MEETING THE SPATIAL CHALLENGE: *HOW FOR CAN RURAL TRANSPORT REACH*?

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ABSTRACT

This paper presents an assessment of the potential for improving the spatial and cultural reach of rural public and community transport services in a challenging climate of public sector austerity. It examines theories of traversing *psychological* distance, and considers the levels of mental construal required in the context of rural travel choices. On this basis it develops a 'rural transport mind-map' and discusses the art of the possible in respect of developing improved rural transport reach against prevailing attitudes to car ownership and use, spatial challenges of remoteness and low population density, and current public transport policy.

The paper draws on some key literature relating to the role and perception of the car in British society, and then examines the potential for two specific modes of rural transport provision – car sharing and community transport – to deliver improvements in access and connectivity. In this respect the paper cites evidence from specific studies commissioned by the author, and also considers the potential for more general improvements to rural transport provision in the light of three case studies: one of an overview of transport patterns and issues in a typical East Yorkshire village and the others specific examples of initiatives designed to provide improved rural transport provision on a wider scale. Finally, the paper presents an assessment of realistic priorities for rural transport development in the UK in the current policy and delivery climate.

TRAVERSING PSYCHOLOGICAL DISTANCE

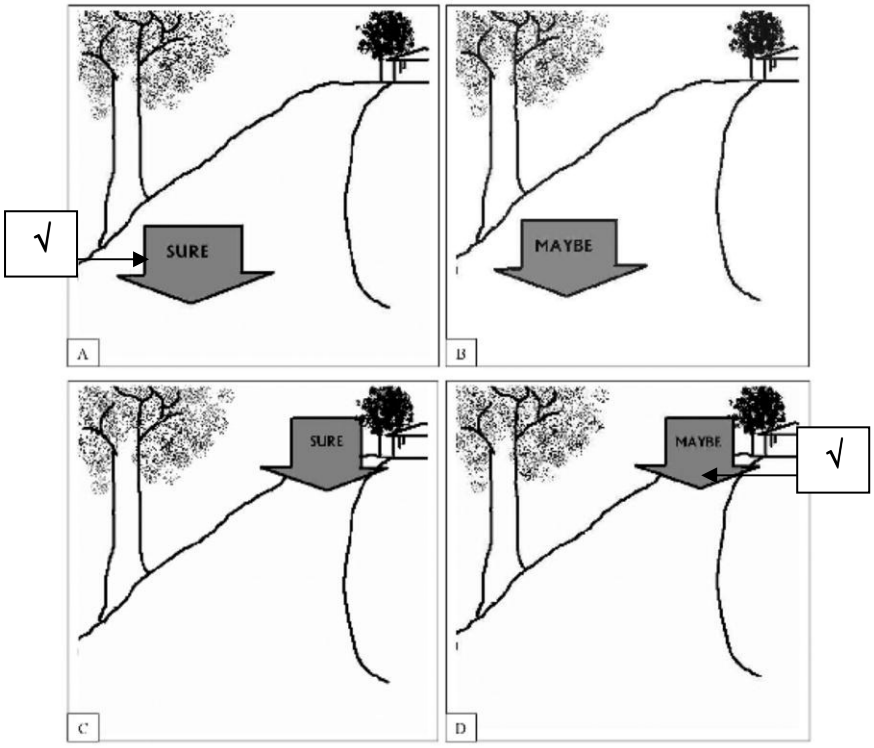
Trope and Liberman (2010) have noted that the processes people use to think about remote places (i.e. places at a distance from them), the past, the future and other people's perspectives, while unique in themselves, all constitute different forms of 'traversing psychological distance'. The way we think about removing ourselves from one place and travelling to another involves mental construal. They suggest that there are two levels of mental construal, higher and lower, and state that "the farther removed an object is from direct experience, the higher (more abstract) the level of construal of that object". They also explain that construal level theory contends that people use higher (i.e. more abstract) levels of construal to represent an object as the psychological distance from it increases. Psychological distance is experienced subjectively. Something is either close or far away from the self, here, and now.

My contention is that the spatial challenge for rural transport practitioners is less about geography (using the OECD definition only 10% of England's population is classified as rural, with rural residents generally no more than

half an hour's drive from an urban centre (OECD 2011); and more about psychology. Good public transport connectivity requires appropriate critical mass, and in rural contexts this rarely exists. The bus or shared taxi is so far removed from the direct experience of most car owners, so far away from the car owner's subjective experience, that it becomes abstracted chiefly to negative images in the mind map. Paradoxically, this level of abstraction may also enable the car owner to transcend their current experience of public transport, and place it a future or distant ('maybe I'll use') context of hypothetical benefit. Hence the caution that needs to be used when developing appropriate questions for parish transport plans.

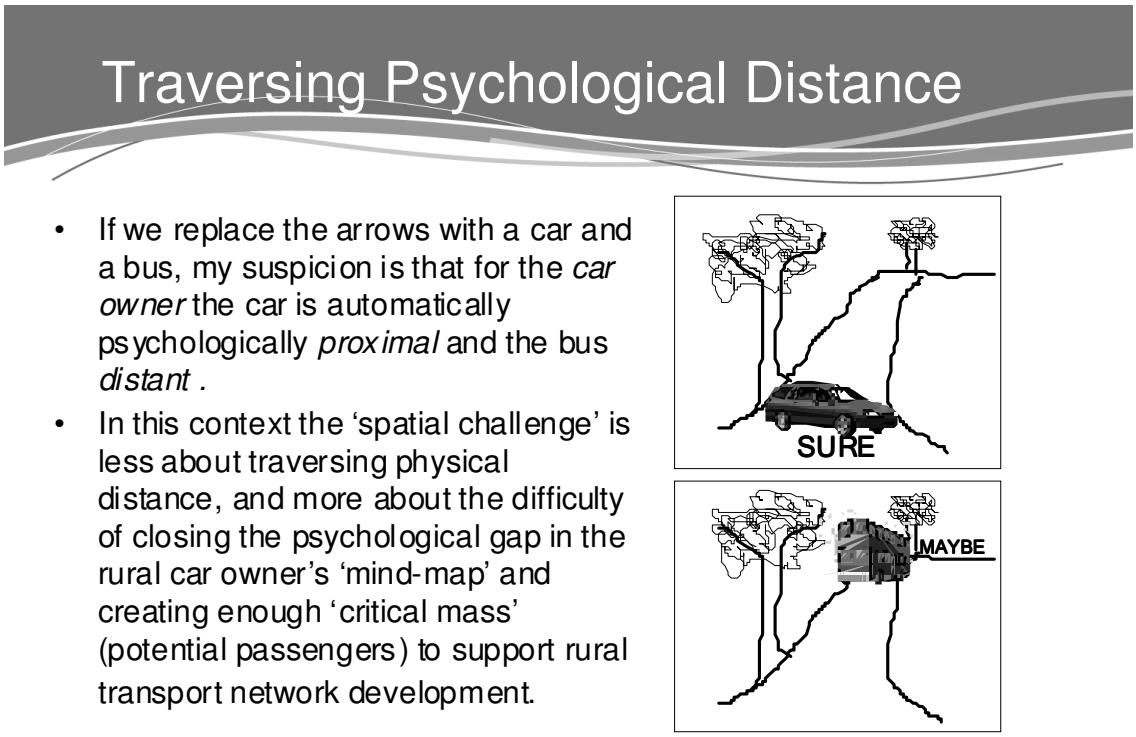
Bar-Anan, Liberman, Trope, and Algom (2007) investigated the hypothesis that temporal, spatial and social dimensions of psychological distance are all mentally associated. On this basis distant places should bring to mind unlikely as opposed to likely events. They used a picture-word Stroop task (Stroop 1935) to test this out. Block arrows containing a word denoting either psychological proximity or distance - e.g. (SURE) (MAYBE) - were inserted into the foreground or background of a landscape picture (see Figure 1 below). Participants were asked to quickly press a key to identify the word printed in the arrow. Trope and Liberman (2010) cite this investigation and note that participants responded faster to distance-congruent stimuli (in which a spatially distant arrow contained a word that denoted low likelihood (D), or a spatially proximal arrow contained a word that denoted high likelihood (A)) than to distance-incongruent stimuli (in which a spatially distant arrow contained a word denoting high likelihood (C), or a spatially proximal arrow contained a word denoting low likelihood (B)).

