UNDERSTANDING INTERNATIONAL GRADUATE STUDENTS' HOUSING EXPERIENCES

by

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AURHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

The global rise in international graduate student mobility has intensified housing pressures in host cities, exposing gaps in institutional support and affordable housing provision. In Canada, particularly in Kitchener/Waterloo, Ontario, international graduate students experience growing difficulty securing adequate and affordable accommodation. Despite their financial and academic contributions, this group remains underrepresented in housing policy and planning research. The main problem addressed in this study is the mismatch between increasing international graduate enrolments and the inadequate housing infrastructure and policies designed to meet their needs. Existing research focuses largely on undergraduate student housing or general urban affordability, leaving a significant research gap concerning the lived experiences of international graduate students and the structural factors shaping these outcomes.

The study draws on Housing Pathway Theory (Clapham, 2002, 2005) as its primary theoretical framework, emphasizing housing as a dynamic, non-linear process shaped by the interaction between individual agency and structural constraints. To enhance explanatory depth, the study integrates Bourdieu's conceptual triad of habitus, capita, and field (1984,1986). This combined framework highlights how different forms of capital, economic, cultural, and social interact within the housing field to influence students' pathways, constraints, and adaptive strategies. Together, these theories explain how international graduate students navigate the tension between structural housing limitations and their personal resources, revealing how inequalities in capital shape distinct housing trajectories.

The research employed a mixed-methods, cross-sectional and case study design. Primary data were collected through an anonymous online survey and follow-up interviews to international graduate students who opted to be interviewed. Purposive and snowball sampling yielded 125 valid responses from an initial 136. Quantitative data were analyzed descriptively using SPSS (Version

28) to identify patterns of affordability, accessibility, and housing satisfaction, while qualitative responses underwent thematic analysis using NVivo 15 to interpret lived experiences and coping strategies.

The major findings reveal that international graduate students face acute housing precarity, with affordability, discrimination, and limited information networks as central challenges. High rents and the dominance of PBSA developments have marginalized students with limited financial capital. Cultural and social capital strongly influenced housing outcomes: those with local networks or prior Canadian experience navigated markets more effectively. Many respondents reported overcrowded, temporary, or substandard conditions that negatively affected their well-being and academic performance. The findings also expose structural inequalities embedded in municipal housing markets and institutional policies, which privilege domestic or undergraduate cohorts.

Policy implication highlights the need for universities, municipal authorities, and provincial housing agencies to develop integrated housing strategies that recognize international graduate students as a distinct and vulnerable demographic. Recommendations include expanding affordable housing supply through university–municipal partnerships, improving access to tenant education and legal resources, and ensuring that institutional housing policies reflect the diversity of students' economic and cultural needs. By centering international graduate students lived experiences, this study contributes to academic discourse on housing inequality and provides actionable insights for designing inclusive and sustainable student housing frameworks.

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background of the Study

In the past two decades, Canadian universities have seen a substantial rise in international students' enrollment. This influx of students has contributed to a population increment in cities hosting these institutions. Consequently, the increased student population has exacerbated the already present issue of high demand for housing in these urban areas, placing extra strain on local housing market (Pottie-Sherman & Graham, 2023). Most international students encounter challenges securing and maintaining affordable housing, especially in countries where the private rental market is the primary source of housing for both domestic and international students (Wilkinson & Greenhalgh, 2022). Most research conducted in countries including the USA, UK, Netherlands, and Australia on international student housing experience reveals that these students face obstacles and challenges navigating the housing market and are unfamiliar with current housing trends, leading to their inability to secure and maintain adequate housing that meets their social and financial needs (Fang & Liempt, 2021).

The increase in enrolment of international students, requires universities opening satellite campuses and expansion of existing infrastructure (Revington, 2023). Due to increased enrollment, most students are forced to seek accommodation off campus, outside the jurisdiction of conventional university housing, which is dominated by private rental markets (Revington & August, 2020). Despite the increase in the enrolment of international students, there has been no deliberate attempt to expand the private rental housing market to provide students with adequate, affordable housing and easy access to institutional resources, thereby mitigating the need for long-distance travel to campus (Pottie-Sherman & Graham, 2023).

Kitchener/Waterloo has three higher education institutions that attract many international graduate students annually, which results in an increased student population in the region (Revington, 2023). This often creates overcrowding in the private rental market as the student population exceeds the availability of adequate housing infrastructure (Revington & August, 2020). High demand and inadequate housing infrastructure increase the prices of student housing; consequently, students find it difficult to afford units that meet their needs (CMHC, 2025). Therefore, this situation necessitates empirical research to understand international graduate students' housing experiences, which can inform policies designed to mitigate these challenges and improve the availability of affordable housing. My research will also help reveal the lived experiences of international graduate students regarding housing in Canada, specifically in Kitchener/Waterloo. Including this research's international graduate student-centered perspective on housing in literature and policy discourse will impact the availability of sustainable and affordable housing.

1.2 Problem Statement

Within urban and housing studies, there is a growing recognition that students constitute a significant demographic in 21st century cities (Holton & Riley, 2013). Numerous research focuses on studentification and urban redevelopment (Ruming & Dowling, 2017). The term studentification was identified in the UK (Revington, 2023). Studentification describes the concentration of students and their various activities in neighborhoods close to their universities. This phenomenon has globally received attention in the past decades, on which many researchers and academicians have expressed their views, including Revington (2022) and studies concerning Spain (Garmendia et al., 2012), China (He, 2015), the United States (Foote, 2017), and Chile (Prada, 2019).

Private sector investors have capitalized on the seasonal surge in student housing demand by exploiting the disparities between supply and demand in the student housing market (August, 2020). Historically, the real estate market's response on the supply side has included transforming residential properties into homes with multiple occupants (HMOs), constructing Purpose-Built Student Apartments (PBSAs), and converting commercial spaces into student housing (Wilkinson & Greenhalgh, 2022). This situation results from increased student enrollment, especially international students, which often exceeds the current infrastructure needs of the hosting universities, cities, and countries.

To provide nuance in the current debate and scholarship regarding the tense housing situation amid policy instability or chaos at the federal, provincial, and municipal levels, it is imperative to understand international graduate students' housing experience from their perspective. This understanding can then inform future policy to address the root cause and attend to their concerns as well. The tense housing market in cities, which is leading to increased unaffordability and housing precarity, has been blamed on the financialization of housing (Pottie-Sherman et al., 2023). International graduate students are facing housing challenges, and more nuance needs to be provided in public and policy discourse to solve these issues (Sotomayor et al., 2022).

1.3 Objectives of the Study

The principal objective of this study is to understand the housing experiences of international graduate students in Kitchener/waterloo, Canada, within the context of a financialized and competitive rental market. Specifically, the study seeks;

1. To examine the financial and social strategies international graduate students adopt to secure and maintain affordable and stable housing in Kitchener/Waterloo, including mechanisms they use to navigate financial constraints and market barriers.

2. To analyze the influence of demographic and socio-cultural factors such as gender, nationality, race, marital status, and language proficiency on international graduate students housing access, affordability, and lived experiences.
3. To develop evidence-based policy recommendations to enhance affordable, inclusive, collaboration among universities, municipalities, and private developers.

1.4 Research Questions

1. What are the housing experiences of international graduate students in Kitchener/Waterloo, and how are these shaped by affordability, accessibility, and stability challenges?
2. How do financial, demographic, and social factors influence international graduate students' strategies for securing and maintaining adequate housing in Kitchener/Waterloo?
3. What institutional and policy interventions can improve the availability, affordability, and inclusiveness of housing for international graduate students in Canadian university cities?

1.5 Justification of the Study

The growing demand for affordable housing is linked to the increasing trend of international graduate students pursuing higher education outside their home country (Sotomayor et al., 2022). The global issue currently affecting countries with a higher intake of international graduate students is the challenge of providing affordable housing. The current tense housing market in Canada specifically in Kitchener/Waterloo, coupled with the growing diversity of international graduate students who are living in a new environment trying to secure a place to live to start their academic journey, present a challenge to many (Fang & Liempt, 2021).

Canada is consistently regarded as one of the top destinations for international students (Calder et al., 2016). Policies and strategies have been implemented to attract international students, but deliberate actions to provide affordable housing and ensure smooth integration remain insufficient

(CBIE, 2021). Many cities across Canada face the challenge of providing affordable housing, and Kitchener/Waterloo is no exception to this phenomenon (Revington & August, 2020). Sustainable and affordable housing is a global issue, when coupled with international students' demand, the situation worsens daily (Berg & Farbenblum, 2020). International graduate students possess diverse housing needs and cultural backgrounds. Housing policies must reflect this diversity to ensure inclusivity and meet these diverse needs (Stick, Hou, & Zhang, 2024). Consequently, it is necessary to ensure students are provided with sustainable and affordable housing options on campus and in the private rental market to improve both student well-being and academic performance.

Studies examining the neoliberal transformation of higher education highlight that while universities promote cosmopolitanism, international diversity, and global perspectives, the daily functioning and interpersonal dynamics on campuses often exhibit discrimination and even oppression towards religious minorities, individuals with disabilities, and members of various ethnic and sexual minorities (Sotomayor et al., 2022). However, limited empirical research exist concerning international graduate students lived experiences regarding housing, particularly in locations like Kitchener/Waterloo, as they adapt to a new environment in Canada. Therefore, this study is both timely and necessary to provide empirical evidence intended to shape discourse and policy.

1.6 Organization of the Study

The study is organized into five chapters. Chapter one gives a general overview of the study, briefly describing international graduate student experiences securing housing units and the associated challenges. Furthermore, it details the background of the study, the problem statement, the research objectives, the research questions, the justification of the study and the organization of the study

Chapter two elaborates upon the general trend of international graduate students' housing experience. This chapter is dedicated to the literature review, examining existing scholarship on the rise of international graduate student numbers and the consequent housing demand. The review considers the subject matter globally and within Canadian context, with a specific focus on Kitchener/Waterloo. Key components considered include the history and nexus between international graduate students and housing demand, challenges in the housing market, elements of financing, and the identification of gaps in existing research, among other pertinent issues.

Chapter Three outlines the methodology employed in this research. It describes the cross-sectional and case study design approach utilized. Furthermore, it details the methods of collecting primary and secondary data and the mechanisms employed for analyzing the primary data.

Chapter Four focuses exclusively on the primary data results. It provides an overview of the respondents' demographic information, the thematic analyses, the findings, and the recommendations derived from the participants. This chapter further addresses the interpretation of the findings, their comparison with existing literature, and their implication for policy and practice.

Chapter Five presents the conclusion of the research. It includes a summary of key findings, the study's contributions, and suggestions for future research.

CHAPTER TWO

LITERATURE ON INTERNATIONAL GRADUATE STUDENTS' HOUSING EXPERIENCE

2.1 Introduction

This study aims to contribute to the understanding of international graduate students' housing experiences, emphasizing both the advantages and associated constraints. Given the increasing globalization of higher education, universities attract more students from diverse cultural and racial backgrounds. Consequently, accessible and affordable housing emerges as a significant concern. Other related topics explored are the housing pathways of international graduate students and the identification of gaps in existing literature.

2.2 International Students/International Graduate Students.

The relationship between international students and international graduate students is closely interconnected, given that the latter constitute a subset of the former. In many contexts, theories concerning international graduate students align with those applicable to international students in general, except for specific aspects such as level of study and duration of stay. Although this study primarily focuses on international graduate students, broader theoretical frameworks related to international students remain relevant (IIE, 2022).

