

Impact of Public Transport Fare Reductions for Population Groups

Report prepared for Free Fares by the 2026 cohort
of ENVI526 Climate Justice Now! at Te Herenga
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Contents

How Māori and Pacific peoples could benefit from fare-free public transport.....	3
Māori	3
Further sources: Māori.....	6
Pacific.....	10
Further sources: Pacific peoples	12
The Impact of Fares on Women and Parents.....	16
Fare Effect on Patronage	16
Fare Effect on Mode Share	18
Opportunities Made Accessible Due To Fare Reductions.....	20
Further sources: Women and Parents	23
How Migrants and Workers Would Benefit from Public Transport Fare Reductions..	33
Migrants.....	33
Workers.....	35
Reference Table	38

Report Background

Students, working in three groups, were asked to research the impact of public transport fare reductions on particular groups, summarise key points from the literature and produce an annotated list of important references.

The three reports have been compiled below, retaining the students' decisions about structure and formatting.

Ngā mihi nui to the Free Fares campaign for the chance to learn about their important work for climate justice, and contribute in a very small way.

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How Māori and Pacific peoples could benefit from fare-free public transport

Stella Murphy, Jack Newell, Jack Winiata Robertson and one other student

Māori

Fare effect on patronage for Māori

Research shows that transport affordability is a significant barrier to public transport use for Māori (Raerino et al., 2013). Māori also experience wider transport disadvantages, which can affect mobility and access to important destinations (Russell et al., 2024). For Māori, transport barriers limit access to employment and education, as well as whānau, marae, and other places of cultural significance (Raerino et al., 2013). Māori transport experiences are also shaped by wider social, economic, and transport related disadvantages (Jones et al., 2020). Whilst focusing specifically on Māori kaumātua, Colhoun et al. (2025) found that limited transport options can create barriers to daily activities and maintaining cultural practices, health, and wellbeing. These findings may also be relevant to the wider Māori population, as additional research shows that Māori experience similar transport barriers (Raerino et al., 2013; Russell et al., 2024). New Zealand's temporary half-price fare policy found that 23–30% of public transport users shifted from another mode, while 4–7% made additional trips that would not otherwise have occurred because of cost, showing that lower fares led to an increase in additional trips and an increase in mode shift (Magill et al., 2024). International evidence from Tallinn reported similar increases in patronage following fare reductions (Cats et al., 2017). Further, research involving public housing residents, of which 19.3% identified as Māori, found that reduced fares enabled previously unaffordable journeys, with 45% of respondents making trips they otherwise could not have afforded and 36% shifting transport savings towards essentials such as food (Curl et al., 2024). Overall, the research shows that reduced fares increase public transport patronage by reducing financial barriers and improving access to essential destinations.

Key points

- Reduced fares increase public transport patronage.
- Lower fares enable additional and previously unaffordable trips.
- Lower fares reduce transport disadvantage by improving affordability.
- Māori are likely to benefit because affordability remains a significant transport barrier.

Fare effect on public transport mode share for Māori

Research shows that reduced public transport fares can increase public transport mode share, although the extent of mode shift varies across transport modes. As shown, New Zealand's half-price fare policy found that 23–30% of public transport users shifted from another mode, including 10–18% from private vehicles, while much of the patronage growth reflected additional public transport trips rather than reduced car travel (Magill et al., 2024). Similar findings were reported in Tallinn, where fare-free public transport increased patronage but produced only modest reductions in private vehicle use (Cats et al., 2017). However, none of the studies focused primarily on Māori-specific mode-shift outcomes. Māori transport research suggests that transport choices are shaped by affordability and access to culturally significant places (Raerino et al., 2013). Collective travel practices are also important for Māori, with shared transport supporting social relationships and cultural practices (Haerewa et al., 2018). Public transport availability and accessibility can further shape mobility for Māori (Colhoun et al., 2025). Transport also plays an important role in maintaining connections with whānau and places of cultural significance (Russell et al., 2024). The research shows that reduced fares are an important first step towards increasing public transport mode share, but structural barriers mean that a meaningful mode shift for Māori is likely to depend on affordable fares being accompanied by accessible, reliable, and culturally responsive public transport services. Research suggests that culturally responsive transport should recognise Māori transport needs beyond simply getting from one place to another, including supporting collective travel practices and connections with whānau, marae, and other places of cultural significance (Haerewa et al., 2018; Raerino et al., 2013).

Key points

- Reduced fares increase public transport mode share.
- Around 10–18% of users shifted from private vehicles.
- No studies reported Māori-specific mode-shift outcomes.
- Structural barriers continue to constrain Māori mode shift.
- Affordable fares should be paired with accessible, reliable and culturally responsive public transport.

Opportunities

A substantial body of research suggests that transport disadvantage disproportionately affects Māori, creating significant barriers to accessing essential services, education, healthcare, employment, and broader social and economic participation (Jones, 2025. Magill et al., 2024). Approximately 84% of Māori youth live in urban areas (Ministry of Social Development, 2023), and affordable and accessible transport is critical to ensuring equitable access to

these opportunities. NZ Transport Agency (2024) statistics indicate that while many urban Māori use public transport regularly, private vehicles remain the preferred mode of travel for most due to the affordability, convenience, and limitations of existing public transport services. However, public transport is the primary mode of travel for demographics within the Māori population who are unable or unwilling to use a private vehicle, including children, students, and kaumātua (Colhoun et al., 2025). These groups are more likely to fit into a lower income bracket, making them particularly sensitive to fare prices. Colhoun et al., (2025) suggest that transport fare reductions also serve to subsidise the cost of unpaid labour of caregiving for children and the elderly. Efficient public transport use has been linked to overall higher standards of health (Russell, 2024) by encouraging more active lifestyles and enabling greater access to health and education services. Equitable transport is necessary to regularly commute to services, and so reduced fares provide greater opportunities for students, the elderly and people undergoing regular treatment for long-term conditions (Jones et al., 2025). Mode shift away from private vehicles can reduce congestion and air pollution, benefiting urban communities.

A survey of Auckland Māori leaders and community members (Raerino et al., 2013) identified that transport was necessary for all aspects of daily life as described by the principles of the Te Pae Mahutonga model of health; (Durie, 1999); Mauriora (access to Māori cultural, economic, and social resources), Waiora (environmental protection and access to the natural environment), Toiora (physical, mental and emotional wellbeing) and Te Oranga (participation in society). Respondents noted that “Utilising transport to access cultural activities was of vital importance to all of the participants” (Raerino et al., 2013, p 55), and that public transport was often insufficient to meet their needs due to being unaffordable or inaccessible. Equitable public transport can support cultural identity and wellbeing, providing access to sites of importance and opportunities to counter loss of language within a colonised urban context (Durie, 1999). Participants noted that convenient and affordable public transport was a major factor influencing the living situations and primary transport mode of individuals and families, potentially enabling them to live on papakāinga or shared living situations with whānau without owning a private car. From a climate justice perspective, this highlights the importance of ensuring that the benefits of lower-emissions transport are accessible to Māori who already experience disproportionate transport disadvantage.

Key points

- Reducing fares provides equitable access to critical services and opportunities.
- Reducing fares benefits populations who are unable to access private transport.

- Equitable transport is necessary for urban Māori populations to maintain access to cultural practices and sites of significance and prevent loss of language.
- Existing public transport services are limited and are not sufficient to meet the needs of urban Māori communities.

Further sources: Māori

Reference	Summary	Relevance
Cats, O., Susilo, Y. O., & Reimal, T. (2017). <i>The prospects of fare-free public transport: Evidence from Tallinn</i> . <i>Transportation</i> , 44(5), 1083–1104. https://doi.org/10.1007/s1116-016-9695-5	Evaluates Tallinn's fare-free public transport policy, finding increased patronage but limited mode shift from private vehicles.	Supports evidence on patronage and limited mode shift.
Curl, A., Coppens, A., Dares, C., Williman, J., Fitt, H., & Kingham, S. (2024). <i>Accessibility and Affordability Impacts of Half Price Public Transport Fares in Aotearoa New Zealand. Findings (Network Design Lab</i> . <i>Online</i>). https://doi.org/10.32866/001c.92735	Evaluates New Zealand's half-price fare policy and its effects on affordability and accessibility.	Provides direct evidence that lower fares improve access and increase patronage.
Colhoun, S. Mclean, R. Cameron, C. Crengle, S. (2025). <i>Transport practices of Māori Kaumātua (Indigenous elders) in Aotearoa New Zealand: baseline findings from prospective older adults transport and health study (NZPATHS)</i> . <i>BMC Public Health</i> , 25, 2853.	Examines transport practices among Kaumātua. The study identifies they are reliant on private vehicles for transport and participation in health and cultural services; however, a growing portion are solely dependent on public transport to access local services.	Provides data for public transport use by Kaumātua and details limitations to existing public transport services.

https://pubmed.ncbi.nlm.nih.gov/40836234/		
Durie, Mason (1999), 'Te Pae Māhutonga: a model for Māori health promotion', Health Promotion Forum of New Zealand Newsletter 49. Massey University Press. https://hpfnz.org.nz/assets/TePaeMahutonga.pdf	Te ao model of health encapsulating Waiora (environmental protection and access to the natural environment), Toiora (physical, mental and emotional wellbeing) and Te Oranga (participation in society).	Provides a comprehensive model of health based on the Te ao Māori worldview & values.
Haerewa, N., Stephenson, J., & Hopkins, D. (2018). Shared mobility in a Māori community. <i>Kōtuitui: New Zealand Journal of Social Services Online</i> , 13: 233–245. https://doi.org/10.1080/1177083X.2018.1469516	Explores Māori shared mobility, collective travel, and cultural transport practices.	Demonstrates that Māori transport choices extend beyond affordability alone.
Jones, R., Kidd, B., Wild, K., & Woodward, A. (2020). Cycling amongst Māori: Patterns, influences and opportunities. <i>New Zealand Geographer</i> , 76(3), 182–193. https://doi.org/10.1111/nzg.12280	Examines factors influencing Māori transport choices, including infrastructure and safety.	Supports the importance of addressing structural transport barriers.
Jones, R. Macleod, M. Gage, R. Woodward, A. Shaw, C. (2025). Inequities in patterns and determinants of travel for Māori in Aotearoa/New Zealand. <i>Journal of Transport and Health</i> . https://doi.org/10.1111/nzg.12280	Examines shortcomings of existing public transport as a result of colonial urban planning and systemic disenfranchisement.	Provides context for Māori attitudes towards public transport and provides data for the effectiveness of public transport incentives.
Magill, T., Christie, C., & Fong, S. (2024). <i>Impact of half-price public transport</i>	Follow-up evaluation examining who benefited from half-price fares.	Shows fare reductions work best where services are already accessible.

fares: A research note (Research Note 009A). Waka Kotahi NZ Transport Agency. https://nzta.govt.nz/assets/resources/research/research-notes/009/009-impact-of-half-price-public-transport-fares.pdf		
Ministry of Social Development (2023). The National Youth and Wellbeing Survey Māori https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/consultations/youth-health-and-wellbeing-survey-results/2021-yhws-m-ori-cohort-report-final-june-2023-.pdf	Provides demographic and wellbeing data on Māori youth including the geographic distribution of Māori young people and their concentration in urban areas.	Provides demographic context for understanding the transport needs of Māori youth, including the importance of accessible transport in urban areas.
Raerino (Ngāti Awa, Te Arawa), K., Macmillan, A. K., & Jones (Ngāti Kahungunu), R. G. (2013). Indigenous Māori perspectives on urban transport patterns linked to health and wellbeing. <i>Health & Place</i> , 23, 54–62. https://doi.org/10.1016/j.healthplace.2013.04.007	Examines Māori perspectives on transport, wellbeing, and access to key destinations.	Study on Māori transport disadvantage and accessibility.
Russell, E., McKerchar, C., Berghan, J., Curl, A., & Fitt, H. (2024). Considering the importance of transport to the wellbeing of Māori social housing residents. <i>Journal of Transport & Health</i> , 36, Article 101809. https://doi.org/10.1016/j.jth.2024.101809	Investigates transport experiences of Māori social housing residents.	Links transport accessibility with Māori wellbeing and social participation.

