JUST THE TICKET? EXPLORING THE CONTRIBUTION OF FREE BUS FARES POLICY TO QUALITY OF LATER LIFE.

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A thesis submitted in partial fulfilment of the requirements of the University of the West of England, Bristol for the degree of Doctor of Philosophy.

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ABSTRACT

Increasing longevity and the rapidly ageing UK population present policy makers with the considerable challenge of providing suitable mobility options that facilitate the maintenance of an acceptable quality of life in older age. Since April 2008, UK National Concessionary Fares policy has granted older people in England the right to free unlimited nationwide bus travel; introduced with the specific objectives of addressing social exclusion and encouraging modal shift from car to bus.

The literature review discusses the plethora of research that emphasises the key role that mobility plays in maintaining quality of life; both through providing access to basic needs, but also its contribution to certain 'higher level' needs for independence and interaction with others. The literature finds that, particularly in later life (when mobility can be adversely affected by age related processes), the journey itself can represent more than simply the act of travelling between destinations and as such can have intrinsic value in its own right. This thesis identifies and addresses two gaps in existing understanding. First, the current evaluative approach to Concessionary Fares policy has hitherto been focused solely on the aggregate level trips, at the expense of incorporating the very rich contextual information that can inform us about the full subjective benefits of the pass. Second, there is currently a weak understanding of the potential ways in which the provision of a free bus pass can contribute to older peoples' quality of life.

The empirical research took a two-pronged approach in collecting new data on the pass holders' use of their passes. First, an on-board bus survey of pass holders in Exeter (Southwest England) in December 2009 provided aggregate-level data on how pass holders were using their free passes. Statistical analysis using SPSS was conducted to identify factors that affect propensity to increase trips by bus since obtaining a pass, and affect the likelihood of pass holders reporting an improved quality of life. Second, ten qualitative focus groups were held with pass holders with varying bus availability and abilities to use the bus. These were analysed using a combination of manual analysis methods and NVivo, to gain an understanding of the day-to-day use of the pass and behavioural change, and furthermore the creation of individually meaningful benefit that contributes to pass holders maintaining an acceptable quality of life.

The thesis finds the greatest uptake in bus use to be amongst younger pass holders and those who would have driven in the absence of the free bus pass, suggesting the policy's contribution to modal shift from car to bus. Additional benefits emerged, including an avoidance of driving at night and in congested areas. Older pass holders were found to be less likely to increase their travel by bus, but interestingly were more likely to report improving their quality of life than younger pass holders, suggesting that providing a free bus fare offers benefits above and beyond the simple ability to increase bus use. In addition, by virtue of being free, innovative uses of the bus emerged, including timed route challenges and '*bus roulette*[1]'. Moreover, the bus was found to represent an informal social space for interaction with others, whilst the pass enabled holders to justify trips that they could not have justified if there were a cost, but which are of utmost importance to their quality of life.

It is concluded that England's Concessionary Fares policy, whilst providing significant life quality benefits for many older people, has impacted on the bus landscape at many levels; at the aggregate level through increasing state subsidy and through changing the decision to use the bus, and at the disaggregate level through changing the decision-making process and micro-level bus-using behaviours. In this context, a range of policy amendments are considered, such as limiting the number of trips allowed under the scheme, or ensuring that pass holders understand that a service which is free to them does come at a real public cost, as this may change decisions about intensity of use. In terms of future research, it is recommended that further broad social impact analysis is conducted to establish more fully the wider benefits, rather than policy evaluation predominantly focussing on historic, cross-cohort trip rates.

[1] The phenomenon where pass holders choose a bus at random, usually dictated by the next bus that comes along.

ACKNOWLEDGEMENTS

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Chapter One: Introduction

1.1 Overview

Much research has emphasised the important contribution of mobility in maintaining an acceptable quality of life in older age, and documented the feelings of isolation, loneliness and depression that can often occur when mobility is lacking (Roberts *et al.,* 1997; Zeiss *et al.,* 1996; Bowling *et al.* 1989). In a society that has become increasing mobile, travelling further distances than ever before (particularly by private car), and with the locations of activities becoming more dispersed to reflect these auto-centric mobility trends, some older people can find it difficult to maintain sufficient levels of mobility necessary to fully participate in the society they live (Adams, 1999; Cobb & Coughlin, 2004; Braithwaite & Gibson, 1987). Not only does this mean that some older people are unable to reach activities that are instrumental to their daily living, but moreover they can be denied access to the wider benefits often associated with being mobile, such as feelings of independence and opportunity for social interaction en route (Kelly, 2011). It is widely recognised that these mobility-related changes within society can often have disproportionate consequences for older people, with this group being at higher risk of experiencing '*transport disadvantage'* and ultimately therefore at greater risk of becoming socially excluded from society (Hine & Mitchell, 2003). The somewhat paradoxical outcome is that, whilst on the one hand policymakers seek to respond to some of the externalities of a car-centric hypermobile society (such as congestion and air pollution) using policies that ultimately aim to *reduce* overall demand for travel; on the other hand, social policy stresses the need to *increase* the mobility opportunities for older people, to ensure they can maintain an acceptable quality of life in a car dominated society (Adams, 1999).[2]

In the current times of economic austerity, social policymakers seek practical solutions to assist the growing population of older people in maintaining their quality of life, whilst attempting to achieve this in the most efficient and economic way possible. In other words, they seek policy that harnesses the maximum benefit to the intended audience, but at the lowest possible cost. In recent years a number of policies have emerged in England which have the purported aim of maintaining

[2] See page 28 for a full discussion of the relationship between transport and social exclusion.

quality of later life (and indeed preventing the social exclusion) of older people, such as the free bus pass, free prescriptions, free swimming sessions, community transport schemes, and assistive technologies in the home. Yet as discussed in Section 3.11, surprisingly few of these schemes have been systematically evaluated for their actual contribution to their purported goals, in part due to a failure to meaningfully operationalize the nebulous concepts of *social exclusion* and *quality of life* (Lyons *et al.,* 2002; Lyons, 2003).

This thesis takes just one of the many policy interventions aimed at improving the quality of later life - namely that of the free bus pass offered under England's Concessionary Fares policy. A full discussion of the details of the policy can be found in Section 3.5. In brief though, since April 2006, older people[3] (and those with a disability) in England were eligible to apply for a pass allowing them, as a minimum, free off peak travel by bus within their local area[4], a scheme which was subsequently extended to offer England-wide free travel by bus in April 2008[5]. This represented an extension to the previous commitment to half-fare travel in place since April 2001.[6] Similar concessionary travel schemes exist in Wales, Scotland and Northern Ireland, and are also discussed in Section 3.5. Whilst the focus of this research is very much upon the scheme in England, it is envisaged that the findings will have relevance to other countries considering, or currently operating zero-fare bus schemes.

The most important officially stated objective of the scheme was to maintain the quality of later life, and thus reduce the likelihood of exclusion in older age, through providing access (via the bus) to local facilities and amenities (DfT, 2008a).[7] The overarching ambition of this thesis then is to better understand the potential (and actual) contribution of England's free bus fares policy to the quality of life in older age, and its ability to mitigate social exclusion in older age. As shall be argued throughout the thesis, this necessitates a deeper understanding of how and why pass holders are really using their pass within the context of their daily lives, which to date has been the subject of scant previous research (Metz, 2000). These

[3] The term 'older people' was defined as those 'who have attained the age of 60' under the Travel Concessions (Eligibility) Act 2002, but subsequently redefined as 'those over pensionable age' under England's Travel Concessions (Eligibility) (England) Order 2010. See P. 62 for details of the gradual rising of pensionable age.
[4] This was made statute in the Travel Concessions (Extension of Entitlement) (England) Order 2005. See P.58
[5] Extension to nationwide travel made statutory under England's Concessionary Bus Travel Act 2007. See P. 59
[6] The provision of half fare bus travel to older people made statute under Transport Act 2000.
[7] See P.61 for a discussion on the policy's official and implied objectives.

explorations will be achieved through two aspects of data collection - first analysis of an on-board bus survey, and second a series of ten focus groups conducted in the County of Devon, South West England. Having briefly set the context for the research, the next section identifies the specific research problem that warrants further attention in relation to concessionary bus travel, and sets out the trajectory of the research, outlining its guiding aims and objectives.

1.2 The Research Problem

The specific overarching research problem identified for the purposes of this research is that:

> *'whilst England's Concessionary Fares policy has the purported aim of improving the quality of life of older people in England[8] and ultimately reducing the likelihood of becoming socially excluded in later life, there is a distinct lack of research that evaluates its success in achieving this. This is coupled with a poor understanding of how and why pass holders are really using their passes in the context of their daily lives, the nature of benefits derived from the pass' use, and to whom these accrue[9].'*

The research problem stems from the observation that at the time of writing, there has been limited research conducted relating to the specific benefits that holding and using a concessionary bus pass can bring to older people (Last, 2010; Andrews *et al.,* 2012). In Section 3.1 it is recognised that evaluation of zero-fares policy thus far has tended to focus solely on output measures such as increases in bus trip frequency and distance, with less attention on the outcome of the policy in terms of its contribution to creating individual, meaningful benefit (Hirst & Harrop, 2011; Metz, 2000, Campbell, 2001). With the promotion of social inclusion at the core of its intentions, this gap in existing research means that the current approach can be argued to be lacking in the very same context-specific information that, alongside quantitative measures can reveal the true success of the scheme (Rye & Carreno, 2008.

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[9] This lack of evaluation of Concessionary Fares policy is recognised by: Last (2010), Hirst & Harrop (2011), White & Baker (2010).

Underlying this, Wilkinson *et al. (*2011) recognise the broader lack of understanding of the range of impacts that can arise as a result of the intervention of a free bus pass- in particular pertaining to possible shorter and longer run effects. Evidence discussed in Section 2.9 highlights the array of additional potential benefits of the scheme including the 'potential' to travel (Sager, 2006; Vickerman, 1974), the opportunity for social engagement whilst aboard the bus (Kelly, 2011; Anable & Gatersleben, 2005), and its potential influence on the longer term, more gradual decision to give up driving (Scottish Executive, 2004). Importantly, such changes in travel as a result of the pass would not necessarily be captured using purely an aggregate approach to evaluating the policy. Wilkinson *et al. (*2011) argue that the benefits of the free bus pass provided by the scheme cannot be equated solely to an increase in the number of trips generated. They highlight the need to understand the causal pathways that link the intervention of a free bus pass to a policy outcome, and the difficulty in quantifying such effects. There is a dearth of research exploring the mechanisms and underlying causes that explain the link between providing a free bus pass and it creating meaningful individual benefit and quality of life contribution, with the consequence that current analysis of the policy offers only a superficial explanation of true behavioural change (ibid). Ogilvie *et al.* (2006) stress the urgent need to build up the evidence base surrounding the health (and other) benefits of the free bus travel schemes in order to provide evidence for policy, recognising that this is a challenging task that cannot be achieved by one single study.

By way of summary then, this Thesis makes two core contributions to enhancing the current evidence base. Firstly, it will bolster evidence relating to how and why pass holders are using their passes in the context of their daily lives. Secondly, the research will explore the mechanisms and ways in which the free bus pass has facilitated a 'meaningful' contribution to their quality of life. Section 1.3 (below) provides an outline of the research's aims, after which a schematic overview of the whole thesis is provided.

1.3 Research Aims

Based on those gaps in existing understanding identified in Section 1.2, the present research addresses the following specific research questions:

1) *In what ways have pass holders changed the way they use[10] the bus (and other modes) since being provided with a free bus pass and why?*

2) *What benefits have these changes brought to pass holders, and what is the nature of these benefits?*

3) *To what extent has concessionary fares policy contributed to the improvement of quality of life for older people?*

4) *What specific policy recommendations can be made as a result of the research findings?*

These questions will be discussed in the context of relevant literature relating to both theory and practice in the fields of social policy, psychology, transport, and other relevant disciplines. Having in this chapter outlined the specific questions meriting research attention, the final section (1.4) of this introductory chapter plots the trajectory and flow of the thesis, outlines its constituent chapters, and identifies the logical narrative flow through the thesis.

1.4 Research Narrative

The research story commences in Chapter Two, which describes the origins and consequences of the policy issue of reduced mobility in later life. In particular the chapter offers a careful and critical discussion of the theoretical concepts central to this thesis, namely those of 'older age', 'social exclusion' and 'quality of life'. After arriving at working definitions of these terms, the chapter discusses theory relevant to understanding the potential contribution of free travel - and specifically a free bus pass- to the quality of later life, drawing on a critical multidisciplinary review of current literature on the topic. Having outlined the broad theoretical constructs, Chapter Three focuses on England's Concessionary Fares policy, tracing the

[10] Note that the term 'bus use' is considered to have three elements. First, the act of taking the bus (i.e. how it is used), second, the activities that it is used for (i.e. what is it used for) and third the use of the bus as a space (i.e. how the space is used).

origins, applications and relevance of the policy solution of providing unlimited free bus travel as a response to tackling social exclusion in later life. It summarises the legislative, regulatory and financial framework of the policy, drawing out the key issues of relevance to various stakeholders to the policy. The chapter then discusses what is known, and importantly what is currently unknown about the actual contribution of the policy to older people's quality of life. Essentially, as outlined in this introductory chapter, it emerges that despite clear evidence that the policy has led to behavioural change in terms of increasing overall demand for bus travel (as discussed in Section 1.1), there is currently only a limited framework available for understanding the effects of Concessionary Fares policy on bus use, and specifically the underlying causes and mechanisms driving this behavioural change (Wilkinson *et al.,* 2011). This consequently makes it difficult to assess whether, and to what extent the policy has achieved its objective of improving quality of life in older age (Hirst & Harrop, 2011).

Chapter Four critically outlines the research methodology. The chapter describes and justifies the use of a mixed methods approach, consisting of analysis an on-board bus survey and ten focus groups. With a particular focus on the first phase of the research (an on-board bus survey), the chapter addresses issues of reliability, representativeness of the samples, and the implications as to the level of transferability of the findings. The chapter also critically reflects on the strengths and weaknesses of the methodological approach used for the research.

Chapter Five subsequently presents the findings from analysis of the onboard bus survey of concessionary pass holders commissioned on a large operator's bus network in Southwest England.[11] It sought to understand how pass holders have changed their travel behaviour by bus (and other modes) since obtaining a free bus pass, and how they might have travelled in the absence of a pass. Statistically significant relationships are identified, with possible explanations for these discussed. The chapter concludes by posing additional questions, which could not fully be answered using quantitative methods alone. These guided the formulation of questions for the second method: the focus group.

Chapter Six offers a critical discussion of the second qualitative phase of the methodology, namely ten focus groups conducted with pass holders with varying

[11] The researcher had some involvement in the design and commissioning of the survey, which was conducted as part of another project. However, the main contribution in terms of this research is the analysis of the data (see P 63.)

bus availability in Southwest England. It discusses how the findings from the first phase influenced the design of the research and the formulation of the focus group questions.

Chapter Seven then critically discusses the results from the qualitative focus groups, offering a detailed understanding of the rich contextual information, particularly relating to changes in pass use and its benefits. It also offers pass holders' views on the future direction of the policy. Having discussed the findings of the two chapters individually, Chapter Eight then serves as a synthesis chapter to draw together the core findings of the two research methods and discuss them in the context of the research's questions. This builds upon, and is compared to other literature findings in relevant research fields. This chapter offers a critical discussion of the findings and potential alternative explanations for its findings, as well as discussing its limitations. Chapter Nine is the conclusion chapter, which assesses how the findings relate to and respond to the research questions, and contribute to the current state of knowledge on the topic of concessionary bus travel.

Chapter One offered a brief overview of the overall structure and aims of the thesis. Chapter Two will now critically discuss the core concepts and theoretical constructs relevant to the research, and identify how they are relevant in providing an underpinning of the research that is undertaken by the Thesis. Figure 1 (overleaf) provides a schematic overview of the thesis.

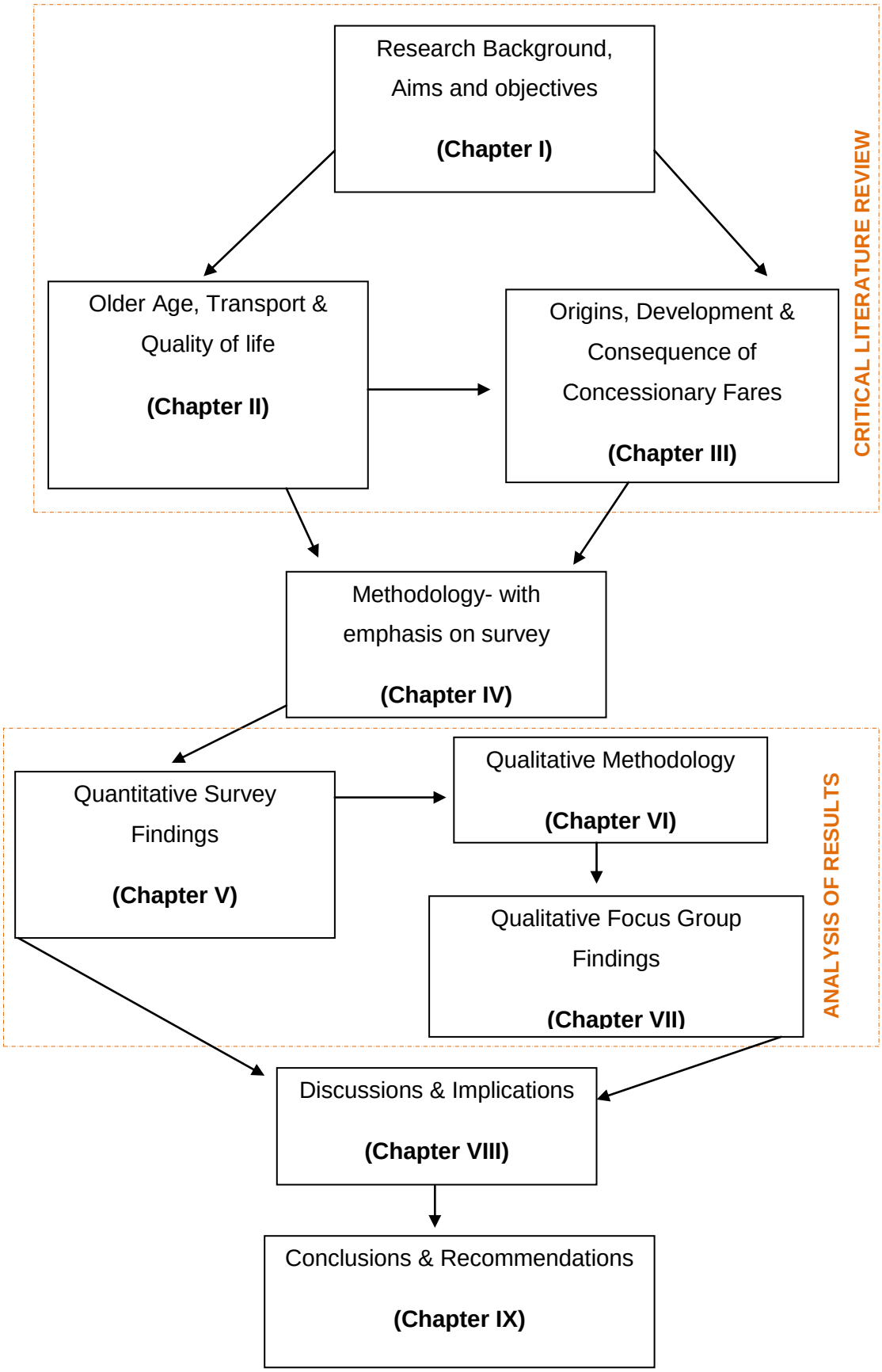


Figure 1: Schematic Overview of the Thesis

Chapter Two: Older Age, Mobility & Quality of Life.

2.1 Overview

Before embarking on an in-depth discussion of the specific details and debates surrounding England's Concessionary Fares policy, it is important to understand the theoretical framework that underpins the need for the policy and its ability to realise its purported goals. In this case, the core concepts of the policy: those of '*age*' '*social exclusion'* and '*quality of later life'* are noted to be on the one hand widely-used terms, yet on the other hand remain relatively poorly defined (e.g. Sen, 2000; Lyons *et al.*, 2002). Thus the chapter commences with a discussion of, and setting out of a working definition for these core concepts, drawing on the relevant debates and arguments in the academic literature. The chapter then leads onto a discussion of relevant literature documenting the problem of transport disadvantage and the link between mobility, social exclusion and quality of life, with a particular focus on the mechanisms and processes underpinning its contribution. This chapter thus provides the theoretical backdrop for the Thesis before entering into Chapter Three, which discusses the more practical issues, implications and effects of the policy. The chapter commences with a discussion of the concept of age, which is fundamental to Concessionary Fares policy, given the context of the policy operating in a rapidly ageing population, and the fact that age forms the main basis for entitlement to a concessionary pass.

2.2 Understandings of 'Older Age'

Age - as the principal determining criteria for eligibility to possess and use a concessionary bus pass - is a concept of central importance to this Thesis study. The UK is experiencing an unprecedented ageing of its population, with one-fifth of the population currently over pensionable age, with a third aged 50 and over (Office for National Statistics, 2011a). Current projections are that by 2033, the number of people aged 65 and over will rise by 65% to 16.4 million and that by 2084 one in three people will be aged over 60 (Office for National Statistics, 2009). Furthermore, changes in longevity have had the result that the number of people aged 85 and

over (often termed the '*older old*') is set to double in the next twenty years and treble in the next thirty years (ONS, 2011). This growing group of society is noted to have considerable purchasing power, spending an estimated £57 billion per year and their income has risen by 44% in real terms between 1994/5 and 2008/9, albeit with wide variances in the distribution of this wealth (HSBC, 2011). Whilst researchers remain divided as to whether future generations will become more wealthy, it is clear that policymakers face significant challenges, but also opportunities when planning for a future in which a significant proportion of people will be aged over the age of sixty (Parkhurst & Shergold, 2008).

The concept of age has been variously and in some cases poorly defined (Nelson and Dannefer, 1992; Rye & Carreno, 2008). The OECD (1998: 45) noted that "*in the last decade the extent of ageing and life-course changes...and their implications for policy are only beginning to be understood".* The lack of operational definition of the concept is in part attributed to age being both a biological reality of the individual, but also a function of the social constructions through which society makes sense of old age (Phillipson, 1982). It is thus recognised that ageing is as much about individual experience as representing a numeric life stage, and so is likely to differ from individual to individual (Wilson, 2000). Furthermore, 'feeling old' can vary even with the same person, with it being highly plausible that a person can report feeling 'old' in one context and 'not old' in another context (ibid). These variations in perceptions and experiences of ageing present difficulties in measuring the concept, and further highlight the increasing diversity and heterogeneity of those aged over the age of 60 in England (e.g. Metz, 2000; Rosenbloom, 2004).

Most commonly, 'older age' is denoted by a predetermined chronological milestone that is used as a benchmark to restrict access, or allow entitlement, to certain privileges - with that demarcation being 65 with respect to Concessionary Fares policy[12] (Neugarten, 1974; Roebuck, 1979). However, such a crude numeric approach to ageing is criticised in most circumstances by Nelson and Dannefer (1992), who point out the significant heterogeneity within this age group, in terms of their physical state of health, travel patterns, and income. Indeed, it is of note that there is in fact more within group variation in this group than between other age groups of society, a finding further supported by more recent research on the topic (e.g. Rye & Carreno, 2008; White & Baker, 2010). Due to this wide variation,

[12] See Section 3.6 for a comprehensive overview of the changes in age eligibility of Concessionary Travel.

Gorman (1993) promulgates an argument for a transition away from the dichotomous essentialist conceptualisation of ageing — where young is the opposite of old — towards a more dynamic approach that takes into account the varying needs and characteristics of older people. In other words this implies the need to view ageing as a process rather than an end state with definitive boundaries (Baltes & Carstensen, 1996). In relation to this current Thesis, if age and its associated related processes that can result in declining mobility (discussed later in this chapter) are seen as a non uniform process, the goal of any alleviatory policy should be to provide remediation that can be activated when necessary, but that takes into account the varying characteristics and needs of its intended recipients (Arber & Ginn, 1991).

Failure to create policy that embraces these significant variations amongst older people in society could result in policymakers running the risk of providing policy that is supply orientated, rather than meeting the varying needs of older people (Nelson & Dannefer, 1992). Cobb & Coughlin (2004) expand on this argument, suggesting that rather than the current focus of attention, which largely focuses on the efficacy of existing transport policies, policy makers should begin to proactively anticipate the needs of what is a dynamically ageing and increasingly suburban population. Victor (1987: 32) stresses the need to avoid the situation of stereotyping of older people whereby:

> *"the old (are) portrayed as dependent individuals, characterised by a lack of social autonomy […] posing a threat to the living standards of younger age groups by being a burden that consumes without producing. They can be perceived as a single homogenous group, and the experience of ageing being characterised as being the same for all individuals, irrespective of the diversity of their circumstances."*

Finally, when using the term 'older age', consideration must be given to the 'cohort effect' - the notion that a number of changes have occurred, meaning that a person say aged 60 is very different to the equivalent age fifty years ago. In particular, older people are now on the whole likely to live longer, be more mobile and more affluent than previous generations (Willets, 2003). This is supported by Yang (2003) who distinguishes between 'age' and 'birth cohort' as two types of time-related variation in people's characteristics. A further distinguishing factor is the proportion of older people who hold a driving licence; increasing 32% between 1991 and 2004

(Department for Transport, 2011a)[13] (see Section 2.3.1). Drawing on this review of the literature, the working definition of older age is for the purposes of this research as follows:

> **Older age - as well as being demarked officially by the age of 65 - is defined as a gradual process that leads to people experiencing a changing social & physical reality that can have implications for how they can access goods and services in an increasing car-centric society. Older age means different things for each individual, and can only be understood fully through the eyes and life experiences of the individual.**

To sum up then, the construct of older age is an important concept that is integral to the eligibility criteria for the Concessionary Fares scheme. This section has highlighted the huge variation in the feelings and experiences of ageing, and their subsequent likely impact on older people's quality of life (Phillipson, 1982). This having been said, as will be discussed in the next section of this chapter (Section 2.3), it is widely accepted that older people do share in common being significantly more likely to experience social exclusion than the under 60s, partly for transport related reasons, albeit with differences in the exact time when this may occur (e.g. Hine & Mitchell, 2003). For this reason, as the population grows and ages, the issues discussed below are likely to present significant challenges to policymakers. Having defined the concept of age as used in this research, the next section of this chapter briefly presents some relevant statistics relating to the mobility of older people, including levels of car access, average trip frequency, their modal split and use of bus. This sets the scene for the subsequent sections that describe in detail the specific transport related problems that can be experienced in later life and their consequences for the quality of life of this age group.

2.3 Transport Related Characteristics of Older People in England

Given that the previous section (Section 2.2) highlighted the heterogeneity of older

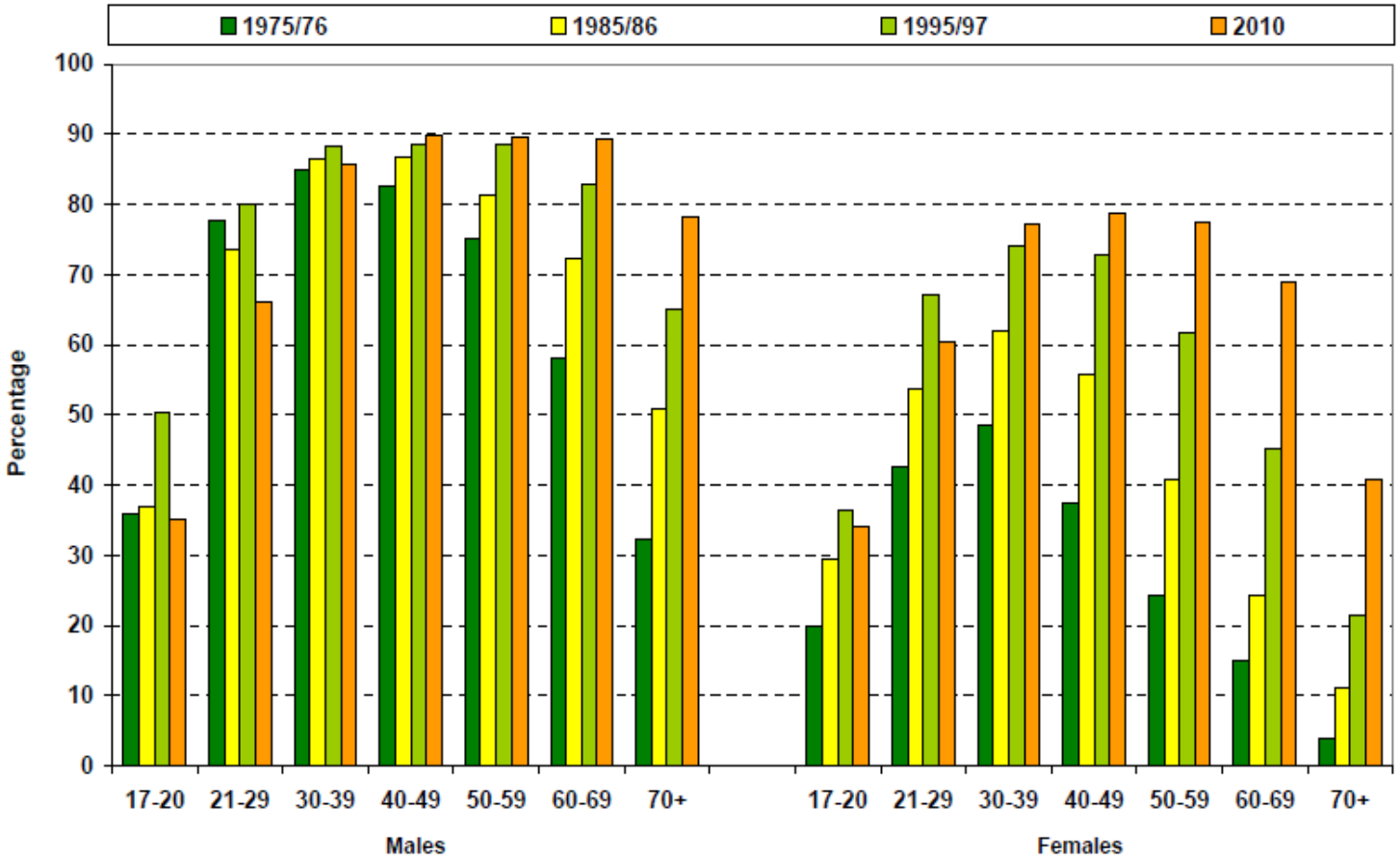
[13] See P24 for further discussion on driving licence holding rates.

people (and by default of concessionary pass holders) in England, it is deemed important at this early stage to discuss two specific mobility related characteristics of concessionary pass holders. Firstly, Section 2.3.1 outlines trends and changes in private car licence holding, on the grounds that access to a car is a significant contributory factor in maintaining the quality of later life (see P.29)[14]. This is confirmed by Rothe (1994: 76) who views loss of a driving licence as "*a major stressful life event*". Secondly, Section 2.3.2 provides information on the average trips rates of older people as a whole, and the aggregate breakdown of the modes on which these trips are undertaken.

2.3.1 Trends in Car Licence Holding

As described in Section 1.1, levels of car access and ownership in later life can be contributory factors in increasing the likelihood of becoming socially excluded from society, often attributed to the car-centric land use development described in the introductory chapter (Hine & Mitchell, 2003, Davey, 2007). Graph 1 (overleaf) depicts that whilst historically the percentage of car licence holders has tended to fall dramatically from the age of 60, this gap has subsequently narrowed over the last 30 years, with 80% of males and 69% of females in this age bracket holding a full car licence in 2010. In other words, it is apparent that there has been a particular growth in car licence holding of older people. Between 1995/97 and 2010 the proportion of licence holders aged 60-69 rose by 13%, and for those aged to 70+ this rose by 19% over the same period (Office for National Statistics, 2011b). However, this being said, there remains a gender imbalance in licence holding in later life, with only 40% of females over the age of 70 currently holding a licence, compared to 78% of males of the same age group (Office for National Statistics , 2011b).

[14] To be absolutely clear, this statement does not intend to imply that non-access to a car necessarily results in a worse quality of life , merely that this is a risk factor.

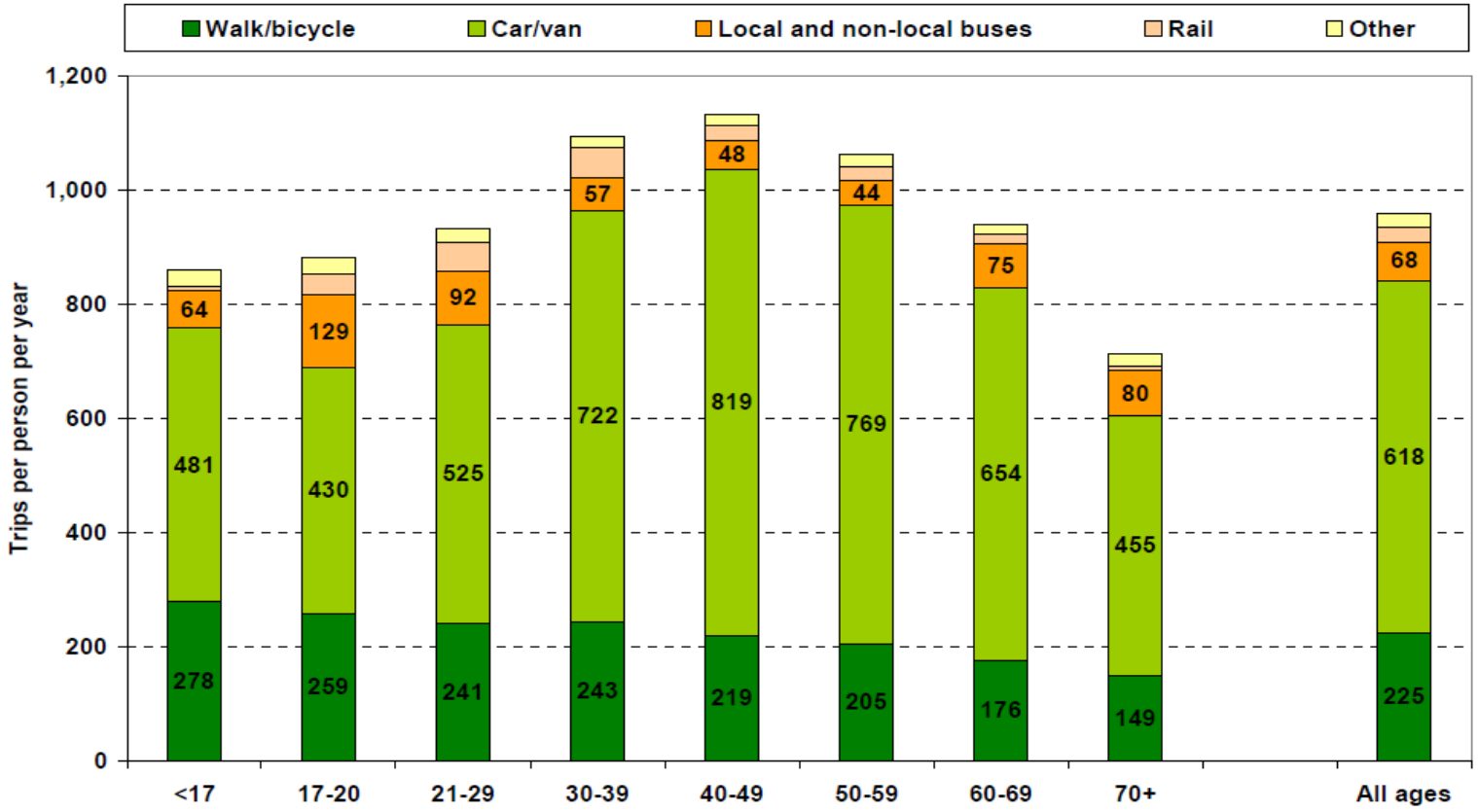


Graph 1: Full Car Licence Holders by Age and Gender (GB) 1975/6-2009 (ONS, 2011b)

It should be noted that the data in Graph 1 provides information on licence holding- and importantly not on levels of car ownership, nor indeed licence using. In other words, whilst the majority of those owning a car would be expected to hold a licence, it should not be assumed that all those who have a licence necessarily own a car, nor indeed have access to one. In a similar vein, the statistics are not able to distinguish between non-licence holders who never had a licence and those who chose or were forced to stop driving, two groups who presumably would exhibit differing characteristics (see Davey, 2007). Furthermore, there is recognised to be wide variation in the characteristics of 'older drivers', with a distinction between those making almost all their trips by car and those making a few trips by car, but the majority by other modes (ibid). In brief then, whilst aggregately a higher proportion of older people are now holding a car driving licence compared to 30 years ago, this should not hide the fact that a substantial proportion of those aged over 60 still do not hold a drivers licence (particularly females) and thus may be more reliant on other modes of transport such as the bus, or upon other people to go about their daily lives. Having looked at driver licensing trends, Section 2.3.2 moves to consider the aggregate trends of trip making and modal choice of older people.

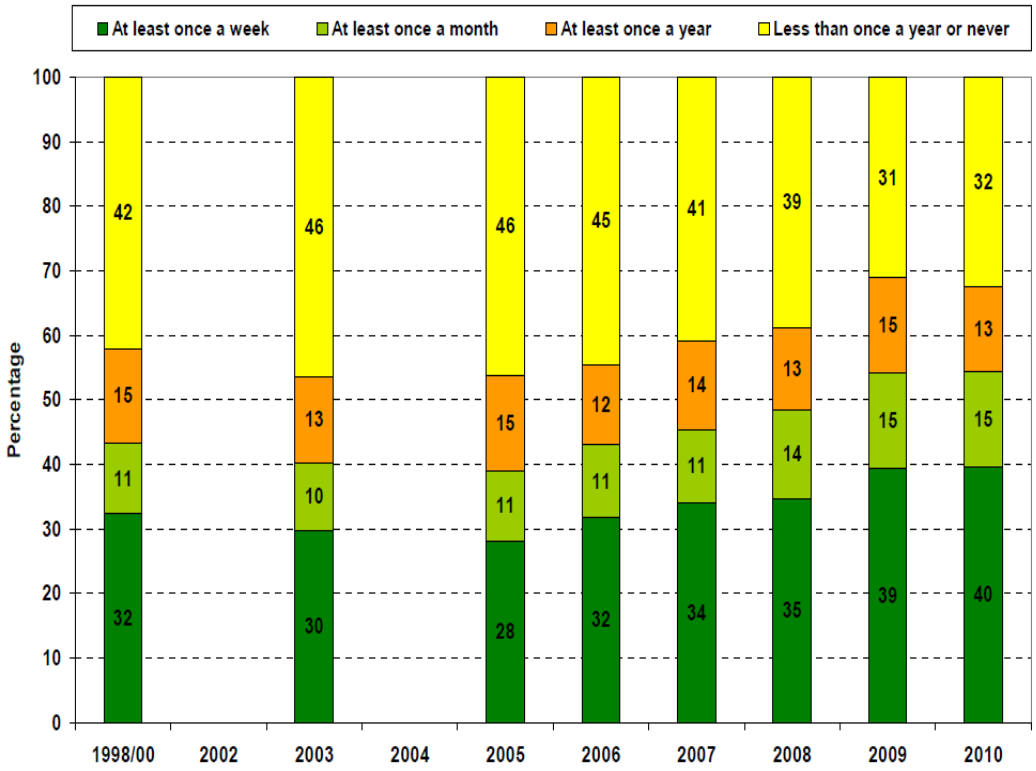
2.3.2 Trip Making by Age and Mode

Graph 2 (overleaf) presents the annual average number of overall trips made in Great Britain by age and main mode. On the whole, the average number of trips made is seen to increase up to the age of 40-49 and then decrease thereafter. For all ages, the majority of trips are undertaken by private car (either as a driver or a passenger), supporting previous evidence that the car is typically seen as the preferred mode of older people (Cobbs & Coughlin, 2004). On average bus journeys represent only around 10% of overall journeys of those aged 70 and above, however once again there is a gender imbalance in this, with evidence that 58% of trips made by males aged 70+ are undertaken as car drivers, compared to 25% by females in this age group (Office for National Statistics, 2011).



Graph 2: Average Trip Rates by Age and Main Mode of Transport in 2010 (Office for National Statistics, 2011).

Finally in this section, Graph 3 below depicts the annual changes in typical bus trip frequency amongst those aged over 60, showing an 8% increase in the proportion of people using the bus once a week between 1998 and 2010, and a 10% decrease in the proportion never using the bus. The graph shows that approximately a third of the older population never use the bus. It could be argued that the extension of the generosity of Concessionary Fares policy in England, Wales and Scotland (see page 69) could account for part of this increase in the likelihood of people using the bus at least once per year.



Graph 3: Frequency of Bus Use by Those Aged 60 and Above in Great Britain (NTS, 2010)

Having briefly presented relevant statistics relating to transport trends in later life, Section 2.4 considers the concept of transport disadvantage in later life and its consequences for the life quality of older people entailing a discussion of the causes and consequences of transport disadvantage in later life.

2.4 Transport Disadvantage in Later Life

Having just discussed the concept of '*age*' and '*ageing'*, this section now focuses in on one particular aspect of ageing: its gradual impact on older people's mobility and transportation. The problem stems from the finding that older people are at higher risk of experiencing some degree of transport disadvantage, which increases the likelihood of them becoming socially excluded (Hine & Mitchell, 2003; Adams, 1999; Carp, 1980) (See Section 1.2). Society is becoming increasingly mobile, with people in the UK travelling for longer distances than ever before in what has been coined the '*hypermobilie society'* that has bolstered the opportunities for many for leisure, consumption and work activities (Adams, 1999). A major factor in this rising mobility trend is the advent of mass car ownership and use in last few decades (Hine & Mitchell, 2003). To allow participation in this increasingly mobile society then, transport can be seen as the glue that holds life's activities together, providing the connection between the individual and their desired locations (Cobb & Coughlin, 2004). However, whilst many older people have been able to enjoy the benefits of the '*hypermobile*' society, a number of factors identified below can mean that some people in older age can ironically become excluded from the very activities and opportunities that made their life appear better than that of their previous generation (Braithwaite & Gibson, 1987). Indeed, Giuliano *et al.* (2003: 4) comment that:

> *'in a society where the automobile provides a level of mobility unparalleled by any other travel modes, the loss of driving ability can dramatically impact the lifestyle of the elderly'.*

Similarly Hine & Mitchell (2003) and Davey (2007) identify one of the fundamental issues increasing risk of social exclusion as the lack of car access in a car-centric society (see section 1.1). Indeed, it is recognised that the very same factors that make car use difficult, such as visual impairment and physical frailty, can often also render taking public transport equally as difficult to some older people (Broome *et al., 2009).* Much research exists to suggest that the processes of ageing, albeit at different paces, can make travel physically more challenging, due to a range of practical barriers to travel resulting in some finding it harder to maintain the increasing expectations of mobility (Metz, 2003; Musgrave, 2006; Braithwaite and Gibson, 1987). In other words, as previously mentioned, older people are likely to be disproportionately affected by these wider societal changes in mobility and society's construction around the car (Hine & Mitchell, 2003; Lyons *et al.,* 2002).

The consequence is that some older people can experience "*reduced accessibility to opportunities, services and social networks, due in whole or in part to insufficient mobility in a society and environment built around the assumption of high mobility"* (Lyons *et al*., 2002: 340).

However, perhaps more subtly, the '*hypermobile' society*' and indeed the shift towards private car use in the last twenty years has resulted in land use dispersion, a splintering urbanisation that has increased distances between activity centres, with these car centric locations also being less conductive to bus travel (Rye & Carreno, 2008; Adams, 1999). As a result, the physical landscape within which older people navigate has tended to shape its construction around the car, illustrated by the rising popularity of out-of-town superstores easily accessible by car. This has the consequence that, for many older travellers, a spatial rupture occurs between the location of an individual's desired activities and the individual trying to access these activities (Church *et al*., 2000). Since many older people's desire to travel does not reduce at the same rate as their ability to drive, a mobility deficit can occur, characterised by the gap between their desired mobility and their actual mobility (Rosenbloom, 2004). In other words, the effects of the *hypermobile society* extend beyond simply whether or not a car is owned, and extends even to those who are unable to travel as much, with its knock-on effects on the neighbourhoods becoming less convivial, and reduced opportunity for social engagement in the community (Adams, 1999).

However, above and beyond the practical accessibility and navigational issues that arose as a result of mass car use, society also arguably simultaneously underwent an ideological shift during the advent of mass car use and ownership. The car is argued to have become the mechanical embodiment of the dominant political and cultural ideology in the latter quarter of the twentieth century: that is, capitalist values of individualism, equality, freedom and progress (Gorz, 1979). Indeed, such became the importance of the car, that its absence is now deemed to constitute an indicator of poverty (Folwell, 1999). In summary, whilst the advent of mass car ownership has bolstered opportunities and access to services for many in society, and changed travel ideology, for some of those with reduced access to the car — such as those aged 70 and over — it made, and indeed makes, more challenging participating in those activities that are integral to feeling and being part of society (Folwell, 1999).

In particular, within the 'older people' segment of society, older women are traditionally seen as particularly vulnerable to transport disadvantage, due to their tendency to cease driving earlier than men; and traditionally being less likely to hold a car licence and tending live longer and so experience longer periods on average of requiring personal transport (Siren & Hakamies-Blomqvist, 2005; Davey, 2007). The problem of transport disadvantage is also compounded by the tendency for poorer areas to have correspondingly lower levels of car ownership coupled with poor public transport links (Murray *et al*., 1998), and only 31% of older people living on their own have access to a car (Lyons *et al.*, 2002). In brief then, is clear that mobility-related exclusion is not by default related to car use, but to the "*spatial, temporal, financial and personal constraints that determine the ability to perform mobility necessary to participate in society"* (Department of the Environment, Transport and the Regions, 2000: 8)

In summary, this section has illustrated the origins and consequences of the complex and multifaceted problem of transport disadvantage in later years, and highlighted that it can lead to a higher likelihood of older people becoming socially excluded in later life (DETR, 2000). This next section (2.5) explores further the concept of social exclusion, particularly relating it to older age. It will highlight the need, as was identified with age (Section 2.2) to amalgamate objective measures of social exclusion to allow its measurement with the individual's sense and perceptions and experience of the individual. Social exclusion is discussed here, as it is specifically mentioned in the official policy rhetoric, with the official aim of England's Concessionary Fares policy being to prevent social exclusion in older age (DfT, 2008a). In understanding the term, the approach will necessarily have a "*purpose extending beyond labelling, but rather trying to understand the influences and processes by which people find themselves unable to participate in society and the economy or are cut off from the life chances available to the mainstream of society*" (Hills, 1999: 5). As shall be discussed, it is closely linked, and indeed often confused with the term 'quality of life', subject of discussion in Section 2.6 (Silver, 1994).

2.5 Social Exclusion in Later Life

The UK Government recognise that 'transport is *"without doubt a contributory factor in social exclusion, especially in peripheral urban areas and isolated rural areas affected by inadequate transport"* DETR (2000:2). However simultaneously Micklewight (2002): Cited in Saunders 2003:7) stresses that transport, or indeed lack thereof is "*neither a necessary nor sufficient condition for an individual or neighbourhood to become socially excluded".* This section will argue that despite the concept's increasing prominence in the policy arena and numerous efforts by academics and practitioners to define the concept, the term '*social exclusion*' remains ambiguous and poorly understood (Lyons, 2003). Conversely, some commentators argue that too much focus hitherto has been devoted to the concept's problem identification, rather than to delivering effective solutions to the problems that it causes (Preston & Rajé, 2007). It is found that the nebulous nature of the concept makes it challenging to decide upon an appropriate criteria for measuring the 'success' of a scheme such as England's CFP in mitigating against the onset of social exclusion (UK Parliament, 2010; Preston & Rajé, 2007). This section analyses two contrasting conceptualisations of social exclusion and their underlying assumptions: arguing that ultimately it may not be entirely possible to measure the concept aggregately, and thus it needs to be conceptualised to some extent from an individualistic perspective (Church *et al.,* 2000).

A plethora of literature has been published relating to the issue of defining the term '*social exclusion*'. The traditional mainstream approach viewed it very much as an end state — in other words, "*that which can happen when people or areas suffer from a combination of linked problem"* (Levitas, 1998: 3). This definition is very much centred on 'happening' rather than 'experiencing', inherently implying that 'social exclusion' is the exact binary opposite of 'social inclusion', and that by removing those barriers that lead to 'exclusion', re-inclusion can be achieved (Ibid). Those 'problems' or 'barriers' commonly cited are monetary constraints, spatial constraints, physical mobility constraints, temporal constraints, mode-availability constraints and acceptability constraints (Social Exclusion Unit, 2003). Often, monetary issues in particular are singled out as the most important aspect in tackling social exclusion, leading to the terms poverty and social exclusion to become used interchangeably, in effect reducing the concept to simply a condition experienced by marginalised groups, mainly due to their lack of financial resources

(Brants & Frissen, 2005). In reality, a lack of resources may be relative, characterised by having some resources but not sufficient to participate fully in the activities normal to a particular society (Bryne, 2005). It is argued that whereas poverty may be amenable to absolute thresholds, as it is distributional in nature, social exclusion is more relational and about the effects on people (Levitas, 1998). This is evidenced in the way that many schemes posit paid work as the main factor in achieving reintegration, with the result that there is a lack of clarity in what social exclusion might mean for older people, as neither training and education or paid work will be central to solving the problem (Phillipson, 1982). Indeed, Phillipson (1982) argues that overemphasis on work and employment may in fact downplay the exclusionary effects of age-related retirement itself (ibid). In direct opposition to this view, Lum & Lightfoot (2005) suggest that in fact voluntary work amongst older people, albeit without financial remuneration, is a significant contributor to preventing deterioration of physical and mental health in later life. This has been attributed to voluntary work being a key element of community engagement and social capital (Warburton & Mclaughlin, 2005). However, it is stressed within the literature that sufficient income levels are a necessary, but not a sufficient, way of ensuring people have access to basic human needs (Levitas, 1998). Furthermore Giddens (1998: 104) is keen to stress that hence "*social exclusion is not so much about gradations of inequality, but about the mechanisms that act to detach groups of people from the social mainstream"*.

Emerging from this is the inherent problems associated with such static, income orientated definitions of social exclusion when applying it to the context of older people. First, a static (one-dimensional) approach to defining the term attempts to make use of absolute thresholds of social exclusion, defining the levels at which one may be excluded or not excluded. Such an approach fails to take into account the varying needs and characteristics of older people (Lyons *et al.*, 2002). Furthermore, such an approach makes the claim that the concept is surrounded by fluid, transcendable boundaries. This clearly does not reflect the experience of some older people, who are often excluded on a longer-term basis and are unlikely to achieve full 're-inclusion' (Perri, 1997). In addition, such a one-dimensional approach cannot explain the disproportionate distribution of exclusion, such as poorer neighbourhoods having a larger proportion of older people and children (Goldfield, 2005), and older people being more likely to suffer from social exclusion than paid workers, with widowed women being also at greatest risk (Gordon *et al.*, 2000).

During the 1980s the multidimensionality of exclusion was increasingly recognised, with Walker (1997: 4) describing social exclusion as the process of "*being shut out, fully or partially, from any of the social, economic, political or cultural systems which determine the social integration of a person in society".* Silver. (1994: 533) describe it as the "*gradual breakdown of the social and symbolic bonds — economic institutional and individually significant — that normally ties the individual to society*". This process-oriented view and the inclusion of symbolic associations underlie the importance of the consideration of the experiential aspects of exclusion.

In brief then, the term social exclusion continues to evade efforts to pin it down completely (Lyons *et al. 2002*). Indeed, this is the case to such an extent that Church *et al*. (2000) argue that some of the most used measures of deprivation are no longer clear about what they are measuring, or indeed if they are measuring anything useful at all. For the purposes of this research, then, we must be clear that the social exclusion of older people is taken to mean:

> **A political construct describing a process having distinctly different characteristics from the process of exclusion of other members of society. It is taken to represent the situation where an individual does not participate to a personally acceptable degree over time in certain activities normal to his or her society, and (a) this is for reasons beyond his or her control, and (b) he or she would like to participate.[15]**

Having discussed the concept of social exclusion Section 2.6 begins to focus on quality of later life. Quality of life is inherently linked to social exclusion, in as much as social exclusion and its associated processes have the potential to reduce older people's quality of life. If, as has been argued in this section, social exclusion is a process of disaffiliation or disqualification from the core activities that enable participation in society (Silver *et* al., 1994), then the outcomes of this can clearly determine quality of life (Donnison, 1998). Scharf *et al*. (2003: 10) sum up the relationship, maintaining that "*policies that succeed in reducing social exclusion in its different forms have the potential to enhance significantly older people's quality of life*."

