Environmental Justice, Transit Equity and the Place for Immigrants in Toronto

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Abstract

In response to population growth and events, Toronto is currently in the midst of debates about transportation planning. However, the perspectives of immigrants, especially women, who depend heavily on public transit, are often missing from academic and policy debates on transportation planning in Toronto. Due to Toronto's changing demographic landscape, a transit planning strategy that is based on a deeper understanding of how immigrant groups travel across the city can further social equity in transportation. Drawing on qualitative interviews with immigrants on their experiences of public transit in Toronto, the paper proposes an environmental justice framework in order to consider the equity and sustainability issues inherent in Toronto stakeholders' focus on transit expansion.. The research findings highlight the limited affordability of public transit, the poor servicing and connectivity of transit networks, and the resulting barriers to accessing work opportunities across the region. The paper concludes by highlighting the need for new directions in transit policy and planning that can better address the changing demographics and social and spatial divisions in the city.

Keywords: immigrants, transportation, environmental justice, public transit, gender, Toronto

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Résumé
Face à la croissance de la population et aux événements, des débats sur la planification des transports ont lieu actuellement à Toronto. Toutefois, ces débats tant dans les milieux universitaires que politiques sur la planification des transports ignorent souvent les besoins des immigrants, en particulier des femmes, qui dépendent beaucoup des transports publics. En raison des changements démographiques à Toronto, une stratégie de planification reposant sur une meilleure compréhension des déplacements de groupes d'immigrants dans la ville peut améliorer l'équité sociale des transports. Partant de riches entrevues avec des immigrants qui relatent sur expériences des transports en public à Toronto, ce document propose un cadre de justice environnemental pour définir les questions d'équité et de durabilité au centre de la réflexion des parties prenantes sur le développement des transports en commun. Les conclusions de la recherche mettent en lumière le prix plutôt élevé des titres de transport, une faible densité et des mauvaises correspondances dans les réseaux de transports. Ces lacunes érigent des obstacles aux possibilités d'emplois dans la région. Ce document de recherche conclut en insistant sur le besoin de nouvelles orientations dans la politique et la planification des transports en commun qui répondent mieux aux évolutions démographiques, sociales et spatiales de la ville.

Mots clés: immigrants, transports, justice environnementale, transports en commun, sexe, Toronto

Introduction

> *"It (transit) is a lifeline of the city. It is your backbone. It takes you around. You cannot survive without TTC bus services and streetcars and subways. You do need it. Because it's faster and better. Faster than cars too, right?" (Geeta)*

In recent years, there have been many debates in transportation planning and transit policy in Toronto amongst decision-making stakeholders. Amongst the issues debated are what kind of railway systems—subway or light rail (LRT)—should be implemented, what priority should be given to a downtown relief line and what is the potential for public-private partnership. Current shifts in transportation planning —from autocentric supply planning to multi-modal demand management have invited particular forms of investment and interest in rapid transit, including the airport express train (see Metrolinx 2010a). While the Toronto Transit Commission (TTC) released a bus plan in 2009, it was soon overshadowed by capital-intensive rail projects. Moreover, as the previous Mayor Rob Ford reduced operating budgets, TTC implemented service cuts to bus routes (Rider and Kennedy 2011). The bus service cuts led to a reduction of weekend and night hours that have bearing on transit-dependent communities. Limited stakeholder discussion and research have taken place on the spatial distribution of public transit and the social dimensions of

transportation in Toronto. A consideration of discourses of who belongs and has rights to the city can further an understanding of transit equity and the social dimensions of transportation. The notion of urban dwellers' "right to the city" points to the inequities in power and decision-making in cities. In the same way that procedural rights are an essential component of environmental justice, Lefebvre (1996) argues that all urban dwellers should participate in decision-making as citizens. As argued by Teelucksingh and Masuda (2014), marginalized citizens' right to claim space and to play a role in urban development emphasizes the need to democratize city. In light of Toronto's changing demographic landscape, transportation strategy should be based on a deeper understanding of how recent immigrants travel across the city. The goal of the research is to bring forward questions of access, socio-economic disparities, and the spatial polarization of Toronto in terms of immigrant settlement patterns and travel experiences.

The paper begins by outlining transportation plans in Toronto and their relevance to immigrant communities as a context for the paper's arguments. Next, we discuss literature on environmental justice in order to lay the groundwork for a need of a multi-dimensional framework to transportation planning. Drawing on an exploratory study using in-depth qualitative interviews with a small sample of immigrants on their experiences of public transit in Toronto, we argue that a holistic and relational approach can provide more context on the multi-dimensional challenges faced by lower-income immigrants, especially women, who highly depend on public transit. The research findings suggest the limited affordability of public transit, the poor servicing of the transit network, and the resulting barriers to accessing work opportunities across the Greater Toronto Area. The paper concludes by highlighting the need for new directions in transit policy and planning that can better address the changing social landscape, spatial divisions in the city, and the broadening of urban development processes to address structural conceptions of environmental injustices.

