

Capturing the Social Value of DRT

DRT Connecting People to Opportunities end-of-project webinar

19 November 2025



Welcome by Richard Dilks (CoMoUK)

Programme

10.00	Welcome to webinar	Richard Dilks <i>Project partner, Chair</i>
10.05	Introduction to the study	Kiron Chatterjee <i>Project lead</i>
10.20	Part 1. Transport needs and DRT use	Kiron Chatterjee & Eda Beyazit <i>Project co-leads</i>
10.35	Q&A	
10.45	Part 2. Social value of DRT	Daniel Johnson, Eda Beyazit & Asa Thomas <i>Project co-leads and team members</i>
11.10	Q&A	
11.20	Panel	Participating local authorities Chaired by Sharon Payne (<i>Project partner</i>)
11.50	Conclusions	Richard Dilks

Project team

University of the West of England, Bristol



Prof Kiron Chatterjee
Project lead



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Project co-lead



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Team member



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University of Leeds



Daniel Johnson
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Local Authority Partners



Pete Mathieson
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James Hopkins
Tilly Stuart

Tom Main
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Practitioner Partners



Sharon Payne



Richard Dilks

Introduction to the study

Policy context and research need
Overview of study
Data collection

Policy context

- Decline in provision of bus services in England since 2010, particularly acute in rural areas (County Councils' Network, 2023).
- Car ownership levels higher in rural areas than urban areas but not everybody can make journeys by car.
- National Bus Strategy 'Bus Back Better' seeks to counter decline in bus provision and use and made funding available to introduce DRT services.
- DRT viewed as potentially better meeting the needs of local communities than fixed timetable bus services where demand is dispersed but concerns it is costly to run with revenues covering only a small share of running costs (Stonham, 2023).
- DRT "value is not purely a question of 'pounds in vs pounds out' but a more complex question that must include the opportunities unlocked by the existence of the service" (CoMoUK, 2023).

Demand Responsive Transport (DRT) is a flexible service that provides shared transport to users who specify their desired location and time of pick-up and drop-off



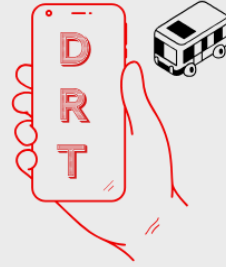
Social value

- The case for investing in public transport often considered on a narrow basis
 - Commercial case (revenues versus costs)
 - Transport case (direct transport impacts such as travel times, emissions etc.)
- Wider (cross-sector) social and economic benefits usually not considered but expectation to assess the full breadth of societal benefits in public spending decisions.
- Wider social and economic benefits could make a big difference to overall value for money of buses (KPMG, 2024).
- DfT appraisal guidance suggests methods/values for assessing wider benefits but there is a paucity of evidence with which to make realistic estimates.
- We sought to fill this gap in the context of DRT and found the concept of social value helpful.
- Social value refers to the net value to society of an intervention or project - our focus was on understanding, measuring and quantifying the value of DRT to users and wider communities.

Opportunity

- DfT allocated £20 million through Rural Mobility Fund (RMF) to 15 LAs to trial DRT.
- RMF aimed at improving access to employment, education, healthcare and other services and enabling greater social inclusion and reducing isolation.
- UWE has been evaluating the RMF for DfT.
- UKRI's Creating Opportunities Evaluation Development Fund invited applications for projects "generating causal evidence on what works to spread opportunities and reduce spatial disparities in outcomes for people and places across the UK"
- UWE and Leeds were successful in a funding application and this enabled an in-depth study of social impacts of three RMF schemes.

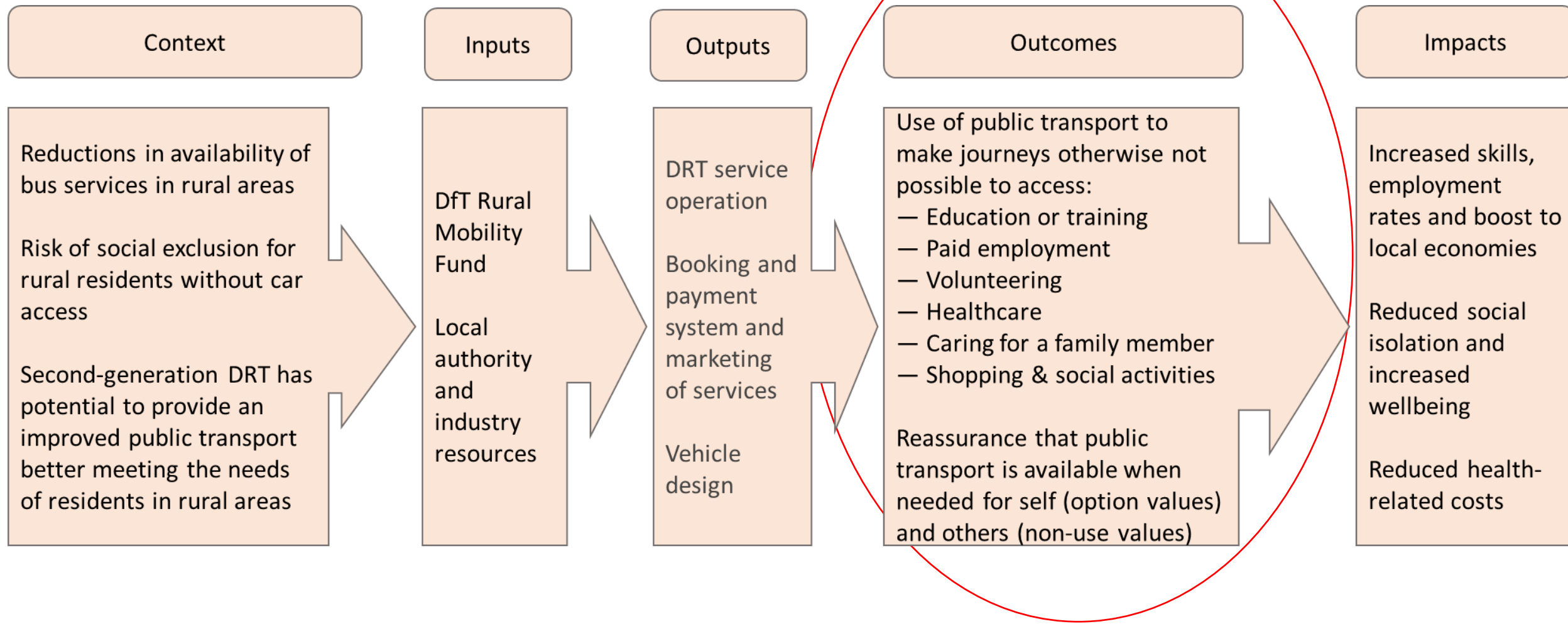
Aim & objectives



**DEMAND RESPONSIVE
TRANSPORT**
**CONNECTING PEOPLE
TO OPPORTUNITIES**

- To assess DRT's impact in unlocking educational, employment, social and other opportunities for residents in rural areas.
- Three project objectives:
 1. To apply an innovative, participatory methodological framework to measure the impact of public transport on life-defining economic, social and health outcomes.
 2. To estimate the social value of DRT schemes and bus services more generally in areas of rural deprivation and their contribution to reducing place-based inequalities.
 3. To inform policy in relation to the future of DRT and broader public transport services

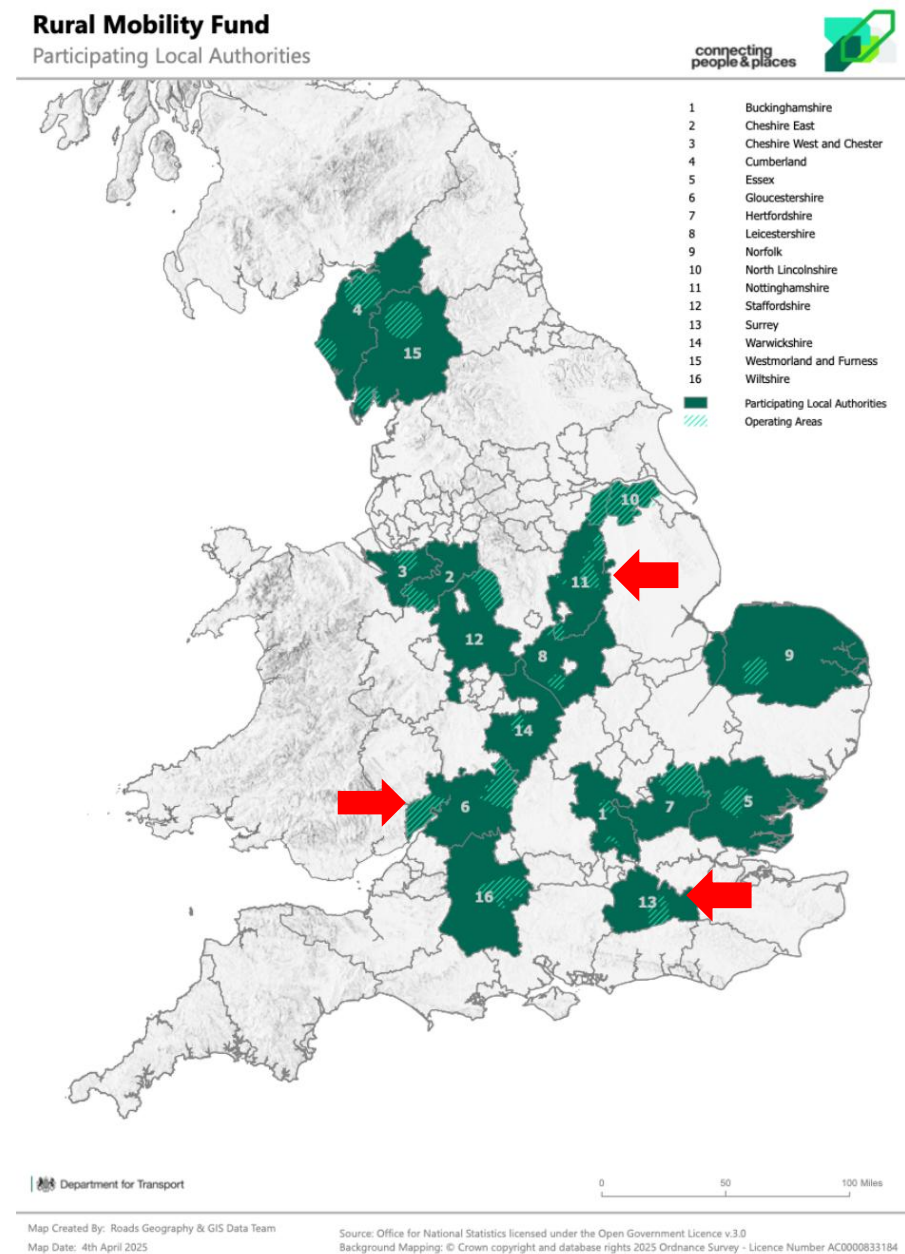
Logic model



Three case study DRT schemes

Three LA partners and three DRT case studies

Local authority	Scheme area	Pop'n	No. of vehicles	#LSOAs in 50% most deprived
Essex	Central Essex & South Braintree	69k	6	4
Gloucestershire	South Forest of Dean	64k	1.5	18
Nottinghamshire	North & South Ollerton	29k	5	7



