Greater Wellington Regional Council

Hutt Valley Public Transport Review

Data Analysis Summary Report

September 2014

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Quality Assurance Statement

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1. Preamble

This Data Analysis Summary Report has been jointly prepared by TDG and Greater Wellington Regional Council to summarise the Data Analysis Report prepared by TDG for this review. This report does not contain content that has been deemed to be commercially sensitive by incumbent operators, or detailed conclusions and recommendations.

2. Introduction

Greater Wellington Regional Council (GWRC) is seeking to review the operation of the public transport network in the Hutt Valley to identify areas in which potential small changes to the current operation can achieve gains in efficiency and service improvements for passengers.

As the public transport review requires data collection, consideration, analysis and consultation over a wide range of issues associated with the public transport network, TDG and Ian Wallis Associates (the project team) have been commissioned to recommend a series of options to GWRC to improve the operation of the public transport network.

As part of the review, the project team have considered the following:

- existing environment, with an overview of the Hutt Valley population density and public transport services, networks and facilities;
- ticketing data within an operational efficiencies context. Both the service utilisation and boardings per trip of all bus routes operating in the Hutt Valley have been considered by area;
- a service areas and catchments review using bus stop locations and daily boardings in combination with Census 2013 resident and employment data;
- stakeholder engagement, including meetings with NZ Bus and KiwiRail, and feedback from local residents; and
- customer surveys, including bus surveys, rail surveys, Metlink call centre data and social media engagement.

A series of options for further consideration has been put forward at the conclusion of this report, with the intention of future options analysis, consultations and discussions with GWRC as to which options should be progressed as part of this review.

This review has been particularly directed towards the mandate that any changes recommended need to be cost-neutral for GWRC.

Routes 80 (Wainuiomata Commuter), 90 (Stokes Valley Commuter), 91 (Airport Flyer), 92 (Upper Hutt Commuter - Te Marua) and 93 (Upper Hutt Commuter - Timberlea) are exempt services under the Public Transport Operating Model (PTOM) and are commercially operated by NZ Bus. These routes fall outside of the public transport network that is defined in the Regional Public Transport Plan, and are therefore outside the scope of this review. They were however included in the customer survey component of the review to ensure a rounded view of the network from a customer perspective.

3. Context

The Hutt Valley is a large flat area surrounded by the Rimutaka Range to the east, the Belmont Hills and Haywards Hill to the West, the Tararua Ranges to the north and Wellington Harbour to the south. The valley floor is home to the Hutt River and the Wellington Fault and is formed into two main river plains: Upper Hutt and Lower Hutt.

The Hutt Valley is presided over by both Hutt City Council and Upper Hutt City Council at a territorial local authority level, and by GWRC at a regional level. City councils are responsible for maintaining the road infrastructure including public transport infrastructure such as bus lanes, while the Regional Council is responsible for providing public transport services within the region, and has contracted NZ Bus and Tranz Metro to operate bus and rail services throughout the valley. There are other contracted services in the Hutt Valley undertaken by other operators but these are on a relatively small scale in comparison to NZ Bus and Tranz Metro.

In addition to this, NZTA is responsible for all State Highway corridors within the Hutt Valley including State Highways 2 and 58, and KiwiRail is responsible for all rail corridors in the Hutt Valley, including the Hutt Valley and Melling train lines.

Much of the Wellington Region's industry is located in the Hutt Valley; however Wellington City on the southern edge of the harbour contains most of the region's employment base due to the presence of Parliament and institutions such as Victoria University and Weta Workshop. The Hutt Valley is a major suburban area within the Wellington region, supporting a large portion of the region's residential dwellings. Figure 1 and Figure 2 respectively show the population and employment densities within the Hutt Valley from the 2013 Census.

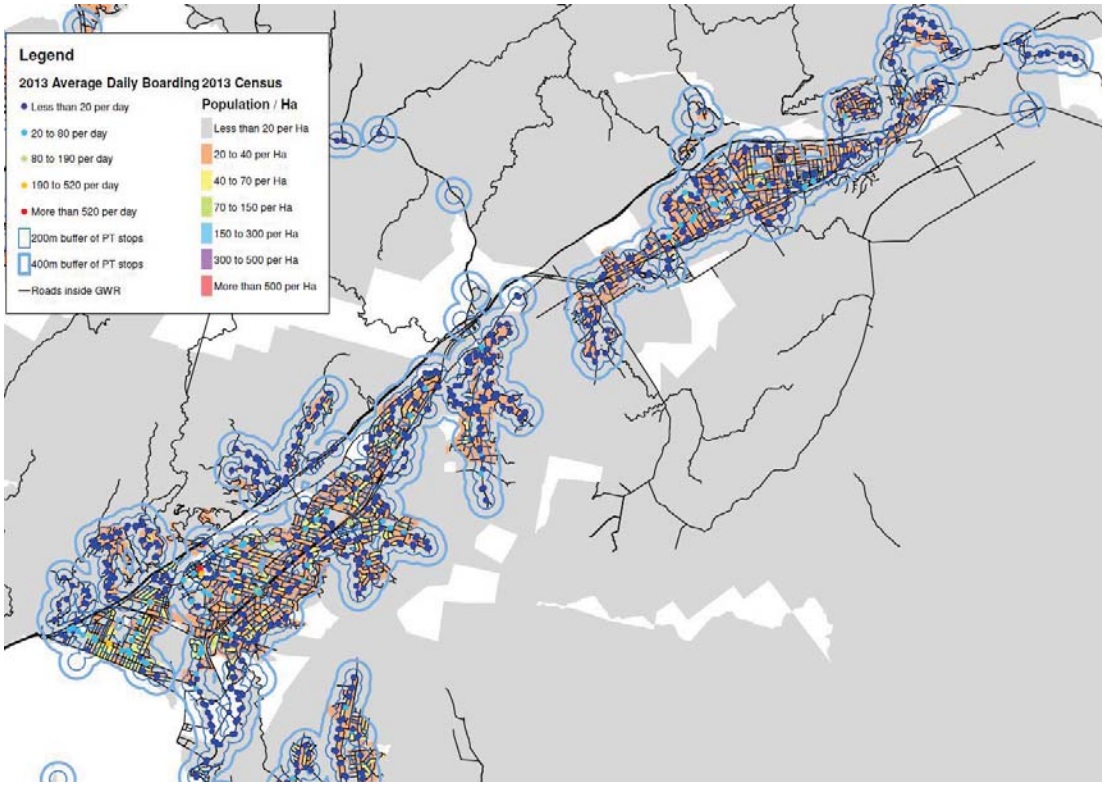


Figure 1: Population density per hectare in the Hutt Valley during the 2013 Census.

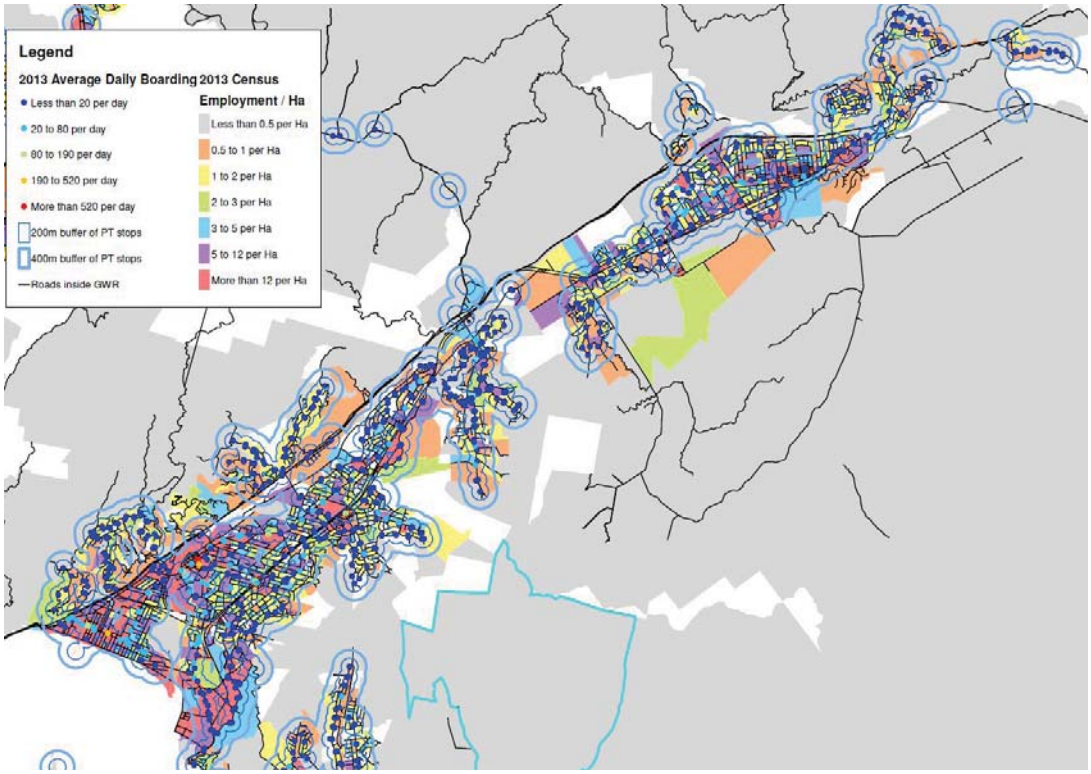


Figure 2: Employment density per hectare in the Hutt Valley during the 2013 Census.

Population density throughout the Hutt Valley is generally low, with the highest population density in Petone at 40 to 70 per Ha. Employment density within the valley is highest around the main centres, including Petone, Queensgate and Upper Hutt.

The Seaview Port and Hutt Hospital areas also have high employment densities, and schools within the valley are scattered through suburban areas.

Each of the main centres has a public transport interchange, with both train stations and bus interchanges located on the periphery of the Petone and Upper Hutt Centres; a bus interchange is located adjacent Queensgate mall in Lower Hutt. The two nearest train stations to Queensgate are the Melling and Waterloo stations, respectively 1.0km and 1.4km away. Waterloo station is also a major interchange, with numerous bus routes connecting at the station.

Figures 3 and 4 show the extent of the existing Hutt Valley bus and rail network, respectively.

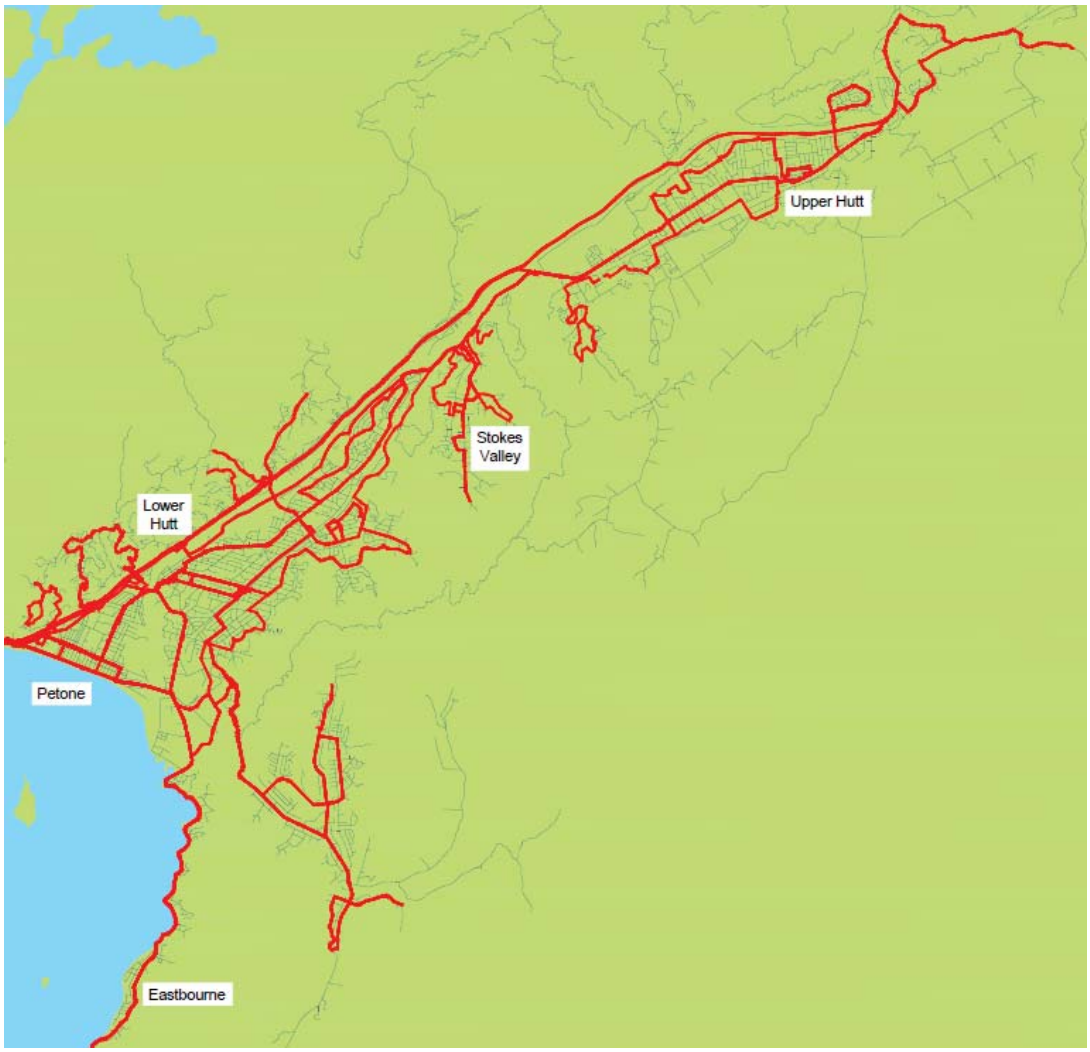


Figure 3: Bus network map (including exempt services).

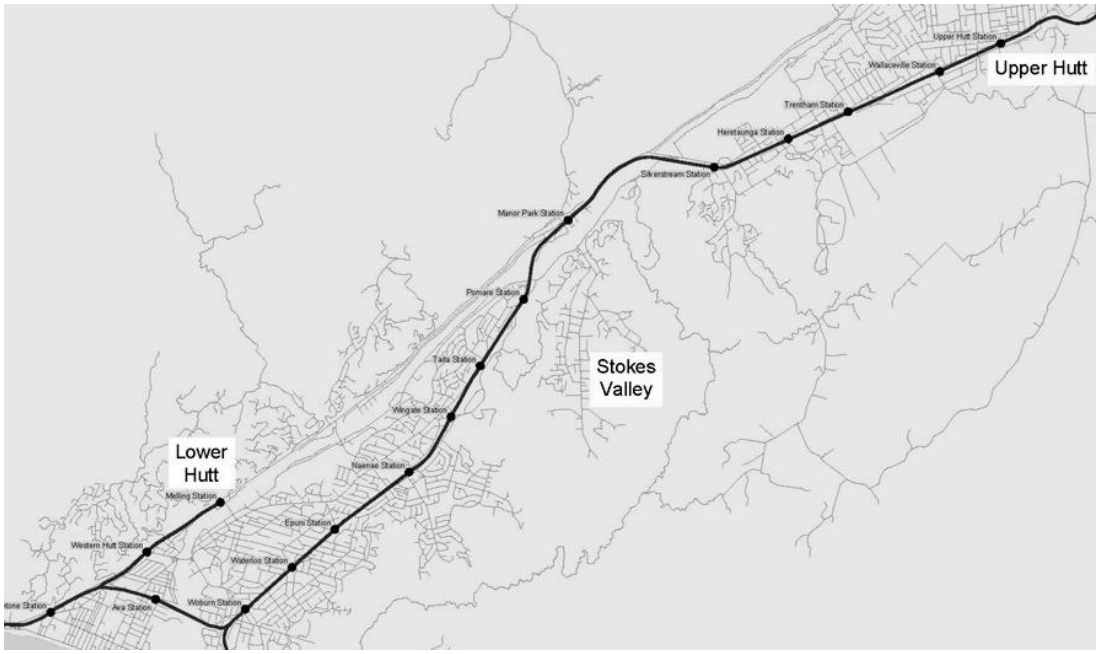


Figure 4: Rail Network Map.

4. Operational Review

4.1 Overview

Information presented in this section relates to March 2013, and was obtained from patronage data supplied by the bus service operator from ticket machines. The information was processed in the GWRC data CUBE, which contains patronage volumes, travel times, travel distances, ticket types and many other factors which are useful in considering the efficient operation of the network of buses in the Hutt Valley. Data has been compared on both a boardings per trip and boardings per hour on each route, by day (weekday, Saturday or Sunday) and direction (inbound or outbound).

It is noted that boardings per hour (also referred to in this report as boardings per in-service hour) measures the number of passengers boarding a service for each hour travelled and is a measure of utilisation. It does not account for passengers alighting from the service during that hour, and it therefore does not provide a measure of capacity.

Benchmark levels were set for boardings per hour comparisons using the GHD (2008) Future Network Planning Framework - Advice for Passenger Transport Service Standards report for Greater Wellington Regional Council. The benchmarks provide a useful means of comparing performance, although they have not been tested in the GWRC context.

4.2 Lower Hutt / Western Hills (Routes 130, 145, 150, 154)

4.2.1 Overview

Patronage analysis shows that Routes 130, 150 and 154 perform well in the weekday morning peak. The Route 130 exceeds the core benchmark during inter-peak and afternoon periods.

Route 145 appears to operate below the minimum standard in the early morning, as does Route 154 in the interpeak and evening periods. We note that Route 154 duplicates Route 110 from Petone to Queensgate and could potentially be shortened to Petone or to operate via Hutt Road.

4.2.2 Route 130 (Naenae)

4.2.2.1 Weekday

Patronage analysis shows that highest inbound volumes per trip on Route 130 occur in the morning commuter peak at 7:55am and at 3:17pm during the interpeak period. There is a strong preference for the 7:55am trip which provides a 7 minute connection to the train, whereas the trip immediately prior provides a 12 minute connection and the trip afterwards no connection, although all of these trips have strong boardings. Secondary peaks are visible at 9:47am, 3:00pm and 5:30pm. Early morning services are better patronised in the outbound direction than in the inbound direction for this route.

Patronage analysis shows that highest outbound volumes per trip occur in the morning commuter peak between 7:40am and 8:30am (with services timed to connect with trains at Waterloo). Also at 3:10pm/3:20pm during the inter-peak period, likely due to schools finishing around this time.

4.2.2.2 Saturday

The boardings per trip in the inbound direction on Saturdays are fairly constant throughout the day, with slight peaks around 9:40am and 5:10pm.

Patronage analysis shows that boardings per trip are lower than on weekdays, with no visible peaks. A zigzagging pattern is visible for the trips between 9:00am – 10:30am, which suggests that one of the buses operating on this route potentially has reliability issues, considering that the same route is taken for each trip on Saturdays.

4.2.2.3 Sunday

Patronage analysis shows that boardings per trip in the inbound direction on Sundays are consistently low, with no visible peaks.

Boardings per trip in the outbound direction increase through the morning and afternoon, with boardings dropping off in the evenings. No peaks are visible.

