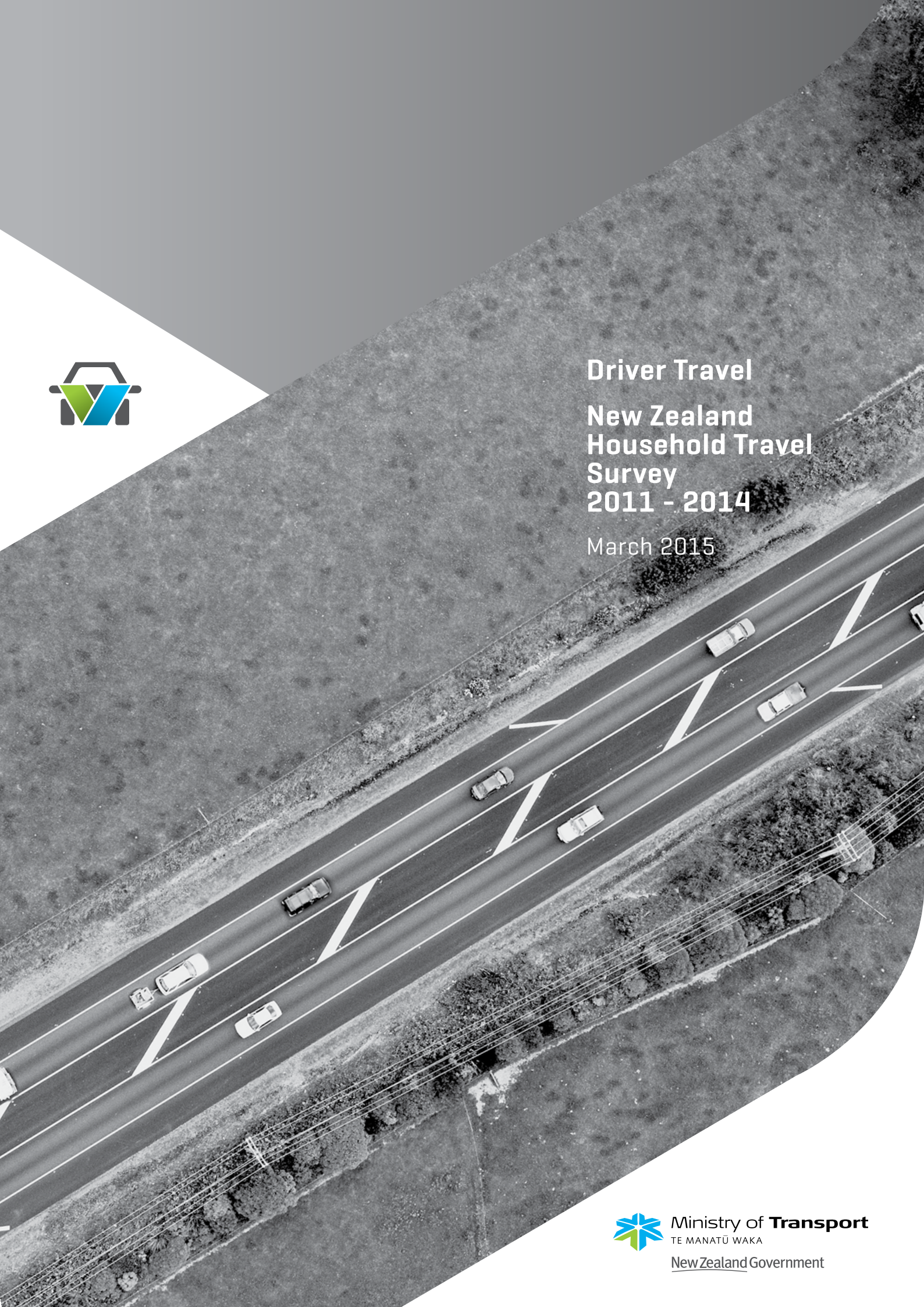


Driver Travel

New Zealand Household Travel Survey 2011 - 2014

March 2015

Ministry of Transport
TE MANATŪ WAKA

New Zealand Government

Disclaimer:

All reasonable endeavours are made to ensure the accuracy of the information in this report. However, the information is provided without warranties of any kind including accuracy, completeness, timeliness or fitness for any particular purpose.

The Ministry of Transport excludes liability for any loss, damage or expense, direct or indirect, and however caused, whether through negligence or otherwise, resulting from any person or organisation's use of, or reliance on, the information provided in this report.

Under the terms of the New Zealand Creative Commons Attribution 3.0 (BY) licence, this document, and the information contained within it, can be copied, distributed, adapted and otherwise used provided that –

- the Ministry of Transport is attributed as the source of the material
- the material is not misrepresented or distorted through selective use of the material
- images contained in the material are not copied

The terms of the Ministry's **Copyright and disclaimer** apply.

For more information about the background to the survey see the Ministry of Transport website at **www.transport.govt.nz/research/travelsurvey/**
Regional breakdowns of some of the data presented here are available from this website.

A selection of fact sheets is available in the Research area of the Ministry of Transport website. These include:

Crash facts:

- Alcohol and drugs
- Cyclists
- Diverted attention
- Fatigue
- Motorcyclists
- Pedestrians
- Speed
- Trucks
- Young drivers

Travel survey:

- Comparing travel modes
- Driver travel
- Risk on the road
  - Introduction and mode comparison
  - Drivers and their passengers
  - Pedestrians, cyclists and motorcyclists
- Walking
- Cycling
- Motorcycling
- Public transport

Contents

Key facts

- People in New Zealand aged between 35 and 64 spend two thirds of their total travel time driving.
- On average, men drive just over 12,000 km per driver per year, while women average just over 8,000 km per driver per year.
- Work-related travel accounts for about one third of all household driving time and distance.
- Car travel accounts for about 70 percent of the light vehicle[1] distance driven by households. The remainder is fairly evenly split between vans/utes and SUVs.
- The driver was the sole vehicle occupant in two thirds (67 percent) of **trip legs** in cars, vans and utes.
- The average distance driven on a weekend day is 88 percent of the average weekday distance.
- Overall the amount of driving done per driver increased from 25 km/day in 1989/90 to 29.7 km/day in 2004–07, decreased to about 27.8 km/day by 2008–11, but has started to increase again, to about 28.5 km/day in 2011–14.
- More women than men are non-drivers; 15 percent of women aged 65 and over have never driven, compared with only 2 percent of men in this age group.

Overview

The New Zealand Household Travel Survey is an ongoing survey of household travel conducted for the Ministry of Transport. Each year, people in 4,600[2] households throughout New Zealand are invited to participate in the survey by recording all their travel over a two-day period. Each person in the household is then interviewed about their travel. The sample is designed so that results for individuals can be scaled to provide national estimates of travel.

This fact sheet focuses on **drivers** of **light four-wheeled vehicles**, including cars, vans, **utes** and **SUVs**. It uses data from 67,956 people in 26,919 households, collected between July 2003 and June 2014, focussing on July 2011–June 2014 (24,851 people in 9,788 households). **Professional driver** trips[3] have been excluded from the analysis.