Figure 1



Considered in terms of the car owner's attitude to travel this could translate into the following imagery: (Figure 2)

Figure 2



THE RURAL TRANSPORT MIND-MAP

A mind map is a graphic diagram used to visually outline information. It is often created around a central theme, to which associated ideas, words and concepts are added. These can represent words, ideas, tasks, or other items related to the central theme. In the case of the rural transport mind map presented in Figure 3 below, the central theme is that of the car-owning rural family, and associated items around them represent alternative modes of transportation, and the positive and negative images, ideas or views that they generate.

A study for the RAC Foundation (Lucas and Jones 2009) examined, among other things, the dynamic of choice or necessity in current patterns of UK car use. They point out that there have been many attempts in the literature to understand theories underlying car use behaviours, but while accepting that the influence of the car works at many levels, both physical and psychological, they investigated the theory that in many situations car dependence relates less to car ownership than to what the car delivers for its owners in the context of "time constrained, dispersed and highly security conscious lifestyles". The report noted that while alternative forms of transport were often available, they are generally perceived as less convenient and reliable and sometimes more expensive.

Focus groups were used to investigate the role of the car in current (2009) British Society, and participants were encouraged to identify when and where they were using their cars out of choice or convenience and when out of necessity. Children's escort trips were seen as a significant factor amongst parents, but most of the participants were dependent on their cars, to varying degrees, for the majority of their trips. A number identified travelling to work and servicing family needs such as shopping as prime motivations for car use.

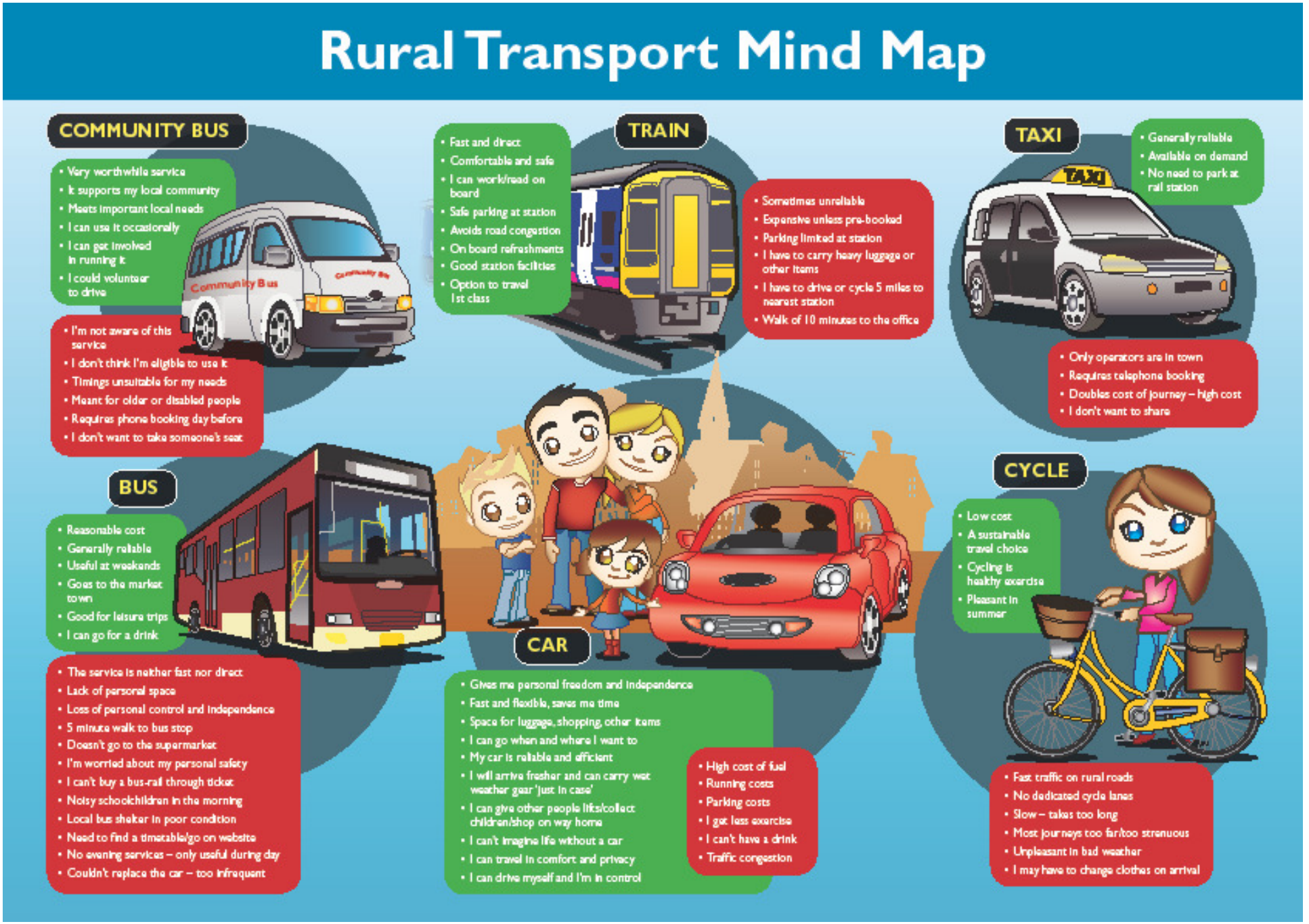
An earlier and influential report on car dependence (RAC Foundation 1995) identified a group of users and trip purposes that were considered to be prime targets for encouragement to reduce car use through transfer to other modes These findings helped inform the development of the (then) Government's Smarter Choices initiative. This encouraged voluntary behaviour change, and consisted of the implementation of a range of 'soft' transport policy measures such as personalised travel planning, travel awareness campaigns and car-club/car sharing initiatives which aimed to reduce overall levels of car use.