4.2.3 Route 145 (Belmont)

4.2.3.1 Weekday

On this route there are very low volumes of passengers per trip. This is consistent throughout the day, except at 7:11am and 3:12pm or 3:42pm, which could be due to school finishing around 3:00pm. It is noted that the way this service operates it is a mixture of inbound and outbound trips.

4.2.4 Route 150 (Western Hills)

4.2.4.1 Weekday

Patronage analysis shows that the highest inbound volumes per trip on this route occur in the morning commuter peak at 7:40am and at 3:25pm during the inter-peak period, which is likely due to schools finishing around this time. A secondary peak is visible at 9:05am, which could be due to the off-peak time and free fares for SuperGold cardholders from 9:00am.

The highest outbound volumes per trip on this route occur between 2:48pm during the inter-peak period and 5:53pm in the afternoon peak. The higher volumes are at the end of the inter-peak period and throughout the afternoon peak, and are prolonged.

4.2.4.2 Saturday

There are consistently low boarding volumes throughout the day, with no visible peaks.

Boardings per trip for this route in the outbound direction on Saturdays are consistently low throughout the day, as they are in the inbound direction.

4.2.4.3 Sunday

Patronage analysis shows that boardings per trip in the inbound direction on Sundays are consistently low with no visible peaks.

Boardings per trip in the outbound direction on Sundays are lowest in the morning and evening periods, with slightly higher boardings in the afternoon.

4.2.5 Route 154 (Korokoro)

4.2.5.1 Weekday

Patronage analysis shows that very low volumes of passengers per trip are consistent throughout the day, except at 7:35am. This could be due to a combination of students travelling to school and adults travelling to work at this time of day.

The 6:12pm evening service has very few boardings.

4.3 Eastbourne (Routes 81, 83, 84, 85)

4.3.1 Overview

The Eastbourne routes, particularly Route 81(Eastbourne) and Route 83 (Eastbourne via Lower Hutt) operate as a combined timetable with departure times offset to provide a consistent service throughout the day. As noted previously these services are operated commercially by NZ Bus. Changes were made by the operator in May 2014 to improve reliability; the data in this report (which dates from March 2014) does not include these changes.

4.3.2 Routes 81, 83, 84 and 85 (Eastbourne)

4.3.2.1 Weekday

Inbound boardings per trip are high on nearly all trips throughout the peak and inter-peak periods. Compared to other routes (84 and 85), Route 83 experiences higher boardings per trip in the inter-peak period, especially at the 3:05pm peak associated with school finishing time around 3pm. Route 83 also has higher patronage in the afternoon peak in comparison to Routes 84 and 81.

Outbound boardings per trip are high on all trips throughout the day, with Route 83 carrying the most capacity in the inter-peak period and Route 81 carrying more capacity in the afternoon peak period. Peaks are visible at 7:25am, 2:55pm, 4:25pm and 8:30pm, all on Route 83.

4.3.2.2 Saturday

The Route 81 has considerably fewer boardings than the Route 83 during the weekend. In May 2014 the weekend Route 81 was discontinued and was replaced by a more frequency Route 83 weekend service.

4.3.2.3 Sunday

Refer comments under Saturday.

4.4 Wainuiomata (Routes 160, 170)

4.4.1 Overview

Wainuiomata routes operate within the benchmarks for boardings per hour.

4.4.2 Routes 160 and 170 (Wainuiomata North and Wainuiomata South)

4.4.2.1 Weekday

Both routes show good patronage levels throughout the day, although this decreases as the evening progresses. There is a small peak towards the end of the evening, which could be explained by residents returning home following an evening out.

4.4.2.2 Saturday

Both routes have average patronage throughout the day which decreases into the evening. There is a peak in patronage towards the end of the night most probably due to residents returning home following an evening out.

4.4.2.3 Sunday

As with Saturday there are consistent levels of patronage throughout the day which decrease later in the afternoon and evening.

4.5 Stokes Valley (Routes 120, 121)

4.5.1 Overview

The Stokes Valley routes perform well against benchmarks, except for Route 121 in the morning and 120 in the evening which has lower boardings per in-service hour.

4.5.2 Route 120 (Stokes Valley)

4.5.2.1 Weekday

The boardings per trip do not highlight any areas of concern. Peak boardings are good and it is likely this is due to commuters and students using services during these times.

4.5.2.2 Saturday

Route 120 has average patronage throughout the day, which decreases into the evening.

4.5.2.3 Sunday

As with Saturday there are consistent levels of patronage throughout the day which decrease later in the afternoon and evening.

4.5.3 Route 121 (Valley Heights)

4.5.3.1 Weekday

This route has good boarding throughout the day with noticeable peaks at times when students are starting and finishing school.

4.6 Upper Hutt (Routes 110, 111, 112, 114, 115)

4.6.1 Overview

Boardings on core Route 110 exceed the boardings per hour benchmark during most weekday periods. The Upper Hutt local routes (111-115) are generally within guidelines, although Route 115 falls below the minimum threshold in the morning, afternoon and evening periods.

4.6.2 Route 110 (Upper Hutt)

4.6.2.1 Weekday

This is a long route and depending whether the boardings and alightings are occurring there may or may not be a capacity concern.

The Gillespies Road route variant shows low boardings.

4.6.2.2 Saturday

As on weekdays, the Gillespies Road route variant shows low boardings.

4.6.2.3 Sunday

No areas of concern to highlight.

4.6.3 Route 111 (Totara Park)

4.6.3.1 Weekday/Weekend

This route has consistently low boardings throughout the day (particularly in the weekend), although it performs well on a boardings per hour basis due to the short run. There is a small peak around 4pm which could be caused by student's finishing school.

4.6.4 Route 112 (Te Marua)

4.6.4.1 Weekday/Weekend

This route has consistently low boardings throughout the day (particularly in the weekend), although it performs well on a boardings per hour basis.

4.6.5 Route 114 (Poets Block)

4.6.5.1 Weekday

This route has consistently low boardings apart from significant peaks on the trips of the route variant that serves Riverstone Terraces. This is particularly noticeable on the morning peak trip.

4.6.6 Route 115 (Pinehaven)

4.6.6.1 Weekday

This route has consistently low boardings throughout the day (particularly in the weekend), and also performs poorly on a boardings per hour basis, possibly due to the long run. Boardings show peaks during morning and afternoon commuter times as well as a peak around midday.

5. Service Areas and Catchments Review

To understand how the network of bus stops sits with the residential and employment populations within the Hutt Valley, GIS has been used to map boardings per bus stop, walking catchments and population demographics together to consider any geographic relationships between them.

5.1 Boardings per Bus Stop

Figure 5 and Figure 6 show boardings per day at each bus stop in the Hutt Valley in comparison to employment density (Figure 5) and residential population density (Figure 6).

5.1.1 Observations from Figure 5

Tirohanga and Harbour View are not well served as there are no bus stops in the area. Given that the area has slightly above-average employment density for an out-of-town-centre area, this is unusual, noting that poor boardings have resulted in removal of services in this area.

Areas of high employment density (more than 12 per Ha) often have more boardings per bus stop, for the stops in the immediate area. This is particularly applicable for both Queensgate and Petone, which are both high-employment density and have the largest number of boardings at nearby bus stops. As a town centre, Upper Hutt had far fewer boardings at nearby stops in comparison to either Petone or Queensgate, suggesting that patronage for Upper Hutt-based services is low.

5.1.2 Observations from Figure 6

Some areas with low population density (less than 20 per Ha) are currently being served by existing bus services. These areas are Korokoro, Te Marua and parts of Belmont being respectively served by the 154, 112 and 145 bus services.

Conversely, some areas comprising medium to low population density (less than 20 per Ha to 40 per Ha) are not currently catered to by any bus service. Areas which fit this description are Riverstone Terraces in Upper Hutt, Tirohanga/Harbour View, and parts of Maungaraki in Lower Hutt.

Bus stops with 20 to 80 boardings per day are often situated along arterial roads within residential areas of medium to high population density (20 – 70 per Ha). Examples of this include Jackson St in Petone, High St in Lower Hutt and Fergusson Dr in Upper Hutt.

It is important to note that there is not necessarily a high correlation between success of a service and population density. For example previous service reviews have led to the removal of services from the Western Hills over time due to poor loadings.

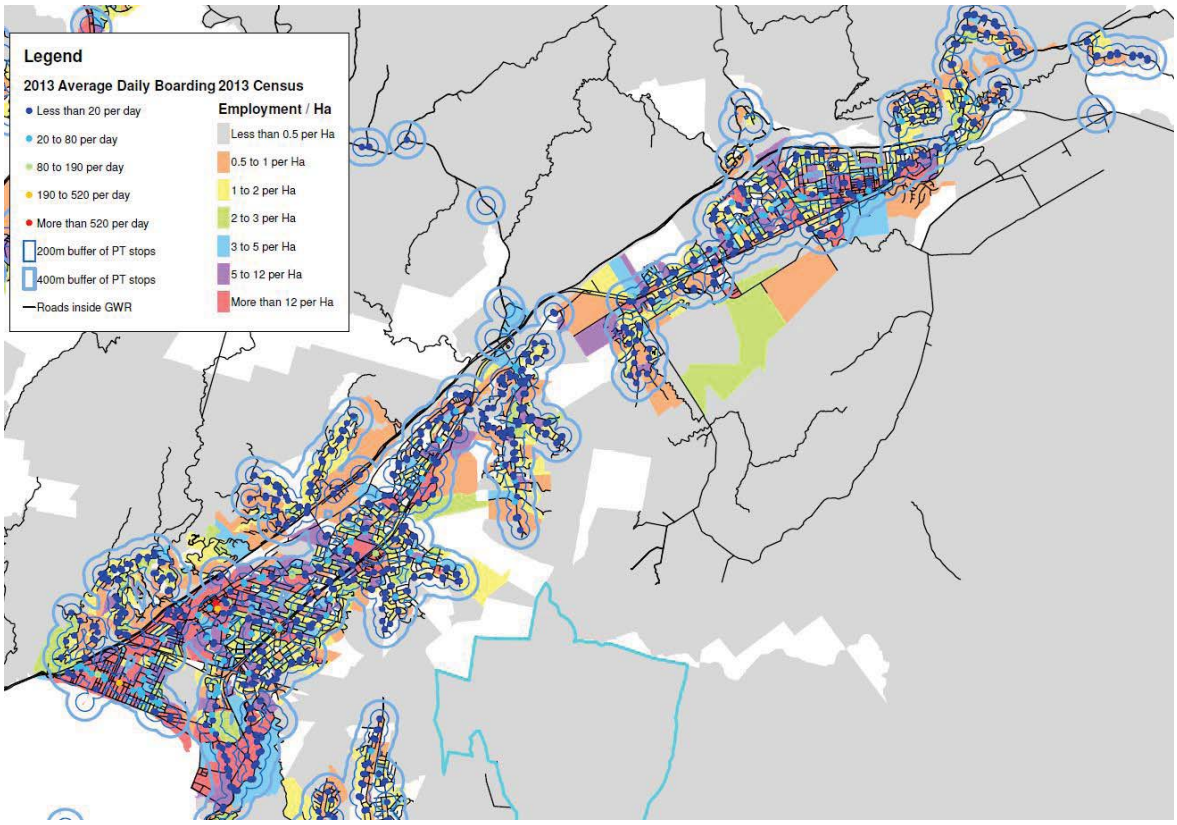


Figure 5: Bus stop boardings per day in comparison with employment density (2013 Census).

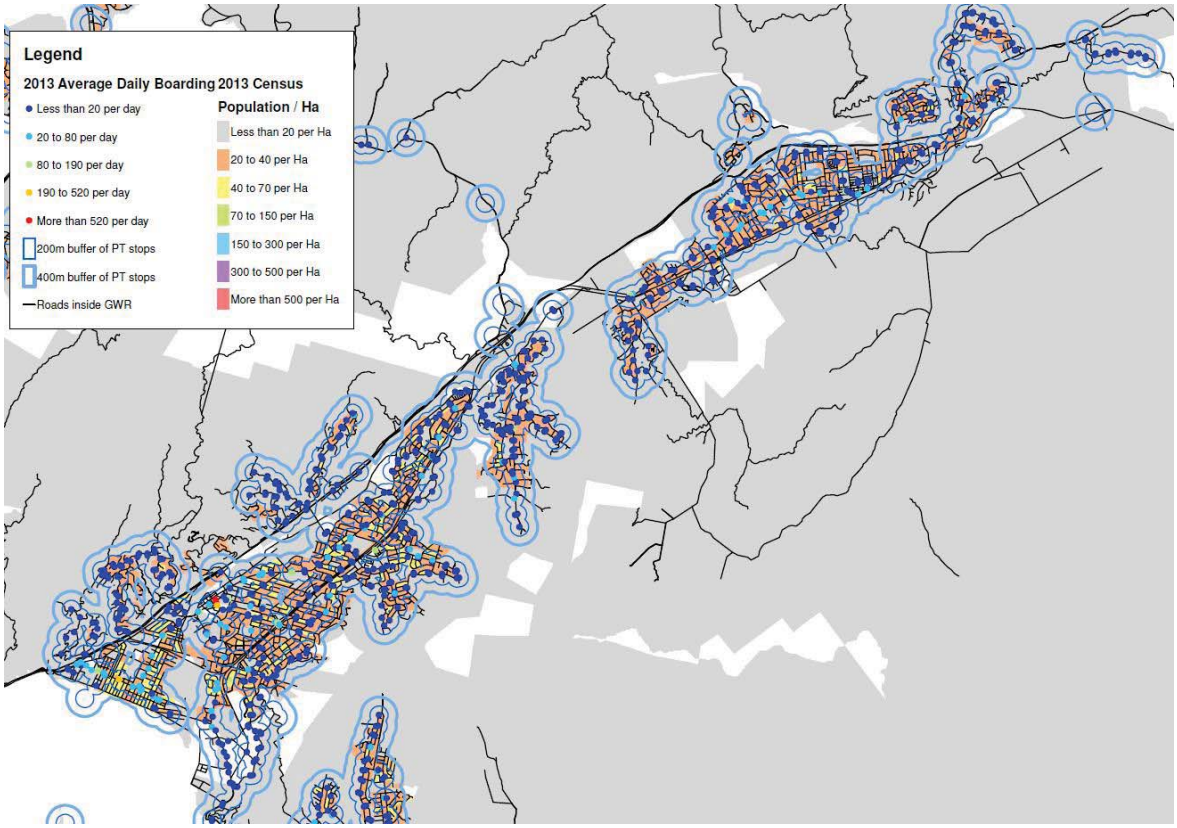


Figure 6: 2013 bus stop boardings per day in comparison with population density (2013 Census).

5.1.3 Observations from both Figure 5 and Figure 6

From both Figure 5 and Figure 6, it can be seen that some areas appear to be poorly served by public transport due to the lack of bus stops or lack of routes available at the bus stop; however most of these areas do not have a high employment or population density. These areas include Haywards Hill, Whitemans Valley and Mangaroa Valley.

The area between Silverstream and the Stokes Valley entrance appears to be poorly served by public transport due to the lack of stops; however inspection of an aerial photograph shows this is actually a greenfield area and the employment density assigned to this area is affected by institutions such as schools on the perimeter of the area.

Some areas of high employment density and low population density which were not town centres had low boardings on all stops throughout the area, for example in Seaview. In Figure 7 below, this area is also served by 63 – 365 buses per weekday. This could be due to the type of industry in the area rather than a lack of public transport options.

The Naenae and Waterloo stations had higher numbers of boardings compared to the surrounding area, as did the stop in Boulcott outside the Hutt Hospital.

5.2 Walking Catchments

For both Upper Hutt Council and Hutt City Council, walking catchments of 500m, 400m and 200m have been considered to assess whether the current network of bus stops and train stations is providing access to areas of both residential and employment activities. The walking distances considered have been selected because:

- a 500m walking catchment to the nearest bus stop reflects GWRC reporting requirements and Public Transport Plan performance measures;
- a 400m walking catchment reflects the distance a person can walk within 5 minutes at an average walking speed and is a standard measure internationally;
- a 200m walking catchment reflecting a slower walking speed and also that the number of people willing to walk to a bus stop drops off the further they have to walk.

Although using a 200m – 400m walking catchment for public transport infrastructure access is considered best practice in New Zealand, there are some issues associated with using this method. 400m walking catchments have been measured 'as the crow flies' rather than by tracking along a path on the local walking network, and the catchments do not account for any change in vertical elevation within the catchment.

As the Hutt Valley geography comprises a flat valley floor surrounded by steep hills, it is proposed that the 400m catchment is considered on the valley floor and the 200m catchment is considered on the hillsides to allow for any overestimations created by using a 400m catchment in a steep area.

Figure 7 and Figure 9 show 200m – 400m walking catchments for bus stops. Figure 8, Figure 10, Figure 11 and Table 1 show population within and outside the 500m walking catchments to bus stops and train stations.

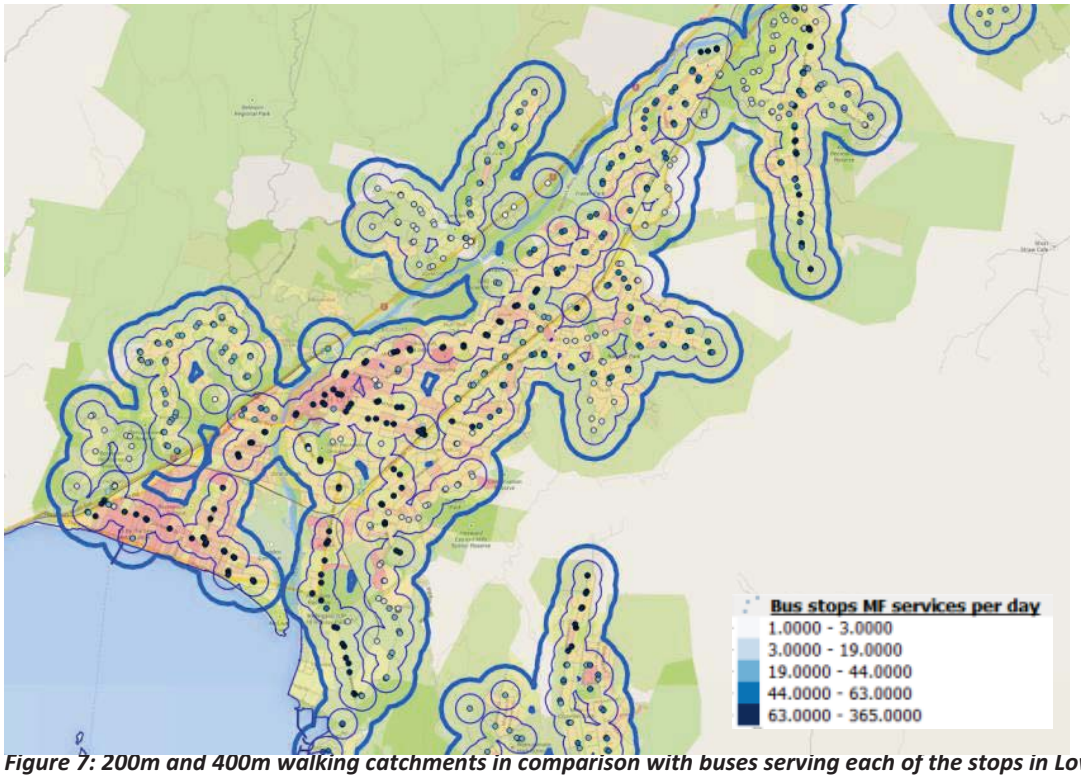


Figure 7: 200m and 400m walking catchments in comparison with buses serving each of the stops in Lower Hutt per weekday.