Definitions of international students vary significantly across countries and organizations. According to the Institute of International Education (IIE) (2022), international students are individuals pursuing education outside their home country, who typically require a temporary visa to study. Their academic pursuits encompass secondary, undergraduate, and postgraduate levels. In Canada, immigration policies, in collaboration with Higher Education Institutions (HEIs),

position international students as prospective immigrants and qualified professionals (Pottie-Sherman et al., 2023).

The study will adopt the definition provided by Statistics Canada. International students are non-Canadian individuals without permanent resident status who must obtain authorization from the Canadian government to enter Canada for educational purposes (Statistics Canada, 2021). This definition encompasses any individual studying in Canada without citizenship, permanent residency, or refugee status who must obtain a study permit from Immigration, Refugees and Citizenship Canada (IRCC). Within this context, international graduate students pursue postgraduate studies and typically hold a bachelor's degree while seeking advanced education outside their home country.

International graduate students play a vital role in enhancing university diversity and fostering intercultural understanding (Lee & Rice, 2007; Ammigan & Jones, 2018). Their presence offers local and international students a unique opportunity to develop global competencies, leadership skills, and intellectual growth (Luo & Jamieson-Drake, 2013; Ravichandran & Elspeth, 2018). Canada hosted over 800,00 international students in 2023, with roughly 20-30% enrolled in graduate programs. Although new federal policies aim to reduce the number of study permits by about 10% in 2025, from 485,000 in 2024 to 437,000. These changes are not expected to significantly affect international graduate students or their housing needs (MacDonald, 2024).

For international graduate students, adapting to a different culture, society, and primarily, the language, away from their home country can make the university experience extremely challenging (Bista & Foster, 2016). Beyond academic demands, they must adjust to unfamiliar cultural norms, living arrangements, eating habits, communication styles, and social networks. Consequently, this growing population has prompted universities to expand student services that support their overall well-being (Kelo, Rogers, & Rumbley, 2010).

The Canadian Bureau for International Education (CBIE) (2018) found that many international students, including graduate students, chose Canada because of its high-quality education, non-discriminatory society, and reputation for safety. However, 48% expressed discomfort in arranging accommodation before arriving, and 55% reported severe difficulties securing housing in regions with tight rental markets. These findings align with MacAdams (2020), who observed a declining housing accessibility and affordability for young people and internationally racialized students in Canada.

2.2.1 International Graduate Students Housing Demand and Dynamics.

The steady increase in international graduate students has intensified pressure on Canada's already tense housing market. As of 2019, more than 1.3 million students were enrolled full-time in Canadian universities, with 12.5% being international students, including graduate students (McLean, 2019). Despite this demand, the Canadian housing market has struggled to keep pace, particularly in cities with a rapidly growing student population (Sotomayor et al., 2022). International graduate students often face additional obstacles, such as exclusion from government-funded housing assistance (Brunner et al., 2024; Pottie-Sherman & Graham, 2023) and limited availability of culturally appropriate housing (Hanley et al., 2024). Sotomayor et al. (2022) describe this struggle as the "housing hustle," which refers to the extra efforts students must exert to secure accommodation before starting their studies (p. 8).

Owing to varied government policies and laws, the definition of affordable housing varies across geographies. This study defines affordable housing as housing where occupants (international graduate students) spend not more than 30% of their total income (from family support, scholarships, part-time job, teaching and research assistantships) on rent and utilities (Kalugina, 2016). For international graduate students with low local income, this benchmark often shows that

most options are not affordable. Therefore, in this study a measure is adopted that is after paying rent, a student still has enough income left for food, transit, books, and healthcare (Stone, Burke, & Ralston, 2011). This is very relevant because many international students rely on fixed remittances. The study also utilizes the definition of unofficial housing provided by Gurran, Maalsen & Shrestha (2020), dwellings that remain partly within planning or building regulations but operate with limited oversight by property owners or landlords and provide fewer safeguards for tenants. Such partial compliance typically makes rents lower than those in the formal housing market.

2.3 Housing Pathways of International Graduate Students.

Housing pathways refer to the practices and interactions in securing a home or living space in a particular location over a specific period (Clapham, 2002). In housing research, pathways are used to describe the experiences, practices, and interactions individuals undergo to secure housing over time, while also capturing the diverse meanings of "home" to different individuals (Revington, 2023). Housing pathways do not prescribe a specific direction; they acknowledge that pathways are varied and do not always signify upward mobility or progress. They may also involve periods of deviation, stagnation, or regression. Housing pathways are a product of decisions made at various points, shaped by the range of available opportunities and individuals' earlier resources, choices, and features (Clapham, 2005). These pathways, therefore, represent various living arrangements, characterized by differences in cost, quality, duration of stay, and other features (Clapham, 2002). Scholars have identified distinct housing pathways for young adults transitioning to the housing market (Clapham et al., 2014; Hochstenbach & Boterman, 2015). Although many international graduate students are young adults, they do not generally follow the same housing pathways as local young working adults (Fang & van Liempt, 2021).

A study in the UK by Ford et al. (2002) identified five housing pathways for young adults transitioning to the rental housing market:

- Chaotic pathway: No family support, unplanned, and highly constrained.
- Unplanned but supported pathway: Family support is present but still highly constrained.
- Planned but constrained pathway: Organized approach with significant limitations.
- Planned non-student pathway: A structured approach outside of the student context.
- Student pathway: Transitioning from the family home to student housing, planned with limited constraints due to institutional support.

Their study revealed that individuals pursuing further education generally start their housing journey at a lower level than those who leave their parents' homes after completing their education (Ford et al., 2002). Similarly, Clapham et al. (2014) identified nine housing pathways for UK youth aged 16-21. Research conducted in the Netherlands by Hochstenbach & Boterman (2015) categorized housing pathways into three distinct types, emphasizing the role of social and cultural capital in accessing and maintaining housing:

- Linear pathway: Frequent moves through the formal rental market.
- Progressive chaotic pathway: Frequent moves outside the formal market, eventually leading to permanent housing.
- Reproductive chaotic pathway: Frequent, involuntary moves relying on the informal market.

While Ford et al. (2002) identified a distinct student pathway, subsequent studies did not specifically address housing pathways for students, let alone international graduate students. Research suggests that higher education students, including graduate students, exhibit unique spatial housing patterns in relation to “youthification” – the concentration of young adults in dense neighborhoods and “studentification” – whereby an area is gentrified and dominated by university

students interacting with each other (Moos, 2016, p. 14; Revington, 2018). Revington (2018) highlighted the need for deeper exploration into how individual housing pathways interact with the broader urban processes such as gentrification, studentification, and youthification, given that urban transformations influence that personal housing choices.

Sotomayor et al. (2022) found that housing pathways for students are among the most challenging aspects of university life, often affecting academic performance and leading to housing insecurity post-graduation. In Canada, housing research has primarily centered on newcomers, with limited attention devoted to the experiences of international graduate students. Statistics Canada (2021) classifies international students, including graduate students, as temporary immigrants; this classification often results in less focus on their housing challenges (Pottie-Sherman & Graham, 2023).

Studies in the Netherlands (Fang & van Liempt, 2021) and Australia (Fincher & Shaw, 2009; Obeng-Odoom, 2012) highlight international graduate students' constraints and challenges in the city's rental market. To navigate these challenges, international graduate students adopt various housing strategies within their budget to secure accommodation. Higher education students, particularly graduate students, often exhibit distinct spatial housing patterns (Revington, 2018).

Distinct spatial patterns of housing refer to the locational and spatial distribution of housing units in geographical space with varying degrees of accessibility, affordability, and amenability for varying population groups for living based on preference (Hubbard, 2009). According to Calder & Burns (2016), these spatial patterns are highly significant to the housing lives of Canadian international graduate students, particularly in Kitchener-Waterloo, a city characterized by high housing demand. These patterns are heavily dependent on demographic variables and budget plans.

One of the typical spatial patterns is the concentration of rental housing near university campuses, generally manifesting as high-density communal housing (Hubbard, 2008). These locations are often within walking distance of campus to reduce transportation expenses, representing a strategic choice for financially constrained international students (Holton & Mouat, 2021). Room sharing within such neighborhoods is favored due to cost savings and social integration necessities, especially among those without relatives (Fandino & Banerjee, 2025).

Another spatial residential arrangement is out-of-city housing within suburban or lower-rent areas, typically requiring longer commutes. Some students prefer these locations due to lower rental costs, although they bear heavier transport burdens (Hubbard, 2008). This spatial dispersal is often a function of their ability to pay, the availability of public transit, and the extent of information they possess about the housing market (Holton & Riley, 2013). Therefore, lower-income students or those from economies whose exchange rates are weaker against the Canadian dollar prefer cheaper but less central locations (Smith & Hubbard, 2014). The third category is Purpose-Built Student Accommodation (PBSA), which is becoming increasingly common in Canadian university towns. These accommodations are usually in town centers or high-demand areas and are pricier, thus targeting students with financial support from relatives or bursaries (Sage, Smith & Hubbard, 2012). International graduate students with stable funding or from wealthier families typically utilize this category for convenience and security (Fincher & Shaw, 2009).

These geographic patterns cut across financial tactics such as co-tenancy, budgeting, and part-time employment, impacting international graduate students lived housing experiences, academic performance, and social integration (Smith & Hubbard, 2014).

These distinct spatial housing patterns cause higher education students to enter a housing market known as the youth market, rather than the generally recognized housing market (Fandino & Banerjee, 2025). Wilson et al. (2023) posit that this market has certain features, including

“precarious housing, temporary housing, shared housing, and frequent mobility, which is clearly distinct from accessing and holding housing in a ‘mature’ or ‘adult’ market” (Ford et al., 2002; Revington, 2018, p. 2). The University of Waterloo co-op programs require most student to exhibit similar housing traits, necessitating them to sublet or move to new housing during their co-op periods (Mocanu & Tremacoldi-rossi, 2023). Consequently, many students, including those excluded from high-amenity PBSAs, face diverse and non-uniform housing experiences (Smith & Hubbard, 2014). This observation underscores the heterogeneity inherent in the housing preferences of international graduate students (Hubbard, 2008).

Studies by Ford et al. (2002), Clapham et al. (2014), and Hochstenbach & Boterman (2015) represent the housing pathways of young adult, domestic students, and working adults. This body of work is relatively close to the international graduate student context because these students also navigate the housing market during their studies and possibly after graduation. Therefore, their housing pathways may reflect similar timing, challenges, and approaches. The literature review has revealed that student housing pathways are far more intricate than earlier research indicated, demonstrating less favorable patterns, more unequal, and shaped by multiple dimensions of difference. This revelation further echoes the diverse experience of international graduate students' housing.

2.4 Housing Market Challenges for International Graduate Students.

Many international students face considerable challenges while pursuing higher education outside their home countries. Research conducted by Wu, Garza, & Guzman (2015) highlighted several obstacles faced by international graduate students, including distinct dietary requirements, unfamiliar living circumstances, financial difficulties, challenges in balancing work and study schedules, differences in learning styles, and difficulties related to language, culture, and personal

barriers. Transitional difficulties can range from daily life challenges to cultural adaptation (Hubbard, 2009). If American colleges are to integrate international students on their campuses successfully, these issues must be comprehensively addressed and accommodated. Furthermore, Statistics Canada (2021) suggests that language barriers, cultural adjustments, and differences in learning styles generally cause the primary anxieties encountered by international students.

