

Gender Mobility on Guatemala City's Transmetro:
Women's lived experiences of public transportation

by

Andrea Lucía Morales Vargas

A thesis submitted to the Faculty of Graduate and Postdoctoral
Affairs in partial fulfillment of the requirements for the degree of

Master of Arts

in

Geography

Carleton University
Ottawa, Ontario

© 2020

Andrea Lucía Morales Vargas

Abstract

Research interest in gender mobility is increasing, emphasizing the need to incorporate women's perspectives and experiences in the planning and design of public transportation. This project aims to understand women's experiences on Guatemala City's Transmetro, the local bus rapid transit (BRT) system, to contribute to safer, more equitable, and inclusive transportation. Using a case study approach and feminist methodologies, this study captures participants' perceptions of safety, everyday coping strategies on transit, and access issues. While Transmetro is considered safe both in actual and perceived terms, participants expressed mobility constraints based on safety perceptions, namely sexual harassment and theft, as contributing to insecurity and fear. Fear and insecurity throughout the whole journey are two of the greatest challenges for women's mobility. I argue that women's mobility should be framed as a rights issue of access to public goods and provide recommendations at different scales to address women's safety.

Acknowledgements

I would first like to thank the women who took their valuable time to participate in this project without whom this research would not be possible. Their insight was invaluable and the experiences they shared with me not only informed this work but will stay with me. The interviews with additional participants and those more informal conversations also greatly informed and inspired me so to you as well thank you.

I offer my sincerest gratitude to my supervisor, Dr. Jill Wigle. Thank you for guidance, your time, and for providing loving encouragement. Your support allowed me to push my own boundaries while feeling encouraged.

I could not have completed this work without the support - both in person and through long distances - of friends and family. Thank you for checking in, for listening, for supporting me, and for your encouragement. A special thanks to Paulina and Jen for their infinite guidance, feedback, motivational remarks, and friendship. A big thank you to my partner for his support, encouragement, and love throughout the writing process. This experience would not have been the same without the companionship and love of Picard.

I would like to give my love and gratitude to my father, stepmother, sister, and brother-in-law – Leonel, Mabby, Pau, and Alex – for the infinite love and support. Thank you for your advice and encouragement. Finally, I extend my love and gratitude to my mother, María, for teaching me how valuable women’s voices and work are, inspiring me to shed light on women’s experiences.

Table of Contents

Abstract	ii
Acknowledgements	iii
Table of Contents.....	iv
List of Tables.....	vii
List of Figures	viii
List of Appendices	ix
Abbreviations	x
Chapter 1: Introduction.....	1
1.1 Research Background	1
1.2 Research Question and Objectives.....	4
1.3 Thesis Chapter Outline.....	6
1.4 Background Information on the Case Study: Transmetro, Guatemala City’s BRT.....	8
1.4.1 <i>Overview of Guatemala City’s Transportation</i>	<i>16</i>
Chapter 2: Theoretical Framework.....	20
2.1 Introduction.....	20
2.2 Urban Space and Gender.....	21
2.3 Gender and Mobility	25
2.3.1 <i>Barriers to women’s mobility</i>	<i>30</i>
2.3.2 <i>Fear of violence and perceptions of insecurity.....</i>	<i>32</i>
2.4 Summary	39
Chapter 3: Methodological Framework.....	40
3.1 Introduction.....	40
3.2 Case Study Approach.....	40

3.3	Feminist Methodologies.....	42
3.4	Research Methods.....	44
3.4.1	<i>Interviews</i>	47
3.4.2	<i>Interviews with Women Transmetro Users (Group 1)</i>	50
3.4.3	<i>Interviews with Government Officials and Key Informants from NGOs (Group 2)</i>	54
3.4.4	<i>Surveys with Women Who Use Transmetro</i>	57
3.4.5	<i>Mobile Focus Group</i>	64
3.4.6	<i>Participant Observation</i>	69
3.5	Data Organization and Analysis.....	73
3.6	Positionality, Reflexivity, Ethical Issues and Limitations of Research.....	75
3.6.1	<i>Limitations</i>	77
3.7	Summary.....	79
Chapter 4: Women’s Perceptions of (In)security and its Effects on Mobility.....		81
4.1	Introduction.....	81
4.2	Perceptions of Safety on TM.....	82
4.2.1	<i>Transmetro: The safest bus line</i>	84
4.2.2	<i>Safety Concerns within the Transmetro Bus System</i>	90
4.2.3	<i>Sexual Harassment and its Implications on Women’s Mobility</i>	93
4.2.4	<i>Safety Concerns on Transmetro: Theft</i>	97
4.2.5	<i>A Whole Journey Approach: Perceptions of Door-to-Door Safety</i>	101
4.3	<i>Siempre a la Defensiva</i> (Always on the Defensive): Defensive tactics and avoidant behaviors.....	107
4.4	Summary.....	116
Chapter 5: Addressing Women's Safety: Policies & Initiatives.....		121
5.1	Introduction.....	121
5.2	Current Policy & Initiatives in Guatemala City.....	122

5.3	Recommendations	128
5.3.1	<i>Pass Proposal 5280</i>	129
5.3.2	<i>Bolster reporting line</i>	129
5.3.3	<i>Increase Number of Buses</i>	132
5.3.4	<i>Develop Campaigns</i>	133
5.3.5	<i>Conduct More Safety Audits</i>	134
5.4	Summary	135
Chapter 6: Conclusions		138
6.1	Introduction	138
6.2	Overview of Research Findings and Objectives: Guatemalan women’s experiences on Transmetro	139
6.3	Suggestions for Further Research	142
Appendices		144
Appendix A Interview Guides, Group 1 & 2		144
Appendix B Letter of Invitation (Group 1)		146
Appendix C Consent Form, Group 1		148
Appendix D Letter of Invitation Group 2		151
Appendix E Consent Form Group 2		153
Appendix F Survey Question Guide (Group 1)		155
Appendix G Letter of Invitation Mobile Focus Group/Safety Audit (Group 1)		158
Appendix H Mobile Focus Group/Safety Audit Checklist (Group 1)		159
Appendix I Complaint/reporting process and actors (<i>Source: OCAC Guate</i>)		164
References		165

List of Tables

Table 1 <i>Theft Reports on Transmetro by Line and Year</i>	18
Table 2 <i>Sexual Harassment Reports on Transmetro by Line and Year</i>	18
Table 3 <i>Research Methods & Participant Groups</i>	46
Table 4 <i>Participant Groups & Inclusion Criteria</i>	49
Table 5 <i>Interview Participant Demographic Characteristics & Interview Locations</i>	52
Table 6 <i>Key Informants & Interview Topics</i>	54
Table 7 <i>Survey Locations, Dates, & Number of Interviews</i>	60

List of Figures

Figure 1 <i>Map of the Municipality of Guatemala</i>	11
Figure 2 <i>Diagram of Transmetro Routes & Lines</i>	14
Figure 3 <i>Map of Survey Locations</i>	59
Figure 4 <i>Transmetro Bus Depot at Centra Sur Station</i>	61
Figure 6 <i>Las Charcas Underpass Entrance</i>	63
Figure 5 <i>Las Charcas Station (empty)</i>	63
Figure 7 <i>La Merced Station, Safety Audit Location Lines 6 & 18</i>	66
Figure 8 <i>Panoramic Street View & Participants During Mobile Focus Group</i>	67
Figure 9 <i>Safety Audit Participants & Author</i>	67
Figure 10 <i>Woman Jaywalking</i>	72
Figure 11 <i>Perceptions of Safety On & Around Transmetro (n=86)</i>	90
Figure 12 <i>Centra Sur Station at 10:30 am on a Tuesday</i>	92
Figure 13 <i>Plaza Barrios Station</i>	106

List of Appendices

Appendix A.....	144
Appendix B.....	146
Appendix C.....	148
Appendix D.....	151
Appendix E.....	153
Appendix F.....	155
Appendix G.....	158
Appendix H.....	159
Appendix I.....	164

Abbreviations

BRT	Bus rapid transit
CENMA	Wholesale center for food markets throughout Guatemala City (<i>Central de mayoreo</i>)
EMETRA	Municipal Traffic Police
IDB	Interamerican Development Bank
ITDP	Institute for Transportation and Development Policy
METRAC	Metro Toronto Action Committee
MP	Public Ministry (<i>Ministerio Público</i>)
OCAC	Observatory Against Street Harassment (<i>Observatorio Contra Acoso Callejero</i>)
OJ	Judicial Branch (<i>Organismo Judicial</i>)
PDH	Attorney's Office for Human Rights (<i>Procuraduría de Derechos Humanos</i>)
PM	Municipal Police officer (<i>Policía Municipal</i>)
PNC	National Civil Police (<i>Policía Nacional Civil</i>)
TGL	Transport Gender Lab (IDB)
WICI	Women in Cities International
WISE	Women's Initiatives for Safer Environments

Chapter 1: Introduction

1.1 Research Background

I became interested in gender mobility when I learned about women-only transportation. I believed it would be a good way to solve sexual harassment on public transit in Guatemala City. I have always been interested in learning more about public transit systems in Guatemala City as there are issues with accessibility and major traffic gridlocks. As I began to study the feasibility of women-only transport in Guatemala City, I spoke to a man that holds a position of power in the municipal government who stated that women would not like women-only transportation in Guatemala City. He based his opinion on his sister's experience in Mexico City and assured me that women in Guatemala would not use it. He also shared that the only existing studies on mobility by local and national governments are not disaggregated by gender or sex, and typically only include the type of transit mode used, starting point, and destination. If over half of public transit users are not asked what their needs or concerns are, how effective and accessible are these systems? As I learned more about approaching mobility from a gender perspective, I saw potential and the need for studying gender mobility in Guatemala City, an understudied topic in that city.

Space and mobility are experienced differently by women and men based on context specific social, local, and geographical factors, resulting in different mobility patterns and issues. Globally, women continue to bear most of the responsibility for the domestic and care tasks that support the household, such as shopping, childcare, and eldercare, resulting in women taking more and shorter trips, otherwise known as "trip chaining" (Greed, 2008; Peters, 2011). Trip chaining means making various stops along one trip, as part of routine caretaking tasks such as accompanying elderly or young family members to medical visits, taking children to and from school, going to shops, or other home or family-related activities (Greed, 2008; ITDP, 2018). Trip

chaining often occurs on the journey to or from work, resulting in women's more complex mobility patterns. In contrast, men's journeys are simpler as they typically go from home to work and back again (Greed, 2008). Globally, women rely on public transit and walk more than men do (ITDP, 2018).

Despite the more prominent use and dependence of women on public transit, public transportation systems reflect urban planning that does not consider the needs for care work, ensuing multiple and significant constraints to their everyday urban mobility (Loukaitou-Sideris, 2016; Valdivia Gutiérrez et al., 2017). Several additional factors can inhibit women's mobility, including psychological, physical, cultural, and economic constraints (Loukaitou-Sideris, 2016). The fear of violence is also a significant challenge that restricts women's urban mobility, influencing the route and time they travel (Soto Villagrán, 2017). Sexual violence, particularly sexual harassment and assault in public spaces, is not prioritized in policy agendas throughout Latin America. Failing to address sexual violence in public transportation effectively creates uncomfortable and unsettling environments for women, often having detrimental repercussions to their participation in public space and their right to access productive work, education, and improve their life circumstances (Whitzman, 2013; Soto Villagrán, 2017).

Further, women's experiences are distinctly marked by the different experience of space distinguished by the dominant patriarchal practices that continues to associate women with indoor, domestic, and private space and men with outdoor, public space, and related activities (Soto Villagrán, 2017; Falú, 2009). Based on the essentialized associations of gendered space, of binary dichotomies of indoor/outdoor, private/public, feminine/masculine space, women's experience of public spaces, and thus of public transit, are marked by the gender-based violence they experience throughout (Soto Villagrán, 2018, Falú, 2009). This distinguishes women and men's mobility,

demonstrating how gender, space, and mobility are mutually constituted (Uteng and Cresswell, 2016; Hanson, 2010).

There has been an increased interest in studying gender mobility, but most literature comes from research in cities in the Global North. While there has been more work from cities in the Global South, most work comes from large cities with different social environments than smaller cities in Central America. Research in cities such as Mexico City, Bogotá, Quito, and Buenos Aires is growing, but the success of a program in Mexico City or Buenos Aires – which may have more in common socially with Guatemala City – cannot be extrapolated in the same way. The feminist movement in Buenos Aires, for example, has a longer history and stronger foothold than in Guatemala; campaigns and initiatives successful in Buenos Aires will not work in Guatemala because of the different local social contexts. This is not to say that such studies should be ignored or disregarded. Rather it supports the notion that it is crucial to study the local factors that shape a specific locale, as well as the lived experiences of the group of people studied. In the words of geographer Susan Hanson (2010), “it should be impossible to think about mobility without simultaneously considering social, cultural and geographical *context* – the specifics of place, time and people” (p. 8, emphasis added).

Although there are increasingly more studies conducted in Latin American cities, there is a gap in the literature surveying women’s public transportation experiences, especially in Guatemala City. There are studies on the organization of public transportation within the metropolitan area of Guatemala City (Velásquez Carrera and Valle Arizpe, 1995), suggestions for the future of public transportation there (Velásquez Carrera et al., 2000), and on the impacts of gang violence specifically on public transit users in the Guatemala City (Camus, 2014; Cruz, 2017). However, I observed a significant gap in studies surveying women’s mobility and

experiences on public transit. Studying gender mobility is important because it not only places women's perspectives at the forefront as experts of their experience but also helps to understand and consequently unravel the ways that gender, mobility, and space are mutually constituted within urban settings. As a result, this thesis endeavors to fill the aforementioned gap in the literature to better understand women's experiences of public transportation in Guatemala City in order to develop more equitable, inclusive, and safer transportation.

1.2 Research Question and Objectives

This study's central research question asks: What can be learned from Guatemalan women's experiences on Transmetro to contribute to a more equitable, inclusive, and safer form of public transportation? The purpose of this central question is to better understand women's lived experiences of public transportation based on their mobility experiences in a transit system operating in highly unsafe circumstances. As outlined in detailed below, Transmetro is Guatemala City's bus rapid transit (BRT) bus line. Women walk more and rely on public transportation more than men, but they are rarely asked what their needs or concerns are when designing bus routes (ITDP, 2018). Further, the study data collected is not often disaggregated by sex. This is true in Guatemala City, where women are not surveyed to understand their needs and concerns that might distinguish their experience on public transportation from others' experiences. Over 56% of overall public transit users in Guatemala City are women (Granada et al., 2019). The women who were part of this research use Transmetro weekly and mostly rely on public transport for their mobility, making them experts in this area.

To further guide this research, I also explored three related sub-questions. First, how do women Transmetro users perceive safety on the bus system, bus stations, and their surroundings? The purpose of this question is to identify the factors that contribute to women's perceptions of

safety and insecurity. This research focuses on perceptions of safety and insecurity based on research demonstrating that fear and unsafe conditions restrict women's physical and social mobility and access to public spaces (Whitzman et al., 2013; Pain, 2000). I have also chosen to focus on women's perceptions of fear, as this factor is a constant for Guatemala City citizens. The second sub-question asks: how do these perceptions of safety (if at all) affect women's mobility and access to Transmetro? The purpose of this question is to better understand how perceptions of safety, insecurity, and fear affect women's mobility, as well as to what extent these perceptions of safety curtail women's mobility. The last sub-question asks: what are existing policies and initiatives addressing women's safety on public transportation in Guatemala City? The purpose of this last question is to examine current policy and initiatives that are meant to address women's safety on public transit to understand the legal and political environment and to identify gaps in this area. The sub-questions indicate the goals of this research to understand the relationship between women's perceptions of safety and their lived experiences on public transportation to contribute to more inclusive, equitable, and safer public transportation. By focusing on women's experiences of mobility it is possible to create better responses and campaigns that target these concerns leading to a more equitable, inclusive, and safer form of public transportation that is synergistic with concerns of the elderly, disabled, and other marginalized demographics that are often ignored in the planning of public urban spaces, including public transportation (Loukaitou-Sideris, 2016).

In carrying out my research, I conducted a case study of Transmetro in Guatemala City, in which I spoke with women Transmetro users and key stakeholders. This research involved several methods (outlined in detail in chapter 3), including in-depth interviews, extensive surveys, a mobile focus group, and participant observation, which I believe were well-suited for data

collection and knowledge production aligned with the goal of understanding women's lived experiences on public transport. Designing public transportation systems that are responsive to women's concerns and needs is crucial. It could improve women's access to both physical mobility (ability to move from one place to the desired destination) and social mobility (ability to access services that have the potential to improve life possibilities) (Whitzman et al., 2013; Law, 1999). Additionally, more equitable access frees up more time and facilitates the enjoyment of public spaces.

1.3 Thesis Chapter Outline

This chapter provides background information on the research topic, discusses the research questions and objectives, and provides an outline of this thesis. Important concepts, including gender mobility, are outlined and framed in the context of this research. Details about the Transmetro bus line and participants involved in this research are also discussed. This chapter ends with a presentation of the background information on the case study site within the context of public transportation in Guatemala City more broadly.

The purpose of chapter 2 is to outline the theoretical framework for this research. Using literature on gender mobility, geographies of gender in urban spaces, and the geography of fear, I highlight the importance of social, local, and geographical context to understand women's mobility experiences. I also outline the multiple barriers women face throughout their urban daily mobility, with a particular focus on fear and violence. Chapter 2 is divided into four sections to examine these points. The first section emphasizes the value of incorporating multiple intersecting axes of difference, such as gender and class, to urban and mobility studies. The second section discusses how mobility is experienced differently by women and men due to the dominant patriarchal social norms that pervade the spatiality of the city. The third section discusses literature on barriers to

mobility with a focus on the geography of fear and its implications for women's perceptions of safety on public transit in the context of Guatemala City.

Chapter 3 outlines the methodological framework for this study, which uses a case study approach and a feminist methodology to center participants' voices. This chapter also outlines the details related to the four chosen methods for this research: semi-structured intensive interviews, surveys, a mobile focus group, and participant observation that took place during fieldwork in June and July 2019 in Guatemala City. In this chapter, ethical matters and limitations faced during my research are also discussed. This chapter highlights the importance of qualitative methods and the value of using multiple methods to have a more nuanced understanding of women's needs and concerns in relation to public transportation. Interviews were particularly helpful in uncovering women's experiences of insecurity during their commutes and the effects of insecurity on their mobility patterns.

Chapter 4 discusses the research questions that seek to better understand women's lived experiences of Transmetro in relation to safety. The purpose of this chapter is to examine the findings that reveal the connection between gendered understandings of space and violence women experienced throughout their entire journey in public transit. I argue that barriers to their mobility are explicitly linked to women's perceptions of safety manifested in the self-controlling strategies women are forced to implement during their journey or trip. I connect this to an evident absence of state measures that do not secure women's safety and inhibit mobility. I also argue that to address this better, women's security must be framed as an issue of access to public goods, a right as inhabitants of the city.

Chapter 5 addresses the last sub-question of this research by discussing current policies and initiatives in Guatemala City that aim to address women's safety on public transit. Through

an engaged analysis of the existing policy and the absence of stronger safety measures, I propose several recommendations to be undertaken at multiple scales with several actors at the local, national, community, and individual levels. Recommendations are based on a review of successful policies and initiatives in other Latin America cities that have similar social contexts and where women's mobility is also deeply linked to their perceptions of insecurity. Finally, the concluding chapter discusses the broader implications of this research and possible directions for future research to address gender mobility and public transit safety more widely. In the following section, I provide some background information on Transmetro, Guatemala City's Bus Rapid Transit (BRT) system, the case study's focus for this research, and contextualize it within Guatemala City's public transit more generally.

1.4 Background Information on the Case Study: Transmetro, Guatemala City's BRT

The case study centers on Guatemala City's bus rapid transit (BRT) system, Transmetro. It is the city's first and only urban transit system that is planned, developed, and subsidized completely by the municipal government (Municipalidad de Guatemala, 2006). Based on available data, Transmetro is the safest and most affordable public transportation system with a ticket costing 1 Quetzal (0.10 CAD) (PDH, 2019). According to the municipal government, Transmetro will eventually replace other modes of urban public transportation over time. The safety aspects of Transmetro, as well as the expected phasing out or substitution of other forms of public transit made this bus line ideal for a main study site. Below I provide details about Transmetro contextualizing the bus line within Guatemala City. I describe the stations and bus lines that are most widely used. I also discuss the other public transit systems to explain the context of widespread violence throughout public transit in Guatemala City and why Transmetro stands out as the safest.

The first modern bus rapid transit system (BRT) – cost-effective bus-based mass transit - was implemented in Curitiba, Brazil, in 1972 (Mejía-Dugand et al., 2013). A similar system was then implemented in Quito, Ecuador, in the 1990s, followed by the inauguration of Bogotá, Colombia’s larger-scale iteration, the Transmilenio in 2000 (Pardo, 2009). Due to the success of Transmilenio in Bogotá, the popularity of BRTs soared, reflected in a rise of BRT adoption throughout the region and the rest of the world (ibid.). Present in 56 cities, Latin America has spearheaded the adoption and implementation of BRT systems, accounting for over 63% of global ridership (Rodríguez and Vergel Tovar, 2013; Global BRT Data, n.d.). BRT systems have been so popular primarily because of their efficiency and low-cost applications compared to Light Rail Transit or underground metro systems (Rodríguez and Vergel Tovar, 2013). The low costs associated with implementing BRT systems, as well as traffic and passenger efficiency that emulates rail-based systems by operating in an exclusive lane, are critical in cities where there are other priorities beyond solving transportation issues, such as investing in education or health, as is the case in several countries in the region. These reasons explain why BRTs have been widely adopted throughout Latin America.

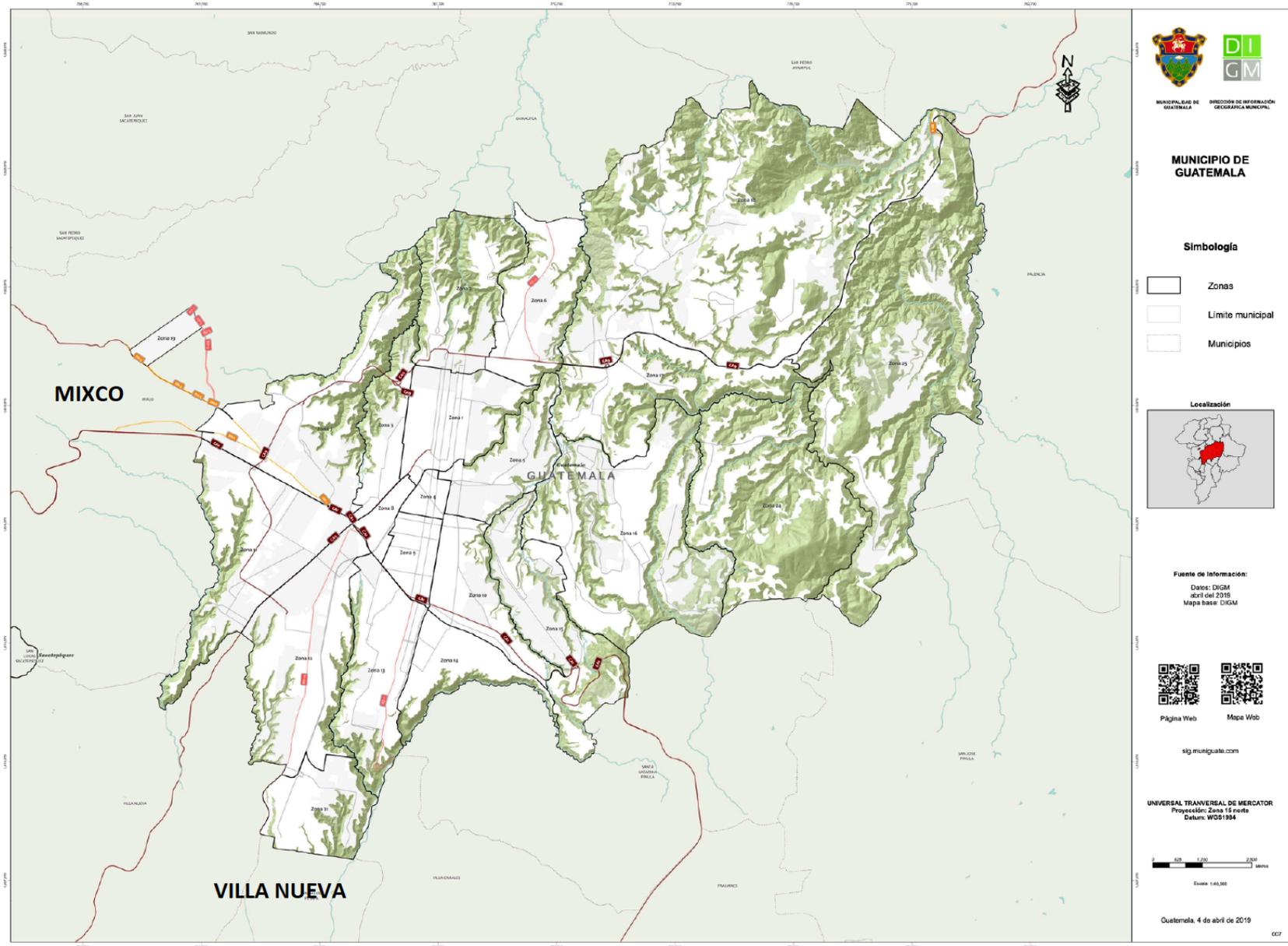
Since the 1960’s Guatemala City has seen a rapid increase in population growth and urban density, mainly due to an influx of rural migrants and the annexation of surrounding municipalities (Morales Barco, 2014). Today, approximately two million people live in the city, with another million entering and leaving the city every day from all over the country for business, school, work, or to shop, making Guatemala City the most populous city in the country and Central America (Morales Barco, 2014, p. 15; INE, 2008). Future projections show that by 2020, an estimated 3.3 million people will be living within the metropolitan area of the city which includes

the cities of Mixco to the northwest and Villa Nueva southwest (Municipalidad de Guatemala, 2006).

Moreover, the city is located in a valley surrounded by deep ravines. These topographical characteristics contribute to an increasing spatial segregation also caused by dispersed residential areas located in metropolitan suburbs, while workplaces, shopping districts, schools, universities and entertainment areas are mainly within the Municipality of Guatemala (Municipalidad de Guatemala, 2006.). This creates vast, chaotic infrastructural inefficiencies as large parts of the population have to cross from one part of the city – usually the outskirts or suburbs in the periphery – to another, leading to traffic-congested streets. Such patterns are highly problematic for users of public transportation as high demands for transit are often met with inefficient service, while those who can afford to, opt to mobilize via private motorized vehicles – namely cars or motorcycles - contributing to traffic congestion, negative environmental externalities, also occupying valuable space that could be best used by public transportation (CAF, 2011).

Figure 1

Map of the Municipality of Guatemala



Source: DIGM, (2019a)

In 2004, Guatemala City's municipal government (*Municipalidad de Guatemala*) formulated the ten main objectives of what is now known as the current Land Use Plan (POT, *Plan de Ordenamiento Territorial*) in response to the ongoing disorganized urban sprawl.¹ Reducing the population in the city and its surrounding areas was immediately identified as the main problem to be addressed because of its negative economic and environmental implications but most importantly for the social implications for the inhabitants of Guatemala City's municipal territory (Municipalidad de Guatemala, 2006). The POT was developed under a transit-oriented development (TOD) model, following the logic that the value of land increases with its proximity to options for mobility within a city (Rodríguez and Vergel Tovar, 2013).

Additionally, the POT outlined, planned, and began executing the development of Guatemala's first and only Bus Rapid Transit System (BRT) Transmetro inaugurated in 2007 (Municipalidad de Guatemala, 2006). This system is currently 35 kilometers long with a float of 200 buses, seven functioning lines and three additional planned lines to be added in the next five years, with an average of 350,000 daily trips² (Municipalidad de Guatemala, 2019). Line 12 (marked in orange in figure 2) was the first line built in 2007. It runs from Centra Sur close to the *central de mayoreo* (CENMA), a wholesale center for food markets throughout the city. This station is part of a large regional bus transference station with smaller City-run feeder buses going

¹ The 10 objectives outlined in POT are: Encourage access to housing and offer diverse housing options; Promote high construction density where there is an adequate supply of transport (Transit-oriented development TOD); Limit construction in high risk areas and protect natural and historically valuable areas; Guarantee citizen participation in the local territorial order; Guarantee the compatibility between buildings and uses of nearby properties; Encourage mixed land uses; Create public spaces with high urban vitality; Promote an interconnected road network; Give certainty to the owner and the investor, also promoting the desired urban practices through incentives; Ensure the necessary resources for municipal investment (Municipalidad de Guatemala, 2006).

²The seventh line was inaugurated September 25, 2019 and services a busy and underserved area starting at Colón Park, ending at the national San Carlos University (USAC). Data here reflects trips before line 7 was inaugurated, and users before the COVID-19 pandemic.

into neighboring *colonias*, or residential neighborhoods, extraurban buses going to nearby municipalities, as well as intercity feeder buses and coach buses. It is also a bus depot for Transmetro vehicles, and is one of the system's busiest stations, running to Plaza Barrios station in zone 1. Line 12 services a daily average of 210,000 passengers in the southern part of the city in 14 stations spanning a total 24 kilometers (Movilidad Urbana, 2019). Most of line 12 boasts exclusive bus lanes until it reaches zone 4 where lanes are shared with the rest of traffic. Plaza Barrios station is a transfer station for lines 12 and 13 and is a busy station. Line 13 (green line in figure 2) is the second most used line with an average of 78,000 daily trips throughout 18 stations spanning a total of 22 kilometers (Movilidad Urbana, 2019). It begins at Hangares station in zone 13, ending at Tipografía station in the city center in zone 1. Tipografía is also a large station, less than half a block away from Plaza Barrios. Lines 12 and 13 were designed per BRT requisites with exclusive lanes, while the rest of the Transmetro system operates in mixed traffic. Other transfer stations are for lines 6 and 18 and include FEGUA station, Capuchinas station, La Merced Station, and Cerro del Carmen station.

Figure 2

Diagram of Transmetro Routes & Lines



Source: Transmetro Guatemala, 2018

One of the municipal government's goals is to have 88% of the city's population living within five blocks of a Transmetro line (Municipalidad de Guatemala, 2006). Transmetro is Guatemala City's safest public transit option and according to the municipal government it plans to phase out other forms of public transportation to expand Transmetro so that it operates more widely throughout the city. The majority of Transmetro users are women, making up 56% of daily passengers (Granada et al., 2019). However, the few existing surveys related to public transportation use are not disaggregated by sex or gender. Additionally, there have been no surveys focused on women's mobility patterns or mobility experiences in Guatemala City. My research seeks to address this gap by examining women's experiences of mobility on Transmetro.

Transmetro stations were built with ramps to be more accessible. Stations were also built with safety measures such as transparent walls and roofs, CCTV cameras at stations and on buses. Additionally, stations are well-illuminated. At most Transmetro stations there is security provided by a municipal police officer (PM, *policía municipal*) and depending on the size of the station there is one or multiple citizen guides (*guías ciudadanos*). PMs have a weapon and a radio to communicate with the central control station. PMs do not have the same legal duties as the national police (*policía nacional civil*, PNC), meaning they can detain someone, but they do not have the legal means to arrest them. PM's main duties are to "minimize vulnerabilities and risks of all kinds, which threaten the integrity and safety of users of municipal services and facilities, protect security in places where activities are carried out by different municipal directorates" (Municipalidad de Guatemala, n.d.a). When something occurs in a Transmetro bus or Transmetro station such as disorderly conduct or a theft, PMs detain the perpetrator and then have to call the Public Ministry (*Ministerio Público*, MP) as well as the National Civil Police. Public Ministry agents take down any statements and accompany potential victims throughout the reporting process *in situ*, after

which police agents then take the perpetrator or perpetrators to the police station. There is a significant amount of decision-making power for PMs as they decide what gets reported to the Public Ministry and national police, and what does not. Further, in Guatemala there is strong institutional distrust of police and the legal system which results in underreporting. The reporting protocol for reporting incidents within Transmetro was established in 2017 (Municipalidad de Guatemala, 2020a). As explained in detail in chapter 4, participants have stated that they tried to report a theft to a PM but they were ignored or the PM decided not to do anything.

Guía ciudadanos, literally translated as “citizen guides” were not originally intended to stay at stations permanently. The municipal government decided to have *guías* at stations to help Transmetro users understand how the new transportation system worked and answer any questions users may have. However, they have been very popular and now continue to serve Transmetro users. They greet passengers when they arrive at stations and when they get off the bus, saying “good morning, welcome to” whatever station they are in politely and in a courteous manner. I also observed *guías* helping pregnant women find a seat, assisting blind passengers, explaining what bus to take in what direction, and giving directions outside of Transmetro stations. *Guías* play a key role at the larger, busier stations such as Plaza Barrios and Centra Sur by helping maintain order by directing people into lines in an orderly manner.

1.4.1 Overview of Guatemala City’s Transportation

Most of Guatemala City’s transportation has been outsourced to private companies that receive subsidies from both the national and municipal governments. Since 2001, Transurbano operates as a state run and sponsored bus-based transportation system. These buses are painted in dark blue and white, and what at first may have been “newer” vehicles are now run-down.

The most widely available transportation system is the privately-operated red buses (*buses rojos*). Their route number is displayed at the front window, and there is typically a bus assistant that gets on and off at the front door who is in charge of collecting passenger's fare money as they go inside the vehicle. According to contracts with the state and municipal governments, bus fare should be set and should not be altered. However, because ownership is privatized and because of ongoing and increasing extorsions of bus assistants and drivers, bus fare varies from bus to bus especially during peak times. As elaborated in chapter 4, in addition to being a threat to passenger security, varying and increasing fares represent a grave financial burden to transit-dependent residents in Guatemala City. Local and national governments have implemented few measures to improve security on public transportation, leaving passengers and drivers alike in fear for their safety during their daily commute. In addition to the insecure context red buses operate in, they operate on semi-structured routes, without formal bus stops or formal bus schedules.

