Northern Corridor
Commuters Research

Research Report

January 2016

Research First

Contents

Northern Corridor Commuters Research

Disclaimer

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1

Key Messages

In late 2015 Research First was contracted to survey commuters using the Northern Corridor (routes from Waimakariri to Christchurch) to understand their attitudes and behaviours[1].

This research tracked participants over a month, surveying them each week about their commuting behaviour and their attitudes towards commuting.

The key insight from this research is that while commuters find commuting on the Northern Corridor frustrating and unsatisfactory, few see public transport as a solution. This makes sense given the source of commuter dissatisfaction is in how long the commute takes, and public transport is largely perceived as slower than driving[2]. Public transport is also seen as inconvenient, in contrast to commuters' preference for driving (because it is convenient).

As a result, the most fruitful way to approach reducing congestion on the Corridor will need to be based on better use of private motorcars. The research is clear that promotion of carpooling is the best option.

In this research most (80%) indicated they were open to the idea of carpooling or already carpool. Commuters wished for incentives (e.g. carpool lanes) or mechanisms that make carpooling easier. This suggests that WDC and NZTA should further promote www.letscarpool.govt.nz, and investigate providing a carpool park and ride facility.

1 Research First conducted an online survey of commuters who use the Northern Corridor. Participants were recruited via Council communications and social media, and sent four surveys each Friday for four weeks. In total, 388 responses were received to at least one week of the survey.
2 This is supported by average travel time information, which indicates that an on-peak car trip takes 57 minutes compared to a bus trip of 73 minutes.

2

About this Research

2.1 Research Context

Waimakariri District is located north of Christchurch and is home to the major and fast growing towns of Rangiora, Kaiapoi, Woodend and Oxford. Following the Christchurch earthquakes in 2010/11, Waimakariri has experienced significant growth as Christchurch City residents have moved into the District. Many of these new residents work in Christchurch and travel to the city via the Northern Corridor.

Because the District has grown much faster than business-as-usual plans anticipated, there is now considerable pressure on the Northern Corridor during peak periods. As the Waimakariri District Council (WDC) summarises the problem:

The large number of people travelling from Waimakariri District to Christchurch City each day has resulted in the travel demand exceeding the network capacity causing congestion and unreliable travel times.

WDC and the New Zealand Transport Agency (NZTA) are developing a number of mid- and long-term solutions to the problem but these are unlikely to take effect for three to five years. While short term solutions are also being developed, WDC and NZTA are keen to gain an understanding of current commuter behaviour and perceptions to ensure these are successful.

In October 2015, Research First designed a research project to enable this understanding of the perceptions and behaviour of the commuters using the Northern Corridor. The key objectives for this project were to:

1. Obtain a baseline of behaviour and satisfaction (so WDC and NZTA can measure the impact of future changes);

2. Understand who commuters are; and

3. Identify how to best motivate behavioural and attitudinal changes.

2.2 Research Design

This research used an online panel approach to gather information from Northern Corridor commuters. This approach was chosen because empanelling the respondents made it easier for them to complete the survey; that is, it spread the burden of response across four short surveys rather than one long one. Key questions such as satisfaction were included each week, to give more precise data over time. The panel approach also allowed for asynchronous data collection. Because no email database of Northern Corridor commuters was available, participants were recruited via Council communications and social media.

In total, 388 respondents completed at least one week of the Northern Corridor survey. Participants were sent the survey invitations on Fridays at 9am and asked to sum their past week's experiences. Reminders for each survey were sent on Saturday and Monday, before data collection was closed on Monday evening.

2.3 Caveats and Limitations

As the data collection represents a self-selected population (i.e. only those who sought out the research took part), the resulting data set is not random, and as a result no inferential statistics should be applied.

Note that due to the nature of the surveying, respondents did not need to complete all questions. This means base sizes throughout the report vary.

3

Commuter Behaviour

3.1 Methods of Travel

Participants listed the main way they commuted. The majority (90%) usually drove, while a further 7% drove infrequently[3].

There were few bus users (3% usual, 2% infrequent), cyclists (1% usual, 1% infrequent) and motorcyclists (1% usual). Notably, it was more common for respondents to be passengers infrequently (15%) than usually (5%). The number of infrequent passengers suggests that this group could be encouraged to carpool more frequently.

3.1 Methods of Travel

Drivers	Passengers	Bus Users	Cyclists	Motorcyclists
90% / 7%	5% / 15%	3% / 2%	1% / 1%	1% / 0%
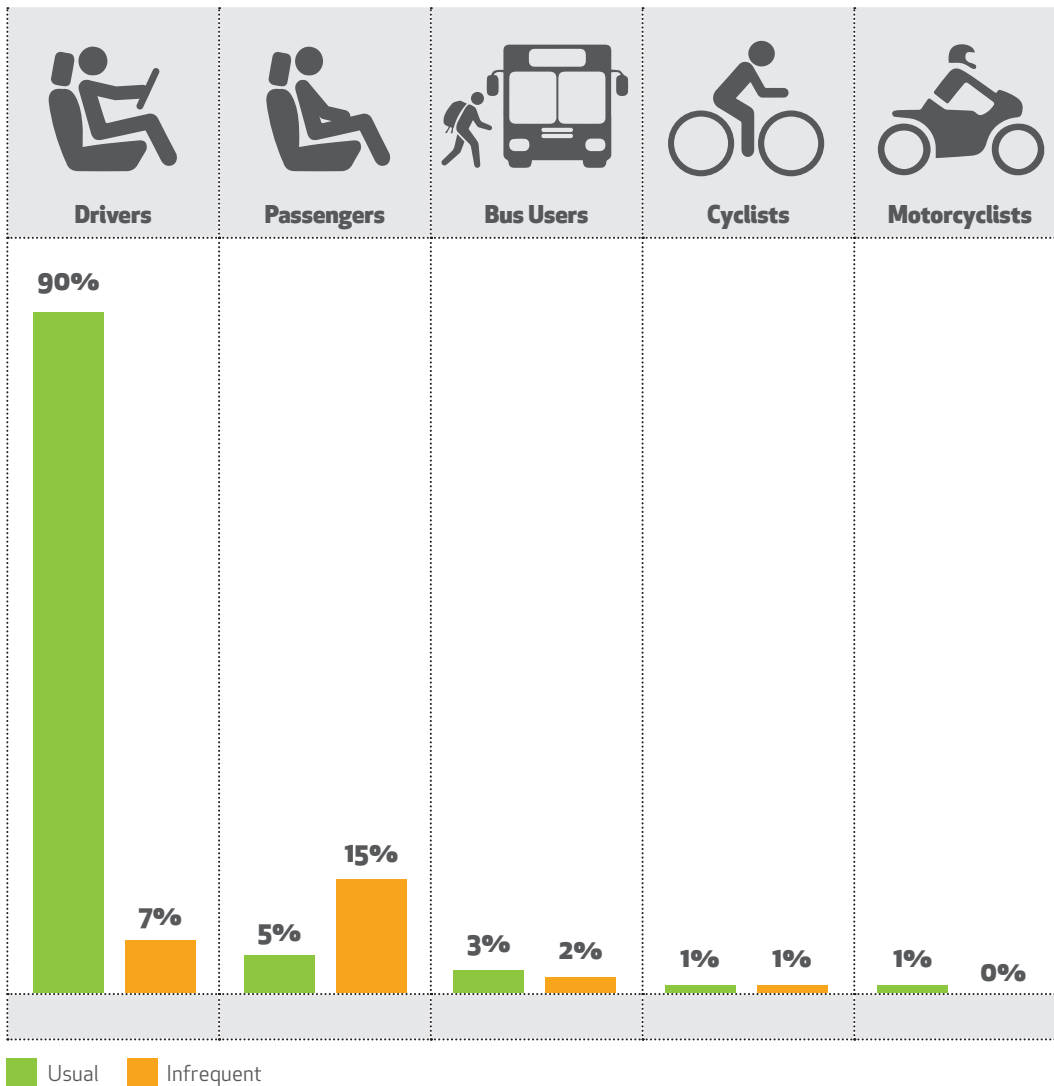
■ Usual   ■ Infrequent

