

Better Metlink fares Post implementation review Summary findings



Purpose and scope

- This report presents summary findings of the Post Implementation Review of the Better Metlink Fares changes
- The Review covers both the 'fares and ticketing' components of the *Better Metlink* Fares changes and was guided by the following questions:
 - How well did the fares package perform against expectations for patronage and travel behaviour?
 - How well did the fares package perform against expectations for fare revenue and share of funding?
 - How successful for customers was the roll-out of ticketing across bus, rail and ferry?
 - How well did the fares and ticketing changes perform against the new policies in the PT
 Plan (concession fares policy and policy to reward target behaviours)?
 - What lessons can we learn for future changes to fares and ticketing?



Background

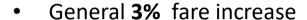
- The *Better Metlink Fares* package was introduced in July 2018 across the Metlink public transport network, with the new bus network and Snapper ticketing roll-out in Wellington city.
- The package was developed through a comprehensive review process that included wide-spread public consultation and detailed analysis to provide some insight into the likely impacts of the changes.
- The package was given effect through a variation to the Wellington Regional Public Transport Plan (PT Plan) and the introduction of two new policies:
 - Concession fares policy, to improve access to affordable public transport for those most dependent on public transport
 - Policy to reward target behaviours, to encourage more frequent use of public transport,
 more off-peak travel and greater use of electronic ticketing

Description of key Better Metlink Fare changes









- 25% discount for full-time students
- 50% accessible discount
- **50%** discount for all school children
- **25%** premium for all cash fares



- New zone-based tickets
- Discontinue old day passes





- 25% off-peak discount
- Free bus connections to trains with MonthlyPlus pass
- Metlink Explorer day pass, replaces other day passes
- Discontinue school term passes



- Free bus transfers
- Snapper on all Metlink buses



Expected outcomes – combined fares package

- The fare changes represent the first major change to fares in Wellington since 2006.
 Many legacy tickets and fares offered by previous operators needed to be discontinued or replaced with Metlink equivalents. The new PT Plan policies needed to be given effect. Fares needed to be simplified in readiness for integrated electronic ticketing.
- In response, the fares package aimed to:
 - Create simpler and more consistent fares, concessions and products across all modes
 - Improve affordability for those most dependent on public transport
 - Encourage more off-peak travel to spread the load
 - Encourage greater use of electronic ticketing and less use of cash
 - Enable 'journey-based' fares via free bus to bus transfers and a new rail/bus Monthly pass



Expected outcomes – patronage and revenue

- The Better Metlink Fares package introduced a wide range of new and cheaper fare products, as well as a 3% increase to the base (electronic) fare.
- A 4% increase in patronage (about 1.5m passenger trips) was expected after a year of the changes coming into effect. The 25% off-peak discount was expected to account for about two thirds of that increase (about 1m passenger trips).
- The combined cost of these changes was expected to be about \$7.8m per annum, with expectation that the 3% fare increase would re-coup about \$2.1m. The 3% fare increase was also expected to keep fares share of public transport funding within the target ranges.
- We expected that about half of all passengers would face a fare increase, less than a quarter of passengers would face no change, and the remaining would enjoy a fare decrease.



Summary findings

- The changes appear to have delivered well against the new policy expectations (affordability, more frequent use of public transport, more off-peak travel and greater use of electronic ticketing).
- Actual patronage growth (4.6%) was slightly higher than expected (4%). While much of this
 growth can be attributed to fares natural growth, network changes and improved
 customer experience would have also influenced passenger numbers.
- Actual revenue impact (-\$5.4m) was lower than expected (-\$7.8m) due to high peak passenger growth on rail and greater uptake of monthly rail passes.
- Overall, bus passengers benefited most from the fares package, highlighting the importance of electronic ticketing to deliver on policy outcomes.
- For the customer, the rollout of Snapper on bus and new paper ticketing products on rail went smoothly.

