

PROJECT WYNYARD QUARTER TMA
SUBJECT KEY FINDINGS FROM WYNYARD QUARTER MONITORING SURVEYS
TO TMA STEERING GROUP
FROM RUSSELL BRANDON
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1 OVERVIEW

This technical note provides a summary of the results of the surveys undertaken in Wynyard Quarter in October and March from 2012 to 2013, and annually in March from 2014 to 2018, based on the methodology provided in I214.11.1 of the Auckland Unitary Plan (previously Annexure 18 of the Auckland City District Plan). It is noted that the surveys provide just a snapshot of traffic conditions and are affected by events occurring within Wynyard Quarter and wider afield. As such, caution should be taken in interpreting trends.

By way of summary the results of these surveys have found the following:

- ◆ During the March 2016 surveys, both the Halsey Street and Viaduct Harbour access points to the Wynyard Quarter were closed. Relative to the March 2016 surveys, the March 2017 surveys recorded a large increase in vehicle movements into and out of the Wynyard Quarter during peak hours, due to the reopening of Halsey Street and Viaduct Harbour Avenue. However during this time, Gaunt Street between Halsey Street and Daldy Street, and Halsey Street north of Gaunt Street were closed, limiting access to other areas of Wynyard Quarter. The March 2018 surveys show a further increase in traffic volumes, but not as large as the 2016-2017 increase. This increase is possible due to the full reopening of Gaunt Street and Halsey Street. Despite the increase in traffic volumes, the traffic ceilings set for Wynyard Quarter have not been exceeded.
- ◆ Two-way traffic volumes entering and leaving Wynyard Quarter during the peak hour increased in each survey from 2,657 in October 2012 to 3,022 in March 2014, before falling in 2015 and again in 2016 to a low of 1,787 vehicles due to temporary road closures. In 2017, two-way traffic volumes increased significantly to 2,454 vehicles, due to the reopening of some streets, and have increased to 2,576 in 2018, possibly due to further reopening of streets, and growth in activity within the Wynyard Quarter.
- ◆ Except for a large isolated increase in October 2013, morning peak hour inbound traffic volumes into Wynyard Quarter reduced in each successive survey, from 1,486 vehicles in October 2012 to 1,188 vehicles in March 2016. However, the March 2017 surveys saw a reversal of this trend, with 1,520 inbound vehicles recorded and the March 2018 surveys recorded a further increase to 1,658 vehicles entering vehicles in the morning peak hour.

- ◆ Between October 2012 and March 2015, outbound vehicle trips during the evening peak hour have remained relatively constant at 1,572 to 1,688 vehicles. The March 2016 survey results saw a substantial drop to 1,114 vehicles, while much of this fall was reversed in 2017, with 1,424 vehicles. The March 2018 results are lower than the 2017 results, at 1,306 outbound vehicles.
- ◆ Traffic flows in the last 2012 to 2017 surveys have shown that traffic entering and exiting Wynyard Quarter have an approximately 60/40 inbound/outbound split in the morning peak hour and 40/60 inbound/outbound split in the evening peak hour. This is a more balanced split than typically seen for office areas, indicating that Wynyard Quarter has a sizeable number of other trips, relating to the recreational, marine, retail, food & beverage and through trips. The 2018 morning inbound/outbound split is similar to previous surveys, however the evening split was recorded as closer to 50/50. This indicates increasing non-office type activity in Wynyard Quarter.
- ◆ Active travel has increased at all buildings surveyed, between the March 2016 and March 2017 surveys, with all buildings' active travel mode share increasing to 10% or more. The March 2018 surveys showed a mixture of increases and decreases compared to the previous year. However the average active mode shared across all buildings surveyed in the March 2018 surveys is similar to the previous year at around 12%.
- ◆ The March 2018 surveys saw a mix of increases and decreases in public transport mode share at the buildings surveyed, compared to the March 2017 surveys. The Lumley, BNZ, and ASB saw a decrease of around 2% each, while the Maritime and Fonterra/Bayleys/IBM buildings saw a decrease in public transport mode share of around 10%. The Maritime building decrease is likely due to the low tenancy rate in the building and a resulting high volume of available parking on site. The public transport mode share at the Air New Zealand, Auckland Transport/Microsoft/KPMG, and NZI buildings all increased, with the NZI building having the highest mode share at 58%. The Auckland Transport/Microsoft/KPMG increased by 24% in March 2018 compared to the March 2017 survey, likely a result of the building now being fully tenanted, and a difference in transport culture between the Auckland Transport and the former tenant Vodafone. The new Datacom building was recorded as having a public transport mode share of 51%.
- ◆ Compared to the March 2017 surveys, only the Air New Zealand, Auckland Transport/Microsoft/KPMG, and NZI buildings were recorded in March 2018 as having a decreased car driver mode share, the same buildings that were reported as having an increase in public transport mode share. The remaining buildings all showed an increase in car driver mode share generally around 6%, however the Maritime building was recorded as having an increase of around 12%, which is likely due to the low tenancy rate and relative greater availability of on-site parking. The new Datacom building was recorded as having a car driver mode share of around 23%. The NZI building continues to have the lowest car driver mode share, at around 21%.

2 BACKGROUND

Section I214.11 of the Auckland Unitary Plan identifies objectives so that Wynyard Quarter can be developed in a sustainable manner. In order to meet these objectives the Unitary Plan has various

policies and methods specifically related to Wynyard Quarter. This includes the monitoring of traffic effects both internal and external to Wynyard Quarter, with a methodology specified in I214.11.1 Appendix 1: Methodology for Undertaking Traffic Generation Surveys in Wynyard Quarter.

In order to ensure that existing road infrastructure is capable of accommodating the proposed development associated with Wynyard Quarter, trip generation ceiling targets are specified in Section I214.8.2 of the Unitary Plan. These ceiling targets are for vehicles to and from Wynyard Quarter from all activities and are specified as follows.

- ◆ 3,650 vehicles per hour two way and
- ◆ 2,500 vehicles per hour one way inbound or outbound during the weekday morning peak, (7:00 am to 9:00 am)
- ◆ 2,500 vehicles per hour one way inbound or outbound during the weekday evening peak, (4:00 pm to 6:00 pm).

It is noted that the above ceiling targets were determined based on assumptions regarding the layout of intersections on Fanshawe Street and the expected future traffic volumes on all approaches to these intersections. While some variance in the volumes might be expected, the introduction of a Busway along Fanshawe Street will affect the capacity of the intersections, which could mean that the above targets are unrealistic to accommodate in the manner foreseen.

The targets are linked to the overall Travel Management framework for Wynyard Quarter, which has an aspiration to achieve a 70/30 modal split, where single occupancy private vehicle trips represent no more than 30% of the overall trips to and from Wynyard Quarter. However, it is noted that the work undertaken to determine the 70/30 mode split was not reassessed following changes made during mediation at the Environment Court appeal stage. This process led to more office space being allowed, thereby increasing the number of employees. Also, the analysis did not take into account the potential reduction in vehicle capacity (albeit with an increase in passenger carrying capacity) which would result from the recently proposed busway along Fanshawe Street. If the analysis were to be revisited, it might be found that an 80/20 or even 90/10 travel mode split is necessary to accommodate the potential development that might occur.

