



Comparing Travel Modes

New Zealand Household Travel Survey 2011 - 2014

March 2015



Ministry of **Transport**

TE MANATŪ WAKA

New Zealand Government

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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

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Key facts

- ▶ About half of peoples' travel time is spent as a driver. **Driver** and **passenger** travel together account for about 79 percent of all time spent travelling.
- ▶ People aged between 35 and 64 spend around two thirds of their total travel time driving.
- ▶ The biggest users of non-car modes are children (5–14) and young adults (15–24). Even these groups spend two-thirds of total travel time in a private vehicle.
- ▶ People aged 35–54 spend the most time travelling. This group reported spending over 8 hours per person per week travelling, and of this, nearly 70 percent of time was spent driving.
- ▶ Walking and cycling by children aged 5–14 has decreased from an average of 2 hours and ten minutes per week in 1989/90, to an hour and six minutes per week in 2011–14.
- ▶ The number of primary school aged students being driven to school has increased significantly since 1989/90. In 1989/90, being driven made up 31 percent of primary student journeys to school. This increased to 45 percent in 1997/98, and 55 percent in 2010–14. There is some indication in recent years that the trend may be reversing.
- ▶ People living in small towns (population less than 10,000) and rural areas travel on average more than 30 percent further in a year as 'urban dwellers' living in larger towns and cities.
- ▶ Public transport (bus and train) use makes up about 3 percent of the total distance travelled.
- ▶ Motorcycle use is a small percentage (about half a percent) of total km travelled.

Overview

The New Zealand Household Travel Survey is an ongoing survey of household travel conducted for the Ministry of Transport. Each year, people in 4,600¹ **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 looks at the **travel mode** choices made by people in New Zealand. It uses data from 67,956 people in 26,919 households, collected between July 2003 and June 2014, with a particular focus on July 2011–June 2014 (24,851 people in 9,788 households).

¹ Prior to 2008, 2,200 households per year were sampled.

Travel modes have been divided into **drivers** and **passengers** in light four-wheeled vehicles (car/van/**SUV**), **walking**, cycling, motorcycling, **public transport** (PT, based on local bus, train or ferry rides), and other household travel. Non household travel, such as travel by **professional drivers** while working, has been specifically excluded.

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

How do people travel?

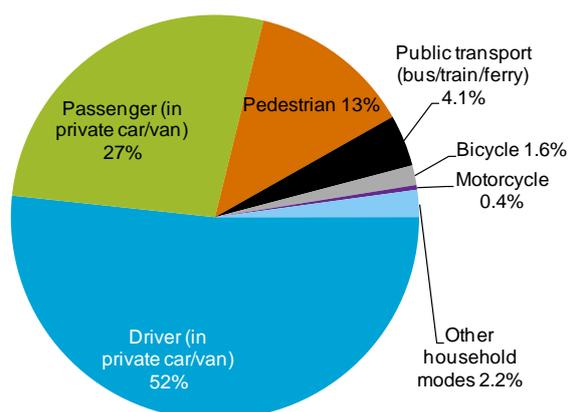
Over half of all household travel time is spent driving. Driver and passenger travel together account for about 79 percent of all time spent travelling. Thirteen percent of time is spent walking, 4 percent on local public transport and 4 percent by other modes of transport (for example, bicycle, plane, motorcycle or boat).

Figure 1a shows the percentage of total travel time spent driving, as a car passenger, walking, cycling, on public transport or by other means. 'Other' includes aircraft and boat travel and mobility scooters, as well as other modes like horse-riding. (Skateboarders and children in push chairs are included with walkers).

Figure 1b shows each mode's share of **trip legs**. A 'trip leg' refers to a single leg of a journey, between any two stops. For example, driving to a friend's place with a stop at the shop on the way, counts as two trip legs. Similarly, walking to the bus stop, catching a bus to town and walking from the bus stop to work is three trip legs.

Figure 1: Overall mode share (2011–2014)

a) Share of total travel time



b) Share of trip legs

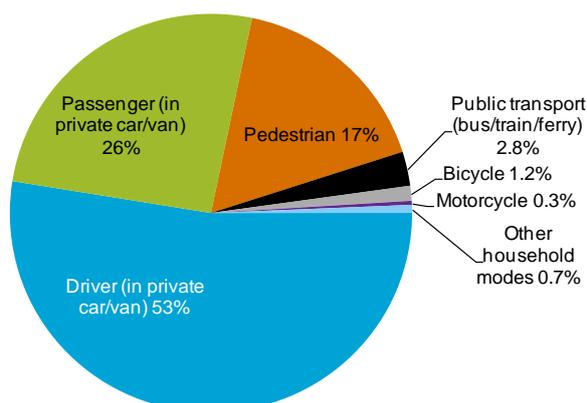


Table 1 shows each travel mode's share of the total travel time, trip legs and distance travelled, where known. For the purposes of this fact sheet, 'public transport' has been defined to be bus/train/ferry travel of trip legs of less than 60 km or 1 hour. Trips over this length/duration by bus/train/ferry are not included as local public transport and fall under 'other household modes'.

Table 1: Travel mode share of time, distance and trip legs (2011–2014)

Travel mode	<i>Trips in sample</i>	Million hours per year	Million km per year	Million trip legs per year
Driver (in private car/van)	95,557	820	30,374	3,093
Passenger (in private car/van)	47,718	430	17,104	1,513
Pedestrian	29,874	205	807	987
Public transport (bus/train/ferry)	4,309	66	1,521 ¹	163
Bicycle	2,797	25	313	71
Motorcycle	594	6	250	19
Other household modes	1,196	35	528 ²	38
Total	182,045	1,586	50,897	5,885

Note: ¹Distances not available for ferry trips.

²Distances not available for all trips.

Trends in mode share

The results from two earlier single year surveys are used to look at longer-term travel trends. These surveys were conducted during the 1989/90 and 1997/98 financial (June) years, with achieved samples of 8,700 people from 3,100 households and 14,250 people from 5,660 households respectively. The current ongoing survey allows comparison with these earlier surveys.

The current ongoing survey was designed to provide annual updates on a three-yearly moving average basis. That is, the annual averages are for the overlapping time periods July 2003–June 2006, July 2004–June 2007, July 2005–June 2008, July 2006–June 2009, July 2007–June 2010, July 2008–June 2011, July 2009–June 2012, July 2010–June 2013, and July 2011–June 2014.

Table 2 and Table 3 in this section show these results. The 1989/90 survey did not include children under 5, so for comparison purposes only people aged 5 and over have been included in these two tables.

Table 2: 100 million km travelled per year, by mode (land-based modes only, ages 5 and over)

Travel mode	1989 /90	1997 /98	2003– 06	2004– 07	2005– 08	2006– 09	2007– 10	2008– 11	2009– 12	2010– 13	2011– 14
Car/van driver	183.2	251.6	290.6	296.2	299.9	302.2	294.4	287.4	291.3	295.3	303.7
Car/van passenger	115.5	132.9	150.7	148.1	148.4	149.8	149.2	142.7	146.7	145.0	148.5
Pedestrian ²	8.4	8.9	7.4	8.0	7.9	8.1	7.8	7.8	7.7	7.7	7.8
Cyclist	3.5	2.8	2.6	2.6	3.0	2.8	3.5	3.1	3.4	3.0	3.1
Public transport											
- bus	15.2	17.7	12.1	11.5	10.4	10.9	11.5	12.7	12.1	11.4	11.2
- train	*	*	4.0	3.9	3.3	3.3	3.3	3.2	2.7	3.5	3.9
Motorcyclist	3.1	1.8	2.5	2.4	2.6	1.9	2.4	2.4	2.7	2.8	2.5
Other household travel (where distances available)	2.1	3.9	7.9	5.7	5.2	5.5	5.1	5.4	4.9	5.5	5.3
Total road based household travel	331.2	419.8	474.0	474.6	477.4	481.2	473.9	461.5	468.8	470.6	482.1
<i>Mean percentage change per year</i>		3.0%	1.7%	0.1%	0.6%	0.8%	-1.5%	-2.6%	1.6%	0.4%	2.4%
Total land based household travel			477.9	478.5	480.6	484.6	477.2	464.7	471.4	474.1	485.9
<i>Mean percentage change per year</i>				0.1%	0.5%	0.8%	-1.5%	-2.6%	1.4%	0.6%	2.5%
<i>Estimated million people aged 5+ (for calculating distance per person)</i>	3.054	3.426	3.801	3.858	3.909	3.947	3.969	3.999	4.045	4.096	4.148

