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DESTINATION HEREFORD EVALUATION

HEREFORD TRAVEL SURVEY

MARCH 2016



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HEREFORD TRAVEL SURVEY

Final Report

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1 EXECUTIVE SUMMARY

1.1 OVERVIEW

- 1.1.1 This report provides a detailed summary of the analysis of responses to the 2015 Hereford Travel Survey undertaken during October and November 2015. The analysis has helped to identify respondents' travel patterns and behaviours and will inform the evaluation of Herefordshire Council's Destination Hereford project.
- 1.1.2 Herefordshire Council were awarded £4.97 million from the Local Sustainable Transport Fund (LSTF) for the Destination Hereford project from 2011 to 2015. The overarching aims were to reduce congestion and help improve journey choices, with a particular focus on travel by public transport and active modes, including walking and cycling.
- 1.1.3 To assess the impact of the Destination Hereford project on behavioural change, Herefordshire Council has undertaken an evaluation study. With the key aim to assess the extent of change associated with the Destination Hereford project, WSP | Parsons Brinckerhoff was commissioned to undertake a household travel survey in 2015. This was aimed to identify travel behaviour changes, particularly relating to mode share since the inception of the Destination Hereford project.

1.2 APPROACH

- 1.2.1 The overall approach to identify travel behaviour changes over the last three years i.e. between 2012 and 2015, as a consequence of the Destination Hereford project, included undertaking a household survey in 2015. This was aimed at understanding the existing travel choices of the residents of Hereford and any change since the start of the Destination Hereford project.
- 1.2.2 To identify changes in mode share, results from a previous household survey undertaken in 2012 (2012 Household Travel Survey) have been used. The results from both of the surveys have been analysed to understand any changes in mode share across a range of journey purposes over the last three years.
- 1.2.3 In addition to this, the results from 2015 survey, wherein residents were asked if their travel choices have changed over the last three years (from 2012 to 2015), have been analysed to identify the mode shift from car to walking, cycling and public transport.

1.3 DATA COLLECTION

- 1.3.1 The 2015 Hereford Travel Survey was delivered to a total of 13,725 households, which equates to 54% of the total households within Hereford. The aim was to achieve a 20% response rate, equating to 2,745 survey responses and a sample of greater than 10% of households in Hereford.
- 1.3.2 Residents of Hereford had the option to complete a paper survey or to complete an on-line version of the same survey. A total of 2,932 completed surveys were received. Of these, the 2,853 (97%) were completed using the paper survey, the remaining 79 (3%) were submitted online.
- 1.3.3 The overall response rate to the survey was 21%, which equates to around 11.6% of the total number of households in Hereford.

1.3.4 In order to provide a robust basis for comparison of the 2015 and 2012 surveys and for the analysis of mode shift, a data cleaning process was necessary. This resulted in a dataset sample of 1,224 respondents being used for comparison with the 2012 and for the mode shift analysis. A sample of 1,224 equates to 4.8% of Hereford households.

1.4 BEHAVIOUR CHANGE ANALYSIS

MODE SHARE - ACROSS JOURNEY PURPOSES

- 1.4.1 The analysis of the 2012 Household Travel Survey and 2015 Hereford Travel Survey identified the following trends over the last three years:
 - → Car trips undertaken across journey all purposes have decreased from 66% mode share in 2012 to 62% in 2015 (excluding personal business journeys due to an anomaly in the 2015 survey results, discussed further in Section 5.2):
 - → Active travel (cycling and walking) trips have increased from 22% mode share across all journey purposes in 2012 to 27% mode share in 2015; and
 - → Public transport mode share has remained at a similar level to 2012, with an 8% mode share for all journey purposes in 2012 and 7% mode share in 2015.

CAR DRIVER JOURNEYS TO SUSTAINABLE MODES

- 1.4.2 Analysis of the 2015 Hereford Travel Survey responses found that:
 - → There has been a net change of 2.7% from car driver journeys to public transport and active travel modes over the last three years for main journey purpose; and
 - → Taking into account a margin of error of +/-0.9% there is a potential mode shift range of 1.8% to 3.6% away from car journeys to public transport and active travel modes.

PUBLIC TRANSPORT AND ACTIVE TRAVEL GENERAL TRENDS

- 1.4.3 Sections 4 and 5 of the 2015 Hereford Travel Survey captured general travel patterns (i.e. not restricted to the six journey purpose categories used in the 2012 and 2015 surveys), and found the following:
 - → People are walking more in 2015 than in 2012. For leisure journeys, there has been a 10% increase whilst for non-leisure journeys there has been an increase of 5%;
 - → More people are cycling in 2015 than in 2012. For leisure trips there has been an increase of 4% whilst, for non-leisure trips there has been an increase of 2%; and
 - → More people are travelling by public transport (bus and train) in 2015 than in 2012. The net increase of bus journeys is 5% whereas the net increase of train journeys is 4%.

SUMMARY

- 1.4.4 The analysis of the 2012 Household Travel Survey and the 2015 Hereford Travel Survey has highlighted that car driver use has decreased over the last three years, coinciding with increases in both forms of active travel (walking and cycling).
- 1.4.5 Changes in public transport use vary depending on the analysis. The mode share comparison between the 2012 Household Travel Survey and 2015 Hereford Travel Survey used six specific journey purposes and identified similar levels of use. However when respondents were asked about general trends and were not restricted to specific journey purposes in the 2015 Hereford Travel Survey (Section 5), the responses revealed a net increase of between 4-5% in both bus and train use.

2 PROJECT BACKGROUND

2.1 DESTINATION HEREFORD

- 2.1.1 Herefordshire Council were awarded £4.97 million from the Local Sustainable Transport Fund (LSTF) for the Destination Hereford project from 2011 to 2015. The overarching aims were to reduce congestion and help improve journey choices, with a particular focus on travel by public transport and active modes including walking and cycling.
- 2.1.2 The Destination Hereford project aimed to:
 - Help employers to get their workforce travelling sustainably by offering workplace travel plan support;
 - → Help complete the Hereford Greenway a traffic free route including a new river crossing improving access to Rotherwas Industrial Estate;
 - → Help schools to take responsibility for the way pupils travel using school travel plans;
 - → Assist all households in Hereford to make personal travel plans to suit their needs;
 - Improve rural access to public transport, community transport, car sharing and broadband internet; and
 - → Develop the city cycle network a total of 18 walking and cycling schemes were identified as part of the Hereford Active Travel Schemes programme.

2.2 DESTINATION HEREFORD EVALUATION

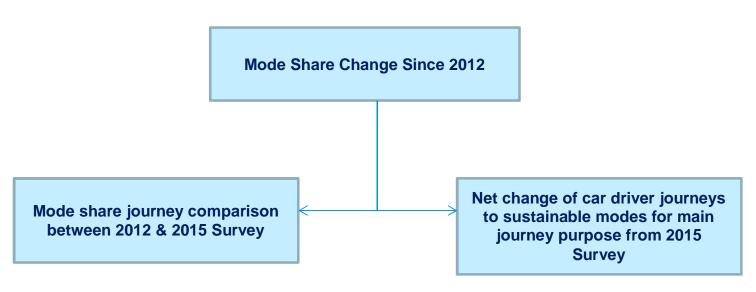
- 2.2.1 To assess the extent of change associated with the Destination Hereford project, Herefordshire Council are undertaking an evaluation study, with a focus on impacts on journey times, mode shift, and traffic flows.
- 2.2.2 The study aims to establish the extent to which the outputs, objectives and targets of Destination Hereford have been delivered and which aspects of the Destination Hereford project have been successful, with a view to inform the policies and programmes contained in the next Local Transport Plan.
- 2.2.3 The evaluation study has identified a number of performance indicators to assess the impact of the Destination Hereford project, including changes in mode share since the inception of the Destination Hereford project in 2012. The 2015 Hereford Travel Survey was commissioned with the key aim to evaluate any changes to mode share as a result of the Destination Hereford project.

2.3 EVALUATION OF MODE SHARE

2.3.1 A household travel survey was identified as the most suitable data source to assess this performance indicator. To identify changes in mode share, results from a previous household survey undertaken in 2012 (2012 Household Travel Survey) has been used.

- 2.3.2 The results from both surveys have been analysed to understand any changes in mode share across a range of journey purposes over the last three years. WSP | Parsons Brinckerhoff was commissioned to undertake a Household Travel Survey in 2015 with the aim to identify travel behaviour changes, particularly relating to mode share since the inception of the Destination Hereford project to inform the wider Destination Hereford evaluation study.
- 2.3.3 Figure 2-1 highlights how the two surveys have been used to identify mode share changes since the inception of the Destination Hereford project.

Figure 2-1 Survey comparison to identify mode change



REPORT STRUCTURE

- 2.3.4 Following this Chapter the report has been structured as summarised below:
 - → Chapter 3 Data Collection: Provides an overview of the 2015 Hereford Travel Survey including survey design, sample methodology, level of response and data analysis. This chapter also provides an overview of the 2012 Household Travel Survey used for the purpose of comparison with the 2015 Hereford Travel Survey to identify travel behaviour changes.
 - → Chapter 4 2012 Household Survey: Provides an overview of the 2012 Household Survey, and how it has been used to evaluate changes over the last three years;
 - → Chapter 5 Behaviour Change Analysis: Provides an analysis of the 2012 Household Travel Survey and 2015 Hereford Travel Survey to identify travel behaviour changes over the last three years. The chapter identifies:
 - Mode share changes across a range of journey purposes;
 - Net change from car driver journeys to sustainable modes; and
 - Changes in use of public transport and active modes.
 - → **Summary**: A summary of key findings relating to the objective of the report, to identify mode share changes since the inception of the Destination Hereford Project.
- 2.3.5 A number of appendices are included with this report:
 - → Appendix A: Provides a summary of findings from the 2015 Hereford Travel Survey. This includes analysis of each of the survey questions asked in 2015 survey;

- → **Appendix B**: Provides a summary of the various datasets considered as part of the data cleaning process;
- → Appendix C: Provides a comparison of Dataset 3 and 2011 Census Data; and
- → **Appendix D**: Provides a copy of the 2015 Hereford Travel Survey questionnaire.

3 2015 - DATA COLLECTION AND COLLATION

3.1 OVERVIEW

- 3.1.1 To evaluate the impact of Destination Hereford, the 2015 Hereford Travel Survey was delivered to households across the area covered by the Destination Hereford project, principally the city of Hereford, and an area compatible with the area covered by the 2012 Household Travel Survey.
- 3.1.2 The current population of Hereford City is approximately 59,000 (2011 Census) comprising of 25,400 households.
- 3.1.3 The 2015 Hereford Travel Survey was delivered to a total of 13,725 households, which equates to 54% of the total households within Hereford. The aim was to achieve a 20% response rate, equating to 2,745 survey responses.

