

The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Research Report

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Accompanying reports

This report is accompanied by the following volumes:

The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: *Summary Report*

The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: *Case Study Interviews*

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Contents

		<i>Pages</i>
Part I	The context	
1	Introduction	5-11
2	Contextual review: developments in the UK since the 2004 Smarter Choices report	12-38
Part II	The interventions	
3	The Sustainable Travel Towns	39-59
4	Workplace travel planning	60-79
5	School travel planning	80-97
6	Personal travel planning	98-113
7	Public transport information and marketing	114-133
8	Cycling and walking information, marketing, training and events	134-151
9	Travel awareness	152-163
Part III	Changes in travel patterns in the towns	
10	Comparison with national trends	164-181
11	Commuter travel	182-198
12	School travel	199-248
13	Evidence from household travel surveys	249-289
14	Bus use	290-360
15	Cycling	361-448
16	Walking	449-482
17	Traffic	483-605
Part IV	Contribution to wider Government objectives	
18	Effect on carbon emissions	606-619
19	Effects on Government goals	620-636
Part V	Conclusions	
20	The management of effective Smarter Choices Programmes	637-651
21	The potential of large-scale Smarter Choice Programmes	652-665

1. Introduction

In July 2004 the Department for Transport published a major research study, *Smarter Choices: Changing the Way We Travel* (Cairns et al. 2004), which was commissioned from University College London, Transport for Quality of Life, Robert Gordon University and Eco-Logica. That study, which involved a worldwide literature review and 24 in-depth UK case studies, provided the evidence to suggest that ‘soft’ or ‘smart’ measures had the potential, if implemented in a supportive policy context and over a period of 10 years, to deliver substantial changes in travel behaviour and reductions in traffic. The conclusions of the study led to a significant shift in policy and practice, both locally and at national level.

During the final stages of analysis leading to these conclusions, the Department for Transport allocated £10 million funding for the implementation of large-scale Smarter Choice Programmes in three Sustainable Travel Towns. This five-year project, which ran from April 2004 until April 2009, aimed to show what effect could be achieved from a sustained package of smarter choice measures, complemented by improvements to infrastructure. The three programmes, in Darlington, Peterborough and Worcester, were intended both to provide an unprecedented ‘real-world’ test of the smarter choices toolkit, and its efficacy in achieving travel behaviour change, and also to be the first steps in rolling out the programme more widely.

In 2008, the Department for Transport commissioned a follow-on study of progress in the three Sustainable Travel Towns. Its purpose was to assess to what extent the investment in smarter choice measures in the three Sustainable Travel Towns had achieved the potential identified in the original (2004) smarter choices study, using a similar research methodology (updated as appropriate). A team involving Transport for Quality of Life, TRL/University College London, University of Aberdeen and AEA (and with five of the same individual specialists as had been involved in 2004) was commissioned to carry out the study. This report sets out the findings of that research. It is accompanied by two companion volumes:

- *The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Summary Report*
- *The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Case Study Interviews.*

1.1 Methodology

The study involved three stages:

- A **contextual review**, which gathered information on how the implementation of smarter choice measures had developed over the period since 2004;
- Evidence gathering through in-depth **structured interviews** with officers responsible for implementation of the Smarter Choice Programme in the three Sustainable Travel Towns;
- Analysis of a wide range of **data sources**, to gain an understanding of the extent of behaviour change in the three towns.

The study was commissioned some time after the beginning of implementation of the Smarter Choice Programmes in the three towns, and before the completion (in late 2008) of draft guidance from the Department for Transport on the evaluation of so-called ‘better use’ measures¹. For these reasons, the study did not formally follow the guidance contained in the Department’s draft better use evaluation framework. However, in broad terms, the approach adopted in the study was consistent with a Theory of Change framework, as recommended in the draft guidance. The main elements of the evidence-gathering and analysis stages of the research are detailed below.

1.1.1 Package identification

A review of the towns’ bids for Sustainable Travel Town funding, coupled with consultation with the project managers in the three towns, enabled the study team to identify the main intervention packages that were being delivered. Some of the packages were clearly related to the smarter choice measures that had been assessed in the 2004 smarter choices study. However, it was also clear that a significant part of the effort in the three towns related to measures to promote walking and cycling, through a combination of information, marketing, events and training. These measures had not previously been included within the definition of ‘smarter choices’.

The towns each made their own choices about which measures to implement, and the priority of funds and other resources to allocate to each of them. The following packages of measures were selected for in-depth evaluation:

- Workplace travel planning;
- School travel planning;
- Personal travel planning;
- Public transport information and marketing;
- Cycling and walking information, marketing, training and events;

¹ The Eddington Transport Study (HM Treasury, Department for Transport, 2006) identified a range of interventions that were generally small scale, low cost, and made better use of the existing transport system, and these were coined ‘better use’ interventions. They include both supply-side interventions (e.g. cycling and walking infrastructure, bus priority schemes etc.) and demand-side interventions (e.g. travel plans, information and marketing).