[15] The latter part of this working definition is strongly based on work by Burchardt *(2000).*

2.6 Quality of Later Life

Despite the prevalent use the term 'quality of life', the concept remains poorly defined (Scharf *et al.,* 2003) and as such there is "*no widely accepted theory or measurement of quality of life*" (Bowling & Gabriel*,* 2004:6). Constanza *et al.* (*2007)* identified that between 1982 and 2005 no less than 55,000 academic articles had used the term. In the context of an ageing population, policy that promotes the enhancement of the 'quality of life' of individuals and communities has become of increasing importance and interest to policy makers and academics alike (Schuessler & Fisher, 1985; Sen, 1985; Bowling & Gabriel*,* 2004). Commenting on its policy relevance, Bowling *&* Gabriel (2004:6) argue that:

> *"public policy is increasingly likely to be concerned with enabling older people to maintain their mobility, independence, their active contribution to society, and to respond effectively to the physical, physiological and social challenges of older age; in effect to add quality to years of life".*

Their description of quality of life provides a useful starting point for understanding the term within the context of older people. First, it identifies a number of specific factors that are of relevance to older people. Of particular note is its emphasis on the self-maintenance and prevention of deterioration of life quality, a situation which can arise as a result of declining physical and cognitive abilities in later life, that may render the carrying out of everyday tasks and travel more challenging (Gabriel & Bowling, 2004). Illness is identified as a particular risk to deteriorating quality of life in older age (Strauss, 1984; Collins *et al. 1997*). It is implied through this that there is an inherent relationship between successful ageing and quality of life, linked to factors such as growth, maintaining independence and perceived control (Brown *et al.* 2004). With this in mind, O'Boyle (1992) is critical of some approaches to understanding and measuring quality of life that use indicators designed with younger people in mind (for instance income, employment status etc.), which he claims do not adequately represent the meaningful quality of life of older people.

Second, the above definition highlights the necessary subjectivity of the term, presenting a challenge to those attempting to measure quality of life (Rosenberg, 1992). Conventionally, definitions of the term 'quality of life' tend to differentiate between 'objective' and 'subjective' indicators of quality of life (ibid). Objective life conditions, according to Felce & Perry (2007:4) are represented by an "*external*

(objective) assessment of individuals and their circumstance". Typical indicators include macro-level variables such as employment status, housing conditions and levels of education (see Rosenberg, 1992; Bowling et al, 1995) in an attempt to "*encapsulate indicators of the well being of populations rather than individual people"* (Wolfensberger *et al.,* 1994:8). Andrews *et al*. (2012), in the context of concessionary bus travel are critical of the use of solely aggregate statistics, in that that they cannot describe the meaningful impact upon the individual's character of life. Bowling *et al.* (2004) are critical of measures that use a top down, expert criterion for measuring the term. Given the need for some kind of measurement, albeit an imperfect one, a key debate herein emerges as to whether the term should refer to the life conditions of an individual, or to that person's subjective perceptions of his or her way of life (ibid). The reality, of course is that quality of life is a complex amalgamation of interacting objective and subjective factors, and as such both types of indicators need to be considered (Lawton, 1972).

Other studies use micro-level factors to ascertain an individual's overall satisfaction with their current lifestyle (Felce & Perry, 1997). Felce & Perry's (1997) model, shown overleaf thus recognises that different individuals will attach different importance to aspects of their lives depending on their personal values priorities and past experiences (e.g. Muldoon *et al.,* 1998). Thus the final element of the model is called '*personal values*', defined as the "*various weights that individuals place on their subjective wellbeing and objective quality of life"* (Felce & Perry, 1997: 128). It has been found that perceptions of psychological wellbeing can vary considerably amongst the over 60's group (Stewart et al. 1996; Levasseur *et al.,* 2008).

These differing values are evidenced by the distinguishing between younger people who may have social connections and work as a priority; compared to older people who may record health as a greater priority (Bowling et *al.*, 1995). For instance, they found that independence can mean different things for different older people- ranging from complete freedom, to those who, with the appropriate support can maintain their daily activities. However, a number of issues emerge within the issue in terms of an individual's subjective assessment of their quality of life. Sprangers and Schwartz (1999) comment on the 'response shift', whereby internal standards and values change over time depending on their changing circumstances and how some people become used to a lesser quality of life over time . As a midway point, Felce & Perry (1997) incorporate both objective and subjective indicators in their model, understanding the term to encompass physical, material, social, productive, emotional and civic well being (ibid).

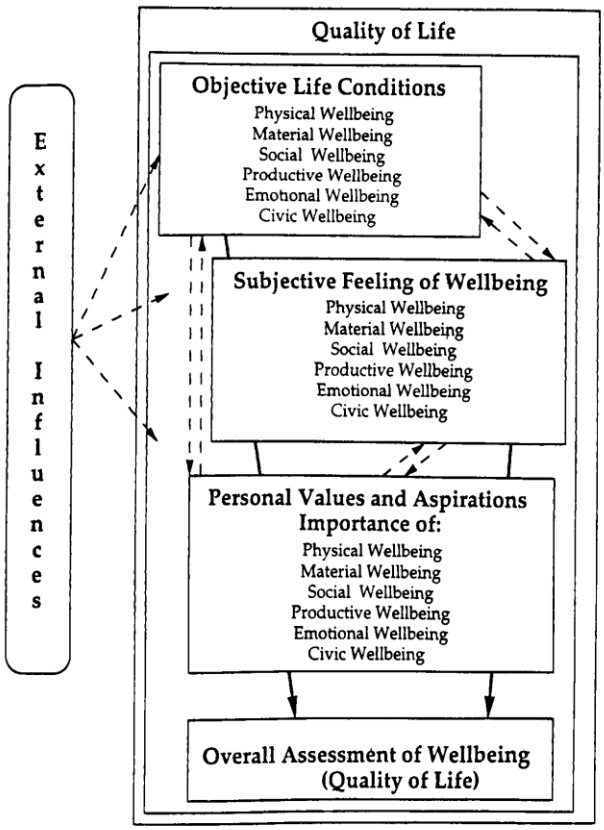


Figure 2: A Three-pronged Conceptualisation of Quality of Life (Felce & Perry, 1997).

Above and beyond the division between objective and subjective approaches to modelling quality of life, Brown *et al.* (2004) identify 7 further different taxonomies and models within existing literature.

Taxonomy	Commonly Measured by	Evidence
Objective indicators	Standard of living, cost of living, health service provision, housing density, capability to make choices	Flax, 1972; Sherman & Shiffman, 1982; Muntaner & Lynch, 2002
Subjective indicators	Life satisfaction, happiness, self worth	Gardein & Herzog, 1995; Day 1991;
Satisfaction with human needs	Housing, security, food warmth, opportunities for self actualisation	Maslow, 1954; Hornquist, 1982; Bigelow *et al.,* 1991
Psychological models:	Personal growth, cognitive competence, perceived independence, assessment of expectations and hopes	Krupinski, 1980; Calma, 1984; Michalos, 1986

Health and functioning	Broader health status, depression scales, scales of physical functioning	Mckevitt, *et al.,* 2002;
Social health models	Indicators of social networks, support and activities	Bowling *et al.,* 2010
Social Cohesion Models	Neighbourhood resources, crime levels, satisfaction with area	Putnam, 2000; Rogerson, 1995; cooper *et al*. 1999.
Environment models	Ageing in place: promoting independence in the home. Descriptions of capability	Schaie *et al.*, 2003
Ideographic Models	Individual values, satisfaction with current life conditions, using interviews	Bowling & Windsor, 2001

Table 1: Conceptualising Quality of Life (Adapted from Brown *et al.* 2004)

"*Quality of life is inherently a dynamic concept, reflecting objective, subjective, macro-societal, and micro-individual, positive and negative influences which act together*" (Lawton 1999 in Brown *et al.*, 2004:46). Therefore it is argued by Sharf *et al*. (2003: 126) that any definition of quality of life "*must have a guiding principle to understand the impact of services on the character of people's day-to-day lives"*. Gaining a deeper insight into the meaningful construction of quality of life and specifically its effect on the 'character' of life fits well with the current research's narrative of locating bus travel within time-space and individual circumstance, recognising that, as well as understanding what the term means, methodologically speaking it will be necessary to understand what importance is given to the bus travel that is taking place. In the context of declining mobility, quality of life is as much about ability to meet the challenges of later life and to engage with life.

In brief then, the working definition of the concept of quality of life for the purposes of this research is the following:

> **First, quality of life has an objective element, in terms of how an individual's circumstance compares to others in society often using a quantitative approach. Second, it has a subjective (qualitative) element, in terms of how the individual's contentment and satisfaction about their life, related to the relative importance of different aspects of their life. Combining these two elements means an approach that extends**

beyond simple gradations of inequality to understanding the character of an individual's life

Neither the subjective nor the objective approach alone is sufficient to fully capture the concept of quality of life. During a preliminary (pre data collection) meeting[16], a really useful comment was made which encapsulates the implications of the above working definition.

> "*Quality of life is a bit like the opposite of quantity of life I guess [..] I mean you could look at some of my older friends and it looks like they're sorted in "number terms" in their posh houses and they have a bob or two I know, but they're not happy and don't have anyone to talk to. They say money doesn't make you happy don't they?"* (Quote from preliminary meeting with a pass holder in Exeter)

With this working definition in mind, Section 2.7 reviews the literature surrounding the importance and experiences of mobility in later life, and related it to the specific needs of older people

2.7 Mobility and the Needs of Older People

A fundamental assumption of England's Concessionary Fares policy is that mobility is an important and necessary aspect of life, and that as such mobility should be promoted and actively encouraged in older age. This is certainly a claim widely supported within previous academic literature (e.g. Hine & Mitchell, 2003; Musselwhite & Haddad, 2010). This section thus explores the theoretical basis for the relationship between mobility and quality of life, exploring the potential for the free bus pass to play a contributory role in this relationship. It will discuss the relationship between mobility and quality of life through the lens of Musselwhite & Haddad's (2010) three-tiered hierarchy of mobility needs of adults in later life. Based on Maslow's hierarchy of needs, their adaptation of the model usefully illustrates the ways in which transport can contribute to older people's utilitarian needs (primary needs), affective needs (secondary), and aesthetic needs (tertiary). The model provides further support for the burgeoning wealth of evidence pointing to the fact

[16] This quote is taken from an exploratory phase of the research

that mobility for many older people in particular can represent far more than simply the act of travelling between two destinations (Anable *&* Gatersleben, 2005; Kelly, 2011). The Social Exclusion Unit (2003) support the use of a hierarchical approach to analysing mobility in later life, commenting that the term '*quality of life*' stems from the underlying theoretical premise that once more basic needs such as housing and food are accomplished, higher level objectives such as self realisation and happiness and esteem can be achieved.

As discussed above and shown in Figure 3 (overleaf), Musselwhite & Haddad's (2010) adaptation of Maslow's hierarchy of needs differentiates between:

- *Utilitarian travel needs:* defined as those that are functional in nature such as shopping and doctors appointments;
- *Affective travel needs:* including need for control independence and freedom;
- *Aesthetic travel needs,* such as the need to travel for its own sake.

The potential contribution of transport to meeting each of this level of needs is now discussed in turn.

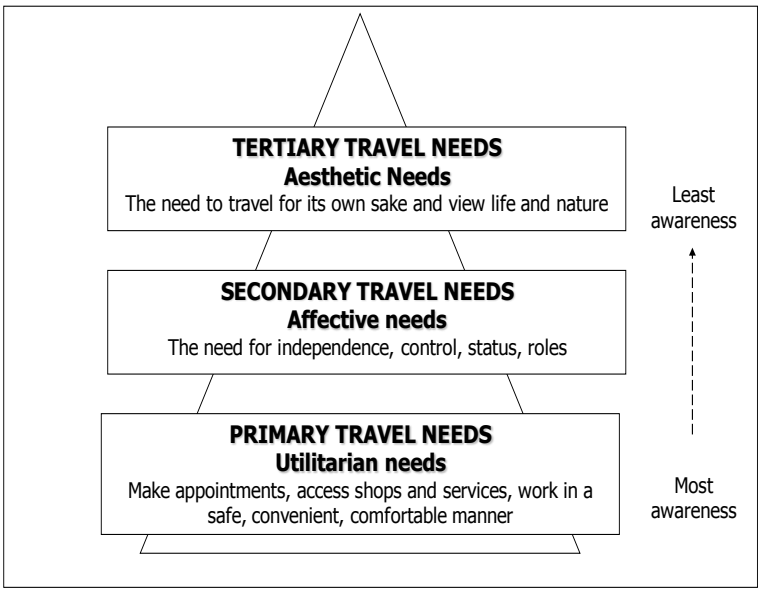


Figure 3: The Three levels of Mobility Needs of Older Drivers by Self Awareness of the Need (Musselwhite and Haddad, 2010)

2.8 Free Bus Travel & Basic Mobility Needs

The basic utilitarian need for mobility in older age identified in Figure 3 (above) underpins the officially-stated policy rhetoric of England's Concessionary Fares policy to "...*address the problem of social exclusion by improved access to local services and amenities using local bus services..."* (DfT, 2008a). In essence, the underlying argument is that by facilitating mobility through the scheme it will connect opportunities, allowing often essential access to basic services in the local community that are fundamental to living- including healthcare, food shopping and banking (Social Exclusion Unit, 2003). Transport has thus been described as "*the glue that holds life's activities together"*, providing an important link between people's desired activities and their locations (Cobb & Coughlin, 2004: 14). Kelly (2011: 4) follows this logic in arguing that "*the bulk of any benefits derived from free bus travel schemes should then operate through external activities associated with bus journeys".* The underlying treatment of travel in her view is thus that it is a derived demand for activities (Mokhtarian & Salomon, 2000); reflected through the tendency in traditional measurements of policy output to focus factors such as kilometres travelled, average cost, route distance and number of passengers and locations visited (Banister & Bowling, 2003).

However, specifically in relation to the provision of a free bus pass, three conceptual inconsistencies emerge that mean that a free fares scheme may not always be able to fulfil the need for basic utilitarian travel. A fundamental starting point is Benwell's (1976) reminder that a free bus pass is contingent upon eligible pass holders both having a bus nearby and being physically able to board the vehicle, which is not the case for some older people (Metz, 2000; Rye & Carreno, 2008). Previous research has identified that a zero-fare bus pass is of more value - or at least used more frequently - in an urban context where more buses are likely to be available at more regular intervals (e.g. Rye & Carreno, 2008; De Witte et al. 2008). Moreover, evidence suggests that 75% of rural parishes have no bus (Musgrave, 2006), partly explaining why only 4% of trips in the most remote areas are made by bus (Rye & Carreno, 2008). This raises issues about the usability of the pass in rural areas, typically characterised by more diverse and disparate locations and more geographically dispersed trip patterns (De Witte *et al*., 2008).

Second, assuming that a bus is available, the issue of accessing the bus must be considered. In other words, access to the benefits of the policy is restricted to the

extent that pass holders possess the relevant cognitive and skill-based capabilities to use the bus (Lyons *et al.*, 2002). An individual's mobility is found to be related to two core requirements. First *access requirements*, such as the availability of public transport, the time pass holders have available and their income level. Second, undertaking travel by bus requires practical skills, which could include physical skills as well as cognitive processing skills (De Witte et al., 2008). Indeed Metz (2003) explores some of the difficulties experienced in actually using the bus, portraying the bus journey as a series of consecutive activities, such as: getting to the bus stop, knowing which bus to take, alighting, paying for the ticket, through to being confident about the return journey. Each of these stages requires specific physical, spatial awareness, and cognitive skills that determine the extent to which bus travel is available, accessible, affordable and acceptable, but which are equally more likely to be lacking in the older traveller (Roper & Mulley, 1996). Indeed, Musselwhite & Haddad (2010) found amongst older people who gave up their cars, that whilst bus service operators were felt to be effective at providing formalised information on timetables and the fare structures, they felt that little information was available pertaining to the day-to-day informal information- such as knowing whether a bus leaves late or early, where to put baggage, which buses might have a ramp, and the procedure for getting off the bus.

Broome et al. (2009) point out that, in many cases, the very same factors that make car driving increasingly problematic may simultaneously render taking the bus more difficult. They argue that, on the one hand, the skill of driving a motor vehicle requires the interaction of multiple senses, and on the other hand, the very principal causes of cessation of driving are visual problems, the slowing of reflexes and physical frailty, which equally make bus use more difficult (Kepflinger, 1998; Stutts, 1998). This is made more problematic by the fact that older people are generally unwilling to plan for a time when they can no longer use their cars (Yassuda *et al*, 1997). Overall Preston & Rajé (2007) report the broader approach to social exclusion can be criticised for focusing on accessibility to and from public transport stops rather than the door-to-door journey, failing to take into account the actual trip patterns and organisation of the day, making it hard to identify impact and having poor categories of activity.

However, above and beyond the consideration of structural factors of whether there is a bus and whether the user is able to use it; even in the cases where pass holders are able to take the bus and a bus service is available, the bus is argued to still not fully meet pass-holding individual's requirements in all cases (Arun *et al*.,

1999). Musgrave (2006) found, in a survey of older people in London, that 56% claimed shopping was challenging on the bus, and only 35% found it acceptable to get to the nearest hospital due to difficulties in synchronising timetables with appointments. The latter is a particular issue, since two-thirds of hospital patents are aged over 60 (Metz, 2003). In brief then, a question mark arises over the deployment of the bus pass to substitute mobility deficits caused by lack of car access and use, with Parkhurst & Shergold (2008) describing England's Concessionary Fares policy as a poor response to the mobility issues that it attempts to resolve. These issues will be raised again in discussion in the next chapter, which discusses debates surrounding the policy. The next section discusses potential contribution of Concessionary Fares policy to the higher-level needs identified by Musselwhite & Haddad (2010).

2.9 Free Bus Travel & Higher Level Needs

Right from the smallest toddler experimenting with learning to walk, as human beings we are arguably conditioned and designed to interact with our environment through movement. Indeed, the evolutionary niche of *Homo sapiens* is as a nomadic hunter-gatherer, with the purposes of food gathering, reproductive and defensive activities (Hayles, 2005). Such activities necessarily required the development of locomotive ability for early survival. In a more philosophical sense with the clock constantly ticking, blood moving around the body, or simply movement to symbolise that a person is alive and active, the act of being able to move is a highly important aspect of life above and beyond simply travel from an origin to destination (Metz, 2000). He describes the psycho-social benefits of 'movement', related to having a balance of mind, supporting Fonda *et al.'s* (2001) finding that decreased opportunity to be mobile can lead to loneliness and depression in later life. There is also evidence that mobility can contribute to older people's feelings of prestige, accomplishment and autonomy (Musselwhite & Haddad, 2010; Ellaway *et al.*, 2003). Other benefits of movement include the ability to access activities such as entertainment, and participation in clubs and organisations (Mokhtarian and Salomon, 2000), thereby maintaining independence (Gabriel & Bowling, 2004).

Indeed, Alsnih *et al.* (2003) comment that the opportunity for mobility can provide the benefit of potential travel, even where in fact no travel actually physically takes place. Proponents of this viewpoint propose that simply movement in itself means nothing out of context; rather there is a need to consider its impact on the quality of the individual's life (Davey, 2007; Ureta, 2008). Free travel schemes have been found to facilitate interactions between older people and neighbours, fellow bus travellers and the wider community on the bus (Galliger *et al. 2008*). Through increasing levels of social interaction, there are potential benefits of *'improved access to networks of market and non-market support, information, mental wellbeing and remaining physically active*' (Kelly, 2011: 6). Indeed, La Rocco (1980) recognised that for many, the key problem in later life was not actually health care or economic wellbeing, but rather social integration. Glasgow *&* Blakely (2000) found that those who were drivers experienced higher levels of participation in social roles and interactions and thus they describe two indicators of social integration. The first is participation in social roles, such as club member, volunteer, and religious service; the second is interaction with social networks or social support, for example, visiting friends, neighbours, and relatives.

Moreover, Ling and Howcroft (2007) found many concessionary pass holders had widened their travel horizons since having a free pass. Notably, then, Ureta (2008) found that mobility can increase expectations and life prospects, particularly in later years. The nature of these 'higher-level' benefits has a number of implications. First, they place greater emphasis on the importance of benefits of using the bus that do not necessarily increase the number of bus trips being carried out (e.g. Kelly 2011). Herein lies a subtle difference between the current approach to modelling travel time which prioritises the need for minimisation of travel time (seen as a wasted entity) and greater speed in transport, and emerging evidence of the older traveller's desire to optimise and maximise mobility, with a far greater emphasis on mobility as an experience (e.g. Metz, 2000). It is argued that there has been a failure to properly operationalize the concept of mobility (particularly in relation to older travellers), attributed by Hine and Mitchell (2003) in part to a blinkered focus on the objective of modal shift and collective environmental benefit at the expense of individual benefit. A concrete illustration could be the contrast between city commuters who may be accustomed to squeezing into overcrowded carriages on the underground, as reaching the destination is the core objective, and the mature traveller who may prefer a leisurely bus ride in the country, with space to enjoy the scenes.

The implication of these destination-independent effects of free bus travel is that simply addressing issues of 'accessibility' through virtual means or home delivery services (in other words removing the need to travel), could not fully substitute for these 'extra destination-derived' benefits provided by physical mobility (Lyons *et al.,* 2002). The implication in terms of this research is that Concessionary Fares policy must be able to provide for those basic needs, but simultaneously facilitate achievement of higher-level needs.

A number of observations are of note relating to Musselwhite & Haddad's (2010) mobility framework. The diagram encapsulates the subtle difference between preventing social exclusion and encouraging better quality of life. On the one hand, it is widely recognised that failure to perform what Musselwhite & Haddad (2010) describe as *utilitarian needs*, including shopping, medical appointments and personal business, often results in older people becoming cut off from society and ultimately increases the risk of their social exclusion (Walker, 1997, Social Exclusion Unit, 2003, Silver *et al,* 1994). On the other hand, when it comes to achieving higher-level needs denoted in the hierarchy, whilst the inability to fulfil such needs may not result in isolation in such a direct manner, it may affect the character of life (Scharf *et al.,* 2003), which in turn could contribute to a lower perceived quality of life (Felce & Perry, 1997).

Ultimately failure to meet these higher-level needs have been found to increase the likelihood of older people reporting isolation, loneliness and depression in later life (Mokhtarian & Salomon, 2000; Gabriel & Bowling, 2004). Indeed, these very factors have been found to lead to a general deterioration in the lifestyle of older people and subsequently may affect then their ability or desire to fulfil the lower, more basic needs (Russell & Schonfield, 1999). One example of this is research that found older people who feel isolated or lonely are more likely to fail to eat a healthy balanced diet (Bernstein *et al.* 1999). Second, whilst Musselwhite & Haddad (2010) comment that the higher-level mobility needs are those of which older people have the least awareness, and are simultaneously the most challenging to measure. This could lead to the ironic situation that the very factors that could contribute to the 'best possible' quality of life are poorly or inaccurately measured and, consequently, under-evaluated within policy (e.g. Braithwaite & Gibson, 1987). One consequence of providing zero-fare travel by bus was that it was found that the scheme actually has the biggest impact on discretionary and marginal trips, such as for social and non-food shopping purposes, whilst 'non-discretionary' trips such as medical and food shopping were less affected by the policy (Kelly, 2011). It is highly plausible

that some older people could fulfil their utilitarian needs by asking for a lift to the shops, but this could simultaneously lead to feelings of being a burden and lack of freedom, and so have adverse consequences for their quality of life.

2.10 Chapter Summary

This literature review chapter thus far has followed a logical trajectory through defining the concepts of ageing, social exclusion, mobility and quality of life, seeking to establish the linkages between them and understanding how they interact both from a theoretical perspective and at the ground level. The chapter highlights the complexity of measuring and thus operationalizing these constructs, but a common theme emerges: with all the concepts discussed there is a lack of understanding of the link between the individual perceptions of ageing, feeling excluded, issues of quality of life, and the consensus view on these concepts. Scharf *et al.* (2003) refer to the character of quality of life, or the notion of on-board experience playing a role in social interaction on the bus, which, as argued in the next chapter are not captured using current methods of evaluation of concessionary fares policy. Logically then it follows that this research, seeking to establish the link between providing a free bus pass and its contribution to quality of life, will draw on evidence of a wide number of levels, from the ability of the pass to promote access to basic amenities to facilitating wider social benefit. It will necessarily seek to understand the mechanisms and processes underlying behavioural change as a result of the policy, whilst assessing the meaningful benefit generated by the scheme. Hence, Chapter Three now discusses the origins, development and consequences of providing free bus travel to segments of society, drawing first on England's concessionary travel scheme, but also gleaning evidence from international contexts of where such schemes have been offered.

Chapter Three: Origins, Development & Consequences of Concessionary Fares Policy

3.1 Introduction

Chapter Two provided a detailed discussion of the theoretical context of relevance to concessionary Fares policy, in particular the complex relationship between mobility and quality of life in older age. This chapter moves on to focus on the practical implementation and evaluation of concessionary fares policy. After defining what type of scheme is within the scope of consideration for this research, the chapter traces the evolution of Concessionary Fares policy from a discretionary optional policy extra to a statutory provision. Whilst the chapter refers to the schemes in place in Scotland, Northern Ireland and Wales, its main focus of attention is the policy in England. The chapter critically discusses the regulatory and financial context to the policy, before drawing on the experience of international zero-fare travel schemes to draw out the main issues and effects. It culminates with a summary of the core gaps within current understanding on the topic, and how these justify the need for further research and guide the research approach. First, the term 'zero-fare policy' is defined and discussed.

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3.2 Defining Zero-fare Policy

For the purposes of this research study, a 'zero-fare' scheme is used to refer to the situation whereby:

> *"public transport services are funded in full by means other than collection of a fare from passengers be that national, regional or local government through taxation or by commercial sponsorship by businesses*[17]*"*

It should be noted that whilst the main transport mode of focus in this study is the bus, experiences of zero-fare policy on other modes may provide useful context to the wider implications of zero-fares policy, and so are not necessarily precluded

[17] Definition from world lingo online dictionary: http://www.worldlingo.com/ma/enwiki/en/Zero-fare_public_transport

from consideration in this literature review. Two points are of particular note relating to the above definition. First, the above definition presupposes that in 'normal' circumstances a fare/charge would be applicable for travel, which could be considered a reference price to which a free fare can be compared. This distinguishes the provision of free travel by public transport, from having, say, free oxygen (See Kalyanaram & Winer, 1995). Second, schemes that provide 'free at the point of use' travel, such as self-funded (pre-paid) season tickets are purposely precluded from investigation, on the basis that rather than offering a zero fare, they simply change the payment arrangements for travel. This having been said, it should be noted that evidence does exist to suggest that such schemes can elicit a different behavioural response to the payment of cash fares for bus travel (see FitzRoy & Smith, 1999). A useful illustration could be a worker with a season ticket to travel to work who may sense that using the bus in the evening is free (ibid). Nonetheless, season ticket transport schemes are beyond the scope of this present research study.

Broadly, there are two types of zero-fare (or free)[18] schemes: first there are those with the core objective of alleviating external local transport-related issues, such as reducing congestion and its associated externalities in inner city areas. They tend to adopt a 'second best' approach, presupposing that a zero (or heavily discounted) bus fare has the ability to stimulate modal shift away from the car towards public transport and, through this, ameliorate local transport conditions (Button, 1993). In other words, such schemes are typically only deemed successful to the extent to which travellers make a modal transition from the private car to public transport (Goeverden *et al.*, 2006). Whilst this at first glance may appear a laudable aim, there remain caveats as to the environmental credentials of some bus fleets (Parkhurst, 2004), and it has been argued that the free bus pass may in fact generate additional demand for travel that could, ironically, potentially be detrimental to the problems it is trying to solve (Rietveld & Ommeren, 2005).

The second type of zero-fare intervention, and of main focus within this study are free fare schemes that seek to ameliorate social conditions, particularly amongst groups identified as 'vulnerable' segments of society. This may include those without a driver's licence, and those with a disability, older people and those in disadvantaged neighbourhoods (Button, 1993; Steenberghen *et al*. 2006). The

[18] The terms "Zero fare" and "free" are used interchangeably within the confines of this research.

broad underpinning assumption of ‘socially inspired schemes’ is that providing free bus travel will facilitate travel in the intended target audience, which will generate benefit that would not otherwise have taken place. However a caveat of this is that, as discussed later in the chapter, the use of the bus and the concessionary pass are tempered by access to the bus and service availability, meaning that the pass could lead to the provision of unequal access to the benefits that may be derived from the mobility afforded by the policy (e.g. Benwell, 1976; Metz 2003).

In brief then, the two principal positive influences of providing a zero fare are, first, the ability to attract and carry riders who are attracted by the desire to use the car less, and second, the ability to carry riders who are provided with additional mobility who otherwise would have been unable to travel (Hodge *et al*., 1994; Baum, 1979). Clearly this is not a perfect neat division, since some schemes can have both as official (or implied) objectives (Goeverden *et al*., 2006). Having briefly defined what is meant by a ‘free fare scheme’ in the context of this research, the next section of this chapter discusses the regulatory context of England’s Concessionary Fares scheme. Reference is also made to concessionary schemes in Scotland, Wales and Northern Ireland, which are subject to a similar legislative framework, but whose schemes have important noteworthy differences compared to the scheme in operation in England.

3.3 Regulatory Context of the English Bus Industry

3.3.1 Regulation in the Bus industry

Any government policy intervention that stipulates the mandatory carriage of concessionary bus passengers represents a substantial alteration to the regulatory context of the bus industry and its operating conditions. Whilst this thesis is not the place for a detailed and historical exposition of bus regulation in England, it is clear that Concessionary Fares policy cannot be treated in isolation from its consequences on the issues of control and regulation within bus market. Therefore this section critically discusses the four transitionary stages of the bus industry, and provides a broader context of state subsidy for buses in England.

In 1824 the first horse drawn omnibus service was operated by John Greenward between Pendleton and Manchester, characterised by a service that did not require advance booking and picked up passengers en route (Gould, 1999). This original market for bus travel was characterised by intense competition for passengers in a privatised and unregulated market (Evans, 1990). By 1830, 3,676 horse drawn buses were operating in London, which were later eclipsed by the advent of the motor bus in the early 1890s (Gould, 1999). In the mid 1800's, following concerns over safety and the deterioration of the roads, a small number of regulations were put in place, for instance one act passed in 1863 in London required that passengers be dropped on the kerb side of the road. Under the privatised bus market model, the number of bus operators grew substantially giving rise to use of adverse competitive tactics such as 'cream skimming' of more profitable routes, whilst less commercially profitable routes became less well served. Mackie *et al.* (1995) comment that the result of this was the establishment of a haphazard and poorly coordinated service, that failed to offer a steady and dependable service to its users.

The 1930 Road Traffic Act introduced regulation into the privatised bus market on the basis of traffic congestion and safety reasons, through the introduction of public service vehicle licensing. The act is claimed to represent the end of the era of free market competition in the bus industry, through offering some operators local monopoly rights to their routes (Mackie *et al.* 1995). Under the act, a maximum speed limit of 30mph was introduced for buses and the number of continuous hours possible for drivers was restricted. The following years were characterised by a reduction in the number of operators, and particularly the elimination of many small bus operators.

Demand reached its all time peak in the 1950's (Gould, 1999). Amid concerns over the uncoordinated and haphazard nature of the privatised bus network, the English bus industry was nationalised under a Labour Government in 1962. Whilst regulation of the industry did arguably succeed in creating better coordination of the bus network, there was a simultaneously a substantial decline in bus patronage over the following years, halving between 1960 and 1980 (Mackie *et.al,* 1995). The bus industry was criticised for its lack of entrepreneurship and its ability to respond to rising car ownership. Simultaneously the bus industry experienced significantly rising costs.

For these reasons, in 1982 the Conservatives took steps to return the industry to the private sector, with the primary ideological motivation of reducing overall government expenditure (Glaister, 1991). The UK Government's White Paper *Buses* (1984) recognized the need for new measures to enable the bus industry to break free from the cycle of rising costs, rising fares and reduced services (Department of Transport, 1984). It anticipated that the resultant competition would facilitate lower fares, new services and stimulate passenger growth. Privitisation of the bus industry took place in 1985, with the hope a privatised model would reintroduce competition in the market as opposed to for the market. Hibbs (2005) comments that whilst operator's costs did fall following the privatisation of the network, this had little impact on competition. He argues that the failure of deregulation was the failure to appropriate investment in waiting passengers.

3.3.2 Subsidy to the English bus Industry

The current stage in the regulatory context of the bus industry under New Labour since 1997 is characterised by a trend of increasing state subsidy to the bus industry, but leaving operators to operate and compete in a 'free' market. Since the Election of the new Labour Government in 1997, overall subsidy to the English bus industry rose substantially from £763,000 in 1997/98 to 2.47 million 2009/10, with it now accounting for over half of bus operators' annual revenue (Butcher, 2011). This has led to some commentators to accuse the Government of entering into a kind of "*reregulation of the bus industry through the back door*" (Hibbs, 2005: 78). Table 2 (below) shows a breakdown of the increasing subsidy to the bus industry between 1997/98 and 2009/10. Of particular note is the disproportionate funding allocation to London compared to the rest of England. Figure 4 (overleaf) provides details of the different elements of subsidy to the bus industry.

Location	1996/7	2009/10	% Change
London	147	985	570%
England	773	2472	319%
Scotland	127	312	245%
Wales	35	86* (06/07)	143%

Table 2: Changes in Bus Subsidy by Area between 1996/7 and 2009/10 (Department for Transport, 2011; National Statistics, 2011)

Current subsidy to the bus industry[19]

- **Bus Service Operators' Grant (BSOG***).* Since 1963 BSOG has offered a rebate of 70-80% of operators' fuel cost. This is set to be cut by 20%, saving £300 million by 2014/15. It has increased by 58% since 1997/8 (UK Parliament, 2011).

- **Green bus fund –** Funding of £30 million to encourage bus operators to purchase low carbon buses. A second round was announced in 2010 with an expected award of £15 million.

- **Concessionary Fares Policy-** Essentially a passenger subsidy. This has increased by 78% since 1997/9 (See the following sections for more details).

- **Local Authority Secured Services-** for non commercially viable routes. This has increased by 31% since 1997.

- **London Funding.**

Past subsidy in the last 10 years (no longer provided)

- **Kickstart-** Original plans for £25 million to subsidise non commercially viable bus routes. The scheme never materialised, falling victim of the £6 billion spending cuts announced by the treasury in 2010.

- **Rural Bus Subsidy Grant-** introduced in 1998 to support none commercially viable services in rural areas. In 2008 this was merged into the pool funding for local areas.

- **Rural Bus Challenge-** Between 1998 and 2003 £110 billion was awarded to around 300 schemes that encouraged innovation in rural areas.

-
- **Urban Bus Challenge-** Between 1998 and 2003 £79 billion was awarded to schemes that tackled the issues of access to work in urban areas.

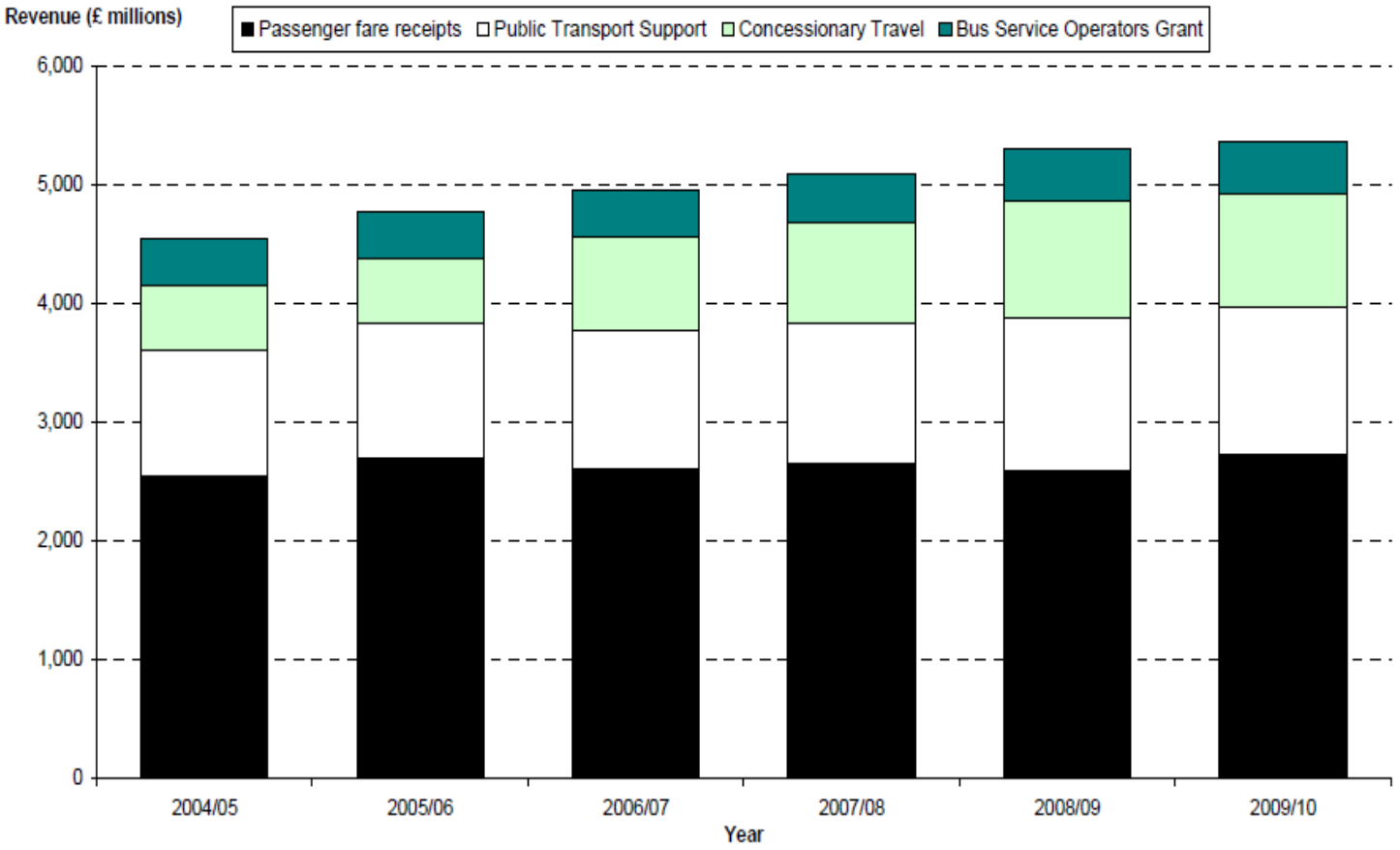
Figure 4: Strands of Subsidy to the UK Bus Industry

Graph 4 (overleaf) presents the increasing subsidy to the bus industry over the last six years. The trend of rising state subsidy to the bus industry has led some commentators to question the efficacy of what has become a quasi-state, quasi-privatised industry, with Morris *et al*. (2005: 1) commenting:

[19] Text and information adapted from UK parliament (2011) report 'Bus Services after the Spending Review'.

> "*since the privatization of the bus industry during the 1980s, local government — the primary agents of delivering transport policy objectives in the UK — have had relatively little control over the provision of bus services in their localities, particularly outside London"*.

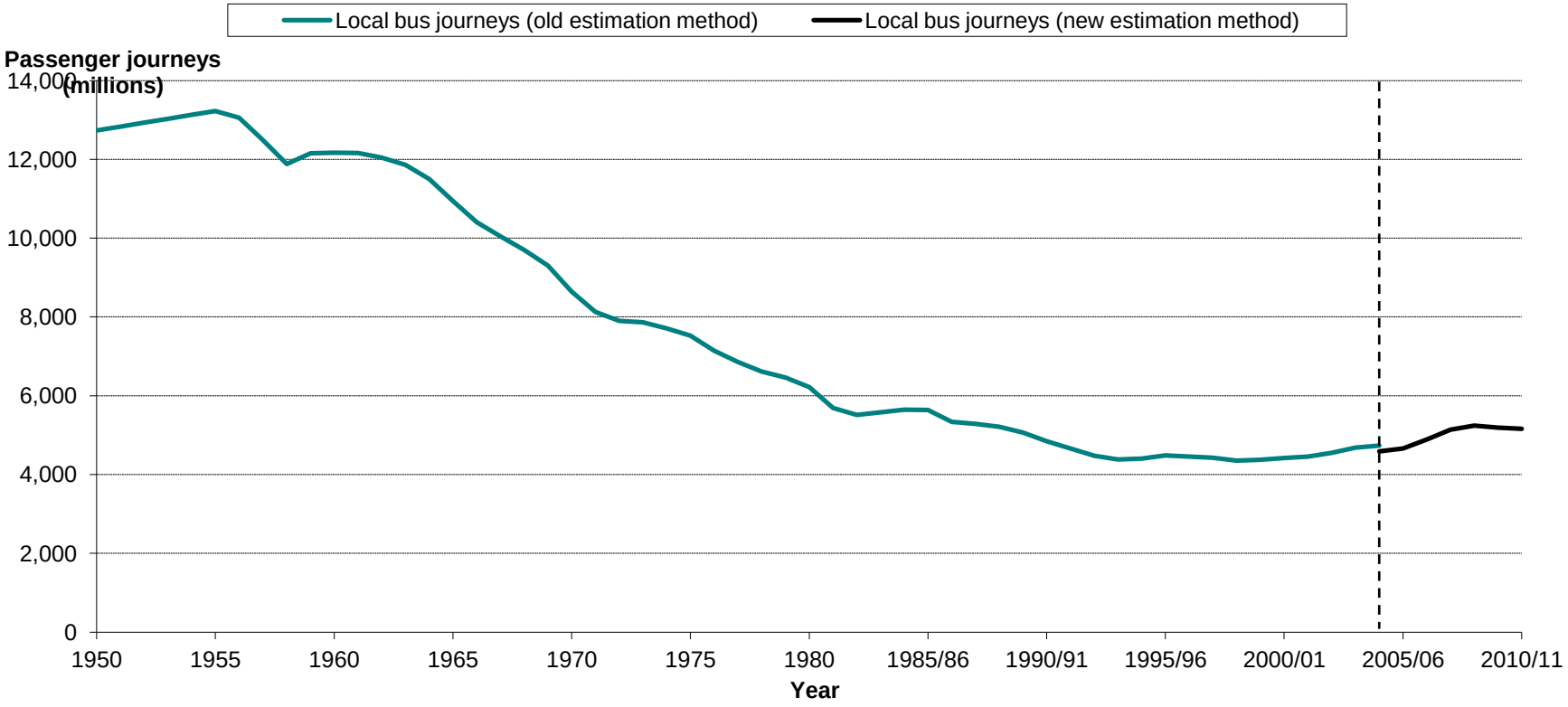
It is argued that some operators are subsequently becoming divorced from the effect of market forces, meaning that "*decisions about efficient supply are significantly distorted, with the benefits of private sector being substantially reduced, whilst those of state involvement are not enhance*" (Parkhurst & Shergold, 2008: 6). Thus it is argued, therefore, that the bus industry now holds neither true commercial nor public values, but has evolved into a complex compound of the two — arguably sometimes to the detriment of bus passengers and the local community (Gwilliam, 2001).



Graph 4: Sources of Funding to the English Bus Industry (Office for National Statistics, 2011)

Furthermore, the changes in regulatory context of the bus industry are also argued by Docherty *et al*. (2004) to be underpinned by a broader transition in recent years from neo-liberal transport policy towards a post neo-liberal stage; characterised by an increasing range of diverse objectives being sought through the transport sector, including those related to social and environmental issues. Indeed, the Scottish Executive (2004) sees many roles for public transport, arguing that it has a broader purpose than simply stimulating modal shift from cars: it can influence land development, generate new activities increase non-car mobility and enhance liveability. However, Grengs (2005) suggests that transport policy is more generally shifting subtly away from achievement of social goals towards the narrower goal of combating congestion. He discusses the present dilemma as to whether public transport services should serve those who have few choices or offer a real alternative to the private car. All too often, gains as a result of shifting people out of their cars can undermine provision for public transport-dependent citizens, with policy being criticised for tending improve the range of transportation options for the suburban commuter, whilst paying little attention to orbital bus services (ibid; Parkhurst, 2004). Bristol's bus network serves as a good illustration, where the majority of services are radial, starting and ending in the centre, thus making local travel between outlying peripheral areas difficult without first entering the centre. However, Perone & Volinski (2002) argue to the contrary, that benefits to attract cars users to the bus can be shared by those with less mobility in the form of better services, suggesting that the two goals are not mutual opposites.

Graph 5 (overleaf) shows seasonal bus using trends between 2003 and 2010, highlighting that whilst in London (which obtained the highest proportion of overall subsidy) there was a steep increase in bus patronage, in the rest of the UK passenger numbers remained stable or were in decline. This shows that a large proportion of overall growth in bus patronage nationally can be attributed to London.



Graph 5: Passenger Journeys on local buses (GB) since 1950 (Department for Transport, 2011).

In part due to previous fare paying customers now travelling for free under the scheme, between 2000/01 and 2006/07 the proportion of overall concessionary passengers increased from 19% of total national ticket sales to 35%, and the overall percentage of cash fares fell from 60% of all ticket sales to 40% over this period, albeit with significant variations between operators in different areas (Department for Transport, 2008b). Having considered the regulatory context relevant to England's Concessionary Fares policy, the next section moves to outline the origins and development of the policy, from an optional policy extra to a mandatory state provision.

3.4 The Origins of Concessionary Travel

Whilst the provision of subsidised discretionary travel benefits for older people is by no means a new phenomenon; the sheer scale of provision under England's Concessionary Fares policy makes it a nevertheless a highly significant transport intervention, with over a third of overall UK bus journeys now being made by concessionary pass holders (Department for Transport, 2006). As early as 1976, £58 million was allocated on a local basis in England to what is described as a "*patchwork of concessionary travel schemes with a variety of benefits' and 'a haphazard and ill thought out subsidy*" (Benwell, 1976: 46). In recent years the provision of concessionary bus travel has shifted from being an optional policy extra to a mandatory provision (Department for Transport, 2008a). With this 'formalising' of concessionary travel arrangements in mind, the purpose of this chapter is to provide contextual information on England's Concessionary Fares policy - regarding the problem it is responding to and the technicalities of how it is operated. It is necessary to enter into some depth here, as the goals and funding mechanisms are of integral importance and the findings of this research have context- specific implications.

Since the late 1990s a number of influential government reports increasingly began to acknowledge the problem of '*transport disadvantage*' (and the resultant increased likelihood of social exclusion expected thereof) as a critical policy issue, particularly in the context of older age (see Section 2.5). Recognising the important role of transport in the social exclusion agenda, in the mid 1990s the (then Labour) government recognised that 'better transport is an "essential building block…*which*

would […] tackle social exclusion […] and improve quality of life in some of the most rundown neighbourhoods in the country" (Department for Transport, 1998: 12). The Department for the Environment, Transport & the Regions (2000) formally acknowledged the potential for older people to become excluded spatially, temporally, financially and personally from the transport that they wish to take. The Social Exclusion Unit (2003: 32) added to the commonly-cited barriers to using public transport of availability, cost and physical accessibility the barriers of inaccessible location of services, safety and security concerns. The report promulgated a holistic approach to considering transport provision "*across central and local government as a component part of all services such as work, health and social services, shops, education, and leisure",* underlining the importance of public transport, in particular, remaining affordable, available, accessible and acceptable to meet older people's needs fully. This attempted to elaborate upon the specific meaning of the 'better transport' cited as important in the 1998 White Paper (Department of Transport, 1998). A number of key academic texts, which will be discussed in more depth later in this chapter (Section 3.9), were also published at this time, thus highlighting the need to understand and make an approach to tackle this growing problem (e.g. Hine & Mitchell, 2003). This increasing policy recognition was accompanied by changes in legislation to formalise solutions to tackle the issue, which are discussed in the subsequent section of this chapter.

3.5 Legislative Aspects of Concessionary Travel Policy

3.5.1 England's Scheme

The Labour Government in its July White Paper 'A New Deal for Transport' (Department for Transport, 1998) noted its intention to provide minimum standards for its concessionary travel scheme for older people, a move away from the previous approach that left such provision to the discretion of individual local authorities (Dft, 2008a). The Transport Act 2000 (HSM0, 2000) instigated a statutory minimum concession, from June 2001, which provided half-fare local bus travel to older people (defined as those of pensionable age), between the hours of 09:30 and 23:00 weekdays, and all day during weekends and bank holidays. Those meeting the criteria of being 'disabled' under section 146 of the Act- including the partially sighted, and those with severe learning difficulties were also eligible to

apply for a free bus pass under the scheme. Following a sex discrimination hearing at the European Court for Human Justice, from April 2003 The *Travel Concessions (Eligibility) Act 2002* (HMSO, 2002) formally stipulated that the basis of entitlement to a pass was altered from 'pensionable age' (which was at 65 for women and 60 for men), to all those aged 60 and above, in effect equalising the age of entitlement to a concessionary bus pass between males and females.

In April 2006, the *Travel Concessions (Extension of Entitlement) (England) Order 2005 (*HSMO, 2005) extended provision under the scheme from half-fare to free-fare local travel. Prior to the act, a number of authorities opted to offer entitlement to transport concessions above and beyond the statutory minimum. Indeed, in December 2005, 42 authorities were already offering free bus travel to older people, with 31 placing no time restriction upon this travel. By June 2006, 114 local authorities (outside of London) were offering unrestricted free bus travel to the over-60s of both genders, and 168 local authorities were offering enhanced schemes including alternatives to the pass, such as rail discounts and taxi tokens (Butcher, 2009)

Whilst England's Concessionary Fares policy is administered at the national level, responsibility for the provision of concessionary bus travel and negotiating the reimbursement levels with operators is delegated to the Transport Concession Authority (TCA). Up until April 2006, the TCAs were typically non-metropolitan district councils, or where these did not exist, the county council. Some areas with integrated transport had Passenger Transport Executives, which included unitary authorities. Outside of London there were 263 TCAs, although some joined forces, meaning that in total there were actually only about 78 TCAs (DfT, 2009). In the 2006 budget, Gordon Brown announced that from April 2008, the minimum provision under the scheme was once again extended under the *Concessionary Bus Travel Act 2007* (HSMO, 2007) to offer nationwide free travel by bus. The officially stated policy objective at the time of enactment was:

> "…[*to] address the problem of social exclusion by improved access to local services and amenities using local bus services, and to support the government's wider work to tackle social exclusion and to ensure that bus travel, in particular remains within the means of those on limited incomes and those who have mobility difficulties"* (DfT, 2008a emphasis added).

"*…not only will this reduce the cost of travel for approximately 11 million people aged over 60 and approximately 2 million disabled people, it should also help approximately 54 per cent of pensioner households who do not have a car to travel freely in their local area." (2005 budget, quoted in Butcher, 2009*)."

3.5.2 Possible Rationales for Extending the Scheme Nationwide

Whilst as noted in the previous section, the core aim of the extension to offer nationwide free travel by was concerned with preventing social exclusion in later life, it is recognised that the policy could indirectly contribute to some of the DfT's other core objectives, as laid out in Table 3 (overleaf).

