

Monitoring and reducing respondent burden of statistical surveys

Guidance for producers of official statistics

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Introduction

Aim of this guidance

This guidance focuses on monitoring and reducing respondent burden when carrying out statistical surveys. It does not cover how to implement statistical surveys.

Monitoring and reducing respondent burden is mentioned in the [Code of Practice for Statistics](#). All government statisticians are governed by the code and [statistical Heads of Profession \(HoPs\)](#) are responsible for ensuring implementation of the code in their departments.

Practice V5.5 of the [Code of Practice for Statistics](#):

“Statistics producers should be transparent in their approach to monitoring and reducing the burden on those providing their information, and on those involved in collecting, recording and supplying data. The burden imposed should be proportionate to the benefits arising from the use of the statistics.”

What is a statistical survey?

The [Organisation for Economic Co-operation and Development](#) states that:

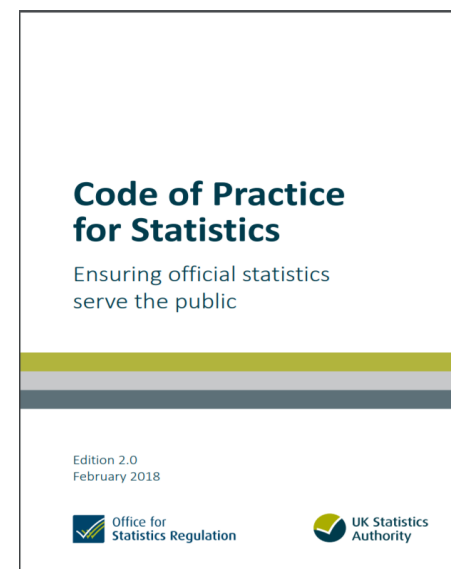
“A survey is an investigation about the characteristics of a given population by means of collecting data from a sample of that population and estimating their characteristics through the systematic use of statistical methodology.”

Examples of statistical surveys:

- censuses
- sample surveys
- the collection of data from administrative records – where respondents are “surveyed” and asked to respond based on admin data

Data collections that are not included:

- the extraction of data from admin records by operating systems
- exercises where respondents clearly select themselves e.g. surveys on websites, readership surveys and some types of consultation exercises where there is an invitation to comment



Monitoring respondent burden

To monitor respondent burden, statistics producers should:

- collect data on the respondent burden associated with their statistical surveys
- estimate the costs of compliance to give a measure of respondent burden
- compare the costs of compliance with previous years' figures
- investigate any substantial changes and take appropriate action to try to reduce the burden
- explain to users any variations in compliance costs caused by changes in the nature of a survey, such as a sample increase.

Publication of compliance information

Part of monitoring respondent burden is publishing the compliance information. This is because the [Code of Practice for Statistics](#) states that statistics producers should be transparent in their approach to monitoring respondent burden.

Where should compliance information be published?

The compliance information should either be published in a Background Quality Report (BQR) or on a relevant webpage. More information on BQRs can be found in our [guidance on communicating quality, uncertainty and change](#).

The [School Meals in Northern Ireland BQR](#) is a good example of a BQR.

[A good example of how to publish compliance information provided by HMRC.](#)

How often should compliance information be published?

Ideally each producer of official statistics should publish compliance costs each financial year.

HM Revenue and Customs (HMRC) publishes annual statistics on its [survey compliance costs](#) to track the cost incurred by businesses and local authorities in complying with the statistical surveys it conducts.

Whose responsibility is it to publish compliance information?

It is the responsibility of the department that owns the survey to estimate and publish the compliance costs.

For surveys that are jointly conducted by two government departments and/or external contractors, it is the responsibility of the department that owns the survey.

For example, the [Family Resources Survey](#) is owned by the Department for Work and Pensions (DWP), but the data are collected by both the Office for National Statistics (ONS) and NatCen. Therefore DWP are responsible for estimating and publishing the compliance costs.

Calculating compliance costs

Guidance on how to calculate compliance costs estimates for surveys of businesses and local authorities and surveys of households and individuals can be found on [pages 18-22](#) of this guidance.

The concept of respondent burden

What is respondent burden?

The [Encyclopedia of Survey Research Methods](#) defines respondent burden as:

“The degree to which a survey respondent perceives participation in a survey research project as difficult, time consuming, or emotionally stressful is known as respondent burden. Interview length, cognitive complexity of the task, required respondent effort, frequency of being interviewed, and the stress of psychologically invasive questions all can contribute to respondent burden in survey research.”

