ELSEVIER

Transport Policy 14 (2007) 275–282

TRANSPORT POLICY

www.elsevier.com/locate/tranpol

Do buses help meet tourism objectives? The contribution and potential of scheduled buses in rural destination areas

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Available online 25 April 2007

Abstract

A review of tourism policy documents reveals three key objectives: environmental, social and economic sustainability. This paper examines the role of scheduled buses in meeting these objectives, using data from a large survey of bus passengers in rural tourist destinations. It finds that buses achieve modest modal shift from cars, allow access to the countryside for people without cars and generate spending in local economies. It suggests how these functions could be improved by market-segmentation, better publicity and service delivery and questions why many such services struggle for funding each year.

Keywords: Leisure travel; Scheduled buses; Economic impact; Social inclusion; Tourist

1. Introduction

Using new data from an extensive survey of bus users in rural tourist destinations, this paper examines how bus services address three recurring themes in tourism policy: environmental, social and economic sustainability (Department for Transport and the Regions, 1998; Department of Culture and Media and Sport, 1999; Scottish Executive, 2005; Welsh Assembly Government, 2003). It finds clear evidence that scheduled bus services are helping to reduce car use, enabling people without cars to reach such destination areas and contributing to local economies. However, the findings also suggest that such services, with some simple improvements, could increase their attractiveness to and use by targeted segments of the travel market.

A number of agencies are responsible for policy formation in tourism and its implementation at a national and local level. The three core themes: environmental, social and economic sustainability, albeit with varying emphases, are found in the majority of their policy documents (Gray et al., 2001), yet, in recent decades, visitors to the countryside have increasingly adopted modes of travel which bring negative externalities such as noise, emissions and pollution (Countryside Agency, 2003). This not only threatens the environmental sustainability of many environmentally fragile areas, it also risks their economic sustainability by encroaching on the qualities (such as tranquillity, unspoiltness) which attract visitors and their spending. This has led several authors, such as Sharpley (2001; p. 57), to suggest that '*a dichotomy exists between the general principles and objectives of sustainable development and their application to the specific context of tourism*'. Currently many local authorities and national parks are reducing their financial support to rural public transport (Reeves, 2006; p. 3) while '*traffic restraint measures to discourage leisure travel by the private car remain a low priority for many National Park Authorities*' (Reeves, 2006; p. 3). This widens the gap, between those with and without their own private transport, in opportunities to enjoy such areas. With the loss of Countryside Agency support in England, additional funding to local government sources lies firmly with the Regional Development Agencies, who have not yet readily addressed the problem (Wood, 2005).

This paper first explains the extent of leisure travel how it differs from utility travel. It describes how policies for tourism and travel interact and then discusses the findings of previous research into the leisure travel. The reasons for Tourism on Board, the project's name, are explained on the

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0967-070X/$ - see front matter © 2007 Published by Elsevier Ltd.
doi:10.1016/j.tranpol.2007.02.006

next section and the way in which the survey was conducted and the findings analysed are described. The findings are presented in the next section. They cover which passengers had a car available to them on the day they made the bus journey, the reasons people used buses, what passengers said they would do if the bus had not been running, how much they spent, what they spent it on and how the bus service could be improved. The last section summarises the conclusions of the research.

2. Literature review

2.1. Leisure travel

'Leisure travel' covers a wide variety of trips both to and for leisure purposes, including getting to holiday or day-trip destinations, visiting friends and relations and accessing leisure activities such as sport events, social gatherings and entertainment away from the home. Leisure differs from utility travel in three main ways:

- it involves high levels of discretion, not only whether to travel, but choice of destination, mode and time of travel,
- the journey frequently entails 'intrinsic' value, the travel generates benefits itself as well as the 'instrumental' value of reaching a destination and
- the traveller is less likely to be familiar with the destination area and the transport infrastructure available.

It accounts for 40.7% of the distance travelled and 30.6% of trips within Great Britain with car the dominant mode (82% of the distance) (Department for Transport, 2005) yet remains relatively '*under-researched*' (Dickinson and Dickinson, 2006). This paper focuses on the day trips from home and holiday accommodation which account for an average of 363 miles per person per year, 5% of the total of 6762 miles travelled for leisure (Department for Transport, 2005; chart 4:1), and specifically those trips made to rural destinations. According to Statistics on Tourism and Research (2006) in 2003, 73% of day trips were by car, and 83% of day trips to the countryside were by car, while 90% of visitors to National Parks arrive by car (Reeves, 2006). The high car use for these journeys raises similar issues about social equity and sustainability as for utility travel.