*Distance not available

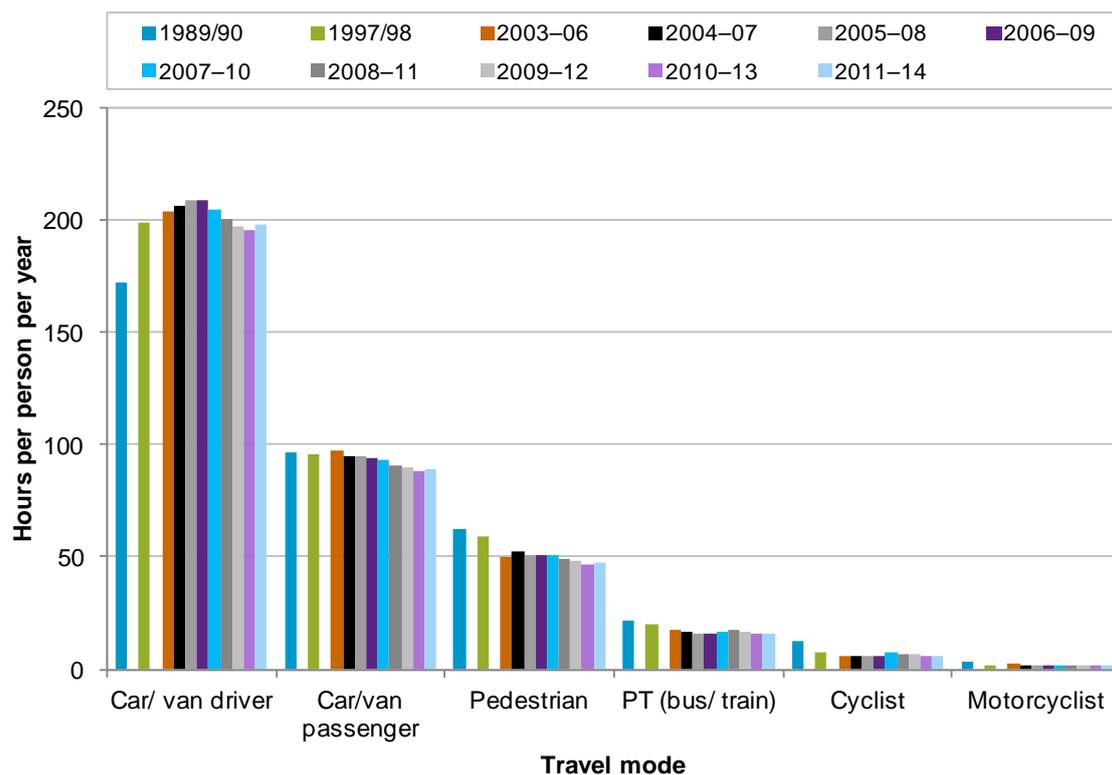
² Distances walked for 1989/90 and 1997/98 have been estimated from time spent walking, using a conversion factor of 4.4km/h (O'Fallon & Sullivan, 2005)

The Ministry's fleet statistics³ show that, after a period of traffic growth in the early to mid 2000s, the amount of travel by light passenger vehicles slightly decreased, but has begun to pick up again over the last few years. This pattern is reflected in the distance travelled by drivers in this Household Travel Survey.

Total reported travel time, including all modes, increased by 16 percent between 1989/90 and 1997/98 and by a further 10 percent between 1997/98 and 2003–06. The average change per year is shown in Table 3. Total household time spent travelling increased up until 2006–09, then decreased from 2007–10 to 2010–13.

Time spent driving increased by almost 30 percent between 1989/90 and 1997/98 and by a further 14 percent between 1997/98 and 2003–06. Driving time continued to increase up until 2006–09, then decreased from 2007–10 to 2009–12, but has started to increase again from 2010–13.

Figure 2: Trends in hours travelled per person per year, by mode (ages 5 and over)



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

³ Ministry of Transport Fleet Statistics

<http://www.transport.govt.nz/research/newzealandvehiclefleetstatistics/> (accessed 5 November 2014)

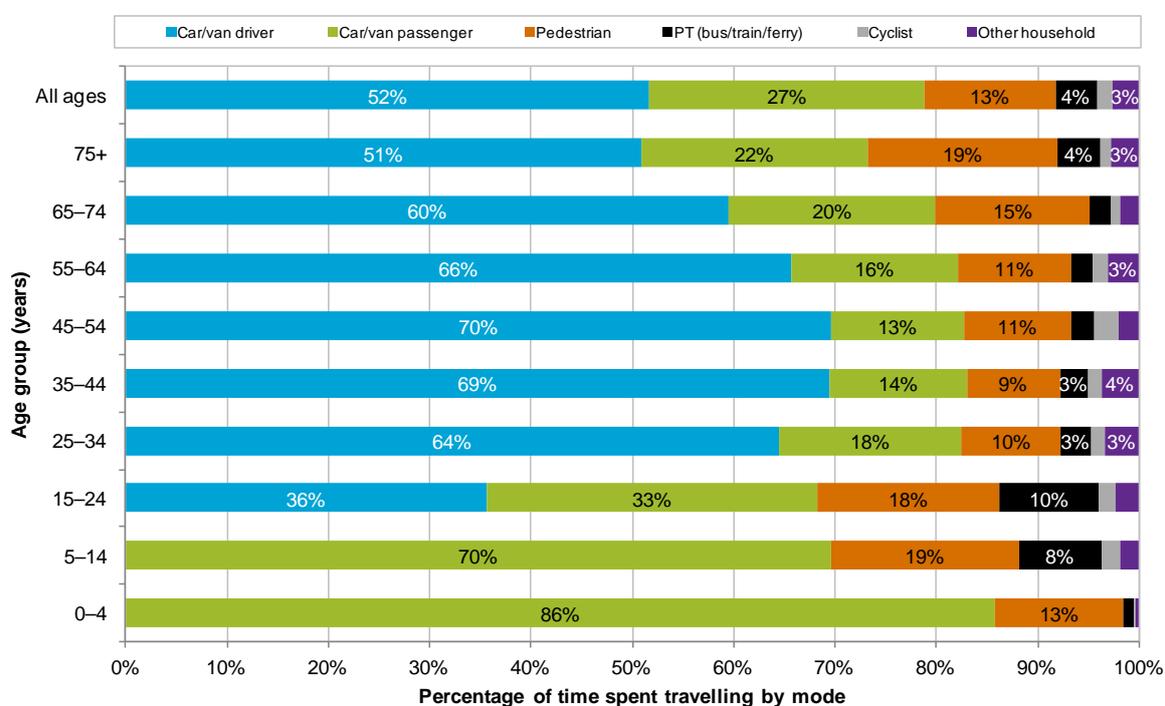
Table 3: Million hours per year spent travelling, by mode (ages 5 and over)

Travel mode	1989 /90	1997 /98	2003–06	2004–07	2005–08	2006–09	2007–10	2008–11	2009–12	2010–13	2011–14
Car/van driver	526	681	776	797	816	824	813	802	797	801	820
Car/van passenger	296	327	369	366	370	373	371	364	365	360	369
Pedestrian	191	203	189	201	198	200	200	198	194	192	196
Public transport (bus/train/ferry)	66	68	68	65	61	64	66	71	66	66	65
Cyclist	39	26	22	22	24	24	29	27	28	24	25
Motorcyclist	10	6	9	6	7	6	7	6	7	7	6
Total (includes 'other' household travel)	1,144	1,333	1,470	1,498	1,520	1,531	1,520	1,502	1,488	1,483	1,515
<i>Mean percentage change per year (from previous survey period)</i>		1.9%	1.4%	1.9%	1.4%	0.7%	-0.7%	-1.2%	-0.9%	-0.3%	2.1%

Mode share by age group

Figure 3 shows travel patterns for various age groups. Pre-schoolers and people aged 25–74 spent the highest proportion of their time travelling by car, with between 80 percent and 86 percent of their total travel time spent as a car driver or passenger. School-aged children and young adults were the most likely to use non-car modes (walking, cycling or public transport), but even they spent around two-thirds of their travel time in a car.

