

Free Bus Travel as a Step Toward Gender-Just Public Transport in Delhi

Riding the Justice Route

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Authors

Archana Singh is a PhD Scholar at the Pennsylvania State University, United States.

Nishant is a researcher associated with the Transportation Research and Injury Prevention Centre (TRIPC) IIT Delhi.

Both authors are members of the Public Transport Forum Delhi.

Research Coordination

Aakiz Farooq

Research Support

Sheikh Akbar Ali, Shipra, Anwar, Kusum, Aisha, Zubaida, Deepali, Zeba, Sonam, Preeti, Vandana, Parvati, Shrishti, Hema (names not in any particular order)

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Executive Summary

As a major progress towards gender and environmental justice, Delhi was the first state/UT in India to offer free public bus transport for women across all age groups and social classes. Launched in October 2019, the fare-free bus travel scheme has issued 100 crore pink tickets by 2024.

This study shows that women's perception of the scheme and the scheme's impact on their lives have been largely positive.



One in four women now using buses has started using buses after the bus travel was made fare-free. 23% of women have started using buses regularly (at least four times a week) after the scheme's introduction. Additionally, 15% of women, who rarely or never used buses before the scheme, now use them regularly.

Around 88% of women believe it has increased bus usage, while 87% reported that the availability of fare-free buses has reduced their need to walk long distances. The financial impact has been notable, with 75% of women reporting reduced monthly transport expenses. For 67% of women, transport expenses have decreased so much that three-quarters now spend less than ₹1,000 per month. This reduction in costs has led 54% of women to allocate savings towards household expenses, while 50% set aside savings or emergency funds. Additionally, 33% of women are using the saved money to buy personal items, and 15% have redirected these funds toward healthcare and education.

Despite these benefits, the scheme has highlighted challenges related to social dynamics and public behaviour. Though insulting remarks from male co-passengers are rare, with only 4% of women reporting such incidents, this figure rises to 14% among women from low-income households. This indicates that marginalised women face more discrimination in public spaces, even in a seemingly neutral setting like public transport.

Accessibility and safety concerns persist, as 76% of women must walk more than ten minutes to reach a bus stop. Poor infrastructure, such as lack of footpaths, non-functioning traffic signals, and inadequate street lighting, poses safety risks. Only 21% of women feel that buses consistently arrive on time, and just 7% and 5% of women report that buses stop at their designated places for a sufficient duration. Additionally, lighting at bus stops is inadequate for two-thirds of the women, and over half believe that bus stops lack clear and accessible route information. A further 82% and 89% of women noted the absence of public facilities like toilets and drinking water near bus stops, creating additional inconvenience.

Women have also expressed various improvements that could enhance their travel experience. They suggest employing more women conductors and designating more seats for women, especially for those travelling with young children. They also desire shorter waiting times, requesting more buses during peak hours. Safety improvements, such as better lighting and the installation of security cameras at bus stops, along with employing more women drivers and marshals, are high priorities. Women also want improvements to bus stops, including shelters for protection against the elements and ensuring that buses halt at designated points. There is a demand for better information, such as displaying bus routes and schedules clearly at bus stops and using public advertisements to guide passengers to popular destinations. Other desired changes include limiting bus occupancy to avoid overcrowding, introducing more electric buses to promote cleaner air, and making bus services more reliable in densely populated areas and during late hours.

While Delhi's fare-free bus travel scheme for women has proven beneficial in reducing travel expenses and increasing bus use, issues related to safety, service reliability, and accessibility still need to be addressed.

Introduction

"Public transport is important to women, and women are important to public transport."

- Hamilton and Jenkins (2000)

Making public transport fare-free is a key step toward urban environmental justice. When buses (and trains) become more affordable than personal vehicles, especially motorcycles, more people—particularly those from lower-income groups—will likely choose them over driving. This shift would cut the harmful effects of vehicular emissions on both the environment and public health.

Furthermore, a public transport system that women can depend on is essential for their freedom, safety, and quality of life. When women can trust public transport, it helps reduce gender-based inequalities in access to the city, and empowers women to move around more confidently and without fear.¹ In other words, public transport can be called truly reliable only when women can trust it,² without hesitation or fear.

The United Nations Sustainable Development Goals (SDG)–11 pertains to making cities and human settlements inclusive, safe, resilient and sustainable. Target 11.2 under this goal more specifically mentions that the target is to "provide access to safe, affordable, accessible and sustainable transport systems for all... notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities" by the year 2030³ A recent report suggests that achieving this target would mandatorily involve government support in ensuring physical (barrier-free universally accessible physical access) and economic (universally affordable transport expenses) access for the mobility poor in Indian cities.⁴

Loukaitou-Sideris, A. (2016). "Fear and Safety in Transit Environments from the Women's Perspective." Security Journal, 29(2), 102-122.; Uteng, T. P. (2012). "Gender and Mobility in the Developing World." World Development, 39(6), 881-889.

² Hamilton, K., & Jenkins, L. (2000). A gender audit for public transport: a new policy tool in the tackling of social exclusion. Urban studies, 37(10), 1793-1800.

³ UN Habitat. (2018). Metadata on SDGs Indicator 11.2.1 Indicator category: Tier II. https://unhabitat.org/sites/default/files/2020/06/metadata_on_sdg_indicator_11.2.1.pdf. (Accessed July 3, 2024).

⁴ Tiwari, G., & Jain, D. (2023). A Framework for Selecting an Appropriate Urban Public Transport System in Indian Cities. https://tripc.iitd.ac.in/assets/publication/Urban-Transport-Project-White-Paper.pdf. (Accessed July 3, 2024).

A major reason for traditionally lower ridership of women as compared to men in buses in Delhi is restrictions on their mobility due to traditional social norms of work and leisure, which see women's mobility as non-essential and as an additional burden on the household, especially when women are non-earning members of a household. Under this context, providing fare-free bus travel to women is a promising policy instrument to further their access to public transport.

The increased access may not, and need not, fully develop into increased travel by public bus transport as other physical and social barriers continue to persist. Instead, the impact of the policy on progress towards making public transport inclusive for women should be measured in terms of increase in their capability to use public transport. So, instead of just counting how many women use the buses more frequently, we should also look at whether the policy helps women feel more confident about travelling independently due to the improved affordability of public transport. By focusing on capability, we're not just looking at the number of trips taken. We're also considering whether the policy is really making a difference in women's lives by giving them the convenience, safety and confidence to use public buses whenever they need to and choose to.

Intuitively, making public transport fare-free has a strong potential for reducing involuntary immobilities. In the case of women, the provision of fare-free transport can potentially break economic and cultural barriers and make it easier for them to travel more frequently, for longer distances, and for reasons other than work or education. By aiding their mobility, free travel in buses can lead to a range of economic, social, emotional and health benefits, particularly for women belonging to low-income groups like street vendors, domestic workers, and daily wage labourers who primarily depend on public transport for everyday commute.

Yet, public transport becoming more affordable is just one part of the solution. For example, safety in public spaces and the use of public transport are other key concerns that are recurring in media and policy discussions. It must be noted that Delhi is already among the most surveilled cities in the world. There are more than 2.6 lakh CCTV cameras operated by the Delhi Government.⁵ If we include all public CCTV cameras, there could be roughly 20 cameras per 1000 persons in Delhi, as suggested by some market research estimates.⁶ This is more than what many higher-income urban regions like Singapore, Moscow, Seoul, and London have. And yet, the evident lack of security on roads and public spaces, especially at night, remains a tough challenge. Women are reported to avoid travelling in buses at night due to the common absence of bus marshals and non-functional

⁵ Planning Department. (2024). Highlights of Budget 2024-25. Government of NCT of Delhi. <u>https://delhiplanning.delhi.gov.in/sites/default/files/Planning/budget_speech_2024-</u> <u>25_english.pdf</u> (Accessed July 3, 2024).

⁶ Bischoff, P. (2023, May 23). Surveillance Camera Statistics: Which city has the most CCTV?. Comparitech. https://www.comparitech.com/vpn-privacy/the-worlds-most-surveilled-cities (Accessed July 3, 2024).

CCTV cameras on buses and poorly-lit and secluded bus stops.⁸ Therefore, understanding the challenges that constrain women from using the scheme is important at this stage when the scheme has matured for nearly five years. Moreover, as more states are implementing similar schemes to benefit women, this quick study intends to look into the opportunities and challenges experienced by the women in Delhi could provide useful policy analysis for further improvements in public bus transport system in Delhi and for governments and citizen organisations in other states.

About the Fare-Free Bus Travel Scheme

The Government of Delhi, in October 2019, introduced the fare-free bus travel scheme for women in Delhi's public buses. It made amendments in the Delhi Transport Corporation (Free & Concessional Passes) Regulations, 1985 act to launch the scheme that allows women to travel fare-free in all AC and non-AC buses operated by the Delhi Transport Corporation (DTC) and Delhi Integrated Multimodal Transport System (DIMTS) which runs cluster buses by availing a 'single journey free travel pass', popularly known as the 'pink ticket'. ⁹ Delhi was the first region in India where women of all age groups and social and economic strata were given the right to travel for free on public bus transport. The total number of the pink tickets issued reached the 100 crore mark earlier this year, indicating that free passes have been availed by a significant number of women in the short period since its launch.

Under this scheme, no woman has to pay to travel in Delhi's public buses but women have the option of purchasing tickets if they wish to. The 'pink tickets' are printed and issued by the DTC. Both DTC and DIMTS maintain a proper account of these tickets, for which the Delhi Government reimburses them with ₹10 per ticket issued on a monthly basis. As a result of this targeted intervention, women's bus ridership in the capital has witnessed a significant boost— increasing from 25% in 2020-21 to 28% in 2021-22 and 33% in 2022-23 by some estimates.¹⁰ In 2022-23

⁷ Singh, S. R. (2023, February 6). DTC buses running without marshals on board. The Hindu. https://www.thehindu.com/news/cities/Delhi/dtc-buses-running-without-marshals-onboard/article66471842.ece (Accessed July 3, 2024).

⁸ Tewari, S. (2022, August 10). Free bus travel for women comes at a Price. The Hindu. https://www.thehindu.com/news/cities/Delhi/free-bustravel-for-women-comes-at-aprice/article65651986.ece (Accessed July 3, 2024).

