Bishop Sutton & Stowey Transport Survey

Analysis and Results

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Contents

Background

The Bishop Sutton & Stowey Transport Survey was carried out during July 2019 and consisted of a single survey per household within the parish. The two-page survey asked respondents to state the number and method of trips in an average week for the entire household. An open comments box was also included for any other comments that respondents chose to make. Surveys were delivered to each house in the parish with a postage-paid envelope and instructions to return surveys via the post by July 31st. A total of 585 surveys were delivered, with 129 responses received, representing a respectable 22% response rate, which is in line with previous surveys in the parish and similar studies elsewhere.

The survey was specifically designed to be short and easy to complete, rather than to extract exhaustive ancillary data. As an example (brought up in the comments of one respondent) the survey asks about 'shopping trips' but does not differentiate between 'main' and 'top-up' shopping trips. Such data is simply outside the scope of this exercise and would likely reduce the response rate by adding complication.

It is worth noting that the purpose of this survey was to explore the traffic habits of parish residents, not the total traffic within the parish. Furthermore, only the results of the 22% of villagers who responded to the survey are considered. While there was broadly equal response from all areas of the parish, we lack the demographic data to scale these figures up to represent total parish traffic. Therefore, the overall traffic through the village will be significantly higher because this report represents an informative, but incomplete and conservative picture of traffic and vehicle use in the parish. Any through traffic, whether local or national has not been considered. Nor has incoming traffic, such as residents from wider villages travelling to use the schools in Bishop Sutton, shopping deliveries to residents, or employees/customers/deliveries/etc. of the businesses within the village.

