



DCMS Participation Survey 2021/22: Annual Technical Note October 2021–March 2022

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1. Introduction

1.1 Background to the survey

In 2021, the Department for Digital, Culture, Media and Sport (DCMS) commissioned Kantar Public to design and deliver a new, nationally representative ‘push-to-web’ survey to assess adult participation in DCMS sectors across England. The new survey serves as a successor to the Taking Part Survey, which ran for 16 years as a continuous face to face survey.¹

The scope of the survey is to deliver a nationally representative sample of adults (aged 16 years and over) in England. The data collection model for the Participation Survey is based on **ABOS** (**A**ddress-**B**ased **O**nline **S**urveying), a type of ‘push-to-web’ survey method. Respondents take part either online or by completing a paper questionnaire. In 2021/22 the sample consisted of approximately 33,000 interviews across two quarters of fieldwork (October–December 2021 and January–March 2022).

Due to the commissioning timetable, the fieldwork period for the annual 2021/22 survey was condensed in to two quarters.

- Quarter one: Fieldwork conducted between 4th October 2021 and 6th January 2022
- Quarter two: Fieldwork conducted between 7th January 2022 and the 31st March 2022.

1.2 Survey objectives

The key objectives of the 2021/22 Participation Survey were:

- To inform and monitor government policy and programmes in DCMS and other governmental departments on adult engagement with the DCMS sectors. The survey also gathers information on demographics (e.g. age, gender, education).
- To assess the variation in engagement with cultural and digital activities across DCMS sectors in England, and the differences in social-demographics such as location, age, education, and income.
- To monitor the impact of previous and current restrictions due to the COVID-19 pandemic on cultural events/sites within its sectors, as well as feeding directly into the

¹ <https://www.gov.uk/guidance/taking-part-survey>

Spending Review Metrics, agreed centrally with the Treasury, to measure key departmental outcomes.

In preparation for the main survey launching in October 2021, Kantar Public undertook questionnaire development work and a pilot study to test various elements of the new design.²

1.3 Survey design

The 2021/22 Participation Survey was conducted via an online and paper methodology using Address Based Online Surveying (ABOS), an affordable method of surveying the general population that still employs random sampling techniques. ABOS is also sometimes referred to as “push to web” methodology. In brief, this methodology takes the following approach:

1. A stratified random sample of addresses is drawn from the Royal Mail’s postcode address file and an invitation letter is sent to ‘the residents’ of each one, containing username(s) and password(s) plus the URL of the survey website.
2. Respondents can log on using this information and complete the survey as they might any other online survey, with the option to stop and restart their survey when it suits them.
3. Non-responders receive up to three reminder letters, with some respondents receiving paper questionnaires alongside the second reminder letter.³
4. Once the questionnaire is complete, the specific username and password cannot be used again, ensuring data confidentiality from others with access to this information.
5. Paper questionnaires are also available on request for those who are unable to take part online. The paper questionnaire is a reduced version of the online survey.

Paper questionnaires ensure coverage of the offline population and are especially effective with sub-populations that respond to online surveys at lower-than-average levels. However, paper questionnaires have measurement limitations that constrain the design of the online questionnaire and add considerably to overall cost. For the Participation Survey, **paper questionnaires are used in a limited and targeted way**, to *optimise* rather than maximise response.

² <https://www.gov.uk/government/publications/participation-survey-methodology>

³ Further information on which respondents receive a paper questionnaire in the second reminder can be found in section 3.3.

For further details about ABOS please see 'An introduction to address-based online surveying'.⁴

1.4 Coronavirus (COVID-19)

It should be noted that some questions in the survey ask about engagement with cultural activities in the last 12 months. It is unclear what effect the COVID-19 pandemic, associated lockdown measures and associated media coverage may have had on public behaviours, attitudes and perceptions across the UK towards the topics in the survey.

The factors described above should be taken into consideration when interpreting the results.

⁴ <https://the-sra.org.uk/Common/Uploaded%20files/Social%20Research%20Practice%20Journal/social-research-practice-journal-issue-03-winter-2017.pdf>

2. Questionnaire

2.1 Questionnaire development

Although the Participation Survey serves as a successor to the Taking Part Survey, given the change in methodology and the extent of questionnaire changes it was important to implement a comprehensive development and testing phase. This was made up of four key stages:

- Questionnaire review
- Cognitive testing
- Usability testing
- Fieldwork pilot

Further details about the development work can be found in the Participation Survey 2021/22 Pilot Report.⁵

2.2 2021/22 Participation Questionnaire

The online questionnaire was designed to take an average of 30 minutes to complete. A modular design was used with around half of the questionnaire made up of a core set of questions asked of the full sample. The remaining questions were split into three separate modules, randomly allocated to a subset of the sample.

The postal version of the questionnaire included the same set of core questions asked online, but the modular questions were omitted to avoid overly burdening respondents who complete the survey on paper, and to encourage response.

A copy of the online and paper questionnaires are available online.

⁵ <https://www.gov.uk/government/publications/participation-survey-methodology>

3. Sampling

3.1 Sample design: addresses

The address sample design is intrinsically linked to the data collection design (see ‘Details of the data collection model’ below) and was designed to yield a respondent sample that is representative with respect to neighbourhood deprivation level, and age group within each of the 33 ITL2 regions in England.⁶ This approach limits the role of weights in the production of unbiased survey estimates, narrowing confidence intervals compared with other designs.