Figure 3: Mode share (percentage of total time spent travelling by each mode of travel) (2011– 2014)



Adults aged 45 to 54 reported more travel time than any other ten-year cohort (shown in Table 4). This group accounts for 17 percent of all travel hours. This is the result both of a larger number of people in this age group and of a high per-person average travel rate of over eight hours per week (Table 5 and Figure 4). 70 percent of this travel time is spent driving. The result is that this age group (14 percent of the population) accounts for nearly a quarter of all driving hours.

There is a sharp decrease in travel at age 65, as the need for travel to work declines.

Table 4: Million hours spent travelling per year, by mode and age group (2011–2014)

Age group	Travel mode						Total
	Car/van driver	Car/van passenger	Pedestrian	Public Transport (bus/train/ferry)	Cyclist	Other household	
0–4	-	61	9	*	*	*	72
5–14	-	114	30	14	3	3	164
15–24	81	75	41	23	4	5	229
25–34	146	41	22	7	3	7	226
35–44	171	33	23	7	4	9	246
45–54	191	36	29	6	7	6	274
55–64	135	34	23	4	3	6	205
65–74	69	24	18	2	1	2	115
75+	28	12	11	2	*	2	56
All ages	820	430	205	66	25	41	1,586

* Too few trips sampled ($n < 100$) to calculate million hours per year

Figure 4: Hours spent travelling per person per week (2011–2014)

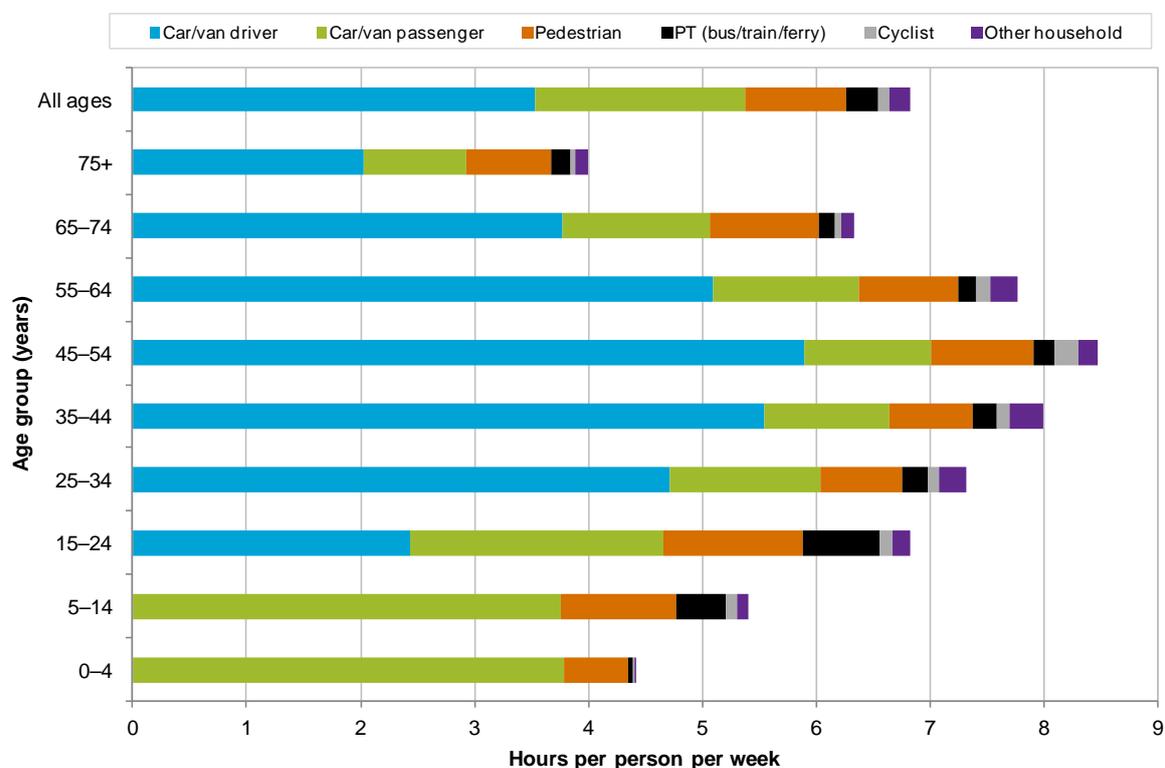


Table 5: Time spent travelling per person per week, by mode and age group (2011–2014)

Age group	Population	Travel mode					Other household	Total (hours : minutes)
		Car/van driver (hours : minutes)	Car/van passenger (hours : minutes)	Pedestrian	Public transport (bus/train/ferry)	Cyclist		
0–4	310,900	-	3:47	34 min	*	*	*	4:25
5–14	581,500	-	3:46	1 hr	27 min	6 min	6 min	5:24
15–24	642,300	2:26	2:14	1 hr 13 min	40 min	7 min	10 min	6:50
25–34	591,300	4:43	1:19	43 min	13 min	6 min	15 min	7:19
35–44	589,400	5:33	1:05	44 min	13 min	7 min	17 min	7:59
45–54	620,200	5:54	1:06	54 min	11 min	12 min	10 min	8:28
55–64	505,600	5:06	1:16	52 min	10 min	7 min	14 min	7:46
65–74	349,400	3:46	1:17	58 min	8 min	4 min	7 min	6:20
75+	268,700	2:02	0:53	45 min	10 min	*	7 min	3:59
All ages	4,459,300	3:32	1:51	53 min	17 min	6 min	10 min	6:49

* Too few trips sampled ($n < 100$) to calculate time per person per week

Table 6: 100 million kilometres travelled per year, by mode and age group (2011–2014)

Age group (years)	Travel mode						Total
	Car/van driver	Car/van passenger	Pedestrian	Public transport (bus/train/ferry)	Cyclist	Other household*	
0–4	-	22.6	0.3	†	†	†	23
5–14	-	43.2	1.2	3.0	0.2	0.6	48
15–24	30	29.9	1.8	5.1	0.4	1.4	68
25–34	51	16.2	0.9	1.6	0.4	1.4	72
35–44	66	14.4	0.9	1.6	0.5	1.2	84
45–54	73	15.7	1.1	1.5	1.0	1.2	93
55–64	52	14.7	0.8	1.2	0.4	1.3	70
65–74	24	10.0	0.6	0.6	0.1	0.4	36
75+	8	4.3	0.3	0.5	†	0.3	14
All ages	304	171.0	8.1	15.2	3.1	7.8	509

* Distances not available for all trips.