The trip generation ceiling targets and mode split aspirations are supported by a focus on providing a people-place, where cycling and walking is encouraged through slowing vehicle movements and providing appropriate facilities, parking space restrictions for new office developments and also through the formation of a voluntary Travel Management Association to provide advice and support in the development of travel management initiatives for Wynyard Quarter.

3 MONITORING OF TRAFFIC EFFECTS

I214.11.1 of the Unitary Plan was developed to provide a process for the monitoring of traffic generation in Wynyard Quarter, and to provide an indication of the level of traffic generated compared to the vehicle ceiling targets defined in the District Plan. By surveying at repeated intervals, general trends in transport modes and traffic volumes are able to be identified, although with road works and development construction occurring over the last few years, trends are difficult to confirm.

Construction traffic and road closures aside, of key importance are the trends in terms of vehicle trips into Wynyard Quarter with reference to the vehicle ceiling targets, the trends in the mode split of office buildings in Wynyard Quarter and also a comparison with the mode split for similar modern offices in the Auckland city centre.

Surveys have been undertaken from October 2012 to March 2018 on behalf of Auckland Transport included the surveying of:

- ◆ All vehicle traffic movements to and from Wynyard Quarter
- ◆ All people and vehicle movements to and from the Air New Zealand building, and the ASB building (October 2013 onwards only), the Fonterra/Bayleys/IBM building (March 2017 onwards only), and the Datacom building (March 2018 onwards only) which are located in Wynyard Quarter
- ◆ All people and vehicle movements to and from the Maritime Square Buildings and the Auckland Transport (formerly Vodafone)/Microsoft/KPMG buildings, which are in close proximity to Wynyard Quarter
- ◆ All people and vehicle movements to and from the NZI Building, BNZ Building (March 2013 onwards only) and the Lumley Centre, all of which are located in the lower part of the Auckland city centre.

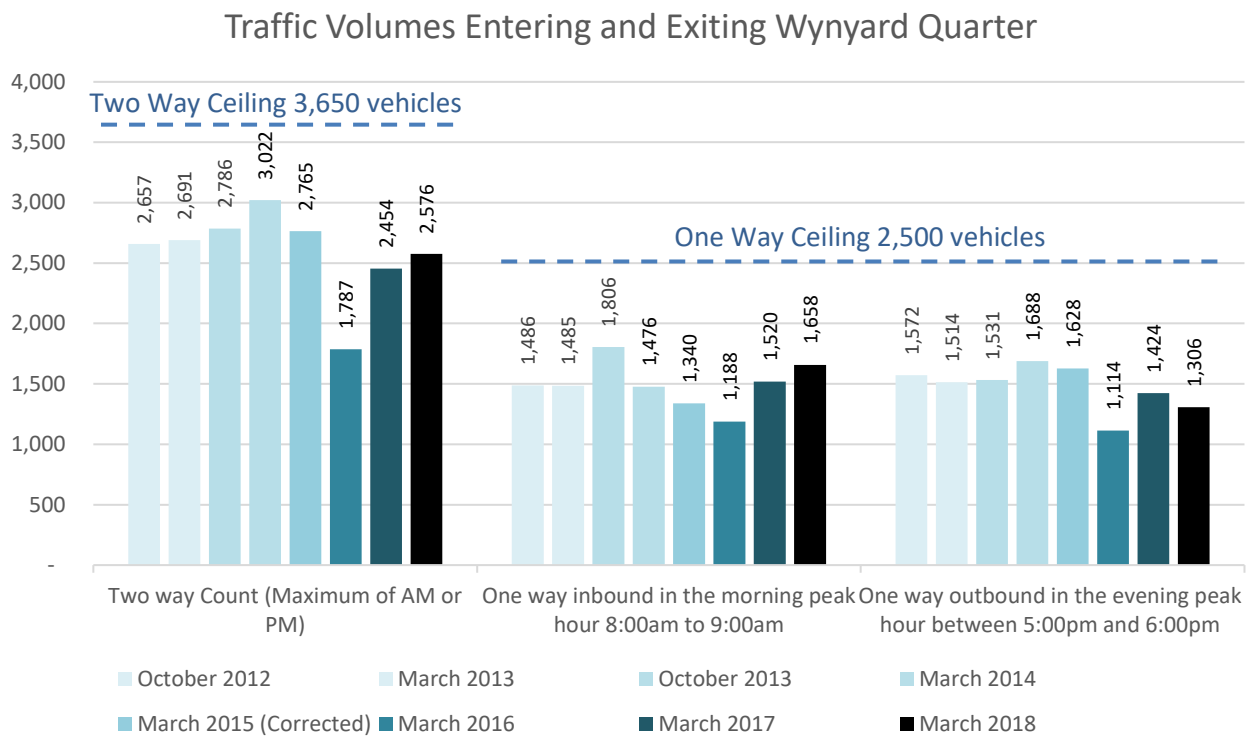
4 KEY RESULTS AND FINDINGS OF MONITORING SURVEYS

4.1 Traffic Volumes

Figure 1 summarises the results of the traffic movement surveys completed between October 2012 and March 2018. As can be seen during all survey periods the traffic ceilings have not been exceeded. A decrease in peak two-way traffic was recorded in March 2016 compared to previous surveys, which was a result of the full closure of Halsey Street at this time. In March 2017, peak two-way traffic volumes generally returned to their pre-2016 levels, although it is noted that partial closures of internal streets within the Wynyard Quarter may still have suppressed traffic. The March 2018 surveys showed a further increase in traffic compared to the March 2017 data, noting that all roads within the Wynyard Quarter were open during the 2018 survey period. However the March 2018 traffic volumes are still lower than all reported peak two-way traffic volumes prior to the March 2016 surveys.

During the morning peak hour, there were approximately 1,650 vehicles recorded entering Wynyard Quarter – the highest recorded volume since October 2013. This is likely a result of all streets being open for the first time in years, and an increase in activity. During the evening peak hour, 1,300 outbound vehicles were recorded, and this is lower than in any previous survey except March 2016, indicating a downward trend in evening peak outbound traffic since October 2013. This is possibly due to increased congestion influencing the time people are leaving Wynyard Quarter, and influencing how many people drive through Wynyard Quarter in the evening.

It should be noted that the March 2015 data was corrected to account for surveys being undertaken on a Monday rather than midweek as per the previous surveys.

Figure 1: Traffic Counts Comparison: One Hour Peak

4.2 Traffic Composition

The traffic volumes recorded include:

- ◆ Vehicles accessing activities and development within Wynyard Quarter
- ◆ Vehicles that travel through Wynyard Quarter to access the city centre and adjacent land uses to Wynyard Quarter such as Viaduct Harbour
- ◆ Vehicles that travel through Wynyard Quarter to access the Westhaven Marina parking area, or travel through to access Shelly Beach Road and the Northern Motorway

Some drivers travel through Wynyard Quarter without stopping due to available capacity on the road network and perceived travel time benefits, compared to other routes. However it is noted that this has been influenced by construction and road closures during previous years. As Wynyard Quarter is further developed, available capacity and travel time benefits are expected to decrease, and the number of vehicles travelling via the Wynyard Quarter could change if there are alternative comparative routes or modes (albeit if these routes also become congested then re-routing may not occur).