The design also sought a minimum two-quarter respondent sample size of 900 for each ITL2 region. Although there were no specific targets per quarter, the sample selection process was designed to ensure that the respondent sample size per ITL2 region was approximately the same per quarter.

As a first step, a stratified master sample of 150,000 addresses in England was drawn from the Postcode Address File (PAF) ‘small user’ subframe. Before sampling, the PAF was disproportionately stratified by ITL2 region (33 strata) and, within region, proportionately stratified by neighbourhood deprivation level (5 strata). A total of 165 strata were constructed in this way. Furthermore, within each of the 165 strata, the PAF was sorted by (i) local authority, (ii) super output area, and finally (iii) by postcode. This ensured that the master sample of addresses was geographically representative within each stratum.

This master sample of addresses was then augmented by data supplier CACI. For each address in the master sample, CACI added the expected number of resident adults in each ten-year age band. Although this auxiliary data will have been imperfect, Kantar Public’s investigations have shown that it is highly effective at identifying households that are mostly young or mostly old. Once this data was attached, the master sample was additionally stratified by expected household age structure based on the CACI data: (i) all aged 35 or younger (15% of the total); (ii) all aged 65 or older (21% of the total); (iii) all other addresses (64% of the total).

The conditional sampling probability in each stratum was varied to compensate for (expected) residual variation in response rate that could not be ‘designed out’, given the constraints of budget and timescale. The underlying assumptions for this procedure were

⁶ International Territorial Level (ITL) is a geocode standard for referencing the subdivisions of the United Kingdom for statistical purposes, used by the Office for National Statistics (ONS). Since 1 January 2021, the ONS has encouraged the use of ITL as a replacement to Nomenclature of Territorial Units for Statistics (NUTS), with lookups between NUTS and ITL maintained and published until 2023.

updated between quarters one and two once evidence had been obtained about how the Participation Survey works in practice, as opposed to ABOS studies in general.

Initially, Kantar Public drew a stratified random sample of 106,223 addresses from the master sample of 150,000 and systematically allocated them with equal probability to quarters one and two. Kantar then systematically distributed the quarter-specific samples to two equal-sized 'replicates', each containing c.26,555 addresses with the same profile. The first replicate was expected to be issued six weeks before the second replicate, to ensure that data collection was spread throughout the three-month period allocated to each quarter.

These replicates were further subdivided into three differently-sized 'batches', the first comprising 80% of the addresses allocated to the replicate, and the second and third batches comprising 10% each. This process of sample subdivision into differently-sized batches was intended to help manage fieldwork, given that the Participation Survey was new, with an unknown response level.

All 26,555 addresses allocated to quarter one, replicate 1 were issued. However, the response rate was considerably higher than had been anticipated, so only a systematically sampled fraction (7,170/21,245) of the first (80%) batch of replicate 2 needed to be issued in order to complete quarter one. In total, 33,725 addresses were issued for quarter one.

Revisions were also made to the quarter two replicates. Only 18,000 addresses were issued from replicate 1 (a subset of the first (80%) batch of 21,245) and 17,392 from replicate 2. In total, 35,392 addresses were issued for quarter two. The replicate 2 sample was also modified to maximise the probability of reaching the target respondent sample size of ≥ 900 in each ITL2 region, given response data available to that point.

In total, 69,117 addresses were issued across both quarters.

Figure 3.1 shows the combined quarter one and two (issued) sample structure with respect to the major strata.

Figure 3.1: Actual address issue

Expected household age structure	Area deprivation quintile group				
	Most deprived	2 nd	3 rd	4 th	Least deprived
All <=35	3,600	3,184	2,291	1,709	1,335
Other	9,637	9,638	8,873	7,567	6,496
All >=65	2,579	2,700	3,189	3,630	2,689

3.2 Sample design: individuals within sampled addresses

All resident adults aged 16+ were invited to complete the survey. In this way, the Participation Survey avoided the complexity and risk of selection error associated with remote random sampling within households.

However, for practical reasons, the number of logins provided in the invitation letter was limited. The number of logins was varied between two and four, with this total adjusted in reminder letters to reflect household data provided by prior respondent(s). Addresses that CACI data predicted contained only one adult were allocated two logins; addresses predicted to contain two adults were allocated three logins; and other addresses were allocated four logins. The mean number of logins per address was 2.8. Paper questionnaires were available to those who are offline, not confident online, or unwilling to complete the survey this way.

3.3 Details of the data collection model

Figure 3.2 summarises the data collection design within each stratum, showing the number of mailings and type of each mailing: push-to-web (W) or mailing with paper questionnaires (P). For example, 'WWP' means two push-to-web mailings and a third mailing with paper questionnaires included alongside the web survey login information. In general, there was a two-week gap between mailings.