Other forms of public transportation in addition to Transmetro, Transurbano, and red buses are mototaxis. These are also privately owned and are similarly plagued with unsafe circumstances as they are also victims of ongoing and increasing extorsions from gangs (*maras*). Violence in public transit began to rise in 2015 and in 2019, a record number of assaults at gunpoint on passengers was recorded on all public transit, resulting in the deaths of 157 people (PDH, 2019). Sexual harassment has also increased substantially on public transit with 4,689 reports made to the Public Ministry (MP) in 2018 (PHD, 2019). Transmetro authorities only began to receive reports for incidents within the system (at stations and on buses) in 2017. In 2019, there were 426 reported thefts and 71 reports of sexual harassment on the Transmetro buses or stations (Municipalidad de Guatemala, 2020a). Theft and sexual harassment are mostly reported on lines 12 and 13, with reports incrementing yearly (tables 1-2). In contrast, Transmetro's safety measures have helped

curb crime and violence on this bus line, but Transmetro does not run throughout the entire city, as a result many passengers must use multiple modes of transport (red buses, Transurbano, taxis, mototaxis, or tuc tucs).

Table 1

Theft Reports on Transmetro by Line and Year

Year	Line 1	Line 2	Line 6	Line 7	Line 12	Line 13	Line 18	Total/Year
2017	2	0	0		108	28	1	139
2018	2	0	9		95	53	0	159
2019	14	0	19	0	202	191	0	426
Total/line	18	0	28	0	405	272	1	724

Source: Municipalidad de Guatemala, 2020a

Table 2

Sexual Harassment Reports on Transmetro by Line and Year

Year	Line 1	Line 2	Line 6	Line 7	Line 12	Line 13	Line 18	Total/Year
2017	1	0	4		45	12	1	63
2018	0	0	3		34	15	1	53
2019	0	0	5	0	40	26	0	71
Total/line	1	0	12	0	119	53	2	187

Source: Municipalidad de Guatemala, 2020a

The representative for public transit users in the Attorney's Office for Human Rights (*Procuraduría de Derechos Humanos*, PDH) has stated that

the current transport service is obsolete and deficient, and that it is far from being able to guarantee the accessibility conditions required for people with disabilities and other users

who live in vulnerable conditions, and who, in addition, are victims of mistreatment by drivers and assistants in transport units (PDH, 2019, p. 298).

Additionally, the PDH underscored that the state must guarantee decent, efficient, and affordable public transit system and suggests that it be better integrated (PDH, 2019). As I do in the analysis of the findings of this thesis, the PDH advocates for mobility issues to be framed as a human rights issue, as a right to access public goods that when inefficient, unavailable, and dangerous, affects the quality of life of citizens (PDH, 2019). Lastly, I would like to highlight that although there are laws against gender-based crime, there is a lack of legal clauses specifically addressing sexual harassment and sexual assault consisting of verbal or physical harassment which makes it very difficult to prosecute any perpetrators. This exacerbates the problem of sexual violence on public transit as there are no repercussions for aggressors, revealing that the reporting systems are weak and inefficient. Further, users are discouraged from reporting or filing official complaints because within the judicial system, it takes an average of 214 days to obtain a result from judicial cases of sexual violence (PDH, 2019). Only about 34% of victims follow through with official complaints (PDH, 2019). It is within this dangerous context that women use public transport in Guatemala City. In the following chapter, I now turn to a discussion of the theoretical framework and literature used throughout this thesis.

Chapter 2: Theoretical Framework

2.1 Introduction

Transportation design and urban planning, until more recently, had been considered “gender neutral” by urban planners and city officials. However, as demonstrated in this chapter, geographers have long been concerned with the spatiality of everyday life, of interactions between space, society, and power dynamics. This framework is strengthened through the relatively recent consideration by feminist geographers of the concept of gender, which expands on the existing understanding of space as a social product (Lefebvre, 1991) to help articulate the linkages between gender, power, and space. As the literature will demonstrate, globally, and in Latin America, many cities have been slow to include gender in the conceptual framework of their urban and transport planning (Soto Villagrán, 2018). As a result, gender, and the needs of women specifically, have been overlooked in designing the built environment and public transport systems. My work on gender mobility in Guatemala City is situated within this analytical framework, expanding our understanding of the qualitative impact of a lack of gender mobility-based transportation planning on women’s lived experience. It also addresses how we can center the voices and experiences of women to address this gap. To grasp the effects of gender mobility-based transportation planning and the structural difficulties that prevent its implementation, it is first important to understand the theoretical concepts that animate its application and how they are linked.

Gender has an effect on how public spaces and mobility are experienced as “gender both constitutes mobility and is constituted by mobility in a myriad of ways” (Uteng and Cresswell, 2008, p. 5). Drawing on literature on the gendered aspects of occupying and experiencing public space and mobility, as well as geographies of fear, the mutually constitutive relation of gender and mobility will become clear. First, I will explore public space and gender

conceptualizations as social constructs, emphasizing that they need to be understood within a specific geographic and social context. Then, I will define urban daily mobility and explore its gendered implications in Latin America and Guatemala while focusing on the multiple barriers women encounter during their trips or journeys on public transportation. The last section discusses fear and perceptions of insecurity in relation to their social constructions in Guatemala to provide context to this research project's case study and the implications of fear and perceptions of insecurity for women's mobility.

2.2 Urban Space and Gender

The mutual production of space and social relations is a longstanding interest of geographers. Space is not a passive backdrop, but as geographers have long argued, space is implicated in the configuration of social relations (Giesecking et al., 2014; Soto Villagrán, 2018). Space is a social product that structures and is structured by a range of social relations, including age, class, disability, and race (Lefebvre, 1991; Giesecking et al., 2014). According to this conceptualization, space is an essential component in developing and structuring social inequalities (Soto Villagrán, 2012). This thesis takes seriously how social representations of gender, as well as class, influence the everyday experience and potential appropriation of space by focusing on how gendered mobility on public transport takes place in Guatemala City.

According to Soto Villagrán (2018), applying a gender perspective to analyze urban spaces permits the study of three critical processes to examine the city: 1) gendered division of labor that continues to place women in the “private and reproductive space of the home and men in the public and productive space” 2) the gendered differences in using time and space in cities resulting in unequal access to urban goods and inequalities in the use of space 3) sexist urban planning that has ignored the needs, experiences, and voices of women until very recently (p. 17). My analysis

takes these three processes seriously to reveal how the gendered division of space manifests in public transportation.

Women's participation in the design and planning of urban spaces has long been neglected, resulting in gender-blind planning. Throughout this thesis when I refer to gender, I mean that it is "linked to the perceived differences between women and men and to the unequal power relations based in those perceived differences" (Hanson, 2010, p. 8). Explored in detail below, women's ascribed gendered roles shape their experiences of mobility. Until recently, women's needs, concerns, and valuable experiences had been ignored or excluded from the urban agenda. City spaces have primarily been designed by and for men to women's detriment with tangible repercussions. As Linda McDowell (2003) argues,

both the external and internal design and layout of the City symbolize male power and authority and men's legitimate occupation of these spaces. The streets and squares, the spaces between them, the facades of buildings and the internal layout...reflect and reinforce the idealization of a city worker as masculine. In these spaces, feminine bodies are 'out of place'. (p. 145)

This is reflected in urban design in which women are assumed to primarily inhabit residential (domestic/reproductive) spaces, with a distinct separation of business (productive) spaces assumed to predominantly be used by men (McDowell, 2003). This gender-blind design tended to overlook the participation of women in the city as active, productive inhabitants (Soto Villagrán, 2018). This serves to encourage and perpetuate difference and unequal power structures, buttressing the notion that women are "out of place" in public spaces, as manifested in women's experience of public transport (Fincher, 2003). This is perpetuated by the common consideration of public space and public transport as experienced equally by all people, and as being a passive or neutral backdrop, empty of meaning influencing its design. Feminist scholars have argued that multiple intersecting categories such as race, class, ethnicity, able-ness or disability, and gender and space

are mutually constituted (Ceccato and Sideris, 2020; Uteng and Cresswell, 2008; Valdivia Gutiérrez et al, 2017). As such, women's experiences of mobility in public transport are different as they are shaped by how they are socialized based on their gender ascribed roles.

Feminist geographers have introduced strong attention to gender as a social relation. Gender is a social construction that is context specific. The practice and meanings of gender are formulated and performed based on a cultural and social context, varying from one location to another and between distinct groups of people in the same place (Nightingale, 2006 in Hanson, 2010, p. 8). In Guatemala, there are dominant patriarchal social norms that reinforce and uphold gender stereotypes by maintaining gender hierarchies. Further, gender is defined by multiple processes that are expressed through power relationships such as physical ability, class, ethnicity, and age (ibid.; Laub, 2007). These processes evolve through "everyday practices in place," including daily mobility practices (Hanson, 2010, p.8). Gender hierarchies are clear in women's experiences of mobility in this research.

Feminist geographers have been influential in re-conceptualizing how urban space is constructed, perceived, and experienced by questioning "relationships between gender divisions and spatial divisions to uncover the mutual constitution and problematize their apparent naturalness" (McDowell, 1999, p. 12). As Massey has argued, space must be conceptualized as being formulated from "sets of interrelations, as the simultaneous coexistence of social interrelations and interactions" (Massey, 1990, in McDowell 2005, p. 29). Public urban space is socially produced, in which a hierarchy of relationships are expressed and magnified, where relationships of subordination, including a gender hierarchy, are expressed and enhanced (Falú, 2009). Beyond encompassing and expressing relationships of domination between genders,

public space also encompasses various political, economic, and social dimensions that are in continuing conflict and tension (Falú, 2009).

Effectively, *context* – that is, social, geographic, and cultural – are fundamental to understanding the practices and meanings of gender (Hanson, 2010). To geographers, gender relations are a core focus because of the critical role spatial divisions (public/private, inside/outside) have in shaping how gender inequality is socially constructed (McDowell, 1999). Additionally, feminist geography has called attention to the analysis of women’s everyday lives and how they are shaped by the spaces they inhabit. Moreover, it is the study of how women symbolically and materially build everyday life in the different urban spaces they live in (Soto Villagrán, 2018). I incorporate the focus of everyday life into my analysis to uncover the gendered implications of safety on mobility.

These valuable insights have been more difficult to implement as a concept for analysis in Latin America because of binary conceptions of space when studying the city (Soto Villagrán, 2018). Consequently, these binary oppositions, such as female/male, extend to spatial representations such as private/public, immobility/mobility, periphery/center, and reproductive/productive. These serve to “naturalize the presence of women in private, peripheral, immobile and reproductive spaces, and, therefore, tend to omit the presence of women as inhabitants of the city and also as agents of transformation of said urban processes” (Soto Villagrán, 2018, p. 17). It is critical to uphold women as agents of transformation that can reclaim their right to the city through studies of linkages between gender, urban public space, and mobility.

In Guatemala, the hegemonic patriarchal social norms influence how gender is perceived, performed, and enacted in Guatemala City. Cultural and social norms define how women’s bodies are perceived, and how the hegemony of patriarchal social norms is imbued in how women act,

are seen, and appropriate or do not appropriate public space (Falú, 2009, p. 23). A cultural understanding of space as masculine and thus impermissible for women prevails, evident in women's experiences of harassment and their coping strategies on public transportation, and an internalized sense of safety as a personal matter (ibid.).

This section has defined space as a social product with multiple dimensions, outlined how space and gender are mutually constituted, that gender is a social construction that is culturally specific, and that the relationships between gender and space influence how cities are planned, experienced, and perceived. In Guatemala City, the implications of space as impermissible to women constructed through gender hierarchies is notable as they manifest in women's differentiated experiences of public spaces and public transportation in contrast to men's experiences. This research uses gender as a lens to reveal the gendered implications of mobility through women's use of Transmetro. The following section examines the connections between gender and mobility, turning this chapter's focus from public space in general towards the use of public transportation more specifically.

2.3 Gender and Mobility

General mobility can be defined “as the entanglement of movement, representation, and practice,” which produce and are themselves produced by the social relations that entail the distribution and production of power (Cresswell, 2010, pp. 19 & 21). Further, “movement, the represented meanings attached to it, and the experienced practice are all connected” (Cresswell, 2010, pp. 21-22). My analysis focuses not only on feminist geography's attention to everyday lives and gendered spaces but also on everyday urban daily mobility, a fundamental activity, and right to the city. Urban daily mobility can be understood as:

a social practice of daily movement through urban space and time, granting access to activities, people, and places [...and] understanding the social, economic, cultural, and

spatial consequences of daily mobility on urban spatial structure and the different experiences of inhabitants. (Jirón et al., 2010, p. 24)

With an understanding, then, that gender is a social construct, and urban daily mobility can be understood not only as physical movement but as the meanings, experience, and power relations embedded in this practice, we can now explore the concept of gender mobility and literature pertaining to its study. Mobility “(where, how fast, how often) is demonstrably gendered and continues to reproduce gendered power hierarchies” (Cresswell and Uteng, 2008, p. 2). Women have different mobility patterns and travel needs than men, mainly because women continue to disproportionately bear most or all the responsibility of reproductive work—caretaking and domestic unremunerated tasks that ensure the household runs in order (ITDP, 2018; Loukaitou-Sideris, 2016). These tasks include shopping, childcare, accompanying elderly family members to doctor appointments, or taking and picking up children from school, among many others. Consequently, women take more, shorter trips during one journey in what is otherwise known as “trip chaining” (ITDP, 2018; Greed, 2018). Thus, women rarely travel alone because they travel with parcels or goods, children, or the elderly, which connotes an additional burden as women, in general, tend to walk and rely on public transportation more than men (ITDP, 2018; Jirón, 2017; Sheller, 2018; Soto Villagrán, 2018). City infrastructure such as sidewalks, bus stops, and buses are rarely in the best condition presenting an additional burden – or an *organizational* and *physical* barrier, outlined in detail in another section below – for women to fulfill their ascribed gendered roles and productive tasks (ITDP, 2018).

In Latin America, more than half of public transit riders are women; in Guatemala, 56% of riders are women (Granada et al., 2016; IDB, 2018a). Nevertheless, transportation systems are not designed or planned with women’s needs or mobility patterns in mind. Women make trips continuously and not always during peak times, but because most transportation systems and

timetables are designed with a “median user” in mind – that is, a man that travels to work and back home without making multiple stops during peak travel times based on a standard workday – women’s urban daily mobility is severely restricted (Jirón, 2017, p. 420). Restricted mobility impacts women’s everyday lives; restricted mobility or total immobility is one characteristic that most plainly exhibits gender inequalities in cities accentuated by gender-blind planning (Soto Villagrán, 2018; Jirón, 2007). Phadke describes women’s mobility as being ruled by a “tyranny of purpose” as women are expected to establish their respectability when occupying public space as well as through “symbols of productivity” (Phadke, 2007, in Whitzman, 2013, p. 41). This is evident in women’s modification of their behavior throughout their trip to abide by the understanding of “correct” feminine behavior in public space.

Time management for women is key, as trip chaining places critical limits on their time (Soto Villagrán, 2018). However, the burden of unpaid labor is not equally distributed among women; it is based on numerous factors, including socioeconomic considerations. Women in households with lower incomes spend more time doing unpaid labor due to a lack of material resources, representing an opportunity cost directly related to the activities that cannot be undertaken, such as finding remunerated work, or improving working conditions (Jirón, 2017). The households with more dependents, whose care demands more time, are the households that need more income and have scarce access to services (Scuro and Vaca-Trigo, 2017, p. 126 in Soto Villagrán, 2018, p. 18). This is perfectly reflected in the reality of the everyday mobility of this study’s participants in Guatemala City.

Socioeconomic factors, that is different income levels determine the “chosen” mode of transportation and mobility patterns. The notion and privilege of “choosing” a mode of transportation, of public transit versus a private vehicle, will be explored in the analysis of the

research project's findings in the fourth chapter of this thesis. However, it is crucial to keep in mind that women as a group are not homogenous and that socioeconomic inequality affects women's urban daily mobility and how they experience the multiple barriers they face. Women with more resources at their disposal have more flexibility to manage their time as they have access to private vehicles, childcare, and to hire help to ease the burden of reproductive work all of which gives them more free time for other activities. Time restrictions are more significant for women from lower-income households with less access to tools and resources to improve their social and economic mobility (Jirón, 2017). This is primarily impeded by the city's inefficient transportation system and is impacted by slow daily traffic due to the increased use of private motor vehicles. Consequently, it is essential to approach mobility through the multiple intersecting social structures that affect it, including gender and income levels. More impoverished populations face more challenges as they predominantly live in more affordable peripheral locations and have less access to major transit routes, while these populations also are more reliant on public transit than affluent populations (Lucas, 2016). Improved access to transit, and improved public transport systems in general, present better opportunities to access work, school, and leisure within the city.

The impacts of gendered mobilities were understudied in Latin America until recently. Falú (2009, 2012, 2013) examined how violence impacts women differently, limiting women's lives in public spaces, delineating how the hierarchy of gendered relationships, with women constructed as subordinate, impacts their access to and participation in public space. Soto Villagrán (2012) made contributions to gender mobility in the region by classifying women's fear as violence in itself, as explored below. She has also examined how violence impacts women's mobility in Mexico City (2017) and reviewed the research and theory produced in the region to reveal how the social production of space is gendered, and thus influences different experiences of public

space and transit in women and men (2018). Dunckel-Graglia (2013) has analyzed women's response to women-only transit in Mexico City and has endorsed women-only transit options, together with social policies, as a start to addressing gender-based crime on public transport. However, there is mainly a lack of comparative studies in the region that would aid policy improvement and adoption. Most of the literature comes from Argentina, Chile, Colombia, and Mexico, although more studies are being conducted in other smaller countries such as Ecuador and El Salvador (IDB, 2018b). There are both quantitative and qualitative studies, but quantitative studies rely on surveys with large national databases. Quantitative in nature, surveys do not have the option to answer the exact purpose of a trip, especially regarding care work or leisure, calling for adding this component to surveys and finding alternative, more personal methods to address this issue (Jirón, 2017). On these surveys, shopping is often mislabeled as "leisurely," which again does not fully grasp the intention or purpose behind shopping as a reproductive task or the distinction from journeys for leisure or work. Qualitative studies, like the work in this research project, helps to unravel and clarify the complexity of gendered mobility through tools like interviews and participatory planning, lacking in Guatemala City.

In Guatemala, surveys on mobility are scarce, and the few that exist are not disaggregated by sex or gender. An absence of data impacts the quality and availability of transport, resulting in gender-blind and inefficient transit that does not meet over half of its users' needs. Further studies need to also look at women beyond patterns based on care work and the domestic labor burden and see how their ability to travel through and *be* in public space, to inhabit and occupy space, is affected by their mobility through acts that *can* be classified as leisurely and that are chosen, both during urban daily mobility and casual trips (Whitzman, 2013). There is a gap in the literature concerning gender mobility in Guatemala City. This thesis intends to fill that gap by looking at

women's experiences on Transmetro through qualitative methods to contribute to more equitable, inclusive, and safer public transportation. Equity in transportation, commonly called fairness or justice, addresses the delivery of costs (e.g. financial, environmental), and benefits (e.g. reduced time travel, facilitate access to locations) of transit systems (Litman, 2017). In other words, transportation equity evaluates whether the distribution of impacts, the costs and benefits, of transport are suitable for users (Litman, 2017). By inclusivity, I mean incorporating a range of voices in the transport and urban planning decision-making processes so that the design of transit and the built environment reflects the needs of a wider population to counter gender-blind planning (ITDP, 2018). Inclusive planning entails inviting women and other groups that are often disregarded to take part in planning, creating policy, be a part of the execution process to make meaningful contributions. It is not enough to simply consult diverse dismissed groups, they must be included with pertinent roles. As such, equitable transit systems are accessible and beneficial to users, while inclusive systems are created and run by diverse groups to meet the various demands from multiple groups who use them.

2.3.1 Barriers to women's mobility

Urban mobility restricts women's everyday lives, and women's restricted mobility can be seen as a characteristic displaying how gender inequalities are lived and reflected in urban spaces (Jirón, 2007). Restricted mobility alludes to how women's mobility practices shape certain mobility patterns focused primarily around walking and using public transportation (Soto Villagrán, 2018). Time being a scarce resource, according to Jirón (2017), can be interpreted as a barrier to women's social mobility as it represents an opportunity cost directly related to the activities that cannot be undertaken such as finding remunerated employment, or better employment, or to improve working conditions (p. 415). Jirón (2017) also points to accessibility

as one of the main aspects of social exclusion in cities but criticizes interventions and policies that *only* seek to address questions of access and thus are blind to other types of barriers that curtail urban daily mobility in addition to accessibility. Jirón and Mansilla (2013) propose a set of seven additional obstacles or barriers to women's urban daily mobility that need to be studied and addressed for a more holistic understanding of their needs to develop better policies and more responsive initiatives, four of which directly relate to this research: financial, temporal, physical, and emotional: insecurity, violence, and sexual harassment (in Jirón, 2017). These barriers are not mutually exclusive and often materialize simultaneously. Financial barriers are directly connected to the costs linked to different types of transportation. Physical barriers can include distance traveled, the physical aspects and conditions of spaces traveled through, such as bus stops, buses, streets, sidewalks, and pedestrian bridges. As women tend to walk and use public transportation more, poor city infrastructure is an additional barrier that inhibits their movement, further restricting their time. In this thesis, I focus on insecurity and fear as significant barriers to women's mobility.

Additionally, women often travel with parcels or packages for shopping, with items to sell, or with personal items, making the conditions of the city's physical infrastructure even more noticeable and important for their mobility. Organizational barriers encompass the many activities women undertake daily (accompanying children to school, taking elderly family members to doctor's appointments, grocery shopping, working) that incur an opportunity cost and diligent time management. This is reflected in transit design in Guatemala City and informs the experiences of women and their mobility while using public transit. This poses a significant restriction on women's urban daily mobility as they rely more on public transportation, make multiple trips a day, not always during standard peak times that are not always on the way to work or school. The

duties and tasks that compel women to trip chain also restrict their use of time. As Soto Villagrán (2018) framed it, “the link between space and time is reinstated: moving in space implies moving in time since for women the management and proper use of time is a daily imperative” (p. 20). Temporal barriers encompass how the time of day, stations, transportation service times, and the length of a trip can restrict women’s accessibility (Jirón, 2017, p. 421).

A central concern for this thesis is the seventh barrier identified by Jirón and Mansilla, which, as opposed to organizational barriers, has been called *emotional*: fear, perceptions of insecurity, and violence. The following section is dedicated to outlining the geography of fear and how it acts as a barrier to women’s urban daily mobility, especially in the context of high incidences of gender-based violence in Latin America.

2.3.2 *Fear of violence and perceptions of insecurity*

Fear and perceptions of insecurity can be considered an emotional barrier to women’s urban daily mobility because of the contributions of feminist geographers who have made connections between the body, emotions, and places to the fear of violence in public spaces. Soto Villagrán (2018) adds the term “emotional” to the field of geographies of fear, as she argues that it is crucial to understand women’s diverse affective experiences in urban spaces, particularly because of how subjective and physical spatial aspects are inseparable; emotions seep and paint the physical environment, and experiences in a physical environment can filter into an individual’s experience. As such, Valentine’s (1989) and Pain’s (1999) understanding of the geographies of fear establish a link between public space, gender norms, and how fear is learned, socialized, and lived for women. This is reflected in women's experiences in Guatemala as they cope with the high rates of general crime and gender-based violence.

Fear of crime is a socially contingent experience and perception and therefore is best conceptualized as transitory and situational, not static or fixed (Pain, 2000; Dammert, 2007). This means that people move through different degrees of fear throughout their lifetime, which are determined by social, temporal, and spatial circumstances (Pain, 2000). Fear is an emotion situated in an individual's particular life circumstances (Jirón, 2017; Pain, 2000; Soto Villagrán, 2012). In addition to being connected to the characteristics of a neighborhood and built environment, fear of crime is socially and historically specific (Pain, 2000). Like Hanson (2010) and Law (1999), who emphasize the importance of *context* for gender and mobility, context is also crucial to understanding how fear, perceptions of insecurity, and violence act as a barrier to curtail women's urban daily mobility. Above, Pain refers to "fear of crime," mainly focusing on personal crime, but for this analysis, I extend this definition to a gendering of fear of crime and violence on public transit through a whole journey approach. A whole journey, or door-to-door approach, takes a person's safety into consideration throughout their entire trip (Ceccato and Loukaitou-Sideris, 2020). Additionally, I adopt two dimensions of security per UN Habitat: actual/real and perceived (Ceccato and Loukaitou-Sideris, 2020). Actual or real safety is measured through crime statistics and metrics to determine the risk of crime, whereas perceived safety refers to perceptions as a result of anxiety and fear (Ceccato and Loukaitou-Sideris, 2020). This research uses both dimensions because at times the perception of security contradicts recorded criminal acts. However, this is explained because perceptions are not always based on actual security alone but by the information people know about it and the construct produced by that (UN Women, 2017, p. 31). Given the lack of studies recording the perceptions of women's insecurity in Guatemala City, it is important to collect both to unravel the apparent naturalness of insecurity.

Not all acts that cause women to feel insecure are legally typified as such, which can lead to women not identifying them as crimes in surveys or in reports, and to a lack of punitive remedies towards criminals. This is the case in Guatemala, where sexual harassment is not codified in law as criminal, making it extremely difficult to address. Dammert (2007) argues that insecurity-generating acts

have their significance in the power relations of the patriarchal culture and are especially linked to the gender role ascribed to women. The concept of gender allows us to clearly state and conceive a reality as old as it is embedded in the imaginary of social life, to the point that it has become implicit. It is in this context that the fear of women can be understood, a context in which relations between men and women are subject to rules that determine the social position of both. (Dammert, 2007, p. 90)

As previously stated in this chapter in the section on gender and public urban space, women both perceive and experience their surroundings in urban areas differently to men, primarily as a consequence of fear and perceptions of insecurity that are the result of different gendered spatial expressions. As such, women's constrained "use and occupation of public space is therefore a spatial expression of patriarchy" (Valentine, 1989, p. 389). This includes the protective and avoidant strategies women adopt throughout their mobility. In this thesis, I use this framework to explain how women's inhibited occupation and use of public space, manifested in their experiences of gender mobility, produces fear as a consequence of the unequal patriarchal structures in Guatemala City.

Fear and perceptions of insecurity do not arise spontaneously (Dammert, 2007). From a young age, women create mental maps of spaces they learn and are socialized into judging as dangerous through the second-hand experiences of family, media, and personal experience, limiting their use of public space (Valentine, 1989). This results in girls' fear being instilled at a young age. When negative experiences do then occur, they become linked to the place or context where it happened, resulting in a reinforcement or development of the girl's geography of fear

(Valentine, 1989). In Latin America, churches, family and schools also play an important role in the socialization and learning of fear, the creation of mental maps of public spaces to avoid, as well as the “cultural codes” that indicate how they should behave in said spaces (Dammert, 2007). To mitigate fear and perception of insecurity, women develop self-restricting strategies or precautions to self-monitor or self-control in public urban space. Although these are self-imposed, they are equally dictated both by socio-cultural context (which instills fears and reinforces it from a young age) and embodied fear (Dammert, 2007; Soto Villagrán, 2018; Valentine, 1989). Fear, then, functions as a powerful means to “collectively discipline women” resulting in limited participation and inhibited mobility in urban public space (Soto Villagrán, 2018). In this thesis I used these conceptualizations of the spatiality of gendered fear to highlight how fear is present throughout women’s mobility throughout their whole journey, impacting the decisions they make to modify their behavior to ensure their safety.

Fear disproportionately affects transit-dependent women with lower incomes, perpetuating the vicious cycle of income disparity. When women choose not to self-monitor by implementing precautionary safety strategies, they may instead choose to withdraw completely from public urban space to their social and personal detriment, reinforcing and heightening fear (Falú, 2009). In other words, “fear is always an experience individually experienced, socially constructed and culturally shared” (Reguillo, 2003, p. 189 in Dammert, 2007, p. 95).

Soto Villagrán (2012) has a powerful contribution to the debate on fear as a barrier to mobility. She proposes classifying fear of occupying public spaces as a *form of violence* itself. This proposed analysis is based on gender being one of the principal factors affecting women’s mobility through cities and inhibiting their access to activities in public space. Soto Villagrán (2012) asserts that fear as a violence is both a “subtle and profound violence,” considering that it

is difficult to perceive and is instrumental in producing an environment that endangers women's freedom in public urban spaces (p. 148). Further, Soto Villagrán proposes that because it is difficult to differentiate between violence and fear in everyday experiences, it is useful to think of them as "closely linked and reciprocally constructed" (Soto Villagrán, 2012, p.148). She adopts Lindón's analysis that fear/violence can be treated as a "bi-faceted" concept (*bifurcado*), as the difference among them is primarily analytical (p. 148). Consequently, fear acts not only to curtail mobility and participation in the city but is an infringement of women's right to public goods and to participate in the city (Whitzman, 2013). The bi-faceted concept of fear/violence is adopted in this thesis to foreground how widespread fear in Guatemala City constitutes a form of violence that permeates through women's everyday lives through their mobility, resulting in the most pronounced barrier to women's mobility.

Guatemala has some of the world's highest crime rates and incidences of violence. As highlighted by Godoy-Paiz (2012),

in Guatemala, violence is embedded in historical processes of inequality and marginalization along ethnic, class, and gender lines, and in terms of national and international economic interests that rely on social inequalities, militarization, and political warfare as well as unaddressed psychosocial consequences of war. (p. 105)

In this thesis, I situate the gendered experience of violence in public space through this historical context of pervasive marginalization and inequality in Guatemala City. Further, gender-based violence is a prevalent issue in Guatemala with its own particular spatiality as it goes beyond the private sphere (violence at home) extending to the public sphere. Femicide, as defined by the Mexican anthropologist Marcela Lagarde, is typified as a hate crime against women that is misogynist in nature, abetted by the state and social tolerance to violence in general (Soto Villagrán, 2012). What differentiates femicide from femicide is the state's complicity in tolerance by not establishing secure conditions that guarantee women's safety at home, in their

neighborhoods, during leisure activities, in the workplace, and public transportation (ibid.). Femicides, then, are inherently political, as they are “marked by particular social attitudes and practices toward women, their bodies, and their rights” (Godoy-Paiz, 2012, p. 94). With this definition in mind, femicide includes more than violent murders, but also “the slow deaths of women resulting from structural conditions that expose women to harm” (Godoy-Paiz, 2012, p. 95). The violence and fear women experience on public transportation is linked to class and social structures and consequently meaningful solutions cannot be realized with changes to the built environment alone. As mentioned above, women with lower incomes that mainly rely on public transit are disproportionately impacted by fear and constrained mobility. By not guaranteeing women’s safety, the state is abetting the fear and violence women experience throughout their trip on public transit, as there is an evident absence of state intervention to reduce and prevent violence against women on public transit.

There have been notable legal changes to Guatemala’s penal and civil codes to suppress violence against women, particularly since the peace agreements ending the armed conflict were signed in 1996. However, violence in general in Guatemala has increased while the country’s judicial system is overwhelmed and incapable of prosecuting the number of crimes committed related to femicide (Torres, 2018). In part, gender-based crimes are not always reported due to the lack of trust in institutions and the police because they continuously fail to uphold women’s safety. Society and state tolerance, poorly working institutions, and lack of a legal framework typifying sexual harassment as a crime makes femicide very difficult to address in policy and to face as women. This manifests in women’s experiences using public transport in Guatemala City and is a significant barrier to their mobility.

Although more cities are adopting policies to address issues of women's safety on public transportation with the help of initiatives supported by UN Women, UNIFEM, and the Interamerican Development Bank (IDB) through the Transport Gender Lab, they are rare and lacking (Soto Villagrán, 2018). Moreover, there is a need for more research on gender mobility in the region. A solution has been to adopt women-only transportation, present in several countries worldwide, including Mexico and Brazil, but this has been met with both support and criticism (Loukaitou-Sideris, 2016). Advocates argue that women-only solutions reduce women riders' perceptions of insecurity and sexual violence, help develop policies to address women's safety, and spark debates and wider conversations about gender-based violence and inequality while shedding light on this issue (Dunckel-Graglia, 2013; Soto Villagrán, 2017). However, critics highlight that these are merely palliative measures that do not get to the root causes of gender inequality and gender-based violence. Women-only transportation can worsen inequality by reinforcing gendered spatial divisions and underpin the notion of women as victims that need "safety in the form of protectionism" through more policing or by installing cameras, and by reinforcing gendered spatial differences by placing the onus of responsibility on women to retract from the male-gaze (Loukaitou-Sideris, 2016; Soto Villagrán, 2017; Whitzman, 2013, p. 36). Safety, others argue, does not result from institutional or infrastructural factors but must be produced actively (Phadke, 2007, in Whitzman, 2013). As such, in order for women to (re)claim their right to the city and to "actively produce" their safety, they need to "maximize their access to public space" even if that entails having unpleasant encounters with strangers as that is part of what experiencing a city is (Whitzman, 2013, p. 42). In the context of Guatemala, where patriarchal social norms are widespread and internalized by both women and men, women-only transportation

would amplify the problem without adequate policies and initiatives that tackle the structural causes of gender inequality.

In addition to accessibility and Jirón's seven additional barriers to women's mobility, transportation design and transportation policies that neglect or ignore women's needs are an enormous barrier, restriction, and constraint not only to women's mobility but to women's complete enjoyment and right to the city (Loukaitou-Sideris, 2016). Transportation systems fail to respond to women and men's different travel patterns, which produce forces that widen gender gaps both in low- and high-income countries (ITDP, 2018).

2.4 Summary

In this chapter, I outline how gender, space, and mobility are intricately linked. Women's experience of mobility and public space are determined by locally contextual constructions of gender, and space. An understanding that social constructs of space and gender are mutually constituted sheds light on how they manifest in women's use of public space and public transit reflected in an assumed "impermissibility" as space is largely treated as "masculine" (Falú, 2009). I emphasize that context is central to understanding how constructions of gender, space, and fear influence women's perceptions of safety and their mobility. The violent context in Guatemala, in terms of gender-based violence and structural violence, helps to understand how social constructions of gender influence experiences and uses of space for women. However, more research is needed to better understand Guatemalan women's mobility experiences in Guatemala City to understand what impinges and constrains their mobility to develop more inclusive, equitable, and safer public transit systems that are responsive to its users' needs and concerns. The following chapter describes the methodological framework and data collection process of this research project.

