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Paper title: Exploring the future of car use for an ageing society: preliminary results from a Sydney study

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Abstract (200 words):

An ageing population is the common demographic trend in developing countries. What has popularly been referred to as the 'Baby Boomer' generation, will soon be entering their retirement years. A generation of ageing baby boomers will usher in new patterns of transport needs and choices among retiring Australians. This paper explores the potential urban car use characteristics of the baby boomer generation as they enter their retirement years, with a focus on the attitudes, values and aspirations that underpin these transport choices. First, a review of literature regarding the issue of ageing and transport choice is discussed; and second, preliminary results from a qualitative Sydney case study of recent retirees are presented. The shortcomings of the literature confirm that it is unlikely that the ageing baby boomers, with markedly different capacities, expectation of retirement and experience of motorisation will display similar transport choices as the current generation of retirees and the elderly. The qualitative interviews explore the attitudes, values and aspirations of recent retirees and how these may underpin transport choice and a continued reliance on the car. The interviews illustrate a range of the social and cultural underpinnings that contribute to transport choice and a retiring 'car culture'.

Introduction

The topic of ageing and driving has been of interest in transport research since the 1960s, however studies in this field have predominantly focused on transport difficulties, transport deprivation and the decline in motor vehicle use as age increases (Dent et al 1999; Rowles 1986). It has been acknowledged within the discipline of ageing and transport studies that such foci has meant that the 'normal' relatively healthy population has been ignored in academic studies of the ageing (Rowles 1986). While there has been, and will remain, a need for studies which aim to understand and identify transport difficulties and disadvantage among the elderly, an ageing population is the common demographic trend in developing countries and a generation of ageing baby boomers will usher in new patterns of transport needs and choices among retiring Australians. This paper explores the potential urban car use characteristics of the baby boomer generation as they enter their retirement years, with a focus on the attitudes, values and aspirations that underpin their transport choices.

The context of car use for the ageing baby boomers

By lifting both spatial and temporal limitations on our journeys, the widespread adoption of the motor vehicle has opened up new possibilities in the way society and urban areas function at all levels. Some commentators have referred to the motor vehicle as a democratizing force in that it has presented new freedoms, expanded choices, and empowered (Sheller and Urry 2000). While the motor vehicle is often referred to as being embedded in contemporary culture, it has become difficult to untangle the determinants of contemporary urban travel beyond the physical and the spatial structure of cities. This is demonstrated by the focus of Australian urban transport policy on urban form and structure in recent years. However, we also know that there are significant social and cultural influences on urban travel that revolve around the values society holds regarding lifestyle, family and work; and on societal attitudes towards transport choices. These are proving more difficult factors to manage. For many in society, the motor vehicle is viewed as an essential tool to better manage daily lives, providing mobility, convenience and flexibility needed to survive and thrive in the contemporary city (Dowling, Gollner and O'Dwyer 1999). For others the motor vehicle and its prevalent use has become a 'habit', a 'right' or a 'reward' as this paper will further expose.

So what does this all mean for policy and the way we deal with urban transport challenges in the future? It is already apparent that today's travel demands and travel behaviour outcomes are complex in nature, not only spatially but also socially, demographically and economically diverse. In the 1970s and early 1980s we became more aware of inequitable transport accessibility and socio-economic and spatial differences in travel demand and travel behaviour (Black 1977; Troy 1982). We have also developed more sophisticated travel demand models for use in planning and decision making and now have access to better quality travel behaviour data. The difference today is that while some of the variables influencing travel demand and modal choice remain unchanged many of the variables have shifted in significance.

Earlier work by one of the authors (Dowling, Gollner (Lyth) and O'Dwyer 1999; Lyth-Gollner and Dowling 2002) investigated issues of transport use for women, looking at how societal attitudes, values and needs have evolved to shift the composition of urban travel demand, travel patterns and transport mode use for this group in recent decades. Such work has raised questions about the implications of such change for urban transport policy and

planning that attempts to meet both the transport needs of diverse urban communities (spatially and socially), as well as to meet the cumulative challenge of managing motor vehicle travel demand of an ageing Australian society, particularly an urban Australian society that has grown up and grown old with the motor vehicle. This has alerted the authors to a need to re-visit the assumptions that might be made about the transport choices and travel behaviour of future retirees and the elderly.