3.2 SURVEY DESIGN

- 3.2.1 The survey form was developed with inputs from the team involved with the Destination Hereford project, the Council's research and information team and market research specialists. The survey was designed to ensure that the 2015 Hereford Travel Survey findings could be compared against the findings of the 2012 Household Travel Survey.
- 3.2.2 Whilst the primary aim of the 2015 Hereford Survey was to establish the mode shift due to Destination Hereford project, it was also considered useful to collect additional information about travel behaviour of residents of Hereford and any barriers to their use of sustainable modes. Questions related to these were also included in the questionnaire.
- 3.2.3 The survey was designed to ensure that the questions were clearly worded with examples specified within the questionnaire, where appropriate. This was to ensure that there were no biases in responses due to mis-interpretation of the questions.
- 3.2.4 A copy of the 2015 Hereford Travel Survey questionnaire is included in Appendix D. The survey was structured into the following sections:
 - → Section 1 Your mode of travel for different journeys: This section asked respondents to identify their usual mode of transport for six specific journey purposes, the journey purposes were consistent with those used within the 2012 Household Travel Survey;
 - → Section 2 Working from home: This section captured working from home patterns over the last three years. The section focused on respondents who work from home as an alternative to travelling by car to a place of work;
 - → Section 3 Details of your main journey: This section asked respondents for detailed information regarding their main journey purpose, particularly focusing on respondents current mode of travel and whether this has changed over the last three years;
 - → Section 4 Walking and Cycling: This section asked respondents about their general travel patterns regarding walking and cycling. Questions in this section were not specific to journey purposes; and
 - → Section 5 Public Transport: Asked respondents about their general travel patterns regarding public transport. Questions in this section were not specific to the six journey purposes specified earlier in the survey.

3.3 PILOT SURVEY

- 3.3.1 A pilot survey was undertaken prior to finalising the survey for printing and issuing. The pilot survey was undertaken by c. 30 respondents from within Herefordshire Council and the project team. No issues were identified during the pilot survey.
- 3.3.2 The survey pilot took place between 3rd and 9th September 2015 and was distributed to pilot respondents in the form of an online survey.

3.4 SAMPLING METHODOLOGY

- 3.4.1 To identify the sample for the 2015 Hereford Travel Survey, the following process was adopted to obtain the 13,725 households to which the surveys were sent. The sampling process included:
 - → Assigning addresses to the 2011 Census Output Areas (OA) they geographically fall into this was to ensure an even distribution of addresses across Hereford in the survey;
 - → Ranking the OAs (184 across Hereford) based on their percentage of population under 30 years old To achieve a sample representative of the population of Hereford, the survey sample was weighted to target OAs with a high percentage of the population under 30 years old. This process was required due to a small representation of this age bracket within the 2012 Household Travel Survey;
 - → Splitting OAs into Age Quartiles (Top, Upper Middle, Lower Middle, Bottom) and calculating the number of addresses required to be selected from each quartile based on 13,725 total: This was undertaken to weight in favour of the under 30 population, and Table 3-1 shows the split by quartile:

DEDCEMENTAGE OF DODLIL ATION

Table 3-1 Addresses selected byage quartile

OLIA DELLE

QUARTILE	IOIAL	PERCENTAGE OF POPULATION
Тор	5,146	37.5%
Upper Middle	3,432	25%
Lower Middle	3,432	25%
Bottom	1,715	12.5%
TOTAL	13,725	100%

- → Working out the percentage of addresses in each OA compared to the total for each quartile – This was done to identify the number of addresses required to be selected from each OA and to ensure an even distribution across Hereford; and
- → Using a random number generator function in excel to generate a number for each address in each OA and then sorting numerically and selecting the number of addresses required to be from each OA.
- 3.4.2 The above process produced an address database including 13,725 addresses evenly distributed across Hereford with a weighted sample towards the under 30 population.

3.5 SURVEY DISTRIBUTION

- 3.5.1 The survey took place during October and November 2015. To maximise returns respondents were given the option to either complete the survey online or post back a paper based questionnaire through Freepost.
- 3.5.2 The online version of the 2015 Hereford Travel Survey was designed and hosted using SmartSurvey, a digital survey provider (www.smartsurvey.co.uk).

3.6 DATA COLLATION

LEVEL OF RESPONSE

- 3.6.1 A total of 2,932 completed surveys were received. Of these, the 2,853 (97%) were completed using the paper survey, the remaining 79 (3%) were submitted online.
- 3.6.2 The overall response rate to the survey was 21%. This equates to 11.6% of the households within Hereford.

DATA CLEANING

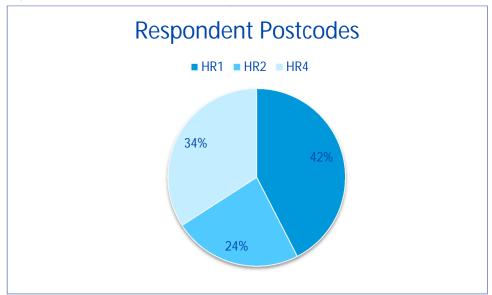
- 3.6.3 The analysis of 2015 Hereford Travel Survey responses (in Appendix A) used the full dataset. However the data was cleaned on a question by question basis, giving a range of responses of 2,662 to 2,891 for Sections 1 and 3 of the survey, depending on the question. Sections 4 and 5 of the survey made use of the full 2,932 responses.
- 3.6.4 To analyse comparisons between the data collected from the 2015 Hereford Travel Survey and the 2012 Household Travel Survey and to identify mode shift from the 2015 survey responses alone, data cleaning was required to minimise errors in the data, and hence provide comparable dataset for use in the analysis.
- 3.6.5 A number of different data cleaning assumptions were trialled to find a dataset which:
 - Cleaned out relevant errors within the survey;
 - → Was able to cross reference across different questions; and
 - Produced a sample size which minimised the impact of margin of error in the mode shift calculation.
- 3.6.6 After the analysis of various datasets (outlined in Appendix B) was completed; it was agreed with Herefordshire Council that Dataset 3 would be taken forward due to the following:
 - → Dataset 3 has a good sample size of 1,224 respondents, representing 4.8% of Hereford households;
 - Only data relevant to identifying mode share across journey purposes and changes to main journey purposes were cleaned. This ensured that all relevant information was captured within the dataset; and
 - → The dataset does not remove any data from Sections 4 and 5 of the survey.

- 3.6.7 Dataset 3 has been used to analyse changes in mode share across the 2012 Household Travel Survey and the 2015 Hereford Travel Survey, and to identify mode shift from the 2015 survey responses.
- 3.6.8 To determine whether Dataset 3 is representative of the demographic profile of Hereford residents, comparisons have been made with the 2011 Census, in terms of:
 - Age profile; and
 - Mode of travel to usual workplace.
- 3.6.9 The comparison with the 2011 Census shows that the 2015 Hereford Travel Survey is broadly representative of the Hereford population.
- 3.6.10 The analysis of the above can be found within Appendix C.

RESPONDENT POSTCODE DATA

- 3.6.11 A brief summary of Dataset 3 respondents' postcodes is presented below. Dataset 3 has been used as it is the dataset being for the comparison of the 2012 and 2015 surveys, and for the mode shift analysis from the 2015 survey.
- 3.6.12 Of 1,224 respondents of the 2015 Hereford Travel Survey, 1,138 respondents included their home postcode.
- 3.6.13 Figure 3-1, shows the location of respondents by Hereford postcodes. The highest proportions of residents were from the HR1 postcode (Hereford City Centre) with 483 respondents (42%) from this postcode. 388 respondents (34%) were from the HR4 postcode and 267 respondents (24%) were from the HR2 postcode.
- 3.6.14 Figure 3-1 highlights a reasonably even distribution across the three postcodes targeted by the survey. 86 respondents chose not to answer this question or did not provide an accurate postcode.

Figure 3-1 2015 Hereford Travel Survey Respondent Postcodes



3.7 2015 HEREFORD TRAVEL SURVEY FINDINGS

3.7.1 Appendix A provides a detailed summary of the findings captured from the 2015 Hereford Travel Survey on a question by question basis. The findings of the 2015 Hereford Travel Survey are also used within Chapter 5 to identify behaviour change since the inception of the Destination Hereford project.

4 2012 HOUSEHOLD TRAVEL SURVEY

4.1.1 The following information provides an overview of the 2012 Household Travel Survey and how it has been used to analyse behaviour change over the last three years.

SURVEY OVERVIEW

- 4.1.2 The 2012 Household Travel Survey was undertaken for the purpose of informing the Hereford Multi-Modal Transport Model (HMMTM), by establishing the trip origins and destinations (O-D) of people travelling to, from and within the core study area, on a typical weekday, through a travel diary.
- 4.1.3 The purpose of collecting travel information in 2012 was to produce a trip matrix of O-D movements by time period, travel mode and trip purpose for use in the HMMTM, and this information was used to help predict how choice of route and travel mode might change in response to transport improvements and/or policy initiatives.
- 4.1.4 The 2012 Household Survey was conducted in two phases, the first between March April 2012 and the second phase between May June of the same year. A postal return travel diary was distributed to selected households within Hereford, and the survey was used to identify complete workday travel patterns of one nominated household member.

ROLE OF 2012 SURVEY IN MODE SHARE COMPARISON

- 4.1.5 To identify mode share changes over the last three years i.e. from 2012 to 2015, data captured within the 2012 Household Travel Survey has been used to identify mode share across a range of journey purposes in 2012 as a base for comparison.
- 4.1.6 The 2012 Household Travel Survey collected the following information:
 - → Household travel details for one nominated member of the household:
 - Respondent details and general travel activities: and
 - → Full multiple journey record for a single weekday (travel diary).
- 4.1.7 The 2012 Household Travel Survey contained a travel diary which captured respondents mode of travel for the following journey purposes:
 - Usual workplace:
 - Work business;
 - Personal business:
 - School/education;
 - Shopping; and
 - Social/recreation.

- 4.1.8 The travel diaries within the 2012 Household Travel Survey have been used to compare mode share across the journey purposes as listed in above. These results were compared with the mode share findings from the 2015 Hereford Travel Survey. The 2015 Hereford Travel survey contained the same journey purposes and modes to ensure that the survey findings could be compared. However it should be noted that the 2012 survey was based on actual journeys are recorded through the travel diary, and the 2015 survey was based on usual journeys.
- 4.1.9 The following chapter analyses the 2012 Household Travel Survey and 2015 Hereford Travel Survey to identify travel behaviour changes over the last three years.

5 BEHAVIOUR CHANGE ANALYSIS

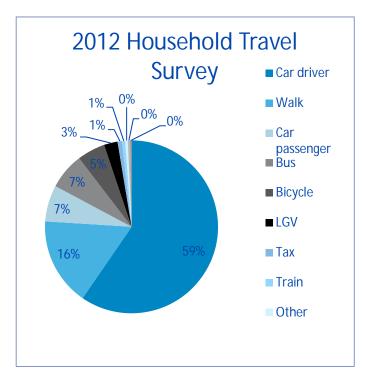
5.1 OVERVIEW OF CHAPTER

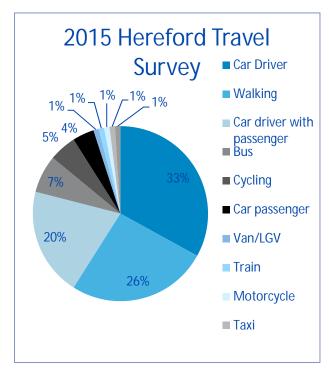
- 5.1.1 This chapter reports the analysis of the comparison of the 2012 Household Travel Survey and the 2015 Hereford Travel Survey to identify changes in mode share for different journey purposes.
- 5.1.2 The chapter also undertakes further analysis of Section 1 (mode of travel for different journey purposes) and Section 3 (main journey details) of the 2015 Hereford Travel Survey to identify change of modes for main journey purposes, and in particular the net change of journeys undertaken by car drivers to active modes (cycling and walking) and public transport for main journey purposes since the inception of the Destination Hereford project.
- 5.1.3 The chapter also summarises changes in general usage of active modes and public transport as identified from Section 4 (walking and cycling) and Section 5 (public transport) of the 2015 Hereford Travel Survey.
- 5.1.4 The chapter is broken down into the following three sections:
 - → Mode share changes 2012 to 2015;
 - → Main journey purpose net mode shift from car driver to sustainable modes; and
 - → Changes in active travel and public transport usage.