[1] Excludes motorcycles
[2] Prior to July 2008, 2,200 households per year were sampled.
[3] 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.

Words (other than headings) shown in **blue** are defined in the glossary at the end of the sheet.

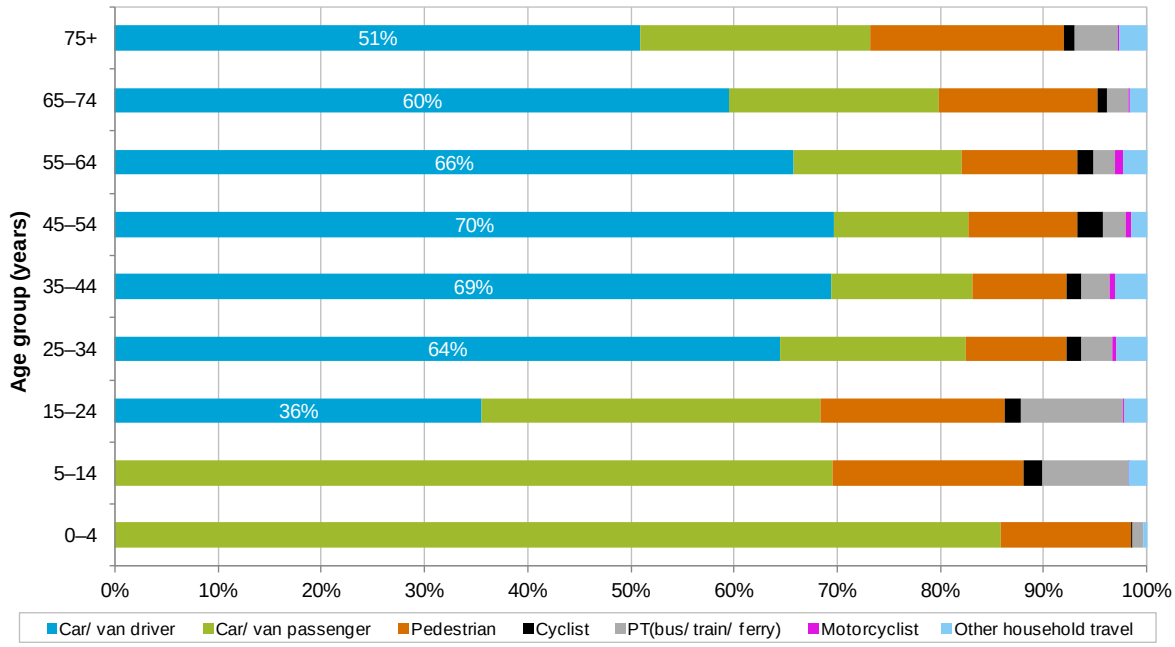
As the survey covers periods starting July in a given year and finishing in June the following year, it should be noted that 2011–2014 refers to a three year time period (July 2011–June 2014).

How much of our travel is driving?

Driving is the mode of travel most used by people in New Zealand. It accounts for half of all travel time, and around two thirds of all travel time for people aged between 35 and 64. The oldest and youngest adults spend a bigger proportion of their travel time than other adults 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 other modes such as horse-riding (skateboarders and users of mobility scooters are included with walkers).

Figure 1: Proportion of total travel time by mode of travel



Who does the driving?

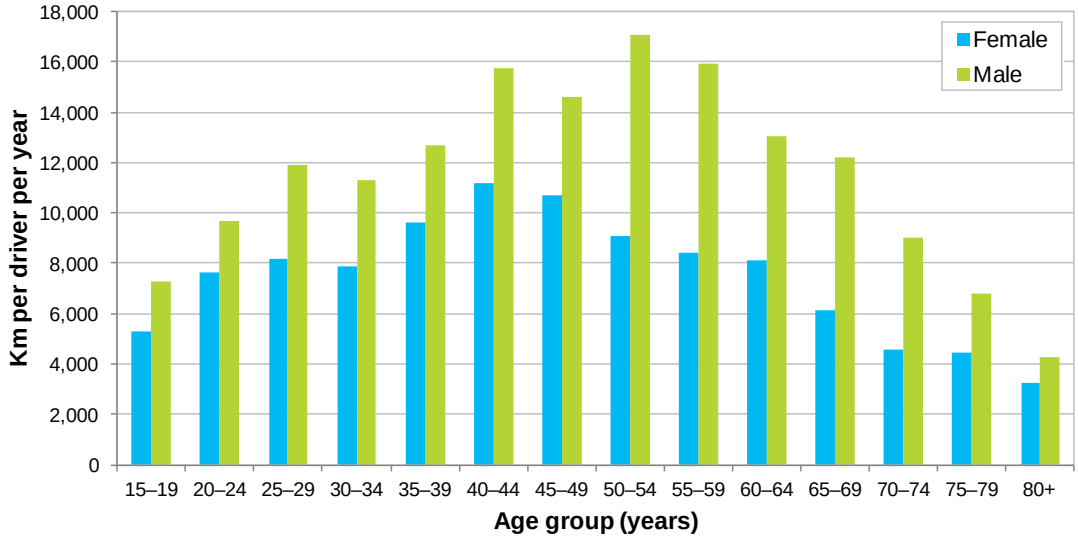
Table 1 and Figure 2 show how much driving is done by males and females of different ages. Table 1 shows the total distance driven as household travel, by men and women in each age group. Figure 2 shows the annual average distance driven per **driver** (that is, it excludes people who never drive at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

In New Zealand, male drivers do more driving than female drivers. On average, New Zealand men drive just over 12,000 km per driver per year, while women on average drive just over 8,000 km per driver per year.

Approximately 61 percent of the total distance driven by New Zealanders in cars, vans, utes and SUVs, is by men.

The average amount of driving per driver per year increases with age, until hitting a peak and then declining into old age. Peak driving occurs in their 40s for females and 50s for males.

Figure 2: Average annual distance driven per driver[4] (cars, vans, utes and SUVs)



[4] "Driver" is defined as someone who reported having driven 100 km or more in the previous year.