From 1996 to 2016, university enrollments in Canada increased by 54.85%, while public funding per student decreased by 40% (Statistics Canada, 2019). To address this funding gap, Canadian universities turned to increased tuition, with undergraduate tuition rising by 55.4% and graduate tuition by 31.5% between 2006 and 2018 (Statistics Canada, 2017; Brown, 2018). Within that same period, international graduate students, in particular, faced even steeper financial challenges, with their fees increasing by 4% annually from 2009 to 2015. The revenue generated from international graduate student fees rose by $1.5 billion, effectively offsetting the $1.6 billion reduction in government funding over the same period (Statistics Canada, 2017).

Exacerbating the financial pressures of tuition increases is the increasingly unaffordable housing market for many students (Revington, 2023). Furthermore, a substantial proportion of student housing at Canadian universities is outdated, with over half of the available student accommodation exceeding 50 years of age (Allard & Simm, 2012). International graduate students mostly find themselves in these old, substandard living accommodations (Sage, Smith & Hubbard, 2013).

A study by Arumugam (2023) ascertained that Racialized International Students (RIS), particularly graduate students, expended significant emotional, physical, and mental energy, as well as time and money, while navigating these housing challenges (Statistics Canada, 2021). Many RISs compromised their well-being by living in relatively cheaper and low-quality dwelling

units in order to afford their high differential international tuition fees and cover essential expenses such as food and rent (Sage, Smith & Hubbard, 2013). Despite enduring rights violations and unsuitable living conditions, these students prioritized academic success to secure their stay in Canada during and after their studies (Ranasinghe, 2023). Advocates have raised concerns about these issues, noting that rent increases and tuition hikes compel students to live in poor conditions, with some even being rented "out of a closet to live in" (Knox, 2022, para. 8).

In addition to these challenges, international graduate students must provide proof of sufficient funds for first-year tuition fees and living expenses before arriving in Canada. As of 2021, this proof ranged from $11,000 to $30,000 for living expenses and about $20,000 for international tuition fees (Statistics Canada, 2022). Limited settlement support and inaccessible municipal and provincial services available to international graduate students also exacerbate their financial burden (Calder et al., 2016). Many are unaware of how to protect themselves from exploitative landlords, lacking knowledge of their tenancy rights and strategies for keeping records of interactions with property owners (Outhit, 2017).

Nyland et al., (2013) caution that the commercialization of international education can produce negative consequences when not properly managed. They outline three key challenges faced by international graduate students in Australia, which are highly relevant to Canadian experience: (a) serious financial difficulties due to misrepresentations of the cost of living, leading to anxiety, stress, and poor academic performance; (b) inadequate support in finding affordable housing; and (c) insufficient infrastructure to address personal safety concerns on and off-campus. These challenges highlight the need for comprehensive support services to assist international graduate students in navigating these obstacles.

2.5 Demographic Influence on International Graduate Students' Housing Experience.

The global boom in international student mobility has attracted significant attention to the interplay between demographic characteristics and student housing experiences (Nyland et al., 2013). As higher education institutions globally strive to internationalize, demographic diversity among student populations has intensified. Age, gender, marital status, income, cultural background, and country of origin are now seen as significant variables that shape how international graduate students experience host environments, particularly regarding housing. Cross-nationally, evidence testifies to a consistent pattern, foreign graduate students face particular sets of challenges, which are often exacerbated by their demographic attributes (Stick, Hou, & Zhang, 2024).

Holton & Mouat's (2021) research suggests that students from low-income countries are likely to face housing unaffordability, compounded by limited information access. Age is also a factor. Younger students are unlikely to have had experience navigating overseas housing markets and can be exploited in ad hoc rental arrangements (Smith & Khawaja, 2011). Older students or those with families may, conversely, prefer stability and proximity to schools, which limits housing choice and serves to increase cost burdens (Fincher, 2009). Gender and cultural identities similarly influence the housing preferences of students. Muslim women students, for instance, tend to opt for housing accommodation that is sensitive to their cultural routines and privacy, features which might be limited in Western housing markets (Arthur & Flynn, 2011). Asian students, however, tend to struggle to integrate into local communities due to racial or cultural prejudice and thus often develop self-segregated housing enclaves, thereby sustaining segregation (Leong, 2015). In Australia and the UK, Fincher & Shaw (2009) observed that certain pockets of international students were unintentionally congregated in high, low-income densities, limiting access to required amenities and social integration spaces.

Such demographic trends, which impact the housing experience also manifest differently across geographical and educational environments (Hubbard, 2009). In America, for example, Akbar & Aldrich (2019) found that visa policies and employment limitations further affect the affordability of housing for international students, especially those from Global South. Students increasingly rely on institutional support or informal networks to locate accommodation, a situation that is heterogeneous across demographic groups and geographical locations (Sage, Smith & Hubbard, 2013). Students from better-off families or nations that have better bilateral relations with host nations face less difficulty in resettling, thereby achieving better accommodation outcomes (Fincher & Shaw, 2009).

In the Canadian context, housing policies have not adequately evolved to keep up with this population explosion. In cities like Toronto, Vancouver, and Waterloo, the unaffordability of housing is a critical problem. International students also spend more on housing compared to domestic students, partly due to their ineligibility for subsidized housing (CBIE, 2020).

In Ontario, particularly in Kitchener-Waterloo, demographic forces influencing housing are increasingly salient (Revington, 2023). Students from South Asia and Sub-Saharan Africa, who not only have fewer financial resources but also less experience with Western housing markets, may have difficulty securing formal and affordable housing (Fandino & Banerjee, 2025). This has led to a dependence on shared accommodation, sometimes in overcrowded or low-quality housing (Sotomayor et al., 2022).

A study by Khan et al.(2023), highlighted how affordability is not a purely financial issue but transcends demographics such as race, gender, and family status. Female international graduate students within Kitchener-Waterloo finds it more challenging to secure safe housing when renting from private landlords. Students with families also face unique challenges;; larger living quarters

are expensive and very difficult to access, especially near campus (Akbar & Aldrich, 2019). Married graduate students often experience increased travel times or are relegated to less favourable areas with fewer community resources (Calder & Burns, 2016).

Furthermore, linguistic and cultural diversity create significant barriers to accessing housing assistance services (Fandino & Banerjee, 2025). This is compounded by the relatively short-term nature of student tenancy, characterize by brief lease terms and rapid turnover that promotes instability. Demographic characteristics such as visa status, prohibition on part-time employment, and reliance on scholarship also restrict the flexibility and choice of accommodation for international students (Fincher & Shaw, 2009).

The University of Waterloo, though offering some institutional support, faces similar limitations. On-campus housing is insufficient to accommodate all undergraduates and graduate students who require accommodation. Graduate students, especially international graduate students, have designated housing arrangements which, while available are insufficient and highly competitive (Morris et al., 2023). This situation compels students to rely on off campus housing. Over 40% of international graduate students complained about their accommodation, citing poor condition and inadequate value for money (Arthur & Flynn, 2011).

Demographic considerations also influence preferences for types of dwelling. Students from collectivist cultures, such as China or India, tend to prefer apartments, whereas students from more individualist cultures often prefer private quarters. These preferences can, however, be limited by the locally available housing stock (Morris et al., 2023). Furthermore, incidents of discrimination or racial profiling influence areas in which students feel comfortable renting. Black and Middle Eastern students, for example, experienced difficulties in obtaining accommodations within the Waterloo region, due to overwhelmingly white demographic composition of the area (Arthur & Flynn, 2011).

In summary, population attributes such as gender, age, income, cultural background, and nationality are central in shaping the international graduate students' housing experience both overseas and domestically. In Kitchener-Waterloo, population attributes intersect with other structural features of the housing market, yielding complex challenges for international students. As more institutions become conscious of these issues, it is necessary to create more targeted policies and support systems to offer all students, irrespective of background, secure, accessible, and suitable accommodations. This is contingent on advanced knowledge of how demographic pressures impact the housing context and requires an inter-cooperative approach among universities, governments, and communities in dealing with these issues.

2.6 Financial Strategies to Address Housing Needs Among International Graduate Students

International graduate students continue to face substantial challenges in securing and maintaining adequate and affordable housing in their host countries. Housing, which is often the largest single expenditure in students' budgets (Perna, Orosz, & Jumakulov, 2015), is closely related to factors such as financial capacity, institutional support, and broader socio-cultural adjustments. This section examines the key financial strategies used by most international graduate students globally (including but not limited to, those at the University of Waterloo) to manage and navigate their housing costs, drawing on existing literature to explain these approaches. Some of these strategies are presented in the table 2.1 below.

Table 2.1 Financial Strategies to Address Housing Needs Among International Graduate Students.

Strategy	Description	Benefits	Challenges/Limitations	Reference
Personal & Family Savings	Students rely on personal/family funds saved before arrival.	Immediate access to money; reflects	Depleted quickly due to high rent & cost of living; early financial stress.	Bodycott (2009); Calder et al. (2016)

		long-term planning.		
Scholarships & Fellowships	Merit-/need-based or government/university awards, sometimes with stipends.	Stable support for rent; prevents poor housing conditions.	Competitive, uneven access; field/region-based disparities.	Perna et al. (2015); Marginson et al. (2010)
Graduate Assistantships & On-Campus Jobs	Teaching/research assistantships or campus jobs.	Provide stipends, tuition waivers; common in N. America.	Limited eligibility; visa/work restrictions.	Sherry et al. (2010)
Budgeting & Cost-Sharing	Co-renting, subletting, group housing.	Reduces housing costs; fosters social & cultural support.	May reduce privacy; dependent on compatible housemates.	Sawir et al. (2021)
Educational Loans	Loans from home countries or international providers (e.g., MPOWER, Prodigy).	Provides funds for housing when other options fail.	High interest rates; repayment burden after graduation.	Perna (2015)

Off-Campus Employment	Work outside campus (restricted by visa rules, e.g., 20 hrs/week).	Provides additional income for housing.	Strict legal limits; systemic barriers to economic participation.	Arthur (2017)
University/NGO Emergency Support	Temporary housing funds/services from institutions or NGOs.	Short-term lifeline in crises.	Rare, temporary, unsustainable for long-term housing.	Schulman & Choudaha (2014)
Overall Impact & Policy Needs	Financial strategies shaped by structural, institutional, and individual factors.	Provide partial relief for housing needs.	Financial precarity persists; affects academics, well-being, and integration. Calls for long-term, equitable policy solutions.	—

Source, Arthor's Construct (2025).

2.7 Universities Housing System.

Sean Strickland, a Regional Councillor, proposed a partnership between the university and private developers to enhance off-campus housing, citing the collaboration between Wilfrid Laurier University (WLU) and Rez-One as an example. However, the University of Waterloo decided against such partnerships, stating that off-campus housing developments often do not meet its standards, and contending that there is currently no pressing need for additional accommodation due to the availability of on-campus residences (Dhillion et al., 2021). The university also provides an off-campus housing portal to connect students with landlords and manage listings for available properties. While this system is efficient, as it keeps listings up to date and organized (University of Waterloo, 2017), students have expressed dissatisfaction with the overall off-campus housing experience (Dhillion et al., 2021).