Policy Area	Possible impacts
1. ***"Support national economic competitiveness and growth, delivering reliable, efficient networks"***	• Funds that would have been spent on the bus could be diverted to other streams (Hirst & Harrop, 2011) • Increased likelihood of spending money at end destination? (Kelly, 2011) • Access to voluntary work and escort activities. (Hirst & Harrop, 2011)
2. ***"Reduce transport's emissions of greenhouse gases"***	• Possible modal shift to the car, given that high proportion of users are car owners (Scottish Executive, 2009) • However the scheme is off peak- impact in evening peak (Storchman, 2001; 2003)
3. ***"contribute to better safety, security and health and longer life expectancy through reducing the risk of death, injury or illness arising from transport, and promoting travel modes that are beneficial to health"***	• Little effect of reducing road traffic accidents amongst older drivers (Kelly, 2011) • Promoting walking to the bus stop (Adams, 2005) • Possible benefits to mental health of getting out and about and an active lifestyle (Hirst & Harrop, 2011)
4. **"promote greater equality of opportunity for all citizens; achieving a fairer society"** 5.	• Access to local services and amenities (Dft, 2008a) • Promoting social inclusion amongst 'vulnerable groups' (DfT, 2008a)
6. ***"Improve quality of life for transport users and non-transport users, promote a healthy natural environment"***	• Possible reduction in traffic could make streets more liveable (Kelly, 2011)

Table 3: Possible Policy Contributions of Concessionary Fares Policy to the DfT's wider objectives

3.5.3 The Political Dimension

Commentators of concessionary fares policy have also discussed the political dimension of the decision of extend the scheme nationwide in 2008. Practically speaking, during the 1990s in Scotland and Wales, local government reform and devolution meant that many trips became cross boundary in nature (see section 3.5.1). As such, it was envisaged that a nationwide scheme would help resolve these boundary issues and reduce the administrative costs of the scheme (Shaw *et al., 2009).*They comment that the extension of the scheme in England was also influenced by schemes in Northern Ireland (2001), Scotland (2002) and Wales (2003) - in an attempt to show the benefits of devolution in transport policy (ibid). Such policies were found to be influential in attracting the votes of core supporter groups of older people in Scotland and Wales (MacKinnon *et al,* 2008). In addition, perhaps more cynically, Knowles & Abrantes (2008) (cited in Shaw et al., 2009: 61) argue that it was:

> "*easier to address declining bus patronage through concessionary fares schemes than to grapple with the complexities of reregulating the bus industry to ensure a higher frequency or quality of services to disadvantaged areas"*

This has led some critics to refer to the policy as a political gimmick (Mellor, 2002:10). Last (2010) adds that in the run up to the 2010 Election Concessionary Fares policy was one of the few policy areas that all three parties remained united. This has led to concern that funding cuts that worsen the provision of buses may "*leave free concessionary travel as a flagship policy that achieves very little for the vast majority of the people at whom it is directed*" (UK Parliament, 2010). Next, Section 3.6 outlines changes since the recent change of Government and its impact on England's Concessionary Fares policy**.**

3.6 Alterations to the Scheme Since 2009

In December 2009, it was announced there would be a rise in the age of entitlement to a concessionary pass to 65 between 2010 and 2020, in line with the rise in female pension age under the *Travel Concessions (Eligibility) (England) Order*

2010). There are currently plans to increase the state pension age again. Concessionary pass eligibility will also increase with these changes in the pensionable age. Whilst current pass holders will not be affected by the proposed changes, those born between 6 April 1953 and 5 April 1960 will be required to wait longer for both their pension, and their concessionary pass. Table 4 (below) shows this gradual change in eligibility (DWP, 2010).

Date of birth	Date State Pension age reached
6 December 1953 to 5 January 1954	6 March 2019
6 January 1954 to 5 February 1954	6 July 2019
6 February 1954 to 5 March 1954	6 Nov 2019
6 March 1954 to 5 April 1954	6 March 2020
6 April 1954 to 5 April 1960	On 66th birthday

Table 4: Proposed Changes to the Pensionable Age Affecting Eligibility To a pass (DWP, 2010)

The Coalition Government announced that they had no plans envisaged to change the policy further, as highlighted by Earl Attlee's written response in 2010:

> "*The coalition agreement sets out a commitment to protect free bus travel for older people. The right to free bus travel (including provision of a pass free of charge) for older and disabled people is enshrined in primary legislation. The Government have no plans to alter this, but are considering what steps might be taken to improve the operation and cost-effectiveness of the scheme*" (Butcher, 2011)

More recently calls have been made for the government to extend the scheme to other groups of society, including carers, the under 16s, those with mental health difficulties and the war wounded; although there are no current plans for these groups to become entitled under the scheme (ibid). Table 5 (overleaf) presents the evolution of the policy over the last 30 years.

Date	Concessionary Travel policy change in England
Pre-1985	Option for discretionary local concessionary travel schemes in England.
1985	***Transport Act 1985:*** Buses de-regulated outside London. Local authorities able to make concessions available on operator-run services.
2001	***Transport Act 2000:*** Statutory half-fare minimum for concessionary bus travel within a local authority area. Decision taken not to offer England-wide statutory free bus travel to under-19s which would have cost an extra £500 million.
2002	***Travel Concessions (Eligibility) Act 2002:*** Men to qualify at same age as women. Act changed definition of 'elderly' to those of both genders who have attained the age of 60.
2006	Report by UK Parliamentary Transport Select Committee proposed offering free bus travel to young people - subsequently rejected as would cost £1 billion extra.
April 2006	***Travel Concessions (Extension of Entitlement) (England) Order 2005:*** Statutory minimum entitlement increased to free off-peak local bus travel within local authority areas (at a cost of £350 million to central government (for 2006/07) funded through an additional element in the formula grant to local authorities).
April 2008	***Concessionary Bus Travel Act 2007****:* Statutory minimum increased to free off-peak national travel on local buses in England 09:30—23.00 weekdays and all day weekends and bank holidays (£212 million funding made available). Decision taken not to offer free bus travel to carers, which would have cost £10 million.
Dec 2010	***Travel Concessions (Eligibility) (England) Order 2010.*** Pre-budget report announced that age of entitlement would increase from 60 to 65 between 2010 and 2020 in line with female pension age.
May 2010	Coalition government pledge to 'protect free bus travel for older people ...whilst improving cost effectiveness and operation of the scheme'.

Table 5: Evolution of UK's Concessionary Fares Policy

Having discussed the English scheme, the next sections provide an overview of the schemes in existence in London, Wales, Scotland and Northern Ireland.

3.7 Concessionary Schemes in London, Scotland, Wales & Northern Ireland

3.7.1 London

The concessionary travel scheme in London is substantially different (and indeed more generous) compared to the national Concessionary Fares scheme for England. The London *Freedom Pass* allows free travel on almost all of London's Transport, funded through the 33 London councils on behalf of the London boroughs. The *Greater London Authority Act 1999* required that funding negotiations take place with Transport for London (DfT, 2009). In September 2006, entitlement under the scheme was extended to those aged 16 to 18 and in full time education in 2010-11 the grant allocated for concessionary travel in London from the Central government was cut by 50% from £58.32 million to £28.09 million (Butcher, 2009).

3.7.2 Scotland

In Scotland, free off peak travel by bus was offered to all those aged over 60 and those with a disability since April 2002, subsequently extended Scotland-wide in April 2006. This was two years prior to the policy change in England. In addition, residents of the Western Isles, Orkney and Shetland who would be entitled to a national pass in Scotland are entitled to receive two free return ferry journeys to the mainland each year. A further difference of the Scottish Scheme is the allowance for a free companion to accompany and those with a disability. The Scottish Executive had no plans at the time of writing to increase the age of entitlement, as is occurring with the English scheme (Butcher, 2009).

3.7.3 Wales

In Wales, the Welsh Assembly Government (WAG) holds the responsibility for overseeing the administration of concessionary travel by local authorities. Wales has offered local fare travel since April 2002, earlier than England. This was extended to free nationwide travel in April 2002. It was announced in April 2010 that the increase in age entitlement would not take place in Wales, as in England. Between 2006 and 2008 a small number of schemes for young people in full time

education were supported, although there is no intention for this to represent a widespread initiative at this time (Butcher, 2009).

3.7.4 Northern Ireland

A concessionary fares scheme has been in operation in Northern Ireland since 1978, under Article 5 of the *Transport (Northern Ireland) Order 1977* (HSMO, 1977). Blind people receive free bus travel under the scheme, with a half fare entitlement for those aged over 60, those in receipt of a war disablement pension and children between the ages of 6 and 16. In 1995, eligible pass holders were allowed free cross- border bus travel in the whole of Ireland, funded by the Irish Government. Finally, in 2001 the decision was taken to extend the policy to allow boundary less free travel on scheduled bus services, with the age boundary being lowered to the age of 60 (Butcher, 2009).

3.8 Operator Reimbursement & Administration

Given that the provision of free bus travel to older people under the policy is a major market intervention in a privatised market, and that bus operators are obliged to carry concessionary travellers, there is a clear need to adequately reimburse operators for their carriage (DfT, 2009). This section thus outlines the mechanisms and processes by which operators are reimbursed in England. This is an important aspect of the policy, as failure to achieve adequate reimbursement, according to the Confederation of Passenger Transport, could lead to a '*a very real danger that the most visible effect of the government's generosity to older and disabled people may be a substantial shrinking of England's bus network*' (Milmo, 2008: 3).

Importantly, European competition legislation explicitly prohibits concessionary travel schemes from offering hidden subsidies or state aid to bus operators. In other words the scheme is intended to offer a subsidy to the passenger, not to the bus operator (DfT, 2009). An important underpinning intention therefore is that bus operators should remain 'no better or no worse off' than they would be if no such scheme were in place. In other words, the reimbursement should compensate for those who would have paid for a ticket (at whatever price) if there was no scheme,

captured in the term ‘revenue foregone’ (Department for Transport, 2009). In addition, operators should be reimbursed for any additional costs linked to carrying those who would not have travelled in the absence of the scheme. These additional costs can arise from factors such as an increase in the number of vehicles used to operate a given set of services and other administrative costs. Equally if there is a reduction in an operator’s costs, as might be the case if there are reduced cash-handling costs, then this should be taken into account when calculating final reimbursement levels. This second group of costs is appropriately labelled ‘additional costs’ (Department for Transport, 2009). Figures 5 & 6 (page 68) summarise the process of operator reimbursement, and how it is calculated to achieve this *no better no worse off* criterion.

Outside of London, funding for the concessionary travel scheme is provided by central government through two main funding mechanisms; the formula grant and the Concessionary Travel Special Grant from 2008/09. The formula grant is part of a block grant provided to Transport Concession Authorities based on their socio-economic and demographic characteristics, and allows them to allocate the money between all their services according to local priorities. Secondly, the special grant was established in 2008/09 to account for the additional costs associated with the move to England-wide travel and is based upon factors such as retail floor space, overnight visitors and bus journeys (Department for Transport, 2009).

A number of issues have arisen relating to the current administrative organisation of the policy. Firstly, with each TCA being permitted to offer discretionary benefits above the statutory minimum, there was some confusion about entitlement, both amongst pass holders and bus drivers. Furthermore, negotiations between the TCAs and bus operators have resulted in a significant increase in back-of-house costs as reimbursement becomes increasingly complex and conflict emerges between authorities and bus operators. Hence it was announced that from April 2011, responsibility for administering the scheme transferred from the non Metropolitan District Councils to the county, metropolitan authorities or equivalent level unitary authorities (Butcher, 2009).

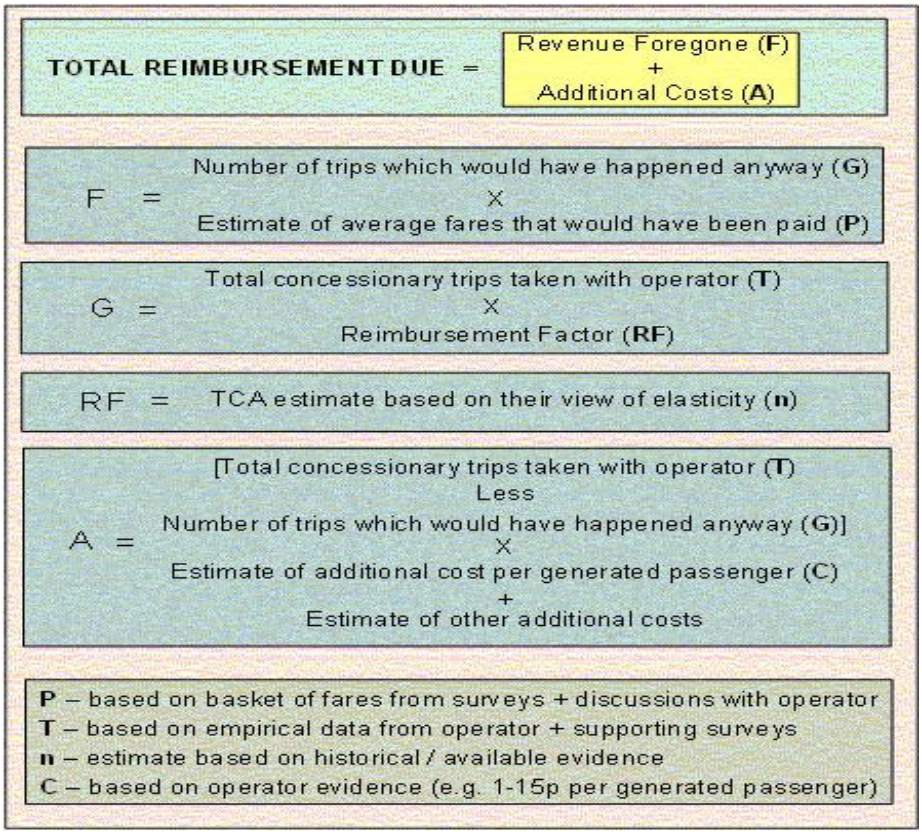


Figure 5: Overview of the components of the final reimbursement received by bus operators (Department for Transport, 2009)

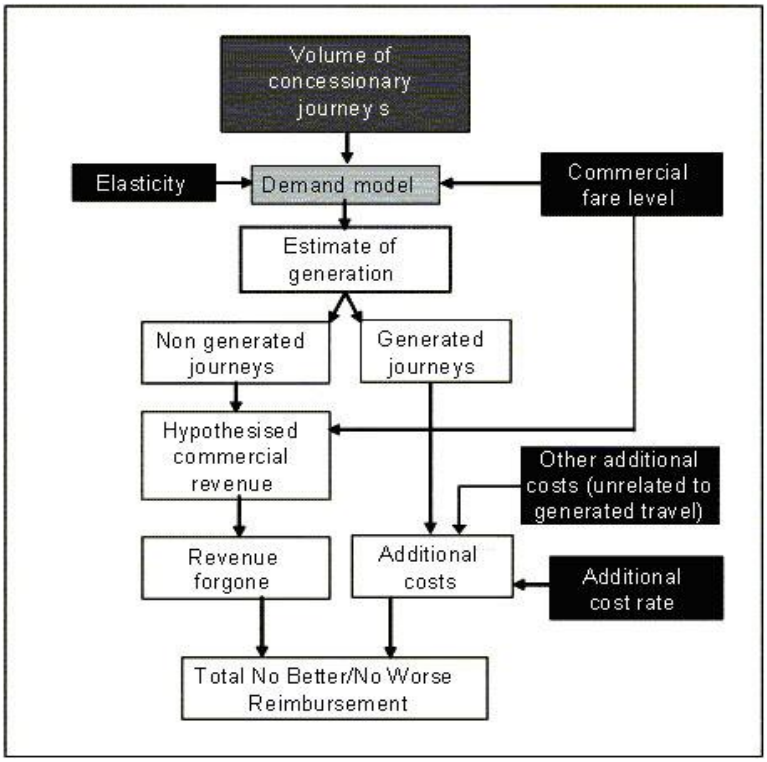


Figure 6: Process used to Determine Reimbursement to Bus Operators (DfT, 2009)

3.9 Aggregate Effects of UK's Concessionary Fare Scheme

As previously mentioned in Chapter 2, it is recognised that there is a higher degree of variance between 'older people' themselves as a group, than between any them and any other age group (Rosenbloom *et al.,* 2004). Rye & Careeno (2008) found that bus use amongst the poorest elderly rose by 30% in the two years after the policy change, challenging the Scottish experience of lower uptake of additional travel amongst poorer people than the wealthier equivalents (Scottish Executive, 2009). Rye & Careeno (2008) also found that 48% of those interviewed made more than one trip per week, with 65% of pass holders generating extra journeys as a result of having the pass.

In terms of modal change, 44% of respondents reported they would have walked and 23% were making entirely new journeys. At the county level, A study by Parkhurst & Shergold (2008) found that concessionary journeys augmented by 70% in the County of Devon in the year following the change from half fare to free fare April (2006-07), with the number of pass holders increasing by 45%. In a non bus pass scenario, 45% of pass holders reported that they would have used the bus and 25% the car. In Salisbury, a somewhat more rural setting, in which 21% of the population are over 60, the number of pass holders went up by 70.1% between 2005/06 and 2006/07. Greatest take up of free travel was found amongst the 60-65 year olds (White & Baker, 2010).

Finally, a study by Passenger Focus (2009) found that 39% of pass holders were making additional trips, with 13% of pass holders travelling more outside their local area. When considering trips outside the local area, 25% of the journeys would have been by car and 12% not made in the absence of the free bus pass. An interesting mode substitution paradox emerges, that whilst mode substitution from walking and cycling to bus use as a result of zero-fares policy can be construed as a negative consequence, discouraging active ageing, (e.g. Rye & Carreno, 2008; Kelly, 2011), qualitative research amongst older people suggests that this substitution can be seen very much as a benefit to older people, in terms of them not having to cycle or walk in certain circumstances when it is becoming increasingly difficult (Osnes *et al.*, *2004).* This suggests the need to marry a link between the social and congestion reducing benefits of free fares policy (Egeter & Versteegt, 2004).

White & Baker (2010) found that the free bus pass was more influential in influencing existing bus users (or occasional bus users) to increase their existing use of the bus, rather than stimulating modal shift per se. White & Baker (2010) noted a substantial difference in trip frequency between recent pass holders and long standing pass holders. Newer pass holders were statistically far more likely to live in a car-owning household, be younger and therefore be making more discretionary trips, but on average make less trips on average compared to existing holders. Women were found to be more likely to possess and indeed use a bus pass, particularly older female pass holders who inherited the legacy of being far less likely to have access to a car (Rye & Carreno, 2008). This inter-pass holder variance demonstrates the need to move away from describing a typical or average pass holder's behaviour, as this may describe the travel patterns neither those making many nor those making zero trips by bus. Having discussed pass holder variance, the chapter now comes to briefly discuss a number of international examples of zero-fare transport interventions and their 'success' in achieving their purported objectives.

3.10 International Zero Fare Schemes

Zero-fares schemes in operation internationally tend generally to be more focused on the problem of sustainable urban mobility and tackling its associated consequences of congestion and air pollution than on social mobility (Egeter & Versteegt, 2004). In the Netherlands, a one-year experiment offered zero-fare bus travel to commuters on two routes between Leiden to Den Hague (A44/N44) with the specific aim of alleviating chronic congestion. Despite an increase an overall bus patronage of 40% over the year, and over 45% of those interviewed stating they would have driven their car in the scheme's absence, there was little observable impact made on levels of congestion on the route (Egeter & Versteegt, 2004). In other words, this scheme was simultaneously 'successful' in terms of bolstering bus patronage, yet unsuccessful in its aim of specific traffic congestion reduction (Steenberghen *at al*., 2006). On a similar vein, the *U-Pass* in USA resolved to increase the sustainability of access to and from the campus (through promoting travel by bus), whilst simultaneously expanding the broader travel horizons of students in a number of American universities. Whilst it was found to substantially

reduce the university's car parking costs, and did achieve proportionately greater access by bus, GIS results tracking individual movement showed that whilst it encouraged journeys to the same location, it had little effect on new destinations (Brown *et al*., 2001). Dorsey (2005) describes the American scheme known as Unlimited Access, claiming it to be an effective way of dealing with congestion, parking and broader transport issues. Under this scheme, universities purchase discounted season tickets for all their students. It sought to correct existing market distortions, thus increasing economic efficiency, equity and consumer benefit. In Wisconsin University, a free pass reduced car use by 26%, and in Colorado bus ridership rose 55% in eight years, although such percentages can often be misleading. A further use of the pass is within the university context. In 2003/4 Dutch speaking colleges in Belgium offered free travel to help students to discover Brussels, promote subscriptions at universities and improve the image of the city. Although a cost benefit analysis revealed a positive society benefit of 118000 Euros per year, mainly due to modal shift, the policy was not entirely successful, in that the increased number of trips was to the same locations as before (De Witte *et al.,* 2006).

Similarly, De Witte et al. (2006) found that whilst 10% of car drivers would use the bus if made free, despite being offered a free pass, 48% of car drivers had no intention of doing so due to a perceived inadequacy of public transport. It is clear that it is misleading to assume that an increase in bus use will correspond directly to a reduction in car travel. The small scale of the project and its link to a specific road could render it difficult to capture any tangible effect, which may have had a broader effect on overall traffic levels (Egeter & Versteegt, 2004). Second, much previous research exists to suggest that even if a substantial reduction in congestion was achieved; in some cases some of the additional space generated may in fact reduce the average cost of using the road and thus induce additional demand by other users (see SACTRA, 1999; Cairns *et al*., 1998). Rye & Carreno (2008) point out that the aggregate level studies are so preoccupied with measuring trip increases that they in fact provide little context in terms of the timing of the trips concerned, and so for example it could be that much of the modal shift occurred off peak period and thus had little effect during the most congested periods. The Scottish Executive (2004) found evidence (albeit in a different scheme context) of longer term behavioural responses that, whilst not impacting immediately could change the patterns of travel, reporting that 7% of pass holders were actively considering giving up their car and 43% use the car less than previously.

Evidence from Austin, Texas showed a 75% increase in bus travel as a result of free fare but found little evidence of making a dent on car use. Boyd *et al's.* (2003) analysis of the BruinGo pass introduced in 2002 in UCLA University, found a 50% increase in rider numbers and 1000 fewer car trips per day. However, upon closer inspection it was found there was a reduction in the number of cycling trips from 4% to 2% and the pass was only really useful to those living near to where the bus service is being provided. Indeed, in one case, Boyd *et al.* (2003) found that the free pass attracted a high level of 'problem passengers', giving rise to increased incidences of vandalism and antisocial behaviour by students, leading to strikes by bus drivers.

3.11 Policy Outputs Verses Policy Outcomes

The influence of other factors, quite apart from an increase in the number of trips that influence the overall success of the policy, gives weight to an argument for a more qualitative, context-laden understanding of the trip and the individual context when evaluating free fare schemes. For example, in the case of congestion reduction policy, it could be useful to explore the effect of the zero-fare on timings, route choices and longer term inclinations towards bus use. Ureta (2008) highlights that the current evaluative measures of bus trip increases and distances travelled can only partially capture pass holders' response to the intervention of a zero fare. Given the potential for longer term travel behavioural change as a result of a free bus pass, for example its potential influence on giving up driving (Scottish Executive, 2004), linking the free bus pass to a specific measurable outcome can problematic and sometimes misleading, tending to underestimate (or in some case overestimate the short term) effects of the policy intervention.

To date, the majority of evaluations of concessionary travel schemes, both in the UK and similar schemes internationally use an aggregate data analysis approach to exploring the effects of the policy. It is interesting to note that whilst none of studies mentioned explicitly stated increased bus patronage as a principal goal, this appears in most cases to be the main (assumed) criteria for evaluating the success of the policy (see Gschwender, 2007) The consequence of this aggregate level focus has been a dearth of research into the very contextual information that provides meaning to the pass holders' trips, and thus necessary to assess how pass

holders' quality of life is affected by the scheme. Such an approach implies synonymy between an increase in the number of trips being made by the bus and benefit derived from these. Chapter Two has demonstrated that this theoretical linkage does not take account of non-trip increase related effects of a free fares policy, such as the benefits that can be derived from having the potential to travel (even where an actual trip does not physically take place). However, as has been demonstrated here, simple movement itself means nothing out of context — rather one needs to consider its impact on the quality of the individual's life (Davey, 2007; Ureta, 2008). Given that the achievement of each of the scheme's objectives is contingent upon individual-level travel behavioural change and its meaning, and that the constructs of social exclusion and quality of life are determined and indeed experienced at the level of the individual, this gap in understanding is somewhat surprising.

In sum, trying to describe the typical behaviour of a 'pass holder' is an impossible task, and may result in describing an 'average' behaviour that reflects neither the non user nor the frequent user (White & Baker, 2010). Metz (2000) suggests that the implication of this is that whilst the commuter can justifiably be treated as a more-or-less homogenous unit with equal (physical) access to the bus service, amongst other segments of society, such as the elderly and those with a disability, the issue of bus usability becomes far more important. In other words an important case here is made not only to understand the context of the trip, but in addition, particularly with socially-inspired schemes, to understand the context of the trip maker. To sum up, it is fair to argue that not only is the relationship between mobility and quality of life important, but that it takes on a distinct and separate meaning and importance in the context of older people (e.g. Metz 2000; Cobb & Coughlin, 2004; Davey 2007). As mobility becomes more of an issue, it goes from being a peripheral background facilitator to becoming a central key player in ensuring quality of life, with the consequence that the journey itself can become much more of an integral part of the aim of reaching the destination (Barnes *et al*., 2006).

In other words, this literature review makes the case that an important distinction must be made when evaluating free fare travel schemes between outputs (e.g. number of trips, distance travelled) and outcomes- making it necessary to assess the extent to which the policy has achieved its policy objectives.

This links in neatly with the theoretical discussions in Chapter Two, which suggested that an evaluative approach of free fares policy should entail

investigating influences not only on the objective quality, but also the character of later life. A core prerequisite to understanding the character of later life is a deeper understanding of the ways in which pass holders have changed their behaviour since obtaining a pass. As the next section shall discuss, these changes can also be subtle and not always correspond with trip frequency changes. In other words, a zero increase in trips does not necessarily constitute zero benefit- calling for a longer term more holistic view to recording the changes as a result of the policy and the benefits derived from these changes. With this in mind, the next section explores theory relating to the measurement of behavioural change.

3.12 Perspectives on Behavioural Change

This section takes a holistic approach to behavioural change that may occur as a result of offering a free bus fare, and argues that it is gradual and sequential, as opposed to a direct response, as is so often assumed. Logically following the argument through, if behaviour change is gradual, then some of the uses and benefits derived from the travel generated from the scheme will occur at a later point in time. Thus the core argument of this section then is that the benefits of the pass cannot be reduced simply to an increase in the number of trips being recorded by concessionary pass holders (e.g. Metz, 2003; Rye & Carreno, 2008).

Bus related behavioural change, like the ageing process and the process of giving up driving (See Chapter 2) has long been recognised in many different contexts to be a gradual process (Hakamies-Blomqvist & Wahlström, 1998). In other words the observable outcome or behaviour is a function of underlying mechanisms and processes that need to be considered in order to understand the true impact of an intervention (Prochaska *&* Clemente*,* 1986). Particularly relevant to this research is the notion that the ages of 60-64 are sometimes considered core transition years, where people may be more likely to re-evaluate their travel behaviour, coinciding with other life events such as retirement, downsizing of homes, and medical concerns, eventually in many cases leading to giving up driving (O'Fallon & Sullivan, 2003). This process of age related travel re-evaluation is by no means a linear process and highly individual specific (Metz, 2003, Banister & Bowling, 2003).

The implication of this is that if age is associated with re-evaluating behaviour, other research suggests that providing a free travel ticket at times of major life events may break habitual travel behaviour, In other words, it could cause people to contemplate their travel choices rather than automatically habitually decide on a mode using heuristic decision making methods (Garling *&* Axhausen*,* 2003, Fuji *&* Kitamura, 2003). Logically it could thus be argued that this time in life could be a potentially ideal time to promote sustainable mobility changes that would not only have immediate environmental benefits, but also assist in the longer term process of ageing and the likely non-car situation. The implication of this for the policy is that if, as is argued here that use of the bus pass could be a gradual process, there may be potential for the bus to incrementally meet the challenges of older travellers. This could make it more of proactive, as opposed to a reactive policy.

Specifically, the two aspects of behavioural change of concern are first, pass holders making the transition from not using the bus to using the bus, and second existing bus users who change the way (and quantity) they use the bus. This distinction is important not only in terms of the way operators are reimbursed, but also understanding their starting point. Prochaska & Clemente*.* (1986) draw on the notion of behaviour change as an ongoing process presented their stages of change model, with five stages of change contained therein (see Figure 7 below).

The first theoretical stage of Prochaska *&* Clemente's (1986) model is that of pre-contemplation, whereby the individual has few or no plans to alter their behaviour. In the public transport field this has been previously attributed to factors such as habitual, auto centric behaviour (Beirao, *&* Cabral, 2007), lack of interest, and lack of knowledge about public transport (Henscher, 1999). Specifically, the pre contemplators of interest here could include those under the age of 60 who are not entitled to a pass, those who have no interest in the scheme, and car driving pass holders, who Stepaniuk *et al*. (2008) suggest deliberately avoid thinking about a time when they can no longer drive (See also Shope *&* Molnar, 2003). Consequently, Davey (2007) suggests this can be problematic, as some older people remain at this pre-contemplative first stage until a life event such as a fall, or near miss in the car causes them to seriously consider giving up driving and thus a need emerges for an alternative. However by this stage, the process of transition from the bus to the car (as discussed in Chapter Two) can be problematic, as often the very same factors causing this may actually make taking the bus more difficult (Broome *et al.*, 2009).

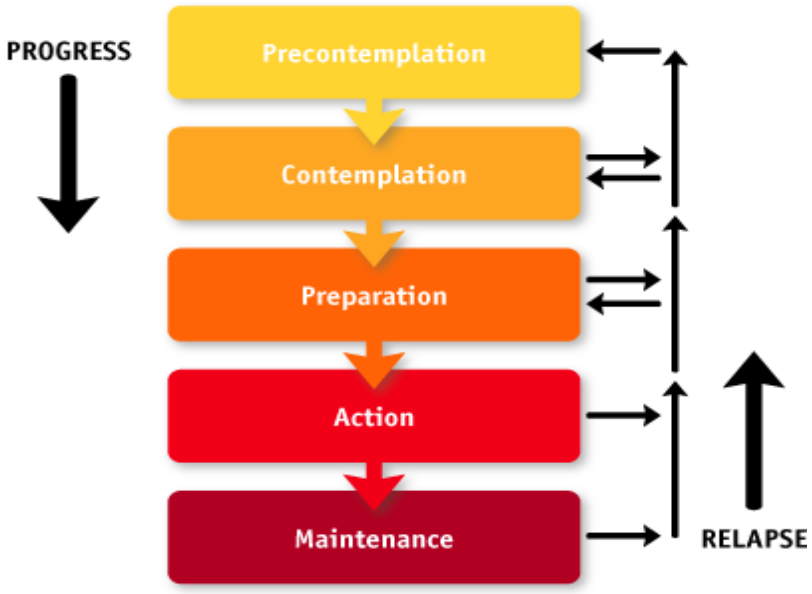


Figure 7: Prochaska et *al.*'s stages of change model

The model's second stage is contemplation, a stage whereby travellers become aware of a 'problem' or 'need' and commence thinking about it (Prochaska & Clemente, 1986). In the context of this research, this could include those voluntarily ceasing to drive, or those finding it increasingly difficult to maintain their mobility needs using the car, or those hearing about the scheme. In addition it may promote contemplation due to the positive word of mouth and not seen as a problem. Then once the behaviour (i.e. using the bus) is performed, there is a maintenance stage, whereby the behaviour is continued and reinforced, or alternatively discontinued. The role of bus reliability and quality could play a great role here. Fujii & Kitamura (2003), in an experiment of a one month free bus pass that a small percentage of respondents reported continuing to use the bus even when it was not free, suggesting that the free bus pass could alter longer term behaviour.

A number of criticisms are levied towards the theory that are worthy of note. Whilst the theorists maintain that individuals are orderly in the sense they were likely to pass through all the stages, they can often become stuck at one particular stage, for example in the context of drug addiction, some people can potentially remain at the contemplation stage for many years, with others failing at the maintenance stage (Adams & White, 2005). It could also be criticised for its portrayal of an overly idealistic circular process, in that once a relapse occurs in bus use people may be unlikely to board again. In brief then, this theory is pertinent to Concessionary Fares policy, as it emphasises change as a gradual process and allows for the fact

that different pass holders may be at different levels of the process or indeed not even in the process and may go at different speeds. It recognises that the actual bus trip is the outcome of a complex chain of events and levels of contemplation and that actual experience of the bus may affect future propensity to use it. Having considered a theory relating to pre-trip decision, next we consider theoretical approach to how change as a result of the zero-fare intervention may be measured.

3.13 Theories of Responsiveness to Price

A key consideration for those evaluating Concessionary Fares policy is how pass holders respond to changes in price, not least because this is linked to the average trip rates that are used for operator reimbursement for carrying passengers under the scheme. This section builds the argument that some pass holders may potentially be using the pass specifically because it is free, in a way that is different to that of even the most substantial price reduction, agreeing with and building upon the arguments of Ariely (2008) and Warneryd (1999).

Conventionally within transport studies, an econometric approach is used to study responsiveness to price, predicting demand for bus travel using elasticity of demand, defined as the percentage change in consumption of a good caused by a one-percent change in its price or other characteristics. As a rule of thumb, when the financial, temporal, risk or discomfort costs of travel by a particular transport mode are reduced, the number of trips using that mode is generally likely to increase; and vice versa (Victoria Transport Policy Institute, 2004). Whilst in the 1980s with a handful of half-fare schemes it was possible to apply a uniform trip generation factor of around 25%, the transition to free boundary-less bus fares for older people meant higher trip generation figures, which have previously been found to vary according to each area's desirability and demographic profile (Mackie *et al.*, 1995). As the proportion of concessionary travellers compared to total travellers rapidly increases, and individuals get further and further away from a point in time that they would have had to pay, there was a clear need to decide on a more suitable reimbursement package. The DfT (2009: 3) encapsulates the challenges of this:

> "*Revenue forgone depends on the sensitivity to fare changes of passengers' desire to travel by bus... however estimating these relationships*

and the appropriate level of revenue reimbursement can involve significant challenges".

To add to the complexity of predicting response to the intervention, Dargay & Hanly (2002) highlight a clear difference between short-run and longer-run effects of offering a free bus pass, the former conventionally being taken to be around half the latter, given that such interventions take time to take effect. A rationalist view of behavioural change, particularly in response to changes in price holds that life is full of tradeoffs, and people (travellers) continually taking decisions regarding how they spend finite amounts of their finance, time and energy. It is assumed that the selections and choices people make broadly reflect travellers' preferences and values (Victoria Policy Institute, 2004).

However the rationality of decision makers has been brought into question. A number of recent investigations have found subtle differences between zero-fares policy and a significant price reduction. Nelthorp (2010) found that the trip generation from the transition to free fares well exceeded that expected, suggesting its inability to fully capture the full breadth and rationale for behavioural change. Warneryd (1999) concludes that the theory of rational choice accounts only poorly for actual behaviour, yet it comes close to serving as a fundamental principal for behavioural sciences, meaning it is normatively useful but is fundamentally deficient as an account of behaviour. In other words, opponents of using solely elasticity of demand to measure responsiveness to price question whether the traveller is truly rational and responds in a predictable way, particularly when faced with a free fare as opposed to a price reduction.

With this in mind, Webley & Burgess (1998) make the case for a shift towards an interdisciplinary approach to considering behavioural response to free travel, which is developing through the recently emerging disciplines of economic psychology and of economic sociology. The EPTON website describes "economic psychology as an *"emergent discipline, informed by both disciplines, that leads to a better understanding of people behaving in their economic lives, and that explores the way economic issues in society affect people's behaviour".* This approach is certainly in line with the previous chapter's argued need for an individual focus to complement the dominant aggregate approach to researching concessionary fares.

A specific behavioural theory arguably of relevance to this Thesis is Ariely's (2008) theory of response to zero-price items. He hypothesises that getting a product for 'free' stimulates an entirely different human response to that of a normal transaction,

as would be the case in a simple price reduction. In other words, the notion of being free can circumvent the standard transaction processes that are presumed to guide people's purchasing behaviour. In an experiment, he found a significant difference in demand between a chocolate bar reduced from £0.50 to £0.01 and a chocolate bar reduced from 0.01 to free. Whereas the conventional economics of elasticity would suggest that the largest reduction should have the most significant effect, interesting, Ariely (2008) found the £0.01 reduction to have the greatest effect on demand.

He posits, based on this evidence, that there is a certain novelty of acquiring free things and that human beings are hardwired to love free items, with the result that zero is not a price but an '*emotional hot button'* that should be placed in a category of its own. "*The point about zero is that we do not need to use it in the operations of daily life. No one goes out to buy zero fish. It is in a way the most civilized of all the cardinals, and its use is only forced on us by the needs of cultivated modes of though*." (Cited in Ariely, 2008: 1). Studies into online book retailer Amazon revealed a similar phenomenon, in that offering free delivery was found to stimulate much more demand for a product than offering even a significantly higher discount even on the same product (Lewis et al., 2006). Ariely (2008) therefore proposes that whilst we are rational beings, and decision making relies on imperfect psychological mechanisms that cause systematic departures from reality, these responses are predicable, making us predictably irrational.

In simple terms, then, providing a free bus pass could have a qualitative effect above and beyond that of a simple price reduction, and could generate demand by its very nature of being free. To date this has been given little consideration within the context of Concessionary Fares policy. This has important implications. The tentative suggestion that there is a significant difference between the effects of reducing financial exchange and removing it entirely means that serious consideration must be given as to whether the 2008 alteration to the policy can be described and framed as a price reduction from 50% to 0%, or whether it should be described in a category of its own, in other words creating a new scheme. This is an important consideration for those responsible for evaluating the scheme.

A possible conclusion is that rather than cost being a key factor in the decision to *take* the bus, as is proposed in the financial affordability' criteria, more specifically, the cost element could relate more to the act of *continuing* to *use* the bus. It has found that whilst in certain circumstances a rational calculated decision may be

made to use the pass given the clear cost saving, the very fact of it being free may stimulate demand above and beyond that of even the most attractive price promotion. Whilst this could have beneficial lessons to certain modal shift tasks, in the context of the concessionary bus pass where a cost is associated with each additional trip generated, questions need to be asked as to whether it is reaching the people most in need. This will be a subject of further investigation within the data collection phase of the Thesis research. It now presents some findings relating to the gaps in current understanding that justify the need for the research proposed in this thesis.

3.14 Conclusions & Gaps in Existing Knowledge

Having traced in this chapter the evolution and formalising of an originally social-inspired policy seeking to address the issues of maintaining quality of later life through a free bus pass, and discussed the legislative, administrative aspects of this significant transport intervention, as well as its implications for the bus market as a whole; this section brings the chapter to a close by offering a summary of the key gaps in existing research that warrant further research.

- **First, within current evaluative work on zero-fares policy, on the whole, attention is focused on solely aggregate level analysis, which means it is often devoid of the contextual information that helps understand its benefit.** Whilst the current aggregate trip level only evaluative study may perhaps be suitable for integer measures of congestion and air pollution, they cannot fully capture more individualistic concepts such as exclusion and quality of life, very much individually experienced constructs (e.g. Rye & Carreno, 2008). Indeed, whilst a well established and logical connection exists between reducing vehicles on the road and reducing congestion, this review has shown the interaction between using a bus pass and improvement to quality of life to be somewhat has much more complex underlying mechanisms of which little is known.

- **Current research tends to provide little information on the differences between groups of pass holders.** This review has shown that attempting to describe the typical behaviour of a ‘pass holder’ is an impossible task,

and may result in describing an ‘average’ behaviour that reflects neither the non user nor the frequent user (White & Baker, 2010).

- **There is a dearth of knowledge about how and why the individual pass holder has changed, or importantly, will change their behaviour with the opportunity to use the bus for free**. Current research provides little exploration of micro level changes, or the gradual changes in bus use that may be occurring.

- **Whilst none of the existing free fare schemes considered in this review have the stated main aim of increasing bus journeys, this is the main source of evaluating their success.** Indeed, current research tends to assume synonymy between an increase in trips and benefit, rather than exploring the meaning of these trips and their contribution to achieving the goal of improving quality of life.

- **There is limited success to date in evaluating the success of Concessionary Fares policy against its original aims of mitigating the effects of social exclusion.**

Figure 8 overleaf ties the core gaps within the research to the specific research aims and objectives of this present study, suggesting the types of data that may be used for answer these research questions. Having presented a thorough and critical discussion of the key literature in the area, Chapter Four moves to present the methodological approach that was used within the research.

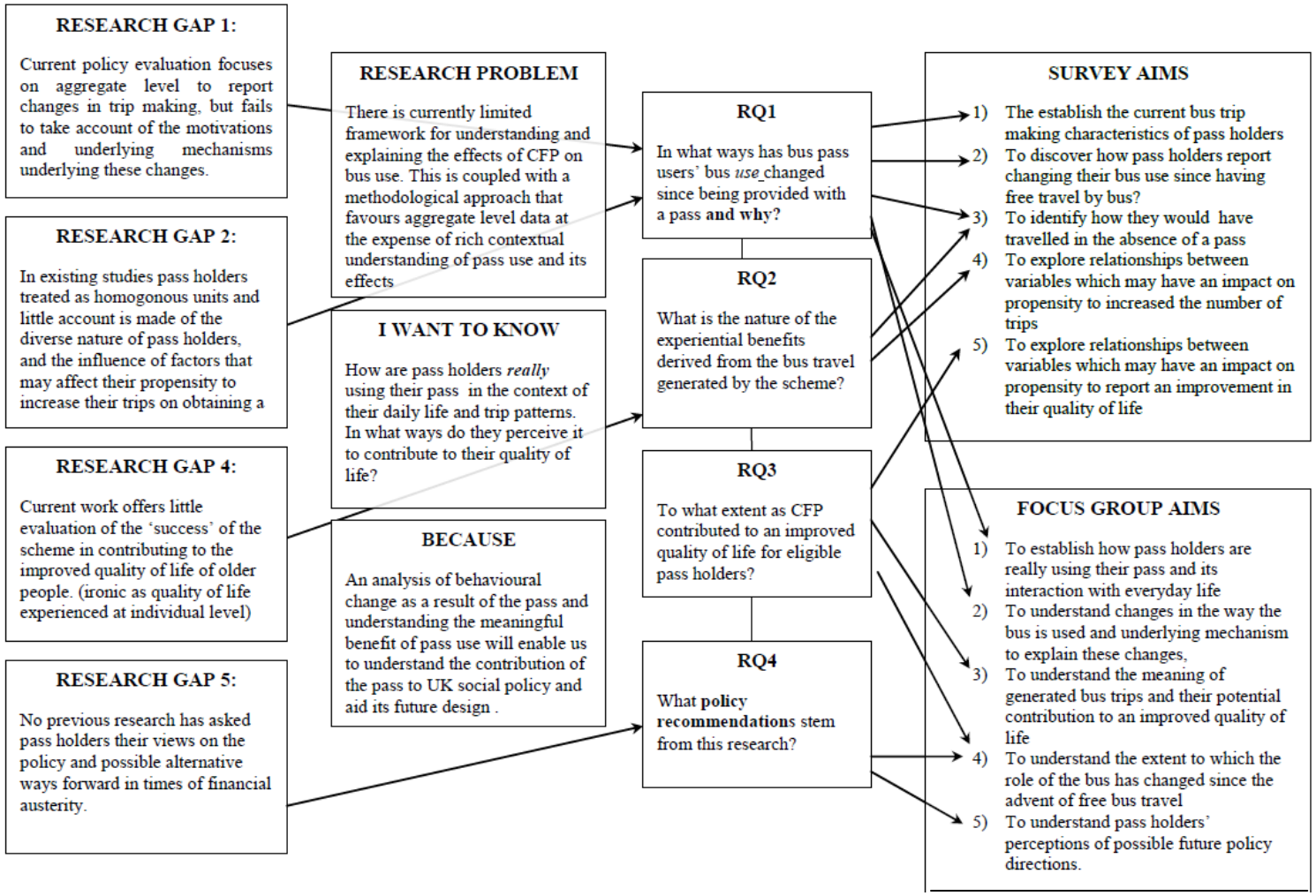


Figure 8: Overview of the Doctoral Study

Chapter Four: Research Methodology

Methodology Overview and Phase One: On Board Survey.

4.1 Introduction

Having discussed the theoretical and practical gaps in existing knowledge that warrant this research, Chapter Four now offers an explanation and justification of the methodological approach that has guided the research's empirical data collection stage. For the purposes of this research, a two-pronged methodological approach was employed. The first stage comprised of analysis of an on board bus survey of 487 pass holders[20], commissioned in the County of Devon in late November 2009; and the second involved ten focus groups conducted with both pass holders and non-holders recruited from various bus-using contexts in the county. Before launching into a detailed methodological discussion it is worth briefly reflecting on the overarching aim of this chapter. The term 'method', according to Cohen *et al. (2000: 44)* means: *"the range of approaches used in educational research to gather data which are to be used as a basis for inference and interpretation, for explanation and prediction".* They comment that "*the aim of the methodology is to help us to understand, in the broadest possible terms, not the products of scientific inquiry but the process itself" (Ibid: 47).*

With this goal in mind, the present chapter commences by detailing the research's underlying epistemological and ontological assumptions relating to the nature and scope of the knowledge that the research is treating, and how this informed and guided the methods used to appropriately capture the data. Subsequently, it explores the implications of the researcher's decision to pursue a deductive research strategy. The next section offers details of the demographic and physical characteristics of the research study area, before discussing in detail the mechanics of the two strands of the methodology, pertaining to decisions relating to the recruitment, sampling and operations of data collection during the data collection stage. The chapter concludes by considering the broader ethical and health and safety issues relevant to the research.

[20] At the same time 499 non-holders were surveyed in order to collect data for a separate research project.

4.2 Ontological & Epistemological Underpinnings

Carter & Little (2007) are of the view that, prior to discussing the specifics of the methodological approach used in empirical research, it is important to reflect briefly on the theoretical presuppositions about the nature of knowledge that guide and shape methodological choices, and the ways in which the data is scrutinised. This thesis study endorses the critical realist perspective on the nature of knowledge. The principles of critical realism are that a 'reality' exists that is independent of the human mind, in other words the approach maintains that there are "*unobservable events which cause the observable ones; as such, the social world can be understood only if people understand the structures that generate such unobservable events*" (Bhaskar, 2004). The critical realist argues for an approach that makes the distinction between an event (such as using the bus) and what is causing it- going beyond the observable and investigating the mechanisms behind the event (Ibid). In the context of this research project, it is argued that actual physical bus using 'behaviour' is the observable outcome of a number of underlying mechanisms and processes that guide it. In contrast, a purely positivist research approach would argue that nothing exists beyond that which is observable (Mason, 2002). Indeed, with the core concepts of the research (those of social exclusion, age and quality of life) being highly subjective and relative in nature, this research endorses the critical realist claim that it is impossible to separate in any meaningful sense, individuals from their behaviours and attitudes (Mason, 2002).

Practically, this highlights the need to amalgamate the individual's experiences and perceptions of exclusion with macro-level aggregate measures of what is understood by exclusion (Guba & Lincoln, 2004). Within this framework, 'science' is characterised as the ongoing process of improving social understanding of the mechanisms that underpin a certain behaviour, with each social reality of the pass holder being recognised as real and meaningful (Mason, 2002). In other words, the social world is that experienced from the inside, and - as such - peoples' lay accounts represent the most valid method of access to the social world (Ibid). Figure 9 shows the core components of a critical realism; separating between the observable experiences, the 'actual events' and the 'real' mechanisms that have generated these events (Mingers & Willcocks, 2004).

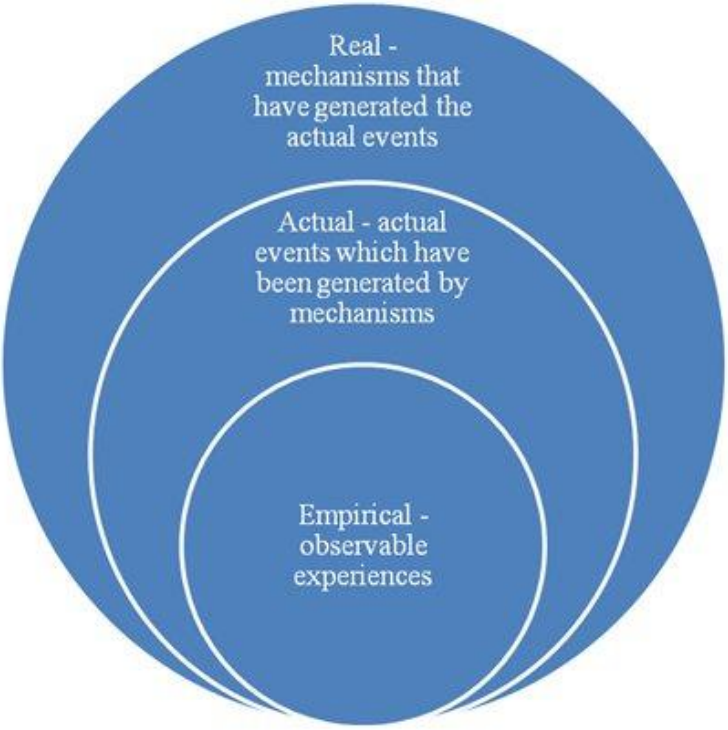


Figure 9: Components of Critical Realism (Mingers & Willcocks, 2004)

Critics of Critical Realism note that despite the extensive movement of critical realists, there has been little attempt to operationalize its use, with Patomaki (2004) commenting that whilst it is agreed that it is useful to understand mechanisms and processes, there is little guidance on the most suitable methods and starting points to abstract these. In other words, it could be construed as more of a philosophy than a methodological approach.

As a consequence of adopting critical realism as the guiding philosophy of the research, it necessarily follows a deductive research approach, inasmuch as the research commences with an in-depth examination of relevant theory that could help to explain and understand the broad-level changes in bus-using behaviour that are occurring since the provision of nationwide free travel. Subsequently, this theory informs a number of tentative hypotheses or predictions that will be supported or refuted by the data collection. It is helpful to adopt Popper's falsification principle (Caldwell, 1991), which states that it is never possible to ultimately prove a hypothesis, but rather only to eliminate false theories (Caldwell, 1991). According to this principle, when a hypothesis is found to hold up to scrutiny, it is accepted as 'true' until further analysis proves it incorrect. This is particularly relevant to this research, which will seek to understand the behaviour towards the concessionary pass, yet will be unlikely to offer a definitive explanation. Having

considered the underlying epistemological narrative of the research, the next section discusses the research study area, pertaining to its population demographics and physical landscape.

4.3 The Research Study Area

All of the empirical data collection[21] for this research took place in the Exeter area in Southwest England. It is in the county of Devon, the largest county in the Southwest region, representing 27.5% of the region's land area (Office for National Statistics, 2001). To obtain a sense of the large geographical size of the county, the distance from Ilfracombe in the North to Dartmouth in the South is approximately 80 miles. From Okehampton in the West to Axminster in the East is around 50 miles. The research did not cover all of these areas. It is also noteworthy that the county of Devon has the lowest population density of any county in the region, at 114 people per km^2 (Office for National Statistics, 2001), although the city of Exeter itself is an urban area with a population in excess of 118,000 inhabitants. Sixteen percent of households in the county of Devon are formed of pensioners living alone (Devon County Council, 2008). The area is served by one main bus operator running a wide variety of routes, including long-distance rural routes and shorter city routes.

The area is home to a higher proportion of people aged over 60 (26.7% of the region's population) compared to England as a whole (where this percentage is 20.7%), and which is increasingly ageing; it is forecast that the percentage of over 60s will rise to 36% of the county's residents by 2029 (WDBC, 2007), in part attributable to an increase in inward migration amongst this group. The county also has a mix of rural, semi rural and urban routes (Devon County Council, 2008), meaning that it provides examples of a wide range of routes found elsewhere in the UK.

Furthermore, the county of Devon is a popular tourist hotspot, particularly amongst older people from outside of the county, boasting two National parks, five Areas of Outstanding Natural Beauty, a protected coastline and many locally designated

[21] With the exception of the two Bristol pilot focus groups.

areas of great landscape value. Indeed the SWLGA[22] and Southwest Tourism (2007) estimated that around 15% of all external visitors to Devon in 2007 were aged over 65, representing 5 million tourist-nights in the region each year. Whilst this may provide advantages to the local economy, this also presents problems, since in 2008 (under the Concessionary Bus Travel Act), financial liability for concessionary fares reimbursement was shifted from the pass holder's local authority of residence to the local authority where the trip departs from (See Section 3.2). This had the effect that local authorities are responsible for reimbursing all the return-leg trips of holiday-makers who use their passes. Furthermore, local authorities with relatively important tourist economies are losers in respect of these costs. Indeed, in the case of a tourist staying in a different local authority, the host local authority is liable for all the inbound and outbound bus trips made by the pass holder during that stay (DfT, 2009).

