

## Driver travel

### In cars, vans, utes and SUVs

## Household Travel Survey

v2 Revised Dec 2009

The New Zealand Household Travel Survey is an ongoing survey of household travel conducted for the Ministry of Transport. Each year, people in 2200<sup>1</sup> households throughout New Zealand were invited to participate in the survey by recording all their travel over a two-day period. Each person in the household was then interviewed about their travel and was also asked about their alcohol consumption and other travel-related information.

This fact sheet focuses on **drivers** of **light four-wheeled vehicles**, including cars, vans, **utes** and **SUVs**. It uses data from July 2003 to June 2009. The information will be updated annually as new data become available. From this edition onwards, **professional driver** trips<sup>2</sup> have been excluded from the analysis.

Words (other than headings) shown in **blue** are defined in the glossary at the end of the sheet. Click on the word or phrase to go directly to the glossary.

As the survey covers periods starting July in a given year and finishing in June the following year, it should be noted that 2006 – 2009 refers to a three year time period (July 06 – June 09), as periods are labelled with the start and finish year.

### Highlights

- New Zealanders aged between 25 and 70 spend two thirds of their total travel time driving.
- On average, New Zealand men drive just under 13 000 km per driver per year, while women average just under 9000 km per driver per year.
- Work-related travel accounts for one third of all household driving time and distance.
- Car travel accounts for about three quarters of the light vehicle distance driven by households. The remaining quarter is evenly split between vans/utes and SUVs.
- The driver was the sole vehicle occupant in two thirds (65%) of **trip legs** in cars, vans and utes.
- The average distance driven on a weekend day is 90% of the average weekday distance.
- The amount of driving done by drivers in their late forties, fifties and sixties has increased since the late 1980s. Younger drivers drive about the same distance per driver as in 1997/98.

### How much of our travel is driving?

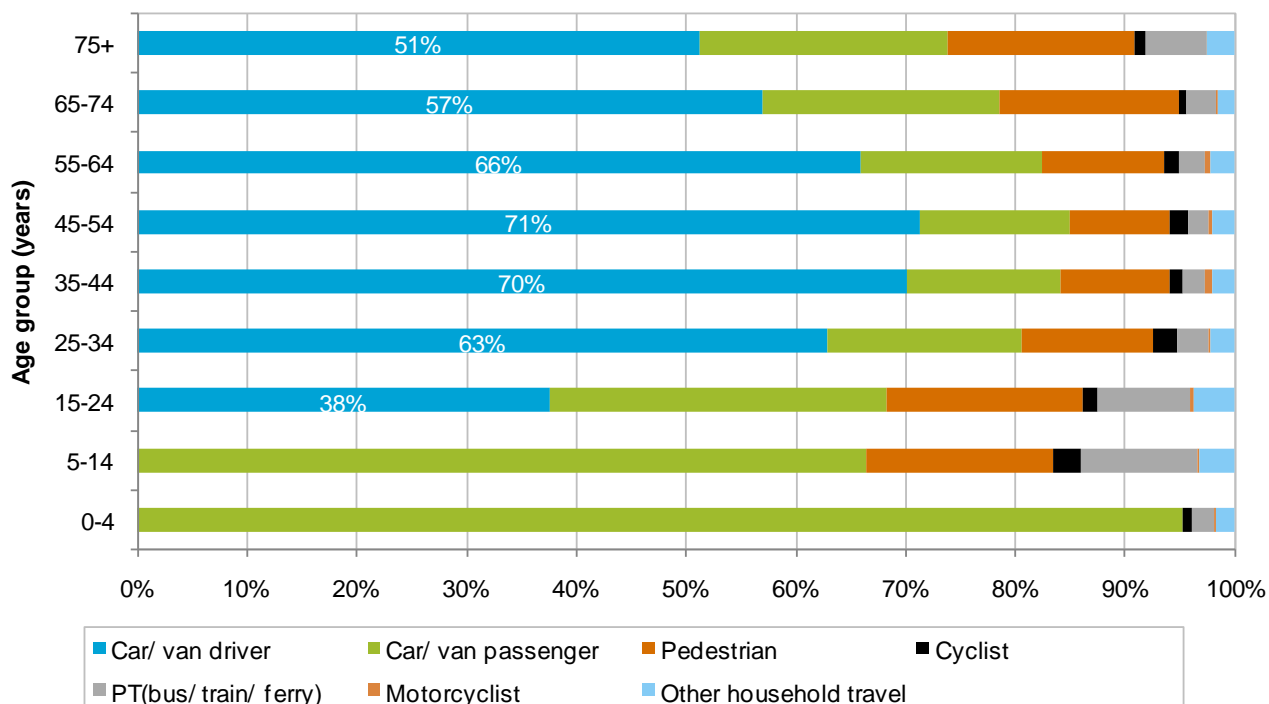
Driving is the mode of travel most used by New Zealanders. It accounts for half of all reported travel time, and around two thirds of all travel time for people aged between 25 and 75. The oldest and youngest adults spend more time than other groups as passengers and walking, but driving still makes up well over one third of these groups' travel time.

Figure 1 shows the percentage of total travel time spent driving or as a passenger in a car, as a motorcyclist, walking, cycling, using public transport or travelling by other means. 'Other' includes driving heavy vehicles, air and boat travel as well as more unusual modes like horse-riding (skateboarders and users of mobility scooters are included with walkers).

<sup>1</sup> From July 2008, 4600 households per year have been sampled.

<sup>2</sup> Professional driver trips are those done to transport goods or people as a professional eg courier trips, taxi drivers trips, bus driver trips, paper route delivery trips.

**Figure 1: Proportion of total travel time by mode of travel (2006 – 2009).**



### Who does the driving?

Table 1 and Figure 2 show how males and females of different ages travel. Table 1 shows the total distance driven as household travel, by men and women in each age group. Figure 2 shows the annual average distance driven per **driver** (that is, it excludes people who never drive at all).

In New Zealand, male drivers do more driving than female drivers. On average, New Zealand men drive just under 13 000 km per driver per year, while women average just under 9000 km per driver per year.