2.2. Tourism policy context

In terms of tourist travel, environmental sustainability usually refers to protecting the local and global environment from damage through the management of visitor impacts at a destination or site level. The transport focus is on the means by which they arrive and travel within a given rural area. This may mean restricting or reducing the noise, air pollution, visual intrusion, land-take by vehicles and transport infrastructure as well as cutting climate-changing emissions and/or offering alternative, less damaging ways to travel (Speakman, 2005). This is particularly important in rural areas, where the peace, scenic landscapes and cultural heritage of the places are the inherent qualities, the '*countryside capital*' (Garrod et al., 2006), which needs to be valued and managed in a holistic way to attract and retain visitors. For example, in their tourism strategy, Southwest Tourism (2005) presents the economic, as well as the environmental, case for preserving the beaches and landscape. However, '*countryside capital*' can only be enjoyed and hence have utility in tourism if there is ready access to this core offering.

Environmental objectives are implemented by providing alternatives to car travel, such as cycle routes and encouraging people to visit without their cars and/or use other modes within the area. Social equity policies revolve around enabling people without cars to reach rural tourism destinations and enjoy the activities available in those areas, such as walking or sightseeing. The provision of bus services for tourists is often rationalised as one way of extending access to people who otherwise would be unable to visit these areas as a well as allowing residents opportunities to travel to near urban areas (Lumsdon, 2006). Economic sustainability usually refers to the maintenance or growth of income and employment through the provision of goods and services for visitors, such as catering, accommodation, fares for public transport use and the sale of souvenirs, entrance and other fees in the destination area. There are inevitably tensions between these core policies between and within agencies for the allocation of resources and priorities which are increasingly channelled through Regional Development Agencies in England.

One intervention which appears to work toward the three policy objectives is the provision of public transport to rural destination areas thus reducing the need to use a car, allowing access for people with cars and bringing visitor spending to local economies. While some bus services are operated on a commercial basis, many rural routes are funded by local government or national parks. However, increasingly their funding is threatened and many have reduced their service frequency or been cut completely in recent years or face cuts as the funding authorities prioritise other means of fulfilling their policy obligations (Reeves, 2006).

2.3. Review of previous research

Little has been published about the role of public transport provision in reducing car use at tourist destinations, increasing leisure opportunities for people without cars or its contribution to local economies. There have been numerous studies which evaluate small-scale schemes to reduce traffic impacts and encourage modal shift from the car to other forms of access. For a more comprehensive review of these see Dickinson and Dickinson (2006) and

Dickinson et al. (2004). At a destination level the focus of analysis is presented in relation to specific best practice case studies, such as the Moorsbus network in the North York Moors. The Park estimates that it has saved well in excess of a million car trips to or through the National Park since Moorsbus started in 1994 and that 45% of their passengers came from households with a car, although only 33% had a car available to them on the day they used the bus (Transport 2000, 2001).

Although provision of public transport as a 'carrot' to change travel behaviour has been favoured over 'sticks' such as parking restrictions and roadcharging (Cullinane et al., 1996), it needs effective marketing and attention to service design and delivery to be effective. Other authors have identified the attraction of 'novelty' vehicles, such as steam trains and vintage buses as a means of attracting car users onto public transport to enhance the intrinsic quality of the travel (Eaton and Holding, 1996).

In the more recent literature, there has been a shift in emphasis away from a discussion of the efficacy of the traditional 'sticks and carrots approach' towards an understanding of the attitude of those visitors who might switch modes and in which circumstances (Dickinson et al., 2004). Anable (2005), for example, suggests a typology of visitors with varying potential to change from car to less environmentally damaging modes of travel and differences in the type of trigger that would encourage such a change. This form of attitude segmentation, she argues, would enable tourism providers such as the National Trust to develop more attuned policy interventions accounting for different motivations and constraints for each market segment. There has also been some work on the design of services for tourism purposes. Lumsdon (2006) reporting on the views of transport planners designing bus networks, identified two core groups of passengers using buses for tourist purposes in rural areas. One group, the respondents argued, uses the bus principally to avoid taking one or two cars in order to do a linear walk. These customers tend to '*have a vague environmental bent … make the effort*' (p. 756). The other group uses the bus to sightsee and may prefer not to drive to avoid parking costs or driving in an unfamiliar area.