† Too few trips sampled ($n < 100$) to calculate 100 million kilometres per year

Adults aged 45–54 also reported the largest distance travelled compared to other 10 year age groups (shown in Table 6). This group accounts 18 percent of all reported distance travelled. On average, each person in this group travels further than people in other age groups (Table 7). Per person they travel a slightly longer distance than those 35–44 years old. Over three quarters of this travel distance is driven. The result is that these two age groups together (35–54) account for 46 percent of all distance driven. The sharp decrease in travel at age 65 is also evident, as the need for travel to work declines.

Table 7: Kilometres travelled per person per week, by mode and age group (2011–2014)

Age group (years)	Population	Travel mode						Total
		Car/van driver	Car/van passenger	Pedestrian	Public Transport (bus/train/ferry)	Cyclist	Other household*	
0–4	310,900	-	139	1.9	†	†	†	142
5–14	581,500	-	142	3.9	9.9	0.7	1.8	159
15–24	642,300	89	89	5.3	15.2	1.2	4.1	204
25–34	591,300	166	52	3.1	5.1	1.5	4.4	233
35–44	589,400	214	47	3.0	5.3	1.6	3.9	274
45–54	620,200	224	49	3.5	4.8	3.1	3.8	288
55–64	505,600	196	56	3.2	4.5	1.5	4.9	266
65–74	349,400	134	55	3.5	3.1	0.6	2.2	198
75+	268,700	59	31	2.3	3.6	†	2.5	98
All ages	4,459,300	131	74	3.5	6.5	1.3	3.3	219

* Distances not available for all trips.

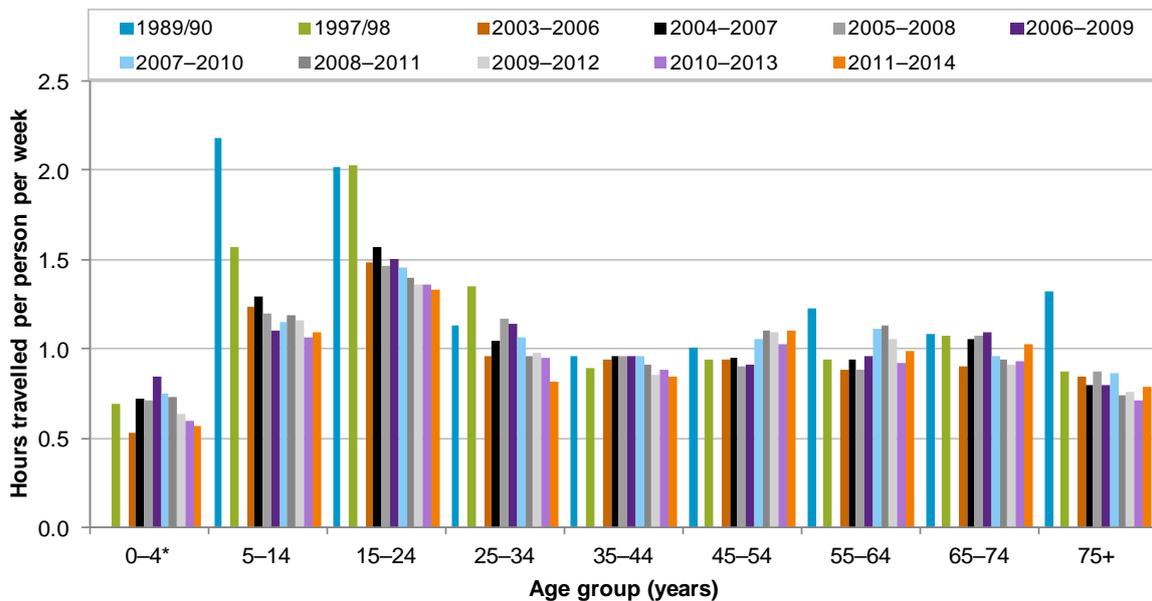
† Too few trips sampled ($n < 100$) to calculate km/person/week.

Trends in travel by age group

Figure 5 and Figure 6 show the trends in walking and cycling, and in car travel, expressed in hours per person per week. (Note that this survey captures walking and cycling in the road/footpath environment; off-road activities such as tramping, mountain biking and walking around the farm or shopping centre are not included in these estimates).

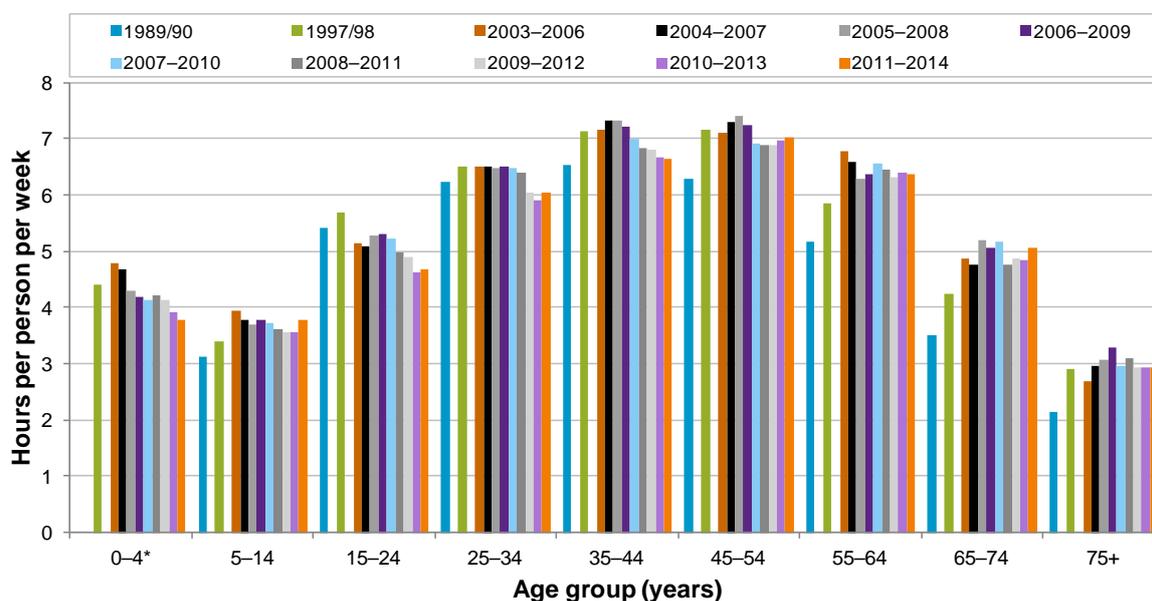
The biggest change in the time per person spent walking and cycling has occurred in the 5–14 age group, where it has decreased from an average of two hours and ten minutes per week in 1989/90 to an hour and six minutes per week for 2011–2014 (Figure 5).

Figure 5: Hours spent walking and cycling per person per week



*Children aged 0–4 were not surveyed in 1989/90.

Figure 6: Hours per person per week spent as a driver or passenger



*Children aged 0-4 were not surveyed in 1989/90.

Travel to destination types

For each piece of travel recorded, the respondent is asked about his or her destination and the purpose of the trip leg. These responses are coded into the categories shown in Table 8. 'Home' is used for the return leg of all travel; the categories shown include only travel to the stated destination types.

In the following tables, trip legs with the immediate purpose of changing to another mode have been reassigned to the final destination of the series of 'change mode' trip legs. For example, if leg 1 is 'walk to bus stop', leg 2 is 'catch bus to town' and leg 3 is 'walk to work', the immediate purpose of legs 1 and 2 is 'change mode', but the eventual purpose of all three legs is 'work'. The following tables show all three legs as 'work'.

Shopping/personal business/medical is the largest travel category, and both time and distance are highly dependent on driving. Sixty-one percent of time spent travelling and 66 percent of distance travelled for shopping/personal business/medical is driver travel.