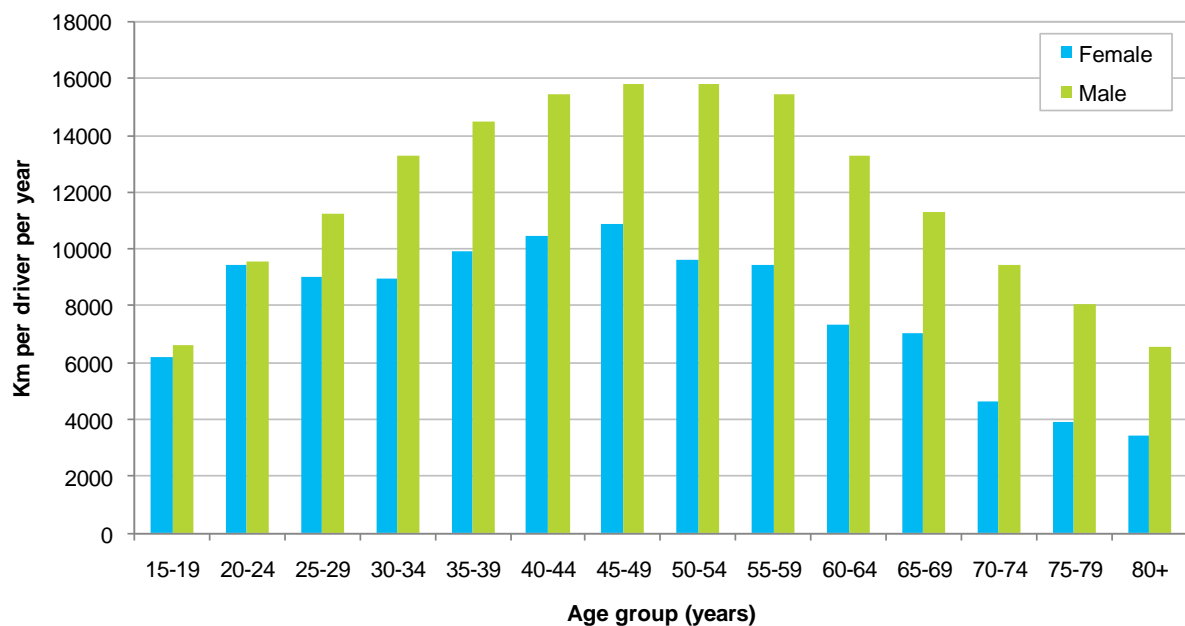
Approximately 60% of the total distance driven by New Zealanders in cars, vans, utes and SUVs, is driven by men.

Older and retired people drive less than those of working age. Distance driven tails off sharply for both men and women after the ages of 60 to 65.

**Table 1. Driver travel in cars, vans, utes and SUVs, by age group and sex (2006 – 2009).**

Age group	Females					Males				
	Sample size (People)	Number of drivers* (1000)	Million hours per year	Million km per year	Million trip legs per year	Sample size (People)	Number of drivers* (1000)	Million hours per year	Million km per year	Million trip legs per year
15-19	222	65.8	12.1	406	51	297	89.4	16.8	590	74
20-24	307	113.4	30.4	1 072	119	317	130.0	34.7	1 243	127
25-29	343	115.8	31.3	1 046	126	351	120.1	37.8	1 352	132
30-34	445	126.0	34.1	1 130	152	389	121.1	41.0	1 608	137
35-39	534	146.5	43.1	1 457	202	485	143.1	50.2	2 076	161
40-44	526	152.6	47.8	1 600	220	443	143.6	57.4	2 215	196
45-49	548	147.5	46.3	1 601	210	522	143.7	57.1	2 276	201
50-54	462	119.3	33.0	1 148	153	478	127.3	49.6	2 010	184
55-59	377	109.9	27.1	1 034	114	386	114.1	42.0	1 761	155
60-64	349	82.4	17.6	605	83	341	96.4	32.5	1 281	126
65-69	265	68.0	14.2	478	74	282	72.5	20.3	822	79
70-74	197	46.2	7.5	214	35	207	53.8	13.3	508	53
75-79	178	37.4	6.0	146	30	184	39.6	9.2	318	43
80+	146	43.9	5.9	152	29	197	41.7	7.9	274	34
Total	4 900	1 375.3	356.3	12 090	1 597	4 879	1 436.4	469.6	18 334	1 701

**Figure 2: Average annual distance driven per driver\* (cars, vans, utes and SUVs) (2006 – 2009).**



\* “driver” is defined as someone who reported having driven 100 km or more in the previous year.

### Trends in distance driven

The Household Travel Survey indicates that household travel in cars, vans, utes and SUVs increased by approximately 4% per year during the 1990s, but that rate has slowed down in recent years to about 1% per year by 2006 - 2009.

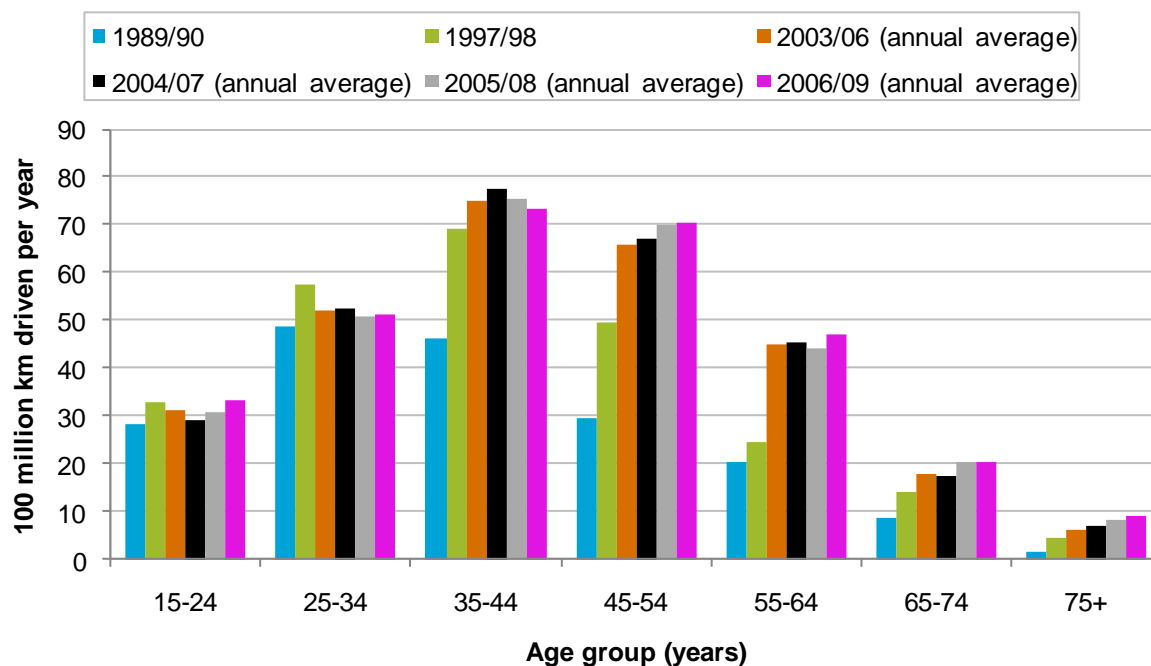
Table 2 and Figure 3 show the annual distance driven in cars, vans, utes and SUVs.

The increase was most marked among the 45-64 age group. This is a result of both changes in the driving population (more drivers in this age group) and an increase in the distance per driver in this group.

