

HOMES AND TRAVEL:

THE DOMESTIC AND LOCAL SETTING

Infrastructure Report from the  
Carnegie Inquiry into the Third  
Age

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CARNEGIE FOUNDATION INQUIRY INTO THE THIRD AGE

REPORT ON THE INFRASTRUCTURE PROJECT

HOMES AND TRAVEL:

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## CHAPTER 4: PERSONAL TRAVEL AND TRANSPORT

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### 4.1 Introduction

From the perspective of physical planning, after housing it is the transport needs of people in the third age that demand most attention. From the perspective of the individual, the most important physical influence on the quality of life, after housing, is one's location in relation to shops, services, relatives and friends. Accessibility is a function of distance and the available means of transport, and these are in turn conditioned by income, health, household composition and the local provision of public transport.

When people cease paid employment, their weekly journeys decline and they spend more time at home. They turn to home-based activities, and income simultaneously declines, threatening continued car ownership. Through the third and fourth ages, disabling health problems become more prevalent, such as arthritis which particularly restricts walking and the ability to carry loads. So travel and transport are influential and sometimes critical for the quality of life in the third age.

### 4.2 Access to Car

In the 1990s the dominant influence on a person's travel pattern is their access to a car. Four levels are recognised:

- Level 1: Main driver in household with at least one car
- Level 2: Other driver in household with at least one car
- Level 3: Non-driver in household with at least one car
- Level 4: Non-driver in household with no car

The most ready access to cars is held by high income men in the second age, whilst the least is held by low income women in the fourth age, particularly those that live alone. In the population as a whole (including children) 69% are non-drivers and 30% live in households without a car. Driver status among adults is strongly associated with income, sex and age. There is a clear transition from relatively high levels in the second age to relatively low levels in the fourth age.

Gender strongly structures car access in the third age: 35% of men and 74% of women have no car or no licence. Sixty-two per cent of men but only 17% of women have 'exclusive use of a car' as a main driver. There are also strong variations by income. Among lowest income households, main drivers are most likely to be third age men, but they account for only 11% of all male main drivers. Among the highest income households, main drivers are most likely to be second age men.

Three quarters of third age men have a full driving licence compared to 30% of women (Figure 4.1). Licence holding is spreading to a larger proportion of the population, through the succession of cohorts with progressively greater life time familiarity with car ownership. Virtually

no-one learns to drive over the age of 65 years although young third age women continue to learn to drive in relatively large numbers (Table 4.1).

Women third age drivers on average have fewer years of driving experience and lower accumulated driving exposure than men, because they acquired their licences at later ages and had lower participation in car commuting. The duration, intensity and nature of driving experience may be related to the quality of driving skills and to their rate of deterioration in later life. If differences in driving skills are minimal after 10 years' experience, then the difference between men and women third agers are likely to be small. Only 5% of women and 2.5% of men drivers in third age have less than 10 years driving experience. One recent study has, however, challenged this conventional view, and suggested that the age at which a person learnt to drive is related to the maintenance of driving competence in old age (Warnes, 1992a and 1992b). If there are differences in driving ability between men and women in third age, this is likely to be associated with the lower mileage that women drive rather than fewer years of exposure.

#### 4.3 Travel Patterns of Third Agers

Travel declines with age and men travel further than women. Even fourth age men travel further than women of any age. The decline in travel with age is sharper for women than for men (Figure 4.2). The change from work to non-work for most people occurs between the ages of 55 and 65 years. Fewer work-related journeys account for about 75% of men's and about 50% of women's overall decline in travel identified between the second and the third ages.

The National Travel Survey (NTS) data do not produce a complete picture of journey patterns because they only partially represent short walk journeys (Pharoah, 1992). They therefore emphasise longer and motorised journeys. It has been argued that people are making more journeys, by reference to journeys per person per week (pppw) which increased from 11.2 in 1965, to 12.4 in 1975 and to 13.2 in 1985 (Department of Transport, 1988). In fact, when all walk journeys are included, journeys declined between 1975 and 1985 from 18.5 to 18.2 pppw (Potter & Hughes, 1990). Journey making, like distance travelled, also declines with age, and the decline is much sharper for women than for men.

