

# LTS Background

Local Household Travel Survey  
(Toolkit Component A)

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## LTS: The Background

## B01 INTRODUCTION

The Local Travel Survey (LTS) is a toolkit of survey materials and associated guidance first launched in Autumn 2005. It has been designed to help local authorities carry out a local household travel survey. It provides step-by-step guidance for how to design and carry out such a survey, and is aimed at all local authorities not just those whose staff have particular research expertise.

*The Toolkit* comprises two separate documents: *The Background* and *The Guidance*. This document (*The Background*) provides an overview of the survey and its development. It is not essential for LTS users to read *The Background*, but doing so will make it easier to understand why LTS is as it is.

*The Guidance* describes how to conduct the survey and contains a number of templates for the principal survey materials. Local authorities do not have to use all of the templates, but we have provided them in the hope that they will prevent duplication of effort. It is important to note that LTS has been designed to be flexible. Its questionnaires are scalable and modular which means local authorities do not necessarily have to start with a clean sheet but nor are they limited to asking a particular set of questions.

### 01.01 Background to LTS

Local authorities are not obliged to carry out household travel surveys but some choose to do so. DfT has no current plans to make them mandatory nor to use them in place of the National Travel Survey (NTS). Moreover, DfT acknowledges that a household survey may not always be the best way for a local authority to fulfil its information needs.

Nevertheless we would like to make it easier for those authorities that do choose to conduct such surveys by giving them a simple household travel survey instrument with guidelines on its use and analysis<sup>1</sup>. This goal was translated into three primary objectives. These are to:

- provide a cost-effective solution for local authorities to collect travel survey data
- ensure good quality data is produced and reported from local travel surveys
- provide a common set of standards for collecting travel survey data

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1 In this context, the Office for National Statistics' definition of a household is being used: one person or a group of people who have the accommodation as their only or main residence, and, if a group, either share at least one meal a day or share the living accommodation, that is, a living room or a sitting room.

In achieving the objectives, the factors we bore in mind were the budgets local authorities are likely to make available to fund a survey, and their capacity and expertise in relation to procuring, managing and analysing the findings. Clearly, there is considerable variation in the resources and skills available across local authorities, with some having an established and skilled monitoring team, and others being less well resourced. We have acknowledged this in the design of LTS.

In reviewing the original implementation of the Best Value Surveys carried out by local authorities, the Office for National Statistics<sup>2</sup> argued that local authorities would find clear statements of how they should go about running surveys more helpful than a general discussion of the issues they would need to bear in mind when deciding how their own surveys might be run. Hence three decisions were made:

- there should be no presumption that local authority staff will have detailed technical expertise in how to design and manage a survey
- *The Toolkit* should provide local authorities with questionnaires they can modify to meet their own needs and a robust methodology they could reasonably be expected to follow
- any guidance given to local authorities should be clear and directive rather than general and discursive

### 01.02 Overview of the LTS toolkit

The toolkit includes:

- a core question set and associated response scales, configured as a Household Questionnaire for gathering information at a household level and an Individual Questionnaire for gathering information about particular members of the household
- guidance on question and response scale design so that local authorities can supplement the core questions with their own local questions
- a tested and clearly-defined survey methodology
- guidance on procuring research services from survey contractors

### 01.03 Key qualities: scaleability and repeatability

LTS is intended to be scaleable in terms of its subject-matter and geographical coverage. It is not intended to fulfil a specific information requirement without tailoring. Instead, it is intended to be a framework

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<sup>2</sup> *Local authorities' experience of carrying out DTLR Best Value Surveys*, October 2002, Office for National Statistics

which local authorities can shape to meet their own needs. Hence the question set is modular so that users can add blocks of questions as they choose, for example on bus satisfaction, cycling or school travel.

LTS has been designed to be as useful for local authorities that want to collect data across a wide area as it is for those that want detailed information about a particular part of a town. This is reflected in the ease-of-operation of the survey methodology as well as its cost.

An important criterion when designing LTS was that it should enable local authorities to monitor trends in travel behaviour, an activity which in turn enables them to predict change. In order to achieve this, the LTS methodology is relatively cheap, so that local authorities can afford to repeat it at frequent intervals, such as every two to three years. It is also methodologically robust so that it does not depend on the availability of skills or resources which might be in short supply, whether on the part of local authorities or survey contractors.

The project team noticed that a significant barrier to monitoring trends is the risk that some local authorities fail to record what their own survey methodologies actually involved. Indeed, one local authority we spoke with had no written record whatsoever.

Clearly, trends cannot be measured accurately if the survey methodology is not conducted consistently as it would be impossible to know whether any change was attributable to a change in travel behaviour or in the way it was measured. Hence the toolkit will describe the LTS methodology in detail. The only technical documentation local authorities will need to produce is a record of where they added to or deviated from the defined approach. This will make it easier to repeat the survey.