5.2 MODE SHARE CHANGES 2012 TO 2015

- 5.2.1 The 2015 Hereford Travel Survey was consistent with the 2012 travel diary in terms of journey purposes and modes presented within the survey. The 2015 Hereford Travel Survey asked participants how they usually travel for each of the journey purposes. This was used to analyse the usual mode share of journeys across the six journey purposes.
- 5.2.2 As discussed in Section 4, the 2012 Household Travel Survey was intended to inform the HMMTM. As part of the 2012 survey, participants were asked to complete a travel diary for a specific weekday, for up to a total of six journeys, based on <u>actual</u> journeys that occurred on that particular day.
- 5.2.3 Figure 5-1 highlights mode shares across all journey purposes from the 2015 Hereford Travel Survey and the 2012 Household Travel Survey.
- 5.2.4 The **2012 Household Travel Survey** captured data for 6,066 <u>actual journeys</u>, and identified:
 - → 66% of all journeys were travelled either as a car driver or as a car passenger (59% and 7% respectively);
 - → 8% of journeys were travelled using public transport (7% by bus and 1% by train); and
 - → 23% of journeys were by active modes (16% on foot and 7% by bicycle).
- 5.2.5 The 2015 Hereford Travel Survey captured data for 5,495 usual journeys, and identified:
 - → 57% of journeys are usually undertaken either as a car driver or passenger;
 - → 8% of journeys are usually undertaken using public transport (7% by bus and 1% by train); and
 - → 31% of journeys are usually undertaken by active modes (26% by walking and 5% by bicycle).

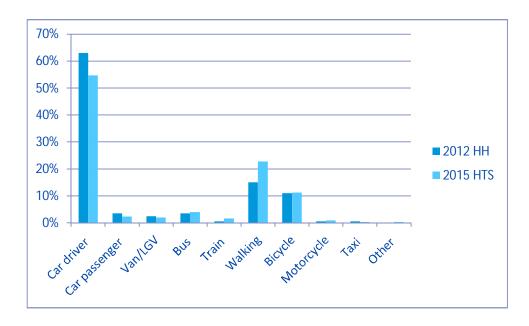
Figure 5-1 Travel modes across journey purposes – 2012 Household Travel Survey and 2015 Hereford Travel Survey Trips across Journey Purposes





- 5.2.6 Figure 5-2 to Figure 5-7 present mode share across the journey purposes outlined in the 2012 Household Travel Survey and the 2015 Hereford Travel Survey.
- 5.2.7 The figures generally show similar trends for all journey purposes as shown in Figure 5-1. In summary there is a general reduction in mode share for car driver, and an increase in mode share for walking and bus modes, with the largest decrease in mode share for car driver being for personal business journeys. However, for shopping journeys mode share for car driver has increased.

Figure 5-2 Mode share comparison for usual workplace journeys (2012 vs 2015)



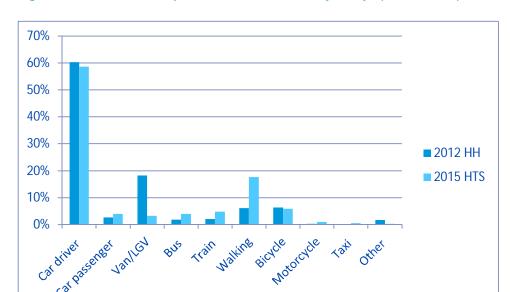
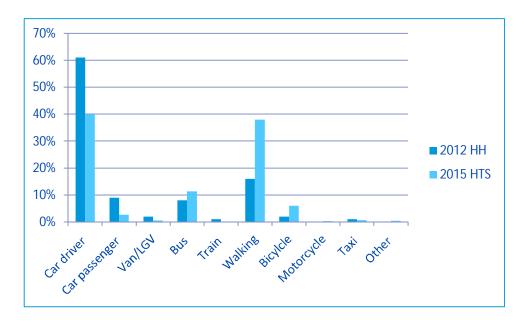


Figure 5-3 Mode share comparison for work business journeys (2012 vs 2015)

Figure 5-4 Mode share comparison for personal business journeys (2012 vs 2015)



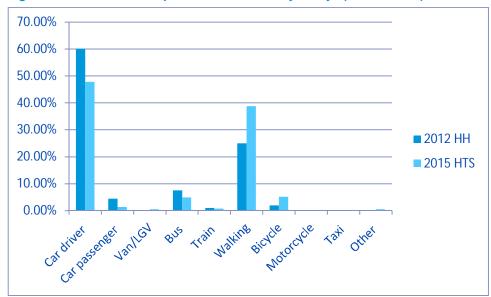
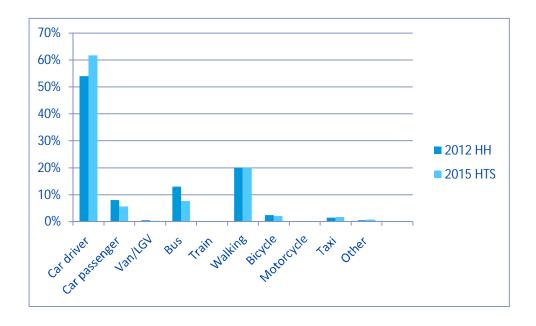


Figure 5-5 Mode share comparison for education journeys (2012 vs 2015)

Figure 5-6 Mode share comparison for shopping journeys (2012 vs 2015)



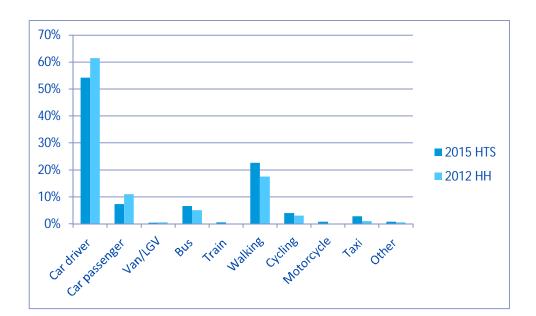
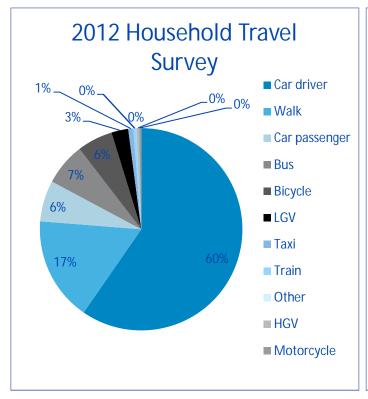
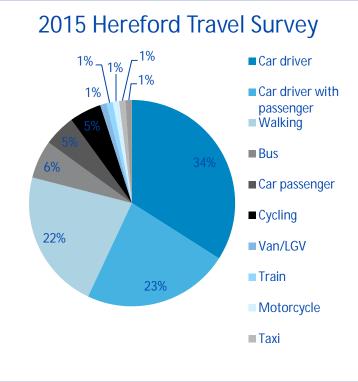


Figure 5-7 Mode share comparison for recreation journeys (2012 vs 2015)

- 5.2.8 It can be seen from Figure 5-2 to Figure 5-7 that there appears to be an anomaly for personal business journeys, where the mode share for car driver is much lower than for other journey purposes.
- 5.2.9 This may be attributed to interpretation of the personal business journey purpose by respondents within the two surveys (2015 and 2012). Within the 2012 travel diaries, the journey purpose 'personal business' was not specific as examples of such journeys were not provided. In the 2015 Hereford Travel Survey, an example "visiting the bank" was specified. In the 2012 Household Travel Survey, the mode share for personal business trips was similar to the mode share for journeys to work. This suggests that in 2012 respondents may have interpreted personal business and as being similar to journeys to work.
- 5.2.10 Within the 2015 Hereford Travel Survey, personal business trips account for 21% of 'usual trips'. As personal business trips represent a significant proportion of overall trips, the difference in interpretation of this journey purpose in the two surveys was found to skew the overall mode share of journey purposes recorded.
- 5.2.11 Therefore, further analysis of mode share across journey purposes was undertaken without 'personal business' taken into account, Figure 5-8 highlights modal shares across the remaining journey purposes from the 2015 Hereford Travel Survey and the 2012 Household Travel Survey.
- 5.2.12 Personal business trips have only been removed for the purpose of comparison with the 2012 Household Travel Survey, and for the calculation of mode shift from the 2015 survey responses.

Figure 5-8 Travel modes across journey purposes (excluding 'personal business') – 2012 Household Travel Survey and 2015 Hereford Travel Survey





5.2.13 The further analysis identified that:

- → 62% of journeys undertaken in the 2015 Hereford Travel Survey were undertaken by car whereas 66% travelled by car in the 2012 Household Travel Survey;
- → Public transport journeys represented 7% of journeys in the 2015 Hereford Travel Survey and 8% in the 2012 Household Travel Survey; and
- → 27% of journeys undertaken in the 2015 Hereford Travel Survey were undertaken by active modes whilst 22% were undertaken by active modes in the 2012 Household Travel Survey.

5.2.14 In summary the above comparison suggests the following trends between 2012 and 2015:

- → A decrease in mode share for car driver;
- → Public transport use remains at a similar level since 2012; and
- An increase in mode share for active modes.

5.3 NET MODE SHIFT FROM CAR TO SUSTAINABLE MODES

- 5.3.1 To identify modal shifts, data from the responses to Section 1 and Section 3 of the 2015 Hereford Travel Survey has been used to identify respondents' current and previous modes for their main journey purpose. As part of the 2015 household survey (Appendix D) the residents of Hereford were asked the following:
 - Identify their main journey purpose (Question 6: 'Thinking about the journey in Q1, which one journey do you make most often');
 - → Whether their usual mode for this journey purpose has changed (Question 8: 'Still thinking of this journey, has the way you usually travel (i.e. type of transport you use) changed over the last three years?'); and
 - → If they had changed their mode of travel for their main journey purpose over the last three years, which mode had they changed to? (Question 9: 'How did you usually travel for this journey previously i.e. three years ago?')
- 5.3.2 The analysis of these key questions has informed the net mode shift from car to sustainable modes.
- 5.3.3 The focus has been on mode shift between car and sustainable modes in keeping with Destination Hereford objectives, including the increase use of the following modes of travel:
 - Walking;
 - Cycling;
 - → Bus;
 - > Train; and
 - Car Sharing.
- 5.3.4 Table 5-1 highlights the net change of car driver journeys for main journey purposes from the 2015 Hereford Travel Survey. The table shows that 93 respondents have changed from car driver for their main journey purpose to using either active or sustainable modes. Also shown was that 60 respondents have become a car driver from either an active or sustainable modes. The net change is therefore 33 respondents.
- 5.3.5 A net change of 33 equates to a net change from car driver journeys to sustainable modes of 2.7% over the last three years.
- 5.3.6 With a sample size of 1,224 respondents, a margin of error of 0.9% has been identified using a 95% confidence interval. Therefore the net mode shift away from car in favour of sustainable modes is in the range of 1.8% to 3.6%.