Table 1. Driver travel in cars, vans, utes and SUVs, by age group and sex

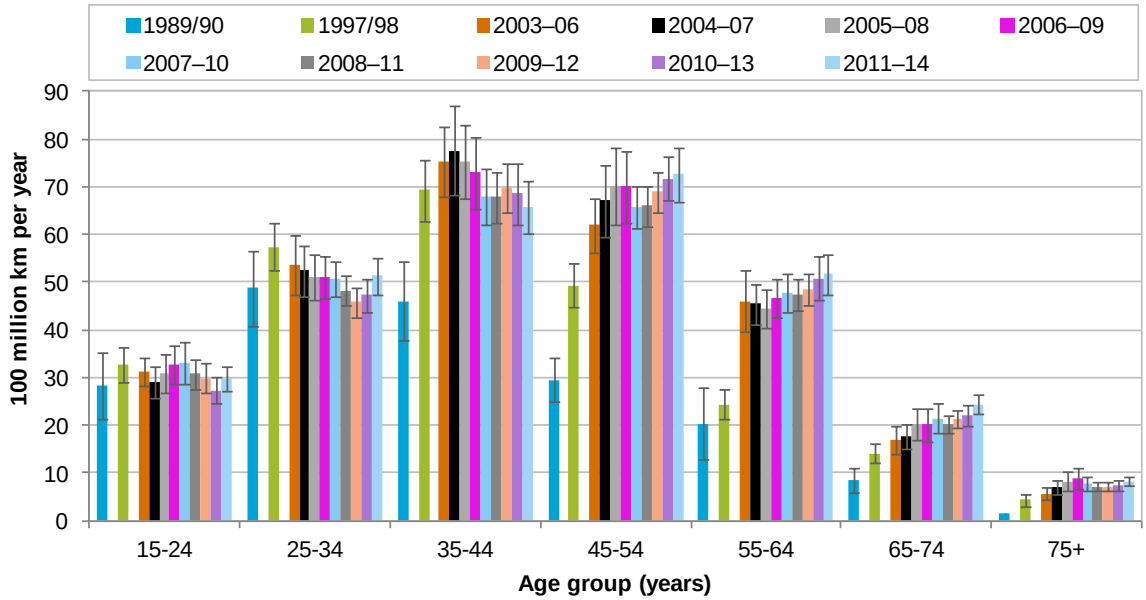
	Females					Males				
Age group	*Sample size (People)*	Number of drivers[4] (1,000)	Million hours per year	Million km per year	Million trip legs per year	*Sample size (People)*	Number of drivers[4] (1,000)	Million hours per year	Million km per year	Million trip legs per year
15–19	*270*	52	8	277	30	*357*	63	11	458	39
20–24	*522*	120	27	920	106	*517*	137	35	1,325	115
25–29	*601*	125	31	1,023	120	*518*	140	44	1,660	145
30–34	*641*	127	31	1,000	134	*637*	127	40	1,442	135
35–39	*823*	130	37	1,251	172	*678*	125	39	1,582	130
40–44	*875*	144	44	1,611	195	*788*	135	52	2,129	163
45–49	*858*	142	43	1,520	187	*837*	143	54	2,082	182
50–54	*847*	139	37	1,262	152	*748*	140	58	2,393	181
55–59	*664*	115	28	972	120	*679*	123	47	1,968	145
60–64	*667*	103	24	834	100	*646*	107	36	1,392	125
65–69	*518*	84	16	513	73	*562*	87	27	1,062	96
70–74	*398*	61	9	280	43	*388*	65	17	588	69
75–79	*261*	41	6	183	31	*295*	42	9	287	40
80+	*225*	45	6	146	28	*290*	50	8	213	38
Total	*8,170*	1,429	345	11,792	1,491	*7,940*	1,485	475	18,582	1,602

Trends in distance driven

The Household Travel Survey indicates that the distance driven in cars, vans, utes and SUVs increased from 18.3 billion km in 1989/90 to 29.1 billion km in 2003–06. The year by year changes since 2003–06 are not statistically significant.

Table 2 and Figure 3 show the annual distance driven in cars, vans, utes and SUVs. Confidence intervals are shown as grey bars in Figure 3. Where the confidence intervals do not overlap, we can be reasonably confident that there has been a real change between surveys.

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



Note: this graph visually compresses the time interval between 1989/90, 1997/98 and 2003-06.

The Ministry's fleet statistics show that, after a period of traffic growth in the early to mid 2000s, the amount of travel by light passenger vehicles has slightly decreased. This pattern is reflected in the distance travelled by drivers in this Household Travel Survey.

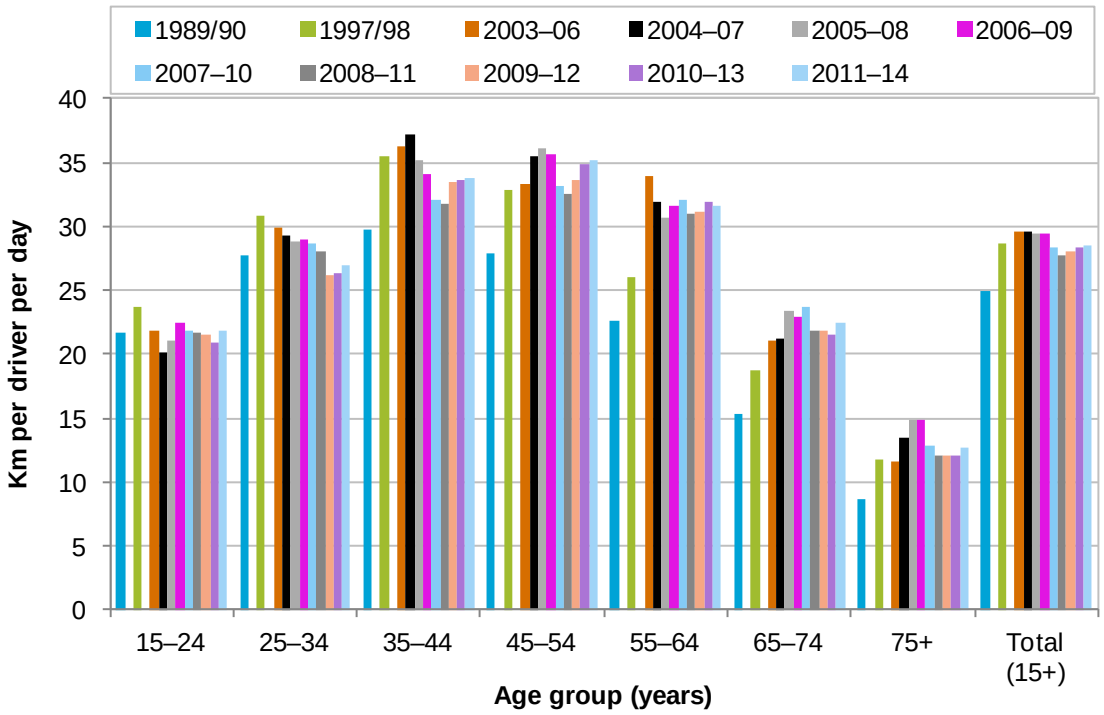
Table 2: Annual distance driven in light 4-wheeled vehicles, by year

Age group	100 million km per year (annual average) driven in cars, vans, utes and SUVs										
	1989 /90	1997/98	2003–06	2004–07	2005–08	2006–09	2007–10	2008–11	2009–12	2010–13	2011–14
15–24	28	33	31	29	31	33	33	31	30	27	30
25–34	49	57	54	52	51	51	51	48	46	47	51
35–44	46	69	75	78	75	73	68	68	70	69	66
45–54	30	49	62	67	70	70	66	66	69	72	73
55–64	20	24	46	46	44	46	48	47	48	51	52
65–74	9	14	17	18	20	20	21	20	21	22	24
75+	2	4	6	7	8	9	8	7	7	7	8
Total	183	251	291	296	300	302	294	287	291	295	304

Trends in distance driven per driver

Figure 4 shows the average distance driven per driver in each age group. Overall the amount of driving done per driver increased from 25 km/day in 1989/90 to 29.7 km/day in 2004–07, decreased to about 27.8 km/day by 2008–11, but has started to increase again, to about 28.5 km/day in 2011–14. There is more year to year variation in the estimates for separate age groups but it is clear that the pattern varies across age groups. For example, the amount of driving done by drivers aged under twenty-four has changed little over the last 20 years, while drivers 65–74 years old have increased their driving by over 40 percent, with most of the change occurring from 1989/90 to 2003–06.