Immigrants and Transportation

Immigrants are now the major source of population growth in large Canadian cities. Between 2006 and 2011, two-thirds of all growth in Canada was attributed to immigration (Statistics Canada 2012b, 2). Of the 1.1 million new immigrants that landed in Canada between 2001 and 2006, a quarter settled in City of Toronto (2007). In Toronto, immigrants form over 50% of the population (Statistics Canada 2007). In 2006, half of the immigrant populations in Toronto had arrived only within the last 15 years.

However, only a few scholarly studies in Canada have specifically centered a discussion of immigrants' use of transit (Heisz and Schellenberg 2004; Thomas 2013; Lo, Shalaby, and Alshalalfah 2011). Based on micro data from the 2001 Canadian Census, Heisz and Schellenberg (2004) found a strong positive relationship between the number of recent immigrants (those that arrived within the past 10 years of

the census survey) and the use of public transportation in Toronto, Vancouver and Montreal's CMAs. In Toronto, 36.3% of immigrants use public transit for work compared to 20.7% of Canadian-born (Heisz and Schellenberg 2004, 172-173).

The higher use of public transit amongst recent immigrants in Toronto, Vancouver and Montreal CMAs highlights important travel trends amongst immigrant populations across large Canadian cities. Though the province of Ontario is shifting focus from auto-centric development to more multi-modal transportation networks and supporting rapid transit (Metrolinx 2008), there has been limited discussion of immigrants' transportation needs. Research on immigrants' transportation experiences is even more pressing, as there is a clear shift in Toronto's settlement landscape. While immigrants generally settled in the core of the city in 1960s, the inner suburbs have become the key receiving area for immigrants more recently (Murdie 2008). Many of these new immigrants have lower incomes and struggle to find affordable housing (United Way Toronto 2011; Walks and Bourne 2006).

The Three Cities in Toronto report underpinned that despite having less access to rapid transit in the inner suburbs, transit use was similar to those of downtown residents (Hulchanski 2010). A recent study by Basu et al. (2013) on new immigrants and youth in Scarborough identified public transit as a major problem that respondents felt was essential for improvement in their suburb. The study pointed to issues of inaccessibility with transit, high fares, lack of access for people with disabilities and children, poor connectivity, and infrequent service.

Furthermore it is important to note that there is diversity in immigrants' experiences and differences in their socio-economic status. For example, immigrants are heterogeneous in terms of their origin and display unique and differential settlement patterns—particularly in their housing choice and location, as some studies have noted (Ghosh 2007; Agrawal 2008). Basu et al. (2013) complicate Hulchanski's polarized description of three cities by highlighting the multifarious ways residents participate in suburban communities despite poor transit. There is also class diversity with some groups able to access more opportunities such as home ownership more so than others (Murdie 2002). In a case study of Filipino immigrants in Toronto, Thomas (2013) shows that despite rising costs of centrally located housing, respondents continued to prioritize proximity to transit. Racialized immigrants from the Global South have different economic opportunities than white immigrants and white Canadian-born populations. In 2006, the top five source countries for immigrants arriving in Toronto CMA were India, China, Pakistan, Philippines and Sri Lanka (Statistics Canada 2008). These differences also impact immigrants' dependency on cars. Immigrants with greater access to resources are more likely to rely on cars if they live in the suburbs. Low-income immigrants, who are a dominant demographic of the Toronto suburbs, face less options and continue to use public transit as a means to get to work (Hess and Farrow, 2011).

Moreover, transit use amongst immigrants in Toronto is highly gendered with immigrant women more likely to use public transit to work than immigrant men. Based on 2001 census, 44.8% percent of immigrant women used public transit to go to work compared to 28.2% immigrant men (Heisz and Schellenberg 2004, 175). Gender-based studies in Toronto have discussed gender-equity and safety measures introduced in TTC through feminist lobbying (Wekerle 2005), and the impact of neoliberal restructuring on low-income women (Khosla 2003). However, scholarly literature on current immigrant women's transit challenges in Canada is limited. In the following, we argue that perspectives grounded in the experiences of immigrant women can help us gain a better structural understanding of Toronto's transit crisis.

Theoretical Approaches to Transportation and Social Inequity

Beyond Spatial Mismatch

Much of the literature on transportation planning, social inequities and social exclusion has been dominated by debates on the spatial mismatch hypothesis (Blumenberg and Manville 2004). The spatial mismatch hypothesis ascribes unemployment and poverty to spatial disconnects in the housing and employment locations of low-income inner city populations (Kain 1968). This spatial distance subsequently becomes a transportation problem. The post-industrial shift in job opportunities from inner city to suburban locations and "edge cities" meant inner city urban poor were unable to easily access employment. While reverse commute program is a common transit policy resulting from the spatial mismatch hypothesis, some studies in the US have noted access to a personal vehicle as an effective way to increase access to job opportunities (Cervero, Sandoval, and Landis 2002; Blumenberg 2004).

