes can be made. Reviewing the questionnaire is a process of continuous improvement.

As described in the [FYE 2016 technical report](#), the LCF survey uses computer assisted personal interviewing to record responses from sampled households, using Blaise software. Interview questions are grouped in thematic blocks recording household demographics, expenditure and income; each question has a short name (such as SocFund, LnOrg or LnIPur).

This section details changes made to the questionnaire during the financial year ending (FYE) 2017.

### **Bereavement payment**

The follow-on questions recording the amount of "bereavement payment" received have been removed. There is only one possible amount that can be received and that is a one-off payment of £2,000. For respondents who receive a bereavement payment, the amount received is now imputed.

## **DWP loans and grants**

Department for Work and Pensions (DWP) loans and grants are currently captured under SocFund in the benefit block. DWP grants are no longer available, so the wording of SocFund response options has been updated. The value of the loan received is captured in the loans block and so the follow-on questions about loans have been removed from the benefit block.

## **Local authority loans and grants**

Receipt of loans or grants from local authorities are recorded at Otherben. The value of the loan received is captured in the loans block and so the follow-on questions about loans have been removed from the benefit block.

## **Loans**

Given the removal of duplication regarding DWP loans, local authority loans and budgeting advances from the benefit block, the response option (13) at LnOrg has been amended to ensure these loans are recorded accurately in the loan section.

In addition, response options "Second Home" and "Debt Consolidation" have been added to services or items obtained with a loan (LnIPur) to reduce the need to manually type these options at LnLSpec.

## **Benefits included with salary**

Benefits received in the last wage or salary are recorded in both the income section and the benefits section. This duplication has been removed by deleting the "Inclus" question from the benefits section, whilst retaining the equivalent questions in the income section and including follow-on questions at PayInc to record the amount received and period covered.

## **Letting agent and estate agent fees**

The housing expenditure section associated with property transactions, "Transac", has been updated to make it clearer that letting agent fees and estate agent fees should be captured within response option 4. The update states: "any other purpose such as fees associated with rental properties, remortgage, second mortgage, or an unsuccessful attempt to purchase or sell".

## **Road tax**

New payment options of six-monthly, annually or monthly have been introduced for paying vehicle tax. The questionnaire has been amended to allow for these new payment options.

## **Vehicles**

The question regarding the frequency of fuel purchase has been deleted as it is no longer required.

The following changes were made from January 2017 onwards, affecting the final quarter of FYE 2017. Please note that variables relating to these topics will not be available on the FYE 2017 datasets, as they were only asked in one of the four quarters that make up FYE 2017.

## **Access to vehicles**

Two new questions have been added to capture information on vehicle affordability. Firstly, respondents are asked about their current access to vehicles as a follow-on to existing questions about vehicle ownership and use over the last 12 months.

If the household does not own or have current use of any vehicles, they are asked whether this is due to affordability or other reasons.

## **Self-defined economic status**

To improve understanding of how household members interpret their own economic situations and any recent changes, a new block of questions has been included on this subject. These questions are asked of all respondents.

Respondents are initially asked to describe their own working status, and then prompted to describe how this has changed over the last 12 months.

If the respondent indicates a change in status over the previous year, their status in each of the previous 12 months is asked.

## **Payments outside the household**

Two new questions have been added to capture information about regular payments made to individuals outside the household. This does not include alimony or child maintenance payments, but should be used wherever the household member has another regular, ongoing financial commitment to a friend or relative.

## **Affordability and material deprivation**

A new block of questions has been included for all households to ask about affordability and financial arrears. This section of the questionnaire begins at a household level with a question about the household's ability to afford certain items. This question refers to the household's "ability to pay" regardless of whether the household wants any particular item.

Questions have also been added to capture information on household arrears on bill payments and affordability for seven important items, including questions at a household level and a person level. This section of the questionnaire seeks to capture more information about the household's material circumstances than is possible by examining expenditure alone.

## **Deductions from income and Smart Pensions**

In 2016, deductions from wage or salary were collected separately for charity donations. From January 2017, the various wage deductions are all prompted together in a single question.