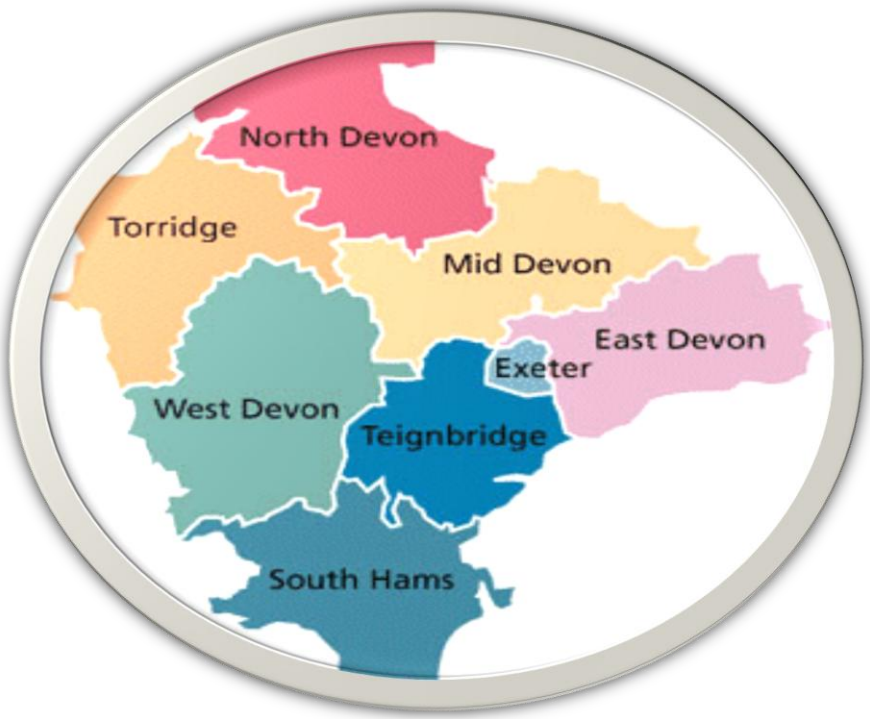


Figure 10: The County of Devon and its eight constituent districts

Table 6 (overleaf) provides information on the population, land area and population density of the eight districts that form the county of Devon, highlighting the diverse nature of its constituent districts.

[22] South West Local Government Association (UK)

	Population (000's)	Area (sq kms)	Persons per sq km
Devon County	746.8	6, 564	114
East Devon	113	814	163
Exeter	118.5	47	2,531
Mid Devon	75.6	913	83
North Devon	91.5	1,086	84
South Hams	83.6	866	94
Teignbridge	122.6	674	188
Torridge	65.3	984	66
West Devon	52.8	1,160	46
South West	5,210.4	23,837	219
England	51,564.6	130,281	395

Table 6: Population and land densities of Devon's districts (GOSW, 2010)

The county of Devon was selected as the study area for this research for two fundamental reasons. First, on pragmatic grounds, the research's sponsors had operations in the area and, as such would be able to provide useful contacts and access to a bus network. Furthermore, with a previous Concessionary Fares research project in the research centre being based in this study area in the Autumn of 2008 (Parkhurst & Shergold, 2008), it was envisaged that some degree of comparison might be possible with data already collected. However, beyond these pragmatic justifications, the following additional factors meant that Devon was a suitable catchment area for the research. As discussed in the preceding paragraphs, Devon is home to a high proportion of older residents and has a growing and increasingly ageing population, and, as such the findings and policy implications of this research are of particular relevance to the county. Secondly, the diverse nature of the study area, having a mixture of rural and urban areas, meant that it was possible to reflect a wide variety of different bus using contexts that might typically be experienced throughout the country. The County was also identified as having significant concerns over receiving adequate reimbursement due both to the higher than average number of residents eligible for passes and the large absolute number of tourist visitors with passes, making it a location in which the issues of cost and benefits were brought into sharp focus. Having described the study area, the next section discusses the first method used within the research: the on-board bus survey.

4.4 The Mixed Methods approach

England's Concessionary Fares scheme, whilst being administered nationally through the upper tier authorities (see page 38-40), is used by and provides benefits at the local (individual) level. With the purpose of this research to estimate the magnitude in changes in bus use, whilst simultaneously examining the nature of these changes and implications for the quality of life of older people, a mixed methods approach was adopted. The importance of including a qualitative component to the research is encapsulated by Sherman & Webb (1988:10) who argue that:

> "*a qualitative approach implies a direct concern with experience as it is 'lived' or 'felt' or 'undergone' ... Qualitative research, then, has the aim of understanding experience as nearly as possible as its participants feel it or live it."*

The use of multiple methods within this research recognises that aggregate quantitative level data alone are insufficient to fully describe the complexities of behavioural change (Kuipers, 2000; Kramer, 1983). Denzin *&* Lincoln (2003) note that any single method can rarely adequately solve the problem of rival causal factors and that each method reveals different aspects of the empirical reality. Particularly when studying bus patronage, Kuipers (2000) is keen to stress that a 'zero' percent increase in bus patronage over any given period may not necessarily be reflective of a zero change. For example, even where aggregate bus patronage remains stable, this observation is likely to mask different individuals commencing or ceasing use of the bus: in other words the constant day to day 'churn' in passenger patronage (Chatterjee, 2001).

It is argued that using multiple methods can help to bridge the schism between quantitative and qualitative research (Johnson & Onwuegbuzie, 2004), with the weaknesses of one method being compensated for by another, ultimately creating complementary strengths and non-overlapping weaknesses (Brewer & Hunter, 2006). Patton (1990) comments that a mixed-methods research approach can create reliable explanation through triangulation of the results from different methods. This having been said, however, the term 'mixed methods' has tended to be lightly used and in some cases has come to mean little more than a multi-methodological approach with limited cross-validation of the results (Oppermann,

2000). Furthermore, Fielding & Fielding (1986) argue that multi-method triangulation doesn't necessarily reduce bias or increase validity; arguing that whilst it can provide a fuller picture, this is not necessarily always a more objective one.

It was concluded that the most suitable research approach was to first analyse the survey data to research the broadest aggregate level trends, and follow this up with a series of qualitative focus groups. This was felt necessary in order to ground these aggregate behavioural changes in the context of pass holders' daily lives, and explore more subtle behavioural changes that may not have been able to be captured in the survey. This order of data collection is contrasted with that from Passenger Focus (2009) when researching concessionary fares, which conducted focus groups first and then compiled a survey to establish the commonality of these findings on the larger scale. It was concluded however, that the order used by Passenger Focus was not appropriate in this case, either for the deductive approach underpinning neither the current research nor the research's goal of understanding the mechanisms and processes underlying the observable behavioural change in bus use (see pages 63-65).

In brief then, the mixed method approach is justified in the case of this research on the basis of A) its desire to capture data on bus use in terms of patronage, and B) the changing way pass holders are using the bus in terms of the context of the day and also what they are doing whilst on board. It was intended that the quantitative survey would provide aggregate level insights which can be picked up upon and explained in the qualitative phase to understand why pass holders have changed their bus-using behaviours and what this means for their quality of life. The next section discusses and justifies the use of the first method of an on board bus survey.

4.5 Phase I: The On-Board Bus Survey

An on-board bus survey was commissioned from a market research company in December 2009 in collaboration with another research project that sought to compare bus using trends and opinions relating to concessionary travel with a previous survey in December 2007, prior to the provision of nationwide free travel. Whilst the researcher was able to embed questions of relevance to the Thesis within the 2009 survey, many of the questions posed were identical to the previous survey in order to allow comparison. As such the main added value of this research is the secondary analysis of the data set. This having been said, the researcher was able to be involved in the organisation and some of the practical administration and design of the survey. This section thus discusses the on-board bus survey in terms of its relevance to the Thesis, the recruitment strategies used, and how the data were analysed. The overall goal of analysing the survey for the purposes of the research was:

To understand how concessionary pass holders have altered their bus using behaviour since obtaining a free bus pass, and whether it has contributed to an improvement in their quality of life.

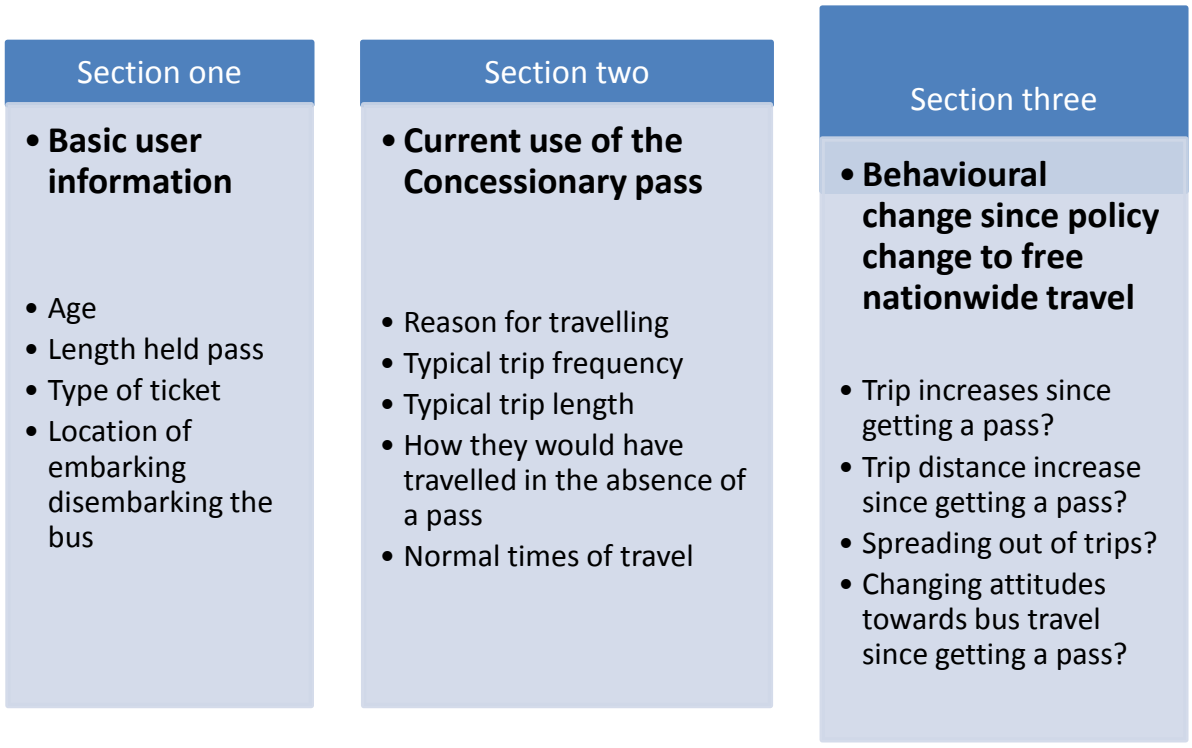


Figure 11: Aims of the on board bus survey

4.6 Justifying the Use of an On-board Intercept Survey

Right at the onset of the research, two initial discussions groups with older people were held to obtain their views about the main issues surrounding pass use and to gain an insight into the group's experiences with surveys. Whilst this group was informal, it did provide a useful insight into the complexities of travel behaviour of this group, in particular highlighting the need to understand the more subtle changes in bus using behaviour, such as some respondents spreading out their trips over the week since the bus is free. As such the group was very informative for both the formulation of the on board survey, but also raised areas for exploration in the subsequent qualitative phase of the research.

Whilst the timing of the survey, having been already commissioned, provided an ideal opportunity to gather data at minimal cost and at a scale greater than would be possible relying on the researchers' resources alone, two alternative primary data collection methods were also considered for the study: a postal survey and a static bus-stop survey. A postal self-completion survey offered a relatively low-cost method of data collection that would enable a pre-planned and systematic sampling strategy to be adopted, but typically obtains a lower response rate than the other two methods considered (Dillman, 1991). The use of an intercept survey - so called as the researcher intercepts respondents at a chosen location - was favoured for a number of reasons. First, intercept surveys generally achieve a higher response rate than mail-out surveys - often in the region of 50-60% (Ampt *et al.*, 1985). Furthermore they benefit from immediacy (Stopher, 1985). Third, interviewing respondents in their 'natural' bus-using environment may assist in respondents' ability to respond more accurately to the questions that are posed to them by providing in-situ cues and prompts (Schaller, 2005). Thus, having then discounted the mail survey, a second key methodological decision needed to be taken: whether to go ahead with the mobile on-board survey or alternatively a static-site survey, with researchers based at bus stops and key interchange locations (Schaller, 2005).

The method of the on-board intercept survey benefits from lower perceived cost to the user compared to a static survey, as the user is on the bus anyway and not needing to pay attention for an approaching bus. Additionally, it offers increased safety and control of the interview (Schaller, 2005). There are, however, a number of limitations on conducting an on-board intercept survey, as opposed to a static bus

stop survey. First, the time available to complete the survey is limited to the time spent on the bus, meaning that there could potentially be a response bias towards longer trips (Schaller, 2005). This could result in the benefit of the potentially higher response rate being offset by a higher item non-response rate (Ampt *et al*., 1985). Furthermore, it is an environment that is often busy, with people intermittently boarding and alighting, with often relatively high levels of engine and other noises, and coupled with winding and bending in routes causing motion problems. This, coupled with the hearing and visual impediments of some older passengers may render conducting the survey more challenging (Blash *et al.*, 2003). On balance, the decision was taken to focus on analysis of the on-board survey that had already been commissioned, rather than expend resources on a new primary bus stop data collection exercise which was perceived to offer minimal additional benefit compared to the on-board survey.

4.7 Survey Sampling Strategy

It is worth noting that there remains a dearth of literature on the practicalities of sampling design for on-board bus surveys (Ampt *et al*., 1985). Specifically, there is a lack of detailed methodological literature surrounding the selection of routes. Particular considerations for sampling a non-static population include the selection of the routes, selection of particular buses running on these routes and selection of the time of day (Schaller, 2005). As well as there being differences between each individual bus route, there are also two types of bus routes: First, interlining services that follow a specific route to start with, and then can be changed to another route later on in the day and second, dedicated route services that follow a specific route throughout the day. This clearly has implications for both the sampling procedure and the practicalities of ensuring interviewers are on the correct bus (Ampt et al. 1985). They argue that stratification is needed to improve the efficiency of the random sample, creating distinguishable bus groups that represent some similarity, such as local and express routes, or geographically-based routes (Ampt et al., 1985). In brief, they propose a multi-stage sampling process, in which a stratified random sample of routes is selected, from which a sample of bus runs is taken. From these a sample of times is selected.

However, whilst it was felt such a rigorous sampling strategy would be appropriate and indeed necessary in a case where results are desired to be generalisable to the network level, for the purposes of this research, with the emphasis on the pass holder behaviours themselves, such an approach was not as important. Consequently, the routes were chosen to provide a broad cross-section of the different types of route and passengers that might typically be experienced within any region, as opposed to being selected on the grounds of strict representativeness. It is also worth noting that although the survey collected data from specific routes, implications for the network will be drawn out where possible with reference to network patronage data.

Route 1: Centre: A busy commuter/shopping route into Exeter, with the purpose of capturing passengers at peak times.[23]	**Route 39**: Bovey Tracey: A route into Exeter with a stop at Royal Devon County Hospital.
Route 12/12a: Torbay and Newton Abbot. A route into Torbay carrying commuters & shoppers during the week and leisure travellers at the weekend	**Route 2** : Exeter, Exminster-Dawlish: A rural route

Table 7: Routes Selected for 2009 Survey (based on Parkhurst & Shergold, 2008).

As per the previous survey in 2007, a quota-sampling strategy was adopted in order to ensure that around 50% of the respondents were concessionary pass holders and the other 50% under the age of 60, (most of whom would not be eligible for a pass).[24][25] A total of 487 pass holders were questioned. The quota targets were set per route, not necessarily by time, to reflect the reality that, at some times of day, particular groups of people may be overrepresented, such as commuting being more prevalent before 09:30 on weekdays. Surveyors were required to record the time and route of each survey in order to be able to get a balance of route or times, with each route being surveyed from 07:00 to 19:00 over four days, two weekdays and two at weekends. This enabled a broad cross-section of the bus travelling

[23] It was anticipated that intra-Exeter journeys would be captured on this route

[24] The 499 non-holders of passes were used for other research purposes, and do not form part of this research's analysis

[25] Noting as well that between 5% and 10% of pass holders are granted a pass on the grounds of disability, an area which is not a particular focus of this thesis.

public to be included within the sample**.** Table 7 summarises the sampling approach used for this survey.

Population	Description	This survey
Target population	Who does the research plan to generalise to?	All bus using pass holders
Study Population	Who can the survey gain access to?	All bus users using one of four routes on the day of the survey.
Sampling Frame	The list from which the study population is drawn. This was based on a quota sample.	Pass holders using one of four routes at the time of the survey.

Table 8: Details of survey sample (adapted from Parkhurst & Shergold, 2008)

4.8 Representativeness & Validity of the Research

Two core concepts of social research are of importance when discussing the extent to which the research's findings have relevance broader than the study area. First, data validity is defined by McNeil *et al.* (2001) as the extent to which the data we collect give a true measurement or description of social reality. Secondly, data reliability asks the question 'if the study were replicated under the same conditions what is the likelihood that similar results would emerge?' (Fraenkel & Wallen, 1990). In other words, it should be recognised that it is possible for research to measure the correct thing, but allow biases to undermine the reliability of the results (ibid). Once the validity and reliability of the data has been ascertained, the next logical question is to evaluate the generalisability of the data - taken to mean the extent to which the results and findings can be transferred to situations beyond that of the study.

In the context of this research, the original intention when designing the survey was that the results would be broadly representative of bus routes in the UK in general, but not those in London, due to its different regulatory context, and not of core routes in major cities elsewhere due to effects such as network benefits such as high frequency of buses that do not exist elsewhere. Therefore it was not intended that these findings would have relevance to large cities such as Leicester, Manchester or Leeds, nor London, as their bus operating context is of an entirely different magnitude. As noted above in the section on the research's sampling

strategy, the four routes selected reflect the typical types of route that might be expected in other areas. One issue that arises is the lack of knowledge about the population of users on the four bus routes- in part due to the bus ticket being an anonymous unit of investigation. For instance there could be a substantial difference between a city centre route carrying commuters to work and another route that may predominantly carry older people during the day. Indeed in some cases the demographic of the bus user can vary by time of day on the same route. The implication of this is that it is not possible to ascertain how 'typical' the sample on each route is of that particular route's bus passengers, nor the overall bus using population. With the move to smart card technology in the future, information on the demographics of those travelling on the bus is likely to become more readily available and would allow such comparison.

Taking into account the quota sampling strategy adopted for the purposes of the study, the age profile, trip making frequency and journey purpose data of respondents was broadly comparable to data from the National Travel Survey, and indeed comparable to other surveys such as Passenger Focus survey (2009). In other words this would suggest that the results are in fact representative of the broader county level, with a few caveats that should be noted. First, the survey was conducted in the winter seasons and so different trip patterns and uses may be expected in the summer months. Second, the network was a single operator network in a reasonably buoyant bus market, and so perhaps could not be compared to more sporadic networks in outer lying rural areas. Having discussed the issue of how generalisabile the results are expected to be, the next section explore some of the survey design considerations.

4.9 Questionnaire Design & Wording

A full copy of the survey is located in Appendix One. It was important to constantly consider the nature of the bus environment as a busy and noisy and restricted space when assisting in the design the survey. Within such a context, Schaller (2005) recommends that questions remain relatively short and that the document is easily navigable by the interviewer, with complex instructions being kept to a minimum. Furthermore, a clean and uncluttered layout would assist survey administrators, and placing the questions in bold would help clearly identify them

(Ampt *et al.*, 1985). Pragmatically, consultation with the survey team led to the font size being increased, which meant one question had to be removed to meet the page limit requirements of the printers. The order of questions within the survey is also important to consider, as people often try to make their answers consistent with previous responses (Schaller, 2005). The pilot study was used to iron out questions that were poorly worded or ambiguous in nature. During this phase it emerged that some questions requiring respondents to tick boxes did not have a sufficiently broad range of response categories to capture the diversity of opinion, so additional options were added. Table 8 overleaf depicts various pragmatic questions that were posed by the researcher during the various stages of the research.

The pilot study also enabled the team to time the completion of the questionnaire and identify any problematic questions that required further clarification. One particular issue overlooked in the planning stage was the health and safety requirement of the bus operator that surveyors should not stand up when the bus is in motion. This meant strategically finding a seat which could be used as a base to ask a number of respondents during the leg of the journey. A further reflection was that at the end destination the surveyor was instructed to disembark and get on again when the other passengers got on. This helped avoid the surveyors taking seats that passengers may wish to sit in. In terms of survey design, one question was spread over two pages, which made reading out the questions problematic, and so this was transferred to the same page. In addition, following the pilot survey it was decided that the surveys should be single side printed in order to make it easier for the surveyor to complete the question. The bus survey for this Thesis was run by an external market research company and paid for by the bus operator, but all analysis of the data was completed by the researcher.

Questions contained within the on board bus survey
1. Where did you get on the bus today?
2. What is your main reason for travelling today?
3. What kind of ticket do you have for your journey today?
4. Which age range do you fall into?
5. Do you have a concessionary pass?
6. Approximately when did you get your pass?
7. How many trips have you made in the last four weeks that you've had to pay for?
8. How many trips have you made in the last four weeks using your concessionary pass?
9. How far do you agree with the view: before having a free bus pass, the cost of bus travel was preventing me from travelling on the bus.
10. How many days a week do you use the bus within your local area?
11. How many days a week do you use your pass outside your local area?
12. Had you been unable to travel for free using your pass, what other methods of transport could you have used to make those journeys
13. When you use your free pass, typically how far do you tend to travel (each way)?
14. Since the introduction of the free bus pass– are you making extra bus journeys?
15. Since the introduction of the free bus pass – are you making longer journeys (by distance)?
16. How far do you agree with the view: free bus travel has improved my quality of life.
17. How far do you agree with the view: I am able to spread my trips out over the week since I have had a free bus pass
18. What times of the day do you normally travel on the bus?
19. How far do you agree with the view: there is generally plenty of room on the buses that I use?
20. How far do you agree with the view: the buses I use are generally on time?
21. To what extent do you agree or disagree that free bus travel for older people is a good idea?
22. Why do you think that?
23. There are no plans to change bus fares as a result of this survey, however we would be interested to know what you would consider a fare price for a half hour bus journey
24. We have already asked your age category, but it would useful if you could provide us with your exact age for data analysis purposes
25. Would you be willing to participate in a group discussion about bus travel in the new year? If so please leave your contact number or address below
26. Please can you provide us with your home post code?

Table 9: Wording of Questions

4.10 Survey Reflections

A pilot survey was commissioned of 20 bus users on the researcher's local bus route. As a result of this, the number of questions was reduced from 27 to 24, as it was found to take too long to complete. A number of the instructions to field workers were altered; in particular additional instructions were added about how many boxes could be ticked, and in one case the subtle difference between the nuanced terms ranking and rating was clarified. Another important oversight addressed in piloting was the use of age range splits of 51-60, which meant that pass holders aged over the age of 60 were hard to identify. Whilst one of the questions did ask whether or not users held a pass, it was not required to specify whether this is on the grounds of disability (which includes people under the age of 60) or on grounds of age (in some cases accompanied by disability). Furthermore, a clear need was identified from the pilot to clarify which questions should have their response categories read out, and which questions contained responses purely for ease of form filling, but should not be read out for risk of biasing responses sought on an unprompted basis.

At certain times of the day some routes were extremely quiet, with one route having no passengers on it for over an hour. There were some issues surrounding having personnel in the right place at the right time based upon where they lived and where they needed to finish up at the end of the day. This was well managed by the fieldwork manager employed by the consultancy. Linked to this, when buses ran late, it meant that interviewers sometimes missed their connecting buses, which made it harder to achieve the total sample size required. Finally, the Exeter to Newton Abbot Route on Saturday evenings was heavily populated by older teenagers, many of whom would not take part in the survey. The next Section discusses the analysis plan used for the quantitative component of the research.

4.11 Analysis Plan

This section briefly discusses the analysis plan that was followed when analysing the survey data. Once the survey data had been collected and inputted, a five-stage data analysis procedure was adopted. Stage One involved preliminary data checks to cleanse the data and entailed removal of incomplete or wrongly entered cases.

All missing data were coded 999, since leaving blank cells could lead to problematic analysis later on. Cell validation rules were set up within the SPSS dataset to ensure that all inputted data fitted within an appropriate range of responses. During the second stage of analysis, descriptive statistics provided a summary of the basic characteristics within the survey, which are discussed in the next section, but also provided headline findings of the survey. At Stage Three, Chi Squared tests of association between variables were used to assess the statistical significance of the findings, reported in the results chapter.

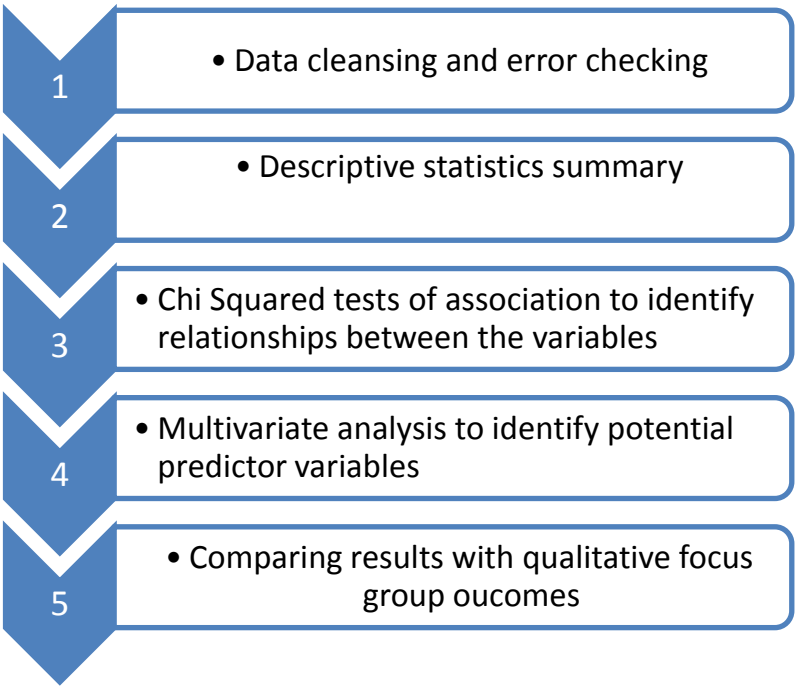


Figure: 12 Five-stage Analysis Plan

4.11.1 Binary Logistic Regression

Stage Four of the quantitative analysis entailed a data modelling exercise using two binary logistic regressions models to answer the following two questions.

- *Which factors may predict pass holders making a relative increase in their number of trips since obtaining a free bus pass?*
- *Which factors may predict respondents reporting an improvement in their quality of life?*

In essence, binary logistic regression allows the researcher to assess the predictive ability of any number of variables upon a binary (mutually exclusive) outcome. In this case, the dependent variables measure whether pass holders did increase their number of trips since getting a pass (y=1), or they did not (y=0), and whether pass holders did report an improvement in their quality of life (y=1) or they did not (y=0) (see Pallant, 2007). Whilst the earlier stage of bi-variate analysis was informative, it was restricted to the exploration of the impact of one variable on another, through using the Chi Squared tests of independence. The advantage of using multiple logistic regression over its bi-variate alternatives is that multiple variables can be analysed simultaneously, and it is possible to estimate the magnitude and direction of the relationship between the variables. Similarly to chi-squared tests, a variable was deemed to be significant when $p<0.05$, in other words the researcher can be 95% confident that the relationships identified is an actual one and not arising from chance alone. It should be noted that whilst the regression model is predictive, and could offer the potential for predicting these questions in other areas, the purpose of this analysis was exploratory: to understand bus-using behaviour and responses to the free fare provision, rather than forecast the findings in other contexts. Further data would be required to validate the model, in order for the specific assertions on the confidence and reliability of the findings to be confirmed.

Binary logistic regression was deemed an appropriate tool for a number of reasons. First, there is not a requirement that the data are normally distributed. (If the assumption of normal distribution were met, then other tools such as discriminant function analysis or multiple regressions may yield more accurate results than could be achievable using binary logistic regression modelling). Nor is the model restricted only to scale (continuous) variables, such as might be expected between height and age. In addition, the model derived from binary logistic regression does not assume that there is equal variance in each group. (Pallant, 2007). The following variables were identified as suitable to be contained within the model.

Predictor	Justification
Age	Previous research has shown significant variations in the travel patterns between younger and older pass holders (e.g. Rosenbloom, 2004). Indeed, the overall amount of travel generally is seen to fall as pass holders get older (Metz, 2003). The ageing process is often associated with factors that may make bus use more difficult (e.g. physical impairment, fear). However, age-based segmentation can be criticised for not taking into account full heterogeneity of pass holders relating to lifestyle (Hildebrand, 2003).
First choice alternative mode	From a practical perspective, it is interesting to learn how pass holders would, or indeed would not, have travelled previously (See Passenger Focus, 2009) This could be linked to the benefit derived from that particular trip. For example, the focus groups (See Chapter Six) found that amongst those who wouldn't have travelled at all in the absence of the pass, there are some for whom this was a purely financial consideration, and others for whom free travel meant more trivial trips could be justified.
Built environment	The literature has shown wide variance in bus service levels in rural and urban areas, which inevitably has an impact on the opportunity to use the bus (Musgrave, 2007; Rye & Carreno, 2008). There is an emerging paradox that the pass may be benefiting pass holders in terms of reducing isolation, but not in isolated areas (Musgrave, 2006).
Trip purpose	The reason for travelling can help to some extent in identifying the benefit derived from that trip. However, as argued in Chapter Two the nature of the trip is poorly represented in current category labels in past research. Indeed, the evaluative approach hitherto only allows for limited socio-demographic and spatial disaggregation.

Table 10: Predictor variables used in the logistic regression model:

4.11.2 Caveats of Logistic Regression

There are of course a number of general caveats to be considered when using binary logistic regression. A key issue is that of *multicolliniarity* - in other words the variables in the model must be independent and not have an interaction with each other, or else the model will be invalidated. All variables were checked for internal relationships between themselves prior to using them within the model. Second it is important to remove any outliers from the dataset before running the model as these can significantly distort the model output. Thirdly, caution must be adopted to ensure that there is an adequate proportion of cases to predictors. A poor ratio of cases to predictors (i.e. if some predictors have no cases) will cause error in the parameter estimates. Finally, the errors between the different variables must be

independent of each other; in other words, that the results are compared *between* respondents, not *within* respondents (Pallant, 2007).

In relation to this specific model, it must be borne in mind that the survey only covers a relatively small geographic area and a select number of routes, and as such questions would be raised over the predictive ability of this model in other areas. This is not to say that the model would not be representative of broader pass using trends, as discussed on page 65 , but more data would certainly be required to validate the parameters of the model. It is of note too that the survey was commissioned in the winter season and may yield different results if conducted in the summer, given the cyclical nature of bus travel (Heath & Gifford, 2002). However, as stated previously, the exploratory nature of the study means that the concern is not so much about magnitude, but rather identifying potentially significant relationships that bolster understanding of the relationship between variables that are in the dataset. Having reflected on the survey attention now turns to the qualitative element of the research, as series of ten focus group studies.

4.12 Chapter Summary

This chapter has outlined the methodological process adopted for the first quantitative phase of the methodology, discussing issues of selection of respondents, sampling procedures, as well as outlining plans for analysis of the dataset. Chapter Five now presents the findings from the on board survey and ends with a discussion as to how this informed and influenced the second, qualitative phase of the study.

Chapter Five: Survey Results and Analysis

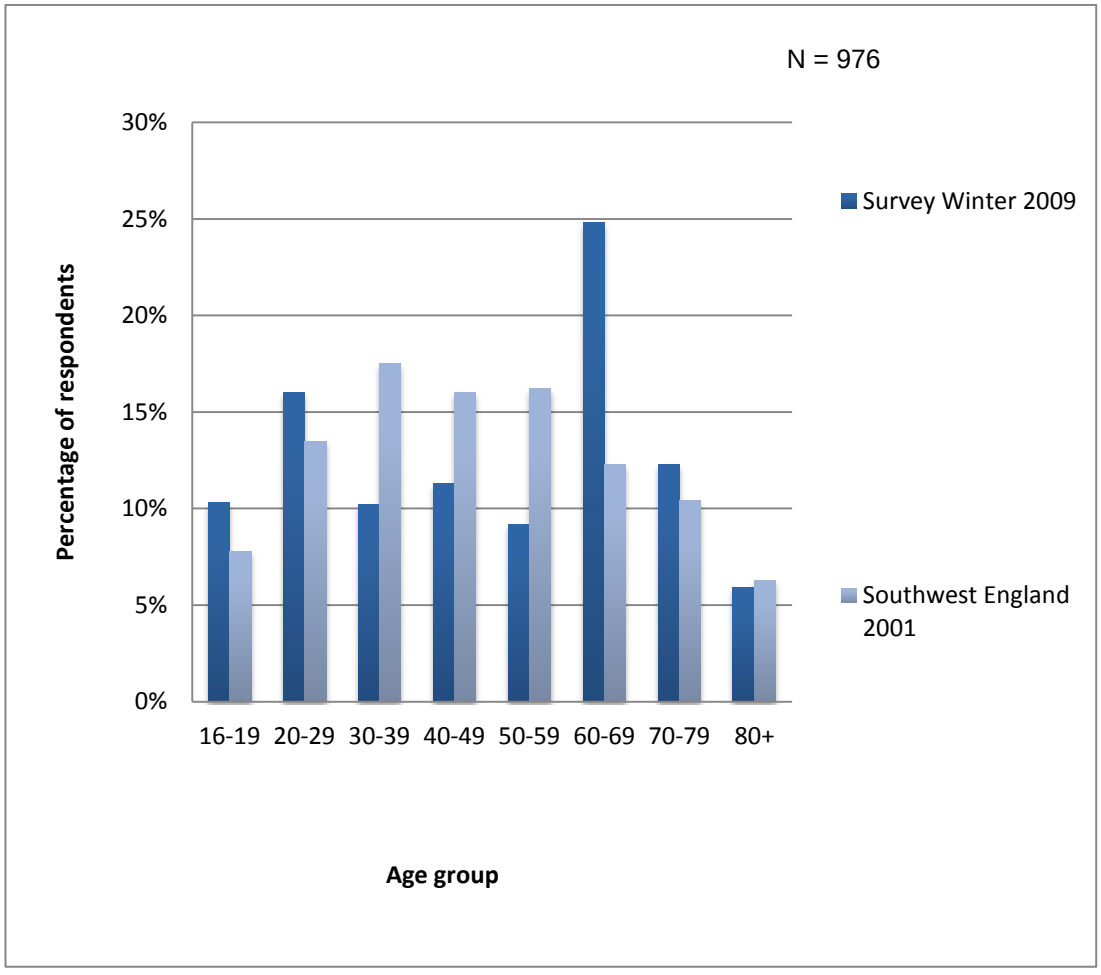
5.1 Introduction

This chapter presents findings from an on-board bus survey of 487 concessionary pass holders conducted in Southwest England in December 2009 (see Chapter 4 for a full discussion of the methodological details). The chapter commences by providing a breakdown of the survey respondents by age, length that they have held a pass, and the built environment characteristics of their trip origins and destinations. Following this, there are three core aims of the chapter:

First, the chapter addresses the current bus using trends of concessionary pass holders surveyed, in terms of why they are travelling, how often they typically travel, how far they typically travel by bus, and how they report they would have travelled in the absence of a concessionary bus pass. This data is at the aggregate level, which is useful, but not sufficient alone to fully understand how pass holders are using their passes, as identified in Chapter Three. The survey results are very much intended to inform and guide the content of the subsequent focus group studies. Statistical tests of significance are used to establish relationships between different variables within the dataset that further explain the results. Second, the chapter explores how pass holders report changing their bus-using behaviour since being in possession of a free concessionary pass, discussing changes in bus trip-making frequency and trip distance. Finally, the chapter presents findings of two binary logistic regression models, which provide evidence on the factors that potentially influence pass holders' propensity to report increasing their trip frequency, and report improvements in their quality of life since having a free bus pass. The chapter concludes by briefly summarising the ways in which the quantitative phase of the research addresses the research's questions; outlining and justifying the need for the subsequent qualitative phase of the research. We commence then by presenting the findings relating to how and why pass holders are currently using their concessionary bus pass at the time of the survey.

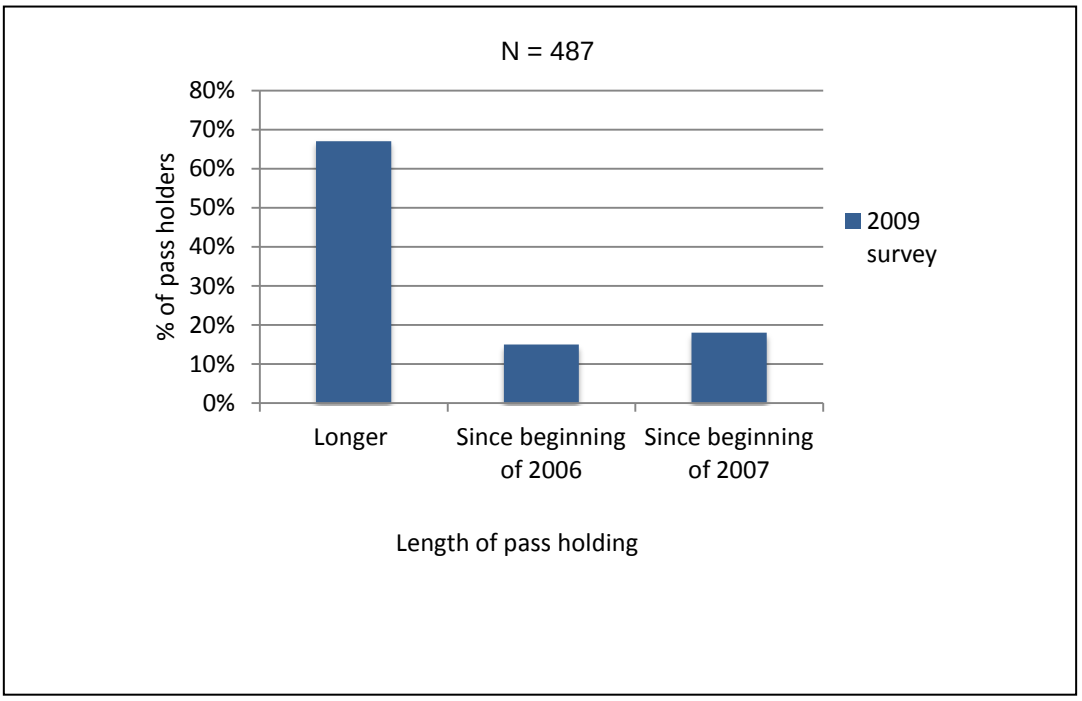
5.2 Descriptive Statistics

Graph 6 (below) shows that around half of respondents were aged over 60 (and so likely to be pass holders), with half 50% being aged 59 and under. These proportions show a comparable age distribution with that in the Southwest region. In line with national trends, the highest proportion of pass-holding respondents are aged 60-69, with fewer older pass holders in comparison.



Graph 6: Demographic profile of survey respondents compared to regional and National population demographics

In terms of length of pass holding, two-thirds (67%) of pass-holding respondents reported holding a pass since before 2006 (i.e. under the previous half-fare regime). 33% had held a pass since beginning of 2006 (See Graph 7 overleaf)



Graph 7: Length that Bus Passengers Interviewed had Held Their Pass

In addition to age and length of pass holding, the built environment has been found to have an impact on the use of bus of older people (Eqing & Cervero, 2001). Not only does the route quality and service vary according to whether it is in a rural or urban area, but moreover, the data allows us to establish the spatial detail of the trip being undertaken, a factor which has tended to be missing in previous concessionary travel research. For this analysis it was decided to code each respondent's origin and destination into three approximate categories: the city of Exeter, town, and village. Since there is no agreed definition of a town and a village, a search was made to establish how each was defined by a relevant local authority website. Table 11 shows how over half of all the trips at the time of survey were for inter-town travel and nearly of third of all trips related to trips from a town to Exeter city, or the equivalent return journey. Intra-Exeter journeys were found to be extremely rare, as were inter-village journeys. It should be noted that due to the nature of the onboard survey many short hop-on-hop-off trips that might occur in Exeter are likely to be unrecorded in the dataset and so the data collected may not be a true reflection of the level and nature of intra-Exeter travel and travellers.

		Destination			
		Village	Town	Exeter	Total
Origin	Village	1%	5%	3%	9%
	Town	7%	52%	13%	72%
	Exeter	3%	15%	1%	19%
	Total	11%	72%	17%	100%

Table 11: Built environment characteristics

Furthermore, the routes tended to overlap with higher frequency urban routes which were more likely to attract the intra-urban bus patronage. Whilst this is an important observation, it can be assumed that any on-board survey would contain this same bias and so this does not affect the comparability of the results. Nonetheless the proximity of bus stops to each other in Exeter could explain why relatively few of such journeys were recorded.

5.3 Trip Purpose

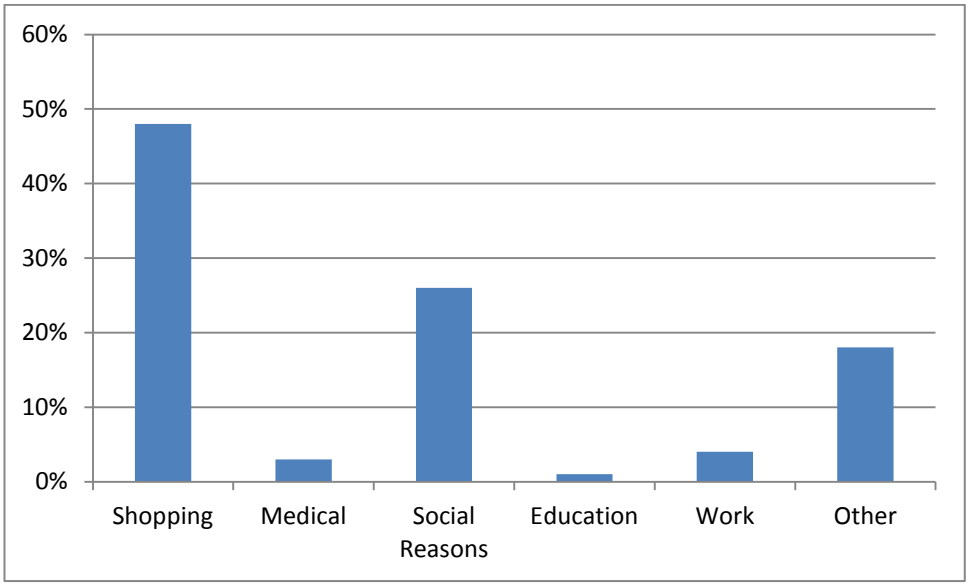
This section discusses the findings of the survey that relate to how pass holders report using their free bus pass, subdivided to address three specific questions:

- *Why were pass holders using their pass at the time of the survey?*
- *How often do they typically use the free pass?*
- *How far do they typically travel using the free pass?*

Graph 8 shows that the pass holders' main trip purpose at the time of the survey was shopping (47%)[26] and social trips (26%). 19% of respondents were using the bus for 'other reasons' at the time of the survey, including, but not limited to, escorting children, travel for travel's own sake, tourist days out, and voluntary work. The two least-commonly cited trip purposes by pass-holding respondents at the time of the survey were work travel (5%) and trips for health-related appointments and education (4%). As would be expected, and in parallel with previous statistics and research (Office for National Statistics, 2010; Parkhurst & Shergold, 2008;

[26] Compared to 56% in the Passenger Focus survey

White & Baker, 2010), a clear distinction can be made between the bus-using purposes of concessionary pass holders (generally aged 60 and above in the survey) and the average trips in the National Travel Survey- in particular related to the lower prevalence of work-related trips and higher prevalence of shopping trips of concessionary pass holders.



Graph 8: Bus passengers' reported main trip purpose at time of survey.

Further investigation lead to a number of statistically significant relationships being identified relating to pass holders' trip purpose. These are presented and discussed overleaf.

Finding 5.3a: A statistically significant relationship was identified between pass holders' stated reason for travelling and the first choice alternative mode of transport they report they would have used in the absence of a free bus pass (χ^2 (16, N = 487) =367.18, p < 0.05).

A particular variance was found amongst those undertaking travel for shopping purposes, presumably reflecting the diversity of possible shopping trips that can take place; from a weekly grocery shop to window shopping. It should be noted however, that the aggregate survey data alone cannot specifically differentiate between different variants in shopping, nor is there detail on the actual modal choices available to respondents when deciding to travel. This adds weight to the

need for detailed qualitative research to understand the context of the trip decision maker the trip being made. Amongst those using their pass for the purpose of shopping at the time of the survey:

- 43% reported that they would have paid for the bus journey anyway in the absence of the free bus pass.
- 38% reported they would have driven their car for their shopping trip in the absence of the scheme. This finding infers the potential for the free bus pass to stimulate shopper modal shift towards more sustainable travel options.
- 19% reported that they would not have travelled at all in the absence of the scheme.

Finding 5.3b: Pass holders reporting travelling for 'social reasons' at the time of survey were statistically half as likely to report driving a car as their first choice modal alternative in the absence of the scheme, compared to those using the bus for shopping reasons. (d.f 16, N = (487) =367.18, p < 0.05).

Finding 5.3c: Those making trips for 'other purposes' were three times less likely to report they would not have travelled in the absence of the concessionary bus pass, compared to those making social trips (d.f. 16, N = 487) =367.18, p < 0.05).

This implies that the 'other' trips they were making were typically non-discretionary trips, or at least that they were highly valued by the pass holder. The interesting exception to this finding was for the purpose of volunteering, for which respondents were significantly more likely to report not travelling at all in the absence of a pass (16, N = 487) =367.18, p < 0.05). Further discussion of the potential effects of the free bus pass on volunteering can be found in the discussion chapter later in the thesis. Of course, it should be noted that this is based on reported hypothetical preference, and a function of pass holders' perceived modal alternatives, and as such is by no means a simple prediction of pass holders' actual behaviour (Kroes & Sheldon, 1988). It should be noted that the survey provides little information on car access, gender, driving licence holding and availability of bus services; all factors

which could potentially affect pass holders' alternative modal choices (e.g. Rye & Carreno, 2008).

Having thus far discussed the trip purpose of pass holders, the next section now considers pass holder's typical trip frequencies, an important element that relates directly to the amount operators' receive under the Concessionary Fares reimbursement package.

5.4 Trip Frequency

A substantial variation was identified in the typical trip frequency of pass holders found in the survey in their local area (that is less than 10 miles in distance).

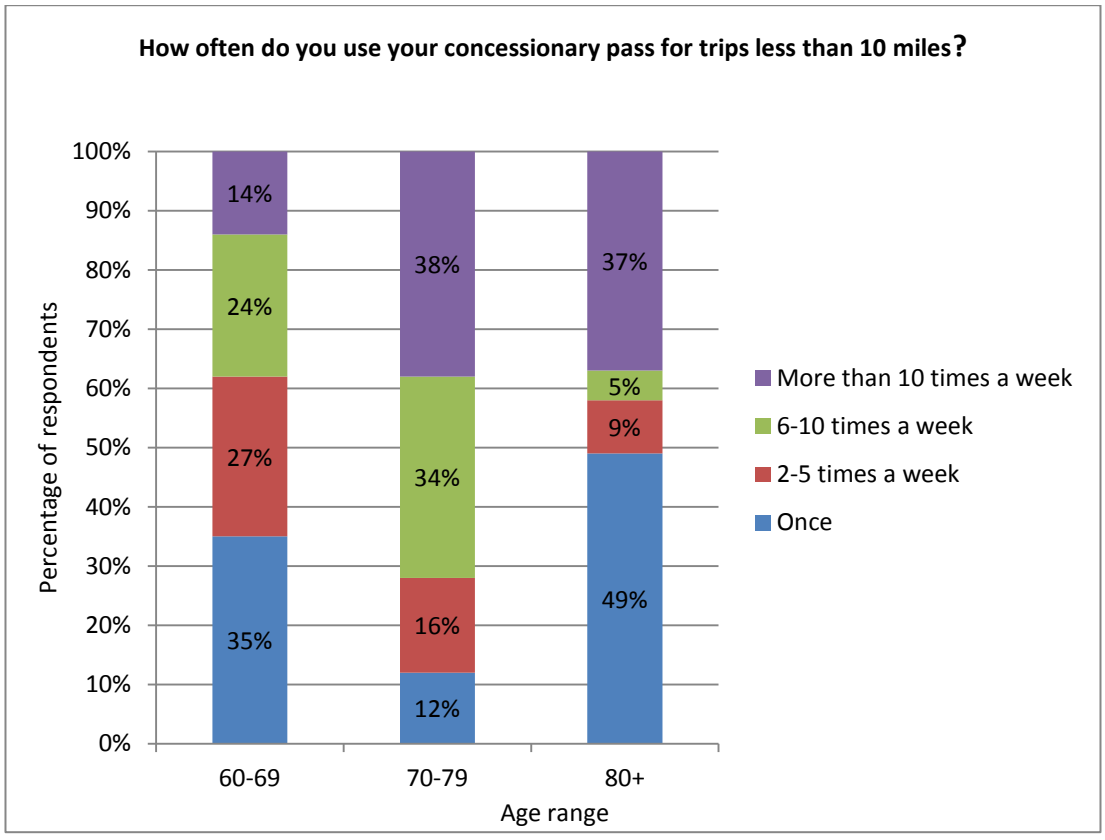
- 52% of responding pass holders reported a typical weekly trip frequency of between 2-5 trips within their local area.
- Approximately a fifth of pass holders reported making either one trip (15%), a
  further fifth between six and ten trips per week (17%).
- 14% percent of concessionary pass holders reported typically making ten or more trips by bus per week.

Finding 5.4a: A statistically significant relationship was identified between pass holders' age group and their reported typical weekly bus trip frequency (χ^2 (32, N = 487) =578.18, p < 0.05.)

Graph 9 (overleaf) expands further on this relationship. In brief:

- Pass holders aged 70 and above were **more likely** to report a higher local trip frequency than 'younger' pass holder groups.
- Those aged 80 and above were **most likely** to fall at the two extremes, either making one trip per week (49%) or 10+ trips per week (27%).
- Pass holders' between the ages of 70 and 79 were those **most likely** to report making in excess of one trip using the bus per week on average.

At first sight, the high trip-making tendencies of older pass holders compared to younger pass holders seemed somewhat surprising, given that, on average, research shows that the overall number of trips on public transport decreases with the onset of older age (Rosenbloom, 2004; Metz, 2000). It should be stressed that the nature of the bus-based sample employed in this survey means that the pass holders in question had already overcome the potential barriers that may potentially prevent some older people from travelling by bus. Clearly further qualitative insight would be required to take into account other non-age related factors that could affect the typical bus use, such as availability of the car, residential location and bus service provision (e.g. Gilhooly *et al.*, 2002).

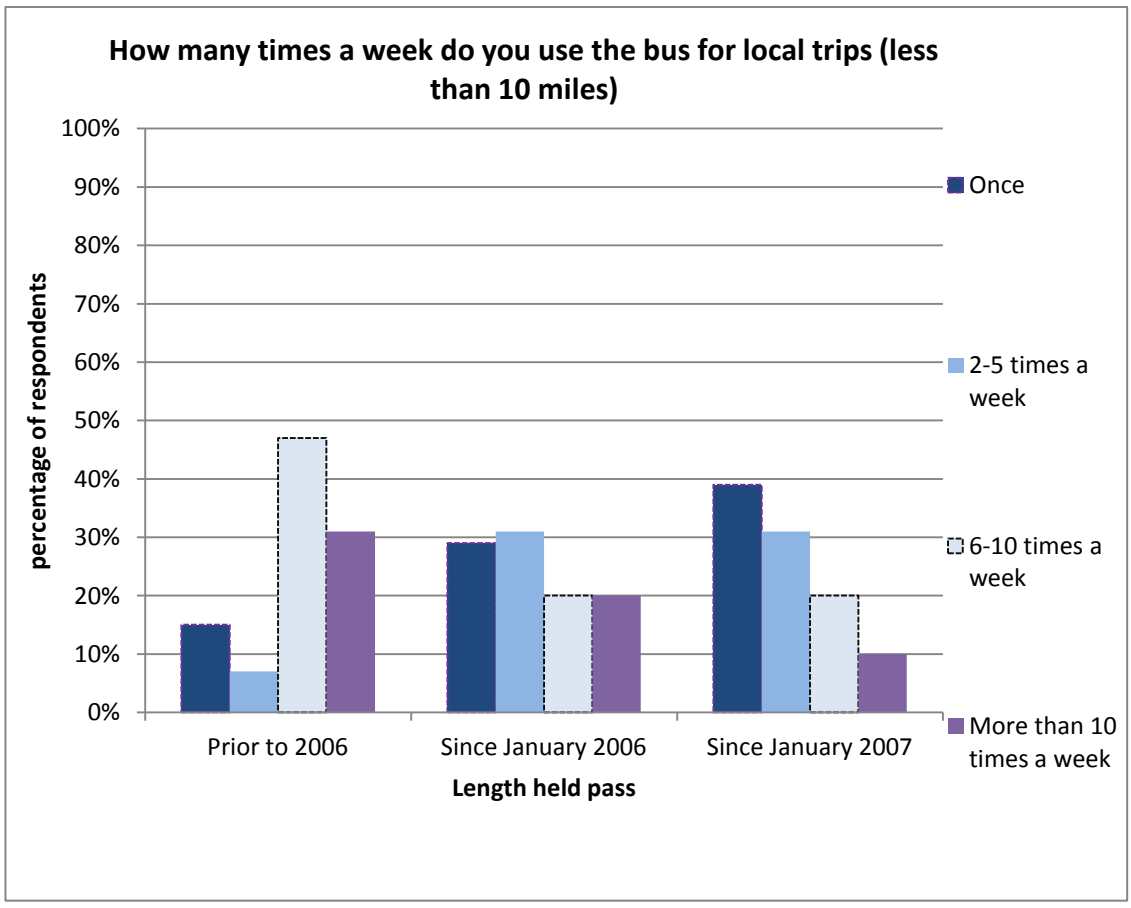


Graph 9: Typical reported frequency of the bus per week amongst concessionary pass holders for trips under 10 miles, segmented by age group.