3. 'Usual' travellers are those respondents who noted that a method was their main method of travel. 'Infrequent' travellers are those respondents who travelled in a way other than their 'usual' at least once during the four weeks of the survey.

When asked why they had chosen their usual method of travel, respondents mostly enjoyed the convenience or flexibility it afforded them. Some respondents noted that they used a work vehicle (16%), there were no other viable options (13%), while others used cars because public transport was not convenient for them (13%).

3.2 Main Reason for Usual Method

	Driver	Passenger	Bus	Bicycle	Motorcycle	Total
Convenience/ Flexibility	38%	21%	22%	50%	25%	**36%**
Reason for travel given**	21%	47%	22%	0%	0%	**22%**
Work vehicle/ Business purposes	18%	0%	0%	0%	0%	**16%**
Only viable option	13%	16%	33%	0%	0%	**13%**
Public transport options unavailable or inconvenient	14%	5%	0%	0%	0%	**13%**
Fastest method	12%	5%	0%	50%	50%	**12%**
Cost	2%	5%	33%	0%	25%	**3%**
To transport more than one person	1%	5%	0%	0%	0%	**1%**
Other	0%	5%	0%	0%	0%	**0%**
Total respondents	**302**	**19***	**9***	**2***	**4***	**336**

**Please note that some respondents answered this question with the reason for their travel, rather than their method of travel (e.g. 'to go to work').

*Due to the small base sizes, these responses should be read with caution.

In all weeks of the survey, respondents were asked how they had travelled each day. This set of questions recorded 5,177 individual trips over the survey period. These findings echo the 'usual' transport method and reinforce those results.

3.3 Method of Transport, by Day of Travel Overall

	Monday	Tuesday	Wednesday	Thursday	Friday
Driver	88%	88%	88%	89%	86%
Passenger	7%	7%	8%	6%	9%
Bus User	3%	3%	3%	3%	3%
Cyclist	1%	1%	1%	1%	1%
Motorcyclist	1%	1%	1%	1%	1%
Total respondents	**1053**	**1039**	**1050**	**1047**	**988**

Analysis of the data over time shows some weekly variation. It is clear that there are regular falls in the number of people driving on Fridays; these falls correspond to higher incidences of no travel and are likely to be due to commuters not working on Fridays.

3.4 Methods of Travel, Overall

Legend: Driver, Passenger, Bus User, Cyclist, Motorcyclist, No travel
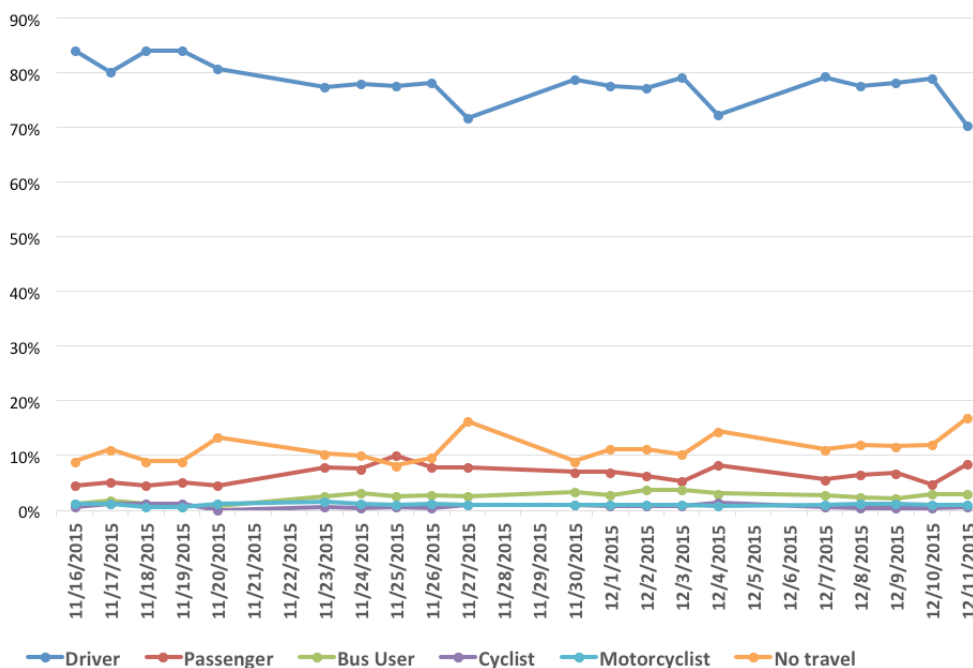
3.5 Week One: Methods of Travel

	Driver	Passenger	Bus User	Cyclist	Motorcyclist	No travel
Monday	84%	4%	1%	1%	1%	9%
Tuesday	80%	5%	2%	1%	1%	11%
Wednesday	84%	4%	1%	1%	1%	9%
Thursday	84%	5%	1%	1%	1%	9%
Friday	81%	4%	1%	0%	1%	13%

3.6 Week Two: Methods of Travel

	Driver	Passenger	Bus User	Cyclist	Motorcyclist	No travel
Monday	77%	8%	2%	1%	1%	10%
Tuesday	78%	7%	3%	0%	1%	10%
Wednesday	78%	10%	2%	1%	1%	8%
Thursday	78%	8%	3%	0%	1%	10%
Friday	72%	8%	2%	1%	1%	16%

3.7 Week Three: Methods of Travel

	Driver	Passenger	Bus User	Cyclist	Motorcyclist	No travel
Monday	79%	7%	3%	1%	1%	9%
Tuesday	78%	7%	3%	1%	1%	11%
Wednesday	77%	6%	4%	1%	1%	11%
Thursday	79%	5%	4%	1%	1%	10%
Friday	72%	8%	3%	1%	1%	14%

3.8 Week Four: Methods of Travel

	Driver	Passenger	Bus User	Cyclist	Motorcyclist	No travel
Monday	79%	5%	3%	1%	1%	11%
Tuesday	78%	6%	2%	0%	1%	12%
Wednesday	78%	7%	2%	0%	1%	12%
Thursday	79%	5%	3%	0%	1%	12%
Friday	70%	8%	3%	1%	1%	17%

Analysis of travel over the four week period also shows that on any given day, some 'usual' drivers were using another method of travel. A majority (78%) of these varying trips were as passengers (not shown).