The absence of a specific housing system for graduate students, particularly international students, highlights a gap. The focus on first-year undergraduates leaves graduate students at a disadvantage, who may face more complex challenges due to unfamiliarity with local housing markets. Universities should consider implementing designated systems or supports for these students, ensuring they have access to adequate and affordable housing.

2.7.1 University of Waterloo Graduate Student Housing System.

Graduate students, including international students, utilize various apartments and housing facilities provided by the university. The Columbia Lake Village North (CLV-N) is primarily reserved for international graduate students. CLV-N features 167 furnished units for single graduate students and 82 unfurnished townhouses for families (two-bedroom townhomes). In total, it accommodates 404 residents with a four-month lease for single graduates (Fall, Winter, and Spring) and a twelve-month lease for graduate with families (1st August to 31st July) with 60 days' notice of termination.

The CLV-S has 100 4-bedroom townhouses, accommodating a total of 400 residents, which also includes allocation for graduate students.

While the university has attempted to provide housing for graduate students through these arrangements, the capacity remains inadequate. Furthermore, the current space designated for family housing is insufficient to meet demand, resulting in a long waiting list for international graduate students who require it (University of Waterloo, 2025).



Figure 2.1: Columbia Lake Village (North).

Source: Uwaterloo Campus Housing Website.

Unlike the University of Waterloo, which has designated housing for graduate students, Wilfrid Laurier University does not have the same. Only graduates who have a significant documented disability and can access the learning environment at Laurier main campus only by living in residence are provided with on-campus housing. The university provides a more limited number (with no specify number) of on-campus housing units for graduate (international) students, resulting in a heavier reliance on the rental market in Kitchener/Waterloo. This reliance shapes international graduate's student's exposure to affordability pressures, competition, and housing instability.

The university also provides resources, such as Laurier's Center for Off-Campus Initiatives, Places4Students.com (a platform for finding rentals), and Laurier Off-Campus University Students

(LOCUS), to help students, including international graduate students, secure housing to start their studies.

2.8 Need for International Graduate Students Support.

Choudaha & Hu (2016) argue that many institutions, particularly in the United States, struggle to meet the expectations of high-paying international graduate students, regardless of their significant financial contributions. This challenge is not unique to the U.S., as universities across the globe face similar difficulties in managing the rising demand for support services, including those in Kitchener/Waterloo and many other cities in Canada.

Although there have been many policies and strategies, including the "No Child Left Behind Act" of 2001, used as a frame of reference to cater for some financial needs of international graduate students, some campus leaders contend that college completion rates are influenced by student and institutional characteristics and are related to the higher education policy context of a state (Titus, 2025). Providing adequate resources and services to international graduate students is crucial for maintaining a welcoming and inclusive campus environment. In countries with well-established international recruitment programs, there is a recognition that offering robust support services contributes to a positive transformation in international graduate student experiences and enhances a university's competitive edge in the global market (Baranova, Morrison, & Mutton, 2011).

2.9 Theoretical Framework.

Housing experiences are shaped by theoretical frameworks that explains how individuals transition between different housing overtime (Clapham, 2005). These transitions often result from the interactions of multiple theoretical perspectives, including the Financialization of Housing, Studentification, and Housing Pathway Theories. For this study, the Housing Pathway Theory

serves as the primary analytical lens, as it best captures the relatively short and dynamic housing trajectories of international graduate students compared to other cohorts.

2.9.1 Housing Pathway Theory.

As Clapham (2002, 2005), introduced the concept of housing pathway to describe the practices, interactions and experiences individuals undergo to secure and maintain housing over time. This approach emphasizes that housing is not merely a physical or economic asset but a dynamic process involving meanings of home, belonging and identity shaped by social, economic, and cultural context (Revington, 2023).

The housing pathways evolved from the earlier notion housing careers, which conceptualized residential movement as a linear and upward progression toward better housing quality and greater tenure security (Clapham, 2002). Clapham (2005) argues that pathways better reflect contemporary housing experience by acknowledging the influence of education, employment and family transitions, and life-course dynamics. Rather than assuming a unidirectional trajectory, the concept highlights the interplay between agency and structure in shaping housing outcomes.

The theory thus views housing as a fluid, evolving process shaped by both individual decision-making and structural constraints, including government regulations, market conditions, and cultural norms (Fang & Liempt, 2021). This framework moves beyond static housing outcomes (e.g., homeownership) to consider the continuous negotiation between personal and systemic limitations.

Cuervo and Wyn (2014, p.904), as cited by Revington (2023), caution that spatial metaphors such as “pathways” can be misleading, suggesting smooth and self-directed transitions while overlooking the structural and relational forces influencing individuals’ choices. However, housing studies have increasingly addressed these critiques by situating pathways within broader

social, economic, and institutional contexts that emphasize inequality, precarity, and differentiated access to housing resources (Revington, 2023).

2.9.2 Complexity of Student Housing Pathways.

Recent research demonstrates that housing pathways among students are far from uniform and are mediated by intersecting social and institutional factors. Beyond, the pathway framework, factors such as race, gender, class and sexual orientation shape students' decisions to remain or leave the parental home (Holton and Finn, 2018). Haynes (2019) adds that experience of on-campus housing can constrain students' experience of "home." These studies collectively illustrate that student housing pathways are highly complex, less positive than traditionally assumed, and deeply structured by social inequalities (Revington, 2023).

2.9.3 Integrating Bourdieu's Concepts: Habitus, Capital, and Field.

To extend the analytical depth of Housing Pathway Theory, this study integrates Bourdieu's (1984, 1986) conceptual triad *Habitus, Capital, and Field*. Hochstenbach & Boterman (2015) demonstrates that forms of capital - economic, cultural, and social are central to understanding how households access different sectors of the housing market. This framework is equally valuable for analyzing international student' housing experience.

The extent to which international students possess and mobilize various forms of capital influences how they navigate the host country's housing system. Economic capital, including income, scholarships, or family support, determines access to higher-quality or Purpose-Built Student Accommodations, while limited financial means often confines students to overcrowded or informal housings (Revington, 2023). Cultural capital, such as knowledge of rental procedures, language proficiency, and understanding of tenant rights, shapes students' ability to secure and sustain affordable housing. Social capital, encompassing network of friends, peers, or community

members, provides essential information and support for navigating the local market (Marginson, 2014; Smith & Khawaja, 2011).

The value of each form of capital manifests only in interaction with what Bourdieu (1986) calls a *field,* a structured space of relations where distinct rules and hierarchies operate. Accordingly, integrating Bourdieu's framework within Housing Pathways theory assists explain the unequal and often precarious housing trajectories of international students in host cities.

Table 2.2. Forms of Capital and Housing Access.

Forms of Capital	Examples
Economic Capital	Income, inherited assets, financial assistance, other family resources
Cultural Capital	Education, knowledge of the available market, willingness to violate rules/laws
Social Capital	Information and/or available housing within social network

Source: Adapted from Boterman (2012); Hochstenbach & Boterman, (2015).

Within Bourdieu's framework, economic, cultural, and social capital only produce effects when they are mobilized inside a specific *field*—in this case, the housing market and its institutional rules (Bourdieu, 1986). For international graduate students, the housing field of the host country is unfamiliar, highly competitive, and structured by norms and regulations that differ from those in their home countries. As a result, the value of their capitals is not fixed but depends on how these resources align with the expectations of the local housing field.

Thus, the interplay between these capitals and the housing field explains why international graduate students often or may experience unequal and precarious housing pathways. Their housing outcomes depend not only on personal resources but also on how those resources are

recognized, valued, or undervalued within the institutional and cultural structure of the host city's housing market.

2.9.4 Application to International Graduate Students.

International graduate students face unique housing challenges arising from temporary immigration status, cultural and linguistic differences, and financial constraints. These factors significantly affect their ability to access stable and affordable housing. While universities may provide scholarships or institutional accommodations, restrictive government policies—such as visa limitations and ineligibility for public housing often exacerbate housing difficulties.

This theoretical framework is applied to international graduate students through the following components:

1. **Housing Transitions:** Examines the stages of securing accommodation before and during studies and the associated challenges.
2. **Constraints:** Identifies structural barriers such as immigration policies, high rental costs, and exclusion from subsidized housing, while acknowledging the roles of race, nationality, marital status, and language barriers.
3. **Diverse Pathways:** Explores adaptive strategies and coping mechanisms students use to navigate housing markets.
4. **Social and Cultural Dimensions:** Considers the influence of social capital (e.g., peer and community networks) and cultural norms on housing preferences, satisfaction, and belonging.

Building on Ford et al. (2002) and Hochstenbach and Boterman (2015), this study identifies three typologies of student housing pathways:

- **Student Pathway:** Transition from the family home to institution-provided accommodation with limited market exposure.
- **Planned and Constrained Pathway:** Careful planning of housing options constrained by financial or market pressures.
- **Chaotic Pathway:** Frequent and involuntary moves driven by unstable or unaffordable rental markets.

2.9.5 Research Implications.

By combining Housing Pathway Theory and Bourdieu's framework, this study provides a comprehensive lens to analyze international graduate students' housing experiences. It highlights how individual agency interacts with structural constraints such as policy frameworks, market conditions, and institutional practices to shape distinct housing trajectories. Furthermore, the framework identifies gaps in housing policies and institutional provisions that exacerbate these challenges.

The theoretical model will guide both data analysis and interpretation, offering insights into how housing accessibility, affordability, safety, and socio-cultural integration intersect to influence international graduate students' sense of home and belonging. Figure 2.2 provides a visual summary of these relationships within the broader context of Housing Pathway Theory.