Concept of perceived respondent burden

The concept of response burden can be divided into actual and perceived burden. There are four factors that constitute perceived respondent burden;

- frequency of contact
- length of contact
- required respondent effort
- stress of disturbing questions

Respondents can be grouped by:

- the access they have to relevant information
- their interest in the task given to them
- the competence they have to complete the survey task

The characteristics of the respondents may influence the amount of response burden that they perceive themselves. For business surveys, the perceived burden

may also be affected by their position in the business, their prior exposure to the business survey and to the survey organisation.

The value that the respondent places upon completing and returning the business survey may be influenced by these factors and the business culture that they operate in. Moreover, there is also the case that the lack of understanding the purpose of the survey is perceived as burdensome.

Why do we need to address respondent burden?

Response burden can affect response quality. It can lead to non-response, with implications to precision and potential bias. Non-response is a key indicator on survey quality. The main sources of non-response are non-contact and refusal.

Accumulated non-response (often referred to as attrition) affects longitudinal surveys. Reduction in sample size over time caused by attrition can threaten the statistical reliability of survey findings.

Therefore – developing a strategy and taking measures to reduce respondent burden can improve the quality and quantity of data.

Survey Control and Liaison Officers

We recommend that each government department should nominate a Survey Control Liaison Officer (SCLO) who is responsible for supporting their [statistical Head of Profession](#) in monitoring and reducing respondent burden.

Northern Ireland have a network of SCLOs managed by the NISRA Survey Control Unit who produce guidance on what is expected of SCLOs in the Northern Ireland context. For further information, contact methodology@nisra.gov.uk.

SCLOs should:

- provide advice and guidance and monitor survey activity within their department
- work closely with survey managers
- maintain an up-to-date record of all statistical surveys conducted within their department along with their associated compliance costs
- organise the annual reporting of survey and compliance cost information for all statistical surveys - more information on our recommendations for how to do this are in the monitoring respondent burden section
- advise those responsible for surveys on the survey control procedures for their department
- assess new survey requests and changes to existing surveys according to departmental procedures.
- monitor any discontinued or paused surveys
- support the survey review process within their department

Reducing respondent burden

A range of measures can be taken to ease the burden that statistical surveys place on respondents.

Here we list some examples:

1) Consider the need for new surveys

Practice V5.3 of the [Code of Practice for Statistics](#):

“The suitability of existing data, including administrative, open and privately-held data, should be assessed before undertaking a new data collection.”

When commissioning new statistical surveys ensure that the need for the survey outweighs the extra burden created by the new survey. When deciding whether the survey is necessary or not consider whether the data required is available elsewhere.

A thorough search of other data sources should be conducted, including:

- other government departments or agencies
- existing statistical surveys
- UK Data Service (UKDS)
- professional organisations
- literature search e.g. academic journals
- administrative data records
- local sources e.g. local authorities

If an existing data source is found but deemed unsuitable, there may still be a need for a new survey.

2) Consider alternative data sources

Ensure alternative data sources are considered in reducing respondent burden. Administrative data systems provide advantages such as reduced costs and the absence of sampling and reduced non-response errors. On the other hand, administrative data is not always the appropriate data source, since they can have limitations in terms of coverage, data quality and subtle definitional differences that make comparisons to statistical releases difficult.

If it is possible to use other data sources, then removing the existing survey and using the alternative data source will reduce respondent burden. It may also be possible to link respondent data from the statistical survey to other data sources to obtain information rather than adding new questions to the statistical survey (see practice V5.1 of the [Code of Practice for Statistics](#)).

In any case, it is important to make sure that any existing data comes from a reliable source.

3) Consider combining surveys

Where surveys collect similar information, or approach the same respondents, it may be possible to combine them into one survey.

This will depend on factors such as the survey length, timing of the survey, frequency, population group surveyed, sample size and sampling approach.

In some cases, a more detailed annual survey could be supplemented by a less detailed quarterly survey, or additional questions could be asked of a subset of the respondents rather than all respondents.

Reducing respondent burden

4) Establish processes to review existing statistical surveys

Guidelines for statistical producers:

1. review statistical surveys on a regular basis to ensure there is a continuing need for their existence

Example:

The Forestry Commission undertakes annual summary reviews to ensure there is a continuing need for their surveys. In these annual reviews they review the questionnaire and update respondents.

Every five years, full reviews are undertaken. Reviewing surveys in this way illustrates a commitment to minimising and reducing respondent burden to those supplying data.

2. publish information on web pages about the processes in place to review existing surveys
3. be transparent about the need for each question in a survey

Example:

The Forestry Commission publishes the need for information for each of their surveys. For example their [Removals Survey](#). This ensures users and those supplying data understand why the information is required and how it will be used.

4. communicate to respondents what the data are used for - this helps to show the benefits arising from the burden that has been placed on respondents.