3.9 Usual Drivers' Use of Other Methods

	Week 1	Week 2	Week 3	Week 4
Monday	2%	5%	5%	4%
Tuesday	4%	6%	5%	5%
Wednesday	4%	8%	5%	5%
Thursday	4%	6%	5%	4%
Friday	2%	7%	7%	7%

Overall, most travellers (64%) took five morning commute trips (between 6am and 9am) per week. A further 15% took four, while 7% used the Northern Corridor more than five times per week.

3.10 Number of Morning Commute Trips per Week
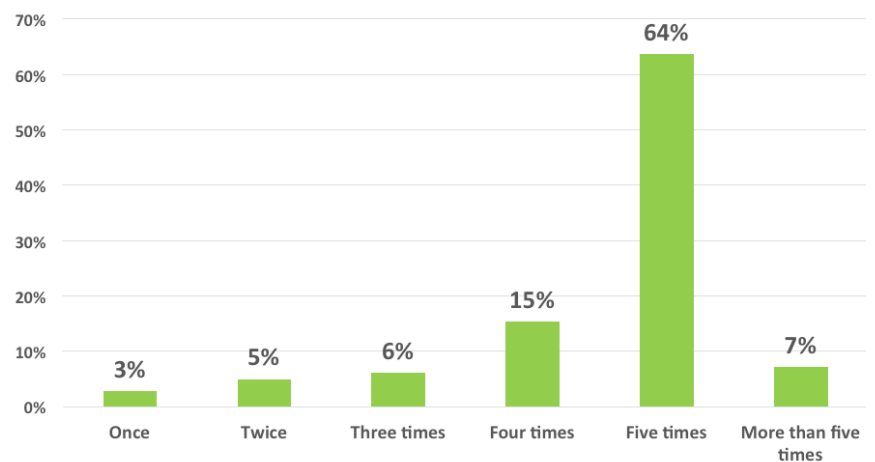
3.2   Drivers

Drivers were asked about having passengers on their morning commute. Three-quarters of drivers drove alone; the majority of those with passengers had just one (21% of all driver trips).

3.11   Number of People in the Car

	Monday	Tuesday	Wednesday	Thursday	Friday	Total
1	75%	75%	76%	76%	76%	**76%**
2	21%	20%	21%	21%	21%	**21%**
3	3%	4%	3%	2%	2%	**3%**
4	1%	1%	1%	1%	1%	**1%**
Total respondents	**158**	**152**	**158**	**158**	**147**	**773**

Passengers tended to be people related to the driver (75%), or work colleagues (21%). Few (4%) were people not related to the driver and not a work colleague.

3.12   Passenger Make Up

	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Related to me	78%	75%	71%	70%	77%	**74%**
Work colleagues	22%	20%	24%	23%	18%	**21%**
Other people not related to me	0%	5%	5%	8%	5%	**4%**
Total respondents	**41**	**40**	**41**	**40**	**39**	**204**

Most drivers drove a personal vehicle (81%).

3.13   Types of Vehicle Driven

Personal vehicle	**81%**
Work vehicle	**16%**
Drive both	**3%**
Total respondents	**174**

Drivers usually did not pay for parking (71%). One fifth (20%) paid for their parking all the time, or had it paid by someone else. One tenth (9%) paid for parking sometimes.

3.14   Paying for Parking

Pay for parking all the time	**10%**
Pay for parking sometimes	**9%**
Never pay for parking	**71%**
Parking paid by someone else	**10%**
Total respondents	**302**

3.3 Non-Drivers

Respondents who were usually passengers were asked where they were picked up from. The majority were picked up from their home (82%).

3.15 Passengers' Pick Up Points

Picked up from home	**82%**
Picked up from elsewhere	**18%**
Total respondents	**17***

*Due to the small base sizes, these responses should be read with caution.

All usual passengers, cyclists and bus users (n=26) had access to a motor vehicle. This suggests that these commuters could be driving and have already made a switch to an alternative transport method.

Of the three commuters who were regular bus users, all drove or were driven to the bus stop. This took, variously, three, ten or twenty minutes. No bus users cycled to the bus stop.

3.4 Changing Routes

Drivers were asked about the routes they drove on their morning commute. Just over half (54%) changed their route regularly or sometimes.

3.16 Route Changing Behaviour

	Number of respondents	Percentage of respondents
Don't change route	153	**46%**
Do change route	57	**17%**
Sometimes change route	124	**37%**
Total respondents	**334**	

Route-changers were asked how they changed their route. Most used secondary or alternate roads (65%), or avoided the motorway or other congestion (51%).

3.17 Ways in Which Route is Changed

	Number of respondents	Percentage of respondents
Use secondary/alternate roads	117	**65%**
Avoid motorway/roadworks/congested roads	92	**51%**
Work requirements/personal appointments alter destinations	23	**13%**
Use shortcuts/faster routes	10	**6%**
Park in a different location	3	**2%**
Use GPS suggestions	2	**1%**
Use alternate methods of transport	1	**1%**
Don't know	4	**2%**
Total respondents	**181**	

When asked why they change their route, most commuters were trying to shorten their trip (80%). Others simply needed to change their destination (21%). Interestingly, 4% of route-changers were prompted by traffic information.

3.18 Reasons for Route Changing

|	Number of respondents	Percentage of respondents
Save time/ avoid delays	145	**80%**
Work requirements/personal appointments alter destinations	38	**21%**
Based on time of day/week/year	11	**6%**
Notified by traffic information source	7	**4%**
Variety	7	**4%**
Other	4	**2%**
Total respondents	**181**	

3.5   Travel Times

All commuters were asked about their expected travel times, both off- and on-peak. On average, the anticipated off-peak travel time was 35 minutes, while the on-peak travel time was 57 minutes. Most commuters expected their on-peak travel to take approximately 20 minutes longer than their off-peak travel.