The second largest travel category by time and distance is travel to **social** destinations. This includes visiting friends and family, holidays, entertainment, religious meetings and hobby-related pastimes. This is less dependent on driver travel, with driving making up 47 percent of the time and 52 percent of distance travelled. Passenger travel plays a larger part than for shopping/personal

business/medical trips, as social destinations are more likely to involve two or more people travelling together.

The '**Accompany or transport someone**' category is the third largest category by time and includes any trip leg where the primary purpose belonged to another person. It includes, for example, parents accompanying or transporting children to school, or sports; giving a friend a ride to the doctor's; walking to school to meet a child at 3pm. It also includes 'just going for the ride' on someone else's trip purpose, particularly where, for example, children accompany a parent on the parent's errands. This activity category has the highest passenger component at 47 percent of the time and 53 percent of the distance travelled.

Travel to **work**, either for a main or secondary job, is the fourth largest travel category by time, and along with travel for employer's business, is the purpose most dominated by driving. 72 percent of time spent travelling to work and 81 percent of the distance is by driving. For travelling in the course of work, rather than to or from work (referred to here as 'employer's business') driving accounts for 82 percent of time spent travelling and 85 percent of distance travelled.

Travel for **recreation** (30 percent) and **education** (28 percent) have the highest walking components of the time spent travelling. It is a much smaller component of the distance travelled (4 percent and 7 percent respectively) due to the comparatively slower speed of travel of walking.

Due to the smaller sample sizes for individual modes for the travel purposes, this section and subsequent sections use four years data (July 2010–June 2014), rather than three (July 2011–June 2014).

Table 8: Total trip legs per year, by mode and trip purpose/destination (2010–2014)

	Travel mode						Total
	Car/van driver	Car/van passenger	Pedestrian	PT (bus/train /ferry)	Cyclist	Other household (including motorcycle)	
<i>Trips in sample</i>	130,156	65,498	40,580	5,979	3,767	2,465	248,445
<i>Million trip legs per year</i>							
Home	1,113	568	356	73	31	24	2,165
Work – main/other job	376	39	97	23	10	6	550
Work – employer’s business	204	15	18	*	*	6	246
Education	19	97	79	35	6	2	238
Shopping/personal business/medical	637	194	163	13	6	6	1,020
Social visits	298	213	91	10	6	8	627
Recreation	123	93	108	5	13	4	346
Accompany or transport someone	325	310	61	4	*	*	702
Total (including other and leaving country)	3,096	1,530	974	165	73	59	5,897

* Too few trips sampled ($n < 100$) to calculate million trip legs per year.

Table 9: Time spent travelling per year, by mode and trip purpose/destination (2010–2014)

	Travel mode						Total
	Car/van driver	Car/van passenger	Pedestrian	PT (bus/train/ferry)	Cyclist	Other household (including motorcycle)	
<i>Trips in sample</i>	130,156	69,498	40,580	5,979	3,767	2,465	248,445
<i>Million hours per year</i>							
Home	306.6	167.9	79.2	30.6	10.9	16.4	611.7
Work – main/other job	109.3	12.3	14.5	9.5	2.9	2.4	150.9
Work – employer’s business	66.0	7.1	3.1	*	*	3.4	80.5
Education	5.9	17.5	15.3	14.2	1.6	0.9	55.4
Shopping/personal business/medical	135.7	52.6	27.2	4.7	1.2	2.5	223.9
Social visits	84.6	66.8	19.1	4.0	1.6	5.2	181.4
Recreation	34.4	31.7	34.0	2.2	6.2	3.0	111.5
Accompany or transport someone	68.5	72.4	11.0	1.4	*	*	154.4
Total (including other and leaving country)	811.2	428.5	203.4	67.4	24.9	39.6	1,575.0

* Too few trips sampled ($n < 100$) to calculate million hours per year

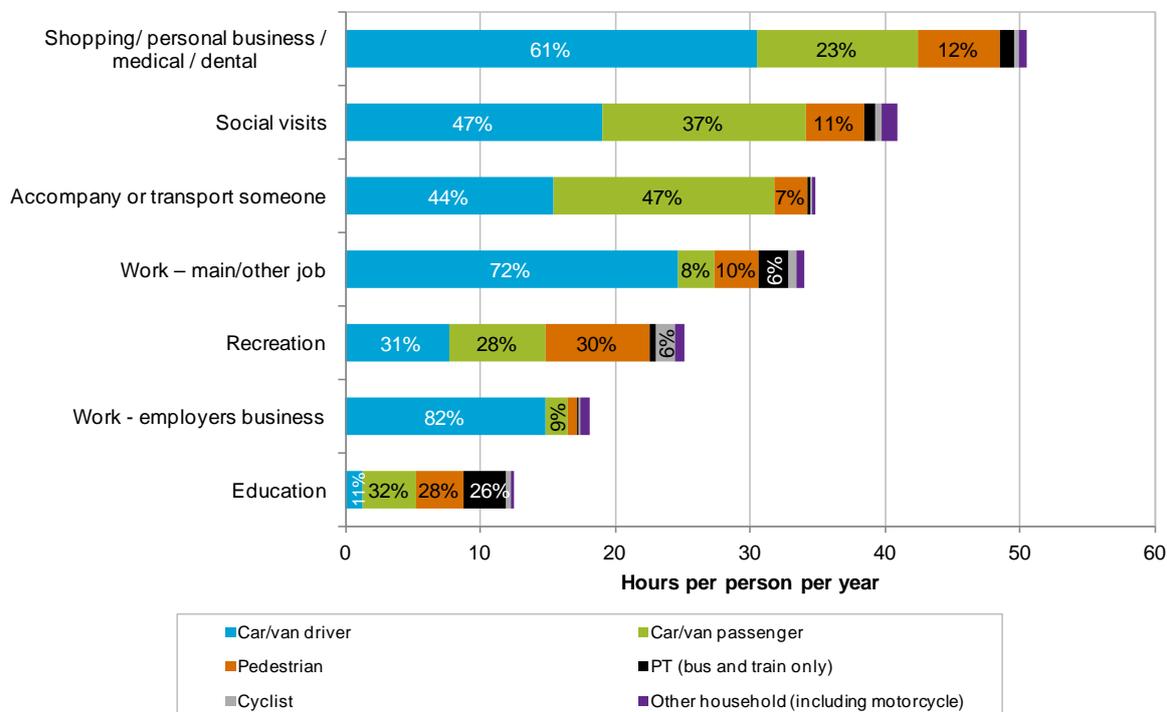
Table 10: Distance travelled per year (for modes where distance known), by mode and trip purpose/destination (2010–2014)

	Travel mode (where distances are available)						Total
	Car/van driver	Car/van passenger	Pedestrian	PT (bus and train only)	Cyclist	Other household (including motorcycle)	
<i>Trips in sample (where distances are available)</i>	130,125	65,457	40,580	5,824	3,732	1,570	247,288
<i>Million kilometres per year</i>							
Home	11,430	6,780	320	652	135	333	19,600
Work – main/other job	3,970	450	65	248	43	78	4,900
Work - employers business	2,640	350	11	*	*	37	3,100
Education	180	470	72	333	16	21	1,100
Shopping/personal business/medical/dental	4,580	2,000	96	101	12	74	6,900
Social visits	3,370	2,840	66	90	17	109	6,500
Recreation	1,300	1,340	131	43	80	84	3,000
Accompany or transport someone	2,270	2,630	40	38	*	*	5,000
Total (including other)	29,780	16,880	803	1,521	309	776	50,100

* Too few trips sampled ($n < 100$) to calculate distance travelled per year.

Totals may not add due to rounding.

Figure 7: Mode share of time spent travelling, for each trip purpose/destination type (2010– 2014)



Travel to school

Although travel to school makes up only 4 percent of trip legs, the health implications for children and the timing of school travel within the morning peak make it a topic of interest.

