



Walking in New Zealand

v3 August 2011

- Walking makes up 13 percent of total time travelled and 17 percent of the number of **trip legs**.
- On average women spend more time walking than men, walking 63 minutes per person per week, compared to 50 minutes per person per week for men.
- Those aged 15–24 years walk the most of any age group at nearly one hour and twenty minutes per person per week.
- People with no car **driver licence** spend far more time walking per person per week than those with one, for all age groups.
- People in households with no car spend more than two and a half hours per person per week walking, compared to 53 minutes per person per week or less for those in households with two or more cars.
- On an average surveyed day, 76 percent of people reported no walking (walking on private property (e.g. farms), tramping or walking trips of less than 100m which do not cross a road are not included).
- Walking by those aged 5–14 years has decreased from 1.5 hours per person per week in 1989/90 to around 1 hour per person per week in 2007–10.

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 were invited to participate in the survey by recording all their **travel** over a 2-day period. Each person in the household is then interviewed about their travel and is also asked about their alcohol consumption and other travel-related information.

This fact sheet looks at walking in New Zealand — who walks, where to, and how the patterns have changed over time. Note that this travel survey captures walking on the road / footpath environment; off-road activities such as tramping and walking around the farm or shopping centre are not included in these estimates. Neither is walking less than 100m, unless it involves crossing a road. This fact sheet uses data from 34,311 people in 13,674 households, collected between July 2003 and June 2010, focussing on July 2007–June 2010 (20,253 people in 7,957 households). Trips connected solely to delivering goods for a job eg mail and pamphlet delivery or courier trips, have been excluded from this analysis.

Words shown in **blue** (and not headings) are defined in the glossary at the end of this sheet. Click on the word or phrase to go directly to the glossary.

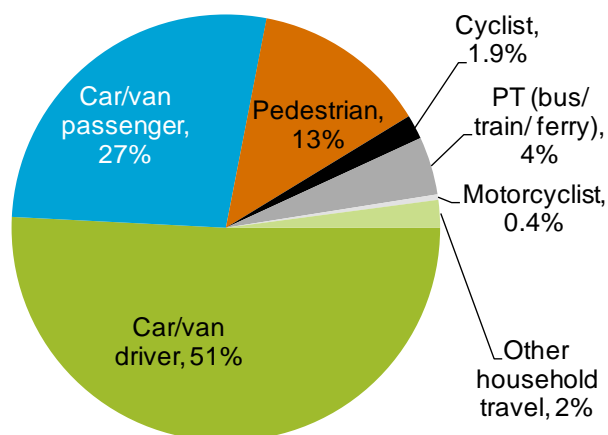
As the survey covers periods starting July in a given year and finishing in June, it should be noted that 2007–2010 refers to a three year time period.

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

Share of transport

Figure 1: Overall mode share

a) Share of total travel time



b) Share of trip legs

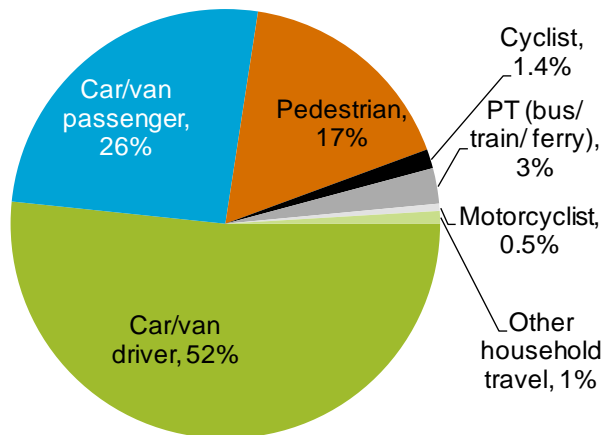


Figure 1 shows each **travel mode's** share of the total travel time and trip legs. It can be seen that walking makes up 13 percent (about one eighth) of total time travelled and 17 percent (one sixth) of the number of trip legs. Walking distances are measured from geocoded distances where available.²

Table 1: Mode share of time, distance and trip legs

Travel mode	Trip legs in sample	Million hours per year	Million km per year	Million trip legs per year
Car/van driver	82,975	813	2,9435	3,223
Car/van passenger	43,862	436	17,079	1,608
Pedestrian	26,680	211	822	1,058
Cyclist	2,454	30	350	89
PT (bus/ train/ ferry)	3,960	67	1,498 ¹	167
Motorcyclist	636	7	241	33
Other household travel	1,246	36	See note ²	61
Total	161,813	1,599	49,941	6,241

Note: ¹ Distances unavailable for ferry trips.

² Some distances not available.

Totals may not add exactly due to rounding.

Overall people in New Zealand spend 211 million hours per year walking and walk an estimated 822 million km per year. This is a total of 1,058 million trip legs per year.