Figure 3.2: Data collection design by stratum

	Area deprivation quintile group				
Expected household age structure	Most deprived	2 nd most deprived	3 rd most deprived	4 th most deprived	Least deprived
All ≤35	WWPW	WWWWW	WWWWW	WWW	WWW
Other	WWPW	WWW	WWW	WWW	WWW
All ≥65	WWPW	WWPW	WWP	WWP	WWP

4. Fieldwork

Fieldwork for the Participation Survey 2021/22 was conducted between October 2021 and March 2022, with samples issued on a quarterly basis. Each quarter's sample was split into two batches, the first of which began at the start of the quarter, and the second began midway through the quarter. The specific fieldwork dates for each quarter are shown below in Table 4.1.

Table 4.1: Fieldwork dates

Quarter	Batch	Fieldwork start	Fieldwork end
Quarter 1	1	4th October 2021	28th November 2021
	2	8th November 2021	6th January 2022
Quarter 2	1	7th January 2022	6th February 2022
	2	4th February 2022	30th March 2022

The paper questionnaire was made available to around 35% of respondents at the second reminder stage based on the response probability strata as described in section 3.3. The paper questionnaire was also available on request to all respondents who preferred to complete the survey on paper or who were unable to complete online.

4.1 Contact procedures

All sampled addresses were sent an invitation letter in a white envelope with an On Her Majesty's Service logo containing the following information:

- A brief description of the survey
- The URL of survey website (www.participation-survey.co.uk) and details of how to log in to the survey
- A QR code that can be scanned to access the online survey
- Log-in details for the required number of household members (up to four)
- An explanation that respondents will receive a conditional £10 shopping voucher
- Information about how to contact Kantar Public in case of any queries or if they wanted to request a postal questionnaire

- The reverse of the letter featured responses to a series of Frequently Asked Questions

All non-responding households were sent up to two reminder letters, at the end of the second and fourth weeks of fieldwork for each batch. A targeted third reminder letter was sent to households for which, based on Kantar Public's ABOS field data from previous studies, this was deemed likely to have the most significant impact (mainly deprived areas and addresses with a younger household structure). The information contained in the reminder letters was similar to the invitation letters, with slightly modified messaging to reflect each reminder stage.

As well as the online survey, respondents were given the option to complete a paper questionnaire, which consisted of an abridged version of the online survey. Each letter informed respondents that they could request a paper questionnaire by contacting Kantar Public using the email address or freephone telephone number provided.

In addition, some addresses received up to two paper questionnaires with the second reminder letter. This targeted approach was, again, based on historical data Kantar Public has collected through other studies, which suggests that provision of paper questionnaires to all addresses can displace online responses in some areas. Paper questionnaires were proactively provided to (i) sampled addresses in the most deprived quintile group, and (ii) sampled addresses where it was expected that every resident would be aged 65 or older (based on CACI data).

4.2 Confidentiality

Each of the letters assured the respondent of confidentiality, by answering the question "Is this survey confidential?" with the following:

Yes, the information that is collected will only be used for research and statistical purposes. Your contact details will be kept separate from your answers and will not be passed on to any organisation outside of Kantar or supplier organisations who assist in running the survey.

Data from the survey will be shared with DCMS for the purpose of producing and publishing statistics. The data shared with DCMS won't contain your name or contact details, and no individual or household will be identifiable from the results. For more information about how we keep your data safe, you can visit

www.participationsurvey.co.uk/privacypolicy.html

4.3 Fieldwork performance

When discussing fieldwork figures in this section, response rates are referred to in two different ways:

- **Household response rate** – This is the percentage of households contacted as part of the survey in which at least one questionnaire was completed.
- **Individual response rate** – This is the estimated response rate amongst all adults that were eligible to complete the survey.

Overall, the target number of interviews was 33,000 post validation checks, equating to 16,500 per quarter.

In total 69,117 addresses were sampled, from which 33,589 interviews were achieved after validation checks.⁷ The majority (28,058) of participants took part online, while 5,531 completed a paper questionnaire.

At least one interview was completed in 22,955 households, which represented a household response rate of 33%.

In a survey of this nature, no information is known about the reason for non-response in each individual household. However, it can be assumed that 8% of the addresses in the sample were not residential and were therefore ineligible to complete the survey.⁸ Once deadwood addresses are accounted for, the final household response rate was 36%.⁹

The expected number of eligible individuals per residential address was averaged at 1.89 per address, therefore the total number of eligible adults sampled was 120,181.¹⁰ The survey was completed by 33,589 people, indicating an online individual response rate of 28%.

The full breakdown of the fieldwork figures and response rates by quarter are available in Table 4.2.

⁷ For more information on the validation checks, please see section 5.3.

⁸ An estimated 8% of 'small user' PAF addresses in England are assumed to be non-residential (derived from interviewer administered surveys).

⁹ Household RR = number of responding households / (number of issued addresses*0.92)

¹⁰ The average number of adults aged 16+ per residential household, based on the Labour Force Survey, is 1.89. Thus, the individual RR = number of responses / (number of issued addresses*0.92*1.89).

Table 4.2: Combined online and paper fieldwork figures by quarter

Quarter	No. of sampled addresses	No. of interviews achieved – online + paper	No. households completed	Household response rate (excl. deadwood)	Individual response rate (excl. deadwood)
Quarter 1	33,725	16,227	11,240	36%	28%
Quarter 2	35,392	17,362	11,715	36%	28%
Total	69,117	33,589	22,955	36%	28%

4.4 Incentive system

All respondents that completed the Participation Survey were given a £10 shopping voucher as a thank you for taking part.