The applicability of the spatial mismatch hypothesis and relevant transportation policies in the Canadian context has not been fully tested. In a Greater Toronto Area (GTA) quantitative study, Miller et al. (2004) found that GTA suburbs or "edge cities" were not more efficient than traditional cities. Instead, the combined cost of housing and transportation increased the further one is from the city core. Highlighting implications for car-dependent low-income communities in the suburbs, Miller et al. (2004) noted a need for a better distribution of affordable housing.

In addition to the complexity of changing patterns, the spatial mismatch model does not comprehensively address structural factors such as housing discrimination and transit underinvestment that shape the built environment and give rise to social exclusions. Moreover, the exclusive emphasis on access to job opportunities and spatial disconnect between home and work overlooks health risks and social inequities themselves. *Toward Healthier Apartment Neighbourhood* report found that health outcomes are poorer in areas characterized by post-war apartment buildings and poor walkability in Toronto. Inhabitants of apartments in the inner suburbs "have lower incomes, experience higher rates of diabetes, have less access to fresh food, live in less walkable neighbourhoods, and are more vulnerable to extreme heat than other

residents in Toronto" (Toronto Public Health 2012, 3). A more interdisciplinary body of literature dealing with concerns of structural and social exclusion and risks in transportation is the environmental justice and transportation justice literature.

Environmental Justice and Transportation

The environmental justice approach raises issues of spatial inequities facing racialized and poor communities due to unfavourable urban and regional development and policies. In particular, the dominant environmental justice perspective tackles whether environmental risks are concentrated for particular groups of people and their locations through discriminatory land-use planning and how to prevent it (Bullard 2005). Building from environmental justice, transportation justice literature highlights the historical under-investment in rapid transit services for racialized residents and risks faced by poor communities who live along highway corridors (Bullard 2009; Bullard and Johnson 1997). It questions whether there are equitable distributions of environmental goods. Environmental justice also points to procedural inequities where minorities lack the capacity to participate in the decision-making processes of policy and land-use development (Gosine and Teelucksingh 2008). In contrast, middle-class, educated and white people as members of dominant groups are generally able to protect their interests through stakeholder participation and direct undesirable land uses away from their neighbourhoods while gaining desirable resources and services.

Procedural inequities contribute to systems of structural environmental inequities, where over time areas of the cities suffer from disinvestment and depleted infrastructure, including poor access to public transit. These issues of inequities are tied to Lefebvre's (1996) concept of the "right to the city," which questions the privileging of certain social groups in the production of space and the uneven power in decision-making. Marginalized citizens' right to claim space and to play a role in urban development emphasizes the need to democratize city spaces and forms of resistance (Teelucksingh 2007; Stanley 2009). This paper's analysis of transportation planning and the links to immigrants focuses on environmental justice through this latter conceptualization with an eye to making transit planning more inclusive.

Gosine and Teelucksingh (2008) emphasize that even though Canadian cities may not display the same high levels of racial concentrations as cities in the U.S., the racialization of low-income areas, which house many new immigrants, still exists in Canadian urban regions. The authors call attention to nuanced patterns of gender, race, class and immigrant status in lower-income areas cities in Canada, and to the ways in which racialized spaces are reproduced through political, economic and structural processes. Likewise, this growing body of literature in Canada has widened the reach and conceptualization of environmental justice and racialization—looking at injustices in the urban environment as part of a social structure rather than a problem of liberal distribution (Debanne and Keil 2004; Teelucksingh 2007; Stanley 2009).

The expanded environmental justice can be further linked to political economy literature on urban governance. Toronto-based studies have explored how transportation models are shaped by various urban governance paradigms and discourses, such as climate change and global city competitiveness (Boudreau, Keil and Young 2009; Keil and Young 2008). With the neoliberal re-alignment of services and provisions, cities have turned to major sporting events. Most recently, new forms of economic regionalism have pushed for high-end infrastructure projects that have included a new airport line—the Union Pearson Express—and a northern subway extension to the outer municipality of Vaughan (see Metrolinx 2010a; Young and Keil 2010). With an eye to relational politics, Keil and Young (2008) discuss the contradictory multi-scalar processes of transportation in the Toronto metropolitan region. While transportation systems are expanding for services and goods that benefit corporations, consumers and states, this is not necessarily the case for transportation that services local residential and commuting populations. Keil and Young (2008) further problematize the lack of a streamlined and democratic regional urban governance in regional transportation plans.

The expanded and relational conceptualization of environmental justice can provide a comprehensive understanding of transit, opportunities, settlement and housing locations as part of all citizens' right to the city, and overcome the limitations of the spatial mismatch hypothesis and other theories of social exclusion in transportation.