Spray, J., Witten, K., Wiles, J., Anderson, A., Paul, D., Wade, J., & Ameratunga, S. (2022). Inequitable mobilities: intersections of diversity with urban infrastructure influence mobility, health and wellbeing. <i>Cities & Health</i>, 6(4), 711–725. https://doi.org/10.1080/23748834.2020.1827881	Explores how infrastructure and inequality shape mobility and wellbeing.	Supports the need for accessible and inclusive transport systems.
Waka Kotahi NZ Transport Agency. (2024). Customer Journey Monitor Jan-Dec 2024. https://nzta.govt.nz/assets/resources/customer-journey-monitor-public-transport-deep-dive-report/customer-journey-monitor-public-transport-deep-dive-2024.pdf	Statistical breakdown of public transport users in NZ Jan-Dec 2024.	Useful for referencing; what share of public transport use is urban; what share of public transport use is Māori/Pacific; and the effectiveness of public transport incentives.

Pacific

Fare effect on patronage for Pacific peoples

Pacific peoples in Aotearoa described in this section comprise those from, or have heritage from nations of the Pacific, including but not limited to Sāmoa, Cook Islands, Tonga, Niue, Fiji, Tuvalu and Tokelau. As of 2023, Pacific peoples make up around 8.85% of the total New Zealand population, 62% of which living in Auckland, where public transport has better potential for accessibility and equality given it is an urban centre (Stats NZ, 2025). A study by Shaw and Tiatia-Seath (2022) described how nationally, Pacific participants were found to use public transport more than non-Pacific participants, but the opposite was found (non-significantly) in Auckland, despite there being a higher Pacific population. They hypothesise this discrepancy could be due to differences in service availability and residential segregation, as well as evidence that public transport in Auckland can be less culturally welcoming (Wild et al., 2021). While this evidence does not directly measure the effect of fare reductions on Pacific patronage, it suggests there is potential for increased public transport use if affordability and other access barriers are reduced (Shaw & Tiatia-Seath, 2022).

Key points

- Pacific peoples use public transport more than non-Pacific peoples nationally, but there is an opposite trend in Auckland, suggesting other factors also influence public transport use.
- Limited research specifically on fare effect on patronage, but evidence suggests potential.

Fare effect on public transport mode share

The article by Shaw and Tiatia-Seath (2022), being the only quantitative article on transport mode share for Pacific peoples, found that there was a similar time spent for Pacific peoples in private transport compared to non-Pacific participants, but less kilometres travelled. In Auckland specifically, the pattern is similar, but both groups spend a longer time travelling less, likely due to higher rates of congestion. Active transport modes were less common in Pacific peoples despite them being a younger age category (Stats NZ, 2025). They suggest this could be due to either health inequities or disability, biking as an activity being culturally less common, or just not a priority for spending (Shaw & Tiatia-Seath, 2022). There isn't enough evidence available currently to argue that increased mode share to public transport for Pacific peoples would reduce congestion or have other flow-on effects, but as described earlier, there is definitely potential to increase patronage by reducing fares.

Key points

- Similar time spent in private transport between Pacific peoples and non-Pacific participants, but lower active transport use.
- Little evidence on the effect of public transport mode share specifically for Pacific peoples in New Zealand.

Opportunities

There is limited direct evidence looking at the opportunities created by fare-free public transport specifically for Pacific peoples in Aotearoa. However, wider literature suggests that fare reductions could produce household-level benefits for Pacific peoples, who have a younger population, live in larger households, and have comparatively lower access to private transport (Shaw & Tiatia-Seath, 2022; Stats NZ, 2025). Shaw & Tiatia-Seath (2022, p. 3) found that 25% of Pacific adults did not hold a driver licence, compared with 10% of non-Pacific peoples. Pacific participants also lived in households averaging 4.25 people compared with 2.94 for non-Pacific households and were more likely to live in households with children, at 62.3% compared with 37% (Shaw & Tiatia-Seath, 2022). Pacific peoples have a comparatively young age structure, with 30.7% under 15, and a median age of 24.9 years compared with 41.7 years for the European population (Stats NZ, 2025). These characteristics suggest that some Pacific households may have more people who need to travel than people who can drive, and that limited private vehicles may not meet multiple family members' needs. Fare-free public transport could therefore increase independent mobility, reduce reliance on family members for lifts, and lower the cumulative cost of travel to employment, education, healthcare, and community activities.

Curl et al. (2024) found that half-price public transport fares in Ōtautahi Christchurch enabled 44.7% of public-housing respondents to make trips they would otherwise have been unable to make, and 35.9% reported being able to spend more money on other necessities such as food. Pacific-specific health evidence also identifies cost and transport among the barriers affecting access to healthcare, including specialist and follow-up care (Health Quality & Safety Commission, 2021). Broader international research supports the potential for fare reductions to create social and economic opportunities. Straub and Hess' (2025) review of a range of studies on fare-free public transport research found evidence that such schemes can enhance mobility and social participation for low-income groups and improve access to opportunities such as education with some studies (Busch-Geertsema et al., 2021; Capo & Messmer, 1987; Koblowski et al., 2019, as cited in Straub and Hess, 2025). finding greater benefits among lower-income populations. Collectively, the literature suggests that fare reductions could provide particular benefits to Pacific peoples by increasing mobility across larger and younger households, reducing household financial pressure, and improving access to essential services and social participation (Curl et al., 2024; Health Quality & Safety Commission, 2021; Shaw & Tiatia-Seath, 2022; Straub & Hess,

2025). From a climate justice perspective, these benefits will depend on ensuring that lower-emissions transport is affordable and equitably accessible, with services that are reliable, geographically accessible, and operating at times that meet Pacific community needs.

Key points

- Literature directly evaluating fare-free public transport for Pacific peoples is limited.
- Pacific households are larger and younger on average, with lower access to driver licences and private vehicles, which may increase the importance of affordable transport options.
- Lower public transport fares can enable trips that might otherwise be unaffordable.
- Reduced transport costs could improve access to employment, education, healthcare, and community activities.
- These benefits still depend on the availability, reliability, and accessibility of public transport services.

Further sources: Pacific peoples

Reference	Summary	Relevance
Curl, A., Coppens, A., Dares, C., Williman, J., Fitt, H., & Kingham, S. (2024). Accessibility and Affordability Impacts of Half Price Public Transport Fares in Aotearoa New Zealand. Findings (Network Design Lab. Online). https://doi.org/10.32866/001c.92735	Looks at the impact of New Zealand's 2022 half price public transport fares using a survey of 372 people in Ōtautahi, Christchurch, alongside qualitative interviews. The study concludes that reduced fares improved accessibility and reduced financial stress for people experiencing transport difficulty.	Highly relevant New Zealand evidence of the opportunities created by lower fares, particularly for groups experiencing financial and transport disadvantage. However, it is not Pacific specific.
Health Quality & Safety Commission. (2021). <i>Bula Sautu: A window on quality 2021: Pacific health in the year of COVID-19</i> . Wellington: Health Quality & Safety Commission. Bula	Examines health inequities and access to healthcare for Pacific peoples in Aotearoa New Zealand using national data, research, and Pacific health expertise. It identifies that Pacific patients struggle	Directly relevant Pacific-specific evidence that transport can affect access to essential services. It supports the argument that reducing transport costs could improve access to

Sautu – A window on quality 2021: Pacific health in the year of COVID-19 He mata kouna 2021: Hauora Pasifika i te tau COVID-19	to access healthcare services, particularly follow-up and specialist appointments because of factors including transport, childcare, parking, time away from work, and limited income.	healthcare for Pacific peoples.
Shaw, C. and J. Tiatia-Seath (2022). "Travel inequities experienced by Pacific peoples in Aotearoa/New Zealand." <i>Journal of Transport Geography</i> 99: 103305. https://doi.org/10.1016/j.jtrangeo.2022.103305	Quantitative analysis of NZ household travel survey data, conducted from 2003 - 2014. Describes current inequalities in travel patterns between Pasifika and non-Pasifika to understand differences in greenhouse gas emissions from travel.	One of the only quantitative studies available on travel patterns of Pacific peoples in New Zealand, providing evidence for how ongoing marginalisation can have an impact on what type of transport is accessible to groups such as Pacific peoples, and how it could change with free fares.
Stats NZ, (2025). "Pacific Peoples, Place and ethnic group summaries." New Zealand Government. https://tools.summaries.stats.govt.nz/ethnic-group/pacific-peoples	Most recent demographic information on Pacific peoples in Aotearoa, including population size, age structure and geographic distribution.	Useful background for understanding Pacific population characteristics that may shape transport needs, especially the younger age profile and concentration in Auckland. Does not provide evidence on transport or fare reductions directly.
Straub, D., & Hess, D. B. (2025). Re-examining fare-free public transport for greater inclusivity. <i>Transportation Research Interdisciplinary Perspectives</i> , 31, 101454. https://doi.org/10.1016/j.trip.2025.101454	Reviews 146 studies of fare-free transport. The review finds evidence that fare-free schemes can enhance mobility and social participation for low-income groups, provide social and economic benefits, and improve access to opportunities such as education. Highlights there are major gaps in research on different demographic groups.	Useful international academic evidence for the broader equity and opportunities associated with fare-free transport. It is not specific to Pacific peoples or Aotearoa New Zealand, and the review itself highlights the lack of research examining particularly demographic groups.

Wild, K., Tiatia-Seath, J., Shaw, C., Ameratunga, S. (2021). "The relationship between transport and mental health in Aotearoa New Zealand." Wellington, New Zealand, Waka Kotahi - NZ Transport Agency. https://www.nzta.govt.nz/assets/resources/research/reports/675/675-the-relationship-between-transport-and-mental-health-in-aotearoa.pdf	A summary of research on the relationship between mental health and transport for the general population and a focus on marginalised groups and barriers to public transport access.	Shows evidence of public transport being unwelcoming for Māori and Pacific peoples
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The Impact of Fares on Women and Parents

Fare Effect on Patronage

Women

Fare reductions significantly influence women's decisions to use public transport. In Delhi, the introduction of fare-free public transport for women led to an increase in patronage by up to 33% from 2022 to 2023 (Singh & Singh, 2025). This finding aligns with a 2012 study in Melbourne that demonstrated that women were more likely to increase their use of public transport when it became more cost-effective (Carver & Veitch, 2020). Additionally, Sharman et al. (2024) found that among the 73% of participants who were women, 46% reported using the bus more frequently during a fare-free period. This indicates that fare prices often limit women's travel options, which directly affects their access to public transport.

