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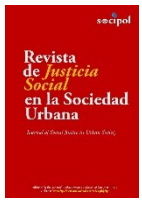

Unequal Access to Urban Transport: An Invisible Barrier to Social Equity

Acceso desigual al transporte urbano: una barrera invisible para la equidad social

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ABSTRACT

This paper investigates the unequal access to urban public transportation systems among women and people with disabilities in major Latin American cities. While urban mobility studies often prioritize infrastructure and efficiency, this research emphasizes the social dimensions of accessibility, revealing how systemic neglect of gender and disability considerations reinforces urban inequality. Employing a mixed-methods approach, including spatial analysis, surveys, and stakeholder interviews in selected metropolitan areas, the study uncovers both physical and institutional barriers that disproportionately affect vulnerable populations. The novelty of this research lies in its intersectional analysis of transport accessibility, highlighting how urban planning often overlooks the needs of marginalized groups. By framing public transportation as a social justice issue, the study contributes to inclusive mobility policy debates and

proposes actionable recommendations for equitable urban development.

Keywords *Transport equity, Accessibility, Gender and mobility, Disability rights, Inclusive urban planning*

RESUMEN
Este artículo analiza el acceso desigual a los sistemas de transporte público urbano entre mujeres y personas con discapacidad en las principales ciudades de América Latina. Aunque los estudios sobre movilidad urbana suelen centrarse en la infraestructura y la eficiencia, esta investigación destaca las dimensiones sociales de la accesibilidad, revelando cómo la falta sistemática de consideración de género y discapacidad refuerza la desigualdad urbana. Mediante un enfoque metodológico mixto —que incluye análisis espacial, encuestas y entrevistas con actores clave en áreas metropolitanas seleccionadas— el estudio identifica barreras físicas e institucionales que afectan desproporcionadamente a poblaciones vulnerables. La originalidad de esta investigación reside en su análisis interseccional de la accesibilidad al transporte, mostrando cómo la planificación urbana frecuentemente omite las necesidades de los grupos marginados. Al posicionar el transporte público como un asunto de justicia social, el estudio contribuye a los debates sobre políticas de movilidad inclusiva y ofrece recomendaciones prácticas para un desarrollo urbano equitativo.

Palabras clave *Equidad en el transporte, Accesibilidad, Género y movilidad, Derechos de las personas con discapacidad, Planificación urbana inclusiva*

A. Introduction

Public transport is a central mechanism through which individuals access employment, education, healthcare, and social opportunities, shaping patterns of inclusion and exclusion in urban life (Lucas, 2012; Pojani & Stead, 2015). In rapidly urbanizing Latin American cities, persistent inequalities in mobility disproportionately affect socially marginalized populations, including women, people with disabilities, and low-income residents (Gutiérrez et al., 2019). Limited access to reliable and safe transport can restrict participation in labor markets, reduce educational attainment, and constrain social interaction, reinforcing cycles of urban poverty and social exclusion (Cervero & Golub, 2007).

Transport systems are not neutral infrastructures; they embody socio-spatial power relations, where the design, operation, and governance of urban mobility can either enable or inhibit equitable participation (Bocarejo & Oviedo, 2012). In the Latin American context, mobility inequalities are shaped by historical urban development patterns, gendered labor market participation, and infrastructural deficits, resulting in differentiated experiences of accessibility across social groups (Figueroa & Figueroa, 2019). Understanding transport as a determinant of social inclusion positions mobility as a fundamental component of urban justice and equity (Lucas, 2012).

Despite the recognized social significance of transport, urban mobility planning in Latin America has largely been dominated by efficiency-, cost-, and infrastructure-driven frameworks (Pojani & Stead, 2015; Gutiérrez et al., 2019). These approaches prioritize network coverage, vehicle capacity, and travel time optimization, often overlooking the lived experiences of vulnerable populations. As a result, gender and disability perspectives are frequently marginalized in transport policy and planning, with accessibility treated as a technical add-on rather than a social right (Bocarejo & Oviedo, 2012).

Women and people with disabilities face unique mobility challenges that stem from both physical barriers—such as uneven pavements, inaccessible vehicles, or poorly designed stations—and institutional obstacles, including the absence of inclusive policies, insufficient training for transport personnel, and a lack of participatory planning mechanisms (Figueroa & Figueroa, 2019; Silva et al., 2020). These deficiencies compound systemic inequities, creating urban environments in which certain groups are persistently disadvantaged in their ability to move freely and safely across the city.

This study aims to examine disparities in access to public transport for women and people with disabilities in Latin American cities, identifying the multiple layers of barriers—physical, institutional, and social—that limit equitable mobility. Specific objectives include:

1. To analyze patterns of accessibility and exclusion in public transport systems for women and people with disabilities.
2. To identify the structural, infrastructural, and social obstacles that hinder inclusive mobility.
3. To assess how current planning frameworks reinforce or mitigate urban inequality and explore opportunities for rights-based, inclusive approaches.

By focusing on these objectives, the study situates urban transport not only as a technical system but also as a key arena for social justice, equity, and inclusion.

To achieve these objectives, the research is guided by the following questions:

1. How does access to public transportation differ for women and people with disabilities in Latin American cities?
2. What physical and institutional barriers limit equitable mobility for these populations?
3. How do urban transport planning frameworks address—or fail to address—the intersectional needs of women and people with disabilities?

These questions highlight the need for a nuanced, intersectional approach that considers multiple dimensions of disadvantage in urban mobility.

The study makes three key contributions. First, it offers a theoretical contribution by bridging transport equity, urban justice, and social inclusion debates, emphasizing the social dimensions of mobility in addition to technical considerations (Lucas, 2012; Bocarejo & Oviedo, 2012). Second, it provides an empirical contribution through a comparative analysis of metropolitan areas in Latin America, generating context-specific insights into the barriers and enablers of inclusive transport. Finally, it carries policy relevance, highlighting practical strategies for designing inclusive, rights-based transport systems that address the mobility needs of socially marginalized populations.

B. Literature Review

1. *Urban Mobility and Accessibility*

Accessibility and mobility are distinct yet interrelated concepts in transport studies. Mobility refers to the ability to travel between points, often measured by speed, distance, or network coverage, whereas accessibility represents the ability to reach desired activities and opportunities, such as employment, education, healthcare, and social services (Oviedo & Guzman, 2020; Villamizar Duarte, Oviedo, & Ardila Pinto, 2020). Traditional infrastructure-centric transport models prioritize network expansion and operational metrics, often privileging vehicle speeds and coverage without critically engaging with who benefits from these systems and who is excluded (Vecchio, Tiznado-Aitken, & Hurtubia, 2020; Oviedo & Guzman, 2020).

In highly unequal urban contexts like Latin America, transport infrastructure alone does not guarantee equitable outcomes; rather, inequalities in accessibility persist along spatial and socioeconomic lines due to patterns of urban segregation and peripheralization (Oviedo & Guzman, 2020). Accessibility should be conceived as a social and spatial construct that captures the capability of individuals to participate in urban life, not merely as an operational attribute of

transport systems (Vecchio et al., 2020; Banister, 2017). This perspective aligns with capability frameworks in sustainable transport planning that focus on freedom of movement as a fundamental enabler of human rights and wellbeing (Oviedo & Guzman, 2020).

Moreover, accessibility assessments that ignore social equity risks masking entrenched disparities. In Montevideo, for instance, vulnerable households had significantly lower access to jobs and education via public transport compared to wealthier areas, underscoring how accessibility deficits reinforce broader social inequalities (La Gazzetta et al., 2016). Therefore, urban mobility research emphasizes accessibility as a multidimensional concept that integrates spatial, economic, temporal, and social equity considerations into transport planning rather than merely focusing on infrastructure metrics.

