



# New Zealand Household Travel Survey 2015-2017

December 2017



Ministry of **Transport**  
TE MANATŪ WAKA  
New Zealand Government

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## Additional information

For more information about the background to the survey, see the Ministry of Transport website at [www.transport.govt.nz/research/TravelSurvey/](http://www.transport.govt.nz/research/TravelSurvey/)

Enquires relating to the New Zealand Household Travel Survey may be directed to the Ministry of Transport, PO Box 3175, Wellington, or by email to [info@transport.govt.nz](mailto:info@transport.govt.nz) or [travelsurvey@transport.govt.nz](mailto:travelsurvey@transport.govt.nz) .

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## Key facts

- ▶ On average, each year people in New Zealand spend nearly 1,500 million hours travelling, and travel nearly 52,000 million km, in over 6,500 million trip legs.
- ▶ Over half of all household travel time is spent driving. Driver and passenger travel together account for 82 percent of all time spent travelling.
- ▶ Excluding travelling home, over 30 percent of our time spent travelling is going shopping or for personal business/services.
- ▶ 31 percent of people aged 15 years and older have cycled at some point in the past year. 40 percent of people aged 15 years and over have used public transport in the past year. 42 percent of people aged 15 years and over have flown domestically in New Zealand in the past year.

## Overview

The New Zealand Household Travel Survey is an ongoing survey of household travel conducted for the Ministry of Transport. Each year, people in over 2,000 **households** throughout New Zealand are invited to participate in the survey, by recording all their **travel** over a seven-day period. Each person in the household is asked about their travel and other related information.

Note that this travel survey captures travel in the road/footpath environment (and domestic flights and ferries); off-road activities such as mountain biking and hiking are not included in these estimates. This fact sheet uses data from 5,703 people in 2,886 households, collected between October 2015 and August 2017. **Professional driver** trips<sup>1</sup> (including cycling trips such as mail and pamphlet delivery) have been excluded from the analysis.

Words shown in **blue** (and which are not headings) are defined in the glossary at the end of this sheet.

### Notes:

Please note that these are preliminary results from the New Zealand Household Travel Survey and may be subject to change. These results from the new survey are not directly comparable to the results from the 2003-14 or earlier travel surveys. The detail and breadth of information available based on the new survey will improve as the sample size increases over the years.

This analysis focusses on those households where everyone in the household fully completed the travel diary and they are weighted to represent the New Zealand population.

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<sup>1</sup> Professional driver trips are those done to transport goods or people as a professional, for example, courier trips, taxi drivers trips, bus driver trips, paper route delivery trips.

## Overall

On average, each year people in New Zealand spend nearly 1,500 million hours travelling, and travel nearly 52,000 million km, in over 6,500 million trip legs.

**Table 1: Mode share of time, distance and trip legs (2015-2017)**

| <b>Travel mode</b>     | <b>Trip legs in sample</b> | <b>Million km per year</b> | <b>Million hours per year</b> | <b>Million trip legs per year</b> |
|------------------------|----------------------------|----------------------------|-------------------------------|-----------------------------------|
| Car/van driver         | 96,845                     | 32,606                     | 833                           | 3,748                             |
| Car/van passenger      | 30,559                     | 14,230                     | 376                           | 1,610                             |
| Pedestrian             | 18,934                     | 691                        | 153                           | 833                               |
| Cyclist                | 1,968                      | 319                        | 22                            | 80                                |
| PT (bus/train/ferry)   | 3,281                      | 1,748                      | 73                            | 192                               |
| Motorcyclist           | 395                        | 108                        | 3                             | 13                                |
| Other household travel | 1,041                      | 2,172                      | 20                            | 43                                |
| <b>Total</b>           | <b>153,023</b>             | <b>51,874</b>              | <b>1,480</b>                  | <b>6,520</b>                      |

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'.

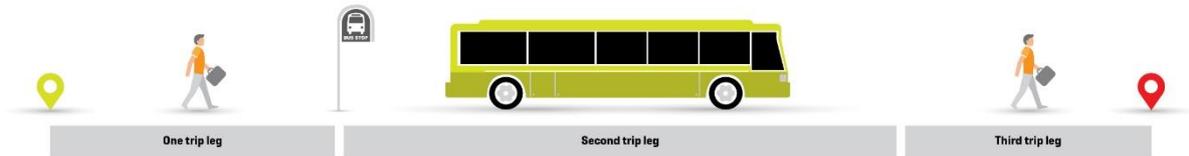
## How do people travel?

Over half of all household travel time is spent driving. Driver and passenger travel together account for 82 percent of all time spent travelling. Ten percent of time is spent walking, nearly 5 percent on local public transport and 3 percent by other modes of transport (for example, bicycle, plane, motorcycle or boat).