Finding 5.4b: the length for which pass holders had held their pass seemed to influence the number of trips they made in a typical week (χ^2 (42, N = 487) =378.19, $p < 0.05$.), with the most recent pass holders being nearly twice as likely as those in possession of a pass prior to 2006, to report making just one trip per week on average. (See graph 9 above).

- Whereas 36% of those who held their passes prior to 2006 would not have travelled in the absence of a free bus pass, this was reduced to 16% for those holding a pass since January 2007.
- The proportion who would have made a paid bus journey in the absence of the scheme decreased amongst more recent pass holders.
- The proportion that would have driven increased amongst more recent pass holders.

These findings imply that more recent pass holders on the whole make less use of the bus pass than those who have held the pass longer, and arguably are less reliant on the bus as a mode of transport, presumably related to whether they have a car available in their household. However, further qualitative research is required to more fully understand these differences. It should be noted that the arbitrary threshold of 10 miles may not always fully correspond with pass holders' perceptions of 'local', and this could vary depending on the area characteristics.



Graph 10: Typical reported frequency of the bus per week amongst concessionary pass holders for trips less than 10 miles, segmented by length they held pass.

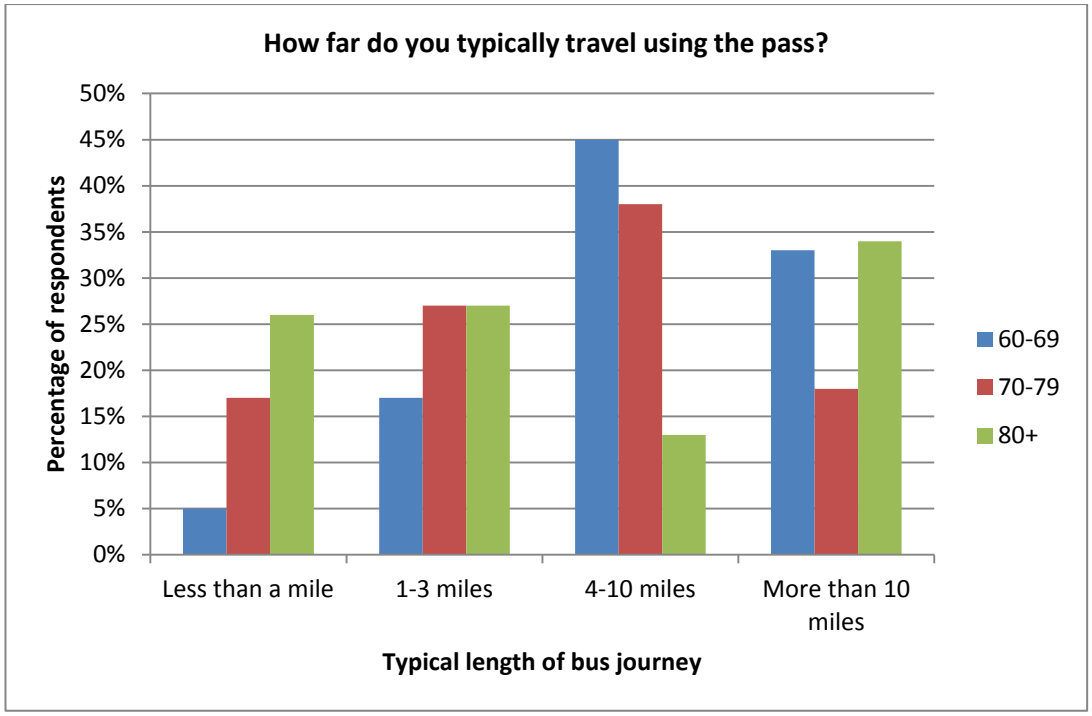
5.5 Trip Distance

Given that the extension to Concessionary Fares policy in 2008 offered boundary-less free fare travel, as opposed to being restricted to the pass holders' local area, the topic of pass holders' typical trip length is of great interest. The results relating to trip distance are discussed below.

Finding 5.5a: Overall, the majority of trips undertaken by pass holders were between 4-10 miles (54.2%), although a quarter were more than 10 miles in length (27.3%). Around a sixth (14%) of respondents typically used the pass for shorter trips of between 1-3 miles.

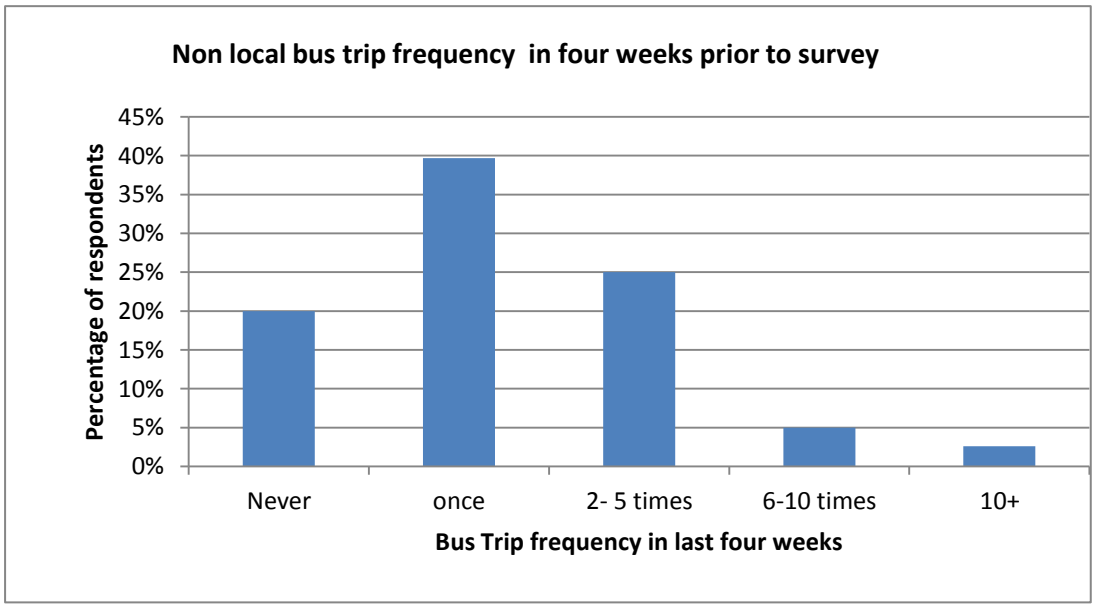
This research found a wide variation between the typical trip lengths of pass holders in different age groups, with a statistically significant relationship being identified between the two variables (χ^2 (32, N = 487) =1975, $p < 0.05$.). Graph 11 (below) shows that:

- Those aged 80 and above tended to make proportionally a greater number of shorter trips than younger pass holders, a finding in line with previous research by Metz (2000) and Banister & Bowling (2003).
- Older pass holders were also significantly **more likely** to make trips of less than a mile than those aged 60-69.
- Older pass holders were three times **less likely** than those aged 60-69 to report typically making trips of 4-10 miles. This seems to suggest that whilst older pass holders are making more trips than younger travellers (see section 2.2.1), these are characterised by being typically shorter in distance.



Graph 11: Typical reported distance of bus travel per week amongst concessionary pass holders segmented by pass holder age.

Finally, relating to current pass usage, Graph 12 (below) shows pass holders' use of the concessionary pass for non local travel (trips of more than 10 miles) in the last four weeks. The use of a four-week period is justified due to the perception that non-local trips may be less frequently undertaken.



Graph 12: Occurrences of non- local trip bus use in last four weeks (>10 mile)

Finding 5.5b: Those reporting having made zero non-local bus trips in the last four weeks were around two times more likely - compared to those having made 2-5 non local bus trips - to report using their car as their first modal alternative to the bus pass. ***(χ² (14, (N =487) =56.381, p < 0.05**.).*

In addition, a hypothesis was tested that those pass holders making more local trips would also more likely to report making more non-local bus trips, but this relationship between local and non local trip making was found not to be statistically significant, suggesting that the two variables are quite separate *(χ² (12, N =487) =51.481, p > 0.05).*

Finding 5.5c: Those who had made the highest number of non-local trips in the past four weeks were statistically more likely 'not to have travelled' in the absence of a free-fares scheme *(χ² (21, N =487) =43.541, p < 0.05.)*.

These findings could imply that the bus is sometimes being used in some cases for longer trips, which would not be made at all in the absence of the free fares scheme, such as bus pass tourism. Chapter Seven will provide a deeper insight into the effect of the pass on longer tourism trips. Having now come to the end of the first section relating to the current bus using trends of pass holders, we now move to consider how pass holders would have travelled in the absence of the free fares scheme.

5.6 Pass Holders' Alternative Modes in the Absence of a Free Pass

Respondents were asked to identify how they would (or indeed would not) have travelled for the journey being made when interviewed in the absence of the concessionary bus pass. This can provide useful information about the potential benefits of the free bus fares scheme to the individual and wider society. As previously mentioned, a caveat of the following findings is that there is little information on the flexibility of modal choice, in other words whether pass holders have a car or regular bus service available to chose from.

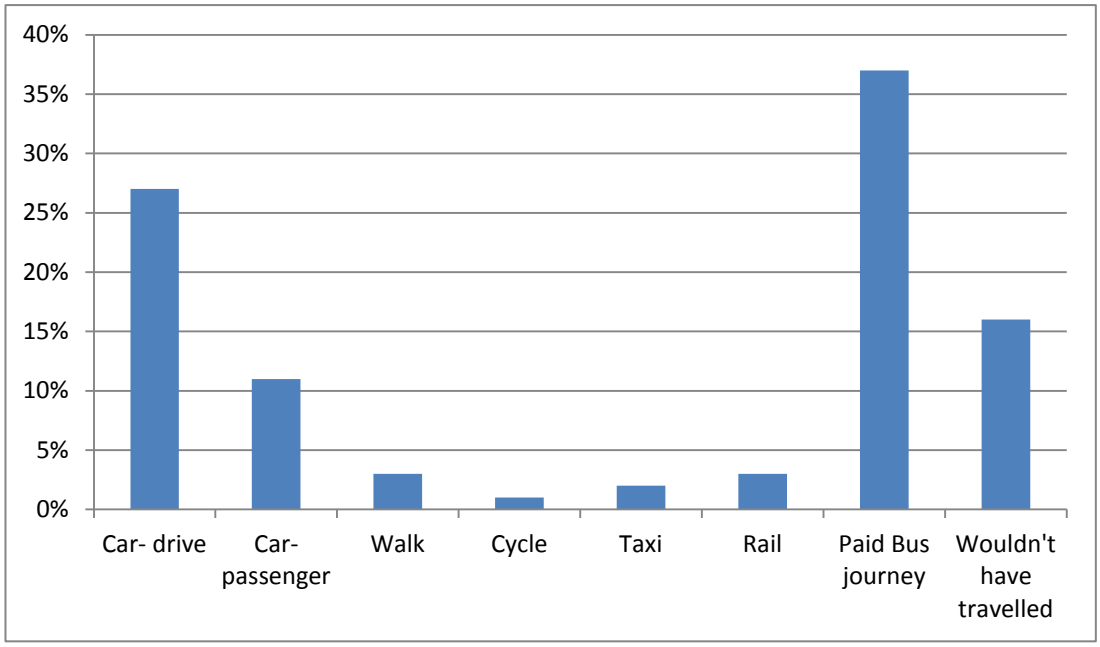
Finding 5.6a: **The three main modal alternatives were: travel by car, paying (self funding) for a bus journey and not travelling**

Compared to the Passenger Focus study in 2009, this survey found a higher proportion of pass holders who would have driven and a lower proportion of people who would have taken a paid bus journey. Three times fewer respondents in the 2009 survey would have been car passengers compared to the Passenger Focus survey (2009). The following was also found:

Finding 5.6b: A statistically significant relationship was indentified between the age group of respondents, and their first-choice modal alternative to the free bus pass (χ^2 (64, N = 487) =910.11, p < 0.05)

Finding 5.6c: As respondents' age increased, they reported being less likely to report the car as their first choice alternative

These findings are perhaps reflective of the declining car availability in older age. Whilst the car was the first-choice mode for 36% of those aged 60-64, this was the case for only 6% of those aged over the age of 80. For those aged 70-74 years, only 2.5% reported that they would not travel in the absence of a concessionary bus pass. Relating to the older pass holders those aged 80+, over a third (34%) who used the bus once a week reported that they would have been a car passenger in the absence of a pass, a further 45% would have paid for the bus journey, 15% would not have travelled, and just 4% would have driven a motorised vehicle.



Graph 13: First-choice Modal Alternative to the Concessionary Bus Trip That Day

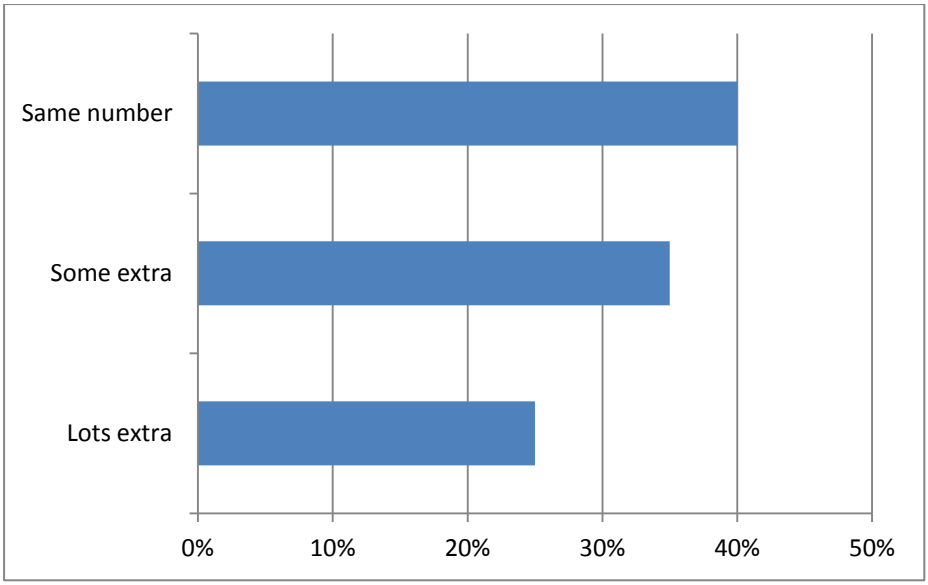
Having considered the current bus using trends of pass holders, the next section discusses changes since people have owned a bus pass.

5.7 Changes in Bus Use Since Obtaining a Pass: Trip frequency

Having considered the current bus-using trends of the pass holders surveyed this next section reports how respondents reported changing their use of the bus since being in possession of a zero-fare bus pass. This section thus asks two fundamental questions:

- To what extent have pass holders **increased their bus trip frequency** since getting a pass, and what factors may make this more likely to be the case?

- To what extent have pass holders making **longer bus trips** since getting a pass, and what factors may make this more likely to be the case?



Graph 14: Extent of additional trip making since having free bus travel

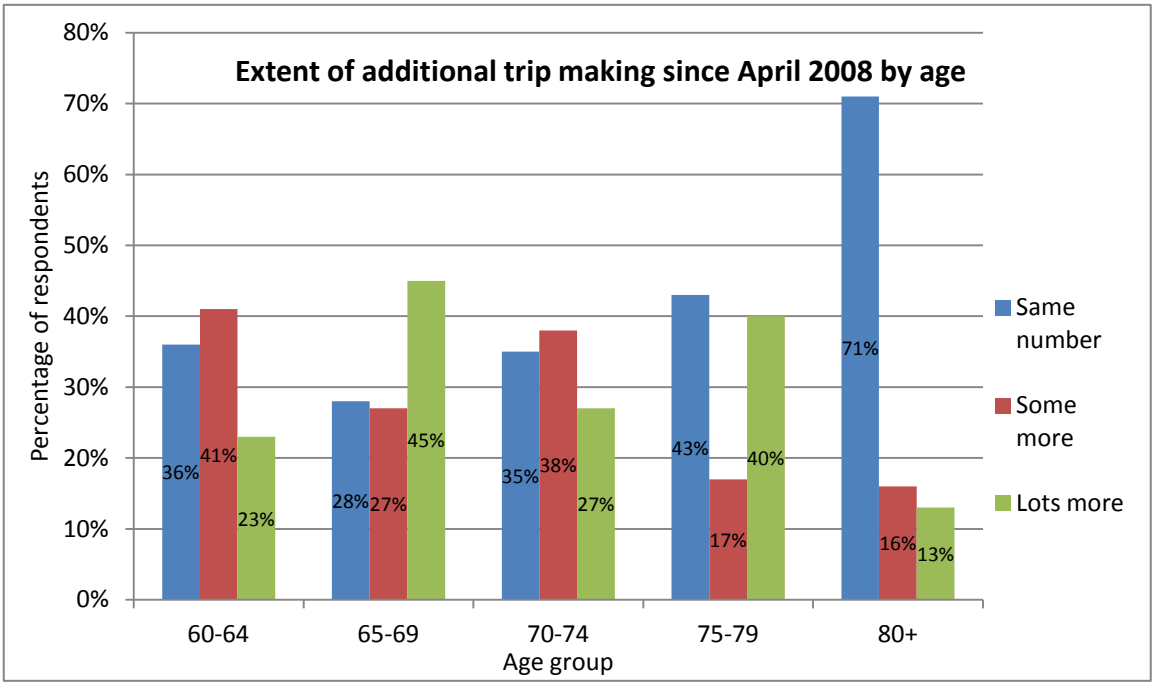
Graph 14 (above) shows that, of the 487 pass-holding respondents, over a third claimed not to be making any additional trips by bus since the changes to the Concessionary Fares policy in April 2008, and two-thirds that they were making additional trips. This could suggest two core benefits of the concessionary bus pass: for some it may have allowed them to increase their number of trips by bus, yet for others, the principal benefit may be not paying for bus trips that they would have made anyway. The notion of benefit of having a pass shall be further discussed in the qualitative analysis section.

Finding 5.7a: A statistically significant relationship was found between respondents' age and their propensity to make additional trips by bus since obtaining a pass (χ^2 (23, N = 488) =1905.33, p < 0.05).

Graph 15 (overleaf) shows that:

- Those proportionally most likely to report making extra trips by bus since April 2008 were aged between 65-69 and 75-79, with the 80+ group being less likely
  to report making lots or some more trips.

- Pass holders aged 80+ were found to be twice as likely proportionally to report making the same number of trips now as they made prior to having a pass compared to 60-64 year olds. Referring back to Graph 10, this group are already making the highest number of trips on average per week, and so could be argued to have less need, desire or capacity to increase their trip frequency.



Graph 15: Extent to which respondents report increasing trip frequency by age

Binary Logit model predicting potential influences on likelihood of respondents having increased their trip frequency since obtaining a free bus travel (n=427)					
Predictor	**Variable**	**Description**	**Coding**	**Beta**[27]	**Sig.**
AGE (reference category = those aged 60-64)	Dummy 65_69	Respondents aged between 65 and 69	0 = no, 1= yes	.078	.779
	Dummy 70_74	Respondents aged between 70 and 74	0 = no, 1= yes	4.57	.173
	Dummy 75_79	Respondents aged between 75 and 79	0 = no, 1= yes	-1.162	**.010**
	Dummy 80+	Respondents aged between 80+	0 = no, 1= yes	-.0645	**.049**
Predictor	**Variable**	**Description**	**Coding**	**Beta**	**Sig.**
First choice alternative mode in absence of free travel (reference category = those who would have driven a car)	Dummy carpsgr	Respondents who would have got a lift	0 = no, 1= yes	-.890	**.034**
	Dummy non_travel	Respondents who would not have travelled	0 = no, 1= yes	-3.79	.219
	Dummy taxi	Respondents who would have used taxi	0 = no, 1= yes	-3.12	.54
	Dummy paid_bus	Respondents who would have paid for bus	0 = no, 1= yes	-7.16	**.004**
	Dummy _walk	Respondents who would have walked	0 = no, 1= yes	-.656	0.37
Predictor	**Variable**	**Description**	**Coding**	**Beta**	**Sig.**
Built environment of origin of trip at time of survey. (Reference category = town)	Dummy city_origi	Respondents who started trip in city	0 = no, 1= yes	.461	.072
	Dummy village_orig	Respondents who started trip in village	0 = no, 1= yes	.225	.385
Built environment of destination of trip at time of survey. (Reference category = town)	Dummy city_des	Respondents who ended trip in city	0 = no, 1= yes	.439	.429
	Dummy village_des	Respondents who ended trip in village	0 = no, 1= yes	.215	.108
Predictor	**Variable**	**Description**	**Coding**	**Beta**	**Sig.**
Purpose of trip at time of survey (Reference category = other reasons)	Dummy health	Respondents travelling for health reasons	0 = no, 1= yes	.330	.623
	Dummy social	Respondents travelling for social reasons	0 = no, 1= yes	.031	.992
	Dummy work	Respondents travelling for work reasons	0 = no, 1= yes	.800	.163
	Dummy shop	Respondents travelling for shopping reasons	0 = no, 1= yes	.141	.617

Table 12: Binary Logit model predicting potential influences on likelihood of respondents having increased their trip frequency since obtaining a free bus travel (n=427)

[27] The Beta Value (B) can be used to ascertain the direction and magnitude of any statistically significant effect, with a (+) sign representing a positive correlation and (-) a negative relationship. As an example, the Beta value of -1.16 for the variable dummy_75-79 means that changing the number of respondents in this category by one standard deviation, while holding other variables constant would change the dependent variable (likelihood of trip increase) by -1.16 standard deviations.

In order to more fully understand the possible influences upon whether pass holders reported making additional trips by bus since obtaining a free bus pass, a binary logistic regression model was established. A full description of this model can be found in the methodology Chapter. Trip generation as a result of the pass is a key factor within the reimbursement process, and is very important to understand in greater depth. It has been found previous research to vary considerably according to a number of factors, including bus service availability, distance to bus stop, hilliness of local terrain and car ownership (see. Metz, 2000; Rye & Carreno, 2008) (Chapter Two). This binary logistic model set out to answer the following question:

> *'What potential factors may increase or decrease the likelihood of pass holders reporting an increase in their bus use since obtaining a free bus pass?'*

The data was recoded to allow two possible outcomes; either respondents reported increasing their bus trip frequency (N=1), or they did not (N=0). The logistic model contained 23 independent variables, broadly classified into factors relating to age, built environment, alternative mode choice and existing trip frequency. **The full model using all the predictors was found to be statistically significant** (X_2 (7) = 17.439, P= 0.26), indicating that the model containing all the predictor variables was able to distinguish between respondents who did report increasing their number of trips by bus and those who did not. In particular, two of the independent variables made a unique statistical contribution to the model as a whole at the 5% level:

Finding 5.7b: Being aged 75 and above was a significant predictor with the whole model for respondents for being <u>less likely</u> to report an increase in their number of bus trips since obtaining a pass compared to being 60-64.

This has previously been attributed to the different typical baseline trip-making patterns of older and younger pass holders, with White & Baker (2010) arguing that, on average, younger pass holders make fewer trips compared to older people, and so arguably have more potential to increase their trip frequency, and indeed in percentage terms this would have a more dramatic effect (more discussion on this can be found in Chapter 3).

Finding 5.7c: Older pass holder groups are statistically <u>less likely</u> to report increasing the number of trips compared to 60-64 year old pass holders.

Finding 5.7d: Pass holders who would have made a paid (self funded) bus journey in the absence of a pass were a statistically significant variable within the model, predicting that they would be <u>less likely</u> to increase their trips by bus than those who would have driven a car (b= -.716).

In other words this suggests that for those who would use the bus anyway in the absence of the scheme; the fact of the bus being 'free' appears to have had less of an influence on their behaviour

Finding 5.7e: Reporting being a car passenger in absence of a pass was also found to be a statistically significant variable within the model, predicting that they would be <u>less likely</u> to increase their number of trips by bus than those who would have driven a car (b= -.890).

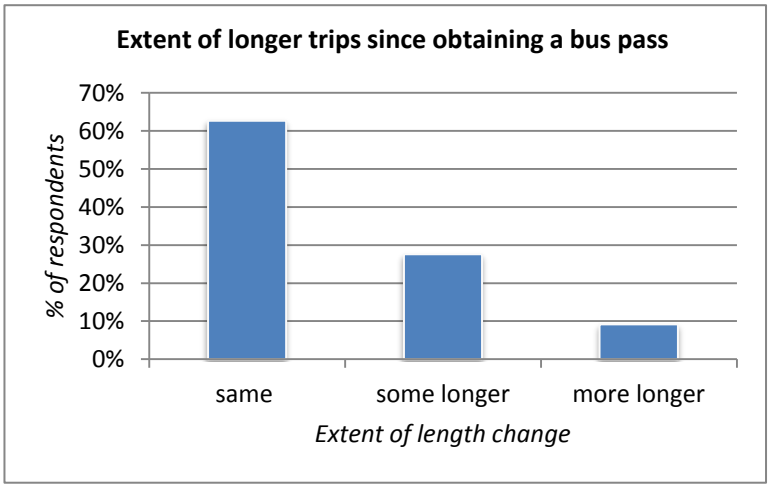
The final statistically significant contributor to the model ($p < 0.01$) was the built environment characteristics of the trip origin (classified in this case as city, town or village).

Finding 5.7f: Having a trip origin in the city was a predictor for being more likely to have increased the number of trips since having a free bus pass compared to those with an origin in a town (b=0.72).

This finding could logically be attributed to those starting their journey in the city having more choice of destinations and a higher bus frequency rate than those living in surrounding towns and villages, and so could mean pass holders being more likely to increase their bus using frequency. Furthermore, this could be attributed to the increasing number of pass holders travelling into the city and then transferring to a bus in the city, which technically would count as a 'city originated' trip. However, there are a number of limitations with these data. There is limited information on respondent's car availability, changes in physical mobility over that period and the bus route availability of each individual, overlooking the obvious statement that in some areas where there is one bus an hour it is not physically possible to increase the number of trips made (Benwell, 1976).

5.8 Changes in Bus using Since Obtaining a Pass: Trip Distance

Survey respondents were asked the extent to which they were making longer trips (by distance) since they had a concessionary pass. Two thirds of all respondents (63%) reported that they mainly made trips of the same length as before; with only a third suggesting that they make longer trips now that they have a free bus pass. (Graph 5)

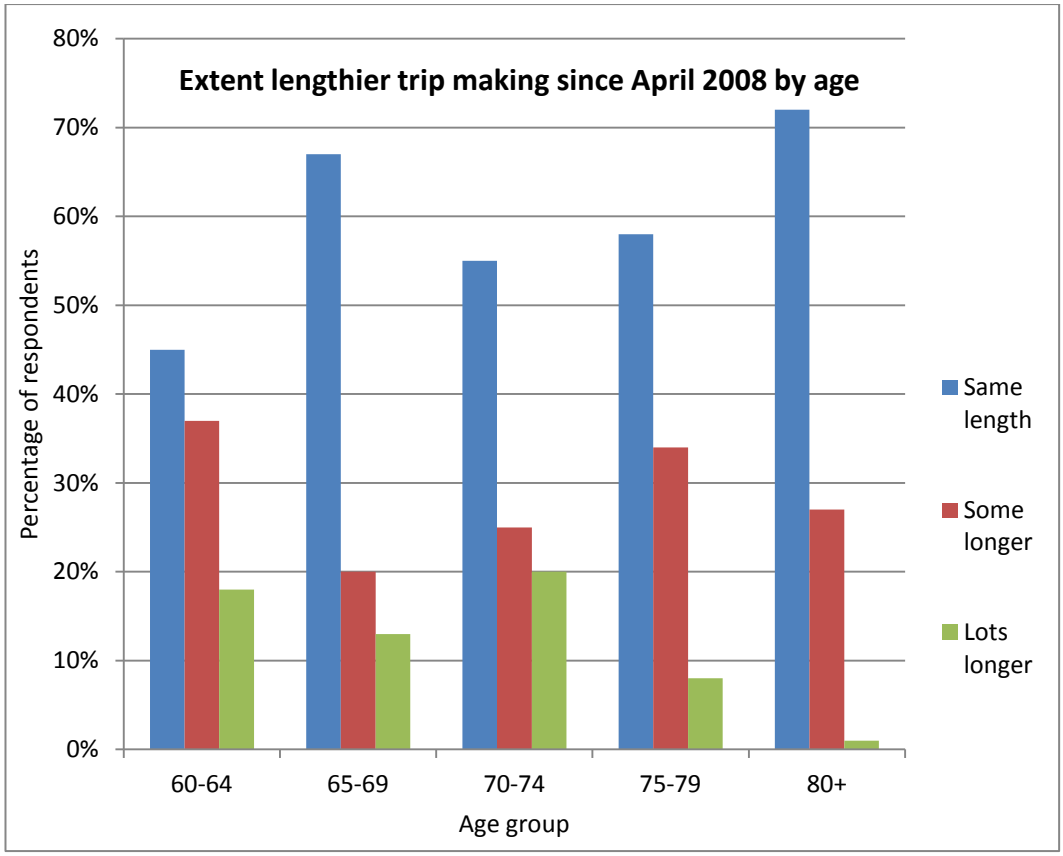


Graph 5: Extent of lengthier trips since obtaining a pass

These findings suggest that amongst surveyed pass holders, the free bus pass has had more of an impact on the number of trips rather than the distance travelled. Indeed,

Finding 5.8a: A statistically significant relationship was identified between the age group of respondents and whether they reported making lengthier trips since they held a pass (χ^2 (24, N = 487) =1872, p < 0.05).

Graph 6 (overleaf) shows that, in general, older pass holders were significantly **less likely** to report making longer trips since getting a pass compared to younger pass holders, in line with White & Baker's (2010) findings. Indeed, nearly three-quarters of respondents aged over 80 reported not having made longer trips since having a free bus pass.



Graph 6: Extent of lengthier trips since obtaining a pass segmented by age

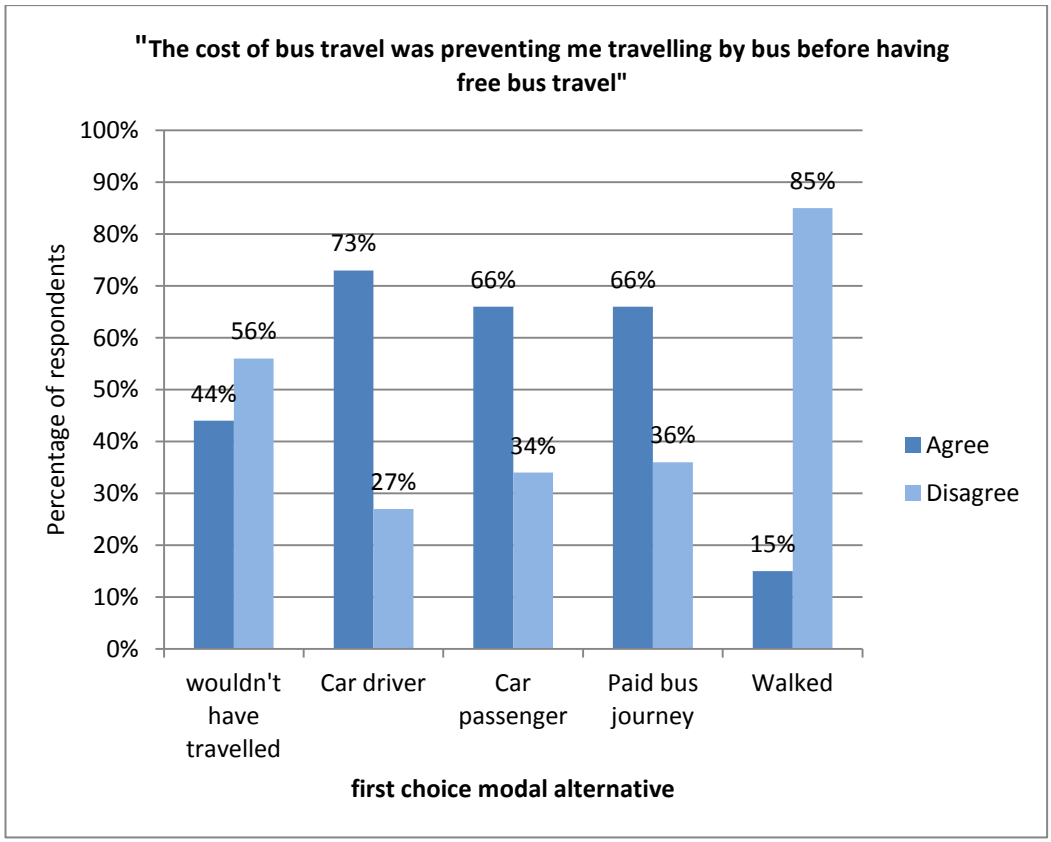
Having discussed changes in bus use as a result of having a free bus pass, the final section alludes to what the survey can inform us about the benefit of having a free bus pass, in terms of financial benefit, but also findings relating to the improvement of quality of later life. This theme will be picked up further through the qualitative research in the next chapter.

5.9 Benefits of the Policy and Contribution to Quality of Life

Respondents were asked whether they felt prevented from travelling by bus on the grounds of cost prior having a free bus pass. Figure Thirty-seven shows that overall, three quarters of respondents (66%) felt that the cost of the bus was a preventative factor in using the bus prior to having a free pass.

Finding 5.9a: A statistically significant relationship was found between feeling prevented by cost, and pass holders' first choice modal alternative (χ^2 (64, N = 487) =907, $p < 0.05$).

- The highest level of agreement to this statement was amongst those would have driven, suggesting that removal of the cost barrier has a significant potential to stimulate modal shift for certain journeys. It could be seen as paradoxical that arguably better off respondents, with cars, are more likely to respond positively to the provision of the free bus pass.
- Of those who would have walked in the absence of a concessionary bus pass, 85% disagreed that the cost of bus travel was a prohibitive factor in the decision to use the bus.
- Of those who wouldn't have travelled, there was a 50:50 split between those who agreed that the cost of bus travel was inhibiting its use and those who did not.
- Of those who would have used a (self funded) bus if there was no CF scheme, two-thirds agreed with the statement, but a third of respondents (36%) would have paid for a bus and did not feel prevented by cost. It is worth noting that being prevented is a nebulous term, and there is no clear distinction between not being able and not being willing to pay for bus travel.

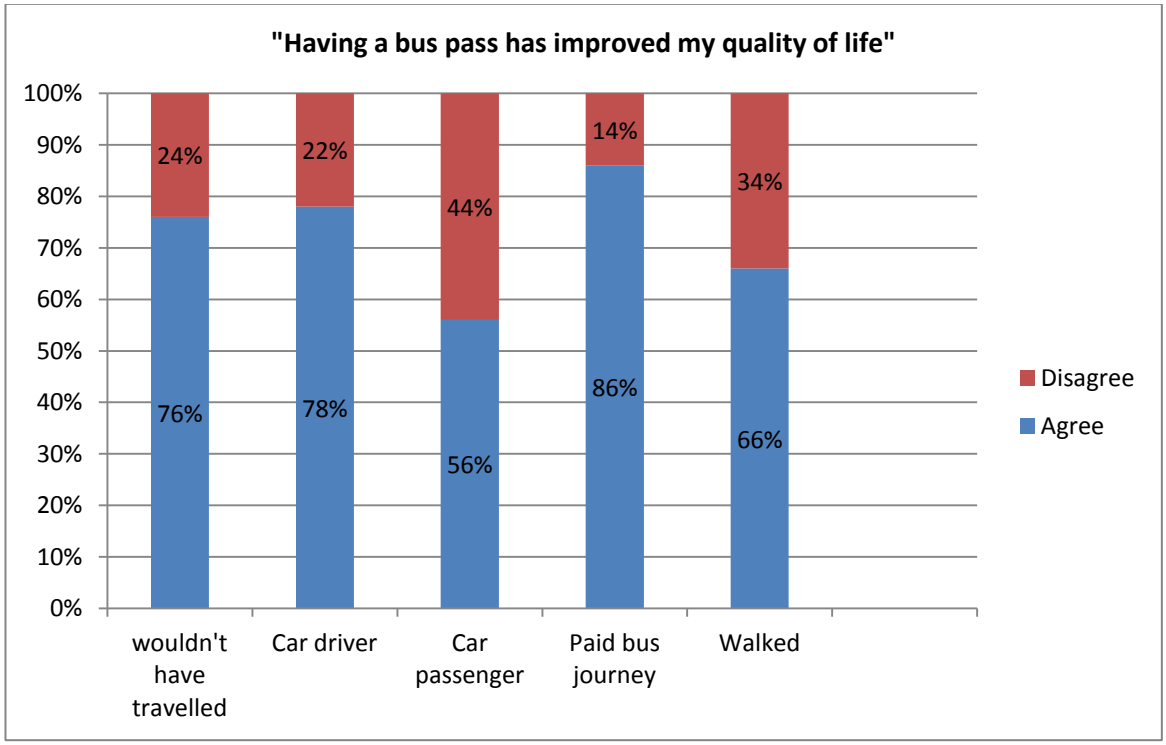


Graph 18: Agreement that the cost of bus travel was preventing pass holders from travelling by bus

Having considered the element of removing the financial cost of travel, we now turn attention to the reported improvement to quality of life as a result of having a free bus pass. Perhaps unsurprisingly, the overwhelming majority of pass-holding respondents (74%) agreed that having a free bus pass had improved their quality of life to some extent. Graph 19 provides a breakdown of these findings by first choice alternative mode..

Finding 5.9b: a statistically significant relationship was found between agreement that the pass had improved pass holders' quality of life, and their stated first choice modal alternative. (χ^2 (42, N = 487) =1142, p < 0.05):

- Those who would have been car passengers were two times less likely to agree that their quality of life had been improved (44%) compared to car drivers (22%)
- Those who would have walked were also less likely to agree that the scheme had improved their quality of life. These findings suggest that the perceived benefit of the pass could be in part related to the modal alternatives available.



Graph 7: Agreement that the bus pass had improved pass holders' quality of life

In order to further understand the factors that may make it more likely to report an improved quality of life, a second binary logistic model was used to assess the impact of a number of factors on the likelihood that respondents would report an improvement in their quality of life since obtaining a free bus pass. A note of caution should be added here that this relates to individuals' reports of improvement in their quality of life, not any objective measure of that improvement. The model contained 17 independent variables (see Table 14 overleaf) relating to age, built environment alternative mode and existing trip frequency. The full model using all the predictors was statistically significant ($X^2 (23) = 69.93, P= 0.01)$, indicating that the model, with all the predictor variables was able to distinguish between respondents who reported an improvement in their quality of life and those who did not. The following variables made a statistically significant contribution at 5%

Binary Logit model predicting potential influences on likelihood of reporting an improvement in their quality of life since obtaining a free bus travel					
Predictor	**Variable**	**Description**	**Coding**	**Beta**	**Sig.**
AGE (reference category = those aged 60-64)	Dummy 65_69	Respondents aged between 65 and 69	0 = no, 1= yes	.306	.467
	Dummy 70_74	Respondents aged between 70 and 74	0 = no, 1= yes	1.185	**.02**
	Dummy 75_79	Respondents aged between 75 and 79	0 = no, 1= yes	.581	**.020**
	Dummy 80+	Respondents aged between 80+	0 = no, 1= yes	.643	.219
Predictor	**Variable**	**Description**	**Coding**	**Beta**	**Sig.**
First choice alternative mode in absence of free travel (reference category = those who would have driven a car)	Dummy carpsgr	Respondents who would have got a lift	0 = no, 1= yes	.2844	**.02**
	Dummy non_travel	Respondents who would not have travelled	0 = no, 1= yes	3.832	**.00**
	Dummy taxi	Respondents who would have used taxi	0 = no, 1= yes	4.34	.45
	Dummy paid_bus	Respondents who would have paid for bus	0 = no, 1= yes	2.177	.07
	Dummy _walk	Respondents who would have walked	0 = no, 1= yes	1.43	.78
Predictor	**Variable**	**Description**	**Coding**	**Beta**	**Sig.**
Built environment of origin of trip at time of survey. (Reference category = town)	Dummy city_origi	Respondents who started trip in city	0 = no, 1= yes	.204	.709
	Dummy village_orig	Respondents who started trip in village	0 = no, 1= yes	-1.56	.798
Built environment of destination of trip at time of survey. (Reference category = town)	Dummy city_des	Respondents who ended trip in city	0 = no, 1= yes	-1.38	8.42
	Dummy village_des	Respondents who ended trip in village	0 = no, 1= yes	1.30	8.48
Predictor	**Variable**	**Description**	**Coding**	**Beta**	**Sig**
Purpose of trip at time of survey (Reference category = other reasons)	Dummy health	Respondents travelling for health reasons	0 = no, 1= yes	.304	.34
	Dummy social	Respondents travelling for social reasons	0 = no, 1= yes	.876	.162
	Dummy work	Respondents travelling for work reasons	0 = no, 1= yes	-2.45	.45
	Dummy shop	Respondents travelling for shopping reasons	0 = no, 1= yes	.432	.342

Table 13: Binary Logit model for improvement in quality of Life[28]

[28] See footnote 26 (p.126) for an explanation of the Beta value

Finding 5.9c: Being aged 70-74 and 75-79 was a statistically significant predictor of being more likely to report a relative improvement in quality of life, compared to those aged 60-64.

Finding 5.9d: Those who would have been car passengers were predictors of an increased likelihood to an improved quality of life compared to car drivers (b= 0.2884).

A possible explanation could be that, whilst the previous analysis (Chapter Three) shows that this group is not necessarily making many more trips, the free bus pass may plausibly mean its members are able to substitute being a car passenger for a bus trip in certain cases, with the benefits of gaining independence and autonomy. Indeed, existing literature identifies asking for a lift from others as being a significant barrier to undertaking seemingly trivial discretionary trips in general (Davey, 2007).

Finding 5.9e: Those who would not have travelled at all in the absence of a pass were predictors of an increased likelihood of reporting an improved quality of life, compared to car drivers.

This could presumably be linked either to the fact that they could not afford the trip previously, or as will later be discussed in the qualitative chapter, that they could not justify the trip in their minds. This implies that the concessionary bus pass has provided the benefit of allowing trips that were previously suppressed for a number of different reasons. Having now come to the end of the survey analysis chapter, the final section offers a summary of what the data has told us about pass use and its benefits.

5.9 Chapter Summary

The purpose of this chapter has been to document, and offer possible explanations for how pass holders are currently using their concessionary passes, how this may have changed since the pass has become free, and finally, how pass holders report they would have travelled (if at all) in the absence of the scheme. These two questions are answered below, and the limitations of the survey addressed to point to the need for further research to understand how pass holders are using their pass

and how they responded to the scheme. The findings shall be discussed in detail in Chapter Seven, within the context of the focus groups findings.

Overall a wide variance has been demonstrated in the ways pass holders are using their concessionary bus pass, in terms of trip purpose, frequency, and length, highlighting that any talk of an 'average pass holder' or 'average trip rate' should be treated with some caution. Whilst the survey has demonstrated that having a free bus pass has generated substantial change in bus usage, with over two thirds of pass holders reporting an increase in the number of bus they are making since it becoming free, it has been found that there that the benefits of the scheme vary according to the individual pass holder.

Perhaps unsurprisingly (and indeed in line with other recent surveys such as Passenger Focus survey in 2009), the main trip purposes of pass holders using their pass were shopping and social trips, however findings from this chapter hint that within these trip descriptors there are many different variants of these trips as suggested by the differing modal alternatives that would used in the absence of the scheme. A number of factors emerge in determining trip frequency and distance using the pass, with older pass holders found to be making more trips by bus than younger pass holders, in line with research by White & Baker (2010). Those holding the pass for the longest period were also more likely to have a higher typical bus trip frequency (and in line with Last (2010) are more likely to be older within the survey). Furthermore, 'older' pass holders (those aged 85+) were also found to be more likely to make shorter trips compared to younger pass holders. Indeed, as reported earlier in the chapter, older pass holders (75+) were statistically less likely to report increasing their number of trips or increasing their typical trip length than younger pass holders since having a free bus pass, presumably linked to either the fact they on average make more trips by bus anyway and have less need to increase, and also linked to the ability and desire to increase their bus trip frequency which on average decreases with age. Finally, those who would have taken a paid bus journey anyway in the absence of a pass were statistically less likely to report increasing their number of trips, perhaps because they were already using the bus as much as they desired, but the benefit to this group would be not paying for trips by bus that they would have paid for before.

A number of limitations of the data available must be noted here. As discussed in the methodology, the broad trip purpose categories in the survey cannot take into account the complexities of multiple trip purposes and multi-destination trips.

Neither can the survey inform us of the context surrounding the trip taking place at the time of survey, where they were planning to go after, where they had been before which helps understand the trip within the context of the pass holders' day and week. The next chapter discusses the qualitative methodology that was informed by the findings of the quantitative phase.

6. Qualitative Methodology

6.1 Introduction

Chapter four previously presented the methodology for the first phase of the research, the on board bus survey. It concluded by highlighting the value and importance of gaining a qualitative understanding of the context of the trips and trip makers. In brief, there is a lot of information that the survey does not inform us about how pass holders are really using their passes, as it is devoid of any contextual data relating to the underlying motivations and drivers for using the bus and other influences on pass holders' decision to use the bus. An example in point is Pierce *et al.'s* (2003) observation that whilst a pass holder may just wish to *'get out of the house'*, when asked, they may be likely to report the trip as a shopping trip. Furthermore, the survey cannot inform us of the commonality of that particular trip purpose to the individual, making it hard to assess how typical that behaviour is. Thus the core goal of the second qualitative stage of the research is to understand how and why pass holders are really using their concessionary bus pass, understanding the underlying reasons and benefits of using the scheme and capturing the meaningful benefits to the individual user.

In particular the following questions have guided the formulation of the research agenda for the qualitative phase of the research:

- What are the perceived benefits of the free bus travel scheme above and beyond simply reaching an end destination?
- How does personal circumstance and context affect the decision to use the pass?
- Amongst those who would not have travelled in the absence of a pass can this be attributed to issues other than simply cost?
- How does the pass affect the daily routines of pass holders?
- What is the meaningful contribution of these changes in travel behaviour to the individual's quality of life?

6.2 The Use of Focus Groups

The focus group as a research method allows concentrated conversations that may seldom (if ever) occur in the 'real world' (Morgan, 1997), whilst in fact attempting to understand the real world from the subject's point of view (Kvale, 2006). Patton (1990) suggests that the main task for the qualitative evaluator is to provide a framework within which people can respond in a way that represents accurately and thoroughly their points of view about a particular subject. The method attempts to bring together a number of individuals for a round table discussion relating to a particular topic of research interest, making the focus group a very informative way of gathering the views of a number of individuals at the same time (Edmunds, 1999). Importantly, a focus group is different from a more general discussion group, in that it requires a clear pre-defined purpose, and recruits people with specific characteristics related to a particular topic. In the case of this research, a major benefit of using focus groups was the ability to capture those in different 'bus using contexts' and who are therefore likely to have different perceptions about the 'usefulness' of the free bus pass.

A number of advantages of the qualitative focus group are put forward within the literature. First, it puts the individual in a position to listen to and respond to the opinions of others taking part (TTR, 2004), providing the ability for the respondent to use his or her own words in a way that is individually meaningful, and so not being restricted by predetermined categories (Patton, 2000). Second, it offers the ability for the interviewer to probe and question the focus group participants, in order to ensure that answers are interpreted in the way they had intended. Third, the less prescribed nature of focus groups compared to other methods allows for unanticipated and interesting discussion (Patton, 2000). Indeed, focus groups offered a major potential in the case of this research to gain a deeper understanding of the disaggregated travel behavioural changes that have taken place since bus travel has become nationally free, and the nature of the benefits derived from the concession. Moreover, it is envisaged that the focus groups will identify previously unconsidered (or poorly understood) effects of providing free travel that have implications for bus use.

Limitations of focus groups identified in the methodological literature include them sometimes being considered somewhat intrusive; being more susceptible to the dynamics between interview and interviewee and unintentional cues, and the fact

that they can be more subjective, because the interviewer is deciding what to place in the final report (Patton 2000). This relates to this thesis, in that the approach in deciding what to put in the final thesis is a subjective process. An example of this phenomenon emerged during the pilot interviews: it was picked up that the moderator was unintentionally nodding his head when asking a question, which it was felt was influencing the participants' responses. In addition, the interviewer found it helpful to relay the key findings of the group back the group at the end of the session to ensure as far as possible that the interviewer was fully capturing the views of the pass holders. It was recognised that the interviewer was to some extent subjectively deciding what to place in the final report, however as far as possible selection was based on whether the comments related to the specific research questions identified a priori. Conversely some topics that were not on the specific list of questions arose, highlighting the benefit of the focus group as an exploratory research technique.

In addition there are some concerns surrounding the 'generalisability' of findings from focus groups, with Edmunds (1999) suggesting that the findings cannot be quantified, nor can they claim to be entirely representative of the entire research population. Whilst this is a recognised issue with focus groups, where possible the moderator asked other respondents in the room whether they agreed with the options and comments being raised. This was not necessarily to get a sense of whether there was general agreement or whether it represented the views on one particular pass holder, as this would mean quantifying the results which is not advisable. Rather seeking other respondents' views was a way of deliberately

soliciting contrasting views which may not have been expressed, and also to reduce the social pressure of having and expressing a view that contradicts another participant's point of view. In some cases alternative explanations and views were put forward to rebut people's comments. This being said though, it must be added that, whilst focus groups are useful in revealing the nature and range of views, they can provide little evidence as to the strength or the commonality of any particular views in the wider community (Robson, 2002).

Robson (2002) comments that focus groups - by their very nature - only allow a limited number of questions to be posed, and that extreme views can sometimes dominate the discussion. In some cases some pass holders were louder than others, which although useful for stimulating interesting discussion, had to be managed by the focus group moderator. Pass holders who had not spoken at all

during the session were deliberately asked if they had a contribution to make at various times throughout the sessions to ensure they had the opportunity to speak. In the case where one participant was speaking over another, the moderator politely reminded the participant to respect others by not talking over others. Furthermore, when participants agreed with a view expressed by another member, they were often asked to explain their view and what they meant, to test whether they were going along with the general group consensus view.

Guba & Lincoln (1994) have commented that the moderator can be seen as a research instrument and can be affected by factors such as fatigue and nervousness. To this end the decision was taken to conduct a maximum of two focus groups in one day to avoid interviewer fatigue and to allow time to reflect on the findings of each group. It was noted that during one session the moderator was slightly tired and lacking in enthusiasm and this led to a slight digression in the topics discussed. However, due to there being a helper in the room, a short coffee break was arranged, after which the discussion was continued and became much more focused. The different groups are discussed overleaf.

	Group title	Group Criterion	Location	Recruitment Method
1	'bus deprived'	Pass holders of any age residing in a semi rural area with very limited access (or no access) to a fixed scheduled bus route [29]	Residents from Harbertonford, near Totnes	Through a research contact working on community transport
2	'bus available'	Pass holders of any age residing in an urban area with objectively good access to a fixed bus route.	Focus groups held in Exeter city centre and Newton Abbot	Through posters placed in locations such as post offices, libraries and bus shelters.
3	'Car access households'	Pass holders of any age and residing in any location, with access to a car in their household	Teignmouth, Age Concern Centre	Contact day centre for older people
4	'no car access in household'	Pass holders of any age and residing in any location, with no access to a car in their household	Teignmouth Age Concern Centre	Contact day centre for older people
5	'near pass holders 50-59'	Pass holders and residing in any location, but between the ages of 50 and 59	Newton Abbot	Through posters placed in strategic locations and newspaper ads
6	'Borderline pass holders'	Pass holders and residing in any location, but between the ages of 60 and 65.	Dawlish	Direct mailing from existing dataset
7	'older pass holders'	Pass holders and residing in any location, but aged 70+	Teignmouth community Transport	Contact local day centre
8	'mobility restricted pass holders'	Pass holders of any age and residing in any location who have a bus, but cannot access the bus due to mobility or other barriers	Newton Abbot Community Transport centre	Contact Community transport providers in the area
9	'Mixed pass holders'[30]	This group was a mixture of all these categories	Newton Abbot	Contact local day centre
10	'Non Pass holders'	A group of those eligible for a pass based on their age, but not currently holding a pass.	Dawlish	Contact local day centre

Table 14: Focus Group Composition

[29] Fixed scheduled bus route means a registered bus service with designated alighting points.