Online incentives

Participants completing the survey online were provided with details of how to claim their voucher at the end of the survey and were directed to the voucher website, where they could select from a range of different vouchers, including electronic vouchers sent via email and gift cards sent in the post.

Paper incentives

Respondents who returned the paper questionnaire were also provided with a £10 shopping voucher. This voucher was sent in the post and could be used at a variety of high street stores.

4.5 Survey length

The median completion length of the online survey, with outliers excluded, was 26 minutes, and the mean was 28 minutes.¹¹ This is based on full surveys and does not include partial completions.

¹¹ This figure is calculated by removing outliers, which were any interviews shorter than 5 minutes or longer than 60 minutes.

5. Data processing

5.1 Data management

Due to the different structures of the online and paper questionnaires, data management was handled separately for each mode. Online questionnaire data was collected via the web script and, as such, was much more easily accessible. By contrast, paper questionnaires were scanned and converted into an accessible format.

For the final outputs, both sets of interview data were converted into IBM SPSS Statistics, with the online questionnaire structure as a base. The paper questionnaire data was converted to the same structure as the online data so that data from both sources could be combined into a single SPSS file.

5.2 Partial completes

Online respondents can exit the survey at any time, and while they can return to complete the survey at a later date some chose not to do so.

Equally respondents completing the paper question occasionally leave part of the questionnaire blank, for example if they do not wish to answer a particular question or section of the questionnaire.

Partial data can still be useful, providing respondents have answered the substantive questions in the survey. These cases are referred to as usable partial interviews.

Survey responses were checked at several stages to ensure that only usable partial interviews were included. Upon receipt of receiving returned paper questionnaire, the booking in team removed obviously blank paper questionnaires. Following this, during data processing, rules were set for the paper and online surveys to ensure that respondents had provided sufficient data. For the online survey, respondents had to reach a certain point in the questionnaire for their data to count as valid (just before the wellbeing questions). Paper data was judged complete if they answered at least 50% of the questions and reached at least as far as Q59 in the questionnaire.

5.3 Validation

Initial checks were carried out to ensure that paper questionnaire data had been correctly scanned and converted to the online questionnaire data structure. For questions common to

both questionnaires, the SPSS output was compared to check for any notable differences in distribution and data setup.

Once any structural issues had been corrected, further quality checks were carried out to identify and remove any invalid interviews. With interview-based surveys we have confidence that almost all the data is collected in a controlled manner and from the right individual. However, with most self-completion survey methods, there is no interviewer to do this work so it must be accomplished via other methods. The specific validation checks built into the data processing stages were as follows:

1. **Selecting complete interviews:** Any test serials in the dataset (used by researchers prior to survey launch) were removed. Cases were also removed if the respondent did not answer the declaration statement at the end of the survey.¹² The declaration statement essentially asks participants to 'sign' it as their own work and reminds them of the importance of the research.
2. **Duplicate serials check:** If any individual serial had been returned in the data multiple times, responses were examined to determine whether this was due to the same person completing multiple times or due to a processing error. If they were found to be valid interviews, a new unique serial number was created, and the data was included in the data file. If the interview was deemed to be a 'true' duplicate, the more complete or earlier interview was retained.
3. **Duplicate emails check:** If multiple interviews used the same contact email address, responses were examined to determine if they were the same person or multiple people using the same email. If the interviews were found to be from the same person, only the most recent interview was retained. In these cases, online completes were prioritised over paper completes due to the higher data quality.
4. **Quality checks:** A set of checks on the data were undertaken to check that the questionnaire was completed in good faith and to a reasonable quality. Several parameters were used:
 - a. Interview length (online check only).
 - b. Number of people in household reported in interview(s) vs number of total interviews from household.

¹² Except for usable partial interviews in Q2, as they would not have reached the declaration statement before dropping out. This approach was refined after Q1.

- c. Whether key questions have valid answers.¹³
- d. Whether respondents have habitually selected the same response to all items in a grid question (commonly known as 'flatlining').
- e. How many multi-response questions were answered with only one option selected.

This approach led to 5% of cases being removed, a rate that is low enough for us to be largely confident of the data's veracity.

5.4 Standard paper questionnaire edits

Upon completion of the general quality checks described above, more detailed data checks were carried out to ensure that the right questions had been answered according to questionnaire routing. This is generally all correct for all online completes, as routing is programmed into the scripting software, but for paper completes, data edits were required.

With paper questionnaires, there are a number of common completion errors in the data that need to be resolved. These errors generally arise for the following reasons:

1. *Cases where the individual selects more than one response to a single coded question*

These cases were coded as -5 "Multi-selected for single response (paper)" in the data.

2. *Cases where individuals select more than one response, however they select two conflicting answers such as none of these and a valid survey response*

For these cases, any valid codes were retained and the exclusive code response was set to "0".

3. *Cases where responses are left blank even though the respondent should have answered the question*

These cases were coded as "-4: Not answered but should have (paper)" in the data.

4. *Cases where the individual fails to select an answer for a filter question but then provides an answer for subsequent questions relating to the filter question.*

For these cases, the questions that should not have been answered were set to -3 "Not Applicable" in the data.