The Department for Transport's Sustainable Travel Towns programme trialled packages of these measures in three English towns (Darlington, Peterborough and Worcester). The Department's Summary report (Sloman et al 2010) noted that most revenue was spent on support for personal travel planning. Bus trips per person grew substantially, by 10%-22%, compared with a national fall of 0.5% in medium-sized towns. However not all growth could be directly attributed to the programme. Substantial growth also occurred in cycling and walking. The estimated outturn costs were c £10 per person per year – a Benefit Cost Ration of 4:5. The biggest changes in modal choice were for short trips in inner areas – leisure and shopping. However the report saw merit in the piloting of new initiatives targeting change in medium/long-distance journeys and to travel in rural areas, with focus more intensively on travel for work.

Despite these pilot programmes however, overall car ownership and use has continued to grow nationally since the publication of the RAC's 1995 report, and has spread to what were traditionally non-driving sectors of the population. It can be argued that the UK has become a more car dominated and dependant society since the early 1990s.

Figure 3: A Rural Transport Mind Map

Rural Transport Mind Map



CHANGING THE MIND-MAP?

Lucan and Jones (2009) concluded that car use was still "embedded" in most aspects of British daily life, and that people believed the benefits of car ownership and use still outweighed the disadvantages. The study also found that car-licence holding among adults is the highest in rural areas, with 85% of households having one. Researcher, Dr Karen Lucas from Oxford University, launching the publication said: "Our research suggests that most people cannot envisage a future without their cars and many would go to considerable lengths to continue using them".

However the study highlighted the fact that while the number of cars being bought has continued to grow, and car ownership is widening to new groups (especially low-income groups); the number and length of car trips undertaken in the UK fell in the decade to 2006. Car ownership went up by 30% to 29.6m, while the UK population rose by 4%. The study also found that nearly half of UK car owning households are 'low mileage', using their cars on a limited basis and travelling between 1-5,000 miles per annum).

Lucas and Jones concluded that the car was here to stay but stressed that, given issues of climate change, congestion and social sustainability, there needed to be a focus on changing the types of car being used. A further think-piece (Cairns 2011) and report (Cairns and Harmer 2011) examined the potential for changing attitudes to car ownership and use, and the potential for extending alternatives such as car sharing, informal 'slugging,' peer to peer car rental and car clubs. However most examples for the UK and Europe are urban, high density models and the authors conclude that to be successful, these types of scheme rely heavily on a level of 'critical mass' unlikely to be easily generated in sparse rural contexts.

A recent report (Leveque and Monsa 2013) considered the future of car sharing in a global context. They cite Frost and Sullivan's (2013) expectation that traditional car sharing will reach about three million members with 70,000 vehicles globally, and is expected to increase nine-fold, reaching about 26.2 million members by 2020. They note that the emerging European P2P (peer to peer) car sharing market, which had 13 operators in 2010, witnessed almost 85-90% growth in one year with 24 operators in 2011. However the studies underlying these predictions were exclusively undertaken in large cities Including Paris, Berlin, Munich, London, Manchester, Birmingham, and Edinburgh. Interestingly findings included that for car sharing to appeal strongly it has to co-exist with the availability of other effective public transportation options. This type of attractive co-existence is much more difficult to achieve in sparse rural contexts.

While negative attitudes to the bus are often cited as a reason for continued high levels of car use, the evidence does not necessarily support this. Data mapped from the National Travel Survey 2012 (see Figures 3 and 4 below) shows that the attitudes of bus users and non users follow a broadly similar pattern, albeit on somewhat different trajectories. Neither is a negative image of the bus the prime reason cited for not using this mode. It is viewed as simply 'easier and quicker' to use the car.

Figure 3: National Travel Survey 2012 – Attitudes to Bus Travel

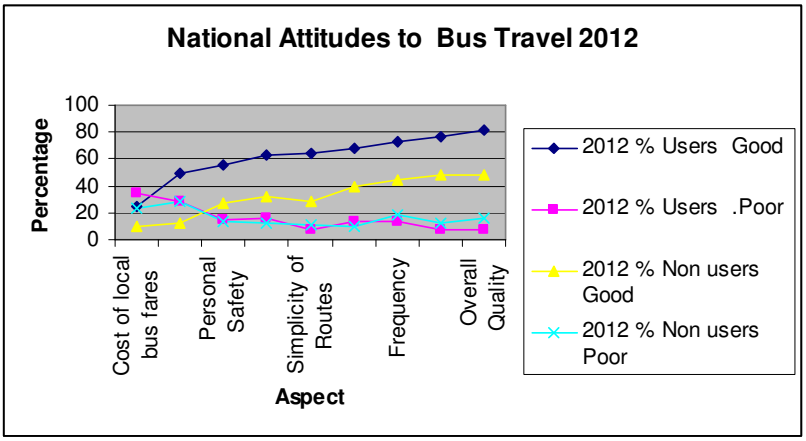
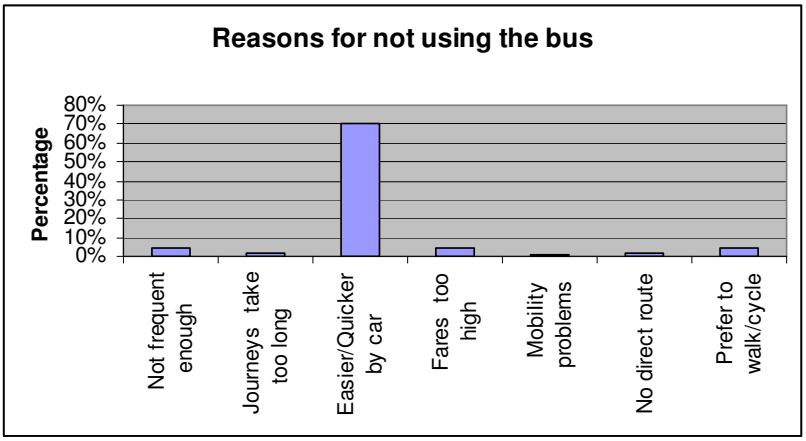


Figure 4: National Travel Survey 2012 – Reasons for not using the Bus



THE ART OF THE POSSIBLE

The blunt fact remains that, as the RAC Foundation's 2009 report concludes, in the past 20 years a consistently high number of people, 80-90%, have said they would find it very difficult to adapt to not having a car. It is valuable to explore the RAC Foundation's analysis of the key reasons behind this situation.