In the past we could assume that the elderly population was more likely to use public transport, especially buses, as they were no longer able to drive or had never driven before. This was especially relevant to elderly women. The assumption is fine for those cohorts that grew up before the motor vehicle became so entrenched in Australian urban society, but what about the new large wave of baby boomers who grew up with the motor vehicle and the ideals of suburban living?

Perhaps we can assume that a bulge of over 65 year olds in our population would help to reduce car use and total vehicle kilometres travelled in our cities, but we would have to be careful about how strong this assumption was. Mainstream assumptions about baby boomers are that they are expected to live longer than the current older generation as they are expected to remain healthier for longer (ABS 1999) and thus potentially able to drive for longer. Further, it is often accepted that this group has developed more independent attitudes, has become used to the ready incorporation of cars into their lifestyles and are likely to be wealthier than present or previous cohorts. These social, cultural, health and economic observations all point to a far more car dependent elderly component of society than ever before. It is recognised, however, that caution is still required in case such generalisations mask diversity. For example, it is suggested that the baby boomer generation will be more diverse than the current elderly with respect to income (Kostyniuk and Kitamura 1987). Therefore, we must be careful in suggesting that all are affluent. Fry (2003) suggests that 25 per cent of US baby boomers are not prepared for retirement due to inadequate savings.

Regardless of the degree of diversity, nevertheless, it is probable that the newly retired and ageing baby boomers may demand and experience quite different patterns of urban travel. Consequently the purposes of the trips they make and how they make them will need to be reviewed and assessed with their likely lifestyle choices and aspirations in mind.

The focus and shortcomings of the transport and ageing literature

When discussing current ageing cohorts or the baby boomer age cohort, it is important to note that a 'cohort' is a group of people in the same years who have broadly experienced the same social and economic events that have an effect on their life choices (Baum and Wulff 2003), or indeed their transport choices. Therefore, different cohorts are likely to display different characteristics in their life choices. It is thus reasonable to suggest that the travel behaviour of each cohort as it ages may be very different from that of other cohorts as they age (Kostyniuk and Kitamura 1987). If our knowledge of ageing and transport is based on previous and current cohorts of the aged, then many of our assumptions about future cohorts and their likely travel behaviour and car use may be flawed. The following discussion introduces some arguments that suggest the baby boomer retirees may indeed challenge the broadly accepted findings within the literature on ageing and transport.

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There is a body of literature interested in the relative importance of motor vehicles in the daily lives of the elderly. The dominant focus of the literature, however, is on driving cessation, driving reduction and transport disadvantage, leading us to develop an image of elderly lifestyles with much reduced reliance on private motor vehicle use. Stacey and Kendig (1997), Hakamies-Blonqvist and Wahlstrom (1998) and Raintenan et al (2003) have focused on the reasons behind, and the timing of, driving cessation or the incidence of reduced driving. Other studies have focused on the disadvantage experienced by the elderly when access to a motor vehicle is not available and reliance has to be placed on public transport or walking (Dent et al 1999; Smith 1992; Stein and Morse 1994). More recently, Raitanan (2003) has begun to explore the timing of, and importance of, driving reduction (in terms of annual kilometres or miles) as a driver gets older and exits the labour force. This last area of recent investigation has particular value for understanding the potential impact of an ageing population on total vehicle kilometres travelled (VKT), an important indicator for the monitoring of travel demand management and car use reduction strategies.

The main issue at the heart of these studies involves the cessation or reduction in driving as new retirees leave the labour force. While removing the journey to work and work related trip purposes is likely to impact on the total kilometres travelled by motor vehicle, such studies place less emphasis on understanding how trip purposes and travel patterns might differ as a whole. As people retire they are effectively moving into a life-stage which, while not involving paid work, may involve significant lifestyle changes, in turn changing the characteristics of individual and household travel demands and choices.

While it is undoubtedly important to identify areas of transport disadvantage and transport difficulty, the conjectures made concerning the healthier, wealthier baby boomers suggest an additional research path - the relatively healthy and mobile population and factors that contribute to prolonged car use and car use patterns.