Figure 2a 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 2b 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).

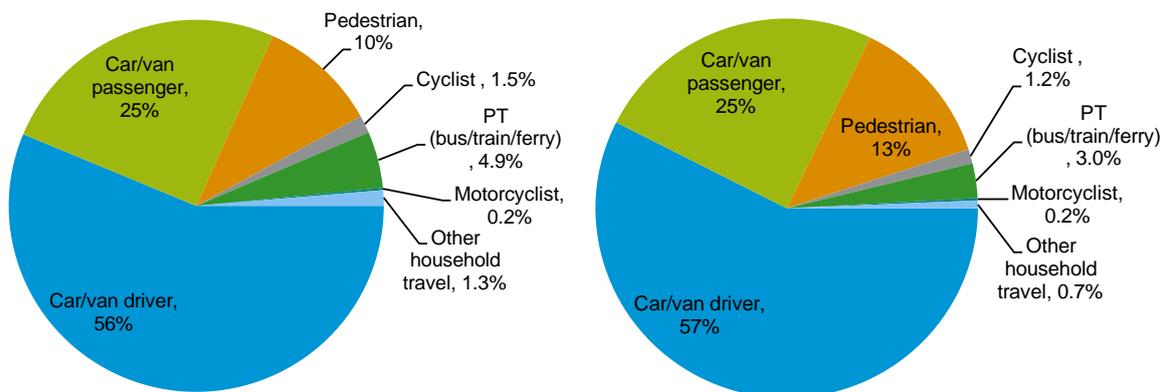
**Figure 1: What is a trip leg?**



**Figure 2: Overall mode share (2015-2017)**

a) Share of total travel time

b) Share of trip legs



## Differences by age

The distribution of mode share varies by age group (Figure 3).

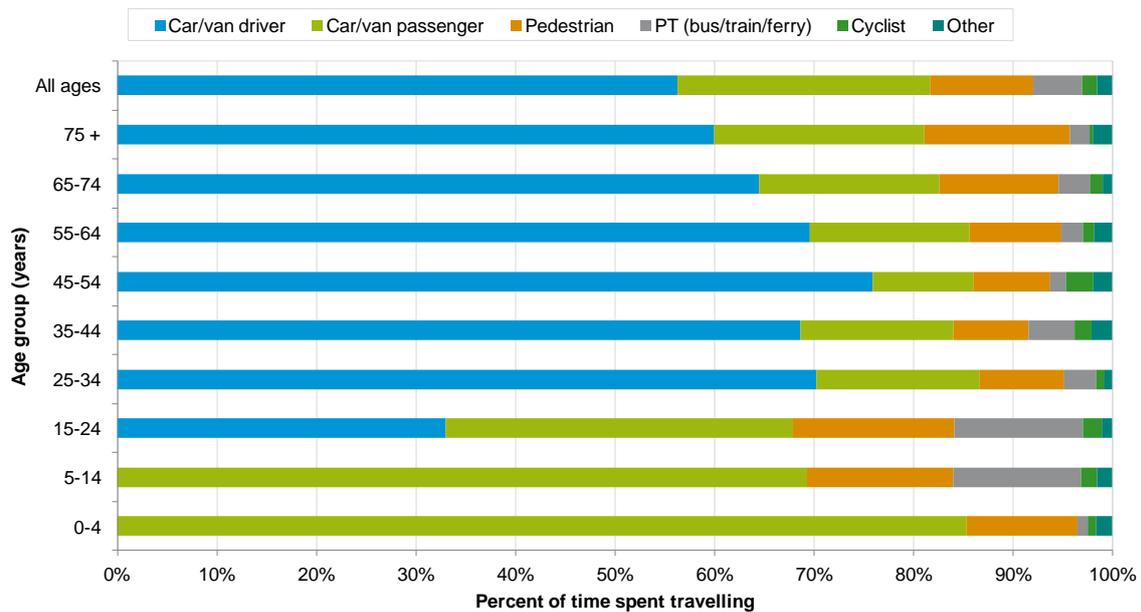
Before age 16, driving is not a legal option. Children under 5 years old spend most of their travel time as car/van passengers (85 percent), followed by walking (11 percent). Those aged 5 to 14 years are also mainly car/van passengers (69 percent), with 15 percent of their time spent walking. Public transport starts playing a more important role when people are 5–14, making up 13 percent of their time spent travelling.

For 15–24 year olds, driving a private vehicle becomes a major part of their travel (33 percent of time spent travelling), as they are starting to get a driver licence. Just over a third of their travel time is still as a car/van passenger (35 percent) and public transport makes up 13 percent.

Driver, passenger and pedestrian mode share is similar for those aged between 25 and 64 years. For those age groups, the share ranges between 69-76 percent driving, 10-16 percent as a passenger, and 8-9 percent walking.