Figure 4: Distance driven per driver[5] (cars, vans, utes and SUVs)



Note: this graph visually compresses the time interval between 1989/90, 1997/98 and 2003-06.

[5] Driver is defined as someone who reported driving 100km or more in the previous year.

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.

Table 3. Driver travel by destination type

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	*10,770*	103	3,780	349
Work – travel on employers' business (includes self-employed)	*6,384*	66	2,645	201
Work – travel to other job	*256*	2	75	9
Social activity or entertainment	*9,223*	84	3,386	296
Recreational	*3,401*	33	1,294	115
Shopping	*13,710*	90	2,966	442
Personal business/social welfare	*5,103*	36	1,340	154
Accompany or transport someone else	*9,674*	68	2,290	319
Change to another mode of transport	*1,792*	17	623	58
Education	*487*	5	151	17
Medical/dental	*787*	6	178	24
Returning home	*33,970*	310	11,648	1,109
Total (excluding home)	*61,587*	510	18,725	1,984
Total (including home)	*95,557*	820	30,374	3,093

Table 3 shows time and distance spent travelling to each of the destination types. About one third of trip legs end at home. These trip legs 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 about 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 percent of household driving. This includes going to meetings as well as travel from job to job by tradespeople 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'.

Nearly a quarter of distance driven and about 30 percent of all trip legs are for **shopping** and **personal business** (such as banking, getting a haircut, returning a video and other non-shopping 'errands').

A further 12 percent of driver travel is to collect or drop off other people (called **accompany or transport someone** else[6] on the graph below). Personal 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.

Figure 5. Percentage of all driver travel (excluding return-to-home trip legs), by destination type

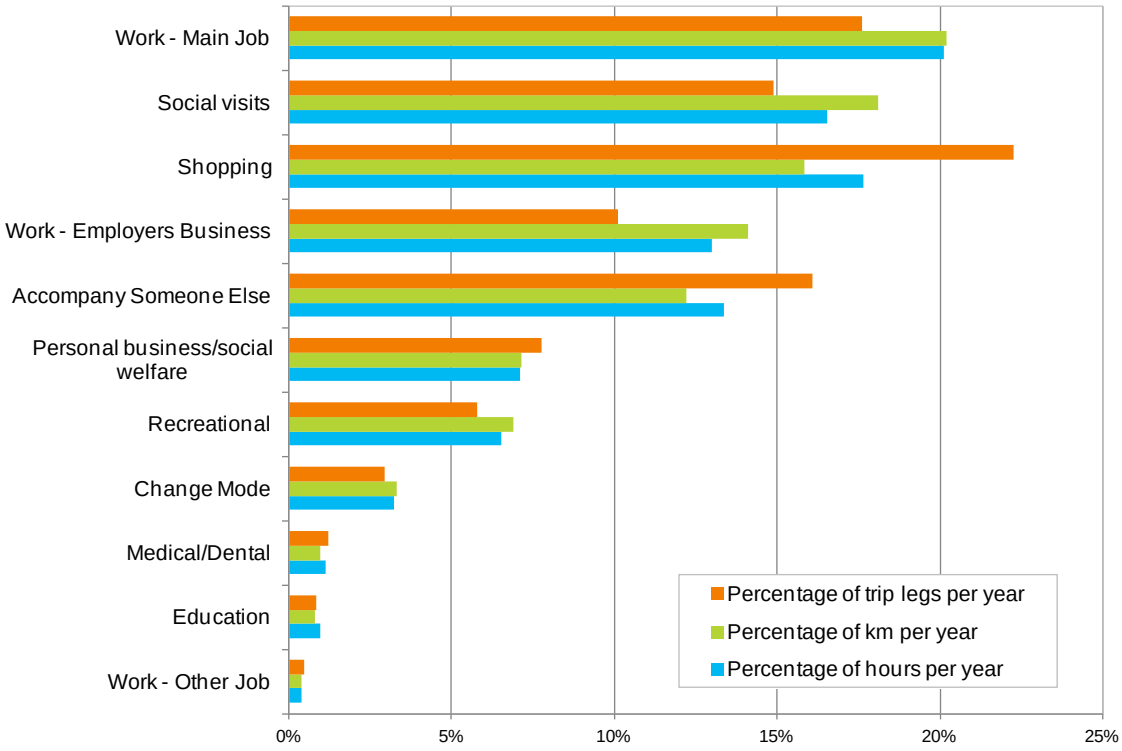


Table 4 shows how far people of various ages drove to each destination type. The pattern reflects changes in work and education patterns of different age groups. An increase in the travel to transport others is evident in the 30–44 age group, when people are more likely to have dependent children or teenagers needing transport. This trend is also evident in the distance travelled per driver per week (Figure 6).

[6] Parents driving children to school is recorded under 'Accompany or transport someone'.

Table 4: Driver destination types by age group

Million km per year	Age group				All ages
Purpose/ destination	**15–29**	**30–44**	**45–59**	**60+**	
Work & work-related	1,121	2,133	2,496	750	6,499
Social/recreational	981	1,167	1,432	1,099	4,679
Shopping/personal business/medical	641	1,229	1,494	1,120	4,484
Accompany/ transport someone else	366	906	692	325	2,290
Change mode	138	187	187	111	623
Education	109	*Sample too small*	*Sample too small*	*Sample too small*	151
Returning home	2,306	3,376	3,875	2,091	11,648
Total (including return home)	5,662	9,016	10,197	5,499	30,374
Drivers in age group	637,964	788,117	802,488	685,915	2,914,484