The literature that discusses the baby boomers as a generational force also provides insight into the potential car use preferences of the ageing baby boomers. This literature is not confined to transport literature, but explores the baby boomer's transport choices within the context of wider links to social and familial responsibilities, work, lifestyle, gender and housing. A discussion of this literature is beyond the scope of this particular paper. However it is being included in the wider project of which this paper is reporting part. The authors have acknowledged the importance of understanding travel behaviours through investigations of social contexts and cultural change which means moving away from a focus on transport literature only.

Observations of ageing and motorisation

Observed changes in car use for the older age cohorts suggest the relative importance of the car is increasing. The following summarises some particular observations indicating this.

Growth in motor vehicle driver's licences

An increasing proportion of ageing citizens are licensed to drive. Figure 1 shows that the proportion of licence holders as a percentage of the population in each age group has been increasing for both males and females, with some interesting gender differences in the

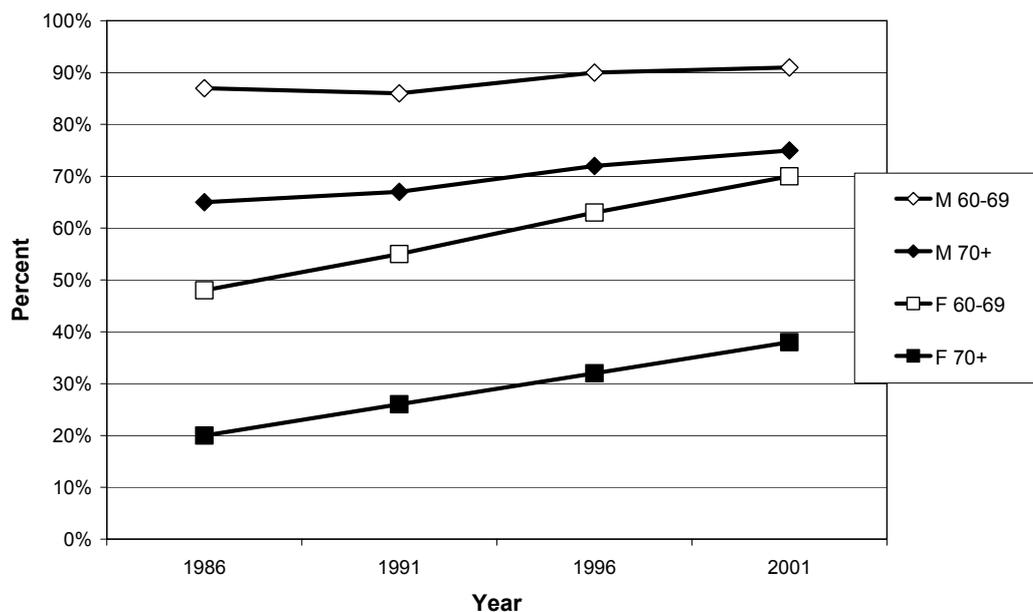


Figure 1 Proportion of driver's licence holders by gender and age group (1986-2001) - NSW

Source: Traffic Authority of New South Wales 1987; RTA1992 ; RTA1999 ; RTA 2003

patterns of growth. The percentage of men within each age group that are licensed shows a minor increase. This reflects the saturated nature of male licence holders. While the percentage of women in each older age group that are licensed is consistently lower than the men, reflecting the assertion made in the literature that current generations of elderly women are less likely to drive as they may have never held driver's licences (Stein and Morse 1994), the picture of female licences in retirement is changing. There is a significant increase in the percentage of females in each age group who hold driver's licences (a 20 per cent increase for both the 60-69 and over 70 age groups). Consequently, if a growing proportion of each age group holds driver's licences, this suggests a growing importance of driving in retirement.

Licensing in the older age groups has increased in an absolute and relative sense. This cannot solely be attributed to population growth in the elderly age cohorts as the percentage increase in licences consistently exceeds the population growth. The greatest increases have been for the oldest age group (70+) for both men and women, and for women generally. Of particular note is the increase for women over 70 where population grew 47.3 per cent in the period 1986-2001, the number of licences has grown 183 per cent (Traffic Authority of New South Wales 1987; RTA 1992; RTA 1999; RTA 2003). Again, these changes in licence holders indicates the growing importance of the car for the ageing sectors of the population even before the wave of baby boomers have reached their retirement years.

