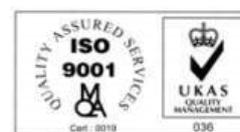
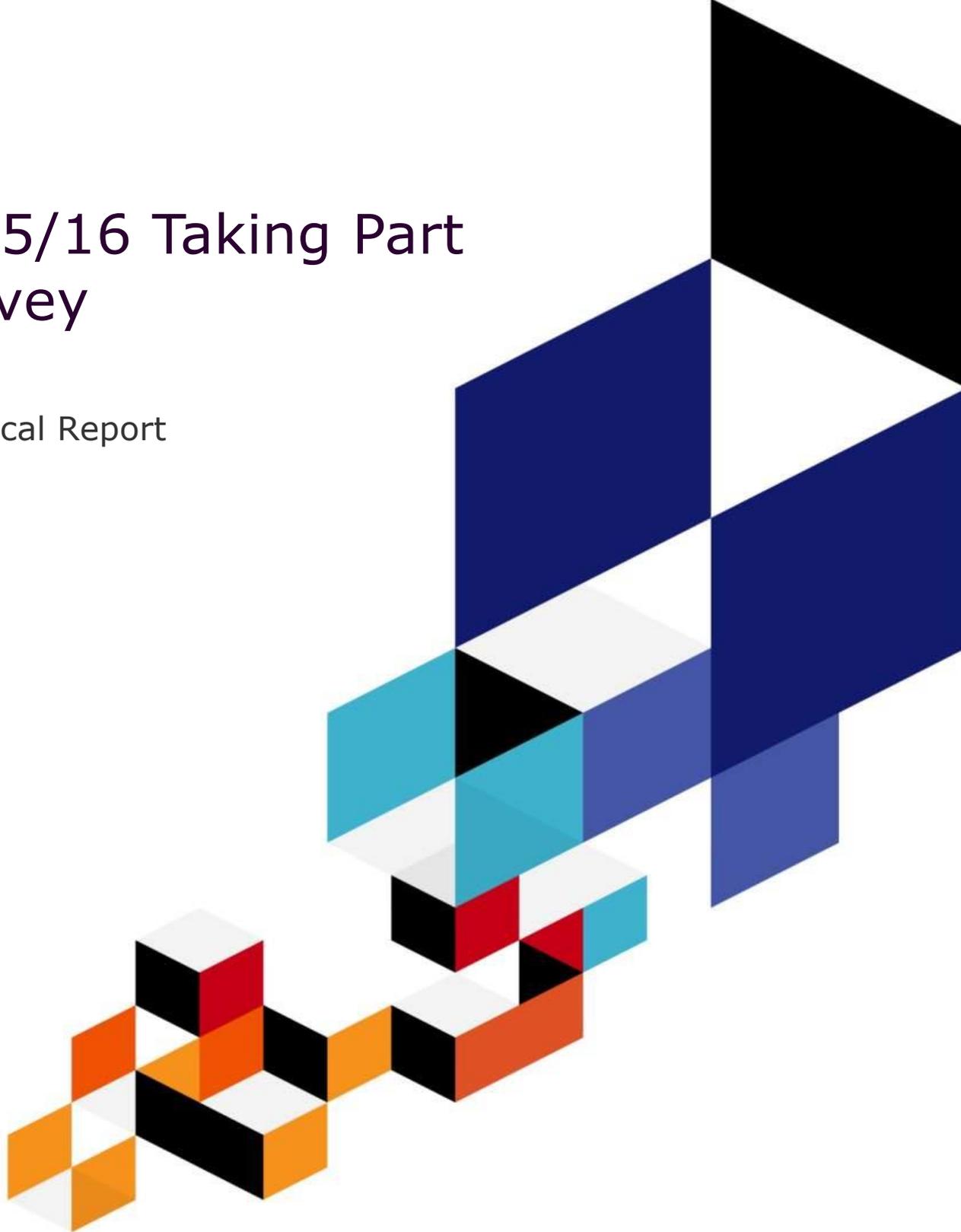


# 2015/16 Taking Part Survey

Technical Report



TNS BMRB

JN 260123069



Department  
for Culture  
Media & Sport

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# 1. Introduction

## 1.1 Background, including aims and objectives

Taking Part, the flagship survey for the Department for Culture, Media and Sport, was first commissioned in 2005. Since this time it has been running on a continuous basis and the 2015/16 survey is the 11th year of fieldwork.

Taking Part has been certified as a National Statistic by the UK Statistics Authority and is compliant with the Code of Practice for Official Statistics.

The survey originated in response to a need for consistent, high quality national data on people's engagement with culture and sport and collects detailed information exploring a wide range of areas including:

- Participation in culture and sport;
- Satisfaction and enjoyment with culture and sport;
- Engagement with culture and sport whilst growing up;
- Volunteering;
- Internet use;
- Charitable donations;
- TV, radio and newspaper consumption;
- Relevant special events (the survey is currently covering the influence of the UK hosting the 2012 Olympic and Paralympic Games and people's attitudes towards the FWW Centenary Commemorations);
- Extensive socio-demographic information regarding respondents.

Since Year 8 (2012/13), there has been a longitudinal element of Taking Part whereby the same individuals were revisited over successive years. This was introduced to better understand the ways in which engagement with culture and sport changes at the individual level and how life events can help or hinder participation.

Taking Part serves as a key evidence source for DCMS and its three partners; Arts Council England, Historic England, and Sport England which form the Taking Part steering group. The data produced are used to measure and inform departmental indicators, inform the development and impact of DCMS policy, and to better understand the drivers and barriers of participation in cultural and sporting activities in England. The three main objectives of Taking Part are to:

- Provide a central, reliable evidence source that can be used to analyse cultural sporting engagement, portraying clear evidence of why people do or do not engage;

- Meet the needs and interests of everyone who uses Taking Part, including relevant public bodies and the public;
- Underpin further research on driving engagement and the value and benefits of engagement.

Taking Part is a random probability survey of adults aged 16+ and of children aged 5-15 in England. In 2015/16, 10,171 adults and 684 children aged 11-15 were interviewed. Information was also collected from parents or guardians of 1,096 children aged 5-10. Interviews were conducted face-to-face in home by specially trained interviewers working on behalf of TNS BMRB using Computer Assisted Personal Interviewing (CAPI).

The sample was issued on a monthly basis between April 2015 and March 2016.

## **1.2 Summary of outputs**

The four key outputs for Taking Part 2015/16 were:

- SPSS data files used for cross-sectional analysis – annual adult (aged 16+) and child (aged 5-15 years) datasets containing all questionnaire variables;
- SPSS data files used for longitudinal analysis – dataset containing all data from longitudinal respondents;
- Statistical spreadsheets – TNS BMRB produced a number of reports (in Excel format) for DCMS based on the SPSS quarterly and annual data file. The reports were provided in Excel and include participation figures for the current rolling 12 month period and the figures for each survey year. The data are presented with confidence intervals and any statistically significant changes from the first year each data variable was collected are highlighted. These reports were published by DCMS and form the basis of the biannual statistical report;
- Visualisations – TNS BMRB produced 11 infographics (eight based on adult data and three based on child data) containing top level participation data for the various DCMS sectors.
- Longitudinal report – TNS BMRB produced an adult longitudinal report that presented findings from the first three waves of the longitudinal survey, covering engagement with the arts, visits to heritage sites, libraries, and museums and galleries, and participation in sport.

### **1.3 Structure of the technical report**

The report documents the technical aspects of the 2015/16 Taking Part Survey. As data collection is the major task for TNS BMRB, this forms the central part of this report.

The report is structured as follows:

- Chapter two provides a detailed description of the sample design;
- Chapter three focuses on the 2015/16 adult questionnaire;
- Chapter four covers fieldwork – this includes all fieldwork and management procedures and a summary of fieldwork performance;
- Chapter five covers all aspects of the child surveys;
- Chapter six, the final chapter, covers data processing and outputs, including weighting and design factors.

The report has been written by members of the project team at TNS BMRB – Peter Matthews (Project Manager), George Kyriakopoulos (Lead Statistician) and Marta Matusiak (Research Executive).

## 2. Sample Design

### 2.1 Survey population and sample frame

The survey was designed to yield a representative sample of 10,000 adults aged 16+ who are normally resident in England. Relevant adults were also asked to provide information about co-resident children aged 5-10 and to facilitate direct interviews with a sample of co-resident children aged 11-15.

For practical purposes, residents of institutional accommodation (armed forces barracks, student halls of residence, hospitals, care homes, prisons etc.) were excluded as is normal practice for household surveys due to the obstacles in drawing a sample and reaching these populations.

The 2015/16 sample is a mixed sample, evenly divided between fresh sample cases and re-interview cases. For the fresh sample, TNS BMRB utilised the 'small user' Postal Address File (PAF) as the sample frame. This provides a list of almost all private residential addresses in the UK and is the most comprehensive frame available: because it lists addresses, not individuals, interviewers were required to randomly select respondents from among those eligible.

### 2.2 Key features of the sample design

For the 2015/16 survey, the intention was to generate 5,000 interviews from newly sampled addresses (the 'fresh sample') plus 5,000 re-interviews from individuals first interviewed in 2011/12, 2012/13, 2013/14 or 2014/15 (the 'longitudinal sample').

As far as the 'fresh sample' is concerned, a new sample of addresses was drawn from within each of the 724 primary sampling units used in 2011/12. This method was employed instead of sampling new units to avoid sample dispersion over time.

The number of 'fresh' addresses sampled in each primary sampling unit was a function of (i) its target number of interviews (this varied between strata, see table 2.2 below) and (ii) expected conversion rates:

Fresh sample addresses to issue in PSU x =

(Target number of interviews in PSU x for 2015/16) \* (1 / expected address conversion rate in PSU x).

Evidence for the 'expected' address conversion rate was derived from an analysis of field data from the 2011/12 to 2014/15 survey period. On average, it was 53%.

The number of addresses sampled in each primary sampling unit was then inflated by 20% to generate a reserve pool of addresses. One in six sampled addresses was allocated to this pool. In the event, none of these addresses were used.

For the longitudinal sample, re-interviews were sought from all individuals that were re-interviewed in 2014/15 and had agreed to be re-contacted to take part in the survey again. These individuals had been sampled for their first interview in 2011/12, 2012/13 or 2013/14. The vast majority (97.2%) of those who were re-interviewed in 2014/15 agreed to be re-contacted again for the following survey year.

In addition, re-interviews were sought from a 35% subsample of individuals initially sampled in 2014/15 who had agreed to be re-contacted. This sampling fraction was calculated after estimating the number of re-interviews expected from individuals first sampled in 2011/12, 2012/13 or 2013/14, to give an expected total of 5,000 re-interviews from the longitudinal sample for 2015/16.

Given the lack of specific Taking Part data, TNS BMRB used prior experience to estimate the expected number of *fifth* interviews from the pool of cases sampled in 2011/12. An 82% conversion rate was assumed. This conversion rate is the number of fifth interviews expressed as a proportion of the number of fourth interviews.

Based on field data from the 2014/15 survey period the expected fourth interview conversion rate was estimated at 79%. The fourth interview conversion rate is the number of fourth interviews expressed as a proportion of the number of the third interviews. Similarly, based on field data from the 2013/14 and 2014/15 survey periods, the expected third interview conversion rate was estimated at 74%. This expresses the number of third interviews as a proportion of the number of second interviews.

By adding the expected total number of fifth, fourth and third interviews to the 5,000 'fresh sample' interviews, the target number of *second* interviews from the pool of cases first sampled in 2014/15 was calculated:

Target number of second interviews from the pool of cases sampled in 2013/14 =  $10,000 - (5,000 + 2,382 + 633 + 909) = 1,076$

Field data from the 2012/13, 2013/14, 2014/15 survey periods was used to estimate the expected second interview conversion rate of 55%. This conversion rate is the number of second interviews expressed as a proportion of the number of the first interviews.

The target number of cases to sample was therefore:

1,076 / overall expected second interview conversion rate (55%) = 1,972.

Once the target number of cases to sample was known, it was simple to calculate the sample fraction as 1,972 divided by the total number of first interviews from this pool (4,904). This sample fraction was applied equally in every PSU for those agreeing to be re-contacted; 84.8% of individuals first sampled in 2014/15 agreed to be re-contacted.

In total, 9,572 fresh addresses and 6,605 second, third and fourth interview addresses were issued in 2015/16.

In some cases the re-interview required a change to the data collection tool. Fifteen year olds in 2014/15 switched from the child to the adult questionnaire in 2015/16, while ten year olds who had been covered by a proxy adult interview in 2014/15 were approached for a direct interview in 2015/16. Finally, all four year olds in 2014/15 who had since turned five became eligible to be covered by a proxy adult interview in 2015/16.

Section 2.3 provides details of the original 2011/12 sample design for reference.

## 2.3 The 2011-12 sample design

### 2.3.1 PSU formation

Taking Part employs a two-stage address sample design in which a sample of addresses is drawn from within a sample of postal sectors. Postal sector areas are defined using the first half of a postcode plus the first digit of the second half (e.g. L19 3 is the postal sector containing the postcode L19 3QU). For survey purposes, postal sectors with a very small number of addresses in 2003 were combined to form the primary sampling units (PSUs) used by TNS BMRB. Table 2.1 shows descriptive statistics for these primary sampling units in 2011.

**Table 2.1 Descriptive statistics for primary sampling units**

PSU information	Counts
Total number of PSUs	7,152
Mean number of addresses per PSU	3,157
Minimum number of addresses per PSU	259
Maximum number of addresses per PSU	10,434
Standard deviation in number of addresses per PSU	1,434

The statistical efficiency of two-stage samples is primarily a function of the variance in primary sampling unit-level survey estimates. Analysis of previous editions of Taking Part showed that this variance was greatest in areas of high population density and smallest in areas of low population density. This variance can be mitigated through smaller interview totals per primary sampling unit. Consequently, after allocating each primary sampling unit to one of three 'address density' strata, TNS BMRB set approximate interview targets of 10 per primary sampling unit (high density stratum), 12 per primary sampling unit (mid density stratum) and 17 per primary sampling unit (low density stratum).

Furthermore, historical data suggested that some variation in address conversion rates (interviews as a proportion of addresses sampled) could be expected. In order to maximise the likelihood of meeting interview targets in each primary sampling unit, the ratio of sampled addresses to target interviews varied between regions<sup>1</sup>. Although this means that the address sample is not an equal probability sample, it is anticipated that the *net* weight applied to each case (a combination of sampling weight and response propensity weight) will have lower variance than would be the case with an equal probability design. Table 2.2 shows the address sample totals for each primary sampling unit classification.

**Table 2.2 Address sample totals for each primary sampling unit classification**

Region(s)	Address density Stratum	Sampled addresses per PSU	Expected number of interviews per PSU
All except West Midlands and London	High	18	10
All except West Midlands and London	Medium	22	12
All except West Midlands and London	Low	32	17
West Midlands	High	20	10
West Midlands	Medium	24	12
West Midlands	Low	36	17
London	High	26	10
London	Medium	32	12

<sup>1</sup> Historically, response rates have been lower in West Midlands and, especially, in London. Consequently, more addresses are issued per PSU to achieve the same average interviewer total per PSU.