Using number plate recognition programmes, it was possible to identify vehicles that entered and exited Wynyard Quarter within a certain timeframe. The number of vehicles identified travelling through Wynyard Quarter to and from any combination of intersections including Halsey Street, Beaumont Street, Daldy Street, Westhaven Drive and Viaduct Harbour Avenue was determined during the March 2013 to March 2018 surveys. Prior to March 2016, a ten minute time period has been used to determine through traffic, however this is long enough to also capture vehicles completing pick up or drop off or undertaking business for a few minutes. For the March 2016, March 2017, and March

2018 surveys a five minute survey was used in an attempt capture only those vehicles traveling through the Wynyard Quarter without stopping. Only the March 2015 data has been reanalysed using this five minute time threshold, therefore only four years of continuous data may be compared. The results are summarised in Table 1.

Table 1: Vehicles identified as travelling through Wynyard Quarter with a travel time of five minutes or less (including drop off and pick up traffic)

	Vehicles per Hour				Percent of Total Inbound Vehicles			
	March 2015	March 2016	March 2017	March 2018	March 2015	March 2016	March 2017	March 2018
Morning Peak Period between 8:00 and 9:00 am	451	262	272	521	34%	22%	18%	31%
Evening Peak Period between 5:00 and 6:00 pm	338	243	346	205	21%	22%	24%	16%

As can be seen the number of vehicles travelling through or dropping off and picking up in the Wynyard Quarter during the morning peak period decreased between March 2015 and the two following years' surveys. This drop in through traffic is likely due to temporary street closures, restricting the ability of traffic to pass through Wynyard Quarter. The number of vehicles travelling through or dropping off and picking up in Wynyard Quarter during the morning peak period increased substantially in March 2018. Section 4.1 of this technote demonstrated that morning peak hour inbound traffic into the Wynyard Quarter increased by approximately 140 vehicles, less than the increase in through traffic shown above. This suggests that much of the increased traffic recorded in 2018 was a result of additional through traffic, as opposed to new trips into the area. This is likely a result of all roads now being open for the first time since 2015.

During the evening peak, Section 4.1 notes a decrease in outbound evening peak traffic of around 120 vehicles between the March 2017 and March 2018 surveys. This is similar to the decrease in through traffic between the March 2017 and March 2018 surveys of around 140 vehicles, which indicates that the decrease in traffic in the evening peak is due to a decrease in through traffic.

4.2.1 Traffic Distribution

The results from the surveys from March 2013 to March 2017 identify that in the evening peak periods for all four surveys 56% to 64% of the total traffic entering and exiting Wynyard Quarter was outbound traffic, with the remaining 36% to 44% being inbound. The morning commuter periods were similarly tidal with a 58% to 66% inbound and 34% to 42% outbound split. This trend continues in 2018 for the morning peak, however the evening peak period split in March 2018 was roughly 50%/50% inbound/outbound.

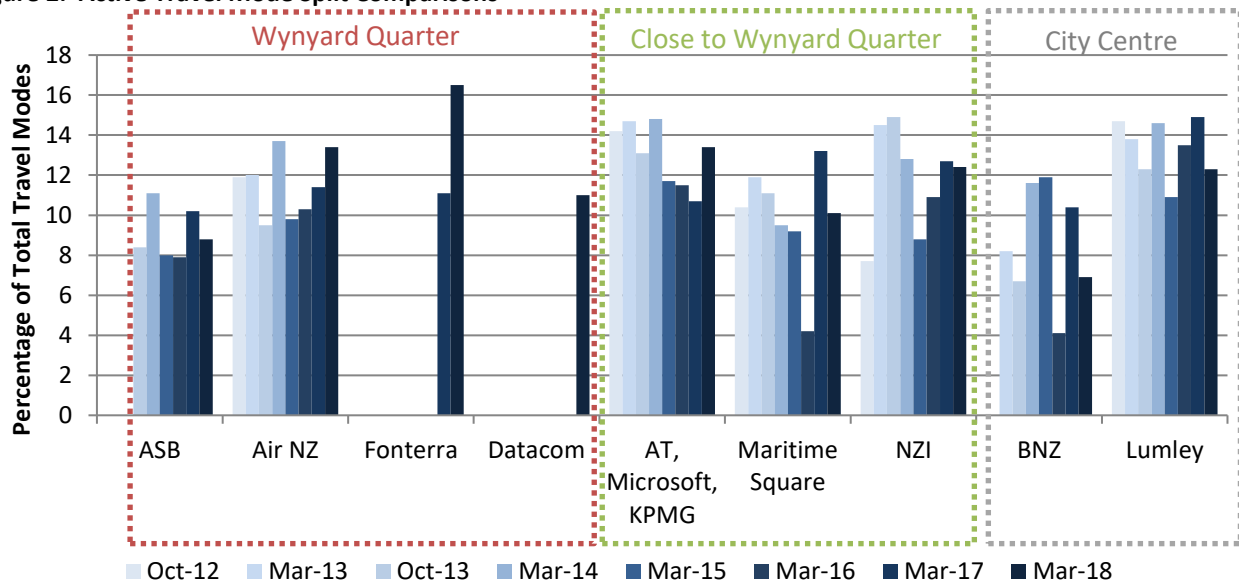
It would generally be expected that for an office or commercial development that 80% to 90% of trips generated in the evening peak would be outbound trips, with the remaining 10% to 20% of trips being inbound. The results of the survey indicate that the recreational, food and maritime elements of Wynyard Quarter, as well as the contribution of traffic travelling through the Quarter, have resulted in more even distributions of traffic, particularly in the March 2018 surveys.

4.3 Mode Split

4.3.1 Mode Split Comparisons

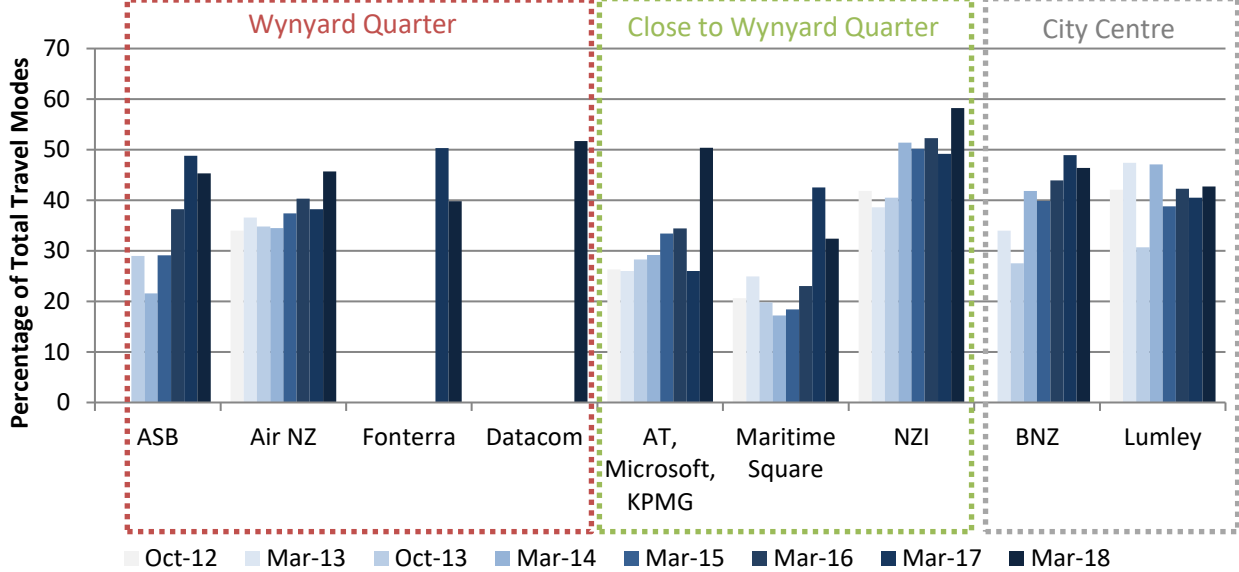
Travel mode splits during commute times were surveyed from October 2012 onwards for the office buildings as specified in I214.11.1 of the Unitary Plan. The mode splits were determined through pedestrian interviews, pedestrian counts and car park movement surveys for each office. The variation in the mode split proportions over the surveys and between buildings is summarised in the following figures. It is noted that comparison of these mode splits indicates absolute percentage changes only and these have not been analysed to identify any statistical significance.