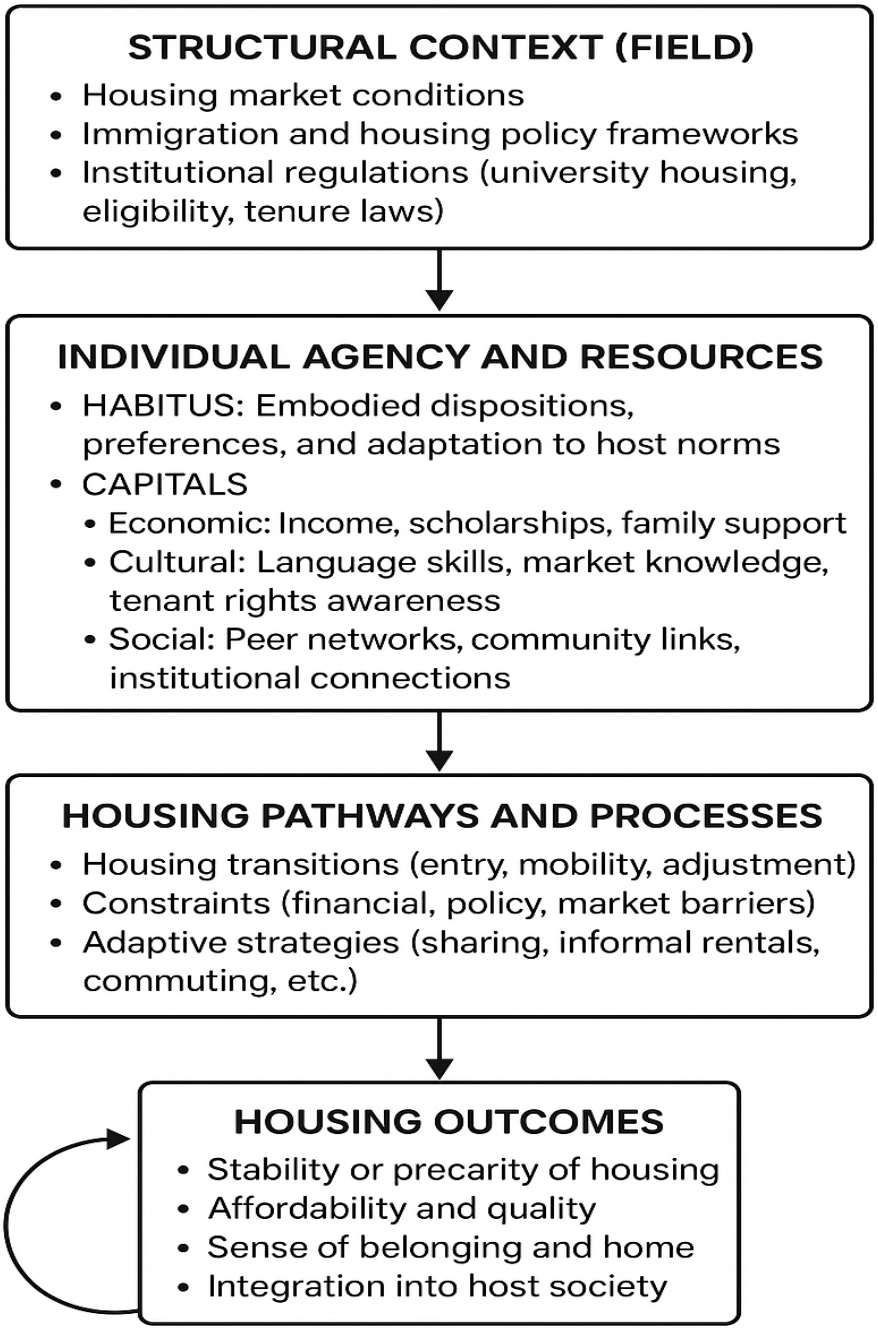


Figure 2.2: Conceptual framework illustrating how Bourdieu's concepts of habitus, capital, and field interact with Housing Pathway Theory to shape international graduate students' housing transitions, constraints, and outcomes within the host country.

Source: Author's Construct (2025).

This figure illustrates how international graduate students' housing experiences are shaped by the interaction between individual agency (habitus and capital) and structural conditions (housing field). The framework integrates Bourdieu's concepts with Housing Pathway Theory to explain variations in housing transitions, constraints, and outcomes.

2.10. Summary of Chapter.

This chapter reviewed existing literature on the housing experiences of international graduate students, highlighting their growing importance within the global higher education landscape and the significant housing challenges they encounter in host countries such as Canada. While international graduate students enhance diversity and intercultural understanding, they often face barriers related to affordability, accessibility, and cultural adaptation due to their temporary immigration status and financial limitations.

The review established that the rising number of international students has intensified demand in already constrained housing markets, leading many to experience overcrowded, temporary, or substandard living conditions. These difficulties are compounded by high tuition fees, limited on-campus housing, and exclusion from public housing programs. Financial and structural pressures have made housing a central concern for international graduate students' overall well-being and academic success.

Using *Housing Pathway Theory* (Clapham, 2002, 2005), the chapter conceptualized housing as a dynamic process shaped by individual choices and structural constraints. International graduate students' housing pathways are complex, non-linear, and influenced by factors such as financial capacity, demographic characteristics, and institutional conditions. The chapter also highlighted broader urban processes such as *studentification* and *youthification*, which reshape local housing markets and reinforce social inequalities.

Demographic factors including age, gender, income, marital status, nationality, and cultural background further differentiate students' housing experiences. Students from low-income or racialized backgrounds often face greater financial and social barriers, while those with stronger social, cultural, or economic capital navigate housing markets more successfully. In Kitchener-Waterloo, these forces intersect to create unequal housing outcomes and spatial segregation.

The chapter also discussed the limited institutional support systems available to international graduate students. Using the University of Waterloo as a case example, it revealed that while undergraduate housing is prioritized, graduate and international student housing remains inadequate. Consequently, many students rely on off-campus rentals and adopt various coping strategies, such as cost-sharing, part-time work, and reliance on personal savings.

Finally, the theoretical framework guiding this study integrates *Housing Pathway Theory* with *Bourdieu's concepts of habitus, capital, and field*. This framework explains how individual agency and structural forces interact to shape students' housing transitions, constraints, and outcomes. It underscores the unequal distribution of resources and opportunities in housing experiences.

In conclusion, this chapter demonstrated that international graduate students' housing pathways are multifaceted, constrained, and deeply structured by socioeconomic, institutional, and demographic factors. These insights provide the foundation for the next chapter, which examines how these dynamics manifest empirically in shaping international graduate students' housing accessibility, affordability, and sense of belonging in Canada.

CHAPTER THREE

METHODOLOGY AND STUDY AREA

3.1 Introduction

This chapter covers the methodology and approach used to acquire the information for the research. The study utilizes both primary and secondary information. I also provided details on the method and means of how I analyzed the primary data generated. The critical issues observed in this chapter were the description and justification of data collection methods, the sample size, sampling design, and the data types. A brief description of the study area was also provided, with a map indicating the location. The chapter also explained how data was analysed and ethical consideration addressed in the study.

3.2 Methodological Approach

The study employed the cross-sectional approach and a case study design, providing a holistic insight to understand the cumbersome housing experiences of international graduate students in Kitchener/Waterloo and generating a hypothesis for future research. The case study approach took into consideration the geographical setting and the complexities surrounding international graduate students and their housing experiences.

The first data collection phase involved secondary date gathering, which entailed a thorough review of existing literature. This process focused on investigating and analyzing relevant documents to gain a broader understanding of prior research and to align the findings with the study's objectives.

The second data collection phase used a semi-structured questionnaire to gather primary data. I used an online survey to collect the necessary information to address the research questions and capture participants lived experiences through follow-up interviews. These approaches were

employed simultaneously during the primary data collection. Figure 3.1 shows a pictorial view of my data collection, analysis process, and activities.

Figure 3.1 below depicts an overview of the study phases, summarizing the data collection method and plan of activities.

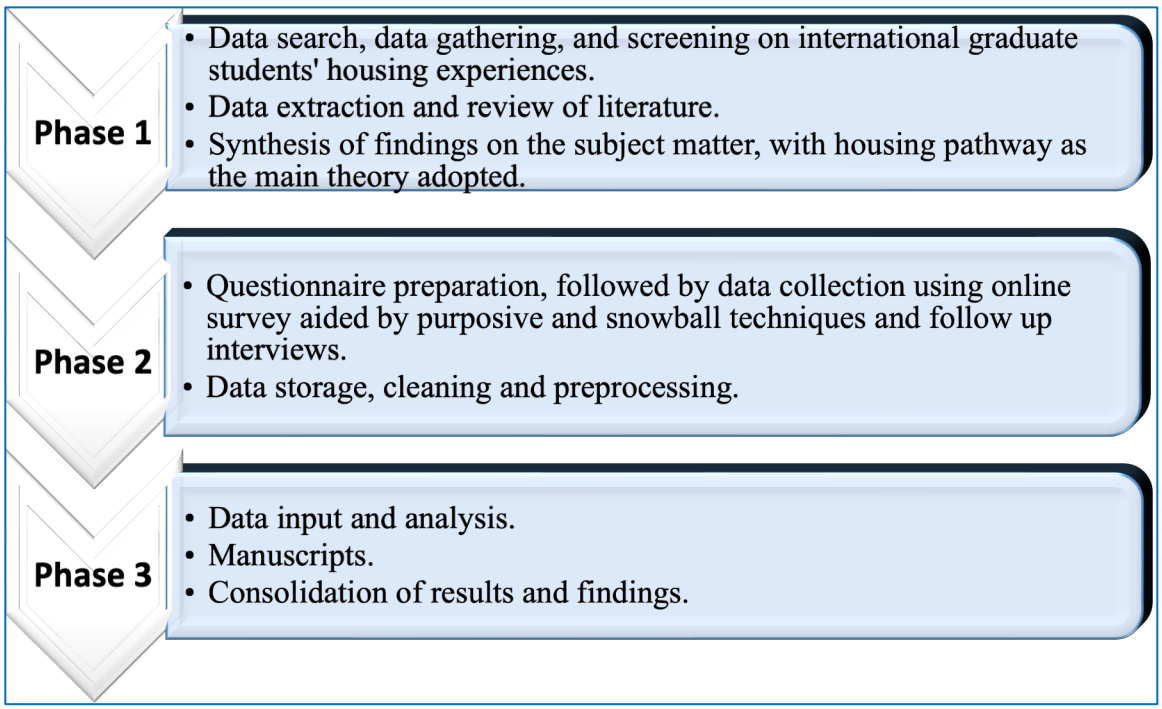


Figure 3.1: Data Collection and Analysis Framework and Plan of Activities.

Source: Author's Construct (2024)

3.2.1 Cross-Sectional Approach

The research adopted the cross-sectional design, which enabled the gathering of data on our research subjects by providing a snapshot of these students' demographics and housing conditions. This research approach was essential for understanding the current patterns and variations in the housing access, affordability, and stability available to international graduate students. Also, the cross-sectional design was utilized due to the nature of the research questions and their emphasis on the current issue of international graduate students' housing experience rather than long-term

or historical phenomena (Neuman, 2014). A cross-sectional design was appropriate because it effectively addresses the current 'what' aspects of the research questions. According to Yin (2003), cross-sectional studies are commonly preferred for these research questions to explore population methodological gaps.

In a cross-sectional study design, the researcher identifies the study population and selects a sample (Kumar, 2011). Hence, the study will also use the cross-sectional design regarding the study population and the time of investigation for data (Kumar, 2011). According to Visser, Krosinick, and Lavrakas (2016), the cross-sectional study design provides an overview and in-depth understanding of a phenomenon at a single point in time from a specified population of interest.

3.2.2 Case Study Approach

Kitchener/Waterloo, a twin mid-sized city in the Regional Municipality of Waterloo, Ontario, Canada, with a significant international graduate student population, served as the case study for this research. Case studies allow for in-depth and multi-dimensional investigation of phenomena such as international graduate students' housing experience, especially with a population from different geographical and cultural settings (McManners, 2016).

The case study research design provided a contextual basis by highlighting the specifics of the population under study within the geographical setting. This research method allowed for confined and more exact information from the multifaceted housing constraints experienced by these international graduate students, including the cultural, social, institutional, and economic variables influencing their experiences.

The city of Waterloo, Ontario, situated approximately 110 km west of Toronto, has a population of around 133,000, which is adjacent to City of Kitchener, all in the Region of Waterloo (with approximately 560,000 people). The Waterloo city hosts the main campuses of Wilfrid Laurier

University (WLU), the University of Waterloo (UW), and the Conestoga College branch campus. The institutions, as mentioned earlier, collectively enroll approximately 60,000 students, of these around 40,000 require housing, thus those not living at home or traveling from outside the province (Revington, 2023). Some students dwell in the neighboring cities of Kitchener and Cambridge, which also host numerous branch campuses and the main campus of Conestoga College in Kitchener (Statistics Canada, 2022).

Although Conestoga College operates multiple campuses across Ontario, this study focuses on international graduate students affiliated with the Kitcher and Waterloo campuses, as reflected in Figure 3.2 below. This distinction is important because housing experiences vary significantly by campus location and city.