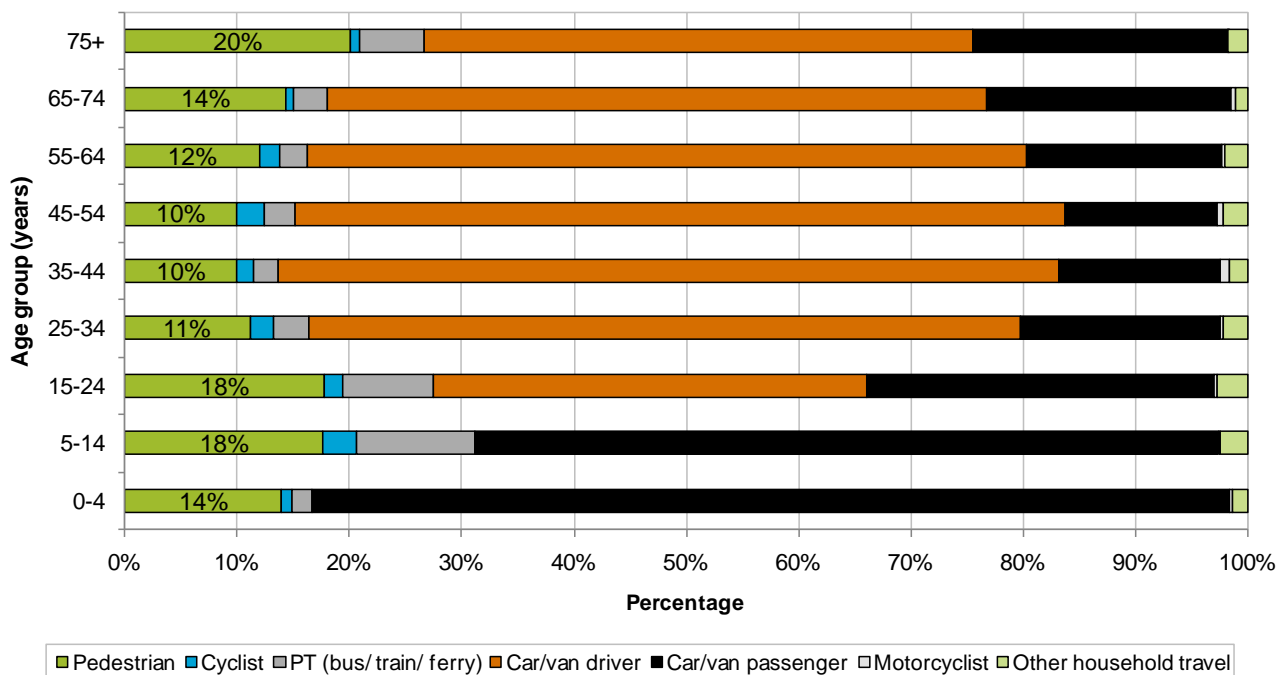
Mode share by age group

Figure 2 shows travel patterns for various age groups. School-aged children, young adults and older road users were the most likely to choose active travel modes (walking and cycling). People 5–14 years old and 15–24 years old spend about 18 percent of their time walking and those 75 years old and over spend 20 percent of their time walking. Those 5–14 years old also spend the greatest percentage of their time cycling, at nearly 3 percent. People aged 35–64 were the most car-

² In the 2 percent of cases where geocoded distances are not available, walking distances have been imputed from time spent walking, using a conversion factor of 4.4 km/h. This is based on work done by Carolyn O'Fallon and Charles Sullivan (O'Fallon and Sullivan, 2004) using a sample of walking trips from the 1997/98 Household Travel Survey.

dependent, with 12 percent or less of their total travel time spent walking or cycling and 81–85 percent of their total time spent as a car/van occupant.

Figure 2: Mode share (percentage of total time spent travelling by each mode of travel)



Age groups and gender

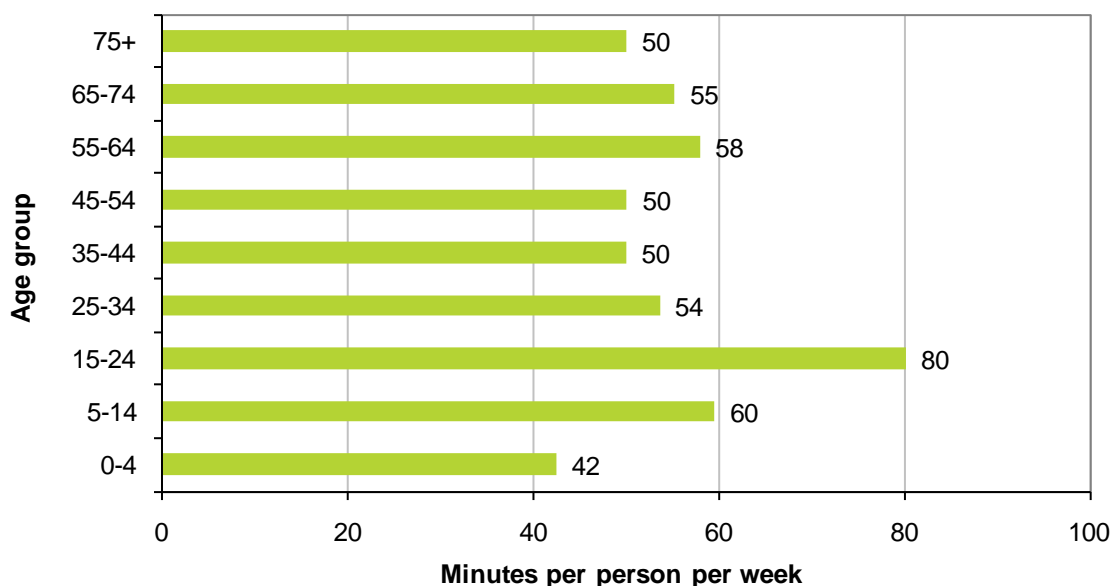
As shown in Figure 1, walking makes up 13 percent of total travel time and 17 percent of total trip legs.