After age 65, driving declines to around 60-65 percent of mode share and walking and passenger mode share time increases.

**Figure 3: Mode share (percentage of total time spent travelling by each mode) by age (2015-2017)**



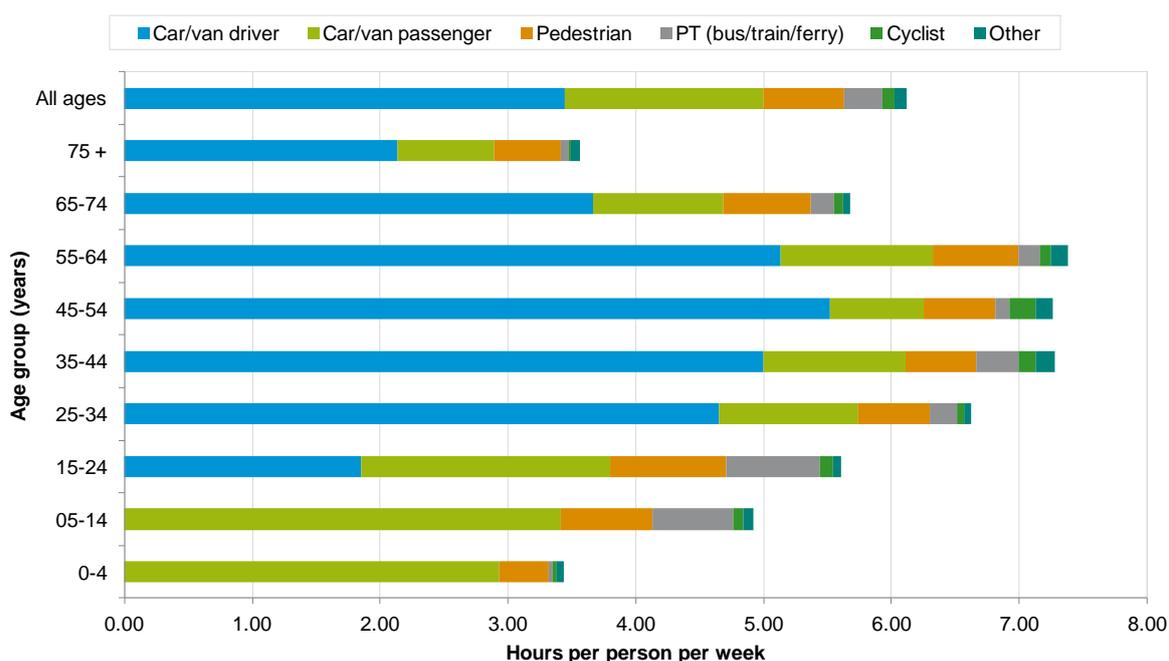
The total time spent travelling per person also varies with age. Overall, people travel a little under an hour per day, but once you start breaking it down by age, people spend different amounts of time travelling – people travel less when much older and much younger (Figure 4).

Children (0–4 and 5–14 year olds) spend the longest amount of time as car/van passengers – ranging from just under 3 to almost 3 1/2 hours per person per week. Those aged 5–14 years do more travel than younger children, and spend longer walking and using public transport.

35–64 year olds spend most time travelling (averaging over 7 hours per person per week). They also spend the most time driving (5-5 1/2 hours per person per week).

Between ages 25 and 74, people generally spend similar amounts of time as passengers, walking, and using public transport and other modes (ranging from 1 hour and 45 minutes per person per week for 45–54 year olds, to 2 hours and 17 minutes per person per week for 35–44 year olds). For people in that broad age group of 25–74 years, it is the amount of driving that most affects the total time spent travelling per week.

Figure 4: Time spent travelling per person per week by age and mode (2015-2017)



## Why we travel

We not only want to know how much people travel, but also why they travel. People can travel for a variety of reasons.

