1   **IMPROVING ACCESSIBILITY FOR OLDER PEOPLE – INVESTING IN A**
2   **VALUABLE ASSET**
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23

ABSTRACT

This paper explores the contribution of older people to society, the role of travel in this, and whether the removal of barriers to access for older people would enable them to increase their contribution. The paper commences by considering evidence on the economic value of older people to society. This shows that older people make a net contribution through expenditure in shops, employment, voluntary work, childcare and taxation which exceeds their cost to the taxpayer. Expected demographic changes mean that society will require older people to make a greater contribution in future, hence it is prudent to consider the barriers that may hinder this. A key factor is accessibility. It is shown that the travel patterns of older people reflect their contributions to society, and so barriers to travel are likely to hinder such contributions. It is shown that most older people have the physical or mental ability to travel and that most of the barriers involve the interaction between the environment and their capabilities. The example of providing free off-peak bus travel for older people in Britain is shown to have brought benefits for both older people and wider society. The paper is concluded by discussion about three critical issues that need to be addressed in overcoming the barriers to access for older people: access on all stages of the journey, non-tangible barriers, and cost effectiveness in removing barriers to mobility for older people. Addressing these issues should enable older people to make a larger contribution to society.

INTRODUCTION

In a recent report by the Royal Voluntary Service in Britain (1) based on a study designed to improve older people's well being and increase their involvement in society, it was found that many of the older people surveyed felt undervalued by society. Various causes were found including negative perceptions and labelling of older people. The traditional services being provided to older people project an image that discouraged their use by some potential users, particularly those who do not wish to be identified as old or those who wish to mix with people of all ages. These findings reflect common attitudes in society, with older people seen as a burden on society, receiving money and not contributing much.

The purpose of this paper is to explore the contribution of older people to society, particularly the role that travel plays in facilitating this contribution and assessing whether, by improving accessibility, they could contribute even more. The paper is largely based on experience in Britain, but similar situations exist in many other countries.

Because the aging process is continuous, with many people finding their abilities to travel deteriorating gradually over time rather than going through a sudden transition as happens with some disabilities, it is not appropriate to define the older population exactly. Statistical sources use various cut-off points to define older people.

THE CONTRIBUTION OF OLDER PEOPLE TO SOCIETY

This topic is very timely because older people are becoming a larger proportion of society as longevity increases. As Table 1 shows, one hundred years ago, 5.2% of the population in England and Wales was aged 65 or over. By 2011 this had increased to 16.5%. Over the same period, the number of people aged 40 to 64 also grew while the number of younger people decreased. If these trends continue, there will be a growing elderly population and a decreasing population in the age groups that have traditionally been economically active. For these reasons, in common with many countries, Britain is increasing the age at which people

1   receive their state pensions. This means that more people will be retaining their jobs beyond
2   the age at which people retired in the past. Some people may welcome this as an opportunity
3   to continue earning income and enjoying the workplace culture while others may resent
4   having to work beyond an age at which those of previous generations could enjoy a more
5   leisurely lifestyle. Either way, there needs to be adequate transportation: either to ensure that
6   they can reach work or to enable them to have fulfilling lives to avoid the issues identified in
7   the report cited at the beginning of this paper (1).
8
9   **TABLE 1 Population by Broad Age Groups, 1911 - 2011, England and Wales (%)**

Age	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
0-14	30.6	27.7	23.8	23.0	22.1	23.0	23.7	20.5	19.0	18.8	17.6
15-39	41.8	40.0	40.4	37.7	35.0	32.9	32.6	36.3	36.2	34.5	33.2
40-64	22.3	26.2	28.3	30.1	31.8	32.3	30.3	28.2	28.9	30.8	32.7
65+	5.2	6.0	7.4	9.2	10.9	11.9	13.3	15.0	15.9	15.9	16.5