While fare changes impact women's willingness to use public transport, they are disproportionately affected due to their travel patterns. Ng & Acker (2018) showed that, on average, women commute by public transport less than men. Men typically use public transport mainly for work commutes, while women often use it for non-work, household-related trips, because of the gendered division of labour. This study encompassed eight cities across three continents, providing a comprehensive overview of gender-based transport habits. Women are more likely to link multiple trips, resulting in shorter but more frequent journeys, whereas men usually take a single, longer trip to and from work.

This creates a gender-based challenge, as women often spend more time and money on transport by taking and paying for multiple connected trips. For instance, consider a route in Wellington from Courtney Place (home) to Lambton Quay (work). Our male subject is likely to take a single bus for the entire journey, paying a set fare of around \$3.00. In contrast, our female subject is more likely to travel from Courtney Place to Manners Street (\$3) for errands, then return to Willis Street (\$3) for items from the supermarket, before continuing on to work at Lambton Quay (\$3), resulting in a cumulative cost of \$9.00 for what, on paper, appears to be the same trip. This discrepancy highlights the need for fare reductions for women when comparing average trips by gender.

Interestingly, women are also more likely to travel during off-peak hours, likely due to the nature of their trips. This trend presents an opportunity to implement reduced fares during these times, as men typically travel during peak hours (Ng & Acker, 2018). Reduced fares would enable women to manage "chained trips" without the financial burden of paying for multiple individual legs of a journey (Sánchez de Madariaga, 2013).

Key Takeaways:

- Fare reductions significantly impact women's decisions to use public transport.
- Reduced or free fares increase women's patronage of public transport

- Fare prices often limit women's travel options, affecting their access to public transport.
- Women commute by public transport less than men, but take more frequent short trips for non-work-related tasks.
- Women often link multiple trips, resulting in higher transport costs and time.
- Women are more likely to travel during off-peak hours, providing an opportunity for reduced fares during these times.
- Implementing reduced fares for off-peak travel could help women manage chained trips without the financial burden.

Parents

When considering the fare effect on parents, Tomeš et al. (2022) highlight that free public transport schemes are designed to tackle three main objectives: environment, efficiency, and social equity—thereby directly benefiting disadvantaged groups such as women, the elderly, students, and low-income households, which might include primary caregivers and parents. Despite growing awareness of the need to reverse increasing car dependency, there has been little work undertaken looking at the attitudes of those responsible for influencing the travel behaviour of the next generation, i.e., the parents, caregivers and family members who are chiefly tasked with “getting children from A to B” (Price & Matthews, 2013). To address this gap, some studies focus on parents with toddlers and infants (ages 0–4), reflecting that even though young children often receive free admission or discounted fares, the total combined fare when travelling as a full family unit is frequently perceived as too high compared to the incremental cost of driving a private car (McCarthy et al., 2017). Therefore, fare reductions or family-oriented fare policies, such as family passes, free travel for accompanying adults, or integrated household ticketing, have been suggested as effective measures to increase public transport patronage among this demographic. While child transit policies are rarely discussed in isolation, existing literature has identified that cost is a barrier to using public transport, particularly when travelling as a family group. The high cost can result in forgoing trips (Fritze, 2007) and make travel by private car more attractive, particularly when travelling as a family group (Price & Matthews, 2013).

Key Takeaways:

- Lower fares can increase public transport patronage and support a shift towards more sustainable travel behaviour among families.
- Parents and caregivers, who are primarily responsible for transporting children, are a key group in shaping future travel habits.
- Even though toddlers and infants usually get free or discounted entry, parents perceive the total combined fare for the entire family as too expensive compared to driving their own car.

- To make public transport an alternative to private cars for families, pricing policies should address the household as a whole through solutions (e.g. free fares for family passes).

Fare Effect on Mode Share

Women

Women generally have limited access to private vehicles due to high fuel prices and parking costs (Hail & McQuaid, 2021). During free fare periods, their use of public transportation tends to increase. However, when prices rise, public transportation can become a luxury, restricting women's ability to make trips, run errands on time, and manage their daily activities conveniently. Women are part of disadvantaged groups whose transportation choices are sensitive to pricing, and many have reported that they would not have made their most recent trip if they had to pay full fare for public transport (Curl et al., 2024; Hail & McQuaid, 2021).

Access to more affordable public transport, especially during times when private car usage is costly, encourages women to shift from private vehicles to public transit (Ng & Acker, 2018). When more women use public transport, it also enhances safety for female travellers (Kiruthika & Ravi, 2022). Increased female patronage can prompt transport companies to be more considerate of their female riders, leading to more services and measures that support safety, comfort and well-being (Kiruthika & Ravi, 2022).

Reduced fares allow women living in “transport poverty” to transition from walking or cycling to using the bus, saving them physical effort and time (Sánchez de Madariaga, 2013; Curl et al., 2024). When the gap between women who can manage to afford public transport fares and those who cannot gradually fades due to the removal of fare prices, the social inequality does not remain as visible. Moreover, this shift is likely to be less pronounced for the most disadvantaged women, as they typically lack access to a car in the first place (Hail & McQuaid, 2021). Additionally, fare reductions create opportunities for new trips that were previously impossible due to financial constraints, effectively increasing the overall share of public transport by fulfilling unmet mobility needs (Curl et al., 2024).

Although shifting from private vehicles to walking, cycling, and public transport is recognised for its environmental and social benefits, little attention is given to ‘reverse mode shift’ (RMS), where immigrant women move from low-carbon modes to cars after migrating. A 2025 study of Latin American women in Auckland finds that policy shifts towards car-focused planning overlook their needs. At the same time, interviews reveal that RMS is guided by factors like motherhood, job requirements, and feelings of stigma or empowerment (Rodriguez Mora, 2025). Some women embrace driving for autonomy, but others are compelled by necessity or hindered by previous discrimination. Moreover, the mobility framework, even when driving can challenge inequalities, car-dependent environments ultimately restrict mobility choices and worsen inequalities for those unable or unwilling to drive (Rodriguez Mora, 2025).

Therefore, fare-reduction schemes must go hand-in-hand with reduced car dependency, and be cognisant of the other factors that influence women’s transport choices.

Key Takeaways:

- Women generally have limited access to private vehicles due to high fuel prices and parking costs.
- Public transport usage among women increases during free fare periods.
- Rising public transportation costs can make it a luxury, hindering women's ability to make trips and manage daily activities.
- Many women from disadvantaged groups report they would not have made recent trips if they had to pay full fare.
- Affordable public transport encourages women to shift from private car use to public transport, especially when private usage is costly.
- Increased female patronage of public transport enhances safety for women, prompting transport companies to focus on their needs and wellbeing.
- Reduced fares can help women in "transport poverty" transition from walking or cycling to using buses, saving time and energy.
- Fare reductions facilitate new travel opportunities previously constrained by financial barriers, increasing overall public transport usage by addressing unmet mobility needs.

Parents

Public transport fares significantly influence transportation choices by affecting people's willingness to switch from private vehicles to public transit. This is particularly true for families with young children, who typically rely more on cars for their travel needs because most public transit pricing structures are not designed to accommodate family groups, making private car travel appear more cost-effective and economical from a parental perspective (McCarthy et al., 2017). Parental mode choices are significantly influenced by the specific travel needs of young children (aged 0–4). Accommodating childcare, employment and household responsibilities can restrict the time available for parents to meet their own and their child's travel demands (Dowling, 2015). Moreover, family-style housing tends to be located in outer urban areas where activities and workplaces are dispersed over greater distances. These constraints to mobility practices of families with young children mean policies restricting car use, such as workplace parking constraints, can exacerbate levels of stress in dual-earner households, particularly for women (Wheatley, 2014). Therefore, it has been suggested that to reduce car use in families with young children, policymakers should focus on addressing barriers to alternative transport options rather than imposing car restrictions. Focusing on barriers to public transport, such as high fare costs, may be more effective (McCarthy et al., 2017). For parents, affordability is a particularly important consideration because travel decisions often involve multiple family members. Mohd Yahya et al. (2024) identified affordability as one of the key determinants of parents' decisions to use public buses with their children, with fare incentives, such as free travel for children aged six and under, encouraging greater bus use. Vance and Peistrup (2011) indicate that children in households reduce the likelihood of transit pass ownership, suggesting that pricing

measures facilitating transit use by families—such as guest-rider allowances or package-offer promise for increasing ridership. Extending these cost-effective measures to long-distance journeys, as observed in the UK, can further leverage the way travel time is experienced to attract more families to rail, even though mode choice remains predominantly driven by convenience (Price & Matthews, 2013). Despite these persistent structural and financial challenges, emerging evidence regarding millennial parents offers a positive view. Less car-orientated travel behaviour, evident in some millennials, suggests that, as this cohort approaches parenthood, a life stage long associated with increased car use, they may be more open to using alternatives to car use and ownership when travelling with their children than previous generations (Guthrie & Fan, 2016).

Key Takeaways:

- Fare reductions make public transport a more financially attractive alternative to private car use, particularly for families travelling together.
- Encouraging public transport use among families is more effective when policies reduce barriers to alternative modes rather than restrict private car use.
- Affordability is a key determinant of parents' decisions to travel by public transport with their children, with discounted or free fares for young children encouraging greater bus use.

Opportunities Made Accessible Due To Fare Reductions

Women

Accessible and affordable mobility is essential for gender equity and empowerment, with public transport playing a crucial role (Athira et al., 2025). According to Singh & Singh (2025), fare-free transportation provides women a “gateway to education, work, healthcare, and civic life,” helping to combat patriarchal constraints. By eliminating or reducing travel costs, women gain greater independence and improved access to opportunities outside their neighbourhoods, which enhances their confidence and social participation (Singh & Singh, 2025). Increased social engagement can lead to higher workforce participation for women, fostering financial independence and benefiting the local economy (Kiruthika & Ravi, 2022; Lightner et al., 2026). Moreover, it alleviates “time poverty,” enabling women to redirect their time to other valuable activities.

Using public transport can often lead to increased physical activity, such as walking to and from bus stops. 77% of those who increased their bus usage reported an overall rise in total physical activity (France et al., 2019; Hail & McQuaid, 2021; Sharman et al., 2024). Introducing fare-free transport allows women to save money initially spent on high fare costs, enabling them to invest in essentials that might otherwise feel like luxuries (Curl et al., 2024). Additionally, the funds that would have been spent on transport can be redirected to household expenses such as food, education, or healthcare, directly improving individual and family well-being (Singh & Singh, 2025).