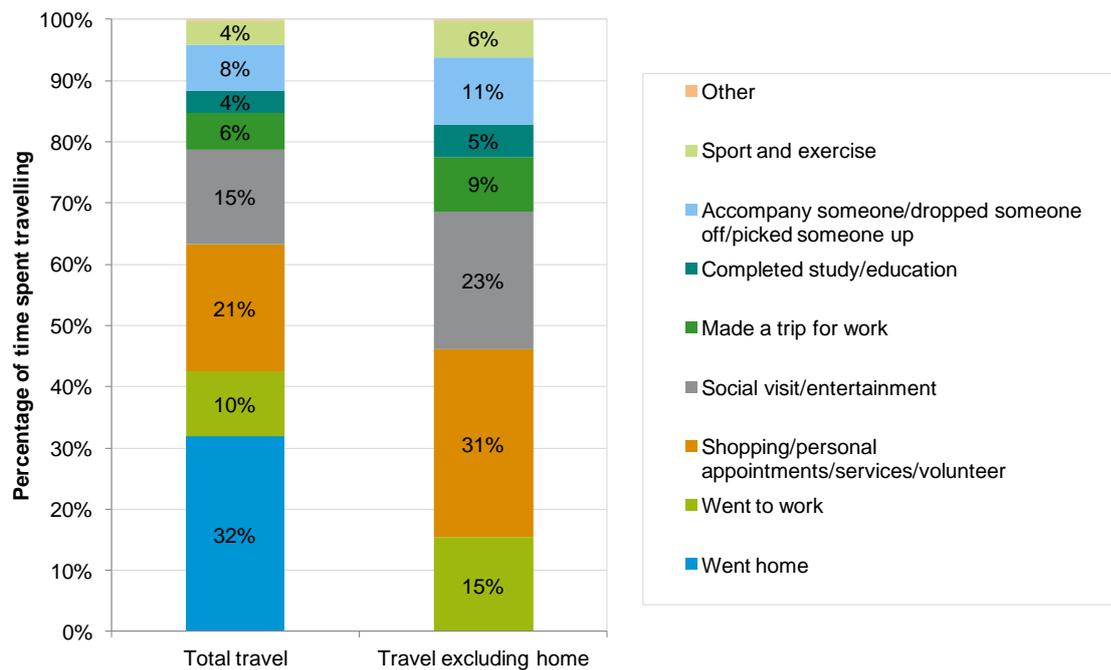
The Travel Survey codes travel purposes into categories. Formal definitions are available in the Glossary, but it helps to see examples. Please note that some of these categories have changed from the historical survey, so may not be directly comparable.

| Purpose                        | What we mean and examples  |
|--------------------------------|--|
| Shopping                       | Purchasing (or intending to purchase) goods, e.g. grocery shopping. Includes window shopping.  |
| Personal appointments/services | Similar to shopping, but no goods are involved. Examples include visiting a doctor, dentist, hairdresser, bank, or library.  |
| Social visit/entertainment     | This may range from visiting friends, to going out to the movies, or going out for a meal.   |
| Made a trip for work           | This is travel for work, rather than getting to work. This can range from a plumber driving to their next job to flying to another city for a work-related conference.   |
| Sport and exercise             | This includes travel for exercise e.g. going jogging, or cycling for recreation, as well as travel to sports or recreations, such as driving to the park to play soccer. |

We spend the greatest proportion of our time travelling to go home (32 percent). However, this is a catch-all category and the reasons why people went out in the first place is often of more interest (Figure 5).

Excluding travelling home, over 30 percent of our time spent travelling is going shopping or for personal appointments/services<sup>2</sup>. Nearly a quarter of our travel time (23 percent) is spent on social visits/entertainment. 15 percent of our travel time is spent travelling to work, and a further 5 percent getting to study or education. We spend 11 percent of our time accompanying others while they travel, dropping someone off or picking someone up. We spend 9 percent of our time accompanying others while they travel, dropping someone off or picking someone up. We spend 9 percent of our travel time travelling for work, and 6 percent for sports/exercise.