3.19 Expected Travel Times, All Commuters

	Off peak	On peak
10-19 minutes	5%	**0%**
20-29 minutes	26%	**0%**
30-39 minutes	39%	**4%**
40-49 minutes	25%	**25%**
50-59 minutes	4%	**26%**
60-69 minutes	1%	**26%**
70-79 minutes	0%	**12%**
80-89 minutes	0%	**3%**
90-100 minutes	0%	**3%**
110-119 minutes	0%	**0%**
120+ minutes	0%	**1%**
Total respondents	**300**	**300**

3.20 Expected Travel Times, All Commuters
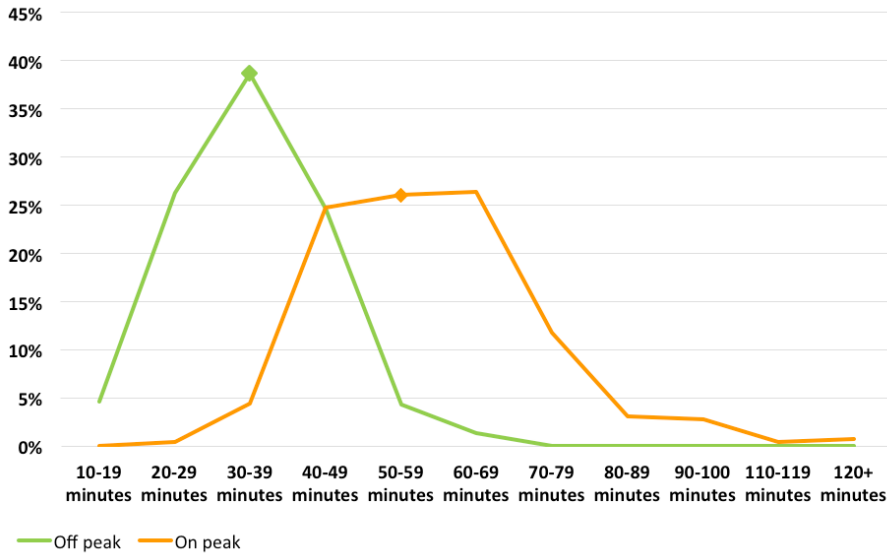
Off peak — On peak

Analysis by usual travel method shows that bus users expected their trip to take the longest (73 minutes on peak).

3.21 Average Expected Travel Time (Minutes), by Travel Method

	Drivers	Passengers	Bus users	Cyclists	Motorcyclists	Total
Off peak average	35	37	47	65	45	**35**
On peak average	57	56	73	65	52	**57**
Difference	22	19	26	0	7	**21**
Total respondents	**274**	**13***	**10***	**2***	**3***	**305**

*Due to the small base sizes, these responses should be read with caution.

When analysed by usual leave time, the results show that commuters who left after 8am expected a shorter trip than those left between 6:30am and 8am.

3.22 Average Expected Travel Time (Minutes), by Leave Time
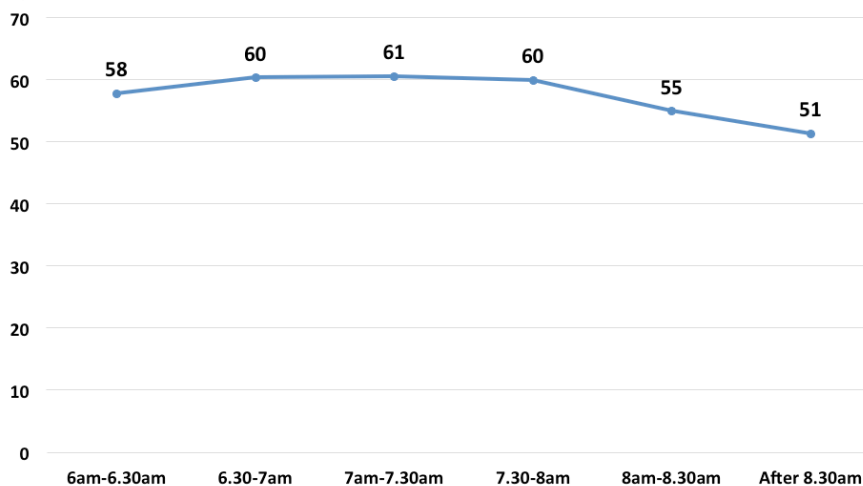
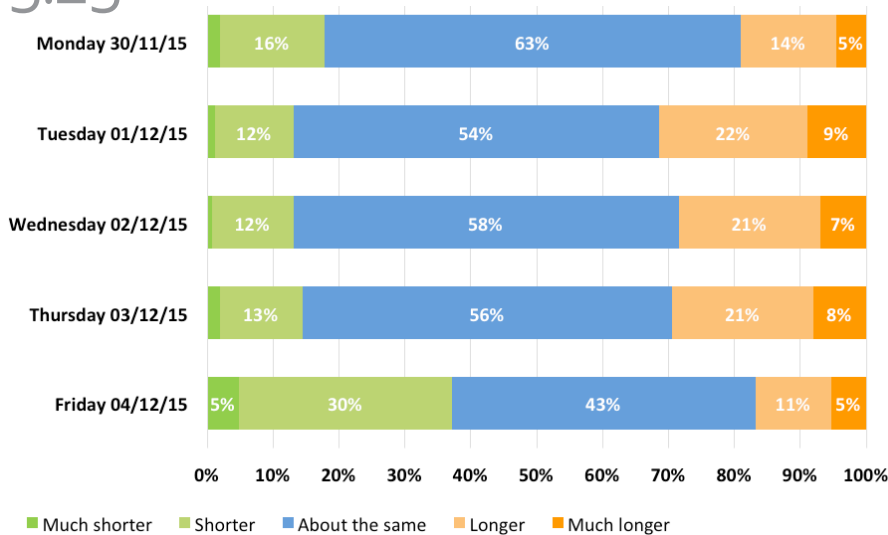Commuters rated how their actual travel time over a week had compared to their expectations. Most said it was about the same (56% on average). Friday was clearly the fastest travel day for most, with 35% of commuters saying it was a shorter trip than expected.

3.23 Actual Travel Time Compared to Expectations

Legend: Much shorter | Shorter | About the same | Longer | Much longer

When contrasted by respondents' expected travel time, results show that those who thought their travel time was going to be longer were more likely to correctly anticipate their travel time. The shorter the expected travel time, the more likely the respondent was to say the trip had taken longer. This suggests that some respondents have unrealistic travel time expectations, which could be contributing to dissatisfaction with the trip.

3.24 Actual Travel Time Compared to Expectations, by Average Expected Travel Time

Legend: Shorter | Same | Longer | Linear (Shorter) | Linear (Same) | Linear (Longer)
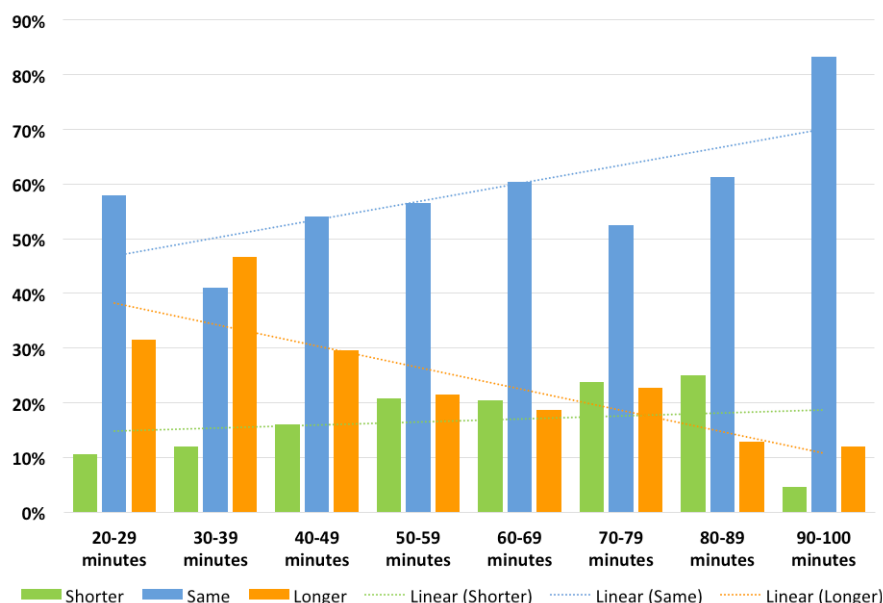
3.6   Changing Leave Times

Commuters were asked if they had considered changing the time they left for their morning commute. Half had not considered it; 30% had considered it and changed their behaviour in some way; and the remaining 20% had considered changing their leave time but had not done so.