Example:

An example of this can be seen from the [ONS Labour Force Survey](#). Including information for respondents helps to illustrate the benefits that taking part in a Labour Force Survey interview will bring.

2. Why is this study important?

By taking part in our study, you will help us to produce statistics about matters that affect the whole community, including work, unemployment, training, retirement and looking after the family and home.

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3. Why should I take part?

Whatever your circumstances, they are relevant to this study. Obtaining information from as many selected households as possible is the only way we can get a complete and accurate picture of the nation's employment status and other circumstances. By taking part, you ensure that your experiences and circumstances become an important part of the bigger picture of life in the UK today and help to shape policies that affect everyone in the UK.

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Reducing respondent burden

5) Select appropriate sample size/sampling procedure

The number of respondents contacted to participate should be kept to the minimum necessary to provide robust information.

Contact with small businesses should be kept to a minimum where possible, as statistical surveys create a proportionately higher burden for them compared with large enterprises.

Small businesses (0-9 employment) are covered by the [Osmotherly rule](#), which restricts the burden placed upon them. The rule guarantees small businesses will not be simultaneously selected for more than one survey, remain in that survey for only a limited time span and will have a holiday of at least three years from most surveys once the time in the survey has completed and while the business remains small.

Use an accurate and up-to-date sampling frame

This will avoid imposing unnecessary burden on ineligible respondents and will also increase the overall response.

Using a common register of businesses, such as the Inter-Departmental Business Register (IDBR), can help to coordinate across surveys. However, this needs to be balanced against the diverse needs of the surveys. For example, IDBR might not be the perfect place for looking up telephone number information, as sometimes the information stored is poor or some tele-matching might be needed.

Implement overlap controls

Overlap controls could be used to prevent potential respondents being sampled for too many surveys

simultaneously. Samples can also be rotated to avoid an unfair distribution of burden. If selection methods are seen to be unfair, then this can have an adverse effect on response.

Overlap control of this sort is employed in business surveys selected from the IDBR for the 0-9 employment, Osmotherly population. This guarantee potentially introduces some bias, but it is probably negligible given the large numbers of small businesses, and especially when considered alongside potential coverage issues of the smallest businesses, many of which are not included on the IDBR.

There are other ways of reducing overlap too. For example, one way to limit overlap overall, is to cap the sampling fractions of small businesses in particular industries, so that many fewer would be sampled than might otherwise be the case. Ad-hoc adjustments can also be applied, for example, exempting businesses from receiving questionnaires in specific and limited circumstances.

On social surveys, ONS keeps a "Used address file" of addresses selected in survey samples. Addresses on that file cannot be selected for another survey until a given period of time has elapsed. Since sampling fractions on social surveys are small, any bias from this should be negligible.

Reducing respondent burden

Ensure sample rotation

Sample rotation is related to survey design. Survey requirements will drive the design and determine whether the survey is cross-sectional, longitudinal, or has elements of both. Some options on sample rotation are outlined below:

The use of Permanent Random Numbers (PRNs) on the IDBR for sample selection controls burden and time-in-sample. Businesses are usually selected for a number of consecutive occasions before being 'rotated out'; having a considerable part of the sample in common between two periods reduces the variance of estimates of change between the periods but prolongs the burden placed at any given time. However, PRNs and rotation sampling share the burden fairly, in that all eligible businesses will 'get their turn' in a controlled way.

If using PRNs, the speed of sample rotation (or, equivalently, the expected number of occasions a business is consecutively selected) must be specified. Although selecting for fewer occasions may appear less burdensome, businesses' time-in-sample will come around again sooner, so the aggregated burden over time remains the same (all other things being equal). In practice, this only makes a difference to strata with large sampling fractions, as units in strata with particularly small sampling fractions will not be selected again for a very long time, during which circumstances will have changed.

There's an argument that retaining a business in a sample for a longer run of consecutive periods reduces its overall burden, as it becomes accustomed to completing the questionnaire each (frequent) occasion and more efficient at doing so, rather than having a break and having to

become re-acquainted with the requirements of the questionnaire each time the business is reselected.

Ensure appropriate longitudinal survey designs

Many surveys have longitudinal elements, which require the collection of data from the same units on repeated occasions. Such surveys, therefore, impose burden on the same respondents over a prolonged period, whereas a purely cross-sectional survey will impose burden on just a single occasion. When designing surveys, the perceived and actual burdens and costs associated with longitudinal elements must be weighed against what they offer in terms of greater scope for measuring change over time.