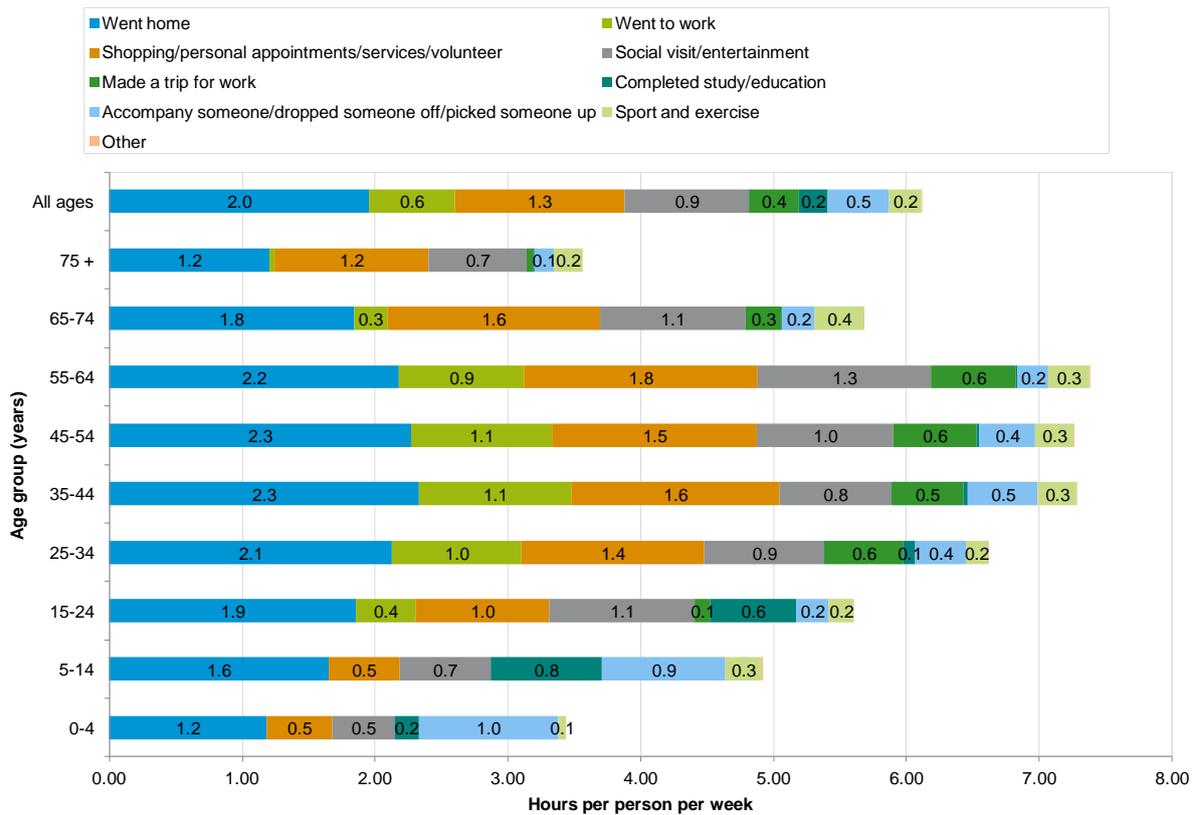
**Figure 5: Travel purpose and time (2015-2017)**



The times spent travelling and the reasons for travel vary with age (Figure 6).

<sup>2</sup> This includes dropping things off or picking things up.

**Figure 6: Time spent travelling by age and purpose (2015-2017)**



Education and accompanying others are major components of travel for those under 15 years old, but are less frequent for those aged over 65 years. Travel to work is an important reason for travel for 15-64 year olds, but not for children and those aged over 75 years old.

## Focus on a selection of highlighted areas

The detail and breadth of information available will improve as the sample size increases over the years. For now, a small selection of details on walking, cycling, public transport use and domestic flights are included.

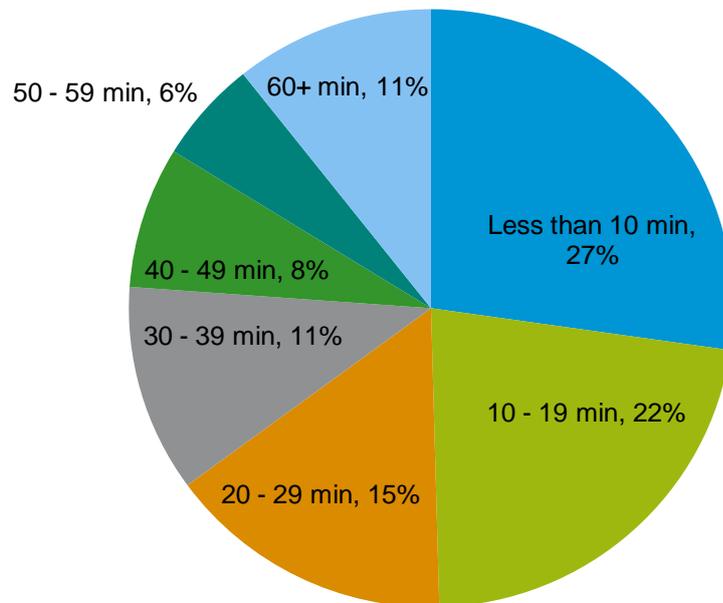
### Walking

On an average survey day, 81 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).

Of those who did walk, Figure 7 shows the distribution of time spent walking per day by those who walked.

On days when people walked, nearly half reported walking for a total of less than 20 minutes that day.