10   Source: (2)
11
12   All members of society, including older ones, have inherent value, for example, in
13   terms of creativity and relationships. An important element is the economic contribution to
14   society. The value of this for older people in the United Kingdom has been estimated in a
15   study commissioned by the WRVS (now the Royal Voluntary Service) (3). An economic
16   model was constructed using the following headings for people aged 65 and older:
17   • Costs to society:
18   o   State pension payments,
19   o   Age-related welfare payments
20   o   Age-related health care
21   • Contributions to society:
22   o   Expenditure including the wider value through multiplier effects;
23   o   Social care;
24   o   Childcare;
25   o   Volunteering;
26   o   Bequests to voluntary sector organisations;
27   o   Gifts and donations;
28   o   Savings for grandchildren and asset transfers to family members;
29   o   Employment taxes paid by employees;
30   o   Capital gains tax;
31   o   Inheritance tax;
32   o   Taxes on expenditure;
33   o   Other taxes.
34
35   Of the headings listed above, the following have travel implications:
36   • Taxes:
37   o   Employment taxes paid by employees;
38   o   Taxes on expenditure.
39   • Non-tax contributions:

- o Expenditure including multiplier effects;
- o Volunteering;
- o Childcare.

Employment taxes are paid on earned income and so are associated with travel to work. Expenditure and the tax on it, plus the multiplier effects through the economy, are associated with travel to shops and leisure facilities. The report distinguishes between formal and informal volunteering. The former is done on behalf of voluntary sector and community-based organisations and is associated with travel to the various locations where the voluntary work is performed such as hospitals and charity shops. The latter is effort expended on behalf of friends or neighbors, not involving any third-party organisations, and so is likely to involve travel to their friends' homes or other locations where shared activities occur. Older people often provide childcare for their grandchildren, sometimes enabling the children's parents to be employed by escorting the grandchildren to and from school and looking after them whilst their parents are working. This generates trips between the grandparents' homes and the grandchildren's schools and homes (possibly offset by some reductions in travel by the children's parents taking them to school). 'Social care' is not included in the latter list because it generally means an elderly person looking after a spouse or partner at home, but they could be looking after a sibling, parent, child or friend. This saves society considerable costs in terms of nursing care. It may generate some trips in terms of health visitors and professional carers coming to the home, but save other trips, for example visits by family and friends to the person receiving care.

The WRVS report (3) estimated the total contribution of older people to society in monetary units. Table 2 shows the costs and the contributions and indicates relevant trips. It can be seen that older people contribute more to society than they receive from it. Because some of the contributions involve travel, it seems likely that making it easier for older people to travel would mean that they could make an even greater contribution. Not all the expenditure involves travel, so it would be an interesting (and challenging) research question to establish the volume of consumption by older people that is based on travel, and how that could be enhanced by increasing accessibility for older people by removing the barriers to travel. This is particularly important nowadays because, as implied by the changing demographics indicated in Table 1, it is likely that older people are likely to be called upon to make greater contributions to society in future.

TABLE 2 The Costs and Contributions of Older People in the UK in 2010 (at 2007 prices)

Costs	$billion	Contributions	$billion	Trips associated with contributions
Pensions	110	Expenditure including multiplier effects	123	Shopping, leisure/social
Age-related welfare payments	37	Volunteering	17	Personal business, leisure/social
Age-related health care	73	Childcare	4	Leisure/social, education escort, other escort
		Other non-tax contributions	67	-
		Employment taxes paid by employees	25	Commuting
		Taxes on expenditure	27	Shopping, car trips
		Other taxes	21	-
Total	**220**	**Total**	**284**	
		Net financial contribution to society	**64**	

Source: (3)

Note: The costs were converted from £ to $ using an exchange rate of £1=$1.61617 on 28 October 2013.

TRAVEL BY OLDER PEOPLE

Table 3 shows the number of trips made each year by older people, and for comparison, those in the age group generally below retirement age and the whole population. Because of the Equality Act 2010 which includes age discrimination amongst its provisions, the concept of a fixed retirement age has largely disappeared with an individual's age of retirement a matter of negotiation between the employer and the employee. This makes analysis more difficult since there is no common retirement age in Britain (although it should be recognised that there have always some people who retired at ages other than the state pension age).

