

Accessibility and Affordability Impacts of Half Price Public Transport Fares in Aotearoa New Zealand

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ABSTRACT (max 100 words)

Transport costs can constitute a large proportion of household budgets and restrict travel.

Reduced or free public transport fares are one strategy to address these affordability and accessibility challenges.

We analyse data from a 2022 transport survey to investigate participants perspectives and experiences of half price public transport fares in Ōtautahi Christchurch, a city in Aotearoa New Zealand.

We find that those experiencing transport poverty are likely to have benefitted in terms of widening access and reduced financial stress.

Proposal Lede: This article shows that those experiencing transport poverty experience improved accessibility and affordability as a result of half price public transport fares

KEYWORDS

Transport poverty

Affordability

Accessibility

Public transport fares

1. QUESTIONS

Transport poverty can arise when in order to meet basic needs, expenditure on transport leaves a household with income below the poverty line (Lucas et al., 2016).

The government in Aotearoa New Zealand introduced a “transport relief package” in April 2022 to ‘support New Zealanders through the global energy crisis’ (Waka Kotahi New Zealand Transport Agency, 2023). The package included half price public transport fares, a NZ\$0.25 (US\$0.16) reduction in fuel excise duty and 36per cent reduction in road user charges. With the reduction, an adult single

zone fare (covering most of the city) in Ōtautahi Christchurch was NZ\$1.30 (US\$0.80) with a tag on card, or NZ\$2.10 (US\$1.30) cash. The package, including universal half price fares ended on 23rd June 2023, with half price fares continuing for those aged 13-24, community service card holders, and total mobility users.

The justification for the transport relief package was to support those struggling financially with transport costs. Existing analysis of half price fares has considered the extent of transport mode shift (Magill et al., 2022) but less so the accessibility and affordability impacts for lower income groups. National level data suggests that 23-30per cent of public transport users surveyed have shifted from another mode (10-18% from car) and 4-7per cent are making new trips because of cheaper fares (Magill et al., 2022).

We know that public housing residents, including those in our study experience transport difficulties related to affordability and accessibility (Fitt et al., 2022; Jahan & Hamidi, 2020; Thompson, 2022), with lowest income households spending more than a quarter of their income on transport (StatsNZ, 2019)

Our hypothesis is that reduced cost public transport can play an important role in affordability and accessibility, specifically for those on lower incomes who face transport difficulty.

2. METHODS

Our data come from two data collection exercises undertaken as part of a larger longitudinal project. Surveys were undertaken with two target population groups, public housing tenants and older people. Our survey took place in October and November 2022 (n=372). In-depth qualitative interviews were conducted with 25 public housing residents.

The survey included questions about awareness, use and impact of half price bus fares and open-ended questions.

Our survey analysis intentionally compares those living in public housing, and therefore more likely to be experiencing transport poverty, with those in a broader sample of older people.

We present descriptive analysis of the survey data and thematic analysis of interview data.

3. FINDINGS

Table 1 – Demographic characteristics of survey respondents

	Public housing (n=170)	Other housing (n=202)
Mean age (standard deviation)	59 (13.55)	70 (9.63)
Male (%)	59.5	45.7
Māori (%)	19.3	4.1
NZ European (%)	68.2	84.7
Full or part time paid work (%)	8.1	24.9

Retired (%)	29.8	61.1
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Table 2 – Use of half price fares amongst survey respondents - proportion of respondents reporting each questionnaire item

	Public housing % (95% confidence interval)	Other housing % (95% confidence interval)	Chi-square test
	N = 372	N = 372	
Used bus in last 7 days	42.4 (35.2- 49.9)	18.3 (13.6-24.2)	$\chi^2 (1, N=372)=25.8, p < .001$
Awareness of half price fares	76.5 (69.6- 82.2)	79.7 (73.6-84.7)	$\chi^2 (1, N=372)=0.6, p =0.45$
Made trips that would have otherwise been unable to do	44.7 (37.4- 52.2)	15.8 (11.5- 21.5)	$\chi^2 (1, N=372)=37.3, p < .001$
Been able to spend more money on other things such as food	35.9 (29.1- 43.3)	7.9 (4.9-12.5)	$\chi^2 (1, N=372)=74.0, p < .001$
In those who had used public transport in the past week			
	N = 72	N = 37	
Would not have made last bus trip without half price fares	23.6 (15.3- 34.6)	8.1 (2.8-21.3)	$\chi^2 (4, N=109)=16.84, p = .002$
Would have taken trip regardless	45.8 (34.8- 57.3)	81.1 (65.8-90.5)	
Last PT trip would otherwise be taken by car	8.3 (3.9- 17.0)	10.8 (4.3- 24.7)	
Last PT trip would otherwise be walking or cycling	15.3 (8.8-25.3)	0 (0-9.4)	
Unaware of half price fares before trip	6.9 (3.0-15.3)	0 (0-9.4)	