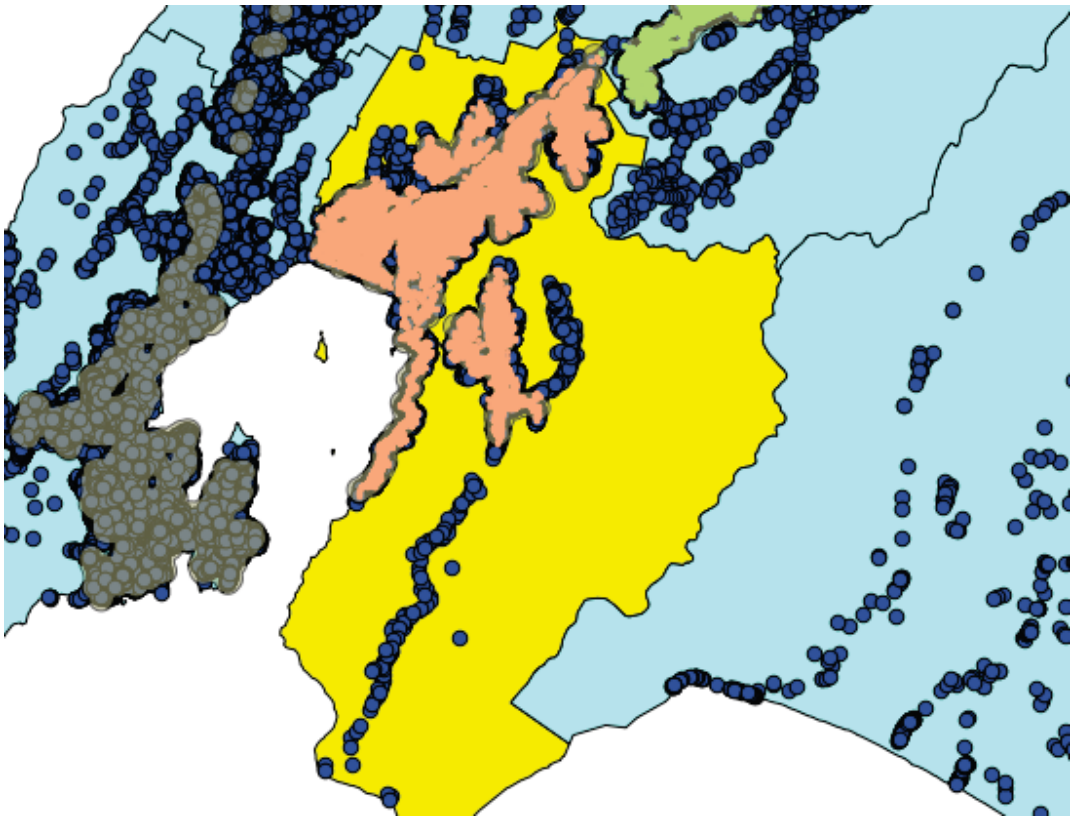


Figure 8: Population markers (purple) outside the 500m catchment (orange) for all bus stops within the Lower Hutt territorial local authority (yellow).

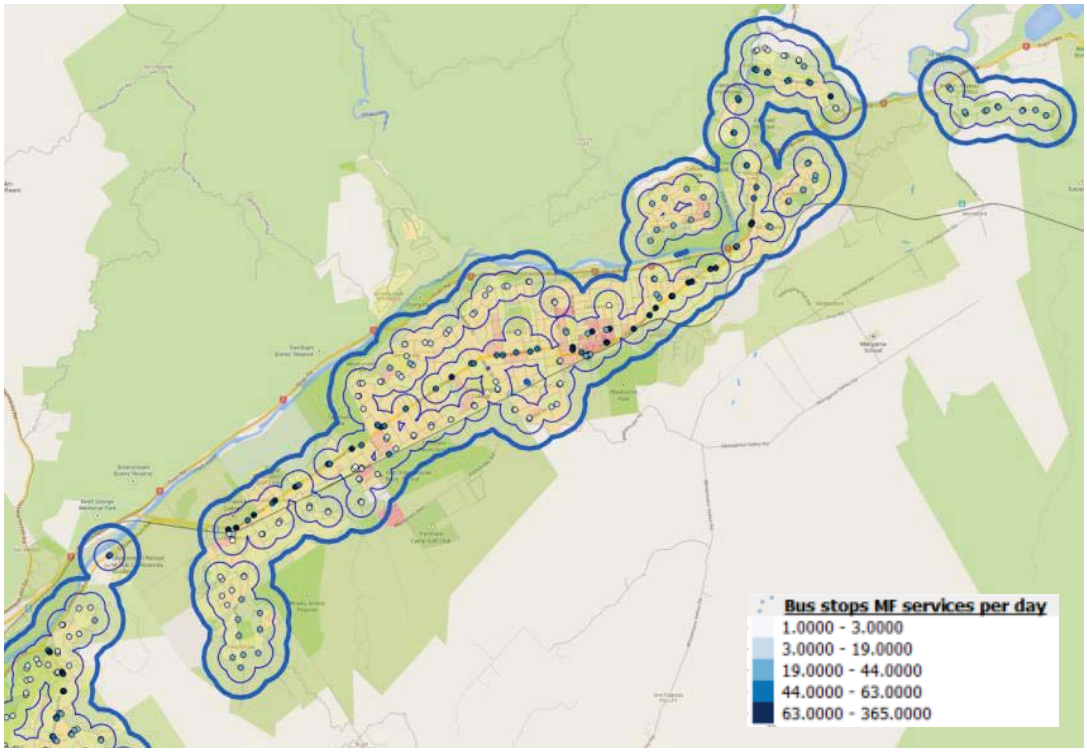


Figure 9: 200m and 400m walking catchments in comparison with buses serving each of the stops in Upper Hutt per weekday.

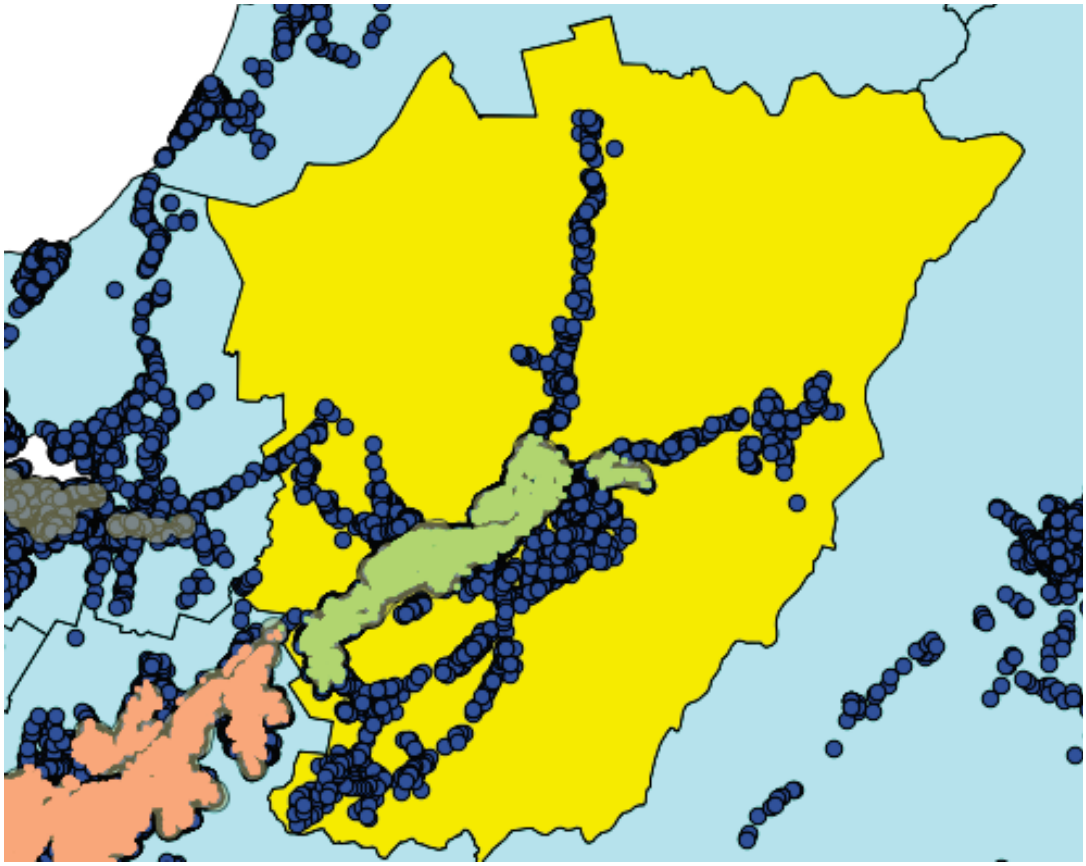


Figure 10: Population markers (purple) outside the 500m catchment (green) for all bus stops within the Upper Hutt territorial local authority (yellow).

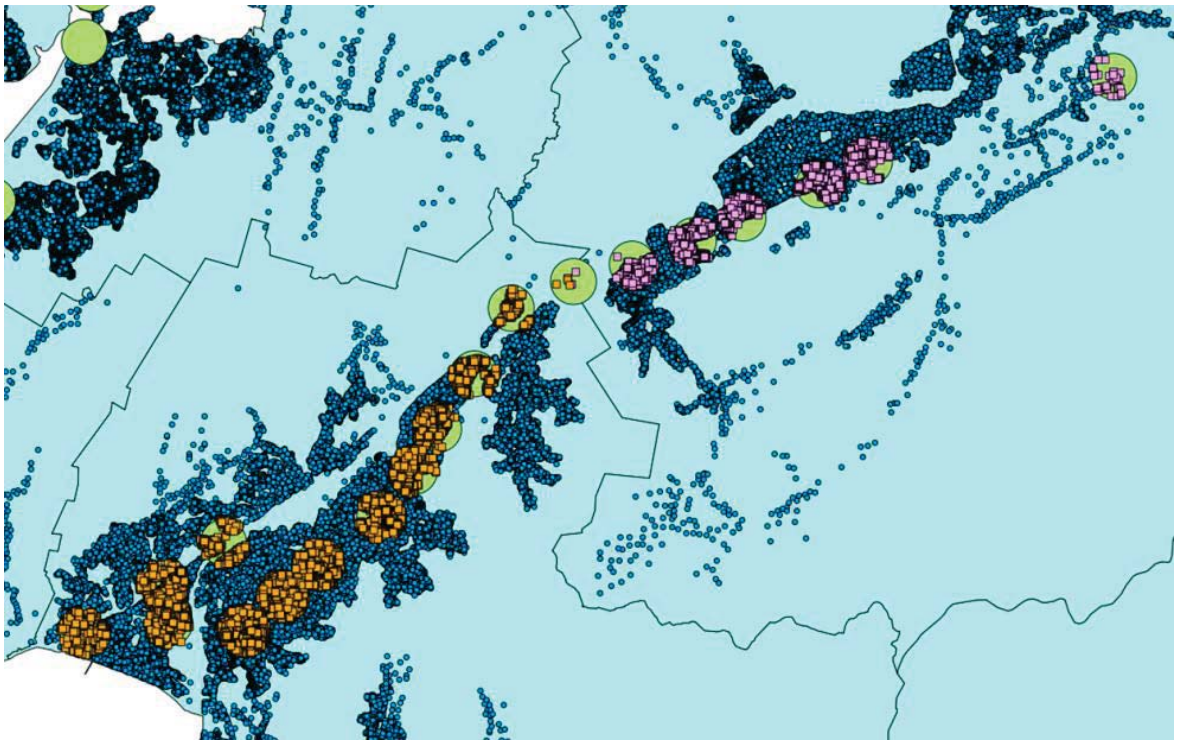


Figure 11: Population markers within the 500m catchment to a trains station (orange or pink), and population markers outside the 500m catchment (blue) in the Hutt Valley.

Table 1 summarises the 500m catchments data extracted from Statistics NZ and the electoral roll:

Area	Population within 500m catchment	Total Population	Population (%) within 500m catchment
Bus stops			
Upper Hutt	34,540	39,585	87%
Lower Hutt	94,110	98,219	96%
Hutt Valley	128,650	137,804	93%
Rail Stations			
Upper Hutt	5,628	39,585	14%
Lower Hutt	16,784	98,219	17%
Hutt Valley	22,412	137,804	16%

Table 1: Population within 500m of a bus stop or train station in Hutt City and Upper Hutt territorial local authorities in 2013.

The following conclusions can be drawn:

- from Figure 7, areas with some population density outside the 200m – 400m walking catchment in Lower Hutt include Tirohanga/Harbour View, parts of Maungaraki, the Petone Recreation Centre, and parts of Epuni (along Witako St);
- from Figure 8, areas outside the 500m walking catchment in Lower Hutt include Tirohanga/Harbour View, parts of Kelson and Moores Valley and Coast Rd in Wainuiomata;
- from Figure 9, areas with some population density outside the 200m – 400m walking catchment in Upper Hutt include Riverstone Terraces and the Rimutaka Prison.

- from Figure 10, areas outside the 500m walking catchment in Upper Hutt include Riverstone Terraces, Akatarawa Valley, Mangaroa Valley, Whitemans Valley, Blue Mountains, Moonshine Valley, Pakuratahi and Kaitoke;
- from Figure 11, in most areas train stations have a large residential population within the 500m walking catchment to the station, except for Manor Park, Silverstream, Trentham and Maymorn train stations;
- from Table 1, some 93% of the population within the Hutt Valley is within 500m of a bus stop. More of the population is within 500m of a bus stop in Lower Hutt than in Upper Hutt, which could be attributed to the larger rural population in Upper Hutt.

Most of the named areas which do not have access to a bus stop or train station within 500m of their dwelling are located in rural areas such as Whitemans Valley where it may not be practicable to provide a bus service; however there are some residential or suburban areas which do not currently have access to a bus stop within 500m of their dwelling. These areas are:

- Tirohanga/Harbour View in Lower Hutt;
- parts of Maungaraki in Lower Hutt; and
- Riverstone Terraces in Upper Hutt.

6. Stakeholder Engagement

Initial stakeholder meetings have been held between the Hutt Valley Bus Review project team, NZ Bus and KiwiRail, to open a channel of communication inviting input and feedback to the project. Stakeholders were informed the purpose of the project is to identify areas in which potential small changes to the current operation can achieve gains in efficiency or service improvement for passengers.

GWRC have also received casual feedback comments and suggestions from bus and train passengers, Hutt Valley residents and Local Board members throughout the review, which have been passed onto the project team to consider.

6.1 Operator Meetings

6.1.1 Operator Comments

Meetings have been held with operators throughout the project. The key comments made include:

- the network be should considered not only relative to current needs, but also in light of the spatial plans of Upper Hutt City Council and Lower Hutt City Council. Public transport is an important tool for accelerating Council planning and the network should reflect where the Council is driving growth in housing or employment density;
- the next steps of the review process should include capacity analysis at key points of each route, as the patronage data used to date does not take into account the different nature of each route;
- the review should cover key infrastructure requirements, especially at timing points (e.g. a single bus stop at Hutt Hospital creates issues when multiple services stop there, especially for any sick, injured or wheelchair passengers when second bus cannot pull in to the kerb) and including layover space for buses at termination points on routes.
- services from Whitby to Queensgate should be considered during the morning and afternoon (between the peaks)
- management of connections and connection points between buses, and buses and rail, need special attention, particularly in early morning and late at night;
- the key Bunny Street (Lower Hutt) bus interchange has a number shortcomings, both operationally and in terms of safety;
- there are issues with the unauthorised use of the bus lane along Petone Esplanade;
- driver safety/shift duration on some routes;
- distinct travel patterns and the high boarding numbers don't necessarily mean the services are always full;
- the location of timing points for all services should be included within the scope of the review; and
- operators are keen to identify 'quick wins' that they and GWRC may be able to implement quickly.

6.1.2 Comments relating to bus-rail transfers

Some suggestions put forward during the meetings include:

- improve communication between rail and bus operators;
- develop protocols for additional wait times on platforms and bus stops to allow bus passenger connections (more scope for this during the off peaks, when frequency is lower);
- potential for introducing guidance to staff during training on bus/rail transfers.

6.2 Other Engagement

GWRC received a number of comments from both members of the public and local councillors. Comments received include:

Wednesday 9 April 2014

A call was received from a passenger whom regularly users Route 120. The passenger had a suggestion that Route 120 should run to Petone Station (instead of the Upper Hutt service), as Stokes Valley people have no alternative to get to Petone - unlike Upper Hutt passengers who could use the train.

The issue is that there are no options to connect between Stokes Valley and Petone using one trip leg, rather than two, for example travelling on a Stokes Valley Bus to Pomare or another station then travelling on the train to Petone. Options to address this include:

- reviewing the patronage over length segments of Routes 110, 120 and 130 as the passenger suggested; and
- providing better pedestrian connections to existing rail stations from Stokes Valley. This point was also raised during the customer surveys, and some suggestions included providing a pedestrian bridge over Hutt River from Stokes Valley entrance to Manor Park station and walking tracks over hill from Stokes Valley to Pomare station.

Thursday 10 April 2014

Feedback from a Hutt City Councillor who was unable to attend public meeting scheduled.

> *"I have followed buses going up to Belmont many times with not a passenger in them. And sadly these buses can also come down the hill with few, if any passengers. Obviously this must be a "loss" line as far as income is concerned. It therefore bothers me that the possibility must come up to discontinue this service as has been done previously in Belmont Domain (by the river). The cost of a large bus or even one of the smaller ones must be considerable especially when things like maintenance costs and replacement are taken into account.*
>
> *I would like to see a small 'people mover' (transit van) used throughout the day outside peak hours which would also 'do a circuit' of Belmont Doman as well instead of buses. This would lessen the costs and would return services to Belmont Domain especially as there a number of older residents in that area who are not served with public transport at all currently. Many do not drive or are becoming increasingly uncomfortable with driving but taxi costs are high and on a pension this is a real concern to them.*
>
> *I understand that people in wheelchairs probably could not avail themselves of transport in a people mover, but they already must make special arrangements and with no disrespect I am thinking of the older person who is still reasonably active but unable to walk long distances, money is tight and isolation is a problem."*

The issue here is that the 145 bus service currently has lower operational (and therefore economic) efficiency compared to other bus routes in the Hutt Valley. The Belmont bus service also has a base of dependent elderly passengers, so any reductions in the number of services running on the route will need to be carefully considered, consulted, planned and implemented to ensure any negative impacts on the dependent elderly population in Belmont are minimal.