Over a quarter of British households do not possess a car (National Travel Survey, 2004, 2005), and even within households with a car, individuals, especially young people, may not have access to it. Concentrations of households without cars are greater in urban areas, where they reach 34% and greatest in London boroughs where over 41% of households have been recorded (National Travel Survey, 2004, 2005). These are probably the communities who would benefit most from access to countryside, but people from households without cars make fewer trips to the countryside than other households (Countryside Agency, 2004).

The Countryside Agency (2004) estimates that average expenditure per person on a day visit in 2002–2003 was £13.70 defined as a leisure trip lasting over 3 h and £26.70 on a tourism visit with a greater duration of stay. There is a perception that visitors arriving by bus contribute less per person to the local economy than those arriving by car. Holding and Kreutner (1998), for example, found that residents in a German National Park opposed traffic restrictions in the belief that their economy would suffer from the loss of car trade, but that in contrast, visitors supported more traffic restrictions. Another study in North York Moors National Park found that car-borne visitors spent nearly double the amount spent by bus users (Downward and Lumsdon, 2004). However, they attributed much of the difference to the greater duration of stay of car users; bus passengers recorded early bus departures in contrast to car-borne visitors. Despite this finding, passengers on the Moorsbus spent an average of £12.58 per day (Department for Transport and Department for Environment, 2003).

In their review of public transport alternatives to the car in British National Parks, Eaton and Holding (1996) conclude that public transport has a potentially important role to play in reducing car use, but that many current small schemes can at best only have a limited effect. Relatively little research has been done into the effectiveness of bus services at rural destinations at delivering policy objectives and whether they could be improved. Another factor raised by Mulder et al. (2005) study of young people's access to countryside recreation is the poor image of public transport, which deterred them from using public transport rather than any lack of services.

3. Tourism on board survey

3.1. Reasons for survey

The research from which this paper draws its evidence was conducted in 18 areas of the UK on scheduled buses in tourist areas (see Fig. 1). Although there were many differences between the types of service, they were all in rural areas and the services were all designed primarily for the needs of visitors travelling to and for recreational activities. They included nine National Parks, areas of outstanding natural beauty and other rural areas which attract visitors to enjoy sightseeing and walking in their natural and cultural landscapes. Many of these services are vulnerable to budget cuts and there was a dearth of information about their impact upon the areas.

Tourism on Board was set up to remedy this lack of knowledge about the use of buses for tourism (Guiver and Lumsdon, 2006). Managed by the Institute of Transport and Tourism at the University of Central Lancashire in association with national parks, local authorities and the Youth Hostels Association, it was established in 2005 to exchange good practice in designing services and operating scheduled buses in tourist areas. Its first project was a survey to find out who was using these buses, how they were using them and whether the bus services were reducing car use, enabling people without cars to access

Fig. 1. Survey areas.

the countryside and generating local spending. Eventually, it is hoped to survey people visiting these areas, not using buses, to find out whether there are groups with similar profiles as bus users, and which types of improvements would attract them to use buses rather than cars. This first survey was necessary to find out who uses buses, why and what they do and do not like about them.

3.2. The bus services

The bus services surveyed varied considerably in their length, their frequency, type of destination (including stately homes, coast lines, mountains, moorland and local beauty spots), the type of vehicle used (mini buses, single deckers, double deckers and open top buses) and the proportion of local people and visitors carried. The common factor was that all the services were designed principally to cater for those travelling for leisure purposes.