The project team paid less attention to creating the opportunity for local authorities to use LTS to compare travel behaviour in their own area with data collected by other local authorities. Such comparisons are possible where local authorities have used a common methodology and have asked the same or very similar questions. Because the toolkit makes the LTS methodology so clear, it should be relatively straightforward for local authorities to decide whether they actually put it into practice in a sufficiently similar way to make comparing their data worthwhile and meaningful.

### **01.04 Principal limitations of LTS**

An important point to note with any local household travel survey is that it will only collect information from people resident within the area where the survey takes place. This means that it will not collect data from people who travel into the area from elsewhere, nor those who pass

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through the area. A cordon survey may be a more effective way to collect this data.

## **B02 THE THINKING BEHIND THE LTS METHODOLOGY**

### **02.01 How LTS was developed**

In developing LTS, the project team had to satisfy two sets of demands: the information needs of local authorities and the technical requirements of a robust survey methodology. To fulfil both sets of demands as fully as possible, the project team developed LTS in an iterative fashion. The first step was to put together a project team who between them could provide expertise in survey design, survey implementation, statistics, sampling, and also travel surveys in particular. Among its members were:

- Peter Jones, Professor of Transport Policy and Behavioural Analysis and Director of the Transport Studies Group, University of Westminster
- Peter Bonsall, Professor of Transport Planning, Institute for Transport Studies and Department of Civil Engineering, University of Leeds
- Kevin Pickering, Head of Statistics, National Centre for Social Research
- Simon Holroyd, project manager of National Travel Survey data collection, National Centre for Social Research

Members of DfT were also extensively involved.

There then followed a period of gathering information about current survey practices within local authorities, particularly with respect to travel surveys. This involved reviewing reports and written descriptions of household travel surveys conducted in the United Kingdom and elsewhere. It also involved consulting with local authorities and data users by email, telephone and in person. This included meetings with:

- Transport for London
- the Association of London Government
- the Passenger Transport Executive Group
- researchers at the Office of the Deputy Prime Minister (ODPM) responsible for the conduct of the Best Value Surveys

The project team produced a methodology and a set of survey materials to pilot, based on the methodological advice of the expert members of the project team, the survey experience of local authorities and direct feedback from them concerning their data requirements. The main aim of the pilot study was to test the data collection and recording

mechanisms and all supporting materials in operation. The fieldwork of the pilot study was subcontracted to a market research company to see whether the methodology could be put into practice by the sort of survey contractor that local authorities typically use. A full pilot of 1,500 households was conducted in Greater Manchester with the help of the Greater Manchester Passenger Transport Executive and the Greater Manchester Transportation Unit.

While fieldwork was in progress, the project team circulated details of the pilot methodology to a range of local authorities, and took account of their comments and suggestions. At the end of fieldwork, the project team analysed the data and observations about the survey process itself. The latter process was enhanced by feedback from the survey contractor in a report listing the areas which had worked well from their perspective and the areas which they felt would benefit from further attention.

At the same time as the LTS pilot, staff from the National Centre for Social Research were working with the Office for National Statistics on a social capital survey whose methodology was similar to the one piloted for LTS. The LTS project team was fortunate to have the opportunity to add observations from this parallel survey to the considerable feedback from the LTS pilot in order to produce the launch version of the LTS toolkit.

## **02.02 How the survey mode was chosen**

The project team considered three types of survey:

- in-home face-to-face survey
- telephone survey
- postal survey

In doing so, the project team bore the following constraints in mind:

- the human resources local authorities are likely to be able to make available
- the budgets local authorities are likely to be able to make available
- the need for a range of survey contractors to be able to put the methodology into practice.

In addition, the project team acted under the following constraints:

- the methodology should be replicable so that it could reasonably be expected to yield comparable data if repeated at three-yearly intervals
- respondents should be selected using random probability sampling. This technique means that all addresses within a specified area have an equal and known likelihood of being selected. As a result, it offers the surest way of achieving a statistically robust sample which is free of bias. What is more, in the case of a postal survey, this approach to sampling does not add significantly to the overall cost

***Option 1: in-home face-to-face survey***

A face-to-face survey carried out in residents' homes is the data collection approach the project team originally favoured. Among its strengths are the higher response rates which it can achieve, the potential for collecting larger quantities of data from participating households, and the opportunity the presence of an interviewer provides for asking more complex questions. However, the project team discounted this option for a number of reasons. The two main ones were:

- face-to-face surveys are expensive to do well, and are likely to cost considerably more than many local authorities would have budgets for
- there are too few survey organisations with a field force of interviewers trained to conduct in-home interviews to give local authorities sufficient choice of supplier. This would also be likely to constrain local authorities in terms of when their survey's fieldwork could take place

***Option 2: telephone survey***

In many ways travel surveys are like other sorts of household surveys. However, there is one important difference: the people who travel the most are least likely to be at home. Together with the absence of a sufficiently good sample source, this was the main reason why the expert panel argued against a telephone survey. Such an approach could certainly be cost-effective and carrying it out would not constrain local authorities unduly in their choice of survey contractor. Nevertheless, it would be unwise to use a data collection method where the probability of conducting an interview is correlated, albeit inversely, with the factor one is trying to measure.