- Travel awareness campaigns (Darlington and Peterborough only);
- Car club (Worcester only).

In practice, almost all of the activity in the towns was covered by the above, with the exception of some small elements, such as residential travel planning (in Peterborough); and generic promotion of car sharing (although car sharing schemes as part of workplace travel plans were considered within the workplace travel planning package). A decision was made to evaluate the travel awareness campaign in Worcester in less depth than in the other towns, so as to enable evaluation of Worcester's car club. In the event, Worcester's car club did not develop as planned, due to the withdrawal of the car club operator, and so we were unable to carry out an evaluation of its effects.

1.1.2 Gathering data on intervention packages

A discussion guide was developed for each intervention package, and interviews took place in each town between May and August 2008. Interviews were typically with between two and four officers for each package, including the lead officer responsible for delivery (e.g. the workplace travel plan officer) and the Sustainable Travel Town project manager. Additional interviews were conducted with the public transport operators in each town. Interviews were followed by extensive further contact by email and telephone throughout the course of the study. All the interviewing was carried out by experienced members of the study team in person – that is, the authors of this report – and not sub-contracted or delegated. The interviews were structured, in the sense that a common set of questions and themes were determined, but were not in 'questionnaire' format, and full opportunities were taken to explore the wider judgements, views and experiences of the interviewees.

For each intervention package, information was gathered on:

- **inputs** – that is, the funding and staff time dedicated to the measure;
- **outputs** – the type of activity and its scale;
- **outcomes** – the effects of the activity on travel patterns in the short term;
- **impacts** – qualitative evidence of the extent to which the activity had resulted in benefits in relation to the social, economic and environmental objectives of the local authority, together with identification of data sources to enable quantitative analysis of impacts on car use, public transport patronage, walking and cycling levels.

1.1.3 Process evaluation

In parallel with interviews in relation to the intervention packages, structured interviews were also held with the project manager and senior officers in the towns to explore how the Smarter Choice Programmes in the three towns were developed and managed. Information was gathered on:

- contextual factors influencing the programme;
- wider transport priorities and how these influenced the programme;
- motivations and support for smarter choice measures within the local authority;
- challenges to the delivery of the programme;
- lessons for better delivery of smarter choice measures.

1.1.4 Data analysis

Data from a number of sources were obtained and analysed during the course of the study, in order to understand the outcomes of the Smarter Choice Programmes. A particular effort was made to triangulate between the datasets – in other words, to assess whether the evidence from the different sources was consistent, and to infer results indirectly when they had not been measured directly. The main sources of data used were:

- household travel surveys – a baseline and a final household travel survey in each of the towns, designed to evaluate the effects of the programme at household level, and also a series of smaller interim household surveys designed to measure the effects of some phases of personal travel planning. These surveys were undertaken in each of the towns by Socialdata & Sustrans;
- workplace travel surveys – primarily in Peterborough;
- school travel surveys – extensive monitoring data from ‘hands up’ surveys and/or School Census returns in each of the towns;
- bus patronage data – disaggregated by route and by month in Peterborough and Worcester and with data for three specific routes in Darlington;
- manual and automatic counts of cycle activity in all three towns;
- manual pedestrian counts in or near the town centre in Darlington and Peterborough;
- automatic traffic count data collected by the local authorities;
- manual traffic count data collected in Peterborough;
- major and minor road traffic counts collected by the Department for Transport for National Road Traffic Estimates, and available for all three towns.

1.1.5 Benchmarking

It was also important to assess, so far as possible, what might have happened to travel behaviour in the three towns in the absence of the Sustainable Travel Town programme. The possibility of comparing each of the towns with a similar ‘control’ town was considered in detail but rejected. This is partly because all locations tend to have their own distinct characteristics, in terms of demography, geography and socio-economics, such that even if it is possible to match on one dimension, it is not possible to match on all. Any matched towns would also have had their own policy interventions during the period in question, most likely intended to meet similar objectives to those in the Sustainable Travel Towns, and potentially including, to a greater or lesser extent, smarter choice measures. Thus, there could be no guarantee (without detailed investigation of the policies and measures implemented in the comparator towns) that these towns represented a ‘base case’. Our investigation of the Sustainable Travel Towns indicated that substantial analysis was required to obtain a thorough understanding of their policies and interventions, and the resources and data were not available to conduct a similar level of analysis in other locations.

