

Preparing for an ageing society: is the built environment fit for the future?

Modalities of Connectivity for Healthy Ageing in the Community'

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bettertogether

Overview

- How special are rural areas in mobility terms?
- How special are the mobility needs of older people?
- Do our neighbourhoods and settlements enable sufficient:
 - access to social, environmental, subsistence needs?
 - active travel for older people?
- How can the planning of the built environment consider the transport necessities for healthy ageing?

Grey & Pleasant Land? Project



new dynamics of ageing
a cross-council research programme

Work Package 3: Travelling Through the Rural Lifecourse



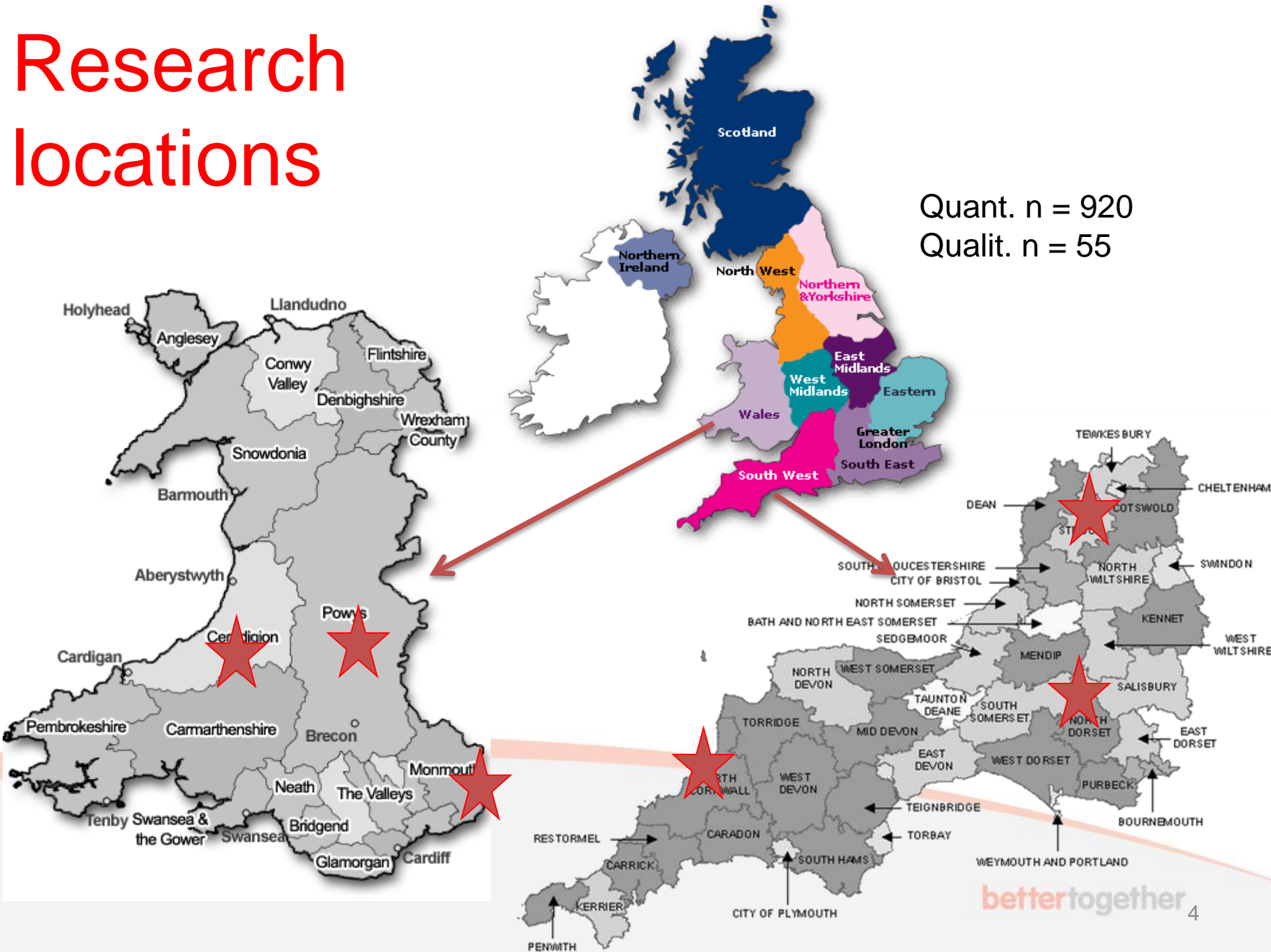
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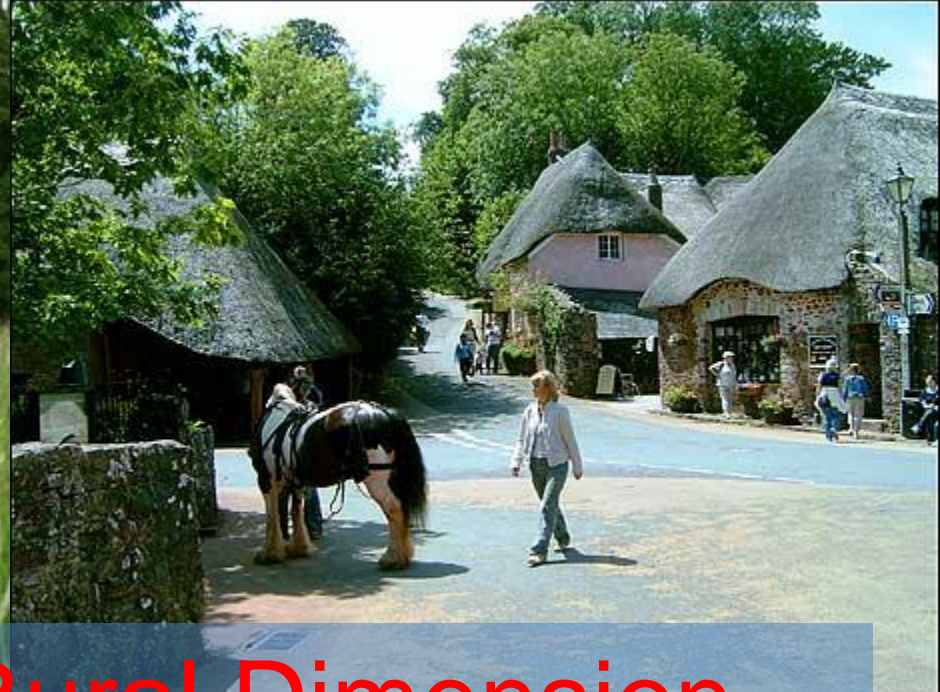


PRIFYSGOL CYMRU ABERTAWE
UNIVERSITY OF WALES SWANSEA

Research locations

Quant. n = 920
Qualit. n = 55





1. Is An Urban/Rural Dimension Important for Ageing and Mobility?





LOUNGE BAR

APRIL
FLUCCO'S KITCHEN
2008 THE NEW BRITANNIA

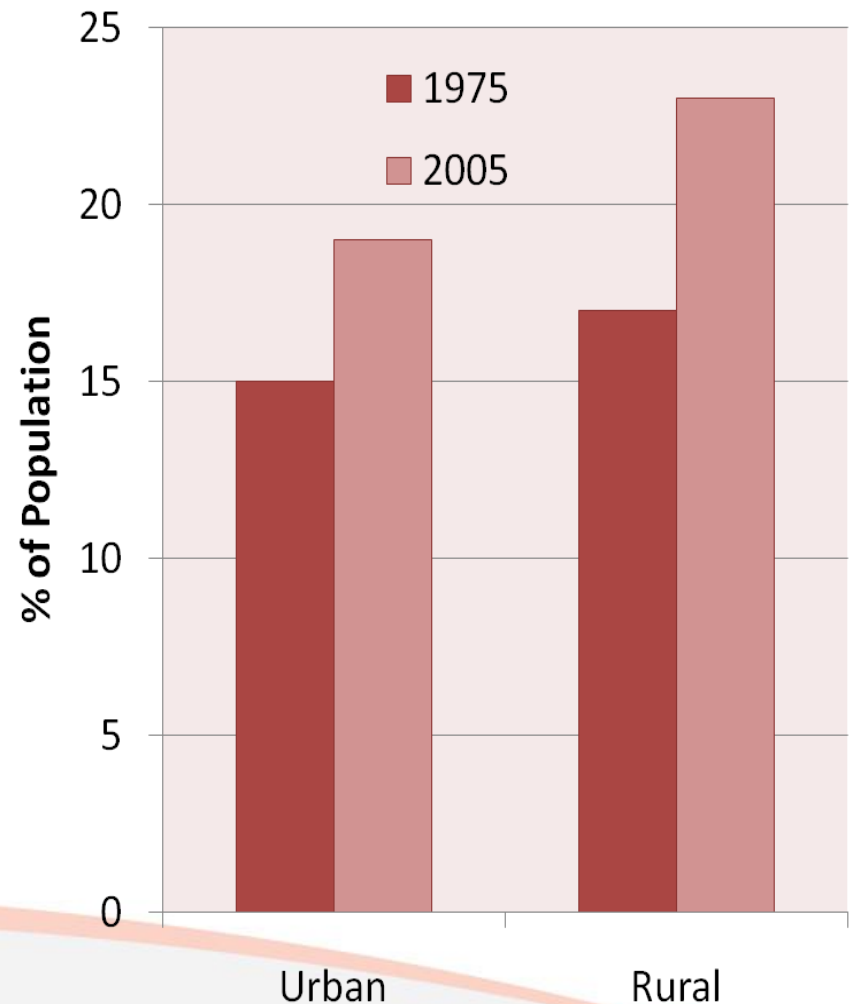
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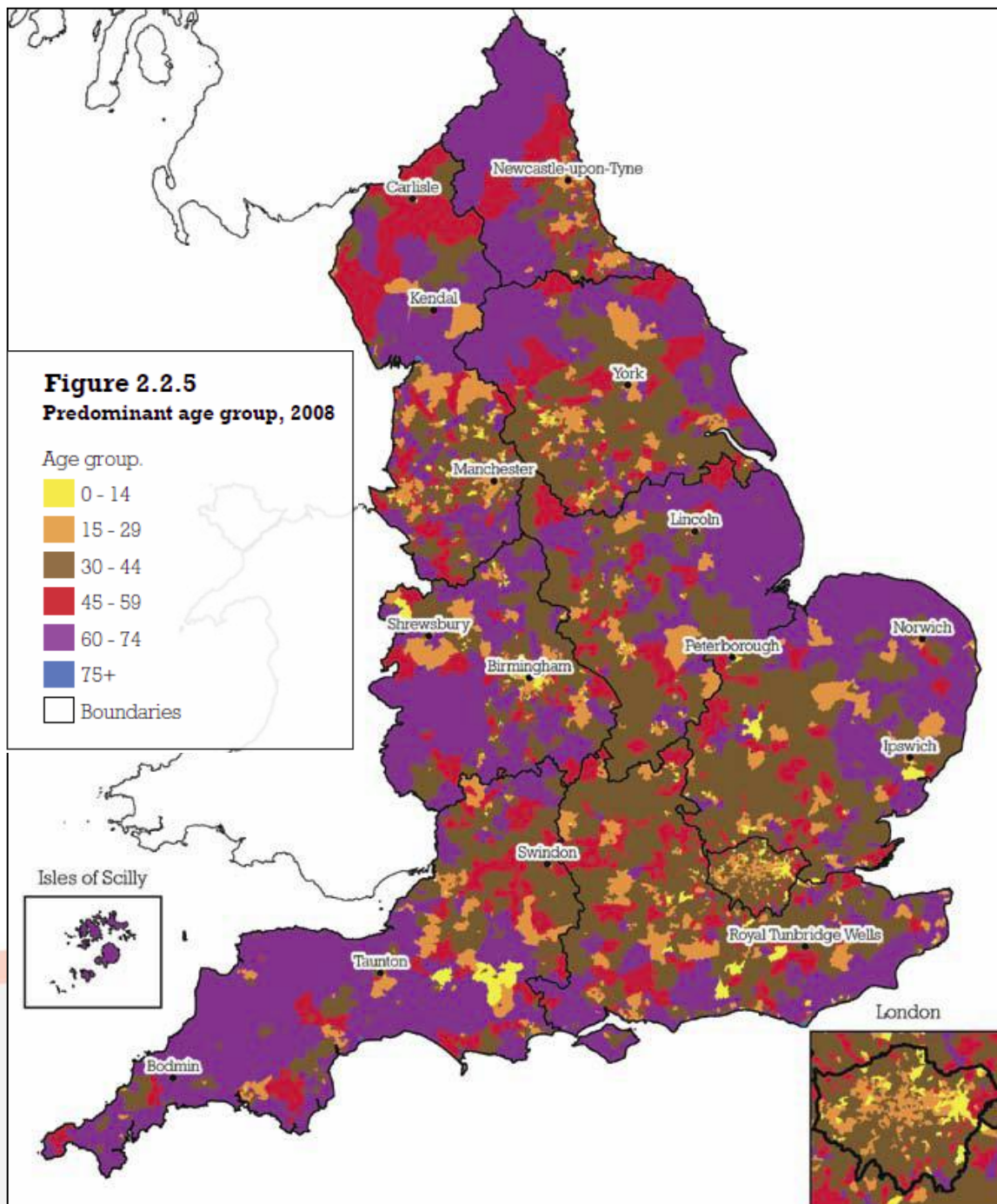
How different are rural areas in transport terms?