Table 5-1 change from car driver journeys for main journey purpose

Factor	Number
Total number of respondents within dataset	1224
Respondents who have changed from car driver	93
to active modes or public transport	
Respondents who have changed from others	60
modes to car driver	
Net change (changed from car driver – changes	33
to car driver journeys)	
Net change percentage (33/1224)	2.7%
Margin of error	+/- 0.9%

5.3.7 It is important to note this mode shift is for a sample of main journeys representing one journey purpose per respondent. This is not necessarily representative of all journeys made. However the mode shift identified further demonstrates a general decrease in mode share for car driver and an increase in mode share for active travel and public transport modes.

5.4 CHANGE IN TRAVEL BY ACTIVE AND SUSTAINABLE MODES

- 5.4.1 Analysis of Sections 4 and 5 of the 2015 Hereford Travel Survey (see Appendix A) has highlighted the following key trends for active and sustainable modes within Hereford over the past three years. It should be noted that changes in travel by active and sustainable modes captured within Sections 4 and 5 of the 2015 Hereford Travel Survey highlight general trends and are not linked to specific journey purposes.
- 5.4.2 The change in travel by active and sustainable modes is based on the full data set of 2,932 respondents (i.e. all of the respondents to the 2015 Hereford Travel Survey). The full data set has a clean sample for Sections 4 and 5 of the survey and therefore has been used for this analysis.

WALKING

- 5.4.3 For both walking (leisure) and walking (non-leisure purposes) there has been an overall increase in general uptake, as follows:
 - For walking (leisure) journeys, 638 of the 2,932 respondents reported an increase in uptake over the past three years, whereas 358 respondents reported a decrease in such journeys. This results in a net increase of 280 respondents, an increase of 10%; and
 - → For walking (non-leisure) journeys, 387 of the 2,932 respondents have reported an increase in uptake whilst 231 respondents reported a decrease in such journeys. This results in a net increase of 156 respondents, an increase of 5%.

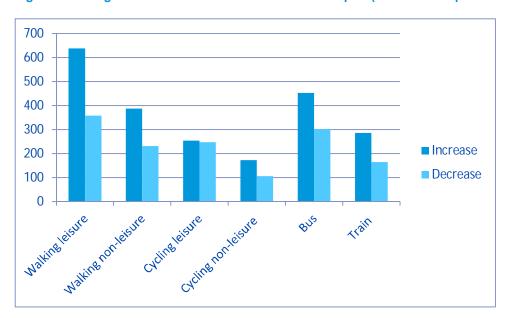
CYCLING

- 5.4.4 For both cycling (leisure) and cycling (non-leisure) trips there has been an overall increase in uptake, as follows:
 - → For cycling (leisure) trips, 254 of the 2,932 respondents have reported an increase in uptake whereas 147 respondents have reported a decrease in such journeys. This results in a net increase of 107 respondents, an increase of 4%; and
 - → For cycling (non-leisure) trips, 173 respondents have reported an increase in uptake whereas 106 respondents have reported a decreased in such journeys. This results in a net increase of 67 respondents, an increase of 2%.

PUBLIC TRANSPORT

- 5.4.5 For bus journeys 453 of the 2,932 respondents stated an increase in journeys, compared to 302 who indicated a reduction in bus journeys. This results in a net increase of 151 respondents, an increase of 5%; and
- 5.4.6 For train journeys, 286 respondents indicated an increase in journeys, whereas 165 respondents stated that their train use had decreased. This results in a net increase of 121 respondents, an increase of 4%.
- 5.4.7 Figure 5-9 presents changes in active modes and sustainable transport stated above.

Figure 5-9 changes in active modes and sustainable transport (number of respondents)



6 SUMMARY

- 6.1.1 The 2015 Hereford Travel Survey has provided an opportunity to examine the travel patterns and behaviour of Hereford residents, and how travel behaviour has changed over the last three years since the inception of the Destination Hereford project. The survey serves as an important part of the evaluation of the Destination Hereford project.
- 6.1.2 The survey (in conjunction with the 2012 Household Travel Survey) has been able to identify the following outputs:
 - → Mode share across a number of journey purposes;
 - → Mode share changes over the last three years;
 - → Net change from car driver journeys to sustainable modes (main journey purpose);
 - → Net changes in the use of cycling and walking modes over the last 3 years; and
 - → Net changes in the use of public transport over the last 3 years.

MODE SHARE ACROSS JOURNEY PURPOSES¹

- 6.1.3 A comparison of the 2012 Household Travel Survey and the 2015 Hereford Travel Survey has shown the following:
 - → Car trips undertaken across journey all purposes have decreased from 66% mode share in 2012 to 62% in 2015 (excluding personal business journey);
 - → Active travel (cycling and walking) trips have increased from 22% mode share across all journey purposes in 2012 to 27% mode share in 2015; and
 - → Public transport mode share has remained at a similar level to 2012, with an 8% mode share for all journey purposes in 2012 and 7% mode share in 2015.

NET MODE SHIFT FROM CAR TO SUSTAINABLE MODES

- 6.1.4 A comparison of Section 1 and Section 3 of the 2015 Hereford Travel Survey has found the following:
 - → There has been a net change from car driver journeys of **2.7%** over the last three years for main journey purpose; and
 - → Taking into account a margin of error of +/-0.9% this equates to a mode shift in the range of 1.8% to 3.6% from car driver to active and sustainable modes.

WALKING AND CYCLING

- 6.1.5 Section 4 of the 2015 Hereford Travel Survey has captured the following behaviour change relating to walking and cycling over the last three years:
 - → More people are walking in 2015 compared to 2012. For leisure journeys, there has been a 10% increase whilst for non-leisure journeys there has been an increase of 5%; and

¹ Excluding personal business trips

→ More people are cycling in 2015 compared to 2012. For leisure trips there's been an increase of 4% whilst, for non-leisure trips there has been a small increase of 2%.

PUBLIC TRANSPORT

- 6.1.6 Section 5 of the 2015 Hereford Travel Survey has captured the following behaviour change relating public transport use over the last three years:
 - → More people are travelling by bus and train journeys in 2015 compared to 2012;
 - → 15% of participants reported an increase in bus use compared to 10% who reported a reduction. The net increase of bus journeys is 5%; and
 - → For train journeys, 10% of participants indicated an increase whereas 6% reported a reduction in train journeys. The net increase of train journeys is 4%.
- 6.1.7 The 2015 Hereford Travel Survey therefore indicates that there has been an increase in travel by active modes and public transport within Hereford over the last three years i.e. between 2012 and 2015.

2015 HEREFORD TRAVEL SURVEY

6.1.8 A full overview of the findings from the 2015 Hereford Travel Survey can be found within Appendix A.

Appendix A

2015 HEREFORD TRAVEL SURVEY RESULTS

2015 HEREFORD TRAVEL SURVEY RESULTS



OVERVIEW

This appendix provides the findings of the 2015 Hereford Travel Survey, on a question by question basis. The document is broken down into the five main sections of the survey:

- → Section 1 Mode of travel for different journeys;
- → Section 2 Working from home;
- → Section 3 Details of main journey;
- → Section 4 Walking and Cycling; and
- → Section 5 Public Transport

2015 HEREFORD TRAVEL SURVEY RESULTS



SECTION 1 – MODE OF TRAVEL FOR DIFFERENT JOURNEYS

QUESTION 1 – FOR THE FOLLOWING JOURNEY PURPOSES, WHICH MODE OF TRANSPORT DO YOU USE MOST OFTEN?

The responses to Question 1 provide information regarding the modal share of the survey respondents across a number of journey purposes, including:

- Travel to / from usual work place;
- → Work business (e.g. attending meetings);
- Personal business (e.g. visiting the bank);
- School / education;
- Shopping; and
- Social / recreation.

Figure 1 highlights modal shares across all journey purposes within the 2015 Hereford Travel Survey. Of the 10,534 journeys made:

- → 56% were usually undertaken either as a car driver or passenger;
- → 28% were undertaken using active modes, with 23% of trips being walking trips and 5% cycling trips;
- → 12% were by public transport, with 11% of trips being by bus and 1% by train; and
- → 4% were undertaken by other modes, including van/LGV, taxi and motorcycle.

2015 HEREFORD TRAVEL SURVEY RESULTS



1% 1% ■ Car driver ■ Walking Car driver with passenger ■ Bus 11% ■ Bicycle Car passenger ■ Taxi 19% ■ Van/Lgv 23% Train Other ■ Motorcycle

Figure 1: Travel modes across journey purposes (2015 Hereford Travel Survey)

A detailed breakdown of the modal shares by each of the journey purposes identified above are presented below.

Trips To / From Usual Place of Work

Figure 2 highlights the modal share of journeys undertaken to/from usual place of work. The highest proportion of journeys to work are undertaken as a car driver with 54% of all journeys (and 2% with a passenger). The mode share for other modes is as follows:

- → 56% were usually undertaken either as a car driver or passenger;
- → 31% were undertaken using active modes, with 21% of trips being walking trips and 10% cycling trips;
- → 7% were by public transport, with 6% of trips being by bus and 1% by train; and
- → 3% were undertaken by other modes, including van/LGV, taxi and motorcycle.

2015 HEREFORD TRAVEL SURVEY RESULTS



60%
50%
40%
30%
10%
0%
Car divet car passenger vanical bus riain making bicute tak orther rak orther

Figure 2: Modal share of journeys to / from usual workplace (2015 Hereford Travel Survey)

Work Business

Figure 3 highlights the modal share of journeys undertaken on work business. The highest proportion of work business journeys are undertaken as a car driver with 57% of all journeys (and 3% with a passenger). The mode share for other modes is as follows:

- → 60% were usually undertaken either as a car driver or passenger;
- → 24% were undertaken using active modes, with 17% of trips being walking trips and 7% cycling trips;
- → 10% were by public transport, with 6% of trips being by bus and 4% by train; and
- → 4% were undertaken by van/LGV.

This is broadly similar to the mode shares for journeys to / from usual workplace.

2015 HEREFORD TRAVEL SURVEY RESULTS



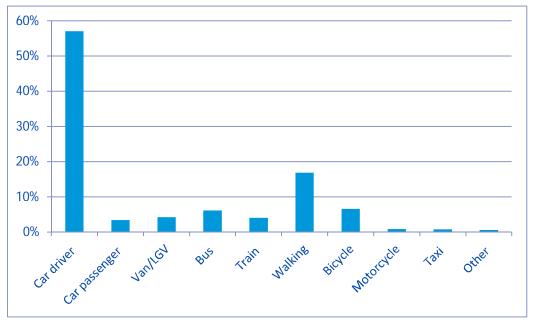


Figure 3: Modal share for work business (2015 Hereford Travel Survey)

Personal Business

Figure 4 highlights the modal share of journeys undertaken on personal business. The highest proportion of personal business journeys are undertaken as a car driver with 39% of all journeys (and 2% with a passenger). The mode share for other modes is as follows:

- → 40% were undertaken using active modes, with 34% of trips being walking trips and 6% cycling trips;
- → 15% were by public transport, with all of these trips being by bus; and
- → 3% were undertaken by other modes, including van/LGV, taxi and motorcycle.

This shows a significant proportion of personal business trips were undertaken by either walking or cycling.