2. *Transport Inequality in Latin America*

Transport inequality in Latin America is deeply entwined with spatial segregation and peripheralization, where low-income populations are concentrated in urban peripheries with limited access to quality transport services (Scholl et al., 2022; Oviedo & Guzman, 2020). These spatial patterns emerged historically from uneven development, weak planning governance, and market-oriented infrastructure investments that favor central and affluent neighborhoods (Oviedo & Guzman, 2020).

As a result, peripheral residents often endure longer, costlier, and less reliable commutes to employment, education, healthcare, and other essential destinations, with affordability and accessibility gaps compounding social exclusion (Scholl et al., 2022). For example, comparative research in Bogotá and Barranquilla revealed that poorer areas suffer persistent accessibility and affordability deficits despite public transport investments, illustrating how similar spatial processes shape inequalities across distinct urban contexts (Scholl et al., 2022).

Informal transport modes — a feature of many Latin American cities — also reflect governance challenges: while they fill gaps left by formal networks, they operate largely outside regulatory frameworks, leading to inconsistent service quality and uneven accessibility (Pojani & Stead, 2015). Moreover, transport policy choices focused on car-oriented planning in some cities have perpetuated inequities by reinforcing spatial disparities rather than addressing underlying accessibility constraints (Scholl et al., 2022). Because of these structural conditions, low-income and marginalized populations are overdependent on public transport, yet often experience disadvantageous service conditions, reinforcing cycles of urban poverty

and social exclusion (Oviedo & Guzman, 2020; Vecchio et al., 2020). Addressing transport inequality in Latin America therefore requires frameworks that integrate spatial justice, governance reform, and equity-focused planning rather than limited technical interventions.

3. *Gender and Urban Transport*

Gender is a critical dimension of urban transport inequality, as mobility systems are not gender-neutral and often fail to account for differentiated travel needs and patterns (Changing Transport, 2025; OECD, 2020). Women's travel behavior frequently involves trip chaining — combining multiple purposes such as work, childcare, shopping, and caregiving into a single itinerary — which increases complexity, travel time, and dependency on flexible and affordable transport options (Changing Transport, 2025).

Conventional transport planning, with its focus on peak commuting flows and direct routes, often overlooks these multifaceted travel patterns, limiting women's mobility and access to opportunities. Safety concerns further complicate women's mobility: research in low- and middle-income countries highlights that fear of harassment, violence, and insecurity in public transport and urban spaces significantly constrains route choice, timing, and trip frequency among female commuters (BMC Women's Health, 2025; OECD, 2020). These safety risks result in subjective and objective constraints that are not captured by traditional transport performance metrics but have tangible impacts on women's daily mobility decisions.

Large-scale data analysis also reveals mobility disparities between men and women: a study in Santiago found that women visit fewer destinations and allocate time differently compared to men, with gaps linked to unequal access to transport options and socioeconomic factors (Nature Communications, 2020). Despite these documented inequalities, gender perspectives are still marginal in transport decision-making, leading to systems that inadequately address women's safety, affordability, and trip complexity needs (Changing Transport, 2025; OECD, 2020). Addressing gender inequalities in transport thus requires integrating gender mainstreaming in policy and planning, participatory mechanisms that reflect women's experiences, and design practices that prioritize safety and inclusivity.

4. *Disability and Transport Accessibility*

Accessibility for people with disabilities remains a significant challenge in urban transport systems, particularly in regions where planning and enforcement mechanisms are uneven (CAF, 2019; Scholl et al., 2022). Inclusive mobility principles advocate for universal design

— transport infrastructure and services that cater to diverse physical, sensory, and cognitive needs — yet many urban transport systems in Latin America fall short in implementation (CAF, 2019). Physical accessibility barriers such as lack of ramps, elevators, tactile paving, and accessible boarding hinder independent travel for wheelchair users and individuals with visual or mobility impairments. Operational challenges — including insufficient training for staff, inconsistent service information, and lack of accessibility features in vehicles and stations — further compound exclusion (CAF, 2019; Scholl et al., 2022).

Institutional neglect and enforcement gaps also undermine the rights of people with disabilities; while legal frameworks exist in some countries, effective monitoring and accountability remain limited, leaving many accessibility adaptations under-implemented (CAF, 2019). Although improvements have been observed in certain cities — such as Santiago, where newer buses and metro stations include wheelchair access and tactile guidance — accessibility remains uneven across the region, and many urban systems lack comprehensive strategies to support full inclusion (Wikipedia, 2024).

Inclusive transport research therefore emphasizes that accessibility should be reframed as a fundamental social right rather than a technical add-on, requiring holistic policy alignment, participatory planning involving disability advocates, and sustained investment in accessible infrastructure (CAF, 2019; Scholl et al., 2022). Without these measures, people with disabilities encounter persistent barriers to urban participation, employment, and social life, highlighting a critical equity gap in transport systems.

5. *Intersectionality and Transport Justice*

Intersectionality theory offers a powerful analytical lens for understanding how multiple and overlapping social identities — such as gender, disability, income, and spatial location — intersect to shape transport inequality and mobility outcomes (Crenshaw, 1989; Scholl et al., 2022). Transport justice frameworks argue that equitable transport planning must go beyond single-axis analyses and recognize how intersecting vulnerabilities produce compound disadvantages for certain groups. For example, women with disabilities may face heightened safety risks, physical barriers, and scheduling constraints simultaneously, making their mobility experiences qualitatively different from those of men or non-disabled women (Scholl et al., 2022).

Intersectional analyses also reveal how socioeconomic status further interacts with gender and disability, as low-income women or disabled individuals in peripheral settlements endure longer commutes, limited service options, and fewer opportunities for employment and

social engagement (Transport for Inclusive Development, 2022; Oviedo & Guzman, 2020). Despite growing recognition of intersectional factors, much of the literature on transport accessibility in Latin America remains segmented, focusing on either gender or disability in isolation (Scholl et al., 2022; Transport for Inclusive Development, 2022).

This results in conceptual gaps that overlook how systemic inequalities are compounded across social dimensions. Transport justice literature advocates for integrated frameworks that explicitly incorporate intersectionality into accessibility assessment and policy design, operationalizing equity not merely as a distributional metric but as a procedural and substantive right (Transport for Inclusive Development, 2022). Such approaches align with broader urban justice scholarship and emphasize participatory governance, rights-based planning, and targeted interventions that address multi-layered disadvantage in urban mobility systems.

C. Conceptual Framework

This study conceptualizes transport accessibility as a social justice issue rather than merely a technical concern of infrastructure or efficiency. Traditional transport planning has often prioritized mobility outcomes—such as reduced travel time, increased coverage, and network performance—without adequately addressing the uneven distribution of access to opportunities across different population groups (Martens, 2016; Scholl et al., 2022). From a justice perspective, accessibility becomes central to who can participate meaningfully in urban life—in employment, education, healthcare, and civic engagement—rather than simply who can move fastest or most frequently through a city (Oviedo & Guzman, 2020; UITP, 2025). In contexts of high inequality, including Latin American cities, transport systems must be analyzed through their outcomes for disadvantaged populations, not only through aggregate system performance. Accessibility as social justice foregrounds the redistributive and recognitional dimensions of spatial justice, where fair access to opportunities, infrastructure, and services is a societal right (Rawls, 1971; Fraser, 1999; Young, 1990; see spatial justice discussion in Wikipedia). This aligns with calls in sustainable urban mobility to treat access as enabling a "combined capability," linking transportation to broader freedoms and human rights (Oviedo & Guzman, 2020).