Except for short walks, 60-65% of all journeys are no more than 5 miles. There are similarities in the age-related patterns of travel distances and journey rates. Again ignoring short-walk trips, those in the third age travel less than younger but more than older people. This is the case for men and women, although the decline is greater and from a lower base for women.

Third age men travel further than those in the second age for holidays, day-trips and medical and shopping purposes. Escort travel is similar in the two age groups. For third age women, holidays/day-trips travel is the only category which increases over the second age. Medical-service journeys change little; shopping shows a slight decline; and escort travel declines to about a third of the second age level. Travel for educational purposes virtually disappears in the third age, contrary to an expectation of increased interest in learning during this life course stage.

Shopping is an important travel purpose for both women and men, who increase their journeys for this purpose in the third age and yet more in the fourth age. This surely reflects the increase in available time as work commitments recede, and manifests in more trips with their partners. Women's shopping travel is greater than men's in the second age, is at a similar level in the third age, but declines by half in the fourth age. Travel for medical purposes increases with age among men, but among women remains roughly constant. Personal business travel remains roughly constant into the third age.

Social travel is diverse, and includes trips to eat or drink in cafes, restaurants and public houses, to visit friends and for other social, entertainment, and public activity purposes. Trips to watch sport feature, but to participate are infrequent. All categories of social travel decline among men and women into the fourth age. Some evidence suggests that family meetings become a more important aspect of social life, and that a higher proportion of social activity is conducted locally or at home with increasing age (Dix et al, 1983). More evidence about short-walk journeys is needed to confirm this effect. It is known, however, that third age retired married couples are more frequently visited by their children than the reverse (Warnes, 1985).

There is no evidence from the NTS that as people get older they have a more outgoing or gregarious social life, nor that the quality of their social life diminishes simply because it involves less travel. Holidays and days-out figure more prominently in the third than the second age. Among women there is a "burst of recreational travel" before a more sedentary life is adopted in fourth age. For men this "burst" continues into the fourth age.

Escort travel is perhaps the least rewarding of all journey purposes and such trips are sometimes resented, for example when people escort others solely because of safety concerns. For women at least, the third age provides some relief from escorting others with the reduction of child care responsibilities. For men, escort journeys remain important through to the fourth age. This is probably related to men's greater access to cars, through which they retain the role of escort.

In summary, if people in the third age have a distinctive travel pattern, it is among their trips for education, social contacts, holidays, day trips and to escort others. On the other hand, journeys for work, shopping and personal business including medical treatment change more through the third age than at its beginning and end. There is in any case considerable diversity in the population related to car-ownership, location, income and the persistence of role differences between men and women.

On modes of transport, the NTS surveyed the frequency of use of buses, trains, taxis, bicycles and aeroplanes. But use is not much greater amongst third than second agers. Women use buses at least one a week, much more than men (46% compared to 24%). This difference declines in the fourth age, as men use buses more and women less (34% to 33%). Sixty-one percent of men and 36% of women third agers "never or rarely" use a bus, and 23% of third agers use an express coach once a year or more.

#### 4.4 Travel-related Problems for Third Agers

Road deaths account for about 40% of all the accidental deaths of third agers, but only 1% of all deaths. Road Accidents: Great Britain 1989 (DTP, 1990) uses 10-year age bands, and for the purposes of this section, the Third Age refers to the 50-69 years age group. Traffic accidents also account for a large quantity of injury and disability. The road casualty rate expressed per 100,000 population declines with age from a peak in the late teens, but the fatality rate increases beyond the age of 50 years, and the "killed and seriously injured" (KSI) rate increases after 70 years of age.

When viewed in relation to reduced travel with increasing age, it may be seen that third, and particularly fourth, agers have a much greater risk of being killed or injured on the roads. This conclusion is reinforced when accident categories are disaggregated. Rising accident rates are particularly marked amongst pedestrians and bus passengers. For pedestrians, casualty rates climb steeply after 40-49 years, and for those aged 70+ years is higher than for any other category of road user.