**Figure 7: Time spent walking in a day by those who walked (2015-2017)**

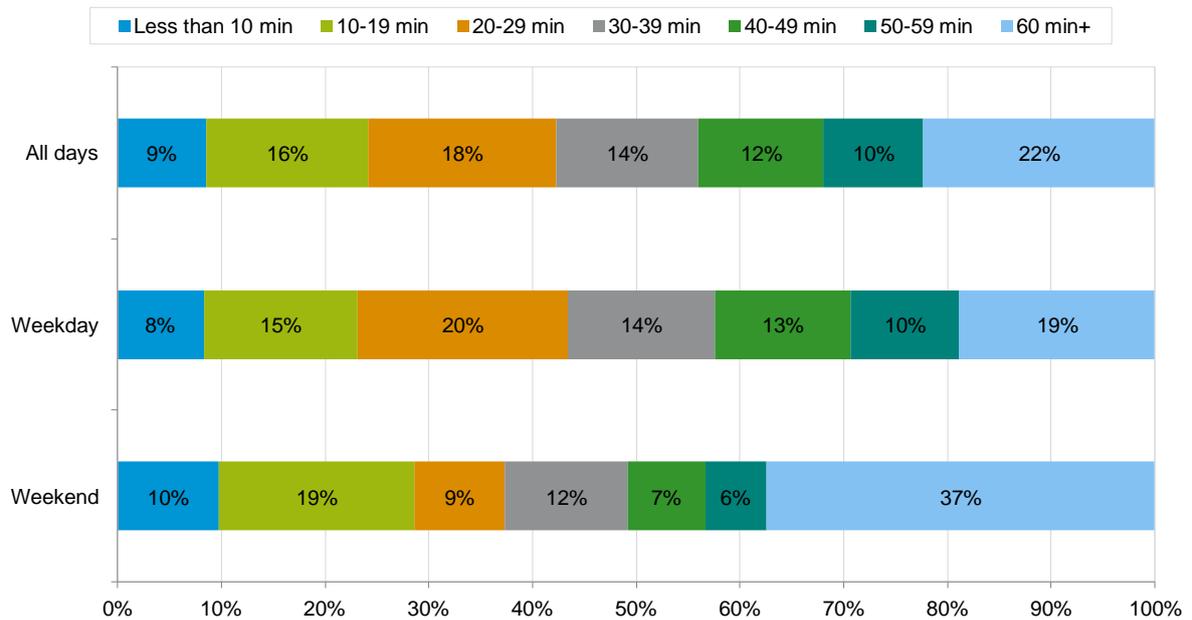


### Cycling

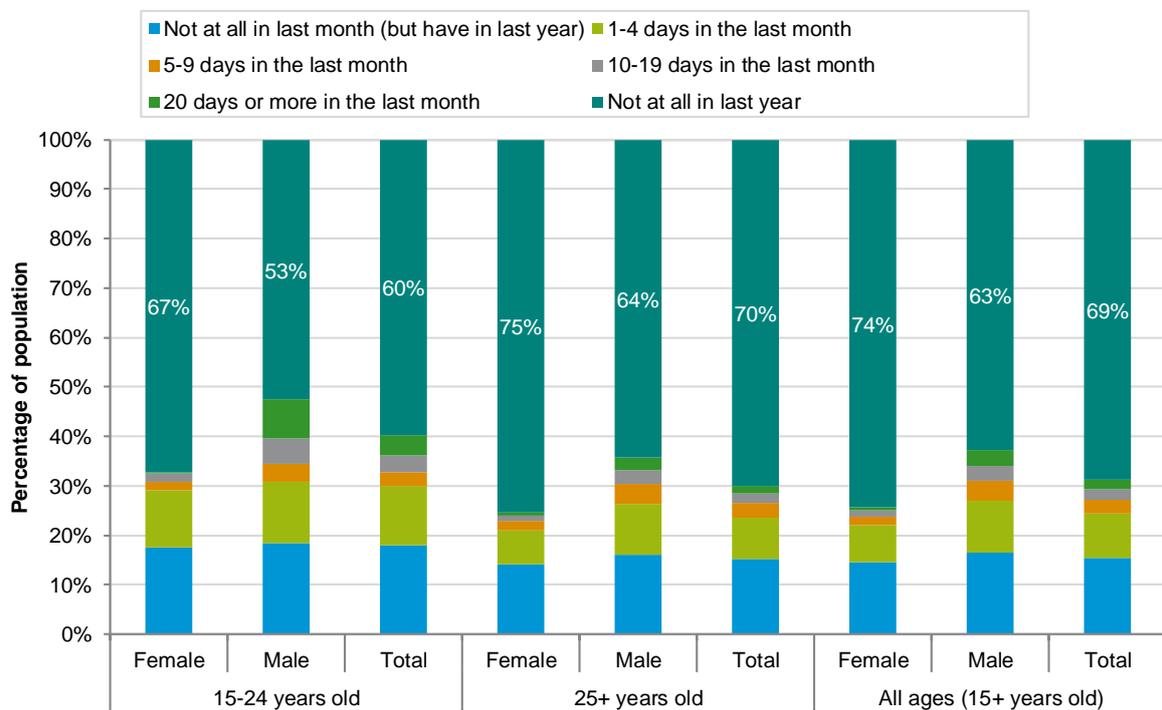
On an average survey day, 98 percent of people reported not spending any time cycling.