Figure 2: Active Travel Mode Split Comparisons



With the exception of the Auckland Transport/Microsoft/KPMG building, all of the surveyed buildings outside the Wynyard Quarter demonstrated a decrease in active mode travel in 2018, relative to 2017. The increase at the Auckland Transport/Microsoft/KPMG building is likely due to the building now being fully tenanted. The decreases at the remaining buildings appears to be within the year to year variation, and is not the lowest recorded. Within the Wynyard Quarter, the Air New Zealand and Fonterra buildings showed an increase compared to the March 2017 results. The decrease at the ASB again appears to be within the year to year variation, and is not the lowest recorded. The new Datacom building showed an active mode proportion of 11%.

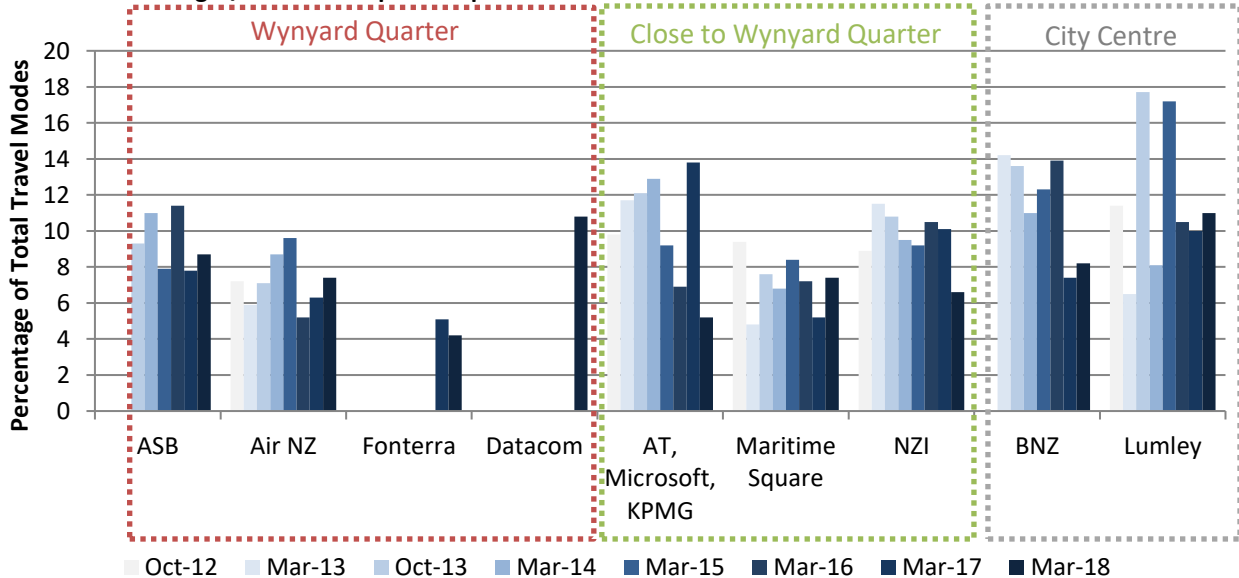
Figure 3: Public Transport Mode Split Comparisons



In March 2018, increases in public transport mode share were recorded at the Air New Zealand, Auckland Transport/Microsoft/KPMG, NZI, and Lumley buildings. The increase at the Auckland Transport/Microsoft/KPMG building was the greatest, at around 24%. This is likely due to the building being fully tenanted during the March 2018 survey (compared to the March 2017 survey), and possibly due to the difference in transport culture between Auckland Transport and the former tenant Vodafone.

The remaining buildings all showed a decrease in public transport mode share compared to the March 2017 surveys. However it is noted that all March 2018 results are higher than the corresponding March 2016 results, so it appears to be within the general variation year to year. The new Datacom building reported a public transport mode share of around 52%, the second highest recorded in March 2018, and higher than any mode share recorded in any previous surveys. The NZI building had the highest mode share in the 2018 surveys at around 58%, which is the highest recorded in all the surveys to date.

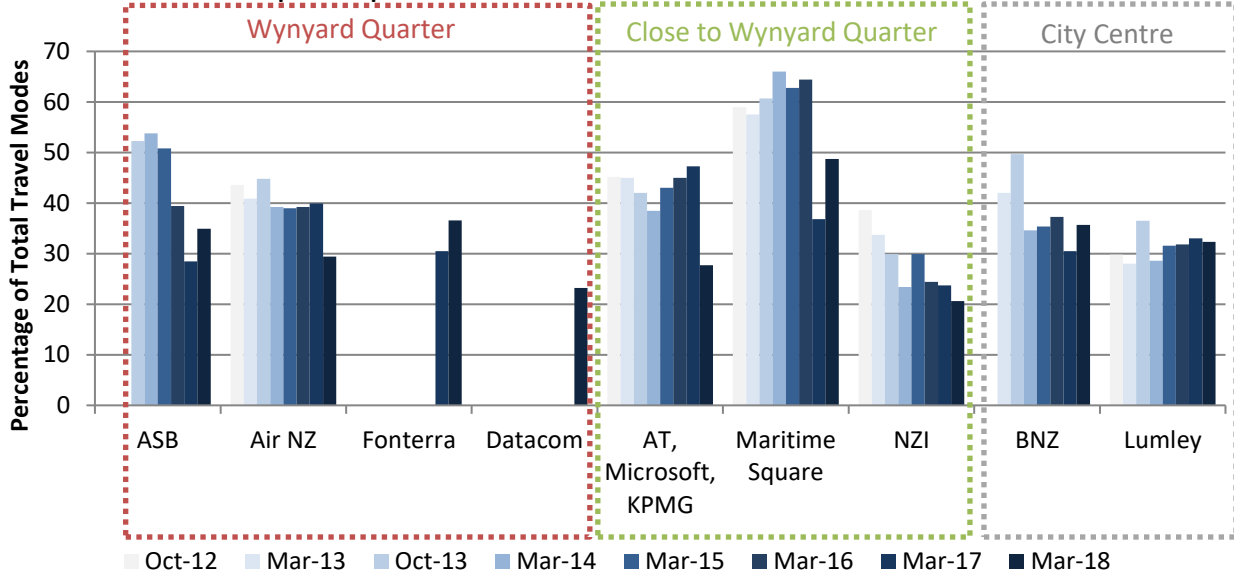
Figure 4: Car Passenger/Taxi Mode Split Comparisons



With exception to the NZI, Fonterra, and Auckland Transport/Microsoft/KPMG buildings, car passenger/taxi mode shares have increased in 2018 relative to 2017, but generally by only around 1%.