1 **TABLE 3 Average Number of Trips Each Year Per Head by Age and Purpose in Great**
2 **Britain, 2012**

Trip purpose	All ages	Age 50-59	Age 60-69	Age 70+
Commuting	146	227	94	10
Business	31	68	28	1
Education	64	1	1	-
Escort education	52	28	16	8
Shopping	189	234	293	283
Other escort	87	81	72	38
Personal business	94	110	136	131
Leisure/social	248	240	288	221
Other including just walk	43	61	61	41
All purposes	954	1,050	987	733

3 Source: Table NTS0611 in (4)

4

5   Because of the difficulties caused by the 'fuzziness' of retirement ages, it is not
6 possible to make an exact comparison between those who have retired and those who have
7 not, but it is possible to discern some differences between older people and others. It can be
8 seen that the number of commuting trips decreases with age, but that some people aged 70 or
9 over make commuting trips. The decline in business trips between the 50-59 cohort and the
10 60-69 cohort is not as steep as that for commuting. This may reflect some trips by older
11 people who are self-employed. It may also include some trips being made to undertake
12 voluntary work, particularly formal volunteering. Very few education trips are made by older
13 people. 'Education escort' means taking children to school. Since it is unlikely that many
14 people aged 60 or over have children young enough to need to be escorted to school, most of
15 these trips will be grandparents taking their grandchildren to or from school or older people
16 offering childcare to neighbors or others. The popularity of shopping as an activity for older
17 people can be seen, reflecting the expenditure of money in the local economy modelled in the
18 WRVS study (3). It can be seen that as people age pass the age of 60 they make more
19 shopping trips, with even those age 70 or over making more trips than average. 'Other escort'
20 means making a journey to take someone else for the benefit of that other person, but
21 excluding taking children to school. This includes trips to take grandchildren to places other
22 than school or other forms of voluntary work such as taking elderly neighbors to hospital or
23 day-care facilities. 'Personal business' includes trips to the bank or post office and may
24 include trips involving expenditure. It could also include some trips to carry out voluntary
25 work. It can be seen that older people make more personal business trips than average or
26 those slightly younger. 'Leisure/social' trips include visiting and meeting friends and going
27 out on trips to places of interest, entertainment and sport, many of which will involve
28 expenditure. For this category, people aged 60-69 make more trips than average and those
29 aged 50-59. The oldest category, those aged 70 or over, make fewer trips than those aged 60-
30 69, probably reflecting decreasing mobility. The final category, which includes just going out
31 for a walk, is popular with those aged 60-69, but with a decrease for the oldest category,
32 again probably reflecting decreasing mobility. Overall, the figures in Table 3 suggest that, as

1   people enter retirement they make more leisure/social and shopping trips, and make a number
2   of trips escorting others, including children, probably grandchildren, to various destinations.
3   As they age, people make fewer trips, but the proportion that are for shopping, personal
4   business and leisure/social increases. These figures seem to be consistent with the picture
5   indicated by the WRVS report (3) with older people spending money on retailing and
6   services, and undertaking voluntary work and childcare, with some of them still employed,
7   contributing to the national economy and paying income-related taxes. This raises the
8   question whether barriers to travel are causing some older people to contribute less to society
9   than they might otherwise.
10
11 **THE BARRIERS TO TRAVEL FOR OLDER PEOPLE**
12 As implied above, many older people do have mobility difficulties, as shown in Table 4. It
13 can be seen that mobility difficulties increase with age, with only 4% of younger people
14 having such difficulties, which increases to 17% for those aged 50-59 and to 39% for those
15 aged 70 and over. It should be noted that most older people do not have mobility difficulties.
16
17 **TABLE 4 Adults with Mobility Difficulties by Age and Gender, 2012**

	All aged 16+	16-49	50-59	60-69	70+
% of all adults who have a mobility difficulty	11	4	10	17	39
Trips per year by people with a mobility difficulty	634	725	735	748	517
Trips per year by people with no mobility difficulty	1,021	1,024	1,088	1,036	871
Trips per year by all people	976	1,013	1,050	986	733

18 Source: Table NTS0622 in (4)
19
20   It is worth examining what these mobility difficulties are in more detail. Table 5
21 shows impairments by age group. It should be noted that Table 5 mentions 'mobility' as one
22 type of impairment, whereas Table 4 based on the National Travel Survey uses the term more
23 broadly to include those who gave a positive answer to the question 'Do you have any
24 disability or other long standing health problem that makes it difficult for you to do any of the
25 following…?' followed by a list of ways of travelling and so could, for example, include
26 people with visual impairment, who are included in a separate category in Table 5. It should
27 also be noted that the age categories are not identical. A respondent is defined as having an
28 impairment if they experience difficulty within at least one area of physical or mental
29 functioning and certain activities are limited in any way as a result (5). It should be noted that
30 some people with impairments do travel, possibly by adapting their behavior to cope.