Figure 6: Driver destination type, by age group

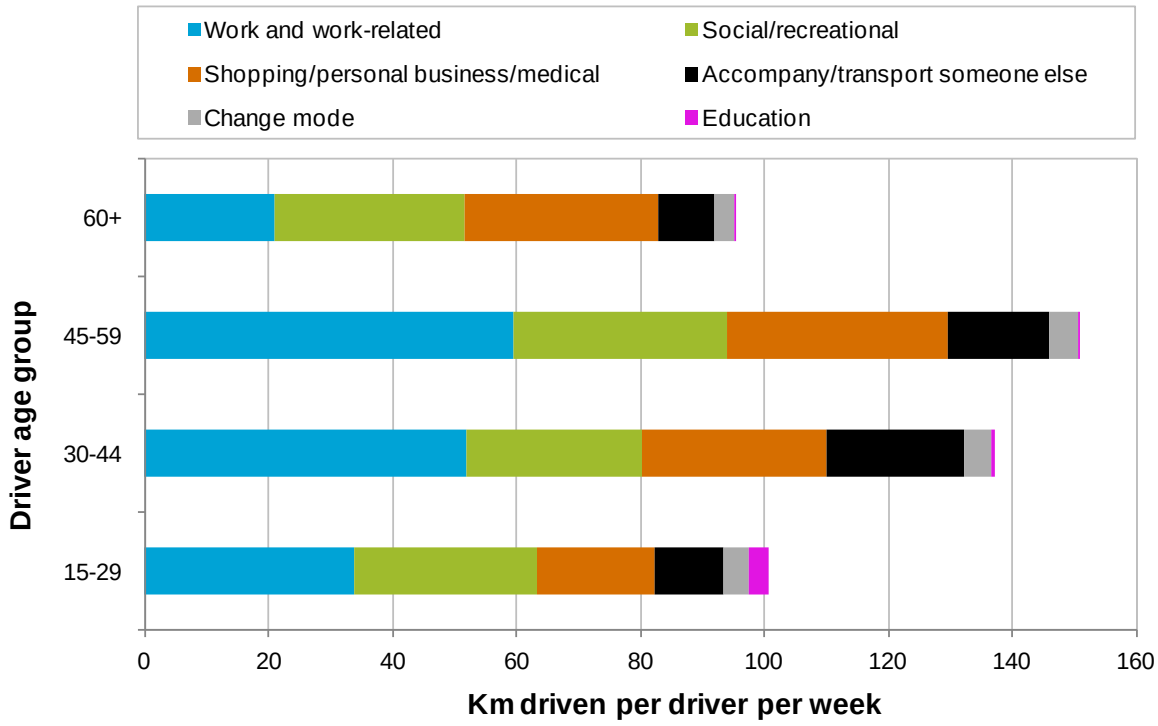
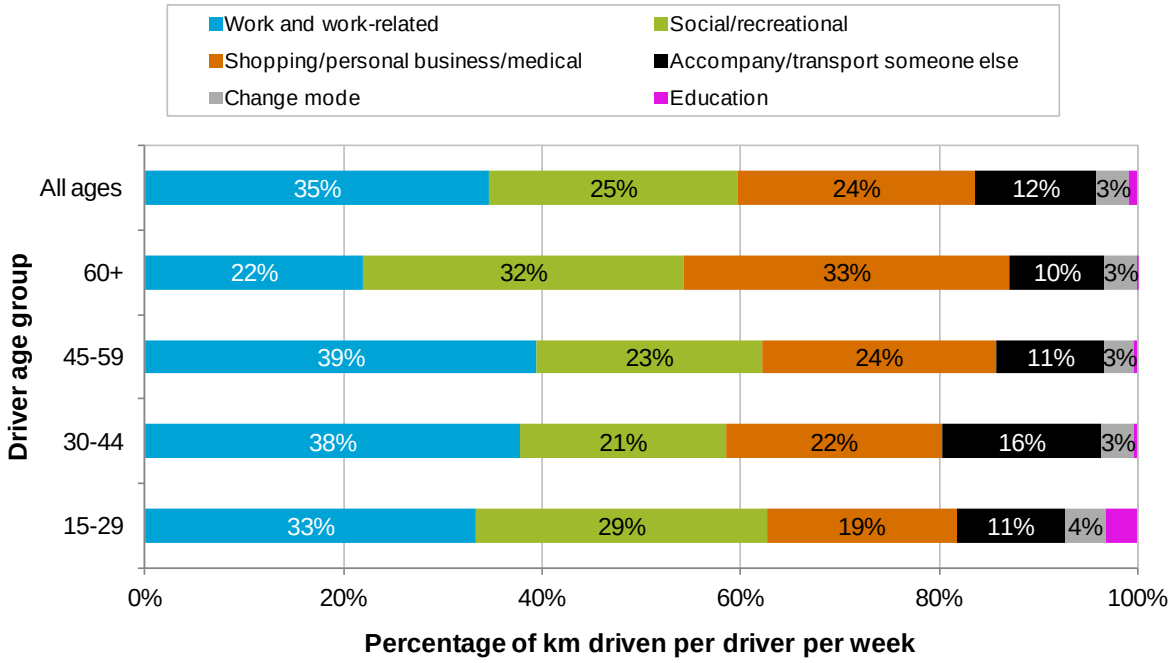


Figure 7: Driver destination type by percentage of travel and age group

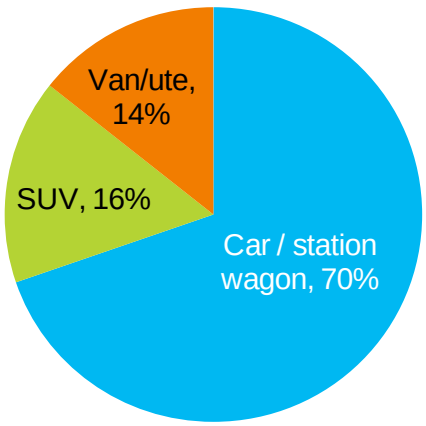


Vehicle types

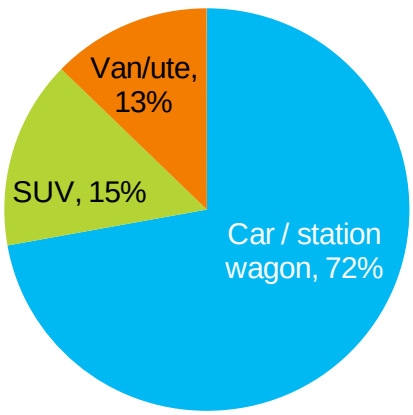
Cars and station wagons are still the main vehicle of choice for New Zealand households. Car travel accounts for about 70 percent of the light vehicle distance driven by **light 4-wheeled vehicles** (see Figure 7). The remaining is fairly evenly split between vans/**utes** and **SUVs**. Time spent driving shows a similar pattern.

Figure 8: Travel in light 4-wheeled vehicles

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 5 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 5: Million km driven per year in light 4 wheeled vehicles, by sex, age and light vehicle type

	Million km per year							
	Males				Females			
Age group of driver	*Trip legs in sample*	Car/ station wagon	SUV	Van/ute	*Trip legs in sample*	Car/ station wagon	SUV	Van/ute
15–24	*7,039*	1,393	150	240	*3,523*	1,051	85	*Sample too small*
25–39	*23,844*	2,839	760	1,085	*13,106*	2,695	377	201
40–54	*34,582*	3,719	1,460	1,425	*18,188*	3,380	706	307
55–69	*21,836*	2,734	818	871	*9,807*	1,998	253	69
70+	*8,256*	806	186	97	*3,442*	561	40	*Sample too small*
Total	*95,557*	11,491	3,373	3,718	*48,066*	9,685	1,461	646

Table 6 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 46 percent of the car distance. The age pattern is also noticeably different for SUVs compared to cars. 45 percent of the total SUV distance was driven by people aged 40–54, while only 34 percent of car driving is by people aged 40–54.