The DRT schemes



DigiGo, Essex



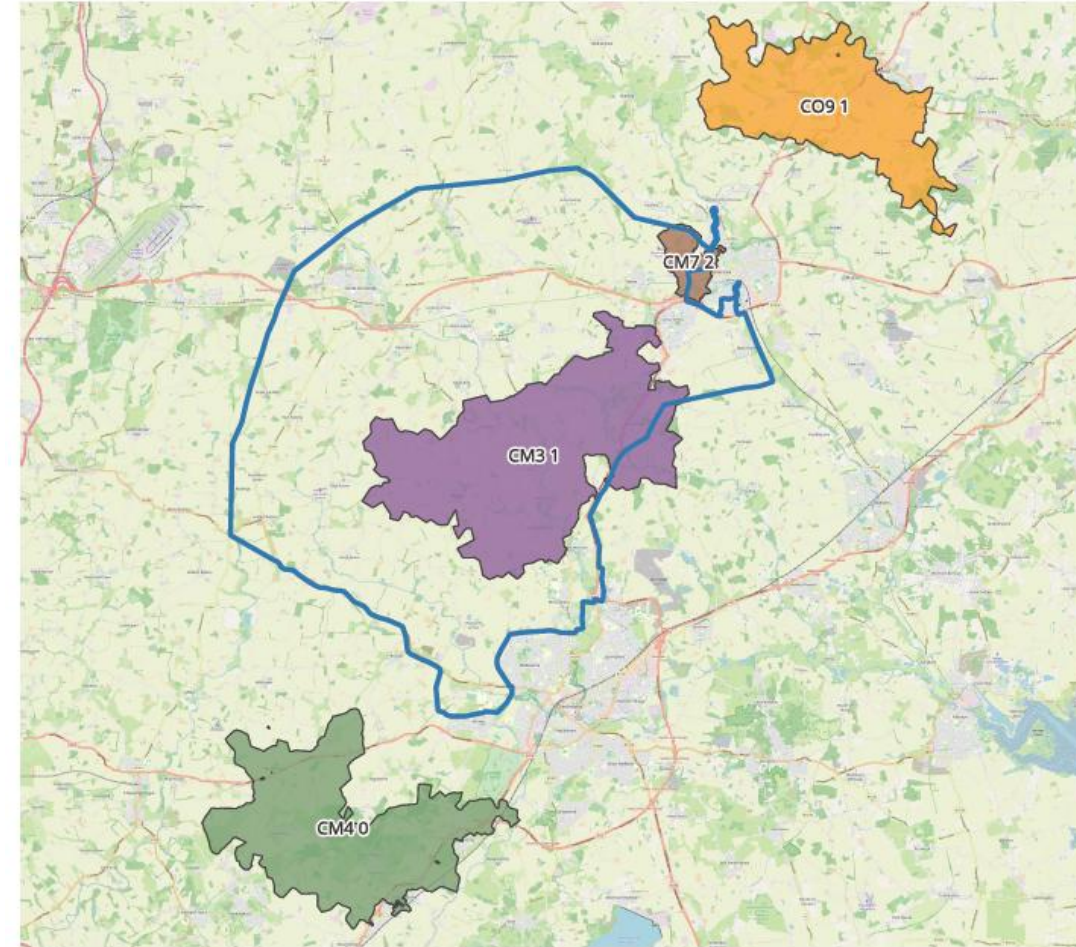
The Robin, Gloucestershire



NottsBus On Demand, Nottinghamshire

Data collection

- We selected sub-areas of scheme areas and neighbouring areas for data collection based on public transport need index and in consultation with LA partners
- Survey covered:
 - Residents of DRT areas
 - Residents outside DRT areas
 - DRT users
- Follow-up interviews with DRT users



Central Essex and South Braintree DRT scheme area

Survey distribution

- Flyers mailed to every home in selected postcode sectors
- Invitation messages sent to DRT users via app
- Followed up with field visits (door knocking, visiting community hubs, riding DRT)

Have your say on
public transport in
the **Forest of Dean**

This is an opportunity to share your experiences and views of public transport in your area and how this affects your life. Feel free to **enter the prize draw** upon completing the survey.
Thanks for your help!



Just point your phone camera to the QR code (image) above and follow the link to complete the survey, or go to www.drtconnecting.co.uk/fod1

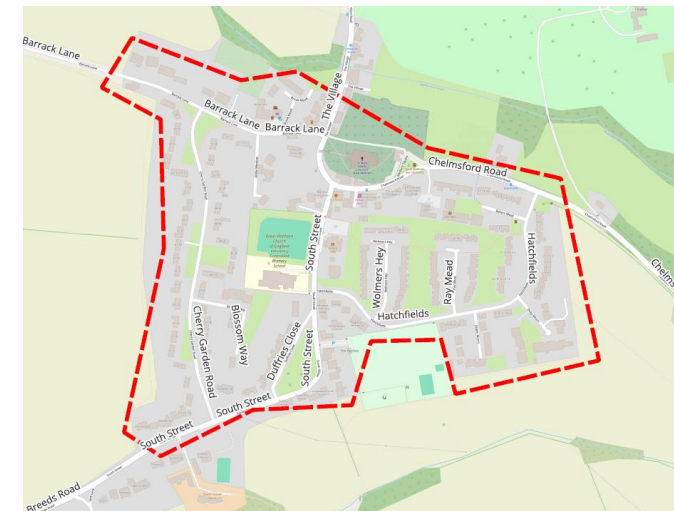
A national study funded by
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Project partners
UWE Bristol University of the West of England
UNIVERSITY OF LEEDS
Gloucestershire COUNTY COUNCIL

Notification Centre

Nottsbus On Demand Yesterday, 18:00

Travel in the North Ollerton or South Ollerton Zones? Check your Nottsbus On Demand app to complete a survey with a chance to win a prize!



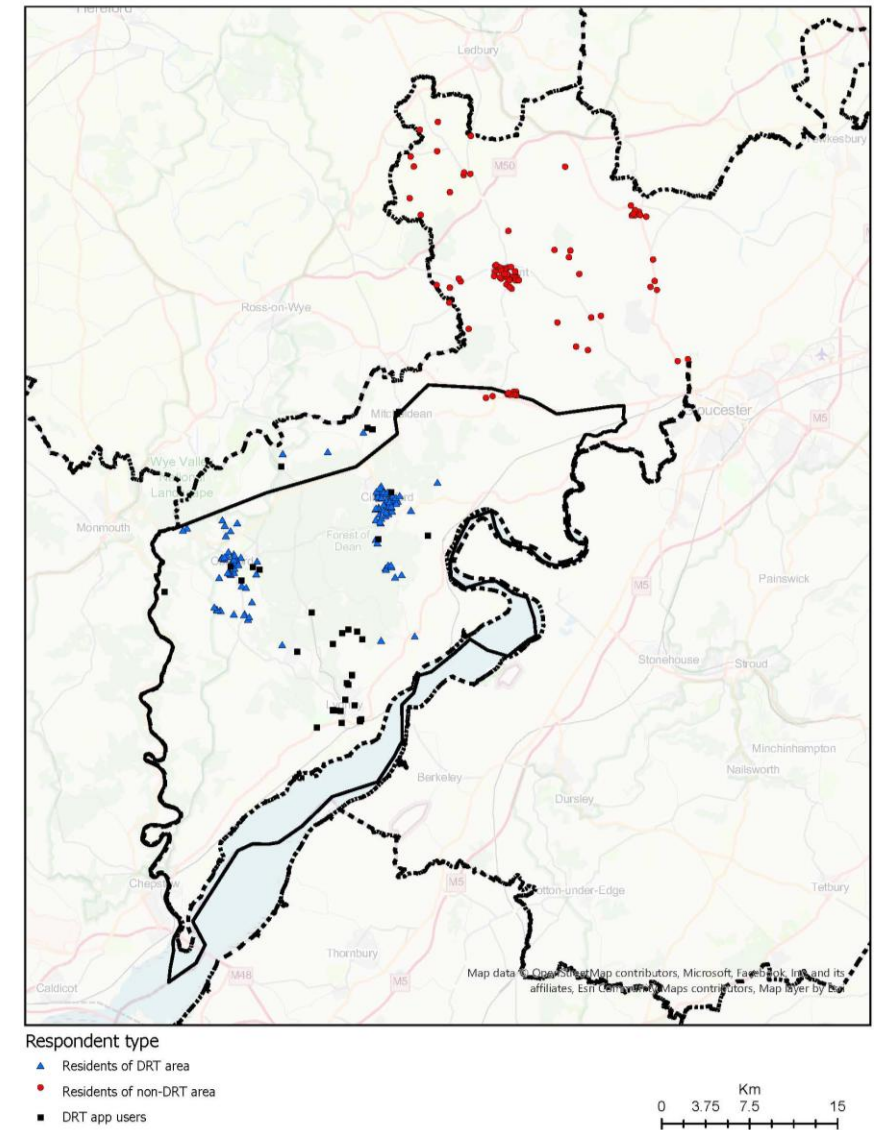
Questionnaire content

Section	Topic coverage
1	"How you get around for different travel needs"
2	"Availability and use of local public transport"
3	"The last time you used [DRT brand name]"
4	"Your use of [DRT brand name] in the last three months"
5	"Your preferences for [DRT brand name]" (for those living in a DRT service area or a DRT user) [or] "Your preferences for a future DRT service" (for those living outside a DRT service area)
6	"Your local area and wellbeing"
7	"Personal and household details"

Survey response

- 1,370 responses across three case studies
- Home locations of residents of DRT areas and non-DRT areas are clustered in postcode sectors selected for mail-out flyers
- Home locations of DRT users are spread more widely (mostly in DRT area with some outside DRT area)

	Residents of DRT area	Residents of non-DRT area	DRT app users	Total
Essex	158	51	404	613
Gloucs	174	138	51	363
Notts	145	108	141	394
Total	477	297	596	1370