Kitchener/Waterloo rapid growth and influx of international graduate students made it an ideal site for examining their housing challenges. Again, the replacement of detached houses by PBSA (over 17000 bedrooms) in the area makes it an ideal location for the study (Revington & August, 2020). Because these issues parallel those in other regions and institutions worldwide, the study's findings offer broadly applicable insights for addressing the international graduate student housing crisis.

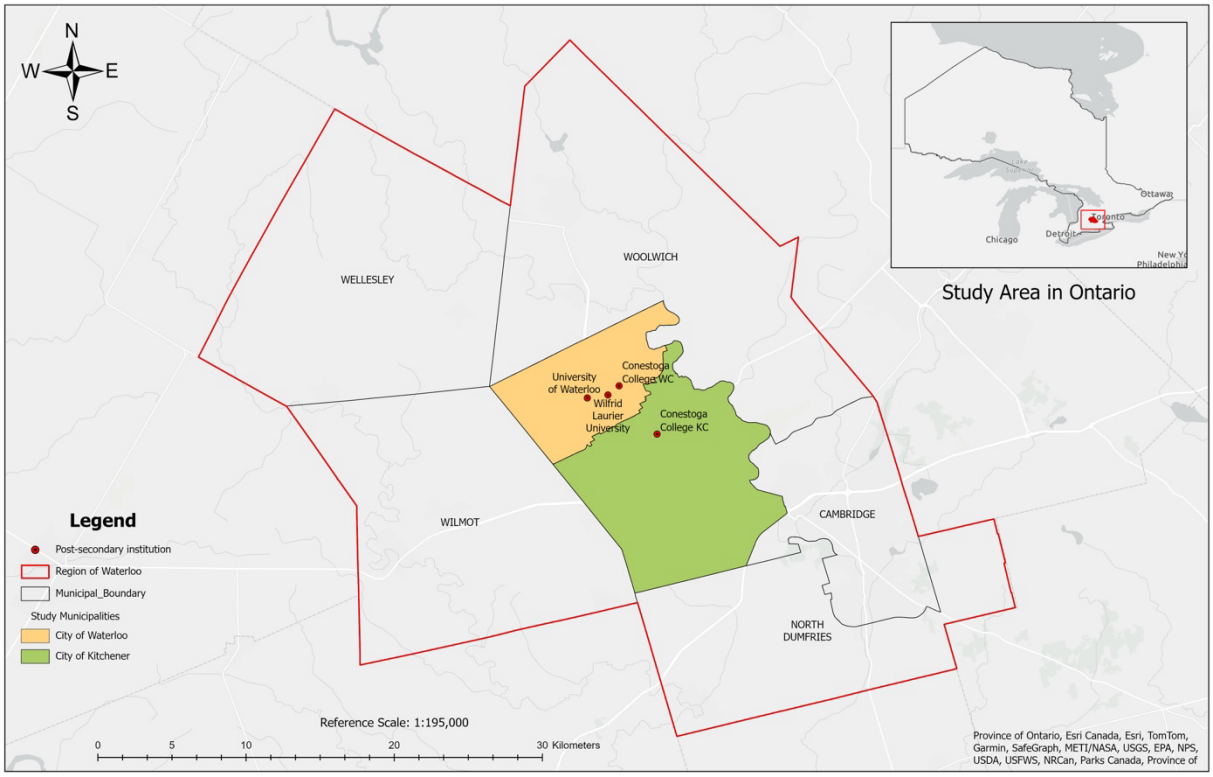


Figure 3.2 Study Area Map Indicating locations of the three post-secondary institution.

Source: Author's Construct, (2024).

3.3 Data Collection Methods.

Data for this study were collected through an anonymous web-based survey designed to capture the lived housing experiences of international graduate students residing in Kitchener-Waterloo, supplemented by follow-up interviews. This approach allowed participants to reflect on and contextualize their experiences safely and conveniently while ensuring data richness and privacy. An online questionnaire was used because of the student population's geographically dispersed nature, the sensitive research topic, and the need to provide flexibility for participants with varying schedules. The survey, which required approximately 10–15 minutes to complete, comprised two main sections:

- Demographic information, including age, gender, education level, income, and housing history, contextualized diverse experiences and enabled comparative analysis across socio-economic and cultural backgrounds.
- Open-ended questions that invited participants to share detailed personal experiences related to housing acquisition. These questions focused on key themes such as housing affordability, accessibility, availability, quality, discrimination, and the overall consequences of housing conditions. This section aimed to capture the realities of international graduate students navigating a challenging and often exclusionary housing market.

The online survey, conducted between May/June 2025, served as the primary tool for data gathering.

3.4 Sampling Strategy and Technique.

Participants were selected using a purposive and snowball sampling technique, which is ideal for the research's cross-sectional and case study nature, and to gain in-depth insight from the experiences of international graduate students. Purposive sampling was strategically employed because of its ideal research designs, such as case study and cross-sectional approaches, which seek in-depth insights into complex subjects, like the housing experiences of international graduate students navigating the private rental market in Kitchener/Waterloo. Purposive sampling targets participants who possess specific characteristics, knowledge, or expertise relevant to the study (Yin, 2009). Snowball sampling complemented this approach by leveraging existing social networks (i.e. hidden networks, starting with the first volunteer to participate in the survey and asking them to refer to others who fit the survey criteria), which are particularly important in

accessing housing information among international graduate students facing market and institutional barriers (Creswell, 2013).

Yin (2009) states that research needs time, resources, and organization. These may be costly, time-consuming, and sometimes beyond the researcher's ability. However, the samples can help the researcher make precise conclusions to represent the entire population. The participants were contacted through social media platforms such as LinkedIn, WhatsApp, Telegram, and the University Research Website Platform, where participants were identified, and further referrals by other international graduate students assisted in identifying other members of the target population to undertake the survey.

To be eligible, individuals had to meet the following criteria:

a. Be 22 years of age or older
b. Be enrolled as an international graduate student at a post-secondary institution in Kitchener-Waterloo
c. Be living in the Kitchener-Waterloo area.

3.4.1 Sampling Size Determination

To determine the appropriate sample size, mathematical formula $n = \frac{N}{1+N(\alpha)^2}$ was used. The formula was used because it provides a statistically valid sample size for proportions, given a known population size and a desired margin of error.

Where;

n = sample size

N = sample frame (the total number of international graduate students from the 2 main institutions were 2060, 249, for University of Waterloo and WLU respectively, making it a total of 2309) (WLU, UW International Students Office, 2024).

1 = constant of proportionality and α = margin of error (5%), therefore,

$$n = \frac{2309}{1+2309(0.05)^2} = 340.9$$

Statistically, the resultant sample size (n) from the use of the formula for collecting data of the international graduate students for the study is 341.

Conestoga College was not included in the sample size calculation because there was no specific data for the number of international graduate students in Kitchener/Waterloo. The data available includes international graduate students from other college campuses, including Cambridge, Stratford, Guelph, etc. Statistically, it was not the best to include such a huge number not part of the study area. The exclusion will not significantly affect the findings of the study.

I initially received 136 survey responses during the data collection period. Only 125 responses were complete and valid for inclusion and analysis after data screening and cleaning. The difference between the recorded and valid responses resulted from the exclusion of incomplete questionnaires, duplicate entries, and cases that did not meet the study's inclusion criteria such as not international graduate student. Although the initial sampling size was 341, several factors constrained recruitment, including limited data collection time, difficulties reaching the study population, i.e., international graduate students, and participant attrition. These conditions contributed to the shortfall between the planned sample size and valid responses.

A precise response rate could not be calculated for this study. The survey was distributed through multiple open and uncontrolled channels, including social media platforms, institutional listservs, and third-party gatekeepers. Because these recruitment methods do not allow the researcher to track how many individuals received or viewed the survey link, the total sampling frame could not

be determined. Additionally, participants were allowed to anonymously access and share the survey link, which further hindered the accurate monitoring of the number of invitations disseminated. Without a known denominator, calculating a response rate was not feasible. This limitation, however, does not undermine the value of the data collected; rather, it reflects the practical constraints associated with open survey recruitment.

3.5 Data Analysis Technique.

Data analysis in the study adopted a mixed-methods approach by integrating descriptive statistical analysis and qualitative thematic analysis to arrive at a comprehensive inference from data collected through an online questionnaire and interview. The mixed method ensures that measurable trends and detailed experiences are best recorded and interpreted.

The closed-ended questionnaire responses, including age, gender, income groups, duration of Canada residence, rent affordability, and type of dwelling, were analyzed via descriptive statistics. This involved computing frequencies, percentages, and cross-tabulations to identify broad patterns and relationships between housing experiences and demographic attributes for the targeted sample. The data derived from this analysis was presented through tables to provide a clear visual representation of the trends that can inform policymakers and various institutional stakeholders.

The open-ended responses and interviews, reflecting participants' daily life instances, coping strategies, and emotional responses to housing challenges, were examined through thematic analysis using NVivo 15. The data was analysed using six-step process after uploading the transcript into NVivo 15 to provide line by line themes:

1. Familiarization – Getting accustomed to the data at a depth and breadth level.
2. Coding – Selecting rich phrases and grouping them in manageable units.

3. Generating themes – Grouping codes into significant categories regarding repetition and importance.
4. Reviewing themes – Confirming the themes are representative of the data set.
5. Theme definition and naming – Creating accurate definitions of every theme.
6. Preparing the report – Merging themes into a coherent story in answer to the research questions.

The data from the google form were transferred to an excel format, after which it was loaded to SPSS (version 28) for data cleaning and analysis. The data were quantitatively processed into categorical and continuous variable. The results gathered from the analysis of the quantitative data were presented using descriptive and inferential statistics such chi-square tests, predictive analysis and logistic regression. The models included age, gender, region of origin of international graduate students. These demographic was used because of the differences show in the housing experiences of males and females, region of origin and age (Statistic Canada, 2021). To gain a better understanding, the findings of statistical analysis were triangulated with qualitative findings. For instance, while descriptive statistics might indicate otherwise some interviewees believe housing is not affordable, thematic analysis may also capture the underlying causes, like exploitation by landlords or discrimination during the renting process. The use of thematic analysis helps in making meaning from the dataset and finding patterns that's answer the research questions (Ayre & McCaffery, 2022). This triangulation allows the study to move beyond the surface-level trends to its underlying causes affecting international graduate students.

3.6 Interview Analysis.

The interviews conducted helped to deepen and contextualize the survey results. Twenty-five semi-structured interviews were conducted with survey respondents who volunteered for follow-

up; participants were purposively selected to maximise variation in gender, country of origin, program of study, length of residence, and current housing situation. Interviews were held in person or online (Zoom/MS Teams), lasted 20–30 minutes, and were digitally audio-recorded after informed consent. The interview recordings were transcribed verbatim and subsequently anonymized.

Transcripts were analysed using Braun & Clarke's (2006) six-step reflexive thematic analysis and the use of NVivo software (version 15). Coding and theme development were iterative and inductive, with regular journaling and cross-checking to ensure consistency. Key interview themes were triangulated with open-ended survey responses to confirm major patterns and highlight any divergences.