Of those who had changed, more had chosen to leave earlier (18%). This is in interesting contrast to the results shown in Figure 3.21, which shows that those commuters who leave later tend to have shorter travel times (as opposed to those who leave earlier).

3.25   Changing Leave Times

	Number of respondents	Percentage of respondents
Haven't thought about changing travel times	153	**50%**
I left home earlier	55	**18%**
I left home later	28	**9%**
I travel at best time for traffic conditions now	18	**6%**
I can't change because my work/other schedules are fixed	30	**10%**
I can't change because I need to drop-off/pick up others	11	**4%**
I left home both earlier and later	8	**3%**
Total respondents	**303**	
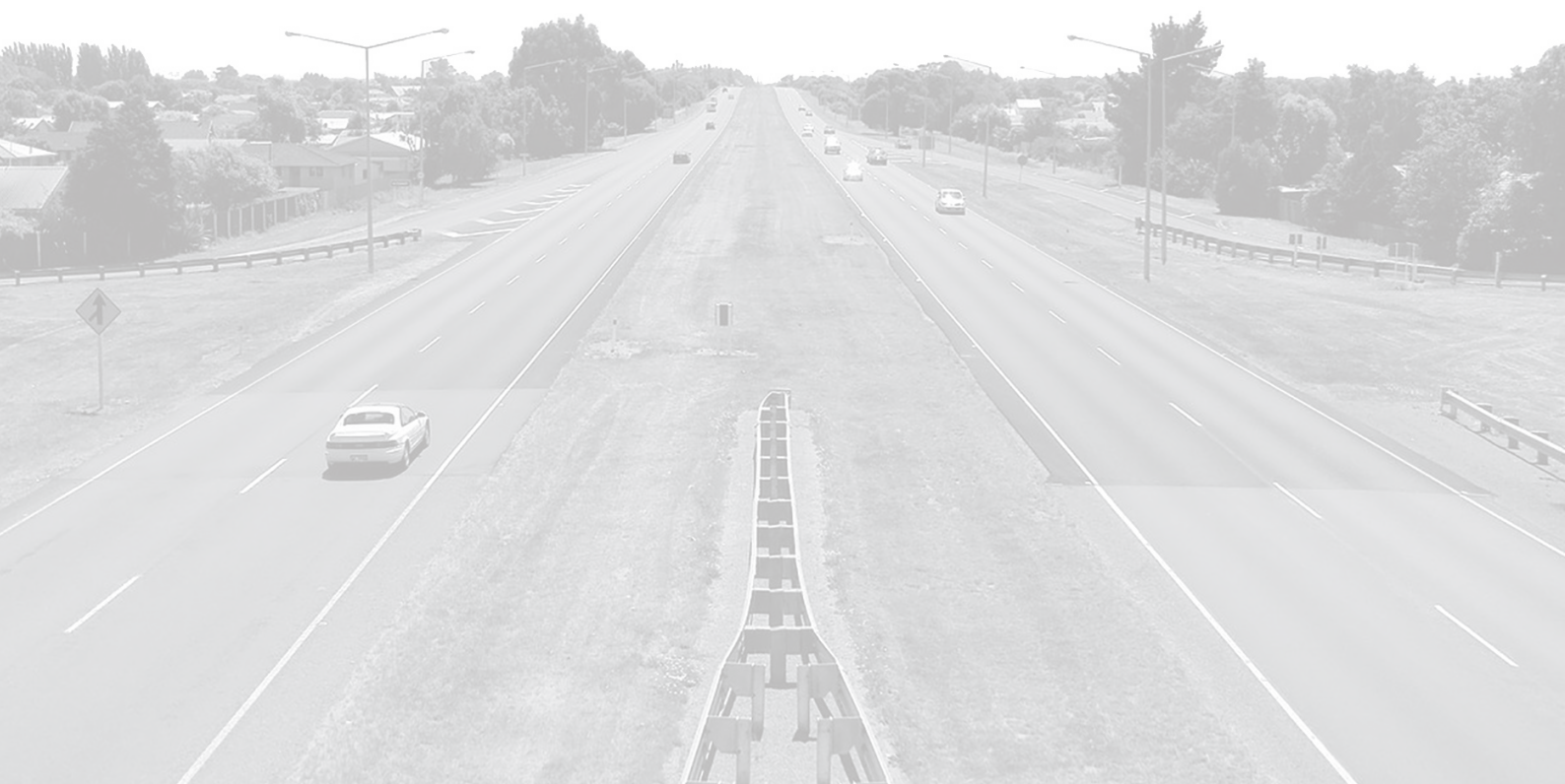
Satisfaction

Each week, commuters were asked to rate their satisfaction with their weeks' commute. These results show that on average, 31% of commuters wer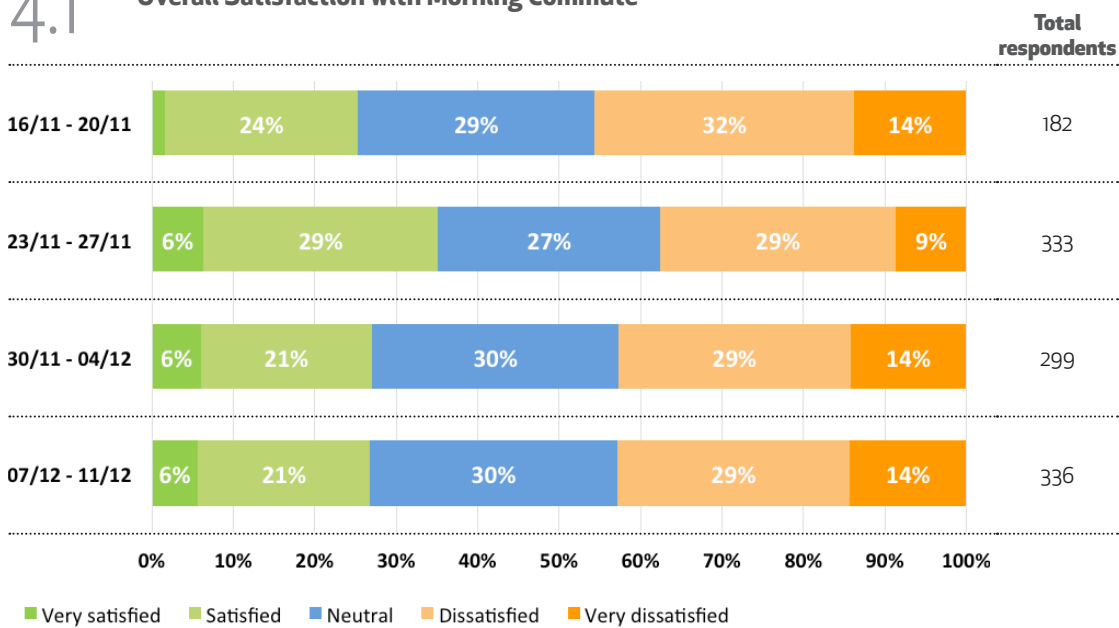e satisfied with their commute each week (ranging from 25% - 35% across all four weeks). The proportion of commuters who were dissatisfied was higher, 41% on average (and ranging from 38% to 46% across weeks).