Table 6: Comparison of age and sex of car and SUV drivers

Age group of driver	% total car/station wagon distance driven by…			% total SUV distance driven by…			*Drivers in sample*
	Males	Females	Total	Males	Females	Total	
15–24	7%	5%	12%	3%	2%	5%	*1,666*
25–39	13%	13%	26%	16%	8%	24%	*3,898*
40–54	18%	16%	34%	30%	15%	45%	*4,953*
55–69	13%	9%	22%	17%	5%	22%	*3,736*
70+	4%	3%	6%	4%	1%	5%	*1,857*
Total	54%	46%	100%	70%	30%	100%	*16,110*

Vehicle occupancy

The driver is the only person in the vehicle for a large proportion of travel in New Zealand.

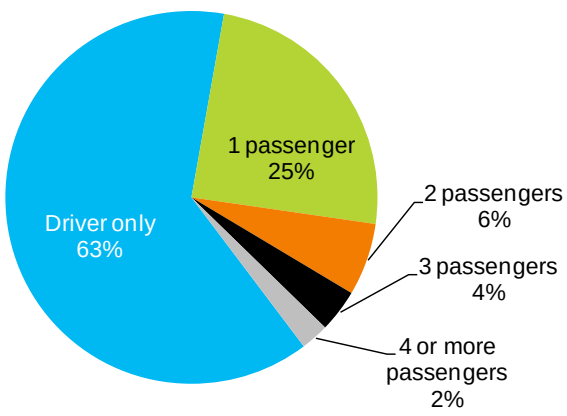
The driver was the sole vehicle occupant in two-thirds of trip legs (67 percent) in cars, vans and utes (see Figure 9). In one fifth (22 percent) of trip legs, one passenger was carried (in addition to the driver). One in eight trip legs (12 percent) involved two or more passengers.

There was a slight tendency to carry more passengers on longer journeys. The driver was the only vehicle occupant for 63 percent of the total distance driven and, for 12 percent of total distance, two or more passengers were carried.

Mean vehicle occupancy was 1.51 people per trip leg, or 1.59 people per distance driven.

Figure 9: Number of people in vehicle (light 4-wheeled vehicles)

a) Distance driven



b) Trip legs

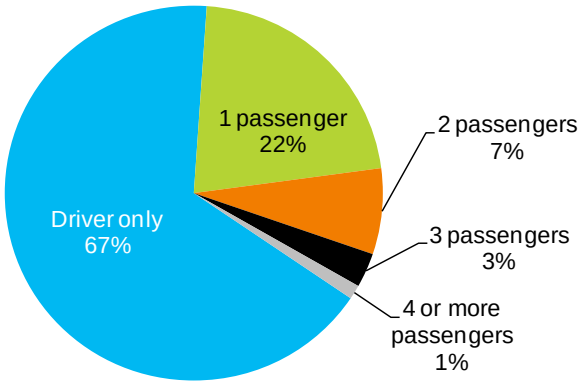
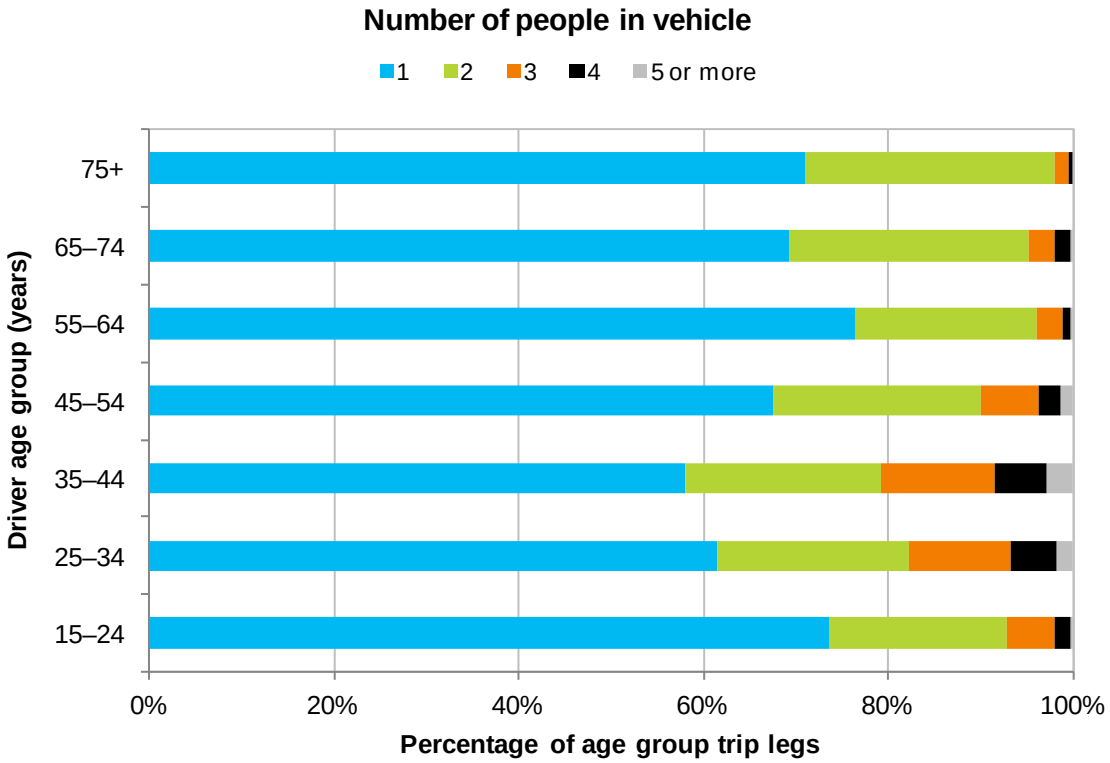


Table 7 and Figure 10 show vehicle occupancy for drivers of different age groups. Drivers aged 25–44 most often carry passengers. Passengers are carried on 40 percent of all trip legs by these age groups, compared to only 24–32 percent of trip legs by drivers in other age groups.

Table 7: Million trip legs per year, by number of people in vehicle (including driver)

Million trip legs per year	Driver age							
People in vehicle	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total
1	213	329	383	473	375	195	96	2,064
2	56	111	140	157	97	73	37	670
3	15	59	80	44	13	8	2	221
4	5	27	38	17	4	5	1	97
5 or more	1	9	18	10	2	0	0	41
Total	290	535	660	701	491	281	136	3,093