Interview topics included: access and affordability, housing quality, coping strategies (e.g., co-tenancy, subletting), landlord–tenant relations, experiences of discrimination, institutional support, and cultural adjustment to local housing practices. Selected anonymized quotations are presented in the findings with brief contextual labels (e.g., month/year and general location) to help interpret the responses.

3.7 Ethical Considerations.

The pre-established human subject research ethics guidelines informed the study. In line with Creswell (2009) and the Tri-Council Policy Statement (TCPS2), ethics principles of informed consent, voluntary participation, confidentiality, and reduction of harm were upheld in the study. The tick-box informed consent form was readministered prior to survey administration, detailing purpose, procedures, and participants' rights, including the right to withdraw from the study at any time without retaliation.

Confidentiality and anonymity were strongly emphasized. No personally identifying information of interviewees was collected, and participants could skip any question or discontinue the survey at any time before submission. Anonymous quotations from the interviews and open-ended responses may be included in research publications to support the authenticity of the findings and contribute to future scholarship.

Procedures for data handling and storage followed strict ethical standards, and data gathered were stored on password-protected media and made available to the researcher only. Interpretation and presentation of findings were done responsibly and not manufactured, manipulated, or misrepresented. These ethical measures included in the research protected participants' rights, dignity, and well-being while upholding academic integrity throughout the research process.

3.8 Summary of Chapter.

This chapter detailed the research process employed in studying international graduate students' housing experiences in Kitchener/Waterloo, Ontario. The chapter started with an explanation of the study location and put it into context and perspective, particularly regarding the general housing challenges international graduate students face in Canada. The chapter discussed the research design in depth, guided by a cross-sectional design and a case study approach.

The research targeted international graduate students residing in the Kitchener/Waterloo area since they started their studies. Two sampling techniques, snowball and purposive sampling, were used to recruit participants. Two data collection cycles were undertaken: a secondary review of literature and a semi-structured online survey questionnaire, followed by interviews. The chapter also discussed how data was analysed using NVivo 15 and SPSS and concluded with the ethical considerations of the study.

CHAPTER FOUR

ANALYSIS, FINDINGS AND OUTCOMES. INTERNATIONAL GRADUATE STUDENT SURVEY AND INTERVIEWS.

4.1 Introduction

This chapter presents findings from a mixed-method study investigating the housing experiences of international graduate students in Kitchener/Waterloo. The study used a mixed-methods approach that combined quantitative data from a survey of 125 participants and qualitative insights gathered from 25 participants through interviews. In the quantitative data analysis, the SPSS (Version 28) software was used for descriptive statistics and inferential tests, including chi-square tests and logistic regression. The qualitative data were analyzed using themes using NVivo (Version 15). The first section presents the characteristics of the surveyed and interviewed respondents. The subsequent sections present the findings based on the three (3) research objectives. The primary objectives were to identify the financial strategies used by international graduate students to secure and maintain affordable housing, assess the demographic influences on their housing experiences, and develop policy recommendations for sustainable and affordable housing solutions. This issue is not peculiar to Kitchener/Waterloo, as studies have highlighted significant housing challenges international students face (Evans et al., 2016; Thompson, 2023; Leviten-Reid et al., 2025).

4.2 Profile of Respondents.

This section details the profile of the study participants, including quantitative survey respondents and the qualitative interviewees. Understanding these demographic characteristics is essential for contextualizing their housing experiences and the strategies they employ.

4.2.1 Demographic Characteristics (Survey Data).

The survey involved a total of 125 international graduate students. The gender distribution comprised 59.2% male (74 participants) and 40.8% female (51). Regarding academic level, 71.2% of respondents were pursuing a master's degree (89 respondents), 17.6% undertaking a PhD, and 11.2% in a Postgraduate Diploma/Certificate (14 respondents). The duration of stay in Kitchener/Waterloo was varied, with 39.2% (49 respondents) having lived there for 6-12 months or 1-2 years, 14.4% (18 respondents) living there for over 2 years, and 7.2% (9 respondents) for less than 6 months. Age-wise, 60% (75 respondents) fell within the age group of 22-25 years old, 27.2% (34 respondents) were within the ages of 26-30, and 12.8% also being over 30 (16 respondents). The geographic characteristics of respondents were collected for analysis. The respondents originated from Africa, Europe, Asia, North America, and Oceania. The data gathered is summarized in the table 4.1 below.

Table 4.1: Demographic Profile of Survey Respondents (N=125)

Characteristic	**Category**	**Count**	**Percentage (%)**
Gender	Female	51	40.8
	Male	74	59.2
Academic Level	Postgraduate Diploma/Certificate	14	11.2
	Masters	89	71.2
	PhD	22	17.6
Duration of Stay	Less than 6 months	9	7.2
	6–12 months	49	39.2
	1–2 years	49	39.2
	Over 2 years	18	14.4
Age Range	22–25	75	60
	26–30	34	27.2
	Over 31	16	12.8

Region of Origin	Africa	57	45.6
	Asia	42	33.6
	Europe	19	15.2
	North America	5	4.0
	Oceania	2	1.6

Source: Field Survey, 2025.

Even though responses from the study participants were from five continents, the countries from the overall data were few less than ten. After the data cleaning, we had a valid response rate of 36.65%. At the time of the survey, all respondents had lived in Kitchener/Waterloo for less than 4 years.

4.2.2 Qualitative Sample Overview.

The qualitative aspect of this study comprised 25 international graduate students from various countries such as Nigeria, Ghana, China, India, Bangladesh, and Kenya. In this section, the gender distribution was 64% (16 participants) male and 36% (9 participants) female. The majority (84%, 21 participants) were single, with a smaller fraction (16%, 4 participants) having a partner. The duration of stay ranged between 8 months and 3 years.

4.3 Housing Experiences of International Graduate Students (RQ1).

The housing experiences of international graduate students are explored in this section, integrating quantitative data and qualitative narratives. This section will cover housing stability, mobility, challenges, discrimination, and the living conditions of respondents' challenges with broader Canadian trends, where international students are often disproportionately affected by housing (CBC News, 2024).

4.3.1 Housing Stability and Mobility.

Housing stability varied, with 59.2% (74/125) reporting stable housing (permanent or relatively permanent arrangements) and 38.4% (48/125) unstable housing (temporary, uncertain, or informal). Mobility patterns showed 41.6% (52/125) with no moves, 32.0% (40/125) low mobility (one move), and 26.4% (33/125) high mobility (two or more moves).

Qualitative narratives reinforced this, with students in stable housing appreciating predictability: "*I'm happy staying close to the college. It's comfortable*" (Chinese student, Interview, Waterloo, June 22, 2025).

Housing instability caused stress: "*My first flat did had a faulty heating system in winter. It was horrible*" (Ghanaian student, Interview, Waterloo, July 15, 2025).

Economic necessities likely drove greater mobility: "*I moved three times in a year to reduce costs*" (Bangladeshi student, Interview, Kitchener, July 5, 2025).

Combined, 36% (9/25) of participants had moved more than once for affordability. This instability can both undermine academic success and well-being (University Affairs, 2024; Calder et al., 2016).

Table 4.2: Housing Stability and Mobility (N=125)

Category	**Status**	**Count**	**Percentage (%)**
Stability	Stable	74	59.2
	Unstable	48	38.4
	Moderate/Other	3	2.4
Mobility	No Moves	52	41.6
	Low (1 Move)	40	32.0
	High (2+ Moves)	33	26.4

Source: Field Survey, 2025.

From Table 4.2 these findings indicate that while stable housing was the most common experience, a substantial proportion of respondents encountered housing instability and frequent, involuntary moves, underscoring the precarious nature of housing for many international graduate students. One theme that came through the qualitative analysis was the local housing conditions (availability of and competition for housing units) played a role in the mobility of the international graduate students. The population with the highest mobility has the longest stay in the study area or has longer study periods, which is the case for those pursuing master's with research and PhD.

An important limitation of this approach is that longer duration in Kitchener/Waterloo does not necessarily indicate housing stability. In fact, extended stay in the study area may be associated with increased mobility compared to short stay as students respond to rent increases, landlord decisions, or changing household arrangement.

4.3.2 Housing Challenges and Discrimination.

A large portion, 47.2% (59 participants), indicated that early housing searches were very difficult or difficult. Exclusion based on international (temporal) status (36.0%, 45 participants) and discrimination (18.4%, 23 participants) were primarily responsible, based on reasons of financial resources (34.8%), student status (43.5%), and racial/cultural reasons (43.5% combined). In addition, 24.0% (30 participants) experienced negative well-being effects (e.g., stress) and resorted to informal or unregulated housing in basement rentals without legal leases or contracts. These trends concur with Canadian research on discrimination in the rental market (CBC News, 2024; Calder et al., 2016; Pottie-Sherman et al., 2024). The table below summarizes the findings.

Table 4.3: Most Significant Housing Concerns (N=125).

Challenge	Count	Percentage (%)
High Difficulty	59	47.2
Exclusion (International Status)	45	36.0
Unofficial Housing	30	24.0
Negative Well-Being Impact	30	24.0
Discrimination	23	18.4

Source: Field Survey, 2025.

Qualitative evidence supported these worries, with affordability being the top priority (80%, 20/25): "*The rent here is too pricey, I was shocked! Paying $800 for a shared bedspace is way beyond my scholarship*" (Indian student, Interview, Waterloo, June 30, 2025). 48% (12/25) stated they experience a form of discrimination: "*I was told the apartment was taken after they listened to my accent*" (Nigerian student, Interview, Kitchener, July 20, 2025); "*One of the landlords asked me if I eat 'weird foods'—it was racially based*" (Kenyan student, Interview, Waterloo, July 25, 2025). Most characterized the market as daunting (52%, 13/25): "*I did not know about leases or rights of tenants*" (Indian student, Interview, Kitchener, June 25, 2025*).*

4.3.3 Living Conditions (Qualitative Themes).

Dwelling conditions were variable, with overcrowding in collective situations: "*Four of us shared a two-bedroom apartment in order to save money, but it was packed and stressful*" (Ghanaian student, Interview, Waterloo, July 10, 2025). Unavailability of privacy was an issue: "*I needed more privacy in the shared house*" (Nigerian student, Interview, Kitchener, July 28, 2025); "*There are occasional conflicts over shared space*" (Indian student, Interview, Waterloo, June 20, 2025). Lack of facilities and delayed maintenance were regular: "*My initial accommodation did not have*

proper heating during winter. It was terrible, but I could not afford to switch" (Kenyan student, Interview, Kitchener, July 3, 2025); "*Quick repairs and transparent communication*" were needed (Bangladeshi student, Interview, Waterloo, July 30, 2025). Indifference by the landlord impacted security.

4.4 Financial Strategies to Secure Housing (Research Objective 1).

In navigating the housing market, international graduate students used a plethora of financial strategies, including cost reduction, high-risk options, and support networks. This reflects broader financial strains (Ramia et al., 2024; Hastings et al., 2024).

4.4.1 Primary Coping Mechanisms.

Shared housing was most common (46.4%, 58/125), followed by university housing (27.2%, 34/125) and staying with connections (12.0%, 15/125). High-risk strategies included unofficial housing (24.0%, 30/125) and no formal contract (17.6%, 22/125). Support-seeking involved social networks (65.6%, 82/125) and university support (62.4%, 78/125). Search methods favored free platforms (72.0%, 90/125) over paid services (19.2%, 24/125).