**Table 2: Annual distance driven in light 4-wheeled vehicles, by year**

Age group	100 million km per year driven in cars, vans, utes and SUVs					
	1989/90	1997/98	2003/06 (annual average)	2004/07 (annual average)	2005/08 (annual average)	2006/09 (annual average)
15-24	28	33	31	29	31	33
25-34	49	57	52	52	51	51
35-44	46	69	75	78	75	73
45-54	30	49	66	67	70	70
55-64	20	24	45	45	44	47
65-74	9	14	18	18	20	20
75+	2	4	6	7	8	9
Total	183	251	293	296	300	304
% change per year from previous dataset		4.7%	2.1%	1.1%	1.2%	1.5%

**Figure 3: Distance driven in cars, vans, utes and SUVs**

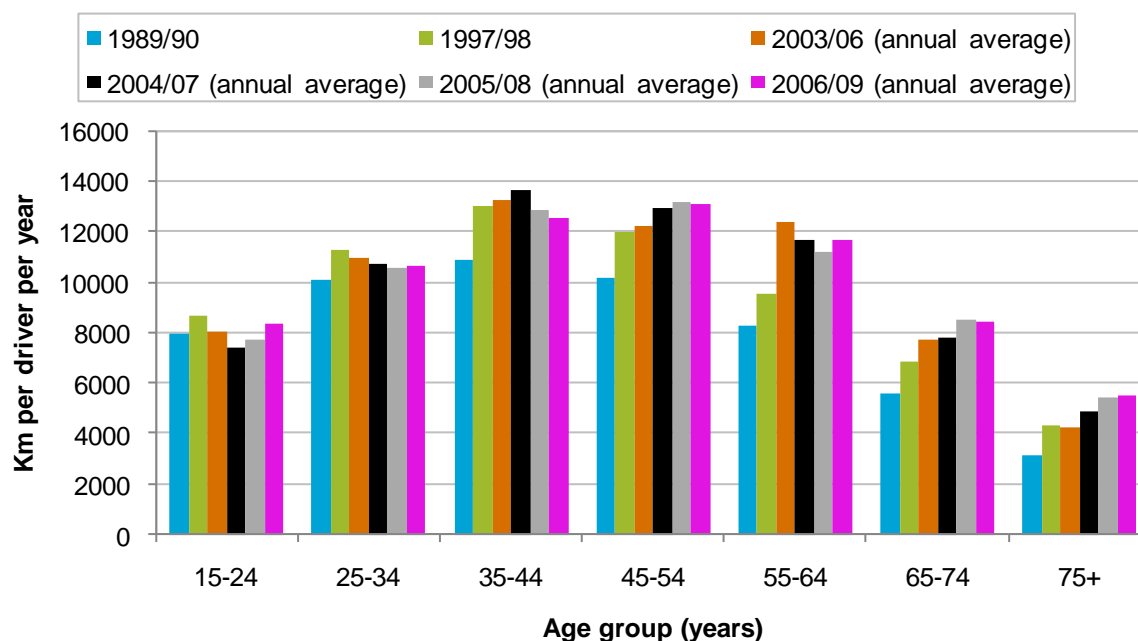


Please note that this graph visually compresses the time interval between 1989/90, 1997/98 and 2003-06.

### Trends in distance driven per driver

Figure 4 shows the average distance driven per driver in each group. The amount of driving done by drivers aged under thirty-five has changed little over the last decade, while drivers in the 45 to 74 age group have increased their driving by between ten and thirty percent. This change is evident for both male and female drivers.

**Figure 4: Distance driven per driver\* (cars, vans, utes and SUVs)**



\*Driver is defined as someone who reported driving 100km or more in the previous year. Please note that this graph visually compresses the time interval between 1989/90, 1997/98 and 2003-06.

### Where do people drive to?

People answering the survey were asked what they did at the end of each trip leg, and their responses were grouped into broad categories.

The distribution by purpose in this edition has changed from previous editions of the report due to **professional driver** trips being removed and a selection of trips being recoded from “**work**” to “**employer’s business**” as they had been miscoded previously.

Table 3 shows time and distance spent travelling to each of the destination types. As Table 3 shows, about one third of trip legs ended at home. The original purpose of these trip legs is reflected in the destination of the previous trip leg (or legs), so trip legs ending at home have been excluded from the percentages below. The proportion of time and distance spent on travel to each type of destination (excluding home) is shown in Figure 5.

Work-related travel (travel to main job or other jobs and travel on employers business) accounts for nearly one third of all household driving time and distance. Much of this is commuting to and from work. Travel during work time on business makes up about 13% of household driving. This includes going to meetings as well as travel from job to job by trades people or other mobile workers,

**Social** and **recreational** destinations together make up about a quarter of household driving. This includes holidays, visits to friends and family, eating out, cultural and religious activities, pre-school education and sports-related destinations as well as ‘just going for a drive’.

Over a quarter of distance driven and over a third of all trip legs are for **shopping** and **personal business** (which includes banking, getting a haircut, returning a video and other non-shopping ‘errands’).

A further 10% of driver travel is to collect or drop off other people (called ‘Accompany or transport someone else’ on the graph below). Travel to school or university, to the doctor or dentist, or to connect with another mode of transport, makes up only a small percentage of total driver travel.

**Table 3. Driver travel by destination type (2006 – 2009).**

Reason for stopping at this destination	Trip legs in sample	Million hours per year	Million km per year	Million trip legs per year
Work – travel to main job	6 180	92	3 365	342
Work – travel on employers’ business (includes self-employed)	4 318	74	2 905	261
Work – travel to other job	293	3	107	14
Social activity or entertainment	6 415	107	4 444	349
Recreational	2 406	34	1 365	117
Shopping	9 326	98	3 284	483
Personal business/social welfare	4 331	57	1 979	254
Accompany or transport someone else	5 262	55	1 897	268
Change to another mode of transport	1 012	13	487	53
Education	470	7	250	25
Medical/dental	606	8	276	31
Returning home	20 614	278	10 061	1 100
Total (excluding home)	40 619	547	20 358	2 198
Total	61 237	826	30 424	3 298

**Figure 5. Percentage of all driver travel (excluding the return-to-home trip leg), by destination type (2006 – 2009).**