Bus and coach passenger casualty rates increase after 30-39 years which, since a similar proportion of people in each age band are regular bus users, appears to reflect greater vulnerability (unsteadiness). The GHS 1982 (OPCS, 1983) found that increasing physical difficulties with age were reported as a problem for bus users (Table 4.2). Getting on and off the bus presents the major difficulty, being mentioned by 25% of those aged 75+ years. Amongst adults who did not use the bus, 7% gave physical difficulties as the sole reason, and a further 3% as a reason. The casualty rate to bus passengers increased after the age of 40 years (DTP, 1990).

There is concern about person security and fear of attack whilst travelling. A survey undertaken by the Greater London Council in 1985 showed that only a minority of women felt safe while travelling at night, particularly the young and the old. At night, British Rail trains, the Underground and walking were perceived to be the least safe methods of travel. A majority of women felt safe travelling by day, though only about half the women aged over 55 years felt safe on trains. Among women over 60 years of age, only 10% felt safe at night when walking or travelling on British Rail, only 12% on the Underground and 21% on buses.

Whilst the fear of attack is more widespread than its occurrence, it has a major impact upon travel behaviour. It is probable that many journeys are suppressed, certainly amongst elderly women. Those with access to a car (either as driver or passenger) are probably least likely to curtail their activities for this reason, although there has been media coverage of attacks on people stranded in broken-down cars, and in car parks. Insecurities among elderly female car drivers have been repeatedly expressed (Automobile Association, 1988; Warnes and Fraser, 1991). It is by no means certain that the spread of car access among third (and fourth) agers will reduce trip suppression. A sense of greater security among car users may be countered by growing fears amongst people dependent on walking or public transport.

Those with access to a car travel much further than those without, though not necessarily more often. Conventionally it is argued that greater travel is a measure of economic success and the fulfilment of personal aspirations. Such interpretations are arguable. Firstly, there

is no clear evidence that car users undertake more activities, nor that car use overrides income or other factors. Secondly, greater travel for the satisfaction of personal activities involves higher costs, borne out by rising real household expenditure on transport, most of which is accounted for by expenditure on the car. £16.66 (86%) of increased average household expenditure on transport between 1978-88 (from £10.90 to £30.16 per week) was on motor vehicles (Department of Transport, 1991).

Thirdly, it is questionable whether the quality of life has increased at the same rate as car travel. Fourthly, what evidence is there that people in the third (or fourth) age suffer from a "lack of travel"? To suggest this it is necessary to argue either that others are relatively better off, or that the greater travel of others restricts third age activities. Nevertheless, it can be argued that limited access to cars does restrict the opportunities and quality of life of many third and fourth agers.

While road accident statistics suggest that difficulties with walking and bus riding are more prevalent than with driving difficulties, declining physical and mental faculties do become a significant limitation on driving amongst older third and fourth agers. Older people have the benefit of longer driving experience but must also cope with declining physical and mental abilities. At some point a judgement must be made between maintaining personal mobility and the risk of endangering the safety of oneself and other road users. This has clear implications for transport policy, since the willingness to give up car driving is proportional to the quality of the alternatives. Poor quality alternatives will encourage people to drive longer than they or others would consider safe.

The differentials are not only between car and non-car users, but to an important degree between men and women, and marked between those with the lowest and highest incomes. Patterns of ownership indicate that low income enforces low levels of car access, and imposes its associated problems. The differential between car "haves" and "have nots" is a matter for concern given current trends. The consequences of increasing car use are: fewer public transport passengers, higher public transport fares and/or poorer service levels, greater difficulties of walking and cycling and public transport (Collins & Pharaoh, 1974).

#### 4.5 Issues for Transport Provision

##### 4.5.1 Bus provision

Bus use is, in general, inversely related to car use and, over time, as car use increases so bus use declines. Frequent, high-quality bus services depend on high levels of use in order to achieve economies of scale. As car access spreads to the majority of third and fourth agers, bus use and bus provision will further decline. Present levels of bus services (which have already declined considerably) are propped up by the relatively low access to cars among people on low incomes, third age women, fourth agers of both sexes and, of course, children. Already people of pensionable age account for more than a quarter of bus passenger journeys.