Table 2 shows the amount of time spent walking by gender and age group. On average women aged 15–24 years old walk the most, at over one and a half hours per person per week. On the whole, women spend more time per person per week walking than men, unless over 75 years old. Women spend on average 63 minutes per person per week walking, whereas men walk approximately 50 minutes per person per week.

Table 2: Walking trips by age group and sex

Age group	Females			Males		
	Million trip legs per year	Million hours per year	Time per person per week	Million trip legs per year	Million hours per year	Time per person per week
0-4	26	5	43 minutes	27	6	41 minutes
5-14	78	15	1 hour	81	15	58 minutes
15-24	118	26	1 hour 36 minutes	87	18	1 hour 4 minutes
25-34	83	15	1 hour 2 minutes	57	10	44 minutes
35-44	84	15	54 minutes	65	12	44 minutes
45-54	80	16	59 minutes	52	10	39 minutes
55-64	61	13	1 hour 5 minutes	47	10	49 minutes
65-74	36	7	55 minutes	29	7	54 minutes
75+	30	6	49 minutes	18	5	51 minutes
Total	595	119	1 hour 3 minutes	463	92	50 minutes

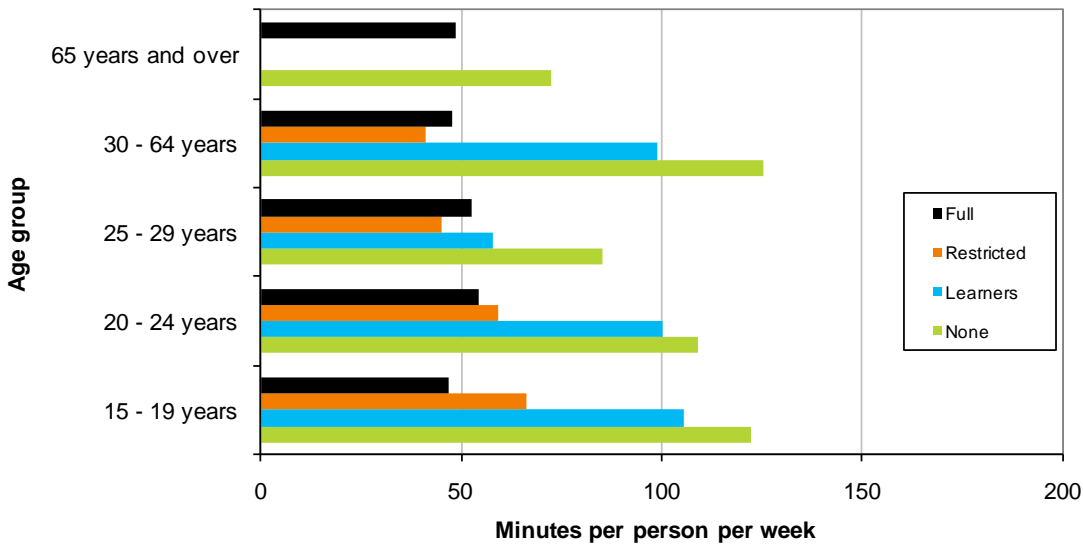
Overall, people in the 15–24 year age group spend the most time walking (1 hour 20 minutes per week, Figure 3). This is followed by 5 to 14 year olds at 1 hour per person per week, and 65 to 64 year olds at 58 minutes per person per week.

Figure 3: Time spent walking each week per person by age group

Availability of vehicles

People without a **driver licence** or with only a learner licence spend substantially more time walking than those with restricted or full licences who can drive more freely. Figure 4 compares holders of different classes of car drivers licence with non-holders for various age groups.