Chapter 3: Methodological Framework

3.1 Introduction

The previous chapters introduced the study as well as the theoretical framework underpinning this research project. This study's main objective is to examine Guatemalan women's experiences and perceptions of safety on Transmetro to understand how these perceptions and experiences affect their mobility to develop more equitable, inclusive, and safer forms of public transit. To do so, I used multiple methods, specifically in-depth interviews, surveys, a mobile focus group, and participant observation.

This chapter is organized into five sections. I begin by illustrating the main goals and rationale for choosing a case study approach and feminist methodologies emphasizing the importance of considering how gender and space are mutually constituted, influencing how public spaces are planned, designed, perceived, and experienced. This discussion is followed by a detailed outline of my four research methods. In this section, I describe the rationale and process for carrying out interviews with Guatemalan women who use Transmetro, and key informants, as well as for conducting surveys, a mobile focus group, and participant observation. Further, my data analysis procedures are outlined. I have also used this chapter to reflect on the research process, my experience navigating my insider-outsider positionality, and as a place to review the ethical issues and limitations related to this study.

3.2 Case Study Approach

A case study approach aims to carefully examine a selected place or phenomenon "intensively and holistically" (Baxter, 2006, p. 134). This methodology can also be idiographic, meaning it attempts to understand and describe a specific case in its context while paying particular attention to the factors such as life stage and age that affect research participants, as well as how

these factors interact with each other within the unique context (Mills et al., 2013). Because of its focus on details pertaining to context, idiographic research requires in-depth study and thorough methods (Baxter, 2006). A case study approach encourages the use of multiple methods. Using multiple methods is useful because they can complement each other while allowing for data triangulation (Mills et al., 2013).

As described in the previous chapter, social and geographic context are critical to understanding mobility. In this sense, a case study is a fitting approach because it reveals the factors that affect women's mobility within the context of Guatemala City's Transmetro. The geographies of fear and perceptions of (in)security that are manifested in how public transit is experienced differently by women and men, whereby public space is seen as a dominantly masculine space, coupled with the high rates of crime and violence in the city, make a case study an appropriate approach. In addition, there is a significant gap in the literature on women's mobility in Guatemala. Focusing on the safest transportation system provided an opportunity to uncover the interconnected factors of gender, fear, and safety continue to affect women's mobility.

Moreover, a case study approach works here because it allows for multiple methods. The various methods used help provide both rich details through interviews and a wide array of experiences through surveys. Further, mixed methods allow for comparison among data collected. Lastly, this approach was utilized because the data collected in this research project bring the opinions and perspectives of research participants to the forefront (Mills et al., 2013). Bringing the voices of women to the fore is crucial to this project to disrupt their lack of involvement in the planning of public urban spaces (Soto Villagrán, 2018). Centering on women's experiences as a group often ignored in transportation planning also aligns with feminist methodologies outlined in detail in the following section.

3.3 Feminist Methodologies

This study uses a feminist research approach to examine Guatemalan women's lived experiences of mobility on Transmetro using gender as a lens to analyze women's perceptions of safety and how these perceptions affect their mobility. Although no research design is inherently feminist (Ramazanoğlu and Holland, 2012), feminist methodologies encourage inclusive and novel ways to produce and collect knowledge and promote an acknowledgment of the existing power dynamics in the research process. However, applying a feminist lens goes beyond deciding what and how data are collected; it also includes the way researchers act while engaging throughout the process politically, emotionally, and ethically (Sharp, 2005).

Feminist geographers have re-conceptualized how socially constructed gender hierarchies influence how the built environment is planned and experienced (Massey, 1992). Specifically, I am referring to the way feminist geography highlights and questions "relationships between gender divisions and spatial divisions to uncover the mutual constitution and problematize their apparent naturalness" is helpful in this research, which highlights how socially engrained gender divisions affect how women experience mobility (McDowell, 1990, p. 12). Additionally, this research framework is buttressed by a re-conceptualization of public transportation with an understanding that women's mobility has historically been more restricted than men's mobility and has reinforced unequal gender dynamics (Massey, 1994). Women's restricted mobility is connected to restricted livelihoods (Shaw et al., 2013). Within this framework, this research strives to better understand what factors contribute to or hinder women's mobility on Transmetro by emphasizing women's lived experiences to help inform the lack of knowledge of women's lives to create more equal and inclusive access to mobility. A feminist methodology also places women's perspectives at the forefront, a demographic often excluded or silenced in urban spaces and planning.

In addition, feminist methodologies encourage acknowledging the existing power dynamics in the research process. They underscore the understanding of knowledge as partial and situated, recognizing intersecting axes of difference and inequalities, and emphasizing the importance of a reflexive research process (Nagar, 2002). After describing my research methods, I take some space in the last section of this chapter to reflect on my positionality as a Guatemalan woman who studies and lives in Canada, and how it affected my research process.

Variations in mobility patterns among women can stem from factors such as familial obligations, class, and age (Soto-Villagrán, 2017). This study focuses on gender as a lens for understanding mobility through women's lived experiences on public transportation by considering intersecting categories of difference, such as class and social inequalities. Although gender has a significant role in differing mobility patterns, women as a group are not homogenous. Women's mobility patterns are often affected by caretaking work, but women have access to different financial and material resources at their disposal to help ease the burden of care work based on their socio-economical standing. As such, women have varying concerns, needs, and resources that may help or hinder their mobility. Hence, recognizing that there are different needs and concerns among transit-dependent women and women in different parts of the city is central to this thesis.

Throughout this study, the techniques used align with feminist methodologies as it emphasizes participants' inclusion as real experts best suited to voice their concerns and needs (Loukaitou-Sideris, 2016). To center participants' perspectives, each method was approached carefully to not treat participants as research subjects used solely for information. Participation was voluntary, and although remuneration was offered to participants³ for their time, it was not

³ Key informants, below categorized under Group 2, were not offered remuneration.

used as coercion to elicit participation. Specifically, this research project strives not only to collect information but to use the various chosen methods to highlight participants' viewpoints. In the following sections, I discuss each research method in detail, including the rationale for selecting each one, how data was collected, and the data analysis techniques.

3.4 Research Methods

The research questions of the study are explored through four research methods consisting of intensive semi-structured interviews, short surveys conducted in Transmetro stations, participant observation on Transmetro buses, stations, and while walking and driving throughout the city, and a mobile focus group in the form of a safety audit of a Transmetro station. The research was designed so that information collected through multiple methods and produced through various techniques could provide a more detailed illustration of women's experiences on Transmetro. Table 1 outlines the participant group and the purpose of each method in detail. Interviews and surveys helped uncover women's complex experiences of (in)security around public transit, whereas participant observation helped me become familiar with and scrutinize Transmetro.

Shaw et al. (2013) and others (Falú, 2009; Jirón, 2017; Soto Villagrán, 2017; Loukaitou-Sideris, 2016; Uteng and Cresswell, 2008; Whitzman, 2009) stress that women's mobility is a fundamental right that is linked to diverse aspects of everyday life, and when restricted, infringes on their rights as citizens and hinders their enjoyment of the city. Restricted physical mobility leads to restricted social mobility, curtailing women's access to services to improve their life conditions (Whitzman, 2013). Many feminist urbanists, including architects, geographers, and sociologists, have recently pushed for this aspect of the right to the city, promoting urban design and planning from a gender perspective. Creating cities and (re)shaping urban spaces from a

gender perspective involves participative processes that invite women to the fore as experts of their environment who merit to have a voice regarding the spaces they inhabit (Soto Villagrán, 2018).

In order to center on women's voices, I adopted the format for surveys and the mobile focus group from Women in Cities International's (WICI) toolkit for collecting information about women's inclusion and safety in public spaces in cities. Women in Cities International (WICI) is a Montreal-based non-governmental network composed of practitioners, researchers, and activists focused on the participation of women and gender equality in city development, as well as women and girl's safety regarding several issues, including public space, disability, diversity, and access to sanitation and water across the world (WICI, n.d.). WICI's toolkit is a guide to examine a city or specific neighborhood concerning women's inclusion and safety in public urban spaces. WICI asserts that this toolkit can be an important first step to improving women's experiences of and participation in public spaces as it aims to understand the experiences of girls and women in, and how they use, public urban space, which can then be developed into comprehensive policies and better and more inclusive neighborhoods and urban space planning. It provides guidance advice on three main data collection tools: focus group discussions, street surveys, and women's safety audits (WICI, 2011). The toolkit provides a detailed guide for each method with comprehensive advice on questions asked, the format of questions, how many people to involve, how many people to survey, and how to calculate quota for the research sample. The focus of participatory methods is important to this research as it seeks to fill a gap in research in Guatemala City regarding women's experiences of mobility on public transit. It seeks to generate a better understanding of gender mobility to promote this type of work and break the dead-end of gender-blind planning to develop more inclusive, equitable, and safer public transit systems.

Before discussing my research methods in detail, here first, I would like to add that with funding provided through Carleton and my supervisor, I was able to hire a research assistant, Esteban. I interviewed multiple candidates, both women and men, recommended by an acquaintance, but Esteban was the best fit. He is a university student at San Carlos University (*Universidad San Carlos, USAC*), the public national university, and had some experience conducting research. I met with him and explained what the research project entailed, and he agreed to assist, given his flexible school and work schedule. His role was invaluable as he relied on public transit himself and accompanied me on *recorridos explorativos* (defined in the participant observation section below), whereby I learned how to use and take Transmetro as a passenger. Esteban also attended the majority of interviews and assisted with interview transcriptions. Because I mainly used a private vehicle as transport in Guatemala, I relied on Esteban’s input to choose the study sites for surveys and the safety audit. The sections that follow describe each research method, participant group, and purpose of each tool (table 1). I also elaborate how data was collected in detail.

Table 3

Research Methods & Participant Groups

Research Method	Participant Group	Purpose
In-depth interviews	Women Transmetro users (Group 1)	Understand issues needs and of women on TM, understand perceptions of safety and how they affect mobility, understand access to TM, identify protective strategies used, understand whether bus design is useful, understand whether station locations useful to passengers
	Key informants (Group 2)	Obtain information on BRT, understand planning decisions, identify studies and statistics relevant to women’s safety on public transit; Identify common passenger complaints and mitigation protocols; Understand TGL initiatives in Guatemala and region, identify network of signatory cities, learn from successful implementation of gender-inclusive policies; Understand context of issues women in public spaces face, identify common interests for future collaboration; Identify initiatives that support women in the city

Surveys	Women Transmetro users	Identify the frequency of TM use, perceptions of safety, distance home and station, safety strategies, areas preferred or avoided, unsafe aspects of TM or stations, significant safety issues for women in public transit, age, occupation
Mobile focus group	Participatory safety audit with women Transmetro users	Enable and empower participants as masters of experience in their environments, audit station and its surroundings, identify if bus schedule is reliable, survey location and surroundings, introduce participants as allies to reclaim space
Participant Observation	Observed interactions on Transmetro Researcher	Become familiar with the transit system through <i>recorridos explorativos</i> , identify sites of study, personal experience of commuting using BRT, perceptions of safety, bus culture, passenger behavior

Source: Author, 2019

3.4.1 Interviews

Interviews were a principal data collection technique for this study because they provided an opportunity to uncover what information is important to participants (Dunn, 2008). The primary information for this thesis comes from 14 in-depth interviews and 86 surveys with women who use Transmetro weekly. Supplementary information regarding the BRT as well as policy related to women’s safety was also obtained through six in-depth interviews with government officials and key stakeholders of relevant non-governmental organizations, including the municipal government, the Attorney’s Office for Human Rights (PDH, *Procuraduría de Derechos Humanos*), Interamerican Development Bank’s Transport Gender Lab, and the Observatory Against Street Harassment (*Observatorio Contra Acoso Callejero*, OCAC).

Interviews were conducted during the completion of fieldwork in June and July 2019. Conducting interviews with women Transmetro users helped delve further into the participant’s perceptions of safety. Mainly, interviews provided helpful insight that clarified women’s perceptions of (in)security as they were revealed through conversations, rather than by directly answering questions. Using various methods helped provide a better understanding of women’s experiences. Some methods, particularly qualitative methods, provide richer detail and help fill gaps that are more difficult to ascertain with more extensive methods, such as surveys. To bring

the points of view of participants to the forefront, in the discussion and analysis of my findings in chapter 4, I use direct quotes to demonstrate similarities among participants' perceptions and experiences (Mills et al., 2013). This was an effort to give space to women's voices and concerns as women have different mobility needs that are not met because they are often excluded from urban planning.

Participants have been divided into two groups based on the inclusion criteria decided upon during the scoping phase. Each group's inclusion criteria and recruiting methods are outlined in Table 4. For Group 1, the intention was to include a wide variety of participants to understand women's diverse experiences as lived through their particular life circumstances, including: high school and university students, housemakers, mothers, married and single women. As previously outlined, women as a group are not homogenous and have different mobility patterns and needs based on their life circumstances and access to resources. Diverse life circumstances entail different lived experiences, hence why the inclusion criteria only required that participants identify as women, were 18 years old or older, to include a wide range of experiences. The last criterion was that participants use Transmetro weekly because these users would have more experience and anecdotes to add to this study. Participants in both groups were recruited through a targeted snowball sampling approach, explained in detail in each group section below. Interview participants in Group 1 received a gift card worth Q60 Quetzales (equivalent to about 10 Canadian dollars) valid at four supermarket chains to thank them for their time and for participating in the project. Gift cards were not used as recruitment incentives.

Table 4*Participant Groups & Inclusion Criteria*

Group	Participant Type and Inclusion Criteria	Recruitment	No. of Participants
1	<ul style="list-style-type: none"> - Identify as women - Use Transmetro weekly - 18+ 	Snowball sampling - flyers shared on my social media accounts and by acquaintances	14
2	<ul style="list-style-type: none"> - Government officials - Key stakeholders in non-governmental organizations 	Identified during the scoping phase by speaking with contacts in Guatemala & through snowball sampling	7

Source: Author, 2019

An interview guide was developed for each group based on key concepts from the pertinent literature to ensure questions were asked consistently among interviews and to facilitate data analysis (see Appendix A). For Group 1, key concepts included safety perceptions, factors that influenced their perceptions of safety, what lines and stations were frequented, time and duration of trips, and tactics to negotiate their safety. These key concepts helped make connections between how gender norms influence participants' use of public space, and to examine how fear is socialized, learned, and experienced. Question guides were also developed for Group 2 but varied depending on their subject of expertise, including their involvement in the operation of Transmetro, safety concerns on public transportation, and involvement with initiatives related to women in public spaces.

Participants' response times and availability limited how many people I was able to speak with. I designed the research with flexibility in mind, but some participants postponed meeting times without follow-up or offering available times. There were also interested participants that contacted me and canceled several times, and I was unable to interview them. At the beginning I was afraid to put pressure on participants that had postponed. By the end, however, I decided it

was better to follow up with a simple message rather than miss the chance to have a conversation with them. Key stakeholders were no different.

Interviews were recorded with participants' consent and were later transcribed. Transcriptions were stored electronically on my computer and backed up to Carleton's OneDrive Cloud. Transcriptions were analyzed by identifying key themes based on literature of geographies of fear and mobility, and then turning these themes into codes on NVivo, a data analysis computer software. Data collection is described in greater detail below, according to each participant group, describing the objectives and challenges encountered throughout.

3.4.2 Interviews with Women Transmetro Users (Group 1)

A total of 14 women ages 18 to 55 that use Transmetro weekly participated in interviews. Participants were recruited via flyers circulated through WhatsApp⁴ to contacts that might know someone interested in participating. I also shared the flyer every two to five days on WhatsApp's "Status" feature and on Instagram and Facebook Stories, and pinned the message with the flyer at the top of my Twitter account. The Status and Stories features permitted me to upload the flyer and customize additional text and GIFs, with the flyer uploaded only for 24 hours each time. I was invited to join a local women-only Guatemala City-based private Facebook group, where I promoted the study with the flyer and recruited two participants this way. I used the hashtags #Transmetro #Guatemala #TransportePublico and #Movilidad to engage a broad audience on Twitter. The message with the flyer stayed at the top of my profile (first Tweet seen when opening my profile) until August 1, 2019. I knew the first two participants as they are employed by my father and invited them to be part of the study. Four interviewees were recruited through my

⁴ A free text and voice messaging application, widely popular in Guatemala and used as the main communication platform (as opposed to SMS) as it relies on internet or cellphone data.

family; one was recruited by Esteban, and five through snowball sampling. Friends, family, and acquaintances also shared flyers with their contacts through WhatsApp and to their social media profiles. Initially, I planned for participants to contact me to set up interviews to mitigate pressure on participants. However, only four participants contacted me first; I was usually asked to contact participants instead of them contacting me. During the scoping phase I was in contact with members of OCAC and hoped they would be able to share the study with their network. However, I was unable to reach them again until the end of fieldwork so they could not share recruiting material for this study.

While about half of participants were recruited with the help of family, they helped by reaching their contacts and asking if they could share the project with their contacts and if they knew anybody interested. This is to say, my family did not previously know all participants, but they knew someone that knew my family. For example, my aunt shared the flyer with her mother's nurse who participated and who then recruited her sister-in-law. I expected to garner more interest in the study by sharing the flyer on social media, but most interest came from snowball sampling.

After introducing myself to participants through email or WhatsApp, I would send them a letter via their preferred mode of communication (email or WhatsApp), introducing the research project (see Appendix B). Introductory letters included information on the project, what was required from participants, and details about data collection and storage. Then we would settle on a mutually convenient time and place (for the participant, Esteban, and me). It was essential for me that participants chose when and where we met to not intrude or impose on their busy schedules and to avoid inconveniencing them by choosing an unsuitable location. It was difficult to source one central location to conduct all interviews because participants' lives do not surround a centrally located area, as they all lived and worked in different zones scattered throughout the city.

Interviews took place at several locations, including their workplace, a mall, and coffee shops. The demographic characteristics and interview locations of Group 1 interview participants is outlined in table 5.

Table 5

Interview Participant Demographic Characteristics & Interview Locations

No. of Participants	Age Range	Occupation	Interview Locations
1	18	High school student	My family home
1	45	Housekeeper	My family home
2	43 & 46	Homemaker	Mall
2	53 & 55	Office cleaner	Workplace
3	33-42	Administrative worker	Their workplace, coffee shop
5	21-27	University student	Coffee shops, USAC

Source: Author, 2019

Before beginning the interview, participants and I would read through a copy of the informed consent form (see Appendix C) together. All participants in this group are referred to by a pseudonym. I tried to be as transparent as possible regarding the research project, answered participants’ questions, and informed participants that I was not acting on behalf of the municipal government or any other organization. I explained that they had two months to rescind their participation or exclude particular views and that if they did choose to revoke their involvement, they would not be affected negatively and could keep their gift card.

Interviews served to elicit responses that reflected participants’ perspectives and feelings stemming from their experience on the BRT system to better understand how safe it is, to determine its efficiency, and whether it is meeting their needs adequately. Participants did not often speak outrightly of fear experienced from negative experiences from theft or sexual harassment, likely because of the limited time available to establish social connection. A closer look into their answers during analysis helped better understand the affective and material consequences their experiences had on their lives. Particularly a comparison between participants’

accounts helped uncover commonalities in their experiences. The stories participants told during interviews helped illustrate their perceptions of safety and how their mobility is affected by these perceptions. Interviews served as a time and place where participants could express their viewpoints, concerns, needs, and share how their mobility on Transmetro affects their lives. It served as a place to examine their mobility and the consequences of their real and perceived (in)security.

Although I used an interview guide, questions were not always asked in the same order. It was important for me that conversation flow organically so that participants also had control of the conversation and feel comfortable. I would encourage conversation by sharing my own stories so that, in turn, participants could feel comfortable sharing anecdotes with me. Esteban was present at most interviews, which may have altered the interview dynamic as participants may have felt more comfortable if the interview had been conducted only among women. However, Esteban's expertise regarding public transit was invaluable as he had helpful interventions, especially at the beginning when Transmetro was unfamiliar to me. Towards the end of the interview, I would outline my intentions to conduct safety audits of certain Transmetro stations and took note of those interested in participating to contact them later when permits to conduct audits were granted by the municipal government.

Naturally, the location had an effect on the interview dynamic. The most noticeable variation was with those interviewed at their workplace (with their manager's permission) as these conversations were some of the shortest. Noise levels at coffee shops made transcription difficult but did not seemingly affect participants' willingness to respond. Interview length depended more on how much participants were willing to share, which I attributed to their comfort levels. As time passed, I gained confidence and asked more questions about participants' responses, especially

concerning safety perceptions. I noted that older women were less hesitant to speak with interviewers than younger participants. In addition, when younger participants would demonstrate more trust in interviewers by sharing more stories, they seemed to be less satisfied with the system than older participants. Over time I learned to continue taking notes for a few minutes after I had finished all my questions and had turned the recorder off. Often participants shared additional information after I had said we were done, almost as if they felt more comfortable at the very end and did not want me to leave without sharing those last bits. Interviews with women Transmetro users allowed me to gather data and better understand women’s mobility experiences on public transit. Through interviews, I identified the factors that affect their experiences, such as time of day, the tactics they implement to negotiate their safety, how crowded buses are, and how the bus line's physical infrastructure impacts their journey.

3.4.3 Interviews with Government Officials and Key Informants from NGOs (Group 2)

In addition to interviewing women who use Transmetro and women who do not use public transit, I also interviewed four municipal and federal government officials and three key stakeholders from the Interamerican Development Bank’s (IDB) Transport Gender Lab (TGL) and the Observatory Against Street Harassment (OCAC). The purpose of these interviews was to better understand how Transmetro is planned and of initiatives related to women in public transportation and public spaces. Group 2 interview topics are outlined in more detail in Table 6.

Table 6

Key Informants & Interview Topics

Participant and Role	Organization	Topics in Interviews
Eddy Morataya, Director of Urban Mobility	Urban Mobility Office, Municipal Government of Guatemala City	Obtain general information on BRT, understand planning decisions, identify studies and statistics,
Andrea Beltetón, Planner	Urban Mobility Office, Municipal Government of Guatemala City	Understand gender equity measures taken in municipal government

Onelia Roca, Director	Office of Women’s Affairs, Municipal Government of Guatemala City	Identify initiatives that support women in the city, identify projects that align with the study
Edgar Guerra, Human Rights Representative, Public Transit Customers	Attorney’s Office for Human Rights (PDH, <i>Procuraduría de Derechos Humanos</i>)	Identify common passenger complaints and mitigation protocols
Claudia Glen Vargas & Valentina Montoya Robledo, Representatives	Transport Gender Lab, IDB	Understand TGL initiatives in Guatemala and region, identify network of signatory cities, learn from successful implementation of gender-inclusive policies
Lidia Guerra, Founder	<i>Observatorio Contra el Acoso Callejero</i> (OCAC, Observatory Against Street Harassment)	Understand the context of issues women in public spaces face, identify studies of sexual harassment on public transit, understand outreach programs, identify common interests for future collaboration

Source: Author 2019

During the scoping phase in February 2019, I traveled to Guatemala to meet with Eddy Morataya, the Director of Urban Mobility for the municipal government. The purpose of that meeting was to learn more about Transmetro, determine the feasibility of this research project, and narrow down the research objectives. I identified him as a key informant to interview later during fieldwork. During correspondence with Andrea Beltetón, a planner for the municipal government, on Morataya’s behalf, I asked if she would also like to participate. Morataya explained that Guatemala City had become part of TGL, and I identified it as an organization to consider as a stakeholder for this project. I obtained contact information for TGL from Beltetón and contacted them via email to request their participation. I also reached out to OCAC during the scoping phase and Lidia Guerra, the founder of OCAC, agreed to participate from the beginning. The director of the Office of Women’s Affairs for the municipal government and the Human Rights Representative for Public Transit Customers for the Attorney’s Office for Human Rights (PDH, *Procuraduría de Derechos Humanos*) were identified as potential participants during fieldwork and were subsequently contacted to request their participation in July of 2019.

After contacting them via email or telephone, I emailed a letter of introduction (Appendix D), outlining the research project's finalized details and interview process. To ensure participants

in this group felt free to discuss personal opinions, they had the option to use pseudonyms, not to have their job title included in this project, and to meet somewhere outside their workplace. All key informants refused this option, so all their real names and job titles are used. Interviews were held at informants' workplaces, with the exception of TGL representatives whose interview was held on Google Hangouts and the OCAC representative, who I met at a restaurant. Before beginning the interview, participants and I would read through a copy of the informed consent form (see Appendix E) together. Like interviews with Groups 1 and 2, interviews were recorded and later transcribed. As part of knowledge mobilization, I agreed to share an executive summary of the findings with all participants when writing has concluded.

My experience interviewing key informants varied with each participant. Although no one declined to participate, it was difficult to obtain a response to schedule an interview date because of their busy schedules. Although I had met with the director of Urban Mobility in February 2019, all emails sent after March went unanswered. I was unable to schedule a meeting with the Urban Mobility Department during field research by email and phone. I resorted to delivering the invitation letter (initially sent by email) in person. I also had to submit multiple letters in person requesting permission to take photographs, videos, conduct surveys, and the safety audit before receiving a response. I had been in contact with a member of OCAC during the scoping phase, and they agreed to participate in the project officially through interviews. I was also hoping to have their help to recruit participants and conduct safety audits. However, their members were busy, and I was unable to schedule an interview, let alone coordinate anything else until the last week of fieldwork.

The question guide I prepared for each interview was related to the informant's position and experience in their related field of expertise. Some informants used the interview time to give

me a full gratuitous presentation or to unload their personal views without allowing me to ask any questions. These presentations revolved around the organization's objectives and mission, outlining their history and the several projects they undertake or overlook. Some information from these presentations was useful as I learned more about the organization's purpose and activities, but often these felt more like boasting or self-praise. As much as I was trying to learn, I was more interested in dialogue and answers to the questions I had prepared. I was respectful and listened attentively during presentations, writing down any questions that came up to ask later. When I tried to interrupt one participant to ask a question, he said he would "allow" questions at the end. At the time this felt more like he wanted to have his opinions recorded and taken into consideration more than an imbalanced power dynamic as he was a of a government expert and I a novice researcher. Over an hour later, I repeated the question but did not get an answer. Thankfully very few questions went unanswered in interviews overall. Surprisingly, I received more candid information than I expected, which helped explore informants' perspectives on key issues and identify institutional or organizational gaps.

3.4.4 *Surveys with Women Who Use Transmetro*

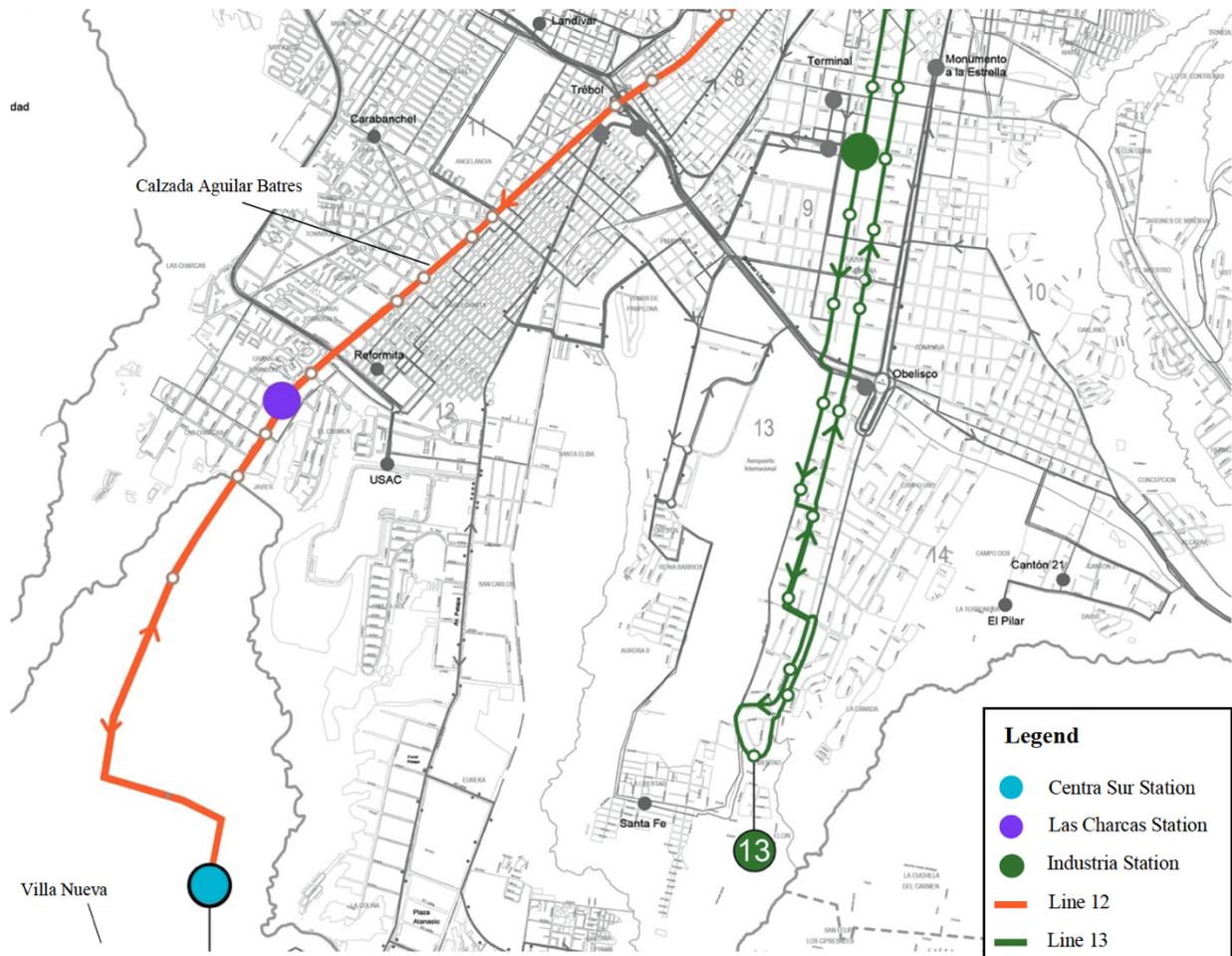
In addition to interviews, surveys were another important source of data to understand women's perspectives of safety on Transmetro. Surveys were chosen as a research method because they allowed for a more extensive participant sample in a shorter period. In addition, conducting surveys permitted me to converse with participants *in situ*, what Streule (2019) describes as letting the researcher "foreground lived experience...in spatially and temporally specific situations" (p. 9). Surveys were conducted by Esteban and me, Esteban's help was invaluable as having two people increased the number of people surveyed.

As with interviews, surveys were conducted with the use of a question guide (see Appendix F) which included the same questions asked during interviews but organized as a checklist. The checklist format of the survey facilitated the data collection process and later data rendering into Microsoft Excel for data analysis. Each day I took 50 paper copies of the survey and gave Esteban half. Esteban and I wore identification badges with a Carleton lanyard that had our photograph, name, title of the research project, and ethics clearance number⁵. The badge served to differentiate us from municipal workers and clarify that we were conducting academic research. We each stood at a different part of the station (e.g. I would stand at the back and he would stand at the entrance) and approached women as they entered or waited in line for the next bus. Prospective participants were asked if they would like to participate in a brief survey about their experience on Transmetro. Many declined because they were not interested or did not want to miss the bus, even though the next bus typically arrived within one to five minutes. Some agreed to participate only until the bus arrived and did not complete the entire survey. For these cases we tried to get them to at least rate their perception of safety on Transmetro and obtain their age and occupation to determine their demographic profile for analysis purposes.

⁵ The ethical considerations for this project were reviewed and approved by the Carleton University Research Ethics Board, #110880.

Figure 3

Map of Survey Locations



Source: DIGM, (2019b), edited by author

Inclusion criteria for survey participants were the same as Group 1 - that is, women age 18 and above who use Transmetro weekly. Surveys were conducted at three different sites: Industria, Centra Sur and Las Charcas.⁶ Inclusion criteria were that sites be on lines 12 and 13 as they are the most widely used and operate on an exclusive lane. Originally, the idea was to conduct surveys in the morning and afternoon for two hours at a time (around 9 am-11 am, 2 pm-4 pm), twice at

⁶ Interviewers mainly approached women waiting in line for the next bus except at Las Charcas where one interviewer stood in the underpass next to the turnstile approaching participants as they entered or exited the station (see figures 7 and 8).

each location. This decision was made to include a range of participants who commute or travel at different times of day such as high school students or office workers. Due to scheduling conflicts and illness, this was not accomplished as planned. The municipal government did not authorize surveys until July, leaving a limited amount of time to schedule surveys. Both Esteban and I were only able to dedicate the necessary time on Mondays and Tuesdays, so we scheduled interviews for Industria on July 8 and 9 which is the only station we were able to cover for two days. Interviews at Centra Sur took place on Tuesday, July 16 during the morning and afternoon, and interviews at Las Charcas took place on Tuesday, July 23 during the afternoon. Survey locations, times, and number of interviews are detailed in table 7.

Table 7

Survey Locations, Dates, & Number of Interviews

Station	Transmetro Line	Time	Date	Number of Surveys (n=86)
Industria	Line 12	9 am-11 am	July 8, 2019	18
		2 pm-4 pm		11
		9 am-11 am	July 9, 2019	12
Centra Sur	Line 13	11 am-1 pm	July 16, 2019	12
		2 pm-4 pm		20
Las Charcas	Line 13	1 pm-3 pm	July 23, 2019	13

Source: Author 2019

Industria station was the first site where surveys were carried out. Given that I have lived abroad for the previous ten years (thus I have limited current experience with public transit), I relied on Esteban's experiences and knowledge as a long-term public transit user to choose an appropriate first site which matched my criteria. The station itself is exemplary of a BRT station as it is in the middle of a one-way boulevard with this segment of the bus line going towards zone

13. Nearby there are office buildings, restaurants, and several other businesses which led to several periods of high passenger traffic rather than just the morning, mid-day, and evening rushes.

Centra Sur is one of the system's busiest stations because of its location. Centra Sur is near the *central de mayoreo* (CENMA, wholesale center for food markets throughout the city) and is

Figure 4 Transmetro Bus Depot at Centra Sur Station



Source: Author, 2019

part of a large regional bus transference station with smaller City-run feeder buses going into neighboring *colonias*, or residential neighborhoods, extraurban buses going to nearby municipalities, as well as intercity feeder buses and coach buses. It is also a bus depot for Transmetro vehicles (See figure 4).