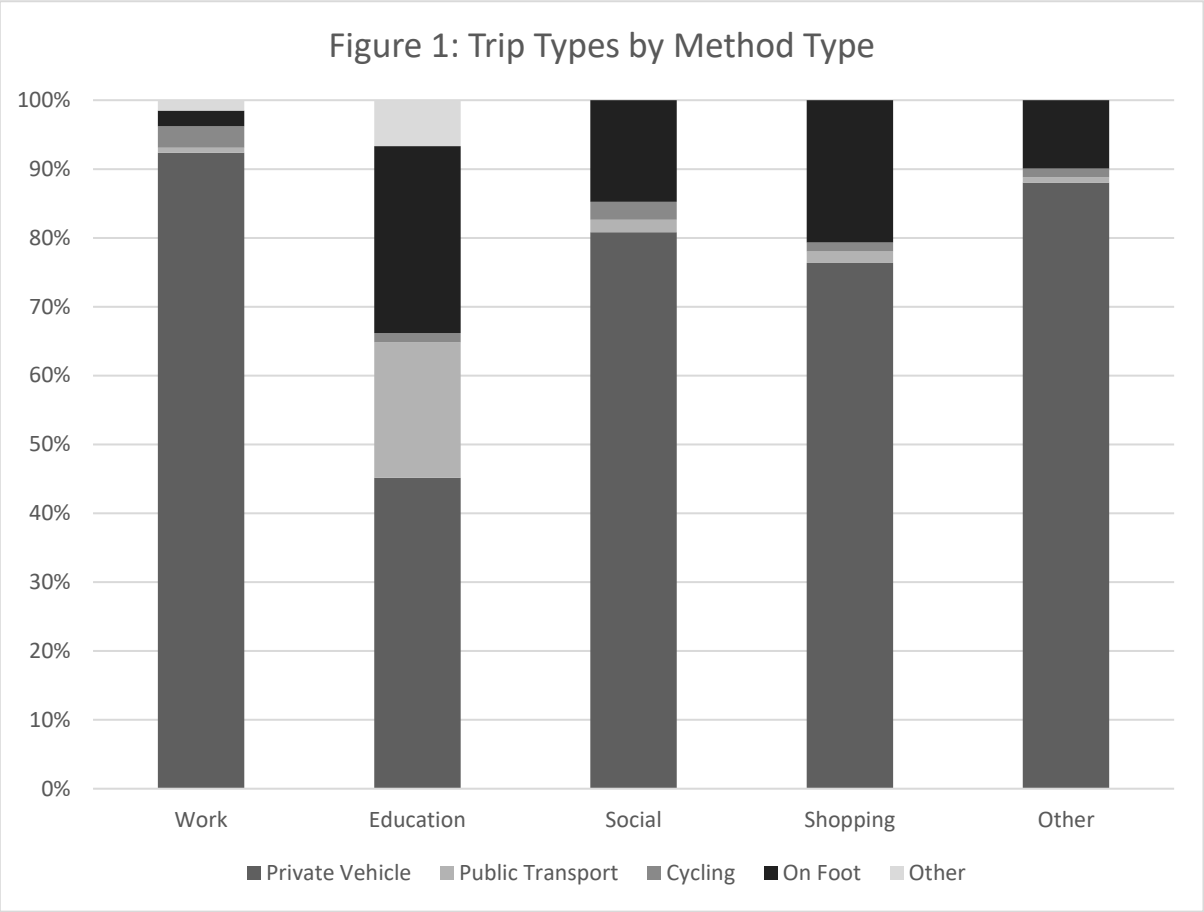
Validation

Each survey was numbered and upon return, no surveys were found to be out of range or duplicated. This suggests that there are no concerns over the verifiability of responses.

An analysis of the responses and the comments indicates that respondents likely understood and completed questions as expected. In addition, small pilots of the survey were tested within the parish, with appropriate changes made following feedback. Therefore, there are no concerns regarding the validity of responses.

There are very few cases where the total number of trips by type does not equal the total of trips by method, further suggesting a high level of understanding. The trip type with the highest number of discrepancies was social, where there were 15 instances. This is likely where multiple people from the household were included in the method, but not the trip count. For example, a parent on the school run may have recorded two trips to school (there and back) but two trips by private vehicle (themselves) and two as a passenger (the child, there and back). These few results were included at face value.

In addition, destinations in the survey were denoted as being "within Bishop Sutton/Chew Valley" or "to or in the direction of…". Therefore, a trip marked for Bristol may indicate a trip towards the north, while a trip marked for Bath may indicate a trip towards the east. In the interest of brevity, this is reported as "to/wards". Finally, it is important to note that in this document, there are instances where percentages do not add up to 100% exactly. This is simply an issue with rounding.