> "Currently, national and local policy measures to reduce car use do not fully consider the impacts they might have on people's lifestyles and livelihoods, especially for those with limited travel alternatives. The empirical evidence relating to the economic and social consequences of significantly reducing people's car use and the wider costs of such an adjustment is limited. There are a few experimental studies suggesting that in the short term people absorb such costs, but in the medium term some groups may experience economic and social hardships. We do not know what the knock-on effects of reduced ability to travel might have on the wider economy and society as a whole, as this is largely not considered by the literature. Some useful research has been undertaken in other disciplines about the wider costs of adjustment to economic shocks, which may have lessons that could

> usefully be applied to the transport field. Our focus groups demonstrated that many people have already adjusted their car use and the way they drive in response to recent economic pressures and environmental concerns. However, most people cannot envisage a future without their cars and most would go to considerable lengths to maintain their ownership and use, although many said they would make more use of public transport". (Lucas, K and Jones, P, 2009, p17)

If we set this analysis against the current position of the UK bus sector, it becomes evident that bus networks in rural England are unlikely to be able to deliver the incentives necessary to turn the final statement in the passage quoted above ("would make more use of public transport") into a concrete decision to end car ownership and rely on the public transport network for their travel needs. The following quotes underline the challenge the industry currently faces:

> "The benefits of the bus are indisputable. However, the bus sector faces its "greatest financial challenge for a generation". Buses have been more adversely affected by cuts to Government spending than other modes of transport. The adverse implications of reduced Government support for buses are very serious. 11% of bus commuters have been forced to turn down a job because of lack of frequency or availability of a bus service in the last year……. Two key issues going forward are the prospect of further spending cuts, and the risks associated with the devolution of transport funding without ring-fencing". (Greener Journeys, Bus Policy: a five point plan for growth, 2012, p21)

> "The picture that emerges this year is of continued cuts to funding and services in many parts of the country with 41% of local authorities making cuts. This is on top of the big cuts in funding and services that we reported in 2011. Last year's cuts were severe with one in five council supported services either withdrawn completely or cut back. The total estimate for cuts in 2011/12 was £36m. This year, the combined total of cuts identified is £18m." (Campaign for Better Transport, Press Release, December 2012)

In 2011/12 bus mileage on supported services in England outside London fell by 9 per cent on previous year (Department for Transport, 2012). Current Government proposals for changes to the way in which Bus Service Operator's Grant (BSOG) is delivered could mean that BSOG for supported services would, under current proposals be paid to councils as a capped grant in proportion to their share of the England-wide tendered mileage. It is unclear if the capped grant will rise in future to cover increases in fuel and running costs. Clearly, in rural areas it is much more likely that a route will be provided under contract to the local authority, and the impact of any cuts may be harder.

Because fuel consumption is generally lower on rural services and therefore BSOG rates per mile have been lower than for operators in mainly urban areas, operators running services in rural areas may derive some benefit (if this is passed on by local authorities). However larger bus operators run many

urban as well as rural services and any gains may well be offset or outweighed by a reduction in BSOG available to cover the (rising) costs of urban operation.
The capped grant will also be for local authorities to spend as they wish, although the Department for Transport has indicated that for at least a transitional period this should be ring-fenced for bus services. If not paid to operators in future this could lead to rural bus services becoming more operationally marginal (profit-wise) for operators, who may be forced to give notice on contracts. Development of this nature could severely destabilise rural bus networks, with the possibility of knock on effects such as the loss of some commercial journeys.

Rural operators also tend to have a high percentage of concessionary fares, and there are ongoing concerns that the Department for Transport's current reimbursement formula means that funding (for Transport Concession Authorities) is falling while (due to the popularity and success of the scheme) costs are rising; threatening the ability of authorities to support other socially necessary services. The matter is a complex one, but the growing disparity between funding and the cost of the scheme has been described as a potential 'time-bomb.' (PTEG 2012)

The East Yorkshire Motor Services bus network has over 40% of total passengers as concessions, and on some rural routes this can be as high as 99%. These routes are often at best financially marginal and a combination of increased running costs, reduced concessionary reimbursement, and any loss of BSOG has the potential to make them commercially unviable. Any significant cuts to rural bus networks are likely to hit the old and young the hardest.

Remodelling of rural bus networks may enable better use of resources, and mitigate some of the pressures detailed above. However it is unlikely to increase their overall spatial or social reach. Beyond short-term (e.g. Local Sustainable Transport Fund) funding there is little resource available to develop new or innovative services, and other funding streams focus on those most in need of services and support (e.g. BIG Reaching Communities funding for community transport). In the circumstances targeting services on those most isolated and in need has to be a priority, and there is evidence to show that this approach can succeed and reduce subsidy costs.

With a few exceptions, large-scale Shared Taxi schemes in the UK have not been successful. Enoch et al. (2004) reported on unsuccessful schemes in Blackpool, Swindon and Ipswich, and at Marylebone and Kings Cross stations in London. In 2008, the issue was explored by the Commission for Integrated Transport (CfIT, 2008), who identified a number of successful examples. However these were primarily targeted schemes which aimed to address social exclusion issues for particular groups, notably the elderly or those living in remote areas, with high levels of use typically reported for shopping and personal business. Wiltshire's Connect2 scheme was notable, given its scale (25,000 passengers per year), and its integration of taxi provision with other forms of public transport. Other examples included Devon Fare Car (operating in 11 communities in Devon, with 17,000 trips per year).

These schemes bear considerable resemblance (with the exception of membership requirement) to a Section 19 community transport operated fixed destination demand responsive service and are much smaller in scale and scope than major European shared taxi operations such as Treintaxi in the Netherlands. Clearly community transport has the potential to fill gaps and expand to reach more of the most isolated and vulnerable – but may be unrealistic to expect that it can encourage substantial modal switch, beyond the impact of any new and well supported Section 22 Community Bus routes.

ALTERNATIVE APPROACHES TO CAR USE

As discussed above, while new approaches to accessing cars are being developed, the models are mainly urban-based and require substantial critical mass to succeed. Increased fuel costs may explain why weekly car mileage averages have reduced though car *ownership* is rising, and they may also explain increases in car sharing. They have not however, led to increased bus patronage (outside London). During the fortnight of 'Liftshare Week' 2012 5,590 people sent a 'request to share' message - 50% up on 2011. 'Liftshare' has over 550,000 members in the UK. 'Rideshare' has 1.5 million members across Western Europe. Peer-to-peer car rental schemes are now established in the UK, although they are unlikely to have much presence in rural areas.