Gloucs survey responses

Part 1. Transport needs and DRT use

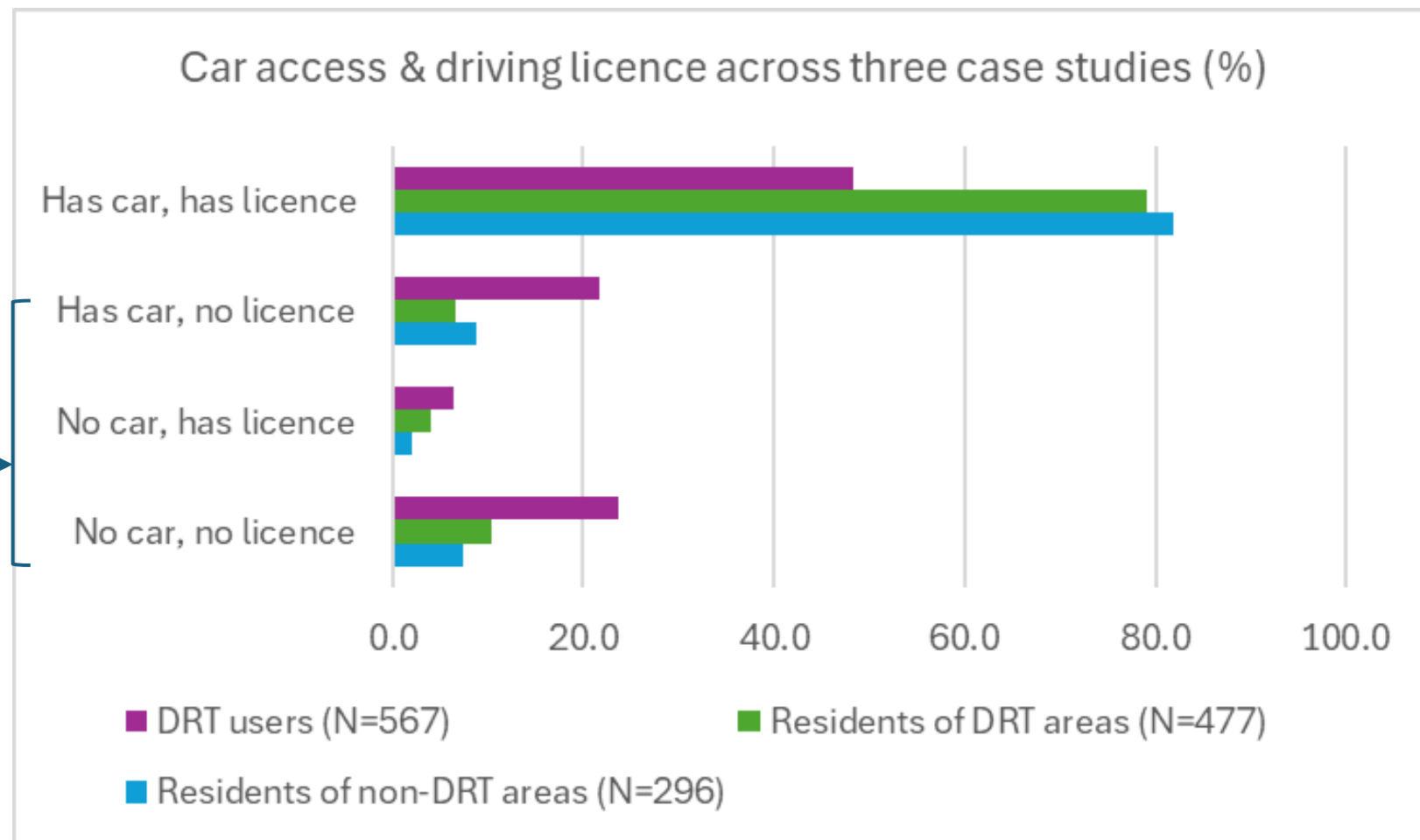
Transport availability and difficulties

DRT awareness and use

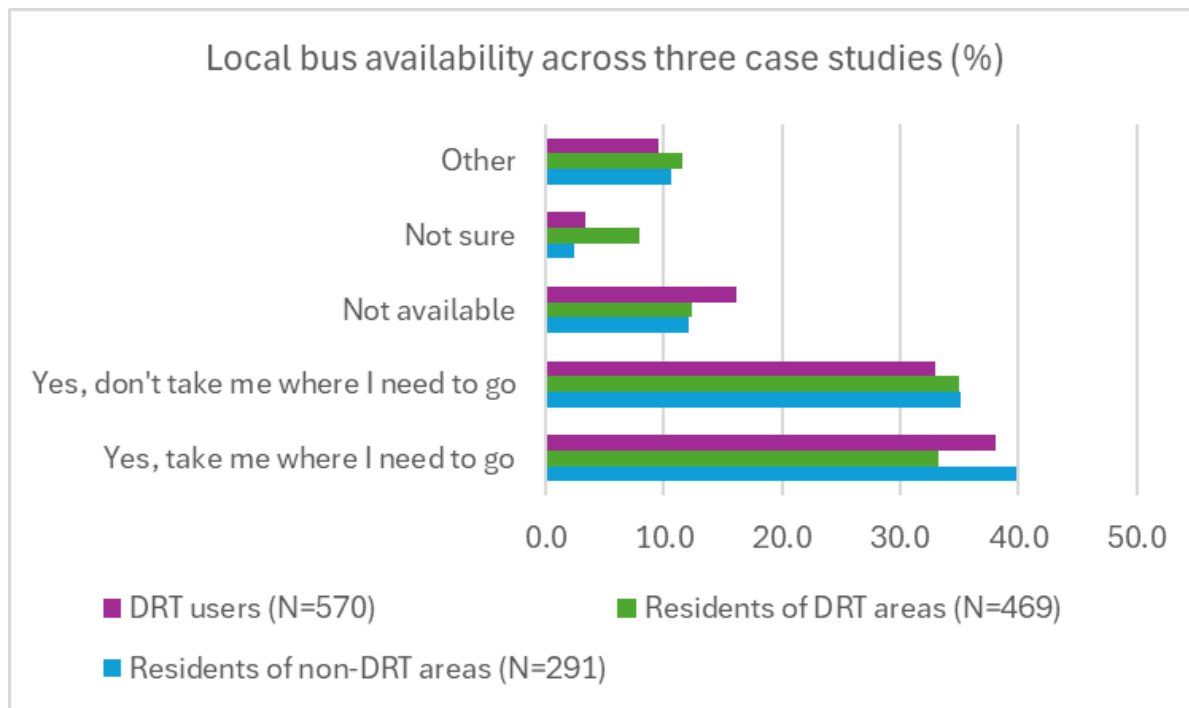
Journeys and activities enabled by DRT

Car access

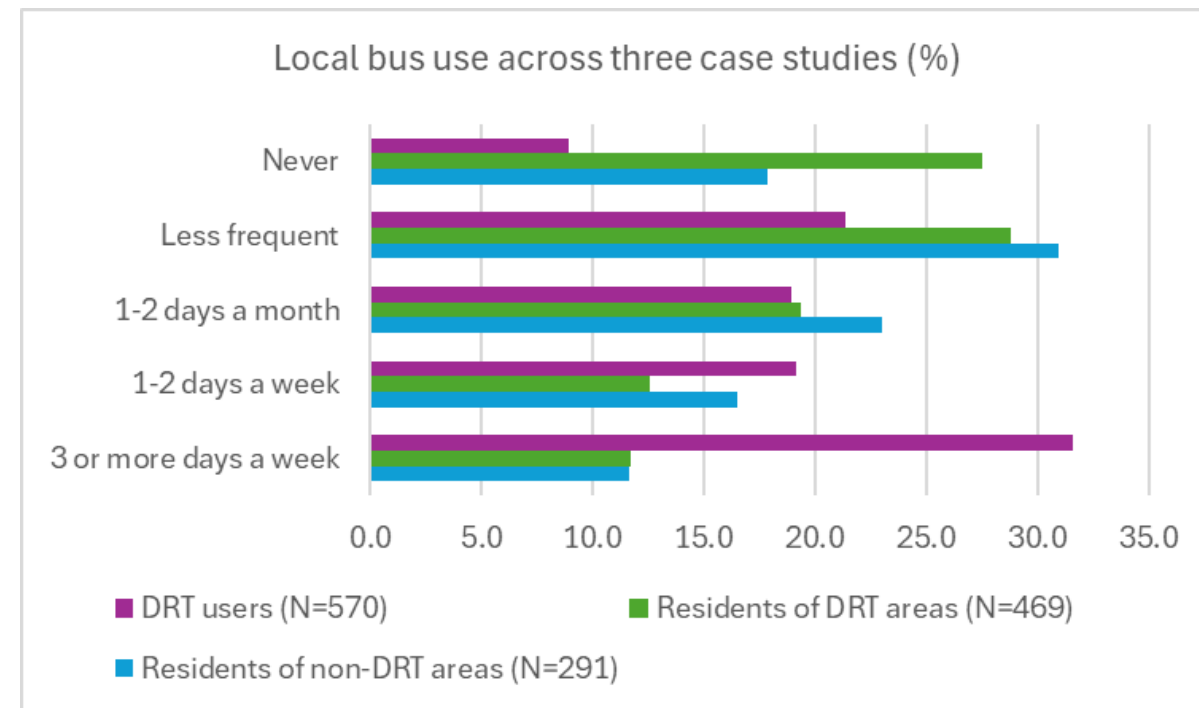
- 4 out of 5 residents of DRT and non-DRT areas have car and licence and can be assumed to be able to drive themselves
- Only a half of DRT users (48%) have car and licence
- Of those without car or licence, 10% say they can get lift all/most the time, 50% some of the time and 30% have no-one to ask



Bus availability and use



About a third of respondents said they have timetabled buses taking them where they need to go



DRT users reported more frequent use of timetabled buses than non-DRT users in DRT areas but bus use is widespread amongst all groups

Transport difficulties

- Across the full set of responses, absence of public transport and inadequacies with it were most often cited
- For those without car or licence, not having driving licence/can't drive jumps up to #2

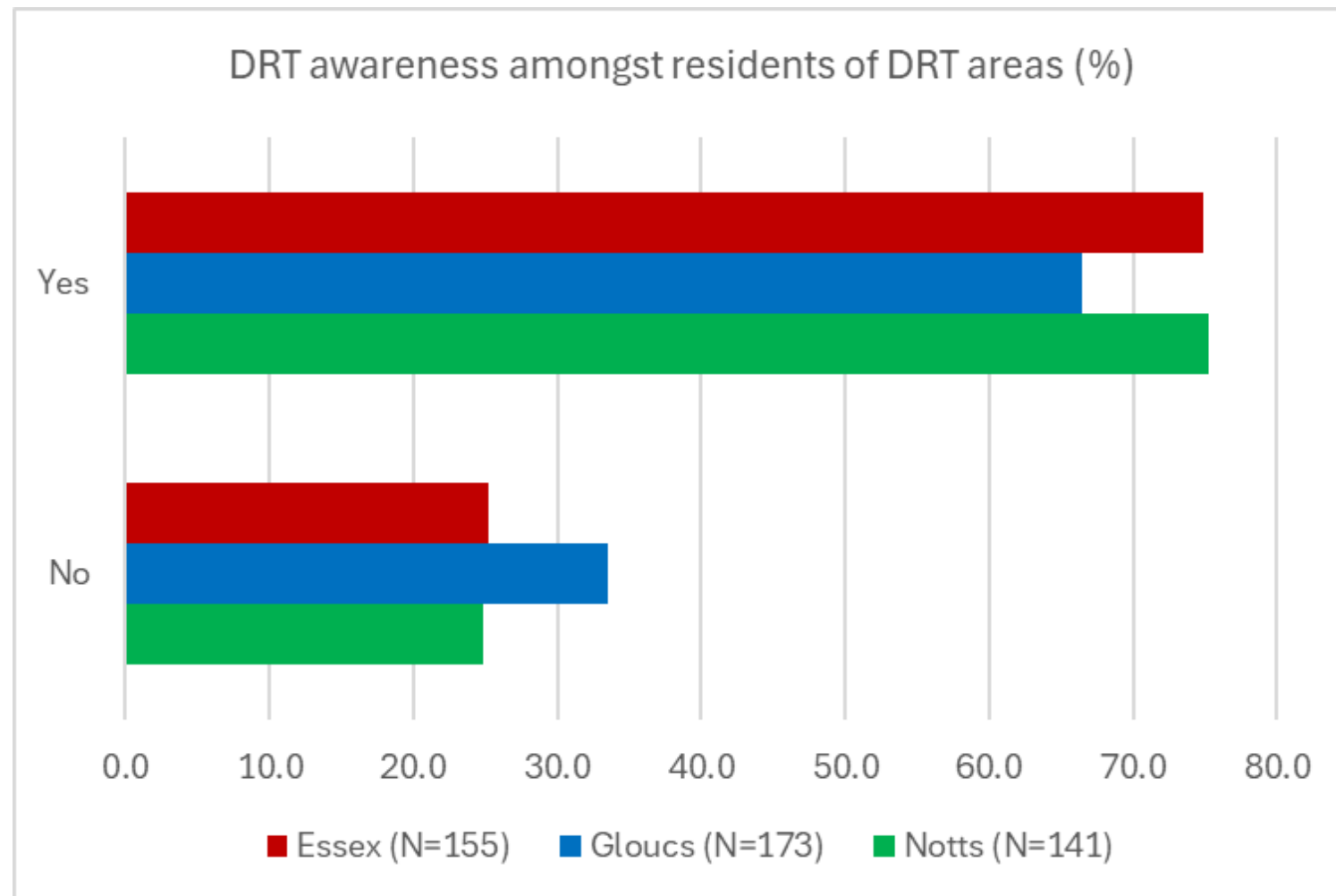
Do any of the issues below affect the way you travel or conduct activities in your day-to-day life? [15 options]