An intersectionality framework provides the critical lens for analyzing how multiple forms of disadvantage converge to shape unequal transport accessibility. Originally articulated in feminist legal theory, intersectionality emphasizes that social identities—such as

gender, disability, income, age, and ethnicity—do not operate in isolation but intersect to produce complex patterns of inequality (Crenshaw, 1989). Applied to urban transport, this lens reveals how layered vulnerabilities reinforce exclusion: women with disabilities, for example, may simultaneously face physical barriers in mobility infrastructure, security concerns, and discriminatory planning practices (Scholl et al., 2022; Inclusive Mobility article). An intersectional approach insists that transport justice cannot be achieved by addressing singular categories (e.g., only gender or only disability) but must consider overlapping social positions and how structural inequalities in planning and governance create cumulative disadvantages (Intersectionality and urban mobility review; URBACT findings). This perspective supports a nuanced analysis that moves beyond universal or one-size-fits-all solutions toward policies that recognize differentiated needs and systemic barriers.

To operationalize these theoretical foundations, this study conceptualizes three dimensions of inequality in transport accessibility—physical, institutional, and experiential—each reflecting distinct but interrelated barriers that affect equitable mobility.

Physical inequality concerns the built and modal infrastructure of transport systems, including the availability and quality of sidewalks, boarding platforms, ramps, elevators, vehicle design, and network coverage. Many cities still lack universally accessible infrastructure that accommodates people with disabilities, older adults, and other mobility-impaired groups, even when normative accessibility standards exist (ITDP, 2024; Accessibility strategies research). The built environment plays a critical role in shaping who can move and how; absence of tactile paving, curb cuts, or accessible stations reinforces exclusion not only for wheelchair users but also for caregivers with strollers or individuals with temporary mobility limitations.

Institutional inequality refers to the ways in which transport policies, governance structures, and enforcement mechanisms shape accessibility outcomes. Even where inclusive policies exist, weak implementation, limited participatory planning, and governance fragmentation can undermine equitable accessibility (Scholl et al., 2022; ECLAC policy review). Institutional barriers include inadequate representation of women and people with disabilities in transport policy decisions, lack of targeted equity goals in planning frameworks, and insufficient monitoring and accountability to ensure compliance with accessibility standards. Institutional inequality also manifests in data and monitoring gaps: when planning does not systematically disaggregate needs by gender or disability, policy responses cannot

effectively reduce exclusionary outcomes (Integrating Gender into Transport Planning).

Experiential inequality captures subjective and social dimensions of accessibility that extend beyond physical or policy constructs. Even when transport options are physically available, factors such as safety, dignity, autonomy, and cultural norms shape people's everyday experiences of mobility (OECD gendered approach; URBACT gender inclusion insights). Women may avoid certain routes or travel times due to fear of harassment, undermining their effective access to opportunities; people with sensory impairments or autism may experience stress and exclusion in poorly designed environments despite nominal accessibility upgrades. Experiential inequality highlights that access is not merely about infrastructure or rules but about how individuals live and perceive their mobility environment, including whether they feel secure, respected, and able to use services with autonomy and dignity.

By integrating these three dimensions within an intersectional framework oriented toward transport justice, this conceptual model provides a comprehensive lens to analyze how transport accessibility is produced, contested, and experienced unequally across social groups. It underscores that achieving equitable transport accessibility requires addressing material infrastructure, policy and governance processes, and lived experiences of vulnerability and exclusion in tandem.

D. Methodology

1. *Research Design*

This study adopts a mixed-methods comparative metropolitan research design, integrating quantitative spatial analysis with qualitative inquiry to examine disparities in urban transport accessibility. The rationale for a mixed-methods approach lies in the complementary strengths of quantitative and qualitative techniques: spatial analysis provides systematic measures of accessibility, service coverage, and network performance, while qualitative interviews and surveys offer insights into lived experiences, institutional practices, and socio-cultural barriers that cannot be captured through GIS or statistical indicators alone (Creswell & Plano Clark, 2018). The study focuses on selected Latin American cities characterized by rapid urbanization, marked socio-spatial inequality, and diverse public transport systems, including formal and informal modes (Scholl et al., 2022). Cities were chosen to reflect variation in geography, governance frameworks, and urban morphology, ensuring that findings capture multiple contexts of accessibility challenges. This comparative design allows for the identification of common patterns of inequity, as well as

city-specific institutional or infrastructural factors shaping transport outcomes.

2. *Spatial Accessibility Analysis*

The study employs GIS-based spatial accessibility analysis to quantify physical and network-level disparities in transport access. Indicators include proximity to stops and stations, travel times to key activity centers (work, education, healthcare), service frequency, and network connectivity (Oviedo & Guzman, 2020; Vecchio et al., 2020). Spatial data are disaggregated where possible by gender and disability to examine differential accessibility for these groups, reflecting the intersectional conceptual framework. Accessibility surfaces and service catchment areas are generated to visualize areas of high and low connectivity, enabling the identification of peripheral neighborhoods or underserved corridors. These GIS-based metrics provide objective, replicable measures of transport equity, complementing the qualitative insights from surveys and interviews. Additionally, travel time modeling accounts for variations in transport mode, peak/off-peak service frequency, and network reliability to simulate realistic accessibility scenarios.

3. *Surveys*

To capture user experiences, structured surveys are conducted with women and individuals with disabilities who regularly use urban public transport. Survey themes include perceptions of safety, affordability, reliability, accessibility of vehicles and infrastructure, and satisfaction with service quality (Changing Transport, 2025; CAF, 2019). A stratified sampling approach ensures representation across income levels, residential areas, and trip purposes. Survey data allow quantitative assessment of experiential accessibility, complementing spatial measures, and enabling analysis of how perceived barriers vary across social groups. Limitations include potential self-selection bias and challenges in reaching certain marginalized populations, which are mitigated through partnerships with local NGOs and community organizations.

4. *Semi-Structured Interviews*

Semi-structured interviews are conducted with transport planners, municipal policymakers, advocacy organizations, and NGOs involved in accessibility initiatives. Interviews focus on institutional practices, policy priorities, planning processes, and perceived barriers to equitable transport provision. This method enables the exploration of governance and decision-making dynamics that influence

accessibility outcomes, particularly regarding enforcement of accessibility regulations, gender inclusion, and disability rights (Scholl et al., 2022; ECLAC, 2023). The semi-structured format provides flexibility to probe emerging themes while ensuring consistency across participants.

5. *Data Analysis*

Quantitative data from GIS modeling and surveys are analyzed using descriptive and inferential statistics to evaluate disparities in physical and experiential accessibility (Oviedo & Guzman, 2020). Spatial patterns are visualized through thematic maps and accessibility indices. Qualitative interview data are analyzed through thematic coding, identifying recurrent patterns, contradictions, and institutional constraints. Integration of qualitative and quantitative findings is performed through triangulation, enabling a comprehensive understanding of transport inequities across multiple dimensions and validating patterns observed in different data streams (Creswell & Plano Clark, 2018).

6. *Ethical Considerations*

Research ethics are central, given the focus on vulnerable populations. Informed consent is obtained from all participants, and survey and interview tools are designed to be accessible to people with varying disabilities. Anonymity and confidentiality are strictly maintained to protect participants, particularly when discussing safety or discriminatory experiences. Reflexivity is emphasized, acknowledging the positionality of the researcher and potential biases in data collection and interpretation. Partnerships with local NGOs and advocacy groups ensure ethical engagement with communities and reinforce participatory approaches in the research process.