4.1 **Overall Satisfaction with Morning Commute**

Total respondents

Week	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	Total respondents
16/11 - 20/11		24%	29%	32%	14%	182
23/11 - 27/11	6%	29%	27%	29%	9%	333
30/11 - 04/12	6%	21%	30%	29%	14%	299
07/12 - 11/12	6%	21%	30%	29%	14%	336

■ Very satisfied ■ Satisfied ■ Neutral ■ Dissatisfied ■ Very dissatisfied

When results are analysed over time, commuters were more satisfied in Week 2 (23 – 27 November) and Week 3 (30 November – 4 December). There was less satisfaction in Week 1 (16 – 20 November) and Week 4 (7 – 11 December).

4.2 **Satisfaction and Dissatisfaction Over Time**

Satisfied + Very Satisfied: 25% (16/11 - 20/11), 35% (23/11 - 27/11), 35% (30/11 - 04/12), 27% (07/12 - 11/12)

Dissatisfied + Very Dissatisfied: 46% (16/11 - 20/11), 38% (23/11 - 27/11), 38% (30/11 - 04/12), 43% (07/12 - 11/12)

●— Satisfied + Very Satisfied   ●— Dissatisfied + Very Dissatisfied
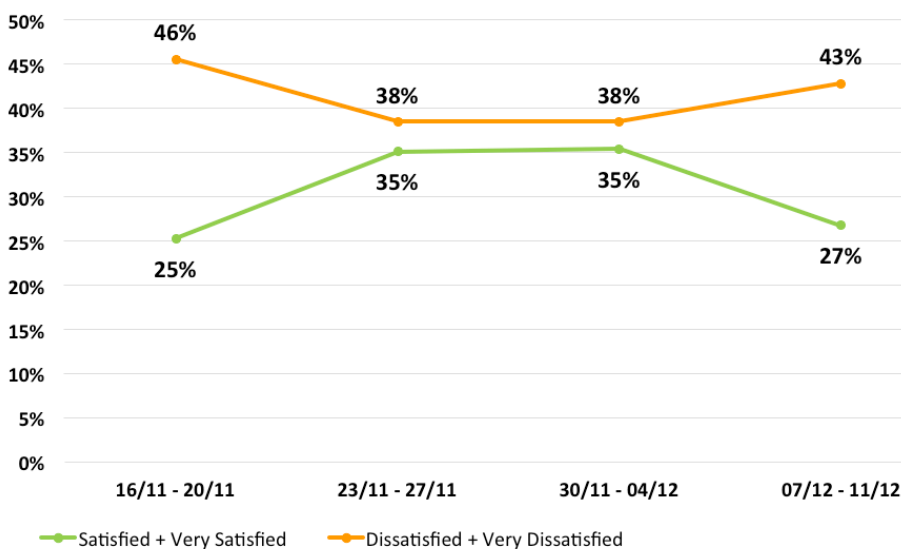
Respondents were asked why they were satisfied or dissatisfied. Analysing these results over time shows how prominent particular issues are. Notably, roadworks or accidents were more of an issue in Week 4.

4.3 Reasons for Satisfaction, Week on Week

	16/11 - 20/11	23/11 - 27/11	30/11 - 04/12	07/12 - 11/12
Slow commute/ traffic congested	47%	37%	40%	43%
Moderate commute/ traffic not too heavy	35%	40%	33%	25%
Commute earlier/later to avoid congestion	13%	16%	16%	10%
Traffic less congested due to time of year	9%	8%	9%	6%
Roadworks/accidents causing delays	1%	5%	2%	15%
Variable delays/ hard to predict commute length	2%	5%	9%	7%
Neutral - no change/ no other choice/ used to delays	4%	4%	7%	8%
Traffic heavy at bottleneck points	3%	10%	5%	5%
Inadequate traffic control/ traffic systems	4%	5%	3%	4%
Inconsiderate/incompetent road users	3%	5%	3%	4%
Lack of public transport options	1%	1%	0%	2%
Commute via alternate routes	2%	1%	1%	1%
Behaviour of bus driver	0%	0%	1%	0%
Weather for cycling	1%	0%	0%	1%
Other	2%	3%	3%	1%
Total respondents	**181**	**333**	**299**	**334**

Results were also analysed by level of satisfaction. This clearly shows that satisfied commuters felt the traffic was moderate (80%), while dissatisfied commuters felt traffic was congested (81%).

4.4 Reasons for Satisfaction, by Level of Satisfaction

	Satisfied + Very satisfied	Neutral	Dissatisfied + Very dissatisfied	Total
Slow commute/ traffic congested	1%	28%	81%	41%
Moderate commute/ traffic not too heavy	80%	28%	1%	33%
Commute earlier/later to avoid congestion	27%	13%	4%	14%
Traffic less congested due to time of year	14%	9%	2%	8%
Roadworks/accidents causing delays	3%	4%	12%	7%
Variable delays/ hard to predict commute length	3%	13%	3%	6%
Neutral - no change/ no other choice/ used to delays	0%	21%	0%	6%
Traffic heavy at bottleneck points	1%	4%	11%	6%
Inadequate traffic control/ traffic systems	0%	2%	8%	4%
Inconsiderate/incompetent road users	1%	5%	5%	4%
Other	3%	2%	2%	2%
Lack of public transport options	1%	0%	2%	1%
Commute via alternate routes	1%	1%	1%	1%
Behaviour of bus driver	1%	0%	0%	0%
Weather for cycling	1%	0%	0%	0%
Total respondents	**358**	**324**	**465**	**1147**

5

Perceptions of Alternate Travel Options

5.1 Public Transport

Respondents who usually drove were asked why they had not used alternate methods of transport. Most felt there were inadequacies with alternate methods (66% total). Some valued the convenience of a personal vehicle (29%). Encouragingly, just 24% needed a vehicle for work purposes.

Commuters were asked what could encourage them to use public transport in future. Half noted more convenient routes (52%), while others noted more reliable timing (42%). These results reiterate that commuters are choosing their method of transport based primarily on convenience and speed/timing, and public transport options are coming up short.