⁹ Delhi Transport Corporation. (2019). Minutes of the 4th meeting of 2029 of the DTC board. Government of NCT of Delhi. <u>https://dtc.delhi.gov.in/sites/default/files/DTC/circulars-orders/cir20193426._23.9.2019_0.pdf</u> (Accessed July 3, 2024).

¹⁰ Raj A (2023) Delhi's 100 crore question: What does a free bus ride mean for a woman?, The Indian Express, https://indianexpress.com/article/cities/delhi/delhis-100-crore-question-what-does-a-freebus-ride-mean-woman-8519082 (Accessed July 3, 2024).

alone, 45 crore women travelled fare-free in DTC and Cluster buses.¹¹ In this period, the Delhi Government's budgetary expenditure on the scheme was ₹200 Crore, while the government subsequently allocated ₹340 crore in the Annual Budget 2024-25 to run the scheme. It is noteworthy that Delhi currently has a bus fleet of 7582 buses, and the average daily ridership of bus-based public transport in the year 2023-24 stood at 4.1 million.¹²

Before the fare-free bus travel scheme was introduced for women, there were concessions for students, senior citizens, disabled people and freedom fighters travelling in DTC and Cluster buses. Delhi government introduced a similar scheme for construction workers in 2022¹³ and announced its extension to include transpersons in February 2024.¹⁴ The party also promised to extend the scheme to all students in its 2020 Assembly election manifesto.¹⁵ Clearly, making public transport universally fare-free ranks high among the welfare priorities of the current Delhi Government. The success of the scheme in the capital has inspired other states like Tamil Nadu, Karnataka, Punjab Telangana and Rajasthan to implement similar initiatives for women passengers.

Meanwhile, as the fare-free bus travel scheme for women reaches a milestone of five years, questions linger about the scheme's broader social implications. Has the scheme catalysed systemic changes in women's mobility and challenged deep gendered inequalities? The policy's implementation highlights ongoing struggles for inclusive urban spaces and public transport justice, issues that this study aimed to explore. In the course of this study, we examined lived experiences and perceptions of women using public buses, based on which we present in this brief report a review of the policy's impletion.

12 Ibid.

13 Mani, G. (2022, May 6). Explained: How Delhi's Free Bus Pass Scheme will work; what it might cost the State Govt. The Indian Express. https://indianexpress.com/article/explained/explained-delhi-free-bus-pass-construction-workers-7904657/ (Accessed July 17, 2024).

Dutta, A. (2024, February 5). Free travel for transgender people in DTC, Cluster Buses: Delhi CM. The Hindu.
 https://www.thehindu.com/incoming/free-travel-for-transgender-people-in-dtc-cluster-buses-delhi-cm/article67814386.ece (Accessed July 17, 2024).

15 Free Bus Travel for Women in Delhi & its impact. AAP Wiki. (n.d.). https://aamaadmiparty.wiki/en/Achievements/Delhi/Free-bus-travel-delhi (Accessed July 17, 2024).

¹¹ Planning Department. (2024). Highlights of Budget 2024-25. Government of NCT of Delhi. <u>https://delhiplanning.delhi.gov.in/sites/default/files/Planning/budget_speech_2024-</u> <u>25_english.pdf</u> (Accessed July 3, 2024).

Methodology

The study employs a mixed-methods research design that integrates qualitative and quantitative methods to understand the current levels of bus use, the impact of the fare-free bus scheme for women, and the challenges that remain in women's access to bus-based public transport in Delhi.

Semi-structured Interviews

We conducted 20 semi-structured personal interviews with women from a diverse class, caste and religious backgrounds, some of whom were regular bus users while some had rarely or never travelled in the public bus in the last 6 months. This method of enquiry was complemented with a questionnaire-based survey that we designed to understand the current status of access to public bus transport and availing of farefree bus travel scheme for women in Delhi. The survey was conducted both online and on-ground with the support of the volunteers associated with Greenpeace India. We collected

We did a purposive sampling for selecting participants for the interviews to ensure that the interviewees had diverse backgrounds of age, caste, religion, and employment. The collected data was recorded, transcribed and coded to identify relevant themes for qualitative analysis. These themes also formed the basis of the questionnaire survey which was designed in line with the interview themes to complement the qualitative data. A summary description of interviewee profiles is provided in Table A-1.

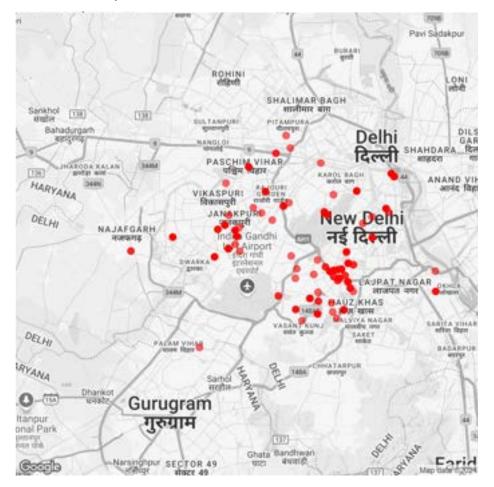
Surveys

In preparation of the survey questionnaire, questions on major themes from the interview findings. The form had four main sections: General information, Benefits of bus use, Challenges in bus use, and Suggestions for reform. The questionnaire also had two additional sections, one exclusively to be filled by persons with a physical or mental disability and the second to be filled only by non-users of public bus transport. We adopted a quota-based sampling strategy which aligned with the scope and could be implemented with limited resources available for the study. The field survey component focused only on bus users, while the online survey was open to any woman based in Delhi and interested in taking part in the study. For the field survey

we sampled the survey locations from the list of bus stops in Delhi and sampled 50 bus stops from a list of the busiest bus stops based on boarding volume. The research support team recruited informants at these locations according to the availability and consent of the bus users interviewed. Special attention was paid to ensuring the diversity of gender, age and physical ability while recruiting respondents. Respondents included daily wage workers, young adults, college students, senior citizens, working women and members of the transgender community.

After a few rounds of internal review and three rounds of pilot surveys, we incorporated the feedback from the participants and finalised the questionnaire. The questionnaire was also translated into Hindi to make it more accessible to the public. The final survey was then conducted in person across various localities in Delhi, including Seemapuri, Sundar Nagari, Neb Sarai, Mayur Vihar, Ghazipur, South Extension, Mukherjee Nagar, Janakpuri, Vikaspuri, Dwarka, RK Puram, Jaffarpur Kalan, among others and the samples were recorded randomly.

Of the 510 responses collected, 95% we field from came surveys and 5% from web-based channels, including social media platforms (primarily Twitter and Instagram) and WhatsApp groups. We asked the participants their age, religion, caste, profession, personal income, household income, and ownership of vehicles (bicycle, motorcycle, and car). Rakingbased weighting technique was employed to make the sample representative of the population, details of which are provided in the Appendix 1.



Residence locations of survey respondents (n=510). Note: Higher brightness of the dots indicates more number of responses from that location.

Survey Respondent Demographics

The age distribution of the respondents was as follows: the majority of the participants fell within the age group of 20–40 years, accounting for 72% of the total sample. As compared to the population projections based on the Census of India-2011, the sample had underrepresentation of women aged more than 50 years. The religious composition of the sample reveals that 77% of the respondents identify as Hindu, and 16% identify as Muslim. Christianity, and Sikhism were reported as religions by 3% each. A smaller proportion, less than 1%, reported belonging to other religious groups.

Regarding caste, 47% respondents reported the 'General' category, 19% respondents reported the Other Backward Castes (OBC) category, 11% reported the Scheduled Castes (SC) category, and 3% reported the Scheduled Tribes (ST) category. This distribution indicates a varied representation of caste groups, with a significant proportion from all caste categories.

The type of employment among respondents shows that 60% of women reported not being part of the labour force, while 2% respondents reported being unemployed at the time of survey. 18% of respondents were casually employed while 14% were salaried or with regular wages. Additionally, 5% are self-employed. Among non-labour occupations, 22% respondents were homemakers and 20% of respondents were students at various levels of education. 12% were domestic workers, and 5% were teachers.

As compared to the employment type estimates from the Periodic Labour Force Survey (PLFS) 2022-23, the survey respondents overrepresent the working women who are estimated to be 11.3% of all women in Delhi aged above 15 years while their share among the survey respondents is 37%. The wide gap between the population estimates and survey data is perhaps because respondents were more likely bus users and travel to work is a dominant purpose of travel.

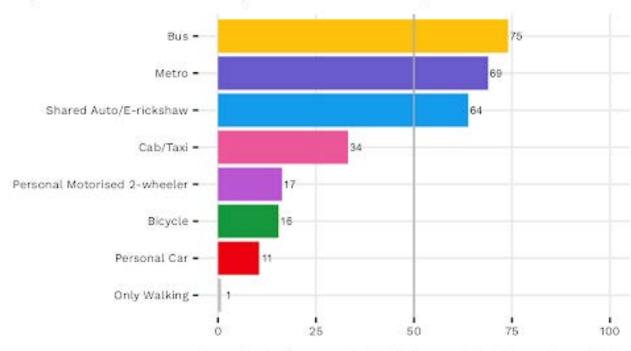
The income levels of the respondents vary, with the most commonly reported personal income being 10 thousand rupees or less per month. Nearly 90% of the working women have a personal monthly income of 30 thousand rupees or less. Income distribution of respondents also indicates that the household income of nearly 50% of respondents is below 30 thousand rupees per month, while 13% households fall in the highest income bracket of more than 100,000 rupees per month.

Women and the Bus: When They Become Free

The most visible impact of the fare-free bus travel scheme has been women's stronger presence in public buses, which in turn encourages more women to choose public buses for their day-to-day travel. It is not just their physical presence in buses that has witnessed a boost, but also their confidence of travelling independently, economic freedom and overall mobility. Hence, fare-free bus passes have (in)directly contributed to a positive shift in women's lives at different levels. Women have started taking up job opportunities, accessing schools/colleges and other services more frequently. Furthermore, they are exploring public spaces for leisure and socialisation, all while also making small savings in their out-of-pocket travel expenses. Even when women use multiple modes of public transport for their daily trips, using public buses reduces their overall travel cost. In this section, we discuss the many opportunities that free bus travel opens for women, which may otherwise not be accessible to them, and its impacts in their lives.

What Modes Women Have Available for Use

Women's access to different modes of transport impacts their daily lives. This section examines the availability of different modes of transport as perceived by women in Delhi, which determines the boundaries of access and women's mobility patterns.