The literature suggests that these trends are likely to be further accentuated by the ageing baby boomers. It has been observed that the U.S baby boomers have been almost universally licensed for much of their adult lives (Glasgow 2000; Guiliano and Gillespie 1997). Further, in contrast to the current elderly, it is expected that baby boomer women will drive in record numbers in retirement and in comparable numbers to men, due to the significant number of women who are licensed and accustomed to a motorised lifestyle (Glasgow 2000; Root and Schintler 1999). These assumptions may also be relevant for the Australian baby boomers

Table 1 NSW driver's licences by gender, baby boomer age cohorts (2001)

Age Cohort	Number of Licences	Percentage Population by Gender and Age with Licences
Males		
40-49	444 813	93.5%
50-59	363 937	93.3%
Females		
40-49	413 866	87.6%
50-59	312 600	83.0%

Source: RTA 2003

and have been pointed out in Australian research which investigated ageing and car relinquishment (McKenzie and Steen 2002).

Table 1 shows the absolute number of driver's licences and the percentage of male and female population in each baby boomer age group with licences in NSW. A significant proportion of each age group are licensed to drive for both genders. The question is whether an entrenched history of motorisation contributes to attitudes and values that will favour prolonged car use in retirement.

Retirement lifestyles and mode choice

The importance of the car in the journeys undertaken by older age groups is increasing. The picture that suggests elderly cohorts have a greater reliance on other modes may be starting to change. Figures 2 and 3 depict the percentage difference from 1991-2001 for the proportion of weekday trips made by mode for the older age cohorts. This can be compared to Figure 4, which depicts the same data for Sydney as a whole (all ages). The data for 'all ages' shows a minor decline in the proportion of travel made with modes other than the car and a minor increase in car travel, fuelled by the increase in female car travel. Interestingly, there has been a small decline in the proportion of male car trips, with an increase in the proportion of male car passenger trips (which still has an impact on urban VKT).

In contrast, both the older age cohorts (65-74 and 75+) depict higher proportional increases in car driver trips and more significant decreases in the proportion of trips made by other modes. The magnitude of increase or decrease is higher than the rates for all ages. For the 65-74 age group, an increase of 7 per cent and 5.5 per cent for car travel occurs for males and females respectively. The rate of increase for those over 75 is even higher with the proportion of male car trips increasing some 7.1 per cent and females increasing 10.6 per cent. An increased proportion of trips made by car confirms preliminary evidence that car use is increasing in importance for older age groups.

The projected lifestyle preferences of the baby boomer generation may also have an impact on the car as the preferred mode of choice in retirement. Price's (2003) recent study of the retirement transition of professional women may indicate some of the potential lifestyle priorities of the baby boomers in retirement. Price (2003) found that retirement adjustment was characterised by a need to expand social roles, maintain a sense of self, re-establish structure and increase community involvement. To achieve this, many women in the study

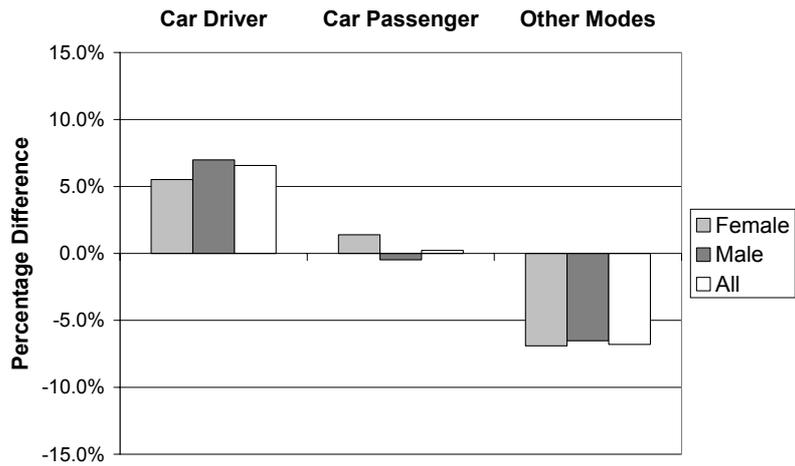


Figure 2 Percentage difference 1991-2001 weekday trips by mode (Sydney, Age 65-74)