The prospective increase in third age car use therefore has potentially serious consequences upon travel quality for those who continue to depend on buses. It will also mean a decline in travel quality for car

users, as the roads become more congested. As noted in Section 4.4, poor public transport quality is likely to encourage people as they age to continue driving even when their physical or mental abilities present risks to themselves and to others.

#### 4.5.2 Increasing car traffic

The Department of Transport has forecast that car traffic will increase by 82-134% of 1988 levels by the year 2025 (DTP, 1989). Some of this will arise from longer journeys, but most will result from the spread of access to cars. It is likely that a substantial proportion of the total increase in traffic by 2025 will be accounted for by higher levels of car access among third agers. If, through cohort changes, all third agers became "main drivers" by the year 2025, and all adopted the travel behaviour of current male "main drivers," car travel generated by third agers would increase by about 80% *per capita*.

The forecast increase in traffic has enormous implications. The accommodation of such increases will be at immense cost to society in terms of both infrastructure and external costs. If increases are not accommodated, external costs and costs to drivers themselves in terms of delay and frustration are bound to increase. The Government has already recognised that the forecast increase in traffic cannot be met in full by building more roads. Although no policies have yet been adopted to limit traffic growth nationally, ways of limiting the spread of car use amongst those who can manage without could be valuable.

#### 4.5.3 Declining travel in the third age

The decline in travel in the third age is partly the result of changes in life-style (especially lower economic activity) and partly a reflection of currently low access to cars (Figure 4.3). The latter will be eroded by cohort succession. There is little qualitative information on the decline of travel with age. It is therefore difficult to associate this decline with problems for the individuals concerned, or with any wider social malaise. If, however, travel is regarded as a societal cost, then the lower travel requirements of third agers can be regarded as an asset, both to third agers themselves and to society at large. In view of the problems of accommodating travel increases, we may go further and say that the relatively low level of travel among third agers should be nurtured.

Low travel in the third age does not necessarily mean a low quality of life. The decline of commuting between the second and third ages reflects a change of life style, not a decline in life quality *per se*. The reduction in escort trips as children grow up (or as partners learn to drive) is welcomed by most. The decline in social travel with age is partly associated with an increase in social activity at home, as for family visits. As parents age, their children (in the second age) make the journeys to see their third age parents, rather than the other way round (Dix *et al.*, 1983). The problem is to identify when and for whom this restriction of travel ceases to be a benefit and begins to be an unwanted constraint on activities or the ability to avoid dependence on others.



#### 4.5.4 Changing travel patterns

As Warnes (1992) has shown, the community of drivers is becoming more heterogeneous as driving spreads to women as well as men, and into the third and fourth ages. As the driving population changes, so will the timing and nature of journeys.

Peak-hour journeys are likely to become less dominant, while public transport will more and more be used only for work journeys. There will also be an increasing diversity and dispersion of journey origins and destinations, spreading the demands for road capacity and parking. These changes have implications for transport priorities. There will be demands for the road capacity to handle a greater volume and diversity of car travel, but on the other hand, it will be argued that such policies are unsustainable and will greatly diminish the travel opportunities of those who do not drive. What is clear, however, is that policies guided primarily by peak hour journeys to and from town centres are obsolete.

The restraint of traffic growth among third and fourth agers requires improvements in the quality of travel to local destinations, of off-peak rather than peak public transport, and provision for walking, cycling, bus and rail. These would represent a considerable shift from the policies and expenditure priorities of the past forty years. Safety and security concerns would also emphasise local expenditure, eg., better lighting, bus stops, traffic calming, footpaths and cycle ways.

The reduction of urban speed limits is likely to be an important factor for the improved mobility of third and fourth agers. Many cities in the Netherlands and Germany have already adopted 30 kph (20 mph) as the normal speed limit in residential areas, and are attempting to achieve better adherence to 50 kph (30 mph) speed limits on urban main roads. This could improve conditions for third and fourth agers, firstly by making driving conditions easier and safer, enabling people to continue driving safely further into old age, and by making walking, cycling and bus travel much easier and safer. Lower speeds would also increase the relative attractiveness of local destinations. The first mandatory 20 mph restriction, in Kingston upon Thames, was announced in June 1992, and around 40 other sites are planned.