2015 HEREFORD TRAVEL SURVEY RESULTS



45%
40%
35%
30%
25%
20%
15%
0%

Cardinet Landon Bus Tain Making Bichte Tain Other

Figure 4: Modal share of personal business journeys (2015 Hereford Travel Survey)

School / Education

Figure 5 highlights the modal share of journeys undertaken for school / education trips. The highest proportion of school/education trips are undertaken as a car driver with 48% of all journeys (and 2% with a passenger). Walking trips also have a high mode share, at 37%. The mode share for other modes is as follows:

- → 42% were undertaken using active modes, with 37% of trips being walking trips and 5% cycling trips;
- → 6% were by public transport, with 5% being by bus and 1% by train; and
- → 1% were undertaken by other modes, including van/LGV, taxi and motorcycle.

Similar to the personal business trips, a significant proportion of trips to education were by either walking or cycling.

2015 HEREFORD TRAVEL SURVEY RESULTS



50%
40%
30%
20%
10%
Cat diver Car passenger Vanland Bus Train Mature Craine Contract Tak Other

Figure 5: Modal share of school/education trips (2015 Hereford Travel Survey)

Shopping

Figure 6 highlights the modal share of journeys undertaken for the shopping trips. The highest proportion of personal business journeys are undertaken as a car driver with 57% of all journeys (and 5% with a passenger). The mode share for other modes is as follows:

- → 20% were undertaken using active modes, with 18% of trips being walking trips and 2% cycling trips;
- → 13% were by bus; and
- → 3% were undertaken by other modes, including van/LGV, taxi and motorcycle.

2015 HEREFORD TRAVEL SURVEY RESULTS



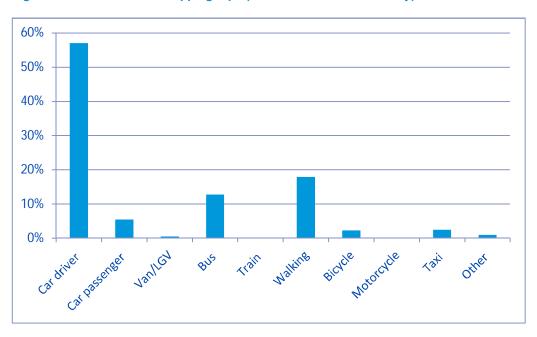


Figure 6: Modal share for shopping trips (2015 Hereford Travel Survey)

Social and Recreation

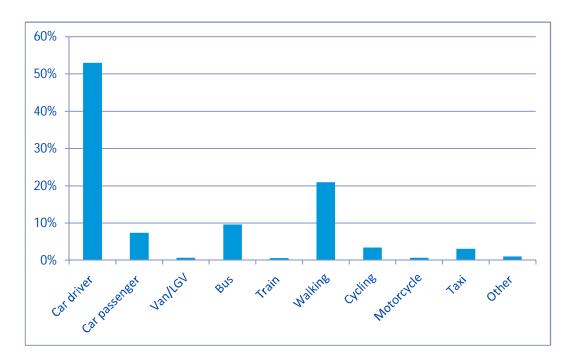
Figure 7 highlights the modal share of journeys undertaken for social and recreation trips. The highest proportion of personal business journeys are undertaken as a car driver with 53% of all journeys (and 7% with a passenger). The mode share for other modes is as follows:

- → 24% were undertaken using active modes, with 21% of trips being walking trips and 3% cycling trips;
- → 11% were by public transport, with of 10% of trips being by bus and 1% by train;
- → 5% were undertaken by other modes, including van/LGV, taxi and motorcycle; and
- → The mode shares for social and recreation trips are broadly similar to those for shopping trips.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 7: Modal share for social & recreation trips (2015 Hereford Travel Survey)



2015 HEREFORD TRAVEL SURVEY RESULTS



QUESTION 2 – PLEASE PROVIDE THE POSTCODE FOR THE FOLLOWING LOCATIONS?

The survey asked respondents to specify the postcode of their home, place of work and school or place of education.

Respondents' home postcodes have been presented below to illustrate the even distribution of responses from across the HR1, HR2 and HR4 postcodes.

Table 1: Postcode location of survey respondents

POSTCODE	NUMBER OF RESPONDENTS	PERCENTAGE OF OVERALL RESPONSES
HR1	1,118	38%
HR2	748	26%
HR4	968	33%
Not specified	98	3%
Total	2,932	100%

The postcodes of respondents' place of work and education has been analysed, and due to a significant number of inconsistent responses, such as incomplete postcodes and place names, the data has not been presented within the report.

2015 HEREFORD TRAVEL SURVEY RESULTS



SECTION 2 – WORKING FROM HOME

QUESTION 3 – DO YOU WORK FROM HOME AS AN ALTERNATIVE TO TRAVELLING BY CAR TO A PLACE OF WORK?

Respondents were asked whether they work from home and if so, how regularly this occurs.

Figure 8 highlights the frequency of working from home identified through the survey responses. The figure shows that 13% of respondents ever work from home, with 8% of all respondents stating they work from home at least once a week.

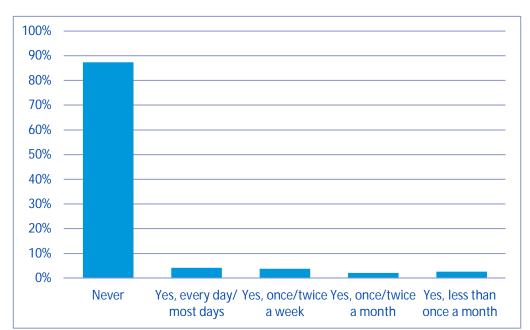


Figure 8: Working from home frequency (2015 Hereford Travel Survey)

QUESTION 4 – IF YES, APPROXIMATELY HOW MANY MILES DO YOU SAVE ON EACH OCCASION?

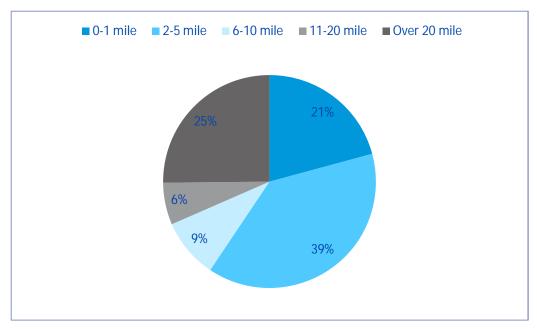
The survey participants were also asked that if they do work from home, how many miles do they save on each occasion?

Figure 9 shows of the 315 respondents who indicated that they work from home (and included a distance saved) 39% of respondents save between 2-5 miles on each occasion. 25% of respondents save over 20 miles on each occasion. 21% of respondents save less than 1 mile.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 9 Distance saved (on each occasion) by working from home (2015 Hereford Travel Survey)



QUESTION 5 – HAS THE NUMBER OF TIMES YOU WORK FROM HOME CHANGED OVER THE LAST THREE YEARS?

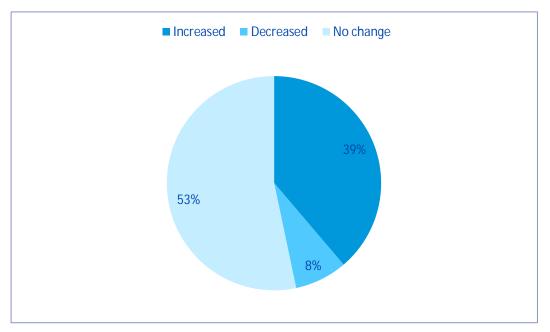
Survey participants were asked whether the amount of time they spend working from home has changed over the last 3 years, i.e. between 2012 and 2015.

Figure 10 shows of the 315 respondents who work from home, 53% state their frequency of working from home has not changed over the past 3 years. 129 respondents (39%) reported an increase in working from home with 30% of these respondents saving at least 11 miles on each occasion. 8% of respondents reported a decrease in working from home.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 10: Change in working from home in the past 3 years (2015 Hereford Travel Survey)



SECTION 3 - DETAILS OF MAIN JOURNEY PURPOSE

QUESTION 6 – THINKING OF THE JOURNEYS IN Q1, WHICH ONE DO YOU MAKE MOST OFTEN?

Participants were asked to identify their main journey purpose from the six outlined in Question 1.

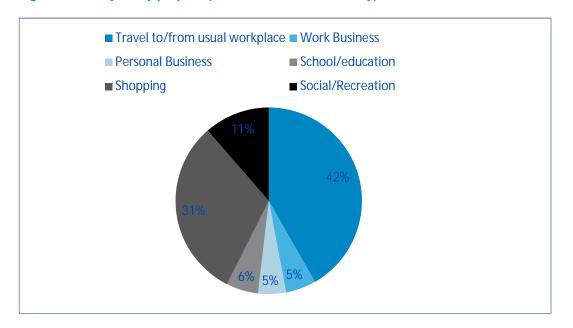
Figure 11 shows the distribution of main journey purposes across the six options, and this shows:

- → 1,069 respondents (42%) identified their main journey purpose to be travel to/from usual workplace;
- → 799 respondents (31%) identified shopping to be their main journey purpose;
- → 291 respondents (11%) identified social and recreation trips as their main journey purpose; and
- → The remaining 16% of participants identified education or work/personal business as their main journey purpose.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 11: Main journey purpose (2015 Hereford Travel Survey)



QUESTION 7 – HOW FAR DO YOU TRAVEL (IN ONE DIRECTION) FOR THIS JOURNEY?

Participants were asked to include the distance of their main journey as identified in Question 6.

Figure 12 highlights the distribution of distance travelled (one way) for the main journey purpose. The most frequent distance covered for the main journey is between 2-5 miles with over 50% of responses. 27% of respondents travel up to 1 mile for their main journey whereas only 13% have to travel further than 11 miles.

2015 HEREFORD TRAVEL SURVEY RESULTS



■0 - 1 mile ■2 - 5 mile ■6 - 10 mile ■11 - 20 mile ■Over 20 mile

Figure 12: Distance travelled for main journey (2015 Hereford Travel Survey)

Further analysis has been undertaken to identify the distances travelled by journey purpose.

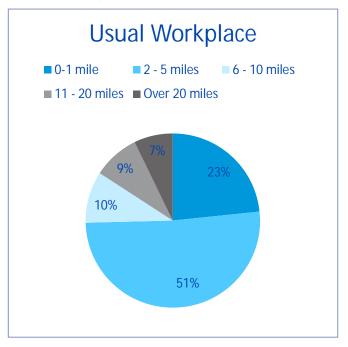
Figure 13 highlights the distance travelled for journeys to work and for work business where this has been identified as the main journey. This shows:

- → For journeys to usual workplace over 50% of respondents travel between 2 to 5 miles. 74% of respondents are travelling less than 5 miles to work, a distance which is generally considered to be possible by active modes (walking or cycling). Of the 746 participants who travel up to 5 miles, 48% travel on foot or cycle; and
- → The distance covered for work business is more varied with a fairly even distribution across the set distances. 33% of respondents usually travel over 20 miles one way for work business, with nearly 50% covering at least 11 miles.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 13: Distance travelled to usual work place & work business (2015 Hereford Travel Survey)



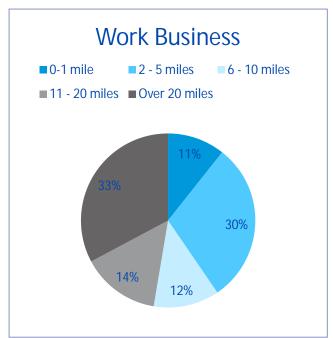
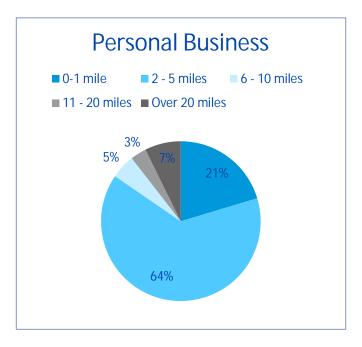
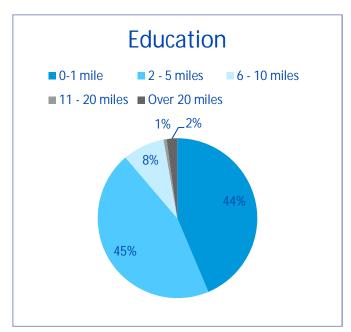


Figure 14 highlights the distance travelled for journeys for personal business and education where this has been identified as the main journey. This shows:

- → For journeys for personal business, 64% of respondents travel between 2 and 5 miles. Only 10% of respondents usually travel over 11 miles; and
- → For journeys to education, 89% of respondents travel less than 5 miles. Of the 123 respondents who travel up to 5 miles, 45% travel by either walking or cycling and 47% by car. Only 3% of educational journeys are over 11 miles (one way).