1 **TABLE 5 Impairment Types by Age Group, 2009/11**

Type of impairment	Percentage of all adults	Percentage of those aged 16-34 years	Percentage of those aged 35-54 years	Percentage of those aged 55-74 years	Percentage of those aged 75 and over
Sight	3	1	2	4	11
Hearing	3	1	1	4	13
Speaking	1	1	1	1	2
Mobility	8	1	5	14	28
Dexterity	6	1	4	9	16
Long-term pain	18	6	17	25	33
Breathing	3	1	2	5	9
Learning	2	3	2	1	1
Intellectual	-	1	-	-	-
Behavioral	1	1	1	-	-
Memory	3	2	3	3	8
Mental health condition	4	3		4	2
Chronic health condition	13	5	10	19	30
Other impairment or health condition	1	1	1	1	1

2 Source: Table 4.3 in (5)

3

4   It can be seen in Table 5 that most of the conditions increase with age and that the
5 three largest categories are 'Long-term pain', 'Chronic health conditions' and 'Mobility'.
6 These are not independent and individuals may have more than one of these, for example a
7 chronic health condition that causes pain which may also cause mobility difficulties. Quite
8 large numbers of those aged 75 or over have sight, hearing, dexterity, breathing or memory
9 impairments relative to the other age groups, but none of these are over 16%, and the
10 proportions of those aged 55-74 with these are all below 10%. Figures are not given in (5) for
11 the numbers with or without an impairment by these age groups, but Table 4.8 in (5) says that
12 48% of adults who are retired from paid work have impairments of some sort, but these
13 would not necessarily affect travel. It is clear from these figures that the majority of older
14 people have the physical and mental capability to travel, and so if they are not travelling as
15 much as they would wish it may be partly due to inadequacies in the supply of transportation.
16   The UK Department for Transport commissioned a study (6) which considered the
17 travel needs of older people including the barriers to activities, including ones associated with
18 travelling, as indicated in Table 6. Out of a total of 1445 older people interviewed, 36%
19 indicated that they would like to do more. The most popular activities that the respondents
20 wished to participate in were visiting friends and families, some of which may have involved
21 voluntary activities. Most of the other activities mentioned would have involved spending

1   money in the local economy (food shopping, other shopping and visiting the Post Office).
2   Participation in leisure and sporting activities may have involved spending money or
3   participating in physical activity which could improve their health. Other activities that were
4   mentioned by fewer than 20 people were going to the doctor, going to hospital, going to a
5   bank or building society and going to work, mentioned by 8, 9, 12 and 14 people respectively
6   out of the sample. The direct transportation barriers mentioned included the cost of travel,
7   difficulties boarding and leaving vehicles, unreliability of the service, problems parking and
8   being confusing to use. The mobility, sensory or health barriers were similar to those
9   mentioned in Table 5. The non-travel factors included the cost of the activity, lack of
10 someone to participate with, lack of time, and the need to look after dependents, the home or
11 pet. In only three cases out of nine (food shopping, other shopping and visiting the Post
12 Office) were the mobility, sensory or health factors perceived to be the barrier for the greatest
13 number of people whereas the direct travel or journey factor affect the highest number of
14 people in four cases. In fact, it is often the interaction between people's capabilities and the
15 environment that create the barriers. Bearing in mind the evidence in Table 4 that most older
16 people do not have a mobility difficult, it is clear that the main barriers to mobility for many
17 older people are not associated with their abilities but with the transportation system and
18 other aspects of the environment.
19
20 **TABLE 6 Barriers to Participation in Activities by Older People aged 60 or over**

	Would like to do more %	Principle barrier		
		Direct travel or journey %	Mobility, sensory or health %	Non-travel %
Visit family	12	58	18	24
Visit friends homes	10	46	27	25
Meet friends elsewhere	10	46	21	33
Leisure/sport	8	15	24	57
Other shopping	7	37	43	21
Food shopping	6	33	50	16
Day center visit	2	25	30	45
Post Office	2	40	42	19
Visit others in hospital	1	65	23	13