Methods of the Study

This exploratory study conducted in between February and March 2013 involved in-depth qualitative interviews with nine immigrants in Toronto to better understand complex travel issues and phenomena that are often missed by transportation engineers and planners. As opposed to a broader sample of immigrants across socio-demographic groups, lower income immigrants were more likely to have sustained public transit use as well as excluded from claiming their rights to the city.

The goal of the interviews was to explore immigrants' own experiences and choices of public transportation, barriers they may encounter and other influencers of their transit accessibility. Using an environmental justice lens, the research addressed the following questions:

1. What is the impact of transportation planning decisions on spatialized social divisions in Toronto?
2. What are the barriers to accessing public transit that immigrants face?
3. What shifts in planning strategy and policy are needed for addressing the transit and social problems?

Interview participants were recruited through organizations and frontline workers that primarily serve immigrants and women and personal networks using a snowballing

method. The interviews consisted of open-ended questions based on an interview guide designed to encourage participants to share their decision-making process with transportation choices. The participants shared how they negotiate between their mode choice and housing location, and what they may be forced to compromise or trade off in the process. Socio-demographic characteristics were also collected in order to situate their perspectives and travel experiences, choices and accessibility concerns. Information gathered was confidential, identifiable characteristics were not collected and pseudonyms were used. At times, individuals shared their knowledge and transportation experiences of their household members and families. However, interviews were only conducted with individuals and not with households.

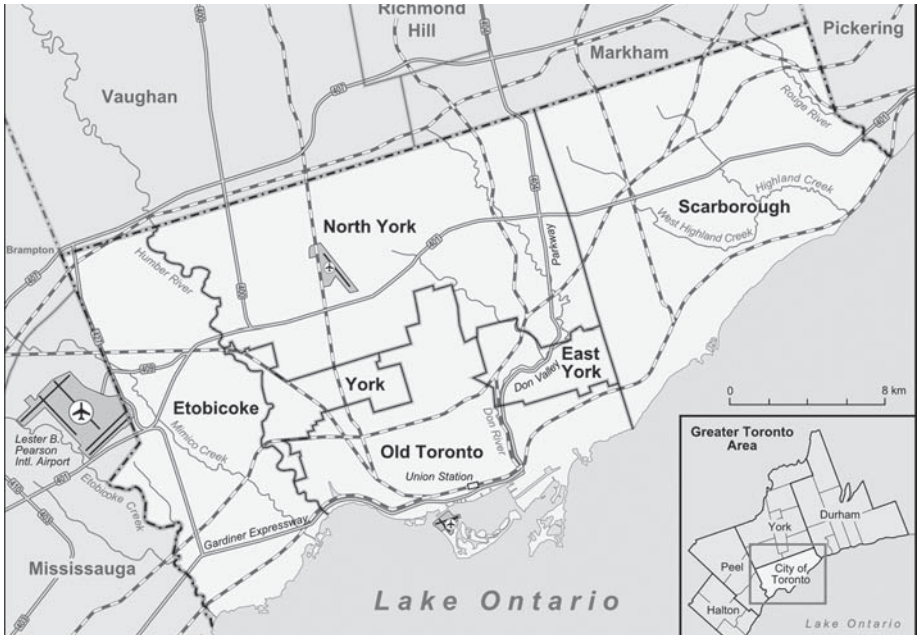
Of the nine participants, seven were immigrant women, who had immigrated to Canada between 1998-2008. Most of the participants earned less than $30,000 annually. Three participants lived in single-person households. The remaining participants were living with family members. With the exception of one condominium owner, all participants were tenants who rented their dwelling units. Seven of the participants lived in high-rises, one in a detached house and one in a mid-rise loft. Only two of the participants had a driver's license and access to a household car.

Study Site: City of Toronto

The City of Toronto, situated in Southern Ontario, is the largest municipality in Canada in terms of population, at 2.6 million people (Statistics Canada 2012a). As part of the Greater Toronto and Hamilton Area (GTHA) and Greater Golden Horseshoe subregion, it is also the largest urban region in Canada and serves as a financial and commercial hub at its downtown district.

The city's geographical boundaries consist of large transportation corridors and natural water bodies. Municipal Expressways—the Gardiner Expressway and Don Valley Parkway—connect to Highway 401, which is a provincial highway that runs through the northern portion of Toronto. The Toronto Transit Commission (TTC) provides higher-capacity subway lines within Toronto with an orientation to serving Toronto's downtown core. The Yonge-Spadina U-shaped line runs north and south and first opened in 1954 (Levy 2013). The Bloor-Danforth line runs west to east and became operational in 1966. Scarborough Rapid Transit, a medium-capacity rail transit, opened in 1985. The recently built inner suburban Sheppard line, consisting of four stations, opened in 2002. Much of the inner suburbs depend on buses for public transit. The subways are connected with commuter rapid transit—GO Transit —primarily at Union Station. GO Transit is a regional commuter rail service, which first started in 1967 and has grown to a seven-line commuter rail network that brings exurban residents into Union Station, the downtown business hub of Toronto (GO Transit 2008). GO Transit is now merged with and operated by Metrolinx, a regional transportation agency, which was established in 2006 by the Province of Ontario to oversee the coordination and execution of transportation expansion in the region.