Rank	Transport issue	No.
1	Journey not possible by public transport	796
2	Unreliable public transport	698
3	Poor connections	557
4	Cost of using public transport or taxis	388
5	Too far or long journey	344
6	Poor information about public transport services	291
7	Traffic congestion or roadworks	288
8	Cost of parking	287
9	Don't have current driving licence or can't drive	264
10	Lack of parking facilities	217

N=1365

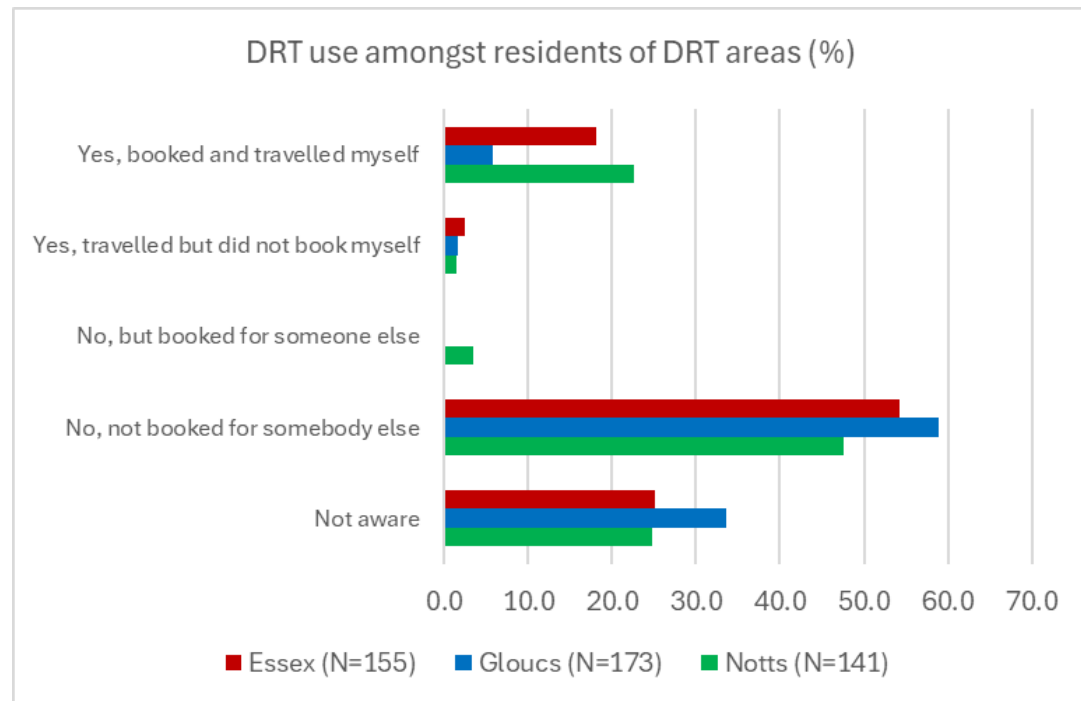
DRT awareness

- About two-thirds of residents of DRT areas were aware of their DRT services
- Awareness slightly higher in Essex and Nottinghamshire than Gloucestershire

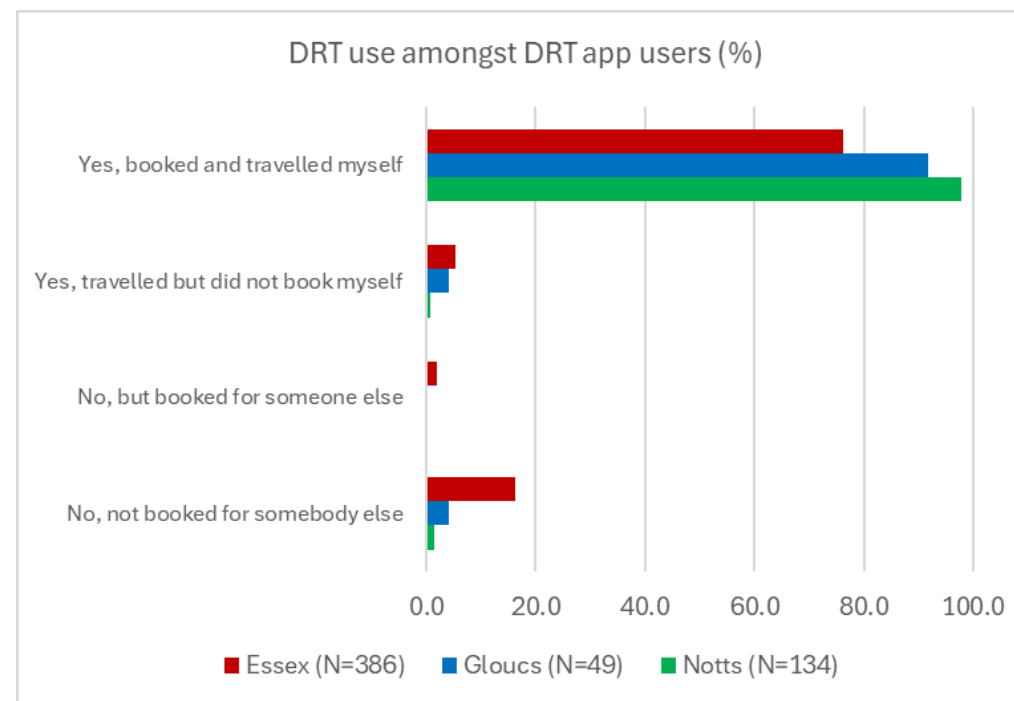


Are you aware of the [DRT] on-demand bus service?

DRT use



22% of Notts residents of DRT area had used DRT compared to 21% of Essex residents and 8% of Gloucs residents

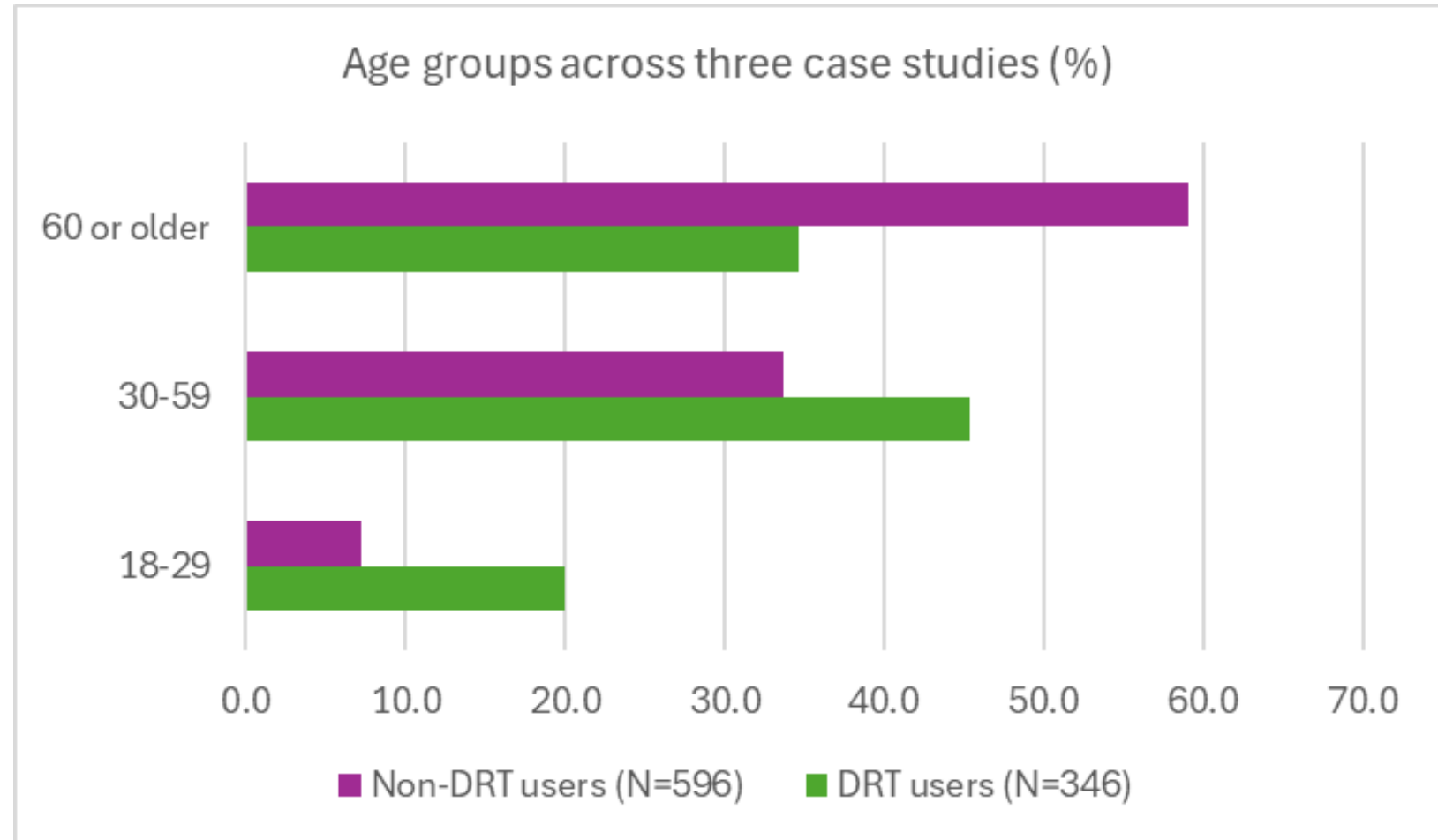


99% of Notts DRT app users had used DRT compared to 96% for Gloucs and 82% for Essex (Travel Essex app covers more than DRT)