21 Source: Table 5.3 in (6).
22
23 **THE EXAMPLE OF FREE OFF-PEAK BUS TRAVEL FOR OLDER PEOPLE IN**
24 **BRITAIN**
25 Before considering ways of overcoming the barriers to travel for older people, it is worth
26 looking at an example where travel has been made easier for older people in order to examine
27 the impacts on travel behavior and more widely.
28   Concessionary travel, that is discounted or free bus travel, has been offered to older
29 and disabled people in Britain for a number of years. 9 million passes were issued in England
30 on the grounds of age in 2011/12 compared with 0.75 million on the grounds of disability.
31 The literature on this topic has been reviewed for evidence on the impacts (7, 8).

One third of the bus trips in England are now made free because of concessionary travel passes (CTPs). Bus companies are compensated for the lost revenue and the resulting extra costs. Currently this costs the British taxpayer over £1 billion ($1.54 billion) a year. In England this is equivalent to £92 ($141) for each pass, with each pass being used for 109 trips on average. Because the total is a significant volume of expenditure, questions are being asked whether this is a good use of public money. However, while the direct costs to the public sector are quite explicit, the scale of the benefits generated by the scheme is much less evident.

Nearly 80% of those eligible for a CTP on the grounds of age have one. This has increased from 58% in 2002 when the statutory scheme requiring local authorities to offer a minimum of half-price local bus travel was introduced. The take up rate is highest in London where the scheme includes travel on both buses and the London Underground (metro) at all times. Generally, the take-up rate decreases with the size of urban area and from urban to rural. Over recent years, older people have increased their frequency of bus use. Prior to the introduction of free local bus travel nationally in 2006, about 30% of those aged 60 or over used the bus at least once a week. This rose to 40% in 2010. Conversely, the proportion that never travel on a bus fell from about 46% to 32%, suggesting that offering CTPs has induced some older people who did not travel by bus to do so.

Once they have obtained a pass most people travel more by bus. About 20% of the trips being made using passes would have been made by car if the pass had not been available. Using reasonable assumptions, it seems that the use of CTPs reduces the number of vehicle trips by car in Britain by about 1%. There is evidence that use of CTPs increases walking by younger old people because they walk more as part of extra bus trips while the very elderly walk less, possibly because they are using the bus to take trips they would not be able to afford without a CTP.

The following benefits for older people have been identified in the literature:

- Improved access to services such as medical facilities and Post Offices;
- Improved health by walking more;
- Greater inclusion of older people into society by giving them access to more opportunities for social activities;
- Easing the transition from driving a car to not doing so because they can use the bus to make trips that they find difficult by car such as at night, in poor weather and in large cities;
- General improvements to the quality of life of older and disabled people.

The following wider benefits to society have been identified:

- Less car use and so a reduction in traffic;
- Voluntary work by older and disabled people – both formal and informal, including work in hospitals, charity shops and looking after others;
- Childcare for grandchildren, allowing the parents of the grandchildren to be employed;
- Contributions to the local economy by spending money in shops, restaurants and leisure facilities;
- Savings to the tax payer of not providing some special transportation services;
- A happier, healthier population of older and disabled people.

The evidence shows that concessionary travel passes are popular with those who have them and contribute to their wellbeing by providing a variety of benefits, including opportunities to access services and social activities that they could not otherwise reach. The availability of the concession is also supported by those that do not have them, perhaps because they can see that it is a benefit that they will enjoy one day without being associated with some of the disadvantages of being old.

PTEG which represents the Passenger Transport Executives (PTEs) in the metropolitan areas (the large cities outside London such as Birmingham and Manchester) has estimated the benefits and costs of the concessionary travel scheme in England (9). The greatest proportion of benefits was found to accrue to users, particularly those who would have travelled without the concession. This was related to the equity impacts because older people tend to have higher levels of deprivation than the population at large. The estimated benefits to new users at £69m ($112m) greatly exceeded the costs at £22m ($35m), implying a benefit-cost ratio exceeding 3.0. The benefits to other bus users, based on the improvement in bus service frequency, were estimated to be worth £27m ($44m). The other wider benefits of decongestion plus other externalities and the wider economic impacts came to £46m ($74m). The bus externalities and loss of indirect taxation, a total of £28m ($45m), had to be deducted from the benefits. This leaves a total net benefit of £377m ($609m). The costs of the revenue foregone and the extra capacity costs came to £254m ($411m), so this meant that the overall benefit-cost ratio was 1.5 to 1. This implies that the benefits of scheme exceeded the costs by a considerable margin.