Moreover, offering reduced fares also addresses the often-overlooked labour women perform through unpaid care work. For instance, travelling to the supermarket for family groceries takes longer and incurs additional costs when utilising public transport. Making

this travel more financially accessible can begin to recognise and alleviate the burdens of such unpaid tasks (Singh & Singh, 2025).

Furthermore, it enhances women's ability to travel further in search of job opportunities, facilitating in-person job hunting that may be inconvenient and costly otherwise. Commuting to work without the daily cost burden or the headache of managing a personal vehicle empowers women (Curl et al., 2024; Sharman et al., 2024).

Key Takeaways:

- Gender significantly influences public transport usage, with women more likely to prioritise its use for non-work-related trips due to household labour dynamics.
- Reduced fares can lead to increased empowerment and independence for women, enabling better access to education, healthcare, and sociocultural activities.
- Reduced fares have been shown to increase ridership, with many users reporting enhanced confidence and independence in their mobility.
- Eliminating fare barriers allows women to engage more fully in the workforce, leading to higher rates of employment and access to medical care without the burden of transportation costs.
- Reduced fares provide safer transportation options for women, contributing to their overall economic participation, confidence and well-being.
- Improved public transport access encourages physical activity and contributes to a healthier, more active lifestyle among women.
- Reduced fares improve equity by enhancing access to jobs and community resources, thus benefitting women's social empowerment and economic standing.

Parents

Academic literature consistently indicates that fare reductions play a significant role in expanding social and economic opportunities by improving the affordability and accessibility of public transport, particularly for low-income households and families. Mbonu and Chizeck (2025) argue that reduced public transport fares mitigate the financial burden of travel for low-income households, leading to increased public transport use. Moreover, lower transport costs allow parents to allocate more income towards other essential needs, such as food, healthcare, and education, contributing to improved overall wellbeing and welfare outcomes.

Likewise, Rahmah et al. (2024) examine public transport utilisation patterns among parents in the Greater Melbourne area and highlight that parents have unique mobility needs compared with the general population. Although they focus primarily on spatial differences in public transport utilisation among parents, their findings suggest that affordable fares, when combined with accessible transport services, can enhance parents' ability to participate in employment, childcare, education, and community activities by overcoming mobility constraints. Additionally, for low-income families who lack a private vehicle and must rely on public transit with high fare costs, transit expenses can become a severe financial barrier. As a consequence, these households are often forced to give up

trips to essential destinations or activities, such as medical appointments or recreational and physical activities for their children (McCarthy et al., 2017). Collectively, these studies suggest that fare reductions are most effective in expanding access to economic, educational, and social opportunities, particularly for financially constrained households and families.

Key Takeaways:

- Lower public transport fares enable parents to access healthcare services by reducing travel costs.
- Fare reductions improve access to employment opportunities by making commuting more affordable for low-income households.
- Reduced transport costs increase participation in education and training by lowering financial barriers to travel.
- Affordable public transport enables parents to access childcare services, supporting workforce participation.

Further sources: Women and Parents

Title, Author & Date	Link/DOI	Key Words	Key Findings	Notes on Relevance
A Free Ticket Can Be a Ticket to Freedom Singh & Singh (2025)	https://www.researchgate.net/publication/389562250_A_Free_Ticket_Can_Be_a_Ticket_to_Freedom	Women Fare-Free Opportunities Patronage India	Fare-free public transport schemes empower women by influencing behavioural change. These initiatives enhance city access, promote empowerment, and facilitate social participation. Additionally, free fares challenge patriarchal constraints and traditional gender norms. Between 2022 and 2023, ridership increased by 33% among existing and new users alike, with two-thirds reporting greater independence and confidence. These schemes address issues of unpaid care work, time poverty, and mobility inequities in urban environments.	A case study in Delhi, India, demonstrates that money previously allocated for public transport can now be redirected towards household expenses, food, education, and healthcare, ultimately improving family welfare and well-being. Fare-free transport fosters independence, serving as a “gateway to education, employment, healthcare, and civic engagement.”
Perceptions and patronage of public transport – are women different from men? Carver & Veitch (2020)	https://doi.org/10.1016/j.jth.2020.100955	Women Fare-Free Opportunities Patronage Melbourne Australia	Women utilise public transport less frequently than men. However, when it is convenient and cost-effective, women tend to use it more often. There is a need for interventions to promote public transport usage and active transportation among women. Additionally, fare structures should be designed to ensure that public transport is financially accessible for women. Incorporating walking and cycling into journeys can assist women in meeting physical activity guidelines.	Data from Melbourne, Australia 2012.

Free bus fares, bus use and physical activity: An exploratory cross-sectional study Sharman et al. (2024)	https://doi.org/10.1002/hpja.881	Women Fare Effect Patronage Opportunities Tasmania Australia	This source looks at how free bus fares can quietly encourage people to be more active, mostly through walking to and from the bus stop. About 78% of people who started riding more also ended up more physically active overall. It also finds that free fares reduce stress and make life easier for women juggling job hunting or medical appointments, while helping people feel more connected to their community. The central argument is that fare-free public transport acts as a powerful public health "nudge," accumulating incidental physical activity for 78% of users who increased their bus use. Beyond health, the study highlights that removing cost barriers "liberates" users, reducing mental stress and facilitating social connections and job-seeking activities.	Data from Tasmania, Australia 2024.
Understanding Urban Travel Behaviour by Gender for Efficient and Equitable Transport Policies Ng & Acker (2018)	https://doi.org/10.1787/eaf64f94-en	Women Fare Effect Patronage Mode Share Policy Auckland Dublin Hanoi Helsinki Jakarta Kuala Lumpur Lisbon Manila	Women are more likely to utilise public transport for purposes beyond work, often undertaking short trips more frequently and showing a preference for public transport over cars. The findings indicate that "gender is a more influential determinant of mode choice than age or income." Furthermore, it suggests that "when provided with better alternatives, women may be inclined to forgo driving altogether." Women also tend to link multiple trips together; however, they often face challenges related to increased time and costs. Additionally, their travel patterns frequently occur outside of peak hours.	Travel patterns analysed by gender encompassing eight cities across three different continents, including Auckland, New Zealand. Gender plays a significant role in public transport usage, particularly in relation to the distribution of household labour.

Accessibility and Affordability Impacts of Half Price Public Transport Fares in Aotearoa New Zealand Curl et al. (2024)	https://doi.org/10.32866/001c.92735	Women Half Price Fares Mode Share Opportunities New Zealand	This study argues that reduced fares are a critical tool for addressing transport poverty, as half-price fares allowed nearly half of surveyed public housing residents to make essential trips they previously could not afford. By alleviating financial stress, these reductions enabled disadvantaged users to redirect their limited income toward other basic needs like food.	Analysis of New Zealand's 2022 fare relief scheme, comparing public housing residents with older people more broadly. Almost half of public housing residents said they could finally afford trips they'd been skipping before, and over a third had extra money left over for essentials like food. It's a clear example of how cheaper fares ease real financial pressure, which matters a lot for women since they make up a large share of low-income and public housing households.
The Concept of Fairness in Relation to Women Transport Users Hail & McQuaid (2021)	https://doi.org/10.3390/su13052919	Women Fairness Mode Share Opportunities United Kingdom	The study argues that women experience "disproportionate fairness issues" because transport systems often ignore their complex, shorter, and more frequent trip-chaining patterns. They advocate for vertical equity, which suggests that true fairness requires providing additional resources and support specifically to disadvantaged groups to ensure they are not excluded from economic and social opportunities. The main argument is that people who are already more disadvantaged need more support, not less, so they don't get left out of opportunities.	This source examines what fairness actually means in transport, using the ideas of horizontal and vertical equity, and applies them to women and newer tech like self-driving cars. It points out that women face extra disadvantages because their trips tend to be shorter, more frequent, and more complicated than men's.
From Women in Transport to Gender in Transport: Challenging Conceptual Frameworks for Improved Policymaking Sánchez de Madariag (2013)	https://www.jstor.org/stable/24461671	Women Patronage Mode Share Policy Europe	This source argues that traditional transport planning is biased toward "compulsory mobility" (employment/study), which obscures the reality of women's lives. It proposes the "mobility of care" framework to make visible and give value to the unpaid travel associated with home and family maintenance, arguing these trips are just as essential to the economy as commuting.	This text discusses "mobility of care," which includes all the daily travel involved in taking care of a home and family. It challenges the typical focus on commuting to work or school, stating that this limited view overlooks what women's travel really involves and ignores gender issues. It argues that trips related to caring for others should be taken as seriously as trips to a job.

Women's preference, satisfaction, and problems with the free bus travel scheme in Coimbatore Athira et al. (2025)	https://www.taylorfrancis.com/chapters/edit/10.4324/9781003606642-5/women-preference-satisfaction-problems-free-bus-travel-scheme-coimbatore-athira-prema-udisha-velmurugan-sudarvel	Women Fare-free Opportunities Tamil Nadu	This study argues that achieving gender equity necessitates a focus on access and empowerment, particularly through the lens of mobility. It asserts that enhancing mobility is a critical component of women's socioeconomic empowerment. Furthermore, the removal of financial barriers is argued to significantly contribute to the overall well-being of women, thereby fostering a more equitable society.	Based on the Free Fares for Women scheme in Tamil Nadu and widely looks at barriers, financial and otherwise, to women's access to transport.
Fare-free public transportation: A systematic review of outcomes Lightner et al. (2026)	https://doi.org/10.1016/j.trip.2026.101921	Women Fare-free Opportunities Health	This study finds that fare-free public transport initiatives significantly contribute to promoting physical activity and fostering active lifestyles, while also improving equity in transportation access. By removing fare costs, these initiatives enhance mobility and provide greater access to employment opportunities and social connections, ultimately leading to a healthier and more interconnected community.	Focused on public transport access impact on health and social equity for various sectors of the population, including, but not limited to, women.
Impact of women free bus operation in Tamil Nadu State Transport Corporation Kiruthika & Ravi (2022)	https://www.in-t-jecse.net/article/IMPACT+OF+WOMEN+FREE+BUS+OPERATION+IN+TAMIL+NADU+STATE+TRANSPORT+CORPORATION+%2528TNSTC%2529+ON+TAMILNADU_3805/?download=true&format=pdf	Women Fare-free Mode share Opportunities Tamil Nadu	The implementation of fare-free public transit in Tamil Nadu has influenced women's workforce participation, leading to an impressive 75% increase in the number of women utilising public transportation. This initiative has created safer transit options for women, thereby enhancing their access to quality medical care without the financial strain of transportation costs. As a result, women are enjoying improved economic participation, better employment opportunities, and a greater capacity to contribute to the local economy.	Explores the social and economic benefits of public transport in Tamil Nadu following implementation of the Fare Free scheme for women.