- Of interest due to faster ageing
- Half of rural population is in 'small towns'
- Transport problems similar to suburbs
- Many trips with rural origins has urban destinations!



Older People in Developed Nations

Ageing communities in rural England



Commission for Rural communities: State of the Countryside 2010

(Source: ONS mid-2008 population estimates MSOA)

Bus supply does not show clear rural/urban dichotomy

- 96% of all households within '13 minutes walk' of a bus stop with an hourly service
 - 85% within 6 mins
 - Even 69% rural households within 6 mins!
- Vehicles physically accessible by most
- Where stops or vehicles not available or accessible then problematic whether in rural or urban area!

Similarly, other differences generally about extent

- Car dependence
 - For some poor rural households car ownership less discretionary
 - Although nearly a quarter of all households without cars (including rural areas!)
- Road safety a greater problem than road congestion
- May attract people with greater concern for contact with nature

Importance for older citizens to 'get out and about', to see life and nature

- *“It certainly is absolutely vital for my wife and I”.
(Male late 70s)*
- *“Yes I mean there’s no point in living in the country if you don’t enjoy it...” (Male 60s)*
- *“....it is the first time when you are an older person that you have got time to go and see these places”. (Male late 60s)*
- *“I worked for forty odd years, you want to use the next few years for pleasure don’t you”. (Male 60s)*

For example....the sea

- *“....I have a passion for surfing....because that is important to my wellbeing.... If I am down and I go surfing then the world is a lovely place again”.*
(Female 70s)
- *“....I mean what's the point of coming to Cornwall unless you can see the sea? I used to swim a lot and I've been a diver.... so the sea is in my blood”.*
(Male 70s)
- *“I go to Aberystwyth, well at least once a week.... it's just to go by the sea or somewhere like that”.* (Female 70s)

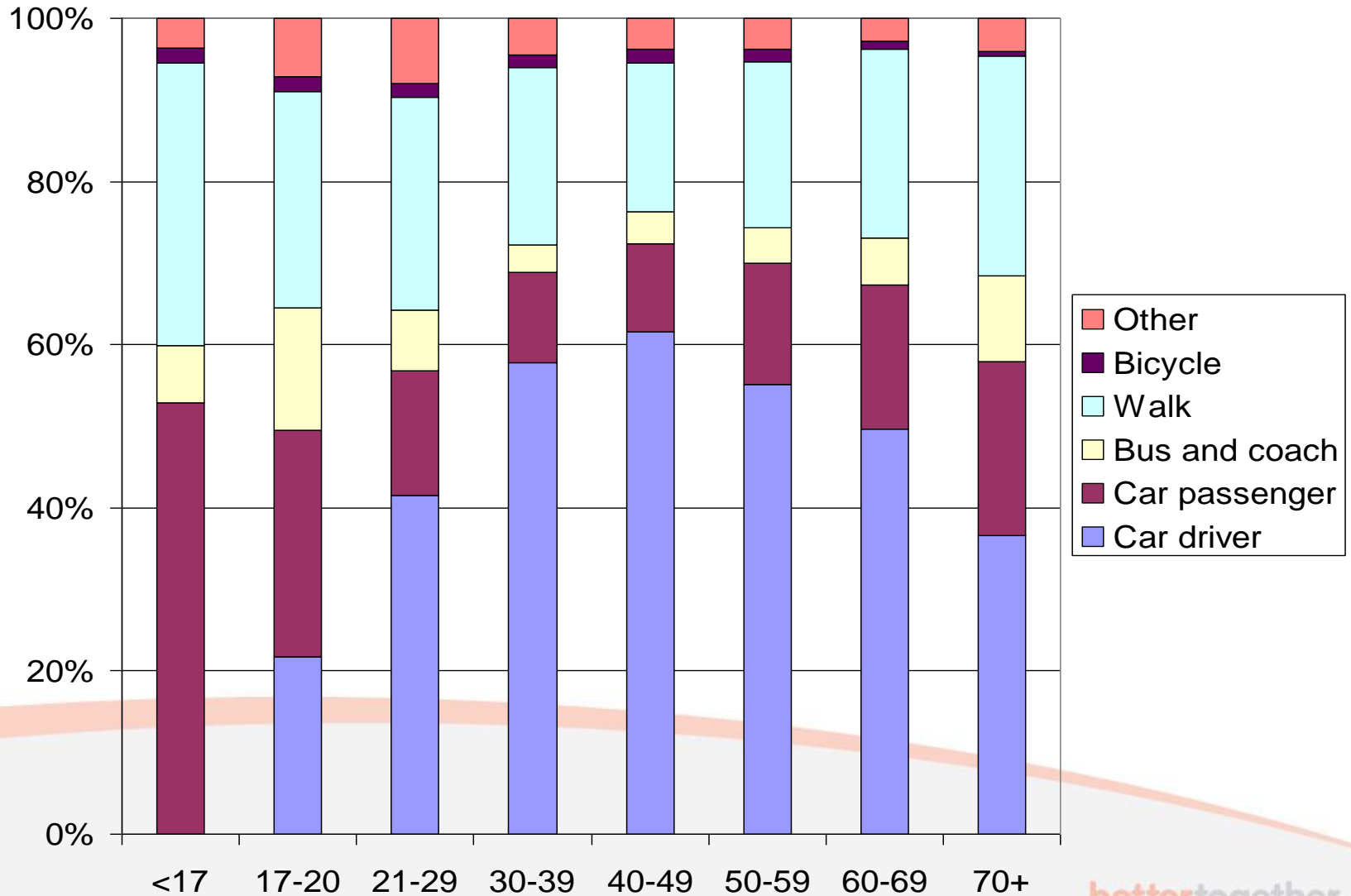




2. How Distinctive is Older People's Mobility?

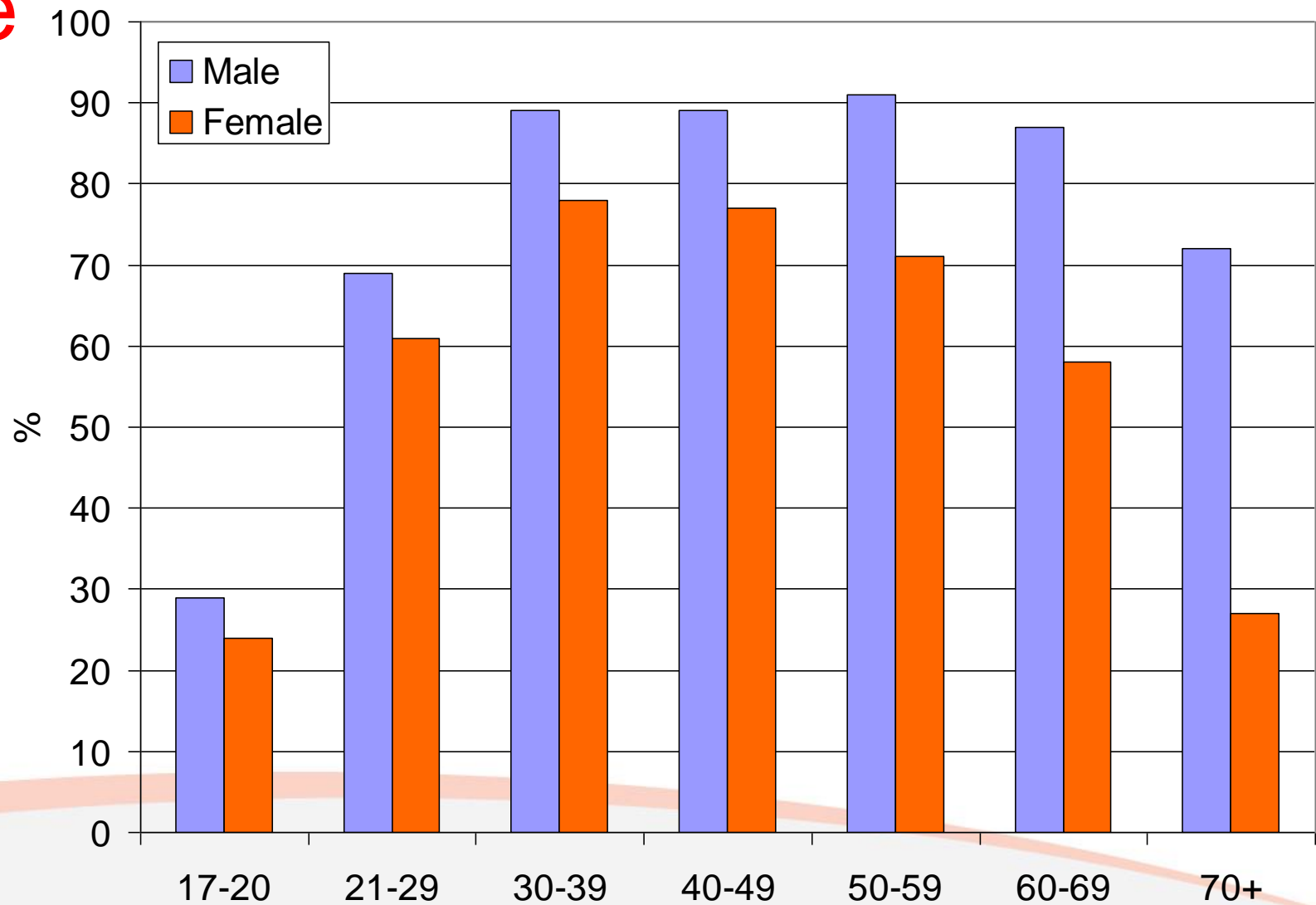


How different are the transport patterns (and needs) of older citizens?