Rayner (10) analysed over 3000 email responses from older people in London about their use of their CTPs. From these, he identified the range of uses shown in Table 7. Whilst this was not a representative sample and the transit opportunities are greater in London than elsewhere in Britain, it does indicate the range of uses of CTPs. It is not possible to establish how much the contribution to society of voluntary work is facilitated by the CTP system, but it is likely that it is quite significant.

TABLE 7 Use of Concessionary Travel Passes by People aged 60+ in London Based on over 3000 Emails

Purpose	%	Detailed purpose	%
Expenditure	45	Organised social events (lunch clubs, arranged outings)	16
		Visiting museums, exhibitions, galleries, library visits etc.	16
		Shopping, bank, Post Office	12
		Eating out, coffee and tea	2
Voluntary work	17	Formal	15
		Informal	2
Childcare	8		8
Other travel	30	Visiting family and friends	11
		Exercise (swimming, Tai Chi, yoga, walking, Ramblers etc.)	7
		Attending educational courses, seminars and forums	5
		Avoiding social exclusion (avoiding being housebound)	6
		Attending religious services	1

Source: (10).

OVERCOMING THE BARRIERS TO TRAVEL FOR OLDER PEOPLE

It is not difficult to identify ways that may improve access for older people, but there are three principles that emerged from consultation exercises and other research carried out in St Albans in England (11) in the AUNT-SUE (Accessibility and User Needs in Transport for Sustainable User Environments) research programme that need to be considered:

- The whole journey needs to be accessible;
- Many of the barriers are to do with the behavior and attitudes of other people rather than physical infrastructure;
- Many of the changes required cost money, and not everything can be done at once, hence it is useful to prioritise so that the most cost-effective changes are given priority.

In order to make the whole journey accessible it needs to be broken into stages. For a transit trip these include:

- Preparation, where accurate information is essential;
- Reaching the bus stop or railway station along the sidewalk, including crossing roads and changing levels;
- Buying a ticket either prior to boarding or on the vehicle (unless a pass is used);
- Accessing the vehicle;
- Finding a seat;
- Being comfortable during the journey;
- Leaving the vehicle;
- Making an interchange if necessary, and then repeating the last four steps above;
- Reaching the final destination;
- Finding the final destination;
- Entering the final destination.

For a walking journey there are fewer stages since those involving vehicles are not relevant. For a car journey there are different considerations including:

- Being able to afford to purchase and run a car;
- Being able to obtain and afford insurance;
- Being able to read signs;
- Being comfortable when travelling by car;
- Being able to cope with other traffic.

In the case of walking and transit trips, the ability to sit down during the journey is important for many people. In all types of journey access to appropriate toilet facilities is important, including confidence that the facilities will be open. Clear, unambiguous information is essential at all stages of the journey.

In the AUNT SUE work, an example of a journey was found which had one weak point in the whole journey. This was the walk from the center of St Albans to St Albans Hospital where one curb cut was missing in the whole journey, which might be significant for some older people.

The issue of the attitudes of other people is illustrated in Table 8 which shows the proportions of people responsible for discrimination to others who have a health condition, illness or impairment or a disability. This applies to all adults aged 16 and over, but is likely to apply to older people as much as younger ones. The cases which are likely to occur during a journey are highlighted in the table. The largest of these is 'Strangers in the street' reported by 26% of the respondents, suggesting a need to educate the general public to be more considerate to others, but that is very difficult to do. This may be cultural, reflecting attitudes to strangers in Britain, and might be lower (or higher) in other countries. The second category likely to be encountered in the course of a journey is 'bus drivers'. They were identified in the consultation work in St Albans, suggesting that they need more awareness training, especially to wait for an elderly person to sit down before the vehicle moves off. One category identified was people with visual impairment who cannot see when a bus is approaching and so cannot indicate that they want it to stop. It was suggested that bus drivers should stop whenever they see potential passengers carrying a white stick. The other two travel-related categories of taxi driver and rail staff suggest the need for further training and awareness raising.