- Modelling is effective if done well. The methods and modelling tools used to predict the effects of the fares changes on patronage and travel behaviour proved to be effective, as evidenced by the close correlation between modelling expectations and high level results.
- Prioritise integrated electronic ticketing. While rail customers were offered fare products
 and discounts priced the same as for bus, the benefits were much easier to realise for bus
 customers due to electronic ticketing. This is particularly true for off-peak travel and
 transfers between bus services.
- Take a customers-first approach, engage and communicate! Overall there seemed to be good public acceptance of the fares changes, including the 3% fare increase. This was likely due to the timing and comprehensiveness of the Better Metlink Fares public engagement process prior to the changes coming into effect, and the fares component of the 'On Our Way' customer communications campaign.

Data and methodology

- Expectations for patronage and revenue for Better Metlink Fares were based on a comprehensive modelling framework, which included detailed elasticity modelling and other modelling approaches. The modelling framework was recorded and peer reviewed.
- Actual figures for patronage and revenue for the 2018/19 year were derived primarily from Snapper data on bus, and ticketing sales data on rail (cross-checked with rail on-board passenger counts and GWRC financial reports).
- The level and quality of data generated by Snapper ticketing has resulted in a greater level of surety for planning and performance monitoring, than in the past (with multiple ticketing systems and limited GWRC access to data). Rail patronage data is limited by paper ticketing and more reliant on assumptions.
- The move to the new Public Transport Operating Model (PTOM) resulted in some structural and definitional inconsistencies between the current and past data. Adjustments were required to enable better comparison between data sets for example, removing exempt services from old data and aligning definition of time periods.



Better Metlink fares

Post implementation review

Additional information



Expected vs Actual Patronage and revenue

March 2020

Key changes	Modelled patronage change (%)	Actual patronage change (%)	Modelled net revenue impact (\$m)	Actual net revenue impact (\$m)
Free bus transfers	+0.4%	-	-\$2.4m	-\$2.3m
25% off-peak discount	+2.6%	-	-\$3.1m	-\$3.2m
25% tertiary discount	+0.2%	-	-\$0.7m	-\$0.8m
50% accessible discount	-	-	-\$0.2m	-\$0.1m
50% school student discount	+1.0%	-	-\$0.7m	-\$1.4m
25% cash premium	-0.6%	-	+\$0.3m	+\$0.4m
Metlink Monthly Plus	+0.9%	-	-\$0.4m	+\$1.1m
Porirua zone boundary	+0.2%	-	-\$0.4m	-\$0.2m
Other (bus 30 Day pass, penalty revenue)	+0.1%	-	-\$0.2m	+\$0.7m
A general 3% fare increase	-0.8%	-	\$2.1m	+\$2.9m
Net revenue gain from additional boardings	-	+	-	+\$0.5m
Totals	+4.0%	+4.6%	-\$5.7m	-\$2.5m

Notes

- · Actual change to patronage and travel behaviour appear to have been a combined effect of the fare package and external factors, rather than the individual fare initiatives.
- We know that total patronage has grown by 4.6% and how various payment methods have driven the growth (see next pages). We cannot, however, identify with certainty how each initiative contributed to growth. For example, growth in off-peak bus boardings may have been a combined effect of extending Snapper card, off-peak and tertiary discounts and free transfers plus other factors (e.g. additional off-peak bus services, parking policy or fuel price)
- The actual net revenue impacts for individual initiatives slightly overstate the amounts of fare revenue actually lost or gained. This has been due to the method used for estimating the revenue loss. The sum of understated amounts is \$0.5m as in the last row "Net revenue gain from additional boardings" in the table.

Bus transfers and off-peak

Initiative	Policy intent	Achieved yes/no			
Bus to bus transfers (journey-based fare calculation)	 Avoid penalising passengers required to transfer by the new bus network Provide consistent user experience across the Metlink network Provide an interim step to enable fare integration within mode Support transition to integrated fares and ticketing by providing a viable interim alternative for some discontinued legacy passes (e.g. Hutt Commuter 30 Day Pass) 	 Yes – policy intent and outcomes achieved. Higher than expected patronage growth (estimate 750k) Revenue in line with expectations Use of electronic ticketing has increased by 18%, with approximately 78% of bus boardings now using a Snapper card Note – estimated that only about 0.6% (150k) transfers required as a result of the new bus network 			
25% off-peak discount	 Primary: Encourage a shift from peak to off-peak or shoulder-peak times to spread peak demand and better utilise off-peak capacity Supporting: Provide affordable travel option for transport disadvantaged who are more likely able to adjust their travel to benefit from discounted fare out of peak hours 	 Yes – policy intent and outcomes achieved Revenue in line with expectations Off-peak bus boardings is higher than expected (approx 5.3%) – likely driven by greater demand for off-peak transfers Travelling on an off-peak discount on average costs about \$2 for adult bus users compared with the \$2.65 in the past 			