Shifting gears: Exploring the mobility stories of Latin American women in Auckland Rodriguez Mora (2025)	https://mro.massey.ac.nz/handle/10179/73231	Women Mode Share (Case study)	Mora argues Auckland's car-oriented transport planning structurally pushes Latin American immigrant women toward private car use after migration, rather than this being a simple preference. She frames this "reverse mode shift" as driven by motherhood, sprawled job locations, and safety concerns on public transport. Fear and anxiety around driving persist for many participants, suggesting the shift is often coerced rather than chosen. Her core claim: fare reductions alone won't fix this without broader equity-focused planning change.	This is a single qualitative Master's dissertation, not a peer-reviewed journal article, so it's best used as rich contextual evidence rather than generalisable proof. Interview-based study (20+ participants) examining "reverse mode shift", why Latin American immigrant women in Auckland move away from the low-carbon transport they used in their home countries and toward private cars. Found driving became a way to offset economic, socio-cultural and physical obstacles, driven by factors like motherhood, needing to reach sprawled workplaces, and a desire to feel free and independent, while fear, anxiety and stress around driving pulled some women back. Concludes Auckland's car-favouring transport planning leaves immigrant women's needs unaddressed.
Fare discounts and free fares in long-distance public transport in Central Europe Tomeš et al. (2022)	https://doi.org/10.1016/j.jtrangeo.2022.01.011	Parents Fare-free Patronage Slovakia Czech Republic Central Europe	The study points out that the free public transport schemes are traditionally designed to tackle three main objectives: environment, efficiency, and social equity. Therefore, it also benefits disadvantaged groups, like women, the elderly, students, and low-income households.	This source shows that effective public policy needs a lot of budget; therefore, the policy should be implemented in specific groups.
Travel time as quality time: parental attitudes to long distance travel with young children Price & Matthews (2013)	https://doi.org/10.1016/j.jtrangeo.2013.08.001	Parents Families Patronage Mode share Attitudes	There has been little work undertaken looking at the attitudes of the parents, caregivers and family members.	It's very important to have more research on this group who can influence the travel behaviour of children, the future generation.

What influences parents' decisions to use sustainable mode (public bus) with their children? A case study in Batu Pahat, Johor Mohd Yahya et al. (2024)	https://doi.org/10.1088/1755-1315/1347/1/012056	Parents Mode share Attitudes Batu Pahat Johor Malaysia	The study evaluates parents' satisfaction and perceptions of using a sustainable mode (public bus) with their children. The study argues that most parents value factors that help reduce travel expenses, such as benefits like free rides for children aged 6 and under, which serves as one of the key variables supporting their decision to use the public bus.	This source indicates that fare affordability contributes to encouraging a shift from private vehicles to public buses among parents travelling with children. When bus fares are perceived as reasonable, parents are more willing to choose buses instead of driving, provided that other service attributes such as reliability, safety, and convenience are also satisfactory. This implies that fare reductions alone may not guarantee a substantial mode shift, but they can play a significant supporting role by lowering the economic barriers to public transport use and making bus travel a more competitive alternative for family trips.
Spatial discrepancies of public transport utilisation by parents in the Greater Melbourne area Rahmah et al. (2024)	https://australiantransportresearchforum.org.au/wp-content/uploads/2025/02/ATRF2024_Resubmission_45.pdf	Parents Opportunities Melbourne Australia	This study is highly relevant for understanding parents as a specific transport user group, as it directly examines parents' public transport behaviour rather than relying on broader population data. It provides useful context for explaining why fare reductions may benefit parents by reducing financial barriers and improving access to essential opportunities, including employment, children's education, healthcare, and social participation. However, the study does not directly examine the impact of fare reductions or changes in fare levels on parents' travel behaviour. Instead, it focuses on spatial accessibility and transport utilisation. Therefore, it should be used as supporting evidence alongside fare policy research.	The study argues for public transport utilisation patterns among parents in the Greater Melbourne area and highlights that parents have unique mobility needs compared with the general population.

Factors influencing travel mode choice among families with young children (aged 0–4): a review of the literature McCarthy et al. (2017)	https://doi.org/10.1080/01441647.2017.1354942	Parents Mode share Opportunities	This study argues that even though young children (ages 0–4) often receive free admission or discounted fares, the total combined fare when travelling as a full family unit is frequently perceived as too high compared to the incremental cost of driving a private car. They suggest that, to reduce car use among families with young children, policymakers should focus on removing barriers to alternative transport options rather than imposing car restrictions.	This study addresses barriers to sustainable transport modes. This is related to 4 factors, including structural, psychosocial, household characteristics, and characteristics of travel with young children, that influence travel mode choice among families with young children.
The Role of the Fare in Welfare: Public Transportation Subsidies and Their Effects on Low-Income Households Mbonu & Chizeck (2025)	https://dx.doi.org/10.2139/ssrn.5207267	Parents Opportunities United States	The study argues that reducing public transport fares lowers the financial burden of travel for low-income households, leading to increased public transport use and improved mobility. This provides evidence that reduced public transport fares can improve welfare outcomes by increasing mobility and reducing financial barriers among low-income households. For parents, particularly those experiencing financial constraints, lower fares may increase access to employment opportunities, children's education, healthcare services, and community participation.	Although the study does not focus specifically on parents, its findings are relevant because families with children often experience higher transport demands and greater sensitivity to travel costs.

Transport and social exclusion: Where are we now? Lucas (2012)	https://doi.org/10.1016/j.jtrapol.2012.01.013	Mode share and opportunities	Lucas argues that transport disadvantage and social disadvantage interact to create "transport poverty," effectively "locking out" individuals from the normal relationships and activities of society. She contends that policy must shift from a systems-based approach to a people-focused, needs-based perspective that treats transport access as a fundamental human right essential for redistributive justice. How does 'mobility of care' change public transport planning? Explain the health benefits found in the Tasmania study. What are the specific transport barriers for young women?	This is a global look at how limited transport options can shut people out of decision-making, services, and everyday life. It breaks exclusion down into seven types, including physical, geographic, economic, and fear-based, showing how transport barriers keep people, women especially, from fully taking part in society. It also stresses that this kind of exclusion isn't static; it actually gets worse as the world becomes more mobile.
Imagined Futures' in the Navigation and Management of Uncertainty France et al., (2019)	https://journals.sagepub.com/doi/abs/10.1177/1440783319888281	Patronage and opportunities	This research argues that young women's ability to plan for the future is heavily constrained by the "juggling" of precarious work and finances in the present. It highlights that socio-economic status creates a divide where affluent students have an "invisible safety net" to pursue career dreams, while disadvantaged students are often "locked out" of long-term planning due to the daily struggle for survival.	This source provides a sociological perspective on young women's transitions into the workforce, focusing on how transport and housing costs impact their "biographical projects". It uniquely explores how social capital shapes what young women believe is possible for their futures, noting that those from disadvantaged backgrounds often lack the "invisible safety net" of affluent peers. It highlights that for many students, the daily "juggling" of precarious work and study limits their ability to plan for the future.
Travel-to-work and subjective well-being: A study of UK dual career households Wheatley (2014)	https://doi.org/10.1016/j.jtrangeo.2014.07.009	Fare Effect on Mode Share United Kingdom	This study highlights how the trend of family-style housing in outer urban areas is a constraint to mobility practices of families with young children. Therefore, policies restricting car use, such as workplace parking constraints, can exacerbate levels of stress in dual-earner households, particularly for women.	Focused on British households, specifically dual-career parents and their wellbeing.

Weakening obstacles to transit use: Changes in relationships with child rearing and automobile access from 2000 to 2010 Guthrie & Fan (2016)	https://doi.org/10.3141/2565-12	<i>Fare Effect on Mode Share</i> Minnesota United States	The source shows an interesting study on millennial parents. Less car-oriented travel behaviour, evident in some millennials, suggests that, as this cohort approaches parenthood, a life stage long associated with increased car use, they may be more open to using alternatives to car use and ownership when travelling with their children than previous generations.	Based in Minnesota, focused on millennial parents and their travel behaviours.
Parents, children and automobility: Trends, challenges and opportunities. Dowling (2015)	https://doi.org/10.4337/9780857937261.00043	<i>Fare Effect on Mode Share</i>	The source indicates that accommodating childcare, employment and household responsibilities can restrict the time available for parents to meet their own and their child's travel needs. Which support why private care is important for the family.	Chapter of the “Handbook on Transport and Development” focused specifically on parents, children and automobility.
You might as well just stay at home: Young mums and transport in Victoria. Fritze (2007)	https://apo.org.au/node/23285	<i>Fare Effect on Patronage</i> Victoria Australia	The study supports that the high cost can result in forgoing trips. As child transit policies are rarely specifically discussed, existing literature has identified that cost is a barrier to using public transport, particularly when travelling as a family group.	Study of several cities and suburbs in the state of Victoria, Australia.
She's got a ticket to ride: gender and public transit passes Vance & Peistrup (2011)	https://link.springer.com/article/10.1007/s11116-011-9381-6	<i>Fare Effect on Mode Share</i>	Children in households reduce the likelihood of transit pass ownership, suggesting that pricing measures facilitating transit use by families—such as guest-rider allowances or package offers—offer promise for increasing ridership.	Originally mentioned children and women: “children are found to reduce the likelihood of transit pass ownership in the present study, particularly for women, suggesting that measures facilitating the use of transit by families—perhaps via allowances for guest-riders—offer promise for increasing ridership.” However, this is a good example of cost-effective measures.

How Migrants and Workers Would Benefit from Public Transport Fare Reductions

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Migrants

1. Fare effect on patronage

Fare reductions are projected to increase migrant patronage due to alleviation of economic costs. Migrants' patronage in correspondence with fare costs are frequently underlined by their spending as workers. Since many migrants, especially recent migrants, work minimum wage jobs, fare reduction helps relieve commuting expenses to the workplace. In one study in Auckland, fare affordability emerged as the single most critical public transport service issue (making up 29% of comments), from which fares are described as "excessive" (78%), directly deterring people—particularly low-income individuals, students, and job seekers—from riding buses and trains (Muhammad, 2023). Fare reductions are therefore efficient at increasing patronage amongst migrants, especially low-income migrants. Furthermore, an additional study in Japan mentions that migrants or non-citizens are more likely to respond to a short-term policy or fare change, maintaining the general perception that fare reductions will increase ridership (Satake, 2019). However, it is important to note that throughout our literature review there was a lack of substantial data available on the connection between fare reductions and migrants patronage. Therefore, we recommend further research on this specific demographic in order to build a more robust foundation of literature that can inform policy changes in this area.