When the Transmetro Station was built encompassing the terminal, a mall was also built with several restaurants and businesses, making Centra Sur a bustling site to examine. Conducting surveys at Centra Sur initially was sort of an experiment. It was likely that

because of the busy atmosphere, more than in

other locations, people would be hesitant to speak to Esteban and me. Luckily, that was not the case. With just one day of interviews with two rounds from 11 am to 1 pm, and from 2 pm to 4 pm, we managed to speak with 32 women.

Las Charcas (figures 5-6) proved to be the least successful of the survey locations. This station itself is very busy, although much smaller than Centra Sur. I was ill on the first scheduled

day to conduct interviews, and Esteban was not able to make the morning round of interviews on the second day. Between both of us from 1 pm-3 pm, we were able to speak with 13 women. Las Charcas was chosen because of its location on the busy *Calzada*⁷ Aguilar Batres which runs from a major crossway to the outer municipality of Villa Nueva and Amatitlán to the southeast of the city, turning into the CA-9 highway which spans all the way to San José Port in the southeastern coast. Previous to the crossway, the street is known as Bolívar Avenue connecting the road system all the way to zone 1. Aguilar Batres has well-known *colonias* located on both sides. In fact, some Transmetro stations on line 12 are named after nearby *colonias* such as Reformita and El Carmen stations. On the *calzada* itself there are numerous businesses and high schools, making Las Charcas an ideal station to observe different age groups of passengers that may be coming or going to school, work, or their homes. Additionally, this *calzada*, along with other major arteries throughout the city, often has standstill traffic on weekdays way beyond peak hours. Las Charcas can only be accessed through an underground passageway which leads into a mall and also has underground access to Transmetro going the opposite direction (figure 6). Most of line 12 boasts exclusive bus lanes until it reaches zone 4 where lanes are shared with the rest of traffic. It is also the first line that was built in 2007 servicing a daily average of 210,000 passengers in the southern part of the city in 14 stations spanning a total 24 kilometers (Movilidad Urbana, 2020).

⁷ Central roadway with at least two lanes on each side without any green space. In this case the two middle lanes are used exclusively by the BRT.

Figure 6

Las Charcas Station (empty)



Source: Author, 2019

Figure 5

Las Charcas Underpass Entrance



Source: Author 2019

3.4.5 *Mobile Focus Group*

Safety audits were developed at the Metro Toronto Action Committee on Public Violence Against Women and Children (METRAC) in 1989 as a tool to improve women's safety (WISE, 2017). Participatory safety audits are a process by which individuals with a common goal – typically that of improving the safety of women, elderly, and disabled as well as their access to the city – come together to traverse a physical environment and evaluate aspects that feel safe and unsafe, establish ways to make that environment safer, and organize to have those suggestions come to fruition (Whitzman et al., 2009). Participatory safety audits are a wonderful tool because they empower women by legitimizing them as “masters of experience” in their environments which they know best. This also places women's voices and concerns at the forefront, placing them on the same level of expertise as urban planners or policymakers without official training (WISE 2017, p. 4; Whitzman et al., 2009). Shedding light on women's concerns and needs has long been a concern for feminist geographers (McDowell, 2003; Massey, 1992; Hanson and Pratt, 1995). Safety audits promote community and inclusion by giving women a platform to express their concerns and to occupy space.

I adopted the METRAC safety audit method with the help of WICI's (2011) “Tools for Gathering Information about Women's Safety and Inclusion in Cities” as well as from a guide from Women's Initiatives for Safer Environments (WISE). This particular method was chosen as this form of participatory research contributes to producing collaborative knowledge in which researcher and participants both learn and contribute to the research process as well as to knowledge production that centers women's voices. Audits are a practical tool for community development by helping establish rapport and trust between

the researcher and participants in addition to building community *among* participants. The audit was an additional opportunity to get feedback from users in real time regarding experiences at stations and in buses, but in a group setting.

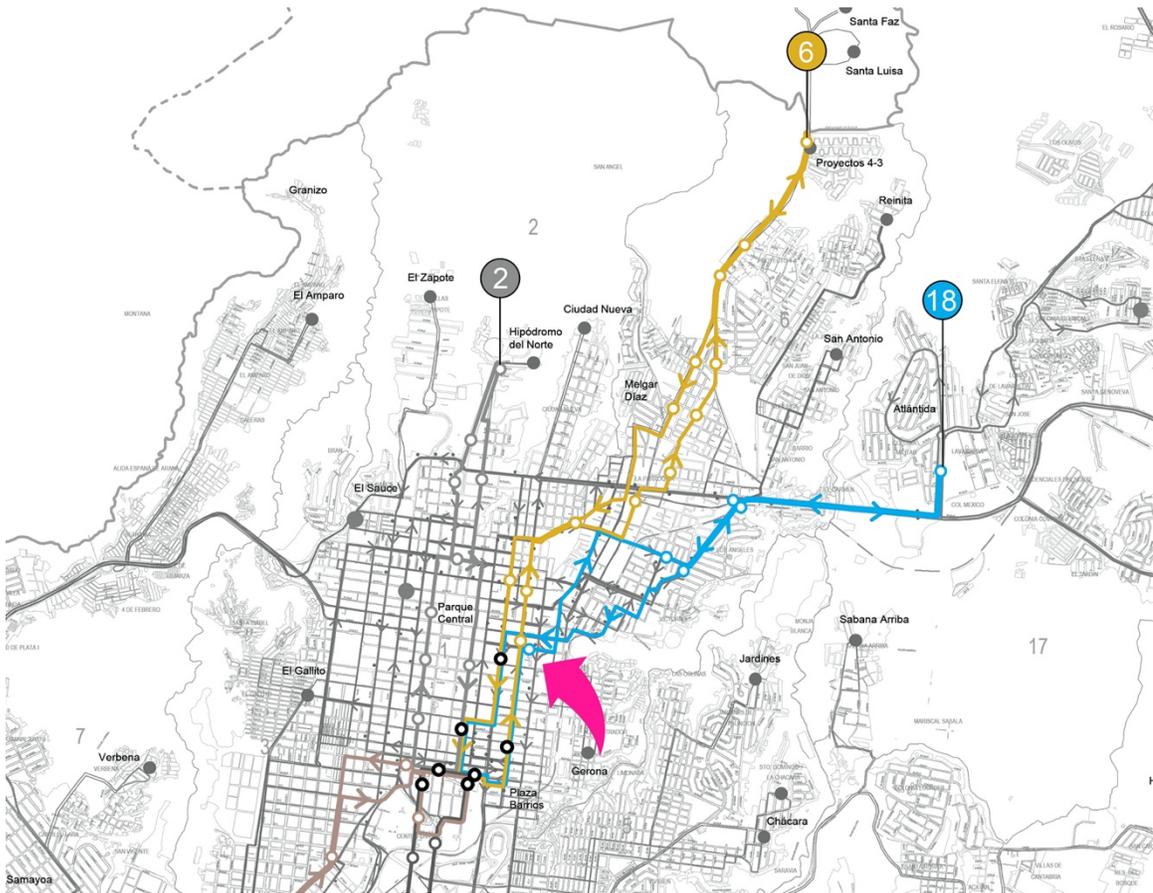
When permission was granted to conduct the audit, Group 1 participants that had showed interest in participating during interviews were sent a letter (see Appendix G) outlining what the audit would entail including the safety audit checklist. All participants that demonstrated interest in conducting a safety audit mentioned they could only participate on a Saturday, hence all three of the remaining Saturdays of fieldwork were offered as options in the letter. All options would begin at 11 am so that it would not be too early or too late, and each Saturday option was at a different station that had been flagged by Esteban and me based on participant mentions in interviews or based on our experience. Five participants showed interest, three for the first date and location, two on the last date, and none for the second date. Esteban and I tried to recruit two additional participants as per the recommendations of the WICI toolkit for the second safety audit, but no other participants were available, and the audit was canceled. Three participants from Group 1 took part in the audit. One participant invited a neighbor who had not previously been interviewed to participate. She showed interest in participating in an interview, but the interview did not take place.

The audit took place at La Merced station (pink arrow in figure 9) on a Saturday in July from 11 am to 12:30 pm. Lines 6 and 18 stop at La Merced. This station was chosen for an audit because it is located close to Colón Park which had been flagged by Group 1 participants as an isolated dangerous area despite its proximity to a police station, and 5th Street which is populated by *cantinas*. Several participants also mentioned their dislike for

this area at nighttime because south of 5th street is a popular area where sex workers meet clients.

Figure 7

La Merced Station, Safety Audit Location Lines 6 & 18



Source: DIGM, 2019b. Edited by author

Esteban and I met at Plaza Barrios station when I was not familiar with our destination. As I waited, I ran into two participants and the four of us rode the bus to La Merced station together. We found the other two participants already waiting when we arrived. It was a hot, sunny day. We split into two groups comprised of two participants that did not previously know each other as an attempt to build community and to meet others, with Esteban in one group and I in the other. The checklist used was adapted from

WICI's toolkit and from a guide from Women's Initiatives for Safer Environments (WISE) Ottawa (see Appendix H). In two groups composed of two participants and the researcher or research assistant, participants evaluated the station and its surroundings. For both groups, participants preferred that Esteban and I take notes. Aspects on the checklist included maintenance and cleanliness of the station, maintenance and use of surrounding structures, and groups in area that make women feel unsafe. When both groups had gone through the checklist we gathered to compare and discuss their findings, with Esteban and I steering the conversation but not intervening unless conversation came to a stop (See figures 8-9).

Figure 8

Panoramic Street View & Participants During Mobile Focus Group



Source: Author, 2019

Figure 9

Safety Audit Participants & Author



Source: Author, 2019

Conducting the audit on a Saturday during the day had an impact on the aspects of the station that was being audited and excluded aspects related to illumination of the station and its surroundings. For example, the day we conducted the audit there was construction on a bridge along which line 18 typically goes through. The construction significantly altered the frequency of buses on that line, and participants noted that they did not see any signs or notifications along their commute or at the station itself indicating delays or alternate routes. This caused confusion to passengers and demonstrated a need for better communication. Further, it was also noted that there was significantly less passenger, pedestrian, and vehicle traffic on a Saturday during the day which impacted the audit results as perceptions of safety may be different, say, during rush hour on a Friday evening.

The limitations that arose due to time constraints affected how many safety audits could be conducted. For safety audits to successfully examine a space they need to be completed multiple times a week, during different days, and at different times to adequately measure the perceptions of participant safety and to have a more holistic understanding of the location being audited. However, participants expressed joy in participating and seemed happy to express their opinions about the station, their concerns with its location and the bus system in general, which proved to be a fruitful exercise. Even if the audit is not used in the analysis, the experience of walking through the station and observing participants *in situ* was great. Participants seemed empowered and happy to be heard.

Additionally, ethical concerns arose from the participation of two women that are employed by my father. This was an uncomfortable dynamic for me, I was afraid they felt obligated or pressured to participate in the audit because of my familial relationship with their employer. I tried to mitigate this concern by reassuring them participation was

optional and there would not be negative consequences if they did not wish to participate in the audit. However, both participants brought another person to the audit; one participant brought her daughter (later also interviewed), and another brought her neighbor⁸. There were also other interview participants interested in taking part in the safety audit, but because of personal constraints they were unable to make it to the audit. Although it is possible that the safety audit participants were more inclined to participate than others because of their ties to my family and me, I believe that I was able to adequately mitigate any ethical concerns that could have arisen. The following section outlines the participant observation component for this study.

3.4.6 Participant Observation

Participant observation was a significant component for data collection and data production in this research as it helped provide a vibrant portrait of participants' mobility on Transmetro. I adopted techniques from Urry's concept of a mobile ethnography in which the researcher participates in "co-present immersion" moving within several ways of modes of movement while using several recording and observation methods. Specifically, it involved "participation-while-interviewing", whereby I first "participated in patterns of movement, and then interviewed people" concerning their mobilities to, on, and from Transmetro (Urry, 2007, p. 40). During her research in Mexico City, Streule (2019) used mobile ethnography as a methodology to study who produces urban territories as well as how such territories are produced. Streule asserted that mobile ethnography results in valuable understandings of participants' everyday choices, pertinent in this case

⁸ The additional audit participant showed interest in participating in interviews, but this did not happen because of scheduling conflicts.

to their choices regarding transportation. Further, this methodology is dynamic and itself mobile, as a “mobile subject demands a mobile method” (Cresswell, 2012, pp. 647). Moreover, Streule maintains that because the research and researcher are mutually constitutive, this method is a “mobile ‘enacting of the social’” as per Law and Urry’s (2004) conception (Streule, 2019, pp. 7).

As part of a mobile ethnographic approach, I adopted Streule’s method of *recorridos explorativos* or exploratory tours as a way of enacting the “participation-while-interviewing” component. Streule (2019) describes *recorridos explorativos* as a kind of “floating” observation technique (p. 8). For me, it was a way to take in the urban surroundings as I traveled and moved throughout the city. As the term implies, these tours were a way of exploring Guatemala City through the lens of a female passenger on Transmetro, as a woman moving through the city, in addition to that of a researcher.

Before fieldwork began, I had never used and was unfamiliar with the BRT system as a whole and did not feel comfortable using it as a means for transportation until I hired a research assistant. Esteban’s presence was especially valuable as I felt safer traveling in his company, mostly because he used public transport frequently and was knowledgeable of station locations and transfer areas. I mostly used a car to move around Guatemala City either by driving myself, carpooling, or Uber. During the scoping phase I finalized the research design and my choices, and once I had hired a research assistant, he accompanied me on *recorridos* to become familiar with the system. He also shared insights about Transmetro and public transportation in Guatemala City as a passenger himself. Esteban and I went on five *recorridos* from Plaza Argentina station in zone 13. We went to Plaza Barrios station where I saw how the transfers from lines 12 and 13 worked, and then walked

to Tipografía station, a large transfer station for lines 6 and 18 a block away. Another time we went to Centra Sur station, and another time we did not get off at Plaza Barrios instead taking the bus on the entire route from Plaza Argentina all the way to Hangares station. *Recorridos* took place in the afternoons but before 6pm when it got dark for safety reasons. During the daytime, I also took Transmetro to interviews where I also took note of interactions within the bus

During *recorridos* I made observations about passengers, my perceptions of safety and fear, and later with permission I would take photographs and videos which became part of a fieldnote journal. Observations and images serve as references of practices, experiences, perspectives and feelings in movement and on Transmetro during an “observant-participation” process (Novoa, 2015, p. 105). These observations provided rich details that make up the case study. *Recorridos* allowed me to engage in conversations with participants regarding their experiences, and to understand what it really meant to be on an overcrowded bus with people tightly packed during rush hour, to see interactions on the bus as they happened. These entail the practices and interactions passengers have with each other and with transit employees, how organized waiting lines are, and what passengers do with bags or luggage they may carry (e.g. Do they take their backpacks off? Are their belongings used as shields? Do they kindly allow elderly, pregnant, or passengers with children to get on first or to sit? Do they feel safe to use cellphones on the bus? Do they travel with children or in a group?).

Figure 10

Woman Jaywalking



Note. Woman is jaywalking through Calzada Aguilar Batres & Transmetro Exclusive Lane.

Source: Author, 2019

During the scoping phase while I was becoming familiar with Transmetro, I was very nervous. I did not take my cellphone out of my pocket, I carried little cash, and only the items I would need for the day. Despite the heat (ranging from 20°C – 30°C) I always wore jeans and a simple t-shirt to avoid harassment and tried not to call attention to myself. Nevertheless, my new traveling anxiety was visible on my face and the tense way I presented myself. I felt more comfortable with Esteban and would only travel with him at the beginning, which often meant he would travel from his home in zone 18 to pick me up in zone 13. The more time I spent on Transmetro, and talking about it with participants and Esteban, the more comfortable I felt. Eventually I felt comfortable enough taking Transmetro by myself. There is a line 13 station two blocks from my family home where I

was staying for the duration of field work. For 1 Quetzal I could go all the way downtown or even to CENMA by switching to line 12 all while beating traffic. With my newly found confidence, if I observed other passengers doing so, I would take out my cellphone only after I had assessed the passengers near me. Participants explained that they preferred the front of the bus and staying away from doors to avoid crowding and the potential for theft and harassment. I found that I, too, preferred these areas and if the commute was long, I looked for a seat at the front. In the following section I discuss how data were organized, stored, and analyzed.

3.5 Data Organization and Analysis

The main objective of the study was to understand Guatemalan women's experiences and perceptions of safety on Transmetro to contribute to a safer and more inclusive form of public transportation. To do so, I organized data gathered from interviews and surveys into tables based on the interview and survey guides. Data from interviews, surveys, and field notes were recorded digitally. Transcribing interviews and entering the rest of the data helped identify common themes among participant conversations and helped prepare additional questions and better ways of approaching certain topics. For interviews I created a dataset on a spreadsheet in Excel and placed all questions or major topics at the top (columns), and participant pseudonyms at the left (rows). I then entered the dataset into NVivo where I created "cases" for each participant. Under each case I added participant details, such as where they would travel to and from on Transmetro, their age, occupation, as well as their entire transcript. I coded the dataset based on the research questions, particularly perceptions of safety, strategies used to mitigate safety, aspects of Transmetro they liked and disliked, and instances where their mobility was affected. I then

coded by subsequent themes that arose during coding such as: men's behavior, sexual harassment, theft, crowding, station infrastructure, and presence or lack of municipal government staff. NVivo was particularly useful because I was able to view data by code, as well as by case, which allowed me to analyze through participant age and occupation. In NVivo, I then created word clouds that helped in finding common experiences and themes among participants.

Survey data were analyzed using Microsoft Excel with separate sheets corresponding to the survey location (station), with pivot charts that were later converted to graphics and were then disaggregated to compare responses based on participant age, occupation, location, and time of survey. Responses were compared between age bands to determine if there was a correlation between participant age and their perceptions of safety, but none was found. Responses were compiled to quantify responses to perceptions of safety, strategies used, and specific areas mentioned as unsafe. Survey data were also compared between locations and time of day the survey was conducted to determine changes in demography and whether demography was a factor that influenced responses. The sample (n=86) of women surveyed was too small to determine whether demography (primarily age and occupation) was related to participant answers, mainly perceptions of safety. When time permitted, survey participants were asked open-ended questions. Finally, I triangulated data from Group 1 participants and divided it by: reasons Transmetro is considered safe, most referenced dangerous aspects (mainly sexual harassment, theft, overcrowding, and the environment around stations), and safety strategies implemented by participants during their journey.

3.6 Positionality, Reflexivity, Ethical Issues and Limitations of Research

Feminist geographers have long encouraged reflexivity in the research and writing process. Reflexivity is a critical self-examination process whereby the researcher turns their gaze inward (England, 1994). It is a process that entails reflecting on the research process as well as the self and scrutinizing the inevitable power relations embedded within research and knowledge production dynamics (Sultana, 2007). More than “navel-gazing,” reflexivity allows the researcher to consider their positionality within existing power relations throughout research and how these dynamics impact method choices, how meaning is derived from data, and the resulting writing process (ibid.). I would like to take some space here to position myself and to reflect on my research process. I will then discuss ethical issues and limitations that arose during research.

To situate myself as a researcher means to acknowledge I am “positioned” by my biography, gender, age, experience, and other factors that may influence the research process by enabling or hampering certain insights resulting from research methods in the field (England, 1994). My positionality as a Guatemalan woman researching my country at a Canadian institution informed my perspective when conducting my research and while writing. In Guatemala, I do not rely on public transit, instead benefitting from having access to a private vehicle and the privileges that entails, including traveling where and when I wanted in relative comfort and safety. Further, the privilege of receiving an education in Canada gives me access to financial and material resources that divide my experience from that of participants of this study and evince a power imbalance. I had the opportunity to take on the role of researcher, examine participants' lives, and produce knowledge on their experiences. At the same time, I found myself as “an insider, outsider, both and neither”

(Sultana, 2007, p. 377), navigating the messy boundaries this entailed. Specifically, like my participants, I am a Guatemalan woman and have experienced the fear of sexual harassment while in a public space. Having grown up in Guatemala, I understand the context of a strong *machista* and patriarchal society that undermines experiences of gender-based violence. However, unlike participants, before this study, I had never used public transit in Guatemala City, and I have lived and studied in Canada for over ten years. My lack of experience with public transport in Guatemala City influenced my research design especially at the beginning. However, the more I used Transmetro, the better I understood participants' experiences.

My experience and reliance on a private vehicle are not the same as the experience of transit-dependent participants. The majority of Guatemalans who use public transportation do so out of financial necessity rather than choice, unlike me. Driving was still my primary mode of transportation, a personal choice I had the privilege of making because I had access to a private vehicle and could afford to do so, a choice made out of safety. Because of safety and security concerns, I often encountered disbelief by family and friends when mentioning that I had taken Transmetro to CENMA during *recorridos explorativos*, to interviews, to conduct surveys, or the safety audit. "You are absolutely not taking the bus," my grandmother told me the first time I mentioned my research subject in February of 2019. Although she is an octogenarian, she is not alone in worrying. This anecdote reflects the safety concerns Guatemalans face daily and the distinctive privilege some of us have in being able to choose *not* to take public transportation. Even though I am a Guatemalan woman who, like this study's participants, used Transmetro, I did so out of choice and not necessity. This difference highlights the apparent distance dilemma

between researcher and participants despite my attempts to immerse myself in the research topic. Although towards the end Transmetro did become a favorite mode of transportation for me, it is important that I acknowledge the many privileges I enjoyed despite my positionality as a Guatemalan woman and as a researcher. Moreover, coming from a foreign institution facilitated my access to resources and help. When I mentioned I was affiliated with a Canadian university, people seemed to see me and my work with more credibility, a privilege I do not believe is afforded to local researchers. It then has been critical to be reflexive about my positionality and the opportunities and privileges that allow me to delve into these questions.

Several ethical issues were experienced during this study during recruiting and snowballing. There was a power imbalance with the two participants I recruited at the beginning as they are both employed by my father, one at my family home, and the other at his office. These two women also participated in the safety audit. As with other participants, I tried to minimize these concerns by reassuring them that participation was optional, and that there would be no repercussions for retracting participation or not participating at all. The first participant would help make meals for me and clean my room. She was one of the participants I continuously saw and will continue to have contact with after this study is completed. I also was in contact with the second participant throughout fieldwork because she works as a cleaner at my father's office, and I worked there twice a week throughout the summer. While I acknowledge the power imbalance was more prominent with these two participants, I do not believe they felt pressure to participate as they both connected me with additional participants.

3.6.1 Limitations

Several limitations during this research project arose mostly from the short time span of fieldwork and limited resources. Additionally, a national election took place on June 16, 2019 in the middle of fieldwork. The mayor was also up for re-election. I made the decision not to request permission for *in situ* methods - surveys, audits, and taking photographs and video - before the election in case the administration changed, potentially creating a tense environment in which it would be difficult to cooperate with the municipal government. Moreover, even after elections concluded, it was difficult to get in touch with officials at the municipal government which delayed surveys and the audit. This delay, and short time span in general, impacted how many surveys and safety audits were conducted. A longer project could have had more participants and more audits, providing a wider array of experiences and perspectives to add to this research.

The timing for field research was tricky as a presidential and local election took place on June 16, 2019. I believed surveys and audits should not be held before then to not be confused with members of political parties trying to gain votes. I also made the decision to wait to deliver the letter of invitation to municipal government informants until after the election. If a different mayor had been elected, the atmosphere would have been very different as many municipal employees were afraid that job losses would follow. However, the mayor was re-elected. The slow response times on behalf of the municipal government also slowed down gaining permission to conduct surveys and the safety audit. Permission was not granted until the second week of July, three weeks before the end of the allotted time for field research.

Another limitation encountered during field research was the number of women spoken to. I was able to speak to a high school student, university students, mothers, and

women of different ages. However, I was not able to recruit participants with disabilities, so their experiences are not part of this research. Although I was able to speak with women of different ages, that live in different parts of the Guatemala City, and have different life-cycle positions, not including the perspective of women who may face additional mobility challenges due to a disability is a shortcoming that should be studied further. This research focuses on the design of the transportation system and the resulting experiences of women's experiences of mobility. The longstanding structural causes of violence that shape fear and insecurity in Guatemala City need to be examined further to understand how they impact women's experiences of mobility.

3.7 Summary

The use of multiple methods contributed to my understanding of transit-dependent women's mobility and enabled me to produce a rich, detailed case study of the Transmetro BRT system in Guatemala City. Information shared with me during interviews helped illustrate a vibrant yet complex portrait of women's experiences of mobility and the several obstacles they must navigate throughout their journey. I further understood the factors that contribute to women's perceptions of safety on public transit, their concerns and their needs throughout their journey. The audit, surveys, and especially the interviews provided participants with a platform to air grievances and to share experiences common to women. The audit gave participants a chance to share their opinions with other women Transmetro users and served to validate their experience and concerns. Surveys helped to consider the experiences of a wider group of women and provided a wider array of demographic information of women Transmetro users that made the case study richer with detail. Becoming familiar with Transmetro as a passenger myself through *recorridos*

explorativos, I was able to gain a better understanding of how participants understand their safety, mobility, and access to public transportation through my own experience and observations. The following chapter discusses the study's findings in the context of Guatemala and within the theoretical framework discussed in chapter 2, highlighting participant's voices and weaving in data from surveys as well as my own observations throughout.

Chapter 4: Women's Perceptions of (In)security and its Effects on Mobility

4.1 Introduction

In this chapter, I delve into the lived experiences of women who use Transmetro weekly. To understand how perceptions of safety influence women's mobility experiences and decisions, I interviewed and surveyed a wide range of women to have a broader understanding of their experiences. Interviews in particular helped uncover the nuances of women's experiences of mobility, safety, and insecurity, that have been normalized and internalized and need to be listened to carefully. This chapter presents the findings of my research examining women's experiences on Transmetro in Guatemala City to develop a more inclusive, equitable, and safer public transport system.

Examining women's distinct and lived experiences on Transmetro can contribute to a better and more informed understanding of mobility in terms of safety for all its users. To provide a more comprehensive answer to this research question relative to women's experiences on Transmetro, I examined three areas that address women's safety in public transportation in Guatemala City. In this chapter, I use research data from 14 in-depth interviews and 86 surveys with women who use Transmetro weekly paired with in-person observation of Transmetro users to determine: 1. what are women's perceptions of safety on Transmetro and its surroundings? and 2. how do these perceptions of safety affect women's mobility and access to public transportation? Chapter 5 discusses the findings and analysis to the third and last sub-question, which examines key initiatives and policies addressing women's safety on public transport in Guatemala City.

Following is a discussion of my findings beginning with participants' perceptions of insecurity during their commute on Transmetro. This is followed by a discussion of how participants' mobility around the city and access to Transmetro are affected by their perceived and real safety. Key quotations derived from interview transcripts aim to portray multiple participant perspectives and experiences to represent and express the subject matter's richness and complexity. Where suitable, my observations are woven in with interview data to augment and solidify the discussion.

4.2 Perceptions of Safety on TM

To understand participants' perceived and real safety, I asked women a series of questions regarding their experiences on the Transmetro bus line and its related transit infrastructure, such as stations and their immediate surroundings and other aspects that may affect safety perceptions. As outlined previously in chapter 2, actual or real safety is measured through crime statistics and metrics to determine the risk of crime, whereas perceived safety refers to perceptions as a result of anxiety and fear (Ceccato and Loukaitou-Sideris, 2020). Understanding perceptions of (in)security is important to record women's experiences and understand how fear restricts their mobility in work, leisure, and school (Valdivia Gutiérrez et al., 2017). As such, we can better understand women's use of public spaces to increase women's participation and sense of belonging in the city (Valdivia Gutiérrez et al., 2017). It is essential to have a "whole journey" approach to safety, which includes perceptions of safety during the entire journey, both *outside* the Transmetro bus system and within (Ceccato and Loukaitou-Sideris, 2020, p. 7). For example, it may be the case that stations are well-lit, have security personnel, or are deemed safer for other reasons, but the surrounding areas are not. A trip on public transit does not happen in

isolation; it encompasses the whole journey from door to door, which may include multiple modes of transportation as well as walking. Accordingly, a perspective that examines safety throughout the entire journey considers the range of environments and encounters women have contact with on the way to the bus station/stop, while waiting for the next bus, inside the bus, while changing transportation modes, reaching their destination, and then going home (Ceccato and Loukaitou-Sideris, 2020). It is worth reiterating that Transmetro services are limited and are not available everywhere in the city. Hence, many users must rely on multiple forms of public transportation that are less safe during their commute, such as red buses and Transmetro, underscoring the importance of having a whole journey approach. Additionally, accessing Transmetro, that is the journey to/from Transmetro, is not always considered safe affecting equity and inclusion in public transit use more generally.

When asked what aspects of the bus line or their commute influenced their perceptions of safety, participants sometimes spoke to the physical aspects of Transmetro concerning their safety, such as doors closing too quickly, overcrowding, or drivers taking off before doors were fully closed. Other participants spoke more about theft and sexual harassment on Transmetro and its stations or robbery⁹ on other buses or streets. Overcrowding is a common yet critical issue to be addressed, especially since, in addition to leading to accidents within the bus or physical harm, overcrowding facilitates the

⁹ Common terms used by participants were *bolseo* and *asalto*. *Bolseo* refers to having an item or items specifically stolen from their bag (*bolsa*). Here, I have translated *bolseo* as theft, which can include pickpocketing, stealing from a backpack or purse, or stealing valuables like a cellphone or wallet from a person's hand. *Asalto* has been translated as robbery or assault, as *asalto* typically occurs at knife or gunpoint, and entails a more immediate psychological toll in addition to a physical threat for victims and witnesses alike. Theft, in contrast, is not always perceived in the moment and can occur without realizing there is interaction with the culprit.

incidence of sexual harassment and theft. Examples of accidents within the bus during overcrowding cited by participants include falling because of a lack of available space to hold on to grab bars or being injured by someone falling on them because of a sudden stop or driving off quickly.

As addressed in the theoretical framework in chapter 2, fear affects how public space, transit included, is experienced and shapes perceived and actual safety. In the context of Guatemala City, fear may originate from a fear of gangs, experiences of domestic or gender-based violence, of racism towards indigenous women, as consequences from the armed conflict, or a number of other experiences (Torres, 2018; Dammert, 2007; Falú, 2009). When asked about their experiences, interview participants had different responses based on whether theirs had been a personal experience or something they witnessed on Transmetro such as “It hasn’t happened to me, but it’s happened to my friends” or “I’ve seen it happen.” This speaks to the complexity of multiple experiences that contribute to fear, as well as the vital role of bystander experience, media, and third-party experience in shaping geographies of fear and the mental maps participants create to navigate public space.

4.2.1 *Transmetro: The safest bus line*

As mentioned in the case study section in chapter 1, other modes of public transportation, particularly red buses, the most widely available and used, and Transurbano, the state-funded bus line, are notoriously more dangerous both in perceived and actual terms (PDH, 2019). Assaults on bus drivers and their assistants are commonly perpetrated by gangs (*maras*) seeking extortion money. Robberies and theft targeting passengers are also common, performed both by gang members and individual assailants, resulting in

shootings and even deaths. Extortions constitute 80% of incidences of reported violence on public transit in Guatemala City (PDH, 2020). Extortions and other assaults also result in deaths; 188 deaths¹⁰ were reported on public transit in Guatemala City in 2019 (PDH, 2020). In contrast, deaths, robberies, and assaults have not been recorded on Transmetro. Women using public transit are aware of this violence perpetrated towards passengers and drivers alike which in turn influences their perception of safety on public transit. According to an online survey conducted by the Observatory Against Street Harassment (OCAC) 68% of women felt unsafe or very unsafe on public transportation in Guatemala City (OCAC, 2019). In another study conducted by Guatemala's UN Women office (2017), the number was higher - 93% of women reported feeling unsafe on public buses (p. 43).

However, while the transit system overall is widely seen as unsafe by all users, Transmetro offers respite from the more violent incidents happening on the rest of the public transit system. In addition to the exclusive lanes it mostly runs on, Transmetro's stations are located on elevated platforms that are wheelchair accessible unlike red buses or other public buses. Stations are enclosed by glass walls with a see-through plastic roof that allows natural surveillance from top to bottom and are policed by municipal police. Citizen guides (*guías ciudadanos*) are also present at stations, welcoming passengers, and assisting by answering questions and helping board and exit buses. Stations are well-illuminated and have cameras monitored from the Transmetro control station. These security measures were an intentional component of Transmetro's design explicitly built

¹⁰ Data obtained from the Attorney's Office for Human Rights (*Procuraduría de Derechos Humanos*, PDH) are not disaggregated by transportation mode, only by victim group. In 2019, the groups with highest murder rates were: 43 people were murdered on Tuc-tucs, 31 bus passengers (only identified as "users"), 27 taxi drivers, and 22 bus drivers.

in order to reduce crime perpetrated against transit employees and users. These security measures have had a positive effect on transit users' perception of the safety of the Transmetro system. In both interviews and surveys, research participants expressed their preference for Transmetro in comparison to red buses and other transit options, because, in addition to being safer, it is more affordable and efficient than its more dangerous counterparts. As Lorena, a 28-year-old administrative assistant who uses Transmetro several times a week, stated: "I really do like the Transmetro. I feel that it is one of the most efficient transports in the city. And it is safer than any other." This sentiment was echoed by other participants, including Doña Lisa, a 45-year-old domestic worker, who shared:

There are no assaults at gunpoint like they did on other buses...it's a change you can see that still happens on red buses. They get on and rob you at gunpoint, they steal all your things, and there have even been people that get killed. It's terrible. But on Transmetro, that doesn't happen. It's one of the safest things there is. **(Doña Lisa)**

Both Lorena and Doña Lisa consider the Transmetro bus line safe, especially in contrast to other public transit systems in Guatemala City. Their perception of safety is partly formed by comparing their experiences on other forms of public transit, demonstrating that safety is a relative perception that is site and context specific. Additionally, participants cited the safety measures on Transmetro and the Transmetro stations that contributed to their perceptions of safety:

What I see is that they [stations] are illuminated, there is always an EMETRA¹¹ police officer and, there are always people because before there were those

¹¹ Municipal Traffic Police. EMETRA and PM officers dress in the same bright green colors of the municipal government, but they do not serve the same function. They are commonly mistaken for one another.