Map 1.1 City of Toronto Key Map



Current Transportation Plans and Strategies

The Big Move is a comprehensive plan developed in 2008 by Metrolinx. The plan puts forth a $50 billion investment in transportation infrastructure—the bulk of which is in rapid transit—over 25 years in the Greater Toronto and Hamilton Area (GTHA) (Metrolinx 2008). Among the first wave of projects under the *5 in 10 Plan*, are Toronto's LRT projects, to be coordinated by Metrolinx in partnership with the Toronto Transit Commission (TTC) and City of Toronto (Metrolinx 2010b). The second wave of projects proposed for Toronto consists of a downtown relief line and Yonge subway extension (Metrolinx 2013).

While a few of the projects have provincial funding under the initial *MoveOntario 2020* proposal (Government of Ontario 2007), the majority of *The Big Move* lacks capital as Metrolinx does not have a reliable and guaranteed revenue stream. In its 2013 investment strategy, Metrolinx presented a shortlist of revenue tools and new taxes to generate two billion every year that have yet to be approved by the Province.

Since Metrolinx lacks a comprehensive governing authority, another challenge for transit development is the gap in regional strategies and municipal land-use planning processes (Lorinc 2011). For example, Ontario's *Places to Grow Act* and its plan in the Greater Golden Horseshoe, discussed in greater detail below, target centralized downtown areas as smart growth centres, which already benefit from existing subway infrastructure (Ontario Ministry of Infrastructure 2006). Toronto's Official Plan has

also put in motion transit-friendly policies through housing intensification and mixed-use development along growth centres and avenues (City of Toronto 2010). However, there remains a lag in zoning by-laws to enable transit-oriented development. At present, zoning by-laws do not provide higher density at avenues as-of-right; securing zoning amendments for increased density, combined with assembling land for mixed-use development, is a lengthy process. The challenge to rezoning often stems from NIMBYism opposition by homeowners in the neighbourhoods (Levy 2013). Moreover, density bonusing (an incentive-based plan to increase densities) under Section 37 of the *Planning Act* allows municipalities to extract capital funds and benefits from developers in exchange for granting them higher densities (see OMMAH 2010). Likewise, *The Big Move's* mobility hubs, which are envisioned to be centres of transit exchange, employment, retail, and housing, do not necessarily have the municipal zoning requirements needed for higher density mixed-used development and intensification.

Growth and Intensification

Between 2006-2011, Toronto and GTHA experienced a growth rate of 4.5% and 12.5% respectively (City of Toronto 2012). By 2036, the population of Toronto is forecast to be 3.45 million (Government of Ontario 2013) in part due to immigration trends discussed earlier. Provincial plans for the subregion and for Toronto are linked with future transit needs. *The Places to Grow Act* put in place a new legislative planning framework for growth management and economic opportunities in the province (Government of Ontario 2005). *The Growth Plan for the Greater Golden Horseshoe* sets up a 25-year plan to direct growth and infrastructure expansion to designated growth centres (Ontario Ministry of Public Infrastructure Renewal 2006). A key tenet of the plan is to build transit-supportive communities and to curb sprawl through mixed-use development and intensification in existing built-up and settlement areas. This has generated urban development in downtown Toronto and hubs that benefits those with the financial resources to purchase condominiums. The gentrification of downtown Toronto to house new economy workers have resulted in the more affordable and family-oriented housing being relegated to the suburbs (Hulchanski 2010). Investments in downtown transit and infrastructure support the financial and cultural industries and events that position Toronto as a global city (Kipfer and Keil 2002). *The Places to Grow Act* and *The Growth Plan for the Greater Golden Horseshoe* contribute to a structural framework of decision-making and planning that have impact on immigrants' transportation choices in the city and subregion.

Social Dimensions of Transportation

The interviews opened up key perspectives on the travel patterns of immigrants living in Toronto and their structural barriers to better mobility around the city. The themes that emerged point to the interlocking ways immigrant identities are impacted by transportation alongside social and economic opportunities and the gendering of spaces.

Public Transit Usage and Dependence

Almost all the participants used transit for all their activities. As one participant, Selina put it: "Yeah, I am dependent on public transport at this point, though." Similarly, Geeta stated: "I totally depend on transportation." Another participant, Elena also used the word 'dependent' readily to describe her travel routine: "I use the TTC mostly, the streetcar, the subway and the bus to reach my place of work. I am heavily dependent on that. I use it rather extensively." These accounts suggest that many participants rely heavily on public transportation. This also shaped their identity as their sense of mobility closely connected to their levels of access to public transit. One participant, Mani, further emphasized that he used public transportation for trips to big-box stores: "I use transportation in Toronto to get to work, to and from work. And I use transportation for personal stuff, socializing and buying household items, from Walmart and Canadian Tire."