London	Low	44	17
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Twenty-seven sample strata were formed from the interaction of region (nine categories) and address density (three categories). TNS BMRB calculated an initial target number of primary sampling units for each stratum *a* using the following formula:

$$(((N_a/N)*10,000) / E(\text{ints per PSU})_a)*1.2$$

Where  $N_a$  = number of address in stratum *a*

$N$  = number of addresses across all strata

$E$  = "expected"

The formula included an inflation of 20% to provide a reserve sample of primary sampling units. This initial figure was rounded to an integer and then further adjustments were made to maximise the likelihood of achieving the overall target of 10,000 adult interviews. Table 2.3 shows the final number of PSUs sampled from each stratum.

**Table 2.3 Final number of PSUs sampled for each stratum**

Region	Address density			Total
	High	Medium	Low	
NE England	27	31	20	78
NW England	50	46	22	118
Yorkshire & the Humber	30	34	24	88
East Midlands	18	29	27	74
West Midlands	35	37	19	91
East of England	22	32	32	86
London	114	17	2	133
SE England	37	51	36	124
SW England	23	26	28	77
Total	356	303	210	869

### **2.3.2 Additional sample stratification**

Within each explicit stratum, primary sampling units were further sorted by a set of three 'factor' variables designed to be correlated with the key frequency data collected in the survey.

To achieve this, a set of regression models was produced using historic Taking Part data, one for each of the five sectors covered in the survey. The predictors in the model were limited to region and ACORN distribution (a neighbourhood classification produced by CACI) available for each primary sampling unit. The resulting regression equations were then applied to every primary sampling unit to produce a simple 'predicted frequency' for each of the five sectors.

These variables were further reduced into three 'factors' using a principal components extraction method combined with the 'varimax' rotation method to ensure that the three factors are not correlated with each other. This transformation should maximise the value of this data when stratifying the population of primary sampling units. The factors were ranked based on the proportion of variance (across the original sector 'predicted frequencies') each accounted for.

Within each explicit stratum, five strata were produced based on factor 1, three sub-strata based on factor 2, and finally primary sampling units were sorted by factor 3. In all, this led to 405 strata although only the primary strata were used as explicit strata (i.e. a target number of PSUs was not computed for all 405 strata, just for the primary 27). Nevertheless, the final sort order will be used to form 'variance strata' to ensure that standard error estimates reflect the sample design as accurately as possible.

Primary sampling units were sampled with a probability proportionate to address count. Sampling a fixed number of addresses in each sampled primary sampling unit ensures an equal probability address sample within each of the classes described in Table 2.2. The address sampling probability varies *between* classes but not within each class.

### **2.3.3 Allocation of primary sampling units to sample month**

Once the 869 primary sampling units had been sampled, one in six was systematically allocated to the reserve pool, leaving 724 to be allocated to a time period.

Taking Part samples are issued on a monthly basis. First, the 724 'main sample' primary sampling units were systematically allocated to a quarter using the following string pattern:

1-2-3-4-2-3-4-1-3-4-1-2-4-1-2-3

Repetition of this pattern produces a balanced sample in each quarter. The starting position within the string pattern was randomly generated.

Within each quarter, primary sampling units were systematically allocated to months in the same way but using the following string pattern:

1-2-3-2-3-1-3-1-2

#### **2.3.4 Sampling of individuals at sampled address**

At each sampled address, the interviewer would randomly sample one dwelling unit (if more than one), then randomly sample one household (if more than one) within the sampled dwelling unit. Interviewers used unique Kish Grids assigned to each address to assist them in this process.

The same Kish Grid was also used to randomly sample individuals within the household.

Interviews were sought with one adult aged 16+, and one child aged 11-15 (if resident)

Any parents or guardians of 5-10 year olds who were interviewed for the adult survey were asked to provide information about one randomly sampled child in this age range.

## 3. Questionnaire Development and Design

### 3.1 Overview of questionnaire

The questionnaire allowed DCMS to collect robust measurements of engagement across the DCMS sectors and also provided valuable longitudinal evidence to enable the Department and its partners to understand and demonstrate the impact and value of engagement in its sectors. By revisiting the same respondents year-on-year, the longitudinal survey allowed DCMS to capture change over time with a greater degree of insight, to understand how changes in circumstances and life events might impact upon participation levels, and gain further insight on specific topics of interest, such as The Olympics, First World War Centenary commemoration events and changing attitudes towards the cultural and sporting sectors.

### 3.2 Overview of the structure of the adult questionnaire

The three main versions of the adult questionnaire were:

- A fresh sample questionnaire which was asked to all respondents completing the survey for the first time. This could be either fresh sample adults or longitudinal respondents who had answered the 11-15 year old survey in previous years, but had since turned 16 and become eligible for the adult survey;
- A longitudinal questionnaire for longitudinal adult respondents. These adults were taking part in the study for the second, third, fourth or fifth time;
- A short household interview, to be asked in situations where the child respondent no longer lived in the same household as the named adult respondent from the previous year. Further details of this can be found at the end of this chapter.

The main sections of the 2015/16 adult questionnaire were as follows with differences between the fresh sample and longitudinal surveys highlighted throughout:

**Household information** (Asked of fresh sample and longitudinal respondents)

The initial section of the questionnaire on household information collected details about the various members of the household, including names, sex, ages, and relationship to the respondent, in addition to the number of people living in the household. Furthermore, this section also included a question asking the respondent their month of birth and which school

year they are currently in, if the respondent was aged between 16 and 19. The section finished with a couple of questions for fresh sample respondents only, asking how long the respondent had been continuously living in England. For respondents on the longitudinal survey, some of the information that was collected in the previous year's interview, such as month born and school year was not asked about again.

**Subjective well-being** (Asked of fresh sample and longitudinal respondents)

Three questions covering life satisfaction, extent to which the respondent feels things done in life are worthwhile and anxiety.

**Socialisation questions** (Asked of fresh sample respondents only)

The Socialisation section of the questionnaire collected information relating to what the respondent did whilst they were growing up (aged 11 – 15), how often they participated in these activities and also who they did the activities with. This section was used to enable comparisons to be made between childhood and current participation levels in an array of different activities. This section was asked to just fresh sample respondents and longitudinal respondents who had turned 16 and graduated to the adult interview (and therefore completing the adult questionnaire for the first time).

**Screeners and frequencies** (Asked of all fresh sample and longitudinal respondents unless specified)

The screeners and frequencies section of the questionnaire formed a substantial part of the survey and was answered by all respondents. This section explored in detail the types of activities that the respondent does nowadays. For the entirety of this section, there was no geographic restriction on where the respondent could have taken part in these activities (including outside England).

For all of the activities in this section except sport, respondent's participation or attendance in the activity was measured over the past 12 months. For each of the activities that the respondent had taken part in, respondents were asked whether they did this activity in their own time, for paid work, for academic study, as part of voluntary work or for some other reason.

In those cases where the respondent stated that they did the activity in their own time and/or for the purpose of voluntary work they were asked how often they had done the activity in question in these two settings.

The heritage and museums sections included questions on where the visit had taken place and in addition the heritage section included questions on who the respondent attended a heritage site with, heritage organisation membership, whether the respondent had taken any holidays in the last 12 months and participation in metal detecting.

The sports/physical activity questions referred to participation over the past four weeks and asked how many days in the last four week period respondents had participated in each of the sporting/physical activities selected. This section started by asking about walking and cycling activity before moving onto the main sports participation questions. The sports screening question was asked unprompted, with interviewers coding any sports that the respondent mentioned they had done.

This was followed up by a prompted section. This section included a read out question and response list containing main sports and physical recreation activities. Respondents were asked to mention if they had done any of them in the four weeks prior to interview. The prompted question was asked of all respondents, regardless of whether they had previously said that they had done any sport within the last four weeks.

If the respondent selected a sporting activity, they were then asked questions relating to the frequency, duration and intensity of the activity.

Following on from the sports/physical activity screener and frequency questions were a selection of questions centred on organised sport (involvement in clubs, competitive sport and tuition) and respondents' perceived sporting ability in comparison to people of their own age and gender.

**Details of participation (Levers)** (Asked of all fresh sample and longitudinal respondents unless specified)

The questionnaire then progressed to ask respondents further details about those activities mentioned in the previous section and sought to examine respondents' satisfaction with their experience. Respondents were asked follow-up questions about one randomly selected activity that they stated they had done in the screeners and frequencies section. Respondents were required to think back to the last time they did the activity.

Respondents were asked how much they enjoyed the activity, how likely it is that they will do it again, and whether they would recommend it to friends and family. For the libraries questions in this section, enjoyment questions were replaced by questions ascertaining respondents' satisfaction with the service provided on their last visit.

There were a few additional questions in the sports module of this section for longitudinal respondents. These questions explored the satisfaction of respondents overall sporting experience in the last 12 months and their likelihood to participate in sport when other factors got in the way.

### **Barriers to participation** (Asked of fresh sample respondents only)

This section was asked for each sector (arts; libraries; heritage; museums and galleries; and sport) that the respondent had **not** participated in during the last 12 months.

For each sector, it was established whether the respondent had ever participated at any point in the past. If respondents had ever done the activity, a question was asked to establish how frequently they did the activity in the past.

### **Life events** (Asked of longitudinal respondents only)

This section asked respondents if they had experienced any of a long list of events in the last 12 months, considered to be major 'lifestage' events related to family, work, education, friends and other significant areas of life. This section comprised two long response list questions administered through showcards, with the first containing less sensitive potential life-stage events (such as moving home, leaving school or university and retiring) and the second containing more sensitive potential life-stage events (such as getting engaged or married, serious illness or injury and death of a close family member, spouse or friend). These events were all deemed as potential influencing factors to respondents' level of participation in the DCMS sectors, which may have changed over the course of the previous year.

### **Changes to participation** (Asked of longitudinal respondents only)

Following on from the preceding life events section, this section addressed why respondents had either increased or decreased their participation in each of the DCMS sectors. The questions explored whether or not the numerous factors mentioned in the life events section (if any) or any sector specific reasons were accountable for contributing to an increase or decrease in activity. Like earlier sections of the questionnaire, questions on change were divided into each of the DCMS sectors: arts participation, arts attendance, using libraries, visiting archives, visiting museums or galleries, visiting heritage sites, and finally sports participation.

For each sector, if a respondent's involvement had increased or decreased in the last year, a question was asked exploring why they had done more/less. If more than one reason was selected, a question was asked to

establish which reason was the most important for the respondent's change in participation.

'Change in participation' was calculated by comparing the responses given at the screeners and frequencies questions during the current interview, to the responses given at same questions in the previous year. The different levels of change required in order to move into a new threshold of participation frequency were specific to each DCMS sector. The thresholds of participation were as follows:

- Arts participation: 0 activities; 1 activity; 2 activities; 3+ activities in the last year;
- Arts attendance: 0 activities; 1 activity; 2 activities; 3+ activities in the last year;
- Library usage: at least once a week; less often than once a week but at least once a month, less often than once a month; but at least once a year; has not visited;
- Archive visits: been to an archive in the last 12 months; not been to an archive in the last 12 months;
- Museum attendance: at least once a week; less often than once a week but at least once a month; less often than once a month; but at least once a year; has not visited;
- Heritage attendance: at least once a week; less often than once a week but at least once a month; less often than once a month but at least 3-4 times a year; 1-2 times in the last 12 months; has not visited;
- Sports participation: no sport – 0 days (no intensity measures); less than 4 days at 30mins+ (no intensity measures); 4-11 days at 30 mins+ (no intensity level); 12 plus days (no intensity level).

### **Factors affecting participation** (Asked of 'new' longitudinal respondents only)

This section began by asking the respondents about the extent to which physical health or pain had interfered with their normal daily activities. Questions were then asked about the extent to which the respondent would feel a 'real loss' if they were forced to give up their participation in each of the DCMS sectors and also, how confident and at ease they would feel in each of the DCMS sector environments. This was then followed by questions on respondents' opinions about different types of activity and their family and friends' level of participation in each of the DCMS sectors.

**Internet use** (Asked of fresh sample and longitudinal respondents)

This short section of the questionnaire explored respondents' use of the internet and the extent to which respondents use the internet to look at websites related to DCMS sectors (arts, libraries, archives, heritage, museums and galleries and sport). For each of the website types selected at the beginning of this section, respondents were subsequently asked how these sites were used. The section also asked a couple of questions ascertaining where and how the respondent accesses the internet, along with a question to establish whether or not the respondent had a currently active email address. The section concluded with questions on social media, which asked which social networking sites and applications the respondent accessed, how often they were accessed and finally, the ways in which they were accessed and used.

**Volunteering** (Asked of all fresh sample and longitudinal respondents unless specified)

This section determined whether the respondent had done any voluntary activity in the past 12 months. If a respondent stated that they had participated in voluntary activity, further details were collected such as the types of things they had done, whether or not it was connected to any of the DCMS sectors, and the amount of time devoted to voluntary activity in the past 4 weeks.

**Charitable giving** (Asked of all fresh sample and longitudinal respondents unless specified)

The objective of this section of the questionnaire was to seek whether or not the respondent had given any money to charity by any means in the last 12 months. The section asked respondents in which ways they had donated money in the last 12 months, before follow up questions in relation to giving to DCMS sectors (the arts, heritage, museums and galleries and sporting sectors). If indeed respondents had donated at all to any of the DCMS sectors, fresh sample respondents were asked how much money they had given to each. Furthermore, respondents were asked whether they believe they will generally give more, less or the same amount of money as they did to charities in the arts, culture and sporting sectors in the next 12 months. Finally, attitudes to charitable giving were also captured, with respondents asked their opinions on a battery of attitude statements.

**Community cohesion/belonging** (Asked of fresh sample respondents only)

The community cohesion section consisted of three short questions relating to how strongly the respondent felt they belonged to their local area and Britain, and to what extent they believed that their area is a place where people from different backgrounds get on well together.

**Public participation** (Asked of fresh sample respondents only)

The public participation section of the survey sought to determine how respondents felt about their local area. Firstly, respondents were asked about whether or not they felt they have an influence over sporting and cultural facilities in their area, as well as the quality of their local environment. The section progressed by asking whether or not any organisations had asked the respondent how they felt about local sporting facilities, local cultural facilities or the quality of their local environment before asking whether or not the respondent had taken any action to try to get something done about each of these three components of their local area, and what they did to try and achieve their desired outcome. To conclude the section, questions on local planning decisions, involvement in these, and the local environment were asked to 50% of fresh sample respondents.

**Olympics** (Asked of all fresh sample and longitudinal respondents)

The Olympics section asked respondents whether or not the UK hosting the 2012 Olympic and Paralympic Games had encouraged them to do more sport/recreational or cultural activity, in addition to whether or not it had encouraged the respondent to do more voluntary work.

**First World War Centenary commemoration events** (Asked of fresh sample and longitudinal respondents from July 2014)

This section asked about respondents' awareness of events commemorating the First World War centenary in general as well as specific events. Respondents were asked whether they were supportive of the commemoration in general and whether they did or intend to follow any of the events specifically.

**Broadcasting** (Asked of fresh sample and longitudinal respondents)

This short section included questions regarding TV and radio ownership as well as newspaper readership. Respondents were asked questions around whether they were likely to convert to digital in the next 12 months, how many digital radios they own, and the newspaper they read most often.