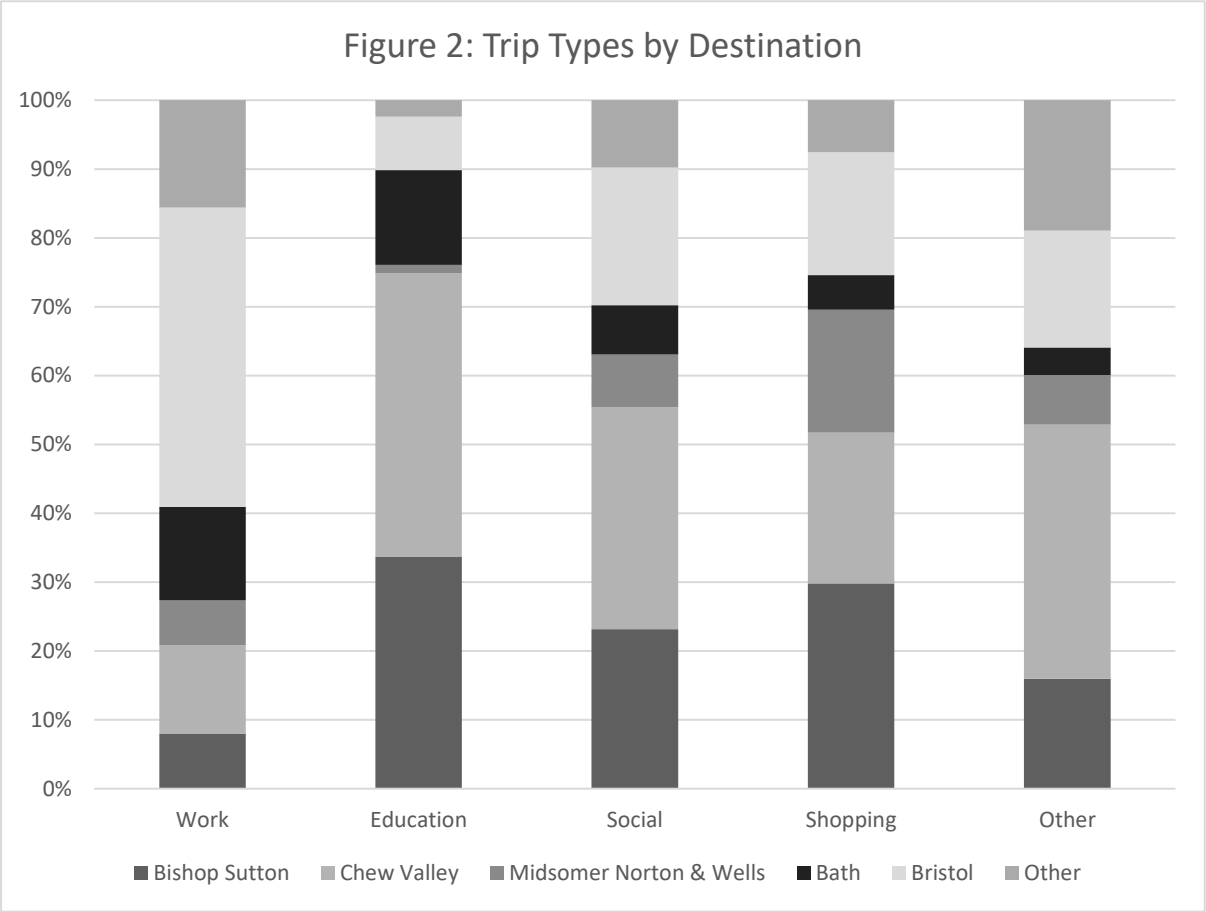
Trips by Type and Method

In both of the stacked column figures presented above and across, the bars represent one trip type (i.e. work, education, etc). In Figure 1 the stack is made up of the different methods of travel, while in Figure 2 the stack shows the different destinations (i.e. within the village, Chew Valley, etc). It is of note that no respondent explicitly stated what they meant by 'other' trip types or 'other' methods of transport (though this might include taxis).

Overall

Of the almost 5000 trips made by all responding households in an average week, 79% were reported to be via private vehicle.

Figure 1 presents a stark picture, with private vehicles dominating all trip types. Indeed, while 79% of all trips were reported to be via private vehicle, when excluding the potential outlier of education trips (discussed later), private vehicles account for 84% of trips. This is despite 47% of all trips being made within the village or Chew Valley.



Work Trips

Work trips account for 29% of all trips and of these, 89% were reported to be via private vehicle.

While 13% of work trips are made within the Chew Valley, this still necessitates a high use of private vehicles. Indeed, with 92% of all work trips made outside of the village, it is clear that private vehicle use will remain high unless new employment opportunities are created within the village itself, which would allow for walking to work; nearby employment, even within the valley will not curb private vehicle usage.

This issue is exacerbated by the lack of public transport provision, accounting for less than 1% of work trips. Of the existing routes, only Bristol offers a potential commuter opportunity, which consists of only one service at either end of the day, thereby limiting the working options available. The timetable for other locations, from within the valley, to Bath or beyond, are limited to one day per destination; usually allowing only a short time at the destination. It is probable that a lack of public transport factors into a resident's decision to apply for a job, thereby driving people towards Bristol as the only option currently available.

If a new commuter service were to be offered, it would need considerable investment and assurances for longevity, to ensure that local residents can come to rely on it. Any trial, or short-term commitment is unlikely to convince local residents to change their habits or commit to work based on a bus service that they cannot be sure will last.

Education Trips

Education trips account for 12% of all trips and of these, 47% were reported to be via private vehicle.

Education trips deviate from all other trip types, which is to be expected. Bishop Sutton contains both a preschool and primary school, which explains the high rate of travel on foot (28%). The local secondary school in Chew Magna provides a comprehensive bus service, accounting for the high rate of public transport usage (20%). However, private vehicle use remains the single most widespread method of transport (47%), so it is clear that a high proportion of pupils are travelling by private vehicle to these local schools despite the public transport and walking options. Furthermore, it is important to remember that these figures only account for residents of the parish and it is highly likely that pupils from neighbouring villages also attend the schools in Bishop Sutton, probably requiring private vehicles for transport. In addition, 25% of education trips are made outside of the valley, which would likely include pupils attending other schools and students attending college and university. These trips are most likely by private vehicle, even when the destination is Bristol, due to the public transport timetable.

Social Trips

Social trips account for 33% of all trips and of these, 81% were reported to be via private vehicle.

Over half of all social trips are local, with 23% being made within the village and a further 32% being made within the valley. Despite this, only 15% of social trips are made on foot (most likely those within the village), while 81% are made by private vehicle. This further demonstrates how isolated the village can feel, even to its neighbours in the Chew Valley, and how essential private vehicles are to all aspects of village/local life.

Shopping Trips

Shopping trips account for 18% of all trips and of these, 77% were reported to be via private vehicle.

Shopping trips demonstrate the second highest rate of foot travel (21%), behind only education trips (28%). This is attributed to the village shop in Bishop Sutton, given that 30% of trips were within the village. Despite this, 76% of shopping trips were made by private vehicle and 70% were made outside of the village, with a broadly equal mix within the valley (22%), to/wards Midsomer Norton and Wells (18%) or to/wards Bristol (18%).