Although significant, increases in car sharing need to be put into perspective. While the Yorkshire and Humber Regional Rural Car Share Feasibility Study (2010) found that 18,000 people across the region were members of local formal car sharing schemes, it also noted that only 17% of these were actively sharing and a further 8% had shared, but then ceased to do so. The study found that 75% of registered members had never actually used the scheme. Summarising the study and setting it in a broader context Parker, Walker and Johnson (2011) concluded that this was not surprising, given the way in which car sharing schemes rely on geographical and temporally common matches, and that citation of increasing membership numbers is therefore only a partial barometer of success.

Interestingly however, the Yorkshire and Humber Study found high levels of informal car sharing in a selection of four contrasting rural areas. A survey with 405 full telephone interviews across these areas found that 68.2% of respondents had informally offered or received lifts on a regular basis. Only 0.5% of these were car scheme members. The ratio of informal to formal sharers detected in the study areas was therefore 135:1. This mirrors recent national research by the Department for Transport (2008 cited in Parker, Walker and Johnson, 2011, p 182) which indicated that 61% of people had participated in some form of car sharing in the month prior to being interviewed, yet only 1% were members of a formal car sharing scheme. There is therefore evidence to show that the reach of informal car sharing 'networks' is potentially much greater than formal networks in rural contexts. This conclusion is emphasized by the mapping of membership and travel paths (of formal) and travel paths of (informal) sharers in the Yorkshire and Humber Region (Figures 5 and 6).

Figure 5: Distribution and travel paths of formal car scheme members in Yorkshire and the Humber (2010).

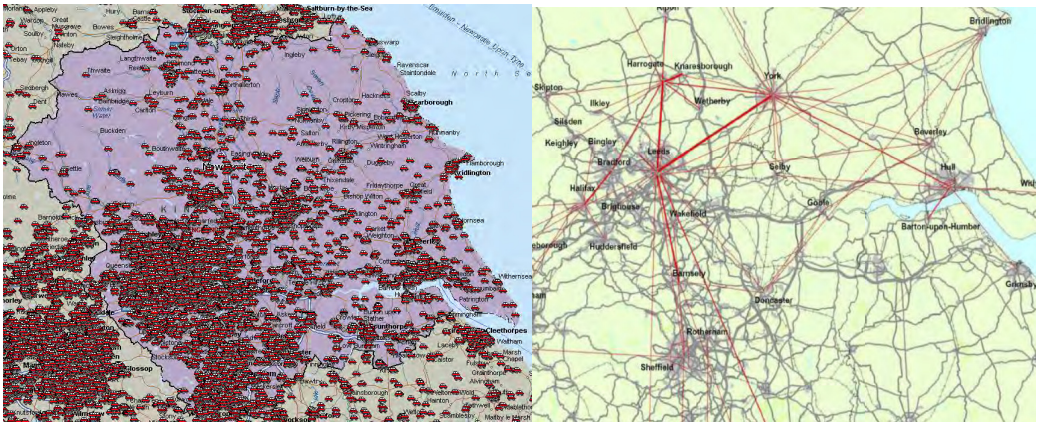
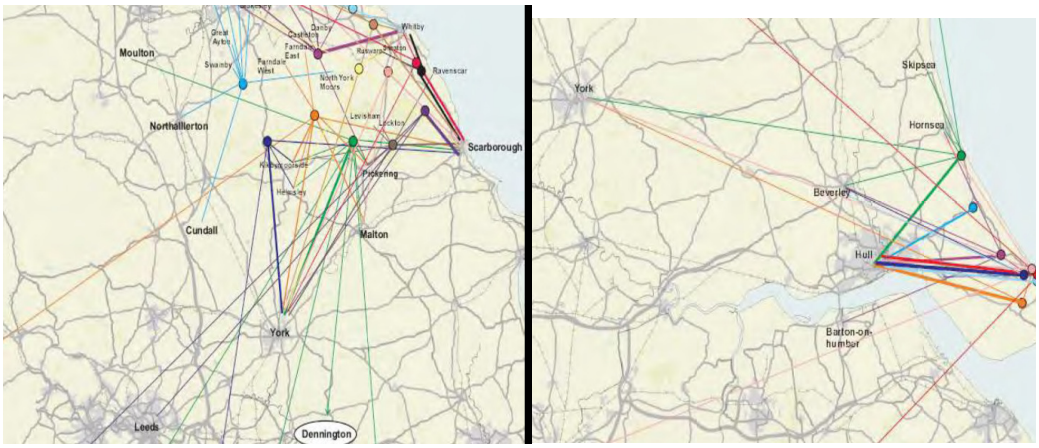


Figure 6: Distribution and travel paths of informal car sharers in two rural areas of Yorkshire and the Humber (2010): North Yorkshire Moors and South Eastern Holderness.



ASSESSING THE POTENTIAL OF COMMUNITY TRANSPORT (CT) TO EXTEND RURAL TRANSPORT REACH

In a written statement to Parliament (Supporting Community Transport, 2011) Norman Baker MP, parliamentary Under Secretary of State for Transport announced £10 million of new funding to be distributed to rural local transport authorities to kick-start the development of community transport services in their area. He stressed that this additional funding complemented the Government's recently announced Local Sustainable Transport Fund, which aimed at encouraging sustainable transport solutions, including community transport, which could create economic growth and cut carbon.

He stressed that public transport remains a key element in the sustainability and independence of rural communities, providing a lifeline to those without access to a car. However he also stated

> "…..where commercial bus services are not viable, community transport can play a valuable role in preventing isolation. I therefore strongly encourage local authorities to work in partnership with operators and local communities to examine how more flexible services might

be provided. Services such as dial-a-ride can, in some areas, be more efficient, effective and sustainable in the long term. I know that there are already many good examples of community groups and local authorities working together to deliver innovative solutions to rural transport needs and this is something we wish to see increased". (Norman Baker MP, 9th March 2011)

Baker's announcement also included support for the Community Transport Association (CTA) to work with local authorities to provide advice and consultancy. The CTA's State of the Sector Report for England (2012) suggested that a number of factors pointed to evidence of growth in the CT sector. These included a rise in the number of community bus permits issued, and a 16% increase in the amount of BSOG claimed by CT organisations between 2009/10 and 2010/11.

The report noted that nationally the CT sector's current passenger base undertakes around 15 million+ passenger journeys per year. Clearly it is difficult to undertake detailed analysis of the *composition* of that customer base at national level, given that there are at least 2,000 CT organisations operating across England (nearly one-third being based in rural areas). However the State of the Sector report does analyse the median number of passenger trips per organisation per year in both urban and rural areas, although this is not correlated to vehicle capacity (i.e. passenger trips per vehicle per year).