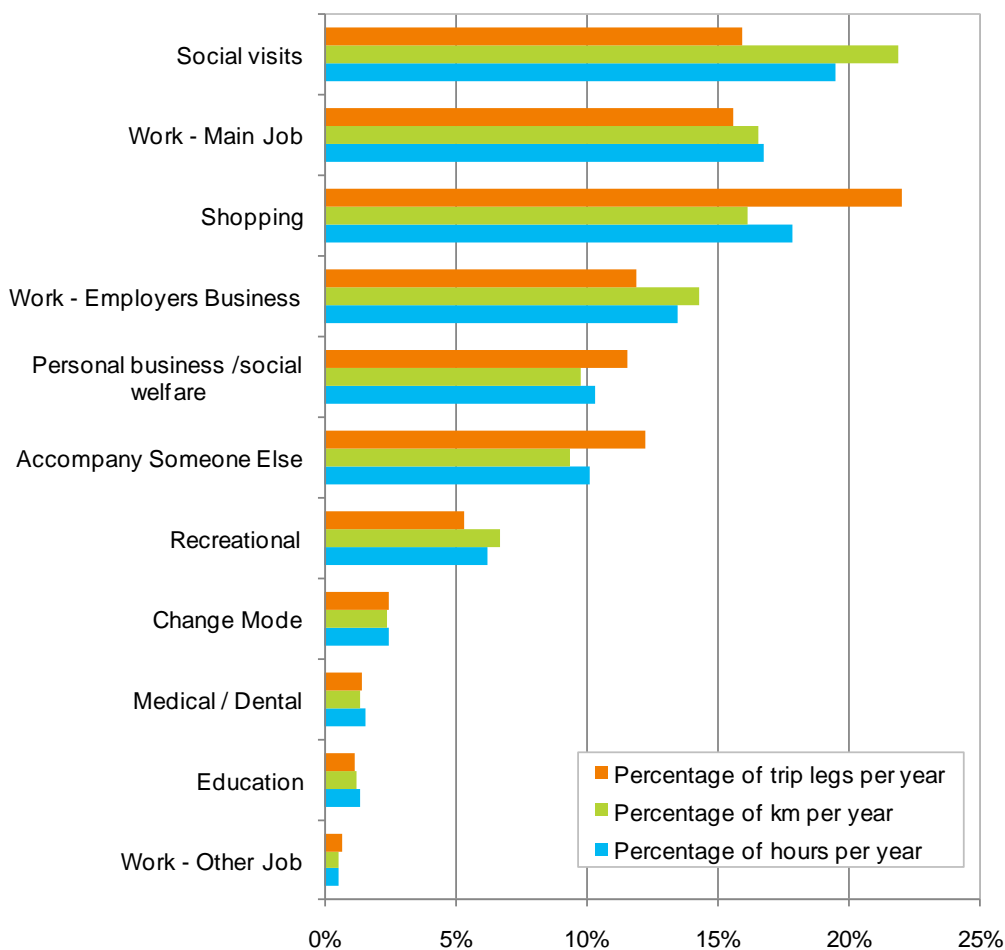


Table 4 shows how far people of various ages drove to each destination type. The pattern reflects changes in work and education patterns throughout life. An increase in the travel to transport others is evident in the 30-59 age group, when people are most likely to have dependent children or

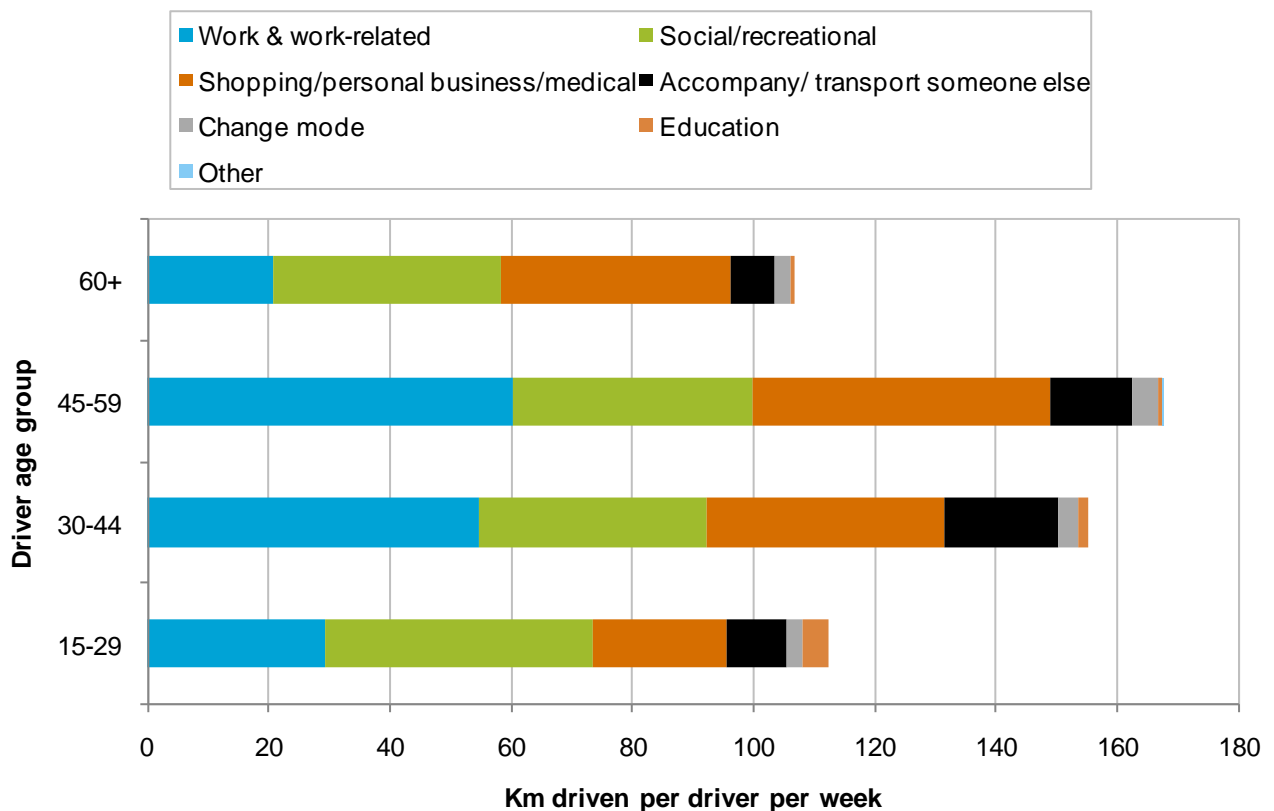
teenagers needing transport. This trend continues when the distance travelled per driver per week is examined (Figure 6).

**Table 4: Driver destination types by age group (2006 – 2009).**

Green shading indicates an estimate based on fewer than 100 trip legs. These are likely to be associated with large sampling errors.