If using a longitudinal design, overlap of the sample between periods can also be specified. Consider use of rotating panels, which control and limit the number of occasions a unit is surveyed; Permanent Random Numbers (or similar) may be used to select samples and control panel rotation; they may also be used to co-ordinate overlap between the samples selected for different surveys. See, for example, Ohlsson (1995).

Note that units sampled for longitudinal surveys may experience less burden on later data collections; they may become accustomed to completing the survey and can prepare in advance and provide the required data more efficiently. Be aware of the possibility of panel-conditioning, however. In addition, some may experience an overhead or set-up cost to be able to supply data on any number of subsequent occasions.

Reducing respondent burden

6) Make use of modelling and estimation techniques

It may be possible to model or estimate a response value, instead of adding a question to a survey or running a separate survey. This will be based on information received by the respondent and/or from alternative data sources. By collecting less information, the respondent burden is reduced.

To be able to model some specified variable would require that same variable to be known (so probably collected in a survey) for at least some units, otherwise there would be no way to develop the model nor determine its quality. Statistical techniques such as regression, survival analysis and others can be used to predict outcomes based on several variables from the historical time-series or variables collected elsewhere.

An example of modelling and estimation can be seen in the [ONS release: The probability of automation in England](#).

7) Select the appropriate frequency for the survey

The frequency of surveys should be kept to a minimum. Surveys should only be repeated when there is good reason to do so, for example, if it is part of a regular monitoring exercise or if circumstances are likely to have changed over time.

Reducing frequency is a simple and effective way to cut respondent burden, for example, running a biennial survey

instead of an annual survey.

It is important to consider the end users of the data when making any changes to frequency. For example, users of an annual survey may not be happy with published results being moved to being available biennially instead of annually. An ideal scenario could be to run the survey every two years or run it continuously with a smaller sample but report only every two years.

8) Standardised classification and definitions

Practice V5.1 of the Code of Practice for Statistics:

“Opportunities for data sharing, data linkage, cross-analysis of sources, and the reuse of data should be taken wherever feasible. Recognised standards, classifications, definitions, and methods should be applied to data wherever possible.”

Definitions and concepts familiar to the respondent and consistent with other similar surveys should be used.

Unnecessary variations between statistical surveys can increase respondent burden while harmonisation can help reduce burden and improve the value and quality of the data received.

Prior consultation with a sample of respondents will help to identify the most appropriate definitions and concepts. Alignment of classifications can help to avoid duplication between surveys. Also, more value can be extracted from the data if it can be related directly to another survey.

Reducing respondent burden

9) Use less burdensome methods of data collection

Alternative methods of data collection using new technology or mixed-mode approaches offer potential cost savings.

As people increasingly use the web and personal technology, a traditional pen and paper survey approach may appear inefficient and may be more burdensome to respondents. In such circumstances, switching to new methods of technology or mixed modes may help to maintain response rates.

A report for the GSS: [The application of alternative modes of data collection in UK Government social surveys](#) states that cost savings may be achievable in government social surveys by maximising the use of cheaper modes of data collection (mail, internet and telephone) in mixed-mode data collection survey designs. In some circumstances, face-to-face interviewing may need to be retained to ensure data quality. More evidence is needed to assess the trade-off between reducing cost and maintaining quality.

The use of electronic methods for collecting data, such as electronic data interchange (EDI), can also reduce respondent burden. This is particularly useful when the information being collected is stored on the respondent's business computer system.

Another consideration is the use or provision of computer software to interface with existing business packages used by companies. To be effective, the software needs to be openly shared.

10) Ensure efficient processing of data

An efficient data editing process for the collected survey data should be established to minimise the need for re-checking with respondents.

Electronic data collection instruments, whether online or interviewers' laptops, provide the opportunity to query data inputs at the time of collection, and thus avoid the need for subsequent re-contact. However, each check made imposes burden, and too many will likely lead to the respondent deciding not to complete the survey (especially when using self-completion), risking non-response bias.

The most important is a good questionnaire design. Asking questions clearly and asking only for information that respondents understand and have available.

Reducing respondent burden

11) Research other survey design techniques

Good survey design will not only help to collect quality data but also reduce the burden placed on respondents.