[stations] of the Transurbano¹², but they are all destroyed, beaten, they already stole everything from them. There are never police there...and there I do feel more insecure, instead in the Transmetro you go in, and that's it. I see it as safer. There are always people there even if there are lines - even that makes you feel safer, right because it means there are more people around. (**Carol**, 52-year-old administrative assistant)

Well, here on 18th street [Plaza Barrios station, lines 12 and 13], I haven't seen anything, say, insecure myself, because it is one of the largest stops that the Transmetro has. So, there are many workers there, there are even like five police officers who guard the stop. But, where I get off for work, that stop [Javier station, line 12] is totally deserted. There is no police officer; there is no worker from the municipality that is guarding. There have been thefts at any time of the day. (**Patricia**, 34-year-old administrative assistant)

Patricia and Carol pointed to the presence of security personnel (Municipal Police (PM), citizen guides, or both) and the physical infrastructure of stations such as lighting contributing to their perceptions of safety at Transmetro stations. Patricia made a salient point about Transmetro stations: not all stations are policed equally, and some stations are larger than others. This, too, affects women's experiences of safety. The larger stations are busier and have more personnel present during peak times. This is not always the case with smaller stations – especially provisional stations. The effects of this unequal spatial distribution of safety infrastructure and resources on the lived experiences of transit users is further analyzed below in the description of Patricia's commute.

Patricia's commute starts and ends with red buses because she does not live close to a Transmetro station. She then transfers to Transmetro line 12 at Plaza Barrios (a busy central station that also services line 13) and gets off for work at Javier station, a smaller station not policed by municipal personnel. Patricia notes the difference in safety between the larger (busier) stations and the smaller ones in terms of policing, expressing she feels

¹² Transurbano operates as a state run and sponsored bus-based transportation system. These buses are painted in dark blue and white, and what at first may have been "newer" vehicles are now run-down.

safer in those that are both busier and have municipal personnel. According to Patricia, there are thefts at stations without security personnel, making her feel safer at well-guarded or well-policed stations. In contrast, Carol noted that in her experience, there are always municipal police officers at stations she frequents. In line with Patricia's sentiment, she also feels safer at stations because of municipal personnel's presence. Carol also relies on multiple buses for her commute, but the transfer nodes she frequents are at the larger and busier stations, Plaza España and Seis 26 stations. Both of these stations are on line 12, which operates on exclusive lanes, and has large stations that almost always have municipal personnel.

Carol and Patricia's experiences are echoed by my own observations. As I used Transmetro, I observed several stations without a citizen guide, PM, or both. While conducting surveys, I spent two to four hours at a station where I observed instances where there was no citizen guide, PM, or neither. When able, I spoke to the guide on duty, and they explained that there is no one to cover for them when they are on a break, which then leads to periods of up to 30 minutes where stations are left without municipal personnel. Additionally, I observed stations on different days and at different times that never had personnel, such as Juan Pablo II station on line 13. According to documents from the municipal government, in 2018 there were citizen guides at 45 out of 29 stations; 45 guides were scheduled for full shifts and 38 guides were present only in four-hour shifts (Municipalidad de Guatemala, 2018). However, there is no information available on the unequal distribution of municipal police.

The implications of Carol and Patricia's experiences demonstrate that within the highly violent context in the city, the presence of people, particularly municipal security

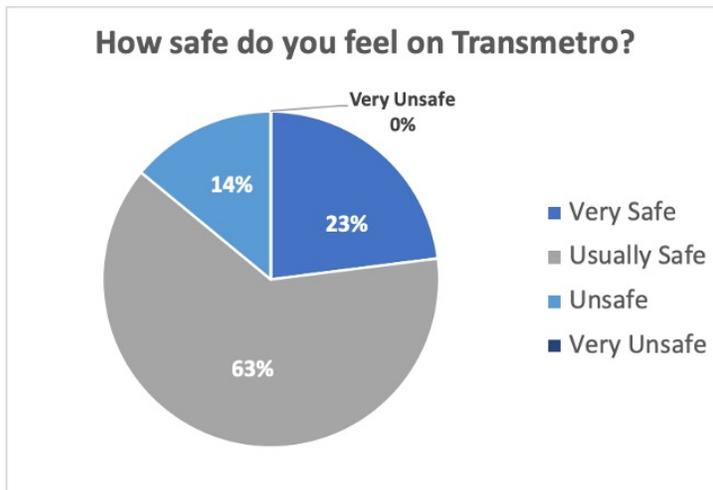
personnel¹³, provide a sense of safety. Additionally, Transmetro’s infrastructural safety measures in the form of surveillance through cameras and transparent station walls also contribute to feeling more secure within the bus line. Moreover, safety is site and context specific. Users’ positive focus on the presence of bright lights in stations draws an implicit contrast with the city’s lack of lighting infrastructure thereby making other parts of the city (and their overall trip) feel unsafe in comparison. Carol and Patricia prefer the well-policed stations and brightly lit Transmetro stations to other city transit systems, as they perceive that these safety measures deter crime and violence and thus reduce their fear of using public transit.

These findings are echoed in the results of the survey I conducted of Transmetro users. Like Carol and Patricia, survey participants shared the perception that Transmetro and its related infrastructure feels safe. During surveys, participants were asked to choose which term best described their experience of safety on Transmetro. Figure 11 demonstrates their responses. The overwhelming majority of survey participants (98%) reported Transmetro as their favorite mode of transportation in Guatemala City, its popularity mainly stemming from how much safer they perceive it to be.

¹³ As outlined in the background information to the case study, municipal police (PM, *policía municipal*) have distinct duties than the national civil police (PNC, *policía nacional civil*). The role of PMs is to “minimize vulnerabilities and risks of all kinds which threaten the integrity and safety of users of municipal services and facilities, and protect security in places where activities are carried out by different municipal directorates” such as Transmetro stations (Municipalidad de Guatemala, n.d.a). PMs do not have the legal means of arresting someone. Perceptions of trust may differ towards municipal police compared to national civil police.

Figure 11

Perceptions of Safety On & Around Transmetro (n=86)



Source: Surveys, elaborated by the author

Nonetheless, responses also indicate that women’s experiences on Transmetro are complex even on the safest bus line, as the most cited response was “usually safe” and “very safe”. Although most women in both interviews and surveys perceived the Transmetro system as safe, official reports indicate that it is *safer* than its counterparts (PDH, 2019). This portrait is complicated by additional information from participants revealing that their perceptions of insecurity around Transmetro stem from the high incidents of sexual harassment, theft, overcrowding, and general insecurity experienced throughout the whole journey. This is to say that, even in the safest (in actual and perceived terms) bus line, women also experience insecurity.

4.2.2 Safety Concerns within the Transmetro Bus System

Despite Transmetro being the safest bus line, it is not exempt from crime and issues that concern women passengers. The experiences of women interviewed and surveyed for this project echo the findings of the only two reports of women’s safety perceptions on public transit in Guatemala City, one conducted by the Observatory Against Street

Harassment (2019) and another by UN Women (2017). Participants in this research project named sexual harassment as one of the biggest safety concerns on Transmetro, constituting 54% of references made by survey participants and mentioned by all interview participants in this study. Theft is also a significant issue happening in multiple locations and regardless of the time of day. Among survey respondents, 20% pointed to line 12 as the most dangerous, followed by line 13. Similarly, interview participants identified lines 12 and 13 as more dangerous than the rest. This aligns with the available reports of theft and harassment collected by Transmetro authorities. In 2019, 202 thefts and 40 incidences of sexual harassment were reported on line 12, while in the same year 191 thefts and 26 incidences of sexual harassment were reported on line 13 (Municipalidad de Guatemala, 2020). Stations singled out as unsafe unsurprisingly include the largest and most crowded stations on lines 12 and 13: Plaza Barrios, Trebol, Carmen, and Centra Sur. Lines 12 and 13 are the most widely used because they span large parts of the city. They both mostly use an exclusive lane, making service on these lines quicker and more efficient, presumably why they are used widely, too. Plaza Barrios is a transfer station between both of these lines there are multitudes of people hurrying to enter or leave the station, buses, or switch between one bus line to the next during several times of day. Centra Sur is a busy station throughout the day. As seen in figure 12, at 10:30 am lines to board the bus are crowded and long. According to participants, lines are even longer during peak hours early in the morning, around noon, and around 5 pm.

Figure 12

Centra Sur Station at 10:30 am on a Tuesday



Source: Author, 2019

Thieves commonly take advantage of crowded buses or stations when it is more difficult to keep belongings close at hand while simultaneously trying to find a place to stand or sit. As with harassers, thieves “may carefully weigh the odds that responsibility will be diffused within a crowd” (Hutson and Kreuger, 2018, p. 11). When asked what they considered unsafe aspects of Transmetro, if any, the most recorded response (23 out of 97 or 24%) from survey participants was that they found no unsafe aspects on/around Transmetro specifically. As explored in detail with interview responses in a later section, several contradictions emerged from participants’ responses. Often participants would state that nothing had occurred to them, or like survey respondents above, that they found no unsafe aspects on/around Transmetro. Later, details emerged of incidences of theft or sexual harassment that had happened to participants on this bus line. The second most referenced response in surveys to unsafe aspects on Transmetro was overcrowding (18, or

19%), followed by thefts and robberies (8, or 8%), insecure provisional stations (7 or 7%), and sexual harassment (3 or 3%). When asked about the most important or prevalent safety issues for women on public transportation *in general*, survey respondents reported sexual harassment as the most pervasive issue as it was referenced 36 times (53%), followed by theft and robberies referenced 12 times (18%), and overcrowding referenced five times (7%).

Despite Transmetro being perceived as a safe mode of transport, women's harassment and theft experiences nonetheless had an impact on their perception of insecurity and thus influencing their experience of mobility (Loukaitou-Sideris, 2016). Overcrowding was often referenced as contributing to insecurity perceptions mainly because incidences of sexual harassment and theft increased during crowding. I have organized the next sections by the concerns and issues most prevalent in participant responses affecting their safety: sexual harassment and theft. In each section, I also outline the consequences of perceived insecurity and the implications on women's mobility below.

4.2.3 Sexual Harassment and its Implications on Women's Mobility

Sexual harassment is a critical safety issue for women on public transportation, second only to sexual harassment in streets and alleyways (OCAC, 2019; UN Women, 2017). All interview participants and most survey participants (54%) indicated that sexual harassment is one of the most critical safety concerns for them on public transit in Guatemala City, reflected in my data specific to Transmetro. Sexual harassment occurs during the whole journey, at stations while waiting in line, inside and outside the bus, and both on the way to the bus and on the way to their destination. Harassment was mostly described as being groped, grazed, and touched inappropriately by men. The majority of

women expressed that sexual harassment is worse during overcrowding, often blaming the lack of space on buses and stations as the reason men “take advantage” of the situation to grope or graze during peak times. Women reported having different reactions to harassment, often being unable to respond or react and freezing in the moment, while others responded verbally or physically. Regardless of women’s response at the time, they were left with a sense of anxiety which developed their experience developed into hypervigilance defined by Kash (2019) as a “stressful state characterized by fear, anxiety, and a need to continuously scan their surroundings for danger” (p. 236).

Findings suggest that shame was a common trait among women in this study when speaking of having been harassed and sharing their stories regardless of whether they had a visible reaction to others (verbal or physical). When a participant did not react at the moment, they felt shame for not defending or protecting themselves. When a participant did respond, they seemed ashamed of having experienced harassment. This aspect of shame turns into fear and evinces the long-lasting psychological effects of harassment that constrain women’s mobility. Because of their personal experiences and stories of friends, family, and media, women’s mobility is hindered by implementing self-imposed and self-regulating strategies. Self-regulating tactics include opting to avoid traveling during peak hours, at night, or avoiding specific stations or streets when they can, and extend to defensive behavior including their clothing choices, where to sit or stand on buses and stations, and traveling in a group or accompanied.

Many participants would not clearly state they were sexually harassed and worded their responses ambiguously but would allude to an incident of sexual harassment. Three survey participants conveyed this when they said: “Too many *mañoso*¹ men take advantage

of you when buses are full” - 26-year-old homemaker. “It can't be helped because you are exposed. The grazing and touching can't be avoided. It's generally full” 31-year-old housewife/homemaker. “Space is tight, resulting in abuse” - 20-year-old student survey participant. It is unclear what is meant here by the term “abuse” - whether it is a lack of manners or someone taking advantage of a situation conducive to sexual harassment - but it was a common term used to describe men’s lascivious behavior towards women on Transmetro and its surroundings. Notable, too, in these three examples is that all mention or allude to a lack of space and crowding as the reasons why sexual harassment occurs, *not* men’s behavior or the deep-rooted social inequalities that enable harassment. During crowding, passengers experience increased contact, which typically would be considered a violation of social norms, under which perpetrators may think of their behavior as “‘legitimate’ inappropriate behavior” (Ceccato and Paz, 2017, p. 13 in Kash, 2019, p. 235). Crowding facilitates perpetrators’ chances to act as blame will likely be diffused among the crowd (Hutson and Kreuger, 2018). While more sexual harassment incidents occur in crowded spaces on public transit, the lack of space during crowding *does not* justify nor is the cause of sexual harassment.

Like most public spaces, public transit is internalized by both women and men as a “masculine” space, the domain where men can act as they please (Falú, 2009). Patriarchal norms bleed into dichotomized social understandings of space, of private/public, domestic/unremunerated labor/unremunerated labor, and feminine/masculine space (Valdivia Gutierrez et al., 2017; Sweet and Ortiz Escalante, 2010). These dichotomies form what Hanmer (1978) calls the “structural underpinning of hierarchical relations; the ultimate sanction buttressing other forms of social control” (p. 229 in Pain, 2016, p. 901), whereby

women and men operate and live within different and uneven power dynamics. Social institutions like the church, school, family, and media help to socialize women into believing that they are not welcome to transit and participate in public space because they do not belong, and reinforce the social and spatial dichotomies (Dammert, 2007). As such, the idea of public space as “masculine” is passed on to women; they are socialized to fear going out at night, to fear strangers, and to be afraid in public space from a young age by creating their own geographies of fear (Valdivia Gutierrez et al., 2017; Valentine, 1989). Therefore, women’s perceptions of (in)security often start before any personal encounters; fear precedes violence and percolates into their experiences in public space and public transit. Additionally, this serves to reinforce the beliefs and behavior that objectify women, a type of violence employed on women’s commonly sexed bodies (Valdivia Gutiérrez et al., 2017, p. 16).

In the 2017 UN Women study on sexual harassment and violence of women and girls in Guatemala City, the majority of women participants agreed that it is up to a woman to behave “respectfully and properly” in public spaces, while 64% of women agreed with the statement “women provoke sexual harassment” (p. 39). This demonstrates how deep-rooted patriarchal culture and beliefs are internalized by society as a whole in Guatemala. As such, in public spaces, women are in an unequal position of power in relation to men as the latter are not punished by their physical transgressions in sexually harassing or violating because it is naturalized and normalized as space is deemed masculine.

Overcrowding has negative implications for women’s mobility in contrast to men’s mobility, as women’s experiences are clearly distinguishable. Women assume the risk of possibly being sexually harassed each time they take public transit, especially in crowded

conditions. This has become a predominantly accepted condition of women's urban mobility as the structural conditions of inequality prevail. Overcrowding also has other implications for women's experiences of mobility, as it facilitates theft within the bus. The following section outlines how participants experienced theft and the implications on their mobility.

4.2.4 Safety Concerns on Transmetro: Theft

Robberies and theft on public transit are the second most common crime experienced by women in Guatemala City (UN Women, 2017, p. 31). Although robberies or assaults at gun or knifepoint are rare on Transmetro, thefts occur often. Despite the gendered implications of insecurity I examined above, women are also subject to fear of theft and assault that affect all people on public transit and throughout their whole journey. However, because of how women's bodies are perceived and how women are objectified, their fear is distinguishable because assaults and robberies can also have a component of sexual harassment. This section will explain how women experience the pervasive theft problem on the Transmetro bus system.

Some participants noted that they had not experienced theft themselves but had witnessed it or heard about it through acquaintances or media. As a 43-year-old homemaker stated, "It hasn't happened to me, but I've definitely seen thefts." Another survey participant, a 45-year-old nanny, shared that her daughter's belongings had been stolen from her purse twice on Transmetro, around Obelisco, while passing Zone 4. Although these two survey participants claimed not to have experience with thefts on Transmetro, they had either seen them happen or had heard about it from someone else. Regardless of

whether the experience was personal or not, insecurity experiences also contribute to how women experience their mobility and adopt protective strategies.

Another 45-year-old homemaker also commented on her perceptions of safety and thefts she witnessed: “Yes, I’ve heard there are thefts sometimes. I feel that Transmetro is safe, and if something of yours gets stolen, it’s only because you didn’t look well enough for a good place to sit or stand”. This view underscores how normalized theft and assaults are in Guatemala City’s public transportation system and the city in general. The participant placed the onus of protecting one’s belongings on the person, rather than blaming the thief. This view reflects a normalized standard of acceptance of high crime rates beyond everyday frustration and blames the victim for being careless in knowing that it could happen to them. In Guatemala City, where the state fails to uphold citizen safety, security is mostly considered a personal matter. This is the case in Transmetro as well, where there are some added security measures that seek to address insecurity, these measures are inefficient. This viewpoint of privatizing a public safety issue has been naturalized and internalized, evident in the survey participant’s response above.

Elena, a 27-year-old university student, had her belongings stolen more than once at different times of day:

When I started to use it [Transmetro], I felt really safe, then when my documents were stolen, I no longer felt safe. (...) The first time was at 10:30 am, in the light of day in line 12. I was transferring - it was at Plaza Barrios while I was changing from one bus line to another. My cellphone was stolen. The second time it was at 3:30 pm. They took my wallet with all my IDs and money. **(Elena)**

As illustrated by Elena’s experience, she felt safe on Transmetro until her belongings were stolen. After, Elena began to negotiate her safety and mobility differently. She chose to bring a backpack with a working zipper and always carried it towards the front of her body

or at her feet when sitting. Keeping belongings close may be a general safety strategy for all passengers, but for women it reflects a larger sense of insecurity, as they also use their belongings as shields. Elena also became more vigilant of the people near her. Further illustrated by Elena's experience, theft occurs at different times of day and different locations, not as isolated incidents during peak hours or necessarily always at the same stations. Both survey and interview participants pointed to lines 12 and 13 as more dangerous than the rest. Stations singled out as unsafe unsurprisingly include the largest and most crowded stations: Plaza Barrios, Trebol, and Centra Sur.

Patricia, a 34-year-old administrative assistant, shared that her cellphone was stolen at Javier station, where she got off every weekday to go to work. She expressed it this way: "It has also happened to my coworkers; their things were stolen. It must have been around noon, maybe 2 pm. So, that station is very insecure because there is no security personnel. Like I told you, no police, no workers." Patricia illustrates a viewpoint common among both interview and survey participants - that the municipal security personnel, either citizen guides, municipal police (PMs), or both, help curb crime and attribute their presence to a safer bus system and experience. Patricia was certain that Javier station was more dangerous because it lacked municipal security personnel and not for other reasons. While whether personnel help curb crime needs to be studied further, these findings suggest that their services should be retained and increased to all stations due to their positive impact on participant's perceptions of safety. However, this perception is complicated by the statements from other participants were not as keen on the municipal personnel's presence.

Although many participants consider Transmetro to be safer because of municipal security personnel, participants in both surveys and interviews also alluded to insecurity

issues stemming from the inappropriate behavior of municipal security personnel. Participants expressed distrust in Transmetro authorities because they had also perpetrated harassment towards them or their acquaintances. The following participant comments illustrate this negative view of municipal staff and security personnel:

We, as women, have to take care of ourselves. But police don't even do anything. That time that I was with a friend and our things got stolen the police officer saw! He asked if something was stolen, and he just let the doors close, and that was it. There's too little security, especially for women. Too much indifference. **(Heidi, 18-year-old high school student)**

No, in my case, I would no longer try to report it because the Transmetro police officers who are there in the stations, they say, "we can't do anything" they told us before that one had to speak if we realized something had happened, he had to speak, or in the part in which he realized, one would get down and talk. There they would close the doors and search the people who were inside, that's why I said, well, I'm going to speak so they can do something because it could be that the person takes it out and stays in there still. But that time I told the policeman, and he said, "we can't do anything, it's rush hour, and we can't do anything, a lot of traffic, and we don't know where he went, so we can't do anything." I think that it is not advisable to say something again unless one realizes who it was or that you realize, for example, if he got on one station and at the next station you already speak and say, he was here, and he has not been down until now. So, there it is more convenient to talk. It was a person who worked in the municipality, that one my colleague told him, just as his cell phone had been stolen, he told us, because he was our friend, he told us: "no, when something like this happens to you, you get off. They tell personnel and what they do is close the Transmetro and search all people. That's why I was motivated to say something, but it did not help. **(Elena, 27-year-old university student)**

"I've never reported anything [...] because, well, I've also been harassed by Transmetro authorities, so it's like if I tell them the same thing is going to happen. So, it's like, that completely takes away your trust. It doesn't make you feel comfortable to report it to any authority [...] it's like "that's enough, what's the point?". **(Jessica, 22-year-old university student)**

Disregarding theft reports is harmful. It leads to further distrust in institutions, which is commonplace in Guatemala as both state and municipal agencies are seen as corrupt and inefficient. Further, harassment perpetrated by the very personnel that is supposed to protect users and be the first contact in the reporting chain infringes people's trust in that

institution and contributes to people's perceptions of insecurity that could constrain their daily urban mobility. Distrust leads to underreporting, which falsely portrays the municipal-controlled system as safest, a problematic concern when attempting to address the numerous issues within the Transmetro system. Additionally, harassment perpetrated by municipal staff demonstrates a weak system that is not working to protect its female passengers when the very personnel that is supposed to be trained and whose duty it is to protect fails by perpetuating an ineffective system in which harassment prevails.

Women's decisions regarding their trip stem both from personal experience and stories heard from others and in media, contributing to how they cautiously plan their trip. The conditions created by the state in the highly insecure context in Guatemala through a lack of security inhibit women's mobility through multiple barriers, particularly fear, as it dictates their experience throughout their trip. The current public transportation service is inefficient and is far from being able to guarantee the right to safe mobility. By not addressing safety concerns caused by theft, the state is complicit in creating the insecure conditions in which passengers must travel in. Sexual harassment and theft represent significant barriers to women's mobility as they produce and reinforce the fear and anxiety that has been naturalized by Guatemalans. These interconnected factors reinforce and sustain women's geographies of fear (Valentine, 1989). As part of adopting a whole journey approach, I will now discuss women's perceptions of safety formed throughout their entire journey, including outside the Transmetro bus line.

4.2.5 A Whole Journey Approach: Perceptions of Door-to-Door Safety

While I have chosen to focus on experiences on the Transmetro bus system, as previously emphasized, it is crucial to have a "whole journey" perspective of women's

safety, as their mobility does not happen in isolation on the Transmetro system. Many passengers use multiple modes of transport some of which are notoriously insecure, and there are unsafe places throughout the city which are part of the whole urban daily journey for many women. While the overwhelming majority of participants emphasized that they find Transmetro safer than other public transportation, their experience of sexual harassment, theft, and overcrowding illustrate the safety issues within the bus line and its related infrastructure. Further complicating the portrait of the safest bus line is women's experiences of insecurity outside the Transmetro bus system, as walking to and from the safe "bubble" of Transmetro proves dangerous. A journey on Transmetro does not happen in isolation; safety on public transit cannot be guaranteed without a safe public environment. A passenger on public transit begins and/or ends their commute as a pedestrian. In a city with record-high numbers of violence and crime, whereby both violence and fear for women and men are distinguishable (Soto Villagrán, 2012, p. 149), the sidewalks, footbridges, and streets are not safe for women in real and perceived terms. Street harassment is a significant issue and often happens outside high pedestrian traffic areas or coming from public transit (Mehta, 2014 in Hutson and Krueger, 2018). Assaults and robberies with dire consequences also occur more frequently on streets and sidewalks. The fear of assaults, harassment, and more life-threatening encounters is exacerbated in dark and isolated spaces. However, crowded spaces outside buses prove dangerous, predominantly when occupied by people consuming alcohol or drugs or occupied only by men.

Leticia, a 23-year-old university student, encapsulates this sentiment, shared by many participants: "I think access to stations is a big issue. You feel safe once you get to

the stop, but the problem is getting there. Even more, if it's somewhere close to the university." Other interview participants echoed the sentiment that Carmen station - the station closest to San Carlos University (USAC) - is unsafe because of frequent assaults and harassment regardless of the time of day. One participant conveyed her experience to and from USAC in this way:

It has happened to me twice at different times, it was empty, and they tried to assault me. They came out of nowhere. I imagine that they're in a certain area waiting for someone to walk by, and that's when it happens when someone walks by on their own. When it happened to me, I just felt that they grabbed my waist and said, 'keep walking.' He had a jackknife, and I kept walking. There's supposed to be somebody from EMETRA¹⁴ there, but there wasn't anybody, and I don't know why the bike lane was empty that day...It had already happened to me, closer to the bottom of the pedestrian bridge [to cross the street from the station in the middle of Aguilar Batres, with multiple lanes] a super high man came out of nowhere towards me and I just said 'here, have it. Go,' and that's how I learned that there are moto-taxis there so, I would prefer to cross the street to the other side where I know there are moto-taxis so when I'm walking by, there are more people around. This was on the way to school [USAC] from Transmetro." (**Jessica**, 22-year-old university student)

Jessica's example demonstrates how her experience with assault on her walk towards USAC shaped her perception of insecurity and increased her fear in the second instance when a man approached her on the isolated footbridge leading her to hand him her valuables, hoping this would stop him from harming her any further.

Although assault is prevalent around USAC and its corresponding Transmetro stations, it happens throughout the day. It is not significantly worse in the evening or at night when it is dark. Ironically, Jessica states she now walks on the side of the street with moto-taxis, as there are more people around. This exemplifies the paradox of crowded versus isolated spaces. Outside public transit, crowding seems to make women feel safer

¹⁴ Municipal Traffic Police. EMETRA and PM officers dress in the same bright green colors of the municipal government, but they do not serve the same function. They are commonly mistaken.

as there are witnesses, and potential perpetrators of assaults and harassment may be more intimidated and may refrain from acting. On Transmetro, crowds easily conceal assailants and make it more difficult to identify aggressors, seemingly exacerbating theft and harassment. Safety is site and context-specific; it must be considered with the particulars of place, people, and time (Hanson, 2010).

Many participants pointed to the lack of lighting on streets as a safety concern: “The Transmetro station is well-lit inside. Outside the station, no. You don't find any lighting there. When I go to work it's totally dark, right, so you have to walk as fast as you can.” (**Patricia**, 34-year-old administrative assistant). Patricia remarked that walking fast in darker and isolated spaces is a useful tactic to avoid dangerous situations. This marks her experience as she has to take both a red bus to Transmetro line 12 to get to work. To make it on time, she must leave her house at 4 am when it is still dark and walk in poorly illuminated streets. Another participant agreed that the lack of street lighting makes her feel unsafe and afraid and added that the long distances between stops, using Capuchinas station as an example, prolongs the discomfort of anxiety and hypervigilance and makes the ride seem eternal. Although lighting improves real and perceived safety in terms of crime and violence, it is critical to understand that women's safety - perceived and real - cannot be realized through design changes alone. Infrastructural changes are useful in improving safety only when *accompanied* by changes in the social institutions that underpin gender inequality and lead to unsafe and dangerous circumstances, and broader societal change (Gill Valentine in Dunckel-Graglia, 2016, p. 625).

Another reason participants stated that station surroundings feel unsafe is the kind of activities that take place in certain areas. These can include groups of men as well as

drug and alcohol consumption. Heidi, an 18-year-old high school student, expressed that she felt the groups mentioned above of people who loiter around her school near Colón Park represent a threat to her and her all-girl classmates. Additionally, the neighborhood where Heidi's school is located is unsafe because of general crime. Heidi's perception of safety is based on both stories and anecdotes. To the point of her school neighborhood being unsafe, she commented: "It's dangerous because about a month ago they killed a man along the route we walk along. It was a man who worked there and sold flowers...they killed the man on the street that we always use." Hence, school officials suggest Heidi and her schoolmates not walk alone to and from school (from 7 am to 1 pm).

In addition to perceptions of insecurity stemming from crime, interview participants also pointed to traffic safety issues. One interview participant found the area around Plaza Barrios station to be dangerous because of the constant flux of buses on both sides of the station endangering pedestrians going in and out of the station and other pedestrians going to nearby areas. Plaza Barrios station serves as a transfer point between lines 12 and 13 on either side of the station and is typically bustling throughout the day. Half a block away from Plaza Barrios (figure 13) is another transfer station for lines 6 and 18, adding to pedestrian and bus traffic.

Figure 13

Plaza Barrios Station



Note. Line 12 buses are on the left. Line 13 buses are on the right. Source: Author, 2019

Another participant pinpointed the area near Hangares station in zone 13 as unsafe when exiting the bus due to oncoming traffic. She commented:

It's dangerous because many people need to cross the street to catch other buses, and even though there is a crossway, it's hard to get across. Most people gather in a group and all cross together or run if they don't wait for the light to change. **(Leticia, 23-year-old university student)**

Participants' experiences demonstrate that their safety was jeopardized throughout multiple parts of their trip. Insecurity and fear inhibit women's mobility, reinforcing their geographies of fear and exclusion from public space. Unless women's safety is considered broadly throughout city spaces in their different contexts, it will be very difficult to address women's security on public transit properly. To endure this insecure context, women choose several coping strategies to defend themselves and ensure their safety.

4.3 *Siempre a la Defensiva* (Always on the Defensive): Defensive tactics and avoidant behaviors

During interviews and surveys, participants shared how sexual harassment and theft have contributed to their perceptions of insecurity and their mobility. During their mobility women are forced to implement a myriad of strategies to defend themselves. This section describes the most referenced strategies by participants and the consequences these constraints have on women's mobility. I have categorized these as defensive tactics and avoidant behavior, which refer to using objects as shields (purses, bar handles, armrests), preferring to sit or stand at the front of the bus, modifying their clothing, and using defensive postures, or avoiding specific stations, streets, or traveling at certain times of day. Whether defensive or avoidant, women's coping mechanisms are part of everyday strategies to protect themselves, whether a person is perceived is a threat or not (Kash, 2019).

The overwhelming majority of participants in both interviews and surveys referenced using their bags as protection while holding them tightly towards their bodies' front or side. While in Transmetro stations and on buses, the majority of participants (100% of interview participants, most referenced in surveys [29% of references]) use their bag (typically a purse or backpack) as a form of protection by holding it strategically at the front of their body, or to the side. Holding the bag this way serves two primary purposes: ensuring that the bag and its contents are safe and as protection from unwanted contact with other bus passengers. On this point, Carol commented: "I put it [backpack] here in front or to the side, because although I feel like Transmetro is safe, I mean...something can always happen." Some participants preferred to carry a small bag or purse to avoid theft.

In contrast, others chose to use a backpack either because they could safely carry more items or because they found a backpack safer to carry than a purse in general. Some participants specifically mentioned preferring small cross-over bags as it is easier to keep them close and safe. Regardless of the preferred bag, it is up to women to ensure their safety from both theft and harassment by positioning themselves defensively while also remaining constantly vigilant of people around them. They are forced to find ways to protect themselves in the absence of social and institutional protections. In this way, women are forced to look out for their own safety, creating a climate of fear and insecurity that is not experienced by male passengers or considered by state actors.

Another tool to strategically protect themselves from men's unwanted proximity and attention are armrests on bus seats. As Leticia expressed:

If I can find a seat, I sit because there are fewer issues. Since seats have armrests, they don't get too close to you. It's not like going on a normal bus where people almost hug you. So, yeah, it's a bit more comfortable, so I try to sit. (**Leticia**, 23-year-old university student)

However, Carol and Yesenia indicated that sitting could also prove uncomfortable because of men's behavior, as they man-spread, take advantage of getting closer than necessary when exiting a row of seats, or position their bodies, specifically their genitals, near a sitting woman's face. Yesenia, a 46-year-old housewife, shared that due to overcrowding, men that are standing while she sits brush up on her. She said: "We're always piled up and it's terrible. (...) when you're sitting in the middle and men are standing, they brush up on you and it's terrible." Yesenia mentioned she had asked several young men to close their legs or give up seats, but they often ignore her by putting their headphones on and pretending they cannot hear her. Carol's strategy has been more confrontational, elbowing men that do this to give herself some personal space.

The overwhelming majority of participants (62% in interviews, 9% of survey references, second-most referenced strategy) prefer finding a spot at the front of the bus, referring to that area as safer than the back or staying near the door or the middle of the bus where theft is facilitated during the influx and outflux of passengers. The preference for the front of the bus was illustrated by Andrea, a 22-year-old university student, this way:

I try to go to the front even if I have to push my way there, but at least the time that I'm on Transmetro, I'm like, chill. There isn't as much squeezing or pushing up front. **(Andrea)**

Preferring the front of the bus represents a strategy as most participants felt safer there and chose it to avoid negative experiences and have a calmer commute. Some explained that it is often less crowded and being near the driver makes them feel safer.

Many participants also preferred sitting - many choosing to wait for emptier buses when their schedule permitted to ensure they can find a seat. During off-peak hours waiting for emptier units to secure a seat is not difficult on lines that boast exclusive lanes such as lines 12 and 13 in which buses come every minute. Sitting is preferred out of comfort when carrying too many items like shopping bags or personal items, to avoid the discomfort of the "push and shove" and harassment in overcrowded units. However, waiting for an emptier bus is not an option available to everyone. Women with fewer resources may have less flexibility to adjust their schedules and extended waiting periods during their journey imply a cost. They have less time available to dedicate to other activities.