¹³ Variables: CARTS1, CARTS2, CARTS3, CARTS4, CLIBRARY1, CHERVIS12, CDIGHER12, CMUSVIS1, CSPOLIVE, CDMT12, CEVEAW & CINTUSE

5.6 Question specific paper questionnaire edits

Other, more specific data edits were also made, as described below:

Additional edits to library question: The question CLIBRARY1 was formatted differently in the online script and paper questionnaire. In the online script it was set up as one multiple-response question, while in the paper questionnaire it consisted of two separate questions (Q15 and Q21). During data checking, it was found that some paper questionnaire respondents followed the instructions to move on from Q15 and Q21 without ticking the “No” response. To account for this, the following data edits were made:

- a) If CFRELIB12 was not answered and CNLIWHYA was answered, CLIBRARY1_001 was set to 0.
- b) If CFRELIDIG was not answered and CNLIWHYAD was answered, CLIBRARY1_002 was set to 0.
- c) CLIBRARY1_003 was set to 0 for all paper questionnaire respondents.

Engagement with cultural activities: One key aim of the survey is to measure engagement with cultural activities. In the online script these questions are typically structured by first establishing which activities the participant has undertaken in the last 12 months, then asking a set of follow up questions to identify how often they took part and whether they took part as a volunteer or in their free time. As it was not possible to replicate this design in the paper questionnaire the following questions were displayed in a grid format instead:

CARTS1/CARTS1A/CARTS1B, CARTS2/CARTS2A/CARTS2B,
 CARTS3/CARTS3A/CARTS3B, CARTS4/CARTS4A/CARTS4B,
 CHERVIS12/CFREHER12/CVOLHER, CDIGHER12/CFREHERDIG/CREPAY5.

The figure below shows an example for the CARTS1 question in the paper questionnaire.

	Not in the last 12 months	At least once a week	Less than once a week, at least once a month	Less than once a month, at least 3 or 4 times a year	Twice in the last 12 months	Once in the last 12 months	In your free time	As a volunteer	In some other way
An exhibition of art, photography or sculptures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A play/drama/musical/Pantomime/Ballet/Opera	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An event connected with books, reading or writing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A cinema screening of a movie or recording	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CARTS1

CARTS1A

CARTS1B

Marking the option “Not in the last 12 months” on the paper questionnaire was equivalent to the code “0: Have not done this” at CARTS1 in the online script. As such, leaving this option

blank in the paper questionnaire would result in CARTS1 being given a default value of “1” in the final dataset. However, some participants neglected to select any of the options in a given row. For these cases CARTS1 was recoded from “1” to “0”.

5.7 Coding

Post-interview coding was undertaken by members of the Kantar coding department. The coding department reviewed verbatim responses, recorded for ‘other specify’ questions and where applicable back coded these into an existing response code or created a new code if enough respondents gave a similar response.

For example, if a respondent selected “Other” at CARTS1 and wrote text that said they went to some type of live music event, in the data they would be back-coded as having attended a “a live music event” at CARTS1_006.

Back coding was conducted throughout fieldwork, but new codes were only added to the data once fieldwork for quarter two was underway (but were applied to quarter one and quarter two data).

5.8 Data outputs

Once the checks were complete a final SPSS data file was created that only contained valid interviews and cleaned, edited data. Three data sets were made available

- Quarter one data
- Quarter two data
- A combined annual dataset

A set of excel data tables, containing headline measures were produced alongside each data set.

The data tables also display confidence intervals. Confidence intervals should be considered when analysing the Participation Survey data set, especially when conducting sub-group analysis. A figure with a wide confidence interval may not be as robust as one with a narrow confidence interval. Confidence intervals vary for each measure and each demographic breakdown and will vary from year to year. Confidence intervals should be calculated using the complex survey package in SPSS or some other statistical package which takes account of design effects.

5.9 Standard errors

The standard error is useful as a means to calculate confidence intervals.

Survey results are subject to various sources of error, that can be divided into two types: systematic and random error.

Systematic error

Systematic error or bias covers those sources of error that will not average to zero over repeats of the survey. Bias may occur, for example, if a part of the population is excluded from the sampling frame or because respondents to the survey are different from non-respondents with respect to the survey variables. It may also occur if the instrument used to measure a population characteristic is imperfect. Substantial efforts have been made to avoid such systematic errors. For example, the sample has been drawn at random from a comprehensive frame, two modes and multiple reminders have been used to encourage response, and all elements of the questionnaire were thoroughly tested before being used.

Random error

Random error is always present to some extent in survey measurement. If a survey is repeated multiple times minor differences will be present each time due to chance. Over multiple repeats of the same survey these errors will average to zero. The most important component of random error is sampling error, which is the error that arises because the estimate is based on a random sample rather than a full census of the population. The results obtained for a single sample may by chance vary from the true values for the population, but the error would be expected to average to zero over a large number of samples. The amount of between-sample variation depends on both the size of the sample and the sample design. The impact of this random variation is reflected in the confidence intervals presented in the data tables for headline measures.

Random error may also follow from other sources such as variations in respondents' interpretation of the questions, or variations in the way different interviewers ask questions.