This is a reversal of the slight decrease shown at most building between the 2016 and 2017 survey results. The decreases at the Auckland Transport/Microsoft/KPMG and NZI buildings are much greater at around 8% and 4% respectively.

Figure 5: Car Driver Mode Split Comparisons



Reductions in car driver mode shares were recorded at the Air New Zealand, Auckland Transport/Microsoft/KPMG, NZI, and Lumley Buildings. The decrease at the Auckland Transport/Microsoft/KPMG and Air New Zealand buildings were large, at 20% and 10% respectively. Compared to the March 2017 results, the March 2018 surveys showed an increase in the car driver mode share at the remaining buildings generally around 6%. These increases still resulted in a mode share less than the March 2016 survey results.

The new Datacom building recorded a car driver mode share of 23.2%, lower than any car driver mode share recorded at any of the buildings surveyed in previous surveys. The NZI building continues to have the lowest car driver mode share, of 20.6%.

4.3.2 Detailed Mode Split Proportions

Figure 7 below summarises the transport mode splits observed during the March 2018 surveys. For buildings outside Wynyard Quarter, the ‘Car Driver’ (red) category provides the total number of car drivers, regardless of their parking location. With those buildings within Wynyard Quarter, that is, Air New Zealand, ASB, Fonterra/Bayleys, and Datacom, the car driver category is divided into car drivers who parked within Wynyard Quarter (orange), and those that drove and parked outside Wynyard Quarter (yellow) (as per I214.11.1 requirements). Also shown in Figure 7 (as denoted with a blue dashed line) is the 70/30 mode split target.

Figure 6: Mode Split Results: March 2018

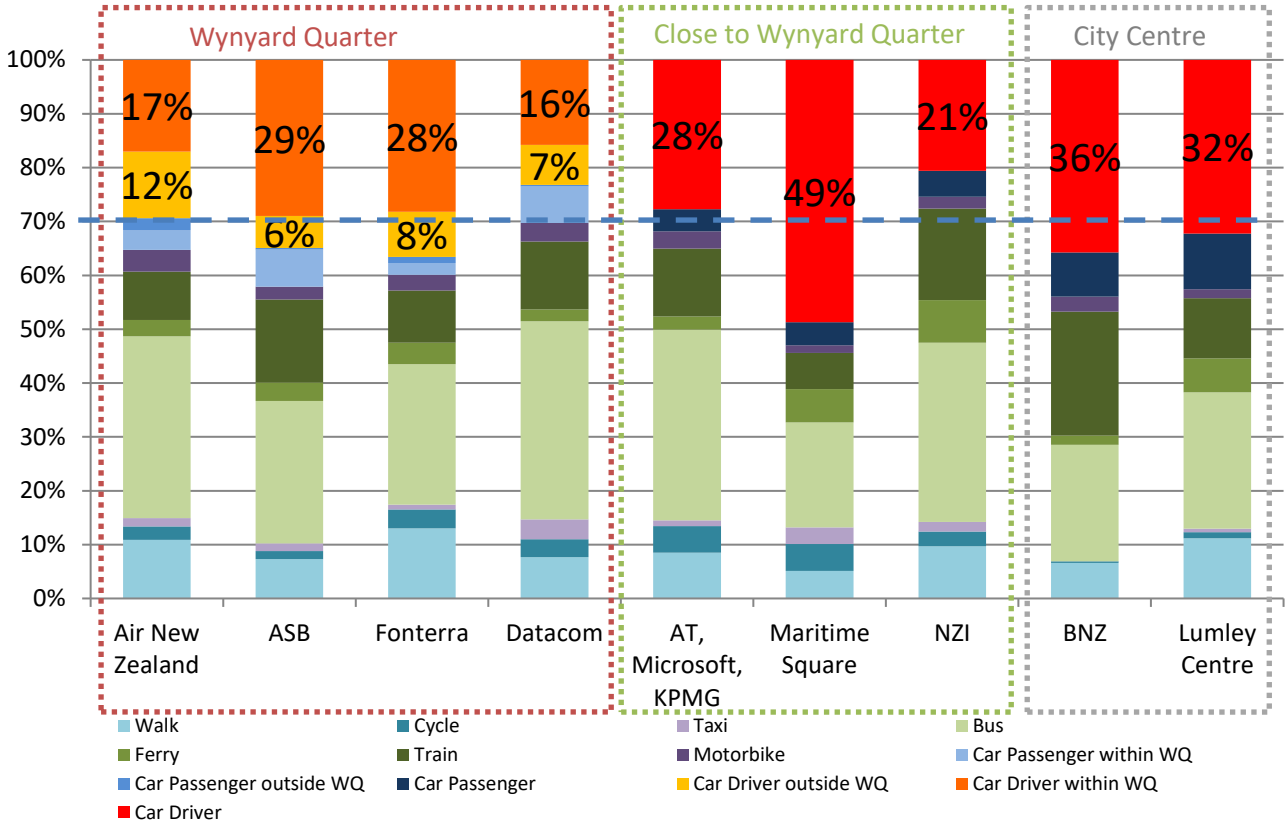


Figure 8 to Figure 13 below show the modal split results from the March 2017 to October 2012 surveys, respectively.