Wednesday 23 April 2014

Feedback from a resident of Timberlea as a result of discussions had during an Upper Hutt public meeting:

> *"I spoke to you afterwards about specific feedback on the 112 bus service as input to the Hutt Valley bus review.*
>
> *1) Now new housing is mostly complete, it would be sensible to have bus stops on each side of Norana Road near the intersection with Opal Ave.*
>
> *2) Bus timetable and Plateau school. In the morning school starts at 8:45 and the outbound bus goes past (Stop: 9621) at 8:19 and 9:19. In the afternoon school finishes at 3:00 and the inbound bus goes past (Stop: 8621) at 2:33 and 3:38 Changing the hourly routine by half an hour would still connect with train services but make it possible for Plateau school students to use the service.*
>
> *3) In the morning for the 7:13 and 7:33 inbound services miss connecting with the Wairarapa express train about 20% of the time. This usually happens if the bus is running a couple of minutes late and the Wairarapa train is running a couple of minutes early.*
>
> *4) Time between stops: The driving time between stop 8621 and stop 8615 is about 4 minutes. However the timetable allows 7 minutes. This means considerate drivers park the bus in idle for 3 minutes at stop 8615. This feels like a strange inconvenience for passengers who get on before stop 8615. Inconsiderate drivers leave the stop early meaning passengers after stop 8615 then miss the bus because they time walking to the stops according timetable. Fortunately since the introduction of RTI, early departures occur a lot less often.*

A number of recommendations are made, including adding one additional stop to each inbound/outbound trip near the intersection of Opal Avenue with Norana Rd, and making timetable adjustments so that:

- Plateau School students are able to use the bus to travel to school with the bus still connecting to train services;
- the bus is not late for the morning connection with the Wairarapa train;
- the timetable accurately reflects the drive time between stops 8621 and 8615;
- any additional stops added (e.g. at Opal Avenue) can be included in the timetable.

Monday 12 May 2014

Request from a resident of Eastbourne. Request focuses on slightly altering the 130 timetable to better meet the needs of school children.

> *"We would like to request a change to the Petone to Naenae 130 bus. We would like the bus leaving Petone station at 7.40am to leave a little later at 7.45am. Our reason being:*
>
> *Our children attend Wa Ora Montessori School in Naenae. We live in Eastbourne. For our children to get to school by the start time of 8.30am the best bus connection arrangement we (and the bus coordinators at the Regional Council) can find, is for them to travel on the Eastbourne to Courtney*

Place via Queensgate 83 which leaves at 7.35am. They then get off at the Woburn Road at Hutt Recreation Ground (opposite) stop 9158, which is covered, and wait there for the 130 to take them through to Naenae.

Currently the 83 is scheduled to get to stop 9158 at 7.56am and the bus leaving Petone station at 7.40am is scheduled to get to the same stop at 7.54. Here I am sure you can see our problem! If the children miss that connection they have to wait 20 minutes for the next 130 to come and this bus gets them to school (supposedly) at 8.30am - this is a busier bus and is generally always running late which means they get to school 10-15 minutes late, whereas the earlier 7.40am bus gets them to school at 8.10am - perfect!

Have we looked at other options? - yes we have - if the children were to catch an earlier bus such as the 81 (at 7.30am) or the 85 (at 7.20am) from Eastbourne they would need to either get off at stop 8730 (at Hutt Park) or stop 8021 at Waione St - both require the children having to cross either the very busy roundabout at Hutt park or walking a significant distance to a pedestrian crossing on Petone Esplanade to walk a significant distance back to the bus stop opposite in order to catch the 130. These stops have no shelter. Catching the earlier 83 at 7.05am is too early and not an option.

How many children does this affect? Currently there are 6 children. There will be up to another 6 children joining them over the next year. The school is a composite school and goes through to secondary so we expect our children to be using this bus arrangement for at least another 10-12 years."

As described in the request, the issue is the connection between Eastbourne bus services and the 130 bus service during the morning. As other options are not reasonable for young school children and this arrangement is going to continue in the long-term, consideration should be given to alter the 130 morning timetable so that the 7:40am outbound service from Petone leaves later to connect with the 83 service.

7. Customer Surveys

To gauge current levels of customer satisfaction on public transport service in the Hutt Valley, TDG has completed on-bus and rail questionnaire surveys and has considered call complaints data from the Metlink Call Centre. Full sets of the original data from the bus and rail surveys along with the survey details are available in the bus and rail data collection reports. Only data collected from valid surveys has been considered.

The analysis of the survey data follows the logical flow or process of questions within sections as they were provided to passengers during the bus and rail surveys. **The questions put to the passengers are numbered and formatted in bold navy text**. The data has been analysed by bus route, origin train station, or destination train station to allow for comparisons between routes and/or areas.

7.1 Bus Surveys

1. Details of the bus you're currently travelling on (date, time, bus route)

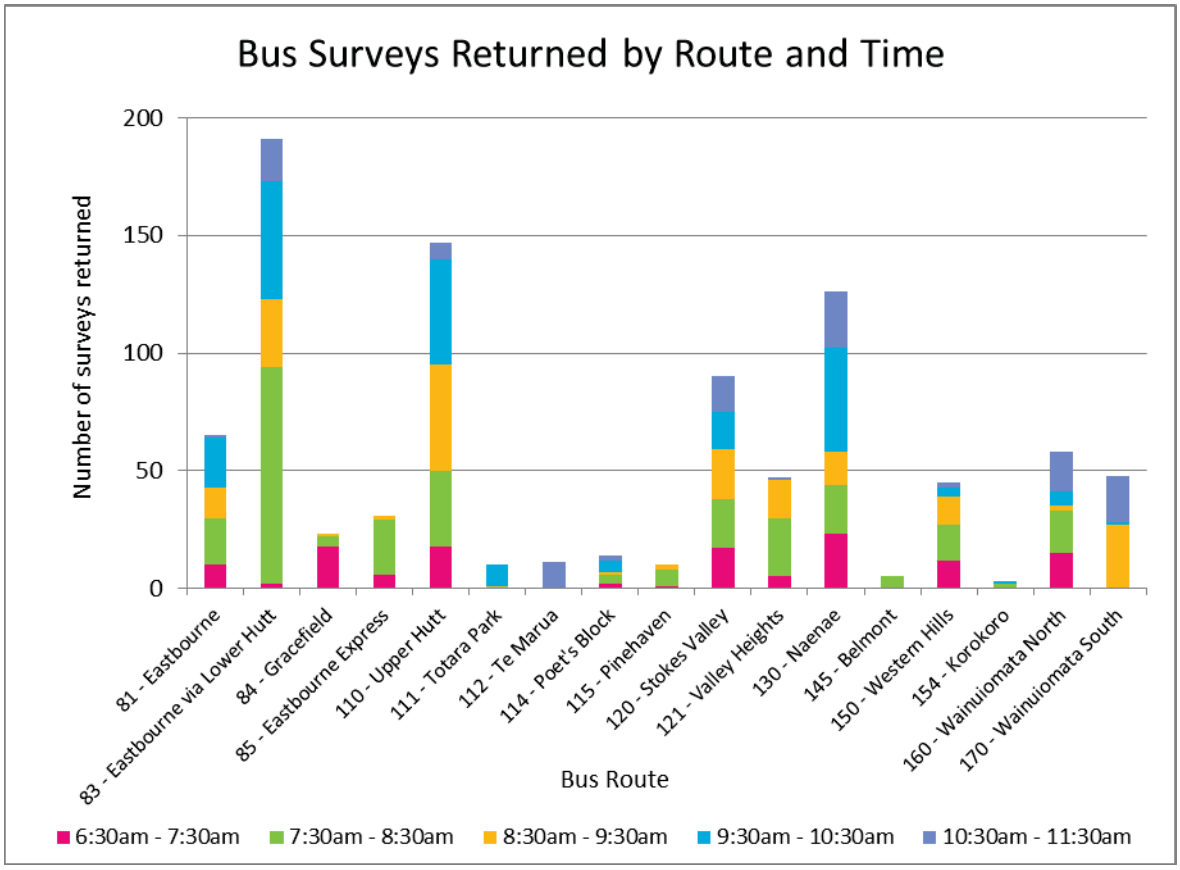


Figure 12: Number of valid bus surveys returned by route throughout the survey period.

Figure 12 shows the volume of surveys collected on each route, and the times at which each survey was collected. The volumes shown are more representative of the targeted design of the surveys rather than the operation of particular routes, as minimum targets for surveys collected were set to ensure statistically valid data was collected, and surveyors were instructed to proceed with the surveys until the targeted number of surveys was collected.

7.1.1 Section A – Service Feature Performance

Please indicate your level of satisfaction with the following service features for this bus trip. Please choose one number for each question.

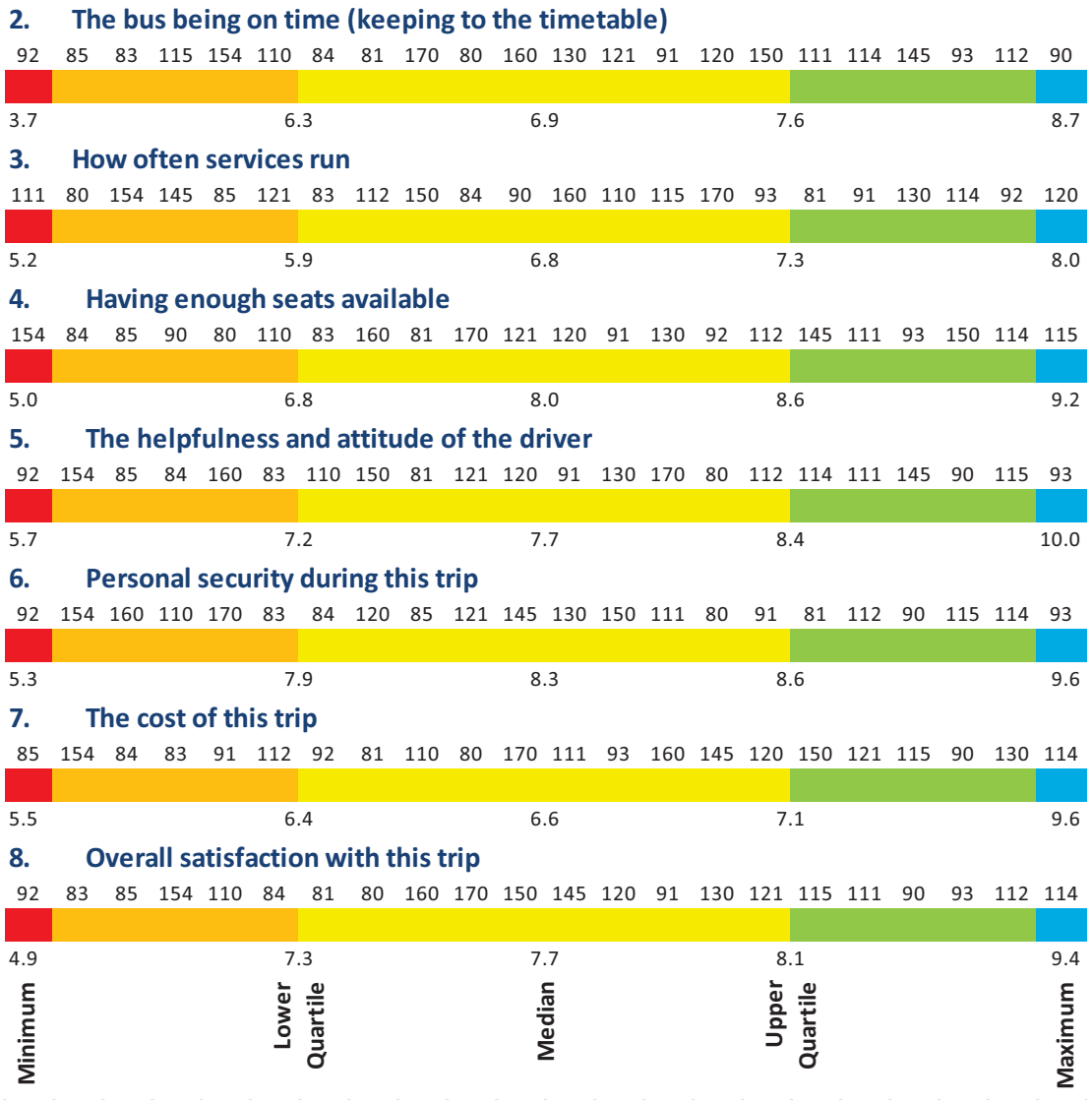


Figure 13: Statistical distribution of satisfaction scores on each bus route from zero (poor) to ten (excellent) for various service features[1].

From Figure 13, the best-performing service feature over all services was personal security with a median score of 8.3, while the lowest-scoring service feature was cost with a median score of 6.6. Excluding the exempt route scores, high and low scores for individual routes over all service features were assigned to Route 114-Poet's Block with a high score of 9.6 for the cost of the trip, and to Route 154 with a low score of 5.0 for the bus having enough seats available.

Within each service feature, the following high and low scores were assigned (excluding the exempt route scores):

- the bus being on time/keeping to timetable – high score (8.6) to Route 112 and low score (5.1) to Route 85. Some passengers commented they often need to catch the Airport Flyer to arrive at their destination on time as the Eastbourne Express is often late;

[1] Includes exempt services.

- how often services run – high score (8.0) to Route 120 and low score (5.2) to Route 111. Totara Park only had around 10 surveys collected, so the scores assigned could be heavily weighted by a few passengers rather than accurately representing the population of passengers on this particular route. Totara Park is also a feeder route with lower patronage, so higher service frequencies may not be appropriate;
- having enough seats available – high score (9.2) to route 115 and low score (5.0) to Route 154. Both the Korokoro and Pinehaven routes are lower patronised services, so it is interesting that Korokoro obtained such a low seating availability score. After the surveys were complete, the surveyor for the Korokoro route noted that they were not able to collect many surveys because the number of young children on the Bus (<15) meant few adults of a suitable surveying age were present;
- the helpfulness and attitude of the driver – high score (9.5) to Route 115 and low score (6.0) to Route 154;
- personal security during the trip – high score (9.2) to Route 114-Poet's Block and low score (5.7) to Route 154;
- the cost of the trip – high score (9.6) to Route 114 and low score (5.5) to Route 85. Comments collected during the surveys indicate there were some issues with the fare pricing for buses services in the Eastbourne area;
- overall satisfaction – high score (9.4) to Route 114 and low score (6.5) to Route 83.

Overall, the bus services in the Hutt Valley appear to be performing well with above satisfactory median scores (above 5) in all service features. The lower patronised feeder services in Upper Hutt including 111, 112, 114 and 115 are performing particularly well as an area; however the main trunk service 110 is in the either in the lower quartile or on the fringe of the lower quartile for most service features.

Some routes serving the Eastbourne area including 81, 83, 84 and 85 have also been given poor ratings across most service features. These services along with the 110 service may be in need of some improvements to raise customer satisfaction levels.

7.1.2 Section B – Transfer between Bus and Train

9. Will your journey today be just on this bus or does it require you to use another bus or train to complete your journey?

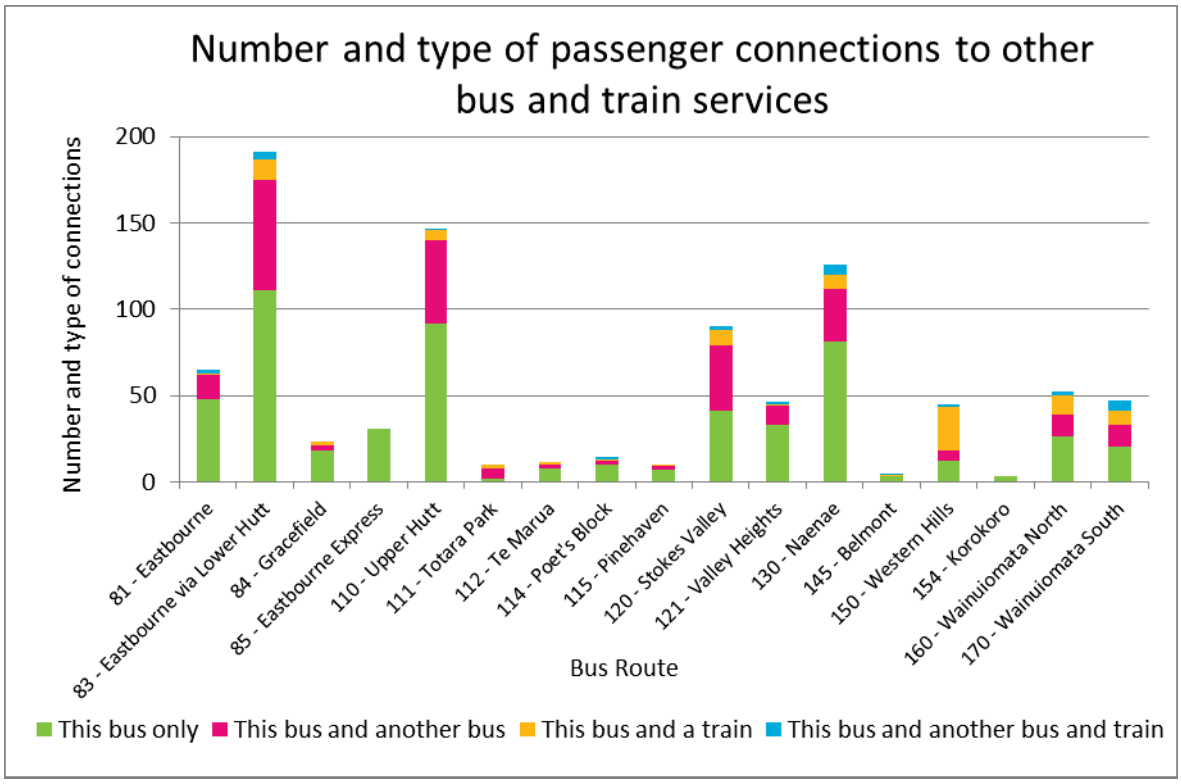


Figure 14: Number of passengers from the on-bus surveys connecting to other public transport services.

As shown in Figure 14, on most routes the majority of bus trips surveyed were singular trip leg journeys (green), although on some routes a significant number of connections to other public transport services were also made. These routes include:

- 83, 110, 111, 120, 160 and 170 with a sizeable proportion of all trips connecting to other bus services; and
- 150, 160 and 170 with a sizeable proportion of trips connecting to train services.

From all the routes surveyed, 150 had the highest proportion of passengers connecting to other bus and train services in the morning peak. Interestingly, some of the routes which are designed as feeder routes (111, 112, 114, and 115 in Upper Hutt) to connect with main trunk line services (Hutt Valley rail, 110 bus service) had a lower proportion of trips connecting with other bus and train services.

If this is a regular journey and you normally make a transfer between bus and train as part of it, please fill in Section B, otherwise please go straight to Section C. Please choose one number for each question.