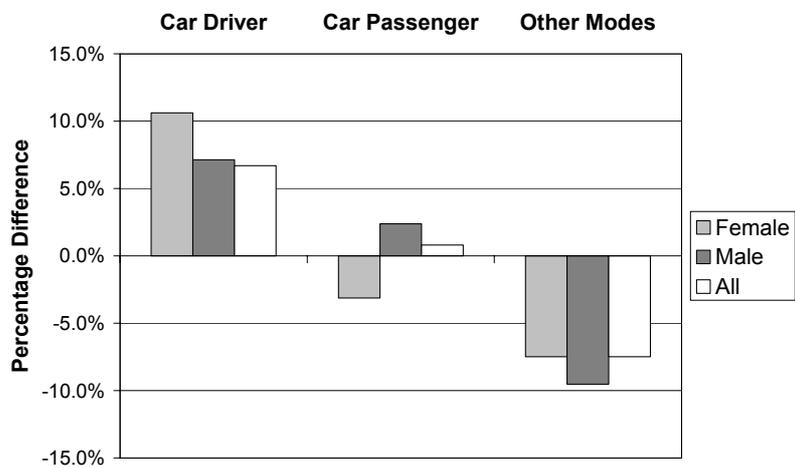


Figure 3 Percentage difference 1991-2001 weekday trips by mode (Sydney, Age 75+)

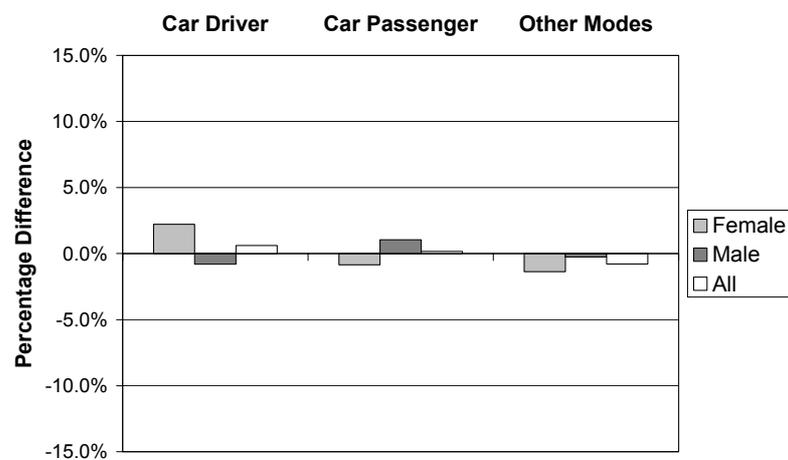


Figure 4 Percentage difference 1991-2001 weekday trips by mode (Sydney, All Ages)

Source: TPDC (nd a); TPDC (nd b)

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group sought education, part time work and varied recreational activities. Many women reported being busier than in their employment years. Findings from the Australian Institute of Family Studies 'Later Life Family Study' support this contention with contact with friends, family and the community seen as important to replace the former involvement in work (Wolcott 1998). Therefore, retirement for the baby boomers may be characterised by an expansion of activities.

Serve passenger trips – parenting, grand-parenting and child cultures

The ageing baby boomers may have a part to play in contributing to serve passenger trips in our urban system. In the 2001 NSW Household Travel Survey, serve passenger trips accounted for 17 per cent of all trips, second only behind social and recreational trips (TPDC, nd c). The impact of baby boomers as potential contributors to parents, children and grand children and the implications this may have on serve passenger trips in the urban system is as of yet unstudied and unquantified. The Australian Institute of Family Studies 'Later Life Family Study' has yielded some insightful information on the familial roles of ageing baby boomers which may have implications for daily trip generation, particularly serve passenger trips. The study found that a significant amount of practical, financial and emotional support flows from baby boomer parents to their children and grandchildren (Millward 1999; Wolcott 1997). It was also found that there was a significant amount of geographic proximity of baby boomers with their kin and a positive attitude to helping family (Batrouney and Stone 1998; Millward 1999).