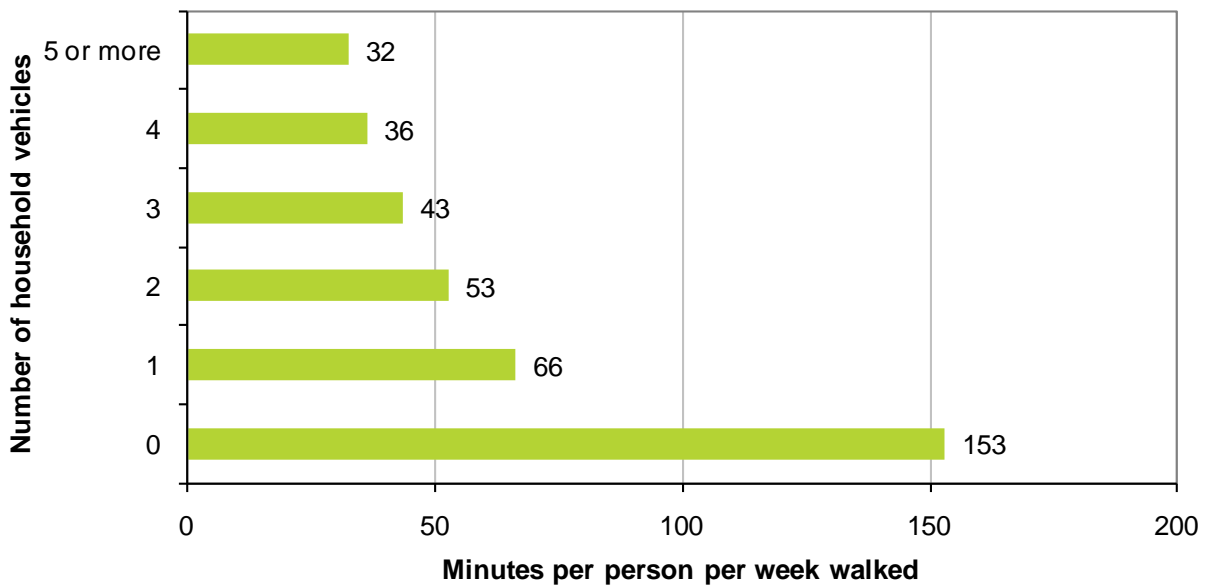
Figure 4: Time spent walking by age (over 15 years only) and car driver licence held ³



Generally people with a full licence walk for less than an hour a week, whereas those without a licence walk more than an hour per week. Those who walk most are those with no licence and are aged between 30 and 64 years old (over 2 hours per person per week). Those who walk least are restricted or full licence holders aged between 25 and 64 years old (about 40–52 minutes per person per week).

Walking patterns can also be examined in term of vehicles per household. As seen from Figure 5, those in a household with no vehicles spend over two and a half hours per person per week walking. This rate decreases rapidly for households with vehicles. For households with one vehicle, the rate is more than halved to a little over an hour per person per week, and for households with more than two vehicles, the rate is around 30–45 minutes per person per week.

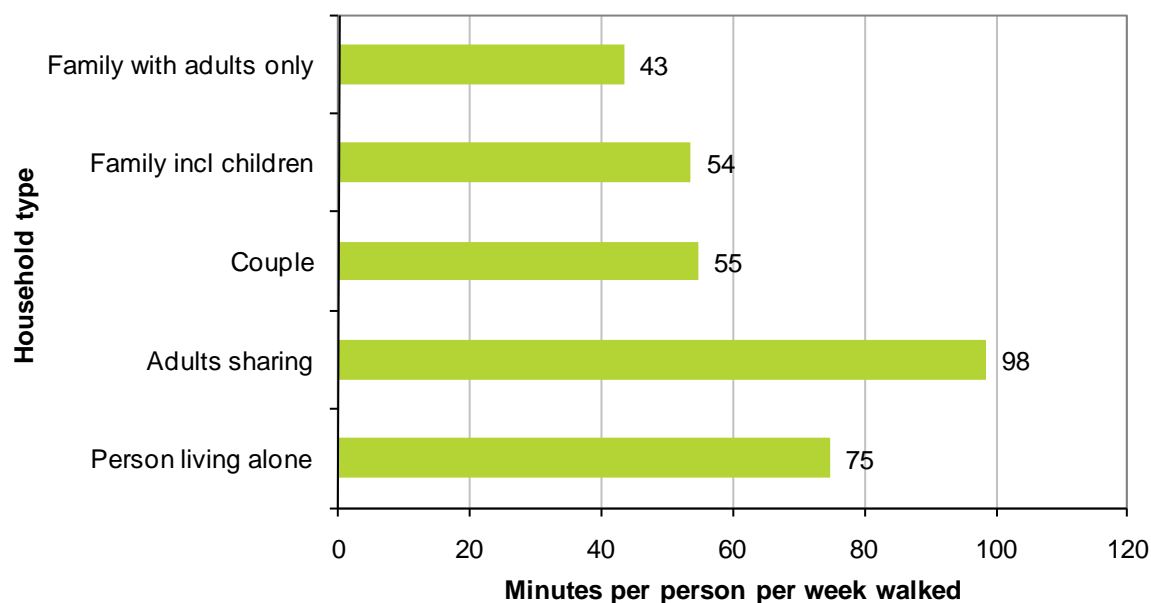
Figure 5: Time spent walking by the number of household vehicles



³ Learner and restricted driver data has not been displayed where the number of drivers surveyed in that age group was too small to study (less than 60 people)

Family/household structure

Figure 6: Time spent walking by household type



Adults sharing accommodation spend the most time walking (1 hour 38 minutes on average per person per week as shown in Figure 6), followed by people living alone (1 hour 15 minutes per person per week). This is most likely due to adults sharing accommodation being more likely to be younger people and therefore possibly non-drivers. Families living together (including families with adult children), and couples walk least (around 43–55 minutes per person per week).