E. Empirical Context: Urban Transport in Latin America

1. *Urbanization and Mobility Patterns*

Latin America is one of the most rapidly urbanizing regions in the world, with the share of urban population rising from roughly 50 % in 1970 to nearly 80 % by 2015, and projected to exceed 87 % by 2050 (Inter-American Development Bank, 2024). This dramatic demographic shift reflects broader socioeconomic transformations, including rural-to-urban migration, population growth, and changing labor markets. Rapid metropolitan growth has produced sprawling urban forms in cities such as Bogotá, São Paulo, and Santiago, where expansion has frequently outpaced the development of transport infrastructure and public services (IDB, 2024; Habitat International,

2023). Such expansion has important implications for mobility: as cities sprawl outward, the distances between peripheral residential areas and central employment or service nodes increase, intensifying commuters' travel burdens and reinforcing spatial inequality.

Socio-spatial segregation is a defining characteristic of many Latin American urban areas, with wealthier populations concentrated near central cores and access to amenities, while low-income households are pushed into peripheral settlements with poorer transport connectivity (Tiznado-Aitken et al., 2023; IDB, 2024). These peripheries are often poorly served by public transport networks, which are designed to accommodate core urban travel patterns but neglect the elongated, multi-stage journeys typical of peripheral residents (Habitat International, 2023). Significant evidence shows that the availability and quality of public transport diminish sharply outside the urban core: in Bogotá and Santiago, for example, peri-urban zones display lower service frequency and fewer direct connections to central job markets, exacerbating inequities in access (Tiznado-Aitken et al., 2023). These mobility disparities intersect with income, employment, and housing inequalities, reinforcing patterns of disadvantage across generations.

Further complicating mobility is the increasing prevalence of long commuting distances. Many workers in low-income households must undertake multi-modal journeys involving transfers between buses, feeder systems, or informal modes, which extends travel times and increases costs (IDB, 2024). In addition, mobility patterns in peripheral settlements are not uniform: while some peri-urban zones function as satellite communities with localized employment, others are heavily dependent on central cores for work and services, underscoring the need for differentiated policy interventions (Tiznado-Aitken et al., 2023). This variation illustrates that physical proximity to the urban core does not necessarily translate into equitable access to opportunities, especially when transport connectivity and service quality are insufficient.

Finally, mobility deficits in peripheral areas produce broader social and economic consequences. Limited access to reliable transport reduces labor market participation, educational attendance, and healthcare utilization, which in turn constrain social mobility and exacerbate poverty (Latin American Economic Review, 2019; IDB, 2024). Persistent congestion, long commute times, and high travel costs also undermine the quality of life for peripheral residents, reinforcing a cycle of exclusion that is spatially and economically embedded. Consequently, addressing urban transport inequities requires a holistic understanding of both demographic dynamics and socio-spatial

organization, recognizing that metropolitan expansion without equitable mobility solutions entrenches disadvantage.

2. *Public Transport Systems*

Latin American urban transport systems are characterized by a mix of formal, semi-formal, and informal modes that reflect both historical legacies and contemporary responses to mobility demand. Formal public transport systems such as Bus Rapid Transit (BRT), metro rail, and integrated bus networks have become central to metropolitan mobility strategies across the region (World Bank, 2024; IDB, 2024). BRT systems, in particular, are widespread: Bogotá's TransMilenio is one of the most extensive BRT networks globally, complemented by feeder routes and zonal buses, while similar corridors operate in Buenos Aires, Lima, and Quito (IDB, 2024; World Bank, 2024). These systems aim to improve capacity, speed, and service reliability at lower cost compared to rail, making them attractive for rapidly growing cities with constrained budgets (Rodríguez & Mojica, 2009 as cited in IDB, 2024). Metro systems have also expanded: São Paulo's Metro Lines 4 and 5 have significantly reduced travel times and expanded job accessibility for low-income riders, while Quito's new metro system has already reshaped commuting patterns (World Bank, 2024).

Despite these innovations, major challenges persist. The coverage and quality of formal transport infrastructure vary widely: while central and inner-city districts benefit from frequent service and multiple modal options, peripheral neighborhoods often lack direct access to high-capacity transit, forcing residents to rely on slower or less reliable services (Transformative Mobility, 2023; World Bank, 2024). In many cities, the transport network's spatial distribution reflects historical planning biases that favored central corridors, leaving the urban fringe underserved. For example, while the Red Metropolitana de Movilidad in Santiago integrates buses and metro lines across the metropolitan area, peripheral sectors still face longer wait times and higher transfer requirements compared to central zones (Wikipedia, 2024). Such spatial imbalances undermine the inclusivity of transport systems and reproduce accessibility inequalities.

Informal and semi-formal transport modes also play a prominent role, especially where formal services are absent or inadequate. In cities like La Paz, traditional micros and minibuses operate extensive networks connecting peripheral communities to urban cores, often filling gaps in public provision but posing regulatory and safety challenges (Wikipedia, 2024). These modes are crucial for mobility in lower-income areas, yet they often lack integration with formal networks in terms of scheduling, fare systems, and accessibility

standards. Their decentralized management can result in inconsistent quality and limited protections for vulnerable users, complicating efforts to create inclusive and coordinated transport systems.

In addition, emerging transport modes and technologies, such as e-scooters and ride-hailing, are reshaping mobility landscapes, with mixed effects on public transit demand. For instance, in Santiago, e-scooters have been shown to reduce public transport use in highly accessible areas while increasing demand for buses in peripheral sectors, suggesting that micro-mobility may complement or substitute traditional transport depending on context (Opitz et al., 2024). These dynamics highlight the evolving complexity of urban transport ecosystems, where formal, informal, and new mobility options intersect, sometimes reinforcing inequalities in access and service quality.

3. *Policy Landscape*

Urban transport policy in Latin America is shaped by ambitious planning goals that seek to improve mobility, reduce congestion, and promote sustainability, yet these commitments often coexist with significant implementation challenges. National and municipal governments have developed strategic frameworks that emphasize system expansion, integration of transport modes, and increasing capacity to meet rising demand (IDB, 2024; World Bank, 2024). Investments in metro lines, integrated BRT networks, and rail modernization projects demonstrate a commitment to improving urban transport infrastructure and enhancing connectivity for large urban populations. For example, the modernization of railway systems in Buenos Aires has increased accessibility and safety, with a deliberate focus on gender-sensitive infrastructure improvements (World Bank, 2024).

Despite these policy articulations, implementation gaps remain pervasive, particularly in ensuring that transport systems are inclusive and equitable. Although formal planning documents may reference equity and inclusion, actual outcomes often fall short due to financial constraints, governance fragmentation, and limited enforcement of accessibility standards. The challenges of coordinating multiple levels of government—national, regional, municipal—can dilute policy intent, with local implementation lagging behind strategic commitments (IDB, 2024). In many cases, formal policy frameworks have yet to translate into comprehensive accessibility improvements for women, people with disabilities, and residents of peripheral settlements, reflecting a disconnect between policy aspirations and on-the-ground realities.

Moreover, while some cities have made strides in integrating gender perspectives into transport policy—recognizing women's patterns of travel and safety needs, as highlighted by CEPAL's recent gender-focused studies—these initiatives are often underfunded and lack robust implementation pathways (CEPAL, 2024). Transport planning that fails to systematically incorporate gendered mobility needs results in systems that do not fully address safety perceptions, trip chaining patterns, or service reliability for female users. Similarly, disability inclusion remains uneven: although legislation may mandate accessibility features, enforcement and oversight mechanisms are weak in many contexts, resulting in infrastructural and operational barriers that persist despite formal policy commitments.