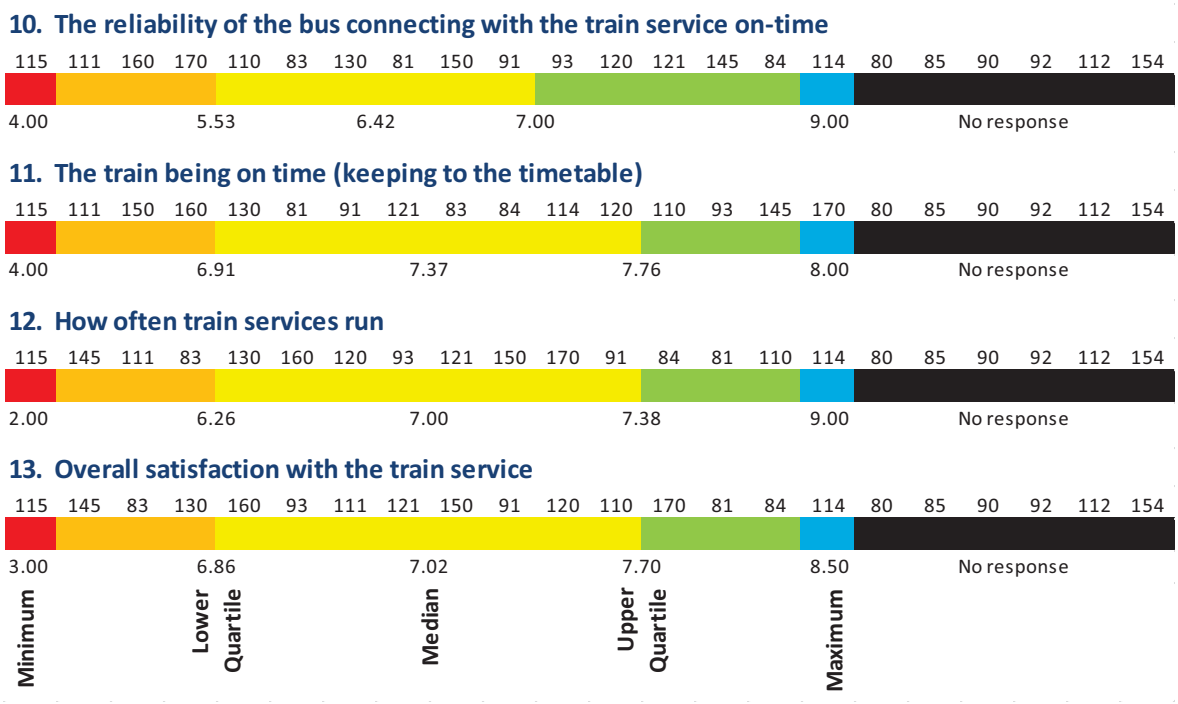


Figure 15: Statistical distribution of satisfaction scores on each bus route from zero (poor) to ten (excellent) for the bus-train connection service features[2].

From Figure 15, the best-performing bus-train connection service feature over all services was the train being on time/keeping to timetable with a median score of 7.37, while the lowest-scoring service feature was the reliability of the bus connecting with the train on time with a median score of 6.42. High and low scores for individual routes over all service features were assigned to Route 114 with a high score of 9.0 for both the reliability of the bus connecting to the train on time and how often train services run, and to Route 115 with a low score of 2.0 for how often train services run.

Within each service feature, the following high and low scores were assigned:

- the reliability of the bus connecting to the train service on time – high score (9.0) to Route 114 and low score (4.0) to Route 115;
- the train being on time/keeping to timetable – high score (8.0) to Route 170 and low score (4.0) to Route 115;
- how often train services run – high score (9.0) to Route 114 and low score (2.0) to Route 115;
- overall satisfaction with the train service – high score (8.5) to Route 114 and low score (3.0) to Route 115.

Although the scores assigned to each route are reasonably consistent over all bus-train connection service features, few responses were collected at this stage of the survey, so the statistical accuracy of some scores may not be reliable due to a low number of responses on that particular route. Table 2 shows the number of responses obtained for each route in Section B of the survey.

[2] Includes exempt services.

Route	Responses Received	Route	Responses Received
81 – Eastbourne	3	120 – Stokes Valley	11
83 – Eastbourne via Lower Hutt	15	121 – Valley Heights	3
84 – Gracefield	2	130 – Naenae	13
85 – Eastbourne Express	0	145 – Belmont	1
110 – Upper Hutt	8	150 – Western Hills	26
111 – Totara Park	2	154 – Korokoro	0
112 – Te Marua	0	160 – Wainuiomata North	18
114 – Poets Block	2	170 – Wainuiomata South	14
115 – Pinehaven	1	**TOTAL ALL ROUTES**	**119**

Table 2: Number of responses received in the bus-train connection scoring section of the bus surveys.

In Table 2 it can be seen that on Routes 114 and 115, very few responses were obtained thus reducing the validity of the average scores for these routes. For the routes where more than eight responses were obtained, the following scores can be noted:

- Routes 160, 170 and 110 have issues with the bus services connecting with the train on time. Both the Wainuiomata services connect with the Hutt Valley rail line at Waterloo station, and the 110 service connects with the Hutt Valley line at Petone, Silverstream and Upper Hutt and with the Melling line at Petone;
- Routes 150 and 160 obtained poor scores for the train keeping to timetable while 110 and 170 – Wainuiomata South obtained high scores. Route 150 connects with the Melling line at Western Hutt and Petone and the Hutt Valley line at Petone, Waterloo and Epuni stations;
- passengers on Routes 83 and 130 assigned low scores for the overall satisfaction of the train service and for how often train services run. Route 83 connects to both the Hutt Valley and Melling lines at Petone and to all train lines at Wellington Station, while Route 130 connects to the Hutt Valley line at Naenae, Waterloo and Petone stations and to the Melling line at Petone.

7.1.3 Section C – Demographics

14. What gender are you?

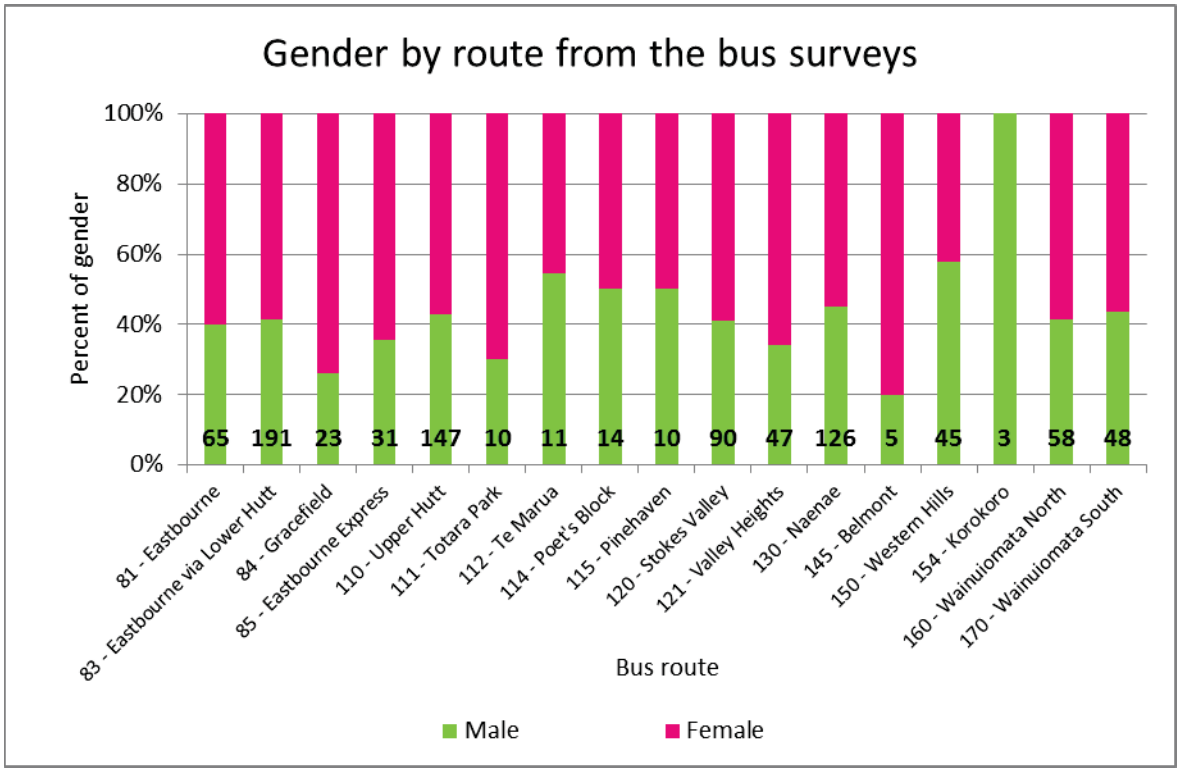


Figure 16: Gender of all passengers surveyed during the bus surveys.

2. Which age group do you fall into?

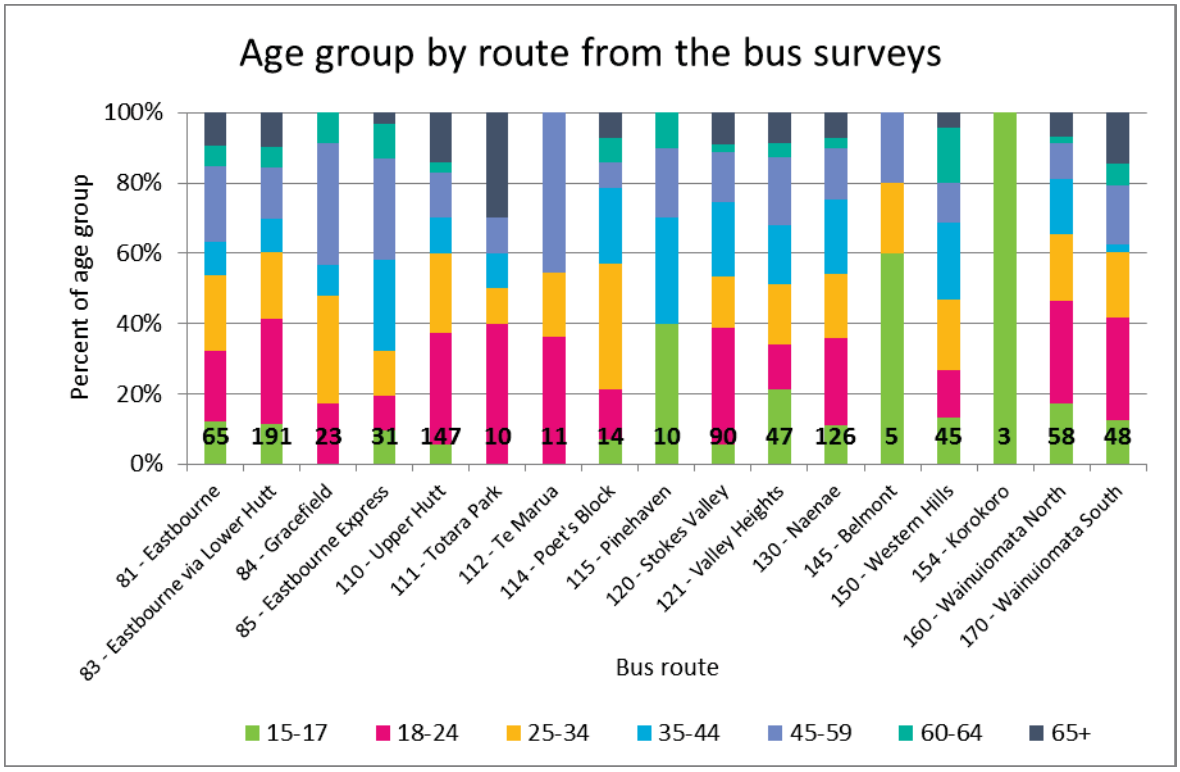


Figure 17: Age groups of all passengers surveyed during the bus surveys.

3. What is the purpose of this journey? Going to:

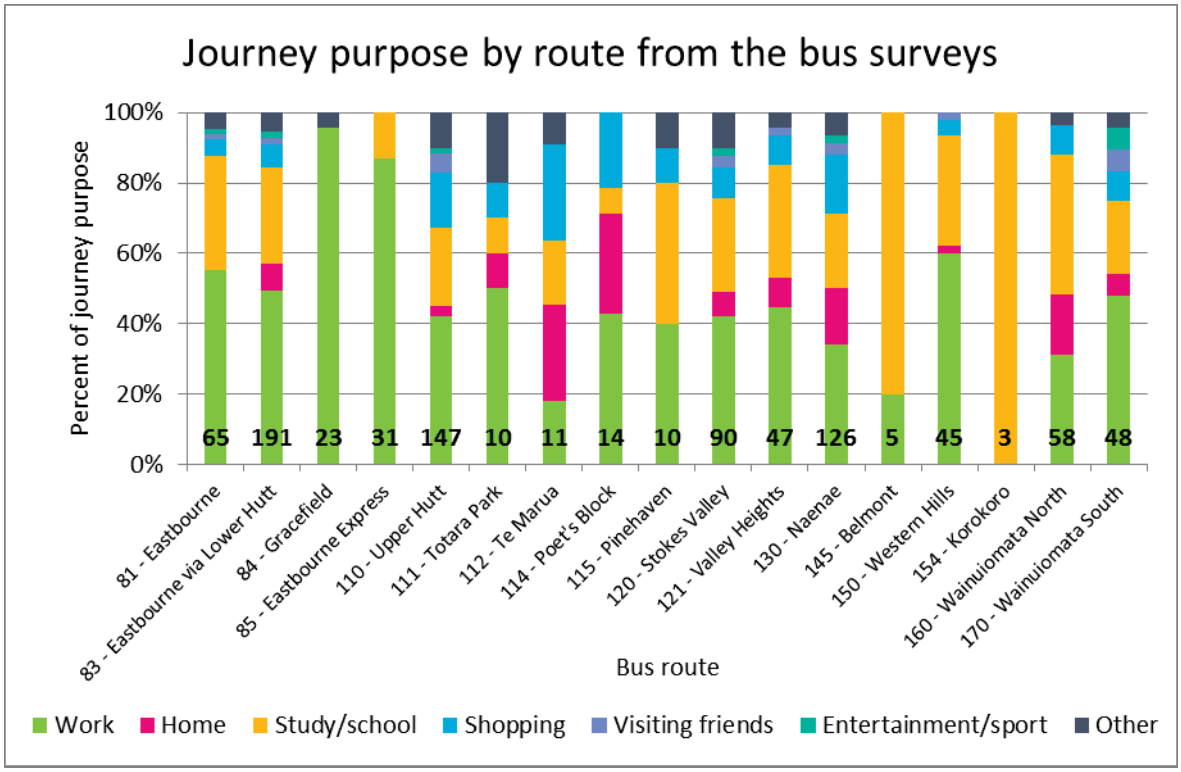


Figure 18: Journey purpose of all passengers surveyed during the bus surveys.

From Figure 16, Figure 17 and Figure 18, it can be seen that a wide cross-section of society are using the bus service in the Hutt Valley for a range of purposes. The following observation can be made:

- slightly more females are using the bus services than males in the Hutt Valley. The patronage split over all services was 42% male and 58% female;
- most services were patronised by at least one person from all age groups. Services which had age groups missing were:
  - 84 – Gracefield, missing the 15-17 and 65+ age groups;
  - 111 – Totara Park, missing the 15-17 and 60-64 age groups;
  - 112 – Te Marua, missing the 15-17, 35-44, 60-64 and 65+ age groups;
  - 115 – Pinehaven, missing the 18-24, 25-34 and 65+ age groups;
  - 145 – Belmont, missing the 18-24, 35-44, 60-64 and 65+ age groups; and
  - 154 – Korokoro, comprising only the 15-17 age group.
- the bus services are mostly used for travelling to work and school in the morning peak, with the following services having sizeable portions of other uses:
  - travelling home – 112, 114, 130, 160;
  - shopping – 110, 112, 114, 130;
  - other journey purposes – 111.

7.1.4 Section D - Comments

4. What are TWO things you could suggest to improve the Hutt Valley's public transport services?

Figure 19 shows a word cloud, created by counting the number of time a particular word appeared in the comments section for all routes and sizing each word depending on the number of times it occurred in the commentary.

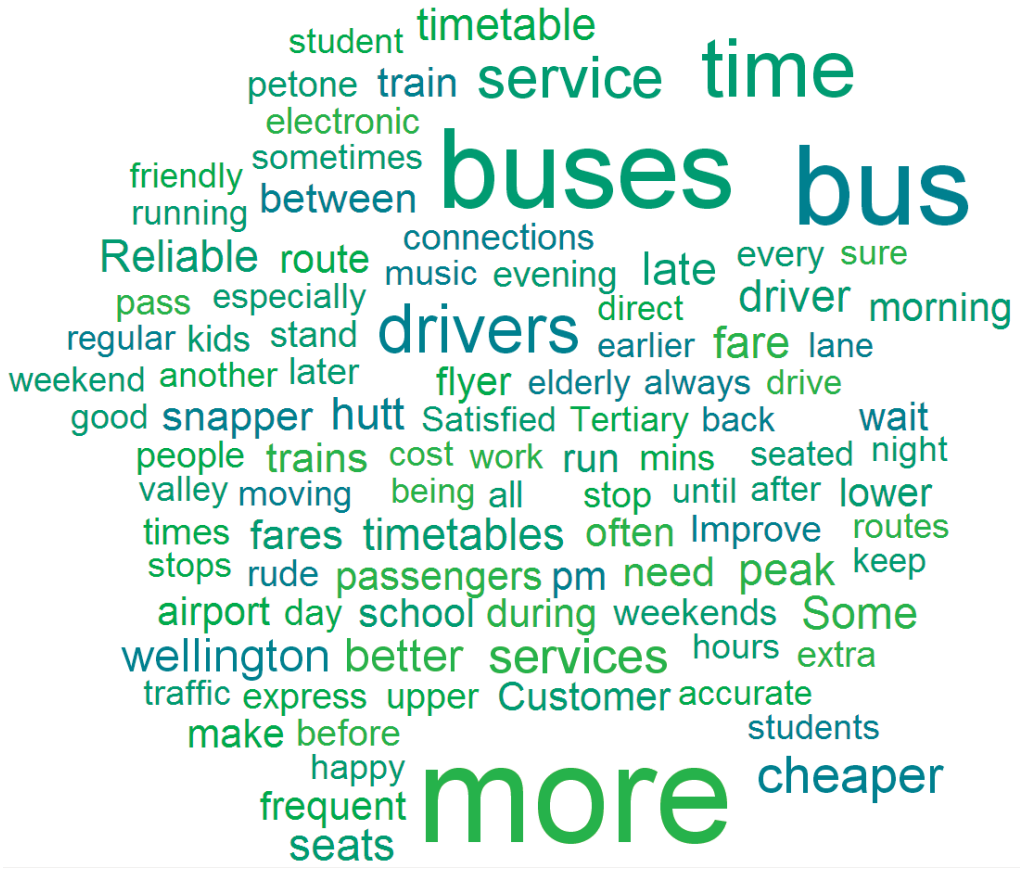


Figure 19: Word cloud from comments received during the on-bus surveys.

From Figure 19, the outstanding message gained from the word cloud is "more buses" and "time" or timeliness, confirming frequency and reliability as the main concerns of passengers. At a secondary level, "drivers", "reliable", "service", "timetable" and "cheaper" are the main passenger concerns. The prominence of "drivers" highlights that much of the experience that passengers have from a customer service perspective relies on the drivers.