[30] For pragmatic reasons, the mixed group was an overspill group of pass holders with differing characteristics that were interested in taking part in the research.

6.3 *Practical Issues*

An additional potential influence was the demeanour and appearance of the moderator. Whilst wearing a suit was felt appropriate for a more corporate group, for the older people it was decided to wear smart casual attire and to have a deliberately friendly and slightly informal demeanour in order to allow the participants to feel at home and feel able to respond to the questions. This involved at times laughing and joking with respondents when they told a funny story, and showing some empathy with the issues they were describing. Another practical issue was that of ensuring that participants did not start talking about the topic when they came in, before the digital recorder was recording, which for ethical reasons could not commence before they had given their consent. When such situations arose participants were asked to wait to discuss such matters until the recording began.

6.4 Interview Guide

Patton (2000) identifies three types of interview guides relevant for focus groups. First he describes the conversational guide, which is spontaneous and allows for open discussion. Second, a standardised open-ended format guide is suggested, where a strict predetermined script is used. Finally, as a type of middle path between the two, the interview guide approach is put forward, whereby the interviewer has an outline of each topic to be discussed, but also remains flexible and open to relevant deviations in discussion. For the purposes of this research, the third type was used, allowing flexibility in structure, but having enough structure to ensure all the necessary questions relating to the research questions are answered. A tick-box style approach was used to ensure that all the key areas and term were covered during the focus group. In the last ten minutes of the session, the moderator reviewed which topics had had less attention and devoted the remaining time to exploring these issues. It was found that this approach did allow flexibility to diverge on relevant discussions that may not have been specifically covered by the interview guide. A full copy of the interview guide is located in the Appendix Two.

6.5 Focus Group Profiles & Sampling

A key finding from the existing methodological literature is that the bus-using context of the individual is of paramount importance in decisions to use the bus (e.g. Benwell, 1979). In simplest terms, pass-use is tempered by the ability to use the bus and the availability of appropriate services. Given this simple, yet important, observation, it was decided to base the focus group profiles around ten different 'bus using contexts' as shown in Table 16 (overleaf). Whilst some groups contained group members not meeting the criterion, all groups contained at least 75% of people meeting the group's selection criteria. This was a result of the pragmatic difficulty of not feeling able to turn participants away who did not meet the group's participation criteria.

Given the research's emphasis on the 'bus-using context' of individual pass holders, a judgement was made to select respondents who met the need of the research (Morgan, 1999). Such an approach selects participants to reflect areas of current policy or broader academic interest (Polit & Hungler, 1991). Dane (1990) comments that rather than having a balanced cross-section of responses, it is useful to focus on cases which display variety. Indeed, purposive sampling has been found to be enlightening in ways that probability sampling could not be (Denscombe 1998). As such, the strategy is 'emergent and sequential', with Guba & Lincoln (1994 cited in Robson, 2002) commenting that "*almost like a detective, the researcher follows a trail of clues, which leads the researcher in a particular direction until the questions have been answered and things can be explained".* Figure 13 below shows the eight-pronged recruitment strategy that was adopted for the research.

Figure 13: Focus Group Recruitment Strategy

6.6 Focus Group Recruitment

Again, in part a reflection of the diverse nature of the pass-holding population, a multifaceted approach to recruiting respondents was required. Appendix 5 provides further details on the specific recruitment methods. Given the different research interests of each of the focus groups, the advertising materials and recruitment strategies were tailored for each session - for example the age specific groups specified this on the flyers. Barret & Kirk (2000) suggest a policy of over-recruiting by around 20%, to allow for non-attendance of participants. Firstly, during the survey stage of the research, respondents were asked if they would provide their contact details, and if they would wish to participate in the focus groups. 46 respondents were contacted by telephone and 30 by post in the different areas, with 36 in total subsequently agreeing to attend a focus group. In addition to this, 150 flyers and leaflets with the date and a contact telephone number were sent to local shops and businesses in the specific areas where the focus groups were to take place, with the hope that they would display them. 27 Newspaper and local magazine articles were also used. In addition, 20 older people's forums and day centres were contacted, either to host a focus group with their members, or offer a suitable room. In one case, in return, the researcher gave a presentation to interested parties. A further recruitment method was to gather a list of contacts through colleagues at the researcher's place of work who may be able to assist with participant recruitment. The instances of recruitment are noted below in Table 11 below.

Recruitment Method	**Number of participants**
46 Telephone Contact	26
30 Postal letter	10
150 Flyers	14
27 Newspaper/local magazine	12
Visits to local day centres	20
TOTAL	81

Table 15: Method of Recruitment

In some cases the venue was booked beforehand, when it was clear that there would be demand, whilst in other cases interest was gauged prior to booking a

venue. Both approaches seemed to have their merits. When recruiting participants, a modest financial incentive was offered for their time. The posters and letters contained the researcher's contact details, but importantly did not contain the exact venue of the discussion group, in an attempt to manage the number of people attending each group, i.e. to avoid an unsuitable number of participants turning up. Overall, recruitment was deemed successful, with 100 responses to the various adverts, with 81 being accepted and subsequently attending the ten focus groups.

6.7 Focus Group Administration

The literature suggests having between 6 and 10 respondents per focus group, making it sufficiently small to afford everyone the opportunity to speak, but without becoming unwieldy (Edmunds, 1999; Krueger & Casey, 2000). A number of practical considerations specifically relating to the older research participants were required to be addressed. Howell (1997) suggests that whilst in many cases the older respondent may not need to be given any greater consideration than any other respondent "*ageing exacerbates sub optimal design features that to a lesser extent affect everyone's performance in the focus group*". Thus, there was an emphasis on preventing potential barriers to participating in the discussions. In particular, venues for the groups were visited (where possible) beforehand to ensure that they were suitable in terms of being easily accessible, and easy to find relative to a bus stop. Some venues were subsequently changed after the site inspection, on the grounds that they would not be suitable for people to access easily. A further benefit of the site visit was that the researcher was able to answer any specific questions that the respondents had about the site, such as where to park and where to get off the bus. Indeed, some of the focus groups were held in centres that clients were familiar with and for which they had previously established transport solutions, thus maximising the possibility of them attending (Barrett & Kirk, 2000).

Barbour (2007) presents some of the challenges of administering and analysing the focus group. She stresses the importance of a skilled moderator who is able to facilitate and capture the interactions between respondents. Morgan (1997) puts it simply: it entails the researcher's focus but importantly their [the respondents'] group. In other words, the moderator should attempt to guide, but not interrupt or lead the group proceedings. Whilst this was the aim, in some cases the interviewer

accidently interrupted a respondent mid-flow; however attempts were made to restart where he had left off. Indeed, the moderator was obliged to interrupt some discussion that had gone 'off of the point' of the research and bring the group back to the target topics. It was suggested that such discussions could be continued after the group had formally ended. During the pilot groups it was found the moderator had a tendency to interrupt people, particularly at the end of their sentences when they were slow to finish, so during subsequent focus groups care was taken to ensure that the moderator was more attentive and patient to speak and respond. Whilst the group was mainly about respondents' opinions, inevitably respondents did ask about the researcher's views on certain topics, and as he was part of the conversation it was necessary to explain his views, but attempting to ensure that these views did not influence the respondents' responses to subsequent questions.

In particular, it is recognised that moderators require the skills of listening, remembering, and striking an appropriate talking and listening balance, which are the key elements of any successful focus group (Robson, 2002). This applied in the context of the groups conducted, in terms of linking respondent's ideas together, and contrasting what was being said with something someone had had previously to encourage healthy debate. Often revisiting respondents' comments was useful to fully understand their views. Barbour (2007) adds that particular attention should be paid to what is not said, with a need to skilfully differentiate between silences of estrangement and silences of familiarity. In other words, sometimes silence was used in the group as a sign that it was time to think, but there came a point when this became an awkward silence. Indeed, non-verbal cues in some cases can reverse the very meaning of a statement (Robson, 2002). On occasion a power imbalance can exist between the researcher and the respondents, or amongst respondents, meaning that some respondents do not fully open up or tend to say what they think is acceptable rather than their true opinion (Noyes et al., 2008). Conversely Morgan (1997) suggests that the focus group allows respondents to put it into their own words, and react to the thoughts of others present in the discussion. In this case, the focus groups tended to be less formal to ensure that participants were at ease to share their views. A few respondents asked whether the researcher worked for the council or other such organisation with positions of power, however it was clearly stated that this was not the case.

6.8 Focus Group Analysis

All focus groups were doubly recorded using digital voice recorders and transcribed using Microsoft Word, and Express Scribe software to slow down speech, and make navigating through the recording a lot simpler. Following Bailey's (2008) suggestion, a second member of staff had been asked to sit in on the groups to record visual and non visual clues from pass holders' responses, which were annotated on the final transcription. Each transcription of about 1.5 hours took 7 hours to transcribe and edit, making the total time allocated to transcription 70 hours. A segment of each transcript was listened to a second time by a colleague in the researcher's office to ensure that they were transcribed accurately. The decision was taken to record, as much as possible exactly what was said by the respondents, whilst omitting some minor interjections that did add to the data.

In terms of analysis, Nvivo 8 software, and a manual method of coding was used to conduct thematic analysis. Braun & Clarke (2006) suggest that thematic analysis is widely used but poorly understood as an analytical method. Aronson (1994) proposes a useful method for conducting thematic analysis:

1. **Thematic organisation around predetermined themes.** This research had six colour coded themes relating to the research questions:
    i. **How and why the pass (and bus) is being used (red)**
    ii. **Macro changes in the way the bus is used since having a pass (orange)**
    iii. **Micro (daily life) changes in the way the bus is used (Yellow)**
    iv. **Benefits of the pass (green)**
    v. **Perceived quality of life impacts (blue)**
    vi. **Opinions of potential changes to the policy (blue)**

    Creation of sub themes. Leininger (1985: 60**)** describes this process as *"bringing together components or fragments of ideas or experiences, which often are meaningless when viewed alone*". This process requires the researcher to rigorously evaluate how the ideas fit together in a meaningful way. The diagram below lists some of the sub-themes that emerged from analysis of the data, which are more fully expanded upon and explained in the analysis chapter.

How and why the pass (and bus) is being used

1.1 Broad trip purpose
1.2 Trip motivators and rationales
1.3 Trip justifications
1.4 Trip frequency
1.5 Trip distance
1.6 Nature and range of activities

Macro changes in bus use

2.1 Additional trip
2.2 Lengthier trips
2.3 Destination related changes
2.4 Changing trip purposes
2.5 Changes to bus car relationship
2.6 Changes to nature of trip

Micro (daily life) changes

3.1 Trip stages
3.2 Trip justification
3.3 Decision to take the bus
3.4 Organisation of bus trip within the day
3.5 Changing spatial practices
3.6 Other changes

Benefits of the pass

4.1 Benefits of additional trips
4.2 Discretionary/ touristic travel
4.3 Wider facilitated benefits
4.4 Avoidance gains of free travel
4.5 Organisational benefits
4.6 Social benefits/ the '*busscape*'

Perceived quality of life impacts (blue)

5.1 Meanings of 'quality of life
5.2 The role of the free bus pass
5.3 Relative benefits
5.4 Maintenance verses improvement
5.5 Opportunity costs of removing scheme
5.6 Feelings- independence, autonomy

Opinions of changes to the policy

6.1 Attitudes to any changes
6.2 Means testing
6.3 Changing age/ frequency entitlement
6.4 Other proposed solutions
6.5 Practical considerations

Figure 14: Themes emerging From Qualitative Analysis

The final stage of thematic analysis, as identified by Aronson (1994) is to build these themes into a valid argument, drawing existing debates within the literature review. From this then stems conclusions and recommendations**.** Appendix Ten provides details and evidence of the approach used to code the dataset.

4.12 Chapter Summary

A fundamental challenge within this research's methodology was to amalgamate the need to understand the subjective meaning of changes in pass holders' use of the bus, with the need to comment on whether it, objectively speaking, had made a contribution to their quality of life. A further challenge was to elicit these effects on quality of life in a way that avoided leading questions or unfair interpretations. The challenge was met by using the mixed methods approach, in that the qualitative element could explain the context of the changing use of the bus and its benefits and suggest its potential contribution to pass holders' quality of life. It was

recognised that this link may not always be recognised by pass holders and so evidence was taken from the comprehensive literature review to imply quality of life benefits, even where they were merely noted as benefits by pass holders. Indeed the thematic analysis was also a key stage in ensuring the validity of the connections being made between behaviour change and quality of life benefit. Inherently some of the arguments constructed make some assumptions, and the research will be clear on what these are when they are made. This chapter then has discussed the nature of the methodological approach of the qualitative element of the thesis, identifying its strengths and weaknesses, as well as the scope for what the data can be used to inform.

Chapter Seven: Qualitative Findings

7.1 Introduction

This chapter builds on the previous quantitative findings relating to how pass holders have changed their bus use since getting a free bus pass. Chapter Five containing the aggregate level survey analysis - in common with many other studies into concessionary bus travel - could not fully capture such examples of rich and insightful information as to what exactly travel by bus means to the individual pass holder. This chapter contains five sections, presenting the findings of ten qualitative focus groups. First, it discusses the effect of the provision of a free bus pass on the decision to choose the bus, and its effect on the relationship with the car. Second, it presents qualitative findings relating to the way the free bus pass is actually used in the context of pass holders' daily lives, and the more subtle changes that have occurred since it became free. Moving on to consider the meaningful benefits of the scheme, section three outlines the ways in which the free bus pass has contributed to an improvement in pass holders' quality of life. The chapter concludes with section four, which relates pass holders' perceptions of the policy and its possible future reforms.

QUANTIFIABLE 'BUS USE' *I.e. how often is the bus used? When? Where are passengers going to?*	**DESTINATION BASED 'BUS USE'** *I.e. what kinds of end destinations does the bus journey facilitate access to?*
ORGANISATIONAL 'BUS USE' *I.e. How does the bus trip fit within the daily life and routines of passengers and their other activities?*	**TRAVEL TIME 'BUS USE'** *I.e. What types of activities is the on-board bus environment used for?*

Table 16: Definitions of bus 'use'

7.2 Changing Uses of the Bus

The literature review identified four distinct ways in which the free bus could potentially alter bus using behaviour (see table 15 overleaf). First, quantifiable bus use refers to aggregate measurable outcomes such as trip frequency, distance and trip timing. Second, destination based bus use refers to that which the bus is being used for, under the assumption that transport is a derived demand for an activity or purpose at the end destination. Organisational bus use is used to describe how the bus fits in with the daily routine and activities of the pass holders, following an activity based modelling approach. Finally, travel time use describes the activities that the bus is being used for on board. This chapter provides evidence that having a free bus pass has altered bus use at each of these four levels, and this has previously been unrecorded and cannot be measured using a simple aggregate level study.

7.2.1 The Bus pass and Quantifiable Bus Use

In line with Ariely's (2008) finding that people tend to respond in a different manner to 'free' items than to similar, substantially discounted items, this research found that pass holders had too changed the amount and way that they use the bus, and in some cases this was specifically linked to it being free. One particular respondent commented that:

> *"I don't know why, but there's something special about it being free, and I have changed the way I think, but it seems odd really doesn't it?"* [Male, 87, town].

In other words, evidence was found that the very fact of being free has in some cases stimulated demand for travel by bus that is above and beyond a simple reduction in price. This was particularly related to an emerging notion that the free bus pass allows seemingly (objectively) 'trivial' trips to take place that would not take place in the absence of the pass, but which provide key quality of life benefits. Thus the free fare had allowed pass holders to lower the threshold at which they justify travel by bus, as illustrated by the following respondents:

> *"in response to your question earlier...if it was twenty pence a time, I could easily afford that, but it would make me think twice whether I really need to use the bus, whereas now I just don't think about that*" [Male, 68, town].

"It's great. You can have one and don't have to use it. There's no stress about value for money or getting the most out of it: even with a paid pass you have to use it so often to pay it back" [Male, 69, city].

"*I can do trips now that there's no way I would do if I had to pay: I mean I couldn't justify that expense just for some trip down the road" [*Female, 61, city].

Furthermore, another finding was some respondents reporting that, since the bus was free to use, bus travel was less 'risky' and they could be more daring, as there was no cost. In some cases this was found to encourage more adventurous and complex bus journeys to take place.

"*You don't worry if you make a mistake: if you have to get off and change it doesn't matter, as it doesn't cost you anything"* [Female, 68, town].

"If I were paying I would be fuming if my friend didn't turn up to meet me - as I had paid - but now it's free I say 'Well: chin up! It's a nice ride" [Male, 79, small town].

Having discussed in the first section some of the potential effects of providing a free bus fare on the framing of the decision to use the bus, the next section moves to consider evidence on how, in some cases, actual use of the bus has changed as a result of it being free.

7.2.2 The Bus Pass and Destination Based Bus Use

A final change to the way the bus is used related to the reported increased bus use for touristic purposes. A number of respondents reported that they had seen many more new destinations since having a new bus pass, and that this had enriched their quality of life.

"*I go all over the place with my bus outings. We've been around all sorts of places: Lyme Regis is the furthest. We go once a month. We did a route down to Barnstaple through Minehead..." [Male, 75, small town].*

When questioned whether they would have made that trip prior to having a bus pass, most respondents suggested that they might have made it by car, but they

would not have travelled so often, and much more as part of a planned activity. Others would take an organised coach day out; a mode they suggested was less common now they could travel free by bus.

> "*Well I might have driven to Lyme Regis or taken the coach*
>
> *. I certainly wouldn't have taken the bus...I don't think I would be so casual about going so far though, if it were not free*" [Female, 74, city].

A number of core benefits of the bus in facilitating tourism trips were noted:

> "*Oh yeah I use it for tourism and I enjoy it. I always go upstairs so get the view over to the sea. You can see over the hedges; not like [in] the car!"* [Female, 61, city].
>
> "*You sit back and let someone else drive and can feel really like you are on holiday - and share the experience with all your friends*." [Male, 60, village].

7.2.3 The Bus Pass and 'Organisational Use'

Guiver *et al.* (2008) found that leisure trips are distinctly different to utility trips, with the former tending to be more discretionary in nature and of more intrinsic value. This distinction between utility and leisure trips emerged strongly in the focus groups; for leisure trips, the very same factors often associated negativity with the bus, such as journey time and length, actually seem to be advantageous to the tourist. In other words, the discretionary nature of the day out means that issues of punctuality and longer journey times are not perceived to be as important by some pass holders, if indeed not actually advantageous:

> *"…I mean... it will involve a couple of changes and going via Bath, but we've got all day... You know you're gonna be a long time getting there, but you don't mind making a day of it: if you don't have a deadline it doesn't matter**...**It takes me an hour, but it's a pleasant hour!"* [Male, 72, village].
>
> *"Because you're going socially, you don't mind. If you were going to a job you wouldn't want to sit there for an hour!*' [Male, 83, City].

However, this view of the bus was very different to those of others travelling for more time-orientated activities, such as a doctor's appointment, with one respondent reporting:

> *"Oh that bus is rather annoying - taking so long - as I cannot get there on time"* [Female, 77, city].

Indeed, other respondents felt even more negative about this.

> "*It's nice to go to Exeter by bus, but it's a too long a day. And if you've got mobility problems you can't stretch and get up."* [Female, 65, village]
>
> "*And if you go a long way there's an issue of loos. They don't have loos! National Express does. It isn't convenient*." [Female, 72, City].
>
> "*So if you just miss one there's nowhere to sit*" [Male, 68, small town].
>
> "*If I haven't got a lift, getting the appointment and bus in [the] right order is hard. You can have an hour wait between buses and then you have to see the doctor... How long is a piece of string?*" [Female, 88, town].

A further distinguishing factor between utility and leisure trips is that they tend to be longer distance and tend to be more likely to involve travel to an unknown area (Guiver *et al*., 2008). The issue of unfamiliarity was picked up amongst respondents, and the benefit of organised group activities such as those of the University of the Third Age meant they could be further afield without creating concerns about returning alone.

> "*The people are often on their own, and wouldn't do it on their own. They need someone to organise it. One lady has even marked on the sheet where is nice to have a cup of tea and where the nearest ladies [toilet] is*" [Female, 68, town].

In the focus groups, it was found that the increase in touristic trips could both be of benefit and detriment to the local bus network and indeed the local economy. Whilst the increase in tourist travel had in some cases increased the propensity to spend money in the local area (supported by Downward & Lumsdon, 2004), a potentially negative trend was noted, that some pass holders enjoy the bus so much that they reported simply staying on the bus from beginning to end, and then sitting on it until it returned again. In other words, the problem of 'bus blocking' emerges, not dissimilar to the concept of 'bed blocking' in a hospital. This has implications for the

private sector bus industry in the UK, which relies on seat 'turnover' to ensure the profitability of routes. A particular problem arises here that people do not get charged for their return journey as they are not asked to disembark and re-embark.

> "*We just stay on the bus till the end: I mean you don't want to get off really do you? I can't walk that well nowadays; we just want to see everything. We have our sandwiches and a paper and sit upstairs. It's like our own little private carriage*!" [Male,73, city].

The final finding of this section in relation to changing use of the bus was that some pass holders were now spreading out their bus trips over the day, and indeed the week, since having a free bus pass. In other words, whereas in the absence of free bus travel they would seek to make the most of a purchased bus ticket and combine all their activities in one day, now with the advent free travel they could spread them out.

> "*When I go shopping I can't carry too much, so every time I carry as much as I can, so I spread it out over the week*" [Male, 67, town].
>
> *"I couldn't afford to travel by bus every day before. I would have bought one ticket for one day and be done with it, but now I find myself just using it whenever"* [Male, 61, city].
>
> "*While we used to do is do four jobs at once, and now we might do two at once*" [Female, 77, village].

Other respondents reported that, because the bus was free to use, they could now split up their journeys during the day, for example returning home to have a sleep, or to drop off heavy shopping, and then venturing out again later in the day.

> *"When it was half-fare I used to do it all on Friday, now I do it every day. Also you can go more often. You can get...short time and then come again every day. I can't stand much so [I] do it in short bursts. And window shopping... I can look and think"* [Female, 77, village].

Having outlined changes in the decision to use the bus, the ways and purposes for which it is used within the context of the pass holders' daily lives, the third section of this chapter considers the benefits derived from using the pass, and ultimately the schemes' contribution to the quality of later life.

7.2.3 The Bus Pass and Travel Time Use

A strong theme emerging from the focus group studies was the wide range of activities that were now taking place since pass holders had their free bus passes. In particular, there was a sense amongst many pass holders of the increasing importance of the bus as a third social space, in addition to its role in transporting them to an end destination. For some the experience of being on the bus was even more important than the end destination itself, and indeed it was even a motivator for using the bus itself. The notion that travel to a given destination can be enjoyable is not new, with Mokhtarian *et al*. (2001) coining the phrase 'travel liking' to describe this very phenomenon.

> *"The bus is not so much about accessing somewhere as meeting people*" [Male, 84, village].

> *"It's the social side, you know, not just meeting friends and relatives, but travelling together and having a meal you wouldn't have afforded if you had to fork out for the bus"* [Female, 72, City].

> *"It's a good social event... You get to know people on the bus, local, like. And that's part of it. With the day centres shutting down - as they are to a certain extent - we can get out more and do what you want rather than have to go a day centre, so there's some social benefits* [Male, 62, small town].

The above quote in effect describes a type of mobile day centre, where older people can meet and interact with other people. Like a day centre, it could be argued that for some pass holders, the bus can provide for basic utilitarian needs, whilst also fulfilling Musselwhite & Haddad's (2010**)** higher level needs for social interaction, freedom and independence. A number of pass holders alluded to the benefits of the bus being an informal space as opposed to a space designed specifically with older people in mind.

> *"My daughter keeps telling me to go to the day centre to meet people as I get lonely, but that's for decrepit people, and they patronize you - the bus is different - you know - there's no embarrassment at hanging out here, especially as it is for all, regardless of how much they have in the bank"* [Male, 82, City].

This having been said, it is recognised that the bus is not the perfect environment for social activity, but that some pass holders are willing to overcome its negative aspects.

> *"I met my new best friend on the bus last year whilst off using my pass. It's not that the bus is especially comfortable: in fact, usually, it isn't comfortable. But you don't mind that do you, when there are such nice people to talk to?"* [Male, 60, small town].

> "*The vile smells of the engine fumes and the horrendous noise of the bus and that awful music played by 'the youngens' somehow are less noticeable when you're having a good old chinwag with your friends. And of course: because it's free!"* [Male, 83, city].

> "*I used to see the bus and think: 'well I've got to get to the shops, so I might as well take that annoying bus', but nowadays, since it's free... I mean, I quite enjoy the bus journey and all it has to offer*" [Male, 60, small town].

Furthermore, above and beyond the on board social element, there is evidence that having a free bus pass has allowed funds to be diverted to other activities that are providing benefit to pass holders as illustrated by the following respondents.

> *"Now we can say we'll eat out in [a] Wetherspoons pub, which we wouldn't have done before, but as it's free to get there we can afford it now"* [Female, 76, Small town].

> *"I live on a major bus route and have invested in some board games and we now have a weekly club at my place playing games. Nobody would have forked-out to come over if they had to pay - and I'd be embarrassed to ask them to anyway"* [Male, 67, village].

However, whilst the above quotes signify the potential role for social engagement and activity provided by the bus, it is necessary to paint the other side of the story. For some older pass-holding respondents with little or no car access it emerged that, whilst they agreed that the bus is amenable for others to socialise with each other, but they felt unable to take part in that social activity themselves.

> "*All those youngen pass holders are quite sociable: I see them propping themselves on the edge of the seat and chatting to all and sundry. The most social even go on the top deck, but I can't hear what they're saying, and I get*

headaches if I keep turning around. And anyway, they talk about where they're going next week on day outings: I'm too old for that now anyway!" [Female, 90, rural area].

Other pass holders reliant on the bus expressed severe difficulty in carrying heavy shopping and negotiating the ramps of the buses and waiting at the crowded bus stop, suggesting that the social benefits and enjoyment of bus travel are not the case with all pass holders.

"*It's free but its hard work. I have to use it, but I don't enjoy it. Can't wait to get home to a nice cup of tea. It's strange that she [pointing] enjoys bus travel; I find it hard work!"* [Male, 78, city].

7.3 The Nature of Bus Travel

It is helpful before embarking on in depth discussion in this section, to unpack the way the term 'bus use' is employed within this chapter, with the term having three distinct, but interlinked meanings. First, it can refer to '*use***'** of the bus in terms of purpose for the journey. This is referred to as '*bus purpose'* within this discussion. Second, it could refer to '*use*' of the bus in terms of how it use fits into the daily lives of pass holders, referred to as 'bus usage' within this discussion. Third, it could refer to '*use*' of the bus in terms of the activities that take place on board and the benefits derived from this- referred to as 'onboard usage'**.** Having defined this key term within the chapter, we take each in turn and discuss how it may have been affected by the provision of a free bus fare.

First, relating to bus purpose, it was found that **some pass holders reported experiencing difficulty in categorising their concessionary bus trips into the broad trip purposes** that are typically used within such surveys (those of shopping, social, recreation and work). This indicates the inability of the survey data alone to capture the complex reality of multi-purpose bus trips. This difficulty was illustrated by one respondent who had just recently completed a travel questionnaire and commented:

"Well...I suppose I would put down shopping on the survey form, but in truth it's more of a social thing... so it's not that accurate really" [Male, 78, small town].

Stopher (1983) suggest found survey respondents tended to group together smaller trips in their minds, each which may each have different purposes, and describe them as one single trip. Thus, it could in fact be argued that the trip purposes identified in the survey actually represent the best-fit category of an increasingly wide range of bus-using activities and purposes, some of which the respondent may not even think to report (Clarke *et al.,* 1981). It is argued that the trend of mixed-use developments and retail agglomerations containing a mix of different types of retail outlet and cafes has arguably contributed further to these blurring boundaries of trip purpose (Fox & Sethuraman, 2006) as hinted at by another respondent:

"I don't know why I use the bus since it is free...I do some shopping in the Mall and then go to the cafe with my wife - what should I put for that on the survey?" [Male, 67, City].

This relates to another core finding from the focus group - **that sometimes pass holders reported having different 'levels' or 'categories' of bus trip making, and reporting using different modes to fulfil these varying needs.** For those without access to a car, for example, it was common for respondents to report that their first trip by bus was more 'functional' in nature, with subsequent trips becoming more leisure orientated. For those with car access, the trips they reported making by bus were often more 'leisure based', as they could fulfil their primary trips using the car. Interestingly, in both cases, the less 'functional' trips tended to be seen as those that have been most facilitated by the free bus pass, and sometimes would not take place in its absence:

"If it was more the second or third time out on the buses we would get a coffee or chat – it's a different level! You know... get the important things out of the way first like...I wouldn't go three times if I had to pay!" [Male, 65, small town].

"I know of one couple who come into town twice a week and once they use their own car to do heavy stuff and once they take the bus for more social activities..." [Female, 88, city].

For other respondents - as a result of the pass being free - there was a feeling that they didn't necessarily have nor indeed need to state a specific trip purpose for using the bus, as illustrated by the following respondents:

> *"Now it's [the bus is] free I couldn't say… my main reason is for kind of shopping, but I don't really actually physically shop so does that make it recreation? But does it matter anyway as it's free"* [Male, 65, town].

> *"Since I get it for free [the bus], I tend to not to think so much in terms of why I'm travelling, but instead I think what can I do using the bus today?"* [Female, 67, town].

> *"I don't really have a specific reason for using it. Do I really need to? It could be all of those categories"* [Female, 65, village].

Indeed, the language used by some pass holders insinuated a discrepancy between the formally recorded trip purpose and the actual purpose of the journey. Such phrases included respondents reporting '*coming up with a trip purpose*' and '*getting a purpose down'*. It should be noted that some participants in rural areas with less access to regular bus services felt unable to travel by bus without a specific purpose in mind. They commented on their desire to use the bus in this way, but due to timetabling constraints relating to the return journey, some had to plan their trips extensively, and thus consequently tended to conduct more purpose-driven trips:

> *"When you don't have as many buses you stick to a specific purpose, as just roaming here and there just would not be funny if I can't get back [home]...I mean If I only have an hour in town before the bus comes to take me home I need to make the most of that hour"* [Male 65].

> *"I usually use the bus for a specific activity like shopping, or going to the doctors. I don't have [a] car you see. Living out here in the sticks like you need to be pretty organised as there aint many buses, no point going on a whim is there?" [Male 80]*

In summary, the research has found that - in part due to offering a free bus pass - it has become more challenging (or indeed arguably less necessary) for some pass holders to categorise their trips into specific trip categories, suggesting the role of the free bus pass in encouraging the type of trip that is multi-purpose or indeed not driven by an activity at the end destination. Such trips can be argued to have clear benefit to some older people, as these are the very trips that in older age tend to be

given up first, for example, there is often a sense of embarrassment at asking for a lift for such trips (Davey 2007). This aspect of activity flexibility in the nature of trip making is picked up in the next section, which discusses the changing 'bus usage' within the context of the pass holders' daily lives, for example unpacking the finding that since having a free bus pass, pass holders' bus trips have in some instances become more spontaneous and impromptu than when they had to pay a bus fare.

Evidence was found in the focus groups that, as a result of buses becoming free for pass holders, some (mainly those living in areas well served with buses) described an increase in the instances of spontaneous, unplanned trips involving the bus. Often these were associated with avoiding the experiences of loneliness and depression that were sometimes reported by some pass holders when staying at home for prolonged periods.

> *"I use it [the bus] when I get fed up*" [Female, 65, village].

> "*I just jump on and go anywhere if I have a spare few minutes*" [Male, 75, town].

> "*You just take yourself off and go - because you can and it doesn't cost anything*" [Male, 85, village].

At first sight, this finding seems to challenge the conclusions of previous research which have suggested that the bus is typically perceived by some older people to be less suitable for impromptu and unplanned trips, due to the nature of the fixed, scheduled, trip it offers (Metz, 2000; Banister, 2003; Stradling, 2003). Upon further investigation, however, respondents in the focus groups revealed that such trips were not necessarily entirely 'spontaneous' as such, but rather 'spontaneous' within the confines of the limitations of the bus. The following quotes help unpack this finding. This suggests that, perhaps more accurately, it is more that bus using behaviour has become more spontaneous, rather than the decision to travel per se.

> *"Well ok, I call them spontaneous trips but, like, you can't go when you want, but there are loads of different routes to choose from"* [Female, 73, City].

One respondent even went as far as coining the phrase *'bus roulette'* to describe the situation of arriving at a bus stop and deciding where to go on that day at random based on the next bus. It is interesting that this conjures an image of a

game or challenge and implies some degree of excitement at the unknown end destination.

> "*One lady who has no money, no car and catches whatever bus to wherever. She has no relatives and no friends. You see her and say where are you going? She says I dunno I'll go on this one today. I call it bus roulette*" [Male, 63, small town].

The ability to undertake spontaneous trips is widely identified as a key attribute to maintaining an acceptable quality of life in older age (e.g. Davey, 2007), hinting that the pass is intrinsically linked to the pass holder's feelings of freedom and independence; a finding illustrated by the follow respondent's comments:

> *"Now that we can just hop on and go; go here, there and everywhere, I feel like I've been given a new lease of life. I mean, I'm more free [sic] now aren't I?"* [Male, 83, small town].

> *"You know, it doesn't even cost me a penny, and it does me the world of good; hopping on here and getting off there. Gets me out of the house"* [Female, 65, city].

The evidence provided so far points to a perceived benefit of holding a pass, above and beyond the functional aspect of reaching an end destination, a theme that is developed in the next section that explores the changing nature of the onboard bus environment as a result of having a free bus pass.

7.4 The Bus and the Car- A Changing Relationship?

This section presents three core arguments stemming from the data relating the effect of the free bus pass in altering the decision making process by which pass holders decide to use the bus. First it finds that the free bus pass may have potentially altered the bus/car relationship. Second, it is argued that some pass holders are using the bus more specifically because it is free, and would respond differently if even a small fare were applicable. Finally, we find that having the free bus has allowed some pass holders to mentally justify trips which might appear 'trivial' or purposeless, but actually provide significant benefit to older people.

Many pass holders in the focus groups naturally tended to compare the bus experience with that of driving the car, particularly car-owning pass holders. In contrast to previous research suggesting that travel by bus can sometimes be perceived as inferior to the car (Guiver, 2007), for some pass holders, having been introduced to the bus and stimulated to use it as a result of it being free, they actually found it more convenient than using their car in certain circumstances. This suggests that a key potential of the bus pass is to introduce previous non-riders to the bus, who could then be captured by its amenability to some of the needs of the older traveller, as illustrated by a number of respondents who commented:

> *"The less you drive, the less you want to*" [Male, 68, City]

> *"…Before my pass was free I thought that many trips were easier by car, but since free travel I have tried it a few times and I'd be more inclined to leave the car behind*…" [Male, 72, town].

> "*It's [the bus] more relaxing than driving"* [Male, 65, town].

> *"Someone else is driving and you're more leisurely... that's relaxing!.I drove to Weston every week but it's such a good service and drops you where you want to go and of course it's free!"* [Female, 68, city].

The above quotes imply that the free bus pass has had an effect of allowing some car drivers who were driving only due to the expense of the bus previously, to drive less since having a pass. Some pass holders commented that driving was becoming increasingly difficult in certain circumstances such as in congested town centres, but with the pass they could keep the car, yet use the bus for times when driving was less desirable or perceived as problematic. Conversely, for pass holders with access to the car, it was felt that the bus could not fully take over its role in all respects, but was more acceptable as part of a package of a combination of modes:

> *"Giving up the car I couldn't do half of what I can do now: the bus pass doesn't match up with what I want to do*" [Female, 85, village].

> *"I look at each activity and see whether to take the bus; also what I am doing afterwards. If I've got two or three things to do the bus simply isn't convenient*" [Male, 72, town].

"I couldn't do without the car: it's a mixture of the two I think. I'm glad I got my bus pass as I won't lose my independence altogether, but having no car will go a long way to losing my independence" [Female, 61, town].

Some evidence was also found of pass holders either seeing the free bus pass as an opportunity to give up the car to save money, as well as avoiding the worries of driving. But conversely, other pass holders argued that they could use the money saved by having free bus travel to justify keeping and maintaining a car. These contrasted views are brought out below:

"Now I have free bus travel I don't need a car: I gave it up... and all the costs and worries of it breaking down and all that" [male, town, 77]

"NO! I strongly disagree! I am the opposite: I can only afford to keep my car and use it for important journeys, where the bus is no good, because I can travel for free by bus the rest of the time. Money doesn't grow on trees you know!" [Female, small town, 68]

As well as reports of pass holders using different modes for different trip contexts, it emerges that there were some instances of multi-modal journeys involving the bus that would not have occurred if it were not free. These particularly related to some pass holders desire to overcome the difficulties in travelling between the bus stop and their homes. This suggests that, since bus use was free, pass holders are more likely to expend effort to overcome the traditional difficulties of accessing bus services. The second respondent below reported driving her husband to the bus stop so he can then go into town, which she wouldn't have done before it was free.

"*I get a taxi to the bus stop and then the bus into town. It's a long way to the bus stop. And the benefit is having a free bus pass I don't have to pay for the taxi all the way!*" [Female, 60, village].

"On Saturday I bring the car down and drive him to the bus stop and he gets the 10.00 bus and goes for coffee" [Female, 61, town].

This section has suggested that having a free bus pass has in some cases led to changes in the car/bus relationship, in terms of its ability to stimulate modal shift and reduce the need to drive where it may be less desirable. Finally, since becoming free, some pass holders appear to have exerted more effort to overcome previously perceived barriers to using the bus. The next section moves to consider more subtle changes in the underlying mechanisms relating to the decision to use th**e** bus.

7.5 Benefits of the Scheme and its Quality of Life Contribution

In common with the survey's findings, the vast majority of pass holders felt that the free bus pass had contributed to their quality of life. There were a few pass holders who could not access the bus at all due to their not being a service, or being unable to get to the bus stop who did say that the pass had had little effect. Interestingly, respondents found it difficult to articulate specifically how the pass had contributed to their quality of life. The focus group participants were asked what the term 'quality of life' meant to them, and specifically how the concessionary bus pass contributed to their quality of life. The following respondent commented:

> "*quality of life is a bit like the opposite of quantity of life I guess [..] I mean you could look at some of my older friends and it looks like they're sorted in "number terms" in their posh houses and they have a bob or two I know, but they're not happy and don't have anyone to talk to. They say money doesn't make you happy don't they?"* [Female, 67, City].

This view emphasises the challenge of amalgamating objective and subjective aspects of life quality, making the case to understand more about the character of pass holders' lives, rather than facts and figures. It inherently implies that whilst poverty and deprivation are outward signs of a poor quality of life, quality of life itself is felt and experienced from the inside. Similarly, it emerged that simply taking an objective view of the concept sidelines the way in which people attach different values to different aspects of their lives, as explained by another respondent:

> "*When you think about it, people have different ideas about what is 'quality'; for example, a loaf of bread and whether it is worth paying for that or spending the money elsewhere. Maybe they are not concerned about [the] quality of their bread but want a quality car - surely that's their decision and who am to say they are excluded?"* [Male, 87, small town]

However, from these more abstract meanings of quality of life, attention turned to explore the practical contribution and meaning of the term. Much evidence was found in the focus groups that the concessionary pass meant some pass holders could avoid the isolation, loneliness and boredom that might be encountered by some due to fewer opportunities to get out and about, in accordance with previous

findings (See Gabriel & Bowling, 2004; Ureta, 2008). Indeed, for some pass holders the bus pass meant making the only trip out in their day.

> *"For anyone short on income there's no need to sit at home being miserable...they can think: 'Right! I'm going to take a bus ride because it's not going to cost me' "* [Female, 77, city].

Respondents in rural areas felt less able to 'get up and go' due to the lack of regular bus services and fears of returning home safely. The pass was mentioned as 'allowing' travel, suggesting that in some senses before the pass they didn't feel allowed, or able, to get out of the house. This in turn suggests that some of the benefits of the concessionary fares scheme should be framed in terms of what is being avoided, and the purpose of travel is based on avoidance rather than facilitating or accessing, as illustrated by the following quotes:

> "*It allows me to get out the house… Instead of sitting on the sofa I can jump on the bus and see the sights*". [Male, 66, town]

> "*It does improve my quality of life; yes [...] It's a way of escaping the horrible house I live in at the moment. No-one comes and takes me out you see- I live alone".* [Female, 64, village]

Similarly, other respondents commented on the avoidance benefits of having and using a pass, in other words aspects that people can avoid by using their free bus pass, with evidence of the perceived positive benefit of having a concessionary pass in:

> "...*not having to drive, especially in the winter and dark*"; [Female, 61, town]

> "*Having someone else to drive me like a chauffeur*". [Female, 81, town]

Although the research is unable to ascertain how important this finding is at the population level, it was identified that, in general, more female focus group respondents highlighted the benefits of not having to drive and being chauffeured, whereas some of the male respondents reported negative attitudes to this: that it affected their feelings of independence, particularly amongst those who had just given up driving. One female respondent replied adding:

> "*...I love being chauffeured around with the free pass, but maybe I am use to that; I always used to get a lift with my husband when he could drive. Anyway, I hated driving. But my husband, well, now he's given up driving he*

can't see the joys of being chauffeured and...driving - you see he liked driving - and it gave him some identity". [Female, 77, Small town]

Indeed, other respondents noted a difference between themselves and their husbands, with one adding:

"*My husband loves staying at home: pottering in the shed and over the garden fence, and he doesn't get bored, but I love getting out the house and talking to other people. It's a woman thing maybe?".* [Female, 88, Town]

The evidence from the focus groups suggests that, rather than improving quality of life in all cases, in some cases the concessionary pass can help maintain a quality of life which is likely to become increasingly difficult, as illustrated by the following respondent:

"*The pass doesn't really improve my quality of life, but helps me maintain it and stop it deteriorating as it probably will, as I get older, when I gradually give up my car*". [Female, 63, village]

This suggests that the pass assists some older peoples' quality of life in a more gradual way and is a tool that can be activated when needed, rather than a panacea. This calls for an evaluative approach that moves from looking at benefits on a trip-by-trip basis to one that understands the holistic overarching benefit of the pass in the context of a total of all the trips across a period of pass holders lives. This was also found when one respondent argued that, whilst on a trip per trip basis they could afford the fare, the cumulative cost over a month of travelling by bus was perceived to be relatively high, adding

"*Well of course I could afford £3.20 for the fare, but if I did that every day that works out at...well a lot per month*!", [Male, 66, Village]

However it was clear that for other pass holders these comments were perceived as slightly patronising to some older people, particularly those who lead more active lifestyles. They tended to disagree that they would feel lonely or isolated in the absence of the concessionary bus pass, but nonetheless reported that would have a different lifestyle if there were no pass. In other words, the contribution of the pass is perhaps not avoidance of boredom, but rather the pass has facilitated activities that might be less convenient or less likely to be undertaken without a bus pass. Thus the pass could be conceptualised as a springboard that can facilitate better things.

"*I don't agree at all that I'd be sitting at home moping about [if there were no pass]. I would still be involved at church and doing the volunteering at the charity shop down Little Street, but life wouldn't be as fun would it?"*. [Male, 67, town]

"*The benefit of the free bus pass is the ability to take up routine activities, rather than the specific benefit of this particular trip. I can now take my weekly dance class without worrying about having to pay to get there*". [Female, 63, town]

"*The bus pass makes me feel part of this big club. When we see other card holders we give a quick wink and smile: they're one of us!*". [Male, 67, village]

Subtly emerging from the focus groups is a new ideological perspective on bus travel. Gorz's work (1979) describes the way in which the car became far more than simply a mode of travel: it was seen as "*a mechanical embodiment of the dominant political and cultural ideology in the latter quarter of the 20th century – capitalist values of individualism, equality, freedom and progress*" (Gorz 1979). Likewise, a subtle argument emerges that the concessionary bus pass may have had the effect of changing the way the bus is perceived ideologically and has become to some extent the plastic embodiment of those very same values. This would suggest that the contribution of the policy to the social exclusion agenda extends beyond simply the physical trips being undertaken and their resultant benefits, to cover changes in the feelings associated with older age and the identity of older people in society.

7.5.1 The Relative Nature of the Benefits

Within the focus groups respondents were asked to discuss the benefits of the concessionary pass and its contribution to their quality of life in relation to other older age benefits and entitlements that are (or in some case might hypothetically) be available. The following benefits were discussed and the order of preference is stated below.

Free prescriptions

Free bus pass

TV licence

Winter Fuel allowance

Free swimming

Free mobility aids

Free bicycle

Perhaps unsurprisingly, free prescriptions were always almost put at the top of the list of priorities (with a few exceptions); perhaps a reflection of the way in which basic health is seen as more important than travel by many, particularly with those currently requiring medical attention. This relates to Musselwhite & Haddad's (2010) hierarchy of travel needs and experiences, which shows that more basic needs must be fulfilled before higher level needs can be realised. In addition, free prescriptions were seen as more universally applicable as a benefit, as illustrated below:

> "*Free healthcare and prescriptions has got to [be] more important than the free bus pass. I mean, we are all coming to an age where we need more products and at £7-odd a time it's dear isn't it?*". [Female, 78, small town]

> "*Well the bus pass is good for those that can use it - and I love it - but health care is far more important than that*...". [Male, 67, City]

> *"What would be more acceptable to deny an older person, some drugs or travel by bus? The answer is quite simple I think*". [Male, 87, town]

However, interestingly, when asked to calculate the actual amount they would have to pay in the absence of free prescriptions compared to free bus pass, even when the bus pass would offer more financial benefit it was still felt that prescriptions were far more important, perhaps suggesting a forward-looking approach to ageing in later life. In other words, many pass holders agreed that whereas, as they got older, the pass would be of decreasing importance, prescriptions were seen to be more likely to be needed.

> "*Whereas the bus becomes increasingly less easy to use with age, and so less money would be saved, I guess with the prescriptions we would be requiring more when we get older and have less money, so that has to be better for us.*" [Male, 67, town]

Conversely, free swimming sessions (a former Labour Government policy) and other free products such as mobility aids and bicycles were seen as less attractive in relation to the other benefits, as they were more specific and less generally applicable to older people. Furthermore, it was suggested that, whereas such schemes offered a one-off payment or product, all the others offered ongoing commitment to older people on a monthly basis, or as they needed them. In other words it was found that, in the minds of some pass holders, the concessionary bus pass symbolised that the government cares for older people, and attempts to remove it could be detrimental to this sense of care.

> "*Simply buying us a bike, or something like that, is a bit like just buying a child a toy to make them happy. What we really need is ongoing commitment to show that they care.*" [Female, 67, town]

Free TV licences and the winter fuel allowance were typically in the middle of the spectrum of favoured policies, as they provided less economic benefit proportionally speaking, but were nevertheless seen as very important schemes. Interestingly, a number of respondents commented on ways of ensuring those who need the winter fuel allowance do receive it, yet when it came to the bus pass, this was seen as somehow different, perhaps in part attributed to the lack of understanding of the scheme. Whereas a money-based scheme was seen as a clear cost, the bus pass is seen as free, and it is assumed no payment occurs.

> "*They should say who it [the winter fuel allowance] is going to [...] Oh but the bus pass is different: that's not a cash payment, and anyway no one pays for that do they?" [Female, 87, town]*

> *"Well, that's different, that is a sum of money which should be means-tested, but this [the bus pass] is a service, which you can't deny to some and not others. It's different, isn't it?"* [Male, 68, Town]

It became evident that for some pass holders the pass offered a benefit and had a value above and beyond simply its monetary value, contributing to feelings of

autonomy and freedom. When asked whether a simple addition to the state pension would be the same as having a free bus pass, one respondent responded:

> "*No way! It's not the money that matters, but the pass symbolises my freedom and independence...The pass gives me freedom: I flash that pass and it opens up a whole new world. Paying for tickets would be a hassle for me to find the change and in a rush."* [Female, 63, small town]

7.6 Pass Holder Misconceptions and Misunderstandings

Linking to this, a number of other misunderstandings and misconceptions of the pass were found in the focus groups, which may reflect and potentially alter pass holders' opinions about the scheme and indeed their use of the bus. First, it was found that some pass holders did not always realise that their use of the pass had a cost associated with it[31]. This meant they felt they could use the pass without costing society any money and some suggested they would use it differently if someone were paying.

> "*It's great. It's completely free. I mean no one pays for us do they? And they have spare seats, so we are all a winner.*" [Female, 77, village]

"It *doesn't matter how much we use it, does it? I mean it's all free*!" [Male, 65, village]

> "*Oh! I didn't know that the government is paying for some of these trips. Now I know this I feel guilty: I thought it was free and that's that!*" [Female, 63, city]

A further consequence of not being informed of the exact nature of how the scheme works was that they did not see the broader societal opportunity cost of the scheme and its effect on other public services. As such, this meant that they did not evaluate the scheme against other schemes that they may use, and could be cut in times of financial austerity in order to preserve CFP. Upon realising the possibility that funding for the scheme may mean that the local library would be forced to close,

[31] Whilst under current reimbursement procedures only generated trips are funded, the general principle is that each additional trip could cumulatively amount to increased cost

one respondent reported actually feeling ashamed and embarrassed. This was treated sensitively and in line with the research's ethical procedures the subject was rapidly change to avoid unnecessary distressed. Because they had not realised that there was a cost involved, it affected the way that they compared the policy to other things. One commented:

> *"Really? I thought that we were just filling up empty seats that travel anyway. I would give up my seat for a paying customer otherwise. I mean they deserve the space* ***more*** *really, don't they."* [Male, 61, small town]

> *"Oh dear I feel bad now that we, as oldies, are causing the library to close. I mean... I like travel by bus, but if it means no more libraries then is it worth it? It makes you think, doesn't it? Maybe I should use it less?"* [Male, 61, town].

Conversely, however, other pass holders, whilst recognising that there was a cost involved, felt that by using the bus they were keeping bus companies afloat and "*doing a good to society*" Whilst in the broader sense of things this may be true in some cases, as Concessionary Fares policy has halted the decline seen in previous years in demand for bus travel, the fact that the government is paying for this weakens the argument. This, in turn, actually encouraged some pass holders to use the bus more, so that it would not be taken away; arguably a perverse incentive to use the bus more.

> *"They wouldn't be able to keep the buses running if we didn't fill them up. So a lot of people wouldn't get this once a week or whatever."* [Female, 61, town]

> "*What worries me...I'm quite happy to pay if the service would fail and stop running as they wouldn't make any money."* [Male, 66, city]

In times of financial austerity, where priorities need to be made on potentially equally useful schemes, a fuller knowledge of the implications of the CFP may affect the way pass holders use the pass. Taking into account these misunderstandings, particularly relating to the opportunity cost of offering the scheme, the next section discusses pass holders' views about potential changes to England's concessionary fares policy.

7.6.1 Potential Changes to the Policy: Pass Holder Views

The issue of pass holders' attitudes and perceptions of the potential changes to the policy has been little researched previously. As might be expected, there was a real and genuine concern that the government was going to remove the pass on grounds of financial austerity, and a consensus that this would be detrimental to the health and wellbeing of older people.

> *"We will fight this. I am terrified that that they'll take it [the pass away]. That would mean lots of our lives would be affected - especially those who have no money"* [Female, 67, town].

Pass holders were asked to comment on alternative hypothetical versions of the concessionary bus pass scheme and possible amendments to it. The first related to means testing. There was mixed opinion as to whether it should be a universal entitlement or should in some way be related to income. In part it was felt that it older people's right to have a concessionary bus pass, and that the benefits it provided to all, regardless of income meant that there was no stigma attached with using the bus pass. It was felt that this stigmatising could deter older people from using the bus and thus not allow access to the extended benefits mentioned throughout this thesis. Thus it would not only restrict travel, but the ability to access higher level needs.