Urban/rural resident differences

Table 3: Time spent walking by age and area of residence

Age group (years)	Minutes walked per person per week	
	Main urban centre	Towns & rural areas
0-4	45	34
5-12	59	33
13-17	109	83
18+	62	35

There is also a difference in the amount of walking done per person per week depending on whether the person is based in a **main urban centre** (MUC) or in a town or rural area (Table 3). Those in MUCs walk more (on public footpaths) than those outside. Primary school aged children in MUCs walk for nearly an hour each per week, whereas the town and country children reported walking for just over 30 minutes per week. A similar time difference exists between high school aged children in MUCs and those in towns and rural areas.

It should be noted that this survey is confined to walking on roads, footpaths and public walkways, and does not include walking on farms or private property.

Why people walk: trip purpose / destination

For each unit of travel recorded, the respondent is asked about his or her destination or the purpose of the trip leg. These responses are coded into the categories shown in Table 4. 'Home' is used for the return leg of all travel; the categories shown include only travel to the stated destination types.

Table 4: Walking trips by purpose/destination and age

Age group	Purpose / destination	Trip legs in sample	Trip legs in year (million)	Time spent walking per year (million hrs)	Time spent walking per trip leg (median) (minutes)	% time spent walking excluding trips home
0–17 years	Return home	2,622	97.86	23.2	10	
	Work	60	Sample too small	Sample too small	Sample too small	1%
	Education	1,132	45.17	10.1	10	28%
	Shopping/ Personal business	594	19.71	3.5	5	10%
	Social visits	955	35.13	7.2	5	20%
	Recreational	637	23.65	5.9	10	16%
	Change mode of travel	864	34.76	4.3	5	12%
	Accompany or transport someone	825	29.9	5.2	5	14%
	Age group total	5,067	190.79	36.7		100%
18–64 years	Return home	3,782	158.51	36.6	10	
	Work	2,478	107.74	15.9	5	18%
	Education	320	15.47	3.8	13	4%
	Shopping	2,243	93.67	14.5	5	16%
	Personal business	821	34.13	5.2	5	6%
	Social visits	1,310	51.88	10.3	8	12%
	Recreational	1,750	68.47	23.1	15	26%
	Change mode of travel	2,483	105.99	13.4	5	15%
	Accompany or transport someone	502	19.64	3.7	7	4%
Age group total	11,908	497.05	89.8		100%	
65+ years	Return home	992	36.18	9.1	10	
	Shopping	598	20.7	3.8	5	24%
	Personal business	342	11.68	1.7	5	11%
	Social visits	270	8.82	1.7	10	11%
	Recreational	542	19.34	6.0	15	38%
	Change mode of travel	406	12.73	1.6	5	10%
	Accompany or transport someone	49	Sample too small	Sample too small	Sample too small	2%
	Age group total	2,309	77.71	15.7		100%

In Table 4, walking may not have been the only travel mode used in achieving the final destination (as shown by the high percentage of trips related to 'change mode of travel'), however only the time spent walking has been included in the table. It should also be noted that the purpose of a trip leg is dictated by what was done at the end of that leg. This means that a walk home from work in which there is a stop to buy a paper will be coded as 2 trip legs, the first of which has a purpose of **shopping** and the second as **return home**.

The category of **change mode** relates to those trip legs which are for the purpose of getting to another form of transport. This covers trips such as travel to catch public transport e.g. walking to the bus stop or driving to a station to catch a train. It can also include walking back to the car after doing errands.

From Table 4, the three broad age groups show quite different priorities in terms of walking trip purpose. In the 0-17 year old age group, the primary purpose of walking trips is education i.e. walking to school (28 percent). In the 18–64 year old age group, the priority has shifted and is spread amongst recreation (26 percent), shopping (16 percent) and work (18 percent). In the 65 years and over age group, recreation is the dominant reason for walking (38 percent), followed by shopping (24 percent).

In general, the longest trip legs are for recreational purposes, including "going for a walk": 10 min for 0–17 year olds, 15 min for 18–64 year olds and 15 minutes for those 65 years and older. The shortest trips are those for changing mode of transport or accompanying someone (5-7 minutes for all age groups). Note that the start and end times of people's trips are self reported. In many cases people tend to round to the nearest 5 or 10 minutes.