Tertiary and Accessible concession

Initiative	Policy intent	Achieved yes/no
25% discount for full-time tertiary students	 Responding to the sector's demand for affordable travel option for tertiary students Potential to attract students and grow the regional economy 	 Yes – policy for more affordable fares and outcomes achieved Revenue in line with expectations Patronage in line with expectations - use of tertiary and accessible concession continues to grow, accounting for about 8% of total bus boardings Average fare has reduced from \$2.35 to \$1.96, largely due to off-peak fare and concessions
50% discount for blind or disabled passengers, and free travel for accompanying carers	 Provide access to affordable travel for those who are most in need and highly dependent on public transport Improve consistency of targeted concessions across the network 	 Yes – policy intent and outcomes achieved. Revenue in line with expectations. Patronage in line with expectations - and use of tertiary and accessible concession continues to grow, accounting for about 8% of total bus boardings. Average fare has reduced from \$2.35 to \$1.96, largely due to offpeak fare and concessions

School student concession & cash premium

Initiative	Policy intent	Achieved yes/no			
50% discount for school students	 Ensure the discount applies consistently to base fares across all number of zones travel Simplify eligibility assessment, validation and administration of the concession Provide more affordable and convenient travel and payment option for children Facilitate the transition to new fares and network 	 Yes – policy intent and general alignment with expected outcomes achieved. School fares and products are consistently priced and applied. Eligibility is clear At \$1.4m, revenue loss is about double what was expected, likely due to the increasing number of school students switching from the discontinued exempt services and legacy school term passes to the Metlink services and paying using a Snapper card or the new 10-trip tickets or MonthlyPlus passes 			
25% premium for all cash fares	 Ensure that cash fares are priced at a premium over base fares to encourage greater use of electronic ticketing, while taking into account the needs of the people on low income Ensure cash premium applies consistently to base fares across all numbers of zones travel 	 Yes – policy intent and outcomes achieved Cash premium applied consistently across all zones Patronage and revenue in line with expectations Use of electronic ticketing has increased by 18%, with approximately 78% of bus boardings now using a Snapper card – a significant improvement Number of cash tickets on rail and bus has significantly reduced 			

MonthlyPlus and 30-day passes

Initiative	Policy intent	Achieved yes/no
Rail monthly passes with regional bus connection (MonthlyPlus)	 Manage demand for park and ride by encouraging commuters to use bus to connect to train instead of driving to stations Improve consistency by making the product available to all across the network Provide a viable interim solution while transitioning to fare capping 	 Yes – MonthlyPlus is consistently applied to all lines, and provides a journey based product for rail commuters Likely to have resulted in some relief for 'Park and Ride' as there is evidence of increased use of passes on bus (1.5% now vs 0.5% in past) Revenue (+\$1.1m) significantly higher than expectations, but includes revenue gain from rail component
30 Day passes for Wellington and Eastbourne bus commuters	Provide an interim bus pass to commuters in Wellington City and Eastbourne, where the rail MonthlyPlus passes are not available.	 Yes – 30 Day passes provide alternative period pass As expected, the use of 30-passes has declined considerably due to the better value and convenience of using standard Snapper with free bus to bus transfers