Figure 7: Mode Split Results: March 2017

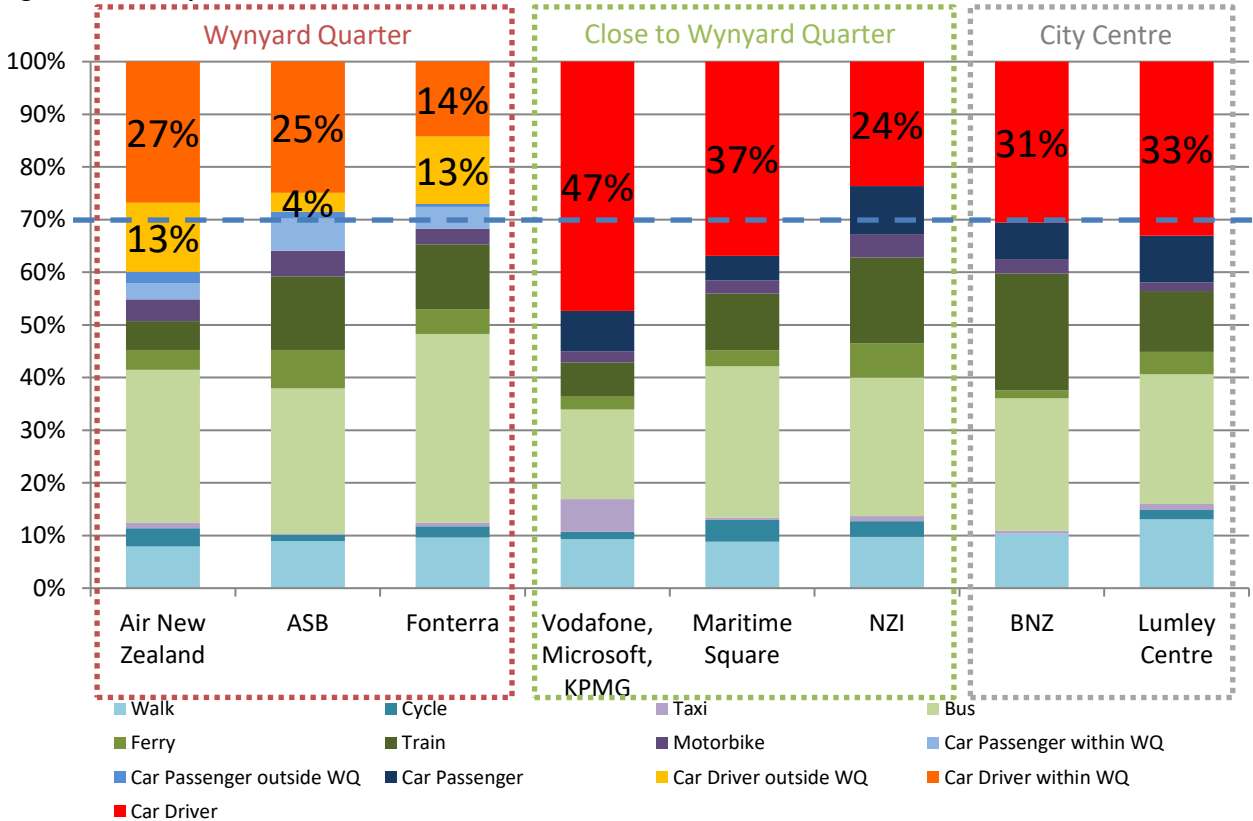


Figure 8: Mode Split Results: March 2016

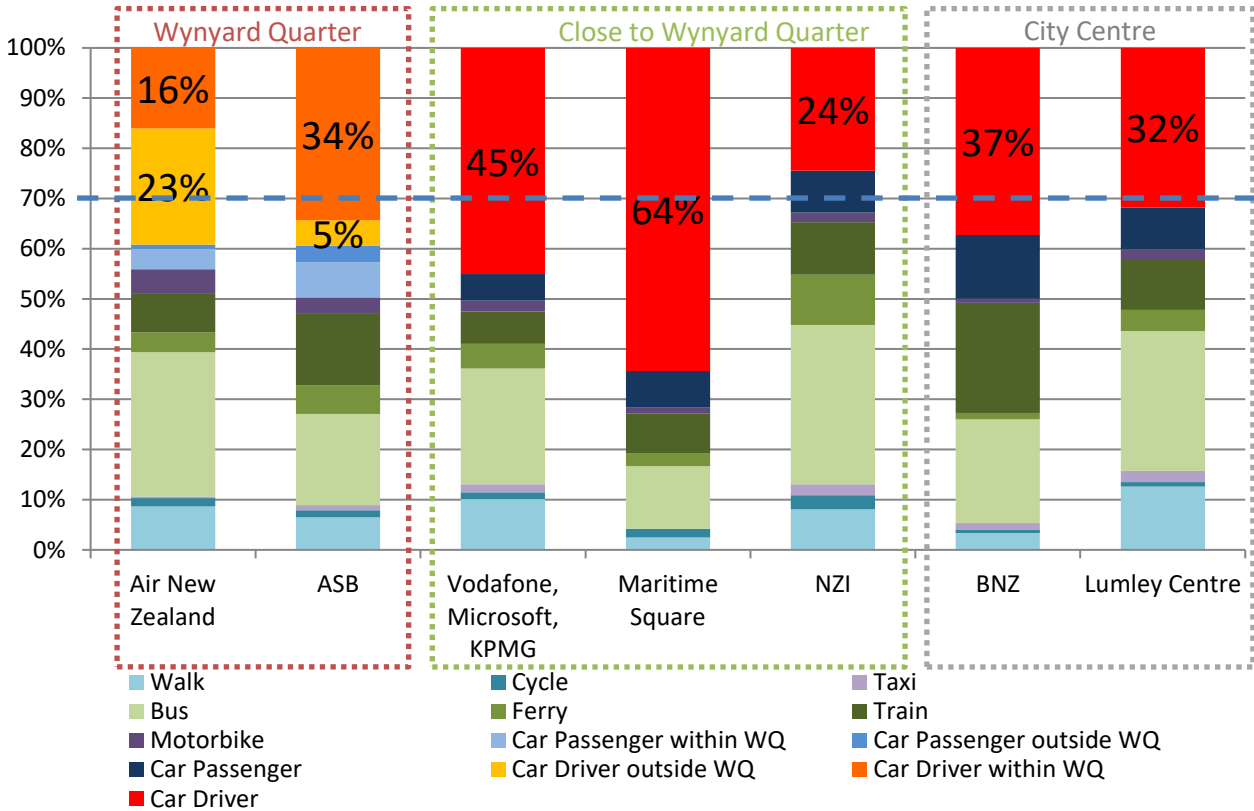


Figure 9: Mode Split Results: March 2015