Percentage of time spent walking by trip purpose is examined in more detail in Table 5. Overall, both shopping and recreation make up increasing percentages of walking time as the walkers increase in age. Work and education show distinct peaks — education at 5–14 years and work at 35–44 years — but tailing off more gradually. Walking for the purposes of social visits or changing travel mode are more constant and show no particular trends.

Table 5: Percentage of time spent walking by trip purpose and age (excluding the final trip for the purpose of going home)

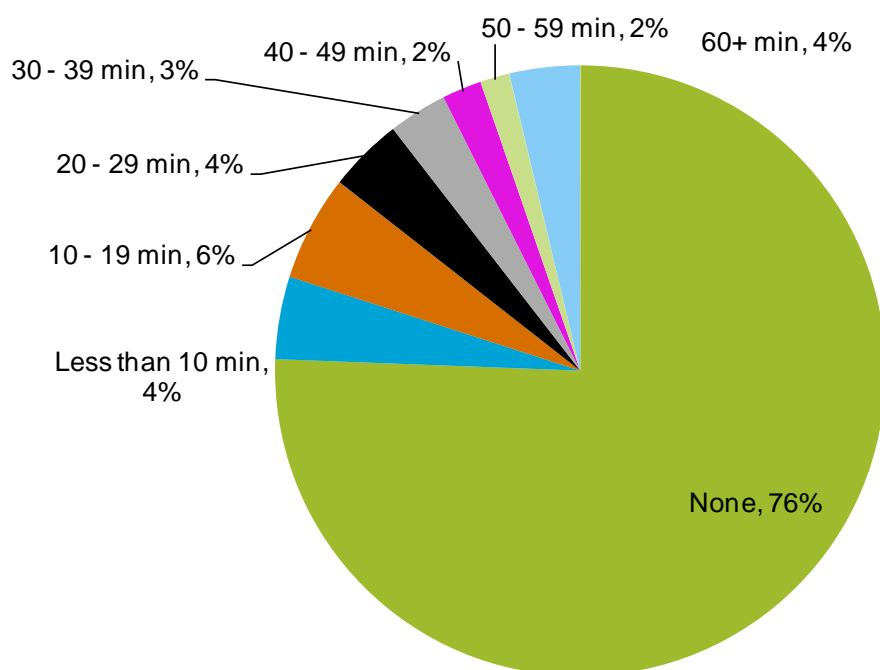
Trip purpose / destination	Age group (years)									Total
	0-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+	
<i>number of people sampled in age group</i>	1,397	4,360	4,384	2,911	3,702	3,763	2,862	1,907	1,394	26,680
Work	0%	0%	12%	19%	19%	18%	13%	7%	0%	12%
Education	0%	36%	22%	2%	2%	0%	0%	0%	0%	10%
Shopping	2%	8%	15%	15%	16%	14%	17%	19%	31%	15%
Personal business	1%	2%	3%	5%	5%	7%	10%	10%	12%	5%
Social visits	18%	20%	16%	12%	13%	11%	9%	11%	11%	14%
Recreational	22%	14%	13%	26%	24%	32%	35%	41%	34%	25%
Change mode of travel	5%	11%	17%	15%	14%	14%	14%	10%	10%	14%
Accompany or transport someone	52%	8%	3%	5%	7%	3%	2%	2%	1%	6%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: Due to rounding, some columns may not add to precisely 100%.

- For children under 5 years old, the main travel purpose is dominated by “accompanying someone else” e.g. going on the parent’s errand (52 percent).
- For children 5–14 years old, the main purpose of walking is for education (36 percent) followed by social visits (20 percent) and recreation (14 percent).
- For people aged 15–24, the main purpose is for education (22 percent), followed by shopping (15 percent) and social purposes (16 percent).
- For people aged 25–34, recreation is the most common reason to walk (26 percent) followed by work (19 percent), shopping and change mode (15 percent each), and social (12 percent).
- For those aged 35–54, recreation becomes higher and increases from 24 percent to 32 percent. Work decreases from 19 percent to 18 percent.
- For those aged 55–74, recreation stays highest and climbs from 35 percent to 41 percent.
- For those aged over 75 years, the dominant trip purposes are recreation (34 percent) and shopping (31 percent).

Daily time spent walking

Care should be taken with this, as the walking surveyed is limited to any movement on a public street or footpath over 100m or where it involves crossing a road.

Figure 7: Percentage of people who spent the given time walking on any given day

If the full set of people surveyed is examined, 76 percent of people reported no walking on a given day. This is followed by 10–19 minutes in a day (6 percent), 1–9 minutes in a day (4 percent), 20–29 minutes in a day (4 percent) and over 60 minutes in a day (4 percent).

Examining the non-walkers in more detail, we find that 64 percent of people reported no walking in the 2 days surveyed. Males were more likely to not have walked at all in the two days (67 percent) than females (60 percent). There were also differences based on age as only 56 percent of children (under 18 years old) reported no walking in the two days. Adults were least likely to walk. 71 percent of male adults and 62 percent of female adults reported no walking.