Million km per year Purpose/ destination	Age group				All ages
	15-29	30-44	45-59	60+	
Work & work-related	970	2 382	2 394	631	6 377
Social/recreational	1 468	1 624	1 572	1 144	5 808
Shopping/personal business/medical	729	1 711	1 953	1 147	5 539
Accompany/ transport someone else	323	819	539	217	1 897
Change mode	90	142	167	88	487
Education	137	75	26	12	250
Returning home	1 993	3 335	3 176	1 558	10 061
Total (including unknown purpose)	5 709	10 087	9 830	4 797	30 424
<i>Drivers in age group</i>	<i>634 460</i>	<i>833 011</i>	<i>761 912</i>	<i>582 056</i>	<i>2 811 697</i>

**Figure 6: Driver destination type, by age group (2006 - 2009).**



## Trends in driver destination types

**Table 5: Trends in driver destination share.**

Purpose/ destination	% distance driven (excluding returning home)					
	1989/1990	1997/1998	2003-06	2004-07	2005-08	2006-09
Work & work-related	32%	33%	34%	34%	32%	31%
Social/recreational	32%	30%	27%	25%	26%	29%
Shopping/personal business/medical	19%	20%	26%	27%	28%	27%
Accompany/ transport someone else	12%	12%	9%	10%	9%	9%
Change mode	3%	3%	2%	2%	2%	2%
Education	1%	2%	1%	1%	1%	1%
Total (excluding going home)	100%	100%	100%	100%	100%	100%
Purpose/ destination	% time spent driving (excluding returning home)					
	1989/1990	1997/1998	2003-06	2004-07	2005-08	2006-09
Work & work-related	32%	32%	33%	33%	32%	31%
Social/recreational	29%	27%	25%	24%	24%	26%
Shopping/personal business/medical	22%	23%	28%	29%	30%	30%
Accompany/ transport someone else	13%	13%	10%	11%	10%	10%
Change mode	3%	3%	2%	2%	3%	2%
Education	1%	2%	1%	1%	1%	1%
Total (excluding going home)	100%	100%	100%	100%	100%	100%

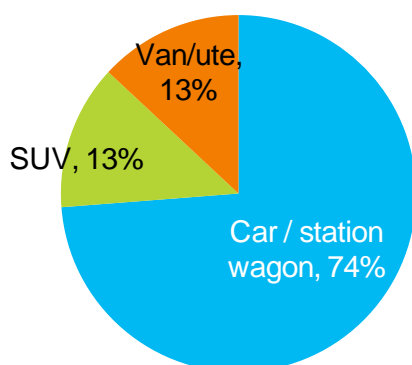
Table 5 shows how the share of driver destinations and purposes has changed over time. Work and work related travel has stayed a constant proportion of distance travelled and time spent travelling, along with education and changing travel mode. Social and recreational driving has decreased, but driving for shopping or personal business has increased.

## Vehicle types

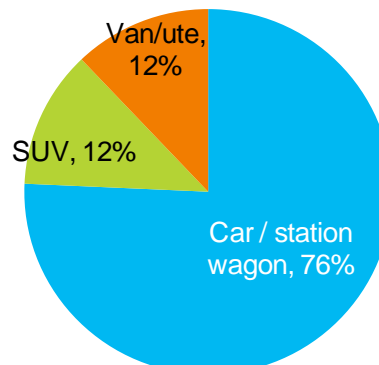
Cars and station wagons are still the vehicle of choice for New Zealand households. Car travel accounts for about three-quarters of the light vehicle distance driven by **light 4-wheeled vehicles** (see Figure 7). The remaining quarter is evenly split between vans/**utes** and **SUVs**. Time spent driving shows a similar pattern. This has not changed between 2003 and 2009.

**Figure 7: Travel in light 4-wheeled vehicles (2006 – 2009).**

**a) Distance driven**



**b) Time spent driving**



The current survey distinguishes SUVs from cars and vans. (In the 1989/90 and 1997/98 surveys, any SUV type vehicles were described as cars, or, occasionally, as vans or utes). This enables us to compare the usage patterns of cars, vans and SUVs. Table 6 shows the total household distance driven per year in each type of light vehicle, by age group and sex. Cars and station wagons are the most-used vehicle for household travel, by drivers of all ages.

**Table 6: Million km driven per year in light 4 wheeled vehicles, by sex, age and light vehicle type (2006 – 2009).**

*Green shading indicates an estimate based on fewer than 100 trip legs. These are likely to be associated with large sampling errors.*

Age group of driver	Million km per year					
	Males			Females		
	Car / station wagon	SUV	Van/ute	Car / station wagon	SUV	Van/ute
15-24	1596	74	163	1360	67	51
25-39	3277	707	1052	2931	390	313
40-54	3852	1341	1307	3506	513	330
55-69	2698	610	557	1893	167	57
70+	833	132	135	498	12	2
Grand Total	12256	2863	3215	10187	1150	753

Table 7 shows the contribution of each age/sex group to the total distance driven by car, and to the total distance driven by SUV. Men account for over two thirds of the distance driven in SUVs, but the car distance is more evenly split between men and women, with women driving 45% of the car distance. The age pattern is also noticeably different for SUVs compared to cars. Nearly half (46%) of the total SUV distance was driven by people aged 40-54, while only 33% of car driving is by people aged 40-54. Similarly, people aged 25-54 drove 74% of the total distance driven in SUVs, but only 60% of the total car distance.

**Table 7: Comparison of age and sex of car and SUV drivers (2006 – 2009).**

Age group of driver	Percentage of total car/ station wagon distance driven by...			Percentage of total SUV distance driven by...		
	Males	Females	Total	Males	Females	Total
15-24	7%	6%	13%	2%	2%	4%
25-39	15%	13%	28%	18%	10%	27%
40-54	17%	16%	33%	33%	13%	46%
55-69	12%	8%	20%	15%	4%	19%
70+	4%	2%	6%	3%	0%	4%
Total	55%	45%	100%	71%	29%	100%

## Vehicle occupancy

For the greater part of New Zealanders' travel, the driver is the only person in the vehicle.

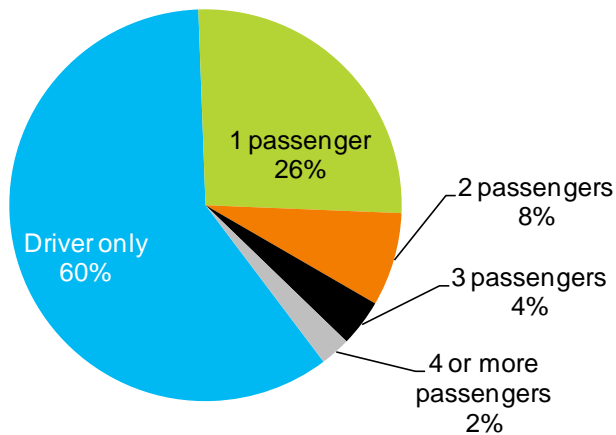
The driver was the sole vehicle occupant in two-thirds of trip legs (65%) in cars, vans and utes (see Figure 8). In one fifth (23%) of trip legs, one passenger was carried (in addition to the driver). One in eight trip legs (12%) involved two or more passengers.

There was a slight tendency to carry more passengers on longer journeys. The driver was the only vehicle occupant for 60% of the total distance driven and, for 14% of total distance, two or more passengers were carried.

Mean vehicle occupancy was 1.54 people per trip leg, or 1.65 people per distance driven.