Figure 14: Distance travelled for personal business and education (2015 Hereford Travel Survey)





2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 15 highlights the distance travelled for journeys for shopping and social/recreation, where this has been identified as the main journey. This shows:

- → For journeys for shopping, the vast majority of respondents travel less than 5 miles. 58% of respondents travel between 2 and 5 miles. 38% of respondents travel between 0 and 1 mile. 4% of respondents travel over 6 miles for shopping; and
- → For journeys for social/recreational purposes, 45% of respondents travel between 2 and 5 miles. 17% of respondents travel over 20 miles, only work business journeys have a higher percentage of trips over this distance. 10% of respondents travel less than 1 mile.

Figure 15: Distance travelled by respondents for shopping and social/recreational purposes (2015 Hereford Travel Survey)





QUESTION 8 - STILL THINKING OF THIS JOURNEY, HAS THE WAY YOU USUALLY TRAVEL (I.E. TYPE OF TRANSPORT YOU USE) CHANGED OVER THE LAST 3 YEARS?

Participants were asked whether their usual mode of travel for the journey identified in Question 6 (main journey purpose) has changed over the last three years.

381 respondents have identified that their usual way of travelling for their main journey purpose has changed over the last three years. This represents 13% of 2015 Hereford Travel Survey respondents.

Table 2 outlines the number of people who have changed their usual way of travelling (for their main journey) for each of the journey purposes outlined in Question 6. This shows:

- → 48% of respondents who have changed the way they usually travel, identified usual work place as their main journey purpose (6% of all respondents);
- → 27% of respondents who have changed the way they usually travel, identified shopping as their main journey purpose (3% of all respondents); and
- → 11% of respondents who have changed the way they usually travel, identified work/personal business as their main journey purpose (2% of all respondents).

2015 HEREFORD TRAVEL SURVEY RESULTS



Table 2 – Changes in mode by main journey purpose (2015 Hereford Travel Survey)

JOURNEY PURPOSE	TOTAL	PERCENTAGE OF RESPONDENTS THAT CHANGED	PERCENTAGE OF TOTAL SURVEY RESPONDENTS
Usual Workplace	181	48%	6%
Work Business	16	4%	1%
Personal Business	28	7%	1%
Education	20	5%	1%
Shopping	101	27%	3%
Social/Recreation	35	9%	1%
Total	381	100%	13%

QUESTION 9 - HOW DID YOU USUALLY TRAVEL FOR THIS JOURNEY PREVIOUSLY?

Respondents who stated that their usual way of travelling for their main journey had changed over the last 3 years were then asked how they travelled previously.

Figure 16 highlights of the 381 respondents who have indicated a change in their usual way of travelling for their main journey, which mode they previously used. This shows:

- → 52% of respondents (7% of all respondents) who have changed modes, previously travelled by car (44% as a lone driver);
- → 24% of respondents (3% of all respondents) previously travelled by active modes (20% by walking and 4% cycling);
- → 19% of respondents (2% of all respondents) previously travelled by public transport (17% by bus and 2% by train); and
- → The largest changes were from car driver (44%), walking (20%) and bus (17%), making up 81% of all changes of mode (11% of all respondents).

2015 HEREFORD TRAVEL SURVEY RESULTS



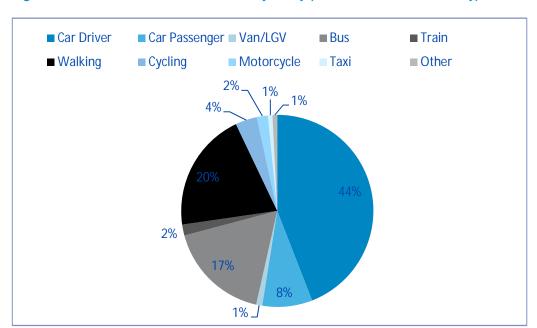


Figure 16: Previous mode of travel for main journey (2015 Hereford Travel Survey)

QUESTION 10 – WHAT WERE THE REASONS FOR CHANGING THE WAY YOU TRAVELLED?

To identify potential reasons as to why respondents had changed their usual way of travelling for their main journey purpose, a number of reasons (outlined below) were outlined in the 2015 Hereford Travel Survey. Respondents were asked to select all applicable of the following reasons:

- Affordability e.g. the cheapest option;
- → Health e.g. better for my fitness;
- → Change in circumstance e.g. moved home or changed job;
- Environment e.g. more sustainable way of travelling;
- Practicality e.g. don't have a car, car required to perform job;
- Improved promotion/information e.g. Timetable leaflets, mobile apps etc.;
- → Improved infrastructure/services e.g. Better train/bus services , new cycle routes; and
- Other.

Figure 17 highlights the reasons why people have changed from travelling as a car driver or car passenger. This shows:

- → A fairly even distribution across the options;
- → Of the 338 reasons identified by respondents, changes in circumstances was the most frequent option chosen at 25%; and
- → 20% of responses were for affordability and health reasons. Environment and practicality contributed 17% of reasons chosen.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 17: Reasons for changing from car driver/passenger for main journey purpose (2015 Hereford Travel Survey)

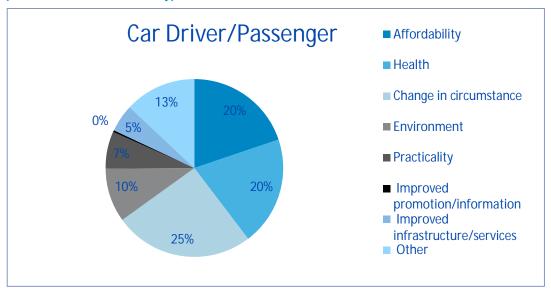
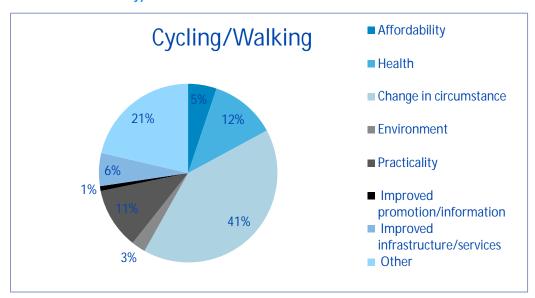


Figure 18 highlights the reasons why people have changed from travelling either on foot or by bicycle. This shows:

- → Change in circumstance was the most frequent option chosen for changing from active modes of transport with 41% of reasons chosen;
- Health reasons accounted for 12%;
- 7% of responses were due to improved promotion/information and improved infrastructure/services of other modes; and
- → 21% were due to other reasons not identified from the set list of options.

Figure 18: Reasons for changing from cycling/walking for main journey purpose (2015 Hereford Travel Survey)



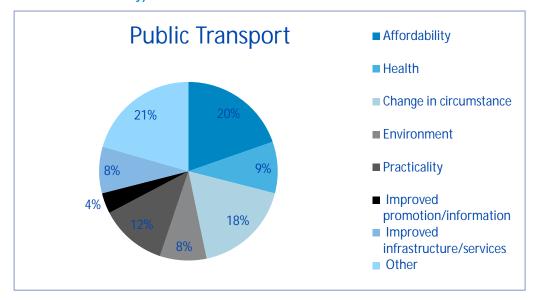
2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 19 highlights the reasons why people have changed from using public transport (bus and trains). This shows:

- → A broad range of reasons why people have changed from using public transport;
- Of the 107 reasons identified, the most frequent option chosen was 'other' with 21% of responses; and
 - 20% of responses were due to affordability issues;
 - 18% of responses were due to a change in circumstance; and
 - 20% were due to environment or practicality issues.

Figure 19: Reasons for changing from public transport for main journey purpose (2015 Hereford Travel Survey)



SECTION 4 – WALKING AND CYCLING

QUESTION 11 – HOW OFTEN DO YOU CURRENTLY WALK (WALKING LONGER THAN 10 MINUTES) AND/OR CYCLE?

To identify travel behaviour relating to active travel modes, participants were asked how frequently they walk and cycle for both leisure and non-leisure purposes.

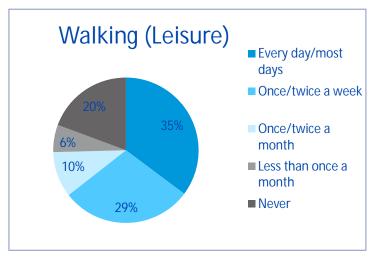
Figure 20 shows current levels of walking for both leisure and non-leisure purposes. The figure demonstrates a significant contrast between walking for leisure and non-leisure purposes, and in particular:

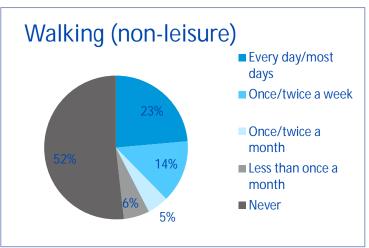
- → Of the 2,932, the most frequent option chosen for leisure purposes was 'every day/most days at 35% whereas, for non-leisure purposes 'every day/most days' accounts for 23% of responses;
- → Of the 2,932 respondents, 20% do not undertake walking for leisure purposes, however this increases to over 50% of respondents who do not walk for nonleisure purposes; and
- → For leisure purposes, 64% of participants walk at least once a week whereas for non-leisure this falls to 37% of participants.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 20: Frequency of walking for leisure and non-leisure purposes (2015 Hereford



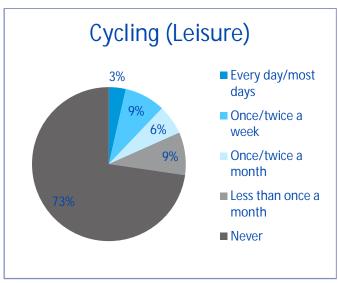


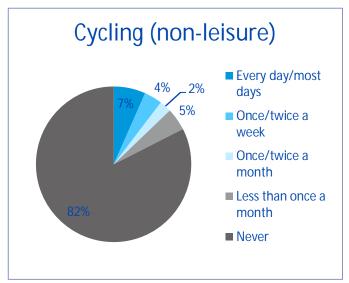
Travel Survey)

Figure 21 shows current levels of cycling for both leisure and non-leisure purposes. This shows:

- → Levels of cycling journeys are significantly lower than journeys on foot;
- → Of the 2,932 responses,12% cycle for leisure at least once a week, whereas 11% cycle for non-leisure;
- For cycling leisure, 73% do not partake in such journeys, increasing to 82% for non-leisure journeys.