The comments for each service were read through and any recurring issues within one service were selected for further consideration. These issues are summarised below:

- bus doesn't run to timetable (83, 110, 115, 120, 130, 170), or bus is often late (81, 85, 160). Some Petone passengers reluctantly catch higher-fare Route 91 services because the 83 is consistently late;
- some passengers on the 81 said the bus is late because of increasing congestion on the Petone Esplanade and the lack of enforcement and signposting for the bus lane along the Esplanade;
- require real-time boards to be accurate (81, 85), require real-time boards to inform cancellations and delays (112, 150);

- integrated ticketing/snapper on trains (almost all services), issues connecting with other buses/trains due to timetable unreliability (110, 130, 160). One passenger suggested that transfer time be extended to 1 hour for fare integration to allow for buses and trains being late;
- overcrowding or not enough capacity during peak periods (84, 110, 150);
- driver issues, such as driver being rude / unhelpful (83, 160), braking too hard (83, 121);
- fare zones set up with Wellington CBD as central area not relevant to Lower Hutt (83, 130), fares need to Wellington need to be consistent (83, 84). Lots of requests for tertiary fares;
- buses need to be maintained better, especially in terms of cleanliness (85, and 150); some antisocial behaviour so cameras should be installed/smoking banned (130 and 150);
- passenger demographic complaints, such as lowering bus for elderly people and mothers with prams (130), no seats available for elderly or passengers not giving up their seats for elderly (130, 111), separate bus for students (154); and

7.2 Rail Surveys

7.2.1 Section A – Origin/Destination and Trip Leg Details

1. Details of the train you're currently travelling on: time, station at which you boarded this train, station at which you will leave this train.

Figure 20 and Figure 22 show the periods and total volumes of passengers surveyed respectively boarding or departing at each of the train stations in the Hutt Valley, while Figure 21 and Figure 23 respectively map the boardings and departures by train station location and volume, in order to spatially visualise the data.

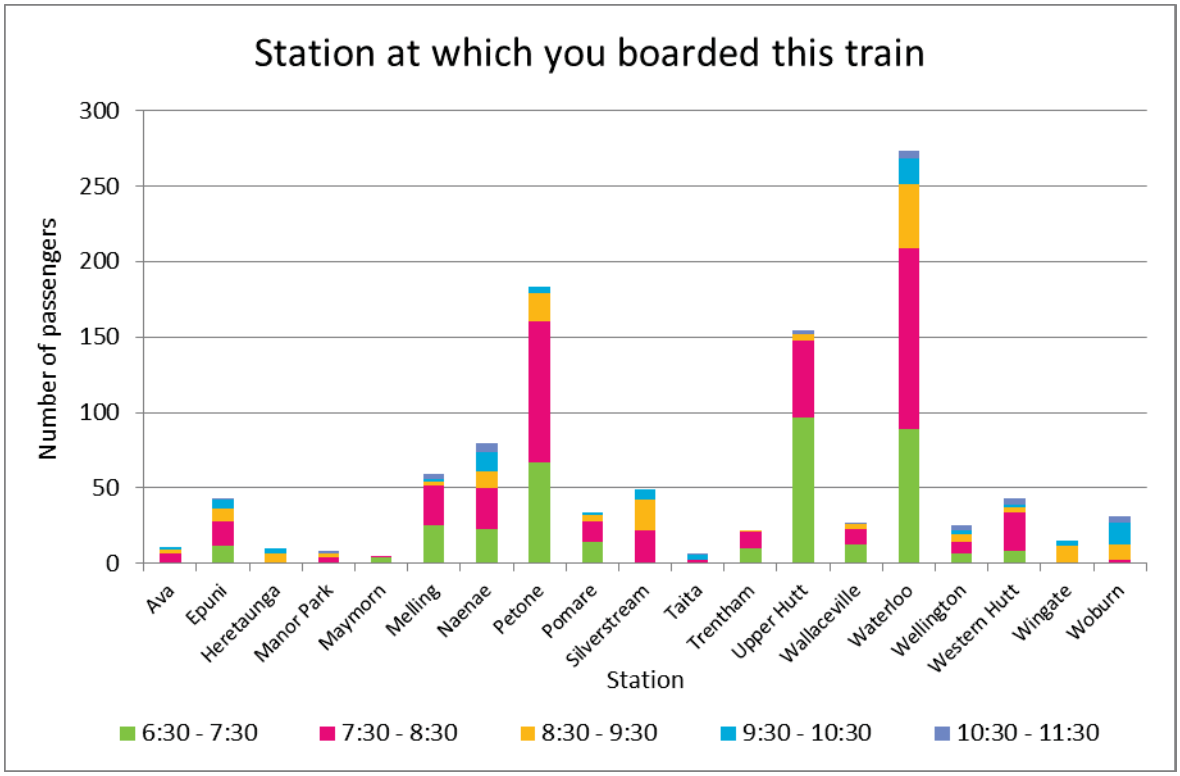


Figure 20: Origin train station from passengers surveyed during the rail surveys.

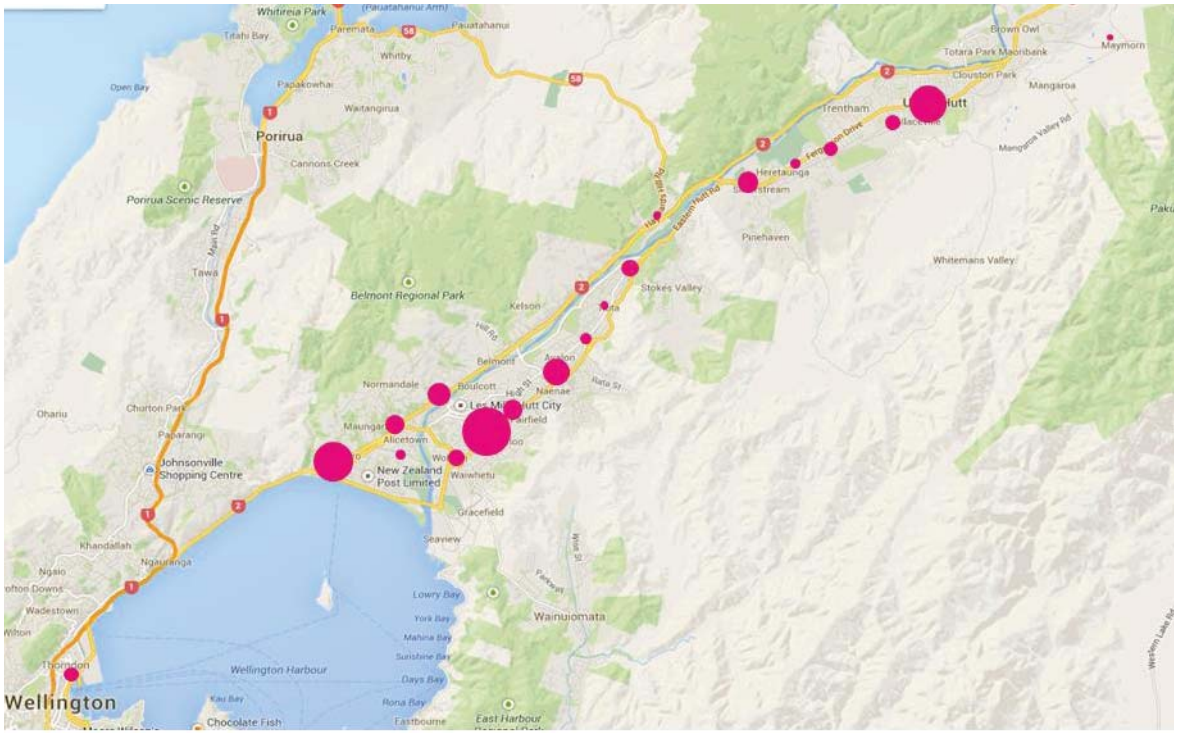


Figure 21: Number of rail surveys returned by trip origin.

As expected, Figure 20 and Figure 21 show a higher volume of boardings at the main centres / interchanges of Upper Hutt, Waterloo and Petone, with most boardings occurring the peak commuting period into Wellington from 6:30am to 8:30am.

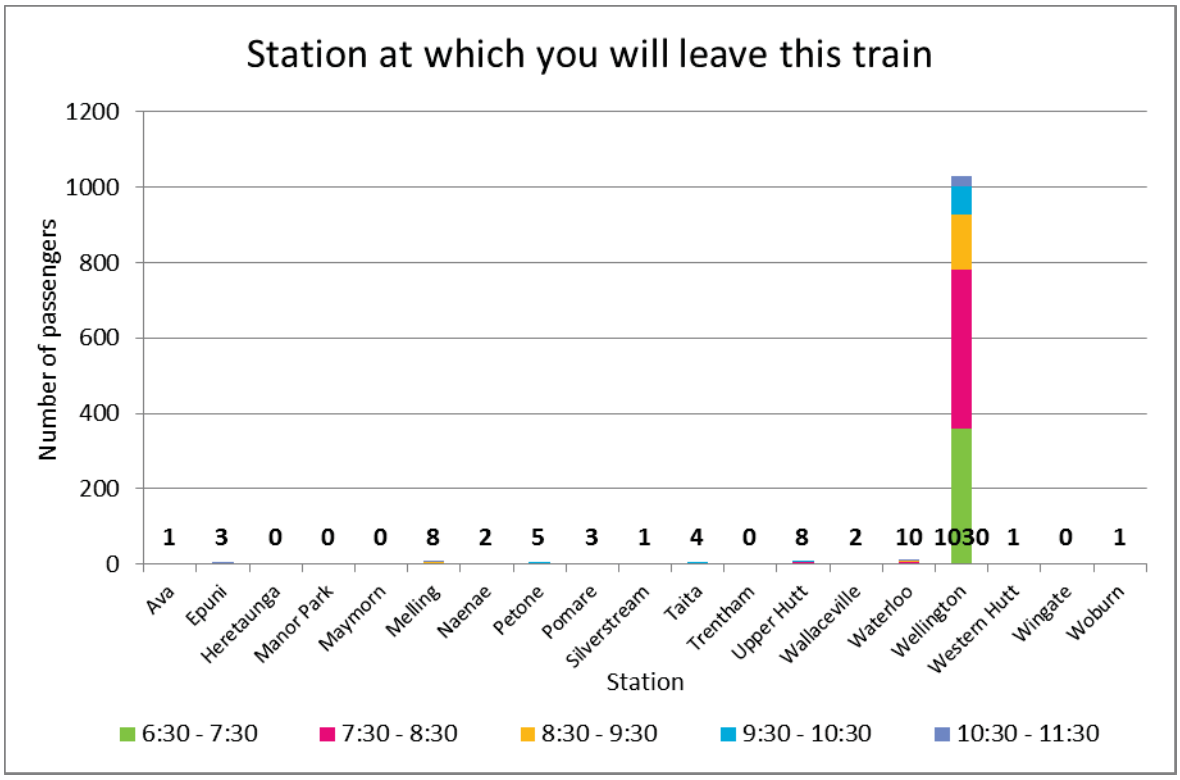


Figure 22: Destination train station from passengers surveyed during the rail surveys.

Figure 23: Number of rail surveys returned by destination.

As expected, most arrivals were at Wellington train station with Wellington CBD as the main employment area in the region, with some arrivals at Melling, Waterloo and Upper Hutt stations to access the smaller employment areas in Lower and Upper Hutt.

5. How did you travel to the rail station today?

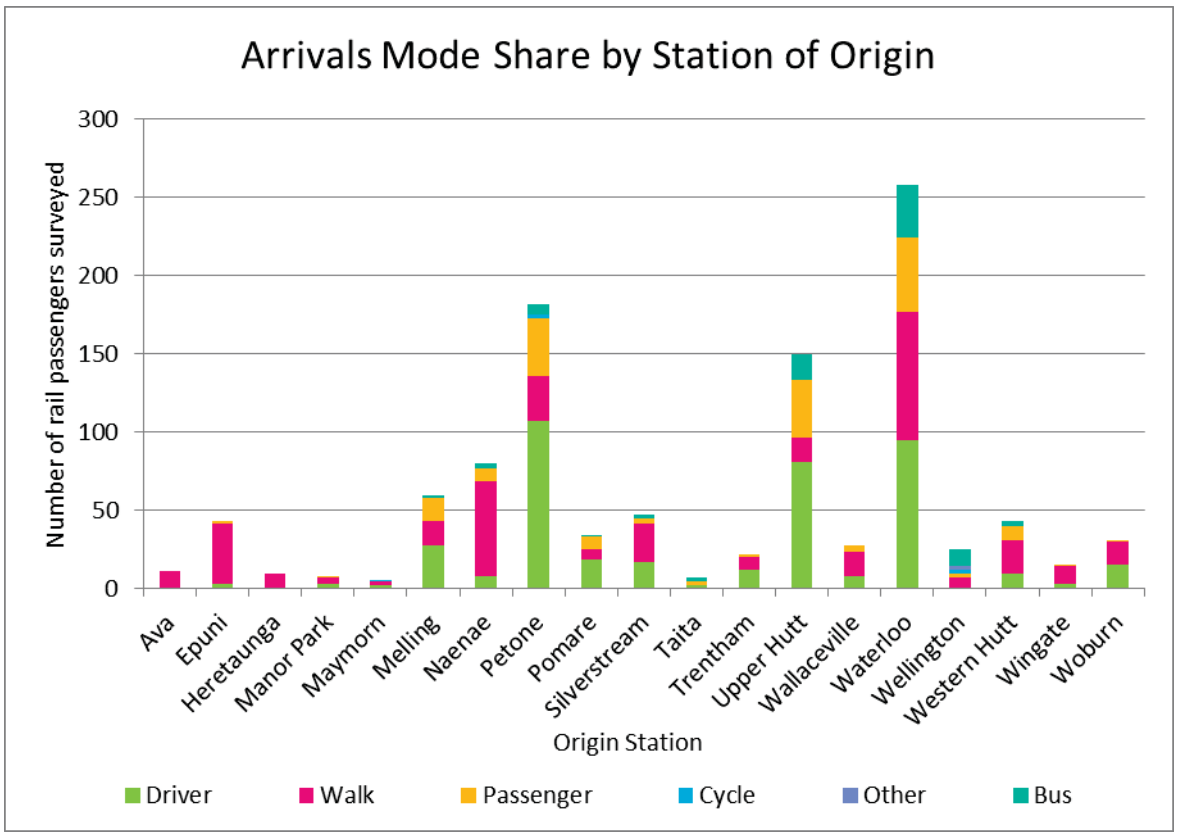


Figure 24: Travel mode to station of origin during the rail surveys.

Figure 24 shows that most passengers or drove or walked to the train station, with a sizeable portion of passengers being dropped off at Melling, Petone, Pomare, Upper Hutt, Waterloo and Western Hutt.

Stations with a significant amount of passengers travelling to the station by bus included Petone, Upper Hutt and Waterloo; however given the number of bus services that connect to these stations, the portion of mode share attributed to bus travel is small and a higher bus mode share is possible.

7.2.2 Section B – Travelled to Station by Bus

If you travelled to the station by bus, please indicate your level of satisfaction with the following service features of the bus trip. Please choose one number for each question.

From Figure 25, the best-performing bus-train connection service feature over all services was how regularly bus services run with a median score of 6.75, while the lowest-scoring service features were the reliability of the bus connecting with the train on time and the overall satisfaction with the bus service, both with a median score of 6.00.

High and low scores for individual routes over all service features were assigned to Route 130 with a high score of 8.11 for how regularly bus services run, and to Route 112 with a low score of 2.50 for the hours the bus service operates.

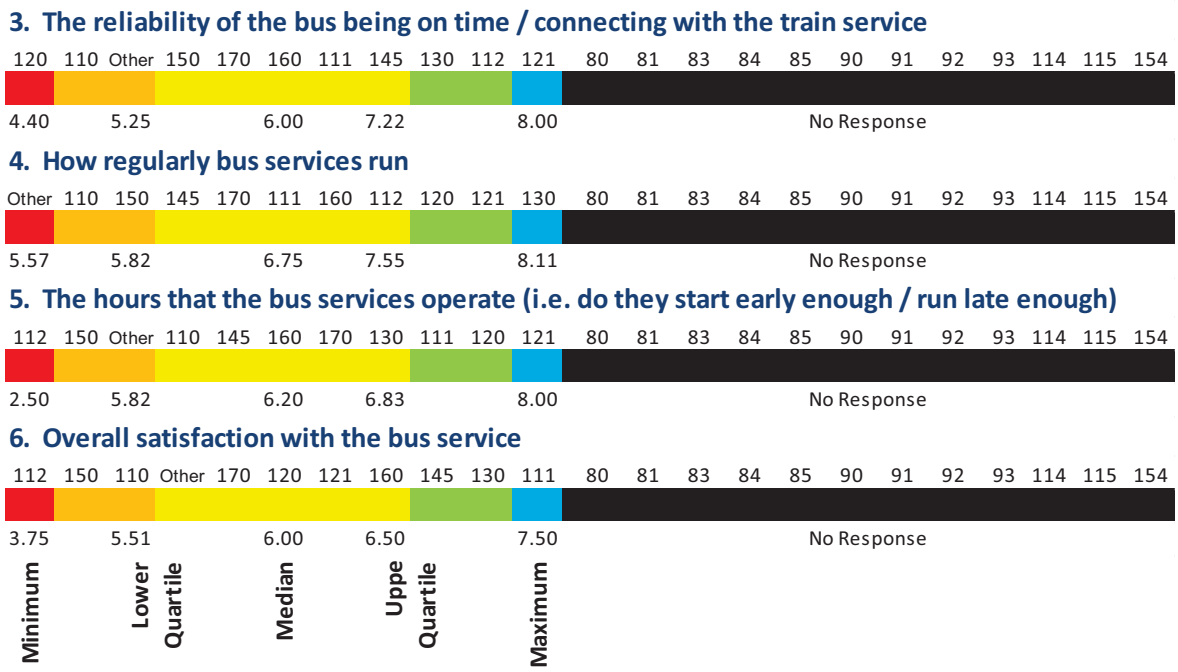


Figure 25: Statistical distribution of satisfaction scores on each bus route from zero (poor) to ten (excellent) for the bus-train connection service features.

Within each service feature, the following high and low scores were assigned:

- the reliability of the bus connecting to the train service on time – high score (8.0) to Route 121 and low score (4.4) to Route 120;
- how regularly bus services run – high score (8.11) to Route 130 and low score (5.57) to other routes not examined as part of this review. 110 had the next-lowest score of 5.58;

- the hours the bus service operates – high score (8.0) to Route 121 and low score (2.5) to Route 112;
- overall satisfaction with the bus service – high score (7.5) to Route 111 and low score (3.75) to Route 112.

Although the scores assigned to each route are reasonable consistent over all bus-train connection service features, few responses were collected at this stage of the survey so the statistical accuracy of some scores may not be reliable due to a low number of responses for that particular route.

Table 3 shows the number of responses obtained for each route in Section B of the survey. It can be seen that on Route 112, very few responses were obtained thus reducing the validity of the average scores for this route.