However, deductions for childcare (whether employer-provided childcare or contributions to a salary sacrifice childcare voucher scheme) are not included at this question as these are now captured in a new salary sacrifice section of the questionnaire. Where the respondent indicates pension deductions from their wage or salary, they are now asked whether this is a Smart Pension or not. Smart Pensions are a particular form of pension scheme based on a salary sacrifice affecting gross pay amounts.

## **Usual pay amounts**

If the respondent indicates that their last pay was not usual, there are new questions exploring their usual pay circumstances. This section opens with a question exploring the reason why pay is not usual.

Where last pay was not usual, the 2016 questionnaire asked for usual gross and net pay amounts. From January 2017, respondents are asked whether their usual pay includes key inclusions and deductions.

## **Salary sacrifice schemes**

A new section has been included in the January 2017 questionnaire to capture information on certain salary sacrifice items.

Where respondents indicate any salary sacrifice schemes, they are asked to confirm if these payments are made in place of part of their salary or wage, and if so, the value of their contributions towards the scheme.

## **Redundancy pay**

The January 2017 questionnaire includes four new questions asking about redundancy pay amounts received over the last 12 months.

## **Tax on savings interest**

Where household members have received interest on savings accounts over the last 12 months, they are no longer asked about any tax due or paid on this interest.

## **Number of weeks receiving benefits**

Where respondents are currently receiving benefits, the number of weeks they have been receiving payments is now only asked for recipients of the following benefits:

- Housing Benefit
- Universal Credit
- Income Support
- Jobseeker's Allowance
- Employment and Support Allowance
- Incapacity Benefit
- Maternity Allowance

For all other benefits, respondents are asked the number of years they have been receiving payment but are not required to further specify this by weeks.

## 5 . Living Costs and Food Survey questionnaire changes for the financial year ending 2018

This section details changes made to the questionnaire during the financial year ending (FYE) 2018.

### Mobile phone expenditure by top-up and telephone cards

Questions have been added to the questionnaire on the amount and frequency of mobile phone top-ups and telephone card expenditure. These have been added to be compared with already collected data in the diary to inform future developments of how this data is best collected.

A question has been added to capture whether mobile phones have internet access or a data plan included.

### Loans

Routing of the loans block has been updated to avoid unnecessary questions. If a student loan or debt consolidation is reported, respondents are no longer asked for the cash price or the amount they put down in addition to the loan. Respondents are now also only asked if an item bought with a loan was new or second-hand and the amount allowed in part-exchange if the item purchased was a car or other vehicle.

### NI Rates

The rates block was updated to ask more questions about the actual rates bill received. The questions now ask whether the household receives a rates bill and if not, why not instead of before only asking whether rates were paid. The questions focus on the annual bill instead of a last payment so the lump sum discount question is no longer asked as this should already be covered in the annual bill statement.

### Household shopping habits

A new section was added to enquire about household shopping, including:

- how often people buy groceries
- how often people have done a “big shop” (defined as buying groceries that last for a few days)
- if people have visited the same shops each time over the last four weeks
- how many shops they have visited if not
- whether any household members have been shopping for items other than groceries in the last four weeks



## Bereavement benefits

At “PenBen” the option list has been updated, whereas before an option was for “widow’s pension, bereavement allowance, widowed parent’s allowance”, this is now “bereavement allowance, widowed parent’s allowance or bereavement support payment”. If this option is selected, the follow-up question has been updated as well. Whereas before the options were “1. widow’s pension, 2. widowed mother’s allowance, 3. bereavement allowance, 4. widowed parent’s allowance”, now the option list is “1. Bereavement allowance, 2. Widowed parent’s allowance, 3. Bereavement support payment”.

## Education

Option labels at “HighEd1” have been updated to reflect the change in GCSE grading so GCSE grade A to C or level 9 to 4 is now included and GCSE grade D to G or level 3 to 1.

# 6 . Changes in methodology and new methodology for the financial year ending 2017

## Deflators

[Family spending in the UK](#) compares spending over time in two different ways, where figures either are or are not adjusted for inflation. Where figures are not adjusted for inflation, differences in spending could be because of differences in price level between the years. When comparing spending that has been adjusted for inflation, differences in price between years are not the cause for differences in spending, as this has already been considered. Where possible, we adjust for inflation when comparing levels of spending over time. We refer to these as deflated estimates.