3.3. Conducting the survey

The routes were selected by each local partner and their surveyors explained the survey to passengers and handed out the questionnaires. There were two survey forms: the main one, with details of the trip being made which passengers were asked to return to the surveyor before they got off the bus and a travel diary recording spending throughout the day which passengers were asked to complete once they had finished their day's outing and spending and post back in a pre-paid envelope. Entry into a prize draw was offered to encourage a higher response rate for the travel diary. The forms were folded together with an explanatory letter and numbered, allowing travel diaries arriving by post to be married with the main form, returned to the surveyor. Altogether 2997 main questionnaires were returned and 1294 travel diaries. The diaries were completed for a whole group, and included details of 2272 individuals. This represents a response rate (% of forms returned to those issued) of 45.7% for the main form. The response rate for the travel diaries was lower at 20.7%, partlly because only one diary was filled in per group travelling. The highest response rates were obtained from services with small numbers of passengers on each bus, where the surveyor had a chance to tell the passengers about the survey. Busier bus routes, while having lower response rates, yielded higher number of respondents. The forms were scanned and the data analysed with SPSS allowing the statistical significance of the findings to be tested.

In addition to the quantitative results, there was qualitative analysis of the comments respondents had written on their questionnaires and of the transcripts of 10 telephone interviews conducted with survey respondents who had used the bus services in Cumbria and along Hadrian's Wall.

4. Findings

4.1. Passenger profile

In comparison with national census data, older people are over-represented and younger people under-represented in the survey (see Fig. 2) and there are more female respondents (55.7%) than male (44.3%). Some of this may be due to higher response rates from older people and females, but confirms surveyors' impressions of the composition of bus passengers and is similar to previous findings (Lumsdon et al., 2006). Only 4.9% of respondents were from ethnic minorities, who account for 8.0% of the population (Office for National Statistics, 2003).

Most people were travelling alone (17.1%) or in couples (42.5%) and only 15.7% of groups included someone under 16 years old. Visitors from overseas accounted for 8.3% of respondents but almost certainly account for a higher proportion of passengers as surveyors reported that many did not fill in the questionnaire because of language difficulties.

4.2. Car availability

One of the main reasons for providing bus services in these areas is to offer an alternative to car travel, in the hope that visitors, who would normally use a car will switch to bus travel. The survey found that 29.6% of the passengers had a car available to them on the day they used

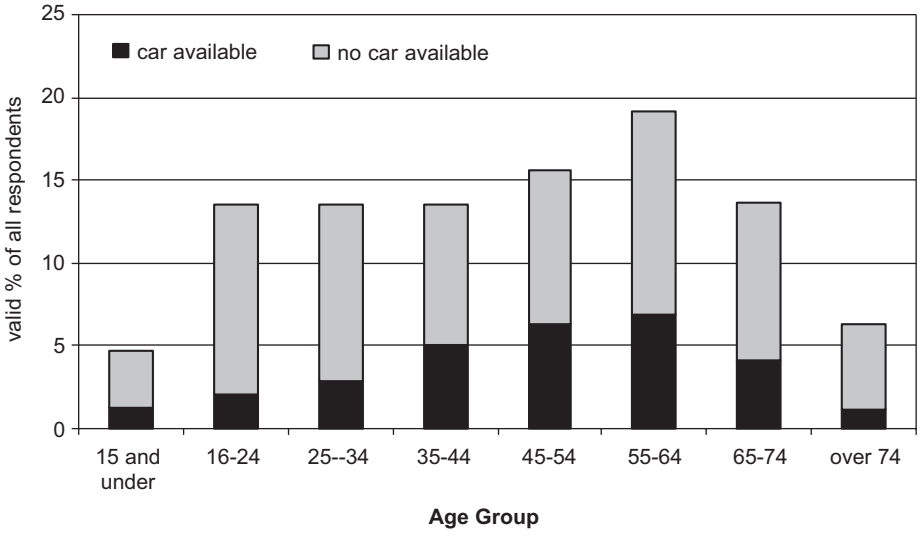

Fig. 2. Car availability by age group.

the bus and an additional 8.1% were on holiday without their car. This suggests that the buses are encouraging modal shift in circumstances where there is an acceptable alternative offering.