Route	Responses Received	Route	Responses Received
81 – Eastbourne	0	120 – Stokes Valley	5
83 – Eastbourne via Lower Hutt	0	121 – Valley Heights	1
84 – Gracefield	0	130 – Naenae	9
85 – Eastbourne Express	0	145 – Belmont	1
110 – Upper Hutt	12	150 – Western Hills	11
111 – Totara Park	4	154 – Korokoro	0
112 – Te Marua	4	160 – Wainuiomata North	5
114 – Poets Block	0	170 – Wainuiomata South	16
115 – Pinehaven	0	Other routes not reviewed	14
		TOTAL ALL ROUTES	**82**

Table 3: Number of responses received in the bus-train connection scoring section of the bus surveys.

For the routes where more than eight responses were obtained, the following scores can be noted:

- Routes 110 and 150 were either in the lower quartile or on the fringe of the lower quartile for all service connection features;
- Route 130 scored well, either being in the upper quartile, on the fringe of the upper quartile or having the maximum score across all service connection features;
- Route 170 scored around the median for all service connection features.

7.2.3 Section C – Travelled to Station by Car

7. If you travelled to the station by car (as either driver or passenger), please indicate the reasons why you didn't travel by bus instead (select as many as apply):

Figure 26 shows the percentages and totals of reasons why passengers drive to each of the train stations rather than taking the bus. Most train stations have a variety of reasons as to why driving is preferable to using the bus service, with "bus trips are slow compared to car" being the most-cited reason (20.2%) and "personal safety at bus stop" being the least cited reason (1.9%).

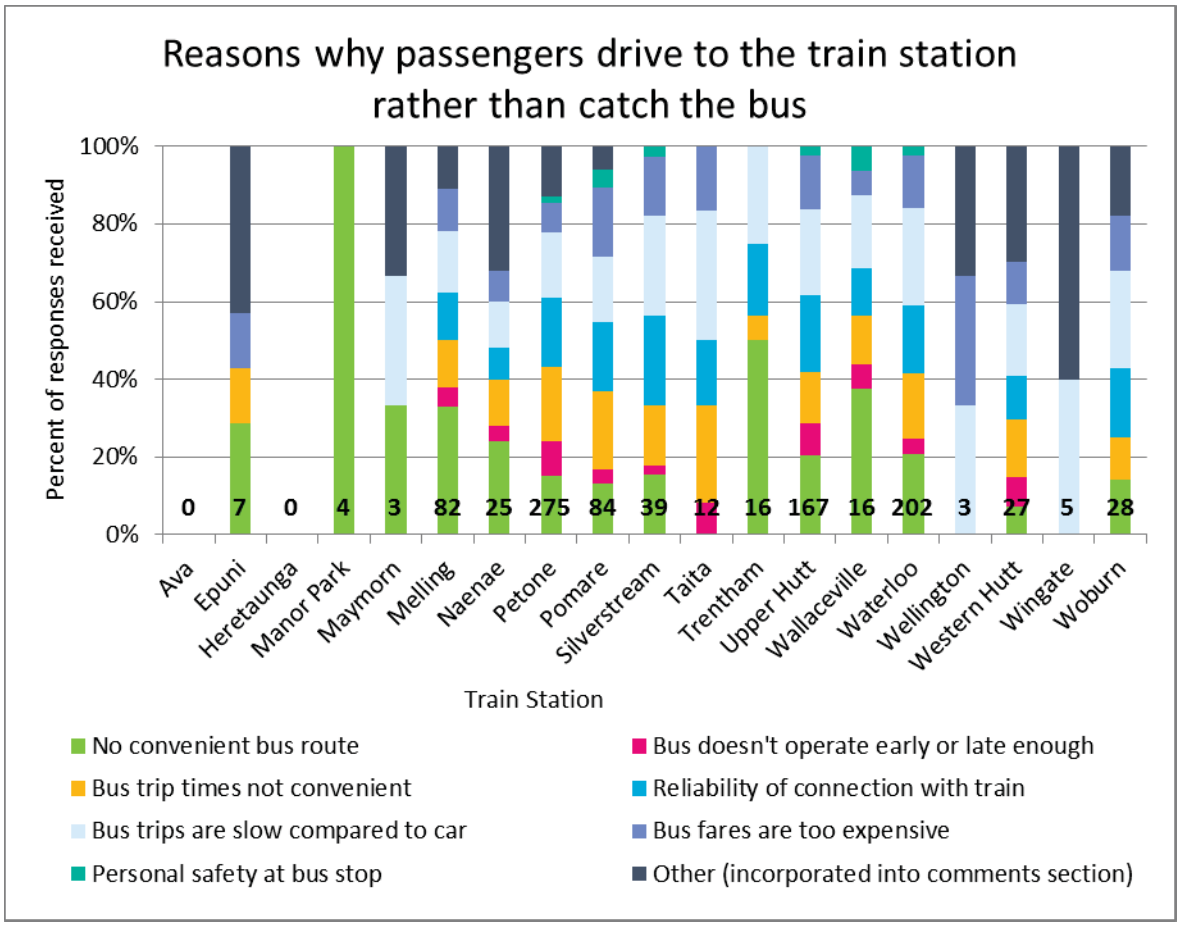


Figure 26: Number and percentage of responses as to why train passengers choose to drive to the train station rather than catching the bus.

Train stations which had a sizeable portion of responses dedicated to few reasons for not catching the bus are:

- Manor Park, Melling, Trentham and Wallaceville where many responses received related to not having a convenient bus route; and
- Taita, where around 60% or all responses related to the bus trip times not being convenient, or the bus being too slow.

Following on from the lack of provision for a convenient bus route, passengers were asked to provide further details to identify whether there are any particular areas where no convenient bus route is being provided to connect with local train stations.

8. If you noted that there is no convenient bus route, please provide the name of a street intersection near to your journey origin, along with the Suburb name:

Intersections reported as having no reasonable bus option to travel to the train station are shown in red in Figure 27.

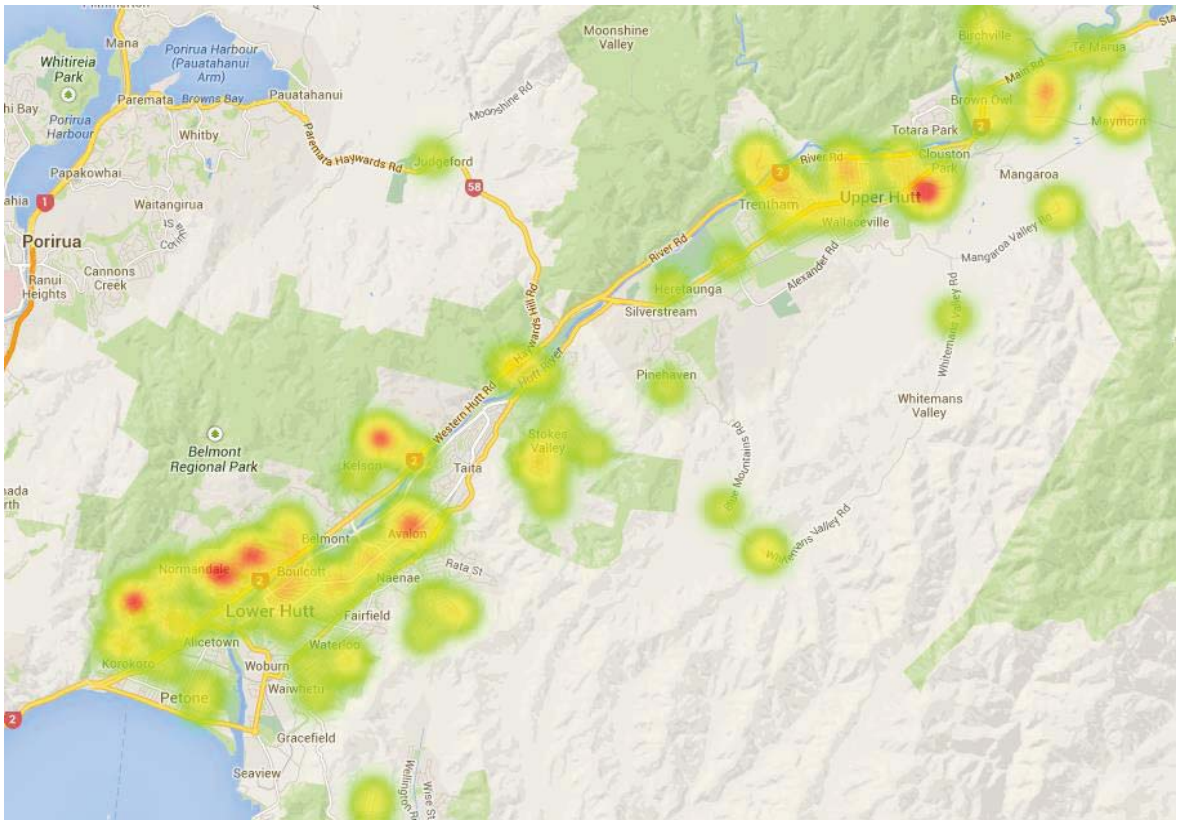


Figure 27: Heat map of locations where no convenient bus route is provided to connect to a train station.

These areas include:

- Maungaraki Road between Maungaraki and Korokoro;
- multiple locations in Tirohanga and Harbourview;
- Avalon, mostly on High Street;
- Kelson, towards the terminus of Major Drive; and
- Kingsley Heights in Upper Hutt.

There were also a number of complaints in Boulcott and Lower Hutt and in Elderslea / Trentham in Upper Hutt, although the locations of the complaint made were not sufficiently close to show up red on the heat map. Interestingly, some of the red areas have bus services nearby which are intended to connect to the train station, such as the 150 in Maungaraki, the 114 in Elderslea / Trentham, and 110, 120 and 121 in Boulcott.

There is a bias in the heat map, as some intersections named were listed up to five times while no other intersections in the area were named. Although this could be caused by long walking distances between two adjacent bus stops to the named intersection, there is the possibility that the intersections named were by families or other groups of people who carpool to the train station together.

Suburbs named with no convenient bus route are summarised in a word cloud in Figure 28. The ten suburbs which had the most responses were Stokes Valley, Maungaraki, Boulcott, Kelson, Avalon, Tirohanga, Timberlea, Trentham, Kingsley Heights and Riverstone Terraces.

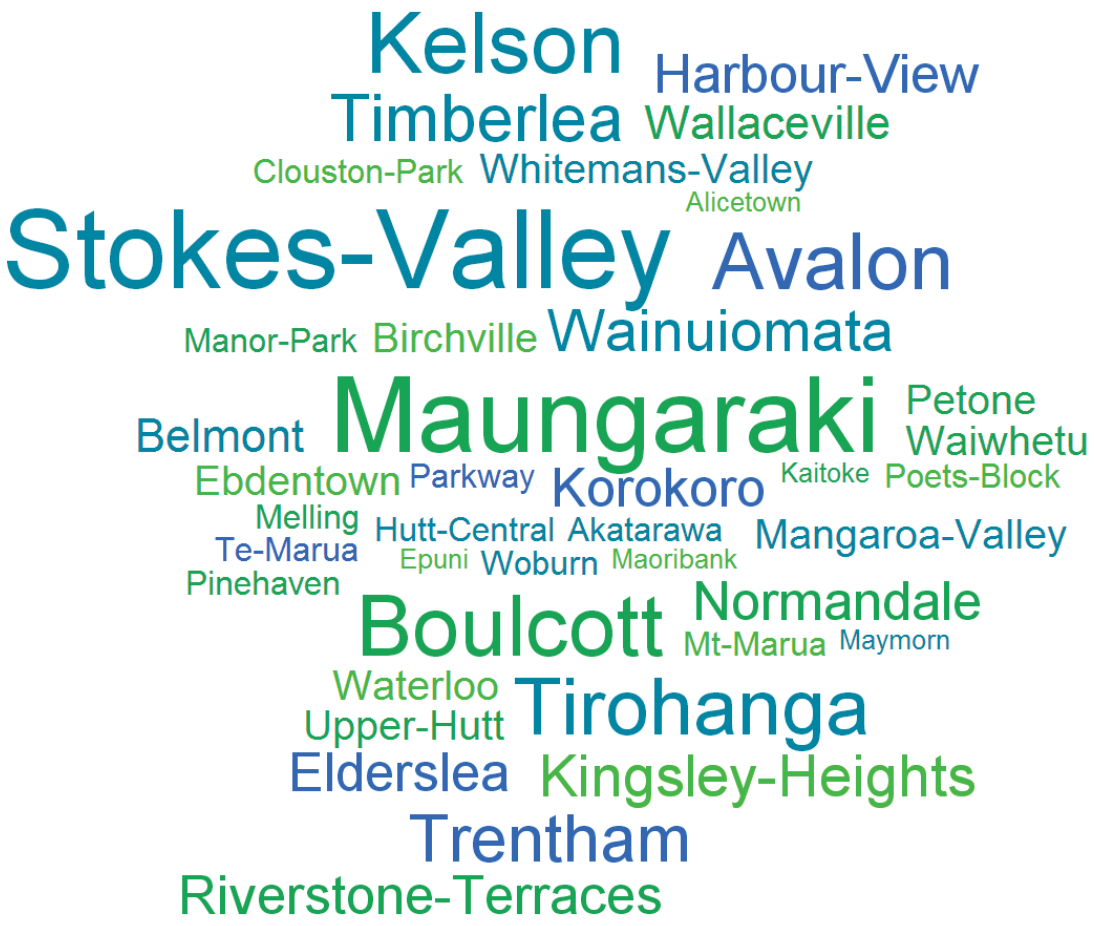
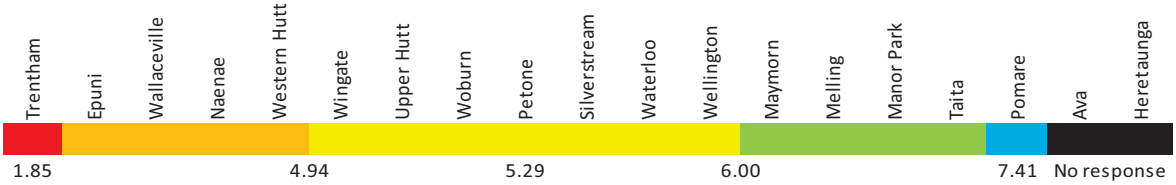


Figure 28: Suburbs where no convenient bus route is available to connect to a local train station.

If you travelled to the station by car (as either driver or passenger), please indicate how likely you would be to use the bus instead, if:

9. The bus was free to rail users



10. Pay and Display Parking charge was introduced

Figure 29: Likelihood of success for proposed measures to encourage car drivers and passengers to travel to the train station by bus instead.

Figure 29 shows how receptive rail passengers are to incentives to move car driver / passenger trips to travel by bus instead. Overall, providing free bus fares to train passengers scored higher

from the two options provided, and introducing pay and display parking proved to be an unpopular option at all stations. Smaller train stations with fewer train passengers dependent on the supply of a large number of park and ride spaces objected particularly strongly to this option.

7.2.4 Section D – Demographics

11. What gender are you?

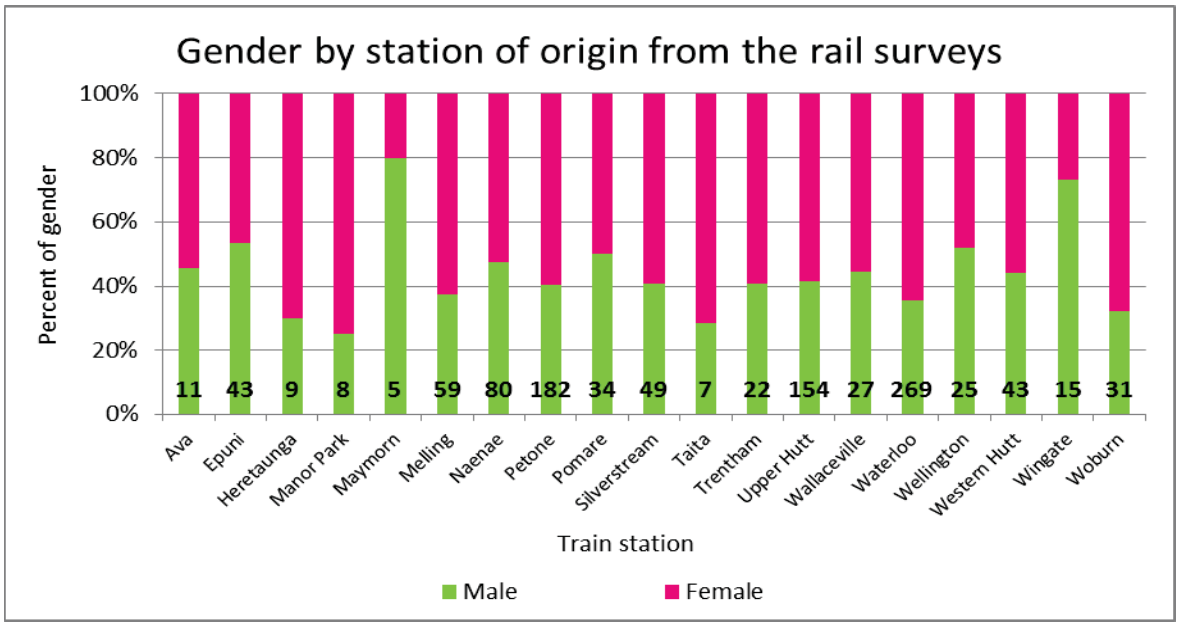


Figure 30: Gender of all passengers surveyed during the rail surveys.

12. Which age group do you fall into?

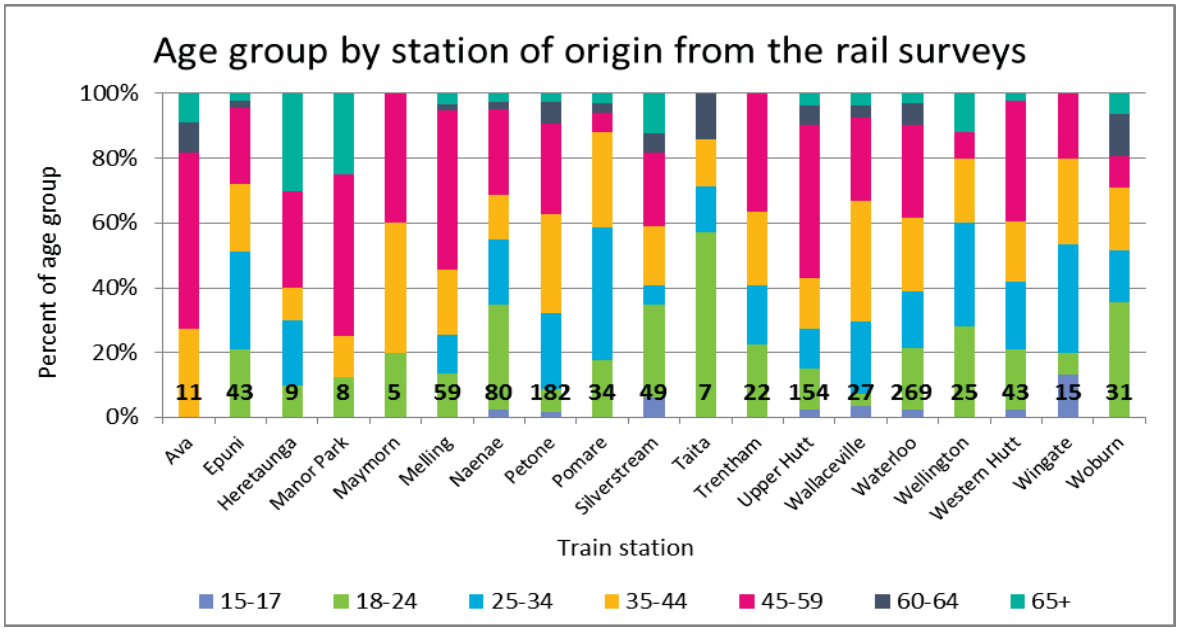


Figure 31: Age groups of all passengers surveyed during the rail surveys.