Figures are deflated using the Consumer Prices Index (CPI) and the indices are specific to each major classification of individual consumption according to purpose (COICOP) category. For housing goods and services items that are not covered by the CPI, the [owner occupiers’ housing costs](#), or OOH (payments method) indices are used. This is new for the financial year ending (FYE) 2017; in previous years categories not covered by CPI used the Retail Prices Index (RPI).

The inflation methodology was reviewed for FYE 2017. Following the RPI losing its National Statistics status in 2013, other deflators were considered for deflating housing estimates not covered by the CPI. As we are deflating direct payments, the OOH payments method was considered the best approach. Please note that whilst OOH is not currently a National Statistic it remains the most appropriate deflator for LCF needs and our Prices Division are actively developing it for use in the new [Household Costs Indices](#). Other deflators that can be used for housing estimates use methodology that is not suitable for deflating LCF expenditure estimates. For example, the Consumer Prices Index including owner occupiers’ housing costs (CPIH) uses the rental equivalence methodology, which is not the most appropriate methodology to use for LCF housing data.

Table 1 details the changes in deflators used for FYE 2017 data.

Table 1: LCF deflators used for deflated time series, FYE 2016 and FYE 2017

<b>Division</b>	<b>Detailed division</b>	<b>FYE 2016 Price Indices</b>	<b>FYE 2017 Price Indices</b>
Food and non-alcoholic drink		CPI (category specific)	CPI (category specific)
Alcohol, tobacco and narcotics		CPI (category specific)	CPI (category specific)
Clothing and footwear		CPI (category specific)	CPI (category specific)
Housing fuel and power		CPI (category specific)	CPI (category specific)
Household goods and services		CPI (category specific)	CPI (category specific)
Health		CPI (category specific)	CPI (category specific)
Transport		CPI (category specific)	CPI (category specific)
Communication		CPI (category specific)	CPI (category specific)
Recreation and culture		CPI (category specific)	CPI (category specific)
Education		CPI (category specific)	CPI (category specific)
Restaurants and hotels		CPI (category specific)	CPI (category specific)
Miscellaneous goods and services	Personal care	CPI Miscellaneous	CPI Miscellaneous
	Personal effects		CPI Miscellaneous
	Social protection		CPI Miscellaneous
	Structure insurance		OOH (payments) - other
	Contents insurance		CPI Miscellaneous
	Household appliances insurance		CPI Miscellaneous
	Medical insurance premiums		CPI Miscellaneous
	Vehicle insurance		CPI Miscellaneous
	Non-package holiday insurance		CPI Miscellaneous
	Other services		CPI Miscellaneous
Other expenditure items	Mortgage interest payments	RPI - Mortgage interest payments	OOH (payments) - Mortgage interest payments
	Mortgage protection premiums	RPI (payments) - Mortgage interest payments	OOH (payments) - Mortgage interest payments
	Council tax, domestic rates	RPI (payments) - Council tax and rates	OOH (payments) - Council tax and rates
	Council tax, mortgage (second dwelling)	RPI (payments) - Mortgage interest payments	OOH (payments) - Mortgage interest payments
	Licenses, fees and transfers	CPI all items	CPI all items
	Holiday spending	CPI all items	CPI all items

Source: Office for National Statistics

## Outliers

Unusually high expenditure and income values (termed statistical outliers) are investigated to confirm the accuracy of the recorded data. The values are examined for their effect on total income and expenditure estimates. The Living Costs and Food Survey (LCF) uses the “surprise outlier approach” to deal with outliers. This technique effectively reduces the impact of the outlying value without deleting it altogether.

In previous years, outlying cases were assigned a weight of one. For the financial year ending (FYE) 2017, outlying cases were assigned a smaller weight to bring it more in line with the distribution, rather than automatically assigning a weight of one. After outlier treatment, the weights for units in the outlier’s selection stratum were recalculated.

## Child expenditure estimates

The FYE 2017 edition of [Family spending in the UK](#) includes spending estimates for 7- to 15-year-olds. These estimates are based on data from the Living Costs and Food Survey (LCF) diaries filled out by 7- to 15-year-olds. We combine three years of data when presenting child spending. This is done to increase the sample size and therefore improve the robustness of results. The following subsections describe the methodology used for child spending estimates.