**Demographics** (Asked of all fresh sample and longitudinal respondents unless specified)

The final section of the questionnaire, collected detailed demographic information about the respondent and household. Information was collected regarding respondents' education, their employment, income, household tenure, vehicle ownership, phone access, health, sexual identity, national identity, ethnicity, religion and happiness. If the selected respondent was not the Household Reference Person, then questions relating to the Household Reference Person's employment and income were also asked. In July 2014, questions were added to ask whether respondents received any payments since April 2011 (i.e. pension, life insurance, significant win, redundancy, personal accident claim or another payment) and if so how much they received. In addition there were questions asked of respondents with a disability or long term illness or condition, about barriers to participation in cultural and sporting activity. Also any women aged between 16 and 54 were asked whether they had been pregnant or provided maternity to a child under six months old in the previous 12 months.

Longitudinal respondents were asked all the above demographic questions with the exception of sexual identity, national identity, religion and whether or not English is their first language.

**Re-contact questions** (Asked of all fresh sample and longitudinal respondents unless specified)

The questionnaire concluded with several questions to establish whether or not the respondent would be happy to be re-contacted in the future for similar research. The respondent was asked whether they would be happy to be re-contacted by TNS BMRB, as well as by other research organisations working on behalf of DCMS. This enabled TNS BMRB and DCMS to increase their panel of respondents for future waves of the Taking Part survey.

**Sample A and Sample B respondents** (fresh sample respondents only)

To ensure the set interview length was adhered, several questions continued to be asked of a sub sample of fresh sample respondents in 2015/16. Respondents in "Sample A1" were asked the charitable giving attitudinal questions and the arts and heritage attitudinal questions, while those in "Sample B1" were asked about their involvement in local planning decisions and a selection of the public participation questions. All fresh sample respondents were randomly allocated to either "Sample A1" or "Sample B1" at the beginning of the CAPI questionnaire.

### **The household interview** (Applicable longitudinal respondents only)

In situations where a longitudinal child respondent no longer lived in the same household as the named adult respondent from the previous year, a short household adult interview was conducted with a parent or guardian of the named child. This was completed to ensure that various household-based factors that may influence a child's opportunity to participate in each of the DCMS sectors were accounted for, such as income, local area, vehicle ownership and parent/guardian NS-SEC.

The short interview collected information on some basic details about the new adult respondent, including name, relationship to the child, gender, age and marital status. Furthermore, questions collecting details of the children in the household were also included, with the exception of month born and school year. After collecting an email address, the household interview concluded with a selection of questions from the adult demographic section, namely, household reference person employment, income, tenure, vehicle ownership and finally important re-contact details.

## 4. Fieldwork

### 4.1 Introduction

This chapter documents all aspects of the 2015/16 data collection process, specifically regarding fieldwork procedures, the management of fieldwork across the year, quality control procedures and response rates achieved.

### 4.2 Briefings

In total, 303 interviewers worked on Taking Part during the 2015/16 survey year. Most of these had worked on Taking Part over the last few years. Given the similarities to the 2014/15 survey, these interviewers were not required to be briefed again.

During the 2015/16 fieldwork period, there were six survey briefings for new interviewers. Each of these was attended by between 10 and 20 interviewers. Briefings were held in the following locations:

- London;
- Warwick;
- York;
- Edinburgh.

### 4.3 Fieldwork dates and fieldwork management

During 2015/16, the fieldwork for the Taking Part survey was managed on a monthly basis. In general, assignments were distributed evenly throughout the year, and were issued on a monthly basis, at the beginning of each month. The final month of sample (March) was started two weeks early so as to allow sufficient time for fieldwork to finish at the end of March. The fieldwork dates for each monthly sample issue for 2015/16 are noted in Table 4.1.

**Table 4.1 Fieldwork dates for each sample month**

Month	Fieldwork start	Fieldwork end
April 2015	1st April 2015	20 <sup>th</sup> December 2015
May 2015	1st May 2015	20 <sup>th</sup> December 2015
June 2015	1st June 2015	20 <sup>th</sup> December 2015
July 2015	1st July 2015	31 <sup>st</sup> January 2016
August 2015	1st August 2015	31 <sup>st</sup> January 2016
September 2015	1st September 2015	31 <sup>st</sup> January 2016
October 2015	1st October 2015	31 <sup>st</sup> March 2016
November 2015	1st November 2015	31 <sup>st</sup> March 2016
December 2015	1st December 2015	31 <sup>st</sup> March 2016
January 2016	2nd January 2016	31 <sup>st</sup> March 2016
February 2016	1st February 2016	31 <sup>st</sup> March 2016
March 2016	11th February 2016	31 <sup>st</sup> March 2016

Once all the issued addresses had been covered the Address Contact Sheets were returned to Head Office and a decision was taken about re-issuing non-productive outcomes. As a general rule all non-productive addresses (non-contacts, refusals, broken appointments, etc.) were re-issued unless there was a specific reason not to or it was considered not to be cost effective (e.g. where there was only one or two addresses in an assignment). Once the first re-issue period had been completed a decision was taken about whether to re-issue addresses that were non-productive for a second or third time. Full details of the re-issuing of sample in 2015/16 are shown in Section 4.6.

#### **4.4 Supervision and quality control**

Several methods were used to ensure the quality and validity of the data collection operation.

A proportion of interviewers, particularly those less experienced, were accompanied in the field by supervisors. Any interviewers working on the survey for the first time were accompanied by a supervisor on the first day of their assignment.

A proportion of respondents were re-contacted to verify that an interview had taken place. In total, 1,307 addresses interviewed between April 2015 and March 2016 were re-contacted in 2015/16 to verify that the interviewer had contacted someone and whether or not an interview was completed. Addresses for back checking were selected on the basis of TNS Operations overall field quality procedures, whereby all interviewers have their work checked at least twice a year.

These back checking procedures were mainly carried out by telephone. Where no telephone number was available a short postal questionnaire was sent to the address to collect the same information. Of the back checks completed, 90.3% (1,180 cases) were validated by telephone and 9.7% (127 cases) by post.

## **4.5 Fieldwork procedures and documents**

### **4.5.1 Advance letter and leaflet**

All selected addresses were sent an advance letter and a Taking Part respondent leaflet from DCMS in advance of an interviewer calling at the address. Interviewers sent out the letters themselves two or three days before starting their assignment.

For the 2015/16 survey, two versions of the advance letter and the leaflet were used: one for 'fresh sample' households (those households sampled for the first time in this survey year), and one for longitudinal respondents (who had taken part in the study in previous survey years).

The letters and leaflets explained a little about the survey, why the address had been selected and informed occupants that an interviewer would be calling round in the next couple of weeks. The letters also stressed the importance of the respondent taking part, the confidential nature of the survey and the respondent incentive for taking part. The letters were despatched on DCMS headed paper and signed by the project manager at DCMS to authenticate the survey.

The main differences between the fresh sample letter and leaflet, and those used for the longitudinal versions, were that the longitudinal versions focused less on basic information about the survey background, and more about reminding the respondent of their previous participation, the fact that they agreed to be re-contacted, that they had been selected to take part again, and the reasons for doing so. The longitudinal letters were also addressed directly to the individual who previously participated, rather than to 'the resident', as the fresh sample letter was addressed.

There were also two 'reissue' letters – one for those addresses where the initial interviewer was unable to make contact at the address and one for

those where a refusal had occurred. Both were despatched on TNS BMRB headed paper and signed by the project manager at TNS BMRB.

The letters included a telephone number and email address for people to contact if they required more information about the survey, to make an appointment for an interviewer to call, or to opt out of the survey. Over the course of the year, 412 people, representing 2.6% of addresses issued, opted out of the survey by contacting TNS BMRB, Kantar Operations or DCMS.

Copies of the letters and the leaflet can be found in Appendix B and Appendix C respectively.

#### **4.5.2 Address Contact Sheet (ACS)**

Interviewers were issued with a paper Address Contact Sheet (ACS) for each sampled address. This was the key document that allowed interviewers to record and manage their own calling strategies for each address. In 2015/16, two versions of the ACS were used – one for fresh sample households, and the other for longitudinal respondents.

The Address Contact Sheets are crucial documents to the management of the survey, both at the level of the individual assignment and for the management of the survey overall. The primary functions of the ACS are as follows:

- To allow interviewers to record the days and times that they called at an address. Additionally, there is space for interviewers to record details or comments that may be useful should the address be re-issued to another interviewer;
- To provide a record of all the outcomes achieved at the address. Although these outcomes were recorded by interviewers on the paper ACS, they were also reported electronically to Head Office on a daily basis so that overall progress could be monitored and managed.

The fresh sample ACS allowed interviewers to carry out the following procedures at each address:

- To carry out and record any selection procedures on fresh sample cases. Where an interviewer found more than one dwelling unit at an address they had to carry out a procedure to randomly select one dwelling unit for interview. Similarly, where more than one eligible adult was found at an address, interviewers had to randomly select one person for interview;

- To allow the interviewer to carry out the screening process for the 5-10 proxy and 11-15 youth surveys, the ACS had step-by-step instructions for interviewers and also allowed them to record the screening outcomes for every address. As with the final response outcomes, all screening outcomes were reported back to Head Office on a daily basis.

The longitudinal ACS differed from the fresh sample ACS, as no selection was required for respondents who had taken part previously. The longitudinal ACS covered the following:

- Details of the named adult respondents, including alternative contact details if they had provided them in their last interview;
- Establishing whether the named adult or child respondent was still resident at the address, and if they had moved, whether their new address could be established so that an interview could be conducted there;
- Screening for any children in the household aged five (not including those already included in the longitudinal proxy survey). This screening was conducted to ensure that if there was a child aged five in the household, they were interviewed in order to maintain the levels of children in the longitudinal survey year-on-year;
- Screening of named child proxy and 11-15 survey respondents, to check whether they were still eligible for the same version of the survey, or whether they should progress to the next stage of the survey. For example, if they had turned 11 since the last interview they would no longer be part of the 5-10 proxy sample, and instead part of the 11-15 survey. Similarly, if they had turned 16 since the last interview, they would no longer be part of the 11-15 sample, and instead part of the adult survey;
- Screening that the child respondents and adult respondent still lived in the same household. If they did not (for example, if the adult respondent had moved out, but the children still lived at the address, or vice-versa), the ACS included screening for a parent/guardian in the household of the child respondents, so that they could complete a short interview of household information to supplement the data collected in the child interview(s).

For both fresh sample addresses and longitudinal households, interviewers made a minimum of eight calls before regarding it as a non-contact, recording details of these on the ACS. Calls had to be made on different days of the week and at different times of day: at least two of the calls had to be made on a weekday evening (after 7.00 p.m.) and at

least one call at a weekend (10.00 a.m. – 9.00 p.m.), in order to make contact with households where everyone was working.

Examples of the two versions of the ACS are included in Appendix D.

### **4.5.3 Movers**

In the longitudinal element of the survey, where a named respondent no longer lived at their issued address, interviewers were required to try and obtain details of a follow-up address.

In some cases, respondents gave alternative address (or 'stable address') details when they were interviewed during 2014/15, which helped to track them down in the event of them moving. If this detail had been obtained, it was printed on the ACS for interviewer reference. In situations where the respondent had moved, yet no alternative contact details had been provided, interviewers were instructed to obtain new address details wherever possible from the current residents at the address.

Interviewers were briefed to attempt to trace respondents to their new address, and to gain an interview with them at this new address if it fell within, or close to, their original assignment area.

Wherever possible, in situations where the respondent had moved outside of the interviewer's area, the contact was passed onto another interviewer working closer to that area. Any respondents who had moved outside of England, or to institutional accommodation, were not followed up as they were no longer eligible for the survey.

### **4.5.4 Non-English speakers**

In cases where the selected person had limited or no English, interviewers were permitted to use another person to interpret, provided such a person was appropriate (e.g. a close relative). The minimum age for an interpreter was set at 12 years old.

## **4.6 Maximising response**

### **4.6.1 Reissues**

In order to maximise response to the survey, addresses with non-productive outcomes were re-issued, where a decision was made that this was appropriate.

In total across the year, 16,177 addresses were issued, with 2,140 addresses being re-issued, representing 13.2% of the original sample. Of these, 198 addresses were re-issued for a second time and 8 for a third time. Of all the addresses re-issued, 15% were converted into productive outcomes (i.e. an interview), at some stage. Generally, addresses where

the original outcome had been a refusal were less likely to be converted than those that had been a non-contact or some other unproductive outcome (e.g. broken appointment, away, etc.).

#### **4.6.2 Incentives**

The survey was incentivised in two stages. Every address in the sample was sent an unconditional incentive of a book of six first-class stamps that were included with the advance letter. Additionally, each household that completed an interview(s) received a £5 high-street voucher.

No additional incentive was provided for the child surveys at fresh sample addresses. However, any children taking part in the longitudinal 11-15 survey (being interviewed for the second or third time), received a £5 high-street voucher to thank them for their participation.

#### **4.7 Fieldwork outcomes**

The fieldwork outcomes, including response rates, are detailed in this section. The figures reflect the sample year, not the survey year. As such these figures are different to those in the 2015/16 dataset, which only reflects interviews gained over the period April 1<sup>st</sup> 2015 to March 31<sup>st</sup> 2016. The fieldwork outcomes list all figures up to the close of the final survey in field with 2015/16 sample in March 2016. The fieldwork outcomes have been split between fresh sample and longitudinal surveys.

##### **4.7.1 Adult fresh sample**

Table 4.2 shows the fieldwork outcomes for the adult fresh sample issued in 2015/16 for Taking Part. The final contact rate was 88.3%<sup>2</sup> and the final co-operation rate was 61.0%<sup>3</sup>. The (unadjusted) response rate was **53.9%**.

It is standard practice to assume that a proportion of the outcomes classified as 'Residential address but no contact with anyone at address' is actually deadwood. This proportion is equal to the proportion of other outcomes that is classified as deadwood.

9,552 (total number of fresh sample outcomes) minus 854 (total residential non-contacts) = 8,698 outcomes, of which 810 are deadwood (9.3%).

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<sup>2</sup> (Interviews + Refusals + Other unproductive)/ Total non-deadwood.

<sup>3</sup> Interviews / (Interviews + Refusals + Other unproductives).

854 \* 9.3% = 80 assumed deadwood addresses among the residential non-contacts.

This increases the total deadwood count to 890 (810 + 80) and the total non-deadwood outcomes is reduced to 8,662 (9,552 – 890).

The *adjusted* response rate = **54.4%**.

