Ministry of Transport
TE MANATŪ WAKA

Driver travel

Household Travel Survey

In cars, vans, utes and SUVs

v1.2 Revised May 2007

The New Zealand Household Travel Survey is an ongoing survey of household travel conducted for the Ministry of Transport. Each year, people in over 2000 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 and is also asked about their alcohol consumption, recent accidents 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 March 2003 to June 2006. The information will be updated annually as new data become available.

Highlights

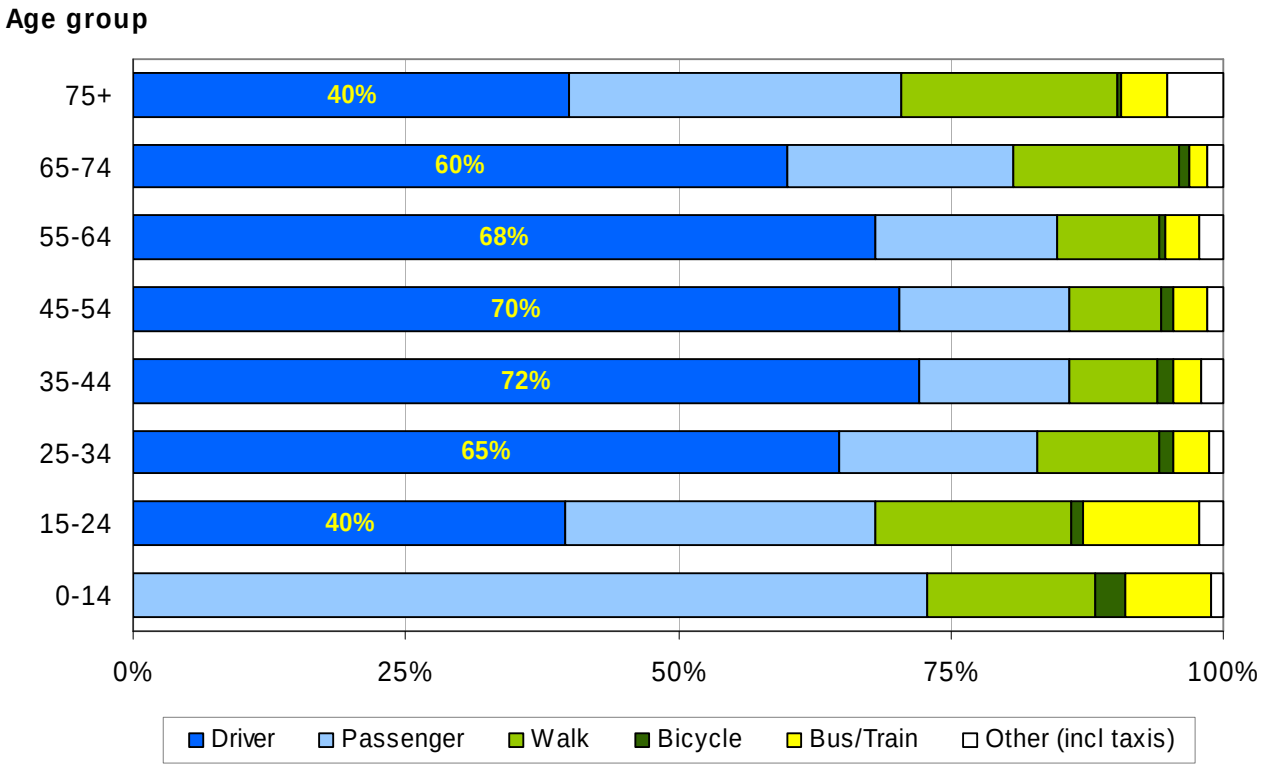
- New Zealanders aged between 25 and 70 spend two thirds of their total travel time driving.
- On average, New Zealand men drive over 13 000 km per driver per year, while women average just under 9000 km per driver per year.
- Work-related travel accounts for one third of all household driving time and 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 (68%) of **trip legs** in cars, vans and utes.
- The average distance driven on a weekend day is just under 90% of the average weekday distance.
- The amount of driving done by drivers in their late forties, fifties and sixties has increased over the last decade. 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 more than half of all reported travel time, and more than two thirds of all travel time for people aged between 25 and 70. The oldest and youngest adults spend more time than other groups as passengers and walking, but driving still makes up over forty percent of these groups' travel time.

Figure 1 shows the percentage of total travel time spent driving, as a passenger, walking, cycling, on a bus or using other travel means. 'Other' includes air and boat travel as well as more unusual modes like 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 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, men do more driving than women. On average, New Zealand men drive over 13 000 km per driver per year, while women average just under 9000 km per driver per year.