Availability of Various Modes of Transport

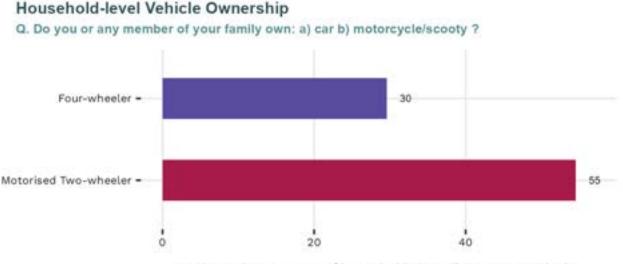
Q. Do you consider this mode of transport available for use when you need it?

Figure 1: Availability of different modes of transport as perceived by women in Delhi

Percentage of women in Delhi who consider the mode available

Our study reveals the range of transport options available and suitable for use by women in Delhi. The first thing to note is that the bus is not a commonly available mode of transport. 75% of women in Delhi can use the bus when they typically need to travel. More than two in three (69%) women can use Delhi Metro when they generally need to travel. This indicates that the Metro has become an accessible mode of mass transport for women, though it is still deemed by more women as a less accessible mode as compared to public buses. Though Delhi seems to have a moderate level of access to public transport for women, there is still a substantial gap to bridge to make mass transport, both bus-based and metro rail, universally accessible for all women.

Shared auto rickshaws and e-rickshaws are estimated to be the most commonly available mode of transport for women, considered available by 64% of the women in Delhi. This highlights their ubiquity and key role in women's mobility as an important intermediary mode of transport. Their role has become indispensable with the lack of reliable public transport, particularly for making short trips of less than 2 km, which, as the available evidence from transport and time use studies suggests, are the distances women in Delhi most commonly travel in their daily routine. The cabs and taxis were found available by 34% of women, suggesting the rapid rise in the role of privately operated cabs and taxis in meeting the mobility needs of women lately. Though their actual use levels are likely to be much lower, their perceived availability being higher than that of public buses demands attention from a public policy viewpoint.



Estimated percentage of households in Delhi owning a vehicle

Figure 2: Percent of respondents having four-wheeler and motorised two-wheeler vehicles

Personal motorcycles and scooters (or scooties, as they are called colloquially) are available to 17% of the women, suggesting a low availability of these modes of transport. Interestingly, 11% of women report four-wheelers being available for use. These numbers should be read in the backdrop of household-level ownership (or availability) of personal automobiles.

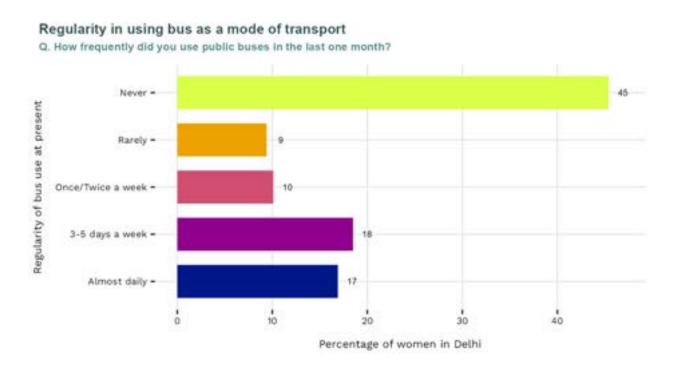


Figure 3: How often women currently use the fare-free public bus transport in Delhi

To ascertain this, we had asked survey respondents whether they have a car or a motorised two-wheeler in their household. The findings suggest that 55% of women in Delhi are estimated to have a motorcycle in the household, while 30% of households are estimated to have a car (see Figure 2). This is not very different from the findings of the National Family Health Survey (NFHS)-5 which estimates that 53% of households in Delhi owned a two-wheeler, and 19% of households owned a car in 2019-21.¹⁶

While the share of households having a motorcycle is substantial, this study estimates that the availability of these modes to women for their use is much lower. This indicates that women in households with cars, typically from higher economic status, do not necessarily experience increased personal mobility simply due to car access. This is in line with the existing evidence ¹⁷ on women's access to personal vehicles owned by the household in India.

¹⁶ International Institute for Population Sciences (IIPS) and ICF. (2021). National Family Health Survey (NFHS-5), 2019-21:India: Volume I. Mumbai: IIPS.

Hamilton, K., & Jenkins, L. (2000). A Gender Audit for Public Transport: A New Policy Tool in the Tackling of Social Exclusion. Urban Studies, 37(10), 1793–1800. <u>https://doi.org/10.1080/00420980020080411</u>

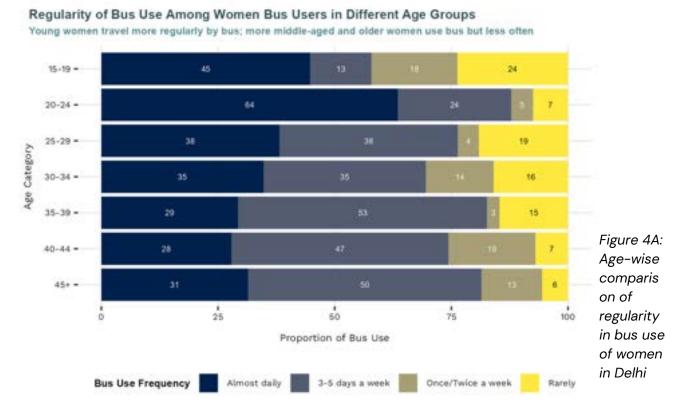
Our survey estimates that 16% of women have access to bicycles when needed for travel. NFHS estimates suggest that 27% of households in Delhi have a bicycle. There is a significant gap between the household-level availability of the bicycle and extremely low access among women. This potentially means that bicycles are exclusively used by men in many households, or women face social-cultural barriers to using a bicycle for their regular travel.

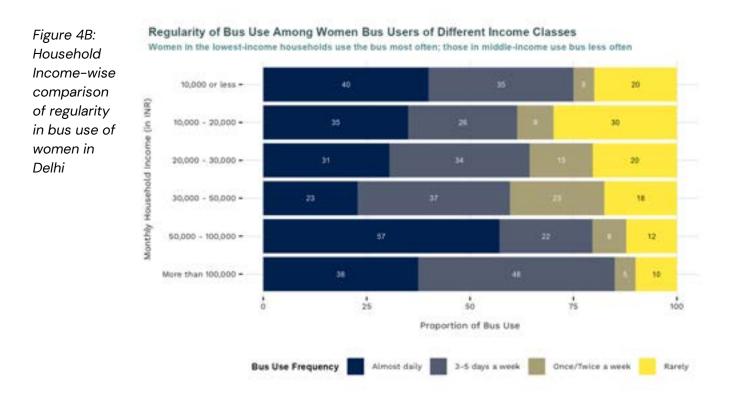
On a positive note, less than 1% of women report having no option but to walk when they need to travel. This suggests that while nearly all women in Delhi have access to some form of transport, personal cars remain the least prevalent of them.

Current Levels of Bus Use Among Women

This survey estimates that 45% of women in Delhi never use the bus. 35% of women are daily or regular (three-five days a week) bus users (see Figure 3). Thus, the current pattern of bus use among women in Delhi can be characterised as divided into dedicated bus users with near daily bus use and bus avoiders with very low preference to use bus.

Across the age groups, those using the bus are using it rather regularly (see Figure 4A). Younger women travel more often as compared to middle-aged and older women, but a larger proportion of older women travel regularly by bus (lesser percentage of women reporting 'rarely' as the frequency of bus use). More than 75% of women bus users in the lowest-income households use the bus at least 3– 5 days a week, whereas 60% of women bus users in the middle-income households travel by bus that often (see Figure 4B). Interestingly, daily bus use is highest (57%) among the women in the monthly household income bracket of 50–100 thousand rupees.





Limpact on Bus Use Levels After Free Bus Scheme

This section explores how Delhi's fare-free bus travel scheme has changed women's bus usage. It reveals that the policy mainly boosted the more regular use of buses among existing riders, but it also drew in some new users, showcasing its success in making public bus transport more affordable and accessible. We measure the rise in bus usage by examining the percentage of women who increased their regularity after the fare-free bus travel scheme was implemented. 23% of women currently using buses are estimated to be doing so more regularly since the bus travel was made fare-free for them (see Figure 5).

Another key metric for evaluating the policy's impact is its ability to attract new bus riders. 15% of women in Delhi who never or rarely used the bus before the fare-free bus scheme now use the bus more regularly. Thus, more than one in four women now using buses has started using buses after the bus travel was made fare-free. This indicates that the policy primarily encourages existing women bus users to travel by bus more frequently, while the appeal among women who previously avoided it is also remarkable.

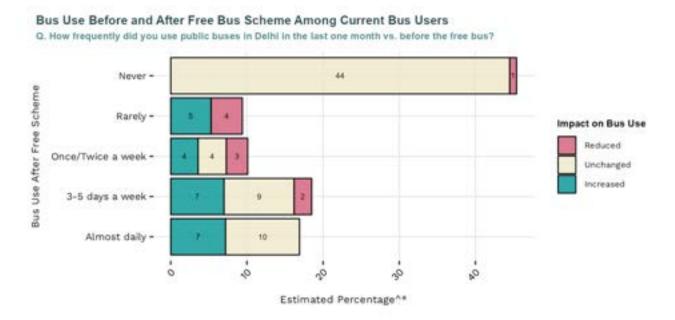


Figure 5: About 15% of women in Delhi who never or rarely used the bus before the fare-free bus scheme now use the bus more regularly. Overall, 23% of women have increased their bus use after the bus travel was made fare-free. [*Labels indicate the population-level percentages, but the proportions shown in the bar graph have been stacked to 100% for each category of current level of bus use]

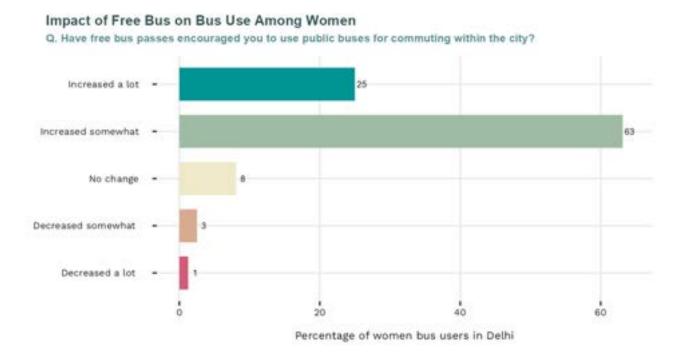


Figure 6: Women's perception of the impact of fare-free bus travel scheme on their bus use

Women's Perception of the Impact of Fare-free Bus Scheme

Another way to look at the impact of the scheme is to see how it has changed women's attitude towards using the bus. This survey finds that a substantial 25% of women find that it has encouraged them a lot to use the bus, while 63% noted a moderate increase in their tendency to use the bus (Figure 6). This suggests a large majority (88%) of women perceive the scheme as impactful in promoting bus use among women. While 8% of women see no change, only 4% of women experience a slight decrease in their chances of bus use. These findings showing slight variation in perception of impact of this policy underscore that there still might be scope for improvements in public bus transport to align it with women's needs.