**Table 4.2 Fieldwork outcomes (adult fresh sample)**

<b>Outcome</b>	<b>No. of cases</b>	<b>% of total issues</b>	<b>% of non-deadwood</b>
<b>Deadwood</b>	810	8.5%	-
<i>Not yet built/under construction</i>	10		
<i>Derelict/demolished</i>	22		
<i>Vacant/empty housing</i>	469		
<i>Non-residential address</i>	109		
<i>Communal establishment</i>	33		
<i>Address residential &amp; occupied but not main residence</i>	91		
<i>Other ineligible</i>	31		
<i>Inaccessible</i>	14		
<i>Unable to locate address</i>	31		
<b>Non contact</b>	1,027	10.8%	11.7%
<i>Residential address but no contact with anyone at address</i>	854		
<i>Person selected but no contact with selected person</i>	167		
<i>No contact with parent to get parental permission</i>	6		
<b>Refusal</b>	2,044	21.4%	23.4%
<i>Information about occupants refused</i>	720		
<i>Office refusal</i>	230		
<i>Parent refused permission to interview</i>	8		
<i>Refusal by selected person</i>	865		
<i>Proxy refusal</i>	221		
<b>Other unproductive</b>	961	10.1%	11.0%
<i>Broken appointment</i>	213		
<i>Selected person ill at home during survey period</i>	99		
<i>Selected person away or in hospital throughout survey period</i>	110		
<i>Selected person physically or mentally unable</i>	98		
<i>Selected person has inadequate English</i>	71		
<i>Contact made with respondent but no appointment made</i>	188		
<i>Other unproductive</i>	182		
<b>Productive</b>	4,710	49.3%	53.9%
<i>Full interview</i>	4,710		
<b>TOTAL</b>	9,552		

#### 4.7.2 Adult longitudinal sample

Table 4.3 shows the fieldwork outcomes for the adult longitudinal sample issued in 2015/16. The final response rate was **81.5%**, with a contact

rate of 96.8%<sup>4</sup> and a co-operation rate of 84.2%<sup>5</sup>. This response rate calculation defines untraced movers as 'out of scope'. If untraced movers are included as non-contacts, the response rate would be **78.2%**<sup>6</sup>.

The conversion rate for the longitudinal sample issued in 2015/16 was **77.4%**<sup>7</sup>.

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<sup>4</sup> (Interviews + Refusals + Other unproductive) / Total non-deadwood.

<sup>5</sup> Interviews / (Interviews + Refusals + Other unproductives).

<sup>6</sup> Only 'named respondent has died' and 'named respondent has moved outside of England' included as deadwood

<sup>7</sup> Interviews / Total sample issued

**Table 4.3 Fieldwork outcomes (adult longitudinal sample)**

<b>Outcome</b>	<b>No. of cases</b>	<b>% of total issues</b>	<b>% of non-deadwood</b>
<b>Deadwood</b>	311	4.9%	-
<i>Named respondent has died</i>	46		
<i>Address inaccessible</i>	1		
<i>Unable to locate address</i>	2		
<i>Named respondent has moved from England</i>	14		
<i>Other ineligible</i>	8		
<i>Respondent moved and follow-up address not obtained</i>	239		
<i>Respondent has moved to armed forces or other institution</i>	1		
<b>Non contact</b>	194	3.1%	3.2%
<i>No contact with anyone at address</i>	125		
<i>No contact with named respondent</i>	68		
<i>No contact with parent to get parental permission</i>	1		
<b>Refusal</b>	563	9.0%	9.4%
<i>Information about occupants refused</i>	20		
<i>Office refusal</i>	162		
<i>Parent refused permission to interview</i>	1		
<i>Refusal by named respondent</i>	332		
<i>Proxy refusal</i>	48		
<b>Other unproductive</b>	350	5.6%	5.9%
<i>Broken appointment</i>	113		
<i>Selected person ill at home during survey period</i>	56		
<i>Selected person away or in hospital throughout survey period</i>	51		
<i>Selected person physically or mentally unable</i>	17		
<i>Selected person has inadequate English</i>	2		
<i>Contact made with respondent but no appointment made</i>	68		
<i>Other unproductive</i>	43		
<b>Productive</b>	4,867	77.4%	81.5%
<i>Full interview</i>	4,865		
<i>Partial interview</i>	2		
<b>TOTAL</b>	6,285		

Table 4.4 shows the fieldwork outcomes for new 16 year old adults in the longitudinal sample issued in 2015/16 for Taking Part.

**Table 4.4 Fieldwork outcomes (New 16 year olds in the adult longitudinal sample)**

<b>Outcome</b>	<b>No. of cases</b>	<b>% of total issues</b>	<b>% of non-deadwood</b>
<b>Deadwood</b>	8	7.1%	-
<i>Respondent moved and follow-up address not obtained</i>	7		
<i>Named respondent has moved from England</i>	1		
<b>Non contact</b>	1	0.9%	1.0%
<i>No contact with named respondent</i>	1		
<b>Refusal</b>	11	9.7%	10.5%
<i>Parent refused permission to interview</i>	1		
<i>Refusal by named respondent</i>	4		
<i>Proxy refusal</i>	6		
<b>Other unproductive</b>	7	6.2%	6.7%
<i>Broken appointment</i>	2		
<i>Selected person ill at home during survey period</i>	1		
<i>Selected person away or in hospital throughout survey period</i>	1		
<i>Contact made with respondent but no appointment made</i>	1		
<i>Other unproductive</i>	2		
<b>Productive</b>	86	76.1%	81.9%
<i>Full interview</i>	86		
<b>TOTAL</b>	113		

#### **4.8 Re-contact rates**

The vast majority (97.2%) of adults giving a second, third or fourth interview agreed to be contacted again for the study in future. In addition, 72.6% of individuals sampled for the first time in 2015/16 agreed to be re-contacted.

#### **4.9 Interview length**

In 2015/16 the mean adult fresh sample interview length was 52 minutes 47 seconds (median 49 minutes 51 seconds).

The mean adult longitudinal sample interview length was 49 minutes and 14 seconds (median 46 minutes and 5 seconds).

The figures are calculated after capping the lower and upper extreme values. 1.5% of fresh sample interviews and 1.7% of longitudinal interviews have been removed due to extreme values. Extreme values are often the result of a break in the middle of the interview.

## 5. Child Surveys

### 5.1 Introduction to the child surveys

In addition to the main adult survey, there is also a child element of Taking Part. This comes in two parts:

- **Child proxy interview**, where there is a child aged 5-10 in the household, answered by the adult selected for the adult survey;
- **Youth interview**, where there is a child aged 11-15 in the household, answered directly by the child.

Child respondents are also included in the longitudinal survey. This may be either the 11-15 year old child who participated the previous year, or a proxy interview about the 5-10 year old conducted with the longitudinal adult participant.

The longitudinal child survey was designed to allow children to move through the different questionnaires as they progressed to the next age level. A child who was originally asked about in the 5-10 survey, but had turned 11 by the time the 2015/16 survey was conducted, would be approached to take part in the 11-15 survey. Similarly, a child who was part of the 11-15 sample previously, but had since turned 16, would be moved to the adult questionnaire.

Each year, any new 5 year olds identified in longitudinal households are also included in the 5-10 year old proxy interview. This is to make sure that 5 year olds continue to be represented in the survey as the rest of the longitudinal sample ages.

The child surveys allowed national estimates to be collected on the engagement of children aged 5-15 in a variety of different DCMS sectors. In 2012/13, questions were added for longitudinal respondents which would facilitate analysis of the change in children's attitudes and behaviour over time.

### 5.2 Sample (including an overview of the screening process)

For the fresh sample survey, respondents for both the child proxy (5-10) and youth (11-15) elements were obtained from the list of addresses randomly selected for the main adult survey.

In general, child screening was carried out at all addresses in the fresh sample. In some cases however, child screening was not needed because

of the outcome of the adult interview. For example, various situations where no child screening was possible were:

- Where the address sampled was deadwood;
- Where no contact was made with anyone at the address (after a minimum of 8 calls);
- Where contact was made with an adult at the address, however they refused to do an interview;
- Where there was an office refusal.

In addition, because it was important not to jeopardise the adult interview, it was advised that interviewers left the child screening until after the adult interview had been completed. If however, a respondent mentioned the child survey before the adult interview was completed (the child survey was mentioned in the survey leaflet), then it was deemed acceptable to do the child screening at that point.

For the longitudinal survey, any children who were eligible to take part were mentioned by name on the advance letter sent to adult respondents, and had their name printed on the ACS so that the interviewer knew who to ask for. If the child was no longer in the same household as the adult respondent, the interviewer was required to try and follow-up at their new address in order to obtain an interview.

The longitudinal survey also required interviewers to screen for a new 5-year-old in all households where a longitudinal interview took place, in order to maintain the levels of 5-year-olds in the longitudinal sample. This screening occurred regardless of whether any children were already part of the longitudinal survey in the household.

### **5.2.1 Child aged 5-10 interview**

Once the adult interview was completed, in fresh sample households, interviewers were instructed to ask how many children aged 5-10 were living in the household and whether or not the main adult selected for this interview was the parent / guardian of the 5-10 year old. If these conditions were met, and there was one child aged 5-10 living in the household, a proxy child interview was completed with the parent of the child. If there was more than one child aged 5-10 living in the household, one child was randomly selected using the following procedure:

- The name of each child aged 5-10 was listed in alphabetical order
- The Kish grid (as explained in section 2.3.4) was then used to identify which child to interview the adult about

This process ensured that just one child aged 5-10 was randomly selected for each applicable household.

For longitudinal respondents, the name of the 5-10 child who was to be asked about in the proxy interview was listed on the contact sheet, together with a prompt for the interviewer to check that the child was still eligible for the 5-10 survey, or if they had turned 11 since the last interview and should graduate to the 11-15 survey.

The interviewer also checked that the 5-10 year-old was still resident in the same household as the adult respondent. If this was not the case, then the interviewer was required to find a follow-up address for the child respondent and attempt to gain an interview there. The interviewer was asked to identify an adult within the child's new household who could complete the proxy interview on their behalf, and also complete a short interview providing basic household information, required for analysis of the child data, which is usually collected during the full adult interview.

### **5.2.2 Child aged 11-15 interview**

In addition to screening for a 5-10 child in each fresh sample household, interviewers were also instructed to screen for any children aged 11-15 in the household. If there was one child aged 11-15 in the household, then interviewers attempted to complete a child 11-15 interview once parental permission had been obtained from a parent or guardian. A signed record of parental permission for every child 11-15 interview was collected on each relevant address contact sheet. If there were 2 or more children aged 11-15 in the household, then one child was randomly selected using the same method as outlined above in section 5.2.1 for the Child aged 5-10 interview. Once again, it was essential that parental permission was obtained before attempting to complete a child 11-15 interview.

This meant that at any one fresh sample address, a total of 3 interviews could be conducted, with 2 different respondents:

Respondent 1) Parent / Guardian: Adult interview + Child by proxy interview (5-10)

Respondent 2) Child living in household: Child 11-15 interview.

Respondents completing the child surveys on the fresh sample survey were not issued with incentives, meaning a maximum of £5 was issued to each participating fresh sample household.

For longitudinal respondents, the name of the 11-15 year-old who took part in the interview in the previous survey year was listed on the contact sheet, together with a prompt for the interviewer to check that the child

was still eligible for the 11-15 survey, or if they had turned 16 since the last interview and should graduate to the main adult survey.

As with the longitudinal 5-10 proxy survey, the interviewer checked that the 11-15 year-old was still resident in the same household as the adult respondent. If this was not the case, then the interviewer was required to find a follow-up address for the 11-15 survey respondent and attempt to gain an interview there. The interviewer was asked to identify an adult within the child's new household who could provide parental permission to approach the child for interview, and complete a short interview providing basic household information, required for analysis of the child data, which is usually collected during the full adult interview.

Unlike in the fresh survey, all named respondents that were interviewed in the longitudinal households, including children aged 11-15, received an incentive.

### **5.2.3 New 5-year-old interview**

In every longitudinal household, interviewers screened for the presence of a five year-old child (not including those who were already included in the longitudinal survey through participation in the 5-10 proxy survey last year). This addition to the longitudinal survey was designed in 2012/13 to combat the issue of an ageing sample each year – if the sample was not topped up with new respondents from the youngest age band eligible for the survey, then each year there would be a shortfall of interviews with this age group.

The screening for a five year-old followed the same approach as for the fresh sample screening of 5-10 year olds, although only children aged five were eligible.

Additionally new five year olds identified in 2013/14 or 2014/15 were followed up using the same approach as the longitudinal 5-10 survey.

## **5.3 Questionnaire development and design**

### **5.3.1 Overview of the child questionnaires**

TNS BMRB and DCMS worked together to produce the two different child questionnaires. The 11-15 interview was approximately 20 minutes and the 5-10 proxy interview 10 minutes in length and remained largely the same as they were in the 2014/15 survey. The questionnaires were designed to capture detail about the child's participation in cultural and sporting and activities.

### **5.3.2 Overview of the 5-10 child proxy questionnaire**

The 5-10 child proxy questionnaire was conducted directly after the adult interview in all applicable households. This questionnaire asked the parent or guardian of the 5-10 year old about the activities the child participated in outside of school. This included any activities organised by the school but done outside of normal school hours and also any activities done by the child on holiday. The 5-10 child survey did not ask about any activities that the child does at school, as it was considered too difficult for the parent or guardian to be able to report this detail accurately on behalf of their child.

The following sections were covered in the 5-10 child by proxy questionnaire:

#### **Household**

This section included questions about the household i.e. the number of dwelling units, number of adults and number of children aged 5-10 and the name, age and sex of the child that the interview related to.

#### **School and school year**

These questions collected information on which school the child went to and which school year the child was in at the time of interview. Alternatively, if the child did not attend school (for example they were in receipt of home education or had not yet started school) then this information was also collected at this point.

#### **Lifestage question**

This multiple choice question was asked of longitudinal respondents to the 5-10 proxy survey. It aimed to establish whether the child the interviewer was asking about had been through any significant changes in their life since the last interview. The question asked about aspects of life relevant to a 5-10 year-old, such as whether they had started school, moved to a new school, started attending a club, made new friends or had a new brother or sister.

#### **Activities and frequencies**

This section began with questions asking the parent / guardian about things that their child may have done or places they may have visited in the past 12 months. These activities all linked to DCMS cultural areas of interest, as sport was covered in a later section.

For each type of activity e.g. dance activities, music activities etc. a list of different qualifying activities were provided in order to help establish which different areas the child had participated in outside of school during the past 12 months. These sections included any volunteering that the child may have done, and a showcard was included for respondents who had trouble defining the types of things the term 'volunteering' included. The following groups of activities were asked about:

- Dance activities;
- Music activities;
- Theatre and drama activities;
- Reading and writing activities;
- Arts crafts and design activities;
- Street arts, circus, carnival or festival activities;
- Film and radio activities;
- Other media activities (Radio and computer activities);
- Visited a library;
- Visited a museum;
- Visited any historic or important modern places, buildings or public spaces.

For each group of activities that the child had participated in outside of school, follow up questions on the frequency of participation and whether the child had done the activity outside of school in the last 7 days were also asked.

Activities were grouped into 3 categories: arts, libraries, and museums and heritage. These sections were rotated within the questionnaire.

## **Sport**

This section aimed to ascertain the child's level of sporting participation and began with a question asking which sports the child had done in the last 4 weeks. This question was administered using a showcard. The following question asked which sports (of those selected at the first question) the child had participated in during the last 7 days, before asking about the number of days in the last week that the child had spent participating in sport for a minimum of 30 minutes.

## **Competitive sport**

In addition to the questions on sports participation, a couple of questions about competitive sport were also asked. These questions collected data on the types of activities that the child took part in organised by the school and not organised by the school in the past 12 months.

## **Most frequent activity**

Each of the activities that the respondent said their child had done were listed together in one question, and the respondent was asked which of those activities they felt the child spends the most time doing. This question was asked of all respondents, fresh sample and longitudinal.

## **Olympics**

The Olympics section of the 5-10 child by proxy asked whether the Olympics had encouraged their child to take part in more sport, and where relevant, in which ways they had achieved this.

## **Demographics**

This final section of the questionnaire included a few standard questions on the health and ethnicity of the child. All other detailed demographic information was collated from the accompanying adult interview. A question asking for the date of birth of the child was also included.