### 1. The weight

All household spending estimates are weighted using a household weight. For a detailed description of the LCF household weight, please see the [FYE 2016 technical report](#). As the child spending estimates focus on individual children aged 7 to 15 years, a new weight was created for this analysis.

Similar to the household weight, the child weight goes through three main stages. First, the design weight of a child is calculated, where the design weight is equal to the inverse of the selection probability. As all children aged 7 to 15 years within a sampled household are invited to take part in the LCF, the child design weight is equal to the household design weight.

Secondly, the design weight is adjusted to compensate for non-response (sample-based weighting) at a household level. This is where the design weight of the household is adjusted for non-response bias using non-response classes as described in the [FYE 2016 technical report](#).

Thirdly, the weights are adjusted so that the sample matches the population distribution in terms of region, age group and sex (population-based weighting) as described in Table 2. As the LCF sample is based on private households, the population totals used in the weighting relate to people living in private households. For the child weight specifically, the most up-to-date population totals for 7- to 15-year-olds were used.

Table 2: Weighting classes for population based weighting

<b>Age/Sex</b>	<b>Region</b>
Boys aged 7 to 10	A - Scotland, North East, North West
Boys aged 11 to 15	B - Yorkshire, East Midlands, West Midlands
Girls aged 7 to 10	C - East, London, South East
Girls aged 11 to 15	D - Wales, South West, Northern Ireland

Source: Office for National Statistics

Unlike the LCF household weight, the LCF child weight is calibrated to population totals at an individual level, so that after the population-based weighting has taken place each child has their own separate weight.

Please note that the weighting was carried out separately for each financial year that fed into the child spending estimates.

## **2. Average weekly child spending**

The child expenditure estimates were created using three years of financial data (FYE 2015, FYE 2016 and FYE 2017). The weighted average for each year was summed and then the total divided by three, where the averages did not use deflated data.

## **3. Percentage of children who bought at least one good or service in a fortnight**

In addition to average weekly child spending, the 2017 edition of [Family spending in the UK](#) contains estimates of the percentage of children who bought at least one good or service in a fortnight.

These estimates were created by firstly joining the three financial year datasets (with weights included) together where each weight was then divided by three. These datasets had been manipulated so that each row represented a child. For each recorded item in the diary, there was a variable that stated how many times each child had bought that item in the diary-keeping fortnight. A weighted frequency was then run on each of these variables, which then identified the percentage of children that had bought at least one of each good or service in the diary-keeping fortnight.

## **Sampling in Northern Ireland**

The Northern Ireland sample increased to 1,000 households in FYE 2017, compared with 300 households in the previous financial year.

This was then reflected in the weighting of Northern Ireland cases, where the weights were reduced by the reciprocal of the oversampling factor.

# **7 . Changes in methodology and new methodology for the financial year ending 2018**

1. Increase to sample size in Scotland – compared with the previous financial year, the sample size for Scotland increased by 1,080 addresses. The weighting strategy was adjusted to reflect this.
2. Increase in quota size for England and Wales – England and Wales quotas were increased from 18 to 20 addresses between November 2017 and March 2018. This action was taken as a means of counteracting a decrease in the achieved sample size because of falling response rates. The weighting strategy was adjusted to reflect this.
3. More detailed categories have been deflated using the Consumer Prices Index (CPI) and the specific indices that best matches the detailed COICOP category. Table 3 details the deflators used.

Table 3: CPI used to deflate LCF data for detailed COICOP categories

COICOP Category	CPI Index
2.1 Alcoholic drinks	CPI INDEX 02.1: Alcoholic Beverages
7.1.1 Purchase of new cars and vans	CPI INDEX 07.1.1A: New Cars
7.1.2 Purchase of second-hand cars or vans	CPI INDEX 07.1.1B: Second-hand cars
7.2.2.1 Petrol	CPI INDEX 07.2.2: Fuels and lubricants
7.2.2.2 Diesel oil	
7.2.3 Repairs and servicing	CPI INDEX 07.2.3: Maintenance and repairs
7.3.1 Rail and tube fares	CPI INDEX 07.3.1: Passenger transport by railway
7.3.4.2 Air fares (international)	CPI INDEX 07.3.3: Passenger transport by air
11.1.2 Alcoholic drinks (away from home)	CPI INDEX 11.1.1: Restaurant and cafes