In the next chapter, we look at the various ways in which women find the policy impacting their mobility and public lives.

The Many Journeys by Bus

"अब बाहर जाने से पहले सोचना नहीं पड़ता" (We don't have to think twice before going out anymore) A recurring theme that emerged from our interviews was how stepping out of the home has become much easier and more frequent for women. Buses are the most affordable mode of public transport in Delhi with fares starting from 5 rupees per trip, as compared to that in Delhi Metro, which starts from 10 rupees and can go up to 60 rupees per trip. That being said, 36% of women in India are involved in economic activities which require no travel as per the latest Census of India-2011.¹⁸ Of those who do travel to work, 45% walk and only 22% use buses. This is especially the case for women from lower-income groups. A study on a low-income settlement in Delhi highlights that more than 50% of women walk and 43% use public buses to commute to work. While much of the available data on women's bus use records their work travel, women also commute for leisure, care work and availing public services for themselves and their families. Given this fact, the free bus ride scheme comes as a much-needed intervention for improving women's overall mobility.

Figure 7 shows how women bus users in Delhi feel the fare-free bus travel scheme has impacted different aspects of their lives. A large majority has witnessed positive impacts, with access to distant places (64%) and access to work or education (49%) increasing considerably. The frequency of bus use also increased for many (63%), and a significant 58% of women no longer have to walk as much, suggesting greater convenience. Very few reported any decrease in these aspects, indicating that the scheme has been widely beneficial, especially in improving mobility and reducing physical effort for women.

Our findings suggest that travelling fare-free has undoubtedly increased women's access to work and education, but what is equally important is that it has enabled them to experience leisure and avail public services outside of the home. In addition to easing their reach to existing opportunities, it has also encouraged them to take up new ones. In conversations with us, many women mentioned that they are now stepping out of their homes for the first time for work and education, while women who used to go out regularly are travelling more frequently and for longer distances. Non-earning women from low-income households and the ones engaged in low-wage informal work have especially benefited from the scheme. It has enabled them to take up work opportunities that they originally found unfeasible owing to the travel cost which consumed a large chunk of their earnings.

¹⁸ Tiwari, G. and Nishant (2018). Travel to Work in India: Current Patterns and Future Concerns. Transport Research & Injury Prevention Programme, Indian Institute of Technology Delhi, New Delhi.

¹⁹ Anand, A., & Tiwari, G. (2006). A gendered perspective of the shelter–transport–livelihood link: the case of poor women in Delhi. Transport Reviews, 26(1), 63-80.

Women's self-assessment of the impact of fare-free bus

Q. How has free bus travel scheme impacted your access to these

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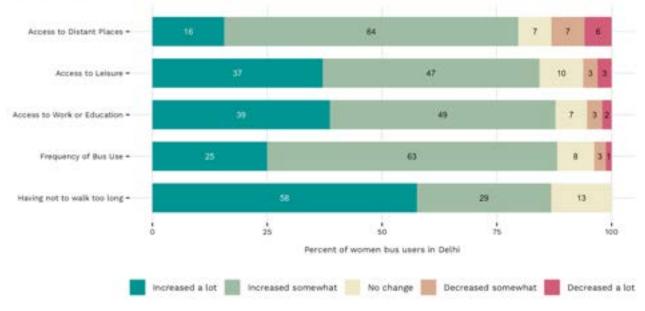


Figure 7: Women's self-assessment of how fare-free bus travel scheme has impacted certain aspects of their mobility

Travelling fare-free has been revolutionary for women in making travel for work feasible with their small earnings and also making some savings out of them. For others, it gives hope to pursue such opportunities without having to worry about travel expenses at least.

"I got a job in CP a few years back, but I could not join because it was too far and too expensive to travel, even by bus. So, I started working in Bhajanpura. I'm still working there and travel by bus only. But I know that if I get a better opportunity elsewhere, which is far, I can think about it now." (Lata, Civil defence volunteer, 23, Sundar Nagari)

Similarly, school and university students also form a significant number (22%) of bus users, who now find it easier to access educational institutions on a regular basis. Many students from marginalised backgrounds shared in the interviews that they would not have been able to attend classes regularly if it weren't for the scheme, as their travel cost was higher than their annual tuition fee.

"Back in college, I had to spend ₹30 to go to college. This was a huge issue for my family because we couldn't afford it. This money was very crucial for me at that time...I remember, I could not go to college daily, but when the bus became free, commuting became easy."
(Roshni, Facilitator at an NGO, 25, Sundar Nagari)

Apart from work and education, women are increasingly travelling for leisure. Many women, especially homemakers, find it difficult to prioritise their out-of-home leisure given the added cost that travel incurs (along with the more direct barriers like financial dependence, domestic responsibilities and absence of spare time). Conversations with women suggest that they now make plans among themselves to visit temples, monuments, parks, their friends, and family, which was a luxury earlier. Although travel is only one among the many barriers to women's mobility, it is one less constraint while planning to go out.

"Even if I want to go out somewhere (for leisure), I only need to take care of the food, which we arrange from the money saved from travel or by packing something from home. But earlier, the first barrier was to arrange money for travel itself." (Zara, Domestic Worker, 28, Seema Puri)

School and college-going girls find it much easier to explore the city using free passes. For some, the first time they took a stroll in the city and enjoyed public spaces was when buses were made free.

"We don't have to think twice about going out anymore. Every so often, we make last-minute plans to hang out. We start at college, then head to Laxmi Nagar, and from there, we might end up at CP or any other spot we feel like exploring that day."

(Nidhi, College student, 20, Kashmiri Gate)

Women also avail better public services now. Access to hospitals, markets, banks, and other public services has become affordable. Most women expressed that they access government healthcare facilities more often for themselves and their families, since they can now afford to travel long distances to avail free health care services. Hina, a waste picker who earns ₹200-250 a day, says that making trips to the hospital has become easier now as there is no travel cost anymore if they use the bus.

"My sister-in-law was recently admitted to GB Pant hospital, so, on some days I even had to take 4–5 trips to the hospital, but could manage that because I could travel for free. All my travel happens in the bus now, even the shorter distance too, like going to the market."

(Hina, Waste picker, 37, Seema Puri)

Inroads Into Greater Mobility

"अब चढ़ने से पहने बस का रंग नहीं देखना होता, कोई भी बस ले सकते हैं" (I don't have to look at the colour 20 of bus anymore, I can board any bus we want to)

²⁰ The colour of the bus refers to the distinction between AC buses (red) and non-AC (orange and green) buses. The majority of respondents said that they used to avoid the AC buses because of their higher fares.

Many women who are sensitive to travel costs prioritise affordability over their convenience. Many respondents mentioned that they used to wait long for direct buses and even avoided AC buses to save some money, which is not the case anymore.

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"Once my friends and I planned to go to the National Crafts Museum. Although we had no clear idea about the route, we went ahead anyway. We changed at least 4– 5 buses and finally reached our destination. At the end of it, we literally had a bundle of bus passes with us. So it was so great that we could go to an entirely new place, change bus after bus, but did not have to pay for it."

(Rashmi, College student, 20, Mayur Vihar Phase 2)

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Women can now board any bus and change buses as per their convenience, without having to pay extra if they board a bus by mistake. This flexibility while using buses makes them more convenient to use and gives women the confidence to explore newer, more complex routes. The following experiences of two women show how the scheme has created an ease of using buses, thus paving the way for greater mobility.

"Since I started college in 2016–17, I used to avoid the red buses as the fare was higher than other non-AC buses. Back then, there were three types of buses: red, green and orange. I had to wait for non-AC buses because their fare to my college was Rs. 10 whereas it was more (almost double) for red buses. I used to take the red buses as a last resort when none of the other buses were available... I also used to wait for one particular bus like 427 for my college. Now I take a bus that drops me to a stop where I get more buses from. So, we don't have to wait for one bus in particular."

(Madhuri, Student and Freelance journalist, 24, Pushp Vihar)

Beyond the Ride: Independence, Confidence and More "पहले अकेले बाहर नहीं जा पाती थी, अब सीख गई हँ"

(I wasn't confident in travelling alone, I have learnt it now)

A recent study on time-use survey 2019 by the National Statistics Survey Organisation (NSSO) reported the mobility rate of women in urban India to be as low as $47\%_{21}$ This means that more than 50% of the women surveyed reported not stepping out of their homes even once on a given day. The same study also highlighted that women on an average take only 1.3 trips in a day, as against men who take 2.9 trips. The NFHS-5 also reports that only 48% of the women in urban India are allowed to step out of the home alone. 20 Women's curtailed mobility can be attributed to several factors including

²¹ Goel, R. (2023). Gender gap in mobility outside home in urban India. Travel behaviour and society, *32*, 100559.

²² International Institute for Population Sciences (IIPS) and ICF. (2021). National Family Health Survey (NFHS-5), 2019-21:India: Volume I. Mumbai: IIPS.

restrictions, low workforce participation (therefore limited financial freedom) and dependence on family members for their day-to-day travel.

While many social and infrastructural barriers remain, free bus passes have eliminated the financial barriers in travel to an extent; thus encouraging women to travel independently and more frequently. Doing so, they learn to navigate their bus journeys (especially the bus numbers, their routes and important interchanges) around the city, develop the confidence to travel alone, and also deal with violence.

"I can take different routes, switch between different modes to go anywhere. So this is one good thing about free buses. I wasn't confident in travelling alone, but I have learnt (to do so) now."

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(Aparna, Homemaker, 40, Sundar Nagari)

This confidence of travelling alone also results from the fact that women enjoy unconditional access to bus passes. This gives them the possibility to explore the city by boarding any bus, exploring different bus routes, and de-boarding according to their convenience without any added cost.