In few cases, participants used active transportation—walking—as a way of getting around high fares or inaccessible transit, particularly for their grocery shopping. None of the participants mentioned bicycling as a mode of their choice. Only two of the nine households had access to a car. In these households, the mother in the family used the car while the remaining members used public transit as their primary means of travel to work and school. In these households, an automobile was a convenient and preferred way to do grocery shopping in particular.

The accounts by respondents on their transit dependence affirm some of the findings by Hess and Farrow (2011). In relation to this reliance on transit, numerous challenges arose with housing choice, work opportunities, cost and barriers.

Housing and Transportation

Interview findings confirmed that housing choice and access to transportation are strongly linked. Affordability stood out as the key determinant of housing, which then influenced how near respondents were able to live to rapid transit, what their travel patterns were, and what transportation-related challenges they faced. Most participants noted that they had limited choice in terms of where they could live. Eve argued that it was difficult for a family to rent or own a home in downtown Toronto. In order to afford a place that is a decent size for her family, she moved to a neighbourhood that is further away from the subway line, from her workplace, as well as from her husband's workplace:

> "Close to the subway is more expensive…rent or buy, doesn't matter. It is more expensive, and the fees are more too I think [*discusses fees and amenities*]. And it's small. Downtown is usually for single or couple professionals, right? But for family, with kids, it is not really ideal. Yeah, the apartment is really small. There is no room for them to run around, or storage."[1] (Eve)

For participants who chose to live along the subway and in downtown Toronto, there were very few areas that they could afford. Participants who lived further away from rapid transit would attempt to live as closely as possible to bus stops in order to have better access to public transportation. After housing affordability, proximity to transit was often the next determinant for housing choice for most participants. As Ameena highlighted, her flat is "still accessible by TTC (Toronto transit) in case we need to go somewhere."

In some instances, interviewees argued that being connected to particular kinds of amenities, for example ethnic food stores, was important in deciding the housing location. Maya, who lived in an inner suburban neighbourhood, outlined various reasons for choosing the area: "[My partner] chose it because it is a big South Asian immigrant community, and there is a lot of grocery stores that have South Asian like spices and food and it is affordable." Likewise, Ameena highlighted the strong social network of her suburban neighbourhood in Scarborough:

> "[W]e also have a lot of friends and family around here. And it's close also to a religious community that would be, it's good for organization and the mosque we go. So it is convenient for us cause all the amenities we look for are close by." (Ameena)

Maya's and Ameena's accounts suggest that participants are actively renegotiating their choices and different ways to overcome transportation-related barriers. While their neighbourhoods are not within the vicinity of rapid transit, their location provides them with better access to diasporic amenities that a more central location along the subway line might preclude.

Furthermore, barriers to mobility were often directly linked to settlement-related barriers that limited immigrants' freedom, and independence. Settling in, in the form of finding a job and housing, can be a lengthy process for immigrants, including people in this sample. Additionally, waiting for immigration paperwork to come through, or for degrees to be certified, can take up considerable time, during which one cannot work. This affects housing affordability, and hence where one can live. It thereby shapes one's transportation-related experiences and barriers. As Maya points out, "we were on one income for a long time, because of my immigration paperwork and so it had to be something that we could afford on one income."

The participants' accounts bring to light the need to think about transportation holistically, and to reconceptualize transportation barriers beyond the spatial proximity concerns, but as inter-connected with other kinds of barriers, such as immigration, housing, employment, and access to life chances more generally. These complex accounts further suggest that on the one hand, immigrants depict agency where possible in selecting housing close to transit, as researched by Thomas (2013), while also facing many structural barriers to affordable housing (Hulchanski 2010; Khosla 2003) and in navigating the immigration settlement process.

Transit and Work Opportunities

A number of participants linked their challenges in securing desirable work and job opportunities with their experiences of public transit in Toronto. The lack of an extensive rapid transit network, long commuting times and poor integration and connectivity for newcomers within the Greater Toronto Area (GTA) often presented barriers to job seekers. For example, Selina described the difficulties she faced when travelling to a job interview after a long commute from Toronto to an unfamiliar location in the GTA:

> "Inner city bus is planned for every 5 minutes or every 10 minutes. Over there, it was every 30 minutes or every 45 minutes. Waiting for the bus takes longer than the actual commute. It was really draining. When I went to the interview, I got really drained." (Selina)

Several participants shared that it was difficult to use transit to get to work outside of Toronto in the GTA and so they decided to settle for a different job. Selina shared how she "didn't take that job just because of the transportation issue." Likewise, Geeta had turned down work offers that were located outside of Toronto in the GTA: "I had been to Oakville, I had been to Ajax. I had lots of offers from schools there. But they were too far, so I didn't accept the offers there. I got a job in (Toronto), so I was happy." According to Selina, barriers to public transit are significant for immigrants who are just starting their careers: "When I look back at it, I am like that job would have gotten me in places. Now, in retrospect, I am like why didn't I take it." She went on to share that the job salary was so low that it didn't give her the option to temporarily relocate either.