Broader socio-economic factors and baby boomer transport choice

Broader socio-economic factors, such as housing choice and changing patterns of work may also have an impact on the transport choices of ageing baby boomers. Like transport choice, the housing choice of the ageing baby boomers is unlikely to prescriptively follow the patterns of their parents. It has been questioned if this generation will cringe at the prospect of sheltered housing communities and retirement villages utilised by the current elderly (Rowles 1986). Studies conducted by the Australian Housing and Urban Research Institute also shed light on these potential housing preferences, with evidence of an ageing 'in place' occurring in Sydney (McDonald 2003). Aspirations and preferences uncovered during the 'Later Life Family Study' also support this contention, with a strong desire for baby boomers to stay geographically close to family and in their own homes for as long as possible (Millward 1999). Even with many baby boomers re-locating to coastal urban settlements, medium density or retirement villages, questions will need to be asked as to whether they will still continue to favour their cars in these new settings, given the other factors encouraging car dependence outlined in this paper. With the evidence that a large proportion of the elderly prefer to age 'in place', we are still likely to find a large pool of baby boomer retirees in the car dependent suburbs of Sydney, with attitudes and preferences that favour car use.

Potential changing work patterns in retirement may also impact on the transport choice of baby boomers in the traditional retirement years. Today's socially constructed demarcation of retirement at age 65 may be replaced by a more flexible phasing out of work (Fitzgerald 2001). The Federal Government has included this concept in its policy position by introducing a preliminary National Strategy for an Ageing Population: Employment for Mature Age Workers (Australian Federal Government 2004). These potential labour force changes may

have unrealised impacts on the car use patterns of ageing citizens. For example, if part time work or flexible work arrangements become more prevalent in retirement, then car use may prevail as the preferred mode of transport as public transport caters poorly for flexible travel and travel outside of peak periods. If baby boomers are fulfilling work, as well as parenting and grand parenting assistance, the trip generation of the ageing baby boomers may result in retired patterns of travel that are more complex and car dependent than previous generations of retirees.

Ageing, transport and socio-cultural literature

Ageing and transport literature has not focussed on an exploration of ageing and transport choice within the context of social and cultural attitudes, although there have been a few studies that have touched on this area of investigation. McKenzie and Steen (2002) qualitatively investigated the possible impact of the elderly giving up their cars which revealed a strong social and cultural attachment to the car by retirees in Victoria. The body of literature that explores car use in the context of cultural values and priorities reveals powerful, entrenched values that are likely to have an impact on the baby boomers' attitudes to car use in retirement. The predictions and conjectures made within the baby boomer literature suggest a number of factors that may prolong car use in an ageing society. However, this literature fails to uncover the potential attitudes, values and aspirations of the baby boomers in any non general way.

Further, the literature that explores the cultural values associated with car use often discusses these values for 'society as a whole'. It is argued that what is needed is to uncover the relative importance of these values at the micro-scale, with regard to particular social groups.

The next section presents some preliminary findings of a qualitative case study which uncovers some social and cultural attitudes and values displayed towards car use in retirement, through the words of recent retirees in North Western suburban Sydney.

Preliminary results from a qualitative Sydney case study

This paper presents some preliminary results of a case study of twenty (20) qualitative interviews conducted with recent retirees. The empirical data in this paper indicates a growing importance of the car for ageing cohorts. It is recognised that even further complexity needs to be uncovered in this data, which is beyond the scope of this paper. The objective of the qualitative interviews was to uncover social and cultural values and attitudes to travel and transport of recent retirees. Qualitative interviews allow us to gain a deeper insight into attitudes and feelings that may not be discernible from quantitative data (Flowerdew and Martin 1997). Such analysis is equally as important as the analysis of transport data, as it allows us to identify what may be underpinning changing trends.

Given that the oldest of the baby boomers is currently fifty eight (58), a significant proportion of the baby boomers are not retired or within the older age cohorts. Therefore, recent retirees between the age of 55 and 74 were selected, as they acted as a practical surrogate to explore attitudes and values displayed towards car use in retirement. To surmise, if strong attitudes and feelings towards car use emerged in the study group of recent retirees, then it is likely that the baby boomers would also likely display strong attitudes towards car use.