Ticketing - Snapper electronic and rail paper

Initiative	Policy intent	Achieved yes/no				
Extension of Snapper as an Interim Bus Ticketing Solution	 Enable the new bus network in Wellington City to operate without penalising those who will need to transfer Provide consistent user experience across the Metlink network Provide the type and level of data desirable for managing fare revenue, monitoring performance, accurate planning of services, and the design of future ticketing features Support transition to integrated fares and ticketing 	 Yes – policy intent and alignment with outcomes achieved Free transfers have ensured customers not penalised for additional transfers required from network changes in Wellington city Note – estimated that only about 0.6% (150k) additional required transfers as a result of the new bus network Free transfers have enabled concept of 'journey-based' fares to become the norm for customers Quality and extent of data is significantly enhanced ability to analyse performance of the bus network 				
Rail paper ticketing	Simplify and standardise Metlink fares and products in the lead-up to integrated ticketing and fare capping	 Yes - number of rail tickets in circulation (240) now is significantly less than the 309 tickets in the past All period passes and 10-trip tickets now zone-based, allowing use across all lines One further adjustment was required to enable Accessible Concession customers to purchase 50% single cash tickets for rail and ferry travel. 				

Key Metrics: patronage growth (1)

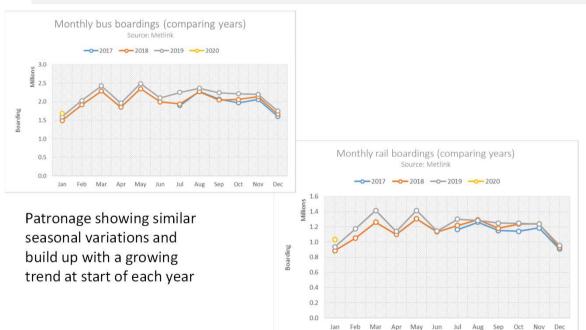
Between July 2018 and January 2020:

3 million more boardings (8% growth over 19 months): 1 million rail + 2 million bus



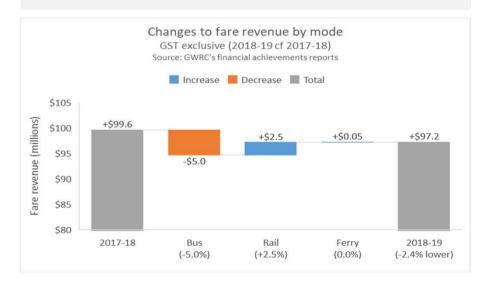
Key Metrics: patronage growth (2)

- Patronage growth has increased year on year following the fare changes introduced in July 2018
- Patronage reached 40 million in the first quarter of current financial year, with steady growth over the four months prior to March 2020
- Bus patronage has been growing faster than rail and remained steady between October 2019 and January 2020
- Rail patronage growth remains strong with a slight levelling off over the last quarter of 2019

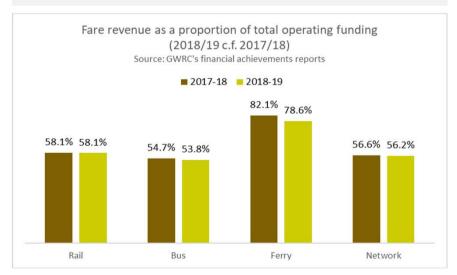




- Bus passengers benefited most from reduced fares. Bus fare revenue reduced by about (\$5m)
- Rail generated an additional revenue of about \$2.5m, offsetting the \$5m revenue loss on bus network
- No significant change to ferry fare revenue
- Overall, fare package reduced fare revenue by about \$2.5m (\$3m less than the budget of \$5.5m allocated for 2018/19)

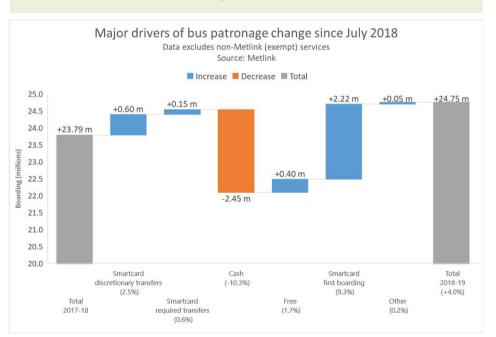


- Fares share of funding required to deliver services (excluding network-wide and capital costs) remains above 50% for all modes and network after the fare and network changes
- Fares share of funding reduced by less than 1% for bus due to lower bus fare revenue, remained relatively unchanged for rail and lowered by about 3.5% for ferry
- Fares share of funding reduced by 0.4% for Metlink network but remained within the expected target range of 55% - 60%