Standard errors for complex sample designs

The Participation Survey employs a systematic sample design, and the data is both clustered by address and weighted to compensate for non-response bias. These features will impact upon the standard errors for each survey estimate in a unique way. Generally speaking, systematic sampling will reduce standard errors while data clustering and

weighting will increase them. If the complex sample design is ignored, the standard errors will be wrong and usually too narrow.

The confidence intervals published in the quarter two and annual data tables (which also includes quarter one data) have been estimated using the SPSS Complex Samples module, which employs a Taylor Series Expansion method to do this.¹⁴

¹⁴ Please note the confidence intervals in the quarter one data tables published in April 2022 have been updated in the quarter two data tables.

6. Weighting

A three-step weighting process was used to compensate for differences in both sampling probability and response probability. It was carried out separately per quarter:

1. An address design weight was created equal to one divided by the sampling probability; this also served as the individual-level design weight because all resident adults could respond.
2. The expected number of responses per address was modelled as a function of data available at the neighbourhood and address levels. The step two weight was equal to one divided by the predicted number of responses.
3. The product of the first two steps was used as the input for the final step to calibrate the sample. The responding sample was calibrated to the August-October 2021 Labour Force Survey (LFS) with respect to (i) gender by age, (ii) educational level by age, (iii) ethnic group, (iv) housing tenure, (v) region, (vi) employment status by age, (vii) household size, and (viii) internet use by age.

The sum of these 'grossing' weights equals the population of England aged 16+. An additional standardised weight was produced that was the same but scaled so the weights sum to the respondent sample size.

Equivalent weights were also produced for the (majority) subset of respondents who completed the survey by web. These weights were needed because a few items were included in the web questionnaire but not the paper questionnaire.

For the annual dataset (quarters 1 and 2), the 'grossing' weights were divided by 2 and new standardised weights produced to ensure that each quarter would contribute equally to estimates based on the annual dataset.

The final weight variables in the quarter 1 and quarter 2 datasets are:

- "finalweight" - to be used when making population estimates based on online *and* paper data.
- "finalweightweb" - to be used when making population estimates based on online data only.

The final weight variables in the annual dataset are:

- 'Finalweight_Y1' – to be used when making population estimates based on online *and* paper data.
- 'Finalweightweb_Y1' – to be used when making population estimates based on online data only.

It should be noted that the weighting only corrects for observed bias (for the set of variables included in the weighting matrix) and there is a risk of unobserved bias. Furthermore, the raking algorithm used for the weighting only ensures that the sample margins match the population margins. There is no guarantee that the weights will correct for bias in the relationships between the variables.

7. Appendix A – Invitation Letter



HM Government



The Resident
Address1
Address2
Address3Town
County
Postcode

11 August 2021
Reference Number: {HHSerial}
Job Number: 40320894

Dear Resident,

Your household has been chosen to be part of the **Participation Survey**. This is an official government study that plays a vital role in deciding how public money is spent on sports, arts, culture and other facilities in your local area.

Up to {NumLogIns} people in your household aged 16 or over can take part, but each set of log-in details can only be used once.

How to take part

- 1 Go to www.participationsurvey.co.uk or scan the QR code on a smartphone and select 'Click here to complete the survey'.
- 2 Enter your log-in details (shown below) in the boxes provided.



Person 1	Person 2	Person 3	Person 4
Ref No: XXXX	Ref No: XXXX	Ref No: XXXX	Ref No: XXXX

- 3 Click "START NOW" to complete the survey and submit when done.

Each person who completes the survey will receive a **£10 shopping voucher** to thank them for their time. The survey should take around 30 minutes to complete.

If you are unable to complete the survey online, you can request a **paper version** of the questionnaire via the contact details below.

This study is being carried out on behalf of the government by Kantar Public, an independent social research organisation. If you would like to talk to someone about the study, please contact Kantar Public on 0800 904 7726 or at participationsurvey@kantar.com.

I hope you will be able to take part and thank you in advance for your help.

Yours faithfully,

Sarah Lasher
Head of Profession for Statistics, DCMS

KANTAR PUBLIC

Frequently Asked Questions

Why did you choose my address?

As it is not possible to ask everyone to take part in the survey, we select a sample of addresses to represent the entire country. Your address was selected at random from a list of private addresses held by the Royal Mail.

Why are my views important?

Everyone's views and experiences are valuable, even if you **don't** participate in any activities or you don't think your views are relevant. The results need to be representative of everyone in England.

Who is conducting the survey?

The survey is being conducted by Kantar Public (an independent agency) on behalf of the government department for Digital, Culture, **Media** and Sport (DCMS). DCMS aims to improve the quality of life for all through sporting, **art** and cultural activities. To find out more about Kantar Public, please visit www.kantarpublic.com.

More information about this survey is available at:

www.gov.uk/guidance/participation-survey

What do I need to do?

Up to **{NumLogIns}** people in your household aged 16 or over can take part. Simply go online and type www.participationsurvey.co.uk in the address bar or scan the **QR code** on a smartphone. Then enter one of the reference numbers and associated password provided and complete the survey.

How do I collect the voucher?

Once you have completed the survey you will be directed to our voucher website, where you can choose from a range of different £10 shopping vouchers.