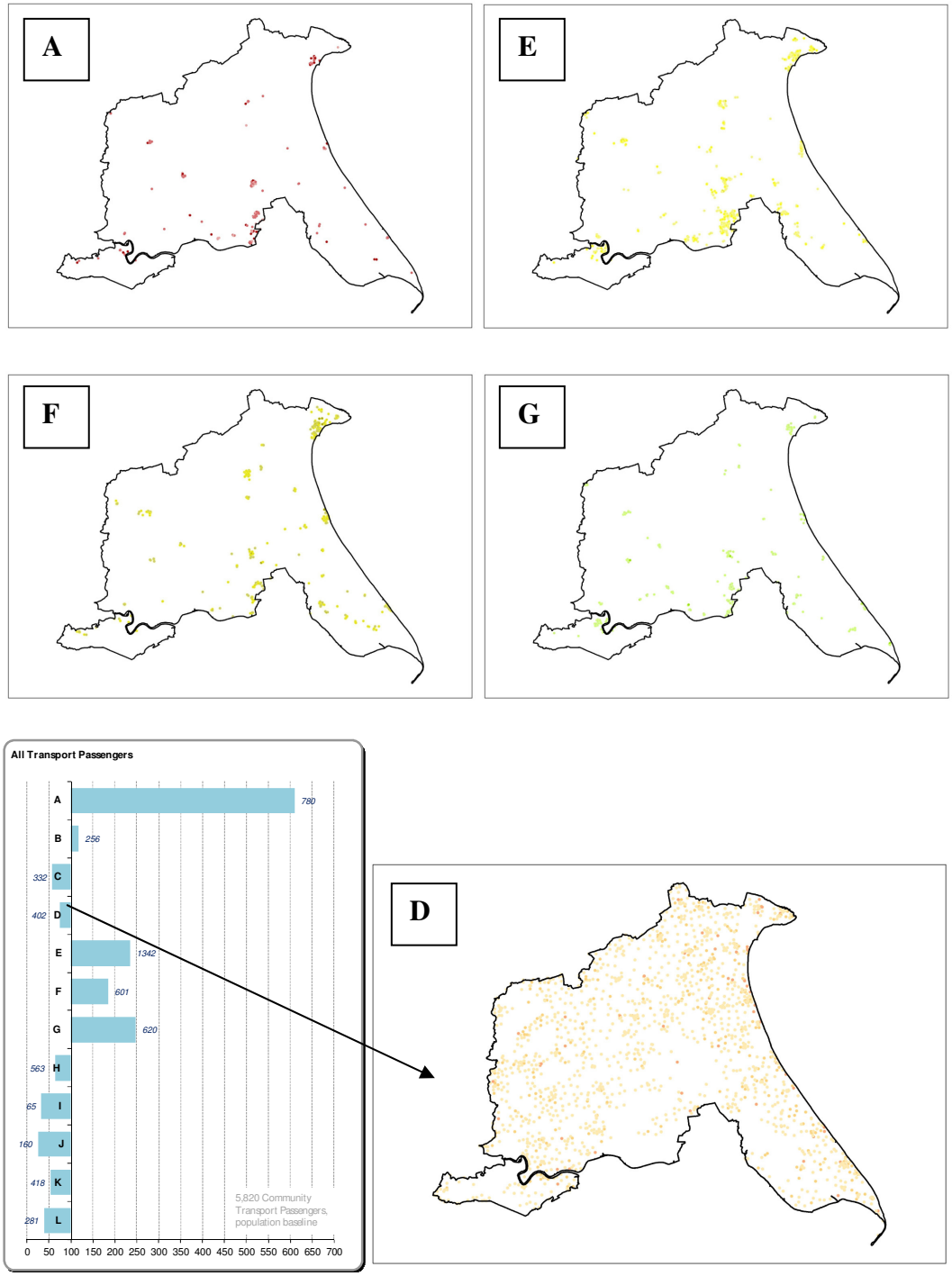
In the East Riding of Yorkshire, the Community Transport Operator's Network has commissioned substantial investigation of who currently uses their services on an authority-wide basis. This work was undertaken on behalf of the Network by East Riding of Yorkshire Council's Data Observatory. The Community Transport – Customer Insight project (2013) used locally moderated Experian MOSAIC classification tools to analyse the local sector's current membership base.

The project identified 4 key MOSAIC groups (A, E, F, G) as by far the main CT customers in the East Riding, from 12 'locally bespoke' MOSAIC clusters in all. It identified a similar customer profile across all operators and areas. The key segments are as follows:

- A's are older, lone pensioners with low incomes and often in poor health.
- E's are better off, early retirees, active and reasonably healthy.
- F's are older workers and pensioners, low-mid income, living (often alone) in semi-rural or coastal locations.
- G's are similar, but with lower income.

It is interesting to compare the geographical spread of these four segments (see Figure 7 below) with that of segment D (older people, living in detached properties in villages and rural areas, with varying income levels, for whom cars are important).

Figure 7: Distribution of A, E, F, G and D Mosaic population segments in the East Riding of Yorkshire



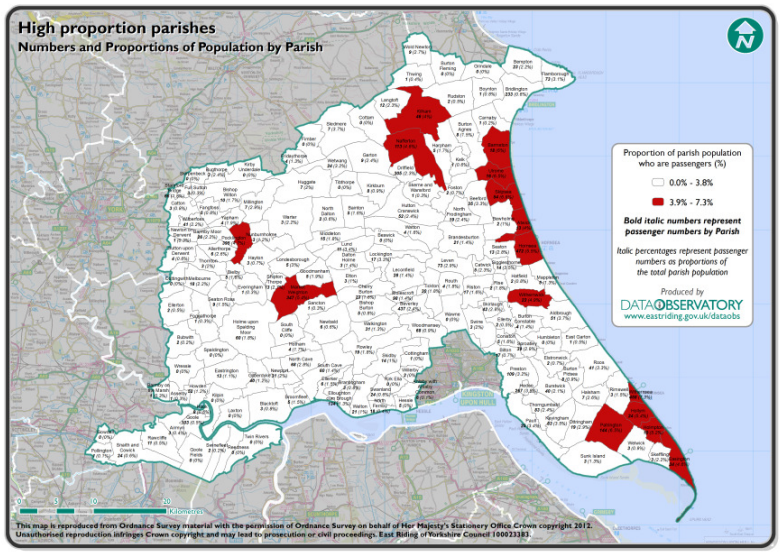
The index above indicates likelihood against a baseline. A's are around 6 times more likely than the baseline to be CT passengers, E's, F's and G's around twice as likely. Membership for D's is below the baseline. D's however show the greatest spatial spread of distribution across the East Riding of any segment. Were they to use public and/or community transport on a regular basis, the reach of rural transport in the East Riding, and the resultant improvement in general *connectivity* that this would deliver, could be significant.