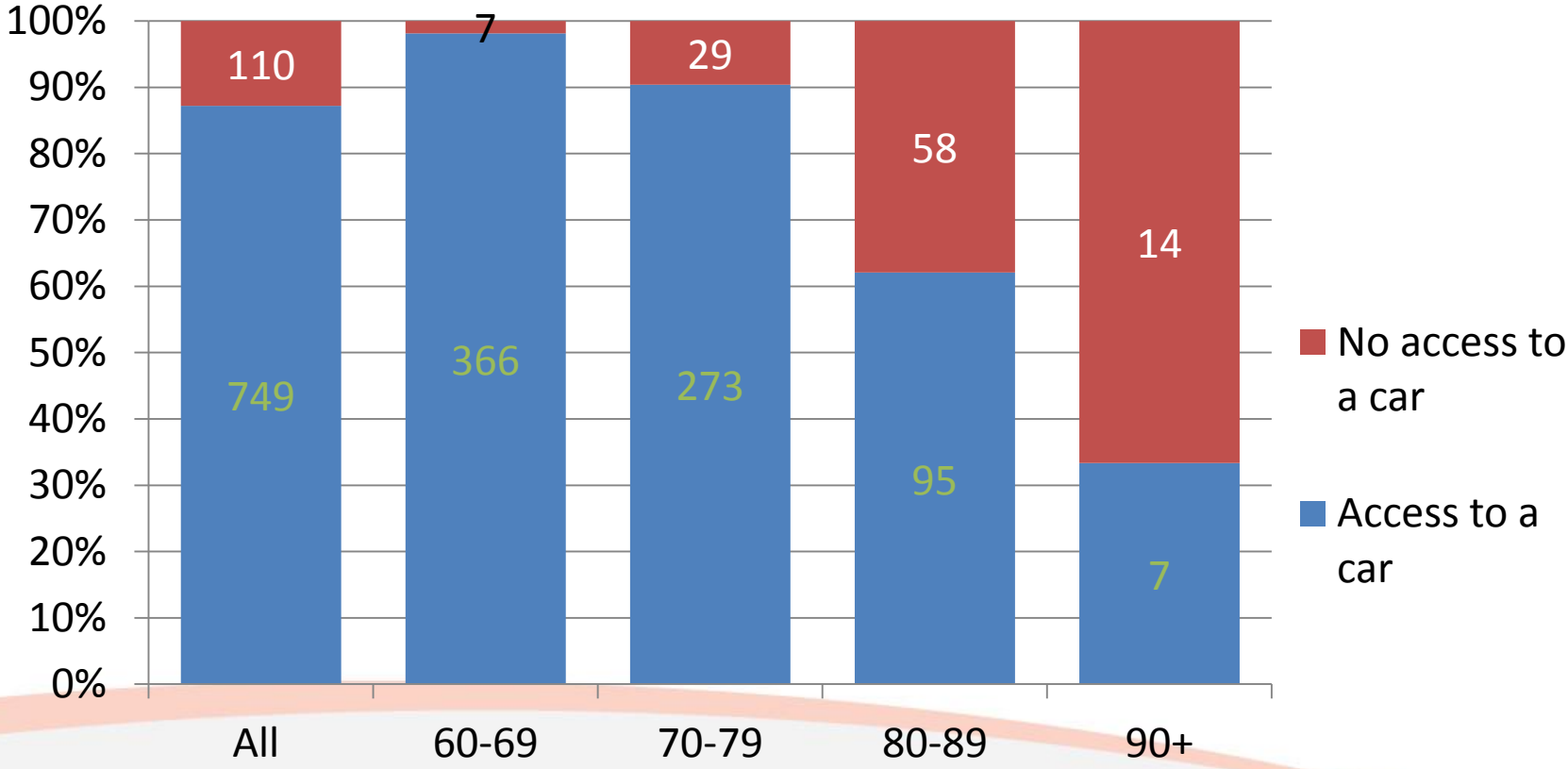


Modal Split for Trips Made by Age Group: UK DfT (2005) Transport Trends 4.4d

UK Licence-holding by over-70s set to rise

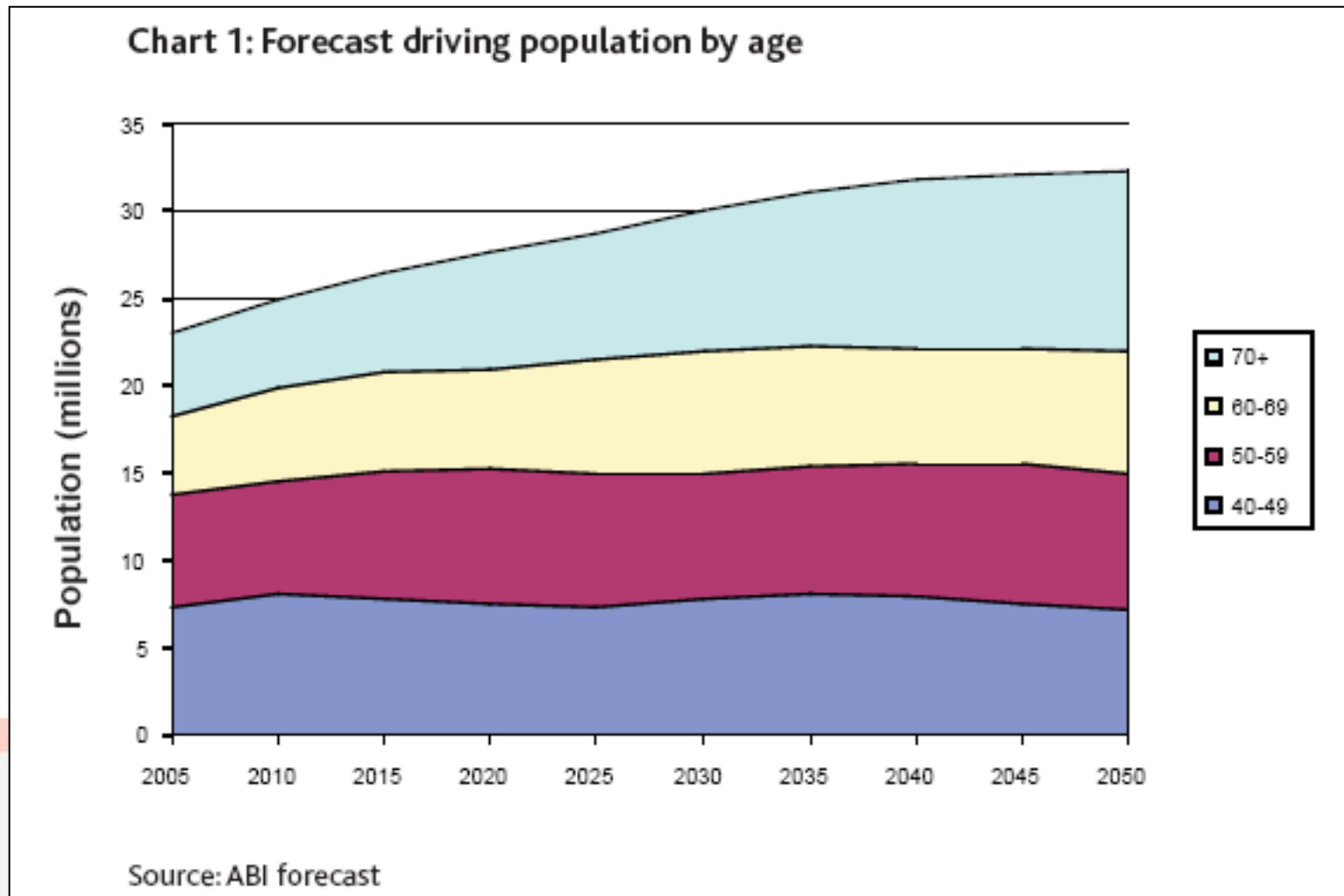


GPL Sample Had Typical Level of Availability: High Except for 80+ Ages



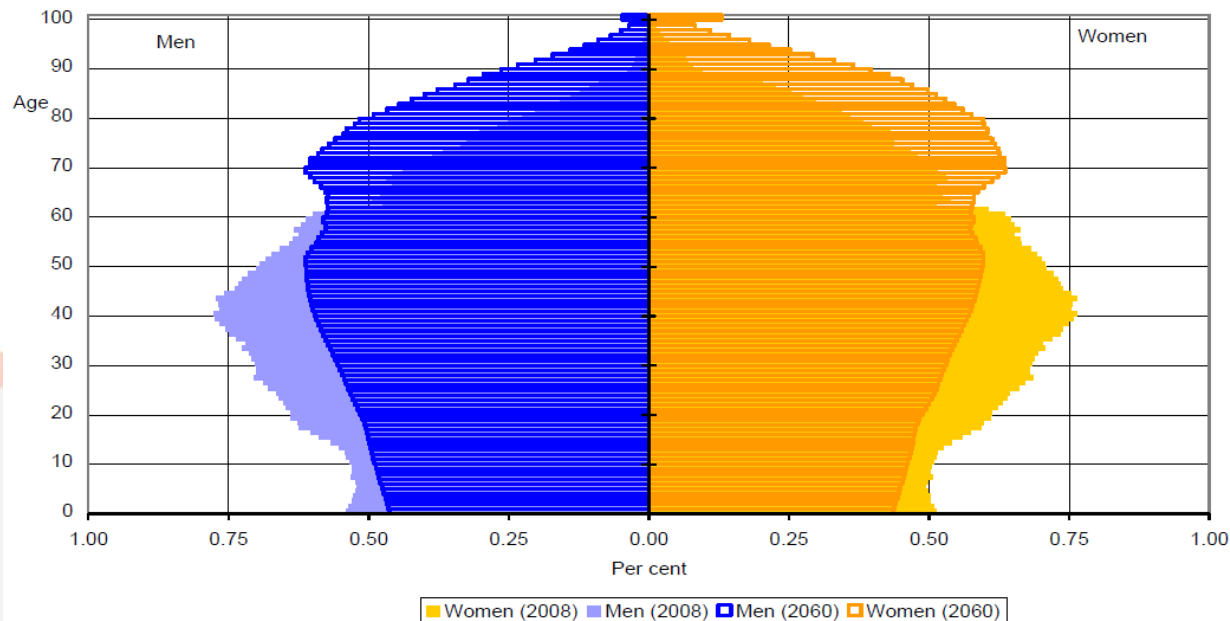
Do you, or does your household own or have the use of a car or other motor vehicle?(n = 859)

Some forecasts suggest doubling of over-70 motorists...



But Future Level of Car Reliance is a Major Unknown

- Licence holding + demographic expansion suggests more older drivers
- Average age for ending driving careers in UK estimated as 72! (Rabbitt et al., 1996)