5.1 Reasons for Not Using Alternate Transport

	Number of Respondents	Percentage of Respondents
A personal vehicle is more convenient/flexible	46	29%
Work vehicle/ Business purposes	38	24%
Bus times/routes inconvenient	30	19%
No other viable options	27	17%
Other methods do not connect to desired locations	20	13%
Bus takes too long	19	12%
Travel distance is too far/takes too long for other methods	16	10%
Other methods arrive at destination too late	15	10%
Would have used train/rail method if available	6	4%
Other methods more expensive	4	3%
Bus/ bus shelters too uncomfortable	3	2%
Cycling too dangerous	2	1%
Don't know/ Question not answered	4	3%
Total respondents	**156**	

5.2 Reasons to Use Public Transport

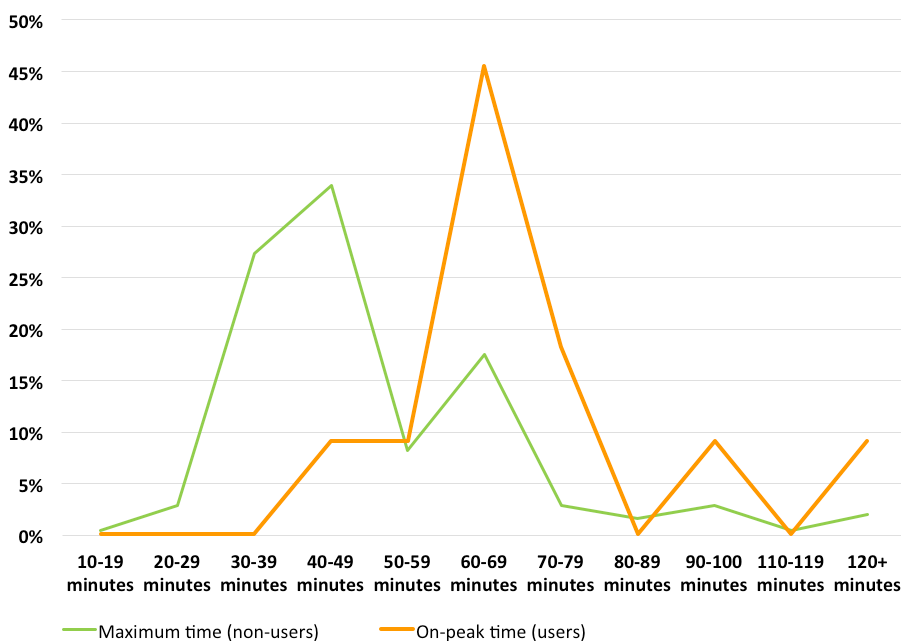|	Number of Respondents	Percentage of Respondents
More convenient routes	169	52%
More reliable bus journey times	137	42%
Cheaper fares	110	34%
More park and ride options	87	27%
If the car I currently use wasn't available to me	86	26%
Nothing would make me consider public transport	76	23%
Better park and ride options	71	22%
Increased cost of fuel	30	9%
Provision of train/rail option	26	8%
More convenient/expanded timetables	10	3%
More reliable journey times in general (any method)	10	3%
Provision of more public transport options	3	1%
More bike rack space	2	1%
Dedicated bus lanes	2	1%
Other	5	2%
Total respondents	**325**	

Respondents were asked about their maximum expected time for public transport journeys in the morning. The average time was 51 minutes (i.e. shorter than the expected time for driving currently, 58 minutes). Public transport clearly needs to be faster than driving to be a viable alternative.

5.3 Public Transport Journey Expectation

	Number of Respondents	Percentage of Respondents
10-19 minutes	1	0%
20-29 minutes	7	3%
30-39 minutes	67	27%
40-49 minutes	83	34%
50-59 minutes	20	8%
60-69 minutes	43	18%
70-79 minutes	7	3%
80-89 minutes	4	2%
90-100 minutes	7	3%
110-119 minutes	1	0%
120+ minutes	5	2%
Total respondents	**245**	

The journey time expectations of non-users are significantly shorter than those of current users. This suggests that public transport journeys need to be significantly shorter to convert non-users.

5.4 Maximum Expected Time (Non-Users), Compared to Expected Time (Users)

Legend: Maximum time (non-users) — On-peak time (users)

Respondents were asked if recent changes to the bus network[2] would help them convert to public transport. The changes would influence behaviour of one quarter of respondents (25%).

5.5 Impact of Changes to Public Transport

	Number of Respondents	Percentage of Respondents
I already use public transport at least once per week	17	5%
The changes won't make me change to public transport	234	70%
The changes might make me change to public transport	80	24%
The changes will make me change to public transport	3	1%
Total respondents	**334**	

5.2 Car Pooling

Respondents were asked if they had looked www.letscarpool.govt.nz. Most (80%) had not.

5.6 Looked At Let's Carpool Website

	Number of Respondents	Percentage of Respondents
Have looked	56	17%
Haven't looked	261	80%
Can't recall	8	2%
Total respondents	**325**	

Respondents were asked what could encourage them to carpool in future. Most respondents noted something, suggesting that there is openness to carpooling among the commuting population. One fifth would not consider carpooling at all, while 18% already carpool.

5.7 Encouragements for Carpooling

	Number of Respondents	Percentage of Respondents
Carpool lanes	116	37%
Some type of reward system for carpooling	82	26%
Better parking at destination for carpoolers	44	14%
Similar schedule/destination to other passengers	38	12%
Would not consider due to work/personal requirements	35	11%
Would not consider at all	29	9%
A system for organising/matching carpoolers	8	3%
Feeling safe around other passengers	2	1%
I don't drive as a single occupant	55	18%
Other	5	2%
Don't know	3	1%
Total respondents	**312**	

2. http://ecan.govt.nz/news-and-notices/news/Pages/reducing-congestion-north-motorway.aspx

5.3   Park and Ride

Respondents were asked if they would use a park and ride facility to either bus or carpool into Christchurch. These were more attractive for bussing (58% may use) than for carpooling (49% may use). Most respondents would drive to a park and ride facility.

5.8	Transport to Park and Ride Facilities	Number of Respondents	Percentage of Respondents
	I would drive there	42%	36%
	I would bike there	10%	7%
	I would walk there	7%	6%
	Might use park and ride facility (total)	58%	49%
	I wouldn't use a park and ride facility	42%	51%
	Total respondents	**344**	**344**

Commuters preferred park and ride facilities to be located in the urban centres of Waimakariri, Kaiapoi (25%) and Rangiora (24%).