#### 4.6 Summary of Issues

##### Significance of the third age for transport

50-74 years is not an effective category for the analysis of travel because the change in work status normally comes in the middle of the third age band. More significant, however, are reduced responsibilities for children, which for most parents occurs around the onset of the third age. The travel consequences include increased holiday and leisure travel and reduced escort travel by women. Whilst third agers are not in general wealthier than second agers, they have more money for discretionary travel expenditure, and rising affluence will encourage car ownership. The problem is the losers - the lowest income groups and the physically impaired who, unable to use cars, will find it increasingly difficult to find adequate public transport to maintain their preferred or habitual activities.

### Road accidents

The traffic accident death rate increases after about 50 years of age. However, the rate of serious injuries does not increase until the fourth age. A cause for concern is the rising casualty rates with age occur despite decreases in travel. Put another way, road safety for third and fourth agers is brought about by spending more time indoors. The issue is to reduce casualty numbers and severity. Particularly valuable would be measures to make local trips by foot, bicycle and bus much safer.

### Driving conditions and driving skills

Third and fourth agers will become an increasing proportion of the driving community. Greater tolerance of their driving should be encouraged, and driving conditions could be made easier. In particular, lower speed limits and less powerful cars would benefit older people and bring major environmental benefits. Such policies are now being actively pursued in many European countries (Pharoah & Russell, 1991). Technological advances may help people continue driving into old age, such as route and vehicle guidance, speed limiters, and various hazard warning devices (Warnes and Fraser, 1991). Many people, however, will either never have access to a car or will at some point cease driving, and no one should feel compelled to own and drive a car beyond the point where they feel it safe to do so.

### Travel avoidance

Fear of attack constrains travel, especially of older people and women after dark, but there are few data on this problem. The problem could perhaps be reduced by policies aimed at improving walking and public transport facilities. It is unlikely to be reduced by more widespread access to cars, although automatic and in-vehicle SOS alert and vehicle location systems are at the prototype stage of development.

The availability to most third agers of everyday facilities within reasonable walking distance helps to explain their low dependence on the car. This local accessibility is also potentially valuable for moderating future traffic growth. Measures to support local facilities and to reverse the trend towards fewer larger facilities such as shops and hospitals would make a useful contribution, but it is difficult to see how the insistent market pressures towards rationalisation and concentration can be reversed.

### Difficulties of using buses

There is ample evidence that as people get older they find increasing physical difficulty in using buses. Recent trends in the bus industry have exacerbated these problems. Examples are the negative effects of deregulation on the age and quality of the bus fleet and the sudden multiplication of 'hoppas,' with their poor door and step designs. Whilst many other countries are specifying low-floor buses with a "kneeling" facility for their fleets, UK service-commissioning authorities are prevented from being able to make similar specifications by the Transport Act 1985. The poor and declining quality of bus services is probably the single most serious transport problem facing third and fourth agers.

Table 4.1 Age distribution of persons taking driving tests: England & Wales 1974 (percentages)

	Men				Women			
	<21	21-40	41-50	50+	<21	21-40	41-50	50+
1974	50.0	39.6	6.2	4.2	28.9	53.8	11.5	5.8
1980	58.7	34.8	4.3	2.2	38.9	48.1	7.4	5.6
1985	60.9	34.8	4.3		42.5	48.1	11.1	

Note: Figures are based on sample surveys, in 1974 of all motor car tests conducted on two days in October. The 1980 survey was also conducted in October and the 1985 survey in April.

Source: Department of Transport (DoTp) (1976), Tab. 60; DoTp (1990), Tab. 2.18.

Table 4.2 Non-drivers living in household with no car (% of age group)

Children	25
Second Agers	17
Third Agers	31
Fourth Agers	66

Table 4.3 Reports of physical difficulty in bus use (percentages)

Age(years)	45-59	60-64	65-69	70-74	75+
	8	16	21	26	48

Note:

This table shows the combined response to "Use buses but have physical difficulty", "Don't use buses because of physical difficulties", and "Don't use a bus for other reasons but would have physical difficulties".