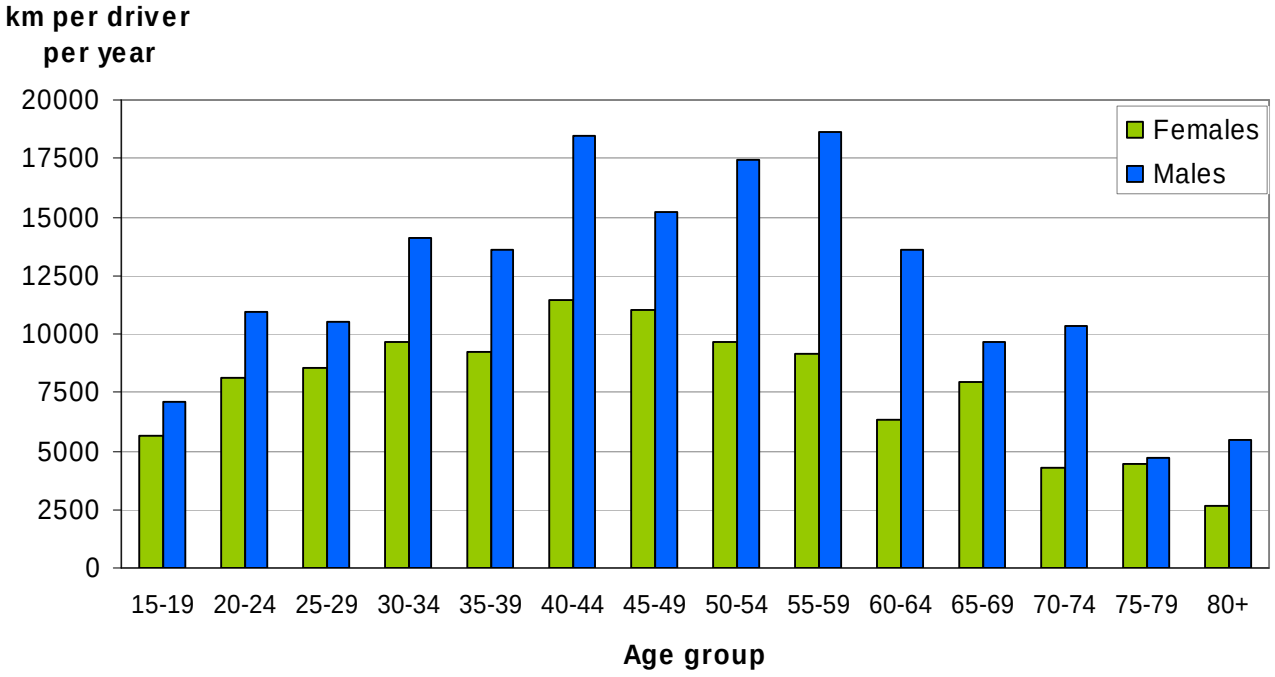
About 60% of the total distance driven by New Zealanders in cars, vans, utes and SUVs, is driven by men.

Older and retired people drive less than those of working age. Distance driven tails off sharply for men at age 60 to 65. For women the decline is more gradual and begins at a younger age, in their early fifties.

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* (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	*211*	70.6	11.2	400	48	*254*	87.7	17.9	625	78
20-24	*299*	102.4	26.0	831	106	*288*	112.7	36.9	1 232	144
25-29	*307*	102.1	26.9	876	121	*284*	109.5	32.6	1 152	124
30-34	*405*	136.6	35.3	1 320	160	*377*	130.1	49.2	1 829	175
35-39	*442*	136.5	36.3	1 257	184	*402*	138.7	48.5	1 881	186
40-44	*471*	150.5	47.7	1 722	228	*444*	144.0	60.1	2 655	207
45-49	*424*	126.9	37.6	1 404	164	*428*	131.3	49.7	1 994	202
50-54	*394*	118.3	35.8	1 147	159	*384*	119.3	49.7	2 076	184
55-59	*346*	101.2	25.8	929	119	*346*	108.3	49.6	2 013	164
60-64	*260*	75.4	14.9	479	71	*290*	80.0	28.0	1 086	117
65-69	*243*	57.1	12.4	453	55	*231*	63.1	18.2	611	85
70-74	*185*	44.6	7.0	189	37	*210*	51.1	14.7	531	61
75-79	*146*	29.1	4.2	130	21	*175*	38.2	6.7	180	34
80+	*108*	31.2	3.7	81	23	*120*	32.0	5.4	176	27
Total	*4241*	1282.5	325	11 220	1 495	*4 234*	1346.1	467.0	18 041	1 786

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



** "driver" is defined as someone who reported having driven 100 km 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 2 shows time and distance spent travelling to each of the destination types.

Table 2. 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	*9 350*	143	5 575	564
Work – travel on employers' business (includes self-employed)	*1 555*	24	908	92
Work – travel to other job	*398*	5	183	21
Social activity or entertainment	*5 631*	88	3 508	329
Recreational	*2 297*	39	1 598	135
Shopping	*7 923*	93	3 028	469
Personal business/social welfare	*3 707*	52	1 749	227
Accompany or transport someone else	*3 893*	49	1 679	227
Change to another mode of transport	*951*	11	367	48
Education	*458*	9	269	36
Medical/dental	*537*	8	232	31
Returning home	*18 113*	268	9 983	1 085
Other/unclassifiable	*233*	4	183	18
Total	*55 046*	792	29 261	3 281

As Table 2 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 3.

Work-related travel accounts for one third of all household driving time and distance. Most of this is commuting to and from work. Travel during work time on business makes up about 5% of household driving.

Social and recreational destinations together make up about a quarter of household driving. This includes 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'.

Another quarter of distance driven is for shopping and personal business (which includes banking, getting a haircut, returning a video and other non-shopping 'errands').

A further 9% 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.