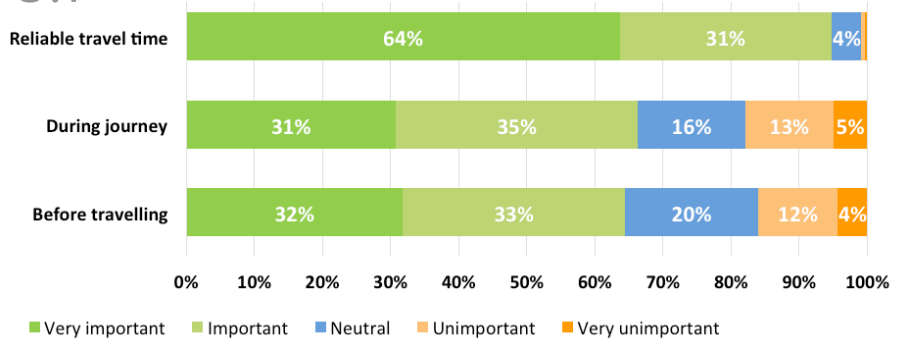| 5.9	Preferred Location of Park and Ride	Number of Respondents	Percentage of Respondents
	Kaiapoi	37	25%
	Rangiora	36	24%
	Tram Rd	16	11%
	Woodend	16	11%
	Silverstream	10	7%
	Close to my location	7	5%
	Somewhere central (not specified)	6	4%
	Belfast	6	4%
	In townships/community hubs	5	3%
	Ohoka	4	3%
	Pegasus	4	3%
	Northern motorway - close to on-ramps	3	2%
	Close to bus/train station	3	2%
	Multiple locations (not specified)	3	2%
	Amberley	3	2%
	Southbrook	3	2%
	Waikuku	3	2%
	Johns Rd	2	1%
	Other	14	9%
	Don't know	7	5%
	Total respondents	**149**	

6

Information Preferences

Commuters rated the importance of traffic information to them. Of most importance was travel time reliability (95%). The majority also thought information during a journey (66%) and before a journey (65%) were important.

6.1 Importance of Traffic Information

	Very important	Important	Neutral	Unimportant	Very unimportant
Reliable travel time	64%	31%	4%		
During journey	31%	35%	16%	13%	5%
Before travelling	32%	33%	20%	12%	4%

Respondents tended to look at information during their journey slightly more frequently than before their journey. However, slightly more respondents looked at information before their journey at least rarely.

6.2 Frequency of Looking for Traffic Information

	Before journey	During journey
Every time (100% of trips)	6%	7%
Most times (50-99% of trips)	19%	21%
Sometimes (10-49% of trips)	19%	21%
Rarely (1-9% of trips)	27%	20%
Never (0% of trips)	29%	31%
Total respondents	**344**	**343**

Among those who used information, the most common source was radio reports (66% before, 73% during).

6.3 Sources of Traffic Information

	Before journey	During journey
Radio reports	66%	73%
Transport for Christchurch website	24%	12%
NZTA website (Christchurch webcams)	22%	8%
iPhone, iPad or Android phone app	14%	14%
Google Maps	13%	13%
AA Roadwatch website	9%	3%
Roadside travel time signs	0%	11%
Television	6%	0%
Facebook	4%	2%
Twitter	1%	1%
GPS	1%	0%
Online (not specified)	1%	0%
Other	2%	2%
Total	**244**	**237**

The most commonly used app was Google (or derivatives, e.g. Google Maps; 34% before, 28% during). Facebook (14% before, 8% during) and Transport for Christchurch were also popular (11% before, 16% during).

6.4 Apps Used For Traffic Information

	Before journey	During journey
Google	34%	28%
Facebook	14%	8%
Transport for Christchurch	11%	16%
Apple Maps	9%	4%
AA Roadwatch	6%	4%
Twitter	3%	4%
MetroInfo	3%	0%
E Road	3%	4%
NZ Traffic (Android app)	3%	16%
Waze	3%	8%
Other	17%	8%
Total	**35**	**25**

More FM was the most commonly listened-to radio station, both before (34%) and during (28%) journeys.

6.5 Radio Stations Used for Traffic Information

	Before journey	During journey
More FM	34%	28%
The Breeze	19%	23%
Newstalk ZB	16%	14%
ZM	12%	16%
Radio Live	8%	7%
Radio New Zealand	6%	7%
The Hits	5%	3%
The Edge	4%	3%
Radio Sport	4%	3%
Compass	3%	2%
Mai FM	2%	1%
The Rock	2%	1%
Hauraki	2%	3%
Coast	1%	1%
The Sound	1%	1%
Other	1%	1%
Don't know/ Various unspecified	4%	5%
Total	**158**	**172**

7

Final Comments

7.1   Final Comments

Final Comments	Number of Respondents	Percentage of Respondents
Improve roading infrastructure (eg more lanes)	63	16%
Improve traffic management systems (eg signage, lights)	57	15%
Encourage/improve public transport options	55	14%
Provide rail option	54	14%
Address bottlenecks at key points	36	9%
Anticipating new motorway/bypass construction	25	6%
Police or educate inconsiderate/incompetent road users	21	5%
Longer travel times during school seasons	21	5%
Provide extra bridge	20	5%
Have to leave earlier/later to avoid traffic	19	5%
Travel is slow/ lots of delays	19	5%
More communication/notification of delays, progress etc	18	5%
Public transport not convenient for those needing personal/work vehicle access	14	4%
Consider impact of property developments/increasing population	10	3%
Survey should be done during busy season	8	2%
Travel times highly variable	7	2%
Optimistic about improvements/ Appreciative of efforts	7	2%
Consider timing and placement of roadworks	7	2%
Travel out of city also congested	4	1%
Encourage staggered leaving times	3	1%
Improve public parking options	2	1%
Have to take different routes to avoid traffic	2	1%
Encourage working from home/ schooling at home	2	1%
Other	13	3%
No comment	113	29%
Total	**388**	

8

Who Took Part in the Survey?

8.1 **Age of Respondents**

	Number of Respondents	Percentage of Respondents
Under 18	5	1%
18-24	9	2%
25-34	56	15%
35-44	107	28%
45-54	117	30%
55-64	72	19%
65+	19	5%
Total	**385**	

8.2 **Gender of Respondents**

	Number of Respondents	Percentage of Respondents
Male	172	45%
Female	211	55%
Total	**383**	

8.3 **Home Location of Respondents**

	Number of Respondents	Percentage of Respondents
Urban	192	57%
Rural	144	43%
Total	**336**	

8.4 Destination of Respondents

Destination of Respondents	Number of Respondents	Percentage of Respondents
Central City	75	23%
Burnside	29	9%
Addington	28	8%
Riccarton	26	8%
Harewood	25	8%
Sydenham	14	4%
Papanui	13	4%
Hornby	13	4%
Middleton	10	3%
Unspecified/Various	8	2%
Russley	8	2%
Merivale	6	2%
Ilam	6	2%
Burwood	6	2%
Sockburn	5	2%
Bromley	4	1%
Woolston	3	1%
Upper Riccarton	3	1%
Strowan	3	1%
Redwood	3	1%
Linwood	3	1%
Bishopdale	3	1%
Belfast	3	1%
Wainoni	2	1%
St Albans	2	1%
Phillipstown	2	1%
Northwood	2	1%
Islington	2	1%
Halswell	2	1%
Ferrymead	2	1%
Other	22	7%
Total	**333**	

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