"Delhi is such a big city, so one can get confused by bus routes. Sometimes we board the wrong bus, but now we don't have to worry about it, that we will have to pay even if we take the wrong bus. We can easily deboard the bus and board a new one."

(Namrata, 35, Factory worker, Neb Sarai)

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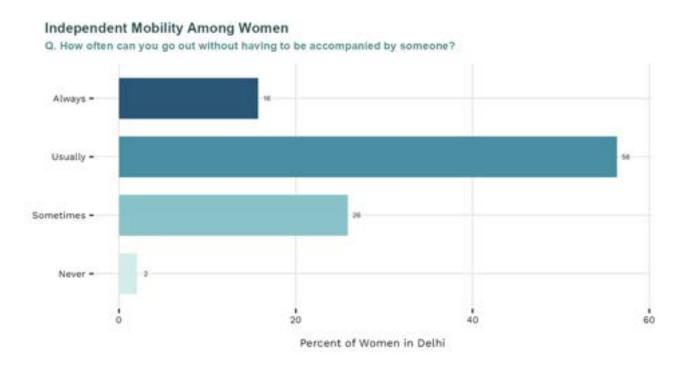


Figure 8A: Current level of independence in mobility of women bus users in Delhi

The survey estimates that 28% of women aged 15 and above lack independence in everyday mobility. Only 16% of women in Delhi feel that they can always travel on their own without necessarily having to be accompanied by someone. In that context, the substantial positive impact of the fare-free bus scheme becomes even more noteworthy. Two in three women find that the scheme has helped them become more independent in moving around in Delhi.

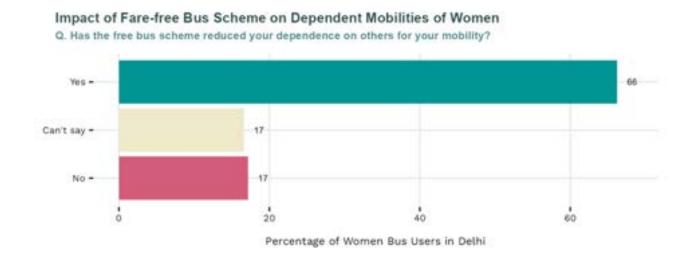


Figure 8B: Whether the scheme for fare-free bus travel has brought more independence to women's mobility in Delhi

Taking the Well-being Route

The benefits of free bus travel go beyond the more direct ones (as discussed in the previous sections) to more subtle improvements in quality of life. Free buses enable women to prioritise their health, make small savings on travel, and use these savings for the well-being of their families. Increased access to distant places, education, and leisure, along with reduced physical effort, contributes to a greater sense of autonomy and better overall life balance for women.

Small Savings, Big Joys

The findings of our survey suggest that 75% of women in Delhi have been positively impacted by the scheme and report a reduction in their monthly expenses on transport after the scheme. This means that these bus users, who earlier paid for their bus travel, can now travel more frequently while also making savings from their travel

expenses. For women belonging to low-income households, these savings are critical in making travel affordable for them. 12% of bus users report no change in the expenses while 10% reported a slight increase in travel expenses after the scheme.

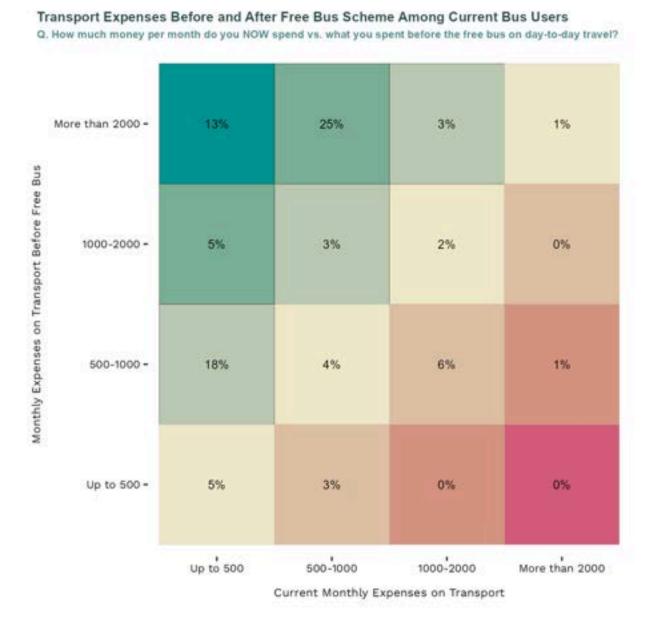
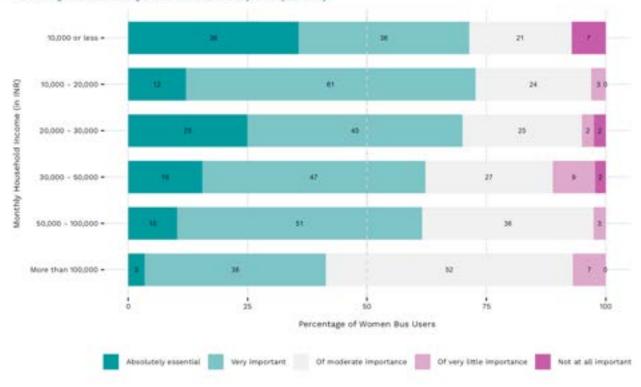


Figure 9: Impact on transport expenses. Monthly expenses on transport have reduced for 67% of women in Delhi, and about three in four women now spend less than 1000 rupees per month on transport

Significance of the Free Bus for Household Economies



Q. How significant this saving from free bus travel is to you and your family?

Figure 10: Significance of reduction in travel expenses due to fare-free bus travel

Using the Savings

Women are using the savings from fare-free travel in multiple ways. Some women use this money to sometimes use a different travel mode when buses are not available. In other cases, they spend it on personal and household essentials or leisure activities. When possible, they save it for future use. Middle-class women, who generally use other modes of transportation, also reported benefitting from this scheme when they choose to travel by bus.

"My mother gives me ₹50 daily for travel. I save ₹30 almost every day. This way, I save around ₹150 in a week. So, I have some money in hand. If I want to buy anything, I can do that as well. I can also save for earrings, lipsticks and other things. On days I'm hungry, I can eat something (with the money that I saved). But on days, I don't get a bus, I end up spending ₹50 merely on a one-way commute." (Lata, 23, Delhi civil defence volunteer, Sundar Nagari)

Similar to young girls, mothers use this money to save for their children and for times of emergency. A factory worker who is a mother of three young kids says,

"When my children are adamant about not going by bus and insist on travelling by auto, I tell them that if we go by bus, we can have juice or eat some snacks (with the money we save on travel). I sometimes buy colours or any other small things

or just give them this money; they are happy to travel by bus then. So, these small savings bring big joys in our lives." (Namrata, 35, Factory worker, Neb Sarai)

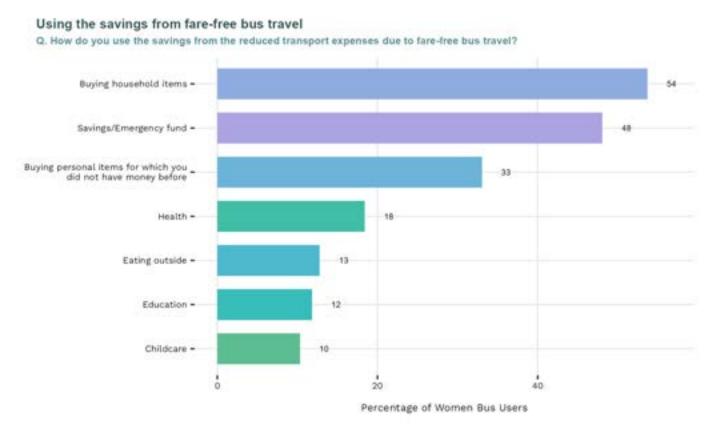


Figure 11: Various ways in which the savings due to fare-free bus travel are used by women

Our survey findings also suggest the same. 54% of the surveyed women report that they save this money for future use and spend on household items. Half of the women are keeping the savings aside as savings or emergency funds. One in three women use the savings to purchase personal items that they could not have otherwise bought. About 15% of women using buses can now spend more on health and education.

Prioritising Health and Self-care

A recent study on transport mode share for all trips by gender for all ages reported walking as the most common mode of travel by women in Delhi.²³ According to the study, 66% of the women walk for travel, as against 40% of men who commute by walking. The use of other modes like public transport, cycles and private vehicles was found to be lower in the case of women compared with men. Walking is particularly prominent among women belonging to lower income groups, making them the 'no-choice' or 'forced' walkers.²⁴

²³ Goel, R., Oyebode, O., Foley, L., Tatah, L., Millett, C., & Woodcock, J. (2022). Gender differences in active travel in major cities across the world. Transportation, 1-17.

²⁴ Mahadevia, D., & Advani, D. (2016). Gender differentials in travel pattern–the case of a mid-sized city, Rajkot, India. Transportation Research Part D: Transport and Environment, 44, 292-302.



Our interviews with women revealed that the majority of the women are forced to walk longer distances. Although these trips are within a smaller radius for activities ranging from going to work, picking up/dropping off children to school and going to the market, this leads to significant fatigue. In addition, they are also expected to perform domestic responsibilities, and often without any rest, which adds to the exhaustion they feel at the end of the day. 87% of women now feel less compelled to walk long distances since travelling by bus is now available as another cost-free alternative (see figure 7). With free bus travel, women have a choice of using buses as per their needs instead of travelling on foot for longer distances. It also gives their bodies temporary relaxation while travelling in-between work.



While the fare-free bus travel scheme is a step in the right direction, its real impact hinges on women's fair access to buses and a quality travel experience they have while using buses. We have found that the absence of adequate bus infrastructure, poor service and a serious backlash on 'free' travel discourages women and girls from choosing buses as their preferred mode of travel. Lack of last-mile connectivity, inadequate supporting infrastructure, especially formal and well-lit bus stops, safer and more walkable roads, violence, and inaction to violence inside buses, including casual shaming from fellow passengers and bus staff, emerge as the most common factors that constrain women's use of buses.

Free Riding or Riding for Free?