Other Trips

Other trips account for 8% of all trips and of these, 86% were reported to be via private vehicle.

It should be noted that no respondent explicitly stated what they considered ‘other trips’ to include, though they accounted for 8% of recorded trips. While 10% of these trips were made on foot, 86% were made by private vehicle and 84% were to destinations outside of the village.

Trips by Destinations

Work Trips by Destination by Private Vehicle

Figure 3: Work Trips by Destination by Private Vehicle

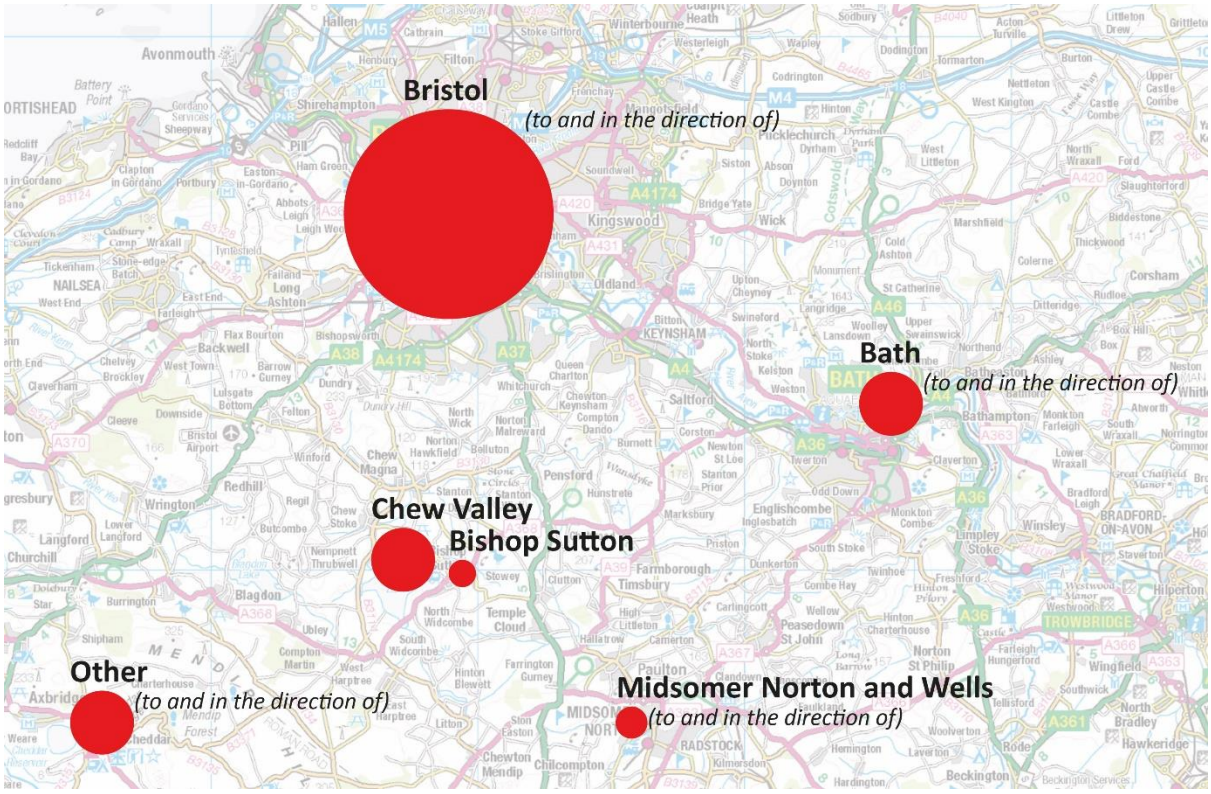


Figure 3 represents the percentage of work trips by private vehicle for each destination. Note that the data used to generate this map included only the survey responses where there was a clear correlation between destination and method – i.e. where a respondent reported 10 work trips to Bristol and 10 work trips by private vehicle. In the small number of cases (less than 15%) where the link between destination and method was not obvious, these responses were excluded from this map.

It is clear from Figure 3 that the vast majority of work trips by private vehicle are made to/wards Bristol (46%), with a further 14% to/wards each of Bath, within the valley, and other places. Midsomer Norton and Wells account for 7%, while Bishop Sutton itself accounts for the final 6%.