DRT user characteristics

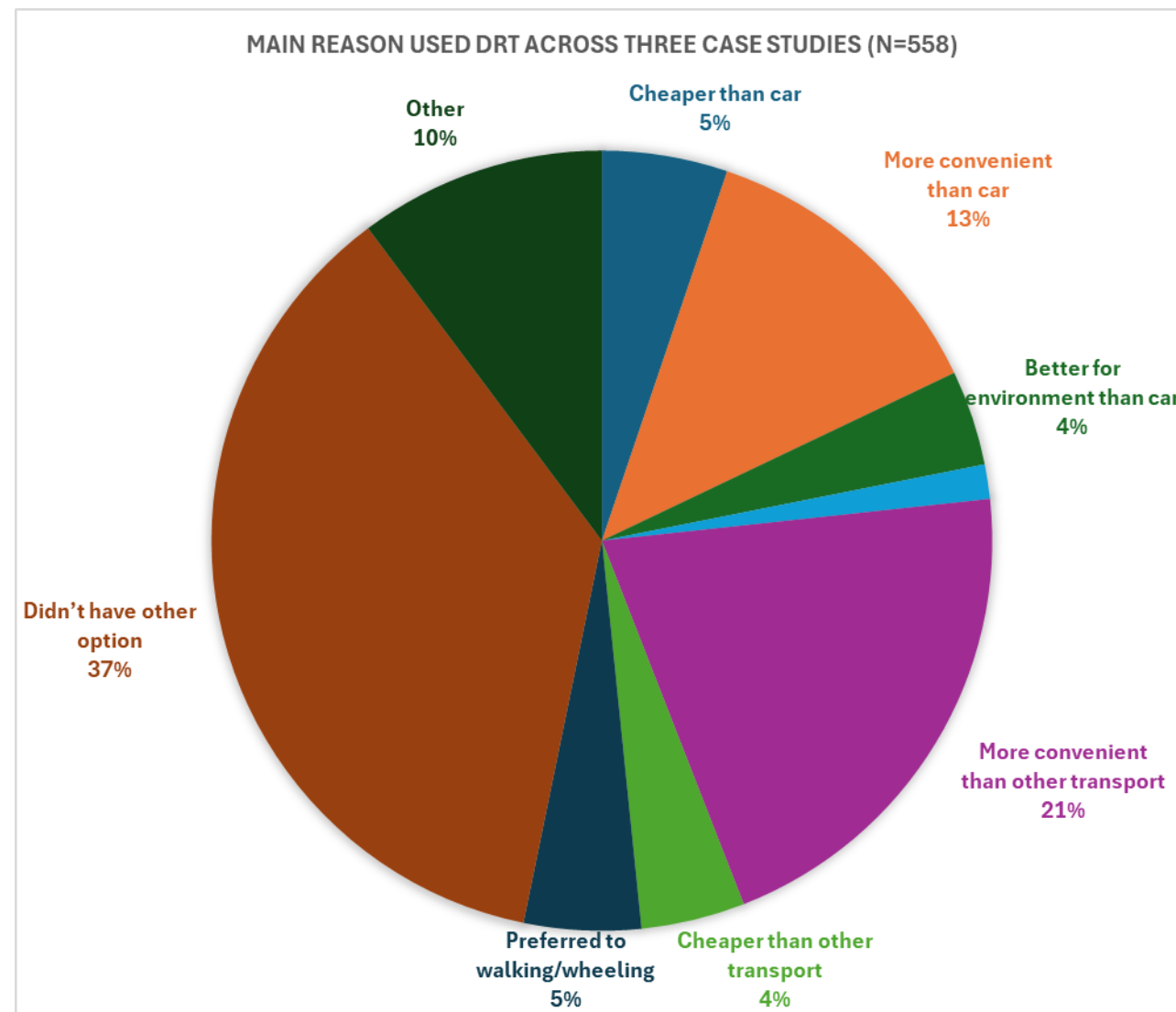
DRT users have higher share compared to non-users of:

- Women
- 18-29 and 30-59 year olds
- Those with non-white ethnicity
- Those in employment



Main reason used DRT

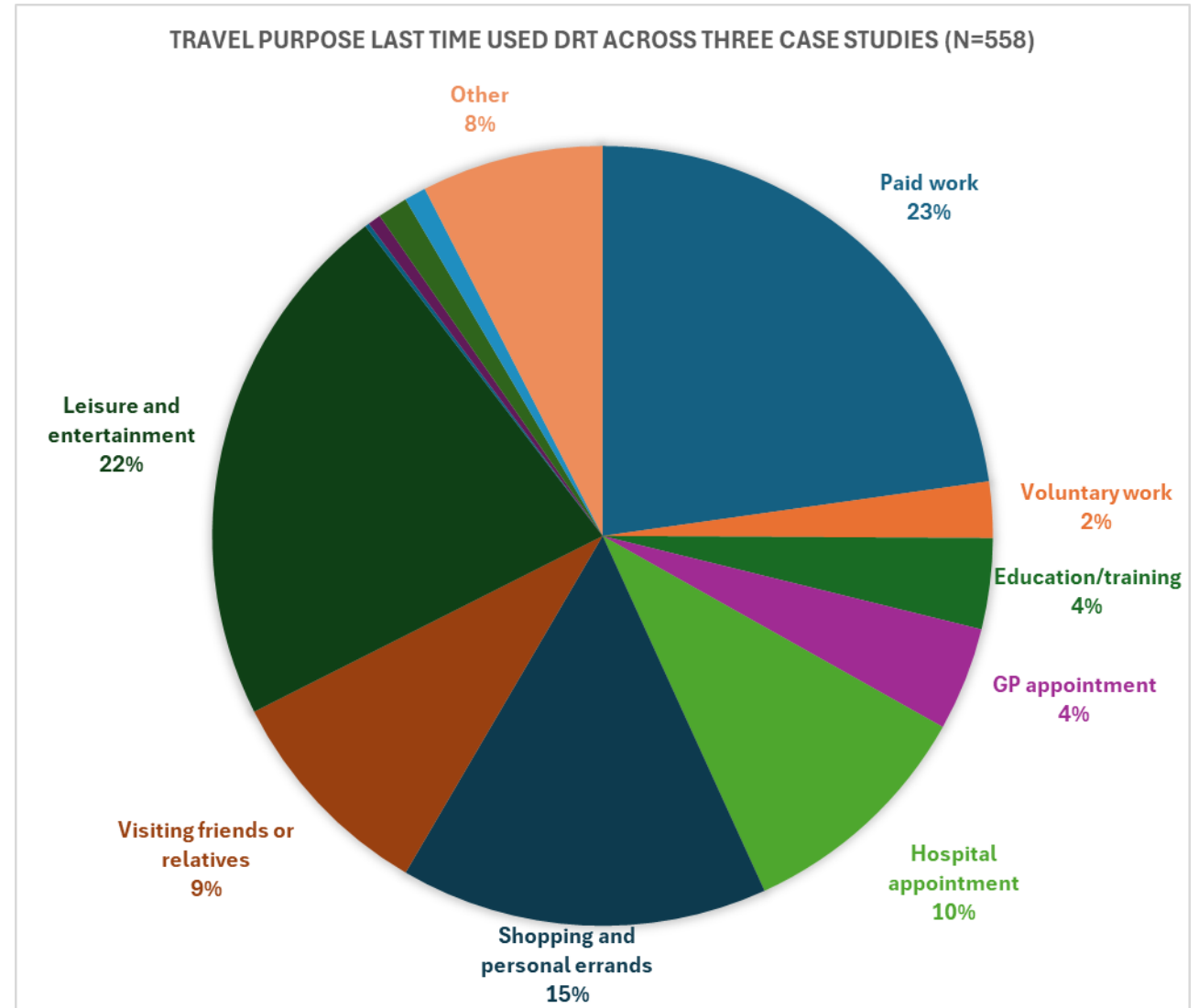
- Most common reason cited was lack of alternative transport option (37%)
- More convenient than other transport cited by 21% and more convenient than car by 13%
- When asked what would have happened if DRT not running:
 - 31% would miss essential activity
 - 17% would miss non-essential activity
 - 52% would use other transport option



What was the main reason you chose to use [DRT] for this journey?

Travel purpose last time used DRT

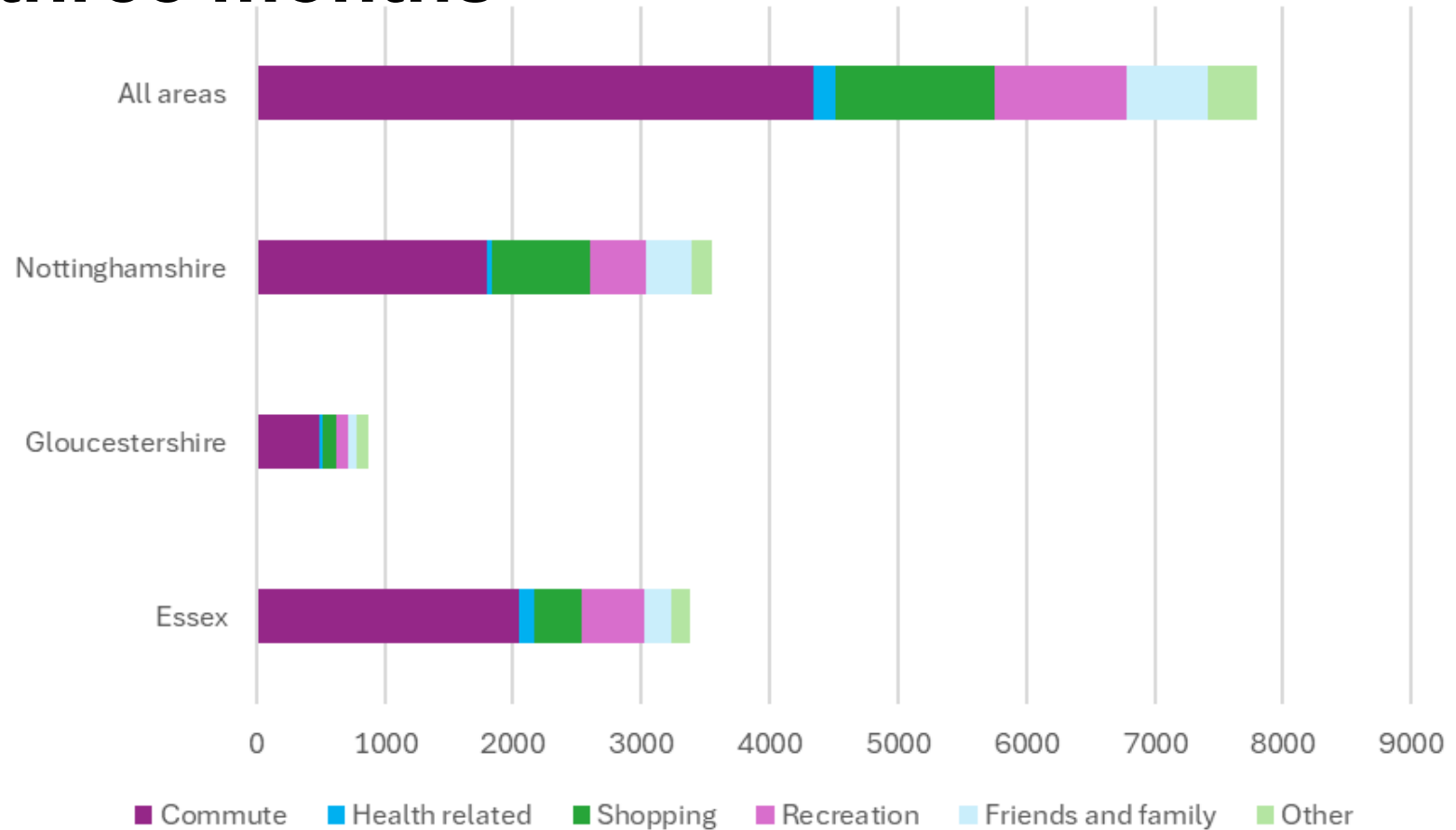
- DRT used for large diversity of travel purposes
- Travel for paid work 23% and leisure and entertainment 22%
- Hospital appointments notable at 10% (even higher in Essex where DRT serves Broomfield Hospital, Chelmsford)



What was the main purpose of this journey?