Evidence from focus group sessions carried out in rural Oxfordshire by the RAC Foundation (2009) may offer an explanation of why the car remains of such great importance to this (older) group. Participants cited the personal freedom and independence offered by the car as psychologically of great importance to them.

> 'You can't rely on other people, if you want to shop at our age, you don't want to walk miles to it. In the country, you really do need a vehicle, a lot more than in the town.'
>
> 'I don't see myself living in a world where I have no car … I think the problem is at the back of my mind I've got this psychological barrier that says I cannot abandon ship.'
>
> 'You can get to town alright, but Sainsbury's is a mile and a half that way, Tesco's is a mile and half the other way. There's no supermarket in the centre of town.' (In Lucas and Jones, 2009, pp 95-99)

The East Riding study found that the four Community Transport projects in the area catered for the needs of at least one resident in 16% of all households in the four main categories of customers identified. This amounted to just under 6,000 households. However some towns and villages had much higher concentrations of customers. Around 35% of 'eligible' households were catered for in the coastal town of Withernsea in southern Holderness, and in the village of Kilham, on the northern fringes of the Yorkshire Wolds this figure rose to almost 50% see Figure 8).

Figure 8: East Riding Parishes with high proportions of A, E, F, and G MOSAIC segments.



The draft East Riding of Yorkshire Community Transport Strategy (2013) uses this analysis, combined with an analysis of growth in the CT sector over the past five years to consider what can be realistically achieved in respect of supporting further growth in the CT sector in the short to medium term. The draft strategy accepts that without further detailed qualitative survey work it is

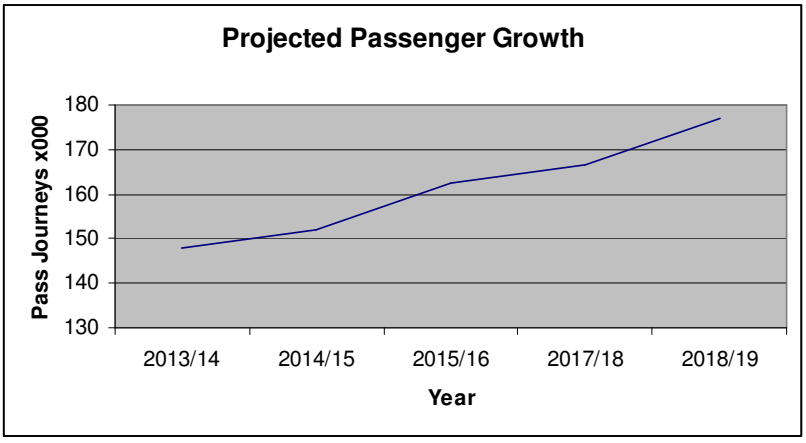
difficult to accurately assess the total number of A, E, F and G households likely to have members who would benefit from using CT services. However given that growth in the sector's membership has stemmed largely from these groups, and the membership trend continues to be upward, the strategy considers that substantial latent demand still exists in this 'core market'.

The draft strategy makes a very conservative estimate of this latent demand and assumes that around a fifth (20%) of total 'core market' households would be highly likely to have a member who would regularly use Community Transport. This equates to 7,400 households, or approximately an additional 1500 passengers/members that the CT sector should actively try to recruit (excluding ongoing churn within the current passenger base). Using this information and operational statistics for the past five years the strategy analyses how much of this market can be served by even better utilisation of existing vehicle resources, and how much additional vehicle capacity is likely to be needed to meet the target.

It concludes that annual 2% improvements in capacity utilisation over a five year period would deliver an additional 4,000 passenger journeys and equate to recruitment of around 160 new members per year (800 new members after five years of continuous improvement). After five years vehicles would then be delivering on average 6,400 journeys per year. However this leaves a shortfall of 700 new members needed to reach the 20% target. To meet this, an additional three vehicles (above and beyond replacement requirements) would be needed.

The graph (Figure 9 below) shows projected impact of achieving this goal. Funding would be required for five replacement and 3 new vehicles, increasing the overall CT fleet size to 28 vehicles by 2018. The curve looks impressive, but in terms of real added 'reach' it needs to be set within the context of both the strategy's conservative estimate of latent demand, and Office of National Statistics predictions for growth in the East Riding's (ageing) population. 20.9% of the East Riding's population is aged over 65 years, compared to 16.5% nationally, and this age band is forecast to experience high growth with a 40.4% increase predicted up to 2030 (East Riding of Yorkshire Council and East Riding of Yorkshire Rural Partnership 2013).

Figure 9: Projected CT passenger growth in the East Riding of Yorkshire (source - draft East Riding of Yorkshire Community Transport Strategy)



CASE STUDIES

KILHAM, EAST RIDING OF YORKSHIRE

Kilham is a village with a population of just over 1,000, situated five miles north east of the market town of Driffield. It is in an area ranked amongst the 25% most deprived areas in the country as measured against access to housing and services. 12% of its population is employed in land-based activities, and 25% are employed in public/health/education. The village has 53 households who do not own a car. It has two shops, two pubs, a Post Office and a Village Hall. The nearest supermarket is 6m, rail station 4m, and GP surgery 3m. 3 people (0.7%) travel to work by bus, 71% by car or motorcycle, 8.3% walk or cycle, 20% work from home (East Riding of Yorkshire Council, 2013).

The village has a local bus service (see the timetable in Figure 10 below) operating on only three days per week and is served by two demand responsive CT services (MiBUS and MEDiBUS). 91 of its households are classified as being in MOSAIC segments A, E, F, or G, and there are 46 current Community Transport members/passengers, around 4% of the total population and 50% of 'core market' households. The East Riding Car Share Scheme has no registered car share members in Kilham offering lifts.

Figure 10; Public and Community Transport services in Kilham, East Riding of Yorkshire

124 Kilham- Driffield- Bridlington Wed, Thurs, Sat (nBH)	
Driffield	09.05
Kilham	09.20
Bridlington	10.07
Kilham	10.55
Driffield	11.09
Driffield	12.30
Kilham	12.45
Bridlington	12.56
Kilham	14.15
Driffield	14.29
CT (MiBUS) (pre booked)	Tuesdays & Thursdays to Driffield
CT MEDiBUS (pre booked)	DRT to Hospitals/Healthcare

The limitations of the local (supported) bus service are obvious, but when running it carries an average of around 20 passengers per day. It is clearly a very necessary social service. Maintaining it, rather than extending its reach, more likely to be a local priority. Existing demand responsive CT services (MiBUS and MEDiBUS) are already operating at near maximum capacity, and CT already serves around 50% of core market households in the village – well above the East Riding average of 16%.