### **5.3.3 Overview of the 11-15 child questionnaire**

On the whole, the structure of the 11-15 questionnaire was largely the same as the 5-10 questionnaire. The key difference in this survey in terms of content was that the 11-15 questionnaire collected data on the activities that the respondent did both in school lessons **and** in their spare time. This specific questionnaire therefore included activities that had been done at any time, and once again included activities that had been done on holiday.

## **Household**

This section included questions about the household i.e. the number of dwelling units, number of adults and number of children aged 11-15 and the name, age and sex of the child.

## **School and school year**

These questions collected information on which school the child went to and which school year the child was in at the time of interview. Alternatively, if the child did not attend school (for example they were in receipt of home education or had not yet started school) then this information was also collected at this point.

## **Lifestage questions**

Longitudinal respondents in the 11-15 survey were asked two questions about life stage changes that may have occurred since they were last

interviewed. The first of the two questions concerned issues related to school, studies and education, while the second question related to more personal issues such as involvement in groups and clubs, making new friends, being given more freedom in going out alone, or more money from parents, or having a new brother or sister.

### **Activities, frequencies and satisfaction**

Once again, this section started with questions about things that the child had done or places they had visited in the past 12 months. These activities all linked to DCMS cultural areas of interest, as sport was covered in a later section.

For each type of activity e.g. dance activities, reading and writing activities etc. a list of different qualifying activities were provided in order to help establish which different areas the child had participated in outside of school during the past 12 months. These sections included any volunteering that the child may have done, and a showcard was included for respondents who had trouble defining the types of things the term 'volunteering' included. The following groups of activities were asked about:

- Dance activities;
- Music activities;
- Theatre and drama activities;
- Reading and writing activities;
- Arts crafts and design activities;
- Street arts, circus, carnival or festival activities;
- Film and radio activities;
- Other media activities (Radio and computer activities);
- Visited a library;
- Visited a museum;
- Visited any historic or important modern places, buildings or public spaces.

If the child respondent had participated in any of the things listed in each activity screener question, a series of follow up questions were asked for each activity. Follow up questions for each activity type collected information on whether the respondent had done the activity during school lessons, during their spare time (which included out of school lessons, break times, and lunchtimes during school) or both. In addition, data on how frequently they had done the activity in each setting and whether they had participated in the activity in the past 7 days were also asked.

Activities were grouped into 3 categories: arts, libraries, and museums and heritage and these sections were rotated in the questionnaire.

## **Sport**

This section aimed to establish the child's level of sporting participation and began with a question asking which sports the child had done either in school lessons or in their spare time in the last 4 weeks. This question was administered using a sport prompt pack consisting of a comprehensive list of sports. This was followed by a question asking which of these sports the child had participated in during school lessons and then, in their spare time in the last 4 weeks. The section ended by asking about the number of days in the last week that the child had spent participating in these sports for a minimum of 30 minutes in school lessons and their own time.

## **Competitive sport**

The sports participation section progressed by asking several questions about competitive sport. These questions collected data on the types of activities that the child took part in organised by the school and not organised by the school in the past 12 months.

## **Olympics**

The Olympics section of the 11-15 questionnaire asked whether the Olympics had encouraged them to take part in more sport, and where relevant, in which ways it had increased their motivation to do this.

## **Well-being**

This section was added to the 11-15 questionnaire in April 2013 and included one question asking about subjective level of happiness. The child was asked to rate how happy they were taking all things together, using a scale of 1-10 where 1 meant 'extremely unhappy' and 10 meant 'extremely happy'.

## **Demographics**

This final section of the questionnaire included a few standard questions on the health and ethnicity of the child as well as the type of school they attended. All other detailed demographic information was collated from the accompanying adult interview. A question asking for the date of birth of the child was also included.

## **5.4 Fieldwork**

### **5.4.1 Fieldwork procedures and documents**

Screening for the fresh child surveys took place after the adult interview had been completed at all productive addresses in the sample.

If an eligible child aged 5-10 was identified in a fresh sample household, then a 5-10 proxy survey was carried out immediately after the main adult interview. This survey was only carried out if the adult respondent was the parent or guardian of the 5-10 year-old.

If an eligible 11-15 year-old was identified in the fresh sample household, an 11-15 youth interview was conducted. This took place after the main adult interview, and was carried out with the child directly. It was recommended that the 11-15 interview should be conducted during the same visit as the adult interview if possible, though appointments for a re-visit could be made for the 11-15 interview if necessary.

There were screening instructions for both the 5-10 proxy interview and the 11-15 interview on the main address contact sheet. Once the selection of any children aged 11-15 had been made, the interviewer was required to obtain written parental permission before proceeding with the interview. The adult was shown the Parental Permission Card (see Appendix E) to indicate what the interviewer would be asking the child, and asked to sign the 'parental/guardian permission' section of the address contact sheet. This was not required with the 5-10 proxy interview as this was completed by the parent on behalf of the child.

For longitudinal child respondents, interviewers were required to establish whether the child was still eligible for the same age group interview, and also that they still lived in the same household as the adult respondent. If they no longer lived in the same household, then the interviewer was required to attempt to gain a follow-up address, and attempt to interview the child (or adult, about the child, for a 5-10 proxy interview), at their new address.

If the child had moved to a new age group since their last interview, then the interviewer was instructed to interview them using the appropriate script. If the child who was asked about for the 5-10 proxy survey the previous year had since turned 11, then this involved approaching them directly for interview using the 11-15 script. If an 11-15 year old from the previous year had since turned 16, they would be interviewed using the full adult script.

The same rules regarding conducting interviews on the fresh sample 5-10 proxy and 11-15 survey, were also applied for the longitudinal versions,

with interviews taking place after the adult interview wherever possible, and interviewers seeking written consent from the parent or guardian before approaching any children aged 11-15 for interview.

## **5.4.2 Fieldwork outcomes**

This section details the fieldwork outcomes for the child surveys. The 5-10 proxy survey and the 11-15 youth survey outcomes are reported separately. These are also split by fresh sample, and longitudinal sample surveys. If a longitudinal respondent moved to a new survey age group (5-10 survey to the 11-15 survey or 11-15 survey to the adult survey) the outcome was reported as part of the sample in which it was issued.

### **5.4.2.1 5-10 fresh sample survey**

Table 5.1 shows the fieldwork outcomes for the 5-10 child proxy survey. The final contact rate should be **100%** as screening for the 5-10 child interview by proxy should only take place with households co-operating with the main (adult) survey and when the person participating in the adult interview is the parent or guardian of the child aged 5-10.

The final co-operation rate was **88.6%**<sup>8</sup>. There were no non-contacts for the 5-10 proxy survey, so the response rate is the same as the co-operation rate: **88.6%**.

As a general formula, the *cumulative* response rate for the 5-10 survey is adult response rate \* child response rate = 54.4%\*88.6% = **48.2%**.

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<sup>8</sup> (Interviews / (Interviews + Refusals + Other unproductives))

**Table 5.1 Fieldwork outcomes (5-10 fresh sample survey)**

Outcome	No. of cases	% of total issues	% of non-deadwood
<b>Deadwood</b>	8,994	94.0%	
<i>No child aged 5-10 in household or main interview not with parent of 5-10 year old</i>	4,742		
<i>Information for child screening refused</i>	3		
<i>Unable to complete child screening (non-response/deadwood in adult survey)</i>	4,249		
<b>Non contact</b>	-	0.00%	0.00%
<i>Residential address but no contact with anyone at address (when seeking child interview)</i>	-		
<i>Child selected but no contact (or re-contact) with parent of child</i>	-		
<b>Refusal</b>	47	0.5%	8.1%
<i>Refusal by selected person</i>	44		
<i>Proxy refusal</i>	3		
<b>Other unproductive</b>	19	0.2%	3.3%
<i>Broken appointment</i>	3		
<i>Contact made but no appointment made</i>	2		
<i>Other unproductive</i>	14		
<b>Productive</b>	511	5.3%	88.6%
<i>Full interview</i>	511		
<b>TOTAL</b>	9,571		

**5.4.2.2 11-15 fresh sample survey**

Table 5.2 shows the fieldwork outcomes for the 11-15 child survey. The final contact rate was **89.4%**<sup>9</sup> and the final co-operation rate was **72.2%**<sup>10</sup>. The response rate was **64.6%**. It should be borne in mind that the request for an interview with an 11-15 year old could only be made in households co-operating with the main (adult) survey request. As a general formula, the *cumulative* response rate for the 11-15 child survey is adult response rate \* child response rate = 54.4%\*64.6% = **35.1%**.

<sup>9</sup> (Interviews + Refusals + Other unproductive)/Total non-deadwood

<sup>10</sup> (Interviews / (Interviews + Refusals + Other unproductives)

**Table 5.2 Fieldwork outcomes (11-15 fresh sample survey)**

Outcome	No. of cases	% of total issues	% of non-deadwood
<b>Deadwood</b>	9,087	95.0%	
<i>No child aged 11-15 in household</i>	4,835		
<i>Information for child screening refused</i>	3		
<i>Unable to complete child screening (non-response/deadwood in adult survey)</i>	4,249		
<b>Non contact</b>	51	0.5%	10.6%
<i>Child selected but no contact with selected child</i>	51		
<b>Refusal</b>	101	1.1%	20.9%
<i>Parent refused permission to interview</i>	75		
<i>Refusal by selected child</i>	19		
<i>Proxy refusal</i>	7		
<b>Other unproductive</b>	19	0.2%	3.9%
<i>Broken appointment</i>	6		
<i>Contact made but no appointment made</i>	5		
<i>Selected child away or in hospital throughout survey period</i>	1		
<i>Selected child physically or mentally unable</i>	5		
<i>Other unproductive</i>	2		
<b>Productive</b>	312	3.3%	64.6%
<i>Full interview</i>	312		
<b>TOTAL</b>	9,570		

#### 5.4.2.3 5-10 longitudinal survey

Table 5.3 shows the fieldwork outcomes for the longitudinal 5-10 proxy survey. The final co-operation rate was **73.2%**<sup>11</sup>. Taking into account the small number of non-contacts, the response rate was **72.3%**. This response rate calculation defines untraced movers as 'out of scope'. If untraced movers are included as non-contacts, the response rate would be **68.6%**<sup>12</sup>.

The conversion rate for the 5-10 re-contact sample issued in 2015/16 was **68.5%**<sup>13</sup>.

As a general formula, the *cumulative* response rate for the longitudinal child proxy survey is adult response rate \* child response rate = 81.5% \* 72.3% = **58.9%**.

<sup>11</sup> (Interviews / (Interviews + Refusals + Other unproductives))

<sup>12</sup> Only 'Named respondent has moved from England' included as deadwood

<sup>13</sup> Interviews / Total sample issued

It should be noted that the outcome 'unable to complete child screening due to unproductive adult contact' was included as an unproductive outcome in the analysis. This results in a much lower response rate for the longitudinal sample than the fresh sample (for the fresh sample, the 'unable to complete child screening' outcome was included as deadwood).

**Table 5.3 Fieldwork outcomes (5-10 proxy longitudinal survey)**

Outcome	No. of cases	% of total issues	% of non-deadwood
<b>Deadwood</b>	26	5.3%	
<i>Respondent has moved and follow-up address not obtained</i>	25		
<i>Respondent has moved from England</i>	1		
<b>Non contact</b>	6	1.2%	1.3%
<i>Residential address but no contact with anyone at address</i>	1		
<i>Person selected but no contact with selected person</i>	5		
<b>Refusal</b>	12	2.4%	2.6%
<i>Refusal by selected person before interview</i>	10		
<i>Parental permission needed but refused</i>	1		
<i>Proxy refusal other than by parent guardian</i>	1		
<b>Other unproductive</b>	112	22.6%	23.9%
<i>Unable to complete child screening due to unproductive adult contact</i>	97		
<i>Broken appointment</i>	3		
<i>Selected person physically or mentally unable</i>	1		
<i>Other unproductive</i>	11		
<b>Productive</b>	339	68.5%	72.3%
<i>Full interview</i>	267		
<i>Full interview (new 11 year old)</i>	72		
<b>TOTAL</b>	495		

#### 5.4.2.4 11-15 longitudinal survey

Table 5.4 shows the fieldwork outcomes for the longitudinal 11-15 survey. The final co-operation rate was **67.3%**<sup>14</sup> and the response rate was **65.6%**. As with the other re-contact samples, this response rate calculation defines untraced movers as 'out of scope'. If untraced movers are included as non-contacts, the response rate would be **62.6%**<sup>15</sup>.

<sup>14</sup> (Interviews / (Interviews + Refusals + Other Unproductives))

<sup>15</sup> Only 'Named respondent has moved from England' included as deadwood

The conversion rate for the 11-15 re-contact sample issued in 2015/16 was **62.5%**<sup>16</sup>.

As a general formula, the *cumulative* response rate for the longitudinal child proxy survey is adult response rate \* child response rate = 81.5% \* 65.6% = **53.5%**.

As with the 5-10 sample, for the purposes of the 11-15 longitudinal response analysis, the outcome 'unable to complete child screening due to unproductive adult contact' was included as an unproductive outcome.

**Table 5.4 Fieldwork outcomes (11-15 longitudinal survey)**

<b>Outcome</b>	<b>No. of cases</b>	<b>% of total issues</b>	<b>% of non-deadwood</b>
<b>Deadwood</b>	25	4.9%	
<i>Respondent has moved and follow-up address not obtained</i>	24		
<i>Respondent has moved from England</i>	1		
<b>Non contact</b>	12	2.3%	2.5%
<i>No contact with named respondent after 8+ calls</i>	1		
<i>Child selected but no contact with selected child</i>	11		
<b>Refusal</b>	27	5.3%	5.5%
<i>Parental permission needed but refused</i>	7		
<i>Refusal by selected person before interview</i>	13		
<i>Proxy refusal other than by parent guardian</i>	7		
<b>Other unproductive</b>	129	25.1%	26.4%
<i>Unable to complete child screening due to unproductive adult contact</i>	119		
<i>Broken appointment</i>	4		
<i>Contact made but no appointment made</i>	1		
<i>Selected child ill at home throughout survey period</i>	1		
<i>Selected child away or in hospital throughout survey period</i>	3		
<i>Other unproductive</i>	1		
<b>Productive</b>	321	62.5%	65.6%
<i>Full interview</i>	270		
<i>Full interview (new 16 year old)</i>	51		
<b>TOTAL</b>	514		

<sup>16</sup> Interviews / Total sample issued

### 5.4.2.5 New 5 year old survey

Table 5.5 shows the fieldwork outcomes for the new 5-year-old survey. The final contact rate should be **100%** as screening for the new 5-year-old should only take place with households co-operating with the main (adult) survey and when the person participating in the adult interview is the parent or guardian of the child aged 5.

The final co-operation rate was **88.4%**<sup>17</sup>. There were no non-contacts for the new 5-year-old survey, so the response rate is the same as the co-operation rate: **88.4%**.

As a general formula, the *cumulative* response rate for the new 5-year-old survey is adult longitudinal response rate \* new 5-year-old response rate = 81.5% \* 88.4% = **72.0%**.