Use of DRT over last three months

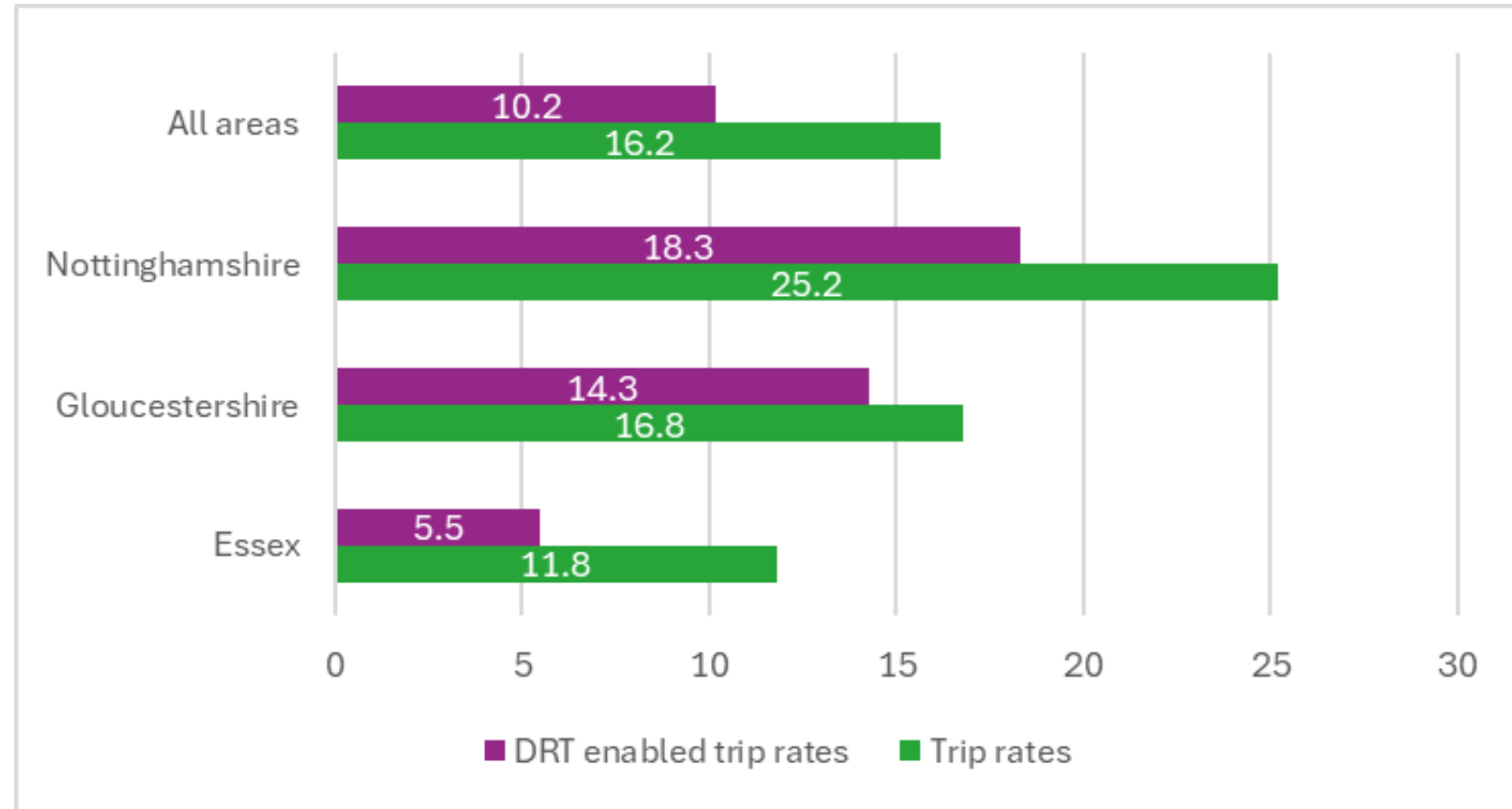
Of the 7,802 (return) trips recorded by 496 individuals across three case studies, over half (56%) were for commute (covering paid work, voluntary work and education/training), 16% for shopping and 13% for recreational purposes.



Over the last three months approximately on how many occasions have you used [DRT] for the following activities?

DRT enabled trips per user over last three months

Across three case studies, 16 (return) trips per DRT user on average with 10 trips not possible without DRT



Which of these activities would not be possible without [DRT]?

Q&A

Part 2. Social value and DRT

Social value quantified for users and non-users
Difference DRT makes to individuals
Summary of findings

DRT valuation approaches

1. **Social value** estimation based on *actual* reported activities enabled by DRT and valuation evidence.
2. **Stated Preference** (SP) approach involves contingent valuation, based on individuals' preferences for *hypothetical* scenarios involving DRT.

SP approach could cover **various** aspects of value associated with use of DRT, e.g. accessibility improvements, environmental benefits, social value from activities. Also, non-use benefits.

Social value estimation: Introduction

This analysis quantifies the benefits of DRT interventions in unlocking educational, employment and social opportunities for residents in disadvantaged areas.

We estimate the social value from the existence of DRT services in our case study areas through access to opportunities which would otherwise not be available.

Social value estimation: Methodology

The principle behind our adopted approach is:

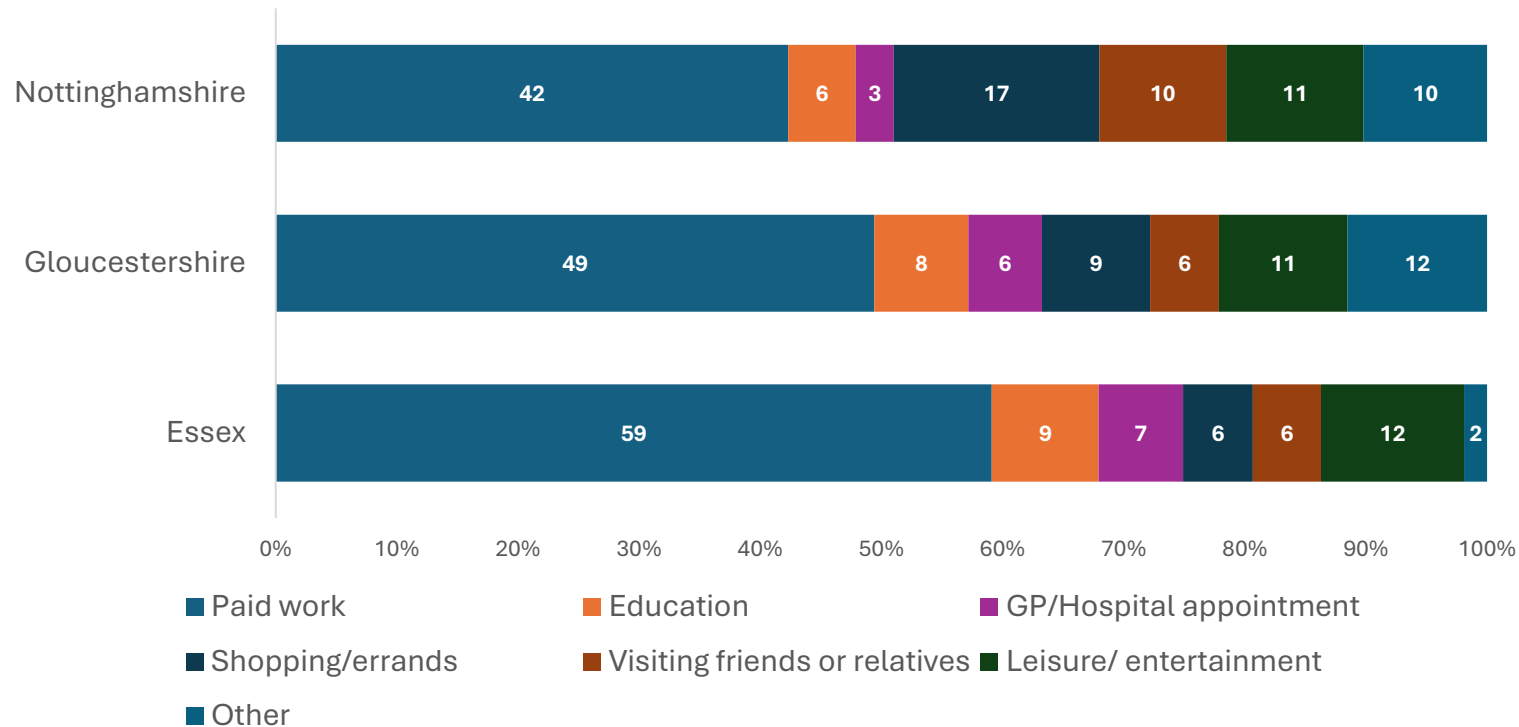
- Identify number of use occasions (i.e. return trips) for each activity type i enabled by DRT
- Scale up based on known numbers of journeys taken using service over a year
- Multiply this by social value for each activity type to estimate the total social value i.e.

$$\textit{Total Social Value} = \sum_i \textit{DRT dependent use occasions}_i * \textit{Unit social value of activity}_i$$

Social value: Valuation framework

Activity	How measured in survey	Basis for valuation	Unit social value
Paid work	Those reporting reliance on DRT to get to work	2 months unemployment (loss of wages, benefits, wellbeing) avoided	£5k per full-time worker
GP and hospital appointments	Reported trips (reliant on DRT)	Saved NHS resource from reduction in missed appointments (not cancelled in advance)	£39 per missed GP app't £242 per missed hospital app't
Leisure and entertainment		Average reported expenditure from survey	£25
Cultural and heritage visit		Willingness to pay value	£14
Visiting greenspace		Travel cost method applied to outdoor recreation	£4
Other categories (education, shopping, etc.)		Willingness to pay values for bus journeys (TAG Unit A1.3)	£6 (concession holders), £14 (non-concession holders)