Therefore, policy responses to mobility inequalities increasingly reflect broader debates around urban inclusion and justice. Regional bodies, development banks, and international agencies advocate for holistic approaches that prioritize equitable access to opportunities rather than narrow measures of efficiency or coverage (IDB, 2024; World Bank, 2024). This shift is reflected in analytical work that evaluates transport systems through lenses of accessibility and inclusion, using travel maps and disaggregated data to assess disparities across gender, income, and geography (Hidalgo et al., 2020; Hidalgo et al., 2019). However, advancing such frameworks requires sustained political will, cross-sectoral collaboration, and community engagement to align policy design with lived mobility needs, particularly for historically marginalized populations.

F. Case Studies of Unequal Urban Transport Access in Latin America

1. *Bogotá, Colombia*

Bogotá exemplifies the complex interaction between rapid urban growth, spatial segregation, and transport inequality. As Colombia's capital and largest city, Bogotá's metropolitan area reflects decades of uneven development, with low-income populations concentrated at the periphery and far from major employment centers (Habitat International, 2023; IDB, 2024). Despite high levels of urbanization, public transport systems have struggled to keep pace with mobility demands, resulting in extended travel distances and significant commute times for peripheral residents who depend on buses and BRT systems. Empirical research on Colombian cities shows that accessibility inequalities are strongly tied to spatial segregation and past planning choices that emphasized radial connections to the core rather than multi-directional service flows that could better serve suburban zones (Scholl et al., 2022; Tiznado-Aitken et al., 2023).

The TransMilenio BRT system remains the backbone of Bogotá's public transport network, designed to increase capacity and speed over traditional bus services (Bus rapid transit; Wikipedia). However, widespread reports indicate pervasive overcrowding and dissatisfaction. Historical data suggest severe overcrowding and low satisfaction among users, with some riders experiencing extreme passenger densities and safety issues (Wikipedia). Female users of TransMilenio have reported high levels of sexual harassment, reflecting broader gendered safety challenges in public transport that influence travel behavior and route choice. These concerns are echoed in mobility surveys: low-income women in Bogotá have significantly higher rates of immobility compared to men, underscoring how transport access intersects with gender and socioeconomic status (Transport for Inclusive Development).

Perception studies indicate that many Bogotanos prefer individual transport modes—motorcycles, cars, or personal bicycles—despite slow travel times, due to concerns about public transit reliability, safety, and predictability (turn0news28; Reddit perceptions from turn0reddit43). These subjective assessments align with objective findings that transit frequency and connectivity issues persist outside central areas. Moreover, ongoing congestion and delays, partly driven by construction of new metro lines and roadworks, have exacerbated travel times and shaped public attitudes toward public transit. The combination of spatial segregation, gendered insecurity, and service quality gaps illustrates how unequal access manifests in both objective measures and lived experiences in Bogotá (Habitat International, 2023; Scholl et al., 2022).

2. *Mexico City, Mexico*

Mexico City's metropolitan area, one of the largest in the world, presents its own set of accessibility challenges shaped by historical growth patterns and systemic inequalities. The sheer scale of the urban area—spanning multiple municipalities and housing tens of millions of residents—means that many live far from formal employment centers and rely on a patchwork of transport modes. Evidence from gender-focused research highlights that Mexico City's public transport systems have been ranked among the most unsafe for women globally, with high reported incidences of harassment and insecurity in metros and buses (Transport Gender Lab) National surveys cited by the Inter-American Development Bank indicate that more than 60 % of women using transit reported harassment, and nearly 5 % abandoned work or study routes due to perceived insecurity.

Mexico City's mobility patterns also reflect gendered and socio-economic disparities. Women, especially those in low-income households, exhibit "trip chaining" behavior—linking multiple stops for caregiving, shopping, and labor—which is poorly served by radial transport planning that prioritizes direct commutes to central business districts (Changing Transport). Although initiatives such as women-only transport services ("servicios rosa") have been introduced to alleviate harassment and enhance safety, research suggests that such interventions may reinforce gendered segregation and fail to address underlying mobility needs, such as frequency, off-peak services, and affordability (Transport Gender Lab). Moreover, Mexico City's integrated transport network—including the Metro, Metrobús BRT, and feeder buses—varies widely in accessibility quality depending on geography: inner zones benefit from frequent service and redundant modes, while peripheral neighborhoods often face more limited connectivity and longer travel times (World Bank, 2024).

Policy responses have begun to recognize mobility as a right within Mexico's constitutional framework, emphasizing principles of safety, accessibility, and equity (Frontiers in Sustainable Cities). However, the implementation of inclusive policies remains uneven, with persistent gaps in safety, service distribution, and gender-responsive planning. The Mexico City context thus illustrates how formal rights and ambitious transport networks coexist with lived inequalities, particularly for women and low-income commuters.

3. *Lima, Peru*

Lima's urban transport context reflects a classic case of inequality in access driven by rapid urbanization and fragmented planning. The city's sprawling metropolitan area spans a narrow coastal plain that extends far from the central core, creating long travel distances for many peripheral residents with limited access to formal mass transit (Transport for Inclusive Development). Although Lima has developed a BRT system—El Metropolitano—and invested in expanding its metro line, these systems still serve only parts of the metropolitan area, leaving many low-income districts underconnected (World Bank, 2024). Prior research on mobility patterns in Latin American cities indicates that a significant share of low-income populations in Lima and other cities choose not to use public transport because of cost barriers, further deepening social exclusion (Transport for Inclusive Development).

Gender and safety issues also shape transport experiences in Lima. Surveys across Latin American cities, including Lima, show high rates of reported sexual harassment among female transit users,

contributing to fear-based exclusion from certain routes and times (Transport for Inclusive Development). Women's mobility patterns—characterized by multiple small trips interlinked with caregiving and labor—require more flexible and accessible transit options than traditional peak-oriented service design, yet these needs are often unmet (Changing Transport). Lima's transport inequalities are compounded by spatial segregation, where peripheral districts lack frequent, affordable service to key urban opportunities, reinforcing a cycle where limited mobility reduces labor market participation and access to essential services.

Emerging policy initiatives are seeking to address these gaps, including efforts to expand metro and BRT capacity and integrate fare systems, but institutional fragmentation and financial constraints hinder rapid progress. Moreover, informal transport remains a significant part of the mobility landscape in Lima, serving areas not reached by formal systems yet posing challenges regarding safety, regulation, and accessibility. Lima's case highlights how investments in infrastructure must be coupled with equity-oriented planning and enforcement to ensure that socio-economic and gendered barriers to accessibility are meaningfully addressed.

4. *Santiago, Chile*

Santiago offers a nuanced example of both progress and persistent inequities in urban transport accessibility. The Chilean capital has developed a robust multimodal system that includes extensive metro lines, urban buses, and BRT corridors, often cited for relatively high levels of physical accessibility compared to other cities in the region (Wikipedia, Disability in Chile). Santiago has implemented sound infrastructure features such as tactile paving, audio announcements, and wheelchair-accessible stations, reflecting efforts to improve mobility for people with disabilities. The city's investment in electrification of bus fleets and gender-inclusive workforce programs signals a policy shift towards sustainable and socially inclusive transport practices (Reuters; turn0news24; El País; turn0news26). Efforts to increase women's participation as drivers and operational staff have potential to impact commuter perceptions of safety and equity.