Of those who cycled on weekdays (Figure 8), 56 percent cycled for over half an hour and nearly 1 in 5 (19 percent) cycled over one hour that day. Those who went out cycling on a weekend tended to spend longer cycling, with 63 percent cycling for half an hour or more, and well over a third (37 percent) cycling for one hour or more.

**Figure 8: Percentage distribution of time spent cycling in a day by those who cycled (2015-2017)**



**Figure 9: Cycling in the last year by age and gender (2015-2017)**



As people may have cycled, but just not in the 7 days that they took part in the survey, we also ask people if they have cycled in the past year, and if so, how often in the last month (

Figure 9). Nearly 70 percent of people aged 15 years and older<sup>3</sup> have not cycled in the past year. This rate is higher for women (74 percent) than men (63 percent). Young women (15-24 years old) are more likely to have cycled in the past year (33 percent) than those aged 25 years and over (25 percent). Young men (aged 15-24 years old) are more likely to have cycled in the past year (47 percent), than older men aged 25 years and over (36 percent).

## Public Transport

People aged 15 years and over were also asked if they have used public transport in the past year, and if so, how often in the last month. This varies markedly between different urban area and rural areas (Table 2).

**Table 2: Public transport use in the last year by people aged 15 years and over (2015-2017)**

|  | Auckland Area | Wellington (incl Kapiti) | Christchurch main urban area | Other main urban areas or secondary urban areas | Rural      | National   |
|--|---------------|--------------------------|------------------------------|---|------------|------------|
| <i>People sampled</i>                            | 963           | 426                      | 360                          | 1,907   | 1,285      | 4,941      |
| Not at all in last year                          | 40%           | 23%                      | 65%                          | 72%   | 86%        | 60%        |
| Not at all in last month (but have in last year) | 22%           | 20%                      | 18%                          | 13%   | 6%         | 15%        |
| 1-4 days in last month                           | 18%           | 22%                      | 9%                           | 9%  | 4%         | 12%        |
| 5-9 days in last month                           | 4%            | 9%                       | 3%                           | 3%  | 1%         | 3%         |
| 10-19 days in last month                         | 6%            | 10%                      | 2%                           | 1%  | 2%         | 4%         |
| 20 days or more in last month                    | 9%            | 16%                      | 3%                           | 2%  | 1%         | 5%         |
| <b>In last year</b>                              | <b>60%</b>    | <b>77%</b>               | <b>35%</b>                   | <b>28%</b>                                      | <b>14%</b> | <b>40%</b> |
| Total  | 100%          | 100%                     | 100%                         | 100%  | 100%       | 100%       |

People in the Wellington metropolitan area (Wellington City, Upper Hutt, Lower Hutt, Porirua and Kapiti) are most likely to have used public transport in the past year (77 percent). 60 percent of those in Auckland have used public transport in the past year, and 35 percent of those in the Christchurch main urban area (MUA). In other main urban or secondary urban areas, 28 percent of people have used public transport in the last year, and in rural areas, less than 15 percent have. Nationally, 40 percent of people have used public transport in the past year. 56 percent of the people surveyed in Wellington have used it in the past month, compared to 25 percent nationally, and 38 percent in Auckland<sup>4</sup>.

<sup>3</sup> Due to a coding error in 2015-2016, people aged under 15 years were not asked these questions. This has been rectified in subsequent years and will be reported on in future.

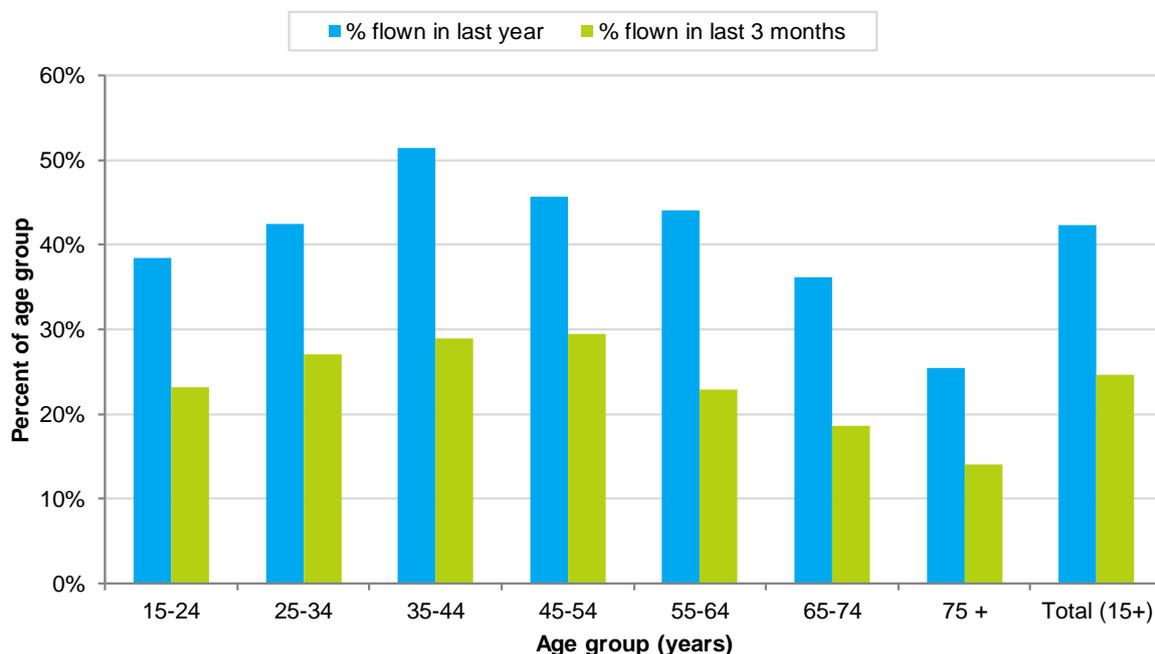
<sup>4</sup> A sampling methodology change from previous surveys has been to maintain a constant ratio of sampling meshblocks within a certain distance of train stations in Auckland and Wellington (for time