DEVON FARE CAR

The UK Commission for Integrated Transport (CfiT 2008) set out to investigate whether it might be possible to improve public transport services in rural areas. In particular they were interested in how taxis and other non-conventional transport could be used to improve connectivity while still achieving value for money. Their study included analysis of a number of examples from the UK and mainland Europe, of which Devon Fare Car was one.

Fare car is a timetabled shared taxi scheme with a number of services running within defined rural areas. In this respect it differs from a demand-responsive S19 Community Transport operation chiefly in the nature of vehicles utilised, the operational framework, and its availability (without membership) to the general public. In all other respects it provides a broadly similar service to a S19 CT operated DRT service such as MiBUS in East Yorkshire, with comparable annual passenger loadings. For instance Fare Car service number 10:

Fare Car 10: Operates Thursdays and Saturdays (except Public Holidays)

Provides 2 return journeys per week from a rural area including the villages of:
• Alswear • Ash Mill • Bish Mill • Bishop's Nympton • Chittlehamholt
• Clapworthy • East Anstey • King's Nympton • Knowstone • Mariansleigh • Meshaw • Molland • Romansleigh • Rose Ash • Satterleigh • Twitchen • Warkleigh • West Anstey

Arrives South Molton 1000
Departs from South Molton 1410

Fares: £3.50 per single journey. Concessionary passes cannot be used.

DALES INTEGRATED TRANSPORT ALLIANCE (DITA)

The Yorkshire Dales Integrated Transport Alliance (DITA) is a relatively new initiative developed by METRO (West Yorkshire PTE), North Yorkshire County Council and the Yorkshire Dales National Park Authority (YDNPA). It supports the establishment of volunteer-staffed local transport Hubs, which act as information points about local transport options for residents and visitors.

The 8 local Hubs also provide:

- Assistance for residents/visitors with online bookings.
- Literature point & other local information.
- Links to local Tourist Information Centres, Yorkshire Dales National Park Authority (YDNPA) and libraries.

Additionally they act as focal points for promoting use of existing public and community transport services, and facilitating new service development. To this end they:

- Gather information on services and work closely with local operators.
- Promote public transport for local events.
- Work with community groups and Parish Councils etc to help start up new S19 and 22 community bus routes (e.g. Dentdale).

METRO have supported the initiative with pump-priming funding from the Local Sustainable Transport Fund (the Dales are a popular leisure destination for Yorkshire residents). Town and Parish Councils and YDNPA have also provided funding. However the Hubs are expected to be sustainable after their first year of operation, so the project will test 'localism' in action in a rural transport context.

Despite their remoteness, the status of the Yorkshire Dales as a National Park and prime tourism destination means that it may be possible to develop leisure based transport services which also meet community needs (and vice-versa). This obviously increases critical mass, and the area's National Park status may also give greater force to greener travel/carbon reduction messages. The psychological distance involved in the visitor's mental construal of the benefits of travel by car and bus may narrow somewhat when the journey is for leisure and pleasure, rather than a trip to work or shop. The bus may even be seen to offer distinct advantages, such as the ability to undertake a linear walk, or enjoy a few drinks with lunch at a local inn.

The initiative bears some resemblances to the DfT's Sustainable Travel Towns initiative, considerably scaled down to adapt to a sparse rural context. However many remoter services running or planned are essentially community transport operations. For instance the Hawes based 'Little White Bus' works partly to a contracted, scheduled route to meet trains at the local (Garsdale) station, and also provides a demand responsive service between scheduled journeys. It employs 2 part-time drivers, and has 12 volunteer drivers on call. Along with the day to day scheduled and demand responsive services, the project also runs various trips for days out, and people can hire the bus (with driver) for community outings. New section 19 and 22 community bus services are also being planned in Dentdale. It will be interesting to see how this initiative progresses, and it is to be hoped that the volunteer hubs and new services can become sustainable as planned.

CONCLUSION

The Commission for Integrated Transport concluded that scale of operation was a critical factor for success of flexible taxi-based transport schemes (CfiT 2009). Scale (in mainland European examples) was seen to lead to reduced subsidy costs, with savings being generated through centralised booking and administration systems and through critical mass (passenger numbers). TreinTaxi, serving areas around 38 rail stations in the Netherlands, provided over 2million passenger trips per annum. CfiT coined the term 'TaxiPlus' to describe operations of this nature. It stopped short of classifying any of the UK examples studied (such as Devon Fare Car) in this category, and stressing that although there were no 'insurmountable regulatory or legislative obstacles to the development of TaxiPlus schemes in the UK, the legislative framework

is complicated." (CfiT, A new Approach to Rural Public Transport, 2008, Chapter 8 p1)

CfiT recommended that central government should consider funding a large-scale TaxiPlus demonstration pilot scheme, at the level of an entire (unitary) county in the UK. This idea sparked a brief campaign by CfiT and the Commission for Rural Communities to fund a pilot scheme. However CfiT was abolished by government in October 2010, and no funding for such an initiative has been forthcoming.

In the absence of any such major experiment to promote a general improvement in rural transport connectivity, changing the rural car owner's mind map will remain challenging, and maintaining and extending targeted services for those without access to a car, or with other disadvantages, must remain a priority. Rising fuel and other vehicle running costs may have some impact.on car use, but the evidence tends to suggest that people will simply adapt and travel less, rather than switch to the limitations of the alternative modes currently available to them.

European experience suggests that without centralised (perhaps regionalised) planning that links them effectively into broader public transport networks and delivers administrative economies of scale, attempts to introduce large-scale on demand rural DRT/TaxiPlus schemes are unlikely to succeed and be cost-effective. It seems highly unlikely that a pilot scheme (almost certainly a necessary first step in the process of developing such provision more generally in the UK) will be considered by government in the current economic climate. However, as a model for improving public transport connectivity in order to better support and facilitate rural economic growth, it is an initiative that Local Enterprise Partnerships should perhaps be investigating.

If this assessment of the current situation seems gloomy, it should be stressed that local action and enthusiasm, combined with technical support from rural transport practitioners, can still achieve positive and sustainable results, even in the current economic and policy climate. Localism offers a real opportunity to engage the wider rural community in 'ownership' and management of a local community bus service, and the potential to develop a new image for the community bus as a key local *asset* for the community as a whole. Similarly there may be opportunities to develop small-scale community based models of alternative car ownership and use in rural areas, and increase *formal* traditional car sharing by building on the evidence presented here of existing informal car-sharing activity. It is to be hoped that the car may gradually, but increasingly, come to be seen as a *community resource* in remoter rural areas.

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