Figure 3. Percentage of all driver travel (excluding the return-to-home trip leg), by destination type

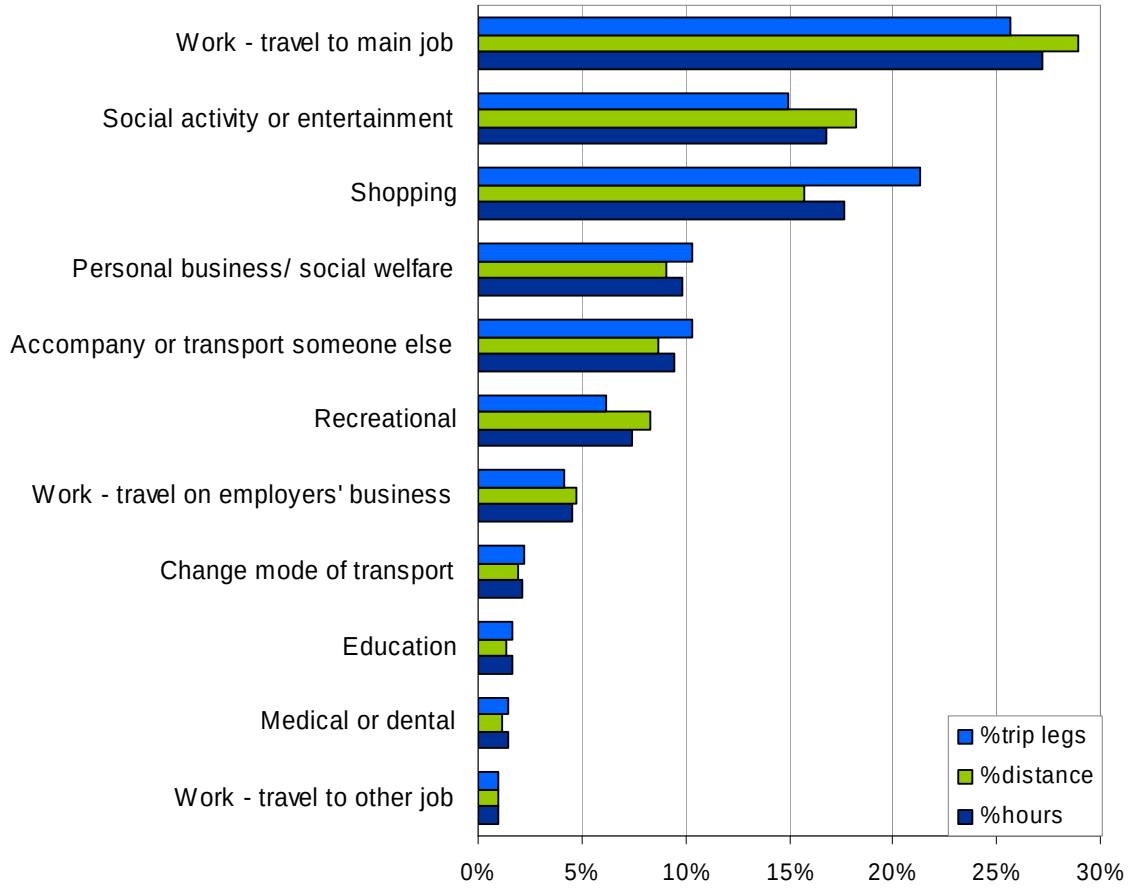


Table 3 shows how far people of various ages drove to each destination type. The pattern reflects changes in work and education patterns throughout life. An increase in the travel to transport others is evident in the 30-59 age group, when people are most likely to have dependent children or teenagers needing transport.

Table 3: Driver destination types by age group

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

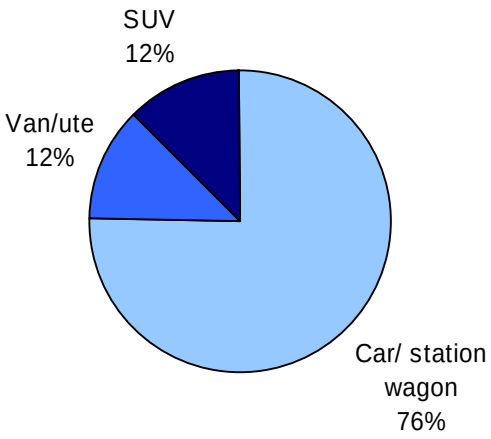
Million km per year	Age group				All ages
Purpose/ destination	**15-29**	**30-44**	**45-59**	**60+**	
Work & work-related	1 006	2 725	2 392	544	6 666
Social/recreational	1 116	1 548	1 549	893	5 106
Shopping/personal business/medical	614	1 738	1 736	920	5 009
Accompany/ transport someone else	320	620	580	159	1 679
Change mode	70	135	122	40	367
Education	156	65	40	8	269
Other	46	88	38	12	183
Returning home	1 790	3 746	3 105	1 342	9 982
Total	5 117	10 664	9 563	3 918	29 261

Vehicle types

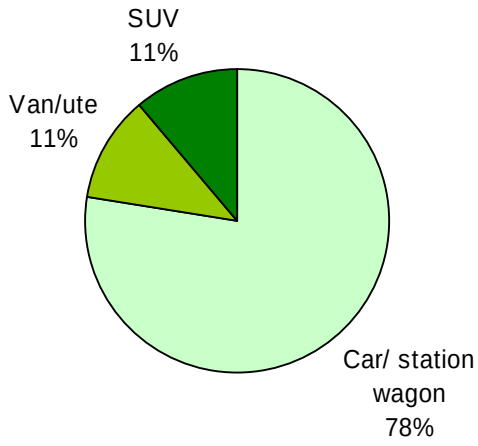
Cars and station wagons are still the vehicle of choice for New Zealand households. Car travel accounts for about three-quarters of the light vehicle distance driven by households (see Figure 4). The remaining quarter is evenly split between vans/utes and SUVs. Time spent driving shows a similar pattern.