Participants were selected on their labour force status (retired or semi retired), age (between 55 and 73) and on the basis that they had access to a car, so that attitudes towards car use in retirement could be explored. Those working part time were not excluded, given the projections made in the literature that part time, flexible work arrangements or a phasing out of work could be available for the ageing baby boomers. Participants were recruited through the technique of 'snowballing'. The advantage of this technique over paper recruitment or flyers is that it allows the researcher to move beyond the well connected, community oriented citizens that often respond to these mediums (Maxwell 2000). Participants were selected from the north western suburbs of Greater Sydney, predominantly from the Baulkham Hills Shire. Baulkham Hills Shire is an outer suburban area which display some useful demographic and transport characteristics. The area displays a more extreme example of car dependent suburban citizens. Both the demographic and transport characteristics make it an interesting 'crucible' to study attitudes and values displayed towards car use. The following outlines the main themes that emerged from a preliminary analysis of the interviews.

Enabling busy, enjoyable lives

The interview respondents demonstrated that their retirement or semi retirement was characterised by busy lives that are best serviced by the car. Leisure and recreation activities, personal business and community service activities (i.e. Rotary, PROBUS and Lions Club) often meant that respondents were leading full lives of scheduled activities, most of which required the use of the motor vehicle. The qualitative evidence of busy lives supports the findings of Price's (2003) study of recent retirees. The assertions made in the literature on the current elderly that driving declines in retirement as there is less need, may need to be revised for the new wave of ageing baby boomers. The distinction drawn between the car use of retired citizens and 'productive' citizens may also diminish.

The two car household: balancing the demands of retirement and marriage

The majority of couples interviewed had at least two cars in the household in retirement. A number of couples reported the need to retain separate activities and separate cars, whilst concurrently attending to more activities together than they had during their working years. For many couples, the second car appeared to be used as a management tool to balance the demands of their busy, separate but interdependent lives. As stated by one male respondent 'it saves time, she and I can go our own ways... you need to be able to get away by yourself some times'.

For many wealthier baby boomers, the retention of the second car may be important in desired retirement lifestyles. Therefore, it appeared that the flexibility afforded by each partner having a car was still valued even without the direct burden of child rearing or work.

The potential of more two car households may mean a larger fleet of vehicles for those in the retirement years. This is likely to have an impact on retirement kilometres travelled, especially given the busy complex lives reported and the number of activities that were driven to by the interviewees.

Male v female in the two car household

Following on from the previous discussion, it was often the females of the study group that expressed a greater tie to retaining the second car. Both men and women interviewed placed a strong value on car use in allowing them to enact preferred lifestyles. However, it was often the words of the women in the study group that mentioned value beyond independence, flexibility and convenience. The words of the women often engendered stronger feelings of attachment. One female stated 'it's almost joined to me now, an extra appendage, an extra limb'. The feelings of attachment are consistent with Sheller and Urry's (2000) contention that the car has become an extension of the self and body. Their theory can be heard in the words of recent retirees, which provides qualitative evidence of their assertion.

These feelings of attachment were coupled with an understanding that they may have to give up driving one day. This prospect engendered strong feelings of loss. These words provide qualitative evidence of the assertion made in the literature that the baby boomer women are likely to place a high value on car use in retirement. This finding also supports the McKenzie and Steen (2002) findings in their study on the impact of giving up the car for the elderly. They also provide evidence of social and cultural attitudes that are underpinning the increasing importance of ageing women driver's that is discernable in the transport data.

Feelings of strong emotional attachment and loss

The car was viewed by some as a deserving reward at the end of their working lives or luxury they would not contemplate giving up. For example, one male respondent bought himself a new car in retirement as a reward for himself at the end of his working life. Associated with these consumerist values, however, were frequent feelings of guilt, where car use was seen to be somehow lazy, anti-social or a symbol of being spoilt. Respondents within the study group had an implicit understanding and acceptance that their own lifelong experience with motorisation led to a 'natural' behaviour to use the car, while other modes of transport were rarely considered. One male respondent stated he is 'stuck in the mindset of many years standing where you go and just jump in your car'. These words are interesting given that traditional transport research, including that associated with ageing, has often focussed on the transport disadvantage of those 'stuck' with public transport.