Furthermore, some participants noted that they could not qualify for opportunities, as job listings often require applicants to have a driving license and access to a vehicle. The issue of cars and driving licenses for immigrants is discussed next in greater detail.

Cars and Driving Licenses

Several respondents had poor mobility in the city because they did not have a driver's license. Learning to drive a car presents particular hurdles for immigrants, who often juggle multiple obligations and activities. For people who immigrated to Canada in their teens, not having an opportunity to learn how to drive was compounded by the fact that their Canadian-born peers had better opportunities to get their licenses during school. Mani shares his settlement experience and missing out on the automobile learning stage:

> "I moved to Canada when I was 16, almost 17 and that is the age when everybody gets their license, it is a big deal, it is a transition to adulthood. But for me, that wasn't the priority. It was more settling in Canada, settling in high school, figuring out my life here… [*discusses transit to school*] Also, it had to do with I guess having access to a car, to drive. Because even if I got my license, I wouldn't have a car anyway. It is a cost

> thing. We only had one car and my dad would use it for work." (Mani)

Some participants had also faced lack of consent from their family when they were younger as there was only one household car. This was now having negative consequences as their inability to drive made it harder to search employment and to seek better career opportunities:

> "And (my dad) actually put his foot down and he didn't let us get a driver's license. And I remember, my sister and I, we were just so upset about it…[*discusses Montreal travel experiences*] But when we moved to Toronto, the issue of public transit… when it wasn't as comfortable to take public transit because of the issues I mentioned, so then we realized that we should have at least gotten our driving license long time ago." (Selina)

Several participants further explained that the reasons they never learned to drive was because other cities they had lived in before, such as Montreal, London (UK) and New York, had excellent transportation networks. In contrast, looking for work without a driver's license in Toronto presented major hurdles. In Selina's terms, learning to drive was a "dire necessity." Similarly, Maya shared, "I think to be mobile in Toronto, you need to have a license or access to a car." In the face of reduced work opportunities and strenuous grocery shopping routes on transit, cars emerged as the privileged solution to mobility barriers facing young immigrants in particular. This further corroborates with Hess and Farrow's (2011) finding that car ownership was taken up as a way out of mobility challenges and poor transit infrastructure.

Costs

The high cost of transit had a unique bearing on my interviewees. Most participants commented that individual fares and monthly metropasses was simply too high. As Moses put it: "Yeah, man, three dollars is expensive for me, for me… Three dollar expensive, they must know, that expensive, they must know." Some shared that as immigrants who were still settling and seeking career opportunities, they were on a tight budget. As Maya expresses, "You know, and I think that if you are charging three dollars here, that's ridiculous. Especially for newcomers and people without jobs and there is like, no options for people like us."

For many, high fares meant that they had to resort to walking in order to get to work or shop. As Moses stated: "Realistically, I'm not really a walker, but I just walk to work because of circumstances, realistically." Increases in transit fares forced some participants to change their travel mode choice and payment options. Initially, John and his wife used two metropasses. They then started sharing one metropass. Eventually, they switched to walking and use tokens when needed: "Because they started to increase the prices every year you know, it was an unnecessary expense. So basically it is only if I have to go somewhere far, but now I walk more." Like John, several participants resorted to strategically sharing metropasses[2] amongst family members,

only buying metropasses during certain months depending on their schedules and the weather, deciding to stay at home or walking.

Nevertheless, walking comes with its own challenges. Geeta shared how when she was younger she was able to walk to get around the transit costs. As a result of becoming older and having health problems, walking was no longer possible. She further expressed concern over price increases for alternative transit services such as the Canes Seniors Ride Connect. Since services for people with disabilities were limited, she at times had to use expensive taxis: "(S)ometimes I have taken a cab to [workplace in inner suburb], I would be paying 15, 17 dollar […]."

Such challenges show how significant the issue of cost is for immigrants, as also pointed out by other Toronto-based studies (Basu el al 2013; Khosla 2003).

Gendered Activities and the Built Environment

In addition to getting to work, gendered activities such as shopping for groceries and travelling with children emerged as a unique struggle—especially for immigrant women. Poor design, layout and urban form of the built environment further contributed to challenges in walkability. Older participants in particular emphasized how the auto-centric built environment, large blocks and setbacks, and unploughed sidewalks caused safety problems for them and made it difficult for them to carry their groceries. Geeta chose small local shops near transit over cheaper supermarkets as it was difficult for her to walk in a big store.