Figure 4: Travel in light 4-wheeled vehicles

a) Distance driven



b) Time spent driving



The current survey distinguishes SUVs from cars and vans. (In previous 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 4 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 4: 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	Car / station wagon	SUV	Van/ute	Car / station wagon	SUV	Van/ute
15-24	1523	80	255	1143	60	29
25-34	2167	349	464	1778	211	207
35-44	3061	765	709	2393	407	179
45-54	2504	747	818	2086	284	181
55-64	2071	427	602	1288	86	34
65+	1228	147	123	776	63	16
Total	12554	2516	2971	9464	1110	646

Table 5 shows the contribution of each age/sex group to the total distance driven by car, and to the total distance driven by SUV. The gender split is similar for both car and SUV driving, with men accounting for two thirds of the distance driven in both vehicle types. The age pattern however is noticeably different for SUVs compared to cars. One third (32%) of the total SUV distance was driven by people aged 35-44, while only 21% of car driving is by people aged 35-44. Similarly, people aged 25-54 drove 75% of the total distance driven in SUVs, but only 58% of the total car distance.

Table 5: Comparison of age and sex of car and SUV drivers

	Percentage of total car/ station wagon distance driven by…			Percentage of total SUV distance driven by…		
Age group of driver	Males	Females	Total	Males	Females	Total
15-24	8%	4%	12%	2%	2%	4%
25-34	10%	6%	17%	10%	6%	15%
35-44	13%	8%	21%	21%	11%	32%
45-54	13%	7%	20%	21%	8%	28%
55-64	10%	4%	15%	12%	2%	14%
65+	13%	3%	15%	4%	2%	6%
Total	67%	33%	100%	69%	31%	100%

Vehicle occupancy

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

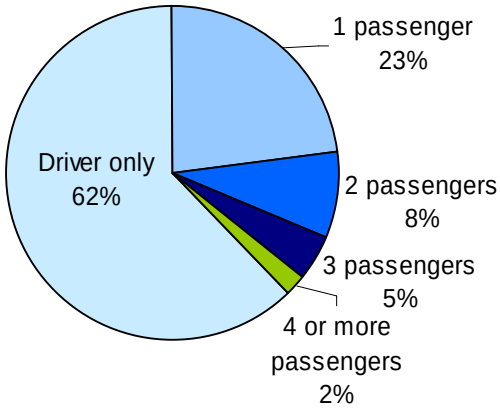
The driver was the sole vehicle occupant in two-thirds of trip legs in cars, vans and utes (see Figure 5). In one fifth (21%) of trip legs, one passenger was carried (in addition to the driver). One in eight trip legs (13%) involved two or more passengers.

There was a slight tendency to carry more passengers on longer journeys. The driver was the only vehicle occupant for 62% of the total distance driven and, for 15% of total distance, two or more passengers were carried.

Mean vehicle occupancy was 1.50 people per trip leg, or 1.62 people per distance driven.

Figure 5: Number of people in vehicle (light 4-wheeled vehicles)

a) Distance driven



b) Trip legs

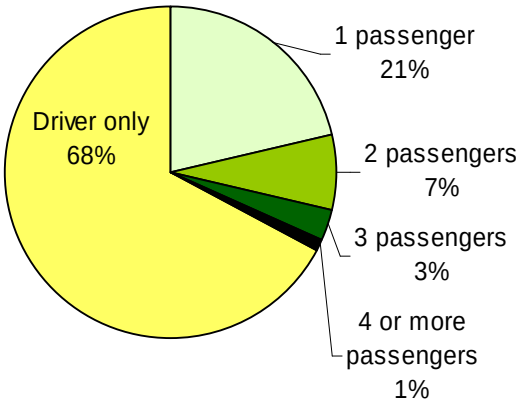
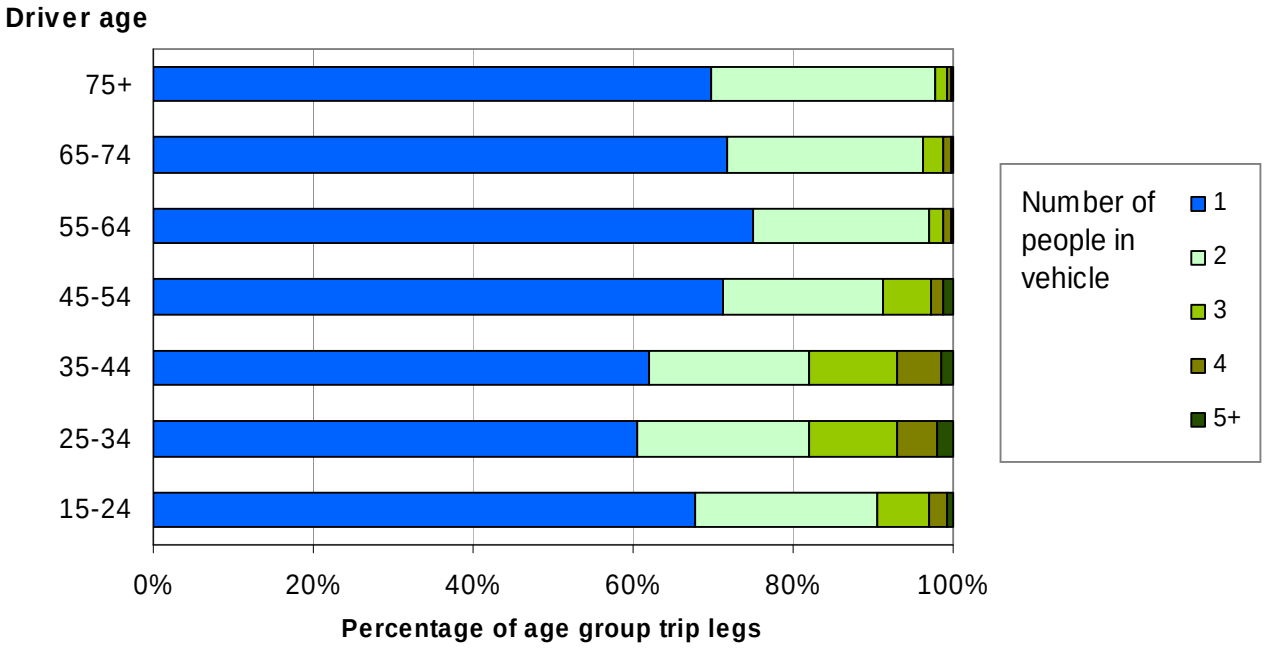