Table 11 and Table 12 show how children have travelled to school over the last 20 years, as measured by the three Travel Surveys. Here, a **journey** is a series of one or more trip legs where the only intermediate stops are to change to another mode (for example, walking to the bus stop and catching a bus to school is two trip legs but one journey).

Table 11: Travel from home to school – million journeys per year (5-12 years)

Ages 5–12	1989/ 90	1997/ 98	2003–07	2004–08	2005–09	2006–10	2007–11	2008–12	2009–13	2010–14
<i>People in sample</i>	1,027	1,991	1,610	1,635	2,146	2,779	3,411	3,970	4,044	3,883
Population in age group (use for calculating per person travel)	386,360	452,100	460,800	454,100	458,800	455,800	474,500	473,700	477,200	481,400
Walk (only)	26.1	25.1	19.3	18.9	19.8	18.3	18.7	19.0	22.0	23.1
Passenger	19.1	37.9	41.6	42.4	44.8	45.1	48.4	46.2	44.6	44.0
Passenger/Walk	0.6	1.6	0.5	0.5	0.8	1.0	1.2	1.3	1.2	1.4
Bicycle	7.1	6.1	3.6	3.3	3.2	2.5	2.7	2.4	1.8	1.7
Public transport	4.3	6.1	4.6	3.5	4.9	4.9	5.4	5.6	3.5	2.9
Walk/PT	2.4	4.6	3.0	5.3	5.2	5.1	4.6	2.9	3.4	3.9
Passenger/PT	0.6	0.9	1.8	1.3	1.7	1.4	1.7	2.3	2.0	2.2
Other	0.6	0.7	1.1	0.9	0.9	0.7	0.4	0.5	0.6	0.8
Total	61.5	83.8	75.4	76.0	81.4	78.9	83.0	80.2	79.2	79.9

Table 12: Travel from home to school – million journeys per year (13-17 years)

Ages 13–17	1989/ 90	1997/ 98	2003–07	2004–08	2005–09	2006–10	2007–11	2008–12	2009–13	2010–14
People in sample	612	918	880	920	1,229	1,600	1,950	2,313	2,300	2,234
Population in age group (use for calculating per person travel)	251,800	258,100	282,500	288,900	288,400	293,100	295,700	295,300	292,200	290,700
Walk (only)	9.8	7.9	11.3	11.2	12.2	12.7	12.2	12.4	11.3	12.1
Passenger	7.4	13.4	13.4	14.8	13.3	13.8	15.0	12.7	13.0	12.9
Passenger/Walk	0.3	1.2	1.1	1.1	1.1	1.2	0.5	0.6	1.0	1.0
Bicycle	7.1	4.5	2.0	2.1	1.9	1.9	1.8	1.5	1.5	1.5
Public transport	3.5	3.1	2.4	2.0	2.9	2.4	2.9	3.7	3.4	3.0
Walk/PT	7.0	6.8	6.4	7.3	7.4	7.1	8.1	7.4	8.0	8.2
Passenger/PT	0.6	0.9	1.3	0.7	0.2	0.6	0.9	1.4	1.5	1.7
Driver	1.6	2.8	2.2	1.9	2.1	2.5	2.9	2.9	2.4	2.1
Other	0.8	1.6	1.7	1.9	1.6	1.2	1.3	1.1	1.1	1.1
Total	38.0	42.2	41.9	43.0	42.7	43.4	45.8	43.6	43.3	43.5

Figure 8 and Figure 10 show the national number of trips to school per person and Figure 9 and Figure 11 show the mode share of journeys to school.

Figure 8 shows that the number of primary school-aged students being driven to school increased sharply between the 1989/90 and 1997/98 surveys and, over the same period, the number walking or cycling to school dropped. Since 2003–07, both the increase in children being driven to school and the decrease in children walking to school have slowed. In 1989/90, being driven made up 31 percent of primary student journeys to school and walking made up 42 percent (Figure 9). In 1997/98 the equivalent figures were 45 percent and 30 percent, and in 2010–14 they were 55 percent and 29 percent. Since 1989/90 cycling has dropped from 12 percent to 2 percent of journeys to primary school.

Figure 8: Travel to school – journeys per person – ages 5–12

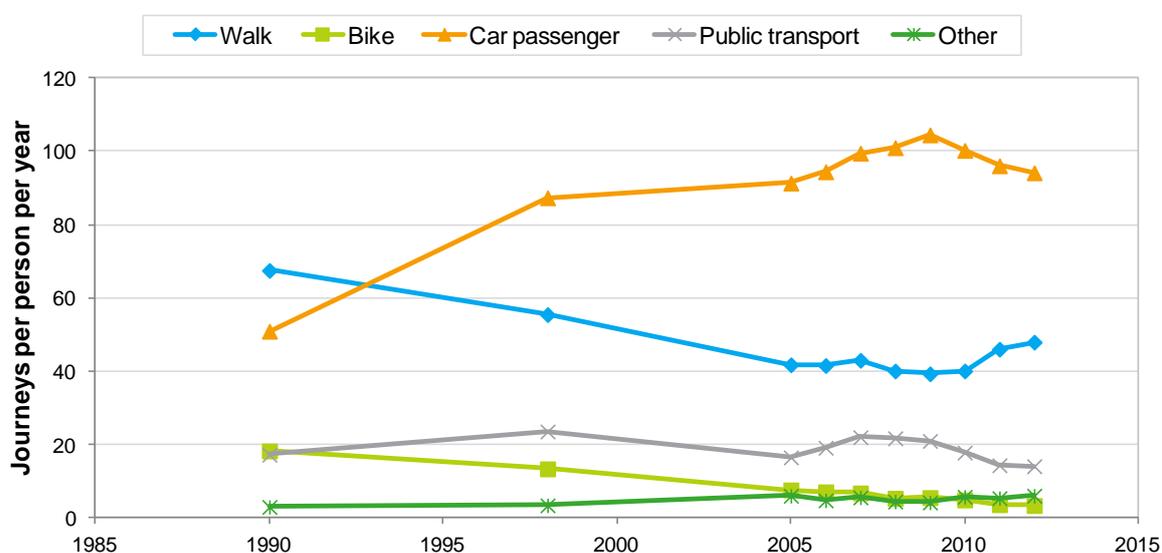


Figure 9: Travel to school – mode share – ages 5–12

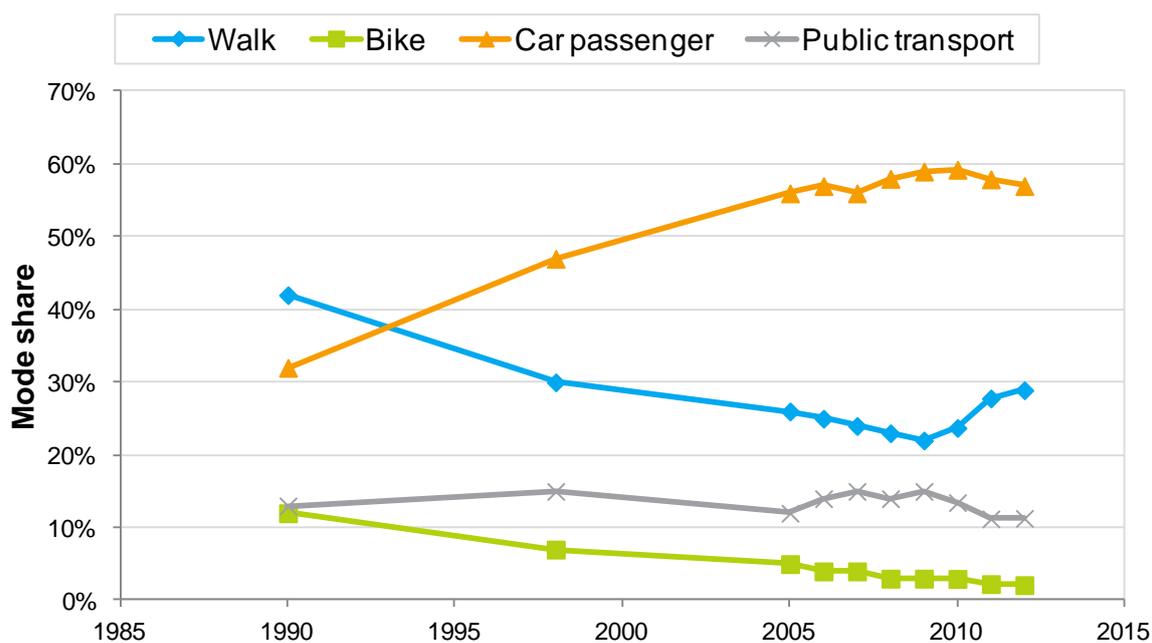


Figure 10 shows that, among secondary school-aged students, the number of passenger trips to school per person increased by over 50 percent from 1989/90 to 1997/98. The number of cycling journeys has reduced from an average of 28 per person per year in 1989/90 to around 5 per person per year in 2010–14.