Clothing is another way women have to modify their behavior during their commute to enhance their sense of safety. Heidi, an 18-year-old high school student who

takes Transmetro every weekday to get to and from school, shared her experience on the bus wearing her school uniform skirt and a time she was harassed:

I need to be careful with my skirt when I bend down to pick up my bag, see who is behind me. Some men are discreet, and others are not. Once, on a Monday at the CENMA stop [Centra Sur station], I was walking with my mom. But a week ago, I kept seeing a guy walking behind me, and that time he came close, and I stepped to the side, and he followed me. That time the bus was full, and when I did this (bent down) to lower the bag, he did this with my skirt (lifted the skirt). I started to tell him not to. The police took him off the bus at a stop. (**Heidi**, 18-year-old high school student)

Heidi also shared that several people yelled at the man to stop, causing a commotion, which is why the aggressor was removed from the bus at the next station. Since that encounter, Doña Lisa, Heidi's mother, started walking closely behind Heidi to protect her. Doña Lisa shared that she leaves her home near Centra Sur station earlier than she needs to accompany Heidi to Plaza Barrios where they go their separate ways. Heidi takes line 6 or 18 to school and gets off at Colón station. Doña Lisa switches to line 13 to head to her job in zone 14. Doña Lisa expressed concern in not being able to take Heidi to school or accompany her home as Doña Lisa finishes work after school is out. Traveling with company or in a group is a common response to experiencing sexual assault on public transit and is a common defense mechanism implemented in this case by Heidi and her mother. Doña Lisa filling the gap in state support that does not ensure women's safety and right to safe mobility.

Heidi also shared that she also tried to wait for an emptier bus at Plaza Barrios when heading home during the longer part of her commute. She had to hold her backpack, lunchbox and, make sure her skirt was in place, and see who was around her to avoid being harassed: "It's uncomfortable to have a backpack when there is a lot of people, and I'm wearing a skirt and the men behind you...it's very complicated." Here, like the survey participants at the beginning of this section, Heidi explains the bus was crowded and places

responsibility on herself to ensure her skirt is held down, noting the lack of space as an issue instead of blaming men's behavior or the structural inequality that enables this behavior.

Patricia, a 34-year-old administrative assistant, stated that the most important safety concern for women on all public transit is sexual harassment because it makes women feel unsafe. Patricia noted that women do not have much choice when it comes to their clothing because it can attract men's unwanted attention:

You get on the bus, you know you can't go with clothes that are too tight or provocative because here we're in a country where modesty is not a thing¹⁵, right. A man sees you in tights, and he quickly turns to look at you, says obscene things...that's what you risk the most, right. **(Patricia)**

As with Heidi and previous participants, Patricia places responsibility on women to *not* wear specific clothing instead of blaming men's behavior and attitude towards women and the patriarchal system and values that objectify women's bodies. Although Patricia is not saying a woman victim of sexual harassment is at fault because of her clothing, she emphasizes that it is the woman's responsibility to modify her clothing to avoid attention that can lead to harassment. However, the notion that women provoke sexual harassment is common among women in Guatemala City as well as among men, demonstrating the widespread internalization of these *machista* and patriarchal beliefs. These are reinforced when women modify their clothing, which could be perceived as trying to keep the status quo of what is socially constructed as a traditional "feminine model of goodness" (UN Women, 2017; Hutson and Kreuger, 2018). Women who then transgress these feminine ideals by wearing what they please are blamed for being sexual harassment victims. While

¹⁵ Here, Patricia refers to a lack of "modesty" in men as they commonly behave inappropriately and indecently towards women.

some women may actively choose to avoid wearing certain clothes to prevent men's unwanted attention, Heidi and other school-age girls who are mandated to wear skirts as uniforms do not have this choice as skirts are a mandatory uniform. Ultimately, women are blamed for being victims of sexual harassment or theft regardless of the strategies they implement, through defensive postures or by modifying their clothing because of internalized patriarchal beliefs. Women continue to be associated with the private, domestic space of the home, and by "transgressing" into public space, they are at fault for whatever happens to them. Additionally, they are also responsible for protecting themselves in the absence of social norms and a state presence that ensures their safety.

Despite the numerous self-imposed strategies, only one out of the 14 interview participants stated that her mobility changed because of harassment. Jessica stated that harassment specifically impacted her choice of what station to get on and off near her house in this way:

All the harassment I get has changed how I have to move around because I used to get on El Amate station, but then I decided to get on El Calvario station on 18th street. I don't care. I mean, I need to leave a bit earlier or go around because that way I can grab a seat or because near El Amate there are many men nearby and when you walk there, they harass you as soon as you walk by all the way to the bus station. If you get on at that station, it's fuller. Going around only takes me 15 minutes, but by then I'm sitting, or I go to the front to avoid harassment. It makes me feel better. By experience I've managed to figure out where to get on or off to avoid harassment, and if I see that it's late [nighttime] I try to get an Uber or taxi and avoid using Transmetro. (**Jessica**, 22-year-old university student)

Jessica walked to and from Transmetro to get home. Harassment is so bothersome Jessica prefers to have a longer commute and get off farther away from her home to avoid men's lewd comments. Once again, Jessica provides an example of taking her safety into her own hands. Avoiding El Amate station impinges on her time and mobility. Jessica also uses headphones during her walks to the bus to muffle street harassment.

Women react and adapt differently to harassment. Andrea, a 22-year-old university student who uses Transmetro weekly, mostly during the afternoon and evenings, shared an insightful story of a time she reacted to being groped on the bus and her feelings afterward:

I feel that not too much has happened to me, but lately, I have been defensive because it's too much. I have shouted, "they are groping over here!" (*están metiendo mano*) to make them realize, - *who do you tell?* - everyone there. - *Aren't you scared?* – Once I said to a man, "stop touching me." I said to people like, "look, be careful with this man who is getting off because he was touching" then, the women who were next to me, a girl, said to me, "I moved because I also felt it." It feels good because you vent the discomfort, but towards the back of the Transmetro, I heard like, "oh, tell her not to complain because she probably liked it," and it was the voice of a man. So, it's like, since it doesn't happen to them - *how frustrating* - yes, it is very irritating. Once I was catcalled on the street, I felt frustrated or disappointed in myself for not defending myself. So now, when it happens to me, I try to say something to show that they are violating me and to not feel worse later, not to feel worse than the situation already makes me feel. Yes, when it had just happened, like, you feel a sort of paranoia¹⁶ like "nobody come near me!". I have seen or noticed that it was not the same person, but I've definitely been harassed there [on Transmetro]. I felt the conflict of "Ugh, I have to get on this thing again" because I use other lines such as zone 6 and zone 18, which are the ones that leave me near my house, and maybe because of the hours there are fewer people, I feel calmer, even though it is at night or like super early in the morning. **(Andrea)**

Andrea's experience encapsulates the thought process and emotions many women go through after experiencing sexual harassment. She felt violated, ashamed, and impotent, which led her to stand up for herself and warn others so that it would not happen to them. As in previous examples, it was up to Andrea to defend and protect herself in the absence of the state policies to ensure women's safety. There is also a clear absence of collective social norms to confront the systemic and structural inequalities that condemn this inappropriate behavior. Andrea also described the mixed emotions of getting on the bus

¹⁶ The term "paranoia" was used by several participants. It does not always imply that it is "unjustified", per the definition of the word. It is interesting to note that it is a common word used for the anxious and hypervigilant feelings among the crowded bus atmosphere, but these feelings are indeed well-founded and justified in the real and perceived insecurity due to sexual harassment evident in participants' experiences.

again, knowing that there were no repercussions for her previous aggressor and that she most likely would be harassed again. Like many transit-dependent women, Andrea does not have the resources to opt for a safer mode of transport, once again highlighting the insufficient supply of accessible and safe transport in Guatemala City. Her experience constrained her mobility and shaped her sense of insecurity.

Further, an additional consequence is hypervigilance and anxiety. The majority of participants conveyed being hypervigilant throughout their entire journey, underscoring the state of naturalized stress, anxiety, and fear women live with during their daily urban journey. Additionally, hearing people's comments like Andrea did with the man on the bus influences women's perceptions of insecurity and experience of space, as it reinforces beliefs and behavior that objectify women - an example of a verbal type of violence employed on women's commonly sexed bodies (Valdivia Gutiérrez et al., 2017, p. 16). Women are commonly blamed for the violence they experience, reinforcing the notion that women are not welcome to participate in public space and bring harassment and violence on themselves, upholding normalized patriarchal understandings of unequal power dynamics manifested in women's experiences (Dunckel-Graglia, 2013).

Unlike Andrea, when it came to confronting harassers or thieves, Carol was more hesitant to confront the aggressor capturing the difficulty of speaking up, possible revictimization, and the consequences facing an aggressor could imply: "It's hard to say something because if you do, what if nothing changes, or they get off with you and follow you, you never know. What if they're waiting for you on the corner? It's dangerous." Carol's viewpoint illustrates the complexity of thinking quickly in the moment and deciding whether or not to confront an aggressor. There are genuine dangers in doing so,

especially if the person does not have the resources or flexibility to change their route; the aggressor could easily remember her and retaliate later.

The majority of participants did not explicitly state that their mobility changed as a consequence of insecurity throughout their journey while using Transmetro. Evident in participant's descriptions is the self-imposed, self-regulating aspect of precautions taken to safeguard their belongings and themselves, placing the responsibility of protection on themselves. As some stations are perceived as being safer than others, higher perceptions of insecurity lead to increasing strategies such as holding belongings closer to the body and using them as shields and employ "constant vigilance" whereby women engage in greater situational awareness and anxiety of nearby people's possible intentions as well as the physical environment (Kash, 2019). Women's chosen coping strategies emphasize how they try to take up more space and exert control during the bus ride. In the absence of state or social sanctions, women are forced to take charge of their security to not be immobile and find ways to mitigate their fear to participate in society within these unsafe parameters.

Contradictions emerged in interviews among participant responses. When asked specific questions about experiences, often participants would state that nothing had occurred to them, but they would later describe an incident where something had happened to them. For example, participants often would even say they had not experienced theft, but then go on to say that they switched from choosing a purse to a backpack because of theft as backpacks were deemed safer by this participant. I attribute these contradictions to three possible factors, the normalization of crime and violence, shame, and re-victimization. Violence and crime are normalized in Guatemala City as a daily occurrence and it is possible that participants had forgotten about their experiences as the high rates of

crime and violence lead to partially being desensitized. A second factor may be that, due to internalized *machismo* and patriarchal norms, participants felt shame in recounting their stories as they might have thought they brought the violence on themselves. For example, some participants like Andrea and Leticia shared feeling ashamed in the past after being sexually harassed during their journey and did not tell anyone or react towards the aggressor. This is a common response, as victims to feel like they are at fault when there are systemic, structural, and social factors to these occurrences. Lastly, participants may not have initially wanted to share their experiences because they triggered painful memories. For example, Doña Lisa said she did not have experience with sexual harassment on public transit, but through her daughter, Heidi's, interview I learned that Heidi had been harassed while she was with her mother.

This was also the case when participants were asked how their mobility changed based on perceptions of safety, the majority said it did not. However, interviews were important to help uncover the nuances in participants' changes in mobility, as they often did alter their safety strategies to accommodate for previous encounters of theft or sexual harassment. Similar to the above, the contradictions in participants' answers may stem from a normalization of crime and violence and having to adapt their mobility within this context has also been accepted as the norm. This exemplifies once again how women have had to be responsible for their own safety.

4.4 Summary

The findings of this research project reveal the implications of women's perceptions of insecurity on their mobility. Specifically, while initial statements indicated that women felt safe using Transmetro, further engagement and analysis revealed a more nuanced and

complex reality. While comparatively not as common as on other transit systems, women also experience transit crime on Transmetro, namely theft and sexual harassment. Participants found the Transmetro bus line safer than other forms of public transit, underscoring that safety is site and context specific. However, sexual harassment, robberies, and assault throughout their trip outside Transmetro affect women's mobility practices and how they experience their trip. Additionally, the majority of incidents happened in crowded environments thus participants often blamed the lack of space instead of men's actions and the structural inequality that encourages these violent behaviors. While the main focus was participants' experiences on Transmetro, a whole journey approach was used to frame women's security within the context of recurring violence in Guatemala City.

In participants' stories the absence of publicly supported safety measures is clear, placing the burden of protection on individual women. Women identified the myriad ways they have to modify their behavior, their clothing, and their mobility patterns to secure their mobility practices through defensive postures. Their safety strategies are self-imposed protective measures to defend themselves, as there is a clear deprivation of efficient systems to safeguard women. Within their limited choices of mobility and with fear, anxiety, and constant vigilance, women carefully choose where to stand or sit, who to travel with, and at what times.

The internalization and normalization of dichotomous understandings of space are pervasive leading women to feel shame and blame themselves for their victimization. This further reinforces and perpetuates the notion that women's participation in public space is unwelcome and that implications of breaching social norms brings harm upon themselves.

In this way, women continue to be associated with fear and as victims, affecting what coping strategies they utilize and how they practice their mobility (Falú, 2009).

The state is complicit in furthering the violence exerted on women in public transit by not securing their rights to accessible and safe mobility, as the hypervigilance and fear experienced are a form of violence as well (Soto Villagrán, 2012). Therefore, it is crucial to approach or frame women's insecurity in public transit as a rights issue to access essential public goods. However, to attain security and secure their right to the city, women's access to public space must increase to encompass mobility for work and school as well as leisure (Whitzman, 2013). Women's hampered mobility constrains their time, finances, and social mobility. Transit-dependent women are affected the most as their access to resources is limited, with less flexibility to alter their schedules to accommodate for crowded buses or other changes to avoid areas they identify as insecure. Limited choices in modes of transport imply a financial barrier when other modes are more expensive, but no other options are available. Constrained mobility significantly impacts the ability to improve women's life prospects as well as their access to other basic public goods like health and educational services (Whitzman, 2013).

Limited mobility also maintains economic, social, and spatial fragmentation (Ceccato and Loukaitou-Sideris, 2020). In this case, the public system that should help reduce social disparity is reinforcing and perpetuating inequalities. Inefficient, inaccessible, unsafe transit perpetuates class differences and inequality which public goods are supposed to ameliorate. Further, inefficient service on municipal personnel's part increases distrust in institutions and police, adding to an already insecure realm.

Interview participants did not explicitly state how their mobility patterns change when asked. This points to an important point in gender mobility studies: it is crucial to have a holistic intersectional approach that encompasses issues beyond gender such as class. This study's participants rely on public transit for urban daily mobility. Most do not choose what transport to take, and, like the majority of transit-dependent women, seldom have the resources to choose alternative mobility methods. Women with lower incomes and fewer resources at their disposal spend more time doing unpaid labor and domestic tasks, representing an opportunity cost directly related to the activities that cannot be undertaken with that time such as finding a job, or a better job, improving their working conditions, going to school, or leisure activities. Thus, transportation choices are limited because the majority of women who utilize public transit in Guatemala City do so out of necessity, *not* choice. Those that can, complement their mobility by avoiding travelling in certain areas, at night, or opt to use a rideshare application if that option is available but this implies temporal and financial costs. It is important to keep in mind that women as a group are not homogenous. Women who have access to choosing their mode of transport and mainly choose travel in a private motor vehicle have more access to jobs, to help with childcare and other care work, ostensibly freeing up their time more than women who do not have these choices or access to these choices.

Mobility issues are further exacerbated by the failure of governmental institutions to protect women and lapses in public policy as well as legal and legislative regimes. Specifically, sexual harassment is not codified as a crime in Guatemala, as a result cases of harassment are not prosecuted, and the issue is invisibilized. Combined with severe institutional corruption and lack of institutional trust, sexual harassment is underreported.

Additionally, participants expressed that they have been harassed by municipal personnel themselves, while elsewhere (UN Women, 2017), women have reported being harassed by National Civil Police (PNC) officers. Consequently, victims are dissuaded from filing reports, given that there likely will not be criminal or judicial repercussions for perpetrators. Fear of retaliation from perpetrators towards victims because of the lack of criminal consequences for perpetrators also deters victims from reporting. Women are dissuaded from reporting because they are either also harassed by authority figures or not taken seriously, which significantly underestimates their experiences and fear, limiting women's access to justice (UN Women, 2017). Paired with the naturalization of these behavior patterns, women's credibility is affected as victims which serve to "depersonalize and denigrate, depriving them of respect, credibility, and resources, silencing them and denying them a public presence, a voice and representation of their interests" (UN Women, 2017, p. 82).

In-depth work is required to foster social change to promote a more equitable society through interinstitutional and multi-sectoral efforts by means of several policies and interventions. This includes concerted efforts in national and local governments, nongovernmental organizations, as well as communities and at an individual level. Future changes need to tackle both the aspects of urban design and transportation infrastructure, and also address the normalized types of violence like sexual harassment that perpetuate and reinforce women's exclusion from public space and constrained mobility so that women can feel like they belong in public space.

Chapter 5: Addressing Women's Safety: Policies & Initiatives

5.1 Introduction

Building on the discussion of women's perceptions of safety on Transmetro and how these perceptions affect their mobility, this chapter addresses my third research sub-question by discussing existing policies and initiatives in Guatemala City designed to address women's safety on public transit. The first section showcases initiatives related to women's safety in public transportation from Guatemala City's Municipal Government, IDB's Transport Gender Lab, and the Observatory Against Street Harassment (OCAC) drawn from in-depth interviews with municipal and national government officials and key stakeholders. It serves as a place to evaluate these initiatives through dynamic analysis of their capacity to foster safer, more inclusive, and equitable transportation when applied to Guatemala City's Transmetro system.

The second section outlines recommendations to be undertaken at different scales by multiple actors, ranging from local and national governments, to nongovernmental organizations, with the participation of civil society. The recommendations are to pass proposal 5280 criminalizing sexual harassment; bolster the reporting process; increase the number of buses circulating during peak times to mitigate overcrowding; develop educational and bystander campaigns; and conduct more safety audits. I have outlined programs and strategies that have worked elsewhere and suggest how they could be implemented in Guatemala City. I have chosen to emphasize these specific types of interventions based on the findings of this research, and on successful initiatives conducted in cities across the region that have a similar social and economic context as Guatemala City. Although change requires action at multiple scales, I focus on changes that can mostly

be undertaken at the government level because I want to shift the responsibility for personal protection from individual women to the state, as it is ultimately the state's responsibility to guarantee citizen safety. However, safety matters are complex and the reality in Guatemala is that the state has long been absent in securing citizen safety hence I also make recommendations at the NGO, community, and individual level.

5.2 Current Policy & Initiatives in Guatemala City

Guatemala City developed a Gender Plan in 2019, recognizing the importance of including gender as an essential component of urban planning and public policy. The Plan consists of four main pillars: 1. Axis of equal citizenship and participation, 2. Promote women's economic autonomy, 3. Design and create inclusive, safe, and sustainable public spaces for all with resilient capacities, and 4. Strengthen municipal government's ability to promote gender equality among the city's inhabitants (Municipalidad de Guatemala, 2019). The third pillar focuses on women's inclusion and safety in public spaces, including public transportation.

As part of the process to implement 2019's Gender Plan, the city affirmed the importance of two existing initiatives developed in 2016 to improve women's safety in public transit. The first initiative is a campaign aimed at creating awareness and education, and a reporting process and action path for sexual harassment and assault. The second initiative entailed implementing safer bus stops for Transurbano, which has not been completed. Additionally, to further consider gender and safety in the city's agenda, Guatemala City became a signatory of the Interamerican Development Bank's (IDB) Transport Gender Lab (TGL). TGL is an initiative developed by the IDB in seven cities across Latin America with the aim of "working towards gender equality in the public

transportation sector" (IDB, 2018b). TGL helps signatory cities identify how to improve safety measures and with gender mainstreaming in public transportation, in line with a city's existing plans, or assist in developing and implementing new strategies. Gender mainstreaming "is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels" with the aim of realizing gender equality (Shaw et al., 2013, p. 4). Mainstreaming a gender perspective urges for the analysis and gathering of sex and gender disaggregated data (Loukaitou-Sideris, 2016; Shaw et al., 2013). In addition to offering the assistance of IDB's consultants, TGL established a network among signatory cities through webinars and a shared database so that officials can share best practices, lessons learned, and describe what worked or did not work in their cities and why. This is a valuable resource, especially for cities that are beginning to implement gender equity initiatives such as Guatemala City to learn from other successful initiatives elsewhere in the region with very similar socio-cultural contexts

In 2016 as part of the initiative to improve women's safety on public transit, the Attorney's Office for Human Rights (PDH, *Procuraduría de Derechos Humanos*) set up an inter-institutional committee to bring light to sexual harassment in the city and create awareness through an educational video campaign on Transmetro and develop a pilot project for a complaint process to address incidents of sexual harassment through the justice system. The committee involved the participation of several local and governmental institutions as well as the involvement of nongovernmental and civil society organizations including the city's municipal government, the Public Ministry (*Ministerio Público*, MP), and the National Police force (*Policía Nacional Civil*, PNC) as well as the Observatory

Against Street Harassment (OCAC). The pilot complaint process begins with the reporting of an incident of sexual harassment that took place on a Transmetro bus or in a Transmetro station to a municipal security officer. The municipal security office is then required to stay with the person who has made the report while contacting the MP and PNC. The respondent from the MP is then responsible for filing a report and attending to the victim as needed, while a PNC officer seeks to detain the offender, apprehend them, and take them into custody. The MP's complaint then goes to public prosecutors in the state's Judicial Branch, (*Organismo Judicial*, OJ), which considers taking legal action against the aggressor (see Appendix I).

There are several issues worth mentioning about the context in which the reporting process and campaign exist. The most significant problem is that sexual harassment is not legally considered a crime in Guatemala. All types of violence against women are defined as crimes in the Law Against Femicide and Other Forms of Violence Against Women (known as Decreto 22-2008). However, sexual harassment itself is not defined as a criminal offence which makes the reporting and prosecution of sexual harassment cases extremely challenging. In November 2019, Proposal 5280 was presented before Congress as a solution to this situation, with the stated goal of “reform[ing] the Penal Code to include the classification of crimes of sexual harassment, sexting, and grooming” (Quintela, 2020). As articulated in chapter 2, violence — gender-based violence inclusive — in Guatemala continues to increase. Concurrently, a lack of resources for the country's judicial system means that courts and prosecution services are overwhelmed and incapable of prosecuting the number of crimes committed related to femicide (Torres, 2018). Although national reforms to the penal code to include sexual harassment as initiative 5280 proposes are

critical to addressing the needs of victims of sexual harassment, there are several changes that need to be undertaken at the local and national government scale together with civil society.

Specifically, at a municipal level the promotion of the harassment reporting line, developed by the city as a response to the sexual harassment of women using public transit could serve to partially address the needs of victims of sexual harassment. However, in the interviews I conducted, not one interview participant was familiar with the reporting line for sexual harassment, this was consistent with OCAC's online survey in which only 20% of respondents knew about the reporting line mentioned above (OCAC, 2019).

Additionally, interview participants had negative experiences regarding the effectiveness of the municipal response to reports of crime on the Transmetro system more generally. Specifically, when asked if they had reported thefts on public transit, two participants indicated that they had tried to make a report with a municipal police officer at the Transmetro station the theft occurred in, but they were told there was nothing they could do. When asked if they would report an incident of sexual harassment on Transmetro in the future, the overwhelming majority of participants said they would not because of previous experiences in which security personnel disregarded their complaint. However, one participant's experience stood out:

Transmetro authorities have also harassed me, so it's like if I tell them the same thing is going to happen. So, it's like, that completely takes away your trust [in authorities]. It doesn't make you feel comfortable reporting it to any authority, not even writing down their badge number. It's like, "that's enough, what's the point."
(**Jessica**, 22-year-old university student)

Jessica's experience points to two main issues that need to be addressed to improve women's safety on public transportation: underreporting and better, more sensitive training

of government personnel, especially those part of the reporting line. Elsewhere, women have also reported sexual harassment from PNC officers (ONU Mujeres, 2017), who are also part of the sexual harassment reporting line. Jessica's lack of trust in the institutions designed with the state goal of serving her and keeping her safe is an attitude that has become endemic amongst women in Guatemala and leads to the underreporting of issues of violence or criminal behavior. Women may be discouraged from reporting an incident because of shame because of institutional and police distrust and fear of repercussion from the aggressor. This situation is exacerbated even further due to the fact that in Guatemala City, sexual harassment is not even considered a crime.

Along with the reporting line, the inter-institutional committee created an educational campaign against sexual harassment which aimed to address the problem of sexual harassment. The campaign was televised on screens in Transmetro units and displayed on posters inside Transmetro units and stations but is no longer displayed. Although the campaign encouraged victims to seek support and speak out, the campaign is problematic because it encourages victims of sexual harassment and assault to confront their aggressor. It fails to account for possible revictimization by placing the onus on the victim to confront their aggressor while also placing the victim in potential danger by confronting the aggressor.

I would also like to highlight OCAC's work here. OCAC is a civil society organization that has worked in conjunction with UN Women and the municipal government's Department of Women (*Dirección de la Mujer*) to create an online survey that maps sexual harassment in Guatemala. This survey is the first of its kind in the country and provides valuable information about where street harassment occurs the most, its

frequency, what kinds of harassment are the most prevalent, effects of harassment on people, and victim reactions. Most reported cases are in Guatemala City. OCAC found that one of the most prevalent places where harassment occurs is on public transportation leading the organization to create an additional online survey to specifically measure and survey harassment on public transportation in Guatemala City.

Moreover, OCAC are adamant supporters of Proposal 5280 which seeks to modify the current penal code to classify sexual harassment as a crime. The added legislation would serve as a deterrent to sexual harassment in categorizing it as a crime as it would be accompanied by criminal and judicial punishment. In addition to OCAC's mapping and surveying efforts they have undertaken an educational campaign aimed at school-age children and young adults. They created a book titled "The Street Where I Want to be Free: Stories to become free/to liberate ourselves/yourself" (*La Calle Donde Quiero Ser Libre, historias para liberarse*) which discusses four main topics: violence, violence against women, violence in public spaces and how to meet new people without harassment. The book was written and mediated by OCAC Guatemala volunteers and printed with the support of UN Women and is available to download for free, meaning it can be shared widely.

Educational campaigns aimed at younger populations are key in helping topple the normative misogynistic and patriarchal thinking behind the normalization and indifference related to sexual harassment and gender-based violence prevalent in Guatemala. OCAC's book and similar educational tools help understand how prevalent sexual harassment is and why it should not occur or be tolerated. Having these workshops at schools may help children and young adults feel less alone and find solace and community in hearing the

experiences of others. Paired with a strong institutionally backed complaint route, trained and prepared staff that can handle complaints and deal with complainants adequately, educational campaigns are all important and good first steps in helping curb sexual harassment in public transit and other public spaces.

5.3 Recommendations

The complex nature of social relations and mobility and public transit means that meaningful and efficient changes cannot simply be made by one group or level of government or by addressing concerns of the physical urban environment alone. Addressing gender mobility and safety issues requires a holistic approach that also encompasses economic and social strategies. Tackling the root causes of social and structural inequality that affect women's mobility requires a concerted effort undertaken by individuals, community groups, and various levels of government, as no single endeavor can deal comprehensively with crimes and unwanted sexual behavior in public transport (Ceccato, 2017). The lack of local and state policy and presence has implications for women's urban mobility experiences, and these issues need to be tackled and considered at multiple scales and in conjunction with several changes that complement one another, as proposed below. Two critical issues remain at the government level; there is a lack of mobility studies and data on passenger needs and concerns, and those that exist are not disaggregated by sex or gender. Not disaggregating data complicates the understanding of and therefore fails to address the complex and differentiated mobility needs and patterns of women and men. Without the collection of data, changes in policy are more difficult to implement. The second issue is that sexual harassment and general violence are

underreported. The recommendations outlined below are organized by priority level, not scale.

5.3.1 Pass Proposal 5280

The first recommendation involves prioritizing Proposal 5280 in Congress. This requires pressure from individuals, civil society, NGOs, and different levels of government to advocate strongly for security rights in public transportation. Without the legal penalization of aggressors, institutional distrust and the under-reporting will continue. In their 2019 annual report, the PDH demonstrated their support for Proposal 5280 and advocate for it to be passed in Congress as law. Proposal 5280 proposes reforms for the current Law Against Sexual Violence to include typifying sexual harassment through verbal and non-verbal actions (Quintela, 2020). The proposed fine for perpetrators would be the equivalent of three times the minimum wage. Once convicted, the perpetrator would attend sessions for awareness, prevention, and elimination of sexual harassment for the duration of six months (Quintela, 2020). Including articles in the constitution that would criminalize sexual harassment would help increase reporting, and curb sexual harassment as there would be clear repercussions for aggressors. Additionally, it would be a step that could help diminish women's fear during their journey and increase their participation and occupation of public space.

5.3.2 Bolster reporting line

The second recommendation is to strengthen and advertise/publicize the reporting line for public transit more. This would address the challenges identified in this study pertaining to 1. Lack of reports 2. Harassment from municipal and national security staff and 3. Women's safety on public transit. If the views of participants in this study

proportionally reflect that of other women users of Transmetro, there is not enough publicly displayed information about the reporting line making it more difficult for women to report sexual harassment. As Transmetro passengers may not wish to report sexual harassment because of the misconduct of security personnel, this part of the reporting chain needs to be better trained and sensitized to more adequately receive reports and accompany victims throughout the reporting process. This should include training for psychological accompaniment and regular revisions to ensure that staff are following procedure adequately to ensure the security of women reporting and their emotional well-being. There would be more data on this issue by facilitating reporting, and then this issue could be addressed with a more targeted approach.

Coupled with bolstering the reporting line and its staff, a program could be developed at the local government level with the national government's support so that it could be implemented throughout the rest of the city and the country. This program could be modeled after the *Viajemos Seguras* program in Mexico City, which was "designed to give women a safe place" to "confidently report sexual harassment and violence in public transportation, embracing the message that women have the right to travel without fear and harassment" (Dunckel-Graglia, 2013, p. 269). Mexico City's program had five offices in the most crowded subway stations in the city run by the National Institute of Women (INMUJERES) and the Public Transportation Department (Dunckel-Graglia, 2013). Following this example, several kiosks or offices could be set up at or near the busiest stations to provide women with a secure way to report sexual harassment. Kiosks could be operated jointly by the Guatemalan equivalent to INMUJERES, the Observatory of Women of the Public Ministry (*Observatorio de las Mujeres, Ministerio Público*), and

public transit authorities with specific training to accompany women through the entire reporting process. This could include the legal process and connect them with the correct psychological and medical services when needed. Based on this research project, stations could include Plaza Barrios, Centra Sur, Trebol, and Carmen stations as participants often cited them as "dangerous."

In addition to strengthening the reporting line, several initiatives can facilitate ease of access to the reporting process. In the context of Guatemala City, the most feasible service would be a free SMS service that does not rely on cellphone data and allows victim and bystander reporting. This tool could be modeled after the success of this service in Quito, Ecuador. In Quito, once a message has been sent to the reporting line, an audio message is activated. The message urges passengers to respect one another and alerts others to sexual harassment occurring on that bus. The audio clip helps to tackle the naturalized behavior of harassment, and since the implementation of the free SMS service, sexual harassment was significantly reduced on Quito's public transit system (Chacón, 2018). The victim receives virtual help within three minutes, while police and trained staff wait at the next stop or station to apprehend aggressors (Chacón, 2018). The municipal government can undertake this initiative with help and consulting from the Transport Gender Lab, as was the case in Quito. This could also be a joint effort with the support of the national government. The free SMS strategy would help the victim receive immediate assistance, facilitate the aggressor's apprehension, and help generate data in real-time to develop safer public transit.

Another cellphone-based option would be to develop an application. In Fortaleza, Brazil, the municipality developed its own application called Nina. This application has

several resources and options for reporting, both as a victim or bystander. The application is also connected to the transit system cameras, which automatically record and send images to the police to record and identify aggressors (Pogrebinschi, 2017). The application also indicates the nearest place the victim can receive psychological attention and make a formal report (Pogrebinschi, 2017). Nina has helped reduce sexual harassment, helped passengers feel safer during their trip, and generate data about harassment in public transit for the local government to develop intervention and prevention strategies. Another popular personal safety cellphone application is Safetipin. As an organization, Safetipin's several services (three personal safety cellphone applications, city-wide safety audits, custom safety audits, public space improvement reports for governments and other stakeholders) aim to improve the safety of public spaces and make public spaces more inclusive for women and vulnerable groups through data collection (Safetipin, n.d.). Safetipin is used in over 50 cities in India, as well as in Bogotá, Colombia, Hanoi, Vietnam, and numerous other cities, helping governments, nongovernmental organizations, and civil society map cities and develop improvement strategies for safety in public spaces (Safetipin, n.d.). Adopting Safetipin as a tool in Guatemala City would help understand women's safety on public transit and throughout their entire trip as it would help map dangerous hotspots and collect information to develop more inclusive and responsive policies and initiatives.

5.3.3 Increase Number of Buses

One of the most reported issues by participants in this study in both interviews and surveys was overcrowding. The director of the municipal government's Urban Mobility Department, Eddy Morataya, outlined that the number of buses circulating is limited by a

lack of resources, as passenger numbers have increased, but the budget has not. Edgar Guerra (PDH) has said that this leads to increased cases of sexual harassment. As emphasized in chapter 4, sexual harassment is complex and is mainly structural and societal and cannot be addressed by increasing the number of buses circulating alone. However, while not addressing the root causes by itself, reducing crowding can limit opportunities for sexual harassment and theft. In the absence of structural change undertaken at higher levels this recommendation could serve to potentially improve transit for women users. Additionally, municipal personnel need to have better control over passenger capacity on each bus to avoid crowding. To reiterate, overcrowding facilitates sexual harassment and assault but does not justify it and is not considered to be the cause. Hence, better management and availability of transportation is not a panacea and needs to be implemented in conjunction with other measures, especially initiatives that seek to address root causes of issues. Awareness, education, and prevention campaigns can tackle the societal roots that allow sexual harassment to be normalized and prevail in public transport and public spaces more broadly.

5.3.4 Develop Campaigns

The fourth recommendation is developing more widely displayed campaigns that do not place responsibility on victims to confront their aggressor, unlike the previous one. As a start, two types of campaigns could be created. One that instead tackles the socio-cultural roots of issues based on unequal gender power structures emphasizes that women are human beings that deserve respect and secure travel. The second type of campaign could be a bystander campaign. Bystander campaigns empower bystanders where harassment may occur in public space, such as buses, bus stations, and streets, not to be passive, quiet

observers, but to say something when harassment occurs. Empowering bystanders creates an atmosphere and environment in which harassment is not tolerated, in addition to fostering solidarity among all onlookers. Further, bystander campaigns also seek to highlight that stopping harassment and creating safer public spaces is a responsibility that is shared without the onus on the victim or aggressor alone (Metropolis and WICI, 2018). As with the first campaign that was aired on Transmetro, these campaigns could be developed inter-institutionally with the support of local and national governments and the support of nongovernmental organizations such as UN Women and civil society organizations like the Observatory Against Street Harassment (OCAC).