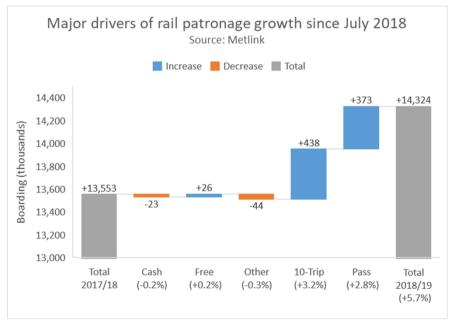
Bus patronage growth between 2017/18 and 2018/19

- 4% (0.96m) growth largely driven by more users making free transfers
- Shift from cash to smartcard was about 10% across the bus network
- Only 0.6% of total bus boardings are transfers required by network



Rail patronage growth between 2017/18 and 2018/19

- 5.7% (0.77m) growth largely driven by greater use of prepaid tickets
- 10-trip tickets grew rail boadings by 3.2%
- Monthly passes grew rail boadings by 2.8%

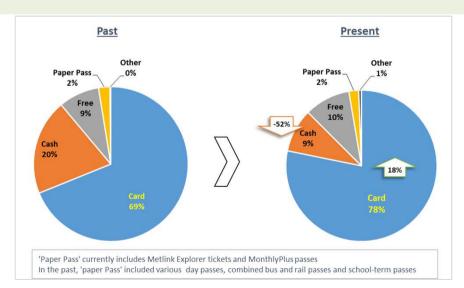


Key Metrics: changes to methods of payment

March 2020

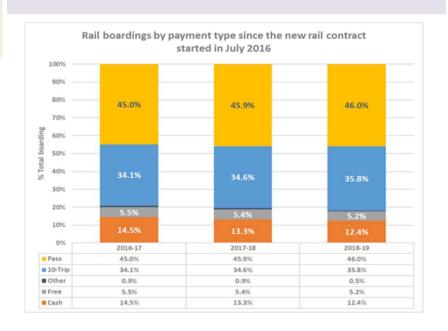
Bus

- Growing number of passengers using Snapper card since July 2018
- Use of cash has been halved in 2018/19
- Free travel (SuperGold, Child under 5, Parking wardens, Maori Wardens, Police, Metlink staff) has increased slightly
- Improved access to affordable travel has been realised with growing number of bus users benefiting from reduced fares on Snapper card



Rail

- Rail network shows declining cash use while growing number of pre-paid 10-trip tickets and monthly passes
- Growth likely encouraged by new products and concessions

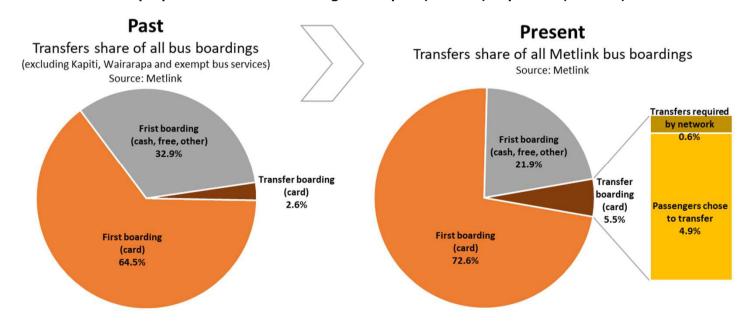


Key Metrics: bus to bus transfers (1)

March 2020

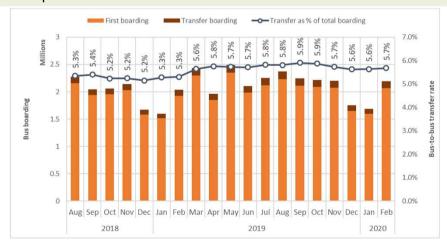
- In 2018/19 about 5.5% (1.4m) of all bus boardings were transfers to a next bus within 30 minutes (0.75m growth compared with past)
- The growth in transfer boardings (0.75m) accounted for about 78% of the 0.96m (or 4.6%) growth in total bus boardings
- Only 0.6% (0.15m) of total bus boardings were transfers made by passengers required by the new bus network to change buses
- The remaining 4.9% (or 1.2m) were transfers made by passengers who chose to transfer to pay less for their journey