Furthermore, participants noted that buses, streetcars and subway stations were inconvenient to travel on with large amounts of groceries. Some respondents would opt for walking, either because of the high fare, or because they had difficulty getting their groceries carts onto streetcars and buses. Eve noted that bus drivers do not lower the ramp for grocery carts—so instead, she would drag her cart home: "I found that when you have a grocery cart, it is hard to get on the bus, or off, it is heavy, you have to lift it up, and they don't move the bus down for you to pull the cart up, unless you have the stroller or wheelchair." Likewise, Moses shared her struggle with the buggy: "I want to take the streetcar, but just because of the buggy, the buggy be so much time to put into the streetcar because of its height, and so many time taking it out, so it's best to walk." Along with difficulty boarding streetcars and buses with grocery carts, elevators and escalators at subways stations could be absent or fail to accommodate people with disabilities or strollers. For Eve, this meant staying at home and rarely being able to take her daughter out. Such difficulties were compounded for immigrants who did not have access to ethnic food in the areas where they lived. Traveling for grocery shopping was challenging especially in the winter. Selina said she changed her diet as a result of these traveling limitations: "[S]ome months, we just don't eat meat at all, because I just don't want to make the trip there to get groceries. That issue happens in the winter a lot."

Planning Strategies and Recommendations

The interview findings revealed that for transit-dependent immigrants who have to rely on transit for daily activities, structural barriers such as the lack of affordable housing; the location of employment and amenities; opportunities to obtain a car license; and the cost of public transit, can dramatically influence their transit experiences. These obstacles signal the need to move toward more inclusive forms of transit decision-making and urban development. The perspectives of interview participants highlighted that public transit contributes to discourses of who belongs and has "right to the city" (Lefebvre, 1996).

This is a pivotal time to consider issues of equity and sustainability in Toronto's transportation planning. It is important to question the privileging of certain social groups in the production of space in Toronto, which account for uneven power and decision-making for the "right to the city" (Lefebvre 1996). Toronto's transportation strategies must shift in a holistic manner that goes beyond a conceptual reliance on spatial mismatch theory. In this regard, a transformation to an environmental justice approach to transportation would have significant gain. First, environmental justice approach allows for a consideration of transit with a regarding for distributional spatial inequities. Second, the procedural dimension of environmental justice would be grounded in an examination of the structural barriers of racialized and low-income transit-dependent riders, many of whom are immigrants settling in inner suburbs of Toronto. A right to claim space and to play a role in transit decision-making for marginalized citizens call for the need to democratize new directions of transportation planning in Toronto.

The study findings point to a number of policy recommendations and transportation planning interventions. Some steps in the implementation of environmental justice approach are as follows:

1. *Harmonize fares across the GTA at an affordable rate.*

   This would ensure low-income immigrants who depend on public transit are able to get across the region for job opportunities without a cost hindrance. As well, it would enable increased opportunities for social networks and greater participation in activities within areas other than own neighborhoods.

2. *The downtown relief line should serve as a regional priority line.*

   This line should go beyond downtown and connect to inner suburbs in East York and Etobicoke (see Map 1.1 above). This will better link the high-rise areas where many lower-income immigrants reside and thus provide increased connectivity over rapid transit for these communities. A regional line is also advocated by transportation engineer Edward Levy (2013) as a way of connecting inner suburbs to rapid transit.

3. *Integrating land-use policies.*

   New rapid transit lines should be integrated with effective land-use policies that encourage a mix of commercial, retail and residential use. A mix of housing should be encouraged. There should be further research into how policies such as inclusionary zoning might promote affordable and rental housing stock along rapid transit corridors and promote environmental justice principles.

4. *Changes in the design and form of the built environment.*

   Neighbourhoods should facilitate more walkable and pedestrian friendly features. Possible starting points include sustainable site planning and design guidelines. Smart growth policies have put some of this in place in identified growth centres, but more needs to be done within residential and apartment neighbourhoods in inner suburbs where many immigrants now live. Such a policy will also enhance walkability for immigrants and improve gendered mobility for daily activities such as grocery shopping or travelling with children.

5. *A greater investment in bus networks.*

   This would include better and more frequent service, including weekend and night service. *Transit City Bus Plan* has identified a few bus rapid transit corridors (TTC 2009). Additional bus rapid transit corridors and bus priority technologies may have significant benefit to riders. Further research is needed to study riders' bus experiences.

The interview accounts shed light onto the complex interrelationships between housing affordability, location, work opportunities, gender divisions and the built environment, on the one hand, and immigrants' transportation barriers on the other. There needs to be further research to explore more comprehensive planning interventions that adequately address these interrelationships. In particular, case studies of particular neighbourhoods or immigrant groups could be useful to shed light how transit challenges are experienced by various communities and in various locations. In addition, a qualitative study that explores transportation across the GTA in relation to employment opportunities would be suitable for addressing some of the questions raised in my research in greater detail, and in a way that goes beyond its focus on Toronto.

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Notes

[1] The interviewees' colloquial speech is preserved to reflect the plurality of immigrant accounts included in this sample.

[2] Toronto Transit Commission allows the sharing of monthly transit passes for different trips

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