Percentage breakdown of DRT enabled activities



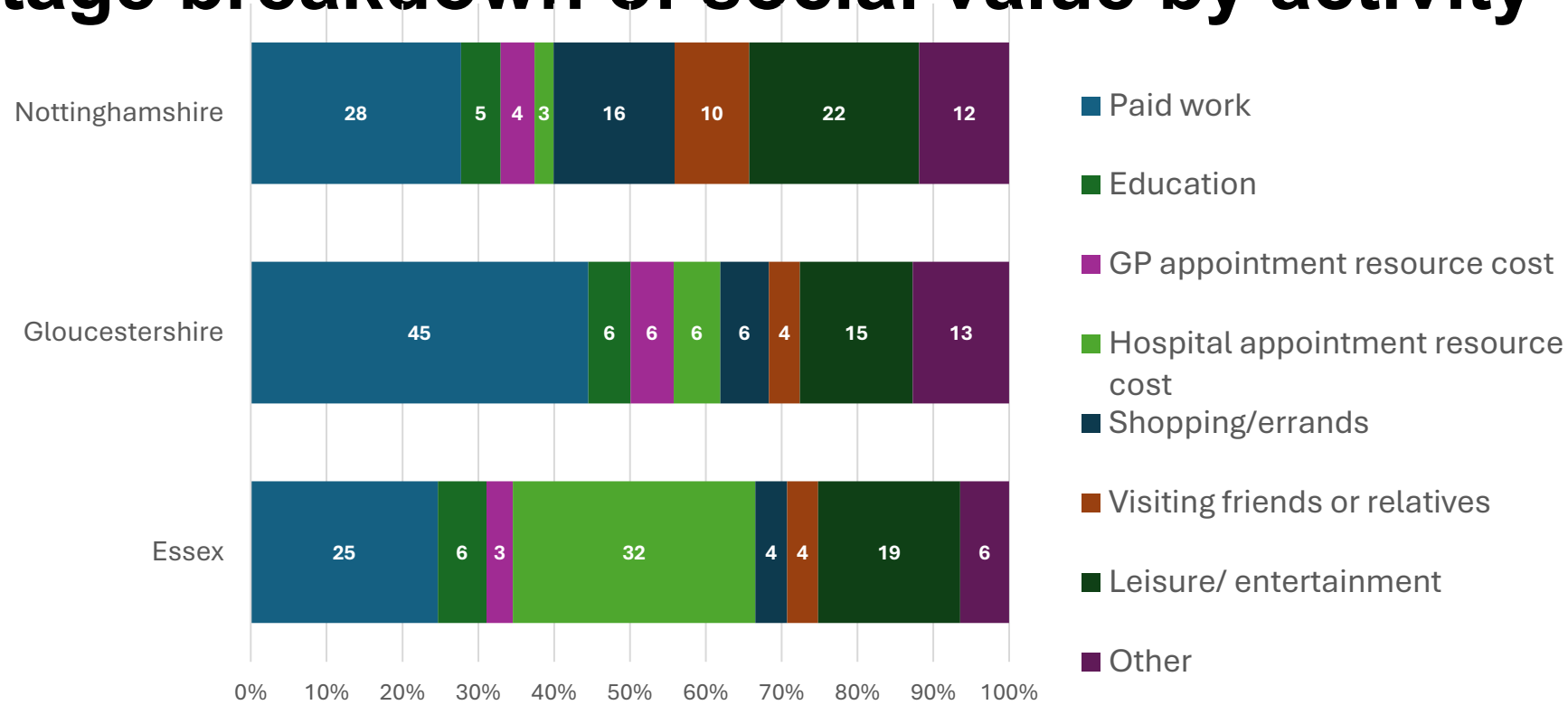
- Largest proportion of activities related to paid employment. Essex shows the highest percentage of enabled commuting trips at 59%.
- Essex also has the highest percentage of hospital trips (4%)

Value of activities enabled by DRT

DRT scheme	DRT enabled use occasions per annum	Social Value per use occasion (£)	Total Social Value per annum (£)
Essex	12,322	15.71	193,568
Gloucestershire	4,182	17.76	74,265
Nottinghamshire	13,968	12.60	175,983

- Highest value per use is in Gloucestershire (£17.76) - driven by higher proportion of jobs supported
- Lowest value per use is in Nottinghamshire - in part due to lower proportion of jobs supported and a lower share of hospital appointment trips
- Largest overall value is in Essex (£194k per annum) - largely due to passenger volume and higher health related use.

Percentage breakdown of social value by activity



- Largest component of value is from supporting paid work (25-45%), particularly in Gloucs
- In Essex, 32% of value is from saved hospital appointment resource cost
- Leisure/entertainment also large proportion of social value (15-22%)

Stated Preference based valuation

- Stated preference (SP) surveying approach and discrete choice modelling methods allow valuation of changes in DRT service.
- Estimated through trade-offs respondents make when choosing between different hypothetical specifications of DRT involving the attributes:
- ***Operating hours:*** *during which the service can be booked.*
- ***Probability of assured ride:*** *within 10-minute window of requested time.*
- ***Fare:*** *Fare per ride.*
- ***Local tax to support the service:*** *An additional local tax payable by all households*
- ***Number of residents served in a month***

SP screenshot example

Scenario 1 /5:

Consider the three DRT service options below. Based on their characteristics, which one would you prefer to see in your area?

(To see the definition of the characteristics of the service, please hover the pointer over that characteristic or [Click Here](#))

	Service I	Service II	Current Service (Status quo)
Operating hours	6 AM to 8 PM	6 AM to 10 PM	6 AM to 10 PM
Chance of booking requested time slot	10 out of 10	4 out of 10	5 out of 10
Fare	£6	£1.5	£2
Monthly local tax	No tax	£4	No tax
Monthly users	500	750	500
Your choice:	Service I	Service II	Current Service

Essex DRT area SP scenario

SP valuation interpretation

- The contingent value (CV) estimated from the modelling measures how much compensation (or payment) makes a person indifferent between two scenarios.
- In **non-DRT** areas a positive CV for the service can be interpreted as the potential value of the service to residents
- In **DRT** areas we interpret a positive CV for a service improvement amongst *non-users* as indicative of a non-use value (e.g. representing option value, altruism)
- The existing evidence base of such valuations is thin.

SP estimation results

In **non-DRT** areas:

- Residents indicate a preference for the introduction of a new DRT service.
- Residents with a driving licence have a lower preference for a new DRT service

In **DRT** areas

- Users prefer the current service not to change
- Signs on service attributes: ***Operating hours, Probability of assured ride, Fare and Tax*** are significant and of expected sign.
- ***Number of residents served*** is not a significant determinant of choice of service

Contingent valuation results

Based on our SP estimation results, if we introduce a new service in **non-DRT** areas which mirrors the service in DRT areas:

- The service is valued at between £6.50 - £7 per month per household

In **DRT** areas:

If we improve existing service by increasing probability of assured ride (80% vs 50%) and operating hours by 2 hours per day

- The improved service is valued at between £1.90 - £2 per month by non-user households
- Existing users less willing to pay for such changes
- Overall, positive value associated with DRT even amongst non-users.
- These are preliminary results with more exploration required.

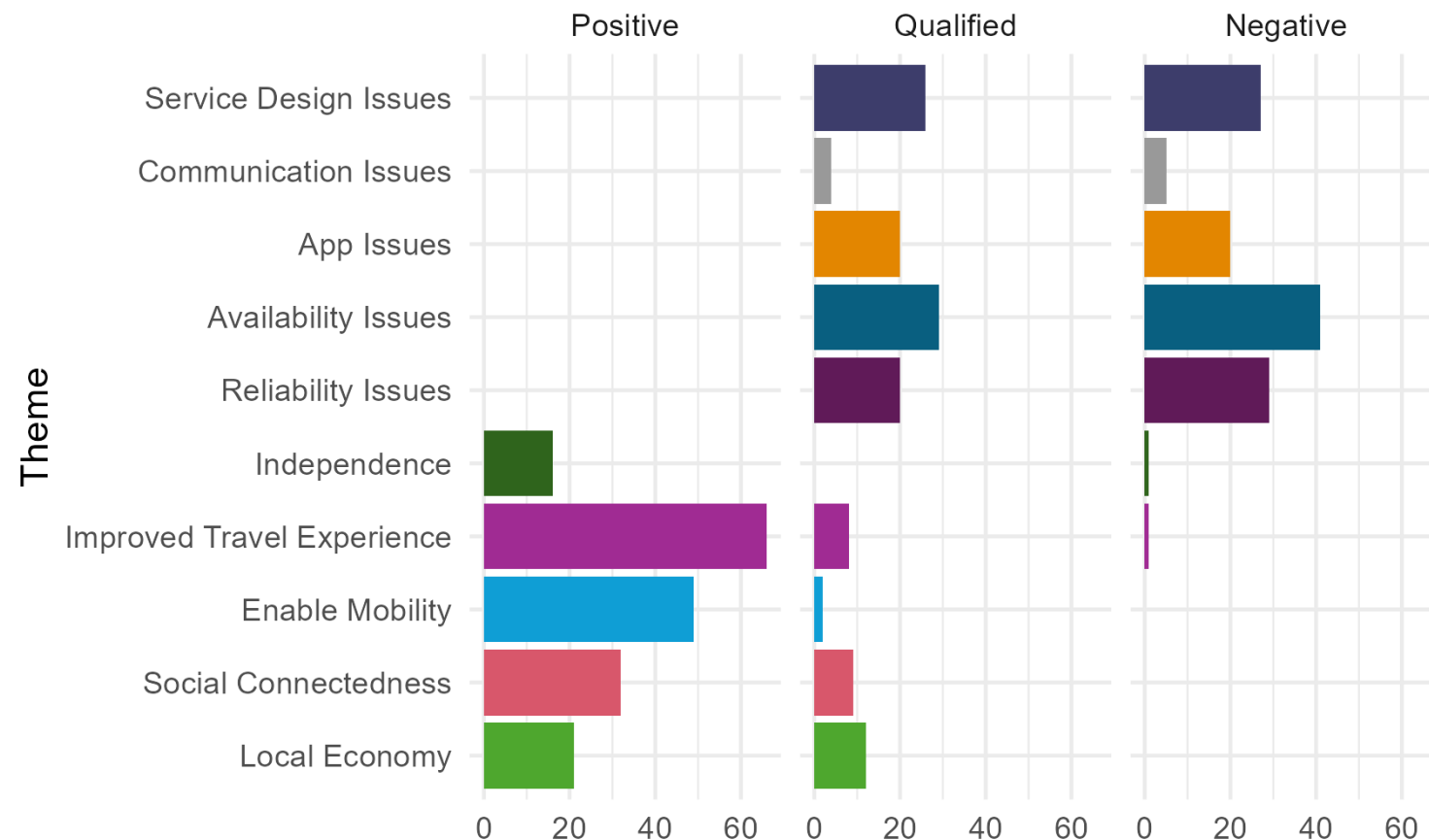
Difference DRT makes to individuals

How DRT has affected users

- Thematic analysis of open question comments from survey (N=324).
- 49% expressed positive sentiment, 21% positive sentiment with qualification, 24% negative sentiment and 5% no discernible sentiment.

“Enabled me to travel independently, saved travelling time, companionship of drivers. Would not want to be without it.”