Despite these advances, accessibility inequalities persist, particularly along socio-economic lines. Recent research using mobile data reveals that even when opportunity density is high, actual commuting times and accessibility outcomes vary significantly across demographic groups, suggesting that proximity to services does not guarantee equitable travel experience (When Proximity Falls Short;

turn0academia34). Gender mobility studies in Santiago demonstrate that women have lower mobility rates and fewer unique destinations compared to men, often associated with income inequalities and limited transport options in peripheral sectors (Gender gaps in urban mobility; turn0academia37). This pattern highlights how spatial proximity must be understood alongside service quality, safety perceptions, and economic capacity to travel.

Santiago's case illustrates the importance of integrating multiple dimensions of accessibility—not merely physical infrastructure but also service design, safety, and demographic factors—into equitable transport planning. While the city's system is more accessible to passengers with physical disabilities than many in the region, experiential inequalities related to gender, income, and spatial location remain salient, reinforcing broader socio-economic divisions in mobility outcomes.

G. Findings

1. *Physical Barriers to Accessibility*

Physical infrastructure remains one of the most visible and persistent barriers to equitable urban mobility in Latin American cities. Across Bogotá, Mexico City, Lima, and Santiago, many public transport stations and vehicles fail to meet basic accessibility standards, particularly for individuals with mobility impairments (World Bank, 2024; Habitat International, 2023). Sidewalks connecting transit stops are frequently uneven, blocked by informal vendors, or interrupted by potholes, forcing wheelchair users, the elderly, and those with strollers to navigate hazardous routes. In Bogotá, for example, peripheral neighborhoods have limited access to functioning elevators or ramps, while tactile guidance for visually impaired users is inconsistent, highlighting systemic neglect in inclusive design (IDB, 2024).

Moreover, accessible features are often poorly maintained, even where they exist. Elevators may be out of service for extended periods, ramps are sometimes steep or narrow, and tactile surfaces can be damaged or erased by resurfacing projects (Wikipedia, 2024; Transport for Inclusive Development, 2023). Public buses in many cities lack low-floor boarding or priority seating enforcement, and overcrowding further restricts access for users with disabilities (World Bank, 2024). These issues reflect a broader pattern: accessibility interventions are frequently treated as auxiliary features rather than integral to system design, leading to inconsistent coverage and perpetuating exclusion.

The spatial distribution of accessible infrastructure further compounds inequities. Peripheral neighborhoods, typically home to low-income residents, consistently exhibit fewer accessible stops,

longer distances to service, and higher reliance on informal transport, which is rarely adapted to meet the needs of people with disabilities (Transformative Mobility, 2023). In Lima, for instance, peripheral BRT feeder routes often lack ramps or boarding platforms compatible with wheelchairs, effectively limiting mobility for those who rely on such features. Consequently, accessibility deficits are not randomly distributed but are closely tied to socio-economic disadvantage and residential segregation, reinforcing existing urban inequalities.

Finally, enforcement of accessibility regulations is weak. Even when legal standards exist at the national or municipal level, monitoring mechanisms are limited, and non-compliant operators face minimal penalties (CEPAL, 2024). The combination of infrastructural gaps, maintenance failures, and poor regulatory enforcement underscores the persistence of physical barriers that systematically restrict mobility for vulnerable populations, demonstrating the critical need for integrated planning approaches that prioritize accessibility across all aspects of urban transport systems.

2. *Gendered Mobility Constraints*

Gender constitutes a central factor shaping mobility experiences, particularly for women, who face a combination of safety concerns, temporal constraints, and spatial limitations in public transport. Across the studied cities, harassment and perceived threats significantly constrain women's travel choices and influence route selection, timing, and mode of transport. In Mexico City, surveys indicate that over 60% of female transit users experience harassment, prompting some to alter or abandon commutes, especially during night hours or in isolated areas (Transport Gender Lab, 2023). Similar trends are evident in Bogotá, where women report discomfort in overcrowded buses and BRT corridors, often leading them to prioritize routes perceived as safer, even if longer or costlier (IDB, 2024).

Gendered mobility patterns are further shaped by unpaid care responsibilities. Women often undertake "trip chaining," linking work, school, childcare, and household errands into complex journeys that demand flexible and reliable transport options (Changing Transport, 2022). Public transport systems, typically designed for peak-hour commuting to central business districts, inadequately accommodate these multi-purpose journeys, creating temporal stress and increasing exposure to unsafe or inaccessible conditions. Santiago and Lima similarly illustrate how women's spatial mobility is curtailed by both infrastructural limitations and societal expectations regarding care work.

Temporal and spatial insecurity exacerbates exclusion. Fear of harassment restricts mobility during evenings or off-peak hours, while long waiting times, poor lighting, and isolated stops further diminish perceived safety (Hidalgo et al., 2020). These constraints reduce women's autonomy, limiting employment options, social participation, and access to essential services. Policy interventions, such as women-only transport cars or dedicated corridors, while partially mitigating harassment, fail to address structural inequalities in route coverage, frequency, and affordability, leaving broader gendered mobility constraints largely unresolved.

The cumulative effect of these factors is a constrained mobility environment in which women constantly negotiate safety, time, and access, often relying on informal strategies—traveling in groups, adjusting work hours, or using costly private options. Such adaptations, while mitigating immediate risks, underscore systemic inequities in transport systems and highlight the urgent need for intersectional planning that considers gendered realities alongside infrastructure and service design.

3. *Institutional and Governance Barriers*

Beyond physical and gendered barriers, institutional arrangements and governance frameworks significantly shape accessibility outcomes. In most Latin American cities, transport planning remains fragmented across municipal, regional, and national authorities, creating gaps in coordination, enforcement, and accountability (IDB, 2024). Inclusion of intersectional perspectives—addressing the needs of women, people with disabilities, and low-income residents—is frequently absent from policy frameworks, resulting in initiatives that are either symbolic or inconsistently applied (CEPAL, 2024). For example, Santiago has invested in accessible metro stations, yet complementary bus services in peripheral neighborhoods remain under-regulated, limiting their usability for people with disabilities.

Participation of affected communities in planning processes is limited. Despite legal mandates in some countries for public consultation, women and people with disabilities are rarely included in decision-making forums, reducing the capacity of policies to address lived mobility challenges (World Bank, 2024). Advocacy groups have highlighted that even when community input is solicited, technical language, inaccessible consultation formats, and short timelines hinder meaningful engagement. This lack of participatory planning contributes to the persistence of inequitable outcomes, as the perspectives of the

most vulnerable users are not adequately represented in system design, budgeting, or enforcement.

Fragmented governance also complicates regulatory oversight. Responsibility for accessibility compliance often falls across multiple agencies, with overlapping mandates that create confusion, reduce accountability, and delay corrective action (Transformative Mobility, 2023). In Bogotá, for instance, oversight of buses, BRT, and feeder services is split between municipal authorities and private operators, resulting in inconsistent adherence to accessibility standards. Weak monitoring mechanisms and limited penalties for non-compliance exacerbate these structural issues, creating an environment in which inequities are reproduced rather than addressed.

In further, institutional barriers interact with societal norms and expectations, reinforcing exclusion. Planning decisions that fail to recognize the intersection of gender, disability, and spatial segregation produce outcomes in which some communities are systematically underserved. The governance landscape thus both reflects and reinforces broader patterns of urban inequality, highlighting that achieving transport justice requires not only investment in infrastructure but also reforms to planning, regulation, and participatory governance.

4. *Lived Experiences of Exclusion*

The culmination of physical, gendered, and institutional barriers manifests in the lived experiences of exclusion among marginalized transit users. Reduced autonomy is a common theme, as individuals with disabilities or women constrained by safety concerns often rely on limited transport options, travel at non-optimal times, or require accompaniment for seemingly routine trips (Transport for Inclusive Development, 2023). Such restrictions have tangible consequences: they constrain access to employment, education, healthcare, and social participation, effectively reproducing socio-economic disadvantage across generations (IDB, 2024).