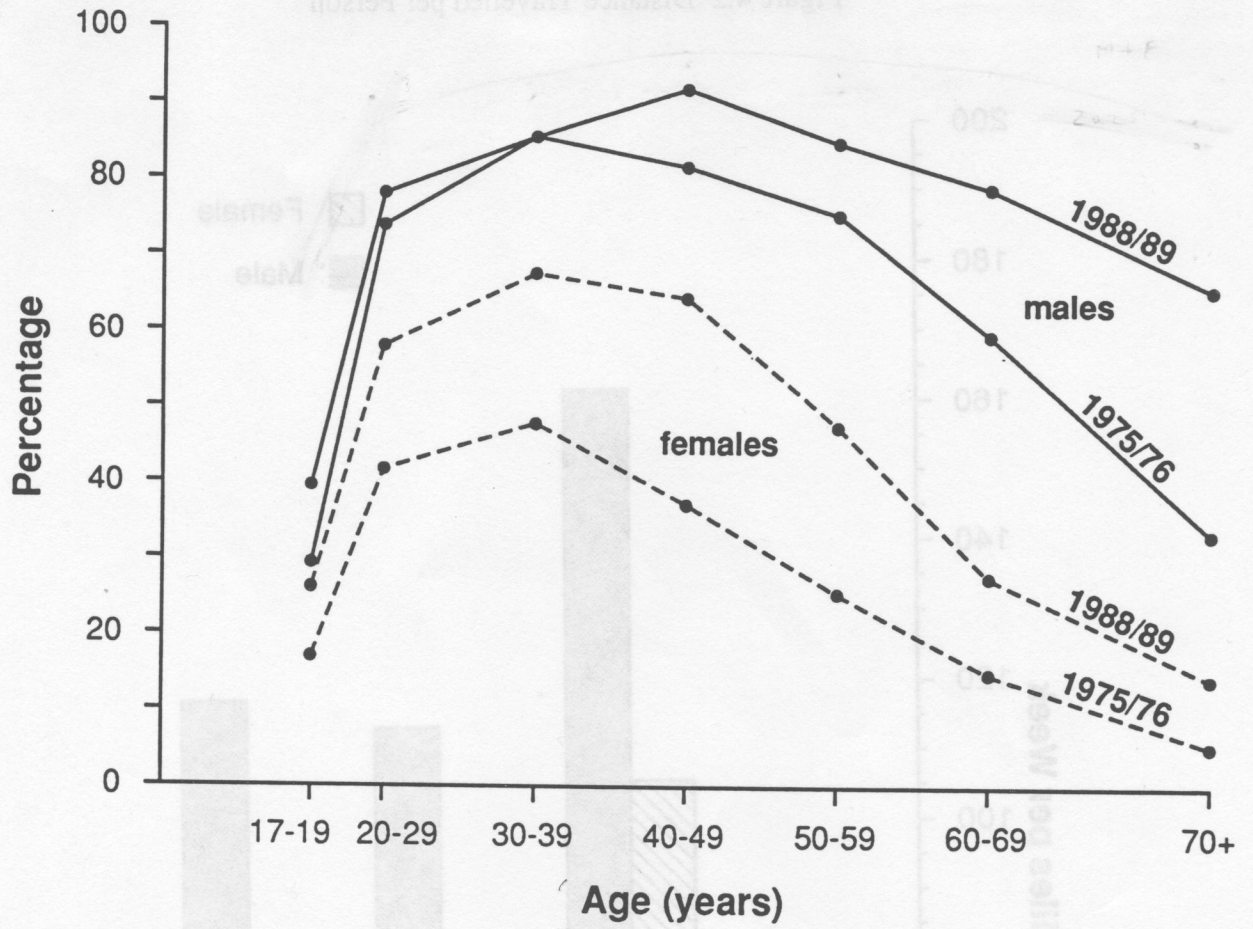
Note: Figures are based on sample surveys in 1974 of all motor car users conducted on two days in October. The 1988 survey was also conducted in October and the 1982 survey in April.

Source: Department of Transport (DoT) (1976), Tab. 6C; DoT (1990), Tab. 2.18.