There is also variation depending on whether people are based in a main urban centre, **secondary urban centre** or **rural area**. People based in main urban areas such as cities were more likely to walk (only 61 percent didn't walk at all in the 2 days), and those in secondary and rural areas were least likely to have walked (67 percent and 72 percent respectively).

Table 6: Percentage distribution of time spent walking per person per day of those who walked

Time spent walking	Age (years)						All ages
	0–14	15–29	30–44	45–59	60–74	75+	
1–9 min (%)	23	16	17	16	20	14	18
10–19 min (%)	23	22	24	25	18	24	23
20–29 min (%)	18	15	16	15	17	16	16
30–39 min (%)	13	13	14	12	11	12	13
40–49 min (%)	7	9	9	9	8	11	9
50–59 min (%)	5	7	6	7	7	6	6
60+ min (%)	11	18	14	17	20	17	15

In Table 6, the most common amount of time spent walking a day is 10–19 minutes. The next most common is 1–9 minutes.

Figure 8: Time spent walking by personal income for those 16 + years old

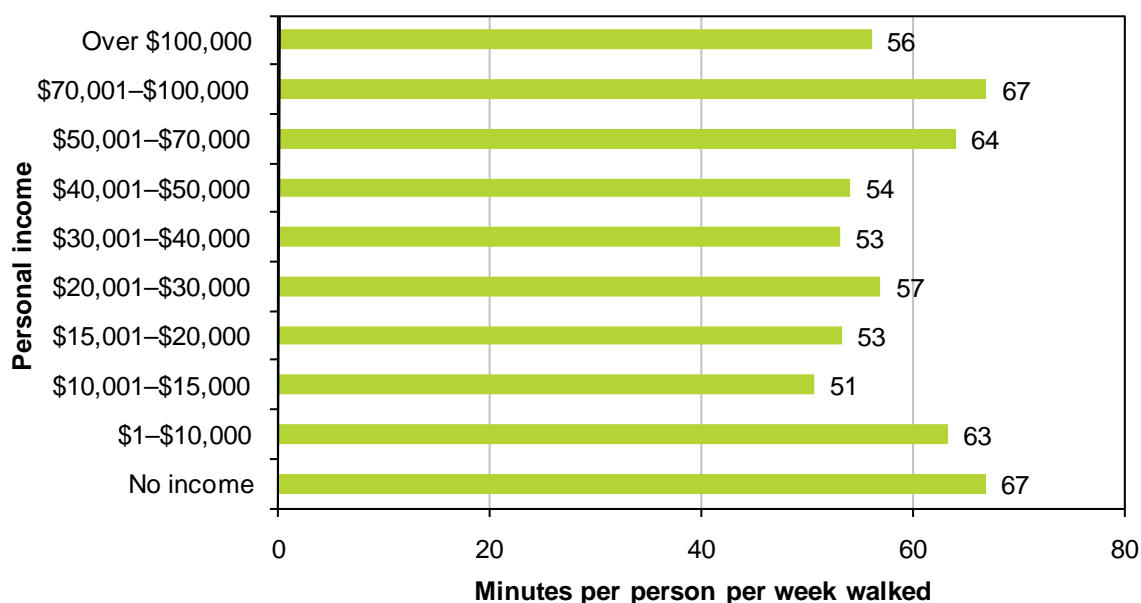


Figure 8 shows time spent walking by personal income, for people aged 16 years and over. From the graph, the people who walk the most are the higher and lowest income earners.

Trends in walking

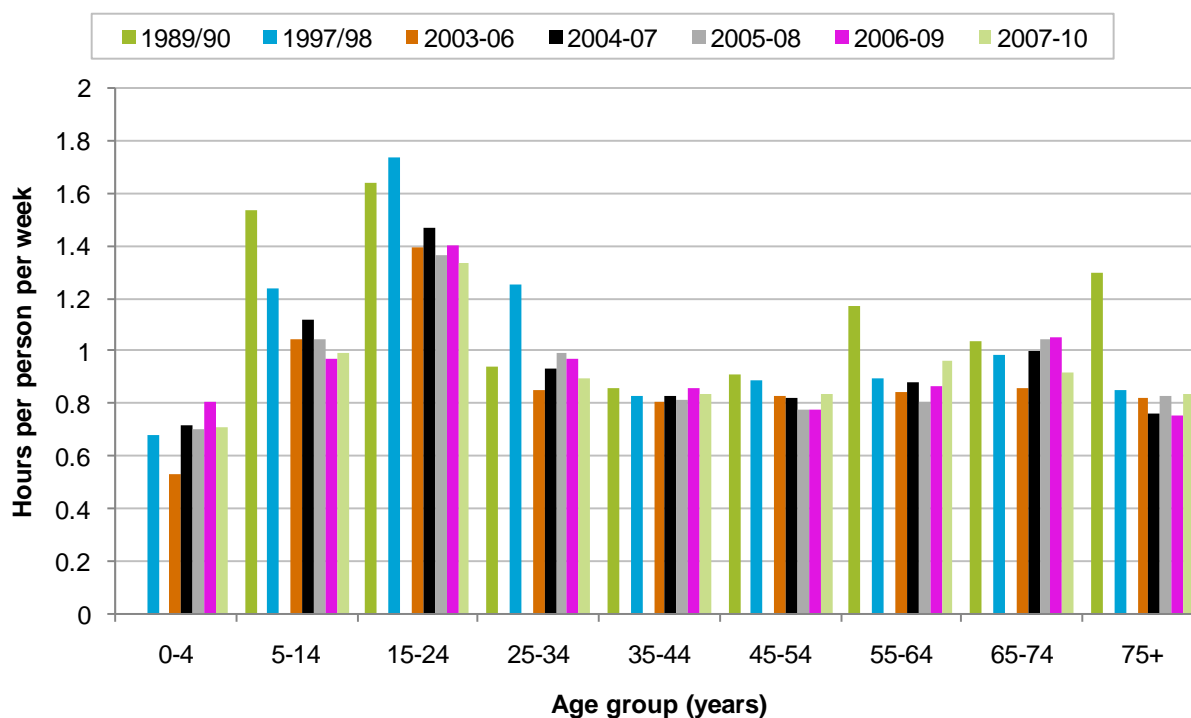
Table 7: Trends in hours spent walking each week per person by age group