Figure 10: Travel to school – journeys per person – ages 13–17

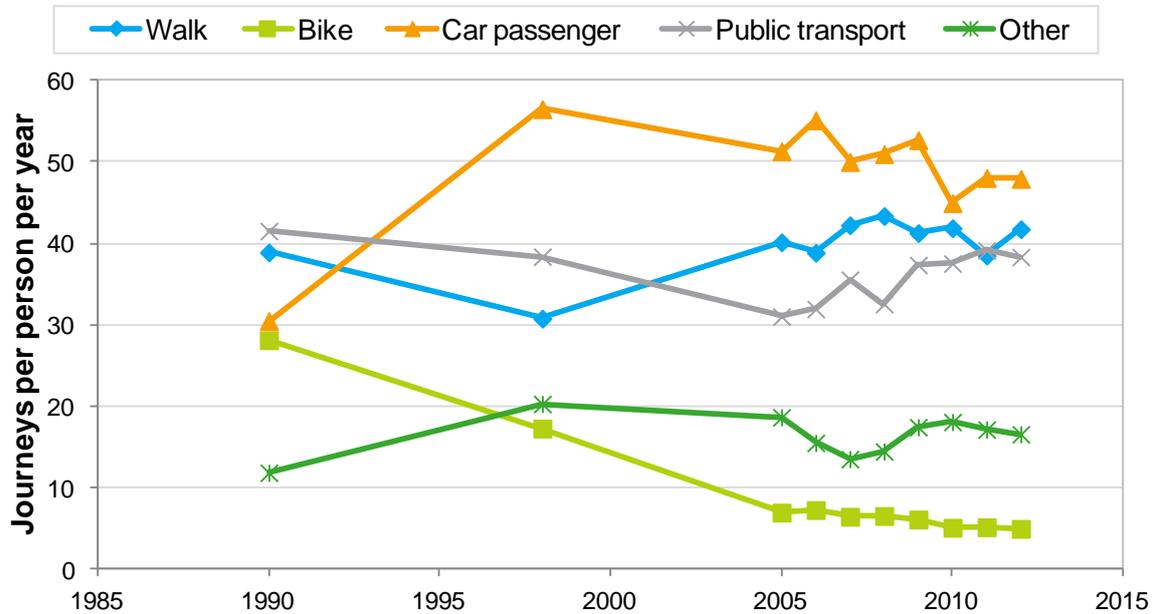
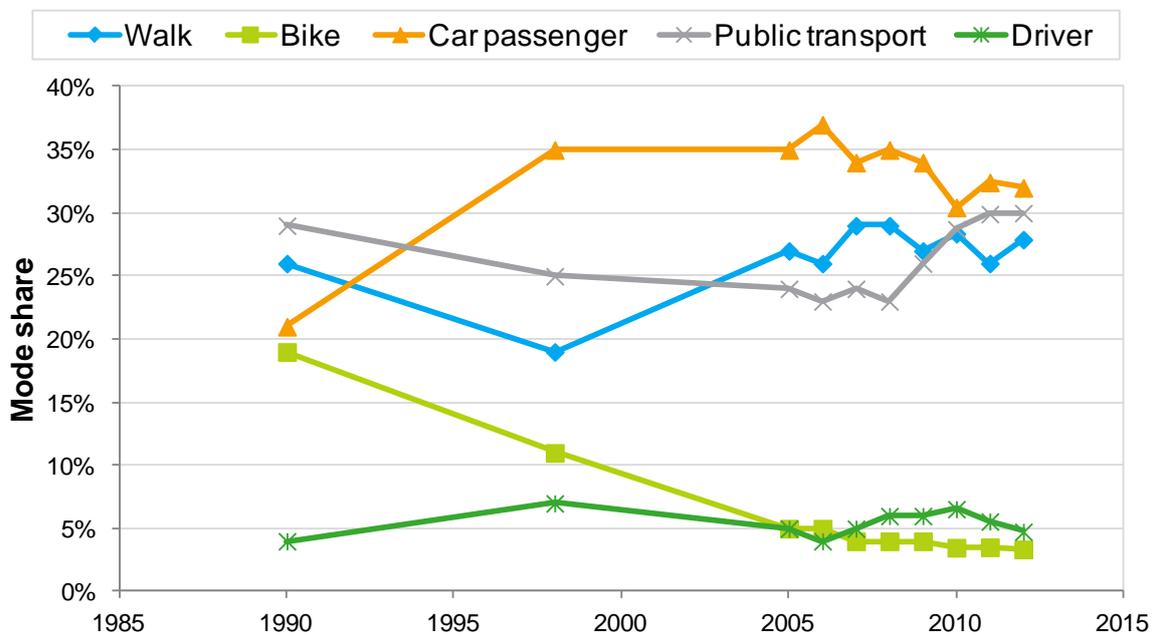


Figure 11: Travel to school – mode share – ages 13–17



Urban/rural patterns

The 21 percent of people in New Zealand who live in small towns and rural areas account for 26 percent of the total distance travelled and 20 percent of total travel time (see Table 13).

People living in small towns (population less than 10,000) and rural areas travel on average more than 30 percent further in a year as 'urban dwellers' living in larger towns and cities (see Table 14).

The average trip leg length (between stops) is 8km for urban dwellers and 12 km for small town/rural dwellers.

Urban dwellers reported more time walking in the road environment than their small town and rural-dwelling counterparts. The average urban dweller (across all age groups) walks for about 50 hours per year, compared to only 31 hours per year for small town/rural dwellers. However, as noted in the glossary, these figures do not include off-road walking, for example tramping or walking around private land.

Table 13: Comparing city/town and rural dwellers – mode share of time, distance and trips (2010–2014)

	Main/secondary urban (population centres of 10,000 or more)				Minor urban/rural (population less than 10,000)			
	<i>Trips in sample</i>	Million hours per year	Million km per year	Million trip legs per year	<i>Trips in sample</i>	Million hours per year	Million km per year	Million trip legs per year
Car/van driver	101,222	640	21,699	2,480	28,934	171	8,077	615
Car/van passenger	51,043	335	12,366	1,227	14,457	94	4,511	303
Pedestrian	32,329	174	692	814	8,251	29	111	160
PT (bus/train/ferry)	4,801	55	1,179	139	1,178	12	342	26
Cyclist	2,882	21	266	58	885	4	42	15
Other (including motorcyclist)	1,913	32	647	46	554	8	137	13
Total	194,190	1,258	36,850	4,764	54,259	317	13,219	1,131

Table 14: Travel per person by city/town and rural dwellers (2010–2014)

Travel mode	Main/secondary urban (population centres of 10,000 or more)				Minor urban/rural (population less than 10,000)			
	<i>Trips in sample</i>	Hours per person per year	Km per person per year	Trip legs per person per year	<i>Trips in sample</i>	Hours per person per year	Km per person per year	Trip legs per person per year
Car/van driver (per person)	101,222	183	6,193	708	28,934	182	8,621	657
Car/van driver (per person aged 15+)	101,222	230	7,785	890	28,934	233	11,003	838
Car/van passenger	51,043	96	3,529	350	14,457	100	4,815	323
Pedestrian	32,329	50	197	232	8,251	31	118	171
PT (bus/train/ferry)	4,801	16	336	40	1,178	13	365	28
Cyclist	2,882	6	76	17	885	4	45	16
Other (including motorcyclist)	1,913	9	185	13	554	8	146	14
Total	194,190	359	10,516	1,360	54,259	339	14,111	1,209

Travel by time of day

Figure 10 shows distance travelled by mode by time of day. Weekday morning and afternoon peaks are visible, with the majority of public transport use at those times. There is a greater passenger to driver ratio in the weekends.