"बस फ्री होने के बहुत फ़ायदे हैं, पर पहले जो इज़्ज़त थी वो अब नहीं रही" (There are many benefits of free bus, but we don't enjoy the respect we used to)

Several women interviewed for the study reported having been insulted at least once by male co-passengers or bus staff at least once for enjoying fare-free rides in buses. Women, according to this section of male bus users, aren't simply riding free of fare but free-riding²⁵ at the expense of male bus users who, this section of bus users thinks, are actually funding the scheme. Women reported having heard remarks that free bus passes have led to women being on the loose, travelling mindlessly without any legitimate purpose, as against men who travel for important purposes such as work. Respondents mentioned that often bus drivers do not halt for women passengers if there are only women waiting at a bus stop. Once inside the bus, the conductors sometimes keep the women waiting for bus passes. Some male passengers shame them for travelling free of cost, while also demanding reserved seats. Clearly, it is not uncommon for women to feel subtle backlash for travelling farefree.

However, our survey findings suggest that incidents of insulting remarks from male copassengers have become less common as the scheme matured. Only 4% of women received such remarks and that too occasionally. However, 14% of women in the lowincome group (monthly household income less than 20 thousand rupees) reported facing such remarks occasionally, which suggests that these remarks are particularly directed towards women from marginalised socio-economic backgrounds.

²⁵ A free ride is an opportunity or advantage that someone gets without having done anything to deserve it, https://dictionary.cambridge.org/dictionary/english/free-ride.

Feeling Unsafe in Bus Transport

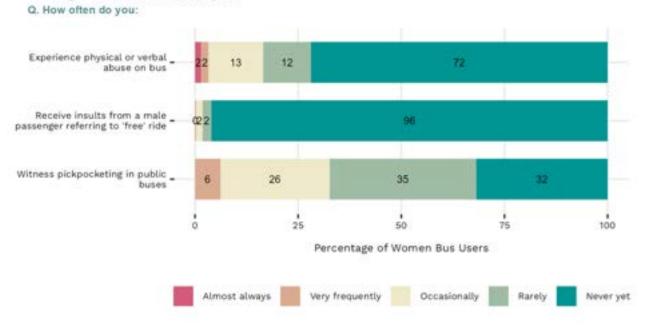


Figure 12: Various ways in which women can feel unsafe in using public buses

In the earlier phase of the data collection (January 2024), the reported rate of insulting remarks from male co-passengers was higher (about 35%). Thus, with the scheme maturing, the incidents of remarks from male co-passengers have reduced. Yet, indepth interviews with bus users revealed that often a woman's request for vacating reserved seats often end up in arguments where men resort to making insulting remarks on women for travelling free and label them as freeloaders.

"(men in buses often say..) The ticket is free, so they are all in the buses now. They have nothing to do, they don't have to earn. They are free from home chores, that is why they are roaming around."

(Aarushi, 27, Researcher, Yamuna Vihar)

We found during the fieldwork that sometimes bus drivers and marshals tend to attribute their low or delayed salaries to allocation of funds for making women's bus travel fare-free. Marshals also expressed their dissatisfaction with the fact that while the government has allocated dedicated funds to support the fare-free bus travel scheme, there have been repeated delays in their salaries. This partially explains the hostility of bus staff towards women passengers, which manifests in several ways including bus drivers not stopping for women, marshals not intervening when women are harassed inside the buses. Sometimes bus conductors ignore women passengers while distributing the tickets or shame them when handing tickets. "Whenever drivers see more women, they don't stop the bus. If they do, they stop the bus ahead of the bus stop so that women can't board the bus. Men run faster and board the bus, but by the time women run and reach the bus, it leaves. This has happened to me many times."

(Namrata, 35, Factory worker, Neb Sarai)

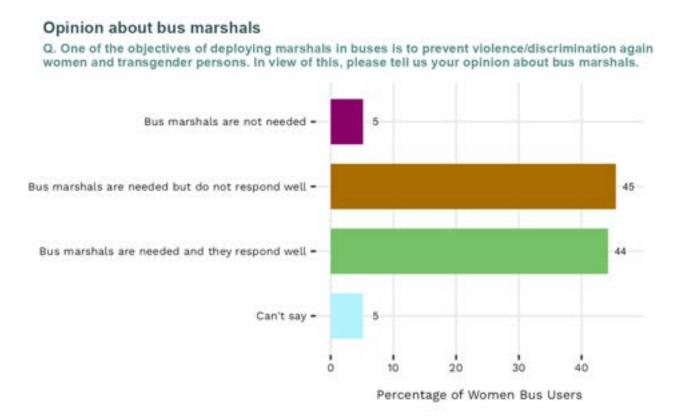


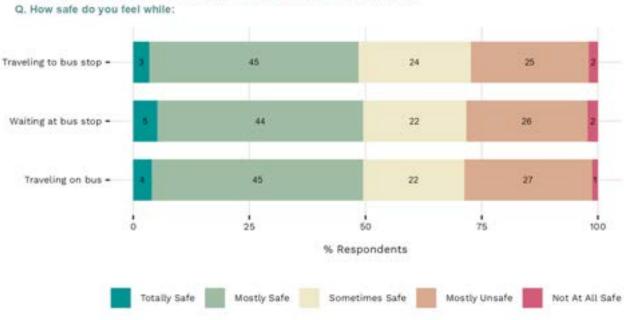
Figure 13: Women bus users' opinion about bus marshals

The survey finds that women support the idea of bus marshals, with 90% of women saying that bus marshals are needed. However, half of the women supporting the idea do not have favourable views of current functioning of bus marshals and do not find them responding well (see Figure 13).

∑ Fare-free ≠ Fear free

"हमें हर समय एलर्ट रहना पड़ता है, वरना कुछ भी हो सकता है" (We have to stay alert every moment; otherwise anything can happen)

A safe and secure public environment encourages more and more women to use public transport. As using public buses requires walking to the bus stops, waiting at the stop to finally travel in buses, women need to feel safe at different stages in their bus journey to use buses fear-free. But, this survey finds that a little less than 50% of women feel mostly safe while travelling to the bus stop, while waiting at the bus stop, or while travelling in buses (see Figure 14).



Women's Perception of Safety in Using Public Bus Transport

Figure 14: Women bus users' perception of safety in using public bus transport

Since a great majority (76%) of women walk more than ten minutes to travel to their nearest bus stop (see Figure 15), safety and security becomes a major concern in accessing buses. Lack of walkable roads, footpaths, functioning traffic signals, street lights make travelling to the bus stop unsafe. Simultaneously, navigating deserted alleys, foot overbridges and bearing physical violence, catcalling threatens women's personal security. In addition, long waiting-time at the bus stop and overcrowding inside the buses further contributes to an unsafe public environment.

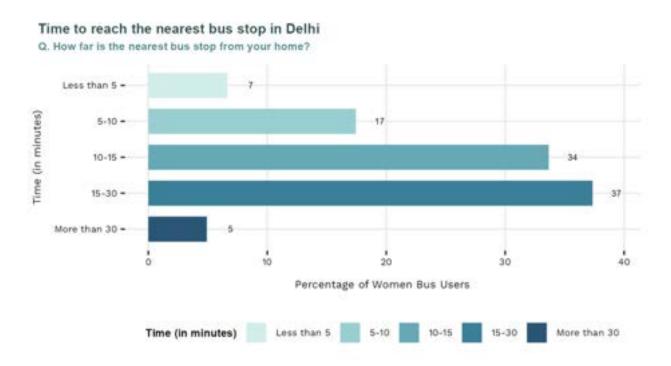


Figure 15: Usual time taken to reach the nearest bus stop in Delhi

When at the bus stop, 87% of the women reported waiting more than 10 minutes, while a good 13% waited more than 30 minutes for the bus. Many of these bus stops are located in relatively isolated and poorly lit locations, other stops are informal, with no bus shelters, and hence, women find waiting at these bus stops to be particularly unsafe. A resident of Sundar Nagari told us that the absence of a formal bus stop exposes women in the area to several challenges.

"Since there is no bus stop (bus shelter), men keep loitering around and staring at women waiting for buses. If a woman is standing there waiting for the bus, first, it is assumed that she is standing there for no reason, giving men the licence to stare at her, harass her and even question her character."

(Lata, 23, Delhi civil defence volunteer, Sundar Nagari)

When the bus halts at the stop, people rush to board the bus. Women say that men take this as an opportunity to "push", "touch", "grope" and "lean" on them. This kind of harassment continues inside the bus; the women who travel standing are often the victims as buses are overcrowded. First, it gives harassers a free pass to assault women and second, they easily get away with such acts. Many women passengers complained that despite experiencing violence at the hands of their co-passengers, they have no concrete proof of any misconduct. For instance, groping typically passes as a 'touch by mistake' while it is usually intentional.

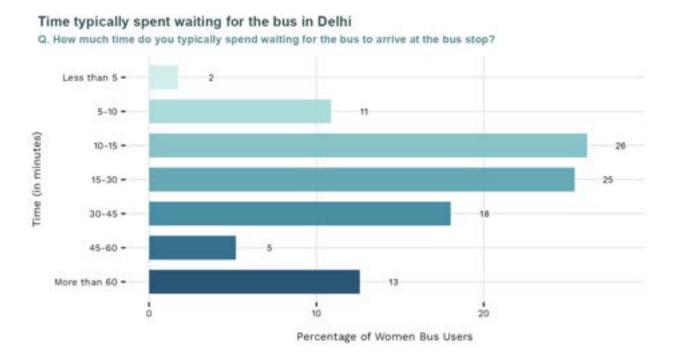


Figure 16: Time spent waiting on the bus stop by women bus users in Delhi

Women, thus, find it difficult to confront harassers or register their complaints with bus marshals. When they do, their complaints are often dismissed or are met with insulting remarks like "If it is so much of an inconvenience to you, please deboard or take an auto because this is how things are in the bus". Therefore, the violence is hardly acknowledged and acted upon. Women bus users flag that the passengers don't support them out of fear or ignorance, and marshals do not react unless the situation goes out of control.

"Marshals always try to defuse the situation, saying that 'it must have happened accidentally', but this gives harassers the confidence that they can get away with anything. Sometimes, they start blaming the victims, or they would say that they didn't see it happening. So, the bus staff also does not help us. "

(Roshni, Facilitator at an NGO, 25, Sundar Nagari)

On asking a cluster bus driver about violence on women inside the buses, his response was in line with what most male passengers believe, i.e. women are free-riding at men's expenses. It also explains the non-response of bus staff on violence against women.

If you notice currently, if there are 50 gents, there are 150 ladies. This is the case now. This ratio was always 50–50 earlier. People used to respect each other as everyone was paying. Now, women sit on gent's seats and then make excuses like my stomach aches, my joint aches... And poor men, they are left thinking that we got (purchased) the tickets and women are getting to sit. So we don't say anything. We only try to calm them both if anything happens.