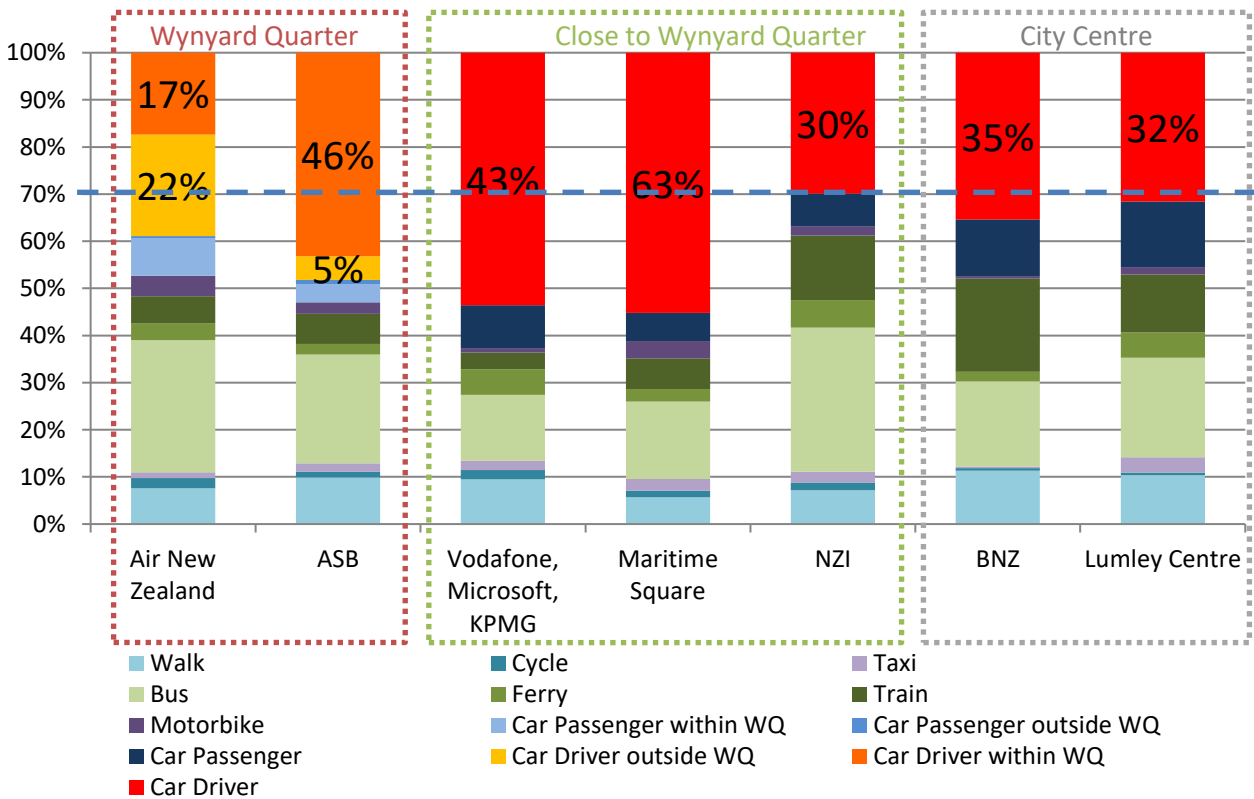


Figure 10: Mode Split Results: March 2014

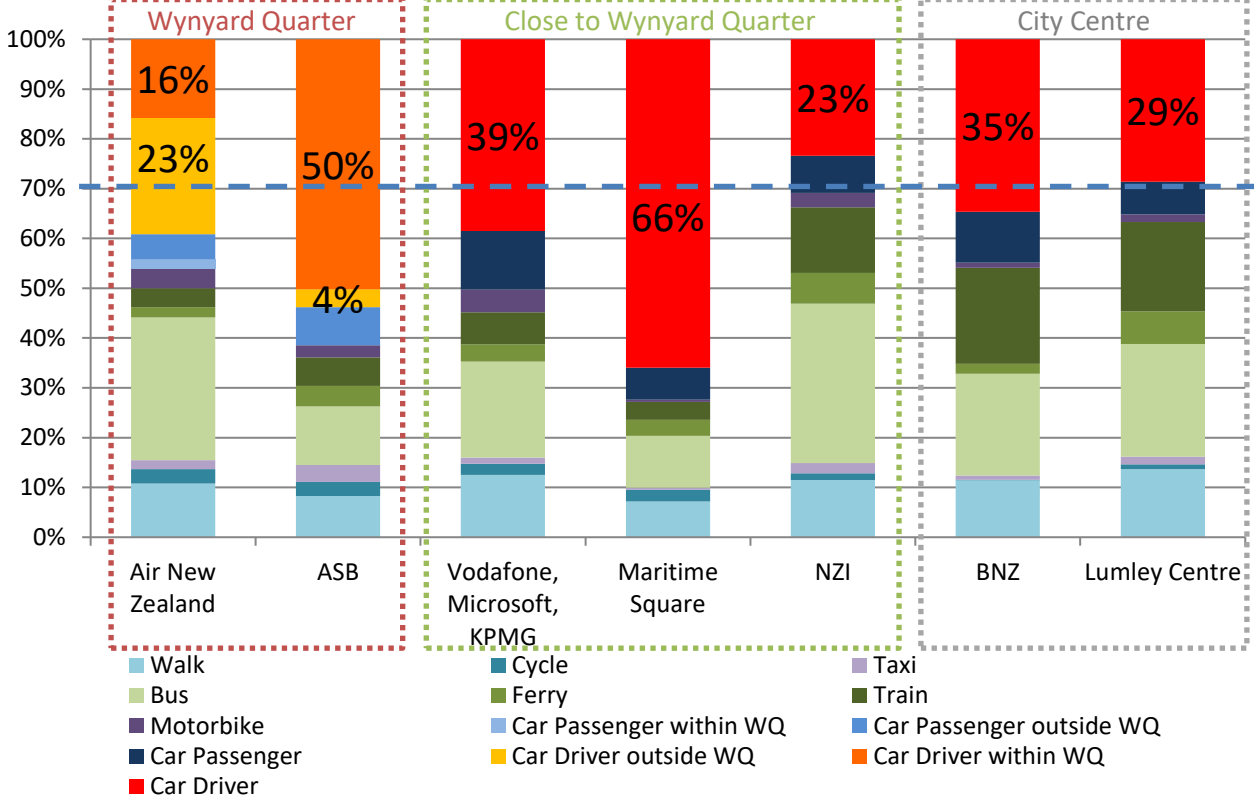


Figure 11: Mode Split Results: October 2013

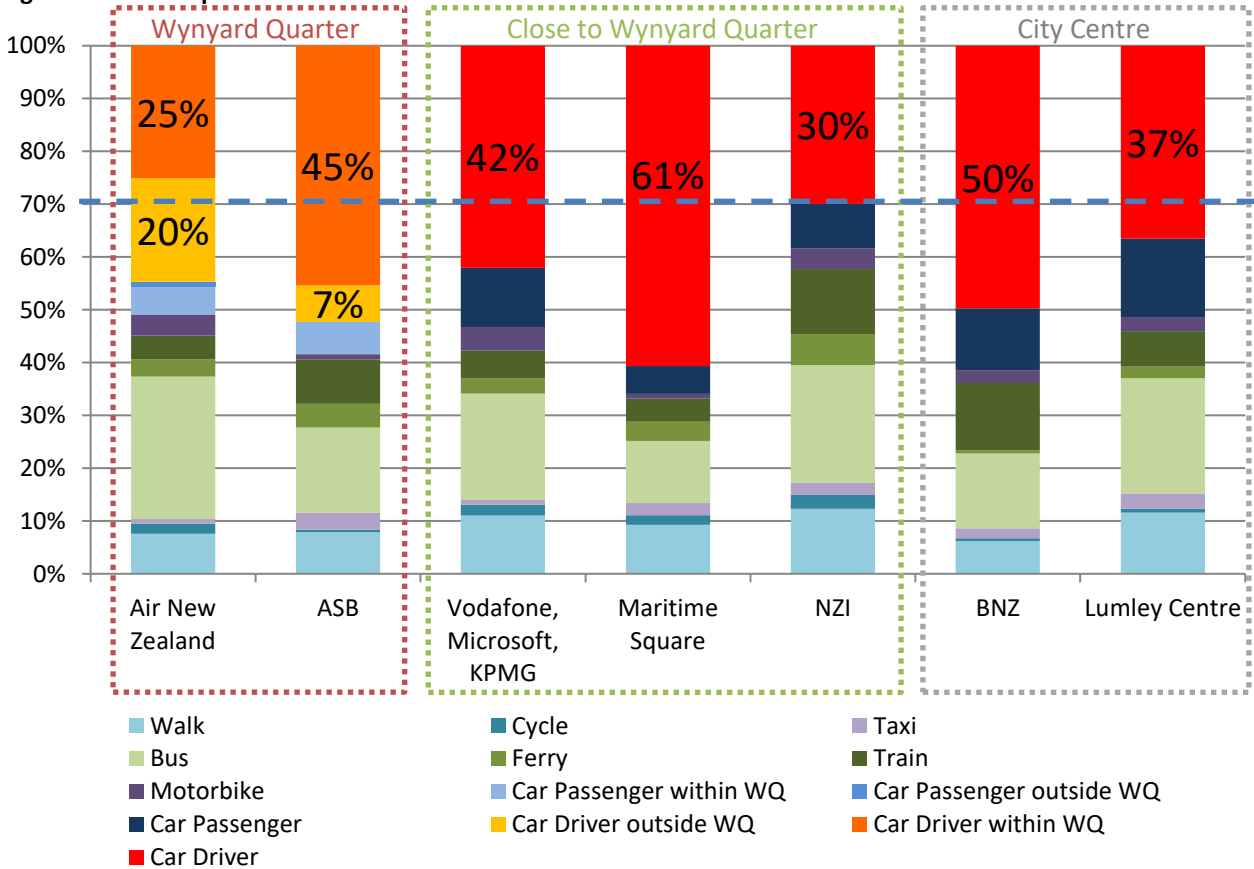