**Figure 8: Number of people in vehicle (light 4-wheeled vehicles) (2006 – 2009).**

**a) Distance driven**



**b) Trip legs**

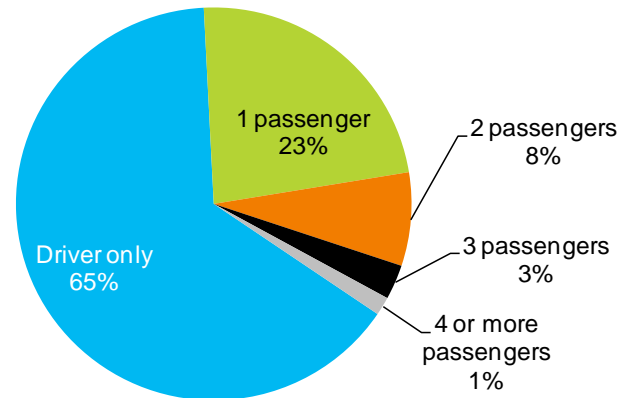
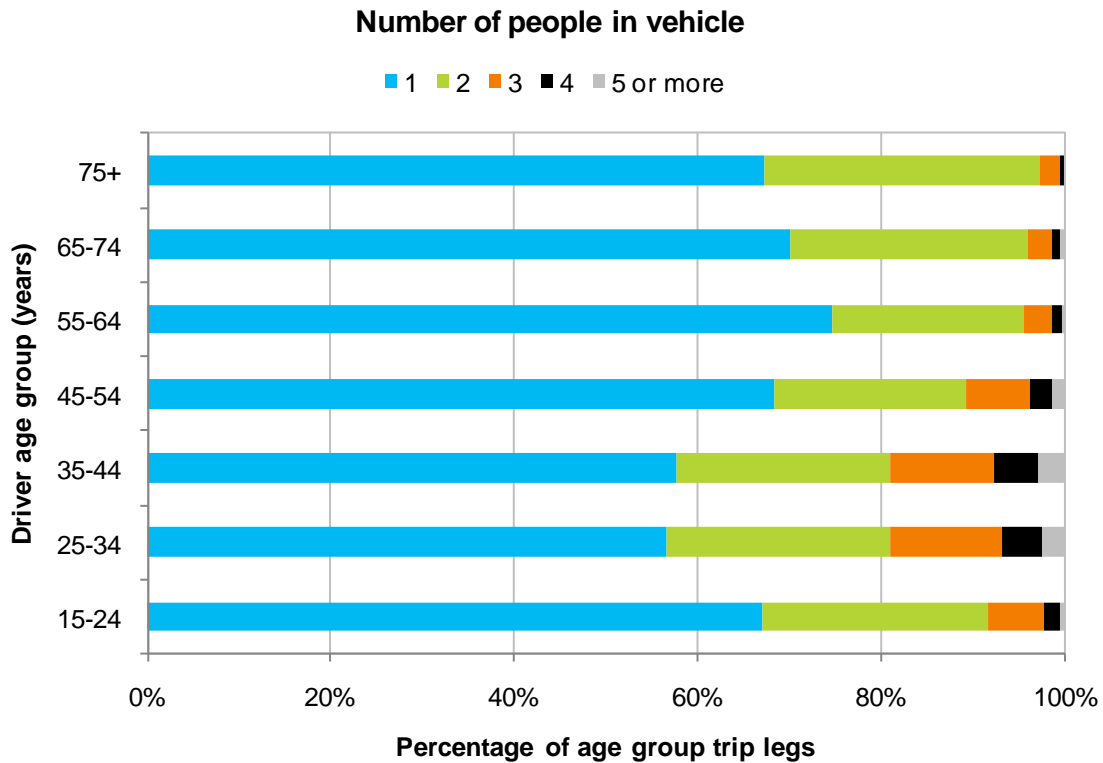


Table 8 and Figure 9 show vehicle occupancy for drivers of different age groups. Drivers aged 25-44 most often carry passengers. Passengers are carried on forty to forty two percent of all trip legs by these age groups, compared to only 25-32% of trip legs by drivers in other age groups.

**Table 8: Million trip legs per year, by number of people in vehicle (including driver) (2006 – 2009).**

Million trip legs per year	Driver age							
	15-24	25-34	35-44	45-54	55-64	65-74	75+	Total
1	248	309	450	512	356	169	91	2136
2	91	134	182	156	100	63	41	766
3	23	66	88	51	14	7	3	253
4	6	24	37	19	5	2	1	94
5 or more	2	13	22	10	2	1	0	50

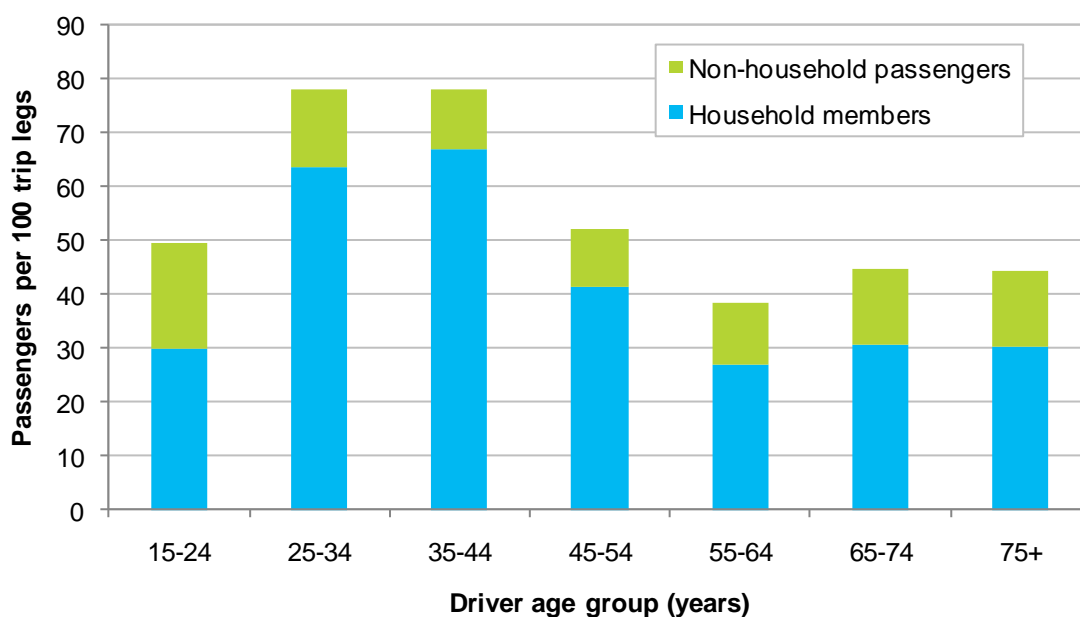
**Figure 9: Percentage of age group trip legs, by number of people in vehicle (including driver) (2006 – 2009).**



### Who are the passengers?

Most of the time, passengers are from the same household as the driver (family or flatmates). Young drivers carry the largest proportion of non-household passengers (see Figure 10). For drivers aged 25-34, about 14 passengers in every 100 trip legs are from outside the household, while for drivers aged 15-24, the equivalent figure is 20 passengers in every 100 trip legs, or 40% of all passengers carried by this group.