Figure 10: Distance by mode by time of day (2010–2014)

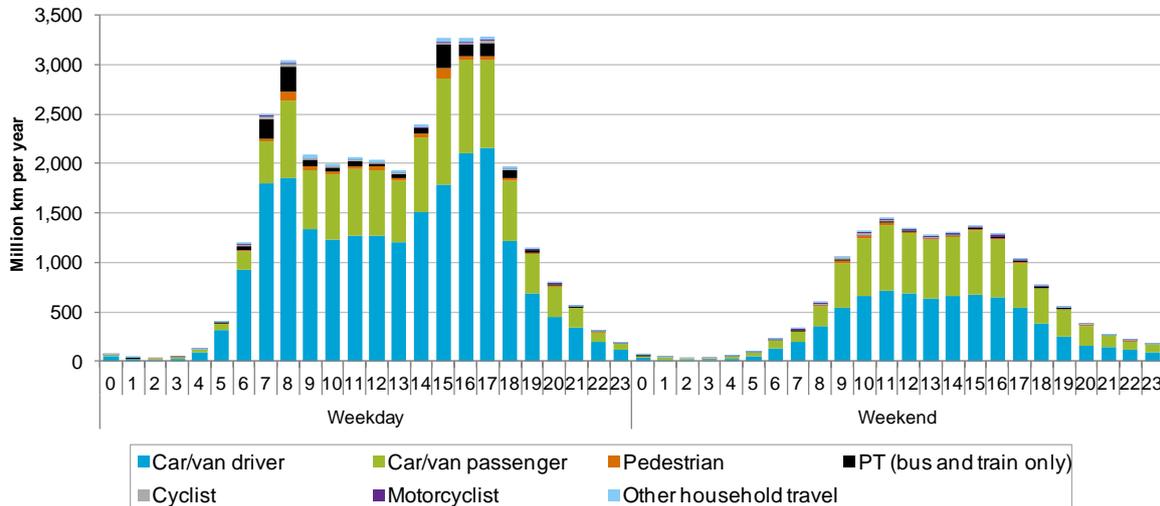
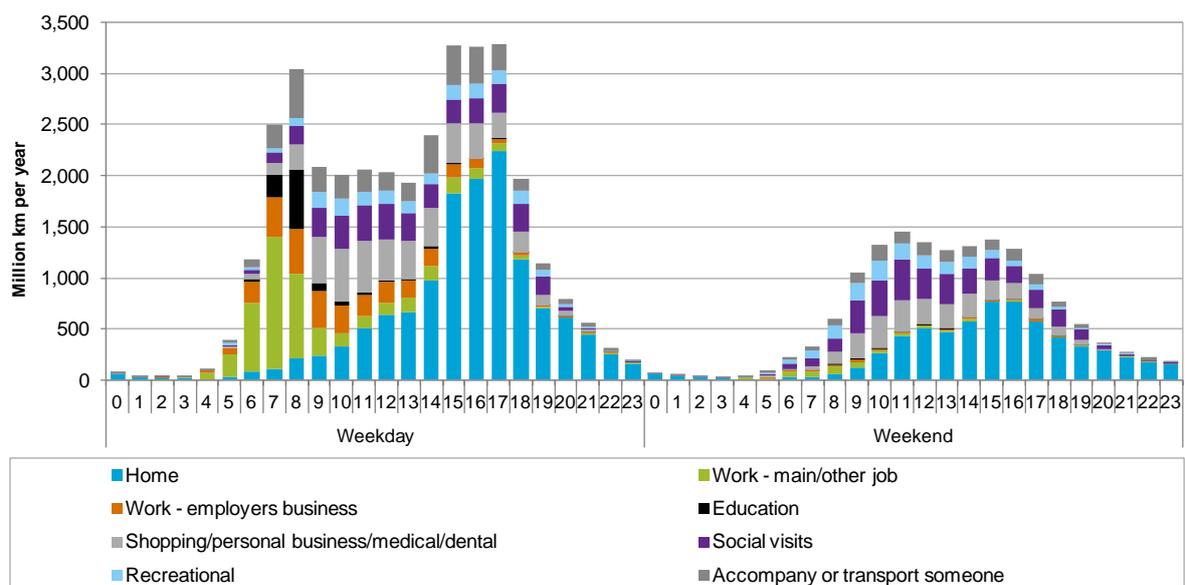


Figure 11 shows distance travelled by purpose by time of day. Work travel occurs mostly earlier in the day and travel home later in the day. There is very little weekend work travel. Education shows in the morning weekday peak, with little in the weekends. The total amount of social and recreational travel is similar in weekdays and weekends. However, per day, there is over twice as much social and recreational travel on weekends as weekdays.

Figure 11: Distance by purpose by time of day (2010–2014)



Glossary

Driver	In this fact sheet, 'driver' includes all drivers of private light four-wheeled vehicles such as cars, utes, vans and SUVs.
Household	Group of people living at the same address, sharing facilities but not necessarily financially interdependent. May be an individual, couple, family, flatmates or a combination of these (for example, family plus boarder).
Journey	A series of one or more trip legs where the only intermediate stops are to change to another mode.
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 (he or she is not a professional driver).
Public transport (PT)	Passenger in local bus, train or ferry. Distances are currently only available for bus and train trips. Local bus and 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 and other modes (eg horseriding).

Trip distance	For road-based trips, distances are calculated by measuring the distance from the start address along the roads to the finish address by the quickest (not necessarily the shortest) route. If the respondent states that the quickest route was not used, the interviewer records an intermediate point which is then used in mapping the 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	<p>Return home includes any trip to the home address or any trip returning to the place they are going to spend the night.</p> <p>Work includes travel to main place of work and travel to any other jobs.</p> <p>Employer's business: includes work-related travel other than to and from work (for example, travelling to meetings or clients).</p> <p>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 <i>social visit/entertainment</i>, as per the Statistics NZ Time Use Surveys of 1998/1999 and 2009/2010.</p> <p>Shopping is entering any premises that sells goods or hires them for money. A purchase need not be made.</p> <p>Social visit/entertainment includes entertainment in a public or private place for example, eating out at a restaurant or food court, picnics.</p> <p>Recreational includes active or passive participation in sporting activities and travel for which the main goal is exercise.</p> <p>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.</p> <p>Accompany or transport someone covers when the reason of the travel is to go somewhere for someone else's purpose.</p> <p>Change mode of travel covers when the purpose of the stop was</p>

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. Does not include off-road walking, for example tramping or walking around private land.

This fact sheet does not provide an analysis of the statistical uncertainties associated with travel estimates.

Reference

O'Fallon, C., Sullivan, C. 2005. Trip chaining: understanding how New Zealanders link their travel. Transfund New Zealand Research Report No. 268. 70pp.