Figure 21: Frequency of cycling for leisure and non-leisure purposes (2015 Hereford Travel Survey)





2015 HEREFORD TRAVEL SURVEY RESULTS



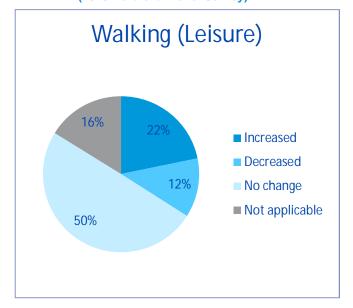
QUESTION 12 – HAS THE NUMBER OF TIMES YOU WALK OR CYCLE IN AN AVERAGE MONTH CHANGED OVER THE LAST 3 YEARS?

Participants were then asked whether the number of times they walk and/or cycle in an average month has changed over the last three years i.e. between 2012 and 2015.

Figure 22 shows the change in use for walking (leisure) and walking (non-leisure) purposes. This shows:

- → For both walking (leisure) and walking (non-leisure purposes) there has been an overall increase in uptake;
- → For walking (leisure) journeys, 638 of the 2,932 respondents (22%) reported an increase in uptake whereas 358 respondents (12%) reported a decrease in such journeys resulting in a net increase of 10%; and
- → For walking (non-leisure) journeys, 387 respondents (13%) have reported an increase in uptake whilst 231 respondents (8%) reported a decrease in such journeys resulting in a net increase of 5 %.

Figure 22: Change in frequency of walking journeys for leisure and non-leisure purposes (2015 Hereford Travel Survey)



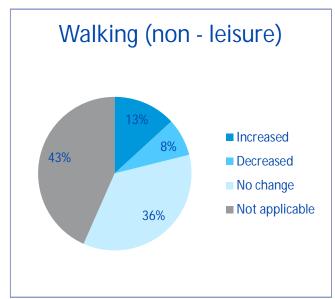


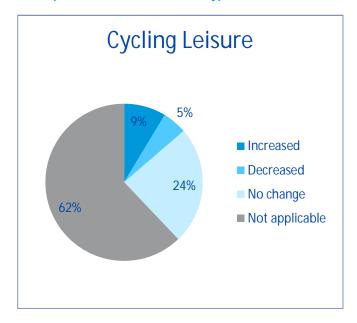
Figure 23 shows change in use for cycling (leisure) and cycling (non-leisure) journeys. This shows:

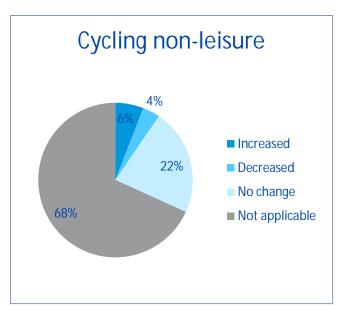
- → For both cycling (leisure) and cycling (non-leisure) trips there has been an overall increase;
- → For cycling (leisure) trips, 254 of the 2,932 respondents (9%) have reported an increase in uptake whereas 147 respondents (5%) have reported a decrease in such journeys a resulting in a net increase of 4%; and
- → For cycling (non-leisure) trips, 173 respondents (6%) have reported an increase in uptake whereas 106 respondents (4%) have reported a decreased in such journeys resulting in a net increase of 2%.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 23: Change in frequency of cycling journeys for leisure and non-leisure purposes (2015 Hereford Travel Survey)





QUESTION 13 – IF THE NUMBER OF TIMES YOU WALK OR CYCLE IN THE PAST 3 YEARS HAS INCREASED, WHAT ARE THE REASONS FOR THIS

Participants who identified an increase in either walking or cycling journeys were asked to select reasons from the options set out below, selecting all that were applicable:

- → Affordability;
- Health;
- Change in Circumstance;
- Environment/Sustainability;
- Practicality;
- Improved promotion;
- Improved infrastructure; and
- Other.

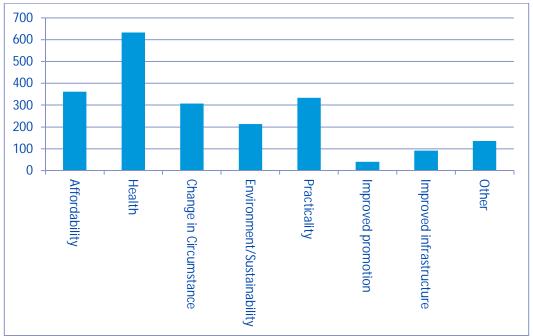
Figure 24 outlines the reasons identified by respondents who have increased their walking and/or cycling journeys. This shows:

- → Of the 2,117 responses, health related issues were the main reason for why people increase their cycling and walking activity with a total of 30% of responses;
- → Affordability and practicality were also popular reasons for increase in uptake with 17% and 16% of total responses respectively; and
- → As Figure 24 demonstrates, all options have been identified to have had an impact on respondents increase in cycling and/or walking.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 24: Distribution of reasons for increasing cycling and walking journeys (2015 **Hereford Travel Survey**) 700



QUESTION 14 - IF YOU DON'T WALK OR CYCLE OR DO SO LESS THAN YOU DID THREE YEARS AGO, ARE THERE ANY REASONS FOR THIS?

Participants who identified a decrease in either walking or cycling were asked to select all applicable reasons from the options set out below:

- Change in circumstance;
- Practicality;
- Health;
- Safe concerns:
- Poor infrastructure/services;
- Poor promotion/information; and
- Other.

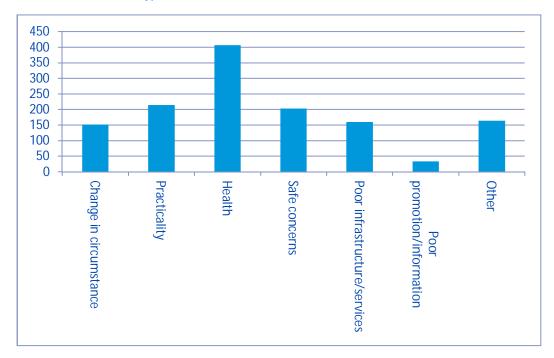
Figure 25 outlines the reasons identified by respondents who reduced their walking and/or cycling journeys. This shows:

- → Of the 1,333 responses, health related reasons (e.g. poor health) were the most frequent option chosen with 31% of total responses;
- Practicality issues contributed 16% of total responses; and
- Safety concerns were an issue for a number of respondents with a total of 203 responses (15% of responses), poor infrastructure and services contributed 160 (12%) of total responses.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 25: Distribution of reasons for decreasing cycling and walking journeys (2015 Hereford Travel Survey)



2015 HEREFORD TRAVEL SURVEY RESULTS



SECTION 5 – PUBLIC TRANSPORT

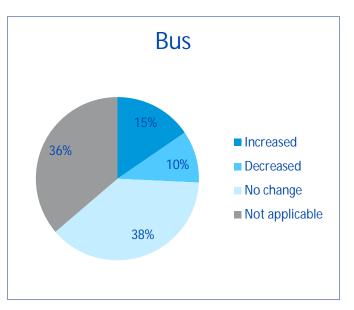
QUESTION 15 – HAS THE NUMBER OF TIMES YOU USE PUBLIC TRANSPORT IN AN AVERAGE MONTH CHANGED OVER THE LAST THREE YEARS?

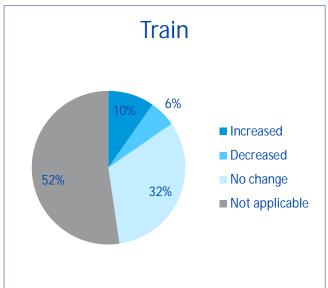
To identify travel patterns relating to public transport, participants were asked if their use of bus and trains has changed over the last three years (i.e. between 2012 and 2015).

Figure 26 shows change in use for both bus and train journeys over the last 3 years. This shows:

- → There has been an overall increase for bus journeys 453 of the 2,932 respondents (15%) stated an increase in journeys, compared to 302 (10%) who indicated a reduction in bus journeys resulting in a net increase of 5.2%;
- → The majority of responses stated that there were either 'no change' in number of journeys or the question was 'not applicable', suggesting they do not travel by bus;
- → For train journeys, 286 respondents (10% of total responses) indicated an increase in train journeys, whereas 165 respondents (6%) stated that their train use had decreased resulting in a net increase of 4.1%; and
- → The majority of respondents (84%) indicated no change in use of train services or that the question was 'not applicable', suggesting they do not travel by train.

Figure 26: Change in use of public transport (2015 Hereford Travel Survey)





2015 HEREFORD TRAVEL SURVEY RESULTS



QUESTION 16 – IF YOUR USE OF PUBLIC TRANSPORT HAS INCREASED IN THE PAST THREE YEARS, WHAT ARE THE REASONS FOR THIS?

Participants who identified an increase in use of public transport were asked to select all applicable reasons from the options set out below:

- Affordability;
- Change in circumstance;
- Practicality;
- Safety;
- Environment;
- Improved infrastructure/services;
- > Improved information/guidance; and
- Other.

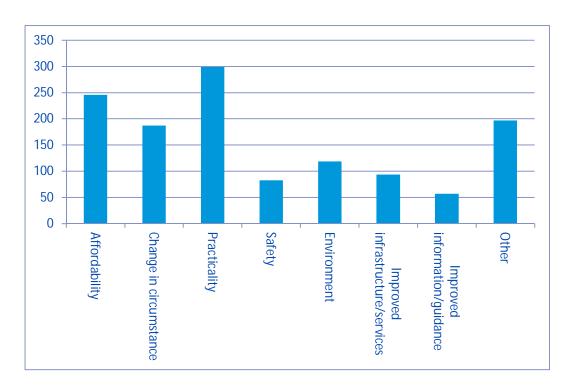
Figure 27 outlines reasons identified by respondents who have increased their use of public transport. This shows:

- → Of the 1,282 responses, practicality was the most popular reason for increase with 299 responses (23% of total responses);
- → 246 responses stated affordability (19%) and 119 responses stated environmental issues (9%) as reasons for an increase; and
- → 94 (7%) and 57 (4%) responses stated improved infrastructure/services and improved information/guidance respectively as reasons for an increase.

Figure 27: Distribution of reasons for increase in use of public transport (2015 Hereford Travel Survey)

2015 HEREFORD TRAVEL SURVEY RESULTS





QUESTION 17 – IF YOU DON'T USE PUBLIC TRANSPORT OR USE IT LESS COMPARED TO THREE YEARS AGO, ARE THERE ANY REASONS WHICH PREVENT YOU FROM DOING SO?

Participants who identified a reduction in use of public transport were asked to select all applicable reasons from the options set out below:

- Affordability;
- Change in circumstance;
- Practicality;
- Safety/security;
- Poor infrastructure/services;
- Poor promotion/information; and
- Other.

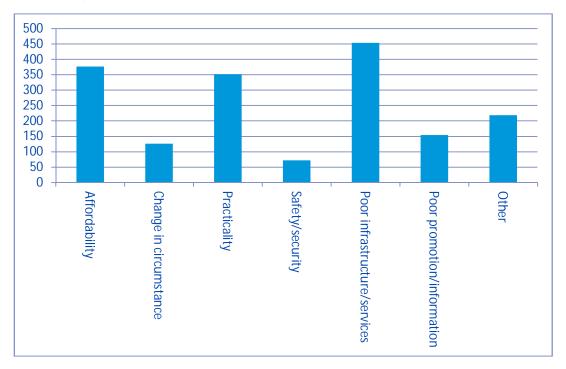
Figure 28 outlines reasons identified by respondents who have reduced their use of public transport. This shows:

- Of the 1,754 responses, poor infrastructure/services received the most number of responses with 26% of total responses;
- → Affordability and practicality were key reasons why people reduced their use of public transport with 21% and 20% of responses respectively; and
- → The figure shows that all options have impacted on decisions to reduce usage of public transport, however safety/security was the least mentioned reason with 4% of total responses.