**Option 3: postal survey**

One of the principal weaknesses of postal surveys is that they typically yield relatively low response rates. Arguably this is largely because there is no personal contact and so the invitation to participate cannot be tailored to encourage people to take part. The lack of personal contact also makes it difficult to include complex questions or anything else which might require detailed explanation.

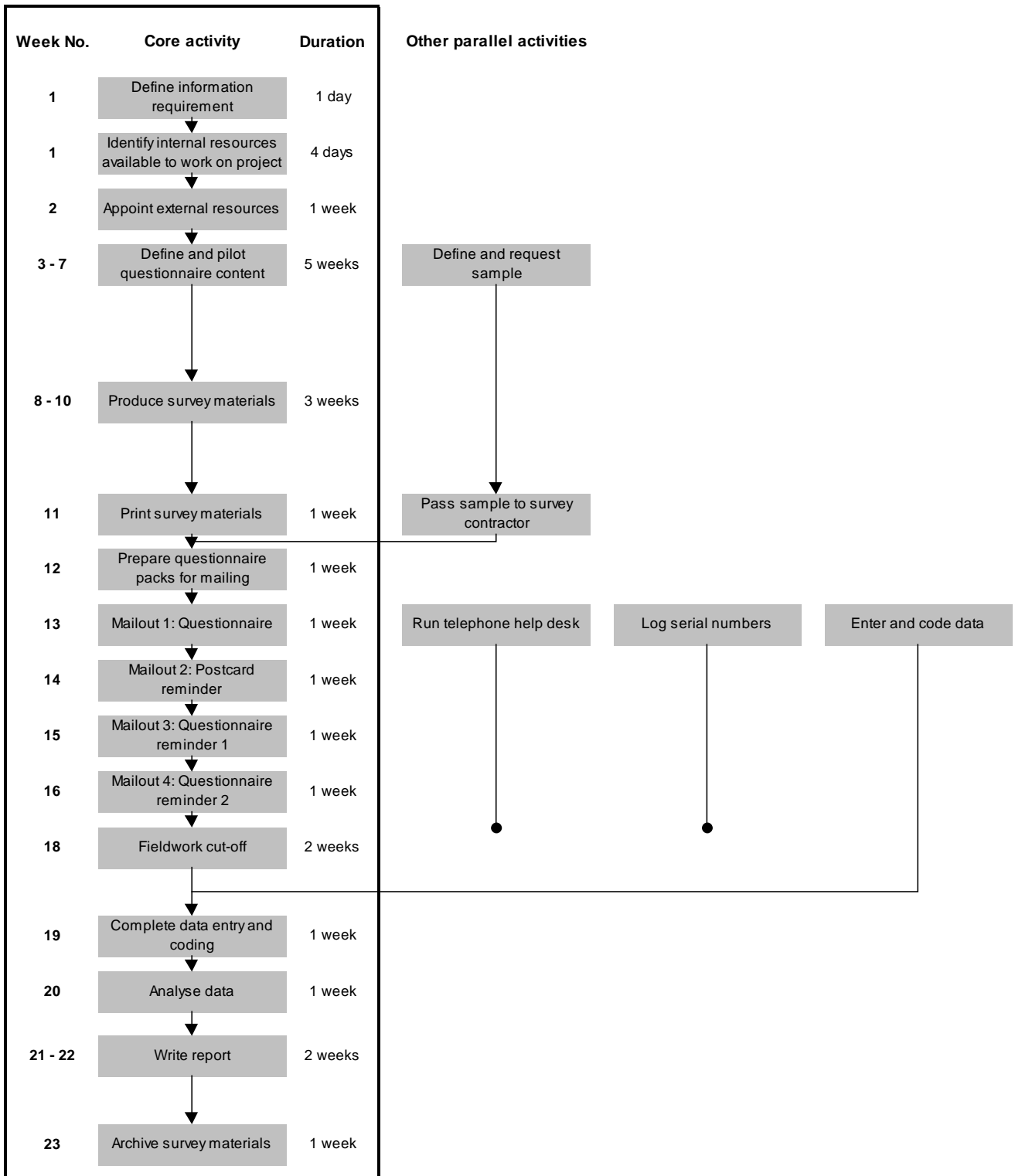
However, a postal survey does have strengths:

- it is relatively cheap, and a rigorous postal survey could be conducted within the budget local authorities are likely to be able to make available
- it would not place undue demands on the technical expertise of members of staff from a local authority
- a wide range of survey contractors could carry it out
- the *Postcode Address File* (available from the Royal Mail) is a good source of information for building a random probability sample
- there is no reason to believe that a postal survey methodology could not be repeated faithfully at intervals in the future so that time series data can be built up.