(A, 32, Bus driver)

Time is another factor that influences safety and fear while using buses. Poorly lit streets and bus stops discourage women from using buses after dark. In addition, lower frequency of buses post sunset (meaning more waiting time) poses another challenge. Our survey also suggests that 77% of women feel unsafe while travelling by bus after 5 PM.

"It's also difficult to board the bus after 8 pm. Some men at that time inside the buses were drunk. The kind of safety I feel inside a metro or an auto rickshaw, I don't feel the same in buses."

(Roshni, Facilitator at an NGO, 25, Sundar Nagari)

Although women experience harassment, women from specific socio-economic backgrounds reported facing higher discrimination in using the buses. 9% of Muslim women and 4% of Hindu SC women reported facing discrimination in being allowed to board the bus, which they felt was because of their religious or caste identity. 10% of respondents reported being stopped from boarding a bus at some time in the past. More than half of these women were engaged as casual labour in low-wage economic activities. Our conversations with women from the waste picker community in Seemapuri also reflected such discrimination in accessing buses. Women mentioned

that the buses do not stop for them because of the nature of their work. When they do manage to get inside the bus, they have to endure the insensitivity of the fellow passengers. Some passengers see them with disgust, cover their noses, maintain distance from them and even make complaints to the bus drivers. A waste picker woman shares that she and many others in her community do not use buses because of the way they are received by fellow bus users.

"I prefer auto over bus because I myself feel that I should not travel in buses when I'm dirty. People start making faces, some even make distance from us, so I don't use the bus, I use auto instead. We are made to feel that we do a dirty job, so it's better that we don't use the bus."

(Faiza, 32, Domestic waste collector, Seemapuri)

Service and Infrastructure

"पैसे की बचत हो जाती है, पर समय की बचत नहीं है" (We save money, but lose time)

As most public transport (PT) users walk to the bus stops, the SDG target 11.2 proposes 'convenience' of the user as a core indicator for accessing public transport. A public transport system is defined as convenient when it is accessible within walking distance of 0.5 km from a reference point such as a home, school, workplace, etc. (UN-Habitat, 2018). The accessibility guidelines for bus stops in India also suggest that an ideal bus stop environment must include pedestrian facilities, information (including maps), bus shelter and seating, security including lighting, and connectivity with footways, among others (MoRTH, 2021). Hence, the convenience of the user is closely related to both the availability and quality of service and infrastructure offered by the PT system.

With a fleet size of 7582²⁶ and dedicated infrastructure of bus stops and depots, Delhi has a fairly strong bus-based PT system; yet, it is far from perfect. Our survey results show that existing bus users experience several challenges in their day-to-day bus travel. A major problem is the inaccessibility of bus stops. Only a small percentage of women (7%) have the nearest bus stops located under walking time of 5 minutes. While another 17% travel for 5 to 10 minutes, most women (76%) spend more than 10 minutes to reach a bus stop. It is evident from our survey that most women who travel under 10 minutes are the ones who have reported being satisfied with the distance of the bus stop. Others still find bus stops to be inaccessible to a great extent.

While at the bus stop, more than half of the women typically have to wait between 10– 30 minutes for the buses to arrive. A significant percentage (36%) wait more than 30

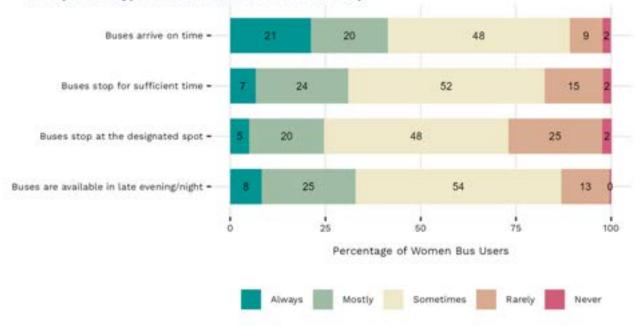
²⁶ Planning Department. (2024). Highlights of Budget 2024-25. Government of NCT of Delhi. <u>https://delhiplanning.delhi.gov.in/sites/default/files/Planning/budget_speech_2024-25_english.pdf</u> (Accessed July 3, 2024).

minutes for buses. This higher waiting time for women can be attributed to their distinct travel patterns since many women travel during off-peak hours²⁷ when the frequency of buses is low. For example, women engaged in waste picking work often wait for a very long time for buses while getting back from work around noon to 1 PM. Similarly, homemakers who travel to pick up their kids from school around this time or go to the market mentioned the poor service of buses. Even the UN standard discussed above talks about higher peak hour frequency, which does not necessarily cater to women's travel patterns.

The following statement by a daily-wage worker shows how long waiting times of buses makes buses unreliable and forces them to use other, more unaffordable modes of transport.

"The biggest problem is that there are very few buses on our route. We waited for hours for the bus. They are very unpredictable too, sometimes we get buses within minutes, other times we wait for hours. Finally, we have to take an auto. Taking an auto means a minimum spend of ₹50 to ₹60. It puts a huge strain on our pockets. Sometimes, I feel like if I had a private vehicle, life would have been so much easier. Waiting for the bus means getting late/running behind schedule because we have to work at our home as well, so that creates an issue."

(Asma, 40, Domestic worker, Seema Puri)



Perception of typical arrival of the bus at a bus stop

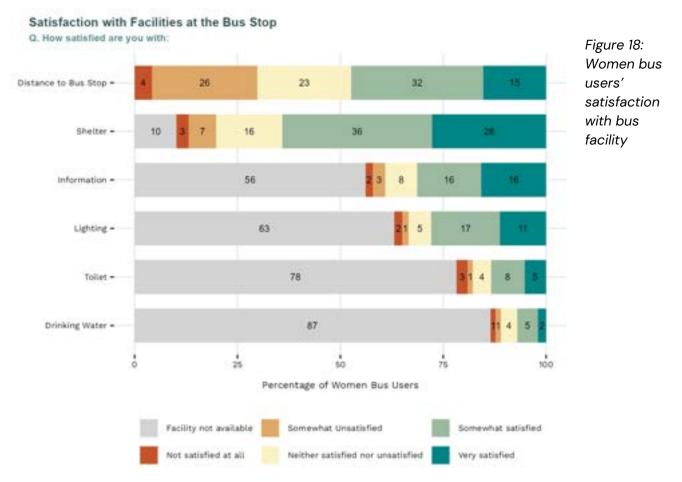
Figure 17: Subjective evaluation of bus arrival time, boarding, and availability at night

²⁷ Shah, S., Viswanath, K., Vyas, S., & Gadepalli, S. (2017). Women and transport in Indian cities. New Delhi, India: ITDP India, 10-1.

Evidently, women's perception on the service of buses suggests that while the bus system is to an extent satisfactory in terms of its general availability, it lacks in terms of reach and efficiency. Only 21% of the women perceive buses always arriving on time. This number was even less for other service-related aspects. 7% and 5% women reported that buses always halt for sufficient time at the bus stop and at the designated stop, respectively. These two factors are significant given that women require more time to board the buses, given the design of garments they generally wear (such as saree and suit) and the fact that they often travel with younger dependents such as their kids. The service of buses during night-time was also found to be low, with only 8% of women saying that they find buses always available.

Women reported a higher level of dissatisfaction with the bus design and bus stop infrastructure. They specifically complained about the height of the grab handles and stairs, and the absence of luggage space in buses. In terms of bus stop infrastructure, 10% of women reported absence of bus shelter at the bus stop and further 10% of women showed dissatisfaction with the quality of available bus shelter. Two in three women find the lighting at the bus stop inadequate.

A majority (56%) of women said that bus stops do not have important information on bus routes in an easily understandable format; while another 5% of them said that they are dissatisfied with the information available on bus stops. While students and working professionals with access to smartphones and apps like One Delhi can access useful information, many bus users, especially homemakers and casual labourers, do not have access to mobile phones. They find it difficult to use buses without a proper display of route information.



82% and 89% of women reported the absence of public conveniences like toilets and drinking water, respectively, in close vicinity of the bus stops. A small percentage reported being satisfied with these facilities, which had Sulabh toilets and public drinking water available close to the bus stop. A mother who travels frequently with her children in buses shares how the lack of proper service and infrastructure causes inconvenience to bus users.

"We often wait for hours at the bus stop with kids in the hot sun. They get thirsty, but there is no provision for water. Some bus stops don't have functional roofs; some don't have roofs at all. The bus stops don't protect you in any season. There are no designated bus stops in many places. Also, there are no washrooms. Men can relieve themselves wherever they want, but women can't. Long waiting time for buses makes it worse."

(Namrata, 35, Factory worker, Neb Sarai)



Another woman, who is a college student and resides in Mayur Vihar, told us that the absence of a bus shelter, along with a poorly lit surrounding environment, restricts her bus use to daytime only. For night travel, she prefers other modes like metro over public buses.

"The bus stop near my home has no light at all, so we prefer to come back before dusk. This is also because there are no proper bus stands. People know that there is a spot where the bus stops. There is no shelter, not even a board. The one near my home is the same, there is no bus shelter."

(Meera, 21, College student, Mayur Vihar Phase 2)

Apart from the aforementioned challenges, people with disabilities suffer from additional constraints. Although we could not reach many disabled women who use public buses, the survey responses we received make it clear that buses are inaccessible to them; the bus environment is hostile. They reported facing difficulty in accessing bus stops as footpaths and roads leading to the bus stop and ramps at the bus stop are inaccessible. In addition, buses do not halt for sufficient time for them to board buses comfortably. The entry and exit points are narrow, and there is inadequate space inside buses for wheelchairs. Even the display screens and audio announcements for people with visual and hearing impairments are absent. Furthermore, the buses are too crowded, and no assistance is provided by the bus staff. In many cases, co-passengers are non-accommodative of the needs of persons with disabilities, making it almost impossible for them to travel comfortably in public buses. These very issues make buses unreliable, inconvenient and unsafe for women to travel in.

Women who routinely use buses mention that the frequency of buses, night-time availability, waiting time, and quality of bus stops differ in peripheral regions from the central part of Delhi. For instance, women from Ghazipur, Mayur Vihar, Sundar Nagari and many peripheral locations in Delhi shared that bus stops in their locality are either absent, are of informal nature (without bus shelter) or are located at an inaccessible walking distance. A user shares that this comes as a stark contrast from bus stops in CP and other central locations, where bus stops are very well maintained. Therefore, it is not just the lack of infrastructure that is an issue but also the unequal spatial distribution of quality of existing infrastructure across Delhi.