Techniques that can be applied to any survey type but should be adjusted based on each type's needs are presented below:

- Choose the appropriate collection technique (for example, use telephone surveys only when the required information is likely to be readily available). This reduces re-contact burden and costs due to checking and correcting data.
- Ensure the survey is directed to the most relevant person, for example, somebody qualified to provide the necessary answers. This will avoid time being wasted by the respondent in finding others to complete the survey or gathering the information from many people within the organisation.
- Provide advance warning of surveys (especially when they are infrequent) so that respondents have time to collect the required records.
- Give a full explanation of the purpose of a survey to respondents. Make it clear what is required, for whom and why. Distinguish clearly which surveys are compulsory (with reasons) and which are voluntary.
- Keep surveys as simple as possible - respondents should only be asked those questions that are necessary.
- Wherever possible, ask only for information which is likely to be readily available - information which requires some searching on the part of the respondent takes time and creates costs for business respondents.
- Ensure questionnaires are as clear and helpful as possible and guidance is straightforward and to the point.
- Adapt and "personalise" questionnaires to individual businesses as far as possible. Data should be extracted directly from company records where feasible. Respondents should also be offered alternative ways of supplying data which may place less burden on them.
- Make surveys an appropriate length – questionnaires should be kept as short as possible to minimise respondent burden. A relatively short questionnaire is also more likely to be completed than a longer one. However, the length of the survey varies and is influenced by the mode of data collection.
- Optimise routing within surveys to make long surveys shorter by having respondents automatically skip pages that are not relevant to them.
- Voluntary surveys or questions – making whole surveys voluntary or certain questions within surveys voluntary rather than statutory will help reduce respondent burden (see practice V5.4 of the [Code of Practice for Statistics](#)). Those managing surveys should use their judgement here as responses to voluntary surveys/questions will be lower.

Reducing respondent burden

12) Apply a User-Centred Design Approach

In the context of survey development, the respondent is the 'user' and 'User-Centred Design' (UCD) puts the respondent at the heart of the design process. The GOV.UK guidance on establishing user needs states, "if you don't understand who they are or what they need from your service, you can't build the right thing".

User-Centred Design

User-Centred Design is defined as learning about the needs of those who will use your service and designing to meet them.

A user or respondent 'need' can relate to the following:

- Who they are and their circumstances
- What information they require before, during and after taking part
- How and where they take part
- What they are trying to do and what they want to be able to do
- What their expectations are at each stage of the journey
- What causes friction and pain points

If we build the "right thing" then the following outcomes will be observed:

- Reduction in respondent burden
- Increased data quality
- Reduction in costs

The Government Digital Service [principles](#) support this approach.

Respondent burden can occur at any point in the respondent journey, for example from the point of receiving communications through to completing the survey itself. It is possible to reduce burden at every touchpoint by developing the survey experience to be user-centred.

Researchers at ONS (L. Wilson and E. Dickinson) have distilled their UCD design knowledge and approaches into the following 10 components, something they have termed the 'User-centred Design Survey Framework' (UCDSF). This framework can be used alongside:

- The [Total Survey Error Framework \(Groves et al, 2004\)](#). The UCDSF aims to combat the 'errors of measurement' and 'errors of representation'.
- The four-step cognitive process developed by Tourangeau et al (2000). When answering a survey question the four steps include "comprehension of the item, retrieval of relevant information, use of that information to make required judgements and selection and reporting of an answer". The UCDSF components gather details on the four steps identified by Tourangeau et al (2000).

Reducing respondent burden

The User-Centred design survey framework

1. Establish the data user need

Before designing in a respondent centred way, we must understand the data user need. Gather information from the data users and analysts to learn about how they intend to use the data. Once this is clear, this information can then be used to inform the design of the communications, questions and next steps.

2. Mental model research

Explore through qualitative research how respondents conceptualise topics in the questionnaire. This means to learn about what they draw upon to reach that understanding, the thought processes that take place and whether the response options meet their expectations. Mental models can be learned, based on experience, exposure and environment. It is equally important to design for them in interviewer administered and self-completion modes. Interviewers can also provide insights into the mental models of respondents. This information will then inform the wording and flow of the questionnaire, grouping questions that are conceptually linked.

3. Understand user experience and needs

User stories and journeys are key tools when designing a survey. They document needs and the path that a user will take, respectively. Often assumptions are made about these which can result in the wrong thing being built.

A user story is a three-part statement which documents the user needs. They are commonly written in the following way, “As a [insert]...I need [insert]...so that [insert]”. For example, a respondent may say, “As a respondent to the survey, I need to know how long it will take, so that I can complete it at a time that is convenient”. The insights that inform the statements are gathered through qualitative research with the public.

A user journey documents every step taken and task completed by the user when using your product or to complete a goal. Documenting each step in the journey will help to identify the barriers and friction points. Once these are identified and understood then they will inform the research plan.

4. Use data to design

Data can be used to inform the questionnaire order and flow and to improve quality. It is possible to assess whether the questionnaire is moving respondents through it in the most efficient way by analysing the pathways of different groups. Using this information, it is possible to design the question flow to minimise burden.

High item missingness and long question timings for certain questions may indicate that the question is burdensome for respondents. Running these analyses and learning from them can improve data quality and direct future qualitative research to explore the problem.