**Table 5.5 Fieldwork outcomes (New 5-year-old survey)**

Outcome	No. of cases	% of total issues	% of non-deadwood
<b>Deadwood</b>	6,185	98.2%	-
<i>No child aged 5 in household or main interview not with parent of 5 year old</i>	5,041		
<i>Information for child screening refused</i>	2		
<i>Unable to complete 5 year old screening (non-response/deadwood in adult survey)</i>	1,142		
<b>Non contact</b>	-	0.0%	0.0%
<i>No contact with named respondent after 8+ calls</i>	-		
<b>Refusal</b>	6	0.1%	5.4%
<i>Refusal by selected person</i>	5		
<i>Proxy refusal</i>	1		
<b>Other unproductive</b>	7	0.1%	6.3%
<i>Other unproductive</i>	7		
<b>Productive</b>	99	1.6%	88.4%
<i>Full interview</i>	99		
<b>TOTAL</b>	6,297		

### 5.4.2.6 5/6 year old follow up survey

Table 5.6 shows the fieldwork outcomes for the longitudinal 5-10 proxy survey about a child identified as a new 5 year old in 2014/15, 2013/14 or 2012/13. The final co-operation rate was **70.9%**<sup>18</sup>. There were no

<sup>17</sup> (Interviews / (Interviews + Refusals + Other unproductives))

<sup>18</sup> (Interviews / (Interviews + Refusals + Other unproductives))

non-contacts for the new 5-year-old survey, so the response rate is the same as the co-operation rate: **70.9%**. This response rate calculation defines untraced movers as 'out of scope'. If untraced movers are included as non-contacts, the response rate would be **68.6%**<sup>19</sup>.

The conversion rate for the 5-10 re-contact sample issued in 2015/16 was **68.3%**<sup>20</sup>.

As a general formula, the *cumulative* response rate for the longitudinal child proxy survey is adult response rate \* child response rate = 81.5% \* 70.9% = **57.8%**.

**Table 5.5 Fieldwork outcomes (5/6-year-old follow-up survey)**

Outcome	No. of cases	% of total issues	% of non-deadwood
<b>Deadwood</b>	9	3.7%	-
<i>Respondent has moved and follow-up address not obtained</i>	8		
<i>Respondent has moved from England</i>	1		
<b>Non contact</b>	-	0.0%	0.0%
<i>No contact with named respondent after 8+ calls</i>	-		
<b>Refusal</b>	8	3.3%	3.4%
<i>Refusal by selected person</i>	6		
<i>Proxy refusal</i>	2		
<b>Other unproductive</b>	61	24.8%	25.7%
<i>Unable to complete child screening due to unproductive adult contact</i>	49		
<i>Contact made but no appointment made</i>	1		
<i>Broken appointment</i>	1		
<i>Other unproductive</i>	10		
<b>Productive</b>	168	68.3%	70.9%
<i>Full interview</i>	168		
<b>TOTAL</b>	246		

### 5.4.3 Interview lengths

The mean interview length for the 5-10 proxy survey, including the new 5-year-old survey, was 11 minutes 13 seconds (median 10 minutes 12 seconds).

<sup>19</sup> Only 'Named respondent has moved from England' included as deadwood

<sup>20</sup> Interviews / Total sample issued

The mean interview length for the 11-15 youth survey was 20 minutes 37 seconds (median 18 minutes 35 seconds).

The interview lengths for the child surveys have been calculated after capping extreme values. For the 5-10 proxy survey, 0.5% of interviews are not included and, for the 11-15 year old survey 0.9% if interviews are not included.

## 6. Data Processing and Outputs

### 6.1 Introduction

Outputs were provided to DCMS twice a year and included a SPSS file as well as a number of statistical reports which were used to produce statistical bulletins by DCMS. The section provides further details of the outputs, outlining the data processing procedure and the quality checks conducted at each stage of the process.

### 6.2 Coding open-ended questions

The Taking Part adult and child questionnaires have a number of full and partial open-ended questions.

For full open-ended questions, the verbatim provided by respondents were reviewed by the Coding team and a code frame was created so frequently recurring responses could be easily used in analysis.

Partial open-ended questions have response lists with an 'other specify' option. For the partial-opened questions, the coders were provided with the code frames used in the questionnaire as a starting point. The Coding team check whether any of the verbatim responses could actually be coded in one of the pre-coded response options (this exercise is commonly known as back coding). If necessary, new codes are added to the code frame.

Since most of the questions have been used in previous years of the survey, the code frames in 2015/16 were already well developed and there was little need to add new codes to the frames. All new or amended code frames were signed-off by the research team and DCMS.

The coding of open-ended questions was carried out using a web-based package called Ascribe by an experienced team of coders. Five per cent of open-ended answers were checked by senior coders. New coders had 100% of their work checked until the required standard was reached and thereafter their work was systematically spot-checked. On questions where the 'Other' answer category exceeded 10%, answers were also reviewed.

The coding team also code socio-economic data for this survey to produce Standard Occupational Classification (SOC2010) and National Statistics Socio-economic Classification (NS-SEC) categorisation, from a series of standard questions which were designed for NS-SEC and SOC categorisation.

TNS BMRB researchers kept in close contact with the coding team throughout fieldwork to ensure that coding was carried out at regular intervals. At least every quarter of the survey year the coding was accessed by the TNS BMRB research team to check the quality of the coders' work in terms of what had been back-coded to each answer category, and to see what sort of answers had been left in "Other".

A list of all of the code frames used on open-ended and partially open-ended questions in 2015/16 can be found in Appendix J.

## **6.3 SPSS outputs**

### **6.3.1 Overview**

The following SPSS datasets were produced in 2015/16:

- **Rolling half-annual datasets** – produced after the first two quarters of data collection and then again at the end of the survey year. These datasets contained all new data from interviews completed in the most recent two quarters, added to a master data file containing all cases since 2005. The variables contained in this dataset were agreed with DCMS at the beginning of the survey year. These were the key variables used to produce the rolling annual estimates required for DMCS statistical bulletins;
- **Annual datasets** – produced at the end of the survey year. There were separate annual datasets for the adult survey and the child survey (which included both 5-10 year old proxy interviews and 11-15 year old interviews). These datasets included all questionnaire variables across all cases interviewed in the 2015/16 survey year;
- **Longitudinal datasets** – produced at the end of the survey year after the annual datasets. There were separate longitudinal datasets for the adult survey, the 11-15 year old survey and the 5-10 year old proxy survey. These datasets included all cases re-interviewed since the beginning of the longitudinal survey.

### **6.3.2 Rolling half-annual datasets**

At the end of the 2015/16 survey, the rolling dataset contained 161,986 cases. The relevant annual samples at the end of each quarter are identified using the variable filters for each period (e.g. Q34Q37filter).

Table 6.1 includes the sample size for each rolling annual dataset within the 2015/16 survey year.

**Table 6.1 Annual sample size at the end of each quarter**

Period	Total Sample size	Fresh sample size	Longitudinal sample size (including 'new' 16 year olds)
July 2014 – June 2015 (Q38Q41filter)	9,891	4,796	5,095
October 2014 – September 2015 (Q39Q42filter)	10,193	4,943	5,250
January 2015 – December 2015 (Q40Q43filter)	9,965	4,865	5,100
April 2015 – March 2016 (Q41Q44filter)	10,171	4,996	5,175

The rolling quarterly dataset provided during the 2015/16 survey year contained a subset of the variables provided in the annual dataset. The variables covered the following topic areas:

- Demographics and area information
- Culture and sport participation (a selection of questions and summary variables based on the data required for the statistical bulletins)
- Swimming and cycling competency
- Internet and social media use
- Volunteering
- Charitable Giving
- Public Participation
- Olympics
- First World War Centenary Commemoration
- Involvement in Planning decisions
- Broadcasting
- Barriers to participation amongst those with a disability

### 6.3.3 Annual datasets

#### 6.3.3.1 Adult dataset

The annual dataset contained 10,171 interviews. Table 6.2 contains the breakdown of interviews from fresh and longitudinal interviews. Interviews completed on each type of sample can be identified by filtering the dataset using the variable 'cscreen'.

**Table 6.2 Breakdown of interviews in the annual dataset**

Type of interview	Screen number (dataset variable 'cscreen')	Number of interviews
Fresh sample interview	0	4,996
Longitudinal sample interview	1	5,032
'New' 16 year old interview	2	143

Each respondent is identified in the dataset using a unique 7 digit identifier ('scrser') which contains details of the interviewing area, the year in which the sample was issued (e.g. Year 7, Year 8, Year 9, Year 10 or Year 11), a number identifying the address within an interviewing area and the type of sample (screen number).

The dataset contained all variables in the questionnaire, along with a number of derived variables and area variables. Details are provided in Appendix F (questionnaire) and Appendix G (list of all additional variables). In general, variables are included in the dataset in questionnaire order.

#### 6.3.3.2 Child dataset

An annual child dataset was provided at the end of the survey year. The dataset contained a total of 1,780 interviews – 1,096 5-10 proxy interviews and 684 11-15 interviews. Table 6.3 contains the breakdown of interviews from fresh and longitudinal interviews. Interviews completed on each child survey can be identified by filtering the dataset using the variable 'cscreen' (5-10 interviews use 'cscreen' = 5, 6, 8, 15 or 25; 11-15 interviews use 'cscreen' = 4, 7 or 9).

**Table 6.3 Breakdown of child survey interviews by type of sample**

Type of interview	Screen number (dataset variable 'cscreen')	Number of interviews
New 11-15 interviews from longitudinal sample (previously 5-10 proxy interview)	4	188
New 5 year old proxy interviews from longitudinal sample	5	109
5-10 proxy interviews from longitudinal sample	6	278
11-15 interviews from longitudinal sample	7	160
5-10 proxy interviews from fresh sample	8	541
11-15 interviews from fresh sample	9	336
Additional 5 year olds proxy interviews from longitudinal sample	15 / 25	168

The unique serial number of the associated adult interview is also included in the dataset so users are able to merge household variables from the adult data into the child dataset if required.

As with the adult dataset, the child dataset is generally in questionnaire order. The child survey questionnaires are included in Appendix H and the additional variables are listed in Appendix I.

### **6.3.4 Longitudinal datasets**

Separate longitudinal datasets were provided for the adult survey, the 11-15 year old survey and the 5-10 year old proxy survey. The questionnaire variables included were the same as in the annual datasets. All cases which had given at least two interviews were included.

#### **6.3.4.1 Adult longitudinal dataset**

The adult longitudinal dataset included 8,533 cases in total. The earliest respondents in the longitudinal dataset were first interviewed in 2011/12

with additional respondents added to the longitudinal sample each year. Each case therefore has a minimum of two interviews and a maximum of five interviews in the dataset. Table 6.4 contains the number of second, third, fourth and fifth interviews available in the adult longitudinal dataset.

**Table 6.4 Number of adult longitudinal interviews**

Number of interviews	Number of cases	Year first part of Taking Part sample
Two interviews	8,533	2011/12, 2012/13, 2013/14 or 2014/15
Three interviews	5,562	2011/12, 2012/13 or 2013/14
Four interviews	3,584	2011/12 or 2012/13
Five interviews	2,382	2011/12

#### 6.3.4.2 11-15 year old child longitudinal dataset

The 11-15 year old longitudinal dataset included 700 cases in total. As with the adult dataset, each respondent was first interviewed between the 2011/12 and 2014/15 survey years. Table 6.5 contains the number of second, third, fourth and fifth interviews conducted. Given the relatively small number of fourth and fifth interviews conducted, only the first three interviews of data were included in the published dataset.

**Table 6.5 Number of 11-15 year old longitudinal interviews**

Number of interviews	Number of cases	Year first part of Taking Part sample
Two interviews	700	2011/12, 2012/13, 2013/14 or 2014/15
Three interviews	311	2011/12, 2012/13 or 2013/14
Four interviews	124	2011/12 or 2012/13
Five interviews	32	2011/12

### 6.3.4.3 5-10 year old child longitudinal dataset

The 5-10 year old longitudinal dataset included 1,017 cases in total. As with the adult and 11-15 year old datasets, each respondent was first interviewed between the 2011/12 and 2014/15 survey years. Table 6.6 contains the number of second, third, fourth and fifth interviews conducted. Again, given the relatively small number of fourth and fifth interviews conducted, only the first three interviews of data were included in the published dataset.

**Table 6.6 Number of 5-10 year old longitudinal interviews**

Number of interviews	Number of cases	Year first part of Taking Part sample
Two interviews	1,017	2011/12, 2012/13, 2013/14 or 2014/15
Three interviews	513	2011/12, 2012/13 or 2013/14
Four interviews	208	2011/12 or 2012/13
Five interviews	75	2011/12

### 6.3.5 Note on data checking process and quality checking

The process for checking the adult and child datasets involved the following:

- The investigation of any duplicate cases in the data. Before the data are received by the TNS BMRB team, Data Processing and Field investigate any duplicate cases (whether the data includes several cases with same serial number/screen number combination) and any genuine duplicates are removed<sup>21</sup>;
- Comparing SPSS frequency counts with 'top level' output generated by the questionnaire program itself (Dimensions software);
- Checking coding counts with SPSS frequency counts;
- The investigation of any unexpected missing data and the assigning of error codes to every affected variable;
- Running cross-tabulations of any derived variables (including NS-SEC) with their source variables to make sure there are no inconsistencies

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<sup>21</sup> Duplicates generally occur when an interviewer realises after conducting an interview that the interview has been conducted with the wrong person in the household or at the wrong address.

(this includes the creation of 'test' variables where necessary, all removed from delivered dataset);

- Checking any additional area-based variables against original sample file;
- Checking of coded 'open-ended' data for sports frequencies to make sure back-coding has been applied correctly for the 'Sportxx' variables and that back-coded data can be linked to follow-up data (e.g. breathe, sweat, spotime etc.) (this process includes the creation of derived variables via SPSS to test those created via the Dimensions software);
- Checking that weighted proportions match the target weights set for sex-age, ethnic group, and region;
- Ensuring all missing values are correctly assigned across the dataset (largely lo thru -3);
- The modification of variable labels/value labels to clarify output (though the Data Processing team use a general specification document which outlines the 'rules' for labelling plus any re-coding required - for instance, all "Don't know" answers are recoded -1, all "Refused" answers are recoded -2 etc.);
- The tidying up of variable names, labels and values to ensure they are consistent with previous datasets.

Finally all new syntax for derived variables is validated by another member or the TNS BMRB team and sent to DCMS.

## **6.4 Statistical release data**

### **6.4.1 Overview**

The statistical spreadsheets were provided to DCMS twice a year and were used by DCMS to produce the statistical bulletin. The spreadsheets contained the annual estimates for each topic area, with the 12 month rolling estimates updated at the end of each quarter. In addition to the estimates, the spreadsheets included confidence intervals and all significant differences were highlighted (latest data against earliest available data).

Table 6.7 summarises the spreadsheets provided to DCMS in 2015/16.