If you complete the survey using a paper questionnaire, we will post a £10 voucher to you once we have received the completed questionnaire.

Is the survey confidential?

Yes, the information that is collected will only be used for research and statistical purposes. Your contact details will be kept separate from your answers and will not be passed on to any organisation outside of Kantar or supplier organisations who assist in running the survey.

Data from the survey will be shared with DCMS for the purpose of producing and publishing statistics. The data shared with DCMS **won't** contain your name or contact details, and no individual or household will be identifiable from the results.

For more information about how we keep your data safe, you can visit

www.participationsurvey.co.uk/privacypolicy.html

8. Appendix B – 1st Reminder Letter



HM Government



The Resident

Address1
Address2
Address3
Address4
Address5
Address6
Postcode: A

Despatch date

Reference Number: HHSerial

Job Number: 40320894

Dear Resident,

We recently invited your household to take part in the **Participation Survey**, an official government study. Our records suggest that the survey has not been completed by all adults in your household. We are writing again due to the importance of your household in helping us to gather accurate information.

Up to **DCMS_RemindNumLogIns** people in your household aged 16 or over can take part, but each set of log-in details can only be used once.

How to take part

- 1 Go to www.participationsurvey.co.uk or scan the QR code on a smartphone and select 'Click here to complete the survey'.
- 2 Enter your **log-in details** (shown below) in the boxes provided.



Person 1	Person 2	Person 3	Person 4
Ref No: XXXXXX	Ref No: XXXXXX	Ref No: XXXXXX	Ref No: XXXXXX

- 3 Click **"START NOW"** to complete the survey and submit when done.

Each person who completes the survey will receive a **£10 shopping voucher** to thank them for their time. The survey should take around 30 minutes to complete. If you are unable to complete the survey online, you can request a **paper version** of the questionnaire via the contact details below.

If you would like to talk to someone about the study, please contact independent research agency Kantar Public on 0800 904 7726 or at participationsurvey@kantar.com.

I hope you will be able to take part and thank you in advance for your help.

Yours faithfully,

Sarah Lasher
Head of Profession for Statistics, DCMS

KANTAR PUBLIC

Frequently Asked Questions

Why did you choose my address?

As it is not possible to ask everyone to take part in the survey, we select a sample of addresses to represent the entire country. Your address was selected at random from a list of private addresses held by the Royal Mail.

Why are my views important?

Everyone's views and experiences are valuable, even if you don't participate in any activities or you don't think your views are relevant. The results need to be representative of everyone in England.

Who is conducting the survey?

The survey is being conducted by Kantar Public (an independent agency) on behalf of the government department for Digital, Culture, Media and Sport (DCMS). DCMS aims to improve the quality of life for all through sporting, art and cultural activities. To find out more about Kantar Public, please visit www.kantarpublic.com.

More information about this survey is available at www.gov.uk/guidance/participation-survey

What do I need to do?

Up to DCMS RemindNumLogins people in your household aged 16 or over can take part. Simply go online and type www.participationsurvey.co.uk in the addressbar or scan the QR code on a smartphone. Then enter one of the reference numbers and associated password provided and complete the survey.

How do I collect the voucher?

Once you have completed the survey you will be directed to our voucher website, where you can choose from a range of different £10 shopping vouchers.

If you complete the survey using a paper questionnaire, we will post a £10 voucher to you once we have received the completed questionnaire.

Is the survey confidential?

Yes, the information that is collected will only be used for research and statistical purposes. Your contact details will be kept separate from your answers and will not be passed on to any organisation outside of Kantar or supplier organisations who assist in running the survey.

Data from the survey will be shared with DCMS for the purpose of producing and publishing statistics. The data shared with DCMS won't contain your name or contact details, and no individual or household will be identifiable from the results.

For more information about how we keep your data safe, you can visit www.participationsurvey.co.uk.

9. Appendix C – 2nd Reminder Letter



HM Government



The Resident
Address1
Address2
Address3
Address4
Address5
Address6
Postcode, A

29th October 2021
Reference Number: HHSerial
Job Number: 40320894

Dear Resident,

We recently invited your household to take part in the **Participation Survey**, an official government study. Our records suggest that the survey has not been completed by all adults in your household. We are writing again due to the importance of your household in helping us to gather accurate information.

Each person who completes the survey will receive a £10 shopping voucher to thank them for their time. The survey should take around 30 minutes to complete.

Up to **DCMS_RemindNumLogins** people in your household aged 16 or over can take part, but each set of log-in details can only be used once.

How to take part

- 1 Go to www.participationsurvey.co.uk or scan the QR code on a smartphone and select 'Click here to complete the survey'.
- 2 Enter your **log-in details** (shown below) in the boxes provided.



Person 1	Person 2	Person 3	Person 4
Ref No: XXXXXX	Ref No: XXXXXX	Ref No: XXXXXX	Ref No: XXXXXX

- 3 Click **"START NOW"** to complete the survey and submit when done.

If your household would prefer to respond on paper, we have enclosed **Pap_Num** which you can complete and return using the pre-paid envelope provided.

If you would like to talk to someone about the study, please contact independent research agency Kantar Public on 0800 904 7726 or at participationsurvey@kantar.com.