Age group	Estimated minutes walking per week						
	1989/90	1997/98	2003–06	2004–07	2005–08	2006–09	2007–10
0–4 [#]	#	41	32	43	42	48	42
5–14	92	74	62	67	63	58	60
15–24	98	104	83	88	82	84	80
25–34	57	75	51	56	60	58	54
35–44	52	50	48	50	49	51	50
45–54	55	53	50	49	47	47	50
55–64	70	54	50	53	48	52	58
65–74	62	59	51	60	63	63	55
75+	78	51	49	46	50	45	50
Total	#	66	55	59	57	58	57
Total age 5 or over	72	68	57	60	58	58	58

[#]Children aged 0–4 were not surveyed in 1989/90.

The most consistent change in the time per person spent walking has occurred in the 5–14 age group, where it has decreased from about 1.5 hours per week on average to about 1 hour per person per week between 1989/90 and 2003–06, but has held steady since then. No consistent trend in the amount of time per person spent walking is visible across the other age groups (Table 7 and Figure 9).

Figure 9: Historical time series of time spent walking per person per week.



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

References:

O'Fallon & Sullivan (2004). Trip chaining: understanding how New Zealanders link their travel. Transfund Research Report, September 2004.

Additional information:

Transport Monitoring Indicator Framework

www.transport.govt.nz/ourwork/TransportMonitoring/default/

Pedestrian fact sheet (pedestrians involved in motor vehicle crashes)

www.transport.govt.nz/research/PedestrianCrashFacts/

Comparing Modes Fact Sheet for information about travel to school and travel to work. Regional results.

www.transport.govt.nz/research/LatestResults/

For more information about the background to the survey see the Ministry of Transport website at

www.transport.govt.nz/research/TravelSurvey/

Glossary

Driver	In this fact sheet includes all drivers of private light 4 wheeled vehicles such as cars, utes, vans, SUVs
Driver licence	New Zealand operates a graduated licence system. Holders of a learner licence must be accompanied by a qualified person at all times while driving. Restricted licence holders may drive unaccompanied but not at night or with passengers unless accompanied by a qualified person. For further information see www.nzta.govt.nz/licence/index.html
Household	A 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)
Household types	Family includes any configuration: multi-generational, cousins, step parents, de facto partners with own, step or foster children, same sex partners with children etc. This is further divided into <i>Family with adults only</i> and <i>Family including children</i> Couple includes same sex couples Adults sharing includes couples living with boarders or flatmates Person living alone
Journey	A series of one or more trip legs where the only intermediate stops are to change to another mode
Main urban centre	A very large urban area centred on a city or major urban centre. This uses the Statistics New Zealand criteria of an urban centre with a population of 30,000 or more and includes satellite areas, for example, Kapiti, Cambridge
Passenger	Passenger in a private vehicle (car, van, ute, SUV, truck, or motorcycle). Passengers in buses, trains and taxis are coded under those categories. Aircraft and boat passengers are included in the 'Other' category.
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 60km or less, local ferry 1 hour or less. Bus/train/ferry trips of longer than this distance/duration have been coded to 'other household travel'.
Rural area	Areas with a population of less than 9,999 people. (Statistics NZ definition).
Secondary urban centre	An urban centre with a population of 10,000–29,999 (Statistics NZ definition)
Towns and rural	This uses the Statistics New Zealand criteria of an urban centre between 10,000–29,999 or a rural area with a population of less than 10,000, including satellite areas.
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 so forth
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 100m 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 and so forth which are included under *social visit/entertainment*, as per the Statistics NZ Time Use Survey of 1998/1999

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, for example, 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

Walk

Includes walkers, joggers, users of mobility scooters and children on tricycles.