**Table 6.7 Statistical spreadsheets produced by TNS BMRB in 2015/16**

Statistical spreadsheet	Overview of spreadsheet
Arts	<ul style="list-style-type: none"> <li>■ Arts Overview, including frequency</li> <li>■ Proportion who have engaged with the arts once or more in the last year               <ul style="list-style-type: none"> <li>■ Area level breakdown</li> <li>■ Demographics</li> </ul> </li> </ul>
Archives	<ul style="list-style-type: none"> <li>■ Archives Overview, including purpose and frequency</li> <li>■ Proportion who have been to an archive in the last year               <ul style="list-style-type: none"> <li>■ Area level breakdown</li> <li>■ Demographics</li> </ul> </li> </ul>
Big Society	<ul style="list-style-type: none"> <li>■ Volunteering overview, including type of volunteering</li> <li>■ Volunteering in DCMS sectors, including number of sectors and time spent</li> <li>■ Volunteering in the last year               <ul style="list-style-type: none"> <li>■ Area level breakdown</li> <li>■ Demographics</li> </ul> </li> <li>■ Charitable Giving, including frequency and means</li> <li>■ Giving to DCMS sectors, including number of sectors and giving intentions</li> <li>■ Attitudes to charitable giving</li> <li>■ Giving to DCMS sectors in last year:               <ul style="list-style-type: none"> <li>■ Area level breakdown</li> <li>■ Demographics</li> </ul> </li> <li>■ Social cohesion               <ul style="list-style-type: none"> <li>■ Influence over local sporting and cultural facilities and quality of local environment</li> <li>■ Involvement in groups, clubs and organisations</li> </ul> </li> </ul>
Child engagement	<ul style="list-style-type: none"> <li>■ Overview and breakdown of specific activities for Arts, Heritage, Libraries, Museums and sport               <ul style="list-style-type: none"> <li>■ Demographic breakdowns (age, sex and limiting disability)</li> </ul> </li> <li>■ Competitive Sport               <ul style="list-style-type: none"> <li>■ Demographic breakdowns (age and sex)</li> </ul> </li> <li>■ Olympics by age only</li> </ul>
Digital Participation	<ul style="list-style-type: none"> <li>■ Digital Participation overview, including whether visited a library, heritage, arts, archives or museums and galleries website and reason for visit</li> <li>■ Proportion who have digitally participated in culture in the last year               <ul style="list-style-type: none"> <li>■ Area level breakdown</li> <li>■ Demographics</li> </ul> </li> </ul>
Heritage	<ul style="list-style-type: none"> <li>■ Heritage Overview, including frequency</li> <li>■ Proportion who have visited a heritage website in the last year               <ul style="list-style-type: none"> <li>■ Area level breakdown</li> <li>■ Demographics</li> </ul> </li> </ul>
Libraries	<ul style="list-style-type: none"> <li>■ Libraries Overview, including frequency</li> <li>■ Proportion who have visited a public library in the last year               <ul style="list-style-type: none"> <li>■ Area level breakdown</li> <li>■ Demographics</li> </ul> </li> </ul>
Museums and Galleries	<ul style="list-style-type: none"> <li>■ Museums and Galleries, including frequency</li> <li>■ Proportion who have visited a museums or gallery in the last year</li> </ul>

## Statistical spreadsheet

## Overview of spreadsheet

	<ul style="list-style-type: none"><li>■ Area level breakdown</li><li>■ Demographics</li></ul>
Olympics	<ul style="list-style-type: none"><li>■ Attitudes towards the Olympic Games, including motivation to do more sport, culture and volunteering</li><li>■ How followed/got involved in games</li><li>■ Proportion supportive of the UK hosting the 2012 Olympic Games<ul style="list-style-type: none"><li>■ Area level breakdown</li><li>■ Demographics</li></ul></li></ul>
World War One	<ul style="list-style-type: none"><li>■ General awareness of any local/national events being held to commemorate the Centenary of the First World War<ul style="list-style-type: none"><li>■ Area level breakdown</li><li>■ Demographics</li></ul></li><li>■ Awareness of specific commemoration events</li><li>■ Attitudes about the UK commemorating the Centenary of the First World War</li><li>■ If respondent has followed/intends to follow First World War Centenary events</li><li>■ Which First World War Centenary events respondent has followed or got involved in</li><li>■ Which First World War Centenary events respondent thinks they will follow or get involved in</li></ul>

### 6.4.2 Data checking process and quality checking

The checking process for each individual statistical spreadsheet involved the following steps/checks:

- The re-running of all tables in SPSS. This included a check to ensure that the correct dataset variables were used and all new derived variables were created correctly;
- All figures had been copied from SPSS into the spreadsheets correctly/accurately;
- All data from the SPSS output had been copied into the confidence interval and significance testing spreadsheets correctly/accurately (including spot checks on back data);
- The correct design factors had been used ;
- The confidence intervals had been correctly created and copied into the spreadsheets correctly/accurately;
- All significant results were highlighted;
- All user notes at the bottom of the spreadsheets had been updated.

These checks were completed on all new data added to the spreadsheets. If past data had not been changed, then this was not re-checked.

In addition to the checks completed by TNS BMRB, DCMS also checked the worksheets. Any SPSS syntax used to create derived variables was also submitted to DCMS to validate.

## **6.5 Visualisations**

Based on 2015/16 data, TNS BMRB produced eight infographics based on the annual adult data and three based on the child data. The infographics covered the following:

Adult data

- Cultural participation;
- Arts engagement;
- Libraries;
- Museums and Galleries;
- Heritage;
- Volunteering and Charitable Giving;
- Digital participation;
- Equalities.

Child data

- Arts forms;
- Cultural Participation;
- Sports Participation;

## **6.6 Weighting**

Each quarterly dataset was weighted to compensate for variations in sampling probability and for variations in response propensity. The fresh address and re-interview samples were weighted separately before being combined using a set mixing ratio.

### **6.6.1 Fresh sample weighting**

The first stage was to calculate the address design weight<sup>22</sup> ( $N_a/n_a$ ) and use this as a base weight for estimating an address-level response propensity.

The address-level response propensity was estimated using the CHAID algorithm which will produce weighting classes with maximally different

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<sup>22</sup>  $N_a$  = total number of addresses in sample stratum  $a$ ;  $n_a$  = 2013/14 sampled fresh addresses in stratum  $a$ .

response rates. The variables used to stratify the sample (see section 2.3) were used as input variables for the CHAID algorithm (namely region and a set of three 'factor' variables designed to be correlated with the key frequency data collected in the survey).

The address-level response propensity was computed based on historic field data and the 'rules' for weighting class allocation were then applied to the current dataset to form a new address-level weight<sup>23</sup> ( $N_a/n_a * 1/p(\text{response})_b$ ).

This new address-level weight was converted into an individual-level weight by multiplying it by the product of the number of dwelling units at the address, the number of households in the sampled dwelling unit and the number of eligible individuals in the sampled household<sup>24</sup> ( $N_{ca} * N_{dca} * N_{edca}$ ). This was carried out separately for both adults and children aged 11-15, with different values for the  $N_{edca}$  term. For children aged 5-10, the adult  $N_{edca}$  term was replaced by<sup>25</sup> ( $(N_{edca}/N_{fedca}) * N_{5-10}$ ).

This individual-level weight was used as the base weight for a calibration procedure<sup>26</sup>. For the adults, the calibration procedure forces the single quarter dataset marginal totals of (i) sex/age group and (ii) government office region to match the equivalent 2011 Census-based mid-year 2014 Annual Population estimates, *divided by 4*. By dividing these population estimates by 4, the sum of weights in a dataset containing four quarters will be equal to the total population estimate (44,013,062).

For children aged 5-15, the calibration procedure aligns the annual marginal totals of (i) sex/age group and (ii) government office region to match the equivalent 2011 Census-based mid-year 2014 Annual Population estimates, with a total population estimate of 6,872,599.

For sex/age group, fourteen classes were defined for adults, based on seven age groups (16-24; 25-34; 35-44; 45-54; 55-64; 65-74; 75+). For the 5-15 year olds, eight classes were defined, based on four age groups (5-7; 8-10; 11-13; 14-15). Tables 6.8 and 6.9 present the annual

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<sup>23</sup>  $p(\text{response})_b$  = estimated address-level response propensity in weighting class  $b$ .

<sup>24</sup>  $N_{ca}$  = number of dwelling units at address  $c$  in stratum  $a$ ;  $N_{dca}$  = number of households at dwelling unit  $d$  at address  $c$  in stratum  $a$ ;  $N_{edca}$  = number of eligible individuals in household  $e$  at dwelling unit  $d$  at address  $c$  in stratum  $a$ .

<sup>25</sup>  $N_{fedca}$  = number of adults with a formal parental relationship with the child;  $N_{edca}$  = number of individuals aged 16+ in the household, and  $N_{5-10}$  = number of 5-10 year olds that the sampled adult has a parental relationship with.

<sup>26</sup> The linear regression calibration method was employed, using a Stata script.

population totals used in calibration for age by gender and government office region, respectively.

**Table 6.8: Annual population totals used in calibration for age by gender**

Age band	Males	Females
5 to 7 years old	1,030,076	981,309
8 to 10 years old	955,031	911,894
11 to 13 years old	899,816	859,054
14 to 15 years old	633,178	602,241
16 to 24 years old	3,174,670	3,035,522
25 to 34 years old	3,705,510	3,720,081
35 to 44 years old	3,533,203	3,570,205
45 to 54 years old	3,775,061	3,860,590
55 to 64 years old	3,002,233	3,098,279
65 to 74 years old	2,487,171	2,675,702
75 years old or above	1,819,507	2,555,328
Total	25,015,456	25,870,205

**Table 6.9: Annual population totals used in calibration for government office region**

Government office region	5 to 15 years old	16 years old or above
North East	312,242	2,154,854
North West	900,273	5,790,512
Yorkshire and Humber	679,212	4,347,165
East Midlands	577,121	3,782,353
West Midlands	749,382	4,599,064
East of England	766,645	4,875,281
London	1,103,690	6,806,412
South East	1,141,450	7,184,102
South West	642,584	4,473,319
Total	6,872,599	44,013,062

### 6.6.2 Re-interview sample cases

For weighting purposes, there are four different sets of re-interview cases:

- (a) Fifth interview cases (cases initially sampled in 2011/12)
- (b) Fourth interview cases (cases initially sampled in 2012/13)
- (c) Third interview cases (cases initially sampled in 2013/14)

(d) Second interview cases (cases initially sampled in 2014/15)

### 6.6.2.1 Fifth interview cases

Fifth interview cases have four previous weights (i.e. their Interview 1; Interview 2; Interview 3; and Interview 4 weights):

- The Interview 1 weight was the product of a sampling weight, an area-based non-response factor and a calibration factor;
- The Interview 2 weight was the product of the Interview 1 weight and a new calibration factor;
- The Interview 3 weight was the product of an *updated* Interview 2 weight and a calibration factor;
- The Interview 4 weight was the product of an *updated* Interview 3 weight and a calibration factor.

The updated Interview 2 weight incorporated a non-response weight based on the modelled probability of obtaining an Interview 2 given that an Interview 1 had been obtained and was equal to:

- Interview 1 weight \*  $1/p(\text{interview 2}|\text{interview 1})$  \* interview 2 calibration factor

Similarly, the updated Interview 3 weight incorporated a non-response weight that was based on the modelled probability of obtaining an Interview 3 given that an Interview 2 had been obtained, calculated as:

- Interview 2 weight \*  $1/p(\text{interview 3}|\text{interview 2})$  \* interview 3 calibration factor

The original Interview 2 and Interview 3 weights did not account for the probability of obtaining an Interview 2 (given that an Interview 1 had been obtained) or the probability of obtaining an Interview 3 (given that an Interview 2 had been obtained), respectively. This is because data was not available to compute these probabilities at that time. The  $p(\text{interview 2}|\text{interview 1})$  and  $p(\text{interview 3}|\text{interview 2})$  components were estimated by means of a logistic regression models based on all cases interviewed for the first time in 2011/12. The model coefficients are presented in Section 6.6.2.4.

The Interview 5 weight is the product of an updated Interview 4 weight and a calibration factor, the updated Interview 4 weight being equal to:

- Interview 3 weight \*  $1/p(\text{interview 4}|\text{interview 3})$  \* interview 4 calibration factor

To estimate the  $p(\text{interview 4}|\text{interview 3})$  term a logistic regression model based on all cases interviewed for the first time in 2011/12 was employed. The candidate predictor variables were drawn from Interview 1, while key model parameters are presented in Section 6.6.2.5.

#### **6.6.2.2 Fourth interview cases**

Fourth interview cases have three previous weights (their Interview 3, their Interview 2 and their Interview 1 weights). The process for computing these weights is presented in Section 6.6.2.1.

#### **6.6.2.3 Third interview cases**

Third interview cases have two previous weights (their Interview 2 weight and their Interview 1 weight) and the process for computing these weights is identical to that for the Interview 3 weight as described in Section 6.6.2.1.

#### **6.6.2.4 Second interview cases**

Finally, the second interview cases have one previous weight (the Interview 1 weight). The process for computing the interview 2 weight is the same as that for the updated Interview 2 weight, outlined in Section 6.6.2.1.

#### **6.6.2.5 Probabilities of obtaining repeat interviews**

The tables below present key parameters of the models that were constructed to estimate the probability of obtaining an Interview 4 given that an Interview 3 has been obtained (Table 6.10); the probability of obtaining an Interview 3 given that an Interview 2 has been obtained (Table 6.11); and the probability of obtaining an Interview 2 given that an Interview 1 has been obtained (Table 6.12). The predictive models are based on information that was recorded at Interview 1 and have been built by means of logistic regression analysis.