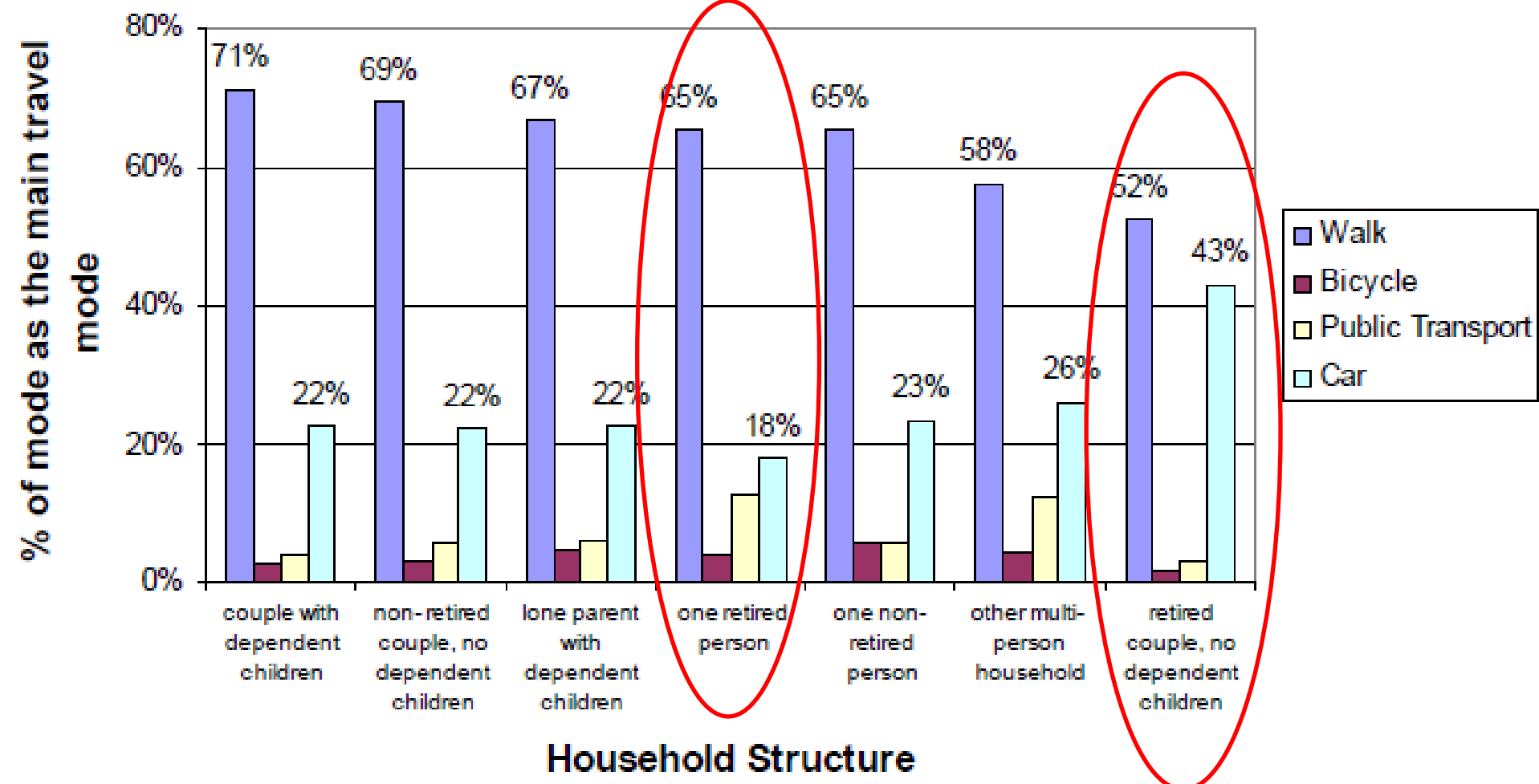


Car Use Limited by Driving Conditions and Use of Car by Others

- “...my husband used the car to go to his meditation group on a Friday night, and it was the night there was a dance club that I really wanted to get to but couldn't.” (Female, Cornwall, aged in 60s)
- “I don't like driving far I'm afraid. I once had a panic attack on a motorway which has worried me ever since. I am happy on minor roads: that's why we don't go far to be honest...” (Female, Monmouthshire, aged in 80s)

One factor likely to be extent of single-person retired households

Mode to reach location 'within same development'





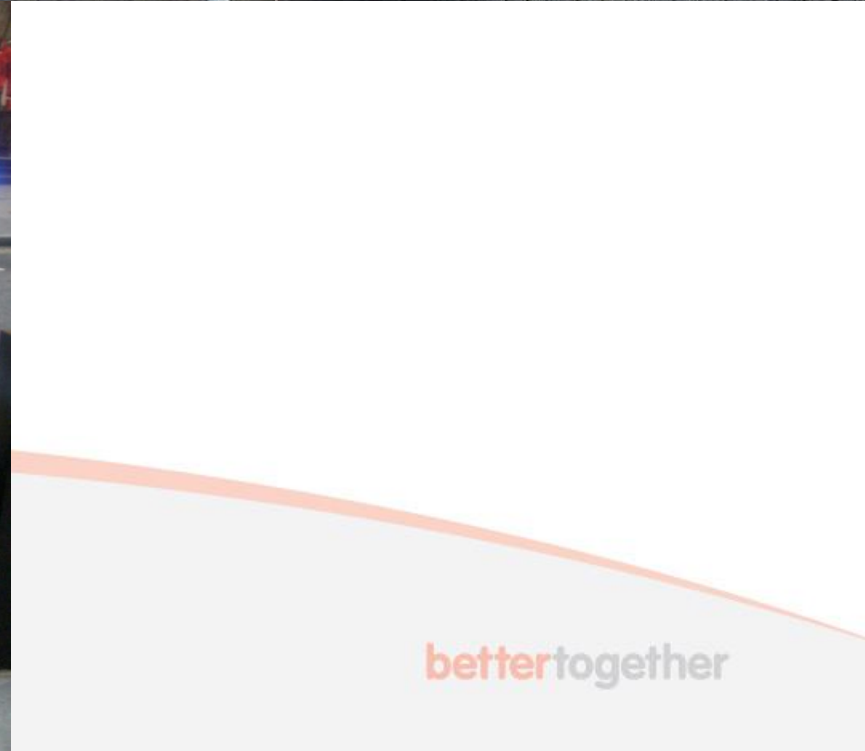
BELLEVUE ROAD

3. Fitness of the Built Environment?

Competition for space...



New trip hazards?



Car-oriented development signals
that car availability is expected



Car-oriented Neighbourhood Design



Cycle and pedestrian planning as an afterthought

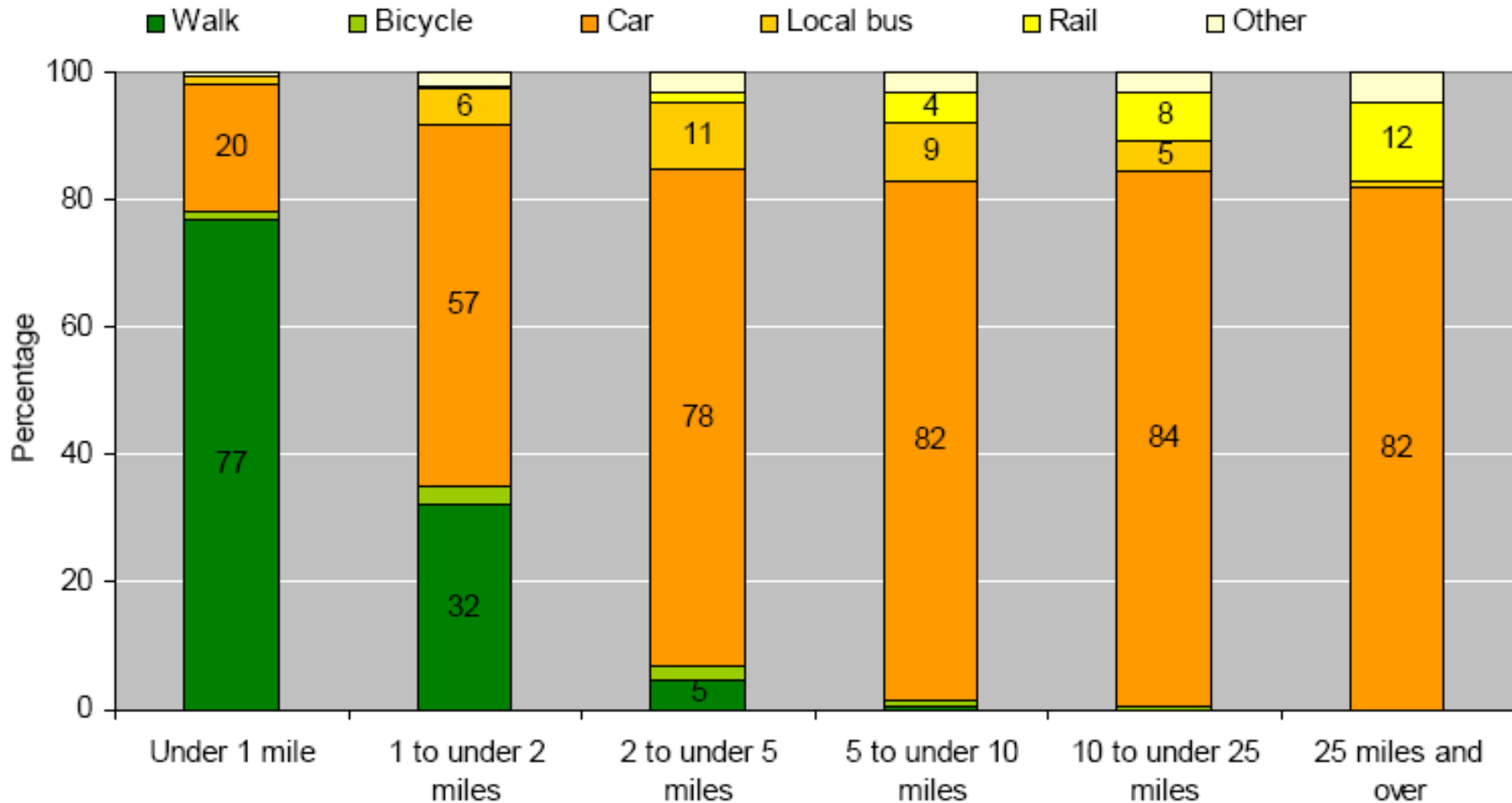


David Owens



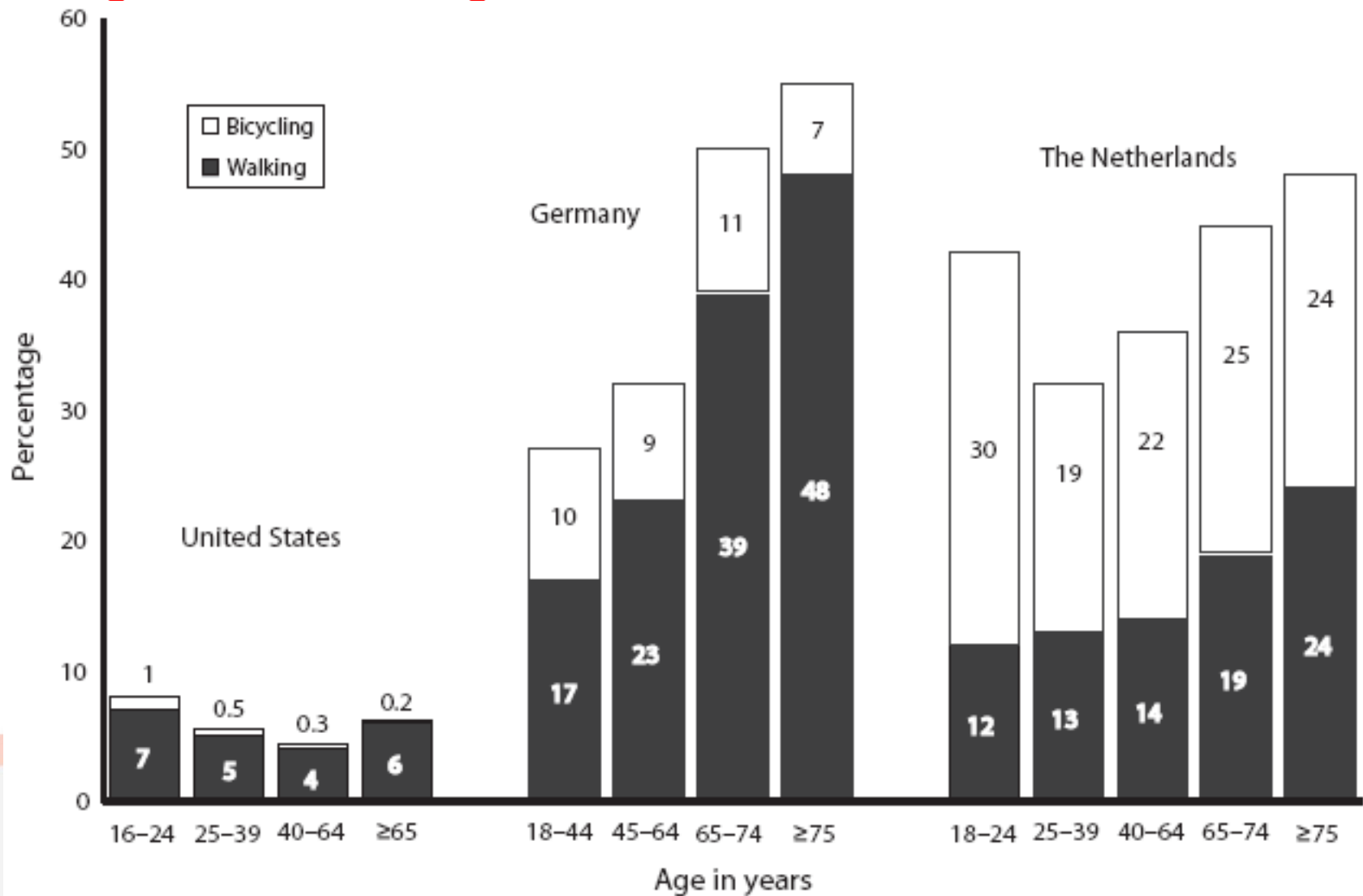
Although Walking Predominates for Short Trips in the UK