Table 4.2 Non-drivers living in households with no car (2 of age group)

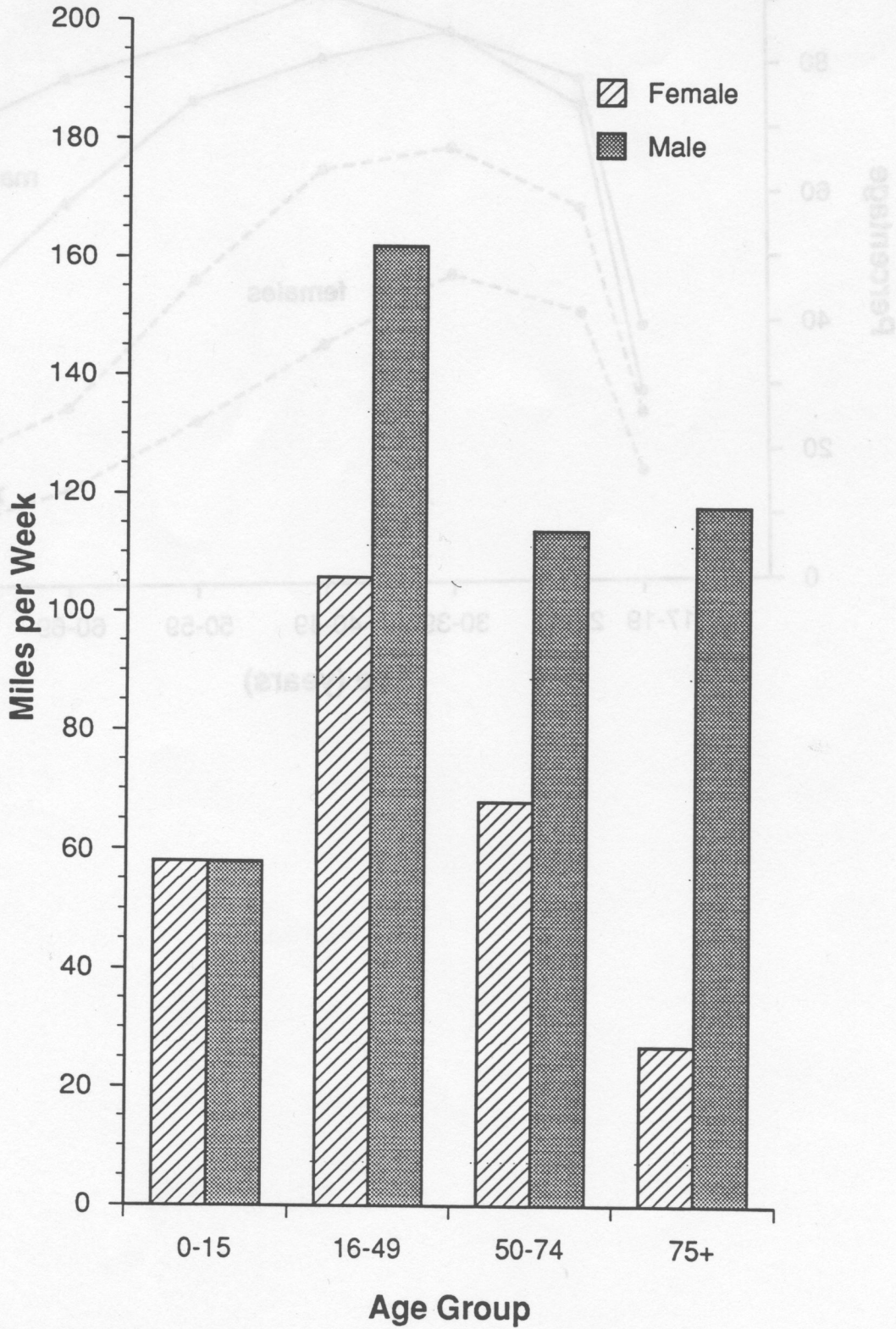
Children	15
Second Aged	17
Third Aged	31
Fourth Aged	66