- Low-income immigrants are the most benefited from fare reductions due to alleviation of overall spending.
- Reductions will positively affect migrants patronage due to perception of public transport fares as excessive by migrants

2. Fare effect on public transport mode share

Migrants are generally reliant on public transport, even without accounting for fares. Some studies note that migrants, especially Asians immigrants in English countries, are among the demographic with the highest public transport usage with relatively stable ridership compared to domestic residents (Waqfi et al., 2026, Schouten et al., 2024). In many of these studies, public transport is the primary mode of travel for migrants to get to their workplace, reach essential services and participate in economic and social life (Waqfi et al., 2026). Within this demographic, women rely more on public transport, especially for tripchaining, such as to do errands, drop their children to schools, and go to work themselves (Preston et al., 2023). When fare is put into the mix, one survey shows that 60% of low-income immigrants said that fares affect public transport usage, saying they “would have taken public transit at least one more day in the previous week if fares were more affordable” (Barajas et al., 2018); further accentuating migrant's preference for public transport. However, the survey continues to note that this cannot be attributed solely to cost, highlighting other barriers such as poor knowledge of fare options or access to a bank account since many passes are linked to a bank account, which migrants often do not have. This demonstrates that fare reductions is one amongst other

issues to account for in terms of mode share and patronage, including accessibility, reliability, travel time, and safety, especially to avoid racial attacks toward migrant communities (Allen et al., 2021, Muhammad, 2023). In other studies, cars remain to be the primary mode of transport for migrants. Preston et al. (2023) account for proximity between residence and public transport. Since many migrants settle in cheaper, suburban areas that are far from public transit, cars are the more privileged means of transport. In places with few public transport options available, research shows carpooling as a means to access cultural capital among migrants in the US. For example, Mexican migrants in California prefer to share cars through exchanging favors as a way to maintain reciprocal relationships with the diaspora community (Lovejoy & Handy, 2011). In a comparative study with other transit-intensive cities, like New York and San Francisco, Hu et al (2021) connects cultural consideration of migrants' residence choices with means of transport. For Hispanic and Asian migrants in certain cases, settling in high-density neighborhoods consisting of ethnic communities with proximity to city centres help improve economic conditions and foster social capital, which makes carpooling the convenient choice of travel. This is connected with employment since migrants either work in the same or relatively close to these specific neighborhoods. One study links women's public transport usage to their inability to possess driver's licenses compared to their male counterparts (Preston et al., 2023). This is extended in Allen and Wang (2020), where migrants' complicated status (often undocumented or refugees) complicates and suppresses their desire to possess a driver's license or a car.

- Even before fare reductions, recent immigrants rely on public transport or some type of ride-share arrangement
- Fare reduction is only one concern among others that affect migrants' ridership in buses, including accessibility, reliability, travel time, and safety (especially to avoid racial conflict).
- High or non-competitive transportation costs contribute significantly to a shift toward private vehicles and forced car ownership.
- For specific migrant communities, such as Hispanics in the US, car-ownership rises as length of stay and assimilation increases. Public transit is seen as stepping stones to economic stability and eventually car-ownership.
- Car-sharing is often the go-to transport option for recent immigrants who are often settled in neighborhoods with prominent ethnic-groups present in order to maintain good relationships with the community. This is connected with employment since many work in the same place or relatively close to these neighborhoods.

3. Opportunities made accessible due to fare reductions

Fare reductions in public transportation can benefit various groups, including immigrants, low-income households, refugees, and students, etc., both directly or indirectly. Improved accessibility to public transportation enhances job opportunities, reduces costs, and facilitates access to essential services and social participation, especially in their own ethnic communities (Muhammad, 2023). In fact, we have multiple cities that have already experimented with grand fare reductions or even free fares, and research based on these cases show some objective outcomes, depending on observed behaviour or potential willingness of travel of migrants. Cheaper or free public transport creates more life opportunities for migrants, especially refugees and low-skilled workers, who often deal with a mix of low income, language barriers,

complicated ticketing systems, and doubts from authorities (Bose, 2014). When combined with high fares, these challenges often prevent them from using public transit altogether (Barajas, 2021, Barajas et al., 2018). Evidence from fare-free transit schemes, such as in Tallinn, shows that mobility gains are greatest among transport-disadvantaged groups. Unemployed residents, low-income households, and non-drivers experienced the largest rise in transit use and the sharpest drop in “stay-at-home” rates, expanding aspirations of migrants to reach new opportunities, such as new employment or higher paying jobs (Suarez et al., 2025). This demonstrates that lowering costs generates genuinely new trips and activity, rather than just replacing existing travel (Cats et al., 2017). For migrants, this trip-generation effect is essential. Affordable transport expands their job search radius and secures access to healthcare, local language classes, settlement services, religious, and community events that foster integration (European Parliament, 2015). However, literature cautions that fare cuts alone cannot resolve non-financial barriers like language, wayfinding, or discrimination. Therefore, while fare reductions create real opportunities, their impact is maximized when paired with multilingual support and community outreach (European Parliament, 2015).

- Mind that migrants are not always a certain and stable group of single price-sensitivity, they are from different communities and backgrounds. Refugees, unskilled and undocumented migrants show the strongest cost influences; skilled, capital-holding migrants show much weaker fare sensitivity.
- The experiments in Tallinn and France show if fares are removed, the share of public transit use among the unemployed, low-income individuals, and those without cars increased the most, and the proportion of people who “never left home” decreased, indicating that lower fares led to new trips attractions rather than merely a shift in modes of transportation.
- For migrants, affordable transportation is found to expand job search opportunities and improve access to language and settlement services, healthcare, as well as opportunities for social participation and integration into community activities.
- However, the literature we found also cautions that lowering fares does not eliminate non-economic barriers such as language, route awareness, and discrimination; fare reforms are most effective when combined with multilingual information and community outreach.

Workers

4. Fare effect on patronage

Workers make up a large share of the commuters on the road, especially during peak times in the morning and early evening. This is divided across modal types, but a substantial portion of workers commuting rely on public transportation to get to the urban core of many city centres. With price reductions in fares among public transport, patronage as a whole is increased at varying rates, but is especially prevalent during off-peak times and for other activities not related to work (Bull et al., 2021). However, considering workers, the usage of public transit is influenced by both the cost of fares but also the reliability and service offering available of public transportation itself (Martin & Maharaj, 2020). Furthermore, in a statistical analysis conducted by the NTZA that looked at the impact of half-price fares on PT implemented in major cities across New Zealand, most patronage increase occurred amongst new users to the network. It was highlighted that the most common form of new trips added were from journeys to work and for trips within major urban areas as this type of patronage already is the most

common (Magill & Christie, 2024). These factors are an important consideration when employing initiatives to increase patronage on public transportation. While fare reductions on public transportation will lead to substantial increases in ridership, the impact can be far greater if combined with other public transportation investments. On another note, a common conclusion amongst literature reviewed revealed that low-income individuals who commute to work benefit the most from public transit fare reductions, as mobility costs and financial pressures are alleviated to allow for easier access to employment. Therefore, considering that transport is seen as one of the biggest constraints for many low-income users of public transit, social and economic equity considerations can be addressed through reduced PT fares. As a result, perceived public transportation affordability through fare reductions greatly increases patronage among job seekers and improves employment outcomes and security (Beck et al., 2026, Dudding et al., 2024, Kaiser, 2026). Another consideration for patronage increase among workers relates to spatial proximity to employment. Reducing public transit fares increases patronage for travel to secure employment or attend work, but the rate of increase in patronage is dependent on the distance between residence and employment. Those located within close proximity to a transit station or stop, and are commuting shorter distances, primarily to urban cores, are more inclined to increase patronage on public transit. However, those who do not reside close to public transit or work further away are less inclined to take advantage of public transit reduced fares (López-García, 2026). This ties in the aspects of accessibility and service offerings that are deemed to be major considerations for workers. Moreover, studies show that flat fares, such as free-fares, provide the greatest incentive for workers to take public transportation over fare structures that are reduced or operate on a capped mechanism (Zhao & Zhang, 2019). Considering socio-economic factors, the context of distance to work, and the public transit design, we can see whether the fare structure in place of a given region can increase patronage among workers (Bruno et al., 2026). Therefore, it can be concluded that reduced or free public transit structures are shown to improve transit fare equity, improve job accessibility, and in turn increase patronage among workers.

- Workers are the primary group to take advantage of reduced public transit fares and in turn increase patronage, whether it be for work or for new trips, as they make up the majority of commuters on the road during peak hours
- While fare reductions will boost workers patronage on public transit, contextual factors must also be considered as reliability, proximity to residence and employment, and transit service design and route offerings influence the percentage rate of increase
- The literature reviewed demonstrates that certain subgroups of workers, such as young and low-income, are more inclined than other workers to increase patronage on reduced fare public transit due to the increased accessibility and the reduced financial barrier
- Employment access, job security, and employment outcomes for job seekers are key drivers for increased patronage among workers on public transportation with reduced fares, especially in urban centres

5. Fare effect on public transport mode share

Workers are the majority users of PT during peak hours. Socially vulnerable groups such as low-income earners are required to take daily trips to and from their fixed employment destination (Pisa et al., 2026, Verbich & El-Geneidy, 2017). There is evidence that PT mode

shift occurs when PT fares are reduced, especially for individuals that commute to urban centers compared to longer-distance trips (Yam Lau, 2010). By lessening the financial burden on workers who are obligated to commute, studies show an increase in PT patronage. When PT is free, patronage increases 23% in one study (Martin & Maharaj, 2020), 14% in another (Beck et al., 2026), and $\frac{1}{3}$ of survey respondents cited reduced fares as the reason they traveled (Magill & Christie, 2024). Reduced fares for PT is especially beneficial to younger workers under 35, who are more likely to replace active mode journeys with PT, while older workers are more likely to replace private vehicle journeys with PT, and have shown to be more inclined to add new journeys to their day as a result of PT fare reductions (Magill & Christie, 2024). Fare reductions have consistently exhibited improvement in access to employment and other essential services for workers that have limited mobility otherwise due to systemic inequalities such as housing and income disparities or lack of freedom in their mode choice from monopolized PT services (Beck et al., 2026, Yam Lau, 2010). For individuals that cannot afford private vehicles, some struggle to pay high PT fares and as a result, choose to walk or cycle (Bruno et al., 2026). This can be an unreliable mode of transport, especially in towns or cities that lack supporting infrastructure such as sidewalks or bike lanes. Fare reductions can provide a level of structural support to users reliant on PT to access their source(s) of income. Even limited programs can enhance mobility, especially when reduced PT fares are incorporated with greater investment into PT infrastructure and improvements to policy implementation (Martin & Maharaj, 2020). Overall, the reviewed literature has described fare-reductions as a means of increasing PT ridership for already frequent users, such as workers, and infrequent users as well.

- Low-income workers already make up the majority of PT users, and studies show that they benefit the most from reduced wages by lessening the financial burden of fare costs
- Literature shows increased ridership in both young and older workers that are required to take PT to employment in urban centers
- Many workers tend to seek employment outside of their residential neighborhoods and benefit from lower fares when they have long commuting distances that lead to high travel fares
- Lowered or free PT fares increase accessibility to employment and other essential services, providing incentive for a mode shift to increase PT patronage

6. Opportunities made accessible due to fare reductions

The breadth of benefits from fare reductions on public transportation are extensive and can be drawn out to most population groups, but they are especially beneficial to workers. The alleviated financial stress felt among working commuters through PT fare reductions leads to greater accessibility to an array of needed social and economic services, promotes overall social inclusion and improved well-being, and improves public health through incentivizing increased physical activity and by enabling access to healthcare services. Therefore, key aspects of social equity, transportation justice, and mobility justice are addressed with the introduction of reduced or free fares on public transit (Curl et al., 2020, Curl et al., 2024, Feldman et al., 2026). Additionally, a major benefit of reduced fares on public transit comes from the increased disposable income that workers have if they take advantage of the reduced cost to commute to work. This allows for more opportunities to engage in leisure activities and errands that would

otherwise not have occurred, which is especially noticeable during off-peak travel times on public transit (Bull et al., 2021). Another consideration of opportunities made available through free or reduced public transit regarding workers, are the benefits to young and low-income individuals especially. This subgroup of workers are benefited the most with reduced public transportation costs as the improved accessibility makes job-seeking and securing employment easier by providing opportunities to find employment further away than what could be achieved without it. Furthermore, reduced public transit fares removes the financial burden of transportation, providing an equitable mobility approach that can lead to increased job attendance, workplace access, and overall enhanced employment stability (Kaiser, 2026). Fare structures that lessen the financial burden of transport can promote social mobility, allowing individuals greater access to infrastructure they might have been obstructed from prior (Curl et al., 2024). Therefore, reduced or free PT fares can alleviate pressures on income constraints, improve overall quality of life, and promote better mental and physical well-being.