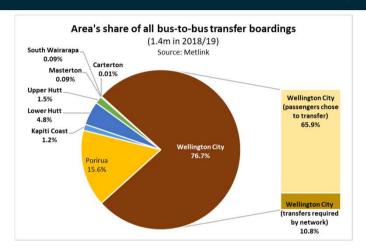
Transfers as a proportion of all bus boardings in the past (2014-15) vs present (2018-19)

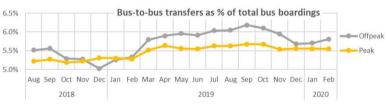


Key Metrics: bus to bus transfers (2)

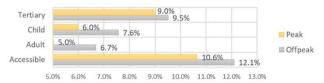
- In 2018/19, majority of bus-to-bus transfers (76.7%) were in Wellington City followed by Porirua (15.6%)
- Most of the total bus-to-bus transfers in Wellington City (about 1m)
 were made by passengers who chose to transfer
- The remaining bus-to-bus transfers in Wellington City (about 0.15m)
 were transfers required by the network
- Bus-to-bus transfers continue to grow showing 8% growth between
 July 2019 and February 2020 (average 1% per month)
- Off-peak has higher number of transfers than peak
- People on Accessible Concession make more transfers than others





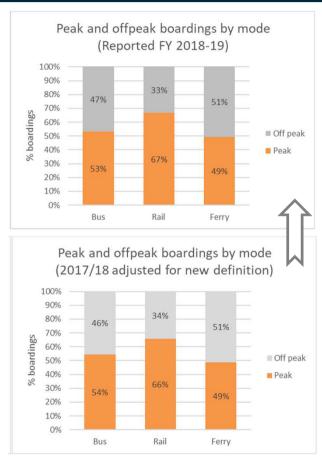






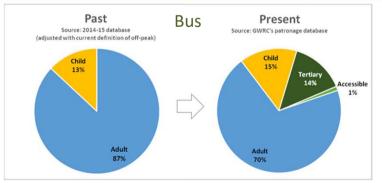
- Definition of off-peak was changed to align with SuperGold off-peak times improving consistency and ease of administration of fares and tickets across the network
- In 2018/19, about 47% of all bus boardings and 33% of rail boardings were off-peak
- The share of off-peak share of boardings (Feb 19 to Feb 20) has grown from 43.7% to 48.1% while peak share of boardings has declined proportionally from 56.3% to 51.9%
- Trend suggests off-peak capacity is now better utilised with growing off-peak travel,
 while peak growth has most likely been constrained by ongoing capacity issues

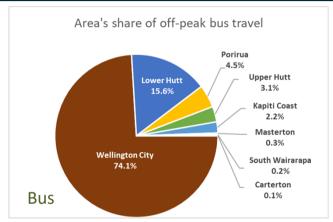




- Network-wide growth in off-peak travel (5.3%) was higher than peak (4.1%)
- By mode, growth in off-peak travel was higher for bus (6.6%) than rail (2.6%)
- Rail network shows more peak growth (7.3%) than off-peak
- 74% of off-peak bus boardings are in Wellington City and largely made by adults
- The new rail Off-peak 10-trip tickets have been used more than the single-trip off-peak tickets in the past showing more off-peak train travel

		2017/18 2018/19 Bus adjusted Reported using 2014/15 data 1 Jul 2018 – 30 June 2019		Change 2018/19 vs 2017/18			% Change 2018/19 vs 2017/18					
Mode	Peak	Off peak	Total	Peak	Off peak	Total	Peak	Off peak	Total	Peak	Off peak	Total
Bus	13.0	10.8	23.8	13.2	11.5	24.7	0.2	0.7	1.0	1.9%	6.6%	4.0%
Rail	8.9	4.7	13.6	9.5	4.8	14.3	0.7	0.1	0.8	7.3%	2.6%	5.7%
Ferry	0.1	0.1	0.2	0.1	0.1	0.2	0.0	- 0.0	- 0.0	0.5%	-2.4%	-1.0%
Network	21.9	15.6	37.5	22.8	16.4	39.3	0.9	0.8	1.7	4.1%	5.3%	4.6%