For these reasons, the expert panel opted for a postal survey.

The question then becomes how best to go about conducting a postal survey and how to optimise its response rate. We look at this question in Chapter B03.

### B03 OVERVIEW OF THE SURVEY PROCESS



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LTS is a postal survey which involves four mailouts as part of a strategy designed to maximise response rates. The diagram above provides an outline of the survey process as well as an indication of the timing and duration of some of the principal survey activities. All of the activities shown in the diagram are described in detail in *The Guidance*. However, what it does illustrate is that the minimum time required for carrying out the survey, from defining information requirements to receiving the final report, is approximately five months. It could even take longer.

Following testing during the pilot study, we strongly recommend the use of a low-cost, unconditional incentive as part of the methodology. In the pilot study, the inclusion of a gift of six first class stamps, increased the response rate by 8%.

Built into the methodology is a series of steps to optimise the survey's response rate. These steps include:

- careful attention to the appearance of the survey materials
- prominent local branding on survey materials
- prominent logos belong to the local authority only (logos of the research contractor did not appear)
- covering letters signed by senior executives of the local authority
- covering letter assures respondents of anonymity
- a telephone helpline for respondents with queries
- relatively short questionnaires to minimise respondent burden
- questions written so as to be easy to understand
- survey packs which include a postage-paid business reply envelope to make it easy for respondents to return their completed questionnaires
- the return address is that of the local authority not the survey contractor
- the use of three reminder mailouts, two of which included a fresh set of questionnaires
- a postage stamp incentive

## B04 RESOURCING

### 04.01 The minimum resource and expertise levels required of local authorities

Throughout its work, the project team was mindful that local authorities vary greatly in terms of the resources and level of survey expertise they can commit to conducting a household travel survey. As a result, LTS has been designed to be actionable even by local authorities which can make available just one person, although this person would need to be numerate and well organised.

Authorities with limited internal resources may want to contract out the fieldwork. Other, larger authorities may choose to do much of the fieldwork in-house. Still others may choose to form a consortium with other local authorities in order to gain economies of scale on some of the fixed costs and to pool their personnel resource.

The core tasks a local authority would need to resource with its own staff include:

- definition of the information requirement
- framing of a list of topics to include in the survey
- drafting of questions
- coordinating the views of internal stakeholders in order to agree a definitive question set, including wording of all questions and response scales
- procurement and management of a survey contractor (if the fieldwork is not to be conducted internally)
- procurement and management of a specialist sampling contractor
- procurement and management of a printer who will produce hard copies of all survey materials

Of all these tasks, it is important that local authorities do not underestimate the time and effort required to define and agree the content of questionnaires, even with the templates in the toolkit as a starting point. This point is emphasised in *The Guidance*.

Having consulted with local authorities, the project team defined a realistic and achievable budget for a survey covering approximately 1,500 households. The details of this budget are available on request from DfT. Because the total project cost is a combination of fixed costs and variable costs, the relationship between different sample sizes and

the project cost is not linear. Depending on the original sample size, doubling it may increase the project cost by just 25 to 35%.

#### **04.02 Using a survey contractor**

In all but a few cases, local authorities are likely to want a survey contractor to help them with the fieldwork. LTS was designed with this in mind, so it can be carried out by a range of survey contractors. The project team made a conscious effort to design LTS in such a way that local authorities should not find themselves unnecessarily constrained in their choice of contractor, with the implications that might have for the cost of their survey or the timing of their fieldwork.

In addition, if a local authority were to choose to repeat its survey at a later date as part of monitoring trends, the project team did not want the survey methodology to leave them no choice but to use their original contractor in order to ensure comparability of fieldwork.

The tasks where a local authority might seek help from a survey contractor include:

- organising and managing the fieldwork
- entering and coding data
- data analysis

The toolkit includes guidance for procuring and managing a survey contractor.

## B05 WHAT TO DO NEXT

If your local authority is interested in using the LTS toolkit to conduct a local household travel survey, a good next step would be to read *The Guidance*. This will familiarise you with the details of the survey and the level of support *The Guidance* offers you. More importantly it will give you a good sense of the survey timings and in particular the amount of lead-in time you are likely to need, especially if you intend to use a survey contractor but have not yet identified one.

DfT is providing ongoing support and development of the LTS. The Department has set up formal arrangements for this. You can find out more by visiting the website:

[www.natcen.ac.uk/lts](http://www.natcen.ac.uk/lts)

Advice on the LTS is also available from:

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