- The literature reviewed provides ample evidence that the opportunities made available to workers from fare reductions has wide-reaching social, economic, and health benefits
- Financial stress is the primary driver of limiting mobility pathways and access to necessary services or to recreational and leisure activities. which can be alleviated through public transit fare reductions
- Reduced fares provide a range of opportunities and benefits within and across subgroups of workers, with social inclusion, overall well-being, and job security being key improvements

Reference Table

Allen, J., Farber, S., Greaves, S., Clifton, G., Wu, H., Sarkar, S., & Levinson, D. M. (2021). Immigrant settlement patterns, transit accessibility, and transit use. <i>Journal of Transport Geography</i> , 96. https://doi.org/10.1016/j.jtrangeo.2021.103187	The literature highlights recent immigrants' likelihood to use public transit than the general population and how that affects residential location choices in neighborhoods with better transit accessibility.
Allen, R. & Wang, J. (2020). Immigrant Legal Status and Commute Mode Choice for Hispanics in the United States. <i>Journal of the American Planning Association</i> , 86(3). https://doi.org/10.1080/01944363.2020.1724818	Refugees rely on public transport to go to work. Due to scrambled resettlement (assigned by the state government), many do not have access to quality public transit (including lack of direct service, need of improvement, and infrequent service). This has pushed them to resort to carpooling in order to go to work, where they are at risk of job loss due to being late. Undocumented status of immigrants suppresses their driving behaviors. But there is still no connection made between this and propensity to public transit use.

Barajas, J.M. (2021). The effects of driver licensing laws on immigrant travel. <i>Transport Policy</i> , 105, 22-34. https://doi.org/10.1016/j.tranpol.2021.02.010	Provided evidence to demonstrate the utilization of private vehicles vs public transit or shared modes of transport for immigrants. The survey conducted revealed that immigrants are more inclined to switch to using public transportation or another active mode of transport when private vehicle usage is not possible, demonstrating that mobility access is improved when PT is accessible and affordable.
Barajas, J. M., Agrawal, A. W., & Chatman, D. G. (2018). Immigration, Income, and Public Transit Perceptions: Findings from an Intercept Survey. <i>Journal of Public Transportation</i> , 21(2). https://doi.org/10.5038/2375-0901.21.2.1	A survey in the US noted fares as the main determinant to public transport use with the majority (60%) claiming they would use public transport more if fares are reduced. Less than half of low-income immigrants had a bus pass to save money in the long term. This shows that cost is not the sole reason low-income immigrants do not receive passes, rather indicate other barriers such as poor knowledge of fare options or access to a bank account since many passes are linked to a bank account.
Beck, M. J., Rose, J. M., & Pellegrini, A. (2026). Taking a “free” ride: Where do we stand on free or low fare public transport and where do we go next? <i>Transport Policy</i> , 186, Article 104201. https://doi.org/10.1016/j.tranpol.2026.104201	Across studies, FFPT resulted in increased ridership, consistent improvement in access to PT for low-income users, as well as improved access to employment, education, and essential services. While there are concerns about long-term funding, the study showed that even limited programs can enhance and promote social mobility. The effects of fare reductions are context dependent, and when combined with broader strategies to enhance services, FFPT can improve social equity.
Bose, P. S. (2014). Refugees in Vermont: mobility and acculturation in a new immigrant destination. <i>Journal of Transport Geography</i> , 36. https://doi.org/10.5038/2375-0901.21.2.1	For refugees, transportation emerges as a key challenge to a successful resettlement experience, especially in terms of employment: Transportation is a serious barrier to refugees looking for work. For refugees, more reliable and quality public transport will help them to go to work, drop their child off at school, or go to English Language Learning programs themselves. Quality and reliable public transport also allow them to access social services, such as health clinics, to check their medical condition, which is a requirement for employment.
Bruno, M., Kouwenberg, M., & van Oort, N. (2026). Equity in transit fare policy: a literature review. <i>Transport Reviews</i> , 46(3), 525–546. https://doi.org/10.1080/01441647.2025.2601689	The outcomes of fare equity are context-dependent. Literature shows that direct subsidies to low-income individuals promote better equity than collective subsidies to low-income groups. Geographical and cultural context and historical development patterns provide the outline for fare structure implementation. This study gives recommendation for future research in methodology of identifying low-income PT users and the best practices for fare payment structures.

Bull, O., Muñoz, J. C., & Silva, H. E. (2021). The impact of fare-free public transport on travel behavior: Evidence from a randomized controlled trial. <i>Regional Science and Urban Economics</i>, 86, Article 103616. https://doi.org/10.1016/j.regsciurbeco.2020.103616	This study was focused on analyzing how free fares on public transportation influences the travel behavior of working commuters in Santiago, Chile. It was determined that while increased patronage did occur from reduced fares, this was primarily seen in new trips during off-peak travel times for leisure and errands as opposed to travel for work. Providing a fare reduction incentive can give increased financial stability to workers to enable travel opportunities and improved access to services that may have been hindered without free public transportation.
Cats, O., Reimal, T., & Susilo, Y. (2014). Public Transport Pricing Policy: Empirical Evidence from a Fare-Free Scheme in Tallinn, Estonia. <i>Transportation Research Record</i> 2415, 89–96. https://journals.sagepub.com/doi/epdf/10.3141/2415-10	Using mathematical data combined with a regression model, the analysis isolated the net effect of fare waivers on ridership (approximately 1.2%); the remaining growth was attributed to expanded capacity and priority lanes.
Cats, O., Susilo, Y.O., & Reimal, T. (2017). The prospects of fare-free public transport: evidence from Tallinn. <i>Transportation</i>, 44, 1083–1104. https://doi.org/10.1007/s11116-016-9695-5	A comparison of resident travel surveys conducted before and after Tallinn’s universal free public transit policy in 2013, analyzed the differential impacts on various socioeconomic groups (income, employment status, age) and found that low-income and unemployed groups benefited the most, with a marked increase in mobility. But it focuses on Tallinn residents rather than migrants, and Tallinn’s original public transit mode share (40%) is significantly higher than Wellington’s.
Curl, A., Coppens, A., Dares, C., Williman, J., Fitt, H., & Kingham, S. (2024). Accessibility and affordability impacts of half price public transport fares in Aotearoa New Zealand. <i>Findings: Transport Findings</i>. https://doi.org/10.32866/001c.92735	Ample evidence provided in this report demonstrated that a reduced fare structure on public transportation alleviated financial stress among public transit users across population groups. Furthermore, often underrepresented benefits of providing greater affordability to public transit that were presented included improved social contact and anxiety reductions among car drivers due to modal shift to PT and/or less congestion caused by others mode shifting. The notion of affordability and accessibility for transportation is addressed when reduced fares are implemented on public transit, providing extensive social and mental health benefits to those who take advantage of it.

Curl, A., Watkins, A., McKerchar, C., Exeter, D., & Macmillan, A. (2020). <i>Social impact assessment of mode shift</i> (NZ Transport Agency research report 666). NZ Transport Agency Waka Kotahi. https://www.nzta.govt.nz/assets/resources/research/reports/666/666-Social-impact-assessment-of-mode-shift.pdf	This report proved extremely useful in clarifying the concepts of mobility justice, transportation justice, transport poverty, and social and transport equity as it relates to the implementation of reduced fare structures on public transportation. The opportunities made available to job seekers and to low-income, young, and female-identifying workers from reduced public transportation fares include enhanced job security, improved mental and physical well-being, and greater access to employment, healthcare services, education, and recreational activities.
Dudding, A., Beccari, S., Phillips, J., Vink, N., & Lindsey, K. (2024). <i>Establishing the household costs of essential transport</i> (NZ Transport Agency Waka Kotahi research report 723). NZ Transport Agency Waka Kotahi. https://www.nzta.govt.nz/assets/resources/research/reports/723/723-establishing-the-household-costs-of-essential-transport.pdf	Essential travel was defined within this report to include commuting to employment, access to education, and journeys to social and health services. A primary conclusion revealed that the cost of travel is a considerable factor in employment access and security for many workers, which can be alleviated through the implementation of reduced PT fares. Furthermore, alleviating financial pressures associated with travel can improve social and community interactions, mental health, and physical health.
European Parliament. (2015). <i>Social inclusion in EU public transport</i> (Study PE 540.351). Directorate-General for Internal Policies, Policy Department B: Structural and Cohesion Policies. https://www.europarl.europa.eu/RegData/etudes/STUD/2015/540351/IPOL_STU(2015)540351_EN.pdf	An overview at the EU level notes that immigrants rely heavily on public transportation, and that language barriers, discrimination, and inadequate transportation services are the primary factors contributing to their exclusion; it cites Burchardt et al.'s "Four Dimensions of Social Exclusion" framework.
Feldman, K., Berkley-Patton, J., Saelens, B. E., Grimes, A., Lightner, J. S., Ginther, D., Fitzpatrick, L., Staggs, V. S., Cramer, E., Never, B., Baker, C., & Carlson, J. A. (2026). Free buses: Citywide zero fare is associated with increased use of public transit. <i>Transport Policy</i>, 186, Article 104230. https://doi.org/10.1016/j.tranpol.2026.104230	Improved accessibility to jobs for workers and for job-seekers attending interviews was determined in this study to occur from public transportation that incorporated a reduced fare structure. The natural experiment study conducted in this literature proved useful in providing conclusions that many other reports we assessed did not come to when determining the benefits of free public transit. These included improved population health through increased physical activity as well as improved health and environmental benefits that result from mode shift and adding new users to the transit network.