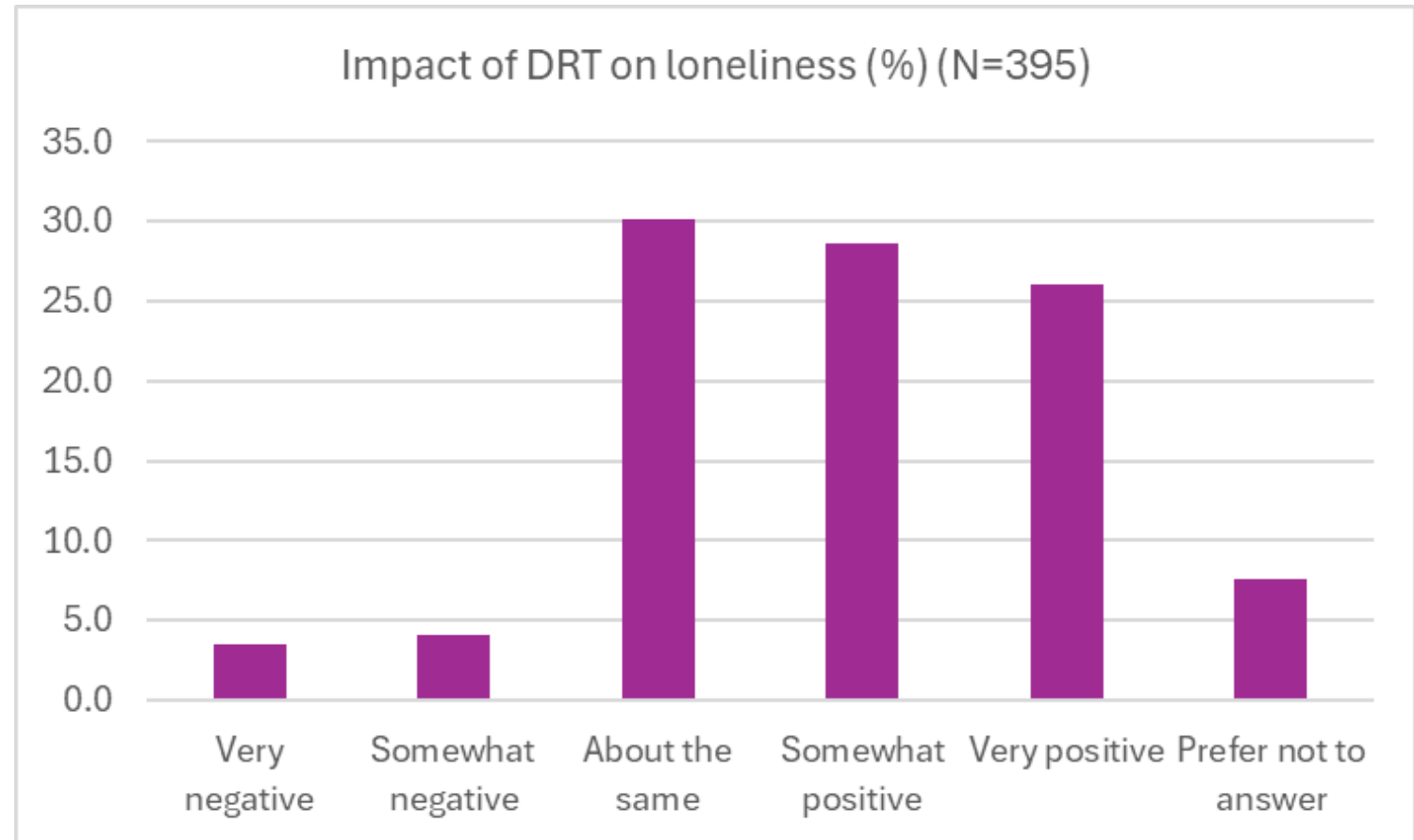
“Not being able to get to work early if I need to as "app says, all seats are fully booked, try another time" which is no good if I need to start at a specific time.”



Please share any comments about how using [DRT] has affected you (positively or negatively)

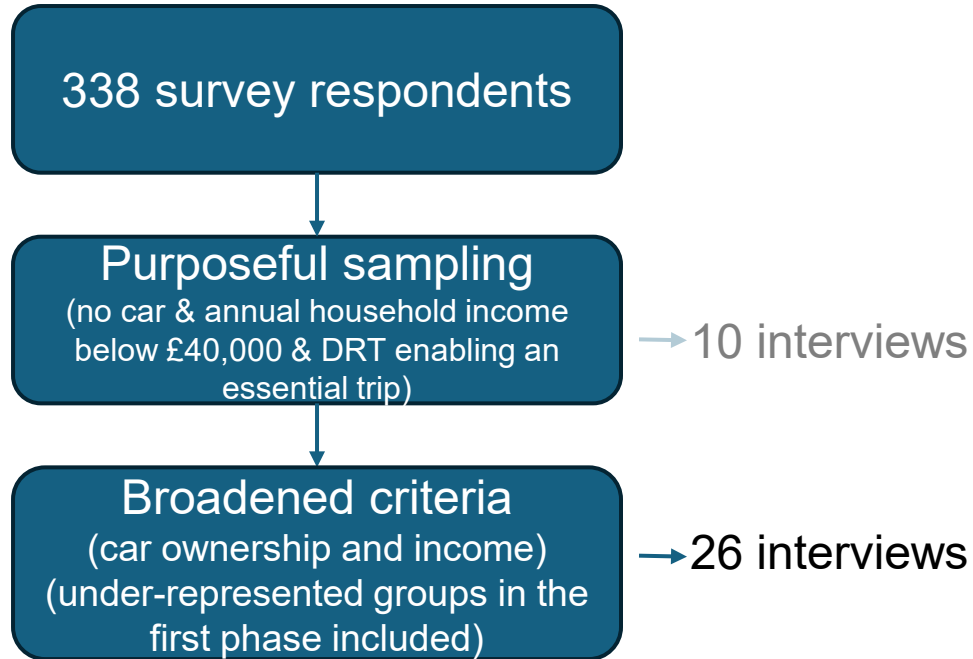
Impact of DRT on loneliness

- Higher percentage of DRT users feel lonely occasionally, sometimes and often than residents of DRT area (49% compared to 45%)
- More than half of DRT users (55%) report a positive impact of DRT



Thinking about how you felt before you used [DRT]. What impact has having access to [DRT] had on your feelings of isolation, loneliness, and companionship?

User interviews



Part	Topic area
1	" When and why started using DRT in the context of life situation"
2	"How DRT has helped get to destinations / opportunities"
3	"Living well and the role of DRT"
4	"Feelings about using DRT"
5	"What they think about the value of DRT to the wider community"

- Gender: Women (18); Men (8)
- Age: 21-29 (5); 30-39 (6); 40-49 (3); 50-59 (2); 60-69 (5); 70+ (5)
- Employment: Full time (6); Part-time (7); Retired (7)
- Income: <£10k (5); £10-19k (6); £20-29k (6); £30-39k (3); >£40 (2); prefer not to disclose(4)

DRT user profiles



Rural elderly

- Many completely reliant on public transport with DRT providing only means of independent travel.
- Not having to rely on others seen as a key benefit.
- The safety of DRT and the social interaction with drivers are valued aspects.



New/returning rural residents

- Often bring transport habits from better connected places.
- Use DRT to engage in social life, find or access work.
- Often single car or sometimes no-car households.
- Combating isolation important benefit here too.



Mid-life carers

- Juggling multiple responsibilities (often work and care) and complex travel arrangements.
- DRT useful for flexibility of destination and time-saving compared to other options.
- Allows non-drivers to fulfil social roles and support loved ones.



Rural youth

- Sometimes DRT the only way of accessing education or work.
- Also provides for post-school young people for whom car ownership is not possible.
- Particularly helpful for young people with multiple needs.
- Diverse uses – essential and discretionary

Interview themes



Autonomy

A key way DRT is narrated by users – most often positively but sometimes within broader changes to the transport system that are not always seen as positive

- *Confidence and safety*
- *Destinations accessed*
- *Availability and time saving*



Automobility

DRT experiences framed around differing and changing relationships to car use. Life situation and past history often connected to this.

- *Giving it up*
- *Future drivers*
- *Never have, never will*



Sociality

What is often accessed or enabled by DRT (and the autonomy it affords). Incidental sociality from running errands or supporting purposeful connections.

- *Isolation*
- *DRT as a social space*
- *Participating in a social life*

Interview themes

Autonomy

*"having a service like DigiGO has literally **saved me not only an enormous amount of time** and stress, but a lot of appointments I would have otherwise **had to cancel or reschedule because of the timings of them** – and orchestrating children to school and things like that."*

*"**we were relying more on my sister** coming to fetch, well, it's just, it's a 13 mile trip for her to come and fetch us and bring us back, whereas now she doesn't have to come so often, **I'm not relying on her so much** 'cause I've got the other option of using the Nottsbus."*

Automobility

*"I will be quite honest with you, **with regard to the expense of buying another car**, [...], if it continues and we expand it, the service, I might have no need for a car,"*

*"if it wasn't available, oh yes, life would be terrible. No, there is no doubt, **there is no doubt I would have to go straight out and buy a car, whether I want one or not**, I would have to"*

Sociality

*"**you get like a friendship with your bus drivers and they understand your circumstances**, which is really good because they'll understand if you're not so good on my feet that day, I'll tell them I'm not so good and **they'll try and get me closer to where I need [to be]**"*

*"having The Robin there is huge really, **knowing that you can just book it**, because otherwise I think you'd be so isolated and I know for many years I have felt quite isolated."*

Broader insights

- 1. Changes in car access a common theme and not limited to the rural elderly.** Many users of different ages and 'profiles' are reckoning with meeting their travel needs with no or reduced car access. Health (both physical and mental) is a frequent explanation, but there are other stories too.
- 2. DRT is appreciated for more than just the access that it provides.** A common theme focused on how DRT fostered feelings of confidence and safety which contributed to users' autonomy – this was about the specific characteristics of the scheme, that it was near door to door but also the role that the drivers played in making it feel like a safe and sociable space.
- 3. Users spoke about how DRT impact their lives in terms of dignity.** This often came up in relation to not having to bother family members or friends for lifts and the autonomy this brought. It was also apparent in how some spoke about being able to live lives and have experiences that would be 'normal' for those who own cars but would be very difficult otherwise.

Summary of findings

- About two-thirds of DRT trips not possible without DRT
- We estimated social value of £13-18 per DRT return trip for **activities not possible without DRT** – largest share being from supporting employment
- We estimated value of £6.50 - £7 per month per household based on preferences expressed by residents of **non-DRT** areas
- In **DRT** areas we find positive value for improvements, especially for non-users
- The results highlight the benefits of DRT to individuals and other agencies outside transport.
- Our work is a starting point – methodology needs development.
- There are other benefits of DRT to take into account
 - Traditionally considered (e.g. travel time savings, physical activity benefits)
 - Not traditionally considered (e.g. loneliness, local economic benefits).

Q&A

Panel

Chair: Sharon Payne, Transport East

Panelists

James Hopkins, Essex County Council

Tom Main, Gloucestershire County Council

Anthony Nix, Nottinghamshire County Council



Follow-on project

- Successful with follow-up funding application to UKRI's Creating Opportunities Evaluation Development Fund.
- Aim of the project to examine DRT's role more generally in strengthening rural communities with a focus on local economic activity
- Four project objectives:
 - Maximise learnings and impact from data collected in the original project
 - Impacts of DRT on local businesses and other organisations
 - Evaluation of innovative DRT schemes
 - Produce guidance and tools for policy makers and practitioners

Thank you for listening!

www.drtconnecting.co.uk