> "*Whatever money you've got it by your own means such as working. It's not fair. It's a free pass it's for everybody!"* [Female, 87, Town]

> "*The joy of the pass is that is for all us oldies to use whenever and however we like. That way there's no stigma- imagine if it was just for poor people. You'd look at them and go you poor old dear"* [Female, 61, village]

However, other respondents believed that there should be some form of means testing to avoid "*Lord and Earl so and using the pass from his manor*". Another added:

> "*What annoys me is all these people with big cars use it. There's a car in the driveway. I mean it's not on!"* [Female, 77, small town]

The next policy reform discussed was a return to the half-fare regime previously in place. The majority of pass holders within the focus groups, as previously

discussed, felt that the free pass, as opposed to a half fare provided many more benefits to them, and that many people would still struggle to pay the half fare, relating back to the cumulative cost of bus travel over, say, a one-week period. However, others felt that the zero-fare scheme had had negative consequences and some would prefer to go back to half-fare scheme, as illustrated by the following respondents:

> *"I'd rather pay half fare. When you get on a bus with everyone you can't see anything. People stood in the gangway...People in the gangway are on your shoulder every time you turn a corner. I'd rather pay and there'd be less people...and I would probably be able to get on with my zimmer!"* [Male, 61, small village]

> *"I don't know if any of you agree, but I think the pass should be half price, not free like before. Like children. I mean, before this bus pass we used to be able to get half fare and get [a] £3 all-day ticket anywhere. That was OK. We got people on there but it wasn't packed like it is now! They use it a lot more because it's free."* [Male, 61, village]

However, research shows considerable discrepancies between pass holders being willing to pay and actually doing so (Murphy *et al.,* 2003). The quote suggests that comfort on the bus is of paramount importance and can prevent some of the higher level activities taking place. Indeed there was a sense that some pass holders were concerned with 'dirty windows' and 'lack of seating' as these were an integral part of the informal environment that facilitated its use for these functions. The problem was particularly noted in the afternoon peak, when the two different groups of travellers coincide. In particular this relates to the sense of some older people of their increasing ailments making it harder to cope in the busy bus environment in terms of navigating their way.

However this was quickly rebutted by others, who felt that this was a '*slippery slope'*, and that once they had given free bus travel to older people they could not really take it away without damaging the relationship with the public.

> "*They should have thought of this before. I would be happy to pay half fare and always was, but now, having had it for free, when they say they might*

take it away I feel like... saddened like. They [the government] don't care or are stripping us of our freedom pass." [Female, 60, town]

Another proposal that was put forward to pass holders was that of a smart card that could potentially limit the number of trips allowed per week and thus place a limit on the overall cost of providing the scheme. Respondents were quick with concerns about technology: how to top the card up, and the uncertainty about the card, and also the fear of not having enough money.

"*I can't use that new fangled card thing. It's a new world and how am I supposed to work that out*?" [Female, 80, village]

"So how can I tell how much money is left? Does that mean I have to plan my trip before, work out the cost and then have enough? Can I pay the difference then? I don't even use the pass that much so will it make things just too complicated?" [Female, 69, city]

"I mentioned my spontaneous trips...well I wouldn't be able to do them! [Female, 67, town]

Thus, this evidence shows that a move to any complex system would involve the need to gather lots of informal information, such as how to top up, that is not part of the formal information provision of many larger operators. This could be compared to the ATM cash card problem that, whilst it is faster and has many benefits to the bank and the users, some older people prefer to use the till or kiosk.

"*So I don't do technology- I'm still queuing up at the bank - that's the way I like it thank you very much!"* [Male, Small town, 77].

7.7 Chapter Summary

The qualitative phase of this research has unveiled that the provision of free bus travel through England's Concessionary Fares policy has fundamentally altered the market for bus travel amongst older people, above and beyond simply its ability to increase the number of trips being made by bus, thus highlighting the complexity of measuring behavioural change in relation to the pass. The chapter began in earnest by suggesting that having a free pass has affected the trip purpose of bus users- both in terms of it offering the opportunity to remove oneself from the pressure to have a specific identifiable trip purpose when paying, but also in offering flexibility to

use the bus for marginal trips that would not have taken place, but nevertheless are perceived as important to some older people. Indeed the pass seems to have changed the ways pass holders use the bus, in terms of allowing more flexibility in terms of trip chaining, splitting of trips and has even led in some cases to new spontaneity in bus behaviours such as bus roulette, and '*destination-less travel'*. The implication of this is that for many pass holders the specific benefit of the pass is not necessarily related to the bus trip per se, but rather the activities and opportunities that arise from the fact that it is free and facilitates changing uses. Thus, with this in mind, the bus pass has an effect and benefits above and beyond simply increasing the demand for bus travel and, conversely, the removal of the pass would have an effect above and beyond simply reducing the demand for trips by bus.

The story continued with an exploration of the 'place' of the bus as being suitable as a hub for social activity and interaction with others, making the bus particularly amenable to leisure trips (but also some utility trips), with the act of taking the bus becoming part of the overall experience itself. We witness a shift towards a desire to maximise and enrich travel by bus, compared to younger people's assumed desire to minimise travel time and make it more efficient (Mokhtarian *et al.,* 2001)

Taking a step back from the tangible changes in bus use, some of the theoretical elements of the research, purporting to the changes in the decision to use the bus were examined, with it found that being free as opposed to even a reduced fare was conducive to use above and beyond that they would have done and allows seemingly 'trivial' trips to be justified. The chapter concluded with comments on the alternatives to the bus pass and options for reform, highlighting a number of pass holder misconceptions and misunderstandings that if rectified could alter pass holders' decision making processes. The chapter has found that, as well as generating bus uses and travel beyond that simply attributable to a decrease in fare, the scheme has provided benefits above and beyond that of simply travel by bus. Having outlined the results and analysis of the qualitative factor the final chapter synthesises the findings and relates them back to the literature and policy debates and discusses the implications of the findings for the future direction of Concessionary Fares policy.

Chapter Eight: Discussion & Analysis

8.1 Chapter Overview

The two preceding chapters of this thesis have presented and analysed the core findings of the quantitative and qualitative phases of the research. This penultimate chapter now seeks to interpret the relevance of these findings in relation to previous literature and the specific research questions at the heart of the Thesis. The chapter is divided into three sections. The first section discusses two characteristics of pass holders that have been found to make them more likely to respond to the provision of a free bus fare - namely age and car access. The second section discusses and interprets the research findings relating to previously undocumented changes in pass holders' bus using behaviour since getting a free bus pass, in doing so, making the case for an evaluative approach that considers the wider (non trip increase) related benefits of providing free bus travel. In particular, it highlights changes in the organisational use of the bus, as well as the on-board activities taking place on the bus. The final section draws together these findings to discuss varying ways in which providing a free bus pass has the potential to contribute to pass holders' quality of life and what this means for pass holders, before drawing out key policy implications of the research findings. By way of a reminder, the four specific research questions at the heart of the research are:

- *In what ways have concessionary pass holders' use of the bus changed since being provided with a pass and why?*
- *What is the nature of these benefits derived from the bus travel generated by the scheme?*
- *To what extent has the policy contributed to an improved quality of life for eligible pass holders?*
- *What policy implications can be made based on the findings of this research?*

The chapter first turns to discuss the influence of age on pass holder responsiveness to a free bus pass. Given the particular growth in the 'older old' segment of society and the increased longevity, this is seen as highly relevant (e.g. Wise, 1997).

8.2 Age and Pass Use

Much research has noted the substantial differences in the characteristics and travel behaviour of the over 60's as an age group, with increasing recognition of there being greater variation amongst the over 60's group than between this age group and other age groups (Dannefer, 1988; Calasanti, 1996; Morgan & Kunkel*., 2011)*. Indeed, existing research shows that on the whole mobility levels tend to decline the older a person becomes, with Noble and Mitchell (2001) describing this as a gradual process, meaning that by the age of 80, on average people make 50% fewer trips than those aged 50-54. This links with research showing that use of the concessionary pass also decreases considerably with older age (Last., 2010; White & Baker, 2010, Rye & Carreno, 2008; Benwell, 1979; Robbins, 1990). A full discussion of the various reasons for this declining mobility is contained in Section 2.4, however in summary, an array of literature has previously identified the physical, cognitive and perceptual barriers to taking the bus, which are more likely to become an issue as a person ages (Schwanen & Dijst, 2002; Metz 2000[32]). Metz (2000), through his description of the bus as a series of consecutive steps from getting to the bus stop to boarding it to getting off, also infers that the older the pass holder gets, the more likely they are to be overcome by one of these barriers. For example, it is recognised that sensory impairments can accentuate the problems that might be anticipated during a busy bustling environment, and slower reaction time can lead to stressfulness, particularly when unexpected events such as a bus not turning up occur (Liddle *et al., 2004*).

This having been said, whilst these factors are important and valid barriers to taking the bus, given the nature of an on-board bus survey, which by its very nature has interviewed those who are already at least potentially able to use the bus to some degree (and presumably have overcome some of these barriers), the focus of attention is more specifically on how age can influence a pass holders' responsiveness to the provision of a free bus pass. In other words it asks the question 'what factors make it more likely they will report making additional trips?'. **The research found that older pass holders (70+) tended to make a greater number of bus trips on average compared to younger pass holders, but were simultaneously less likely to have reported increasing their use of the bus since it became free** (p96). This section offers four possible interpretations of

[32] See Page 34 for a full discussion

these findings and draws out its policy relevance.

The first possible explanation for older pass holders being less likely to increase their bus trip frequency in response to provision of a free bus ticket relates to bus service availability, and pass holders' ability to use it (Benwell, 1976; Metz, 2000). At first glance this may seem rather an obvious statement, but it is one that is worthy of further exploration. A higher percentage of older (70+) pass holders reported having a trip origin in a rural area, which may be typically characterised as having lower levels of service and being less frequent, and so this group may be disproportionately affected by the availability of buses (also found by Carp, 1971; 1980). Indeed, previous research shows built environment and bus availability to be major influences on bus use (Pushkarev & Zupan, 1977; Kitamura *et al.*, 1997). This was confirmed within the survey finding that those commencing their journey within the city had a statistically higher likelihood of reporting increasing their bus use compared to those who started their trip in a village. Furthermore, within the focus groups, a number of respondents expressed a desire to increase their bus use, but were unable to do so due to lack of service regularity.

Another possible reason for the lower trip increase rates of older pass holders is that many of the trips younger pass holders reported making in the focus groups were of a touristic/ leisure nature, which were often also longer trips. Such trips were found to provide the ability to get out of the house, and as such were often more flexible and unplanned by their nature. Moreover, the research found that such trips had additional barriers which particularly affected the older pass holder. These included incontinence, the fear of being too far away from an unknown environment, and the fear of not knowing where to go to get the bus back (See Norton, 1980). Such concerns represented a breakage in the link of micro activities that needed to be achieved to take the bus (Metz, 2000).

Musselwhite & Haddad (2010) suggest that whilst older people are generally content with the official timetabling information provided by bus operators that allow for more functional trips; there is a perceived lack of informal information such as which side of the road to wait on and how to get from the bus stop to their location. Metz (2000) comments that not having a seat at the bus stop or on the bus may be a particular barrier for older people In other words, it is found that such trips were characterised as having greater risk and uncertainty by older pass holders and these barriers are found to be more likely be of concern the older a pass holder

gets, and are more likely to occur in new and uncertain situations. This could relate to the finding in this research that older pass holders were significantly less likely to report making longer trips since getting a pass than younger pass holders.

For this reason organisations such as the University of the Third Age are actively overcoming these barriers associated with individual longer distance travel by providing guidance and information, and these were particularly used by older pass holders facing such situations. The argument here then is that the very same less function driven trips that could result in an increase in the bus for social purposes are those that are most susceptible to the barriers that are more prevalent the older a person gets. Moving beyond the structural and physical factors, Noble (2000) considers the possibility that age differences can affect the desire to travel, and explain that this has implications for the perceived need to increase the use of the bus. For example, the focus group discussions revealed that some older pass holders perceived less need to undertake new activities by bus per se, but rather felt able to maintain activities that were becoming increasingly difficult in later life using the bus (see Section 6.2). Given that within the survey, 'older' pass holders were already making a higher number of bus trips per week compared to younger pass holders (see Graph 9 p101), it could be argued that the older pass holders in question were already making as many trips as they deemed necessary.

In sum, these four findings placed together identify that older pass holders are less likely to increase their trip frequency by bus in response to having in pass, in part due to the increased likelihood of experiencing an array of difficulties that affect their ability to use the bus, which are particularly prevalent for the highly flexible and social trips that provide the most benefit to other pass holders. This introduces an irony of the Concessionary Travel scheme; that as pass holders become increasingly 'time rich' (and indeed often financially better off) they often 'simultaneously become 'mobility poor' and are thus less likely to be able to use the bus. This is probably what is meant when Braithwaite & Gibson, (1987) comment that older people can become excluded from the very aspects of life which made it more attractive than their previous generation. In other words, it could be argued that those that need it the most are also those most at risk of not being able to use the bus (Musgrave, 2007; Braithwaite & Gibson, 1987). With a growth particularly in the older-older age section in society who are likely to live longer in a non car driving context, this is of particular policy relevance. This could have the effect that

some pass holders may be interestingly not only not increasing their bus use, but actually decreasing its use, which would not have been picked up upon in the survey. The second significant factor in the research influencing propensity to increase trips by bus as a result of the policy was that those who would have driven in the absence of the scheme were most likely to respond to the provision of a free bus pass by increasing their bus use (See Section 5.4).

8.3 Car Access & Travel Increase

Much previous research has identified car access and availability to be a major determining factor in use of the bus (White, 2001; Rye & Scotney, 2004). As discussed in Section 1.4, such is the importance of car that its absence is found be an indicator of deprivation (Gabriel & Bowling, 2004). Cutler (1972: 383) recognises the paradox that older people 'neither *share equally in the in advantages of personal transport (i.e. the car) nor are they able to equally overcome the barriers posed in its absence*'. Broome et al. (2009) comment that often the very same factors that make car use harder can also prevent the use of the bus. Indeed they comment that the 'older old' group are more likely to be reliant on the bus as a mode of transport than the younger old, with research suggesting that those reliant on the bus (i.e. non car-drivers) on the whole are more likely to experience difficulties in using the bus than older people who own a car. Robbins (1990) found the decline in car usage in later life to be far greater than the decline in travel in older age more generally, with it creating a mobility deficit. Clearly it is possible that current age cohorts in a culture which is more mobile generally will show some differences in trip-making. However, Robbin's (1990) findings can nonetheless be expected to continue to have at least some relevance: the ability and indeed desire to make additional trips by bus is sometimes tempered by a trend of declining physical and cognitive skills, and trips tended to become more functional in nature the older pass holders get amongst pass holders in the focus groups (see Section 1.4). In a context where the average pass holder becoming younger and more likely to own a car (Rye & Mykura, 2009), the issue of car access and its relationship with bus pass use is of increasing interest to policy makers. In relation car use and access, this research discusses two specific findings; first that the free bus pass appears to have stimulated sustainable modal shift for those who would have driven, and second that the free pass may have in some way facilitated the process of ceasing to drive by

introducing previous non users to the bus but also by allowing a more gradual transition from car to bus.

The research found that those who reported they would have taken the car (self driven) for the journey in the absence of the scheme (and therefore can be assumed to own or at least have access to a car) were found to be more likely to increase their bus trips than those who would have taken any other mode in the scheme's absence[33].

This finding implies that the provision of a free bus pass has to some extent been successful in stimulating sustainable modal shift towards the bus, particularly amongst younger pass holders. This seems to challenge White & Baker (2010) who argued that as more older people own and posses a car the use of the concessionary bus pass overall could decrease in time. Last (2010) suggest whilst there could be a net decrease in overall concessionary patronage, this is not so much down to responsiveness to the scheme, but the fact that younger pass holders are each individually making fewer trips per person than older pass holders. It was also found that there as modal shift of older pass holders from being a car passenger to taking the bus, which could also result in reduced car use by removing the need for a lift from a relative for example. This modal shift from bus to car was particularly found for shopping trips (See Section 5.1). The focus groups attributed this to the bus providing a more relaxed and sociable journey experience and offering the ability to avoid the cost and hassle of congested centres and parking far away from the centre. Statistically, younger pass holders (under 70) were found be the least likely to have paid for their own bus journey in the absence of a pass, and most likely to have driven in the absence of a pass, implying they are the perhaps most susceptible to modal shift (see Section 5.2). This challenges White & Baker's (2010) finding that those who drive are less responsive to the scheme than those who do not drive.

Previous research notes the mixed success of the free bus pass in stimulating longer term sustained modal shift (see Section 6.4 for a full list of references). Within the focus group discussions, it was implied that the free bus pass is more

[33] This is based on pass holders' first choice alternative mode to the bus journey they were making at the time of the survey. The finding should be treated with due caution, as the survey cannot inform whether those taking other modes had access to a car or not.

effective as a driver for longer term modal change amongst older people than the general public as a whole, given that for some, once they took the bus, they didn't want or need to use the car as much as they did previously. However, a note of caution is needed. On the on hand, the focus groups identified the benefits of pass holders avoiding particular car based experiences such as driving oneself in traffic congestion (see Section 6.4). In this case the advantage is presumably greatest at times when congestion is at its worst and thus 'not driving' creates the maximum benefit. On the other hand, pass holders reported many of their 'substituted trips' to take place during the off-peak period and only have a minimal effect on congestion levels. With a growing and ageing population this may signify a potential to achieve a larger scale modal shift towards sustainable modes.

Interestingly, the present research also shows that cost of travel was perceived as a particular barrier amongst those who had access to a car (section 1), as reflected in other research (Pauley *et al.,* 2006) (see Section 5.7). In other words, it is found that the proportion of those perceiving feeling prevented by the cost of bus travel prior to it being free was highest amongst those would have driven a car in the absence of the scheme. Previous research has attributed this to the under-estimation of the cost of car use per journey compared to the bus, and also a general negative perception of bus travel preventing modal shift (Stradling et al., 2007). Indeed, other factors have previously been identified that may prevent car drivers from trying the bus such as uncertainty about daily practices and not knowing where to alight (Metz, 2000; Stradling et al., 2007).

Furthermore, it was established in this research that, not only has the bus become more likely to be considered in the modal subset of options of some pass holders, but also that some are more likely to consider taking the bus, on the grounds that they would accept exerting more effort (since bus travel was free) to surmount the barriers that may have deterred or prevented them from considering using the bus previously. For instance, some respondents reported difficulties getting to the bus stop or travelling to the end destination with heavy shopping, yet - in part because it was free - they reported being more likely to consider driving to the bus stop and parking, or arranging a lift to overcome these difficulties. This finding was also relevant in the way that some pass holders were no longer concerned about making bus-trip mistakes, since the cost was removed, and so were more likely to 'give the bus a try.' Furthermore, the issue of multimodality emerged strongly in the qualitative data. It was found that for those reliant on the bus for fundamental daily

living found it difficult due to carrying shopping and navigating complex environments, and were limited by bus timetables, whereas those with a car reported some positive benefits of using the bus, whilst still having the car for when the bus was deemed less suitable.

Interestingly, the present research also shows that cost of travel was perceived as a particular barrier amongst those who had access to a car (see Section 5.7), as reflected in other research (Beirao & Cabral, 2007). In other words, it is found that the proportion of those perceiving feeling deterred by the cost of bus travel prior to it being free was highest amongst those would have driven a car in the absence of the scheme (F1). Previous research has attributed this to the under-estimation of the cost of car use compared to the bus, and also a general negative perception of bus travel preventing modal shift (Stradling *et al., 2007*). Indeed, other factors have previously been identified that may prevent car drivers from trying the bus, such as uncertainty about daily practices and not knowing where to alight.

Another possible explanation for the increased bus use amongst car travellers is one of the benefits identified within the research was group travel, which previously meant an increasing marginal cost per passenger, making the car cheaper and now there is no additional cost so it is encouraged. This links to bus pass tourism which again is facilitated and made more appealing when travelling further distances and for recreational experience where who you are with becomes an integral part of the experience. A number of implications emerge from these findings, relating to the higher trip frequency increased of older pass holders for the policy and are discussed below.

The second finding related to this was that the free bus pass appears to provide at a time when people are giving up a driving a way of improving the situation of giving up driving.

The free bus pass was also seen to have some influence on the decision whether to keep a car running. In terms of financial gain of having a free bus pass, for some focus group members owning a car meant they had little money for travel by bus previously, which as a result had been deemed expensive. A result of having a free bus pass was that for some focus group respondents, longer-term the free bus pass allowed them to consider giving up the car (and saving the money they spent on it), whilst for others the cost savings now being provided by having a free bus pass meant that they could use the bus and keep the car. This shows that two very

different outcomes can occur, highlighting the diversity in responses which to date have not been captured in sufficient detail in previous research.

The evidence from the focus groups directly challenges Rosenbloom's (2004:10) linear conceptualisation of the process of reducing car access. She argues that "*As people age, they first lose the ability to drive; they then use public transit if it is available; when unable to use public transit they walk and, finally, unable to walk they use special transit services"*. However this research suggests that an effect of the bus pass is in blurring these distinctions and by doing so, minimising the impact of the transition points (Glasgow & Blakely, 2000). This is encapsulated by one respondent commenting "*The less you use the car, the less you want to*!" In other words, offering a free bus pass at a major life juncture such as retirement, a time of changes in lifestyle and activities could lead to substantial behavioural change (Jang & Wu, 2006; Savishinsky, 1995). Indeed, as discussed in Chapter Two, many older people tend not to think of a time when they will give up driving; leaving them ill-prepared, yet the pass may provide a mechanism that could facilitate this process by making it more gradual, and thus lessen its effects on the pass holder. A number of implications emerge from these findings relating the availability of the car.

- The first policy implication is that these findings, taken together, present the paradoxical situation that arguably better of respondents (i.e. those with cars and/or a regular bus service), are statistically the most likely to respond positively to the provision of a free bus pass**.** This raises questions as to the equity of the policy in targeting those most at need - that is – if the intention is solely or primarily to increase the bus trip-rate. However, it is important to bear in mind that that, whilst other groups of pass holders may not have increased their trips per se, they have the benefit of not being required to pay for trips they would have made previously. Likewise, those who would have been car passengers (which could suggest they were least likely to have been as able to take public transport) were less likely to report an increase in bus trips than car drivers (see p123). Yet, given that bus use increase was not statistically associated with perceived improvement in quality of life, it is argued later in this thesis that the benefits extend beyond simply the ability to increase bus trips.

- Second, whereas traditionally, existing research shows that retired drivers tend to use public transport less than people of the same age who have

never driven (Banister & Bowling, 2003), there is evidence of a reversal of this trend, with the free bus pass allowing allowed a greater exposure to the bus and therefore increased likelihood that older people can use the bus after ending driving. Indeed, the free bus pass is deemed to provide an important mechanism and bridging gap for those giving up the car, and also allowing them to retain access to the car for longer by replacing stressful journeys with free bus travel. The pass was often found to be a pleasant alternative for car drivers for when the car was less suitable, such as driving at night and parking in congested areas (Kelly, 2011). This could suggest that having a bus pass facilitates, and indeed prolongs, the decision to give up driving in later life by providing a gradual alternative, and for others, introducing bus travel which may become a viable substitute later on.

A key theme emerging throughout the research then is the huge variation between different pass holders and the complexities of their bus-trip making behaviour. Whilst, on the whole, differences were found based on age, how long pass holders had held their passes and alternative modes available, even such disaggregation could not take full account of the heterogeneity between individual pass holders. Further research could establish the effect of gender, income, ethnicity environmental attitudes and other such influences on pass use. The present thesis, however, provides evidence that the policy of providing a free bus pass can have an influence at the individual pass holder level which has the effect of generating conflicting and multifarious uses of the bus. These represent changes in behaviour that cannot be gleaned from a purely quantitative investigatory approach. This leads on to the next topic for discussion; changes in the nature of bus travel since the advent of free travel. The changes discussed in this chapter have been poorly researched, despite potentially providing significant benefits to pass holders.

8.4 The Free Bus Pass and the Changing Nature of Bus Travel

Previous research has began to reveal that providing a free bus pass has led to changes in the way the bus is used both organisationally and on board (Kelly, 2011; Hirst & Harrop, 2011; Metz, 2000). This section explores three specific aspects of

the changing nature of bus travel as a result of England's Concessionary Fares Scheme. First it discusses changes in the type of trip that can be 'mentally justified' now that it is free. Second it highlights changes in the use of the bus within the context of pass holders' everyday lives. Finally it provides insight into trips that are now taking place specifically because the pass is free and would not take place in the scheme's absence. A central theme of the section is the emergence of a number of subtle changes in bus 'use' as a result of the free pass that have been hitherto poorly researched and arguably not considered when evaluating the benefits of the policy.

The research found that a core benefit of the policy appears to be the ability to 'justify' use of the bus for journeys that would not be considered should a charge be applicable. Whilst the survey identified that the main purposes of pass holders were for shopping and social reasons, it was found that that those making social trips at the time of the survey were the most likely to report not travelling in the absence of the free bus pass (see p123). The focus group respondents suggested that some social trips to be optional or marginal and couldn't be justified if there were a charge. Thus it could argued, based on the findings and through the lens of the principles of Musselwhite & Haddad's (2010) hierarchical approach to conceptualising the benefits of transport to quality of later life, that the basic travel needs being fulfilled first are more justifiable and provide more immediate benefit, whereas more leisure orientated trips create positive benefit at the higher aesthetic needs level (p137). Indeed, it is also easier for politicians to provide concrete evidence on the accessibility benefits rather than some of the aesthetic higher level needs (Musselwhite & Haddad, 2010). This presents the situation whereby the very trips that may not take place due to not being able to be justified are marginal (and would only take place if the bus is free) are the most important to issues of quality of life. For example, getting out of the house, just wandering about and unplanned trips are very important to meeting the higher needs of older people (Schwanen *et al. (2005*).

Indeed it was found, given that the higher-level mobility needs of users are least-consciously acknowledged and least measured, and that the pass means trivial trips can be justified, any move to dissuade travellers from travelling may block access to the higher-level benefits. It is therefore recognised that any moves to restrict or dissuade bus use through means-testing or trip rationing may inevitably mean not only do they not travel but they do not have access to the higher level needs, which

are less consciously acknowledged and measurable, but play an important contribution to older people's quality of life.

Second, it was found that the 'nature' of the trips taking place had been altered by the bus being free. Some pass holders' reported their journeys becoming more spontaneous in nature (partly relating to such trips now being able to be justified); found to create feelings of independence, self organisation and empowerment and the type of casual trips which could not be justified in the absence of the scheme (Broome et al, 2009; Musselwhite & Haddad, 2010). The research also demonstrates that there has been a change in the way the bus is 'used' in the context of the daily routines of pass holders, which has particularly affected the number of bus stages being made. This links to the lack of information on individual-level behavioural change as discussed in Chapter Three. Examples of changes in 'bus use' include:

- The ability to spread out trips over the week and the day, now that a charge is not being made.
- The phenomenon of driving to the bus stop, parking and boarding a bus.
- An increase in hop-on-hop-off bus trips.
- Multimodal trip making such as 'hopping off' and walking to various locations.
- Getting a taxi to the bus stop or for a leg of the journey.

Such more subtle changes have previously not been discovered in policy evaluations, despite them potentially contributing to the overall increase in the number of concessionary trips (Rye & Carreno, 2008). By considering the context of the trip being made, and its location within the context of the pass holders' activity schedules, policy makers can begin to build up a picture of the proportional benefit of that bus stage. With the possibility of what was one trip previously now potentially becoming four trips, it does offer pass holders the advantage of flexibility, but on the other hand it suggests that the proportional benefit per trip is presumably decreasing. As such, this means that the actual contribution or meaning of one particular bus stage may be only part of a greater series of events and stages using all sorts of modes. This suggests that a full evaluation of the policy needs to consider the contribution in the context of both daily life and other modes. These findings furthermore suggest then that that neither the cost of an individual bus trip not the benefit of an indivividual trip can be used to determine likelihood of the being

used. This calls for a more holistic benefit approach to evaluating the policy as some of these benefits transcend the unit of the single trip. In other words, the relationship between cost and bus use needs to take into account more than simply whether it could be afforded, to consider whether it could be justified.

A further impact on the nature of bus travel was that the free bus pass was found amongst some pass holders to have stimulated entirely new trips such as bus roulette (page 148), and timed bus challenges, and bus pass tourism. It was additionally found that the pass has – by nature of being free - in some cases generated effects above and beyond a simple reduction in price, providing further support to Ariely's (2008) concept of the 'free effect' - the notion that human beings are in a sense more attracted to free items by their nature of being free. This presents a challenge to the current assumptions of the theory that governs purchasing behaviour, particularly in relation to the notion of the rational traveller. It was suggested in the focus groups that, to some extent, whereas there was a pressure to use the bus and get value for money under the paid scheme, now pass holders feel they may as well use it and get the most out of the free ticket. This presents two contradictory arguments; in the first case the pass may be used intensively to get back the investment of the price of a ticket, in the second it may be used intensively because there wasn't an investment at all. The implication is that this travel - generated neither on the basis of a suppressed demand or unfulfilled need, nor a specific desire to travel, nor indeed modal substitution - represents an indirect influence on the response to the provision of free bus travel.

All in all, the current theis provides evidence that the free bus pass has significantly altered the framework within which the decision to use the bus takes place, in some cases leading to bus behavioural changes above and beyond simply a response to the price reduction. Further research could establish whether the so-called 'response to free' wears off over time, or whether it is a longer-term effect. The next section discusses emerging findings relating to the contribution of quality of life of older people.

8.5 Free Bus Travel & Onboard Activities

The research finds that the provision of free bus travel has resulted in a shift in the nature of activity taking place with an increasing importance being placed on the on-board experience since the bus being free. Stradling *et al*. (2007: 271) postulate that travelling by bus can provide "*an opportunity to engage in positive interpersonal interactions with fellow passengers - social exchange - whether with friends, acquaintances or co-present strangers*". Further, they suggest that it offers the possibility for spontaneous exchanges both en route to the bus stop and also when on board the bus. Bissel (2007:272) believes that "public transport 'spaces' are the "most public, peopled and traditionally 'social' spaces of everyday life" (p289). Russell (2009: 118) further examined to the bus as an example of a "*third space: the core setting of informal public life where people socialise together neither at work not at home*". Tamminin *et al.* (2004: 45) suggest that mobile contexts (such as on-board the bus) are "*created and maintained by situated actions in everyday life"*, stressing the importance of a more detailed study into behavioural change. For some pass holders, the on-board social nature of travel, which can now be justified as a public place when there is no cost (see section 7.5), is as important - if not more important than the destination itself. Indeed the informal nature of the bus space and its ability to encourage social engagement in a non-stigmatised, informal setting could be argued to be far more effective than simply running a day centre. As a result of this emerging social role of the bus, in addition to day-to-day contact with others and general social activity, the bus pass is increasingly being used for bus-pass tourism and day trips with others. Older people within the focus groups claimed to be less likely to report taking coach travel in place of the free bus pass, and with the advent of tour guides to assist in the groups' organisation it is argued that the bus has become the new coach in some respects; a place for 'viewing and seeing' rather than 'reaching and arriving'. Clifford (1997) suggested that the consequence of this is that motorised tourists are using destinations as routes rather than attractions. Yet, despite this, Aitchison (2000: 29) comment that the "significance of mobility, or travelling, to the tourist experience has been almost completely ignored in tourism studies, to such an extent that this paradigm is one of tourism without travelling". As a consequence, the role of the 'touristic experience' on board public transport in particular has been ignored, and transport, giving its contribution to pollution, has been conceptualised as a

necessary evil for reaching the desired destination (Halsall, 1992; Gunn, 1994, Butler, 1997; Cooper *et 1998)*

In other words, whereas previous research has suggested the bus to be a hostile space, the time in which needs to be minimised (Stradling, *et al. 2007)*, the present thesis has demonstrated that, for some pass holders, given that it is free, the attention has turned from the bus environment to the bus experience. This gives weight to Cullen & Phelps' (1975:71) finding that "*the day can be given over to social and leisure pursuits, sometimes routine, sometimes deliberately arranged and sometimes just filling in time".*

The findings suggest that the role of the bus has been transformed in some cases from that of being solely useful for specific functional activities, to one of providing a platform for more general holistic benefit: in other words providing a broader framework for promoting social inclusion. This presents a further challenge to move from a perspective on travel as a derived demand for particular activities and the benefit attributed to reaching these activities, to a view that takes into account the experiential aspects of travel whilst on board. The policy challenge is that such a change makes it more difficult to attribute specific benefit to each trip being undertaken, rendering it difficult to evaluate and justify the scheme and establish its true benefits. This research in essence argues that the unit of investigation needs to be changed to understand the broader benefits - from pass holder to pass user. Indeed, the notion of potential as mentioned previously is an important point - a pass holder may never make a trip but still benefit from having the potential to travel - and this cannot be captured in the current evaluation framework.

These findings represent an interesting observation emerges relating to the dual conceptualisation of the bus as a place, and the bus as a means of getting to a destination (Stradling *et al*., 2007). And indeed, this represents an underlying conflict between the younger traveller's desire for minimisation and speed of transport and to maximise mobility against the older traveller's desire to optimise mobility experience (Metz, 2000). In other words, the distinction is blurring between getting to the destination on time and the emphasis on punctuality towards an emphasis on experience which would require different facets. This suggests that free bus travel, by changing the nature of travel, may have created a new type of bus traveller with different priorities and focuses. An important aspect of bus travel becoming free was the removal of the perceived need to obtain value for money for a bus ticket, or the need to justify a trip that will incur a cost, and hence couldn't be

justified before. Avoiding the loneliness and isolation at home was identified as a key contribution to quality of life, for example, through engendering social contact. Symbolically, the pass was found to have with it associations of freedom, independence and adventure, which, even if not used frequently, gave some pass holders a feeling of participating in society and making meaningful travel. This symbolic level is identified within the literature to be important in meeting the higher aspiration needs of pass holders. In addition, it was found that, for some, the true benefit of having free bus travel sometimes does not stem from the ability to undertake any particular journey, but rather the flexibility that is facilitated by having a pass, making it an indirect benefit.

Given the positive impression of the bus of some pass holders, it could represent opportunities to more effectively market the bus, with pass holders becoming 'bus ambassadors'. There may also opportunities to liaise with local businesses to provide discounts to pass holders. Whilst on many levels the pass has been seen as a threat to the bus industry as a whole, a number of opportunities are emerging that could encourage pass holders on board the bus, and if they were funded correctly this could be mutually beneficial as well as providing wider societal benefits. This research provides evidence of pass holders encouraging their fare-paying friends and relatives (including *grandchildren) on board the bus.* Indeed*, taken in combination with the social role of the bus (*Kelly, 2011), this may have created a community which could pull together to save certain bus routes by encouraging new paying customers. Such an innovative solution would provide much needed income whilst not being detrimental to the pass holders themselves, unless there are conflicts for capacity. Indeed, given the nature of the activities such as eating and spending that are now encouraged to take place, given that travel is free, there could be an opportunity to create business links with local cafés and restaurants of interest en route. This could be an innovative funding stream. Such an innovative solution would provide much needed income whilst not being detrimental to the pass holders themselves.

8.6 Free Travel and Improvements to Quality of Life.

Section 2.4 offered a detailed discussion of the term quality of life, with the key tenets being that, as well as being measured by numeric thresholds, social exclusion is a process which affects the character of life. This section discusses the different ways in which the policy appears to have impacted on quality of life, first looking at the more obvious effects and then discussing the more subtle and nuanced effects that have emerged from the evidence of this research. The original objective for the concessionary travel scheme was to promote a better quality of life for older people DfT (2008a) and prevent older people becoming socially excluded, yet hitherto little research attention has been devoted to understanding the individually meaningful contribution of the pass to promoting a better quality of life. A full definition of the term '*quality of life'* is found in Chapter Six. Principally, the research finds in line with current literature that whilst it a certain threshold of activities needs to be reached to have an acceptable quality of life; after this the contribution is in terms of the character of life. It is worth repeating a quote from page 56 about bread.

> "*When you think about it, people have different ideas about what is 'quality'; for example, a loaf of bread and whether it is worth paying for that or spending the money elsewhere. Maybe they are not concerned about [the] quality of their bread but want a quality car - surely that's their decision and who am to say they are excluded?"* [Male, 87, small town].
>
> This quote highlights two aspects of quality of life also drawn out from the literature. First, the hierarchical nature, in that it is based on the supposition that only once a minimum level has been reached (in this case ability to afford bread) can a choice be made that affects its character. Second, the relativity of exclusion is highlighted in relation to its importance to other aspects of life. Bearing this is mind, three core statements are found.

The previous sections have identified that linking the free bus pass to benefits that then contribute to quality of life is no easy task, since there are a multitude of ways in which the pass could impact and it is more of a holistic benefit that is current poorly measured. Indeed also there is the issue of subjective importance, which will differ from pass holder to another. That being said, there are some core themes emerging.

The first core benefit of the scheme and potential life quality contribution identified in the two data collection exercises is that many older pass holders are travelling by bus where they wouldn't have done before.

In particular it was found that a high proportion of the trips between 1-3 miles were pass holders who reported that they who would not have travelled in the absence of a pass. The nature of these shorter trips could imply that they are lifeline services providing access to local amenities, and the fact that they would not be made might suggest that they could not have been walked. In other words the free bus pass appears to have stimulated trips that are of basic importance to older people in some circumstances. A further example is that whilst on a trip per trip basis many respondents reported being able to afford a single bus journey, the main concern was over cumulative cost over a specified period of having to pay for the bus. Ironically these concerns would disproportionately affect those who have to use the bus most often as they are reliant upon the bus. This finding was supported in the focus groups studies; that more frequent shorter bus trips were harder to justify in the minds of some pass holders, as the cost of travel was not proportionate to distance, with the shorter trips being seen as particularly expensive.

As previously mentioned, whilst older pass holders were less likely to report increasing their bus trip frequency in the survey compared to younger pass holders, they were more likely to report the pass had improved their quality of life. Banister & Bowling (2003**)** attribute this to the declining overall mobility of older people on the whole, and the increased importance of each single trip to quality of life. Thus, proportionally speaking, as on the whole older pass holders make fewer trips, each trip could arguably become of greater significance. The implication of this finding is that there is clear evidence of a need to decouple the underlying assumed link between bus trip increase and improvement in quality of life, recognising that the pass has been able to improve pass holders' quality of life without them necessarily having increased their bus trip frequency. As discussed in Chapter Six, such benefits included in the qualitative phase of the research included:

- **Cost benefit**: benefits are related directly to not having to pay for a specific trip - either because a traveller could not have afforded that journey or would not have been able to justify that trip if they had to pay. Whilst in economic terms this subtle term may be irrelevant, it is distinctly different in terms of the types of trips being talked about here.

- **Facilitative benefit**: in other words benefits that relate to what is allowed to happen because the bus is free (as discussed in previous section). Examples include increased flexibility in the daily routines of pass holders and increased variety and choice of end destinations.

- **Avoidance benefits,** relating to aspects that people can avoid by using their free bus pass. There is emerging evidence of the perceived positive benefit of 'not having to drive, especially in the winter' and' '*having someone else to drive me like a chauffeur*". These benefits clearly affect people differently according to their age and life situation. The argument is that by travelling by bus, they gain access to the social benefits of the bus and meet the needs for social interaction and informal gatherings.

An important aspect of bus travel becoming free was the removal of the perceived need to obtain value for money for a bus ticket, or the need to justify a trip that will incur a cost and hence couldn't be justified before. Avoiding the loneliness and isolation at home was identified as a key contribution to quality of life, for example, through engendering social contact. Symbolically, the pass was found to have with it associations of freedom, independence and adventure, which, even if not used frequently, gave some pass holders a feeling of participating in society and making meaningful travel. This symbolic level is identified within the literature to be important in meeting the higher aspiration needs of pass holders. In addition, it was found that, for some, the true benefit of having free bus travel sometimes does not stem from the ability to undertake any particular journey, but rather the flexibility that is facilitated by having a pass, making it an indirect benefit.

Dittmar (1995: 55) support a multifaceted view when evaluating the effects of policy interventions such as the concessionary bus pass:

> "*It is necessary to distinguish between (1) the instrumental and functional use of objects, (2) their emotional dimension, related to pleasure and relaxation, and (3) their symbolic meaning, as a symbol of identity. The symbolic function can, in turn, be subdivided into two components: the person's position or social status and the expression of personal identity and values*."

The implications of these findings is that the challenge of measuring the benefit of the policy becomes increasingly complex, as the benefit cannot be

attributed a single specific trip. It could be argued that some of the feelings of independence and freedom may have been experienced even in the absence of a pass, for example for those that would have driven, and so rather than creating a benefit the pass has substituted a benefit. However, whilst the facilitative role of the pass in higher level aspiration needs is important, as reflected in the evidence of increasingly spontaneous and leisurely trips, for fundamental needs such as access to goods and services the bus does not always represent a feasible option. Thus it could be argued that the scheme is more effective at improving the quality of life of pass holders who already have attained a certain level, and less effective at lifting those who are socially excluded out of exclusion. This in turn relates back to the critical issue of bus pass currency; that the pass is only of use to those who have a bus and indeed are able to access it. However, those most in need of improved quality of life are also those most likely not to have access to a bus (see Chapter Two for a full discussion on these issues).

Having considered the contribution of the scheme to quality of life, the next section presents evidence other benefits that are of policy relevance. Given the positive impression of the bus of some pass holders, it could represent opportunities to more effectively market the bus, with pass holders becoming 'bus ambassadors'. There may also be opportunities to liaise with local businesses to provide discounts to pass holders. Whilst on many levels the pass has been seen as a threat to the bus industry as a whole, a number of opportunities are emerging that could encourage pass holders on board the bus, and if they were funded correctly this could be mutually beneficial as well as providing wider societal benefits. This research provides evidence of pass holders encouraging their fare-paying friends and relatives (including grandchildren) on board the bus. Indeed, taken in combination with the social role of the bus (Kelly, 2011), this may have created a community which could pull together to save certain bus routes by encouraging new paying customers. Such an innovative solution would provide much needed income whilst not being detrimental to the pass holders themselves, unless there are conflicts for capacity. Indeed, given the nature of the activities such as eating and spending that are now encouraged to take place, given that travel is free, there could be an opportunity to create business links with local cafés and restaurants of interest en route. This could be an innovative funding stream. Such an innovative solution would provide much needed income whilst not being detrimental to the pass holders themselves.

Not surprisingly, the majority of pass holders involved in the research were against any changes to the policy[34]. But when the research dug deeper some interesting findings emerged, suggesting that the pass had a symbolic value above and beyond simply a travel pass - relating to a sense of freedom, autonomy and being cared for by the government. Therefore, for some pass holders, even where the scheme offered less financial gain than other social policies such as free prescriptions, it was deemed more valuable in some cases.

In particular, this research suggests that understanding the practical problems associated with the many solutions proposed, such as the complexities and uncertainties in topping up a card with a certain amount, which may undermine some of the very core benefits of flexibility and spontaneity that are noted above. This is to argue that some of the benefits of an entirely free, unlimited travel scheme would be removed if any restrictions were put in place. Furthermore there was concern over means testing due to its effect on stigmatising bus travel. This research thus calls for greater understanding of the views of the pass holders about possible alterations to the scheme, exploring not only the aggregate effects on travel demand, but its effect on the benefits that are currently facilitated by the nature of it being free. This having been said, an important finding was that some pass holders were not aware of the cost implications of the policy and would reportedly change their bus behaviour now they realise that they are generating a cost rather than using a 'spare seat' at no extra operating expense. This suggests the role of information provision may be a way of curtailing the number of trips by bus being made.

The research highlights that, for some, having the free bus pass has resulted in the commoditisation of bus travel and thus had an effect on brand loyalty. Evidence was found that a subtle change has occurred in the way pass holders select and identify the bus route, with some pass holders implying that since the bus has become free, their conceptualisation of the bus changed from a utility to a commodity. A key aspect of this relates to the removal of the need for brand loyalty since getting a pass. Some pass holders reported previously looking around for the best deals, and getting a 'day rider' and letting a bus go by previously when paying and being now less likely to do so. A number of policy implications emerge from this discussion and are discussed below.

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[34] It was stressed that no changes were in the pipeline

1) The changes in the use of the bus identified in this research have implied implications for the daily operations of bus operators.

The finding that some pass holders are making more hop-on hop off trips, which are shorter in duration, may have the consequence of increased boarding times and more frequent stops at bus stops, subsequently affecting issues of timetable. Whilst this research cannot quantify the effect of these changes in terms of how commonplace this behavioural trend is, it is a finding that has hitherto received little attention. In addition, particularly upon popular short routes, this tendency could lead to overcrowding and bottlenecks on certain aspects of the route. Furthermore, as the reimbursement is proportionate to some extent the number of trips generated, this could potentially result in greater reimbursement for operators - particularly as the average fare cost is not proportionate to distance[35]. This does assume, however, that the fixed total funding allocation nationally is not exceeded, which anecdotally amongst bus operators has already resulted in legitimate reimbursement claims being rejected.

In addition, the innovative behaviours such as pass holders driving or getting a taxi to the bus stop (informal park and ride) have anecdotally resulted in some cases of inconsiderate parking at sites not designed for the car parking demand generated. Informal telephone discussions with operators revealed some cases of coaches dropping off day trippers which have been known to completely block key locations such as bus turning circles and cause considerable delays to the bus services.

2) Smart Card data would enable a more successful capture of this data and relate it to the individual characteristics of pass holders.

This research has identified huge variation in pass holders and their trip making patterns, and the lack of solid evidence base for these changes. In order to fully understand the motivators for travelling using the pass, a smart card system would allow us to fully measure the smallest of behavioural changes of pass holders, link their trip patterns and destinations, as well as linking this to individual information to the pass holders' personalised information. This would allow the analyst to take into account trends such as hop-on-hop-off trips, changes in destination as a result of the scheme, and even changes the organisation of trips within the day. This would extend the detailed study to a much larger scale. Indeed, if all bus users were smart

[35] It is recognised that bus patronage is only one element of reimbursement in the complex procedure taking into account many criteria.

card based it may possible in the future to measure the change in behaviour in pass holders as they became eligible for a free concessionary bus pass.

3) The free bus pass has been found to have significantly altered the decision making processes of pass holders and their ability to justify trips, and in some cases generated entirely new trips (e.g. bus roulette)

The Concessionary Fares policy's funding arrangements are based on the presumption of highly-rational consumer behaviour and use of elasticity to model response to price, which assumes that it is useful and indeed possible to differentiate between 'captive' and generated trips in order to leave bus operators 'no better - no worse off'. However, this research has provided evidence that the policy has changed some pass holders' decision-making processes in relation to bus travel, for example the way they might justify their trips, the generation of entirely new trip purposes such as 'bus roulette' that are a creation of the policy rather than a simple price change, and finally evidence of pass holders making more trips because it is free, in line with Ariely's (2008) theory of the 'magic of free'. The implication of these findings is that this research suggests serious doubt must be cast on whether the 2006 and 2008 stages to the policy amount to a price reduction from 50% to 0%, or whether it should be better described as a more radical market revolution, with more useful comparisons being made with price eliminations in markets for other goods and services than can be made with incremental price changes in bus markets at other times and places. Furthermore, it may become increasingly complex to distinguish between the effects of the scheme and its benefits and the magic effects of a zero fare, with important implications for reimbursement procedures. Indeed, if the whole psychological basis to bus trip-making and the market within which those trips are made has changed, then the logic of 'no better no worse' no longer holds as it becomes increasingly difficult to distinguish between those trips that wouldn't have been made in the absence of a pass.

4) If - as argued in this section - the travel generated by bus as a result of the scheme is facilitating greater social involvement of pass holders and allowing trips to take place that are a cornerstone of older people's lives, a case could be made that the bus industry, in providing a social role, should be reimbursed for this - above and beyond simply their contribution to travel needs of older people.

This would present challenges to the government mandate to ensure that bus operators are 'no better off no worse' and could contravene the EU single market state aid rules. This could be particularly true in the context of underfunded routes which could face withdrawal, and would have a detrimental impact on many pass holders. In terms of other implications, the advent of the spontaneous and unplanned trip may be problematic in terms of operators' planning, and the rise in discretionary trip-making may mean less stable bus use patterns, leading to questions as to how to best serve the route in a way that is viable all year around. For example, when the weather is nice it will typically result in a significant peak in demand for bus travel. Furthermore, it could be argued that such spontaneous trips may require a different type of traveller information such as real time information, as such trips may be characterised by not having sufficient time to use pre-trip information as the decision to travel was so quick.

5) Given that these wider social benefits, there is an opportunity cost of removing the policy that extends above and beyond simply reducing the number of trips by bus.

The implication of these findings is that consideration needs to be given to the 'opportunity costs' and 'opportunity benefits' of any modifications the scheme (i.e., how would the money be allocated in the absence of the pass). The logical inverse of this is that removing the policy or reducing its entitlement may be expected to have effects above and beyond simply not being able to travel. In other words, whereas the scheme could be altered with the objective of saving costs, it could increase longer-terms costs in other areas. This is particularly true of the social benefits identified within this research, with the thesis reporting that the pass plays a significant role in reducing social isolation for some older people, which could be argued to lead them to live a longer life in a happier state of wellbeing, with less likelihood of becoming depressed or hospitalised (Roberts *et al.,* 1997; Zeiss *et al.,* 1996; Bowling *et al.* 1989). Any operational reductions under the scheme could lead to increased cost associated with caring for depression in the longer term.

This could have the implication that policy makers needs to evaluate the cost of providing these benefits compared to other ways in which similar benefits may be delivered. This would entail moving beyond a transport style evaluation and may mean that CFP should be evaluated against social criteria rather than as a transport policy. Another example is the bus' role in providing hospital transport; the absence of the pass could mean funding alternative transport for this essential travel that

often could not be done by car. Thus, it could be argued that a reduction of the scheme could lead to an increase in hospital transport costs, or home visits. With the prospect of an ageing and growing older population, the potential opportunity costs identified here are likely to be significant and should be taken into account if amending the policy

In terms of the benefit provided by the scheme – in other words the price has been reduced so more resources can be allocated for other purposes, it was identified that for some pass holders the scheme has meant the freedom to transfer the money they would have spent on the bus towards other things, such as trading up on a loaf of bread or buying extra nice food which can equally contribute to quality of life. These qualitative aspects that have the potential to influence and enrich the character of life are indirect benefits that are not been hitherto considered within evaluation of the policy. Similarly, the advent of bus pass tourism and new activities such as bus roulette, and organised bus tours that have come into existence specifically because of the scheme, are in effect free schemes run by voluntary and third sector organisations.

The implication of these findings is that consideration needs to be given to the 'opportunity costs and benefits' of any modifications to the scheme (i.e. how would the money be allocated in the absence of the pass). The logical inverse of this is that removing the policy or reducing its entitlement may be expected to have effects above and beyond simply not being able to travel. In other words, whereas the scheme could be altered with the objective of saving costs, it could increase longer-term costs in other areas. This is particularly true of the social benefits identified within this research, with this research finding that the pass plays a significant role in reducing social isolation for some older people, which could be argued to lead them to live a longer life in a happier state of wellbeing, with less likelihood of becoming depressed or hospitalised Roberts *et al., (*1997). Any operational reductions under the scheme could lead to increased cost associated with caring for depression in the longer term.

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6) Whilst there is evidence that those who are better off are more likely to respond to a free bus pass, this does not take into account that there are other benefits above and beyond trip increase.

Free concessionary travel has been described as a "*flagship policy that achieves very little for the vast majority of the people at whom it is directed*" (UK Parliament, 2010). Whilst this is to some extent true, with those who had access to a car most likely to respond, and younger pass holders and those with better bus provision, there was no statistically significant relationship between increase in bus trips and improvement in quality of life, and benefits can be accrued without travelling more.

7) The role of the bus in the tourism industry has been accentuated by providing free bus travel.

A further consequence for operators of bus pass tourism is overcrowding on touristic routes in the summer periods, leading to the challenge of making routes that are viable all year around. As the current reimbursement package is incremental, there is little incentive to provide additional capacity unless there is major deficit in supply and the extra costs will be met. Larsen (2001) supports a claim that could be made from this research that we are witnessing a new phenomenon of *tourism beyond destinations*, requiring a more holistic construction of tourism and the experience of accessing touristic sites. Given the positive impression of the bus of some pass holders, it could represent opportunities to market the bus more effectively, with pass holders becoming 'bus ambassadors'. There may also opportunities to liaise with local businesses to provide discounts to pass holders.

8) The evidence presents Potential marketing opportunities to operators

Whilst on many levels the pass has been seen as a threat to the bus industry as a whole, a number of opportunities are emerging that could encourage pass holders on board the bus, and if they were funded correctly this could be mutually beneficial as well as providing wider societal benefits. This research provides evidence of pass holders encouraging their fare-paying friends and relatives (including grandchildren) on board the bus. Indeed taken in combination with the social role of the bus (Kelly, 2011), this may have created a community which could pull together to save certain bus routes by encouraging new paying customers. Such an innovative solution would provide much needed income whilst not being detrimental to the pass holders themselves, unless there are conflicts for capacity. Indeed, given the nature of the activities such as eating and spending that are now encouraged to take place, given that travel is free, there could be an opportunity to

create business links with local cafés and restaurants of interest en route. This could be an innovative funding stream. Such an innovative solution would provide much needed income whilst not being detrimental to the pass holders themselves.