Reducing respondent burden

5. Create using appropriate tone, readability and language

Creating content with appropriate tone, reading age and language is key to reducing burden. All content, from letters to the questionnaire, should be tested for reading age compliance (there is free online software to do this). In the UK the average reading age is nine years old therefore content should be developed to meet this level. There will be some instances where this is not possible to apply to all content, so pragmatism is recommended.

Learning about the language used by the public to describe topics or their circumstances allows us to recycle this content in materials and questions to reduce burden by aiding cognition.

6. Design without relying on help

Questionnaires should not rely on respondents reading additional help in order to provide a response. Questions should be designed in a user centred way to reduce burden. Issues with questions should be addressed through iterating and testing alternative designs rather than by adding help. It is not possible to remove all help from a questionnaire; however, it should be used sparingly.

7. Take an 'optimode' approach to design

'Optimode' means to design the respondent communications and the questionnaire optimally for each mode. For respondent materials this means tailoring content of letters depending on the mode of interview. For questionnaires this means optimising the design for each mode. Having a design that works optimally in the mode that it is being administered will reduce respondent burden as it will be tailored to their needs.

8. Use adaptive design

Questionnaires should be built using adaptive design. This is where the interface adapts to the screen size and displays the content accordingly. This approach will reduce respondent burden as the screen will render suitably to the device, they are using to complete the survey. When designing questions, it is helpful to think 'smartphone first' as this will constrain the amount of space available in turn challenging you to produce a leaner question, or set of questions, to address the data user need and reduce burden.

9. Conduct 'cogability' testing

Before going live with respondent materials and the questionnaire, it is important that pre-testing takes place with respondents. The content must be tested to ensure that it is understood, it is usable and meets the respondent need, in turn reducing burden. We recommend combining cognitive and usability test – 'cogability' testing in the same session to maximise learning.

10. Design inclusively

All content developed should be designed to be inclusive. This is to meet accessibility standards and to support uses with other conditions (e.g. dyslexia, physical and motor difficulties). Inclusive designs reduce burden for all users not just those with disabilities.

Learning about the needs of your users and designing to meet those will reduce respondent burden and improve data quality.

If you want to know more, contact Laura.Wilson@ons.gov.uk.

Reducing respondent burden

Case Study on reducing respondent burden: Department for Transport (DfT)

The [National Travel Survey \(NTS\)](#) team within DfT has implemented a number of solutions to better meet user needs whilst reducing the burden for participants and interviewers.

The NTS is used widely and the team receives many requests from users who ask for additional information.

The following good practice was used by the NTS team:

- Annual review of the NTS. This is achieved by identifying sections of the survey which take the longest to complete.
- Setting up an online panel to manage the large volume of requests for new questions. In this way, the NTS team can create shorter and more targeted surveys towards sub-groups where it would be disproportionate to ask everyone the full NTS. There is also a much quicker turnaround of results for stakeholders.
- Conducting cognitive testing on any new questions before being approved to add to the NTS. This assesses how well participants understand each question and the level of burden it creates.

The NTS team is currently developing a digital travel diary and undergoing extensive research to establish how a digital diary could simultaneously reduce burden and improve data quality. This includes not just reducing

burden for the participants but for the interviewers as well.

The results of the user feedback survey, cognitive testing and digital diary developments can be found on the [NTS section of GOV.UK](#).

Feedback has been positive, with interviewers commenting the survey is now taking less time to complete and early analysis indicates the survey is shorter. Policy teams have been pleased with the more agile approach of the online panel providing much more timely results considering the fast paced environment in which they operate, and the [new publication](#) has received significant media coverage.

For further information, contact national.travelsurvey@dft.gov.uk.

Calculating compliance costs

This section provides guidance on how to calculate compliance costs for statistical surveys. The guidance is tailored to two areas:

- businesses and local authorities
- households and individuals

General

The methods outlined in this section should be used for both voluntary and statutory surveys. The [methodology](#) was developed and agreed in 2011 by the GSS Respondent Burden task force. A review of this methodology is in due course.

A calculation of compliance is required for all questionnaire or interview types. If different questionnaires or interviews are used, then the calculations should be conducted for each type and then summed for an overall compliance cost. Similarly, if there are different groups of respondents (for example, large and small businesses) then the calculations should be made separately and summed.

Achieved response should be used to measure actual burden of completed surveys. Anticipated response should be used to report burden in the future (for example new surveys, surveys where data collection is on-going and estimating regular surveys for future years).

Some sections below refer to respondent questionnaires or reviews. The UK Code of Practice for Statistics states that "Independent measures, such as internal and external audit, peer review and National Statistics Quality Reviews, should be used to evaluate the effectiveness of statistical processes."