Figure 12: Mode Split Results: March 2013

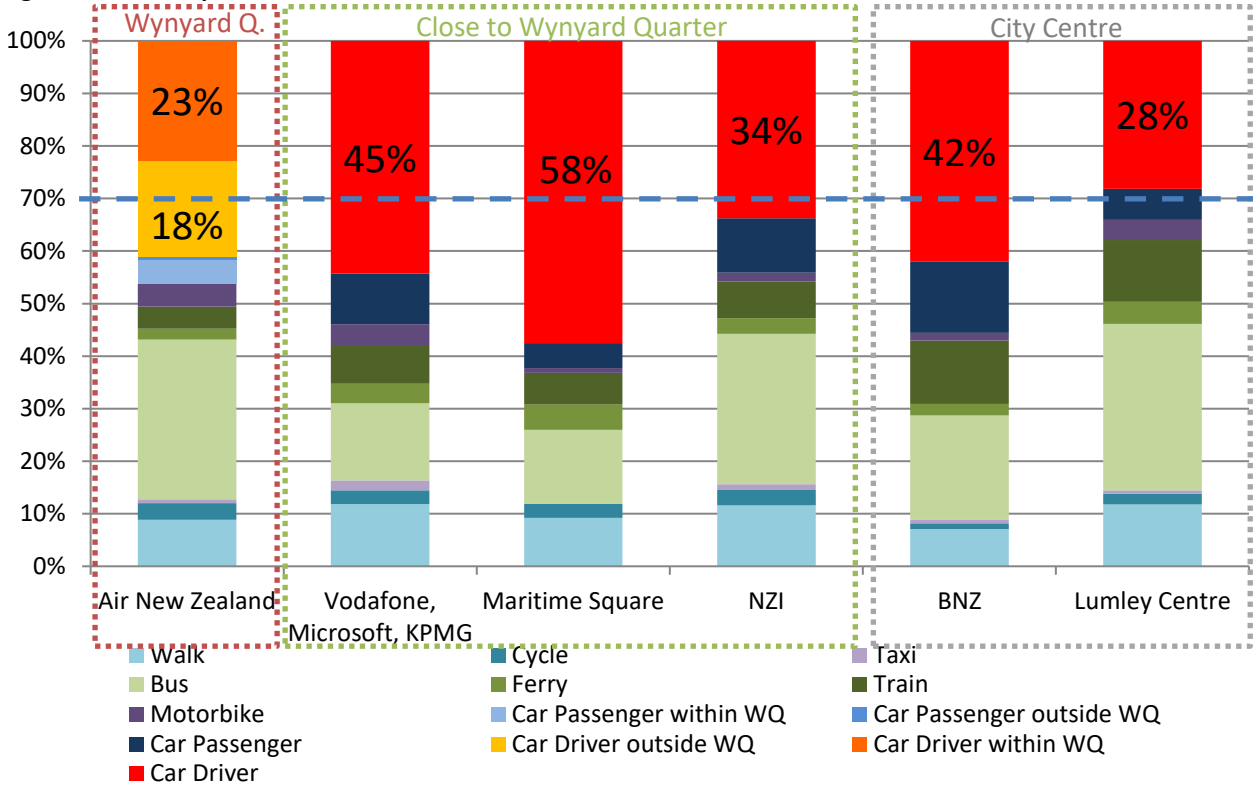
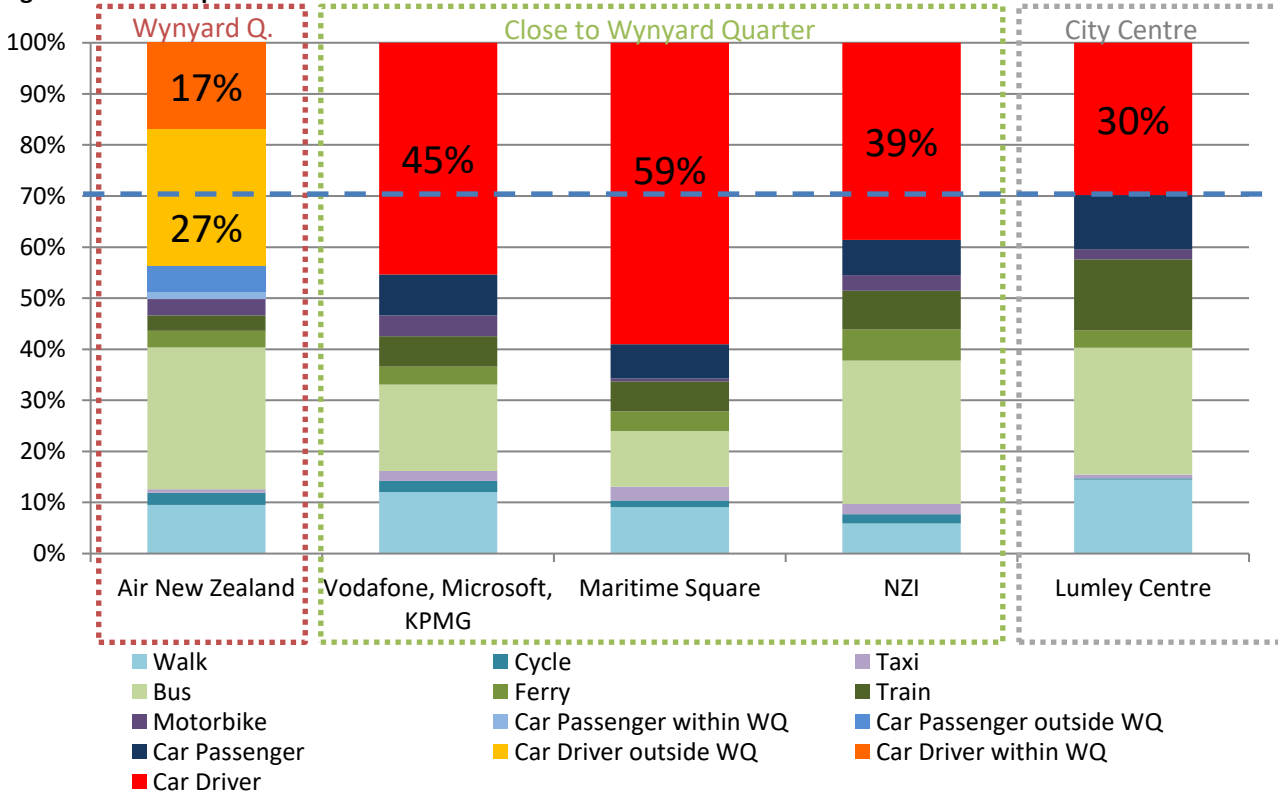


Figure 13: Mode Split Results: October 2012



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