## Domestic flights in the past year

In new questions for the Household Travel Survey, people were asked if they had flown domestically in the past year, and if so, the frequency in the past 3 months, and characteristics of the last domestic flight.

42 percent of people aged 15 years and over have flown domestically in New Zealand in the past year and 25 percent have flown in the past 3 months (Figure 1). Over half of those aged 35-44 years old have flown in the past year, whereas only 25 percent of those aged 75 years and older have flown in the past year. A similar trend is observed for flying in the past 3 months.

**Figure 10: Proportion of the population (aged 15+) who have flown domestically in the past year and last 3 months (2015-2017)**



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series purposes). This may have an effect on the observed use rate compared to historical (2003-2014) in those areas.

## Glossary

|                              |  |
|------------------------------|--|
| <b>Cycle</b>                 | Excludes activities taking place outside the road or footpath environment, such as mountain biking.  |
| <b>Driver</b>                | Includes all drivers of private light 4 wheeled vehicles such as cars, utes, vans, and SUVs.   |
| <b>Household</b>             | 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).   |
| <b>Main urban area</b>       | A very large urban area centred on a city or major urban centre. This uses the historical StatsNZ criteria of an urban centre with a population of 30 000 or more and includes satellite areas for example, Kapiti, Cambridge.   |
| <b>Passenger</b>             | Passenger in a light 4-wheeled private vehicle (car, van, ute or SUV). Passengers in buses, trains and taxis are coded under those categories. Aircraft and boat passengers are included in the 'Other' category.  |
| <b>Professional driver</b>   | 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. |
| <b>Public transport (PT)</b> | 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 1 hour or less. Bus/train/ferry trips of longer than this distance/duration have been coded to 'other household travel'.  |
| <b>SUV</b>                   | 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.   |

|  |  |
|--|--|
| <b>Secondary urban and rural areas</b> | This uses the historical StatsNZ criteria of a secondary urban centre of between 10, 000–29,999 or a rural area with a population of less than 10,000, including satellite areas.  |
| <b>Travel</b>                          | Includes all on-road travel by any mode; any walk 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 a farm.   |
| <b>Travel mode</b>                     | The method of travel. Includes vehicle driver, vehicle passenger, pedestrian, cyclist, motorcycle rider or passenger, bus or train passenger, ferry or aeroplane passenger.  |
| <b>Trip distance</b>                   | Surface distance travelled, based on Google distances. Google shortest route via road used where GPS points not available, based on start and end points from participant.   |
| <b>Trip leg</b>                        | 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 on private property that start and end at the same place without crossing a road, and off-road round trips.   |
| <b>Trip purposes / destinations</b>    | <p><b>Home</b> includes any trip to the home address or any trip returning to the place they are going to spend the night.</p> <p><b>Went to work</b> includes travel to main place of work and travel to any other jobs.</p> <p><b>Made a trip for work:</b> includes work-related travel other than to and from work (for example, travelling to meetings or clients).</p> <p><b>Completed study/education</b> is for travel by students only and includes institutions such as primary and secondary schools, and universities. It will also include travel to preschool education such as kindergarten, play centre, crèche, kōhanga reo etc.</p> <p><b>Shopping</b> is entering any premises that sells goods or hires them for money. A purchase need not be made.</p> |

***Social visit/entertainment*** includes entertainment in a public or private place for example, eating out at a restaurant or food court, picnics.

***Sport and exercise*** 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 someone*** covers when the reason of the travel is to go somewhere for someone else's purpose.

***Dropped someone off/picked someone up***

***Pick up/drop off something***

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

## **Walk**

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