4.3. Motivations for bus use

When they were asked what they would have done if the bus had not been running; 20.0% of respondents said they would have used a car instead of the bus. From the answers to a question about reasons for the choice of mode, it appeared that environmental reasons were important to fewer of those with a car available (7.3%) than to people without the use of a car (17.4%) (the null hypothesis being rejected at 99.9%, Pearson χ^2-test). However, the qualitative data presented a more complex picture. From the comments and interviews, it is evident that for most car users, while the main reason for using a bus was for linear walks, the choice could also be influenced by a desire not to contribute to despoiling an area of natural beauty. For some walkers, having a bus service avoided two cars being used:

> … deliberately avoiding using our car when other transport offered, matches our endeavours to be more green and not contribute to pollution and clog up the roads.
>
> I don't really like using the car in the Lake District because you don't really want the Lake District full of cars.
>
> The introduction of small eco-friendly buses has allowed me greater access to stretches of the Pembrokeshire coastal path which I could not have walked previously without using 2 cars [one at each end of the walk].

There was, however, no direct evidence that the availability of a good bus service in the destination area meant that car users had used public transport to reach the area.

4.4. Car availability

The provision of bus services is partly justified because it allows access to rural tourist areas for people without a car available. The majority of respondents (70.7%) said they did not have a car available and most of these people (59.7%) did not own a car. Fig. 2 shows how car availability varied with age, young adults and people over 74 years old being the least likely to have a car available. Women were also less likely to have a car available to them.

4.5. Alternatives

Respondents were asked '*What would you do if the bus were not running today*'? The response was mixed; just under a third of passengers would stay at home or at their holiday base, a third would visit the same place, mostly by car and just over a third would go to a different place.

Figs. 3 and 4 give the results disaggregated by car availability which illustrates a key difference between those who had a car available on the day of travel and those who had not.

These profiles illustrate the different alternatives available to car users and non-car users (statistically significant. 000 using Pearson χ^2). Over a third of respondents without cars would have stayed at home or at their holiday base if the bus had not been running, but only 16.3% of those with a car available. Whereas nearly half of those (48.4%) with a car available would visit the same place, only a quarter (26.4%) of the people without a car available would visit their original destination. People without a car are more likely to choose a different destination and to go there by bus, suggesting that their choice of destination is

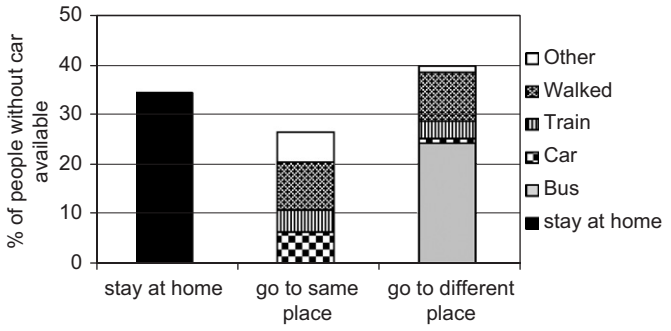

Fig. 3. Alternatives for passengers without a car available.

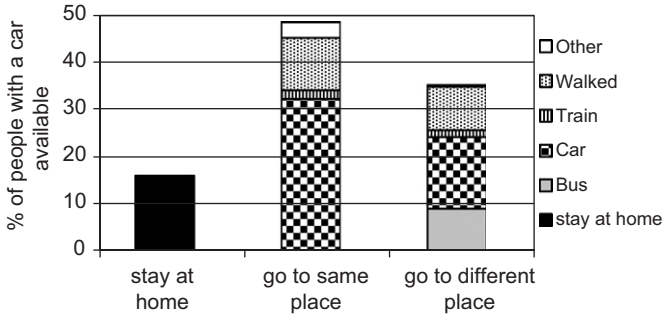

Fig. 4. Alternatives for passengers with a car available.

determined by bus availability. Nearly a third (31%) of people with cars would go to another destination, suggesting that their choice of destination was influenced by the presence of a bus service.

> Without a car and with small children it makes travel very difficult as the only other means of reaching places like Bolton Abbey, Fountains Abbey or other Dales villages is to rely on several bus changes or even no service at all.

> Without bus would not go walking in area because, not having a car, access would be limited.

4.6. Spending

A third reason for providing buses in rural tourist destination areas is increasing or maintaining visitor spending in the local tourist economy. The day travel diary provided evidence of the spending incurred by bus passengers which amounted to an average of £16.18 per passenger per day, more than the £13.38 per person per day recorded by 2005 England Leisure Visits Survey for visits to the countryside (Natural England, 2006). The highest sums were paid for food and beverages, followed by fares. In addition, 15.0% of the responding groups spent at least one night at holiday accommodation with an average spend of £26.40 per person per night. Smaller groups were more likely than larger groups to spend more per person on both accommodation and other expenditure. The respondents included 8.3% from overseas whose spending also contributes to the national economy.