Table 6 and Figure 6 show vehicle occupancy for drivers of different age groups. Drivers aged 25-44 most often carry passengers. Passengers are carried on forty percent of all trip legs by this age group, compared to only 25-30% of trip legs by drivers in other age groups.

Table 6: 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	255	351	497	505	353	170	73	2205
2	85	125	161	143	103	58	29	703
3	25	62	90	41	9	6	1	234
4	9	29	43	11	4	3	1	100
5 or more	3	12	13	9	2	0	0	39

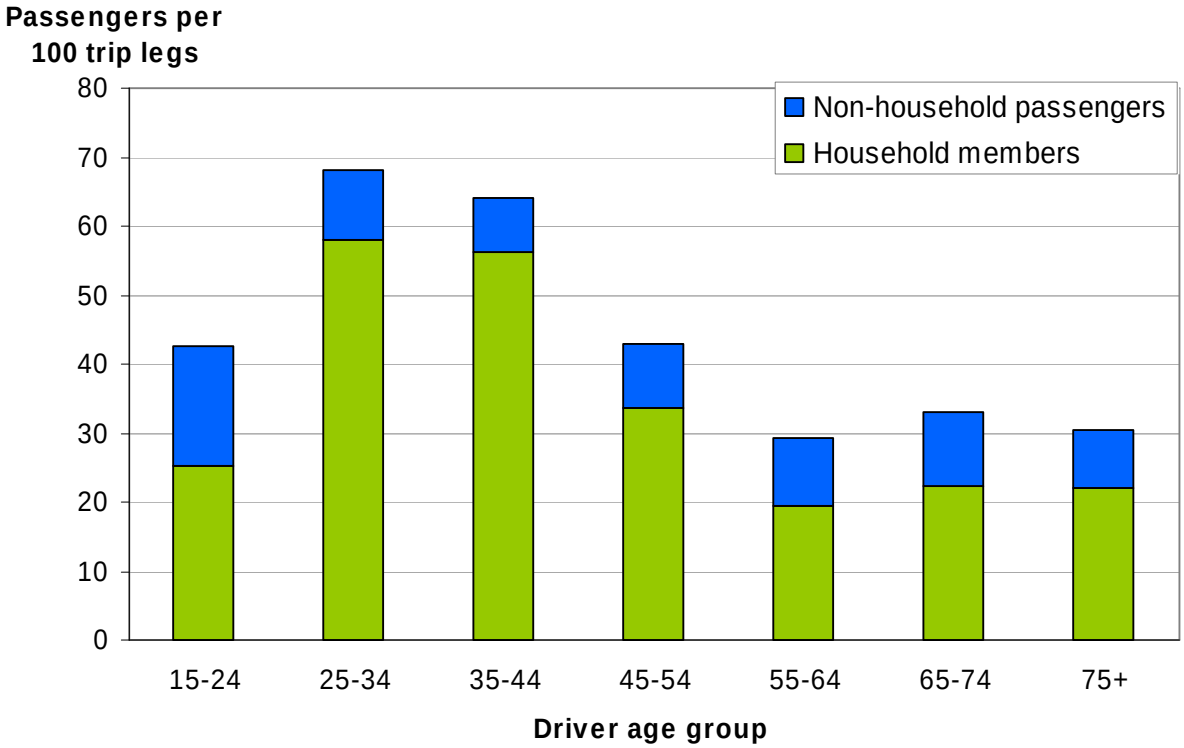
Figure 6: Percentage of age group trip legs, by number of people in vehicle (including driver)



Who are the passengers?

Most of the time, passengers are from the same household as the driver (family or flatmates). Young drivers are the only group to carry a significant proportion of non-household passengers (see Figure 7). For drivers aged 25 and over, about 10 passengers in every 100 trip legs are from outside the household, while for drivers aged 15-24, the equivalent figure is 17 passengers in every 100 trip legs, or almost 40% of all passengers carried by this group.