5.3.5 Conduct More Safety Audits

The fifth recommendation is to conduct more safety audits. This participatory tool's use is crucial as it shows a commitment to creating policy based on local knowledge by placing value on participant's experiences as experts of the space they habitually transit (Sweet and Ortiz Escalante, 2010). Safety audits also help ensure and enact women's right to public urban space by providing a process to have a say and influence the urban environment and increase their political and social influence (Sweet and Ortiz Escalante, 2010). As such, the process of safety audits also builds community and can be a tool of collective resistance to the barriers that inhibit women's mobility and access to space. I suggest audits be conducted often and include several community members of different ages and ability to have a more holistic understanding of the varied experiences and concerns to effect appropriate change that reflects the community's needs. It would also be helpful to include government representatives, perhaps from the Office for Women of the municipal government, to directly visualize passenger's needs and help effect change.

Safety audits can be organized by neighbors or communities but can also be accompanied by the support of agencies such as UN Women or organizations like OCAC.

Several key informants like the Director of the municipal government's Office for Women demonstrated interest in participating in the safety audits. However, she was interviewed after the audit had taken place. The Office for Women could take responsibility for conducting safety audits and implement them more widely, perhaps in conjunction with civil society organizations such as OCAC. Safety audits could also be adopted as a method to record and measure perceptions of safety in other public spaces as the Office for Women holds power within the municipal government. As outlined above, safety audits could be conducted through the Safetipin cellphone application, facilitating the process and data collection.

5.4 Summary

Local and national governments are making important steps to address transit crime and gender-based violence, but these measures need to improve significantly as there currently is a notable absence in state measures to protect women's safety. The creation of the reporting process is a great step in improving knowledge basis but needs to be strengthened as it is not recognized widely by users. This can be improved with publicity, as well as with the adoption of cellphone applications. Cellphone applications will not only help organize and generate more data, which in turn helps address safety issues better, but will facilitate reporting as it can be done anonymously. These measures alone, however, are not enough. If the current reporting process is not strengthened by better training of staff with correct sensibilization to take reports seriously and so they do not perpetrate harassment themselves, the reporting process is inefficient. Data collection needs to

improve, as well as the quality of the data collected. For example, it is important to note when reports are made and more details about the conditions surrounding the crime. The more is understood about crime and violence, better and more responsive initiatives can be implemented.

A material change that can be undertaken by the municipal government is to focus on adding more buses during rush hour to prevent overcrowding. As demonstrated in the earlier chapter, overcrowding facilitates incidences of theft and sexual harassment. Adding more buses is a simple way to mitigate crowding. Additionally, there needs to be better control of how many passengers are permitted to enter buses so as to not have buses over capacity. This will improve safety of all passengers more generally. Here I do not propose women-only transport due to Guatemala's strong manifestation of internalized and naturalized patriarchal norms. It is my understanding based on the example of Mexico City that this measure is successful only when accompanied by a strong suite of interventions ranging from policy interventions to community changes that also bring awareness to gender-based violence (Dunckel-Graglia, 2013). Without significant structural changes to the management and delivery of transportation services, interventions and programs that aim to improve women's safety in public transport have limited effects in the long term (Ceccato, 2019, in Loukaitou-Sideris and Ceccato, 2020). Without an understanding of the challenges to the inclusion of the voices of women and other vulnerable groups in transit services, passenger separation strategies like women-only transport can reinforce and exacerbate gendered spatial inequality (Loukaitou-Sideris, 2009, 2016 in Loukaitou-Sideris and Ceccato, 2020). Given that Guatemala does not have specific laws that currently criminalize sexual harassment, in Guatemala City's case, while recognizing that

separate transport for women might be safer in the short-term, it would merely be a palliative response that may likely serve to worsen spatial segregation. In order for women to (re)claim their right to the city and to “actively produce” their safety, they need to “maximize their access to public space” (Whitzman, 2013, p. 42).

To target the deep-rooted social inequalities stemming from patriarchal values, educational and bystander campaigns are essential. Strengthening OCAC’s initiatives and conducting workshops in more schools will help tackle this from a young age. Additionally, intersectoral collaboration would greatly aid in expanding campaigns and having them publicized more widely. Additionally, safety audits should continue to be conducted. These could be conducted by civil society organizations, NGOs, or even the municipal government. Safety audits would help build community and increase the understanding that communities should have a say in the planning of their transit systems, so that they reflect their needs and address their concerns.

Chapter 6: Conclusions

6.1 Introduction

The aims of this research were to examine: 1. The factors that contribute to women's perceptions of safety; 2. How participants' perceptions of safety and fear affect their mobility; and 3. To examine current policies and initiatives meant to address women's safety on public transit and provide recommendations based on the findings of this research. I conducted my research through a case study approach of women's mobility on Transmetro, the bus rapid transit system in Guatemala City. Through this case study, I explored the implications of women's perceived insecurity on their experiences of mobility. One of the contributions of this thesis is centering on women's everyday experiences of urban mobility in Guatemala City, adding to gender mobility studies. The findings of this thesis align with existing studies of women's experiences of mobility in Latin America, where fear is a challenging barrier that constrains women's mobility. Through a gendering of fear, the findings show that although Transmetro is safer than other forms of public transit, there are still significant challenges to women's mobility mainly stemming from structural and systemic configurations and understandings of space. The effects of the general context of crime in Guatemala City is evident in the high incidences of thefts and sexual harassment, abetted by the state in not ensuring women's safety, and by not improving inefficient transport systems corralling passengers during peak hours which result in overcrowding, facilitating and exacerbating issues theft and sexual harassment. In this concluding chapter, I relate my research to the broader implications of this research and build on last chapter's policy and initiative recommendations to suggest areas for future research on gender mobility in Guatemala City.

6.2 Overview of Research Findings and Objectives: Guatemalan women's experiences on Transmetro

The first objective of this thesis was to identify the factors that contribute to women's perceptions of safety and insecurity. Through a discussion of participants' experiences, it becomes clear that the safety measures on Transmetro, in contrast to the absence of safety measures in other modes of public transport, help curb women's perceptions of insecurity. However, participants' perceptions of safety within Transmetro stations and buses were dependent on the provision of municipal safety measures such as illumination and the presence of municipal security personnel. As part of framing safety through a whole journey approach, it becomes apparent that the safety measures within the Transmetro bus line and its related infrastructure are a stark contrast to the lack of safety measures throughout the city on streets, sidewalks, footbridges, and other modes of public transit. Most transit-dependent users rely on multiple modes of transport, underscoring that mobility needs to be framed from door-to-door and not as an isolated experience. This points to an urgent need to address safety at a broader scale.

Looking at the second objective, which sought to examine the relationship between women's perceptions of safety and their mobility, it became clear that women's experiences on Transmetro are deeply affected by their fear of theft and sexual harassment, often facilitated and exacerbated during overcrowding. For many women, the lack of space during crowding led to uncomfortable encounters for which they often blamed the lack of space, not men's behaviors or the structural and systemic patriarchal culture that enables this behavior. This shed light on women's internalization of patriarchal norms that manifest in their use of public transport. In line with Hanson (2010) and Law (1999), I underscore

that understanding Guatemala City's geographical and social context is crucial in unraveling the gendered implications of safety on mobility. The dominant patriarchal social norms that consider public space as "masculine" (Falú, 2009) and thus impermissible for women are evident in participants' experiences. Their perceptions of insecurity and the fear that results is a spatial manifestation of patriarchal norms and gendered spatial relations (Valentine, 1989; Falú, 2009; Soto Villagrán, 2018). Further, women described how fear manifested in a naturalized state of hypervigilance and myriad self-regulating and self-imposed safety strategies they implement throughout their whole trip. Safety strategies were mostly defensive postures and avoidant behavior which placed the responsibility of ensuring their safety on themselves. Beyond safety tactics, women's mobility is constrained by the fear produced through their experiences and the experiences of family and friends. This resulted in women modifying their clothing to avoid unwanted attention, preferring to travel with company instead of traveling alone, and avoiding trips at night. The safety tactics adopted by participants underscore an internalized, as well as normalized, sense of safety as a personal matter in the absence of the state that fails to protect and ensure citizens' safety. In the context of the high incidences of violence and crime more broadly in Guatemala, the lack of state safety measures, the state abets this violence, especially considering that sexual harassment is not criminalized. I highlight the need to frame women's mobility as a right to access public goods, as constrained mobility affects women's access to livelihood, school, work, and leisure (Whitzman et al., 2013).

The third objective involved examining the current policies and initiatives present in Guatemala City that aim to address women's safety on public transit. This objective was met by reviewing the intersectoral reporting network and its campaign on Transmetro that

had the aim of curbing sexual harassment and providing a reporting process for both theft and sexual harassment. Interview participants were not aware of this reporting process, highlighting the need to promote and bolster the reporting process on behalf of local and national governments. The few participants that did know about the reporting process, stated they would not report an incident again because when they tried, they felt they were not taken seriously. The lack of underreporting is also related to the lack of legal repercussions for sexual harassment perpetrators, as it is not codified as a crime, highlighting the inefficient reporting process. As such, I recommend that there be a stronger support for Proposal 5208 which seeks to fill this gap in the law and criminalize aggressors. Further, I suggested the development of cellphone applications to facilitate reporting, and to generate more data for the local and national governments to address security issues within public transportation. I also highlighted the need for adding more buses, especially during peak hours, to curb theft and sexual harassment. I also advocate for creating more campaigns that do not center on placing responsibility for women's safety on them, but that focus on solidarity as bystanders and that target the deep-rooted patriarchal culture that enables sexual harassment to happen. Lastly, I recommend that safety audits be adopted as a participatory tool that is more widely used to build community, to voice needs and concerns, and to effect change. Participatory planning is essential to develop more responsive and adequate transit systems that are in line with "barrier free" urban design, and contribute to more equitable, inclusive, and safer cities (Loukaitou-Sideris, 2016; Whitzman, 2013). Changes need to be made at multiple scales and through various measures as previously outlined. Safety cannot be improved by design changes alone, insecurity must be tackled through a concerted effort at different scales and through

different changes in policy, design, and education. The geographies of fear that permeate women's mobility in Guatemala City were made clear in this research. Fear precedes their personal experiences and shapes the mental maps young women create as they are socialized to link certain spaces, like public space, as unsafe, thus constraining their mobility. Women's insecurity and the fear it causes, is a violence exerted on women that must be addressed.

6.3 Suggestions for Further Research

This was a first attempt to research women's experiences of mobility in Guatemala City; it was undertaken with a small sample of women who use Transmetro weekly, over a short time frame. As such, further research is required to more fully map out women's mobility in this city, explore further other factors that constrain their mobility, and among a larger number of people and sites. Nevertheless, the research process was beneficial as a first look into the ways fear constrains mobility and the findings contribute to developing more equitable, inclusive, and safer forms of transport more widely. Through the course of this research and analysis, several potential avenues for future research have become apparent.

Further research needs to be conducted to understand the implications of demographic factors on women's mobility. Such factors include age and life stage (whether they are mothers, single mothers, what responsibilities they are in charge of in terms of child and eldercare, for example) to understand the effects of these factors on their mobility. As the sample size of this research was small, and I had limited time available for fieldwork, I was unable to explore the correlations between demographics and mobility in detail.

Another avenue for research would be to create time-space maps. These would allow a better understanding of women's use of time during their commute. Other important questions to consider during future research are the location of women's work or school in relation to their home, whether they have access to a private vehicle, what areas of the city they spend most time in for productive and reproductive work, and for leisure activities. Additionally, it is important to investigate how much women spend on transportation to provide better, economic, transit systems. Another factor to consider during future research is how mobility impacts women's access to opportunities for decent and remunerated work, and to improve their life conditions.

Appendices

Appendix A Interview Guides, Group 1 & 2

Guía de entrevista - Grupo 1 - Usuarías de Transmetro



Nombre/seudónimo:

Edad: _____

Ocupación: _____

Fecha: _____

Ubicación: _____

1. ¿Cuál es su modo preferido de transporte en la ciudad? ¿Por qué?
2. ¿Con qué frecuencia usa Transmetro?
3. ¿Vive cerca de una parada o línea de Transmetro?
4. ¿Se siente segura alrededor de/en Transmetro?
5. ¿Toma alguna precaución al utilizar Transmetro? P.ej. No lleva bolso, evita zonas específicas.
6. ¿Hay aspectos particulares alrededor o sobre Transmetro que usted cree que son particularmente inseguros? En su respuesta, describa por qué ha influido en sus puntos de vista: su propia experiencia, la experiencia de otros, informes de medios, historias, etc.
7. ¿Los sentimientos de seguridad o las experiencias negativas en o cerca de Transmetro le han impedido usar este autobús, o han cambiado la frecuencia o el lugar donde toma este autobús?
8. ¿Si se ha sentido insegura, por favor comparta por qué? Incluya en qué parada o línea de autobús de Transmetro ha ocurrido la razón por la que se ha sentido inseguro, y si sucedió con frecuencia si estaba en la misma línea o en una línea diferente. ¿A qué hora del día ocurrió esto?
9. ¿Ha denunciado algún incidente a las autoridades?
10. ¿Sabe a qué autoridades denunciar ciertos incidentes?
11. ¿Cuáles cree que son los 3 problemas de seguridad más importantes para las mujeres en el transporte público?
12. ¿Cómo podría mejorarse la seguridad de las mujeres y los sentimientos de seguridad en y alrededor del transporte público, específicamente el Transmetro? Esto podría incluir cambios en las políticas, cambios en el diseño, cambios en el servicio (horarios, lugares), cambios en el comportamiento de las personas (hombres), etc.
13. Si pudiera participar en auditorías de seguridad con otras usuarias de Transmetro, ¿le gustaría participar? Las auditorías de seguridad involucran a un grupo que camina a través de un espacio físico con una lista de verificación que marca qué aspectos (como la iluminación, la altura de los escalones, la altura del autobús, el hacinamiento en ciertos momentos) la hacen sentir segura o insegura.



Guía de entrevista - Grupo 2 – gobierno/ONG

Nombre/seudónimo: _____

Organización & rol: _____

Fecha: _____

Ubicación: _____

1. ¿Cuál es su rol con respecto a Transmetro / iniciativas o campañas relacionadas con la seguridad de las mujeres en los espacios públicos?
2. ¿Cuánto tiempo ha tenido este rol?
3. ¿Cuáles son las iniciativas o legislación existentes sobre la seguridad e inclusión de las mujeres en Transmetro?
4. En su opinión, ¿cuáles son los problemas más importantes que enfrentan las mujeres con respecto a la seguridad y el acceso al transporte público en la ciudad?
5. En su opinión, ¿cómo pueden el diseño, las rutas, las líneas, el Transmetro y el transporte público abordar los problemas relacionados con la seguridad de las mujeres y las mujeres?
6. ¿Usa/ha usado alguna vez Transmetro?
7. ¿Está familiarizado con las auditorías de seguridad? ¿Estaría interesado en participar en auditorías de seguridad durante esta investigación, o de obtener una guía para realizarlas en el futuro?

Appendix B Letter of Invitation (Group 1)



B349 Loeb Building
1125 Colonel By Drive
Ottawa, ON K1S 5B6 Canada
Tel: (613) 520-2561
Fax: (613) 520-4301
<http://www.carleton.ca/geography>

Título de proyecto: Movilidades de género en Transmetro: Entendiendo las experiencias de las mujeres en transporte público en la Ciudad de Guatemala

Fecha de autorización del protocolo de ética: 27 de mayo, 2019 no. 110880

Autorización de protocolo de ética expira: 31 de mayo, 2020

3 de julio, 2019

Estimada _____,

Mi nombre es Lucía Morales y soy estudiante de posgrado en el Departamento de Geografía y Estudios Ambientales de la Universidad de Carleton en Ottawa, Canadá. Estoy trabajando en un proyecto de investigación bajo la supervisión de la profesora Jill Wigle.

Te escribo hoy para invitarte a participar en un estudio titulado “Movilidades de género en Transmetro: Entendiendo las experiencias de las mujeres en transporte público en la Ciudad de Guatemala”. El objetivo del estudio es comprender las experiencias de las mujeres específicamente en Transmetro, y cómo estas experiencias influyen en su movilidad por la ciudad, así como su acceso al transporte público.

Este estudio implica una entrevista de 30-60 minutos que se llevará a cabo en un lugar seguro y conveniente para ambas partes. Con tu consentimiento, las entrevistas serán grabadas en audio. Una vez que la grabación ha sido transcrita, la grabación de audio será destruida.

Solicito esta entrevista porque tu te identificas como mujer usuaria de Transmetro y eres mayor de 18 años. Tu experiencia en este entorno me proporcionará una mejor comprensión de las experiencias vividas por las mujeres con respecto al transporte público.

Los resultados de este estudio pueden publicarse, pero los datos se presentarán de modo que no sea posible identificarte, ya que todos los nombres reales serán reemplazados por seudónimos. Trataré tu información personal como confidencial, aunque no se puede garantizar la privacidad absoluta.

Los registros de investigación pueden ser accedidos por la Junta de Ética de Investigación de la Universidad de Carleton para garantizar el cumplimiento continuo de la ética. Todos los datos se mantendrán confidenciales, a menos que la ley exija la divulgación (por ejemplo, daños a sí mismo o a otros).

Si te preocupa expresar ciertas opiniones, podrás solicitar que ciertas respuestas no se incluyan en el proyecto final.

Tendrás derecho a finalizar tu participación en el estudio por cualquier motivo, sin consecuencias negativas, dentro de dos meses posteriores a tu fecha de participación. Si eliges retirarte, toda la información que has proporcionado se destruirá.

Todos los datos de investigación, incluidas las grabaciones de audio y las notas, se almacenarán en un dispositivo cifrado y protegido por contraseña. Cualquier copia impresa de los datos (incluidas las notas manuscritas o las llaves USB) se guardará en un gabinete cerrado con llave en la casa de la investigadora y luego en la Universidad de Carleton. Los datos de investigación solo serán accesibles por el equipo de investigación y el supervisor de investigación.

El protocolo de ética para este proyecto fue revisado por la Junta de Ética de Investigación de la Universidad de Carleton, que otorgó autorización para llevar a cabo la investigación. Si tienes preguntas o inquietudes éticas relacionadas con tu participación en esta investigación, comuníquese con la Dra. Bernadette Campbell, Presidente del Consejo de Ética de Investigación de la Universidad de Carleton (por teléfono al 613-520-2600 ext. 2517 o por correo electrónico a ethics@carleton.ca).

Si deseas participar en este proyecto de investigación, o tienes alguna pregunta, comunícate conmigo a luciamoralesvargas@cmail.carleton.ca, por teléfono al [REDACTED] o WhatsApp +1 [REDACTED]

Atentamente,

Lucía Morales

Appendix C Consent Form, Group 1



B349 Loeb Building
1125 Colonel By Drive
Ottawa, ON K1S 5B6 Canada
Tel: (613) 520-2561
Fax: (613) 520-4301
<http://www.carleton.ca/geography>

Formulario de consentimiento de investigación – Grupos 1&2

Nombre y datos de contacto de los investigadores:

Lucía Morales, Departamento de Geografía y Estudios Ambientales de la Universidad de Carleton en Ottawa, Canadá.

Tel.: [REDACTED]

Correo electrónico: luciamoralesvargas@cmail.carleton.ca

Supervisora y datos de contacto: Jill Wigle, jillwigle@cunet.carleton.ca

Titulo de proyecto

Movilidades de genero en Transmetro: Entendiendo las experiencias de las mujeres en transporte público en la Ciudad de Guatemala

Número de autorización de Proyecto:

de autorización: 110880

Fecha de autorización: 27 de mayo, 2019

Invitación

Te invitamos a participar en un proyecto de investigación porque te identificas como una mujer mayor de 18 años que usa Transmetro semanalmente en la ciudad de Guatemala. La información en este formulario tiene la intención de ayudarte a comprender lo que requiere participar para que puedas decidir si aceptas participar en este estudio. Tu participación en este estudio es voluntaria, y la decisión de no participar no se utilizará en tu contra. Cuando leas este formulario y decidas si deseas participar tómate el tiempo que necesites y consulta con quien necesites como lo deseas.

¿Cuál es el propósito del estudio?

Este estudio pretende comprender las experiencias de las mujeres en el transporte público de la ciudad. El objetivo es entender tus experiencias vividas alrededor del autobús y en el autobús, y cómo estas experiencias influyen en tu habilidad para moverte por la ciudad, al igual que tu acceso al transporte público.

¿Qué me pedirán hacer?

Si aceptas participar en el estudio, te pediremos que:

Participes en una entrevista individual en el momento y lugar que elijas y sea conveniente para ti. La entrevista durará entre 30-60 minutos y será grabada en audio. La entrevista se llevará a cabo en un formato que parece más como una conversación. La naturaleza de la información solicitada girará en torno a tu uso de Transmetro para moverte por la Ciudad de Guatemala, y las experiencias que deseas compartir en o alrededor de este autobús.

Las grabaciones de audio solo se conservarán hasta que la entrevista haya sido transcrita. Te invitamos a solicitar una copia de esta transcripción que será compartida en copia física o por correo electrónico de manera segura. También compartiré los resultados contigo al final de este estudio.

Además de las entrevistas, estoy reclutando participantes para que participen en auditorías de seguridad de las paradas y autobuses de Transmetro. La ubicación y el tiempo exactos se determinarán después de que se realicen varias entrevistas en función de las áreas de interés de los participantes. Estos se llevarán a cabo con grupos de 4 o más participantes. Recorreremos el espacio designado con una lista de verificación y marcaremos cualquier inquietud que pueda surgir con respecto al espacio físico que se está revisando. La participación es voluntaria. No habrá grabaciones de audio en las auditorías de seguridad.

Riesgos e inconvenientes

Puede que encuentres que el tema de algunas de las preguntas para sea sensible y te haga sentir incomoda. Siempre puedes optar por no responder a estas preguntas. No tienes que compartir ninguna experiencia que te haga sentir incomoda o cause angustia. Si sientes angustia como resultado de responder alguna de estas preguntas o después de nuestra conversación, te invitamos a comunicarte con la Fundación Sobrevivientes al + 502-2245-3000 para obtener servicios de asesoramiento. También puedo ayudarte a contactarlas.

Posibles beneficios

Creo que este estudio puede ser beneficioso para ti, ya que proporciona una plataforma para expresar cualquier inquietud que puedas tener con respecto al transporte público, especialmente Transmetro. Si eliges participar en auditorías de seguridad, esta será una excelente manera de conocer a otros miembros de la comunidad que pueden compartir inquietudes similares o tener necesidades similares y lo convertirá en un experto en su propio entorno teniendo voz en este espacio. Además, tu participación puede permitir a las investigadoras comprender mejor las experiencias diarias de las mujeres en el transporte público en la Ciudad de Guatemala.

Compensación

Recibirás un voucher de Q60 para agradecerte por participar en este estudio.

No renuncias a tus derechos

Al firmar este formulario, no estas renunciando a ningún derecho individual ni exime a las investigadoras de cualquier responsabilidad.

Retirar participación del estudio

Si retiras tu consentimiento durante el curso del estudio, se seguirá utilizando toda la información recopilada antes de su retiro, a menos que solicites que se elimine de los datos del estudio. Si solicitas que se eliminen del estudio tus datos, se eliminarán.

Después del estudio, puedes solicitar que tus datos se eliminen notificando a la Investigadora Principal (mencionada anteriormente) hasta 2 meses después de completar tu participación.

Confidencialidad

Eliminaremos toda la información de identificación personal de los datos del estudio tan pronto como sea posible – durante el proceso de transcripción. Se te asignará un seudónimo elegido al azar para que tu identidad no se asocie directamente con los datos que has proporcionado. Todos los datos, incluyendo la información codificada, serán guardadas en un archivo cifrado y protegido por contraseña en un dispositivo seguro.

Trataremos tu información personal como confidencial, aunque no se puede garantizar la privacidad absoluta.

No se divulgará ni publicará ninguna información que divulgue tu identidad sin tu consentimiento específico.

Los registros de investigación pueden ser accedidos por la Junta de Ética de Investigación de la Universidad de Carleton para garantizar el cumplimiento continuo de la ética.

Todos los datos se mantendrán confidenciales, a menos que la ley exija la divulgación (por ejemplo, daños a sí mismo o a otros).

Los resultados de este estudio pueden publicarse o presentarse en una conferencia o reunión académica, pero los datos se presentarán de manera que no sea posible identificar a ningún participante a menos que usted otorgue su consentimiento expreso.

Retención de datos

Una vez que se complete el estudio, conservaremos tus datos no identificados para su uso en futuras investigaciones durante un período de 5 años y luego se destruirán de forma segura.

Nueva información durante el estudio.

En caso de que algún cambio pueda afectar tu decisión de continuar participando en este estudio, se te informará de inmediato.

Revisión de ética

Este proyecto fue revisado y aprobado por la Junta de Ética de Investigación de la Universidad de Carleton. Si tienes alguna preocupación ética con el estudio, comunícate con la Dra. Bernadette Campbell, Chair, Carleton University Research Ethics Board (por teléfono al +1 613-520-2600 ext. 2517 o por correo electrónico ethics@carleton.ca).

Declaración de consentimiento

¿Tienes alguna pregunta sobre este estudio o necesita alguna aclaración?

¿Aceptas voluntariamente participar en el estudio?

Sí _____

No _____

¿Aceptas ser grabado en audio?

Sí _____

No _____

Fecha: _____

Nombre de participante/seudónimo: _____

Miembro del equipo de investigación que interactuó con el sujeto.

Le expliqué el estudio a la participante y respondí todas y cada una de sus preguntas. La participante pareció entender y estar de acuerdo. Le proporcioné una copia de la información del consentimiento a la participante para su referencia.

Firma de Investigadora

Fecha

Appendix D Letter of Invitation Group 2



B349 Loeb Building
1125 Colonel By Drive
Ottawa, ON K1S 5B6 Canada
Tel: (613) 520-2561
Fax: (613) 520-4301
<http://www.carleton.ca/geography>

5 de junio, 2019

Dirección de Movilidad Urbana
Municipalidad de Guatemala
3er nivel, Palacio Municipal
21 calle 6-77, zona 1
Ciudad de Guatemala, Guatemala

Asunto: Solicitud de permiso para realizar investigación “Movilidades de género” en Transmetro

Cordial saludo:

Mi nombre es Lucía Morales y soy estudiante de posgrado en el Departamento de Geografía y Estudios Ambientales de la Universidad de Carleton en Ottawa, Canadá. Estoy trabajando en un proyecto de investigación titulado “Movilidades de género en Transmetro: Entendiendo las experiencias de las mujeres en transporte público en la Ciudad de Guatemala” cuyo objetivo es comprender las experiencias de mujeres específicamente en Transmetro, y cómo estas experiencias influyen en su movilidad por la ciudad, así como su acceso al transporte público. Este proyecto se está realizando bajo la supervisión de la profesora Jill Wigle.

Por medio de la presente, como parte de este proyecto, solicito a la Dirección de Movilidad Urbana de la municipalidad de Guatemala, que nos conceda el permiso de:

- Tomar fotografías en paradas y autobuses Transmetro
- Realizar entrevistas móviles (de 10 minutos o menos) en paradas y autobuses Transmetro
- Realizar auditorías de seguridad en paradas y autobuses Transmetro

Durante la investigación en Transmetro, la investigadora principal y el asistente podrán ser identificados por un carné con sus nombres, foto, y logo de la universidad. Aclararán con quién hablen de que no es un estudio de parte de la municipalidad.

Se pedirá permiso de personas que podrían salir en fotografías antes de tomarlas. No se tomarán fotos de quien no de autorización, y las caras de aquellos que no autoricen fotografías serán alteradas para proteger su identidad.

Las entrevistas móviles serán sólo con mujeres mayores de 18 años, a las cuales se les pedirá su consentimiento verbal.

Las auditorías de seguridad involucran a un grupo que camina a través de un espacio físico con una lista de verificación que marca qué aspectos (como la iluminación, la altura de los escalones, la altura del autobús, el hacinamiento en ciertos momentos) la hacen sentir segura o insegura.

Los resultados de este estudio pueden publicarse, pero los datos se presentarán de modo que no sea posible identificar a participantes, ya que todos los nombres reales serán reemplazados por seudónimos.

Los registros de investigación pueden ser accedidos por la Junta de Ética de Investigación de la Universidad de Carleton para garantizar el cumplimiento continuo de la ética.

Todos los datos se mantendrán confidenciales, a menos que la ley exija la divulgación (por ejemplo, daños a sí mismo o a otros).

Todos los datos de investigación, incluyendo fotografías y notas, se almacenarán en un dispositivo cifrado y protegido por contraseña. Cualquier copia impresa de los datos (incluidas las notas manuscritas o las llaves USB) se guardará en un gabinete cerrado con llave en la casa de la investigadora y luego en la Universidad de Carleton. Los datos de investigación solo serán accesibles por el equipo de investigación y la supervisora de investigación.

El protocolo de ética para este proyecto fue revisado por la Junta de Ética de Investigación de la Universidad de Carleton, que otorgó autorización para llevar a cabo la investigación el 27 de mayo, 2019 con el número 110880. Si tiene preguntas o inquietudes éticas relacionadas con esta investigación, comuníquese con la Dra. Bernadette Campbell, Presidente del Consejo de Ética de Investigación de la Universidad de Carleton (por teléfono al 613-520-2600 ext. 2517 o por correo electrónico a ethics@carleton.ca).

Por cualquier duda o pregunta, pueden comunicarse conmigo a luciamoralesvargas@cmail.carleton.ca, por teléfono al [REDACTED], o WhatsApp +1 [REDACTED]

Gracias por la atención prestada.

Atentamente,

Lucía Morales

Appendix E Consent Form Group 2

Formulario de consentimiento de investigación – Grupo 3

Nombre y datos de contacto de los investigadores:

Lucía Morales, Departamento de Geografía y Estudios Ambientales de la Universidad de Carleton en Ottawa, Canadá.

Tel.: [REDACTED]

Correo electrónico: luciamoralesvargas@cmail.carleton.ca

Supervisora y datos de contacto: Jill Wigle, jillwigle@cunet.carleton.ca

Título de proyecto

Movilidades de género en Transmetro: Entendiendo las experiencias de las mujeres en transporte público en la Ciudad de Guatemala

Número de autorización de Proyecto:

de autorización: 110880

Fecha de autorización: 27 de mayo, 2019

Invitación

Solicito esta entrevista debido a su experiencia como defensor de los derechos de usuarios de transporte público. Si le preocupa expresar ciertas opiniones, tiene la opción de permanecer como informador anónimo, así como de solicitar que ciertas respuestas no se incluyan en el proyecto final.

Su participación en este estudio es voluntaria, y la decisión de no participar no se utilizará en su contra de ninguna manera. Cuando lea este formulario y decida si desea participar, haga todas las preguntas que pueda tener, tómese el tiempo que necesite y consulte con otros como lo desee.

¿Cuál es el propósito del estudio?

Este estudio pretende comprender las experiencias de las mujeres relacionadas con el transporte público, incluyendo el acceso y la movilidad en el transporte público. El objetivo de hoy es discutir su participación en el diseño, implementación o función de Transmetro.

¿Qué me pedirán hacer?

Si acepta participar en el estudio, le pediremos que:

Que participe en una entrevista individual en el momento y lugar que elija y sea conveniente para usted. La entrevista durará entre 30-60 minutos y será grabada en audio.

Las grabaciones de audio solo se conservarán hasta que la entrevista haya sido transcrita. Le invitamos a solicitar una copia de esta transcripción. También compartiré los resultados con usted al final de este estudio.

Riesgos e inconvenientes

Es posible que no desee responder a algunas preguntas. No tiene que responder ninguna pregunta a la que no desee responder.

Posibles beneficios

Su participación puede permitir a los investigadores comprender mejor las quejas de los usuarios y los métodos existentes para atenderles. Los resultados de esta investigación se pueden compartir con usted al final de este estudio si lo desea.

No renuncia a sus derechos

Al firmar este formulario, no estas renunciando a ningún derecho ni exime a las investigadoras de cualquier responsabilidad.

Retirar participación del estudio

Si retira tu consentimiento durante el curso del estudio, se seguirá utilizando toda la información recopilada antes de su retiro, a menos que solicite que se eliminen los datos del estudio. Si solicita que se eliminen del estudio tus datos, se eliminarán.

Después del estudio, puede solicitar que sus datos se eliminen notificando a la Investigadora Principal (mencionada anteriormente) hasta 2 meses después de completar tu participación (24 de septiembre, 2019).

Confidencialidad

Tiene la opción de usar su nombre y rol reales, o de usar un seudónimo. Si elige este último, se le asignará un seudónimo elegido al azar para que su identidad no se asocie directamente con los datos que ha proporcionado. Todos los datos, incluyendo la información codificada, se guardarán en un archivo cifrado y protegido por contraseña en una computadora segura.

Trataremos su información personal como confidencial, aunque no se puede garantizar la privacidad absoluta. No se divulgará ni publicará ninguna información que divulgue su identidad sin su consentimiento específico. Los registros de investigación pueden ser accedidos por la Junta de Ética de Investigación de la Universidad de Carleton para garantizar el cumplimiento continuo de la ética.

Todos los datos se mantendrán confidenciales, a menos que la ley exija la divulgación (por ejemplo, por daños a sí mismo o a otros).

Los resultados de este estudio pueden publicarse o presentarse en una conferencia o reunión académica, pero los datos se presentarán de manera que no sea posible identificar a ningún participante a menos que dichos participantes otorguen su consentimiento expreso.

Retención de datos

Una vez que se complete el estudio, conservaremos sus datos para su uso en futuras investigaciones durante un período de 5 años y luego se destruirán de forma segura.

Nueva información durante el estudio.

En caso de que algún cambio pueda afectar su decisión de continuar participando en este estudio, se le informará de inmediato.