What Still Keeps (some) Women from Using Public Bus Transport?

A great majority of non-bus users (56%) reported finding modes of public transport like metro and autos to be more convenient to use than public buses. Overcrowding in buses and high waiting time emerged as the two other top reasons for not using buses. While private vehicle ownership was also a reason for not using buses, it was primarily the service and infrastructure related gaps, concerns of safety and security that discouraged women from using buses. Potential threats of gender, religious and castebased discrimination were also some reasons women find important in deciding not to use buses. Some other reasons included motion sickness, dizziness, etc.

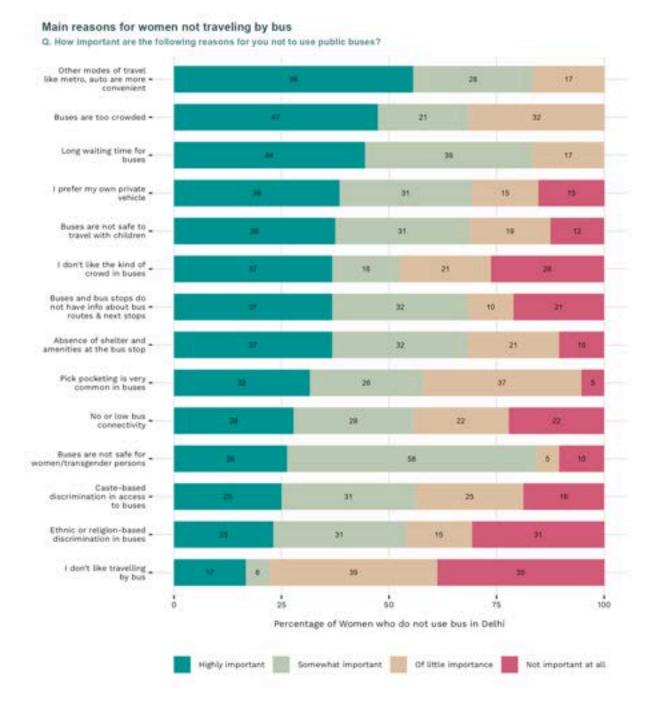


Figure 19: Importance of various reasons women have for avoiding to use bus (reasons listed in the descending order of how many women rate them as 'highly important')

What Vomen Vant

"जब बस में ज़्यादा औरतें होती हैं तो अच्छा लगता है" (When there are more women in buses, we/l feel safer) It is evident from this study that the fare-free bus travel scheme has provided a much-needed boost to women's mobility. It has in a certain sense made women active agents of their lives, at the same time, has empowered them to take up more space in the city. However, there are several gaps and inequalities that need to be levelled for fair access to the scheme. This means that buses across the city need to be made more accessible, reliable, convenient and safe for all. It would require identifying the issues and making concentrated efforts to improve the service and infrastructure of buses and ensuring its fair distribution across Delhi.

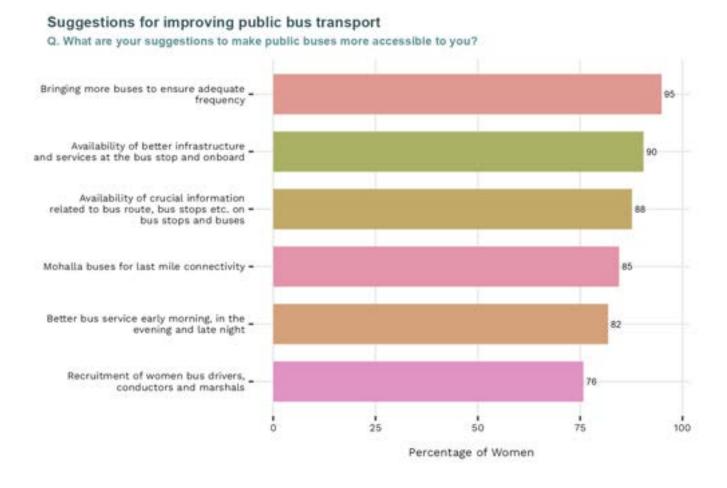


Figure 20: Suggestion received from users and non-users for improving the public bus for women in Delhi

Based on interviews with women, we identified some key suggestions, for which we recorded the responses of our survey participants. We share below a detailed list of suggestions which, we believe, would be crucial to make buses more accessible to women passengers.

The suggestions extracted from the text analysis of the interview transcripts focus on improving the access and experience of women using bus services in Delhi. The major focus areas to make bus travel better for women in Delhi as appeared in respondents' comments are shown in Figure 21.

Key areas of improvement suggested by women Text analysis of suggestions reported during detailed in-person interviews

> Female Marshals Well-lit Bus Stops More Buses Bus Routes Designated Spaces E-buses Women Conductors Timings Pickpockets Traffic Solutions Mothers with Kids Night Buses CCTV Cameras Bus Infrastructure Crowded Buses Public Awareness

Figure 21: Text analysis of suggestions made by women during in-depth interviews

RECOMMENDATIONS

The availability of quality bus infrastructure is the key to improving bus usage in a city. A fundamental aspect of this infrastructure is the fleet size, which needs to be strengthened. While Delhi has one of the biggest fleet sizes in the country, it fails to meet even the modest MoHUA guideline of 60 buses per 1 lakh population. With an estimated population of nearly 22 million in 2024, Delhi needs 13128 buses in total to cater to its demand. That means, about 5550 buses need to be added immediately to meet the MoHUA norms. The requirement of buses must account for the buses which will get out of service over the coming years.

The government must ensure fair allocation of buses on all routes. Currently, as we mentioned in various sections of this report, women who commute from Delhi's peripheral areas report higher waiting times at the bus stop. All bus routes must be fairly served based on not just men's travel demand but also women's needs.

Formal bus stops must be built with adequate lighting, seating, shading and detailed information on bus routes and schedules in an easily understandable format. Wherever possible, public conveniences, especially drinking water and toilets, must also be built.

Since public buses remain inaccessible (sometimes even hostile) to people with disabilities, sincere efforts must be made for them to access buses with dignity. Accessible footpaths, bus stops, ramps for wheelchairs, and information in audiovisual format are bare minimum needs.





We also need to acknowledge here that women's use of public transport is very closely tied to how accessible it is to their dependents. Young children and elderly mostly travel with women and if buses are inaccessible to them, there are fewer chances of women using them. Therefore, we require inclusive infrastructure that ensures all women can use it.

Existing initiatives like the Mohalla buses for last-mile connectivity and Ladies Special buses must be strengthened, which would also support the fare-free bus travel scheme. Currently, there are only 30 ladies special buses running on 30 routes during peak hours. It would not be significant unless more routes are covered and service is extended to off-peak hours. Mohalla buses, on the other hand, are yet to be launched.

Buses are often running late. Although they have a schedule, they fail to follow it because bus lanes are often encroached by private vehicles and buses often get stuck in traffic jams because of heavy road traffic. For the convenience of the passenger, bus stops must provide live tracking of buses. Once at the stop, it must be ensured that buses are halting at the right spot, for all passengers and for a sufficient time.

Safety and security of women and other vulnerable groups must be ensured inside the buses. Although the government claims to have installed security cameras and panic buttons, women shared that several such installations do not function properly. Similarly, Bus marshals are also absent in many buses. A dedicated helpline number for women and transgender bus commuters should be made operational.

Appendix 1 Representativeness of the Survey: Weighting

A common way to adjust the sample to better reflect the population on key variables and to make the findings generalizable is by application of weights. Weighted data helps to correct for any over- or under-representation of specific groups in the sample. Quota sampling, as employed in this study, involves setting specific quotas for population subgroups to ensure their adequate representation. However, despite the best efforts, the collected sample of responses may still differ from the actual population distribution on several key variables. To correct for these discrepancies, weights have been applied to the data. The variables for which we adjusted weights include age, religion, employment type, and bus usage.

Weights were calculated sequentially for age, religion, employment type, and regularity of bus use (in this sequence) by dividing the population proportion by the sample proportion for each age group. Weights for age, religion, and employment type were simply calculated by comparing the population-level estimates based on the Census of India-2011²⁸ and the Delhi Government's annual Economic Census.²⁹ Given the study's focus on public transport, bus usage was a crucial variable, but there were no ready-made population-level estimates available. We have calculated weights based on the latest available government data that indicates that, on an average day, roughly 10% of women in Delhi use the public bus.³⁰ To make the aggregated daily bus use in the sample data align with the population numbers, we adopted the following relative weighting for current bus use frequency:

Current Frequency of Bus Use	Almost daily	3 or more days a week but not daily	Sometimes(1 -2 days a week)	Rarely (Not more than once a week)	Never
Bus Use Weight	1	.50	0.25	O.1	0.01

28 We have referred to the disaggregated population estimates published by the National Commission on Population, Ministry of Health and Family Welfare (MoHFW), Government of India. National Population Commission on Population, Ministry of Health and Family Welfare (2020) Projections for India and States 2011-2036 (2020). https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload_compressed_0.pdf. (Accessed July 1, 2024).

- **29** Planning Department. (2024). Economic Survey of Delhi 2023-24. Government of NCT of Delhi.https://delhiplanning.delhi.gov.in/sites/default/files/Planning/economic_survey_of_delhi_20 23-24_english.pdf. (Accessed July 19, 2024).
- 30 1.1 million women were using the public bus per day on an average in the year 2023, as quoted in the budget speech of the Delhi Government's Finance Minister. This is nearly 10% of the current estimated population of women in Delhi (nearly 10 million). Source: Bureau TH (2024) Delhi Finance minister Atishi announces ₹340 crore for pink tickets, ₹510 crore for new e-buses, The Hindu,

https://www.thehindu.com/news/cities/Delhi/delhi-finance-minister-atishi-announces-340-crore-for-pink-tickets-510-crore-for-new-e-buses/article67914743.ece (Accessed July 17, 2024).

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Public Transport Forum Delhi is a collective of different right based groups, civil society organizations, youth groups, activists focusing on public bus transport issues in Delhi. The forum works on multiple issues concerning public bus transportation in Delhi and advocates for a better public bus transport infrastructure, more number of buses, safe, gender sensitive, reliable, affordable and accessible public bus transport infrastructure Delhi