## 8 . Update to the Livings Costs and Food Survey National Statistics Quality Review

### 1.1 Background

The [Living Costs and Food Survey \(LCF\) National Statistics Quality Review](#), published in May 2016, identified 30 recommendations outlining developments required to the LCF to ensure the survey remains fit for purpose. [Our response to the NSQR](#) was published in January 2017, describing at a high level how the recommendations will be addressed. This was followed by a further [progress update](#) in April 2018. Three approaches were identified for taking the work forward:

- the ONS Data Collection Transformation Programme (primarily through the [transformation of ONS' household financial surveys](#))
- research projects taken forward by the LCF team
- projects led by other areas of ONS, in particular methodology and prices

Progress against each of the 30 NSQR recommendations is provided in Table 20 of the data section of this release. Where appropriate, recommendations have been combined, resulting in 25 recommendations to take forward. Of these recommendations, 13 have been completed and seven are ongoing. Five are not yet started because of dependencies on other recommendations.

## 1.2 Projects completed in response to the NSQR

During financial year ending (FYE) 2018, four discrete research projects were set up in response to the NSQR recommendations. These projects have been completed as follows:

1. A questionnaire review and development completed by Ipsos Mori. Recommendations for changes to the LCF questionnaire from April 2018 were made as a result of this review and in consultation with the LCF Steering Group. The updated questionnaire content will be available on release of the FYE 2019 microdata files in the first half of 2020.
2. A review of the paper diary completed by NatCen, along with an [internal review of the LCF diary length \(PDF 1.936KB\)](#). A summary report of the paper diary review is available on request.
3. An international review of the use of store scanner data by Cardiff Business School. A copy of the review document is available on request.
4. A six-month data science project, which investigated the feasibility of developing receipt scanning, optical character recognition and automation of COICOP coding. A paper summarising the findings from this study will be published in our Survey methodology bulletin in Spring 2019.

## 1.3 Future developments

Each of the projects resulted in additional recommendations for further work. Annex A outlines the broad workstreams that will be taken forward in FYE 2019 and beyond, to further develop expenditure data collection methods. Progress with each of these work strands is subject to securing resource and funding. We will update on progress each year within the LCF survey technical report.

## 1.4 Governance

The LCF Steering Group continues to provide high-level oversight of the actions to address the recommendations. Progress against the actions outlined is also being monitored by our Quality Centre.

Annex A. Expenditure data collection work plan – requirements, deliverables and benefits

Ref	Deliverable	Benefits	Timeline
Response rates			
1	Assessment of higher levels of conditional incentive on LCF response rates.	Cost and benefit analysis will inform future response rate strategy.	January 2019 – initial analysis. Project end date dependent on achieved sample size and findings from initial analysis.
2	An assessment of the impact of falling response rates on data quality.	Users informed of changes to data quality.  Inform direction of future response rate strategy.	Spring 2019
Development of expenditure questionnaire			
3	Impact assessment of FYE 2019 expenditure questionnaire changes on estimates.	Users informed of impact of questionnaire changes.	Throughout FYE 2019
4	Review and development of priority expenditure topics leading to implementation of questionnaire changes in April 2019.	Expenditure questionnaire keeps pace with changes in spending habits of households.	September 2018 to March 2019
Development of LCF diary			
5	Redesign of the LCF paper diary, including qualitative and quantitative testing.	At point of implementation: - reduction in respondent and interviewer burden - improved data quality	To be confirmed – dependent on available resource and funding
6	Identification, development and testing of options for electronic method(s) to modernise paper diary.	Once implemented: - reduction in interviewer costs - reduction in respondent burden	To be confirmed – dependent on available resource and funding
Development of optical character recognition from scanned receipts and automatic COICOP coding			
7	Development of optical character recognition and automated COICOP coding- including an assessment of time and cost savings.	Implementation of a more efficient processing system, leading to increased timeliness of data delivery.	September 2018 to December 2019