Chart 3.2 Trips by length and main mode, 2008



(Source: National Travel Survey 2008)

Urban walking & cycling rates can be highest amongst oldest citizens



Road Safety Concerns Limit Walking and Cycling

- “It’s a shame about the danger of cycling, really. These are narrow roads and they curve all over the place. We’ve still got two bicycles rusting away there” (Male Dorset, aged in 80s)
- “You couldn’t walk, you have got to be very vigilant walking this road because they just come up the road as if they are on a motorway”. (Female 60s)

4. Transport for Connectivity and Healthy Ageing



Individual Benefits of Being Mobile

- Maintenance of physical mobility capacities
- Psychosocial importance of access to nature
- Engagement with community
 - Greater happiness (Putnam 2000; Donovan & Halpern 2002)
 - health, depression, morale and self-esteem (Godfrey et al. 2005)
 - Feeling ‘valued’ and ‘respected’ contributes to good mental health and wellbeing (Lee 2006)
 - role outside the home/family protects against isolation, depression, dementia (McCormick 2009)

Community benefits of connectivity e.g. social capital

Mobility central to the construction and deployment of social capital

“repeated social interactions between individuals and groups”

which will

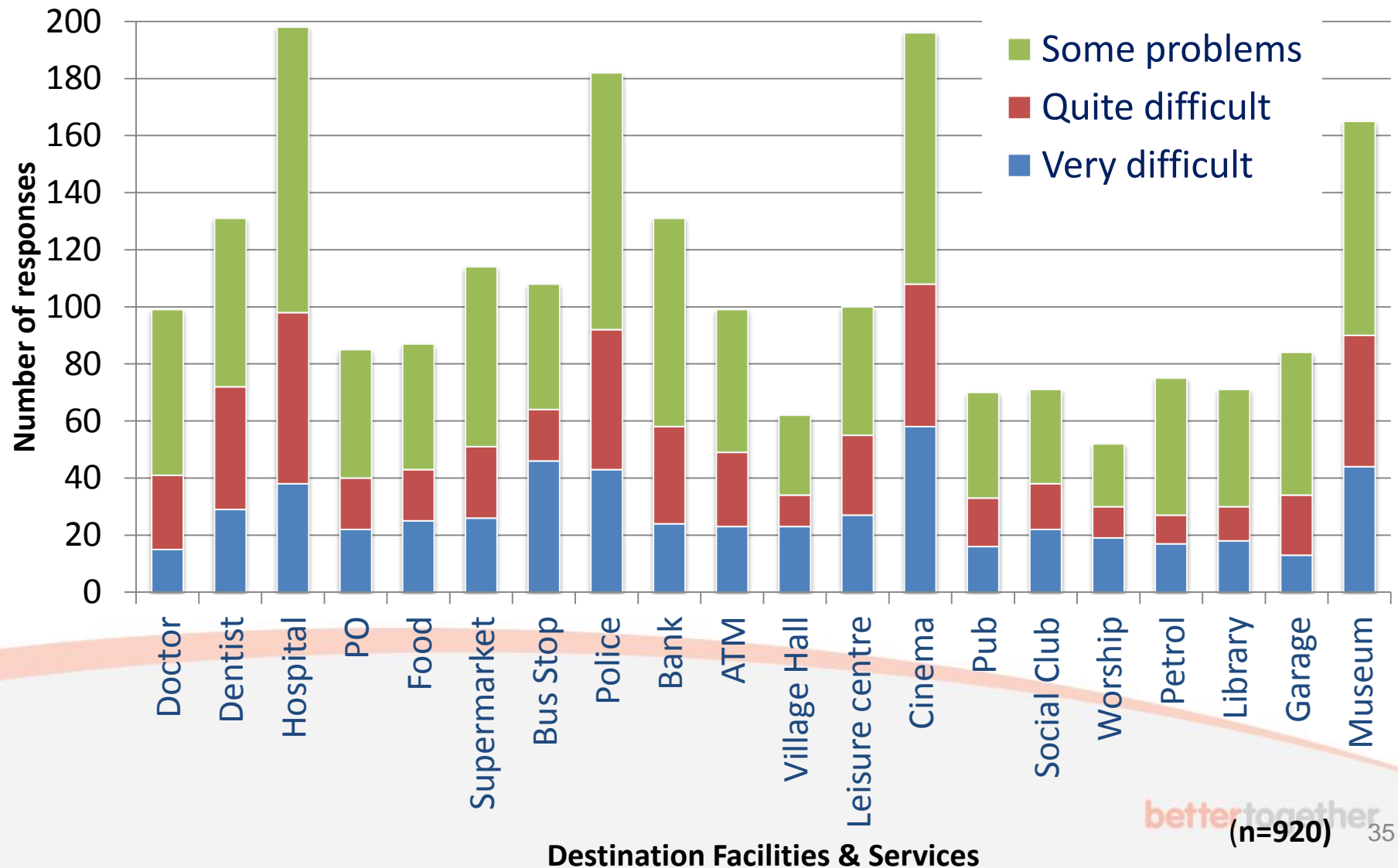
“develop trust, social norms and strengthen co-operation and reciprocity”

(Lee et al. 2005, after Bourdieu and Putnam)

Transport Directly Promotes Connectivity

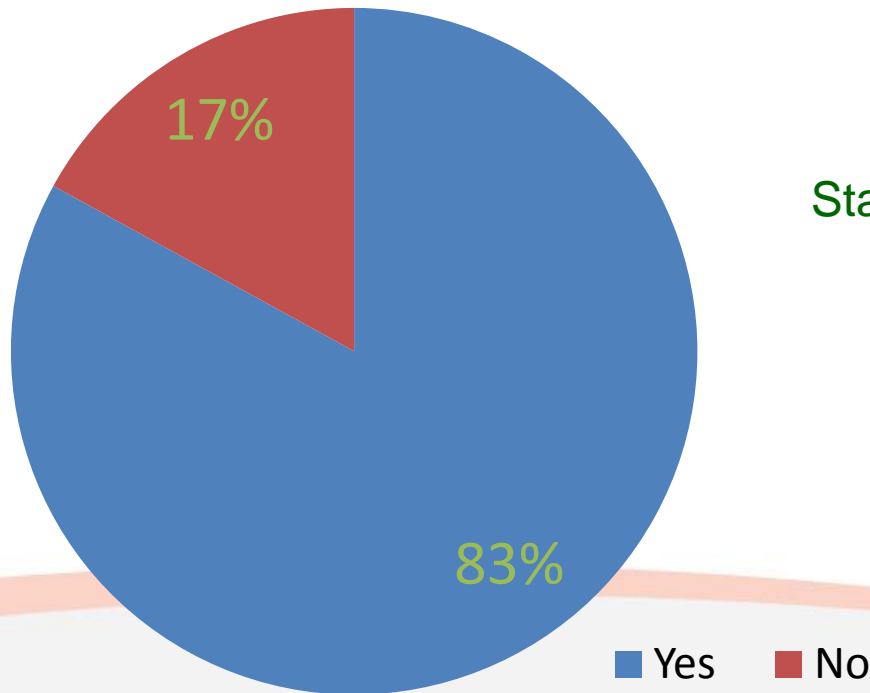
- Walking (and scooter use) important for immersion in the social and natural environments
 - “....most fine days in the evenings I go out on the scooter and go and see what the local farmers are doing”. (Male 70s)
 - “Keeping fit first, fresh air, seeing people, seeing different things, enjoying the flowers at the moment, meeting people on your way”. (Female late 60s)
- Bus use also increases social contacts
 - “I enjoy being on the buses with other people, it’s a social thing... there’s always somebody I know on the buses...whereas driving is a little more enclosed personal thing.” (Female Powys, aged in 70s)

Which activities present the greatest travel problems?



Car Availability and Community Involvement

Are you as involved as you would like to be in your community?

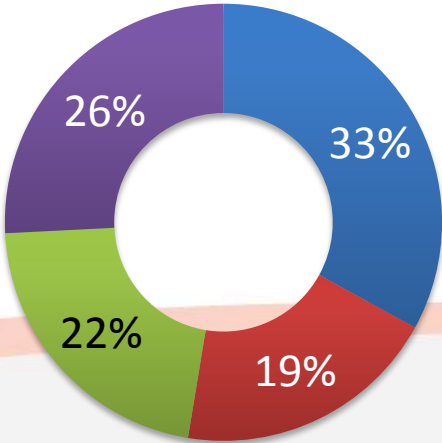


Statistically significant relationship between satisfaction with level of community involvement and car access
(X^2 8.032 df = 1 p < 0.01)

(n = 902)

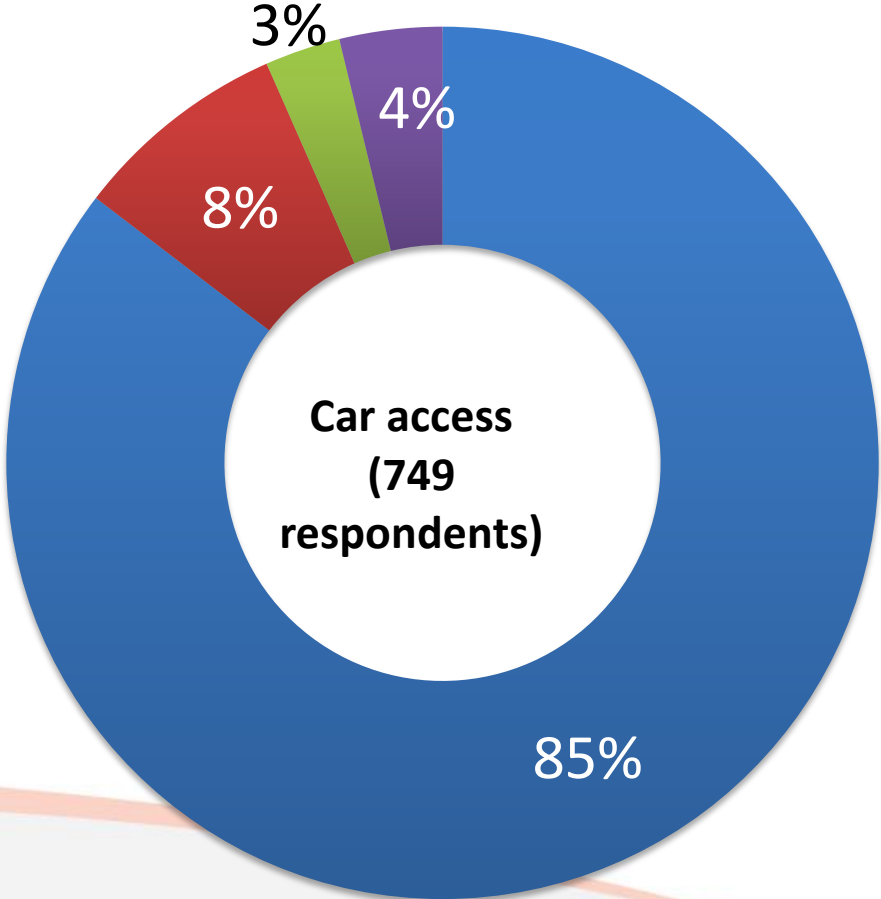
Absence of car access confirmed as a barrier to participation in community activities for a minority

No car access
(110 respondents)



- No limit to participation
- Moderate limit to participation
- Severe limit to participation
- Stops me getting involved

Car access
(749 respondents)



And Maintaining Accessibility by Cars Has High Costs

“...the cost of the car is high because of the petrol prices at the moment. I mean motoring is expensive... we are limited in our income and so there's a limit to how much we can get out and about and go places.”