Best practice suggests that for monthly or quarterly surveys a review should be conducted every three years (triennial

reviews) and for annual surveys (or surveys run less often than every year, for example, once every two or three years), a review should be conducted every five years (quinquennial reviews). To establish any change in respondent burden following major changes to the questionnaire or interview, the impact should be evaluated as part of the pilot, or through the cognitive interview process. This should be followed by a full review within two years of these changes taking place.

Surveys of Businesses and Local Authorities

Inclusions

A financial cost is calculated based on the time taken to complete the questionnaire / interview, an appropriate hourly rate and external costs incurred (for example, costs to the business of a bookkeeper or accountant to aid in completion of the survey).

Subsequent contact to validate responses is also included since it contributes to actual burden on respondents. Estimates for this will be made internally and should be Department specific and evidence based.

Exclusions

The following are excluded from the calculations of compliance cost

- set-up costs (costs involved in setting up any systems)
- overheads

Non-response is assumed to place no burden on respondents; thus, it is not included within the calculations.

Calculating compliance costs

Compliance cost model

burden =

$$\begin{aligned} & \{n_{resp,main_surv} \times med(t_{main_surv})\} + \{n_{val,main_surv} \times med(t_{val})\} \times hourly_rate \\ & + \\ & [prop_{external\ costs} \times n_{resp,main_surv}] \times med(external\ cost) \end{aligned}$$

where:

$n_{resp,main_surv}$ is the number of responses to the survey or interview including full and partial responses, even if some are invalid¹.
Achieved response should be used to measure actual burden of completed surveys.
Anticipated response should be used to report burden in the future (for example, new surveys, surveys where data collection is on-going and estimating regular surveys for future years).

$med(t_{main_surv})$ is the median time taken to complete the questionnaire or interview (minutes).

This information can be obtained from:

- respondent questionnaires (such as reviews)²
- pilots
- historical data³
- paradata⁴
- survey manager expertise

$n_{val,main_surv}$ is the number of respondents from the main survey re-contacted for the purpose of validating their responses.

$med(t_{val})$

is the median time taken in any additional re-contact of respondents for validation purposes.

If this is not known, **$med(t_{main_surv})$** may be substituted on the assumption that a respondent may need to review the entire questionnaire (minutes).

hourly_rate

is the (estimated) hourly rate (of person completing the questionnaire) as decided by each Department, based on median hourly pay rates—excluding overtime ([Table 14.6a](#), see [Annex A](#)) from the [Annual Survey of Hours and Earnings \(ASHE\)](#) and updated annually. The decision on the hourly rate should be justifiable⁵ and should be based on:

- evidence from previous respondent questionnaires (such as reviews)
- survey manager expertise

$prop_{external\ costs}$

is the proportion of respondents who incur external costs. This is estimated from the review questionnaire as:

$$n_{resp\ with\ external\ costs,review\ sampe} / n_{resp,review\ sample}$$

$med(external\ cost)$

is the median cost incurred (for example accountant's fees) by those businesses and local authorities that do incur external costs. This information can be obtained from:

- respondent questionnaires (such as reviews)
- pilots

An example calculation is included in [Annex A](#).

Calculating compliance costs

Survey of Individuals and Households

For surveys of individuals and households, respondent burden is calculated on the basis of time taken. The financial element (seen above) is excluded from these calculations.

There may be scenarios where it is sensible to include focus groups and cognitive interviews but generally such activities should be excluded from these calculations.

Compliance cost model

$$\text{burden} = n_{\text{resp,main_surv}} \times \text{med}(t_{\text{main_surv}})$$

However, if validation of the responses is required, the following model should be used:

$$\text{burden} = \{n_{\text{resp,main_surv}} \times \text{med}(t_{\text{main_surv}})\} + \{n_{\text{val,main_surv}} \times \text{med}(t_{\text{val}})\}$$

where:

$n_{\text{resp,main_surv}}$ is the number of responses to the survey or interview including full and partial responses, even if some are invalid¹.

Achieved response should be used to measure actual burden of completed surveys.

Anticipated response should be used to report burden in the future (for example, new surveys, surveys where data collection is on-going and estimating regular surveys for future years).

$\text{med}(t_{\text{main_surv}})$ is the median value of time spent completing the questionnaire, interview, travel diaries, etc. Time taken to establish eligibility should also be

included (for example, time spent by the interviewer on the doorstep determining household eligibility). This should not be an additional piece of information required of respondents as this can be either estimated via:

- paradata⁴
- data collected at a pilot

If a respondent is deemed out of scope, the time taken to establish eligibility should still be included.