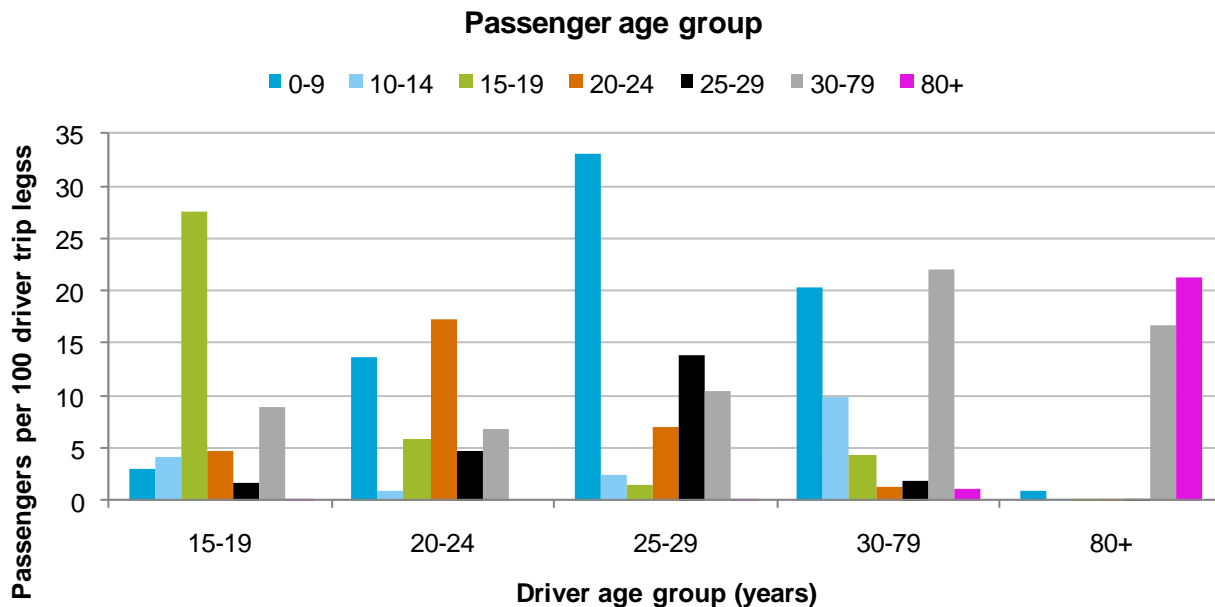
**Figure 10. Household and non-household passengers (2006 – 2009).**



Drivers were also asked the age and sex of each passenger in their vehicle. Passenger age categories on the survey form were chosen primarily to enable a closer look at who young drivers carry as passengers.

Figure 11 shows marked differences between the passenger profiles of the youngest group of drivers and those in their twenties. Passengers of drivers aged 15-19 are most often friends of the same age (about 27 per 100 driver trip legs) or 30 year or older (likely to be parents or other adult supervisors of learner drivers). 'Mates' of the same age are also the most common passengers for drivers aged 20-24, but for this group younger children also make up a significant proportion of passengers.

**Figure 11: Passengers in each age group by age of driver, per 100 driver trip legs (2006 – 2009).**



### When do people drive?

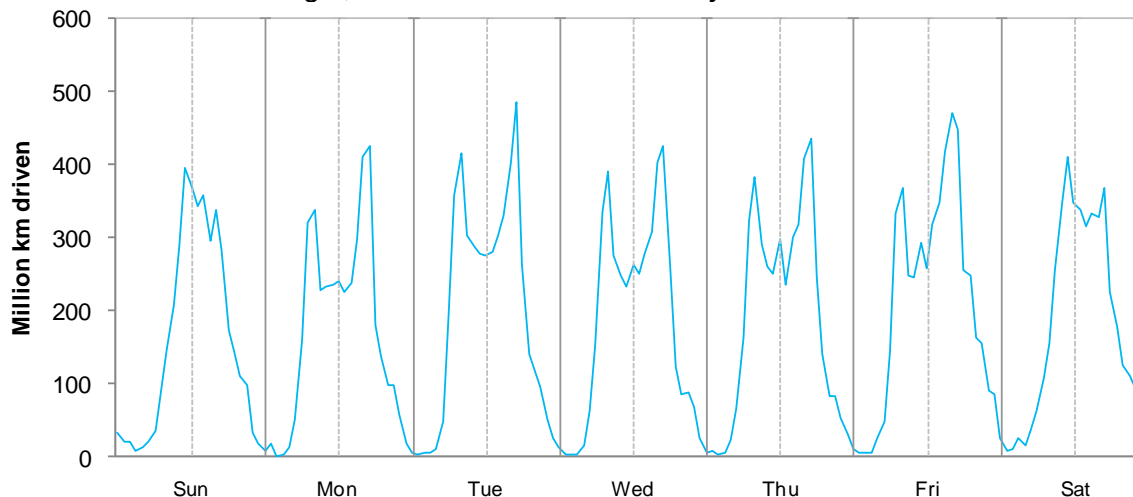
The departure and arrival times of each trip leg were recorded. The distance falling into each hourly band can be calculated (assuming a fairly constant speed over the whole trip leg). Results are shown in Figure 12. The solid vertical lines represent midnight and the dotted ones midday.

Although sample sizes for each individual hour are fairly small, the weekday morning and afternoon peaks can be clearly seen, as can the increase in traffic late on Friday and Saturday nights compared with the same times on other days.

The average distance driven on a weekend day is 90% of the average weekday distance.