**Table 6.10: Conditional probability of obtaining interview 4, given Interview 3 was obtained - logistic regression coefficients and their confidence intervals (C.I.)**

Variable (recorded at Interview 1)	Odds ratio	Lower 95% C.I. for odds ratio	Upper 95% C.I. for odds ratio
Constant	0.658		
Estimated probability of obtaining Interview 3 given that Interview 2 has been obtained	5.840	1.467	23.251
Whether participated in virtual culture (excluding finding info) - Yes [vs. No]	1.358	1.149	1.606
Age - 16-24 years old [vs. 45 to 64 years old]	0.532	0.386	0.734
Age - 25-44 years old [vs. 45 to 64 years old]	0.847	0.661	1.083
Age - 65-74 years old [vs. 45 to 64 years old]	1.054	0.771	1.441
Age - 75 years old or older [vs. 45 to 64 years old]	0.947	0.674	1.331
ONS standardised Government Office Region - North East [vs. London]	1.178	0.761	1.824
ONS standardised Government Office Region - North West [vs. London]	1.182	0.857	1.629
ONS standardised Government Office Region - Yorkshire and Humberside [vs. London]	1.478	1.075	2.033
ONS standardised Government Office Region - East Midlands [vs. London]	2.124	1.443	3.126
ONS standardised Government Office Region - West Midlands [vs. London]	1.663	1.210	2.286
ONS standardised Government Office Region - East of England [vs. London]	1.244	0.917	1.689
ONS standardised Government Office Region - South East [vs. London]	1.188	0.902	1.565
ONS standardised Government Office Region - South West [vs. London]	1.257	0.895	1.765

**Table 6.11: Conditional probability of obtaining interview 3, given Interview 2 was obtained - logistic regression coefficients and their confidence intervals (C.I.)**

Variable (recorded at Interview 1)	Odds ratio	Lower 95% C.I. for odds ratio	Upper 95% C.I. for odds ratio
Constant	3.170		
Whether used a public library service at least once during the last 12 months - Yes [vs. No]	1.223	1.075	1.392
Whether achieved 1x30 MIS per week - Yes [vs. No]	0.761	0.668	0.867
Whether have done any voluntary work during the last 12 months - Yes [vs. No]	1.427	1.229	1.656
Age - 16-24 years old [vs. 45 to 64 years old]	0.542	0.445	0.662
Age - 25-44 years old [vs. 45 to 64 years old]	0.659	0.561	0.773
Age - 65-74 years old [vs. 45 to 64 years old]	1.176	0.910	1.520
Age - 75 years old or older [vs. 45 to 64 years old]	0.904	0.698	1.172
ONS Harmonised tenure status - Social rented sector [vs. Owners]	0.774	0.646	0.927
ONS Harmonised tenure status - Private rented sector [vs. Owners]	0.699	0.591	0.827
Ethnic group for PSA measurement - Non-white [vs. White]	0.657	0.535	0.806
ONS standardised Government Office Region - North East [vs. London]	1.861	1.300	2.663
ONS standardised Government Office Region - North West [vs. London]	1.480	1.163	1.883
ONS standardised Government Office Region - Yorkshire and Humberside [vs. London]	1.051	0.819	1.349
ONS standardised Government Office Region - East Midlands [vs. London]	1.363	1.033	1.799
ONS standardised Government Office Region - West Midlands [vs. London]	1.162	0.906	1.490
ONS standardised Government Office Region - East of England [vs. London]	1.086	0.849	1.391
ONS standardised Government Office Region - South East [vs. London]	1.075	0.861	1.342
ONS standardised Government Office Region - South West [vs. London]	1.249	0.965	1.617

**Table 6.12: Conditional probability of obtaining interview 2, given Interview 1 was obtained- logistic regression coefficients and their confidence intervals (C.I.)**

Variable (recorded at Interview 1)	Odds ratio	Lower 95% C.I. for odds ratio	Upper 95% C.I. for odds ratio
Constant	0.808		
Whether done/attended at least one arts participation/arts event in last 12 months - Yes [vs. No]	1.241	1.111	1.387
Whether used a public library service at least once during the last 12 months - Yes [vs. No]	1.141	1.041	1.251
Whether supports the Olympics - Yes [vs. No]	1.136	1.039	1.243
Whether participated in virtual culture - Yes [vs. No]	1.261	1.145	1.389
Whether have done any voluntary work during the last 12 months - Yes [vs. No]	1.329	1.196	1.476
Ethnic group for PSA measurement – Non-white [vs. White]	0.716	0.616	0.831
Type of area - Rural [vs. Urban]	1.194	1.057	1.349
Age - 16-24 years old [vs. 45 to 64 years old]	0.725	0.624	0.843
Age - 25-44 years old [vs. 45 to 64 years old]	0.811	0.727	0.906
Age - 65-74 years old [vs. 45 to 64 years old]	1.324	1.131	1.550
Age - 75 years old or older [vs. 45 to 64 years old]	0.987	0.837	1.164
ONS Harmonised tenure status - Social rented sector [vs. Owners]	0.889	0.766	1.031
ONS Harmonised tenure status - Private rented sector [vs. Owners]	0.598	0.530	0.675
Personal earnings in the last year before tax and other deductions – Refused [vs. Under £2,500]	0.543	0.437	0.676
Personal earnings in the last year before tax and other deductions - Don't Know [vs. Under £2,500]	0.736	0.571	0.949
Personal earnings in the last year before tax and other deductions - 2,500 - 4,999 [vs. Under £2,500]	0.813	0.650	1.018
Personal earnings in the last year before tax and other deductions - 5,000 - 9,999 [vs. Under £2,500]	1.105	0.905	1.349

Variable (recorded at Interview 1)	Odds ratio	Lower 95% C.I. for odds ratio	Upper 95% C.I. for odds ratio
Personal earnings in the last year before tax and other deductions - 10,000 - 14,999 [vs. Under £2,500]	1.066	0.868	1.309
Personal earnings in the last year before tax and other deductions - £15,000 - 19,999 [vs. Under £2,500]	0.985	0.793	1.224
Personal earnings in the last year before tax and other deductions - £20,000 - 24,999 [vs. Under £2,500]	1.039	0.828	1.305
Personal earnings in the last year before tax and other deductions - £25,000 - 29,999 [vs. Under £2,500]	0.930	0.733	1.180
Personal earnings in the last year before tax and other deductions - £30,000 - 34,999 [vs. Under £2,500]	0.935	0.721	1.212
Personal earnings in the last year before tax and other deductions - £35,000 - 39,999 [vs. Under £2,500]	1.221	0.896	1.664
Personal earnings in the last year before tax and other deductions - £40,000 - 44,999 [vs. Under £2,500]	1.139	0.824	1.573
Personal earnings in the last year before tax and other deductions - £45,000 - 49,999 [vs. Under £2,500]	0.796	0.549	1.156
Personal earnings in the last year before tax and other deductions - £50,000 or more [vs. Under £2,500]	0.925	0.711	1.203
Personal earnings in the last year before tax and other deductions - £No work or scheme [vs. Under £2,500]	0.954	0.740	1.230
ONS standardised Government Office Region - North East [vs. London]	1.659	1.310	2.101
ONS standardised Government Office Region - North West [vs. London]	1.174	0.983	1.402
ONS standardised Government Office Region - Yorkshire and Humberside [vs. London]	1.288	1.067	1.555
ONS standardised Government Office Region - East Midlands [vs. London]	1.121	0.920	1.366
ONS standardised Government Office Region - West Midlands [vs. London]	1.624	1.343	1.964
ONS standardised Government Office Region - East of England [vs. London]	1.458	1.210	1.758
ONS standardised Government Office Region - South East [vs. London]	1.079	0.911	1.279
ONS standardised Government Office Region - South West [vs. London]	1.155	0.955	1.396
ACORN category - Wealthy Achievers [vs. Comfortably off]	0.966	0.856	1.090

Variable (recorded at Interview 1)	Odds ratio	Lower 95% C.I. for odds ratio	Upper 95% C.I. for odds ratio
ACORN category - Urban Prosperity [vs. Comfortably off]	0.748	0.635	0.881
ACORN category - Moderate Means [vs. Comfortably off]	0.955	0.832	1.098
ACORN category - Hard-pressed [vs. Comfortably off]	1.098	0.952	1.267

### 6.6.2.6 Calibrating the second, third and fourth interview cases

The second, third, fourth and fifth interview cases were *combined* before calibrating the samples to the same population totals as for first interview cases. They were combined because the separate sample sizes were too small for granular calibration.

For second interview cases, the base weight for calibration was:

- Interview 1 weight \*  $1/p(\text{interview 2}|\text{interview 1})$

For third interview cases, the base weight was:

- Updated Interview 2 weight = Interview 1 weight \*  $1/p(\text{interview 2}|\text{interview 1})$  \* interview 2 calibration factor

For fourth interview cases, the base weight was:

- Updated Interview 3 weight = Updated Interview 2 weight \*  $1/p(\text{interview 3}|\text{interview 2})$  \* interview 3 calibration factor

Finally, for fifth interview cases, the base weight was:

- Updated Interview 4 weight = Updated Interview 3 weight \*  $1/p(\text{interview 4}|\text{interview 3})$  \* interview 4 calibration factor

The base weights were scaled so that the mean base weight was the same for both second, third, fourth and fifth interview samples<sup>27</sup>.

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<sup>27</sup> Note that new entrants to the re-interview datasets (5 year olds to the child dataset, and 16 year olds to the adult dataset) were given the mean base weight due to missing prior information. Five year olds lack any previous weight, while sixteen year olds may

### 6.6.3 Combining the two sample sources

Once weighted, the fresh sample and the re-interview sample datasets have the same properties in the sense that they are both probability samples with identical marginal profiles in terms of gender, age and region. Any mixture of the two will produce an unbiased dataset in these terms. TNS BMRB chose to weight each sample proportionate to its effective sample size, an approach which should maximise statistical efficiency. For simplicity, the effective sample size was defined as:

$$\blacksquare n * / (1+(CV_w^2))$$

$CV_w$  = the 'coefficient of variation' for the weights: the standard deviation of the weights divided by the mean weight.  $1+(CV_w^2)$  is essentially the design effect (if stratification and clustering effects are ignored as well as any correlation between the size of the weight and responses to a specific variable). These have been ignored because they are expected to be approximately the same in both samples.

It is important to note that for children aged 5-15, the re-interview and the fresh sample cases were *not* weighted separately before being combined (due to the limited number of cases within the two sample types). For the fresh sample cases, the inverse of the product of a case's sampling probability and an area-based response propensity weight serve as the base weight for the calibration. For the re-interview sample cases, the base weight is equal to the weight assigned to a case's previous interview but scaled so the mean base weight matches that for the fresh sample.

### 6.7 Design factors

Significance tests assume that the achieved sample is a simple random sample from the survey population. The design factor takes into account the actual complexity of the sample design, reflecting the compromises necessary for real world survey practice. A standard error calculated using simple random sample assumptions should be multiplied by the design factor to obtain a robust standard error that properly reflects the sample design.

For Taking Part, the design is affected by clustering, weighting and stratification. Stratification usually helps to narrow the margin of error

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have a previous weight but are not covered by the  $p(\text{interview } 2 | \text{interview } 1)$ ,  $p(\text{interview } 3 | \text{interview } 2)$  and  $p(\text{interview } 4 | \text{interview } 3)$  models.

around estimates, while clustering and weighting increase the margin of error around estimates.

For the Taking Part Survey, a series of design factors are generated for the different sectors that the survey covers (arts, heritage, libraries, museums, galleries and archives, sport). The main reason different design effects are used for different sectors is due to the differential impact of the sample clustering.

For the statistical data that are produced for the Taking Part Survey, variable-specific design factors have been generated. For other variables within the sector, a *typical* design factor for that sector is provided. Where possible, variable-specific and sector-typical design factors have been calculated for sub-groups.

### 6.7.1 Design factors for the adult survey

Table 6.13 details the typical design factors – and design effects - for each DCMS sector. The design effect is equal to the square of the design factor and shows how much bigger the sample would have to be to match the precision of a simple random sample.

**Table 6.13 Typical design effects and design factors by sector**

Sector	Representative variable	Design effect	Design factor
Arts	ARTPSA2	1.94	1.39
Libraries	LIBPSA	1.73	1.31
Museums, galleries and archives	MUSPSA	1.81	1.35
Heritage	HERPSA	2.18	1.48

Table 6.14 details the typical design factors for a number of key sub-groups.

**Table 6.14 Typical design factors by sub-group, within sector**

Sub-group	DCMS sector			
	Arts activity	Library use	Museum/gallery/archive visits	Heritage
All	1.39	1.31	1.35	1.48
Sex				
▪ Male	1.49	1.35	1.39	1.58
▪ Female	1.30	1.21	1.26	1.46
Disability status				
▪ Longstanding illness/disability/infirmity	1.16	1.13	1.16	1.19
▪ No longstanding illness/disability/infirmity	1.50	1.37	1.46	1.68
Ethnic group				
▪ BME	1.60	1.49	1.39	1.54
▪ White	1.38	1.27	1.36	1.57
NS-SEC				
▪ NS-SEC 1-4	1.40	1.31	1.26	1.42
▪ NS-SEC 5-8	1.35	1.26	1.36	1.39
Age group				
▪ 16-24	1.59	1.61	1.69	1.72
▪ 25-44	1.39	1.39	1.34	1.55
▪ 45-64	1.32	1.28	1.23	1.32
▪ 65-74	1.00	1.00	1.01	1.03
▪ 75+	1.14	1.07	1.06	1.18

For non-sector variables, an average overall design factor of 1.38 may be used. This average is based on the average of the sub-group design factors for each key DCMS sector variable.

### **6.7.2 Design factors for the child survey**

For the child survey, a similar approach to design factors was taken. Typical design factors were calculated for each DCMS sector, and for key sub-groups within each sector. For the child survey, separate design factors were calculated for the 5-10 proxy survey and the 11-15 youth survey.

**Table 6.15 Child survey 'typical' design effects and design factors by sector**

<b>Sector</b>	<b>Representative variable</b>	<b>Design effect</b>	<b>Design factor</b>
Arts - Whether done at least one arts activity outside of school in last 12 months (5-10s)	c5anyarts12	1.31	1.15
Libraries - Whether visited in last week (5-10s)	c5wk11	1.88	1.37
Museums - Whether visited in last week (5-10s)	c5wk13	1.04	1.02
Heritage - Whether visited in last week (5-10s)	c5wk14	1.36	1.17
Sport - Whether done at least one sports activity outside of school in last 4 weeks (5-10s)	c5anysport	2.00	1.41
Arts - Whether done at least one arts activity in last 12 months (11-15s)	c11anyarts12	0.81	0.90
Libraries - Whether visited in last week (11-15s)	c11wk11	1.29	1.13
Archives - Whether visited in last week (11-15s)	c11wk12	0.97	0.98
Museums - Whether visited in last week (11-15s)	c11wk13	1.06	1.03
Heritage - Whether visited in last week (11-15s)	c11wk14	1.33	1.15
Sport - Whether done at least one sports activity in last 4 weeks (11-15s)	c11anysport	1.08	1.04

Table 6.16 details the typical design effects and design factors for a number of key sub-groups.

**Table 6.16 Child survey design factors by sub-group**

Sector	All	Limiting disability	BME	White	Male	Female
Arts - Whether done at least one arts activity outside of school in last 12 months (5-10s)	1.15	0.85	1.47	1.02	1.00	1.29
Libraries - Whether visited in last week (5-10s)	1.37	1.19	1.57	1.28	1.29	1.42
Museums - Whether visited in last week (5-10s)	1.02	0.90	1.14	0.98	0.99	1.05
Heritage - Whether visited in last week (5-10s)	1.17	0.91	0.88	1.28	1.14	1.39
Sport - Whether done at least one sports activity outside of school in last 4 weeks (5-10s)	1.41	1.44	1.43	1.34	1.50	1.34
Arts - Whether done at least one arts activity in last 12 months (11-15s)	0.90	0.56	1.10	0.75	1.09	0.77
Libraries - Whether visited in last week (11-15s)	1.13	1.03	1.16	1.18	1.16	1.10
Archives - Whether visited in last week (11-15s)	0.98	0.99	1.10	0.93	0.98	0.94
Museums - Whether visited in last week (11-15s)	1.03	0.55	1.07	1.12	1.10	1.10
Heritage - Whether visited in last week (11-15s)	1.15	1.05	1.17	1.16	1.24	1.09
Sport - Whether done at least one sports activity in last 4 weeks (11-15s)	1.04	0.82	1.02	1.09	0.95	1.23

## 7. Appendix

A Interviewer instructions

B Respondent letters

- B1 – Advance letter for longitudinal sample
- B2 – Advance letter for fresh sample
- B3 – Reissue letter
- B4 – Reissue letter (non-contacts)

C Respondent leaflets

- C1 – Leaflet for longitudinal sample
- C2 – Leaflet for fresh sample

D Address contact sheet

- D1A – Address contact sheet for longitudinal sample (short)
- D1B – Address contact sheet for longitudinal sample (long)
- D1C – Address contact sheet for longitudinal sample (New 16's)
- D2 – Address contact sheet for fresh sample

E Parental permission card

F 2015/16 Adult questionnaire

G 2015/16 Additional adult dataset variables

H 2015/16 Child questionnaires

- H1 – 5-10 Child questionnaire
- H2 – 11-15 Child questionnaire

I 2015/16 Additional child dataset variables

J 2015/16 Code frame documents

- J1 – 2015/16 Adult survey code frames
- J2 – 2015/16 Child survey code frames