I hope you will be able to take part and thank you in advance for your help.

Yours faithfully,

Sarah Lasher
Head of Profession for Statistics, DCMS

KANTAR PUBLIC

Frequently Asked Questions

Why did you choose my address?

As it is not possible to ask everyone to take part in the survey, we select a sample of addresses to represent the entire country. Your address was selected at random from a list of private addresses held by the Royal Mail.

Why are my views important?

Everyone's views and experiences are valuable, even if you [don't](#) participate in any activities or you don't think your views are relevant. The results need to be representative of everyone in England.

Who is conducting the survey?

The survey is being conducted by Kantar Public (an independent agency) on behalf of the government department for Digital, Culture, [Media](#) and Sport (DCMS). DCMS aims to improve the quality of life for all through sporting, [art](#) and cultural activities. To find out more about Kantar Public, please visit www.kantarpublic.com.

More information about this survey is available at www.gov.uk/guidance/participation-survey

What do I need to do?

Up to [DCMS_RemindNumLogIns](#) people in your household aged 16 or over can take part. Simply go online and type www.participationsurvey.co.uk in the address bar or scan the QR code on a smartphone. Then enter one of the reference numbers and associated password provided and complete the survey.

How do I collect the voucher?

Once you have completed the survey you will be directed to our voucher website, where you can choose from a range of different £10 shopping vouchers.

If you complete the survey using a paper questionnaire, we will post a £10 voucher to you once we have received the completed questionnaire.

Is the survey confidential?

Yes, the information that is collected will only be used for research and statistical purposes. Your contact details will be kept separate from your answers and will not be passed on to any organisation outside of Kantar or supplier organisations who assist in running the survey.

Data from the survey will be shared with DCMS for the purpose of producing and publishing statistics. The data shared with DCMS [won't](#) contain your name or contact details, and no individual or household will be identifiable from the results.

For more information about how we keep your data safe, you can visit www.participationsurvey.co.uk.

10. Appendix D – 3rd Reminder Letter



HM Government



The Resident
Address1
Address2
Address3
Address4
Address5
Address6
Postcode A

15 December 2021
Reference Number: HHSerial
Job Number: 40320894

Dear Resident,

We got in touch a few weeks ago, inviting your household to take part in the **Participation Survey**, an official government study. Our records suggest that the survey has not been completed by all adults in your household.

This is the **last opportunity to take part** – the survey will close on **Sunday 2nd January**.

Each person who completes the survey will receive a £10 shopping voucher to thank them for their time. The survey should take around 30 minutes to complete.

Up to DCMS.RemindNumLogIns people in your household aged 16 or over can take part, but each set of log-in details can only be used once.

How to take part

- 1 Go to www.participationsurvey.co.uk or scan the QR code on a smartphone and select 'Click here to complete the survey'.
- 2 Enter your **log-in details** (shown below) in the boxes provided.



Person 1	Person 2	Person 3	Person 4
Ref No: XXXXXX	Ref No: XXXXXX	Ref No: XXXXXX	Ref No: XXXXXX

- 3 Click **"START NOW"** to complete the survey and submit when done.

If you are unable to complete the survey online, you can request a **paper version** of the questionnaire via the contact details below.

If you would like to talk to someone about the study, please contact independent research agency Kantar Public on 0800 904 7726 or at participationsurvey@kantar.com.

I hope you will be able to take part and thank you in advance for your help.

Yours faithfully,

Sarah Lasher
Head of Profession for Statistics, DCMS

Frequently Asked Questions

Why did you choose my address?

As it is not possible to ask everyone to take part in the survey, we select a sample of addresses to represent the entire country. Your address was selected at random from a list of private addresses held by the Royal Mail.

Why are my views important?

Everyone's views and experiences are valuable, even if you don't participate in any activities or you don't think your views are relevant. The results need to be representative of everyone in England.

Who is conducting the survey?

The survey is being conducted by Kantar Public (an independent agency) on behalf of the government department for Digital, Culture, Media and Sport (DCMS). DCMS aims to improve the quality of life for all through sporting, art and cultural activities. To find out more about Kantar Public, please visit www.kantarpublic.com.

More information about this survey is available at www.gov.uk/guidance/participation-survey

What do I need to do?

Up to ~~DCMS RemindNumLogIns~~ people in your household aged 16 or over can take part. Simply go online and type www.participationsurvey.co.uk in the address bar or scan the QR code on a smartphone. Then enter one of the reference numbers and associated password provided and complete the survey.

How do I collect the voucher?

Once you have completed the survey you will be directed to our voucher website, where you can choose from a range of different £10 shopping vouchers.

If you complete the survey using a paper questionnaire, we will post a £10 voucher to you once we have received the completed questionnaire.

Is the survey confidential?

Yes, the information that is collected will only be used for research and statistical purposes. Your contact details will be kept separate from your answers and will not be passed on to any organisation outside of Kantar or supplier organisations who assist in running the survey.

Data from the survey will be shared with DCMS for the purpose of producing and publishing statistics. The data shared with DCMS won't contain your name or contact details, and no individual or household will be identifiable from the results.

For more information about how we keep your data safe, you can visit www.participationsurvey.co.uk.