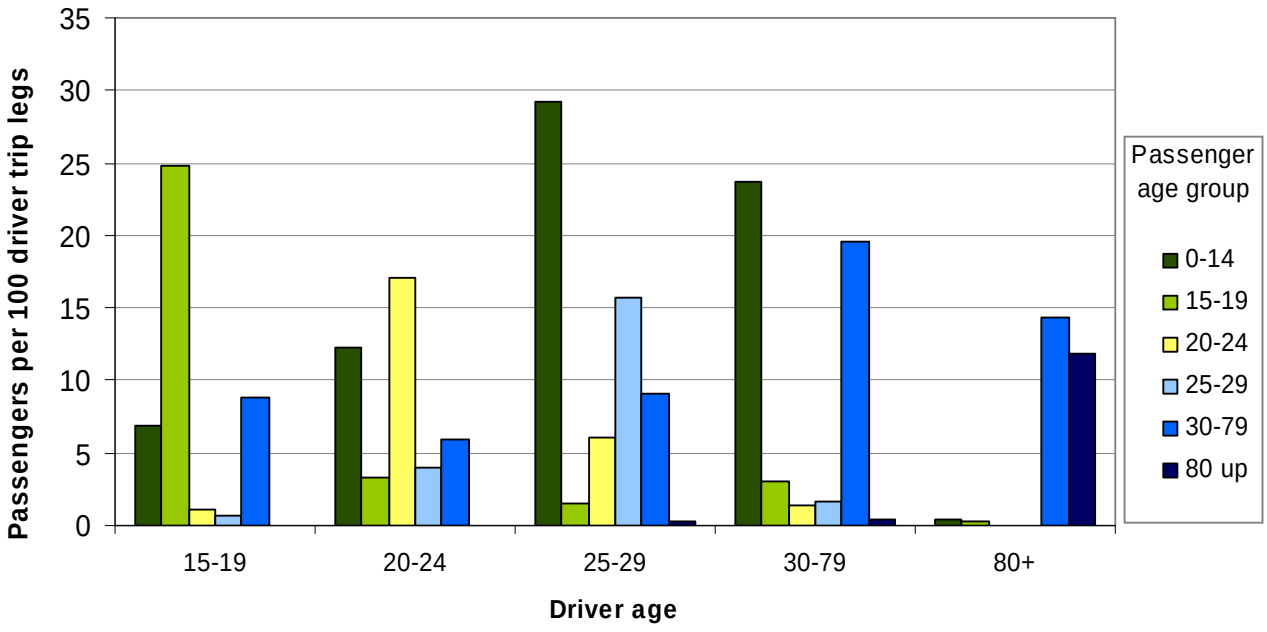
Figure 7. Household and non-household passengers



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 8 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 8 per 100 driver trip legs) or adults over 30 (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 8: Passengers in each age group by age of driver, per 100 driver trip legs



When do people drive?

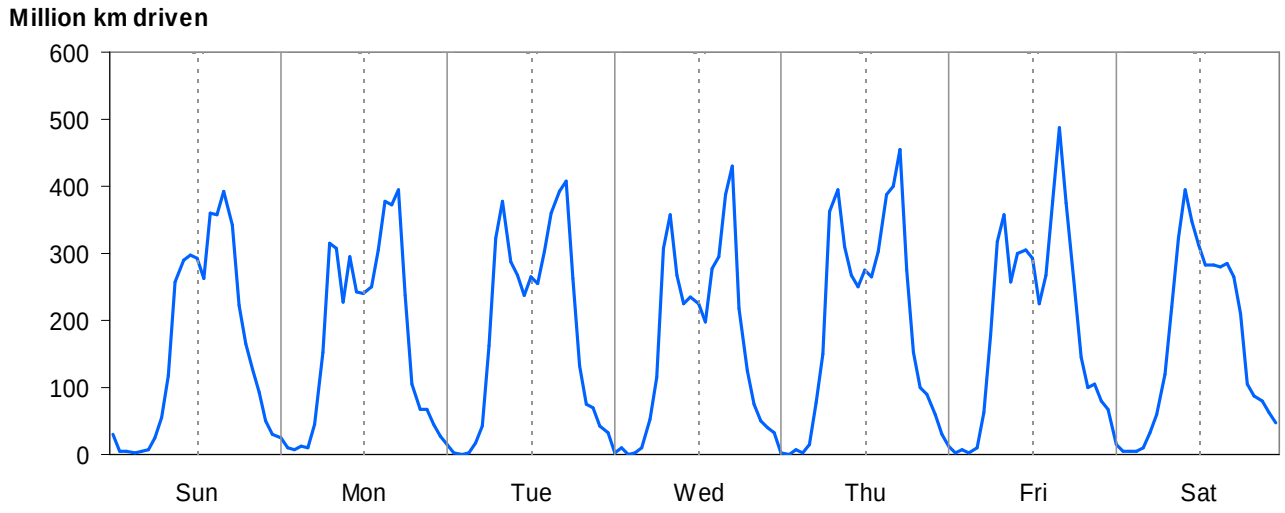
The departure and arrival times of each trip leg were recorded. The distance falling into each hourly band can be calculated (assuming a fairly constant speed over the whole trip leg). Results are shown in Figure 9. The solid vertical lines represent midnight and the dotted ones midday.

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 just under 90% of the average weekday distance.

Figure 9: Distance driven by day and time

Solid lines indicate midnight; dotted lines indicate midday.