9) Free bus travel has changed the customer's requirements and brand loyalty and of this segment of society.

The emerging evidence of the commoditisation of bus travel, as a result of the provision of free travel by bus has important implications for Concessionary Fares policy. Further quantitative analysis would be confirmed to back this statement up, however if it is found to be the case, it suggests that it has led to some pass holders having a 'renationalised mindset' when considering the private bus market. This imperfection in the market is linked to commentators who have pointed out that the policy is verging on becoming nationalisation by the back door given the considerable financial support to the industry but the little control that the government can exert (2009). Indeed it has been commented that this change in mindset, where the industry is seen as a whole as opposed to a distinct set of private enterprises means that there is less incentive to compete. On the other hand, it could be advantageous in promoting a single, larger-scale competitor to the car. Indeed, such an argument could be used to encourage integrated multi-operator ticketing, which could be of wider benefit to all bus users. A potential implication of this finding - that many pass holders see the bus as a nationalised service - is that when they have complaints they would direct their complaints to the local council, despite them having little direct control over the industry. This could be seen to be more evidence of the complex and blurring private-public nature of the bus industry.

Clearly, the commoditisation of bus travel has implications for the operators themselves, not least concerning brand loyalty for their bus services. Often this was reported as being more '*forced brand loyalty'* previously, for example if a person had a day ticket on Operator A, it would make sense for them to return on Operator A's bus to use their return or day rider ticket. This lack of integration could be of detriment to smaller operators who may have fewer services and whose day-rider ticket may have been less attractive than those of larger operators. However, whilst there is evidence that pass holders do still compare bus operators on criteria such as in-vehicle comfort, cleanliness and route availability, this was found to be seldom sufficiently influential in making pass holders choose one operator over another

competitor at the bus stop. With planned journeys, some pass holders did report planning the bus times around the best operator, although some areas only had one operator in any case, so choice was not an option. It also presented an opportunity for operators to collaborate through a route number or particular route, as some routes are well known for being better than others. This could suggest that the brand identity has changed from the company to the route level. In brief, the commoditisation of bus travel presents both opportunities and challenges to the bus industry.

The three boxes overleaf summarise the findings in relation to the three research questions that this research seeks to address.

Research Question 1: ***In what ways has concessionary pass holders' bus use changed since being provided with a free pass and why?***

The provision of a free bus pass under England's Concessionary Fares policy - in addition to stimulating an increase in demand for bus travel in many cases – can be argued to have more fundamentally altered the landscape of the bus market. This research finds the pass to in some cases to have altered the process by which travel by bus is justified by pass holders, how the bus is 'used' within the context of the day and other trips, and the extent of pass holders' brand loyalty. Furthermore, the free bus pass was found to have had an effect on the types of activities taking place whilst on board the bus, particularly social activities. Finally, as demonstrated by the case of 'bus roulette' and bus pass tourism the scheme has generated entirely new trip purposes that presumably would not have existed in the absence of the scheme.

Research Question 2: What is the nature of these benefits derived from the bus travel generated by the scheme?

The benefits of the pass to the user are many. Often the underlying meaningful benefit of the free bus pass was framed in terms of what it facilitated or helped avoid and not necessarily the actual trip itself. For some this involved getting out of the house and avoiding isolation, for others the ability to undertake new (sometimes routine) activities or opportunities for social engagement. Here we see the bus pass as being beneficial as a springboard and facilitator of social and participatory opportunity. Finally for some, a core benefit was identified as the experience of travelling by bus and the feelings engendered by this of independence, activity and adventure.

Research Question 3: To what extent has the policy contributed to an improved quality of life for eligible pass holders?

There was widespread agreement that the pass had contributed to an improvement or maintenance of pass holders' quality of life (at least amongst those who were able to use the bus). This was not solely associated with the ability to make extra trips, as some pass holders made no extra trips, yet still reported an improved quality of life, suggesting the existence of gains and meanings above and beyond simply increase in trip frequency.

Chapter Nine: Conclusions and Further Research

9.1 Introduction

This final chapter of the thesis is concerned with summarising the findings of the research and discussing their policy relevance. First, it discusses what the research has achieved and highlights its original contribution to knowledge. Second, it focuses on the research's main findings and how they can be interpreted. The final two sections treat the issue of further research that could be conducted within the field of concessionary travel to build on the work of this thesis, and highlight the significance and policy relevance of the research.

9.2 Contribution to Existing Knowledge

Chapter One identified a clear gap in existing knowledge pertaining to the lack of in-depth rigorous academic research into how and why the provision of free bus fares policy has changed pass holders' bus-using behaviour at the individual, level and described the consequent dearth of knowledge as to how the policy overall has contributed to an improved quality of life of pass holders. It identified that the current evaluative approach of the policy is predominantly undertaken solely at the aggregate level, tending to focus on the quantifiable aspects of behavioural change as a result of having a pass, at the expense of the qualitative (often more subtle) changes that have occurred since having a bus pass. This research thus suggests a number of potential quality of life benefits arising from the policy that do not entail increasing bus trips frequency. Given one of the stated objectives of the policy was to mitigate social exclusion in later life, the rich contextual data gathered in this research can understand the contribution of the policy. In other words, this research bridges a vital gap in current understanding between a policy which attempts to influence quality of later life – which is very much conceived and experienced at the individual level, and the current aggregate approach which to date is relatively devoid of context. The research follows an approach that seeks to move from considering the homogonous pass holder to the heterogonous pass user, recognising their diversity of characteristics in line with Metz (2000).

Specifically then, the study has contributed to existing knowledge on two fronts.

- First, unlike previous research it situates pass use within the context of the everyday meaningful life of eligible pass holders, facilitating a deeper understanding of the multifarious individual specific benefits of pass use. This thesis, recognising the paucity of research into the micro level and individual effects of providing a free bus pass has suggested a range of explanations for the mechanisms and processes underlying the behavioural change that has occurred as a result of the pass. Looking at this, rather than simply taking trip numbers as a proxy for the success of the policy, it suggests how policy makers consider plans for the future of the policy and design it better.

- Second, the thesis contributes to research relating to, but adds value to evidence of previously unconsidered benefits of providing a pass particularly in relation to the social nature of travel. It is suggested through the thesis that the provision of free travel has fundamentally changed the 'busscape' and the experience of bus travel. These three contributions to existing knowledge have significant implications for those responsible for evaluating zero fares policy and being responsible for the future direction of concessionary fares policy. Not only does the evidence from this research suggest that the provision of zero-fares can potentially stimulate demand for bus travel above and beyond that of a simple price reduction (in other words it stimulates demand by virtue of being free), but moreover it provides evidence that a zero fare schemes, as well as increasing demand, can change the nature and type of trip being realised. An illustrative quote which really encapsulates many of the research's findings is noted below:

"*The bus pass is like a humble cooker in a kitchen. You could calculate how many people use that cooker, the precise quality and ingredients used in the recipes, the merits of different heats, talk about whether it should be gas or electric - but that would tell only half the story and miss the point of having an oven. The laughter and sense of community that is facilitated by the cooker, the many different reasons there might be for cooking that meal, and the many mouths that have been fed all remain a mystery. Take away the cooker, then you take away all of these follow-on effects of having a cooker. Similarly, take*

away the bus pass; you will also stop all these follow-on activities that are so important in later life." [Male, 77, town]

A full account of the methodology is located in Chapter Three. In brief, the data for the research was gathered using the mixed methods approach, entailing first an on-board bus survey of pass holders in Southwest England that was analysed using SPSS statistical software. Second a series of 11 focus groups with users in different bus using contexts was analysed using a mixture of manual thematic analysis and use of Nvivo qualitative analysis software. The results were then synthesised in Chapter Six and compared with relevant literature previous research. Having briefly outlined the research process, the next section highlights the main research findings. The next section summarises the key findings of the research.

9.3 Research Findings

This section discusses the main findings of the research and draws out their policy relevance.

- **The research suggests that the provision of free bus travel has led to changes in the way the bus is used, not only in terms of bus trip frequency, but the organisation of trips within the day and the type of trip being undertaken**. As a consequence, the benefits of the scheme are often associated with that which is facilitated by the scheme, such as the gains in pass holders' flexibility and independence. Whilst over two thirds of respondents did report increasing their use of the bus since getting a pass, one third did not, and this group were not statistically less likely to report an improved quality of life- suggesting the presence of a number of non trip increase related benefits that can contribute to pass holders' quality of life. This would support a call to consider the holistic cross trip benefits of the concessionary travel scheme.

- **In terms of propensity to increase bus trips as a result of the policy, those who would have driven, and younger pass holders were suggested to be most likely to increase their travel by bus**. However on the other hand, given that these groups are typically associated with being

better off financially and typically more mobile it could perhaps bring into question the equity of the policy.

- **The free bus pass is suggested to have been relatively successful in stimulating sustainable modal shift,** with those who would have driven in the absence of the scheme most likely to respond to the provision of a free pass**.** Indeed, at a time in life when people may consider giving up driving, the scheme appears to have, by encouraging bus use, provided a more gradual process by which some older people can give up their car.

- **There is evidence to suggest that the scheme has changed the decision-making processes of pass holders**, such as the ability to justify trivial trips, increased likelihood of trying out the bus, the changing bus-car relationship and the stimulation of entirely new trips.

- **Throughout the research it is found that there have been many differing responses to the provision of the free bus pass, some of which are in direct opposition to each other.** For example it was found that whilst for some they could increase their hop-on-hop-off trips, others reported staying on the bus from end to end. Likewise, whilst some pass holders felt able to keep the car with the money saved from having the pass, others felt this represented a chance to give up the car now they didn't have to pay. Furthermore, whilst some pass holders might be walking more now they catch the bus, others chose to drive to the bus stop and were walking less than previously. Whilst it is difficult to directly link these changing behaviours to the free bus pass, it suggests the need for greater consideration of the context of the trip and indeed the trip maker, when exploring how concessionary pass holders are using their passes. It also implies that there is not one single response to holding a concessionary pass, but rather it is a function of the pass holders' needs and types of trips they make.

- **The free bus pass has been found to provide improved access to the bus for many for basic needs, but also is suggested to play an important role in fulfilling higher level needs - the bus is a of platform**

for these needs. These needs are often found to be fulfilled in trips that were less justifiable if there was a cost (for example just wondering about). Therefore it could be argued that adjustments to the scheme could infringe on ability to access these important needs, because they are less perceived and older people may be less willing to spend money as they could not justify it. However, those without access to a bus (and often the most likely to be affected by transport disadvantage) cannot access this platform.

- **The bus is suggested to have become for many pass holders a 'third' social space**; facilitating feelings of involvement, information sharing, access to networks of support. Its nature as an informal environment makes suggests that it is well suited to this role. As the emphasis turns from arriving to enjoying on board activity, it could be argued that the needs and expectations of pass holders have subtly changed and their priorities in terms of the bus environment also changed.

9.4 Limitations of the Findings

It is fair to say that the chapter so far has presented results of pass holders who are using the bus already, and therefore is of less relevance to the pass holders who cannot use the bus due to physical or cognitive requirements of its use, or do not have a bus route nearby. Indeed there are a number of other caveats recognised about the findings of the research. First, it is not possible to quantify the magnitude or extent of the findings indentified in the focus group, such as the commonality of bus roulette. Nor can the research tell us whether such activities may represent to some degree a novelty factor of having a free pass, or whether they may be of longer-term significance. Clearly some of the findings such as an increase in hop-on-hop-off trips and bus pass tourism would be less applicable in a more rural operator's context. Second, it is challenging to distinguish between the influence of obtaining a pass and the specific impact of it being free, as some pass holders held a pass previously and others didn't. This means that it is not always possible to establish what pass holders are responding to when assessing and recording behavioural change.

It should also be noted that there is lack of base line data relating to the period prior to the provision of the free bus pass. In particular there is limited discussion of the ways in which pass holders used their half-fare pass and the types of activities that were taking place. Whilst this research provides evidence to suggest that many pass holders are increasingly using the bus for social activities, it remains challenging to establish whether such social uses of the bus were occurring under the half-fare scheme and this increased when it became free; or whether the effect was more dramatic upon providing a free bus pass. One of the questions in the survey relates to what the pass holder would have done in the absence of the scheme. This question is slightly problematic, as it perhaps unclear whether the pass holder, when presented with this question, felt that it meant when the hypothetical situation when there is no free bus pass at all (even within the local area), or a step back to the previous half fare scheme. Furthermore, if looking to apply these findings a broader level, given that under the half fare scheme some local authorities used their discretionary powers to offer benefits above and beyond the statutory minimum the perceived advancement and significance of April 2008 could differ considerably. All of the above factors, and the current challenging economic conditions meaning some pass holders may potential have given up their driving due to cost, could have an influence on pass holders' reported behavioural change, thus having implications for the way in which the research is interpreted.

Finally, some of the benefits described in the research rely on comparing what pass holders are doing now with a pass with that which they would have done before its existence. Asking pass holders what they would have done in the absence of the pass relies on recall of events many years ago, and this is not generally considered a reliable reflection of actual behaviour. The findings may be age-cohort specific, questioning whether the trends and traits of existing pass holders are comparable to those of the past, and indeed suitable for predicting that of the future. These questions would make interesting future research.

This chapter has discussed the headline findings of the research and discussed their implications for policy. An overarching theme emerging from the findings is that of promoting a deeper understanding of the qualitative aspects of change in bus-using behaviour and its effects on quality of life in order to assess the true contribution of England's Concessionary Fares policy in maintaining and improving quality of later life. It was argued that some of the most important contributions of

the scheme to quality of life are those that are the most challenging to measure (particularly to quantify) and most often ignored in formal evaluative studies of the policy. This adds to the burgeoning wealth of evidence understand the meaningful benefit of the trips created by this social policy.

9.5 Summary of Relevance of the Research

England's concessionary travel policy, providing free England-wide travel by bus since April 2008, is widely accepted to have led to a substantial increase in demand for overall bus travel. However this research highlights that the policy has had ramifications and impacts that extend above and beyond its simple effect on increasing the number of trips, with the argument that the policy has changed the very landscape of bus operations in England. It has previously been recognised that given the increase in non fare paying customers boarding buses and the increasing proportion of operator revenues coming from the state, that the lever of price has been loosened as a competitive tool (Parkhurst & Shergold, 2008). However above and beyond this, this research highlights pass-holder behavioural change that further challenges the traditional assumptions of the bus operator. The evidence suggests the advent of 'bus pass tourism' has led to a new conceptualisation of the bus as the new coach, with some pass holders reporting staying on end-to-end on some routes, which fundamentally challenges the needs for a bus operator to obtain a high seat turnover to maximise their returns. Indeed, the evidence of increase in hop-on-hop-off trips presents challenges such as increased boarding times that could have a detrimental effect on overall operator profitability. Moreover, the increased prominence of the social nature of bus travel and the nature of the less time-dependant traveller, in some cases shifts the emphasis of pass holders' demands from bus operations away from the traditional focus on reliability and regularity of service towards experiential factors such as seating arrangements and noise levels.

As discussed in the previous chapter, from a policy perspective, the findings of the research highlight that, whilst the policy has led to some pass holders increasing their trip frequencies, there are many other (non trip increase related) benefits derived from the scheme, such as it providing the potential to travel, feelings of independence, assisting in the gradual process of giving up driving that can occur in later life through, for example, allowing people to avoid driving at night. This suggests the need for a change in evaluative methods of the policy that capture and measure these more subtle benefits, rather than assuming the main benefit is generated by the increased number of trips being made by bus.

9.6 Policy Recommendations

This section presents a number of recommendations to policy makers and bus operators that stems from this research.

9.6.1 Policy Makers

Based on research findings, the following recommendations are made to Policy makers considering the future of the policy.

1) ***The evidence suggests that in many cases the free bus pass is an effective mechanism for preventing the onset of isolation and social exclusion in later life.*** The research recommends that these longer terms benefits of the scheme need to be taken into account when calculating the benefits of the policy, particularly in relation to the costs that would be incurred treating the potentially increased feelings of isolation that may occur in its absence. This is particularly relevant when responding to the well rehearsed criticism that if pass holders do not have a bus or cannot physically use it then the scheme is useless. **.** Whilst the thesis identifies the 'reverse robin hood effect' of the scheme, in that *a* substantial allocation of the funds for older people is being placed in the bus, which favours those who can use the bus, and as this research has found, those who have access to a car (a factor indicative of them being better off financially) are most likely to respond to the provision of the pass,

a core benefit of the scheme is preventing this isolation in the first place.

2) ***The research recommends that the evaluative approach to Concessionary Fares policy needs to take into consideration the wider social benefits of the free bus pass*** with ultimately the possible case being made for extending the subsidy to operators beyond simply their transport role to a provider of a social service. For instance, a day centre for older people would not be measured and evaluated simply in terms of quantitative use of the facilities. Indeed, given the unique nature of the bus as a social space, it may provide benefits to groups of older people who otherwise would not necessarily use more formal facilities aimed to improving the quality of later life, such as social clubs and day centres.

3) ***The scheme has clear symbolic value- argued in some cases to be the plastic embodiment of values of freedom, independence, and that the government cares for this group-*** this needs to be taken into account when deciding the future of the policy.

4) ***This research thus supports a move to considering - and furthermore understanding - how pass holders are responding to the opportunity presented by the free bus pass.*** On the one hand, some pass holders are treating the bus differently because it is free, and may use it less if there were even a small charge (and thus reduce the cost of the policy). For other pass holders, the very trips that can now be justified because the bus is free are those that are of most benefit.

5) ***The research identifies that some pass holders are not aware that the scheme represents a cost to government and would***

use it different if they knew. This could lead to the recommendation that advertising this fact could affect the amount pass holders use their free bus passes.

6) ***Further evidence needs to be developed around the evidence of the bus as a third social space*** *promoting social engagement and interaction amongst older people, and thus mitigating isolation and loneliness that can occur in later life.*

9.6.2 Bus Operators

A core question of the research was to understand how pass holders' use of the bus had changed since getting a free bus pass. A number of findings were reported that have implications for operators, including:

- **The phenomenon of 'seat-blocking'**: Some passengers (mainly in touristic areas) were found to stay on their seats from end to end of the route, which could undermine the principal of maximising seat turnover and risk operators not being reimbursed for the return journey.
- **The increased flexibility afforded by the pass has led to greater instances of hop-on-hop-off bus trips**, that could cumulatively increase bus overall boarding times.
- **There was evidence that some customers felt less loyal to a particular brand of bus since** they could use the pass for free on any operator, however there was still some affiliation to particular routes- contributing to a sense of clubiness.
- **Pass holders bringing their paying relatives on board** and informally promoting use of the bus.

Based on these findings, four specific recommendations are made to operators of bus services.

1) ***On a practical level, steps could be taken to mitigate of pass holders' bus behaviours that potentially have an effect on***

overall levels of operator reimbursement. For instance bus operators could oblige pass holders to debus at the terminus of the route and re-board, as opposed to allowing them to remain on the bus. This would ensure that this journey is recognised as a separate journey in reimbursement terms, and also allow other paying customers the chance to board the bus on the return journey, particularly important in cases where the bus may be full.

2) ***The research endorses the current transition to smart card technology.*** In addition to providing detailed information about use of the pass in the context of the pass holders' day, the provision of smart card readers could avoid pass holders needing to queue up to see the driver and thus reduce boarding times. It is recommended that such a system also work out a way of recording the alighting point, perhaps requiring pass holders to swipe out when they leave the bus. This would have the benefit of using the data to better plan future routes and timetables.

3) ***This research that bus operators capitalise on the importance of the 'bus experience' amongst pass holders, through marketing this to paying customers.*** For instance, this could be manifested in different seating arrangements for different purposes; for example some operators have experimented with the front of the bus being rowed seating, and the rear a more circular set up, thus encouraging social interaction. At its extreme, the case could be made for the upper deck of a double Decker bus being different to the lower deck. Indeed, in some touristic areas there could be scope for the provision of tour guides, or additional route information, which could in turn increase the proportion of paying customers. This could be a potential way of profiting from the trend of the bus in some cases being seen as the new coach (p141).

4) ***The research identifies the potential for pass holders to act as ambassadors and bring their fare- paying relatives on board the bus.*** This was particularly the case with older couples,

one who may have a pass and the other not; and with pass holders escorting their grandchildren. In other words, older people could potentially influence the modal decision making processes of their younger relatives. Marketing campaigns could be targeted at this group with a view to to emphasising the use of the bus for days out with the family. Once on board for social reasons, it could be argued that non pass holders may be more likely to consider the bus for other trips that they make.

9.7 Future Research

As the thesis comes to a close, this section identifies four possible ways in which the work could be expanded further in future research.

1. Measuring the extent and magnitude of the behavioural changes and benefits identified in this research across the wider population.

Given that some of the secondary benefits of the policy identified in this research stem from - but are not directly a direct consequence of - using the pass; the measurement (and possibly attempts at quantifying) these benefits becomes an important challenge for policy makers seeking to justify the cost of the scheme and requires a more holistic evaluative approach. It could be argued that as well as the obvious impacts on bus operators in terms of their carriage of passengers, there are smaller benefits and costs associated with the policy, that cumulatively across the population are not insubstantial.

2. Further research into the effect of age and gender on pass use, particularly given the recent reforms to the age of entitlement.

This thesis has identified that age is a statistically significant variable influencing the use of the concessionary bus pass. Given recent changes in the age of eligibility for

a pass (see page 34) it would interesting to explore how those reaching the age of 60 in the future respond differently now that they will not be entitled to a pass. Such research could assess the extent to which the changing nature of the bus as a social hub might be able to entice the 'younger old' on board, even though they would be required to pay. Indeed, the subject of age and car ownership are worthy of further research attention as society remains mobile for longer and as pass holders are more likely to possess a driving licence than the previous generations.

3. Exploring the effect of Concessionary Fares policy on the image of the bus amongst fare-paying customers.

Such research could encompass two aspects. First it could consider the consequences of the 'greying' of the bus market upon the image of the bus for younger (paying customers), and whether it would deter their use. Second it could explore their attitudes towards pass holders and views surrounding the policy.

4. Tracing the transition from non-pass holder to pass holder

In order to bolster understanding of the full range of influences and benefits of having a concessionary pass, an interesting research project could be to use a method such as a travel diary or panel survey to track a person's transition from being a non pass holder to becoming a pass holder and how this may affect their bus use, car use, residential relocation decisions and the types of activities they undertake. Whilst it would be difficult to specifically identify the role of the free bus pass in these changes, it would nevertheless provide a useful insight to the process of change upon becoming a pass holder.

In summary, this thesis recognises that England's Concessionary Fares policy cannot be treated in isolation from its consequences on the bus industry, both operationally and in terms of the increasing importance of state subsidy to bus operators. The thesis has identified the importance of an evaluative approach of the policy that incorporates the wider holistic benefits and costs that cannot necessarily always be attributed to any particular trip specifically, but which cumulatively can be used to assess the policy's contribution to its objectives. At a time of great change

for the bus industry, and faced with a rapidly ageing population, this thesis supports moves towards a greater understanding of the array of consequences of the policy, and importantly considering flexible mobility options for those who do not have access to these potential benefits.

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9) APPENDIX

Appendix 1: On Board bus survey

Introduction: Good morning/ afternoon, I work for Power Marketing Research Consultants based in Exeter.

We are currently conducting a survey about bus travel.
The survey only takes 3-4 minutes; we would be very interested in your views. Would you be willing to take part? (If respondents reply 'No' - thank and terminate interview)

Q1. Where ……..?
(INTERVIEWER PROMPT – STATE STOP (IF POSSIBLE) AND LOCALITY/TOWN/CITY

a) Did you get on the bus? (Please write in……)
b) Will you get off the bus? (Please write in……)

Q2. What is the MAIN reason for the bus journey you are making today?
READ OUT.

- □ Shopping
- □ Health (appointment / visit)
- □ Social reasons / Meeting family & friends
- □ Education (college / university)
- □ Work
- □ Other (please specify……)

Q3. What kind of ticket/pass do you have for your journey today?
READ OUT

- □ Single
- □ Return
- □ Explorer
- □ Megarider
- □ Dayrider
- □ Concessionary Pass (OAP)
- □ Concessionary Pass (Disabled)
- □ Other (please specify……)

Q4. Which age range do you fall into?
READ OUT.

- □ 18-20
- □ 21-30
- □ 31-40
- □ 41-50
- □ 51-60
- □ 61-70
- □ 71-80
- □ 80+

IF UNDER 60, GO TO Q18.
IF AGED 60 OR OVER & TRAVELLING 'TODAY' ON A CONCESSIONARY PASS GO TO Q6.

Q5. Do you have a concessionary travel pass?

- □ Yes GO TO Q6
- □ No GO TO Q18

Q6. Approximately when did you get your concessionary pass?

□ In the past 6 months □ From April 2008 □ From beginning of 2007
□ Had it longer than that

Q7. How many bus journeys have you made in the last 4 weeks that you have had to pay for?

□ None □ 1-5 □ 6-10 □ More than 10

Q8. How many bus journeys have you made in the last 4 weeks using your concessionary pass?

□ None □ 1-5 □ 6-10 □ More than 10

Q9. How far do you agree with the view: before having a free bus pass, the cost of bus travel was preventing me from travelling on the bus.

□ Agree strongly □ Agree slightly □ Disagree slightly
□ Disagree strongly □ No opinion

Q10 How many days a week do you use the bus within your local area? (≤9.99 miles from home)

□ Every day □ 2-5 days a week □ 6-10 □ more than 10

Q11. How many days a week do you use the bus outside your local area? (≥10 miles from home)

□ Every day □ 2-5 □ 6-10 □ more than 10

Q12. Had you been unable to travel for free using your pass, what other methods of transport could you have used to make those journeys? (Rank 1-3 with 1 being the most likely)
SHOW CARD A.

□ Car (drive) □ Car (lift) □ Walk □ Cycle □ Taxi □ Rail
□ Paid bus journey □ Wouldn't have travelled

Q13. When you use your free pass, typically how far do you tend to travel (each way)?

□ Less than a mile □ 1-3 miles □ 4-10 miles □ More than 10 miles

Q14. Since the introduction of the free bus pass– are you making extra bus journeys?

□ No – the same □ Some more □ Lots more

Q15. Since the introduction of the free bus pass – are you making longer journeys (by distance)?

□ No – the same □ Some longer □ More longer

Q16. How far do you agree with the view: free bus travel has improved my quality of life.

□ Agree strongly □ Agree slightly □ Disagree slightly
□ Disagree strongly □ No opinion

Q17 How far do you agree with the view: I am able to spread my trips out over the week since I have had a free bus pass?
□ Agree strongly □ Agree slightly □ Disagree slightly □ Disagree strongly □ No opinion

Q18. What times of the day do you normally travel on the bus?

SHOW CARD B. MULTI-CODE

□ Before 9.30 □ 9.30 – 12.30 □ 12.30-15.30 □ 15.30-18.30 □ After 18.30

Q19 How far do you agree with the view: there is generally plenty of room on the buses that I use?
READ OUT. TICK ONE ONLY.

□ Agree strongly □ Agree slightly □ Disagree slightly □ Disagree strongly □ No opinion

Q20. How far do you agree with the view: the buses I use are generally on time?
READ OUT. TICK ONE ONLY.

□ Agree strongly □ Agree slightly □ Disagree slightly □ Disagree strongly □ No opinion

Q21. To what extent do you agree or disagree that free bus travel for older people is a good idea?
READ OUT. TICK ONE ONLY.

□ Agree strongly GO TO Q22
□ Agree slightly GO TO Q22
□ Disagree slightly GO TO Q22
□ Disagree strongly GO TO Q22
□ No opinion GO TO Q23

Q22. Why do you think that?
DO NOT READ OUT. MULTI CODE

□ It's better to have buses full □ Older people can't afford buses
□ It helps people get out and about □ It makes buses too crowded
□ Most could pay their own fares □ Free fares lead to unnecessary travel
□ Other (please specify……)

Q23. There are no plans to change bus fares as a result of this survey, however we would be interested to know what you would consider a fair price for a half hour bus journey. DO NOT READ OUT OPTIONS.

□ Free □ £0.01- £0.99 □ £1.00- £1.99 □ £2.00- £2.99 □ £3 or more □ no opinion

Q24. We have already asked your age category, but it would useful if you could provide us with your exact age for data analysis purposes……

Q25. Would you be willing to participate in a group discussion about bus travel in the new year? If so please leave your contact number or address below.
……
….

Q26. Please can you provide us with your home post code (this is used for back-checking purposes
only)……
….

FOR INTERVIEWER COMPLETION ONLY!!!!!
INTERVIEWER COMPLETE TIME OF INTERVIEW

Appendix 2: FOCUS GROUP GUIDE

AS COMING IN

Thank you for coming today. If you could start filling in the short questionnaire and signing the consent form to take part in the research and we will start in a few moments. Also if you could fill in your name card that would be great- first name or as you wish.

Ok well thanks so much for coming today. I have spoken to you all briefly on the phone. Just to tell me a bit about myself and the project. I am a researcher at the University of West of England over in Frenchay and I am looking basically at how you used your free bus pass and what you use it for. Also I am interested in your experiences of using the pass.
The group will last no longer than 1.5 hours at which point you will receive £10 for your time. You are free to leave at any time, and anything you say today will be anonymous. Please don't feel pressured into saying anything you don't want to, as this is an informal discussion.
A few more things- if you are ok I will tape record the group to help me writing it up later. For this reason if you could talk one a time this would be helpful.
Finally, you may have heard in the media about plans to change the scheme- this research is not anything to do with the government- an independent project.

Do you have any questions?

1) INTRODUCTION

A) If you could describe the bus/bus travel what words come to mind?

B) Can I just check you all know what the pass entitles you to?

C) What's the longest journey you've made using the pass

2) TRIP PURPOSE

Thanks for your comments so far. We are now going to talk about what you use the pass for.

A) How often do you use the bus? (experiences)

B) Are you a car user?

C) What would you say you mainly use the bus for?

That's interesting…could you tell me more about that?
Can you explain what you mean?
What do you mean by leisure/shopping etc?"

D) Are they trips you would make anyway without the free bus pass?

Ok, tell me more about that please
Why wouldn't you make the journeys
How would you have made these journeys

E) Would still do these things if there were half fare scheme?

Ok, could you explain that in a bit more depth? How does this stand with everyone else?"
Do you then think you make trips simply because its free?

F) Would you say you do any things/activities by bus that you didn't do before you had a free bus pass?

G) **Why do you use the bus in particular for these trips as opposed to say the car? <u>(try to get out about convenience)</u>**

Tell me more, what is it about the pass/ the bus that makes it attractive.

H) Do you use it whilst on holiday now that you are entitled outside your local area?
Does this impact on how you get down there?

<u>To try to get out of this</u>…
I) Has the bus become less purposeful?
J) Has it proved or maintained your quality of life?

1) CHANGING BEHAVIOURS (key= interaction with daily life- avoid trip purpose)

Ok, so we have talked a bit about your opinions on the bus- now we will move on to talk about how you use the pass…

A) Would you say your bus use has changed since you got a free bus pass?

So what prompted you to get a bus pass in the first place?
"Excellent, could you expand on that please?"
Overall do you think having the free bus pass has changed the way you use the bus?
"Tell me more!"
Do you feel you make more trips by bus nowadays?
What about your friends and family/ those you know?
Do you feel you make longer trips nowadays?
If you drive, how has the bus pass affected your use of the car at all?

Ok, I hear what you are saying. What about other group members?

Has the bus pass made bus travel easier practically speaking? (try and get out about not having change, not needing to know where you are going etc)
Are you more likely to travel in a group now than before?

Do you think you would make the same number of trips if there was no free bus pass?
If you didn't have a free bus pass would there be anything different about the timing or order of the trips, or what day you do things? For example some people put lots of activities in one day to maximise the use of a paid ticket.
Has this had an impact on your daily life and experiences of the bus?
Has your travel become more leisurely**?** (try to get out about trip chaining)
When would you most likely use your pass? (feb-march up)

2) CONTRIBUTIONS TO SOCIAL EXCLUSION

Ok, so now I want us to think about the effects the pass had had on your life.

What does quality of life mean to you?

Do you feel that your quality of life has been improved by free bus travel?

Consider the following statements and tell me what you think about them. They are real life pass holders.

- "Although I could afford bus travel before, I tended to use the bus only one day a week to make the most of my day ticket"
- I can drive and so only use the bus occasionally when it is easier, but normally I don't use it.
- I don't have that much money, so the free bus pass has allowed me to make trips I would not have made otherwise
- The pass has made a real difference to my life and opened up new opportunities for me

What type of person do you think might benefit the most from free travel?

Now consider the following statements- do you feel like any of these people?

- *"..I use the bus pass every day to go to work.."*
- *"…Before I could not afford bus travel but now I can go to new places!.."*
- *"…I have earnt my free bus pass after paying tax all my life.."*
- *"..I only use my pass for absolutely necessary journeys as I feel guilty using it"*
- *"…I want to pay for my ticket, I don't really need a free bus pass"*
- *"..The pass has not really improved or worsened my quality of life, but if its free I will use it"*
- *"Free or not free, the bus is not suitable for my needs, so I have to use an alternative."*

What do you think is the main benefit of the pass to you?

3) FUTURE SOLUTIONS

NOW FOR THE FINAL QUESTION. YOU MAY HAVE HEARD ABOUT SOME CHANGES PLANNED FOR THE POLICY, IN PARTICULAR TO RAISE THE AGE FOR NEW PASS HOLDERS TO 65. PLEASE NOTE THESE POLICIES ARE UNLIKELY TO HAPPEN TO EXISTING PASSHOLDERS LIKE YOU BUT FOR NEW ENTRANTS. IF THE PASS HAD TO BE REMOVED FOR NEW PEOPLE- WHICH ISN'T THE CASE, WHICH OF THE FOLLOWING OPTIONS WOULD YOU PREFER TO TAKE ITS PLACE?

1) An electronic card limiting the number of trips per week. If you didn't use it you could have the money at the end of the month.
   - How much?

2) A small flat charge of up to 50p for each trip
If it meant everyone could have a ticket at that price?

3) A means tested pass linked to national benefits.

4) A set amount on a card that could be used on any transport.

5) An addition to the state pension to cover transport costs.

Do you have any other questions?

Appendix 3: Letter confirming focus group dates

Mr B. XXXXX
16 XXXXXXX Road
Southville
Bristol
BS3 1LG

21st April

RE: CONCESSIONARY FARES FOCUS GROUPS

Dear Mr XXXX,

Thank you ever so much for your phone call last Wednesday and willingness to be involved with my focus group discussions. By way of explanation, the focus groups in Bristol are initial studies to gain a valuable insight into the views and experiences of Concessionary pass holders. They will prepare me for subsequent focus groups to take place at the end of the summer in Exeter, for which I am planning to recruit people around different themes, such as bus availability access to car etc. The Bristol pilot focus group will not recruit participants using these themes, but rather have all pass holders together.

Please find attached further details about my Thesis. I am really quite excited about getting the views/experiences of pass holders, having spent the last year developing a deeper understanding from the literature about the key issues around the policy.

Due to a slight delay I am hoping the session will take place in the week 17th-21st May, (one or more sessions depending if I succeed in recruiting enough people), but I shall be in contact as soon as I am able to confirm this. I have had a good response so far from the advert with in the region of 10 people expressing an interest. If you know of anyone who may wish to come along, have any contacts who would be interested in my area of study, please do pass on my details- I am keen to get as many pass holder's views as possible. Each would receive a £10 payment for attending the discussion.

Thanks once again,

I will be in contact soon regarding a date and the venue.

Yours sincerely

Geoff Andrews

Appendix 4: SHORT

QUESTIONNAIRE

Thank you for taking part in this focus group discussion. It would be really useful if before the discussion begins, you could answer a few questions for us to know a bit more about you.

- If you are unable/unwilling to answer any of the questions just leave them blank.

1) In what year were you born?

2) When did you get your bus pass?

In the last 6 months? In the last year? In the last two years? Longer?

3) How many times do you use your pass per week?

Rarely once 2-5 times 6-10 times

10 or more time

4) What would you say is the main reason for using your bus pass?

Social trips Shopping Recreation/leisure work

Other (please specify)

5) Did you use the bus regularly before you got your bus pass? **YES / NO**

6) If you wanted to, could you easily access the bus from home? **YES / NO**

7) Do you have access to a car at your house? **YES / NO**

******THANK YOU FOR FILLING OUT THE SHORT QUESTIONNAIRE*****

Appendix 5: DISCUSSION ABOUT CONCESSIONARY BUS TRAVEL

Thank you for agreeing to take part in this discussion group. Here is some more information about the purpose of the study and how it will be run today.

Who am I and why have I been contacted?

My name is Geoff Andrews, a student from the Centre for Transport & Society at UWE. You have been contacted because you are a Concessionary bus pass holder.

What is the point of the study?

I am doing research about how the provision of free bus travel has impacted the lives of pass holders. In particular, I am interested in how you use your bus pass and what types of activities you use it for.

How will the study be used?

The discussions will be used to help write up my research, but you will remain anonymous. Any personal information given such as telephone numbers will be destroyed securely once the study has been done.

Do I work for the government or a bus operator?

No- this research is completely independent and is not paid for by the government or any other organisation.

Do I have to say anything?

No, you are free to say as much or as little as you want.

Can I leave at any time?

Yes, you are free to leave at any time and will still receive your money.

What do I get for attending today?

You will receive £10 and a free tea/coffee for giving up your time today.

FOR MORE INFORMATION ABOUT CONCESSIONARY BUS TRAVEL

GETTING A PASS/REPORTING IT MISSING

Application forms and information available by calling 0117 922 2600 or emailing public.transport@bristol.gov.uk

Postal address: Travelcard Office, Bristol City Council PO Box 375, Bristol BS99 7GX

BUS TRAVEL IN THE BRISTOL AREA

Phone: 0117 922 4454 Email: public.transport@ bristol.gov.uk

Postal address: Public Transport and Park & Ride, Brunel House, St George's Road, Bristol, BS1 5UY

BUS OPERATORS IN THE AREA

First Buses – Tel: 0845 602 0156

http://www.firstgroup.com/ukbus/southwest/bristol/home/

First Customer Services 2nd Floor, Portland House Longbrook Street, Exeter, EX4 6AB

Wessex Connect – Tel: 0117 969 8661

Email : info@connectbuses.com

Pegasus Park
Gypsy Patch Lane
Patchway
Bristol
BS34 6QD

Appendix 6: Focus Group Recruitment Poster

CALLING ALL CONCESSIONARY BUS PASS HOLDERS!!

Discussion Group about how you use your pass	Free tea & Coffee!	Get paid some money for your views

****PAID PARTICIPANTS REQUIRED FOR DISCUSSION GROUP ABOUT CONCESSIONARY FARES****

Monday 9th August or Tuesday 10th August 10:30-12pm in Newton Abbot

To register: Contact Geoff Andrews on 011732 83129 email: Geoffrey2.andrews@uwe.ac.uk

Appendix 7: Ethical Considerations

5.16 Ethics Health and safety

The ESRC (2007) provides the following guidelines which formed the basis of the ethical procedures for this research.

- Research should be designed, reviewed and undertaken to ensure integrity and quality
- Research staff and subjects must be informed fully about the purpose, methods and

Intended possible uses of the research, what their participation in the research entails and what risks, if any, are involved.

- The confidentiality of information supplied by research subjects and the anonymity of respondents must be respected
- Research participants must participate in a voluntary way, free from any coercion
- Harm to research participants must be avoided
- The independence of research must be clear, and any conflicts of interest or partiality must be explicit **Table 4.4 ESRC (2007) Research Guidelines.**

The following specific ethical considerations are being considered as part of the research planning exercise

Care was taken in the focus groups when touching upon sensitive issues such as giving up driving, or any incidents or falls that may have affected the respondent's mobility. Respondents were told at the beginning that they were free to share as much or as little as they wished (Mason, 2002)

Informed consent was obtained from all focus group participants, giving express permission to participate in the focus group, use the data for analysis and the right to anonymously publish the results (Mason, 2002).

Some of the subjects be considered vulnerable adults, and as such extra care was be taken to ensure they are not harmed or upset by the research. Where appropriate, consent must be obtained from their carers or next of kin.

The health and safety of all the surveying team members was of paramount importance. The surveyor was required to make himself known to the driver who is radio contact in case of an emergency. The research engaged with commercially sensitive bus usage data which will need to be treated with upmost confidentiality and kept in locked storage

Every attempt was be made to ensure that the sponsoring company's name was not brought into disrepute during the course of the research

The focus groups took place in the public setting of a local hall or centre where staff members were available to deal with any incidents, and provide an additional layer of security. When entering the venue a visual risk assessment was be carried out to identify any potential health and safety risks that could cause a trip, fall or other potentially dangerous situation. Furthermore the principal researcher was assisted by a helper who was present in the room at all times. UWE ID was clearly visible on a lanyard and a telephone number provided to verify the authenticity of the researchers. A detailed plan of the schedules for the focus groups was distributed to a CTS member based at UWE so that he was aware of where and when the focus groups were talking place and could respond in the event of an emergency.

Appendix 8: Letter sent to promote discussion groups

Centre for Transport & Society

University of the West of England
BRISTOL

Faculty of Environment and Technology
Frenchay Campus
Coldharbour Lane
Bristol BS16 1QY

Direct Line 011732 83129
Facsimile 0117 32 83002
Email Geoffrey2.andrews@uwe.ac.uk
http://www.transport.uwe.ac.uk

20th July 2010

RE: CONCESSIONARY FARES FOCUS GROUPS

Dear Mr [redacted]

You may recall completing a bus survey back in December 2009 in which you gave your contact details to be kept up to date with future research. I am now delighted to invite you to a paid discussion group surrounding Concessionary Fares policy that is taking place in Newton Abbot on **Tuesday 10th August 10:30am – 12:00.** The research is part of a university study exploring how people have used their concessionary bus pass and what it has meant in different people's lives. This is an area which hasn't previously been studied in any depth.

Each person attending will receive £15 for their time, with refreshments provided and the group should last no more than 1 ½ hours. The research has been approved by the University ethics board who have given me permission to carry out the research.

If you are interested in attending the group, or for more information please contact me on [redacted] or email [redacted]. Details of the venue in Newton Abbot will be given to those who have registered.

If you have any friends or relatives who hold a concessionary pass and would like to attend please do pass on my details.

Many thanks for your time.

Geoff Andrews Ba (hons), Msc

www.transport.uwe.ac.uk

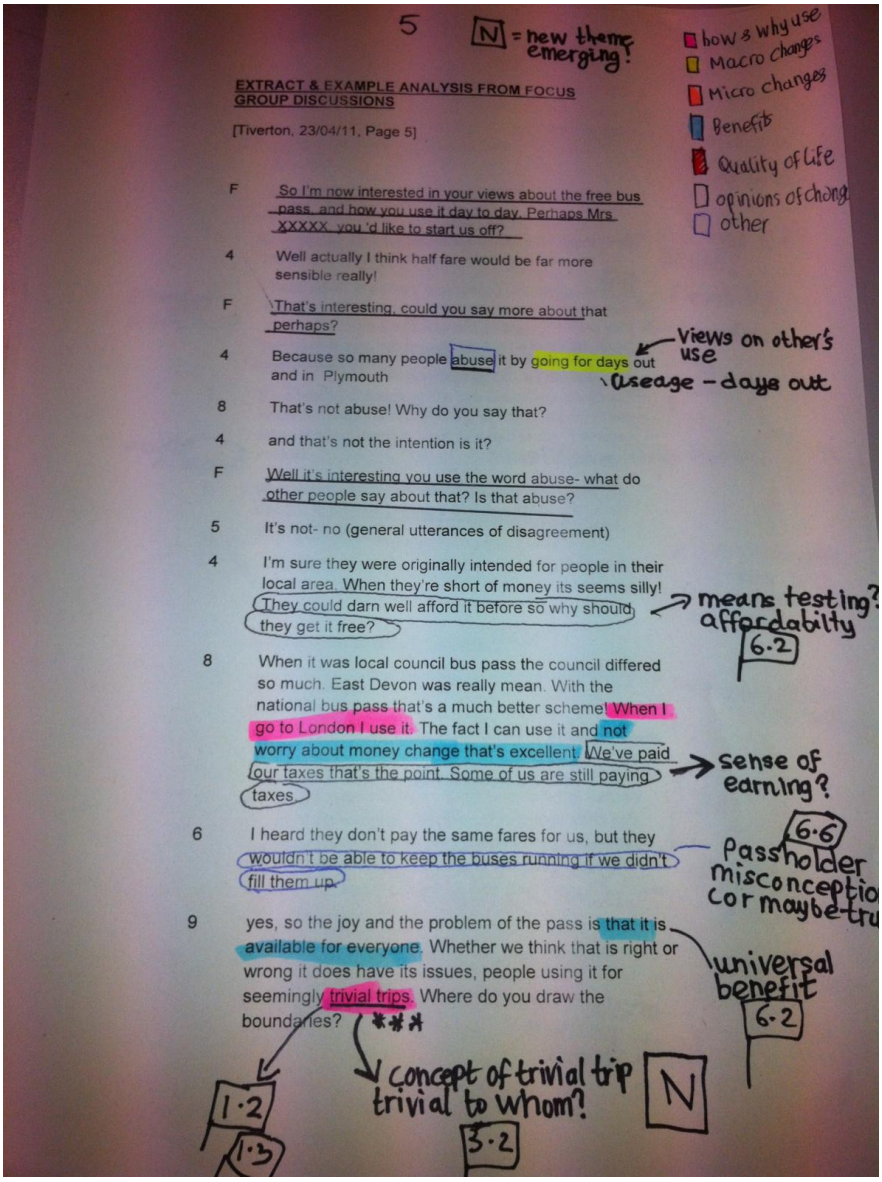
University of the West of England, Bristol

Appendix 9: Further Rxample of Recruitment Material

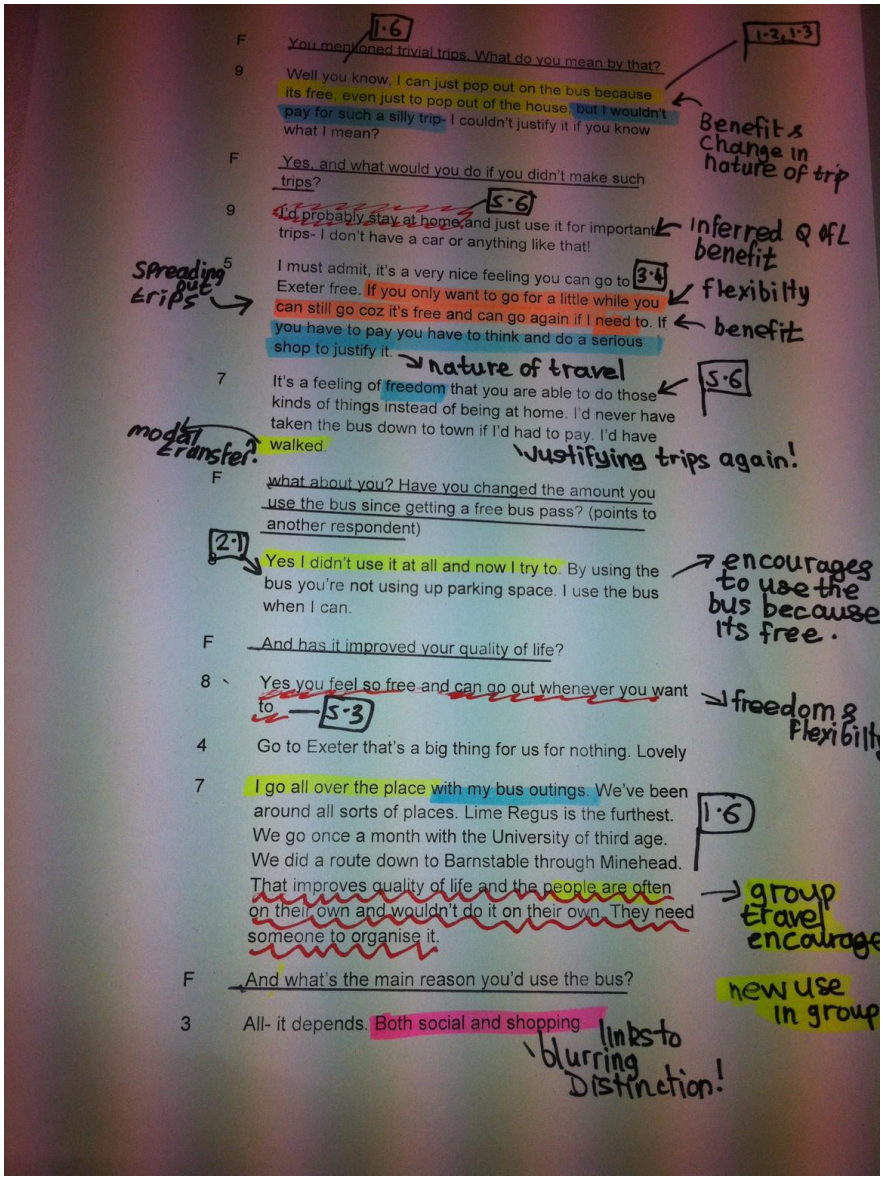
Appendix 10: Details of Qualitative Transcription process

After transcribing the focus groups and a general read through the text for initial thoughts, the following stages were undertaken as part of the manual analysis of the qualitative data.

Stage 1: Underlining interesting points emerging from the transcript and linking them back to common themes based on the agreed structure for analysis. As evidenced below, new themes emerged from the transcript and were noted accordingly. On the second read through, am extensive colour coding system was devised to group themes together.



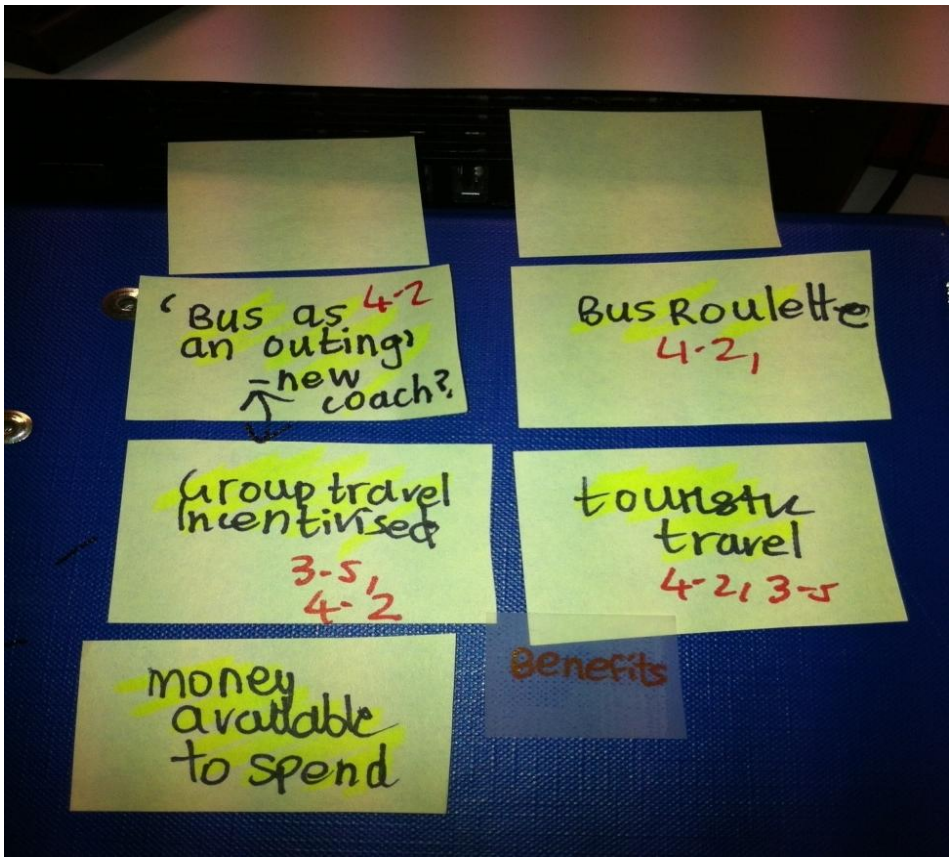
Evidence 1.1*: initial coding and comments on the data*



Evidence 1.2: Example of second and third read through and coding of the data

The next stage, once all the data was coded was to gather together all the findings for each sub category. Post it notes were used for this purpose. Subsequently these findings were linked to other themes through a secondary coding system, and string used to show links within the datasets. This was particularly useful when the findings were found at first sight to contradict each other and further information were required to understand the context of what was being said.

Evidence 1.3: *Post it notes used to brainstorm key findings for each theme*



Evidence 1.4: *Cross coding of themes and linking them to other findings.*

Evidence 1.5: Further examples of multiple codings within an 'umbrella code'