2015 HEREFORD TRAVEL SURVEY RESULTS



Figure 4.28: Distribution of reasons for decrease in use of public transport (2015 Hereford Travel Survey)



Appendix B

COMPARISON OF DATASETS

APPENDIX B





DATASET	SUMMARY OF THE DATASET	SAMPLE SIZE
	The Original Dataset excluded:	
Original Dataset (as used in the 2015 Survey findings presented in Appendix A)	Incorrect journey purposes within Section 1 i.e. duplicate current journeys and incorrect answers to Section 3.	2,662 – 2891 As used in Appendix A, sample size varied by journey purpose
Dataset 1	Dataset 1 excluded:	
	 Incorrect response in Section 1 (including more than 1 mode in one of the 6 journey purposes). 	1,635
	Dataset 2 excluded:	
Dataset 2		
	Incorrect answers to any question i.e. left a question blank, failed basic logic tests, did not follow instructions included in questionnaire. If one error was identified the entire survey response was excluded from the survey.	678
	Dataset 3 excluded :	
Dataset 3		
	→ Responses with an incorrectly answered question in Questions 1 to 10 only. Errors within cycle & walking section and public transport section (Sections 4 and 5) were kept in as these have no impact on the mode shift calculations, and no errors were identified in these sections.	1,224

Appendix C

COMPARISON OF DATASET 3 AND 2011 CENSUS

APPENDIX C



COMPARISON OF DATASET 3 WITH 2011 CENSUS

OVERVIEW

To determine whether Dataset 3 is representative of the population of Hereford, comparisons have been made to data from the 2011 Census, in terms of:

- → Age;
- → Mode of travel to usual workplace; and
- Car ownership.

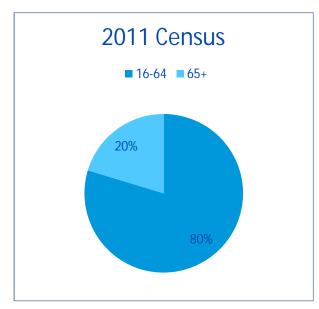
AGE PROFILE

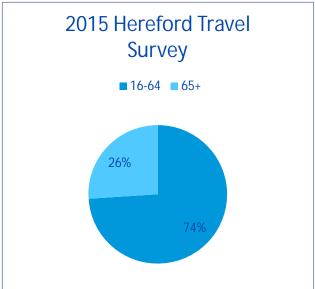
The age profile of survey respondents has been compared with the age profile of residents captured within the 2011 Census.

Figure 1 highlights the age profile of the 2011 Census compared with the age profile of residents within the 2015 Hereford Travel Survey.

The figure demonstrates that the 2015 Hereford Travel Survey has a good representation of both the working age population and those over the retirement age; with a similar representation of both age groups as those captured within the 2011 Census.

Figure 1: Age profile comparison - 2011 Census and 2015 Hereford Travel Survey





APPENDIX C

COMPARISON OF DATASET 3 WITH 2011 CENSUS



JOURNEYS TO WORK (DATASET 3)

The 'usual workplace' journeys captured through Section 1 of the new dataset has been compared against journey to work data within the 2011 Census.

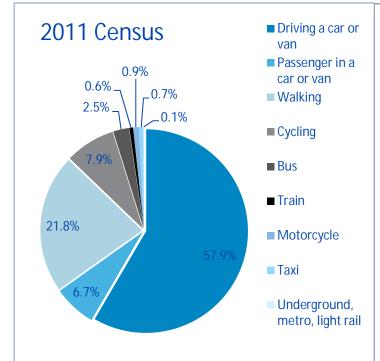
Figure 2 shows the mode share of journeys to work captured within the 2011 Census and the 2015 Hereford Travel Survey.

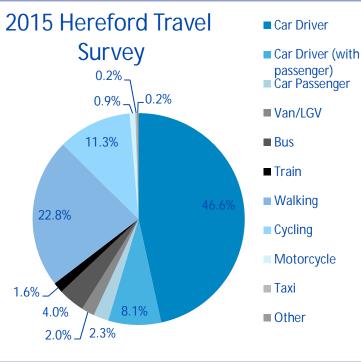
In the 2011 Census, 65% of residents who travel to work are travelling by either car or van (58% driving either a car or van). In the 2015 Hereford Travel Survey 59% are travelling by car or van to work.

30% of journeys to work within the 2011 Census are undertaken by active modes (cycling and walking) compared to 34% in the 2015 Hereford Travel Survey. Public transport represents a small percentage of mode change within both the 2011 Census and 2015 Hereford Travel Survey (3% and 6% respectively)

Figure 5.3 suggests that for journeys to work, while mode shares are broadly comparable, there has been a reduction in car use whilst both active modes and public transport have seen increases in use since the 2011 Census, and since the inception of Destination Hereford in 2012.

Figure 2: Mode share for journeys to work - 2011 Census and 2015 Hereford Travel Survey





Appendix D

2015 HEREFORD TRAVEL SURVEY QUESTIONNAIRE



HEREFORD TRAVEL SURVEY 2015



SECTION 1 – Your mode of travel for different journeys

1. For the following journey purposes, which mode of transport do you use <u>most often?</u>
Please select ONE option in each row

	Car driver (alone)	Car driver (with passenger)	Car passenger	Van / light goods vehicle	Bus	Train	Walking	Cycling	Motorcycle	Taxi	Other	Not applicable
Travel to / from usual work place												
Work business e.g. attending meetings												
Personal business e.g. visiting the bank												
School / education												
Shopping												
Social / recreation												
2. Please provide the postcood Home: Place of work: School / place of education: (Please include more than or							• • • • • • • • •					

SE	ECTION 2 -	- Working from home							
3.	B. Do you work from home, as an alternative to travelling by car to a place of work? Please select ONE option only								
	No, nev	ver If No, please move onto C	Q6	Yes, once / twice a month					
	Yes, ev	very day / most days		Yes, less than once a month					
	Yes, or	nce / twice a week							
4.	If yes, appro	oximately how many miles o	do you save	on each occasion?					
	0 - 1 m	ile		11 - 20 miles					
	2 - 5 m	iles		over 20 miles					
	6 - 10 r	miles							
5.	Has the num Increas Decrea No cha	sed	n home cha	nged over the last three years?					
	Thinking ab		ch <u>one</u> jour	ney do you make <u>most often</u> ?					
			er of times, p	please select the longest journey					
		to / from usual work place		School / education					
		usiness		Shopping					
	Person	al business		Social / recreation					
7.		`	for this ma	in journey (as chosen in Q6)?					
	0 - 1 m			11 - 20 miles					
	2 - 5 m			over 20 miles					
	6 - 10 r	niles							
8.	_	g of this journey, has the way er the <u>last three years</u> ?	you usually	r travel (i.e. type of transport you use)					
	Yes								
	No	If No, please move onto Q11							



	How did you usually travel fo	r this journ	ey previous	sly i.e. <u>three y</u>	vears ago?				
	Please select ONE option only Car driver Car passenger Van / light goods vehicle Bus Train			Walking Cycling Motorcycle Taxi Other					
SE	10. What were the reasons for changing the way you travelled? Please select ALL applicable reasons Affordability e.g. the cheapest option Health e.g. better for my fitness Change in circumstances e.g. moved home or changed job Environment e.g. more sustainable way of travelling Practicality e.g. don't have a car, car required to perform job SECTION 4 – Walking and cycling								
	Please select ONE option in each row	Every day /	Once / twice	e Once / twice	Less than	Never			
	Walking (leisure) e.g. walking in the park	most days	a week	a month	once a month				
	Walking (non-leisure) e.g. walking to work, school etc								
	Cycling (leisure) e.g. cycling with friends / family, for fitness								
	Cycling (non-leisure) e.g. cycling to work, personal business								

12.	Has the number of times you three years?	walk or cycl	e in an ave	rage month c	hanged over	the last
	Please select ONE option in each row	Increased	Decreased	No change	Not applicable	
	Walking (leisure) e.g. walking in the park					
	Walking (non-leisure) e.g. walking to work, school etc					
	Cycling (leisure) e.g. cycling with friends / family, for fitness					
	Cycling (non-leisure) e.g. cycling to work, personal business					
13.	If the number of times you wa what are the reasons for this? Not applicable Affordability e.g. the cheaped Health e.g. better for my fith Change in circumstances e home or changed job Environment e.g. more sust of travelling	Please sele est option ess .g. moved	ct ALL applies	Practicality e.g. of access approved promotes.g. information approved infrast	quickest, easies	on es
14.	If you don't walk or cycle or d reasons for this? Please select		_	_	go, are there	any
	Not applicable Change in circumstance e.g. home or changed job Practicality e.g. need to use too long Health e.g. unable to walk of Safety concerns e.g. cycling theft of bike, driver behavior	a car, takes or cycle g on road,	n c	naintained path cycle training Poor promotion	ure / services e. s or routes, lac / information e. an cycle, not sui	k of g. don't

SECTION 5 – Public transport

SECTI	ON 5 – Public transpo	11				
	the number of times you last three years?	use public t	ransport	in an average ı	month chang	ed over
	ase select ONE option ach row	Increased	Decrease	ed No change	Not applicable	
Bus	3					
Trai	in					
_	Not applicable Affordability e.g. the cheape Change in circumstance e.g. home Practicality e.g. quickest, ea access Safety / security e.g. feel mo	est option g. moved usiest to		Environment e.g. of travelling Improved infrase.g. more frequeservices Improved informe.g. more informe.g. more informe.g.	g. more sustain structure / servi ent or reliable l nation / guidan	nable wa ces ous / tra ce
_	better security ou don't use public transpereasons which prevent you not applicable Affordability e.g. there are convays of travelling Change in circumstance e.g. home	ou from doir heaper		Safety / security secure Poor infrastruct e.g. infrequent of service	applicable ready e.g. don't feel ure / services or unreliable bu	asons safe / us / trair
	Practicality e.g. need to use work, need to drop family of			Poor promotion of information of Other		_

.....

HOUSEHOLD DETAILS	RESPONDENT	DETAILS
How many adults (aged 17 or over)	Are you:	
live in your household?	Male	Female
	How old are you?	
How many children (aged 16 or under) live in your household?	17 - 24	45 - 54
andor, nvo m your nodeonord.	25 - 34	55 - 64
	35 - 44	over 65
How many cars or light goods		
vehicles (LGVs) does your	Do you hold a ful	I UK driving licence?
household own, or have access to?	No	
Cars	Yes, full liceno	ce
LGVs	Yes, motorcyc	cle / moped licence only
	Do you have a dis	
	standing health p your mobility?	roblem that affects
	Yes	No
Thank you for completing the Here Please return using the pre-paid en Please enter your name and addressou wish to be entered into the prize	nvelope provide ess in the box be	d.
RESPONDENT DETAILS FOR THE PR	IZE DRAW	`
Name		
Address		
Postcode		