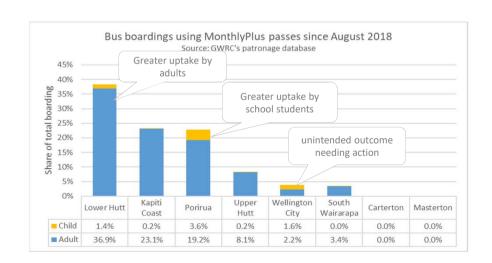




MonthlyPlus pass:

- A new monthly pass was introduced providing rail travel with free bus connections between zone 4 and outer zone on the pass. Can be used on any rail line. Adult and child versions available.
- Mostly used by adult commuters in Lower Hutt. Child version had a big uptake by school students in Porirua, where no combined bus and rail pass was available in the past.
- Mostly used on rail (about 38% of all rail boardings) but also accounts for about 1.5% of total bus boardings, an increase compared to past estimate (about 0.5% of total boardings).
- Compared with 2017/18, demand for monthly passes has grown by about 6%.

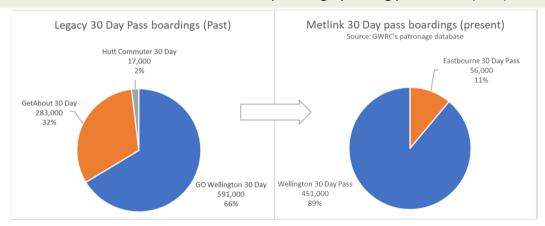




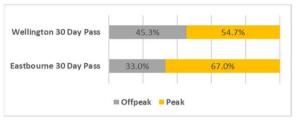
Key Metrics: Use of 30-day bus pass

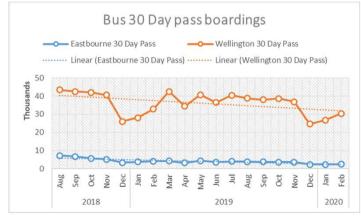
30-day bus pass (Wellington City and Eastbourne):

- Two 30 Day passes were retained in response to concerns by bus commuters and Wellington City Council about equity between bus and rail during consultation on "Better Metlink Fares".
- As expected, the use of 30-day passes has declined significantly (about 45%). The decline is due to the improved value and convenience that free bus-to-bus transfers provide when using the standard stored value Snapper product. Use is continuing to decline.
- The pass is used mostly in Wellington City (90% are Wellington City 30-day passes) and for longer distance travel involving 3 or 2 zones (79%).
- Wellington 30-day pass is used slightly less during off-peak (45%) than peak (55%), while Eastbourne commuters have used their pass largely during peak hours (67%)







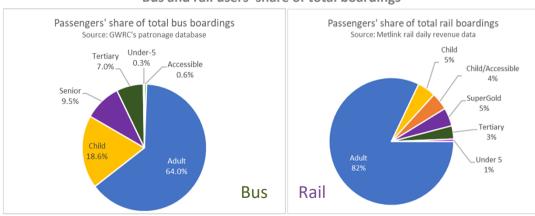


Key Metrics: impact of new concessions

March 2020

- · New concessions included:
 - an all-time 25% discount for full-time tertiary students
 - a 50% discount for Total Mobility card holders and members of the Blind Foundation with free travel for an accompanying carer
 - a standard 50% discount for school students (was variable in the past)
- 36% of bus boardings benefited from a concession compared with 18% on rail
- · Boardings on Accessible Concession is growing faster than tertiary concession
- Child concession has been mostly used during peak than off-peak, while other concessions are largely used during off-peak than peak