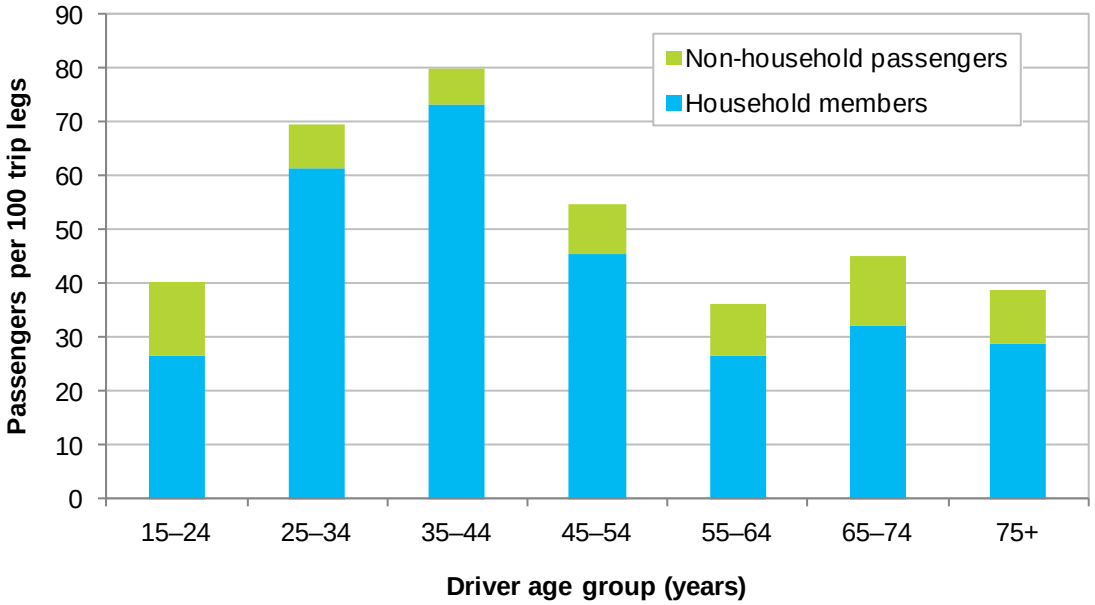
Figure 10: Percentage of age group trip legs, by number of people in vehicle (including driver)



Who are the passengers?

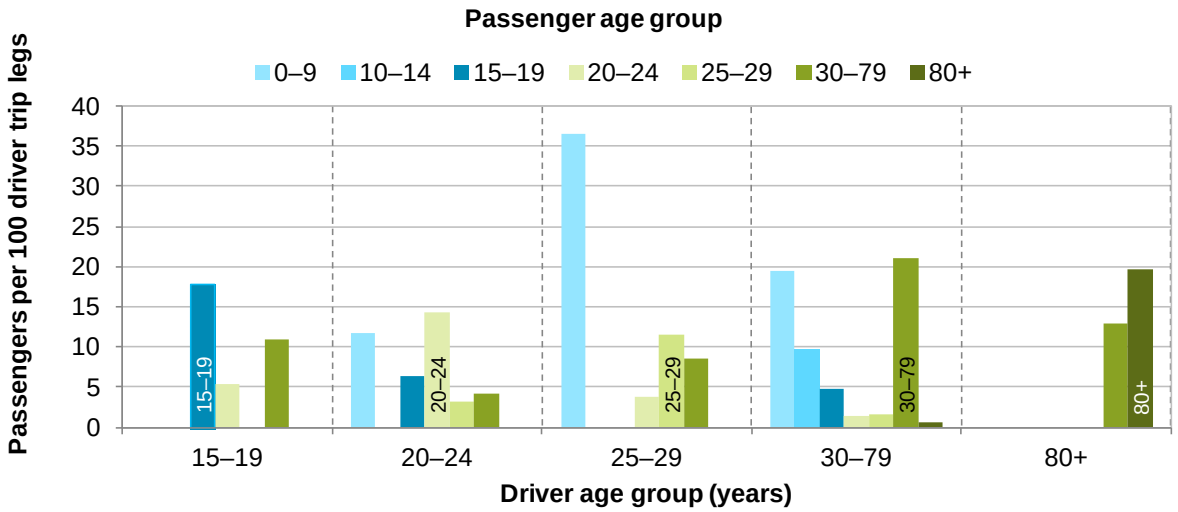
Most of the time, passengers are from the same household as the driver (family or flatmates). Young drivers carry the largest proportion of non-household passengers (see Figure 11). For drivers aged 15–24, 34 percent of their passengers are from outside the household. For drivers aged 25–34, the equivalent figure is 11 percent.

Figure 11. Household and non-household passengers



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 12 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 (over 15 per 100 driver trip legs). ‘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 12: Passengers in each age group by age of driver, per 100 driver trip legs



Only shown if more than 100 trips sampled

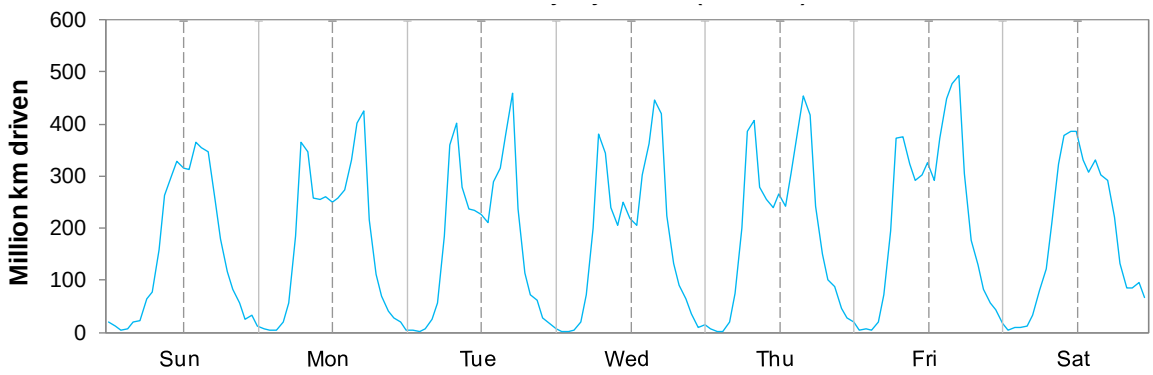
When do people drive?

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 13. 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 Saturday night compared with the same times on other days.

The average distance driven on a weekend day is 88 percent of the average weekday distance.

Figure 13: Distance driven by day and time



Solid lines indicate midnight; dotted lines indicate midday

Lifetime driving experience

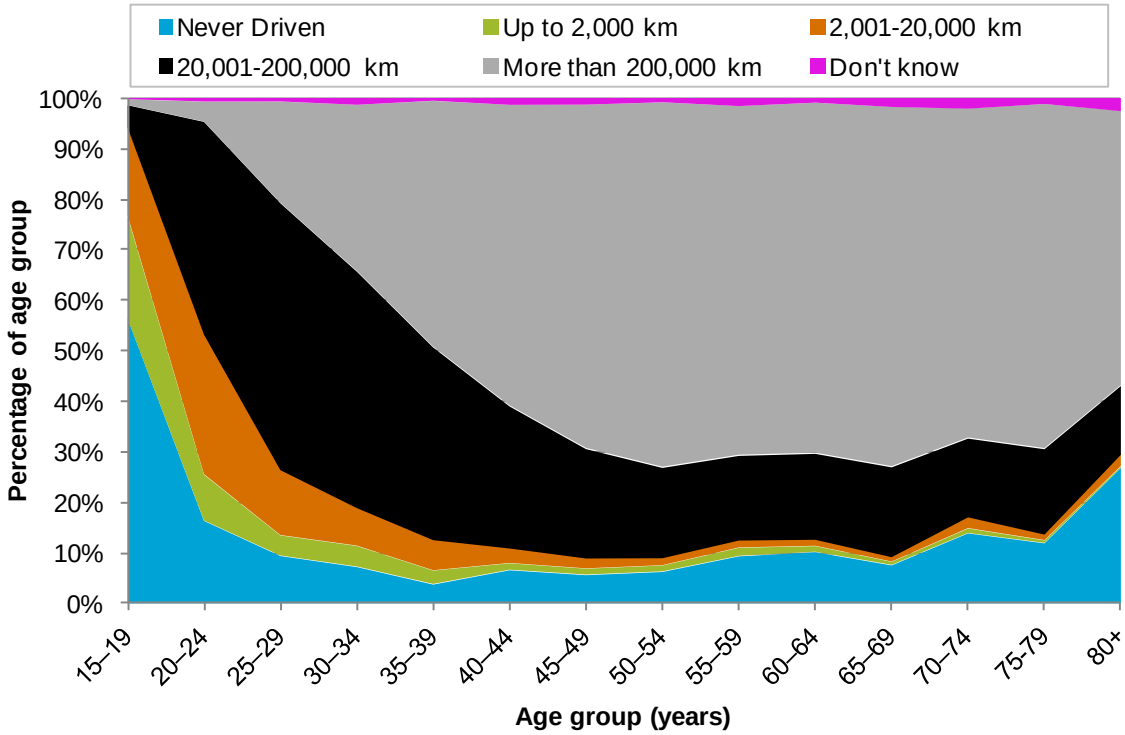
Survey participants were asked to estimate their total lifetime driving experience, choosing from a list of categories. Figure 14 shows the results by five-year age group. Men of all ages reported more driving experience than women of the same age. Ninety-five percent of men aged 25 and over