Emotional and psychological impacts are also significant. Users report stress, anxiety, and feelings of vulnerability related to mobility, with implications for mental health and overall quality of life. Women frequently describe the constant vigilance required to navigate harassment risks, while people with disabilities express frustration and resignation over repeated inaccessibility and dependence on others (World Bank, 2024). These experiences highlight the often-overlooked subjective dimension of transport inequality, which extends beyond measurable physical or temporal constraints.

To cope with exclusion, users adopt a variety of informal adaptations. These include traveling with companions, choosing longer but safer routes, using private taxis or informal ride services, or adjusting schedules to align with transport availability (Transformative Mobility, 2023). While such strategies mitigate immediate barriers, they also introduce additional financial and temporal burdens, perpetuating cycles of disadvantage. Informal adaptations are therefore both a testament to user resilience and a symptom of systemic policy failure.

Collectively, these findings illustrate that transport inequality in Latin America is multidimensional, encompassing infrastructural, social, and institutional factors. Addressing these inequities requires holistic, intersectional approaches that integrate accessibility, safety, and participation into the core of transport planning, moving beyond technical fixes to embrace social justice as a guiding principle in urban mobility.

H. Discussion

1. *Rethinking Accessibility Beyond Infrastructure*

This study's findings align with a growing body of scholarship arguing that accessibility cannot be reduced to infrastructure provision alone. Traditional transport planning tends to equate accessibility with proximity to stops or service frequency, but lived experiences show that mobility is also shaped by safety, comfort, trip complexity, and temporal constraints (Tiznado-Aitken et al., 2020). Users' lived travel experiences—especially among women, people with disabilities, and low-income commuters—reveal that even when services exist, they may not function as equitable gateways to opportunities. Mixed-methods research highlights the importance of incorporating travel experiences, walking environments, and service quality into accessibility measures, rather than relying solely on conventional quantitative metrics (Tiznado-Aitken et al., 2020).

Empirical studies in Santiago illustrate that spatial proximity does not guarantee equitable travel experiences. Despite residing in areas with high opportunity density, many residents—particularly women and socially disadvantaged groups—continue to face long, congested, and insecure commutes, revealing a disconnect between physical infrastructure and actual accessibility (Marin-Flores et al., 2025; turn0academia23). This resonates with broader critiques in transport geography that highlight how reliance on technical optimizations (e.g., service frequency, vehicle speed) often overlooks contextual and social barriers that mediate accessibility (Journal of Transport Geography, 2025).

Moreover, research in Latin American contexts shows that accessibility must be understood within the broader fabric of everyday life. Ethnographic mapping of universal access experiences demonstrates how barriers—such as inadequate pedestrian linkages, inaccessible boarding, and emotional stress—accumulate across entire journeys, often compounding physical disadvantages with social exclusion (Hidalgo et al., 2020). These insights echo Zealand's insistence that transport systems are social structures embedded in daily life, not neutral technical networks (Beyond Accessibility chapter).

Together, these findings suggest that accessibility should be conceptualized as both an objective spatial condition and a subjective lived experience. Rethinking accessibility in this way challenges technocratic solutions that prioritize infrastructure without addressing the deeper social processes that shape how different groups experience mobility. Addressing these complexities requires integrated frameworks that capture service quality, lived experience, and socio-spatial dynamics.

2. *Intersectionality and Transport Planning*

The empirical evidence underscores the necessity of intersectionality as a central analytical lens in transport planning. Intersectionality, originally developed in feminist theory to understand overlapping systems of oppression, has been increasingly applied to mobility research to reveal how multiple social identities—such as gender, disability, and socioeconomic status—compound exclusion in transport systems. In Latin American mobility contexts, gender disparities become evident in quantitative mobility patterns, where women often visit fewer unique destinations and face compounded constraints due to caretaking roles, safety fears, and service design that privileges peak commuting (Nature Communications, 2020).

Furthermore, intersectional perspectives reveal that disability intersects with other social axes—such as race, income, and gender—to produce distinct accessibility barriers. Scholarship in transport justice shows that systemic ableism and discrimination intersect with other forms of structural disadvantage, making mobility injustice a compounded social injustice rather than a single-issue deficit (Inclusive Mobility article). This perspective is critical for understanding why people with disabilities in Latin American cities often encounter cumulative physical, institutional, and social barriers that are not captured by standard accessibility metrics.

Transport and health research on active mobility also highlights that gendered social norms and cultural factors interact with socioeconomic conditions to shape transport behaviors. For example,

women with lower socioeconomic status may walk more out of necessity, yet face greater safety concerns, reinforcing how intersecting identities shape mobility decisions in complex ways (Journal of Transport & Health, 2023). These patterns reinforce the need for policies that explicitly incorporate intersectional analysis rather than treating gender or disability as isolated variables.

The implications for planning are significant: integrated policy approaches must move beyond single-dimension strategies to acknowledge how overlapping vulnerabilities interact with urban form, service design, and governance. This requires participatory planning processes that actively engage diverse community voices, particularly those traditionally marginalized in transport decision-making. Only by embedding intersectionality into policy frameworks can planning meaningfully address the cumulative and intersectional nature of transport exclusion.

3. *Transport as a Social Justice Issue*

The findings reinforce that urban transport is fundamentally a social justice issue, and should be framed as a matter of mobility rights and urban citizenship rather than a neutral technical enterprise. Transport justice literature advocates for planning frameworks that foreground equitable distribution of opportunities and services, ensuring that transport systems enable rather than constrain people's freedom to participate in urban life (Martens, 2016). Within this paradigm, mobility is understood not merely as movement from point A to point B but as the capacity to achieve essential social, economic, and civic goals without disproportionate burden or risk.

Conceptualizing transport as a right aligns with human-rights approaches to urban mobility advocated in the Latin American policy context, which emphasize the interdependence of mobility and the enjoyment of other fundamental rights, such as work, health, and education (ECLAC, 2023). When transport systems fail to accommodate the needs of the most vulnerable—such as women, people with disabilities, and low-income residents—they undermine core tenets of equitable urban development and citizenship. This perspective resonates with broader justice frameworks in urban studies that treat accessibility as a prerequisite for social inclusion, economic participation, and democratic engagement (Walsh et al., 2021).

Importantly, framing transport as a social justice issue also highlights the ethical dimensions of planning decisions. It requires moving beyond efficiency metrics to consider how transport investments and design choices affect well-being, dignity, and social belonging. Empirical studies in mobility justice emphasize that planning

must account for both the material conditions of travel and the experiential realities that shape everyday life for marginalized populations (Tiznado-Aitken et al., 2020). Doing so reinforces the imperative to align transportation outcomes with broader goals of urban equity, sustainability, and human rights.

This discussion situates the empirical findings within current scholarly debates on accessibility, intersectionality, and transport justice. It argues for a paradigm shift in urban transport planning—one that acknowledges the lived experience of mobility, integrates intersectional analyses into policy design, and centers transport as a foundational component of social justice and urban citizenship.

I. Policy Implications and Recommendations

1. *Inclusive Planning and Design*

The findings of this study underscore the urgent need for inclusive planning and design in urban transport systems, grounded in principles of universal accessibility and equity. Urban transport policies should go beyond technical compliance and integrate universal design principles, ensuring that infrastructure, vehicles, and services are usable by people with diverse abilities. International guidelines, such as the UN Convention on the Rights of Persons with Disabilities (UNCRPD, 2006), emphasize that accessibility is a human right rather than an optional design feature, and cities should systematically incorporate these standards into both new projects and retrofitting of existing systems (Pineda & Llera, 2021). Practical measures include ensuring level boarding on buses and metros, tactile guidance and audible announcements for visually impaired users, ramps, elevators, and seating allocations for those with mobility limitations (Tiznado-Aitken et al., 2020; Oviedo & Guzman, 2020).