$n_{\text{val,main_surv}}$ is the number of respondents from the main survey re-contacted for the purpose of validating their responses.

$\text{med}(t_{\text{val}})$ is the median time taken in any additional re-contact of a respondent for validation purposes.

If this is not known, $\text{med}(t_{\text{main_surv}})$ may be substituted on the assumption that a respondent may need to review the entire questionnaire.

An example calculation is included in [Annex B](#).

¹Questionnaires returned blank should be treated as a non-response.

²Questions on time taken to complete the survey may also be included as part of the questionnaire itself.

³Surveys/studies within the past 5 years.

⁴Paradata are data about the process by which the survey data were collected. This would usually include information about the length of interview.

⁵Justifications for hourly rates used will be subject to scrutiny.

Calculating compliance costs

Annex A

Example calculation for surveys of Businesses and Local Authorities

The following example is based on the [Annual Business Survey \(ABS\)](#) conducted by the Office for National Statistics (ONS). The ABS is the ONS financial information survey and samples businesses and other related establishments across the UK.

Compliance cost formula

burden =

$$\begin{aligned} & \{n_{resp,main_surv} \times med(t_{main_surv})\} + \{n_{val,main_surv} \times med(t_{val})\} \times hourly_rate \\ & + \\ & [prop_{external\ costs} \times n_{resp,main_surv}] \times med(external\ cost) \end{aligned}$$

where:

$n_{resp,main_surv}$ = 49,896 (as this is a completed survey, *achieved response* is used)

$med(t_{main_surv})$ = 1.5 (hours)

$n_{val,main_surv}$ = 2,294

$med(t_{val})$ = 1.5(hours) information on time taken for validation not available, thus used $med(t_{main_surv})$

hourly_rate = £19.20

$prop_{external\ costs}$ = $n_{resp\ with\ external\ costs,review\ sampe} / n_{resp,review\ sample}$
= (13/167)*100 = 7.8

$med(external\ cost)$ = £62.50

By using the model, the burden is:

$$\begin{aligned} \text{Burden} &= [(49,896 \times 1.5) + (2,294 \times 1.5)] \times 19.20 \\ &\quad + (0.078 \times 49,896) \times 62.50 \\ &= £1,503,072 + £243,243 \\ &= \mathbf{£1,746,315} \end{aligned}$$

Calculation of median hourly pay rates

In practise, the [table 14.6a](#) from the [Annual Survey of Hours and Earnings \(ASHE\)](#) is used to choose the median hourly pay rates. You can either choose an appropriate level from the table below, or alternatively choose a rate from the full ASHE rates.

ASHE Employment Description	ASHE Code
Directors and chief executives of major organisations	1115
Managers and Senior Officials	1
Professional occupations	2
Associate Professional and technical occupations	3
Administrative and secretarial occupations	4

Calculating compliance costs

Annex B

Example calculation for surveys of Individuals and Households

$$\text{burden} = n_{\text{resp,main_surv}} \times \text{med}(t_{\text{main_surv}})$$

The following example shows how this calculation can be made for various stages of the survey process and summed to provide an overall compliance cost. Please refer to the table below the example for the calculation.

Example survey process:

Stage 1:

Households (for example 1,000 households) are screened, by phone or on the doorstep, to establish their eligibility to take part in the survey. This screening process may take around 5 minutes.

Stage 2:

Some of the households screened may not be eligible to take part (for example 300 may be ineligible, leaving 700 potential households) and others may refuse to take part (for example 100 may refuse, leaving 600 households).

Stage 3:

The main respondent in each of the eligible and willing households is then interviewed (for example for 90 minutes).

Stage 4:

In addition to the main respondent, some households (for example 360 of them) may also include partners, who are available for interview (for example for 35 minutes). Partners in other households may not be available and thus proxy interviews may be conducted with the main respondent to collect information on the unavailable partner (for example

for 15 minutes). Other households may not include partners and thus no additional interviews are conducted.

Calculation:

	$n_{\text{resp,main_surv}}$	$\text{med}(t_{\text{main_surv}})$ (minutes)	Compliance cost (minutes)
Total households screened for eligibility (stage 1)	1,000	5	5,000
Total eligible households (stage 2)	700		
Total responding households	600		
Total main respondent interviews (stage 3)	600	90	54,000
Total partner interviews (stage 4)	360	35	12,600
Total proxy partner interviews	50	15	750
Total			72,350

The above example is a best-case scenario, in which data for various stages are provided, thus the overall compliance cost can be calculated for each stage. However, in practice, it is difficult for the Departments to capture the data by each stage. In this case, the compliance cost is calculated by assuming that there is just one stage of the survey process, using a unique median time figure.