Hu, L., Klein, N. J., & Smart, M. J. (2021). Comparing immigrant commute travel adaptation across and within racial/ethnic groups. <i>Transport Policy</i>, 110. https://doi.org/10.1016/j.tranpol.2021.05.024	Recent migrants choose to settle in neighborhoods with high-densities of particular ethnic identities to help improve economic conditions and foster social capital that supports carpooling. This is connected with employment since many work in the same place or relatively close to these types of neighborhoods, therefore transit or carpooling became the backbone of economic activities.
Kaiser, Z. R. M. A. (2026). Transportation equity for sustainable cities: Improving access to healthcare, employment, and well-being through transportation disadvantaged programs and equitable public transport policy. <i>Transport Policy</i>, 177, Article 103931. https://doi.org/10.1016/j.tranpol.2025.103931	Transportation equity and mobility barriers are intrinsically intertwined. Through the implementation of reduced PT fares, equitable transport is provided which in turn alleviates the barriers to mobility for many population groups. The literature and research analysis conducted in this paper analyzed the social, economic, and health benefits and opportunities made available to workers and others within a community through the implementation of free public transportation, and further tied it to how this fosters sustainable development within cities to better align with the UN Sustainable Development Goals.
López-García, D. (2026). The journey to work as observed accessibility: Job access within employment subcenters in greater Mexico City. <i>Cities</i>, 178, Article 107365. https://doi.org/10.1016/j.cities.2026.107365	Spatial proximity of residence to employment is a key factor in a workers decision to utilise public transportation over taking a private vehicle. This study conducted in Mexico analyzed three subcentres in relation to the primary urban core of Mexico City to determine the influence that the distance to the urban city centre in relation to a workers' residence had on the increase in PT patronage when reduced fares were enacted. Transportation infrastructure that can influence working commuters' decision to take PT and induce mode shift is key to improving social and transportation equity while also fostering greater employment security.
Lovejoy, K & Handy, S. (2011). Social networks as a source of private-vehicle transportation: The practice of getting rides and borrowing vehicles among Mexican immigrants in California. <i>Transportation Research Part A: Policy and Practice</i>, 45(4). 248-257. http://dx.doi.org/10.1016/j.tra.2011.01.007	Immigrant's travel behaviors are determined by cultural capital. In this research, car-sharing is deemed by Hispanic migrants to be a pathway to maintaining social networks in diaspora communities through exchange of favors. The reason why car-sharing remains prioritized is also linked to limited alternative public transit options

Magill, T., & Christie, C. (2024). <i>Impact of half-price public transport fares – a research note</i> (Research Note 009B). NZ Transport Agency Waka Kotahi. https://www.nzta.govt.nz/assets/resources/research/research-notes/009/009B-impact-of-half-price-fares-on-public-transport.pdf	This research report shed light into the benefits that reduced PT fare structures can have from a more local context and perspective. Some of the current limitations and contextual factors discussed included the notion that urban commuters are more inclined to take public transportation already, the reality that working from home is still very common, and that there is a need to address transportation viability and access for more than just those who live in urban centres. Addressing these factors and limitations can help to increase patronage amongst workers on public transit when reduced fares are in place.
Martin, S., & Maharaj, S. (2020). <i>Fare deal or essential service: What cuts congestion and emissions most?</i> Auckland Council, Chief Economist Unit. https://knowledgeauckland.org.nz/media/1886/fare-deal-or-essential-service-insights-april-2020.pdf	A combination of free public transit and increased transit infrastructure improvements can yield maximum benefits for patronage increase, emissions reductions, and private vehicle to public transit mode shift. The report acknowledged that implementing both of these independently will still yield beneficial results, but it would be more socially equitable and sustainable if transportation agencies enact both changes. The long-term economic savings from emissions reductions, improved job attendance from workers, and increased accessibility to urban centres and associated services offset the initial investment to implement the aforementioned transportation measures.
Martin-Barroso, D., Nunez-Serrano, J., Turin, J., & Velazquez, F. J. (2022). Are workers' commutes sensitive to changes in the labour market situation? <i>Journal of Transport Geography</i>, 101, Article 103352. https://doi.org/10.1016/j.jtrangeo.2022.103352	In Spain, the duration of commutes is greater in the case of men, singles, educated and foreign workers, living in rented housing, using public transport, living or working in large cities, and working in large firms.
Muhammad, I. (2023). <i>MAKING TRANSPORT INCLUSIVE: Immigrant Communities Everyday Experience of Public Transport in Auckland</i>. Massey University. https://mro.massey.ac.nz/handle/10179/68958	Fares is the one of the most common considerations for migrants, making up 29% comments. This may relate to the community's relatively low socioeconomic status, often as students and/or new immigrants, who are less able to afford public transport. This status and strong affordability concerns tend to support the literature arguing that ethnic travel behaviour relates to socioeconomic profile, and may differ from that of mainstream society. About 18% of the comments consider public transport costs to be equivalent to or more expensive than driving, therefore disincentivizes public transport usage. The perception that fares are expensive is not limited to the travel behaviour of those on lower incomes; many commenters describe public transport as “expensive” (rather than “unaffordable”), making it an unattractive alternative to

	driving. Although there is no consensus about whether public transport is cheaper than driving, what emerges from the data is a prevailing view that high bus and train fares, in conjunction with poor reliability, render public transport poor value compared to driving.
Pisa, N., Ho, C. Q., Hensher, D., Luke, R., Heyns, G., Mageto, J., & Chakamere. C.. (2026). Identifying transport preferences in a South African township: A case study of Soweto. <i>Journal of Transport Geography</i>, 132. https://doi.org/10.1016/j.jtrangeo.2026.104607	Many South Africans face long, costly, and unsafe commutes due to rapid urbanization and apartheid-era land-use legacies. This study conducted a survey with 201 interviews in Soweto township to understand how fares and safety affect mode shift for workers and students. The current contractual framework for private bus operators has limited service improvements, leaving a structural gap for PT provision that is filled by minibus taxi services that act as an informal mode of transport that is unreliable, overcrowded, and unsafe. The study shows the importance of safety in mode preferences for workers and students, and the effects of spatial inequalities on transport services.
Preston, V., McLafferty, S., & Maciejewska, M. (2023). Regionalization and Recent Immigrants' Access to Jobs: An Analysis of Commuting in Canadian Metropolitan Areas. <i>Geoforum</i>, 144. 10.1016/j.geoforum.2023.103787	Recent immigration trends illustrate shifts in spatial distributions from transit-rich, high-density areas to suburban-rural locations with little to no public transit, therefore dependence on cars. The article further the argument to propose the connections between migrant's residence location (urban-exurban/suburban) and reliance on public transport. Recent immigrants' reliance on transit is strongly associated with gender and household responsibilities in metropolitan areas of all sizes. In terms of reliance on cars, inequality impacts women who are less likely than men to possess driver's licenses. Given the significance of mobility for all aspects of everyday life, strategies encouraging immigrant representation in transportation and other urban planning also warrant investigation through qualitative research.
Schouten, A., Blumenberg, E., & Taylor, B. D. (2024). Are immigrants migrating away from transit? Immigrant transit use trends in California. <i>Travel Behaviour and Society</i>, 36. https://doi.org/10.1016/j.tbs.2024.100817	This study compares Asian and Hispanic immigrants' travel behavior. A recent survey shows that lower transit use among Hispanic immigrants was related to rising income and car ownership while transit use among Asian immigrants was relatively stable. Employment gains in downtowns and other major urban centers—areas typically home to chronic traffic congestion and minimal, expensive parking—are generally associated with high levels of transit use.

Suarez, J.P., Chang, S.K.J., & Lin, J.J. (2025). Exploring the nexus between transit-based job accessibility and labor market outcomes among marital immigrants. <i>Journal of Transport Geography</i>, 128. https://doi.org/10.1016/j.jtrangeo.2025.104358	This study makes a connection between accessibility to public transportation and migrants' aspiration. The range of destinations that an individual can realistically pursue is reflective to migrants' freedom of choice and the aspirations that they can achieve. This also includes opportunities for higher-paying jobs. However, this is context-dependent, most likely determined by areas with already decent accessibility levels.
Tokunaga, Y., Kubota, K., & Narita, Y. (2005). <i>Disparity of the satisfaction and activity caused by the public transportation service level</i>. http://library.jsce.or.jp/jsce/open/00039/200506_no31/pdf/272.pdf	It is a rather dated study in Sendai, Northeastern Japan, and also before the earthquake, but the study found that people without cars or those who drive infrequently have significantly lower rates of going out and access to commercial space for shopping compared to car owners, revealing how the "mobility gap" translates into a "quality-of-life gap."
Verbich, D., & El-Geneidy, A. (2017). Public transit fare structure and social vulnerability in Montreal, Canada. <i>Transportation Research</i>, 96, 43–53. https://doi.org/10.1016/j.tra.2016.12.003	Social equity affected by public transit fare structures. Certain transit agencies charge more for fewer rides, as weekly fares usually have higher costs per ride than unlimited monthly fares that cost more upfront. Social groups, specifically low-income earners, cannot afford to purchase monthly passes and only buy weekly passes that will add up over time. This study found that those that reside in marginalized neighborhoods are more likely to spend more money on transit fares over a month compared to those in wealthy neighborhoods.
Waqfi, L., Mollajafari, M., Farooq, B., & Patterson, Z. (2026). The residential location choice of immigrants: a systematic review and future directions. <i>Transport Reviews</i>, 46(3), 487–524. https://doi.org/10.1080/01441647.2025.2579659	Access to reliable transit options, such as buses and metro systems, directly affects immigrants' ability to commute, reach essential services and participate in economic and social life. Proximity to transit, amongst other essential service infrastructures, is a recurring factor in residential location choice (RLC). This is connected to immigration agents who require newcomers to locate within walking distance of transit stops. Public transportation reduces risks of social exclusion and difficulty accessing jobs and services. Car-ownership rises as length of stay and assimilation increases. Public transit is seen as stepping stones to economic stability and eventually car-ownership.
Yam Lau., J. C. (2010). The influence of suburbanization on the access to employment of workers in the new towns: A case study of Tin Shui Wai, Hong Kong. <i>Habitat International</i>, 34(1), 38–45. https://doi.org/10.1016/j.habitatint.2	How Hong Kong's rapid suburbanization due to a government program influenced the transport system by increasing travel distances to employment for residents in need of public housing. High fare costs, increased travel time, and lacking freedom of choice of travel mode negatively impacted low-income residents. Recommended government action to devise transport policies that will improve residents' access to greater

009.05.002	employment opportunities.
Yeung, P. (2021). How France is testing free public transport. <i>BBC Worklife</i> . https://www.bbc.com/worklife/article/20210519-how-france-is-testing-free-public-transport	This review examines free or discounted fare programs in several French cities (Dunkirk, Nantes, Strasbourg, etc.), emphasizing their effectiveness in reducing the financial burden on low-income families and young people, as well as their contribution to social equity. Although this is a news report rather than a peer-reviewed article, it cites specific studies and interviews with officials and can serve as supporting evidence for policy cases. In particular, the discussion of “solidarity and equity” can be applied to the context of migrants.
Zhao, P. & Zhang, Y. (2019). The effects of metro fare increase on transport equity: New evidence from Beijing. <i>Transport Policy</i> , 74, 73–83. https://doi.org/10.1016/j.tranpol.2018.11.009	A study in Beijing on the influence of transit pricing on transport-related equity, especially in developing countries that have low rates of car-dependencies. PT plays an important role in providing access to desired destinations for disadvantaged groups such as employment, education, and healthcare. PT fare changes can significantly affect travel expenditures. Results of the study showed that low-income riders that live in suburban areas due to unaffordable housing prices in city centers will have longer travel distances that contribute to decreased welfare within the current fare program.