**Figure 12: Distance driven by day and time (2006 – 2009).**

*Solid lines indicate midnight; dotted lines indicate midday.*



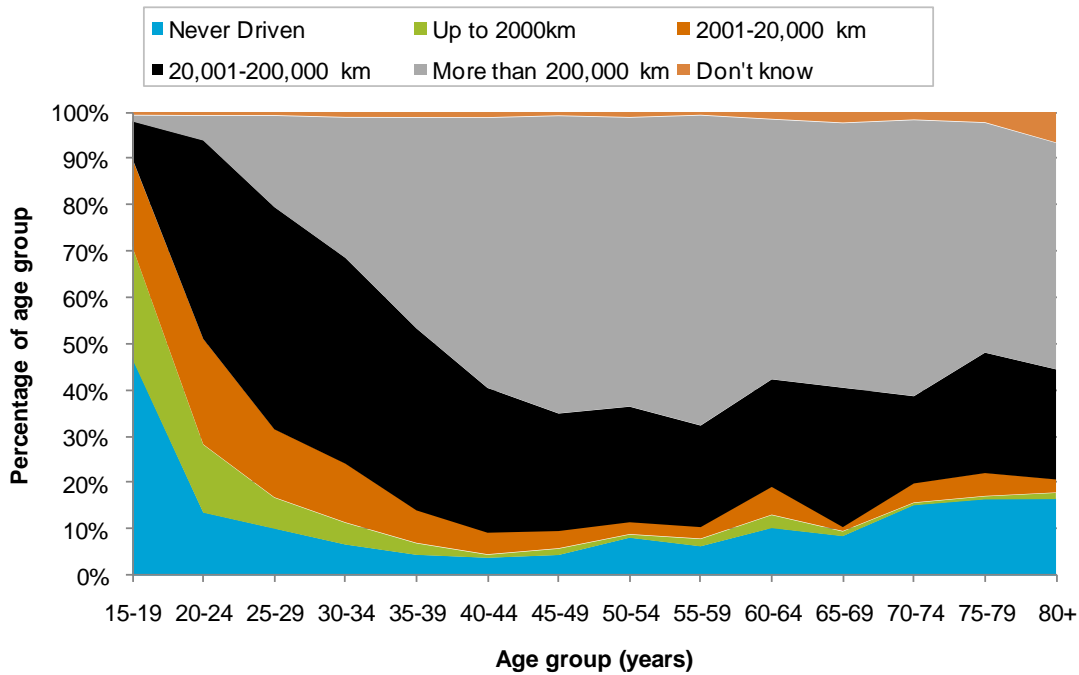
## Lifetime driving experience

Survey participants were asked to estimate their total lifetime driving experience, choosing from a list of categories. Figure 13 shows the results by five-year age group. Men of all ages reported more driving experience than women of the same age. Ninety-five per cent of men aged 25 and over reported that they had driven at least 20 000 km in their lives so far, compared with 82% of women in the same age group.

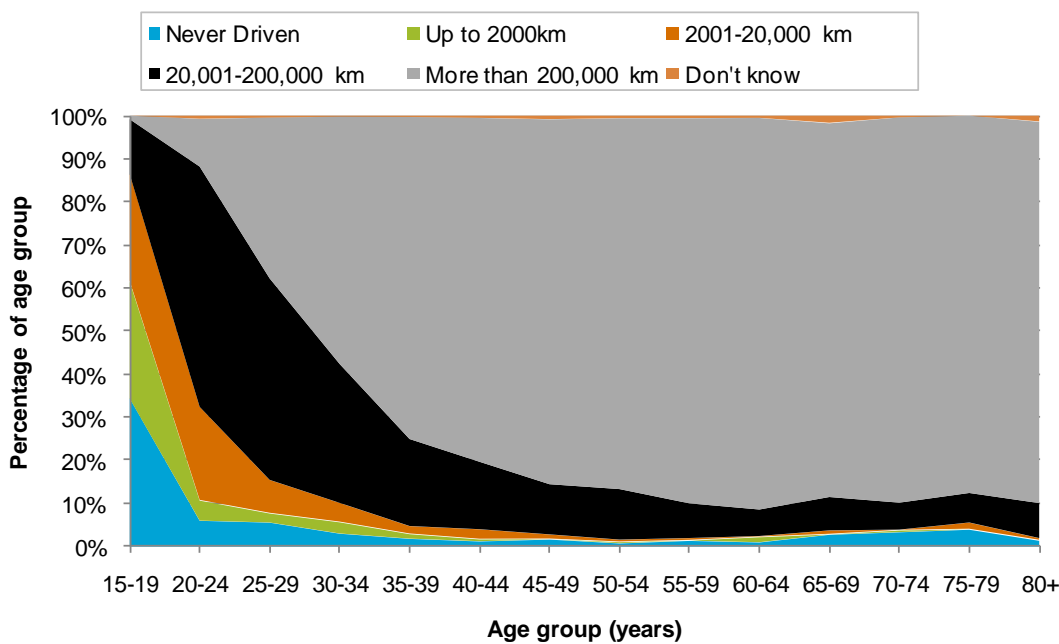
More women than men were non-drivers; 14% of women aged 65 and over had never driven, compared with only 3% of men in this age group.

**Figure 13: Lifetime driving experience, by current age (2006 – 2009).**

a) Females



b) Males



## Glossary

**Driver:** A person who reports having driven 100km or more in the last year. This may include some people who do not hold a driver's licence. It may also include some people who have given up driving recently. People who still hold a driver's licence but have not driven in the last year are not counted as drivers by this definition.

**Light four-wheeled vehicle:** Includes cars, vans, utes and SUVs. Excludes trucks, trailers, motorcycles, buses and tractors. Taxis are also excluded.

**Professional driver:** someone who is employed to transport goods or people, including couriers, truck drivers, bus and taxi drivers. Trips by professional drivers in the course of their work are excluded. Other travel by professional drivers (including travel from home to work) is included. If a person drives a lot for work, but this is not the primary purpose of the job (eg a plumber, real estate agent, district nurse), then all trips by this person are recorded (he or she is not a professional driver).

**Public transport:** passenger in a bus, train or ferry where the trip leg distance was less than 60 km and/or the duration was less than 1 hour. Bus/train/ferry trips of longer than this distance/duration have been coded to 'other household travel'.

**SUV:** Sports utility vehicle. Normally but not always 4 wheel drive, refers to light passenger vehicle with high wheel base and distinctive body shape.

**Travel mode:** the method of travel. Includes: vehicle driver, vehicle passenger, pedestrian, cyclist, motorcycle driver or rider, bus or train passenger, taxi passenger.

**Trip leg:** a single leg of a journey, with no stops or changes in travel mode. E.g., driving from home to work with a stop at the shop on the way, is two trip legs, one from home to shop and one from shop to work.

### Trip purposes / destinations:

**Return home** includes any trip to the home address or any trip returning to the place they are going to spend the night.

**Work** includes travel to main place of work and travel to any other jobs.

*Employer's business:* includes work-related travel other than to and from work (eg travelling to meetings or clients).

**Education** is for travel by students only and includes institutions such as primary and secondary schools, universities etc. It does not include preschool education such as kindergarten, Play centre, crèche, kōhanga reo etc which are included under *social visit / entertainment*.

**Shopping** is entering any premises that sells goods or hires them for money. A purchase need not be made.

**Social visit / entertainment** includes holidays, entertainment in a public or private place e.g. eating out at a restaurant or food court, picnics etc.

**Recreational** includes active or passive participation in sporting activities, and travel for which the main goal is exercise.

**Personal business** includes stops made to transact personal business where no goods were involved. This includes stops made for medical or dental needs and for dealing with government agencies involved with social welfare.

**Accompany or transport someone** covers when the reason of the travel is to go somewhere for someone else's purpose.

**Change mode of travel** covers when the purpose of the stop was only to change to another mode of transport.

**Ute:** Utility vehicle; a light flatbed truck weighing less than 3.5 tons. Typically based on a car or van model with a front cab and flatbed instead of rear seats or luggage space.

For more information about the background to the survey see <http://www.transport.govt.nz/research/TravelSurvey/>

For more information about road safety, see the Ministry of Transport website at [www.transport.govt.nz](http://www.transport.govt.nz)  
Prepared by the Transport Monitoring team of the Ministry of Transport, January 2007. Revised May 2007. Updated December 2009.