Instead, changes in travel behaviour in the Sustainable Travel Towns were compared with changes over the same period in all towns of similar size, as shown by national datasets. Data analysed included:

- special tabulations from the National Travel Survey for towns of between 25,000 and 250,000 people, with respect to all journey purposes, commuter trips, and education trips;
- traffic counts from National Road Traffic Estimates for urban roads (both A-roads and minor roads).

These data do not provide a ‘no activity’ scenario, since smart measures have been growing in policy importance nationally over the period under examination. However, they do provide a reasonable indication of what might have happened without the additional Department for Transport funding.

1.1.6 Assessment of contribution to DaSTS objectives

The Government’s strategy document, *Delivering a Sustainable Transport System* (2008), identifies five overarching goals of transport policy. We were able to make a quantitative assessment of the contribution of the Sustainable Travel Towns programme to one of these goals, in relation to carbon emissions and climate change. A qualitative assessment of the contribution to the other goals was also made.

1.2 General approach and caveats

In comparing the results of the interventions in the Sustainable Travel Towns with the estimates of the potential for smarter choice measures from the 2004 study, a number of caveats should be made.

First, the conclusions of the 2004 smarter choices study included an estimate of the *potential* for smarter choice measures to reduce traffic, and it was emphasised that this was not a forecast. Whether the potential would be realised would depend upon both the intensity of implementation of smarter choice measures, and on the national and the local policy context within which they were implemented. In particular, the 2004 study suggested that it would be necessary for smarter choice measures to be accompanied by measures to ‘lock in’ the behaviour changes achieved, by traffic restraint or other supportive policy measures, in order that any traffic reduction benefits were not eroded by induced traffic. The assumption made in the 2004 study was that ‘just sufficient’ complementary measures (both demand management and supply-side enhancements) would be implemented to lock in the effects of the smart measures. No attempt was made to define exactly what package of restraint measures would be capable of producing such a result in practice, but it was suggested that it would be likely to include a combination of some or all of the following: re-allocation of road capacity; parking control; traffic calming; pedestrianisation; cycle networks; improved public transport service levels; congestion charging or other traffic restraint; and other use of transport prices and fares, speed regulation and enforcement. There is also implicit the possibility that other measures taken in the towns, or nationally, might actually be opposite in effect to the smarter choice measures (for example in encouraging more car use), and this part of the context also needs to be assessed.

Second, the potential impact of smarter choices, as suggested in the 2004 study, was based on an assumption of consistent investment over a 10-year build up period, whereas the programmes in the Sustainable Travel Towns had lasted only five years, and in some cases took time to build up within that period.

Third, the 2004 study made a series of assumptions about the likely balance of investment and effort between the different intervention packages, based on the experience up to that time of the relative effectiveness and intensity of application of different measures. In particular, it assumed intensive effort in relation to workplace travel, since this was identified as a measure that was likely to have particular benefits in relation to medium-length regular car trips and to have high value for money in terms of the cost per car kilometre taken off the road. The balance of measures adopted in the Sustainable Travel Towns was somewhat different, with, in particular, less emphasis on workplace travel and a greater emphasis on household-level personal travel planning.

Fourth, in circumstances where several smart measures are being implemented concurrently, it becomes difficult – and sometimes impossible – to distinguish which measures have contributed how much to the overall behaviour change. Thus, changes in car mode share for the journey to work may be a consequence of workplace travel initiatives, but they may also have resulted in part from personal travel planning interventions targeting local residents who were employed in the firms under consideration, or public transport promotion, or

general travel awareness campaigns. We have not generally attempted a detailed assessment of what proportion of the overall change (in traffic levels, public transport patronage, and walking and cycling) was contributed by each smarter choice measure, but in some instances use of time series data (correlated with specific events or interventions) and triangulation of different data sources has provided pointers as to the relative contributions of particular smart measures.

1.3 Structure of this report

The report is structured as follows:

Part I: The context

Following this introduction, there is a contextual review, which sets out developments in policy, practice and research evidence in relation to smarter choice measures since publication of the 2004 report.

Part II: The interventions

This part of the report gives an overview of the three towns and then proceeds to describe and compare what was done in each town in relation to each of the smarter choice measures, focussing on *inputs* (staffing levels, expenditure) and *outputs* (the type of activity and its scale).

Part III: Changes in travel patterns in the towns

This part of the report looks at the *outcomes* – that is, the effects of the activity on travel patterns in the short term, including how these compare to what might have happened in the absence of the Sustainable Travel Towns programme.

Part IV: Contribution to wider Government objectives

This evaluates by how much the behaviour change in the Sustainable Travel Towns has reduced carbon emissions. It also considers the extent to which the Sustainable Travel Towns have contributed to economic effectiveness and productivity and other objectives.

Part V: Conclusions

This part identifies the important lessons for other local authorities wishing to implement a large-scale Smarter Choice Programme. It also considers the national lessons.