Figure 4.1 Driving licence holding by age and sex, Great Britain 1975-89



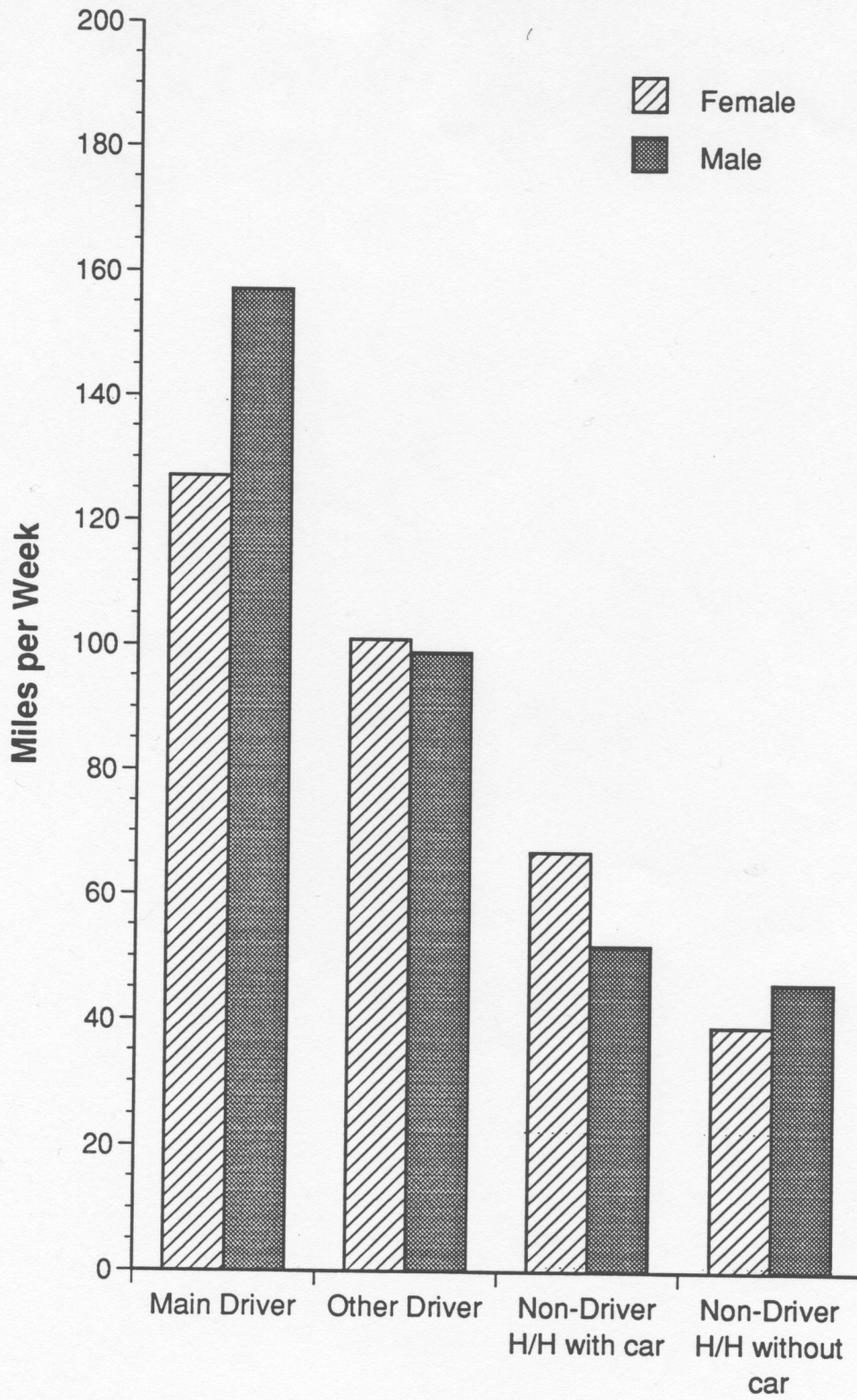
Source: NTS 1987/8

Figure 4.2 Distance Travelled per Person



Source : NIS 1985/6

Figure 4.3 Travel distances by car access



Source NTS 1985/86