(Female, Dorset, aged in 70s)

“We're on a grand total of about two hundred pounds a week of which the vehicles take the best part of a hundred and something.”

(Male, Dyfed, aged in 60s)

Oil Price Uncertainty!

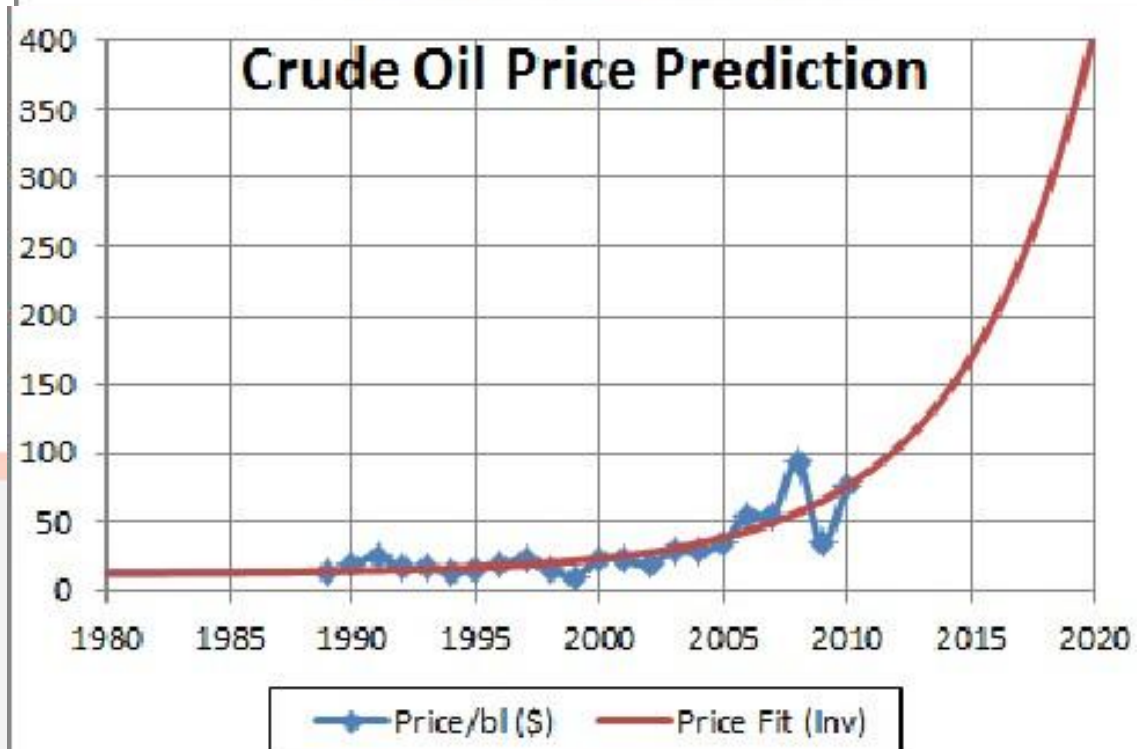
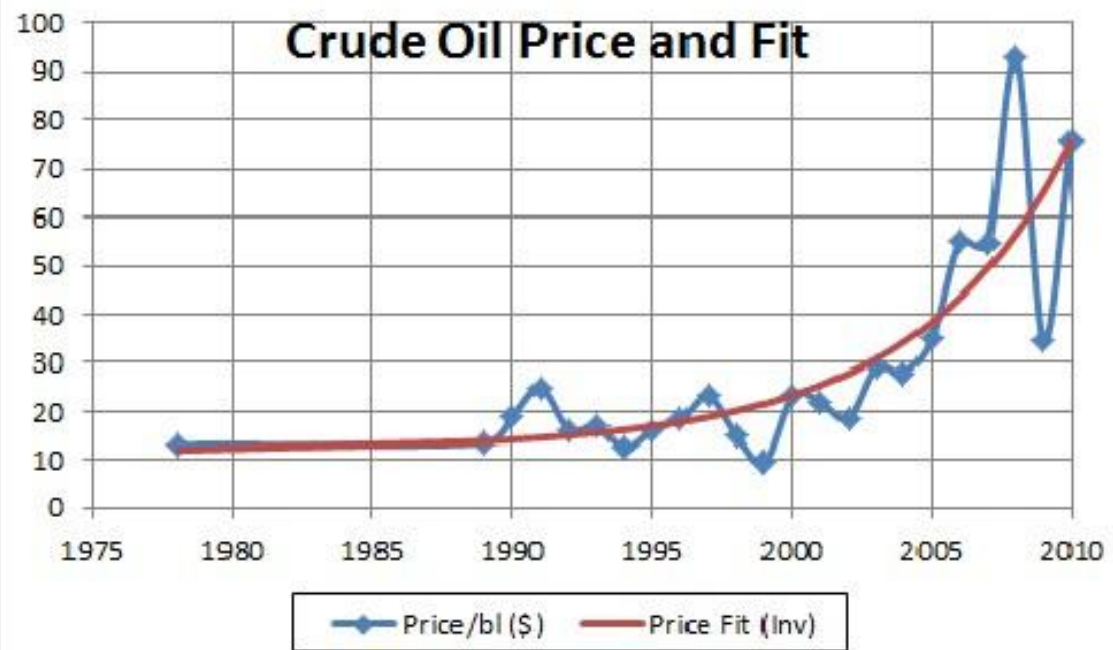
Roper (2011) applied
observed best fit equation:

$$P = 11.4 + (3.82 \times 10^{23}) / Q^{7.39}$$

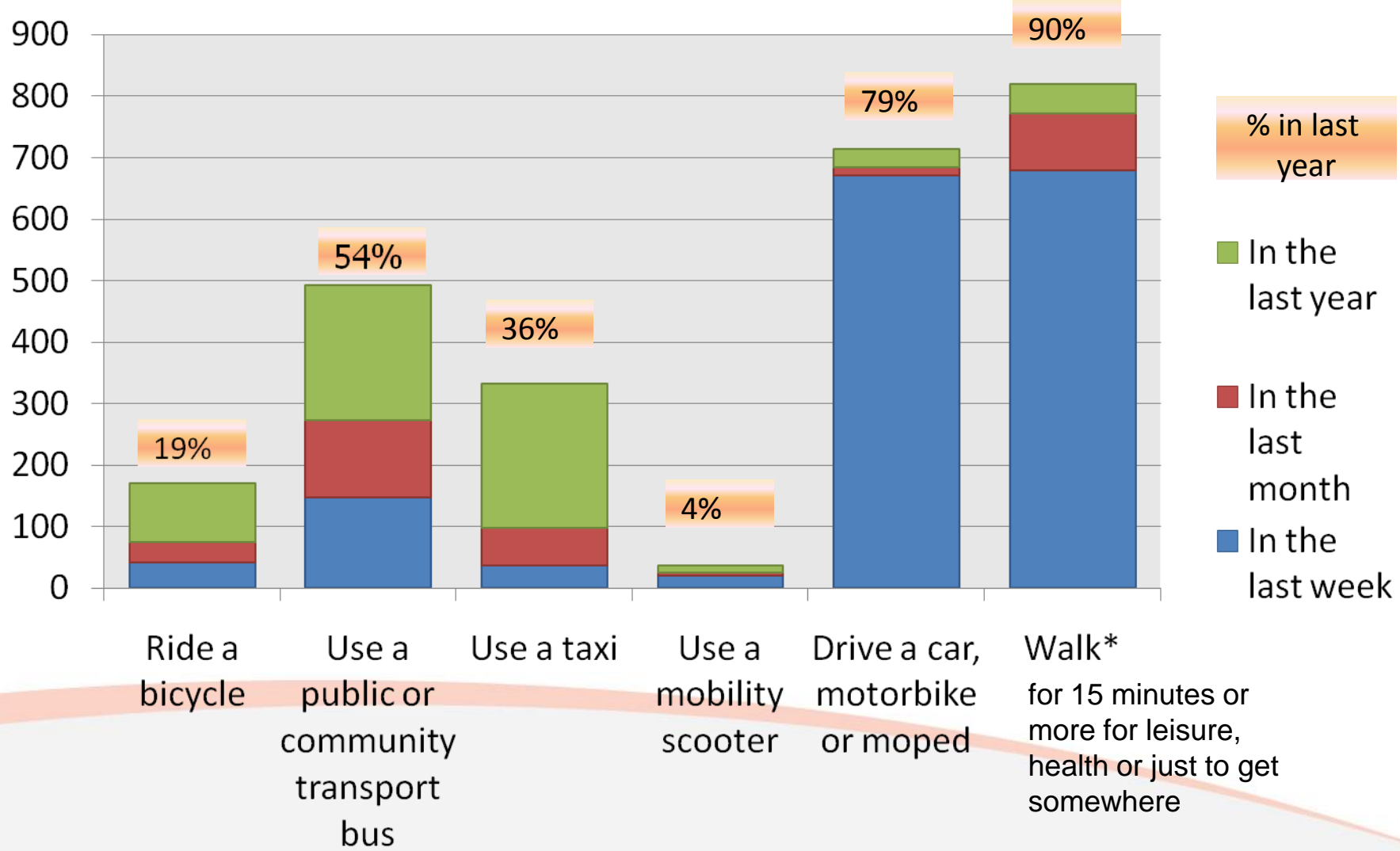
Where Q is a measure of
global oil reserves available
to be extracted

Assumes peak oil occurred
in 1995, but uncertainties
remain about reserves.

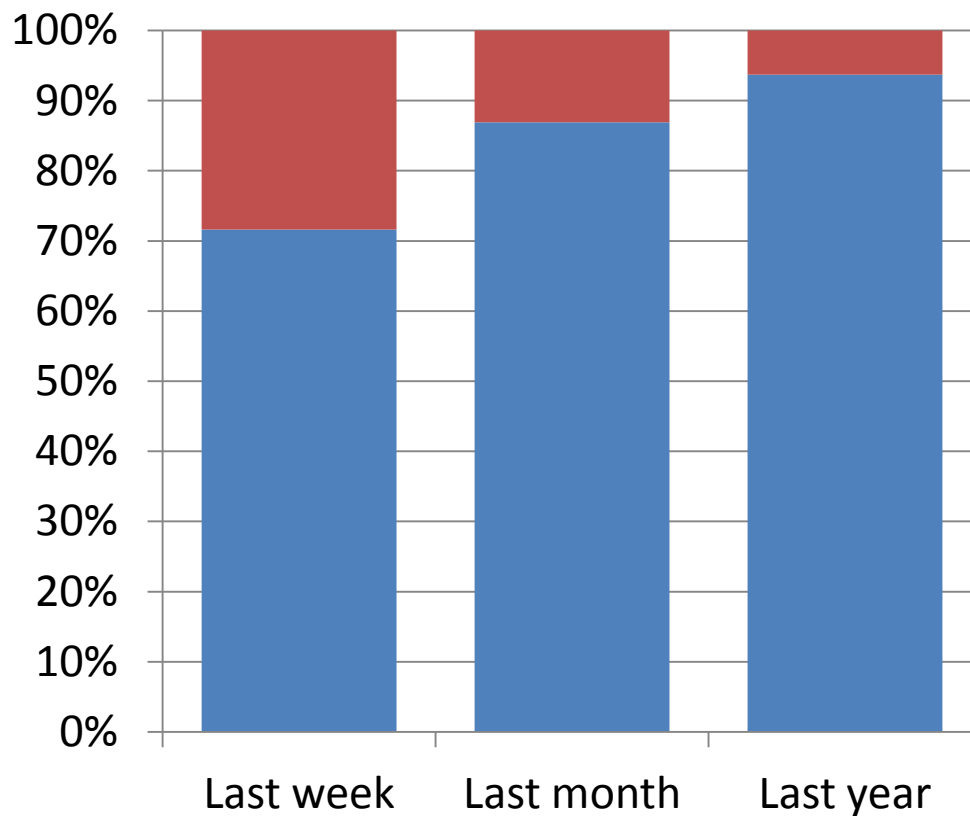
http://www.roperld.com/science/minerals/Oil_USGasolinePricesPrediction.htm



Fortunately Car Dependence is Not Absolute...