Bus and rail users' share of total boardings



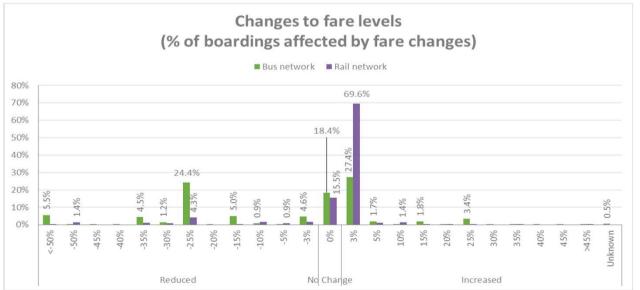


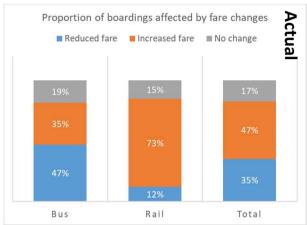


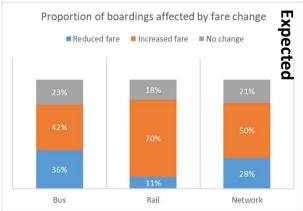


Key Metrics : changes to fare levels

- 35% of bus and rail boardings have experienced a reduced fare (higher than expected 28%)
- 47% of bus and rail boardings have experienced a fare increase (less than expected 50%)
- 17% of bus and rail boardings have remained unchanged (less than the expected 21%)
- 70% of rail boardings and less than 30% of bus boardings have been affected by 3% fare increase (less than expected)
- The significant difference between bus and rail highlights importance of integrated electronic ticketing for equitable distribution of benefits

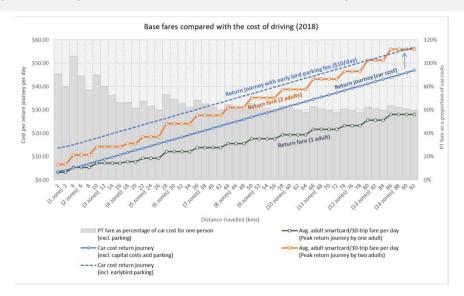


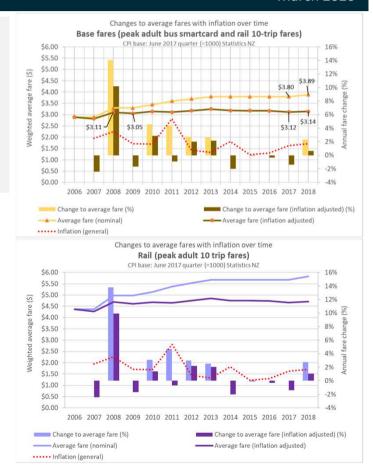




Key Metrics : affordability

- Comparing the changes to fares over time relative to the changes to general consumer price index (CPI) shows average base fare has been flat since the fare zone system was introduced in 2006
- The growth in average base fare over five years has been about half of the growth in general cost of living and income
- Excluding parking fees, base fares are on average 60% cheaper than driving a car for longer distance journeys. Including an average early bird parking cost of \$10/day makes public transport a more cost-effective alternative for private car





User experience

Rollout of Snapper provided improved user experience and operational outcomes:

- Users have benefited more from the concessions and reduced fares, highlighting importance of electronic ticketing to deliver policy outcomes (nearly half of bus passengers experienced a fare reduction)
- Growing uptake of cards indicates an improved user experience and provides more flexibility to change fares, respond to operational disruptions and offer occasional promotional fares
- Taking inflation into account, users now have access to more affordable travel options

The transition to new fares and ticketing was relatively seamless for customers despite wider operating issues at the time:

- Low levels of enquiries and complaints relating to fares and ticketing to Metlink, its operators and Snapper
- Achieved by strong support from ticketing providers and operators and a major communications campaign
- Concerns raised by users and operators relate mostly to paper-based ticketing on rail, which cannot be fully resolved until the integrated electronic ticketing is in place

Transition requires a complex public communications campaign with a large amount of change happening at the same time:

- Overall there were approx. 250 separate communications (includes bus and rail)
- Messages about where to catch, where it goes, costs of tickets across three rollouts
- Customer segmentation campaign with strong focus on pushing people to Metlink website and app

Significant development and implementation was required from the ticketing provider:

- New on-board devices required with lead times at same time new operators were setting up new fleets
- Snapper rollout and conversion was smooth and issues such as refunds fixed quickly
- Successfully built and managed the portal for tertiary concessions
- Snapper provides flexibility to change fares, respond to operational disruptions and offer occasional promotional fares