Revisión de ética

Este proyecto fue revisado y aprobado por la Junta de Ética de Investigación de la Universidad de Carleton. Si tienes alguna preocupación ética con el estudio, comuníquese con la Dra. Bernadette Campbell, Presidente, Carleton University Research Ethics Board (por teléfono al +1 613-520-2600 ext. 2517 o por correo electrónico ethics@carleton.ca).

Declaración de consentimiento

¿Tiene alguna pregunta sobre este estudio o necesita alguna aclaración?

¿Acepta voluntariamente participar en el estudio?

Sí _____ No _____

¿Acepta ser grabado en audio?

Sí _____ No _____

Fecha: _____

Nombre de participante/seudónimo: _____

Miembro del equipo de investigación que interactuó con el sujeto.

Le expliqué el estudio a la participante y respondí todas y cada una de sus preguntas. La participante pareció entender y estar de acuerdo. Le proporcioné una copia de la información del consentimiento a la participante para su referencia.

Firma de Investigadora

Fecha

Appendix F Survey Question Guide (Group 1)



Guía de entrevista móvil (Encuestas, Grupo 1)

Área de encuesta (estación & línea)		Formulario no.		Hora	
Sitio de entrevista (en relación con estación)		Fecha		Entrevistador	

Hola, mi nombre es Lucía Morales. Estoy realizando una encuesta sobre las experiencias de las mujeres en transporte público, incluyendo el acceso al transporte y su movilidad por la ciudad. ¿Quisiera participar? ¿Siente que pueda responder estas preguntas aquí? Debería tomar menos de 10 minutos.

Si la persona no se siente cómoda, agrádecele y termina la entrevista

Si hay duda sobre la edad de la persona, pregunta “¿Puede confirmar que tiene más de 15 años?”

Si no es así, agrádecele y explica que la encuesta es sólo para mujeres mayores de 15 años.

1. ¿Cuál es su modo preferido de transporte en la ciudad?

Bus	
Carro	
Bici	
Moto	
A pie	
Otro	

2. ¿Con qué frecuencia utiliza Transmetro como medio de transporte? *

Una vez a la semana	
Varias veces por semana	
Todos los días	

3. ¿Vive cerca de una parada o línea de Transmetro?

Sí	
No	

4. ¿Prefiere Transmetro sobre otras opciones de transporte público?

Sí	
No	

Si le parece bien, me gustaría hacerle algunas preguntas sobre sus sentimientos de seguridad dentro y alrededor de Transmetro y sus experiencias en este.

5. ¿Qué tan segura se siente en Transmetro?

Muy segura	
Normalmente segura	
Insegura	
Muy Insegura	

6. ¿Toma precauciones al usar Transmetro? Por ejemplo, ¿no lleva bolso o artículos de valor, o tal vez evita áreas específicas?

Precauciones	
Evita áreas específicas	

7. ¿Hay aspectos particulares alrededor o sobre Transmetro que usted considera que son particularmente inseguros? En su respuesta, describa qué ha influido en sus puntos de vista: su propia experiencia, la experiencia de otros, informes de medios, historias, etc.

Sí / No	
---------	--

8. ¿Si se ha sentido insegura, por favor comparta por qué? Incluya en qué parada o línea de autobús de Transmetro ha ocurrido la razón por la que se ha sentido insegura, y si sucedió con frecuencia, si fue en la misma línea o en una línea diferente

Línea/Bus	
Hora/día	
Frecuencia	
Misma línea/diferente	

9. ¿Cuáles cree que son los 3 problemas de seguridad más importantes para las mujeres en el transporte público?

Finalmente, ¿me contaría un poco sobre ud.?

10. ¿Cuál es su edad?

11. ¿Cuál es su ocupación?

Ese es el final de la entrevista. Muchísimas gracias por su tiempo. Si desea obtener más información, aquí hay una tarjeta (tarjeta de presentación) con mi información.

Appendix G Letter of Invitation Mobile Focus Group/Safety Audit (Group 1)

¡Hola!

Te saluda Lucía Morales, del proyecto de investigación “Movilidad de género en Transmetro”. Durante la entrevista que realizamos, expresaste interés en participar en auditorías de seguridad en estaciones de Transmetro, por lo que te invito a participar en los siguientes días y lugares:

- 13 de julio en estación La Merced de 11hrs-14hrs
- 20 de julio en estación Gómez Carrillo de 11hrs-14hrs
- 27 de julio en estación Plaza Municipal de 11hrs-14hrs

¿Qué son auditorías de seguridad?

Con alrededor de 4 participantes, la investigadora principal (Lucía) y asistente de investigación, recorreremos el espacio designado con una lista de verificación y marcaremos cualquier inquietud que pueda surgir con respecto al espacio físico que se está revisando. Esto incluye la frecuencia de autobuses, aspectos de la estación y su entorno, al igual que otros aspectos que sean importantes para las participantes. Estas auditorías también destacan las diferencias que las participantes encuentran al atravesar la ciudad. Al igual implican un compromiso con los derechos de las mujeres a la ciudad, y apoya el derecho a vivir una vida segura y sin miedo. Nuestros hallazgos servirán para resaltar la necesidad de tomar en cuenta todo esto, con la esperanza que esta herramienta sea adoptada ya sea por la Municipalidad de la Ciudad o de cualquier grupo de ciudadanas/os que quisieran continuar.

¿Por qué deberías participar?

Esta será una excelente manera de conocer a otros miembros de la comunidad que pueden compartir inquietudes o necesidades similares. Es una herramienta que empodera, ya que te permite retomar espacios, ejercer poder sobre tu cuerpo en espacios públicos, y ayuda a que te conviertas en una experta en tu propio entorno. Adicionalmente, permite que tengas voz en este espacio y sobre tus vivencias de la ciudad. Tu participación es voluntaria. No habrá grabaciones de audio en las auditorías de seguridad.

¿Qué necesito traer ese día?

Yo proveeré la lista de verificación, pero te serviría traer:

- Algo con que escribir
- Agua
- ¡Amigas! ¡Hermandades! ¡Familiares! Quien tu creas estaría interesada/o en acompañarnos

¿Cómo será organizada la auditoría ese día?

Empezaremos a las 11am, y nos dividiremos en grupos de 4. Cada grupo tendrá su lista de verificación (copia adjunta) para ir llenando. La auditoría debería llevar entre una y dos horas, dependiendo de cuantas participantes haya. Agradezco mucho tu tiempo. Apreciaría mucho tu participación, ya que servirá para generar espacios y un modo de transporte público mas seguro, equitativo, e igualitario para TODOS.

Appendix H Mobile Focus Group/Safety Audit Checklist (Group 1)



Lista de verificación – Auditoría de seguridad (muestra)

Nombre del área:

Fecha:

Hora y día de la auditoría:

Clima:

Duración:

Lista de participantes:

Checklist	Comentarios & Resultados
¿Iluminación – funciona? ¿Está distribuida uniformemente? ¿Cuanto tiempo se tardan en arreglarlo?	
¿La parada de bus está mantenida y limpia? ¿Hay basurero?	
¿Frecuencia de servicio?	
¿Fiabilidad del servicio de autobús?	
¿Estructuras circundantes – bien mantenidas? ¿Bien iluminadas? ¿Utilizadas activamente?	
¿Área detrás de la parada de bus?	
¿Hay vigilancia policial visible?	
¿Acceso a ayuda/asistencia en caso de emergencia? ¿Hay teléfonos o policías municipales/nacionales en alrededor?	
¿Hay ventas o tiendas alrededor?(vigilancia informal ej: tiendas, restaurantes con grandes ventanales, viviendas, oficinas, balcones)	

¿Hay ciertos grupos que usan el área que hace que las mujeres se sientan inseguras?	
¿Hay algún uso/trato de alcohol o drogas?	
¿Hay aceras? ¿Son suficientemente anchas? ¿Están obstruidas o en mal estado? ¿Son accesibles para personas con sillas de ruedas, discapacidades, o personas mayores?	
¿Hay un número igual de mujeres y hombres que utilizan el espacio público? ¿Van precisos o se quedan más tiempo?	
¿Hay razones para quedarse (bancos, sombra, cosas interesantes para ver, como el arte público)? ¿Hay cruces peatonales seguros? ¿Hay niños o jóvenes jugando? ¿Qué grupos de edad?	
Diseño de asientos	
Diseño de rieles	
Hacinamiento	

Características físicas

Hay seis principios que subyacen en el proceso de evaluar los espacios desde la perspectiva de la seguridad de las mujeres:

1. **Iluminación:** cuán bien iluminadas están las áreas
2. **Señalización:** saber dónde se encuentra y hacia dónde se dirige.
3. **Visibilidad:** ver y ser visto.
4. **Aislamiento:** cuán ocupada está el área, escuchar y ser escuchado
5. **Rutas de escape:** poder escapar y obtener ayuda.
6. **Mantenimiento:** cuán bien cuidado está el área.

USO DE ESPACIOS

Además de estas características, es importante observar el uso de los espacios en el área, ya que la naturaleza del uso afecta la sensación de seguridad y comodidad de las personas. Por ejemplo, la existencia de tiendas o vendedores a menudo hace que los espacios sean más animados y, por lo tanto, seguros de usar. Si un parque es frecuentado por usuarios o distribuidores de drogas, a menudo se siente menos seguro para los demás. A veces, un espacio lleno de gente se considera más seguro, mientras que en otras ocasiones las multitudes pueden llevar a la falta de seguridad. Esto también puede depender de quién forma la multitud. **Las formas en que se usa un espacio y quién lo usa tienen un impacto significativo en cómo las mujeres lo experimentan.**

ORGANIZACIONES SOCIALES Y POLICÍA

Además de lo anterior, dos conjuntos de factores, la existencia de grupos de la comunidad local y su capacidad para abordar problemas de interés para la comunidad, también afectan la seguridad. Por lo tanto, es importante evaluar los procesos y acciones de la comunidad para ver si desempeñan un papel en hacer que las mujeres se sientan más seguras.

La vigilancia, tanto formal como informal, también juega un papel en la creación de espacios más seguros. Algunos espacios pueden sentirse más seguros debido a la presencia positiva de la policía, mientras que en otros espacios la policía puede ser intrusiva, o las personas pueden sentir que no son de confianza. Los métodos informales de vigilancia también son una parte importante de la vida comunitaria. Una mezcla de tiendas y espacios para comer, oficinas y casas que dan a las calles, parques y otros espacios públicos, junto con oportunidades para que todas las personas se detengan en un lugar (bancos, vendedores de comida, vendedores ambulantes y actividades para niños son ejemplos de factores que fomentan la persistencia) pueden crear efectivamente entornos seguros. Necesitamos entender qué factores hacen que las personas se sientan más seguras y capaces de acceder a espacios públicos.

- Hable con las personas en el área (incluyendo vendedores, comerciantes, una variedad de personas que usan la calle) para conocer su comprensión y las percepciones de seguridad.
- Pregunte a las mujeres que usan el área acerca de sus experiencias, si están dispuestas a compartirlas. Pídale que señalen áreas específicas donde se sientan seguras o menos seguras. Anote los incidentes, las historias, etc. Anote qué áreas tienen más usuarias e investigue por qué.

Registrar los Resultados

- Inmediatamente después de la caminata, el equipo debe pasar un poco de tiempo discutiendo la caminata y tomando notas. Asegúrese de que se hayan examinado todos los puntos de la lista de verificación.
- Los mapas deben usarse para registrar la información sobre problemas de seguridad en función a la lista de verificación y las reacciones durante la caminata. Asegúrese de que todos los puntos de la lista de verificación estén anotados en el mapa también.

- Es importante anotar no solo los lugares que se identifican como inseguros y las razones para el diagnóstico, sino también las áreas que las mujeres consideran relativamente más seguras y que se usan con comodidad.

Formulando Recomendaciones

- Después de la caminata, idealmente dentro de unos días, el equipo de auditoría debería reunirse nuevamente para discutir los hallazgos de la caminata y formular las recomendaciones apropiadas.
- Es necesario elaborar un conjunto de recomendaciones basadas en las opiniones, percepciones y experiencias de las personas que realizaron la caminata. Deben discutirse más a fondo con la comunidad local, tal vez en una reunión pública, para asegurarse de que el proceso sea inclusivo y para que más personas se involucren.

Las recomendaciones pueden estar relacionadas con:

- **Diseño y planificación:** sobre el diseño del entorno construido, como cambiar la iluminación y las vías, regular el tráfico o mejorar la vigilancia o el patrullaje.
- **Uso del espacio:** políticas que regulen cosas como el horario de apertura de estaciones u horarios de buses, áreas de ventas, etc.
- **Los problemas de gobernabilidad,** como los tipos de políticas que deben abordarse para lograr un cambio relevante
- **Prevención de delitos:** como proporcionar recursos para los jóvenes o trabajar para ayudar a los drogadictos, la ubicación de la policía, la capacitación de la policía, etc.
- **Iniciativas basadas en la comunidad:** intervenciones y cambios realizados y supervisados por la comunidad o grupos basados en la comunidad, como eventos comunitarios, mecanismos informales, etc.

Organice y oriente las recomendaciones para diferentes grupos de partes interesadas. Por ejemplo, una recomendación sobre paradas de autobús o transporte debe dirigirse a las autoridades de transporte, la necesidad de una mayor presencia de la policía dirigida a la policía, y otras intervenciones de planificación y diseño urbano pueden dirigirse a los organismos cívicos pertinentes. En general, sin embargo, es importante presentar las recomendaciones en su conjunto a la autoridad local.

Tomando las recomendaciones hacia adelante y asegurando la implementación

- Organice reuniones con las autoridades pertinentes para presentar sus recomendaciones y alentar la acción.
- Tenga en cuenta las políticas y los programas existentes que pueden utilizarse para respaldar las recomendaciones.

Asegúrese que las comunidades estén informadas, involucradas y apoyen las recomendaciones.

La WSA es el primer paso en el proceso. No termina con la entrega de las recomendaciones a las autoridades pertinentes. También implicará la participación regular de la comunidad, y formas de monitorear y hacer un seguimiento de dónde se han abordado y aplicado las recomendaciones.

Organice reuniones con la comunidad y grupos comunitarios para mantener el proceso activo y asegurar su interés y participación continuos.

Utilice los medios de comunicación para abogar por los cambios y para resaltar los cambios positivos cuando se producen.

Appendix I Complaint/reporting process and actors (Source: OCAC Guate)



References

- Baxter, J. (2006). Case Studies in Qualitative Research. In I. Hay (Ed.) *Qualitative Research Methods in Human Geography* (pp. 117-146). Blackwell Publishing Asia. Print.
- CAF-Banco de Desarrollo de América Latina. (2011). Desarrollo urbano y movilidad en América Latina. In *Banco de desarrollo de América Latina CAF*.
<https://doi.org/10.1109/MIC.2013.83>
- Camus, M. (2014). La acción política de las viudas de pilotos en la Ciudad de Guatemala. *European Review of Latin American and Caribbean Studies/Revista Europea de Estudios Latinoamericanos y del Caribe*, 7-24.
- Ceccato, V. (2017). Women's transit safety: Making connections and defining future directions in research and practice. *Crime Prevention and Community Safety*, 19 (3–4), 276–287. <https://doi.org/10.1057/s41300-017-0032-5>
- Ceccato, V., & Loukaitou-Sideris, A. (2020). *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (V. Ceccato & A. Loukaitou-Sideris (eds.)). Taylor & Francis.
- Chacón, D. (2018). *La Movilidad Motorizada en Quito*. [Conference presentation]. CEPAL Conference, Santiago, Chile
http://conferencias.cepal.org/IIconferencia_ciudades2018/Jueves%2018%20octubre/Pdf/S8_4_Daniela%20Chac%C3%B3n.pdf
- Contreras Méndez, O. (2020). “Nota de Envío” (9 de noviembre, 2020), Obtained through Access to Information request to Municipalidad de Guatemala, no. 1289-2020.
- Cresswell, T. (2010). Towards a politics of mobility. *Environment and Planning D: Society and Space*, 28(1), 17–31. <https://doi.org/10.1068/d111407>
- Cruz, J.J. (2017). *Impact of Gang Violence on "Transporte Colectivo Público Urbano" in Guatemala City* (Doctoral dissertation, Columbia University).
- Dammert, L. (2007). Entre el temor difuso y la realidad de la victimización femenina en América Latina. In O. Segovia y A. y Falú (eds.). *Ciudades para convivir: sin violencia contra las mujeres* (pp. 89-107). Santiago de Chile: Ediciones Sur.
- Dirección de Información Geográfica Municipal, DIGM. (2019a). *Map of Municipality of Guatemala*. (Map). Elaborated for this thesis.
- Dirección de Información Geográfica Municipal, DIGM. (2019b). *Map of survey*

- locations*. (Map). Elaborated for this thesis, adapted by author.
- Dirección de Información Geográfica Municipal, DIGM. (2019c). *La Merced Station, Safety Audit Location Lines 6 & 18 locations*. (Map). Elaborated for this thesis, edited and adapted by author.
- Dowling, R., Lloyd, K., & Suchet-Pearson, S. (2016). Qualitative methods 1: Enriching the interview. *Progress in Human Geography*, 40(5), 679–686. <https://doi.org/10.1177/0309132515596880>
- Duncan, N. (1996). *BodySpace: Destablising geographies of gender and sexuality*. London: Routledge. <https://doi.org/10.1017/CBO9781107415324.004>
- Dunckel-Graglia, A. (2013). “Pink transportation” in Mexico City: reclaiming urban space through collective action against gender-based violence. *Gender and Development*, 21(2), 265–276. <https://doi.org/10.1080/13552074.2013.802131>
- Dunckel-Graglia, A. (2016). Finding mobility: women negotiating fear and violence in Mexico City’s public transit system. *Gender, Place and Culture*, 23(5), 624–640. <https://doi.org/10.1080/0966369X.2015.1034240>
- Dunn, K. (2006). Interviewing. In I. Hay (Ed.) *Qualitative Research Methods in Human Geography* (pp. 150-172.). Blackwell Publishing Asia. Print.
- England, K. (1994). Getting personal: Reflexivity, positionality, and feminist research. *The Professional geographer*, 46(1), 80-89.
- Falú, A., Segovia O., & Alonso, M. (Eds.) (2007) *Ciudades para convivir: sin violencia hacia las mujeres, debates para la construcción de propuestas*. Santiago de Chile: Ediciones SUR.
- Falú, A. (Ed.) (2009). *Mujeres En La Ciudad: De Violencias y Derechos*. Santiago de Chile: Ediciones SUR.
- Falú, A. (2009). Violencias y discriminaciones en las ciudades. In Falú (Ed.) *Mujeres en la Ciudad: De Violencias y Derechos* (pp. 15-37). Santiago de Chile: Ediciones SUR.
- Family, GPS Tracker and Personal Safety App for Women*. (n.d.). Safetipin. Retrieved October 20, 2020, from <https://safetipin.com/about-our-company/>
- Federal Highway Administration, and National Research Council (U.S.). Transportation Research Board, U. S. (2011). *Women’s Issues in Transportation. Conference Proceedings 46* (Vol. 1).

- Fincher, R. (2003). Planning for cities of diversity, difference and encounter. *Australian Planner*, 40(1), 55–58. <https://doi.org/10.1080/07293682.2003.9995252>
- Gieseeking, J. J., Mangold, W., Katz, C., & Al., E. (2014). The People, Place, and Space Reader. In J. Jack Gieseeking & W. Mangold (Eds.), *The People, Place, and Space Reader*. Routledge. <https://doi.org/10.4324/9781315816852>
- Global BRT Data. (n.d.). *Latin America*. Retrieved November 12, 2020, from http://brtdata.org/location/latin_america
- Godoy-Paiz, P. (2012). Not just “another woman”: Femicide and representation in Guatemala. *Journal of Latin American and Caribbean Anthropology*, 17(1), 88–109. <https://doi.org/10.1111/j.1935-4940.2012.01192.x>
- Granada, I., Urban, A. M., Monje Silva, A., Ortiz, P., Pérez, D., Montes, L., & Caldo, A. (2016). The relationship between gender and transport. *Inter-American Development Bank*.
- Granada, I., Leño, J., Benítez, C., Navas, C., Sanz, N., Crotte Alvarado, A., Cortés, R., Armijos, J. P., Ortiz, P., & Glen, C. (2019). *Género y transporte: Guatemala* (pp. 1-20, Rep.). Banco Interamericano de Desarrollo. <http://dx.doi.org/10.18235/0001621>
- Greed, C. (2008). Are we there yet? Women and transport revisited. *Gendered Mobilities* (T. P. Uteng & T. Cresswell (eds.); 1st Edition). London: Routledge. (pp. 243-253) <https://doi.org/10.4324/9781315584201>
- Hanson, S. (2010). Gender and mobility: New approaches for informing sustainability. *Gender, Place and Culture*, 17(1), 5–23. <https://doi.org/10.1080/09663690903498225>
- Hanson, S., & Pratt, G. (1995). *Gender, Work, and Space*. London: Routledge. <https://doi.org/10.4324/9780203397411>
- Hsu, H-P. (2011). How Does Fear of Sexual Harassment on Transit Affect Women’s Use of Transit? *Women’s Issues in Transportation Summary of the 4th International Conference.*, vol. 2, (pp. 85-94). Transportation Research Board.
- Hutson, A. C. F., & Krueger, J. C. (2018). The Harasser’s Toolbox: Investigating the Role of Mobility in Street Harassment. *Violence Against Women*, 25(7), 767-791. doi:10.1177/1077801218804100
- IDB (2018a). Transport Gender Lab: Guatemala City. *International Development Bank*, <https://tglab.iadb.org/en/guatemala-city>
- ITDP. (2018). *Access for All: Access and Gender*.

- Jirón, P. (2017). Planificación urbana y del transporte a partir de relaciones de interdependencia y movilidad del cuidado in M. N. Rico & O. Segovia (Eds.), *¿Quién Cuida En La Ciudad? Aportes Para Políticas Urbanas de Igualdad* (pp. 405-429). doi:10.18356/e4910022-es.
- Jirón, P., Lange, C., & Bertrand, M. (2010). Exclusion and Spatial Inequality: An analysis from a daily mobility perspective. *Revista INVI*, 25(68), 15–57, doi:10.4067/S0718-83582010000100002.
- Kash, G. (2019). Always on the defensive: The effects of transit sexual assault on travel behavior and experience in Colombia and Bolivia. *Journal of Transport and Health*, 13(May), 234–246. <https://doi.org/10.1016/j.jth.2019.04.004>
- Laub, C. (2007). Violencia urbana, violencia de género y políticas de seguridad in A. Falú & O. Segovia (Eds.), *Ciudades para convivir: sin violencia hacia las mujeres, debates para la construcción de propuestas*, (pp. 67-85). Santiago, Chile: Ediciones Sur.
- Law, R. (1999). Beyond “women and transport”: Towards new geographies of gender and daily mobility. *Progress in Human Geography*, 23(4), 567–588. <https://doi.org/10.1191/030913299666161864>
- Lefebvre, H., & Nicholson-Smith, D. (1991). *The production of space* (Vol. 142). Blackwell: Oxford.
- Litman, T. (2017). *Evaluating Transportation Equity: Guidance For Incorporating Distributional Impacts in Transportation Planning*. 1–62. http://ecoplan.org/wtpp/wt_index.htm
- Loukaitou-Sideris, A. (2016). A gendered view of mobility and transport: next steps and future directions. *Town Planning Review*, 87(5), 547–565. <https://doi.org/10.3828/tpr.2016.38>
- Lucas, P. (2016). Mobilities and livelihoods in urban development contexts: Introduction. *Journal of Transport Geography*, 55, 129–131. <https://doi.org/10.1016/j.jtrangeo.2016.07.007>
- Massey, D. (1992) Politics and space/time. *New Left Review*, 196, 65–84.
- Massey, D. (1994). *Space, Place, and Gender*. University of Minnesota Press.
- McDowell, L. (2003). *Gender, Identity, and Place: Understanding Feminist Geographies* (2nd ed.). Polity Press.

- McDowell, L. (2005). Spatializing Feminism: Geographic perspectives. In N. Duncan (Ed.) *BodySpace: Destabilizing Geographies of Gender and Sexuality* (pp. 27-43). Routledge. doi:10.1017/CBO9781107415324.004.
- Mejía-Dugand, S., Hjelm, O., Baas, L., & Ríos, R. A. (2013). Lessons from the spread of Bus Rapid Transit in Latin America. *Journal of Cleaner Production*, 50, 82–90. <https://doi.org/10.1016/j.jclepro.2012.11.028>
- Metropolis, Women in Cities International. (2018). *Safety and public space: Mapping metropolitan gender policies*. https://www.metropolis.org/sites/default/files/resources/Mapping_metropolitan_gender_policies_0.pdf
- Mills, A., Durepos, G., & Wiebe, E. (2013). Case Study as a Methodological Approach. *Encyclopedia of Case Study Research*, (pp. 67–77). <https://doi.org/10.4135/9781412957397.n28>
- Morales Barco, F. L. (2014). Nueva Guatemala de la Asunción, génesis y desarrollo. *Barrio Querido: Historias y Memorias de La Ciudad de Guatemala*, 1–21.
- Municipalidad de Guatemala. (n.d.a) *Policía Municipal*. <http://www.muniguate.com/policia-municipal/>
- Municipalidad de Guatemala. (n.d.b) *Rutas Transmetro*. rutastransmetro.muniguate.com/?c=Estacion&a=infor#normas_normas.
- Municipalidad de Guatemala. (2006). *Plan de Ordenamiento Territorial Para el Municipio de Guatemala: Documento de Soporte*. <http://ir.obihiro.ac.jp/dspace/handle/10322/3933>
- Municipalidad de Guatemala. (2018). *Empresa Municipal de Transporte y sus áreas de Influencia urbana EMT: Memoria de Labores 2018*. http://docs.muniguate.com/2019/memoria/arch/MEMORIA_DE_LABORES_2018_EMPRESA_MUNICIPAL_DE_TRANSPORTE_EMT.pdf
- Municipalidad de Guatemala. (2019). *Política y Plan Municipal de Desarrollo Integral de las Mujeres Durante su Ciclo de Vida*. <http://docs.muniguate.com/2020/politicas/POL%C3%8DTICA-DESARROLLO-INTEGRAL-MUJERES-2019-2027.pdf>
- Municipalidad de Guatemala. (2020a). “Reportes de robo y acoso” (9 de noviembre, 2020), Obtained through Access to Information request to Municipalidad de Guatemala, no. 1289-2020.
- Municipalidad de Guatemala. (2020b). *Sexual harassment reports on Transmetro by line*

and year. (Table). Obtained through Access to Information request to Municipalidad de Guatemala, no. 1289-2020.

Municipalidad de Guatemala. (2020c). *Theft reports on Transmetro by line and year.* (Table). Obtained through Access to Information request to Municipalidad de Guatemala, no. 1289-2020

Movilidad Urbana, Municipalidad de Guatemala. (2019). *Plan Maestro Movilidad.* Movilidad Urbana.

Nagar, R. (2002). Footloose Researchers, “Traveling” Theories, and the Politics of Transnational Feminist Praxis. *Gender, Place & Culture*, 9(2), 179–186. <https://doi.org/10.1080/09663960220139699>

Nagar, R., & Ali, F. (2003). Collaboration Across Borders: Moving Beyond Positionality. *Singapore Journal of Tropical Geography*, 24(3), 356–372.

Nieves Rico, M., & Segovia, O. (2017). ¿Quién cuida en la ciudad? Aportes para políticas urbanas de igualdad. In *¿Quién cuida en la ciudad? Aportes para políticas urbanas de igualdad.* (Issue Serie de asuntos de género). <https://doi.org/10.18356/e4910022-es>

Novoa, A. (2015). Mobile ethnography: Emergence, techniques and its importance to geography. *Human Geographies*, 9(1), 97–107. <https://doi.org/10.5719/hgeo.2015.91.7>

ONU Mujeres. (2017). *Estudio sobre acoso sexual y otras formas de violencia sexual contra las mujeres y niñas en espacios públicos de la ciudad de Guatemala.* https://www2.unwomen.org/-/media/field%20office%20americas/documentos/publicaciones/2020/05/06/gt_estudio%20acoso%20sexual%20ciudad%20guatemala_estudio-compressed.pdf?la=es&vs=2708

OCAC Guatemala. (2019). *Indicadores de Acoso Callejero.* <http://mapeo.ocacgt.org/indicadores.html#indicadores-del-acoso-callejero>

Pain, R. (2000). Place, social relations and the fear of crime: A review. *Progress in Human Geography*, 24(3), 365–387. <https://doi.org/10.1191/030913200701540474>

Pain, R. (2016). Gender, Race, Age and Fear in the City. *Urban Studies (Edinburgh, Scotland)*, 38(5-6), 899–913. <https://doi.org/10.1080/00420980120046590>

Peters, D. (2011). *Gender and Sustainable Urban Mobility.* Nairobi: UNHS

Pogrebinschi, T. (2017). LATINNO Dataset. Berlin: WZB. <https://latinno.net/en/case/3288/>

- Procurador de los Derechos Humanos (PDH). (2019). *Informe Anual Circunstanciado de Actividades y de la situación de los Derechos Humanos 2019*.
<https://www.pdh.org.gt/index.php/documentos/seccion-de-informes/informes/informes-anuales/3859-informe-anual-circunstanciado-pdh-2019/file.html>
- Quintela, C. (2020, March 05). Las leyes a favor de mujeres y personas LGBTIQ que quedan pendientes. Retrieved October 29, 2020, from
<https://www.agenciaocote.com/blog/2020/01/14/las-leyes-a-favor-de-mujeres-y-personas-lgbtqi-que-quedan-pendientes/>
- Ramazanoğlu, C., & Holland, J. (2012). Choices and Decisions: Doing A Feminist Research Project. In *Feminist Methodology* (pp. 145–164).
<https://doi.org/10.4135/9781849209144.n8>
- Sharp, J. (2005). Geography and Gender: Feminist methodologies in collaboration and in the field. *Progress in Human Geography*, 29(3), 304-309.
<https://doi.org/10.1191/0309132505ph550pr>
- Sheller, M. (2018). *Mobility Justice: The politics of movement in an age of extremes*. London: Verso.
- Soto Villagrán, P. (2012). El miedo de las mujeres a la violencia en la ciudad de México. Una cuestión de justicia espacial. *Revista INVI*, 27(75), 145–169.
- Soto Villagrán, P. (2017). Diferencias de género en la movilidad urbana. Las experiencias de viaje de mujeres en el Metro de la Ciudad de México. *Revista Transporte y Territorio*, 16 (August), 127–146.
<http://revistascientificas.filo.uba.ar/index.php/rtt/article/view/3606>
- Soto Villagrán, P. (2018). Hacia la construcción de unas geografías de género de la ciudad. Formas plurales de habitar y significar los espacios urbanos en Latinoamérica. *Perspectiva Geográfica*, 23(2), 1–24.
<https://doi.org/10.19053/01233769.7382>
- Streule, M. (2020). Doing mobile ethnography: Grounded, situated and comparative. *Urban Studies*, 57(2), 421–438. <https://doi.org/10.1177/0042098018817418>
- Sweet, E. L., & Ortiz Escalante, S. (2010). Planning Responds to Gender Violence: Evidence from Spain, Mexico and the United States. *Urban Studies*, 47(10), 2129–2147. <https://doi.org/10.1177/0042098009357353>
- Transmetro Guatemala. (2018, April 2). *Diagram of Transmetro routes and lines*. (Diagram). Retrieved from
<https://www.facebook.com/transmetroguatemala/photos/te-compartimos-el-mapa->

de-1%C3%ADneas-transmetrorecuerda-que-puedes-descargar-la-
imag/2042978259064207/

- Torres, M. G. (2018). Violated Women, Reason, and Lo Político in the Imaginary of the Guatemalan Nation. *Bulletin of Latin American Research*, 37(3), 261–274. <https://doi.org/10.1111/blar.12777>
- Urry, J. (2007). *Mobilities*. Cambridge: Polity.
- Uteng, T. P., & Cresswell, T. (2008). *Gendered Mobilities* (T. P. Uteng & T. Cresswell (eds.); 1st Edition). London: Routledge. <https://doi.org/10.4324/9781315584201>
- Valdivia Gutiérrez, B., Ciocoletto, A., Ortiz Escalante, S., Casanovas, R., & Fonseca Salinas, M. (2017). *ENTORNOS HABITABLES*. www.punt6.org
- Valentine, G. (1989). The geography of women's fear. *Area*, 21(4), 385–390.
- Velásquez Carrera, E., & Valle Arizpe, F. (1995). *El Sistema de Transporte Público en el Área Metropolitana de la Ciudad de Guatemala (AMCG): Problemas y propuestas de solución*. Centro de Estudios Urbanos y Regionales. Universidad de San Carlos Guatemala
- Velásquez Carrera, E. (2000). *Informe final de la comisión multisectorial del transporte colectivo urbano de pasajeros en el área metropolitana de la ciudad de Guatemala Año 2000*. (E. Velásquez Carrera (ed.); 1st Edition). Centro de Estudios Urbanos y Regionales. Universidad de San Carlos Guatemala
- Walford, G. (2009). The practice of writing ethnographic fieldnotes. *Ethnography and Education*, 4(2), 117–130. <https://doi.org/10.1080/17457820902972713>
- Whitzman, C. (2013). Women's safety and everyday mobility. In *Building Inclusive Cities: Women's Safety and the Right to the City*. (pp. 35-52). New York: Routledge.
- Whitzman, C., Shaw, M., Andrew, C., & Travers, K. (2009). The effectiveness of women's safety audits. *Security Journal*, 22(3), 205–218. <https://doi.org/10.1057/sj.2009.1>
- Whitzman, C., Legacy, C., Andrew, C., Klodawsky, F., Shaw, M., & Viswanath, K. (2013). *Building Inclusive Cities: Women's safety and the right to the city*. New York: Routledge. <https://doi.org/10.1017/CBO9781107415324.004>
- Women in Cities International. (n.d.). Description and Mission. *Femmes Et Villes*, nd., femmesetvilles.org/about-us/description-and-mission/.
- Women in Cities International. (2011). Tools for Gathering Information about Women's Safety and Inclusion in Cities. In *Tools for Gathering Information about Women's*

Safety and Inclusion in Cities.

<https://femmesetvilles.org/downloadable/tools%20for%20gathering%20information%20en.pdf>

Women's Initiatives for Safer Environments (2017). *Women's Community Safety Audit*