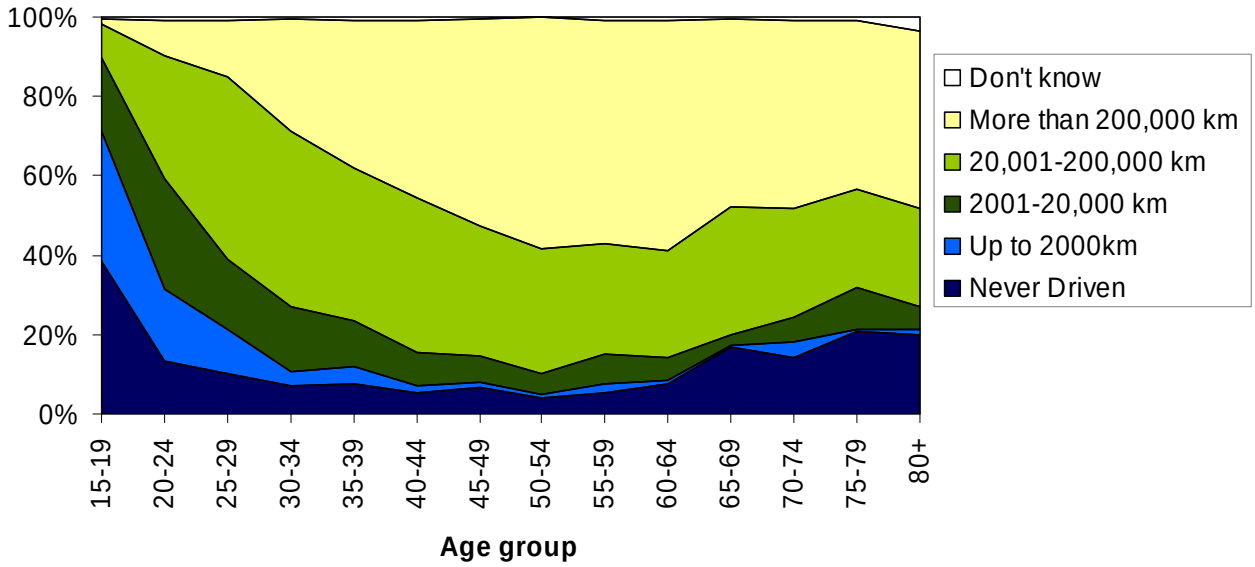
Lifetime driving experience

Survey participants were asked to estimate their total lifetime driving experience, choosing from a list of categories. Figure 10 shows the results by five-year age group. Men of all ages over 20 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 78% of women in the same age group.

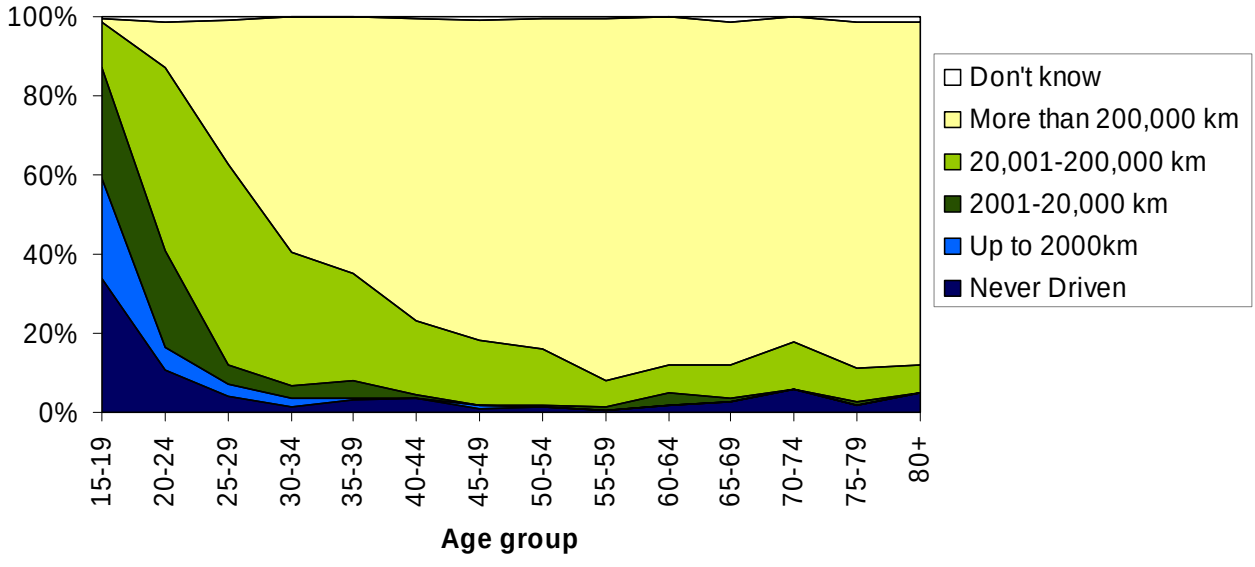
More women than men were non-drivers; 18% of women aged 65 and over had never driven, compared with only 4% of men in this age group.

Figure 10: Lifetime driving experience, by current age

a) Females



b) Males



Trends in distance driven

The Household Travel Survey indicates that household travel in cars, vans, utes and SUVs has increased by approximately 2% per year.

Table 7 and Figure 11 show the annual distance driven in cars, vans, utes and SUVs. Confidence intervals are shown in the tables and as grey bars in Figure 11. Where the confidence intervals do not overlap, we can be reasonably confident that there has been a real change between two surveys.