Figs. 3 and 4 illustrate that if the bus services were not provided, much of that spending would be transferred to other destinations. Over 67% of respondents would not visit the same destination and 22% (predominantly those without cars) would forego their trip altogether. Many of the comments confirm that, without the bus service, respondents, including car users would visit a different destination or not embark on a trip. For holiday makers without cars or people wanting to holiday without their car, the choice of holiday destination could depend on knowing there was a good bus service available.

> Without the service we could not have moved from place to place or visited nearly as much, spent money, used pubs and cafes.

> Without the option of using the bus our journey would have been very unlikely as we did not want to have to use a car. Also using the bus is more ecological as it is at our home in USA.

4.7. Improving bus services

Respondents were also asked about how these bus services might be improved. A major source of dissatisfaction was poor service delivery: unreliability, poor information, discourteous staff, bad driving or inferior vehicles, any one of which could detract from an enjoyable day out. The surveyors' comments gave insights into some of the reasons for unreliability which included: tight scheduling, bus break-down, congestion at events such as agricultural shows, queues for car parks and illegal car parking at turning areas. Many of these are outside of the control of the bus operator and could only be solved if bus services were given a higher priority by other agencies such as the police, event planners and local authorities. Passengers' comments reflect on the consequences and lack of trust generated by one bad experience:

> Bus delayed 30 mins due to St David's Carnival

> If this bus route is to continue in the future, then something has got to be done with the parking …. The public … park on the bus bay and also in the path of the bus trying to turn round.

> The buses are always breaking down, because they are never serviced properly.

> The drawback for using buses is sometimes they don't turn up, or they are not reliable. You have to get there early in case they go early, but usually they are late.

> I lived in Swansea 5 years ago and took the bus out to three cliffs. We were stranded out there for hours until a bus came back …

The survey also provided insights into two types of groups using buses because they offer advantages over car

travel: recreational walkers and sightseers. The first use buses to be able to do linear walks. The improvements they recommended were:

- The potential for a longer duration of stay, earlier arrivals or later departures.
- Higher frequencies.
- Longer season of operation.
- Better information, timetables at bus stops, ways of knowing if you had missed the bus, local information from driver.
- More service stability allowing other organisations to put bus information in their programmes.
- Combined bus-walking leaflets.

> Last bus · · too early and first bus … too late. People doing the full length of the Sandstone trail are under pressure …
>
> Celtic coaster bus. … should be running until last weekend of October 2005 and every year for advantage of walkers who walk coast around St David's to see the seal and pups …
>
> At … bus stop no information on timetable for Clwydian ranger bus. Bus not early enough in am for walking Clwyd. Timetables not printed early enough in year to tie in with the ramblers association normal walks programme [printed about 6 month in advance].

The second group use buses for sightseeing rather than cars because they did not like driving in unfamiliar areas or wanted better views. For these passengers, who valued the intrinsic quality of the bus ride, bad driving, uncomfortable buses or lack of customer care could spoil their experience, but it could be enhanced by local information from the driver or guide on board, open top buses (in good weather) and higher frequencies allowing greater flexibility.

> I used the bus to see parts of the area which if I had been driving I would not have seen as I would have had to concentrate on the road. I would have found driving the route very stressful which would have spoilt the trip.
>
> When I have used it before I enjoyed the open top experience and went mainly for the views. It is better for that than a car.

Finally, the survey also recorded overall levels of satisfaction with service delivery such as comfort, cleanliness, information, frequency, value for money, driver helpfulness and standard of driving. Every attribute scored high levels of satisfaction in almost all areas except frequency of service and this scored poorly in every area: users wanted more frequent service than provided.

An analysis of the comments highlighted several limitations in current design and provision. Many respondents recommended improved marketing, especially the provision of clear information from outside the destination area. They also made a plea for reliability and certainty of provision. Unreliability and poor, or inconsistent, information deterred repeat journeys as far as several respondents were concerned. Other respondents referred to the poor image of the buses, perpetuated by old vehicles and unhelpful drivers. This is particularly important for discretionary travel as '*saw the bus*' was the single most common way of knowing about the bus service. This indicates that higher frequencies and novelty vehicles are also important for attracting passengers.