Bus users' access to cars

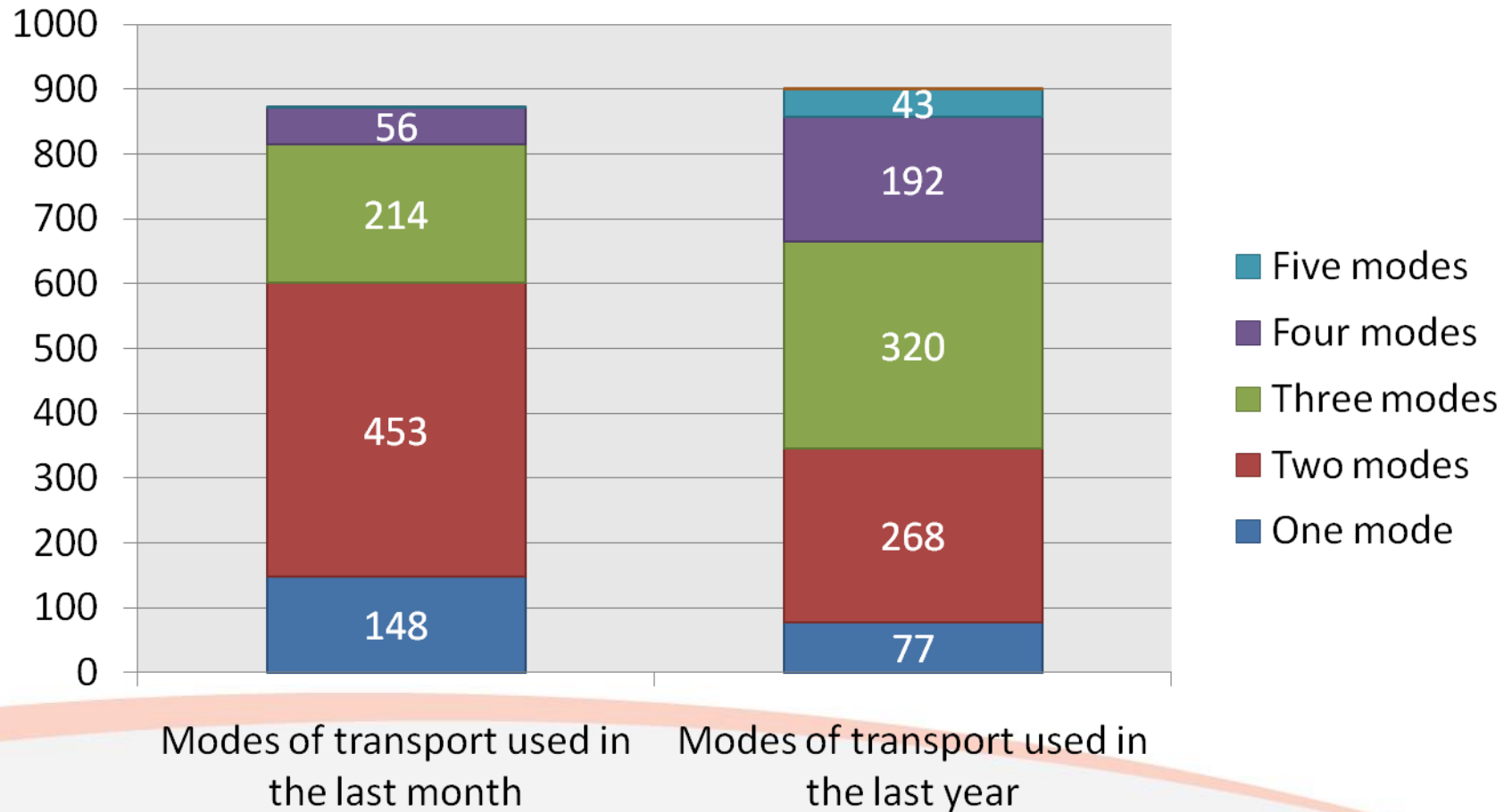


■ Car access

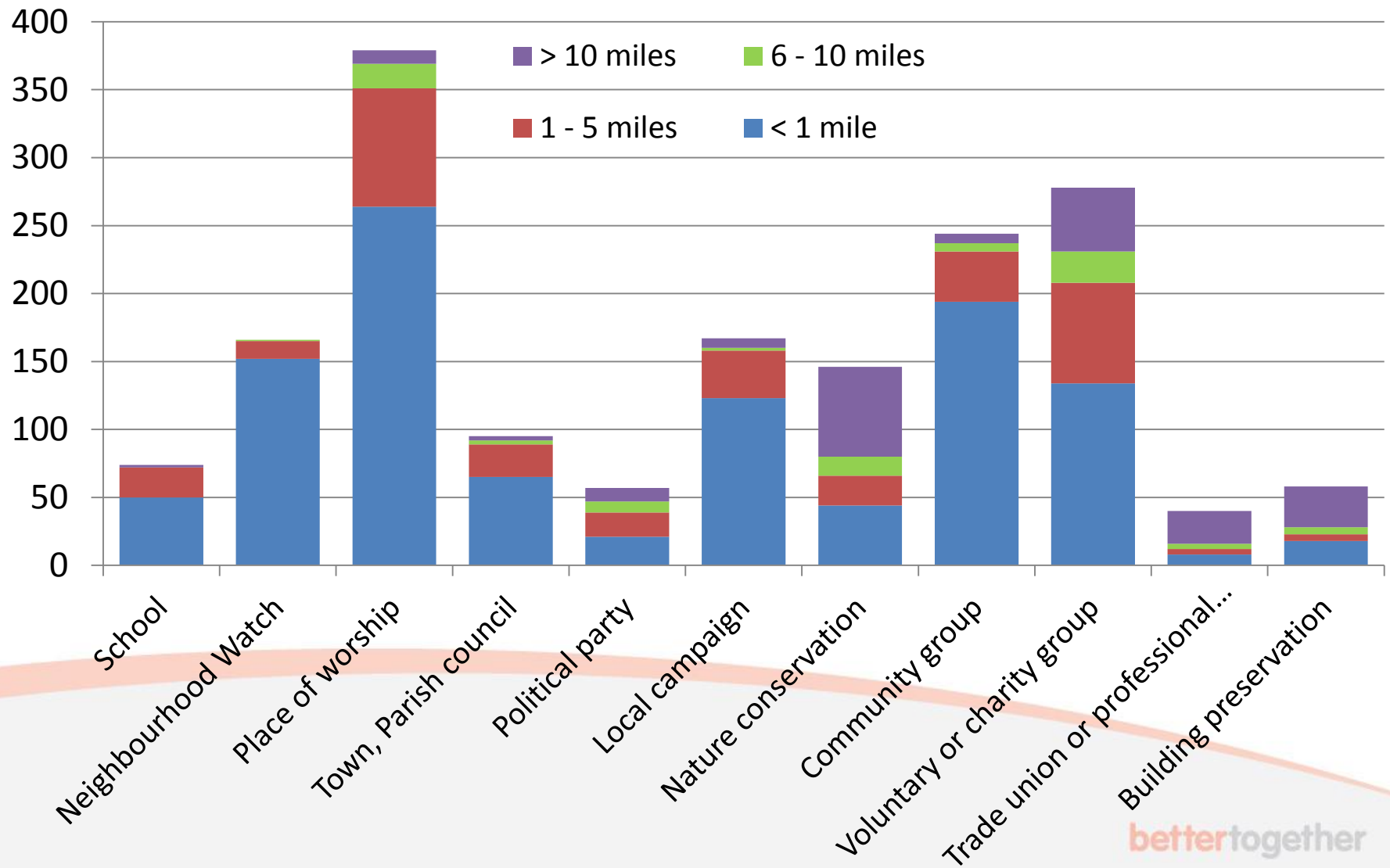
■ No access to car

Most recent bus use

High Degree of Multi-modality of the longer-run



And Even the Majority of Rural Journeys for Social and Voluntary Purposes are Short



Public Transport Can be improved...

- Conventional bus services
 - 10-15% increase on Bristol 'showcase' routes (but not all trips switched from car)
- Relative advantage for bus services
 - Higher global fuel prices beneficial
- Lower bus fares
 - trips increased by free travel from older citizens (but only a minority switched from car)
- Guided Buses and Bus Rapid Transit

Comprehensive 'Showcase' Approach

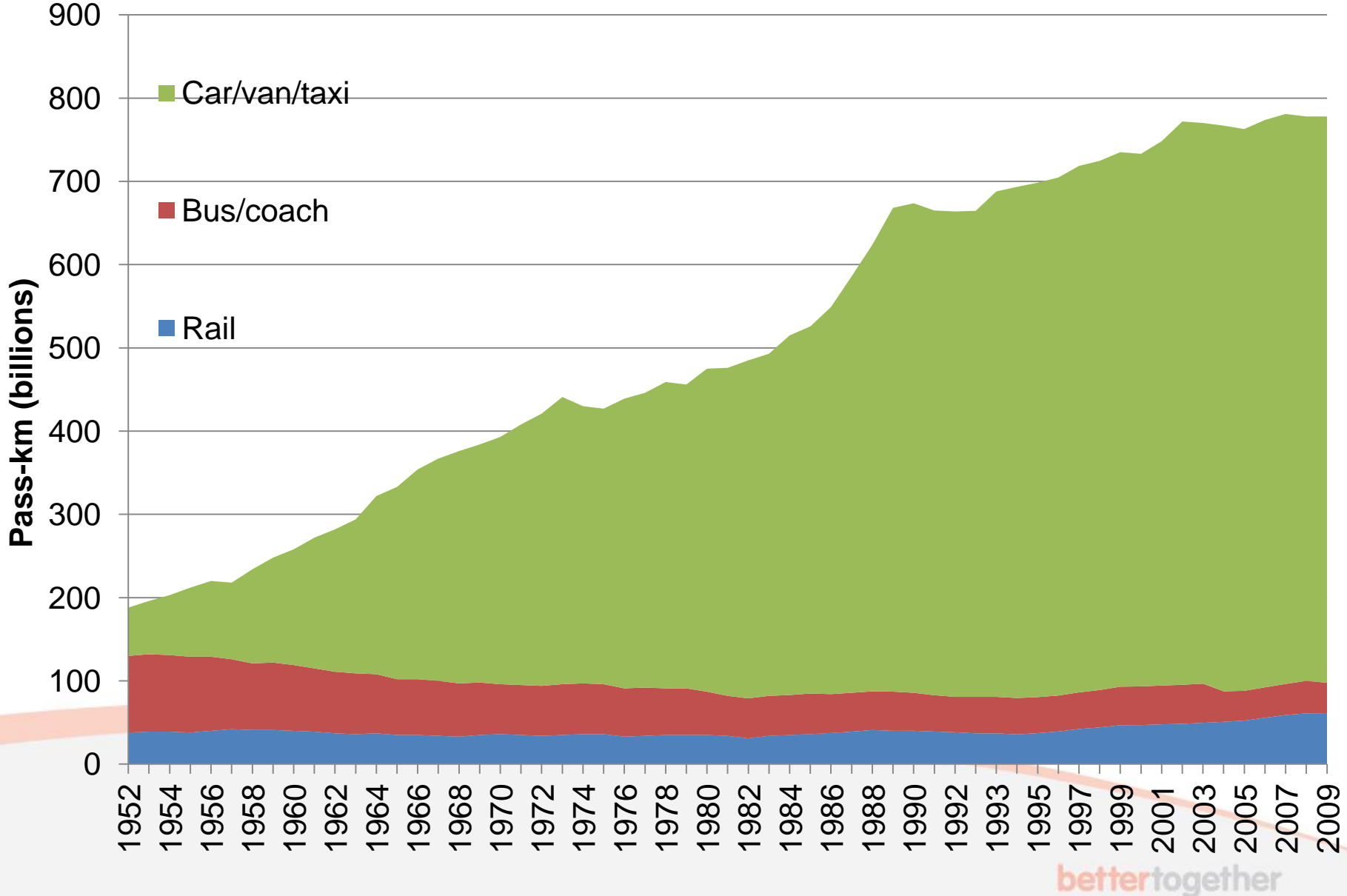
- Priority measures
 - Bus lanes
 - Selective Vehicle Detection at traffic controlled junctions
 - Camera enforcement
- Satellite tracking to provide information to:
 - Significant bus stops
 - SMS text and web
- Modern Bus stops
 - Low floor kerbs at stops
- Driver training
- Bus information strategy
 - new formats to public, businesses
 - mailing to households