13. What is the purpose of this journey? Going to:

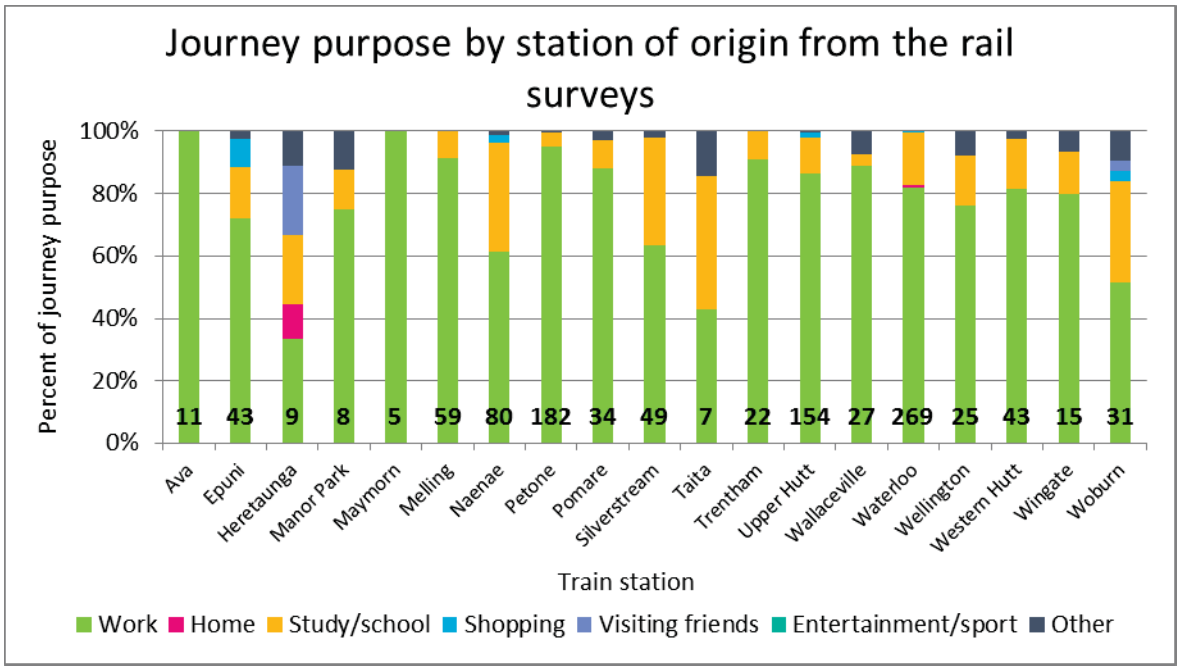


Figure 32: Journey purpose of all passengers surveyed during the rail surveys.

From Figure 30, Figure 31 and Figure 32, it can be seen that a wide cross-section of society are using the rail service in the Hutt Valley for a range of purposes. In comparison to the bus surveys, more of the surveyed population are in the 45-59 age group and are using the train to travel to work. The following observations can be made:

- slightly more females are using the bus services than males in the Hutt Valley. The patronage split over all services was 59% female and 41% male;
- most origin train stations were used by at least one person from all age groups, with the following age groups being over-represented at some stations:
  - 15-17: Nil;
  - 18-24: Naenae, Silverstream, Taita and Woburn;
  - 25-34: Pomare and Wingate;
  - 35-44: Maymorn and Wallaceville;
  - 45-59: Ava, Manor Park, Maymorn, Melling, Upper Hutt, and Western Hutt;
  - 60-64: Nil; and
  - 65+: Heretaunga, Manor Park.
- the train services are mostly used for travelling to work and school in the morning peak, with the following stations having sizeable portions of other uses:
  - travelling home and visiting friends – Heretaunga;
  - shopping – Epuni; and
  - other journey purposes – Heretaunga, Manor Park, Taita, Wallaceville and Woburn.

7.2.5 Section E – Comments

14. If you have any suggestions of how to improve the Hutt Valley's public transport services, please note them down below:

Figure 33 shows a word cloud, created by counting the number of time a particular word appeared in the comments section for all stations and sizing each word depending on the number of times it occurred in the commentary.

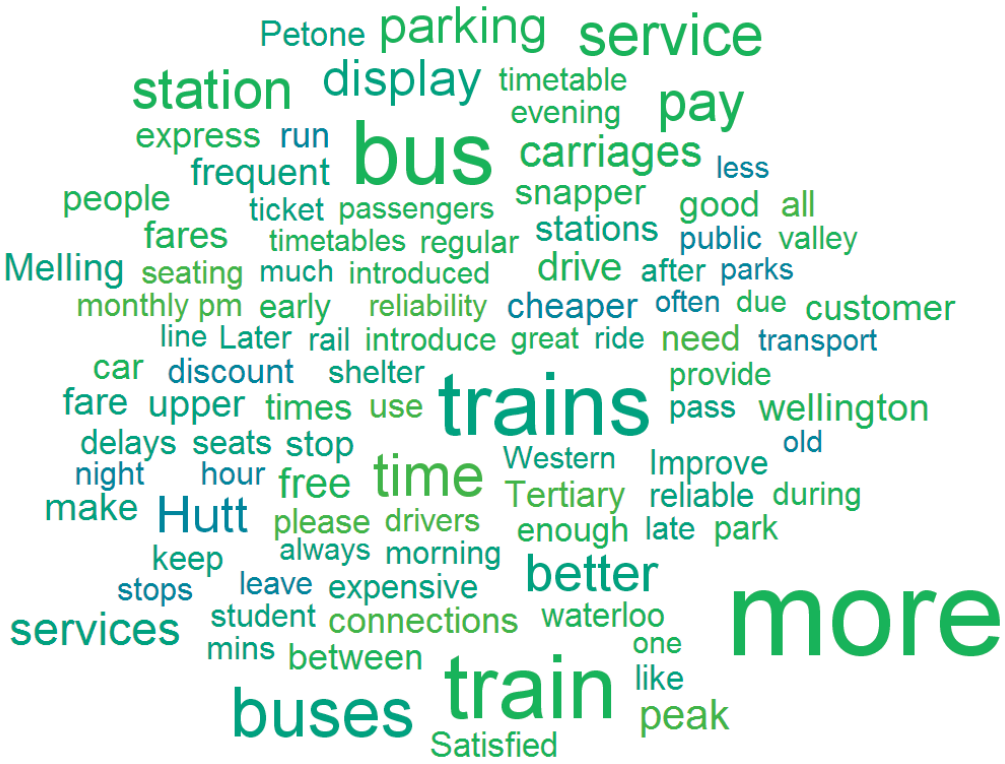


Figure 33: Word cloud from comments received during the train surveys.

From Figure 33, the outstanding message gained from the word cloud is “more trains” confirming frequency as the main concerns of train passengers. At a secondary level, “time”, “buses”, “service”, “parking” and “pay” are the main passenger concerns. Many of the comments received focused on the possibility of pay and display being introduced in current station park and ride areas, and how this would be unacceptable for many passengers.

The comments for each service were read through and any recurring issues within one service were selected for further consideration. These issues are summarised below:

- Hutt Valley line needs an additional carriage during peak times (morning and evening) as there is currently almost no standing room;
- requests for more afternoon peak services for the 150 Western Hills service, mainly for passengers connecting at Waterloo, Petone and Western Hutt. This particularly applies for residents in Kelson. Residents in Harbour View, Tirohanga and Melling would like this route to pass through their suburbs;
- fare prices for many passengers travelling into Wellington by train from the Hutt Valley are only marginally cheaper than driving to Wellington and paying for parking. The cost of catching the bus to the train station plus the train fare to Wellington makes public transport uneconomic for many passengers, so most choose to use park and ride instead. Lots of comments around creating integrated ticketing so fare integration between bus and train becomes cheaper compared to park and ride and train or driving to Wellington and paying for parking;

- almost half of all comments received were negative reactions to the potential introduction of pay and display parking at park and ride facilities. Most people said they would rather drive to Wellington and pay for parking if it was necessary to pay for park and ride facilities, and that the cost of public transport was already only marginally cheaper than driving;
- there were comments at almost every station requesting better shelters from harsh Wellington weather conditions, and that other facilities were required at the stations, such as rubbish bins, toilets, better lighting, CCTV cameras, coffee shop, etc.;
- there seems to be issues with train delays between Waterloo and Upper Hutt, with trains consistently arriving late in the afternoon peak period and missing bus connections (i.e. the 110 and 111 in Upper Hutt and the 160 and 130 at Waterloo). Lots of passengers boarding at both of these stations requested an extra express service, and passengers boarding in Upper Hutt wanted to be able to use the Wairarapa service as an express service with no additional charge. One person suggested delays were caused by the Wairarapa train;
- many comments from Upper Hutt residents who feel they do not have access to reasonable public transport directly into Wellington since route for the Airport Flyer changed;
- some comments that the park and ride facilities didn't have enough disabled parking spaces; and
- some comments that the Manor Park Station is underused, with suggestions for improving use. Suggestions included creating a commuter bus service which runs over the Haywards between Pauatahanui and Manor Park Station, and building a pedestrian footbridge over the Hutt River opposite the Stokes Valley entrance to Manor Park, having the Stokes Valley buses and buses which travel along Eastern Hutt Rd connect with the footbridge.

7.3 Metlink Call Centre

Figure 34 shows the relationship between caller complaint type per boarding and bus service satisfaction scores from the bus surveys. The complaints are compared by bus route areas consistent with the operational review conducted earlier within this report (e.g. Eastbourne) rather than by individual bus routes.

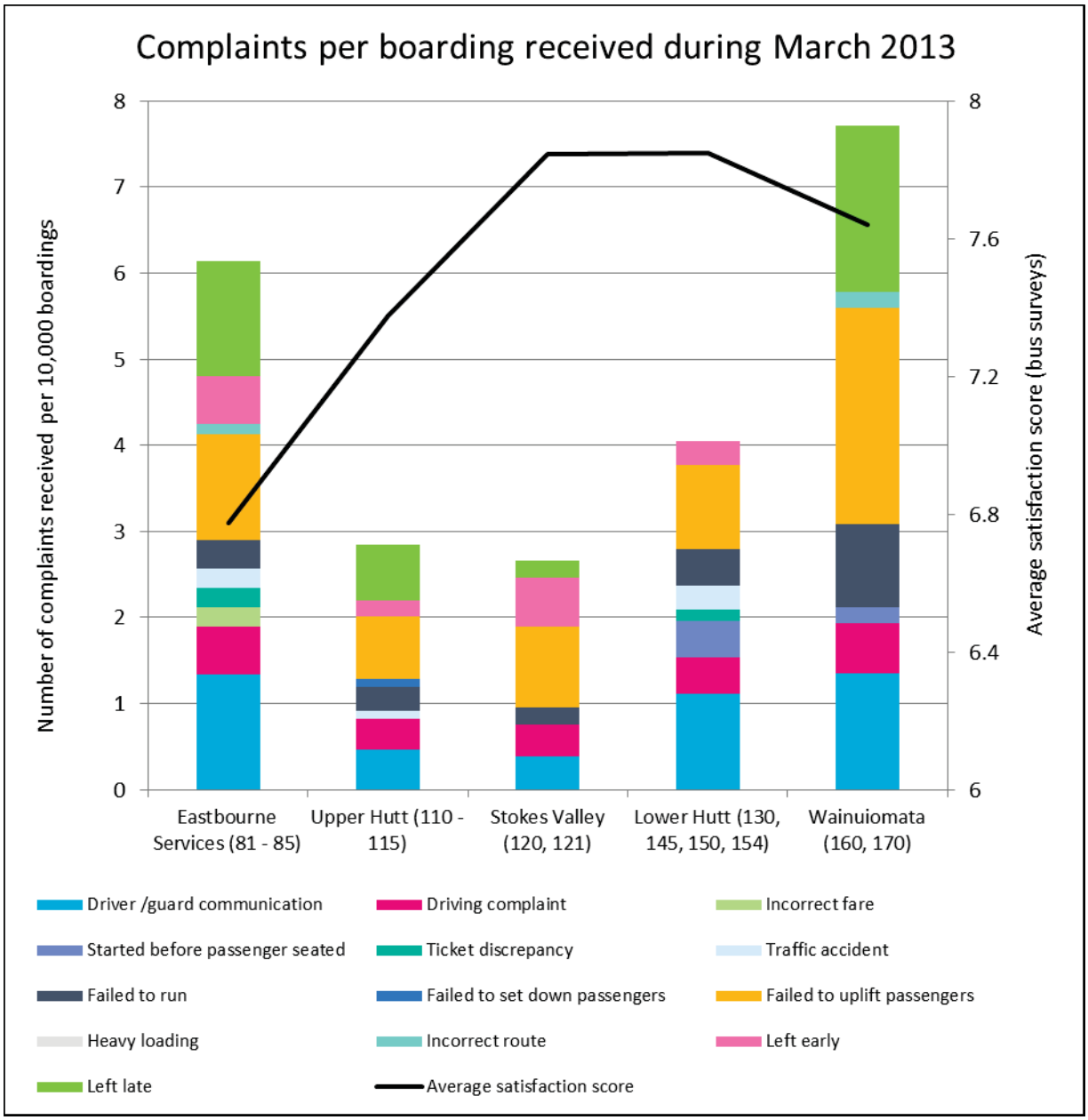


Figure 34: Metlink call centre complaint data in comparison with boardings per day and customer satisfaction scores.

It can be seen in Figure 34 that both the Eastbourne and Wainuiomata areas have higher volumes of complaint calls received per boarding in comparison to the other areas.

It should be noted that March is recognised as the busiest month on the public transport network and therefore the data used will be at the higher end in relation to complaints.

Particular issues within each area include:

- failing to uplift passengers – all routes, particularly Wainuiomata. This issue could be more well-represented than others due to a higher rate of reporting to the Metlink Call Centre when this occurs;
- failed to run – Wainuiomata;
- driver communication – Eastbourne, Lower Hutt and Wainuiomata;
- left late – Eastbourne, Upper Hutt and Wainuiomata; and

- left early – Eastbourne and Stokes Valley.

From inspecting the relationship of volume of complaints received per boarding and average satisfaction scores, it can be seen that these factors are somewhat inversely proportional to each other, i.e. lower complaints per boarding may result in higher average satisfaction scores. This is also shown in Figure 35 below.

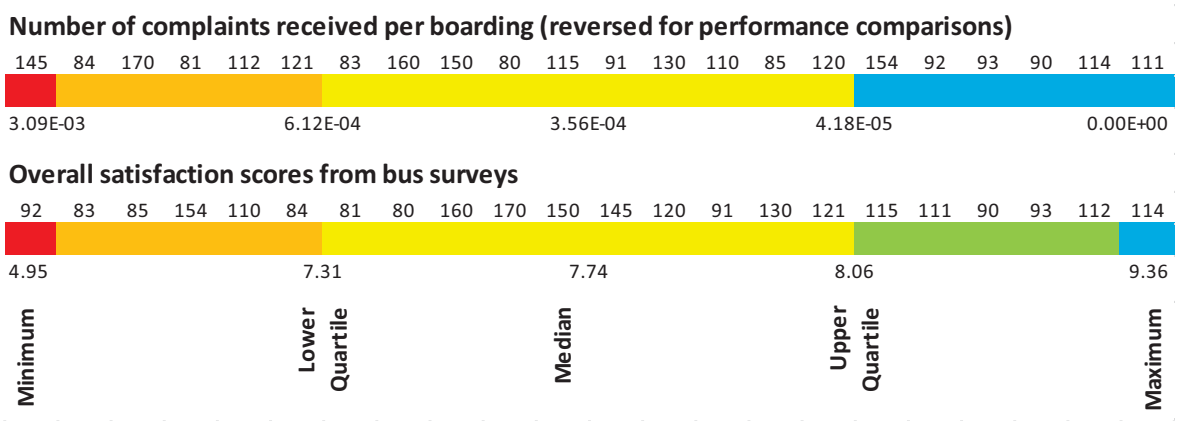


Figure 35: Comparison between statistical distributions of complaints received and customer satisfaction scores from the bus surveys[3].

Figure 35 shows a correlation between call complaints received and scores obtained during the bus surveys for each bus route. The volume of complaints per boarding received shows that both Eastbourne and Wainuiomata routes have a high number of complaints per boarding, while the overall satisfaction scores highlights the lower levels of customer satisfaction in the Eastbourne area.

Wainuiomata services may have scores higher during the bus surveys since a large number of complaints made on the Wainuiomata services were as a result of not being uplifted, which would not have been possible to review during the bus surveys.

7.4 Social Media

From the two posts made on the GWRC Facebook page during the bus and rail surveys, the following interactions and engagements were made with other Facebook users:

- one like;
- one share;
- no comments;
- no comment replies;

Feedback during bus surveys as at 8 May 2014

- two likes;
- no shares;
- no comments; and
- no comment replies.

Feedback during rail surveys as at 20 May 2014

The level of engagement observed between individual Facebook users and each of the posts made on the GWRC Facebook page were low for both posts, and the amount of feedback

[3] Includes exempt services.

provided (likes and shares) gives few insights as to any focus points for the public transport review.

8. Summary of Conclusions and Recommendations

The work undertaken during this phase has identified a number of potential focus areas for further consideration in the next phase of the project.

The conclusions and recommendations are detailed in the main Data Analysis Report, but can be summarised as:

- improve reliability:
  - review timetables on identified services using RTI system data;
  - review service levels and travel times at peak times.
- improve timings of bus/rail connections:
  - review peak capacity and train connections;
  - investigate options for improving the reliability of connections.
- investigate the potential to combine some school services with scheduled services:
  - review capacity on local services to see if they have the potential to absorb additional passengers from under-patronised school services, to ensure a better use of resources.
- undertake further analysis to identify other areas where capacity can be better utilised:
  - analyse identified services to ensure capacity meets demand.
- undertake targeted consultation in communities with limited or no public transport service:
  - carry out targeted consultation in Riverstone Terraces and investigate potential of enhancing local or school services;
- East-West link between the Hutt Valley and Porirua:
  - investigate potential for bus route between Hutt Valley and Porirua.