> The main problem today was getting information. The internet was useful, but limited and you can never be certain that the details are up-to-date. The Traveline service is useless. They need far more information, the woman I spoke to knew less about the service than I did.
>
> This bus does nothing to get people to use them into the National Park. It is old, uncomfortable, the driver is monosyllabic. If we want to get people out of their cars we need to sell these services to them by advertising smart buses and good service. Add a bit to the price if necessary, but sell it to the people, don't make it look like the poor man's substitute for a car.

5. Conclusions

Transport remains a fundamental element of sustainable tourism development, but as yet the tourism growth model means that tourism and transport planners continue to prescribe options which encourage the private car and do little for environmental sustainability and social inclusion. The traditional 'stick' and 'carrot' approach to the management of car travel to and within rural destinations has rarely been effectively implemented. Although there is increasing evidence to suggest that pricing could be acceptable (Steiner and Bristow, 2000), there is political opposition. At the same time, innovative tourism transport schemes are often scaled down by concerted political pressure orchestrated by a focused lobby resisting change (Lumsdon and Owen, 2004) and successful schemes face reduced funding (Reeves, 2006) without evaluation of their relative effectiveness at achieving policy objectives.

This study offers new data which indicates that scheduled buses warrant more detailed evaluation in rural tourism development. Rather than being modelled simply as a cost to be borne by local authorities, rural tourism bus networks need to be more widely appraised, taking into account social inclusion, traffic and mileage reduction and local economic impact. The evidence from the Tourism on Board study suggests that such services also attract new market segments and visitor spending. While there is no evidence at present of any changes in spending patterns when car users switch to buses for leisure trips, this is likely to depend on duration of stay. When bus passengers are restricted in the time they can stay in an area or location, their spending will be less than people who can stay as long

as they like. Visitors using buses to get to and from their walking cannot indulge in an evening pub meal, when the last bus leaves at 4 p.m.

Tourism on Board has yet to identify the cost savings attributed to the local tourism economy by reducing vehicle mileage in sensitive areas and by evaluating the reduction in the overall carbon footprint of visitation by encouraging modal shift. These are clearly benefits which can be attributed to the retention or development of an attractive bus network which also facilitates access opportunities for residents and visitors without cars. Rarely are these types of analysis presented to elected members when making decisions as to whether to support a network or not; they often are presented only with limited counts of passengers and revenue taken on board the bus.

The findings also suggest that some services may be under-performing and that service delivery improvements could increase their attractiveness to and use by targeted segments of the travel market. Notwithstanding this, environmental gain, social sustainability and local economic impacts of local bus networks need to be re-appraised in a more holistic manner in line with the concept of countryside capital which needs to embrace this third dimension of tourism, sustainable access. Tourism on Board is at an early stage of development; it will seek during the next phase to develop an appropriate model to achieve this outcome.

Provided it can secure funding Tourism on Board will be investigating the following issues:

- The impact on the carbon footprint of providing these bus services, including the journeys to the destination areas.
- The barriers to using buses for current car-borne visitors.
- Identifying suitable target groups for improved buses and/or marketing.

References

Anable, J., 2005. Complacent car addicts or aspiring environmentalists? Identifying travel behaviour segments using attitude theory. Transport Policy 12, 65–78.

Countryside Agency, 2003. The State of the Countryside 2003. The Countryside Agency, Cheltenham.

Countryside Agency, 2004. Great Britain Leisure Day Visits. Available at 〈http://www.countryside.gov.uk.Accessed〉 07/08/06

Cullinane, S., Cullinane, K., Fewings, J., Southwell, J., 1996. Rural traffic management: the Burrator reservoir experiment. Transport Policy 3 (4), 213–224.

Department of Culture, Media and Sport, 1999. Tomorrow's Tourism. The Stationery Office, London.

Department for Transport, Department for Environment, Food and Rural Affairs, and the National Assembly for Wales, 2003. Improving Social Inclusion. The Stationery Office, London.

Department for Transport, 2005. Transport Trends 2005 Edition. Department for Transport, London.