Equally critical is the adoption of gender-sensitive transport planning. Women's travel patterns, shaped by care responsibilities, safety concerns, and multi-purpose trip chains, require targeted interventions such as well-lit waiting areas, improved security measures, and route planning that considers off-peak travel needs (Currie et al., 2020; Hidalgo et al., 2020). This also involves designing services to accommodate flexible trip chaining and ensuring affordability for users undertaking multiple linked journeys. Gender-sensitive design should be mainstreamed across all planning levels, rather than limited to isolated pilot programs or reactive interventions, in order to produce systemic improvements in equitable mobility.

In practice, inclusive planning can also benefit from co-design processes, where users with disabilities and women actively participate in the design and evaluation of transport projects. Empirical evidence

suggests that such participatory approaches enhance the relevance and usability of services, increase adoption rates, and reduce unanticipated barriers (Marin-Flores et al., 2025; World Bank, 2024). Overall, adopting inclusive and gender-sensitive planning frameworks not only promotes equitable mobility but also contributes to broader social inclusion and urban cohesion.

2. *Governance and Participation*

Improving accessibility requires institutional reforms that strengthen governance and participation mechanisms. Transport planning in many Latin American cities is fragmented across multiple municipal and national agencies, which undermines accountability and weakens enforcement of accessibility standards (CEPAL, 2024). Institutionalizing stakeholder participation is therefore critical. Structured mechanisms for engagement—such as advisory councils, public consultations, and participatory budgeting—can ensure that women, people with disabilities, and marginalized communities have meaningful input into transport policy and project decisions (Martens, 2016; Inclusive Mobility Journal, 2025).

Accountability mechanisms are equally important to translate planning into outcomes. Cities should develop clear mandates for accessibility compliance, establish monitoring and enforcement units, and define penalties for non-compliance by operators. Case studies from Bogotá and Santiago demonstrate that weak enforcement often renders even well-intentioned policies ineffective (Transformative Mobility, 2023). By linking accountability to institutional performance metrics, transport authorities can ensure that infrastructure, services, and operational standards meet inclusivity objectives.

Furthermore, cross-sectoral collaboration is necessary. Inclusive transport requires alignment between urban planning, housing, social services, and public safety sectors. Inter-agency coordination can address peripheralization and social segregation, which are major drivers of mobility inequities (Tiznado-Aitken et al., 2020). Integrating governance reforms with participatory and accountability measures strengthens the legitimacy of transport institutions and ensures that marginalized populations are systematically considered in policy and operational decision-making.

3. *Data and Monitoring*

Effective policy implementation depends on robust data collection and monitoring systems. Disaggregated mobility data by gender, disability, income, and spatial location is essential to identify inequities, track progress, and design targeted interventions (Currie et

al., 2020; Oviedo & Guzman, 2020). Existing datasets often overlook experiential and qualitative dimensions of accessibility, such as perceptions of safety, dignity, and convenience, which are critical for evaluating the real-world effectiveness of transport systems (Tiznado-Aitken et al., 2020).

Regular evaluation of accessibility outcomes should be institutionalized. Transport authorities can adopt mixed-methods approaches combining quantitative GIS-based analyses, service coverage metrics, and qualitative user experience surveys to capture multidimensional aspects of mobility (Marin-Flores et al., 2025). This allows policymakers to identify areas of persistent exclusion, understand user coping strategies, and adjust service provision accordingly.

Monitoring systems should also include longitudinal tracking to evaluate the sustainability of interventions over time. For example, tracking whether newly installed elevators or women-only transport cars continue to function effectively after initial deployment helps prevent the erosion of accessibility gains (World Bank, 2024). Open data initiatives can enhance transparency and empower civil society organizations, advocacy groups, and academic researchers to contribute to accountability and evidence-based policymaking.

Inclusive planning, robust governance, and systematic data monitoring form an integrated framework for addressing urban transport inequities. Together, these measures create a foundation for policies that not only improve physical infrastructure but also foster equitable mobility, social inclusion, and urban justice in Latin American cities.

J. Conclusion

1. *Summary of Key Findings*

This study demonstrates that unequal access to urban transport is a critical mechanism through which broader patterns of urban inequality are reproduced in Latin American cities. The findings show that disparities in accessibility are not accidental or marginal but are structurally embedded within transport systems shaped by socio-spatial segregation, institutional fragmentation, and technocratic planning paradigms. Limited physical accessibility, unsafe travel environments, and unreliable services disproportionately affect women and people with disabilities, restricting their access to employment, education, healthcare, and social participation. These mobility constraints reinforce cycles of exclusion and deepen existing socio-economic inequalities across metropolitan regions.

Moreover, the analysis reveals a persistent systemic neglect of gender and disability considerations in transport planning and governance. Despite policy commitments to inclusion and accessibility, implementation remains inconsistent, under-enforced, and often peripheral to core planning priorities. Accessibility is frequently treated as a technical add-on rather than as a foundational principle of transport justice. As a result, transport systems continue to privilege able-bodied, male, peak-hour commuters while marginalizing users whose mobility needs deviate from this normative profile. These findings underscore that transport inequity in Latin America is not solely a problem of infrastructure deficits, but a manifestation of deeper institutional, cultural, and political shortcomings.

2. *Contributions to Scholarship*

This research makes several important contributions to the interdisciplinary scholarship on urban transport, accessibility, and social justice. First, it advances intersectional transport research by empirically demonstrating how gender and disability interact with spatial, institutional, and socio-economic factors to produce compounded forms of mobility exclusion. By moving beyond single-axis analyses, the study responds to calls within urban studies and transport geography for more nuanced frameworks capable of capturing overlapping vulnerabilities and differentiated lived experiences of mobility.

Second, the study bridges mobility studies and social justice theory, reinforcing the argument that transport systems are not neutral technical infrastructures but socially embedded institutions that shape urban citizenship and access to rights. By conceptualizing accessibility as both a material condition and a lived experience, the research contributes to a growing body of literature that reframes transport as a determinant of social inclusion and democratic participation. In doing so, it challenges efficiency-driven planning paradigms and supports a normative shift toward rights-based, equity-oriented approaches to urban mobility.

3. *Limitations and Future Research*

While this study offers valuable insights, it is subject to several limitations that open avenues for future research. First, although the comparative metropolitan approach captures common patterns across Latin American cities, future studies could extend the analysis to other global regions, including African and Southeast Asian cities, to assess the transferability of findings across different urban, cultural, and governance contexts. Comparative cross-regional research would

strengthen theoretical generalization and deepen understanding of global transport inequities.

Second, the study is limited by its cross-sectional design. Longitudinal research is needed to evaluate how accessibility outcomes evolve over time, particularly in response to policy reforms, infrastructure investments, or governance changes. Such studies would allow for a more robust assessment of whether inclusive transport interventions lead to sustained reductions in mobility inequality.

Finally, future research should explore the growing role of digital mobility platforms, such as ride-hailing, mobility-as-a-service (MaaS), and real-time transport applications. While these technologies hold potential to enhance accessibility, they may also introduce new forms of exclusion related to affordability, digital literacy, and data governance. Integrating digital mobility into intersectional accessibility frameworks will be essential for understanding the future trajectories of transport equity in Latin American cities.

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