Cambridgeshire Guided Busway



But cars are used for most powered travel



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Data: Department for Transport (2010) Transport Statistics Great Britain. Table 1.1

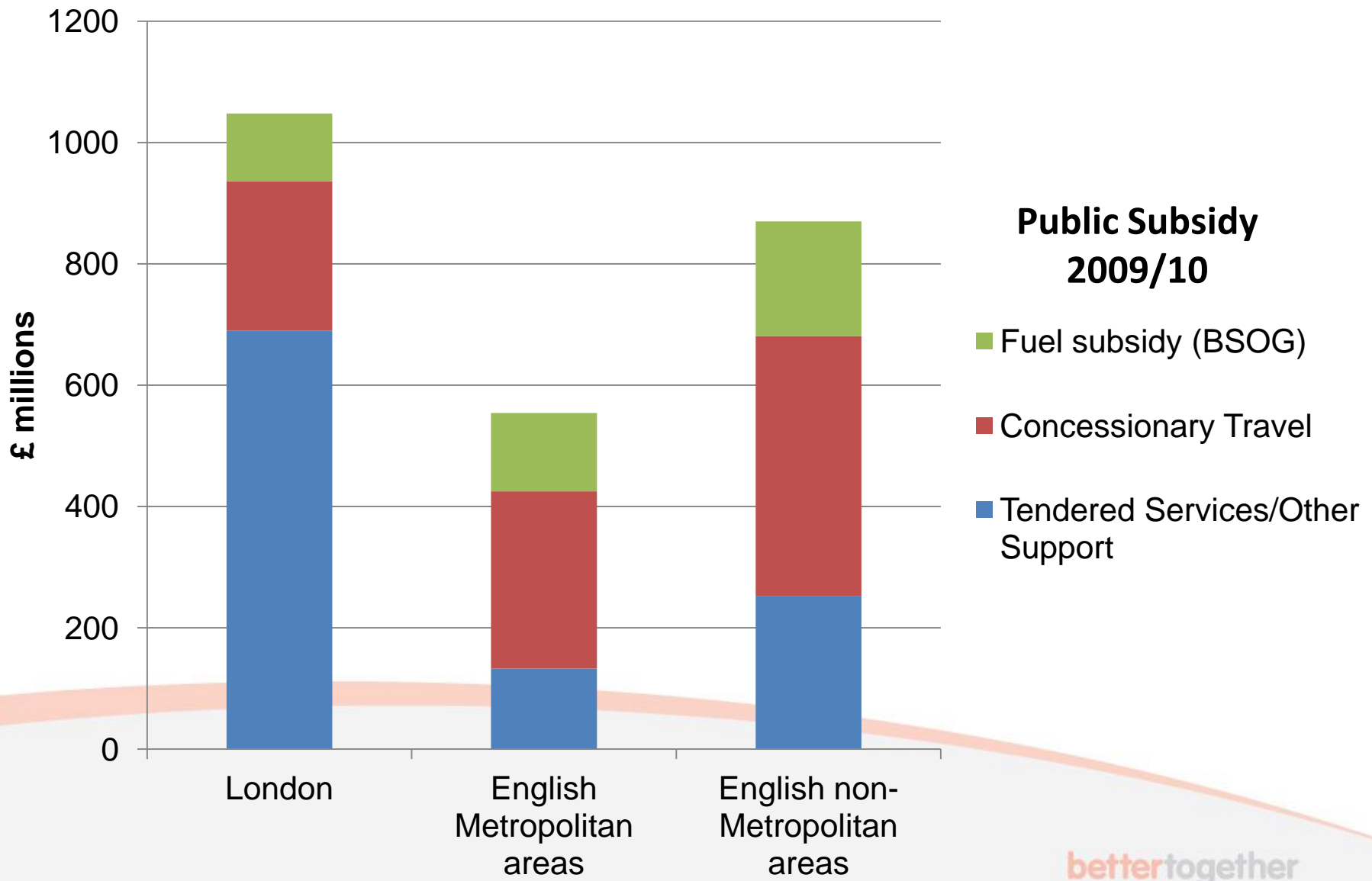
And 'classic' public transport has limits...

- An hourly bus service nearby \neq an attractive 24/7 service to a wide range of destinations
- New bus passengers likely to be living in less bus-friendly locations
 - high economic and environmental operating costs

10% modal shift from car to bus in UK would require 170% increase in bus passenger-km

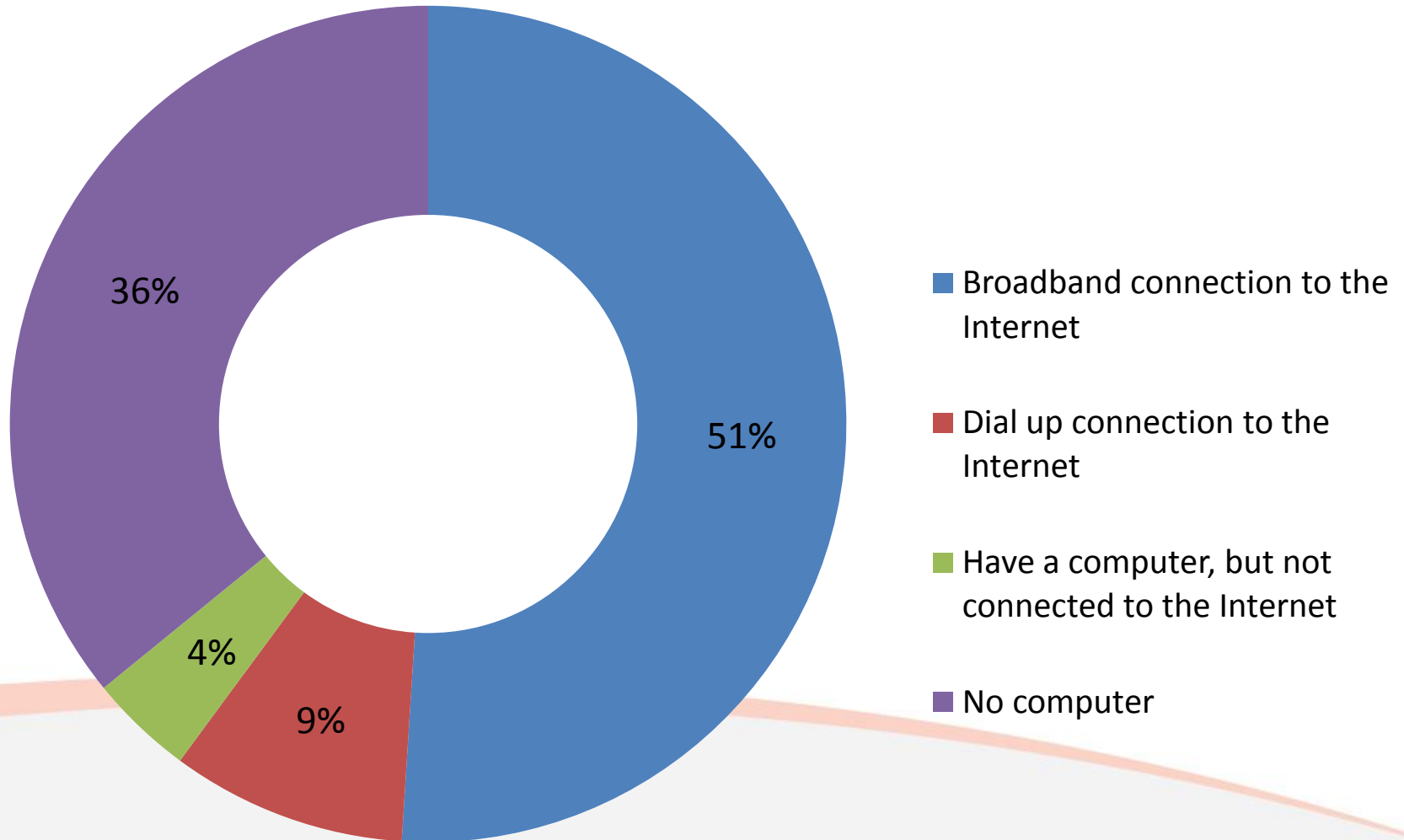


But Bus Subsidy Has Now Peaked



Data: Department for Transport (2010) Transport Statistics Great Britain. Table 5.2b

Alternatives: Increasing availability of Virtual Mobility





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Home Savings calculator FAQs

Find others going your way so you can car-share together.

Save money, cut your carbon and have fun! Great for both drivers and passengers.

Join for FREE!



[See what our members say!](#)

1. Join...
It's quick, simple and FREE!

2. Search...
Find other car-sharers going your way...

3. Share!
Start saving money and reducing CO₂

498,868 members have joined to date 337,760 journeys available to share in 19,000 towns of 20 will be shared this year

Alternatives: Trip sharing

Alternatives: Hi-tech Taxibuses

- 5-10 seat vehicles
- High-density stop network
- Dynamic scheduling
 - Cellphone communications
 - Satellite navigation
 - Central scheduling computer
- Passenger options
 - Premium fare for exclusive use
 - Door-to-door service for special needs



Not aimed at older citizens!

Alternatives: Mobility Scooters

“....instead of walking I used my scooter. So I was able to weave in and out of walkers and go at their pace and have a chat, and then go on to somebody else, go to their pace, have a chat, and I thoroughly enjoyed it”. (Male late 70s)

“....it is very good for him, it gets him out and about. He will go out for an hour every now and again just to get a bit of fresh air and exercise....”. (Female late 60s)



Limitations of Current Policy

- Over-focus on travel for essential needs (food and health)
- Insufficient focus on needs of pedestrians (and cyclists and scooter users)
- Insufficient recognition of the direct health and wellbeing benefits of exercise, social interaction and experience of shared community space while travelling
- Limited exploitation to date of new technologies

Questions for discussion

Policy

- How much physical mobility do older citizens want (and what kind of mobility)?
- How car dependent should seniors' mobility be?

Practice

- How realistic is it to rely on publicly funded, privately operated bus services to play a greater role in meeting future rural mobility needs?
- Why has there been such limited focus on active travel options for older citizens?
- Can and will the voluntary sector make up the mobility gap: does the 'big society' have wheels?