Half price fares made a difference. Almost half (45per cent) of public housing respondents stated that half price fares had allowed them to make a trip they would otherwise have been unable to take, compared with 16per cent of other respondents. Chi-square tests (Table 2) indicate significant differences between public housing residents and other housing residents on most questionnaire items relating to use of and impact of half price fares, demonstrating the particular accessibility and affordability impacts of half price fares amongst this group.

Respondents said they had been able to spend money on other things, such as food because of cheaper fares (36per cent of social housing residents compared to 8per cent of other respondents).

A quarter of public housing respondents would not have taken their most recent trip at full price fare.

Although mode shift from car to public transport occurred among both groups this was higher among non-public housing residents, likely because of higher baseline use of car and greater capacity to shift.

None of our other housing sample report mode shift from active travel, compared with 16per cent of public housing residents. Other research has suggested that those living in more deprived areas often rely on walking due to financial difficulties (Ogilvie et al 2008). Our findings provide evidence that half price fares are helping to address unmet need in transport among the public housing residents we surveyed.

Qualitative findings

These qualitative findings from interviews with 25 participants add some depth and explanation to the quantitative findings presented above, giving insight into the reasons behind some of the findings.

Cost and financial stress

Most interview participants made use of half price fares. Half price fares gave people freedom and ability to get to places they needed to visit and removed stress. People felt able to travel greater distances, explore more of the city and spend more time out and about (without trying to get home within a two hour free transfer period, or during concessionary fares time periods). Participants noted reduced financial strain – including not having to make choices between transport or food.

Wellbeing and social contact

Being able to get about more has been beneficial for mental wellbeing. Participants reported increased social contact and being able to travel to see friends and family more often. People noted the social aspects of travelling by bus: *“If you’re a sociable person, catch a bus because you can guarantee to meet people and create friendships on there. I’ve met so many people.”*

Older people already have concessionary travel but this is time restricted. Half price fares have led to more freedom for older people with greater time flexibility - in one case, this meant someone could take up a voluntary role they had been unable to afford to travel to. Use of bus also enabled people to travel when health conditions meant they could no longer cycle.

Mode shift

Reduced fares had encouraged some people to try public transport and participants talked about reduced stress and financial pressure related to driving, particularly given rising costs of fuel. Some had reconsidered car-ownership.

- *“It makes you not want to have a car because there’s no need.”*

Respondents noted environmental benefits and wider community benefits of reduced car use.

Anxieties

For some people, travelling by bus removed anxieties about travelling in other ways, such as being stuck in traffic or finding parking:

“When I started [using the bus], I realised that my mental health started to get a lot better. I didn’t have to worry.”

Others expressed anxieties and uncertainties around using the bus, which prevented them from making use of half price fares, suggesting with appropriate mental health support, uptake could be greater. There was also some concern that people would start to rely on the bus and then face an increase in fares.

Some participants noted prior difficulties accessing concessionary fares and highlighted the value of a universal fare reduction, meaning that it was easy to obtain the cheaper fares.

Some felt other (non-fare) improvements, such as reliability, hours of operation, routes, or safety to the services were needed to allow them to use the bus.

Summary

Our findings indicate that half price fares played an important role in affordability and accessibility for those who face transport difficulty, enabling them to access key destinations and services that they had not accessed previously, and alleviating some of the financial stress associated with travel.

Efforts to shift mode of transport are not always equitable (Bae & Mayeres, 2005; Manaugh et al., 2015; Walker, 2008). It is important that these findings are considered alongside the evidence on mode shift when evaluating the impact of the transport relief package.

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