Cost effectiveness was the third important issue identified in the course of the AUNT-SUE research. Ideally, all barriers should be removed instantly. In reality, there is a need to prioritise which should be removed first. Even when legislation is introduced there usually is a time lag before the removal of the barrier becomes mandatory and it is not always made retrospective.

1

2 **TABLE 8 Adults Aged 16 and over Reporting Discrimination due to a Health Condition,**
3 **Illness, Impairment or Disability**

People responsible for discrimination	Percentage of all adults
Health staff	29
Strangers in the street	*26*
Employer	25
Friends or neighbors	14
Work colleagues	11
Family or relatives	11
Retail staff	11
Bus drivers	*9*
Police officers	5
Social workers	5
Teacher or lecturer	4
Taxi drivers	*3*
Care workers	2
Rail staff	*2*
Others	17
Sample size (=100%)	1,200

4 Source: Table 16.2 in (5).
5 Note: Categories shown in **bold italics** are people likely to be encountered during a journey.
6
7   One approach is to use a software tool such as AMELIA (A Methodology for
8 Enhancing Life by Increasing Accessibility) which was developed in the AUNT-SUE project.
9 Six ways of increasing accessibility for older people in the center of St Albans were analysed
10 in terms of the numbers of extra older people who would be able to reach the city center if the
11 barriers were reduced, based on analysis using data from the Census of Population (12). The
12 following was the ranking of the most cost-effectiveness ways of increasing access for older
13 people:
14   1. Providing streets with better lighting;
15   2. Providing benches every 50 metres;
16   3. New and upgraded public toilets;
17   4. Providing curb cuts at existing pedestrian road crossings;
18   5. Providing wider sidewalks;
19   6. Provide more pedestrian road crossings.
20   If the methodology was applied elsewhere there would probably be a different ranking
21 of the answers, which partly reflect the very accessible environment in St Albans but also the
22 concentration on conventional engineering approaches such as road crossings rather than
23 broader issues such as better street lighting and more toilet facilities. Nonetheless, it does
24 illustrate the need for a rational approach to increasing accessibility for older people,

particularly when resources are limited. It should also be recognised that the costs of some measures to reduce the barriers to mobility will exceed the benefits.

CONCLUSIONS

This paper has argued that there is evidence that older people are undervalued by society, but that, in fact, they make a net economic contribution to society by spending in local shops and through taxation, by carrying out voluntary work and childcare. It was shown that the travel patterns of older people are consistent with these contributions to society, suggesting that barriers to travel may be hindering older people from making even larger contributions. Demographic changes mean that society is going to become increasingly dependent on the contributions of older people and so there is a strong case for overcoming these barriers. It was shown that for most older people the barriers arise from the interaction between their capabilities and factors encountered during journeys and at destinations. The example of the concessionary travel pass scheme in Britain which now offers free off-peak bus travel to all those above the state pension age was used to illustrate how removing a barrier to travel for older people produces benefits for both them and wider society.

Three critical issues in overcoming the barriers to access for older people were examined: the whole journey needs to be accessible, the need to address non-tangible barriers such as the behavior and attitudes of other people encountered during a journey, and the need to be cost effective in investing in ways of removing barriers to mobility for older people.

An important issue is the valuation of the benefits of an increase in accessibility for older people. Two methods have been discussed: cost-benefit analysis, as used for the CTP scheme, and relative cost effective analysis, as demonstrated by the use of AMELIA. The former was applied to a single national policy which has been well documented, and the latter is only applicable at a local scale. It would be extremely useful to be answer the question: 'If a government body wanted to spend, say, $10 million in improving accessibility for older people, what would be the most cost-effective way to do this'? A methodology is required to show the benefits of programmes of accessibility improvements for older people. This would be difficult because some of the benefits are intangible, others are very complex involving trips by some people being substituted for different trips by others, and there are synergies between the impacts of some accessibility improvements and conflicts with others. This is an important research issue.

It is acknowledged that the analysis in this paper is largely based on secondary data. Nevertheless, the argument seems to be sound: it is clear that older people do contribute considerably to society and that by removing the barriers to travel, their contribution could be increased. This would not only be just, but would benefit the whole of society.

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