Department of Environment, Transport and the Regions, 1998. A New Deal for Transport: Better for Everyone. The Stationery Office, London.

Dickinson, J.E., Dickinson, J.A., 2006. Local transport and social representations: challenging the assumptions for sustainable tourism. Journal of Sustainable Tourism 14 (2), 192–208.

Dickinson, J., Calver, S., Watters, K., Wilkes, K., 2004. Journeys to heritage attractions in the UK: a case study of National Trust property visitors in the South West. Journal of Transport Geography 12 (2), 103–113.

Downward, P., Lumsdon, L., 2004. Tourism transport and visitor spending: a study in the North York Moors National Park, UK. Journal of Travel Research 42 (4), 415–420.

Eaton, B., Holding, D., 1996. The evaluation of public transport alternatives to the car in British National Parks. Journal of Transport Geography 4 (1), 55–65.

Garrod, B., Wornell, R., Youell, R., 2006. Re-conceptualising rural resources as countryside capital: the case of rural tourism. Journal of Rural Studies 22 (2), 117–128.

Gray, D., Farrington, J., Shaw, J., Martin, S., Roberts, D., 2001. Car dependence in rural Scotland: transport policy, devolution and the impact on fuel duty. Journal of Rural Studies 17 (1), 113–125.

Guiver, J., Lumsdon, L., 2006. Tourism on Board. Institute of Transport and Tourism, Preston.

Holding, D.M., Kreutner, M., 1998. Achieving a balance between "carrots" and "sticks" for traffic in National Parks: the Bayerischer Wald project. Transport Policy 5 (3), 175–183.

Lumsdon, L., Owen, E., 2004. Tourism Transport: the Green Key initiative. In: Lumsdon, L., Page, S. (Eds.), Tourism and Transport Issues and Agenda for the New Millennium. Elsevier, Oxford, pp. 157–171.

Lumsdon, L., 2006. Factors affecting the design of tourism buses. Annals of Tourism Research 33 (3), 748–766.

Lumsdon, L., Downward, P., Rhoden, S., 2006. Transport for tourism: can public transport encourage a modal shift in the day visitor market? Journal of Sustainable Tourism 14 (2), 139–156.

Mulder, C., Shibli, S., Hale, J., 2005. Young people's demand for countryside recreation: a function of supply, tastes and preferences. Managing Leisure 10 (2), 106–127.

National Travel Survey, 2004. Available at 〈http://www.statistics.gov.uk/ssd/surveys/nat_travel_survey〉.

National Travel Survey, 2005. Available at 〈http://www.statistics.gov.uk/ssd/surveys/nat_travel_survey〉.

Natural England, et al., 2006. 2005 England Leisure Visits Survey.

Office for National Statistics, 2003. National Census 2001. available on 〈http://www.statistics.gov.uk/census/default.asp〉 (accessed 13/02/07).

Reeves, R., 2006. Tackling Traffic. Council for National Parks, London.

Scottish Executive, 2005. Choosing Our Future: Scotland's Sustainable Development Strategy. Scottish Executive, Edinburgh.

Sharpley, R., 2001. Sustainable rural tourism development: ideal or idyll? In: Roberts, L., Hall, D. (Eds.), Rural Tourism and Recreation: Principles to Practice. CABI Publishing, Oxford, pp. 57–58.

Southwest Tourism, 2005. Towards 2015 Shaping Tomorrow's Tourism. Southwest Tourism, Exeter.

Speakman, C., 2005. Tourism and transport: future prospects. Tourism and Hospitality Planning and Development 2 (2), 129–137.

Statistics on Tourism and Research, 2006. 〈http://www.staruk.org.uk/accessed.17/10/06〉.

Steiner, T.J., Bristow, A., 2000. Road pricing in national parks: a case study on the Yorkshire Dales National Park. Transport Policy 7 (2), 93–103.

Transport 2000, 2001. Tourism without Traffic: A Good Practice Guide. Transport 2000 Trust, London.

Welsh Assembly Government, 2003. Wales: A Better Place. Welsh Assembly Government, Cardiff.

Wood, C., 2005. Can Cinderella go to the ball? Implementing the green travel, countryside access and social inclusion agenda in rural leisure travel. In: PTRC Proceedings of the Third UK Transport Practitioners Meeting, Birmingham, July 2005.