reported that they had driven at least 20,000 km in their lives so far, compared with 84 percent of women in the same age group.

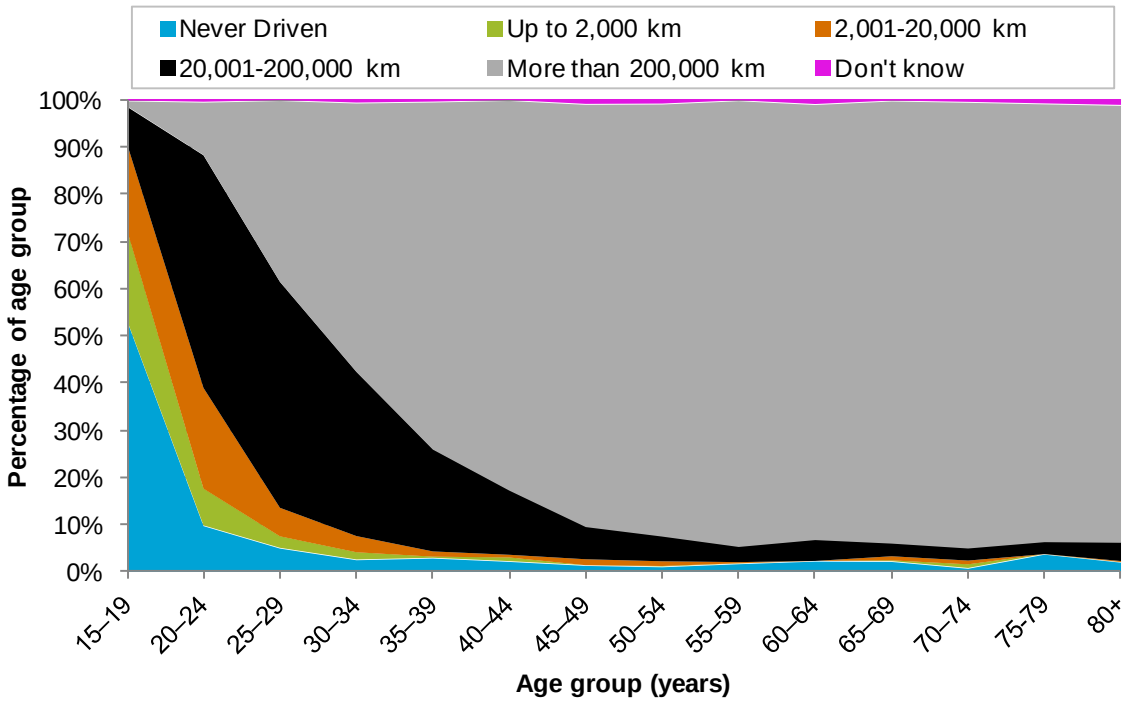
More women than men were non-drivers; 15 percent of women aged 65 and over had never driven, compared with only 2 percent of men in this age group.

Figure 14: Lifetime driving experience, by current age

a) Females



b) Males



Glossary

Driver	In this fact sheet includes all drivers of private light 4 wheeled vehicles such as cars, utes, vans, SUVs.
Light four-wheeled vehicle	Includes cars, vans, utes and SUVs. Excludes trucks, trailers, motorcycles, buses and tractors. Taxis are also excluded.
Passenger	Passenger in a private vehicle (car, van, ute, SUV, truck). Passengers in buses, trains and taxis are coded under those categories. Aircraft and boat passengers are included in the 'Other' category.
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 (for example, a plumber, real estate agent, district nurse), then all trips by this person are recorded .
Public transport (PT)	Passenger in local bus, train or ferry. Distances are currently only available for bus and train trips. Local bus, train trips have been defined to be 60 km or less, local ferry 1hr or less. Bus/train/ferry trips of longer than this distance/duration have been coded to 'other household travel'.
SUV	Sports utility vehicle. Used in this report to refer to light passenger vehicle with high wheel base and distinctive body shape. Normally, but not always, four wheel drive.
Travel	Includes all on-road travel by any mode; any walk which involves crossing a road or walking for 100 metres or more along a public footpath or road; cycling on a public road or footpath; some air and sea travel. Excludes off-road activities such as tramping, mountain biking, walking around the mall or around the farm.
Travel mode	The method of travel. Includes vehicle driver, vehicle passenger, pedestrian, cyclist, motorcycle rider or passenger, bus or train passenger, ferry or aeroplane passenger .
Trip distance	For road-based trips, distances are calculated by measuring the distance from the start address along the roads to the finish address. If an unusual route was used, the interviewer records an intermediate point to indicate the route; otherwise, the journey is assumed to follow the quickest available route.
Trip leg	A single leg of a journey, with no stops or changes in travel mode. For

	example, driving from home to work with a stop at a shop, is two trip legs; one ending at the shop and one ending at work. This does not include trips where people walk less than 100 metres without crossing a road, trips on private property that start and end at the same place without crossing a road, and off-road round trips.
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 (for example, travelling to meetings or clients).
	Education is for travel by students only and includes institutions such as primary and secondary schools, and universities. It does not include preschool education such as kindergarten, Play centre, crèche, kōhanga reo etc which are included under *social visit/entertainment*, as per the Statistics NZ Time Use Surveys of 1998/1999 and 2009/2010.
	Shopping is entering any premises that sells goods or hires them for money. A purchase need not be made.
	Social visit/entertainment includes entertainment in a public or private place for example, eating out at a restaurant or food court, picnics.
	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 up to 3.5 tonnes. Typically based on a car or van model with a front cab and a flatbed instead of rear seats or luggage space.
Walk	Includes walkers, joggers, users of mobility scooters and children on tricycles.