This speaks to the poor provision of employment within the village, as well as to the necessity of private vehicles and also to the poor provision of public transport – given that Bristol is the destination 'best' served by public transport, yet is also the most visited work destination by private vehicle.

All Trips by Destination

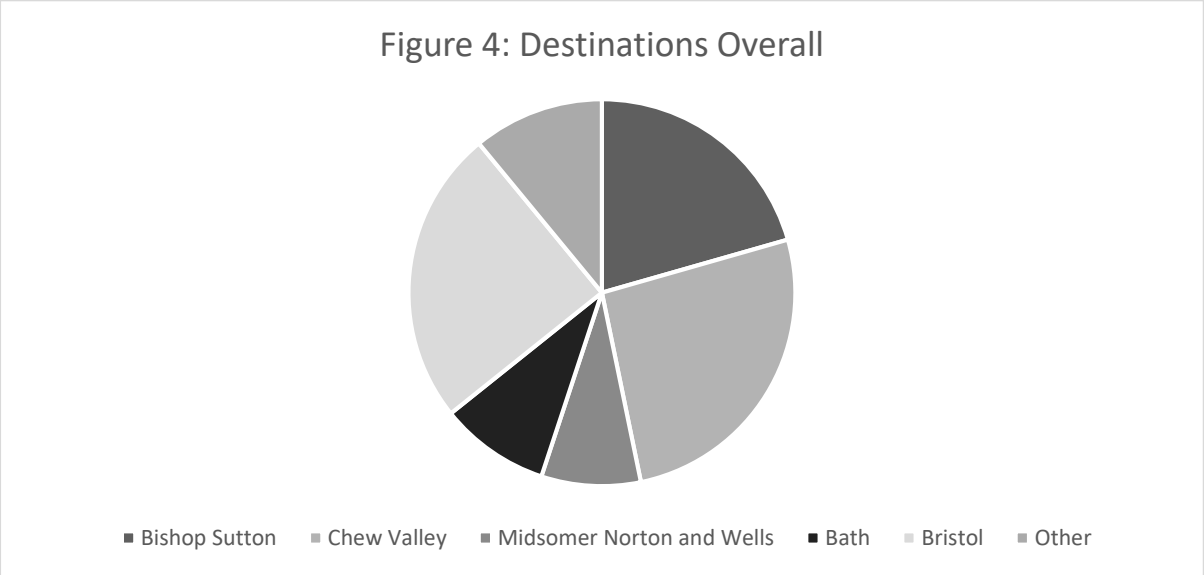


Figure 4 presents the percentages of destinations for all trips, which demonstrates a more balanced image. Of all trips, 25% were made to/wards Bristol, which is broadly equal to the 26% made within the valley and is slightly more than the 21% of trips that were reported within the village. In addition, 9% were made to/wards Bath, 8% to/wards Midsomer Norton and Wells, and 11% were made to other places.

This suggests a concentration of trips within the valley and local area, which can be viewed in tandem with the methods of transport overall, in which 79% of all trips are made by private vehicle. It remains clear that private vehicles are essential to travel for villagers, even for local trips.

Comment Analysis

The open comments box responses were explored using a three-round thematic analysis method. There were 61 comments, resulting in 73 detailed codes across eight emergent themes.

The largest theme, with 17 codes and 42 comments, was **Poor Public Transport**. Respondents complained about a general lack of public transport provision within the village, both to local locations (within the valley) and to Bath and Bristol in particular. Furthermore, existing buses were deemed too infrequent and often at inopportune times. Several comments suggested the existing provision drives them to private vehicle use, such as: *"we are more often than not forced to drive as bus service is non-existent"*. Indeed, services to Bristol are the only ones which could be used for commuting, though this is dependent on working hours. One comment lamented that the timetable is structured to allow visits from the village to Bristol in the morning, returning in the afternoon – meaning that relatives in Bristol cannot use public transport to visit them in the village. This may affect access to local businesses as well. Additionally, one comment stated that a lack of public transport to Bath had effectively dictated their daughter's choice of college, by preventing access to their preferred choice. By contrast, the theme of **Positive Public Transport** consists of only three codes and comments, one of which expresses that the respondent relies on public transport as they do not drive.

The theme of **Wider Public Transport Requests** includes 8 codes and 10 comments, whereby respondents made requests for better public transport provisions, often when discussing the existing poor provision. As seen in previous local surveys, there is considerable demand demonstrated for additional routes to Bath, Bristol, and Wells, as well as short routes to link into wider route networks, such as a connection with the A37, which has greater public transport provision. Demand for additional routes within the valley would likely be met as part of additional routes to wider locations. This theme was also supported by those who **Currently Travel For Better Provisions**, in which four codes and six comments detailed respondents already travelling (mostly by car) to Pensford and Clutton to connect with their public transport provisions. In contrast, there were no comments relating to the current use of primary park and ride sites.