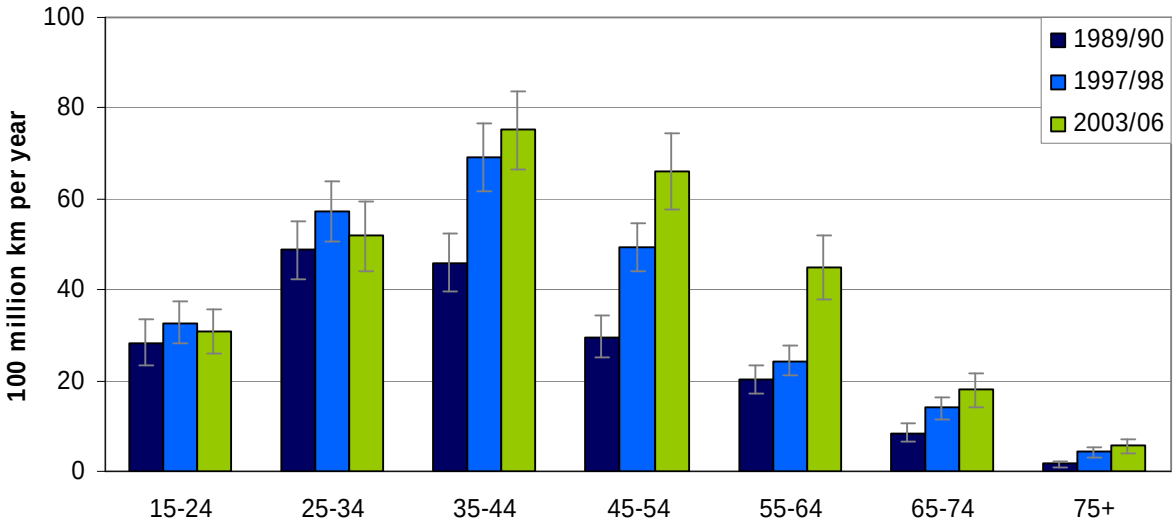
The increase was most marked among the 45-64 age group. This is a result of both changes in the driving population (more drivers in this age group) and an increase in the distance per driver in this group.

Table 7: Annual distance driven in light 4-wheeled vehicles, by year

	100 million km per year driven in cars, vans, utes and SUVs					
Age group	1989/90	95% confidence interval*	1997/98	95% confidence interval*	2003/06 (annual average)	95% confidence interval*
15-24	28	(23, 33)	33	(28, 37)	31	(26, 36)
25-34	49	(42, 55)	57	(51, 64)	52	(44, 59)
35-44	46	(40, 52)	69	(62, 77)	75	(67, 84)
45-54	30	(25, 34)	49	(44, 55)	66	(58, 74)
55-64	20	(17, 23)	24	(21, 28)	45	(38, 52)
65-74	9	(6, 11)	14	(12, 17)	18	(14, 22)
75+	2	(1, 2)	4	(3, 6)	6	(4, 7)
Total	183	(166, 201)	253	(238, 268)	293	(271, 314)

** 95% confidence interval shown as (lower bound, upper bound)*

Figure 11: Distance driven in cars, vans, utes and SUVs

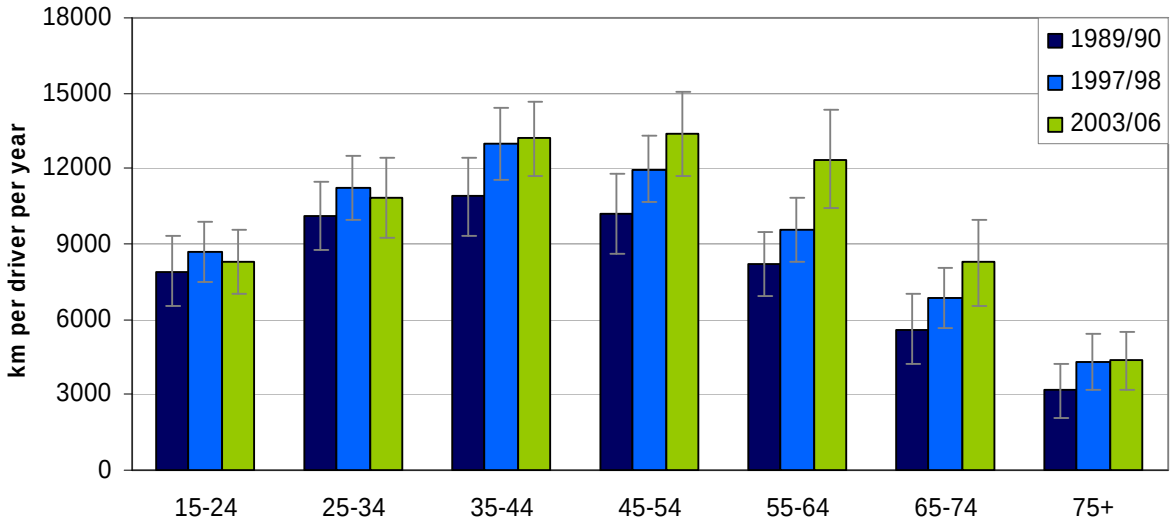


Grey bars represent 95% confidence intervals for each estimate. Non-overlapping intervals indicate a significant (ie likely to be real) difference between years or modes.

Distance driven per driver

Figure 12 shows the average distance driven per driver in each group. The amount of driving done by drivers aged under forty-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 12: Distance driven per driver* (cars, vans, utes and SUVs)



**Driver is defined as someone who reported driving 100km or more in the previous year.*
Grey bars represent 95% confidence intervals for each estimate. Non-overlapping intervals indicate a significant (ie likely to be real) difference between years or modes.

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.

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.

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 [website]

For survey methodology and technical information see [fact sheet]

For more information about road safety, see the Ministry of Transport website at **www.transport.govt.nz**.
Prepared by the Research and Statistics team of the Ministry of Transport, January 2007. Revised May 2007.