Conclusions

This paper presents some important preliminary findings that bring together an element of social change with the study of social and cultural attitudes displayed towards car use. Attitudes and lifestyle priorities appear to be an integral determinant in significant value being placed on car use in retirement as has been shown in other life-stage investigations. Ingrained cultural values and lifelong habits can also be linked to the importance of car use in retirement. The potential changing trends and attitudes unveiled indicate that Australian cities may be facing a prolonged and increasing reliance on the car in retirement, although to what degree this might be the case will depend on further analysis of likely rates of driving cessation as the retired baby boomer population ages and an understanding of housing location choice and travel patterns of this cohort.

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Given these findings and building on the recent body of literature in the field, research and policy may have to consider a move from the current set of assumptions and findings that pertain to ageing and transport choice. This paper has suggested the need to move from the research foci that have dominated ageing and transport research. Research paths will require the investigation of relatively healthy populations, as well as disadvantaged populations. Such research will need to include both complementary quantitative and qualitative analyses.

The findings also strengthen the body of literature that discusses society's car culture by exploring the relative importance of the values espoused in the literature for one social group, namely ageing baby boomers. Interestingly, values of convenience, individualism, flexibility and time are not only important to those within the 'productive' years of work, or those involved in childrearing, as uncovered by Dowling, Gollner (Lyth) and O'Dwyer (1999). This is particularly important, as it challenges the often created distinction between elderly and non elderly car users.

With approximately half of all trips less than 5km in length and with about half of all trips under 2km made by car in the Sydney Metropolitan Region (NSW Ministry of Transport 2004), it is being recognised in Sydney travel demand management and land use and transport planning circles that greater attention to travel demand management for local travel is now needed. Given the likely activities of retirees, an ageing population may contribute to an increase in the share of short trips relative to the total number of trips being made. While an ageing population will certainly mean a required focus on the transport needs of the elderly and their travel difficulties, especially in neighbourhood contexts, it is also fair to point out from this research that a higher proportion of trips made by retirees and the elderly population are likely to be short car trips compared to the present elderly population. Consequently neighbourhood and regional planning will not only need to be concerned with planning for the needs of the less mobile elderly, but also for more 'sustainably accessible' neighbourhoods and communities which promote alternatives to car use and reduce the need to travel by car for local trips. This is especially relevant to existing middle and outer suburban areas. Of course further work needs to be done to quantify the likely net consequence for VKT and environmental impacts of local car trips with more elderly car users in the community.

Finally, this qualitative work has illustrated some points of contention that urban transport planning and travel demand management program designers may need to be aware of. Whilst not proclaiming to be representative, the attitudes displayed in this study demonstrate the strength of attachment to the car and are likely to bear some similarities to baby boomers within other suburban contexts. The authors recognise the need to investigate similar questions in differing urban and socio-economic contexts, including investigation by income groups, as well as an enquiry into car use in inner urban areas or areas of good accessibility to services, activities and transport choices. An investigation of inner city retirees may point to a reduced level of car dependence in such areas, if good access to activities and transport choices prove significant influences on individual and household travel behaviour. However, there are indications that even in inner city Sydney suburbs car use for some groups is surprisingly high considering the higher levels of accessibility in these areas leading to a need for further questions as to why this might be so (Dowling and Lyth 2003).

This paper presents research and policy ideas, analysis of one part of the literature, and preliminary findings of a qualitative case study. Further more comprehensive quantitative and qualitative analysis of this issue has only recently been completed and is currently being prepared for further publication. It is hoped that this work demonstrates the need for further

research into the travel behaviour impacts of diverse urban populations according to socio-economic and cultural contexts, life-stage, household structure and residential location. It also hopes to raise awareness of the need to look more deeply into the structure of our society and our relationship with the built environment in terms of urban travel and transport outcomes. In an era when we are attempting to plan and design cities with more attention to influencing travel behaviour outcomes, such work is essential to understanding the value of various planning and policy decisions and to guiding future areas of enquiry that dig deeper.

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