The **Roads At/Above Capacity** theme included five codes and seven comments, which detailed congestion, particularly at peak times, both within and around the village. It is not surprising that this theme is smaller than those relating to public transport, given that public transport was directly discussed in the survey, but congestion was not, and that these comments were unsolicited. Based on anecdotal evidence, it is likely that respondents would have had more to say if an explicit question on the matter had been included. There is further evidence from the **Better Walking/Cycling Provision** theme, in which respondents not only called for better walking and cycling provisions (as they have done in past surveys), but they specifically note that existing roads cannot provide this. Segregated cycle and walking routes were requested, along with comments about existing roads being *"too dangerous"* for cycling (in the eyes of the respondent). It is clear from these themes that any additional traffic through the village would add to congestion, which would make it more difficult for residents to cycle or walk and is likely to be detrimental to any attempt to move away from private vehicle use. Furthermore, such responses appear to suggest there is insufficient road capacity to implement schemes that restrict private vehicle use or reduce private vehicle provisions to make way for cycle lanes or footpaths.

The final two themes consist of **Explanation** and **Survey Comment**. In the former, respondents generally explained their trip usage or personal circumstances, although one stated that *"public transport non-existent, so car essential, please don't restrict its use"*, thereby demonstrating the overwhelming need for private vehicles. In the latter theme, respondents made comments about the survey, such as *"survey easier to fill in at month level"*, which are irrelevant to this analysis.

Conclusion

It is clear from this traffic survey that private vehicle use dominates all types of trips, accounting for 79% of traffic. This remains true in the case of education, where despite local schools within the village and public transport provisions, private vehicles account for almost half of education trip traffic (47%). For work trips, the vast majority of residents travel to/wards Bristol and most do so by private vehicle, even though there is notionally a public transport option.

Given these findings, it would appear that only greater employment provision within the village, not even within the valley, would have any chance of reducing private vehicle usage. However, it is important to note that there remains a high use of private vehicles for all trip types within the village. Therefore, even local employment would not entirely resolve this issue.

There is explicit demand for greater public transport provisions, not only to new and existing locations, but simply to connect into wider networks, such as connections at Pensford. This is in keeping with previous studies conducted in the parish, though the evidence that some residents already do this informally, appears to be new.

There is also evidence of some residents walking and cycling, as well as demand for greater provision. However, such provisions are unattainable given the perception that existing roads are dangerous and already at or above capacity. This means that any greater provision, such as additional pavements or cycle lanes, cannot come at the cost of existing roads, given that they lack additional capacity.

It should however be noted, that this report represents 22% of the parish, so it is not a complete picture of resident transport, though signifies a significant proportion. It also does not account for through, incoming, and business traffic. Therefore, this report should be considered as a highly conservative estimate of village traffic. Nevertheless, if any new housing provisions are considered, it would seem appropriate to assume that the residents therein will have no choice but to follow a similar pattern, and hence will use private vehicles for the vast majority of all trips. This would stand in contrast to evidence that existing roads are at or above capacity, and be in opposition to parish, local, and national planning policy.

Appendix – Data Tables

The tables below present the percentages for each category, as used in the figures and analysis of this report. Note that they do not always add up to 100%, which is simply an issue of rounding.

Table 1 Trip Types by Method Types (Figure 1) - Percentages

	Private Vehicle	Public Transport	Cycling	On Foot	Other
Work	89	1	3	2	1
Education	47	20	1	28	7
Social	81	2	3	15	0
Shopping	77	2	1	21	0
Other	86	1	1	10	0

Table 2 Trip Types by Destination (Figure 2) - Percentages

	Bishop Sutton	Chew Valley	Midsomer Norton & Wells	Bath	Bristol	Other
Work	8	13	7	14	43	16
Education	34	41	1	14	8	2
Social	23	32	8	7	20	10
Shopping	30	22	18	5	18	8
Other	16	37	7	4	17	19

Table 3 Trips by Destination (Figures 3 and 4) - Percentages

	Overall	Work by Private Vehicle
Bishop Sutton	21	6
Chew Valley	26	14
Midsomer Norton and Wells	8	7
Bath	9	14
Bristol	25	16
Other	11	14