Qualitatively, 64% (16/25) used shared housing: "*I live with three others to split the rent. It's the only way to afford living here*" (Chinese student, Interview, Kitchener, June 28, 2025). Unofficial housing appeared in 28% (7/25): "*I stayed in a basement with no lease because the landlord didn't ask for a credit score*" (Indian student, Interview, Waterloo, July 18, 2025). Social networks were key (72%, 18/25): "*My Ghanaian friends connected me with a trusted landlord*" (Ghanaian student, Interview, Kitchener, July 8, 2025).

Table 4.4: Financial Coping Strategies (N=125).

Category	Strategy	Count	Percentage (%)
Cost Reduction	Shared Housing	58	46.4
	University Housing	34	27.2
	Stay with Connections	15	12.0
High-Risk	Unofficial Housing	30	24.0
	No Formal Contract	22	17.6
Support-Seeking	Social Networks	82	65.6
	University Support	78	62.4
Search Methods	Free Platforms	90	72.0
	Paid Services	24	19.2

Source: Field Survey, 2025.

4.4.2 Housing Decision Priorities.

Location was prioritized by 77.6% (97/125), price by 75.2% (94/125), safety by 60.8% (76/125), and amenities by 45.6% (57/125). Niche factors like pet-friendliness (2.4%) and religious proximity (1.6%) were rare. Females prioritized safety more (62.7% vs. 59.5% males).

Qualitatively, upfront costs were challenging: "*Landlords ask for first and last month's rent, plus a deposit. It's impossible without savings*" (Indian student, Interview, Waterloo, July 12, 2025). Safety-influenced choices: "*I chose a place near campus for safety, even if it cost more*" (Malaysian student, Interview, Kitchener, June 24, 2025).

Table 4.5: Housing Decision Priorities (N=125).

Factor	Count	Percentage (%)
Location	97	77.6
Price	94	75.2
Safety	76	60.8
Amenities	57	45.6
Other (e.g., Pet-Friendly)	5	4.0

Source: Field Survey, 2025.

4.4.3 Effectiveness of Strategies.

Shared housing yielded 72.4% stable housing, 43.1% improvement, and 31.0% satisfaction. Social support achieved 64.6% stability, 39.0% improvement, and 32.9% satisfaction. University support had 60.3% stability but 29.5% improvement. Unofficial housing showed 66.7% stability, 53.3% improvement, and 46.7% satisfaction, but only 73.3% avoided discrimination.

Table 4.6: Strategy Effectiveness (% Positive Outcomes, N=125).

Strategy	Stable Housing	Housing Improved	Satisfied
Shared Housing	72.4	43.1	31.0
Social Support	64.6	39.0	32.9
University Support	60.3	29.5	41.0
Unofficial Housing	66.7	53.3	46.7

Source: Field Survey, 2025.

The above table 4.6 further explains which financial coping strategies yielded the most benefits for international graduate students in relation to achieving stable housing, improving their housing, or being satisfied with their current housing.

4.5 Demographic Influences on Housing Experiences (Research Objective 2).

Demographic factors such as region, gender, age, and marital status significantly influenced the housing experiences of international graduate students in Kitchener/Waterloo, aligning with the study's second objective to assess these impacts.

4.5.1 Regional Variations.

African students (45.6%) reported higher negative impacts (29.8%) and lower stability (49.1%), while Asian students (33.6%) had higher stability (73.8%) but more unofficial housing (33.3%). European students faced higher difficulty, though this finding is based on a very small number of cases (N = 2) which can be seen as outlier (63.2%, OR=3.3, 95% CI [1.09–10.7], p=0.0389 via logistic regression). Chi-square tests showed no significant regional differences in discrimination (χ^2=3.212, p=0.523). Qualitatively, Chinese students used Xiaohongshu, while Ghanaians, Nigerians and Indians relied on co-ethnic networks.

Table 4.7: Housing Outcomes by Region (N=125).

Region	**N**	**High Difficulty (%)**	**Stable Housing (%)**	**Negative Impact (%)**	**Unofficial housing (%)**
Africa	57	38.6	49.1	29.8	14.0
Asia	42	57.1	73.8	19.0	33.3
Europe	19	63.2	57.9	21.1	36.8
North America	5	20.0	40.0	20.0	20.0
Oceania	2	0.0	100.0	0.0	0.0

Source: Field Survey, 2025.

4.5.2 Gender Variations.

Females reported higher Difficulty (52.9% vs. 43.2%), negative impacts (35.3% vs. 16.2%), and safety prioritization (62.7% vs. 59.5%). No significant gender differences in discrimination (χ^2=0, p=1). Qualitatively, females emphasized safety and social networks.

Table 4.8: Housing Outcomes by Gender (N=125).

Gender	N	High Difficulty (%)	Negative Impact (%)	Safety Priority (%)
Female	51	52.9	35.3	62.7
Male	74	43.2	16.2	59.5

Source: Field Survey, 2025.

4.5.3 Other Factors (Age, Marital/Family Status, Academic Level).

Younger students (18–25, 60.0%) had different needs than older ones (40.0%). Married students (16% qualitative) faced unique challenges, like long family housing waitlists: "*I'm number 153 on the family housing list… waiting for two years*" (Interviewee 3, Interview, Kitchener, July 31, 2025); "*A bigger space that can help both of us*" (Interviewee 8, Interview, Waterloo, June 26, 2025). PhD students may experience greater financial strains, exacerbating insecurity (Academica Group, 2024; Hassan et al., 2023).

4.6 Coping Strategies by Demographics (RQ2).

Coping strategies varied by demographics, emphasizing regional patterns and social networks.

4.6.1 Regional Coping Patterns.

Social support was high in Asia (73.8%) and Europe (73.7%), and University Support was high in Oceania (100.0%) and Asia (66.7%). Unofficial housing was prevalent in Europe (36.8%) and Asia (33.3%). Multiple moves were common in North America (60.0%).

Table 4.9: Coping Strategies by Region (N=125).

Region	Number	Social support (%)	University Support (%)	Unofficial housing (%)	Multiple Moves (%)
Asia	42	73.8	66.7	33.3	26.2
Europe	19	73.7	42.1	36.8	31.6
North America	5	60.0	60.0	20.0	60.0
Africa	57	59.6	64.9	14.0	22.8
Oceania	2	0.0	100.0	0.0	0.0

Source: Field Survey, 2025.

4.6.2 Predictive Analysis.

To further understand the demographic influences on coping strategies, a predictive analysis was conducted using logistic regression models to identify factors associated with housing outcomes and strategy adoption. The models examined predictors such as region, gender, age, and other demographics on outcomes like high housing difficulty, discrimination, use of unofficial housing, and reliance on social support networks. The analysis revealed significant associations in some cases, such as European students being more likely to experience high housing difficulty, though this finding is based on a very small number of cases (N = 2) which can be seen as outlier (OR = 3.3, 95% CI [1.09–10.7], p = 0.0389). Males were less likely to use social support networks (OR = 0.42, 95% CI [0.18–0.98], p = 0.0488). No significant regional differences were found for discrimination ($\chi^2 = 3.212$, p = 0.523) or gender differences in discrimination ($\chi^2 = 0$, p = 1). Other predictors, such as high difficulty and discrimination, did not show significant associations in all models (e.g., discrimination binary OR = 0.69, 95% CI [0.22–2.14], p = 0.5113; high Difficulty OR = 1.93, 95% CI [0.8–4.87], p = 0.1485).

Table 4.10: Predictive Models - Odds Ratios (95% CI).

Model	Predictor	OR (95% CI)	p-value	Significance
High Difficulty	Europe (vs. Others)	3.3 (1.09–10.7)	0.0389	*
Discrimination	Region	-	0.523	ns
Discrimination	Gender	-	1	ns
Use of Social Support	Male (vs. Female)	0.42 (0.18–0.98)	0.0488	*
Discrimination Binary	-	0.69 (0.22–2.14)	0.5113	ns
High Difficulty	-	1.93 (0.8–4.87)	0.1485	ns

Source: Field Survey, 2025. (* $p < 0.05$; ns = not significant)

These findings suggest that regional origin (specifically being from Europe) and gender are the most salient factors in shaping reported difficulties and use of social support, while discrimination measures did not emerge as significant predictors in this analysis.

4.6.3 Intersectionality Analysis.

An intersectionality analysis was performed to explore how overlapping demographic factors (e.g., region and gender) contribute to multiple disadvantages in housing experiences, such as combined rates of high difficulty, discrimination, exclusion, and negative impacts. This analysis highlights compounded vulnerabilities, with female students from Asia and Europe facing higher rates of exclusion and discrimination compared to males. For instance, Asian females had 66.7% any discrimination, while African females had 44.4%. European females showed 100.0% exclusion, though the sample was small and be generalized in this case. Mean disadvantage scores (a composite of challenges) were higher for females across regions, emphasizing the intersection of gender and regional origin in exacerbating housing insecurity.

Table 4.11: Intersectional Analysis - Multiple Disadvantages by Region and Gender.

Region	Gender	Number	Mean Disadvantage Score	High Difficulty (%)	Discrimination (%)	Exclusion (%)	Any Discrimination (%)
Africa	Female	27	1.2	38.6	14.8	44.4	44.4
Africa	Male	30	1.0	38.6	23.3	26.7	43.3
Asia	Female	21	1.5	57.1	23.8	61.9	66.7
Asia	Male	21	1.1	57.1	23.8	19.0	38.1
Europe	Female	2	2.0	63.2	0.0	100.0	100.0
Europe	Male	17	1.3	63.2	11.8	35.3	35.3
North America	Female	1	0.5	20.0	0.0	0.0	0.0
North America	Male	4	0.5	20.0	0.0	0.0	0.0
Oceania	Male	2	0.0	0.0	0.0	0.0	0.0

Source: Field Survey, 2025.

Analysis of disadvantage scores and related outcomes revealed notable variation across both region and gender. Respondents from Asia and Europe reported the highest levels of difficulty, with more than half of participants in both regions indicating high difficulty (57.1% and 63.2%, respectively). Asian females emerged as the most disadvantaged group, with the highest mean disadvantage score (1.5) and two-thirds reporting some form of discrimination (66.7%), including 61.9% reporting exclusion. European females also reported high disadvantage (mean = 2.0) and universal exclusion and discrimination (100%), though this finding is based on a very small number of cases (N = 2) and should be interpreted with caution. Among African respondents, males and females reported similar levels of high difficulty (38.6%), though females were more likely to report exclusion (44.4%) while males were more likely to report direct discrimination (23.3%). By contrast, participants from North America and Oceania reported the lowest

disadvantage and discrimination levels, with very few indicating high difficulty or exclusion. Overall, these findings suggest that both regional background and gender intersect to shape experiences of disadvantage, with Asian and European females reporting the highest burden of exclusion and discrimination.

4.6.4 Role of Social and Co-ethnic Networks.

Social networks were adopted by 65.6% (82/125), yielding 64.6% stability. Males were less likely to use them (OR=0.42, 95% CI [0.18–0.98], p=0.0488 via logistic regression). Qualitatively, 72% (18/25) relied on them: "*My Ghanaian friends connected me with a trusted landlord*" (Ghanaian student, Interview, Waterloo, July 22, 2025). They provided scam protection and temporary solutions, often ethnically defined (Wilson et al., 2023). Yet another related body of literature re-echo the coping strategies used by international students to minimize housing problems. These range from co-residence with other students, based on ethnic community networks, to temporary couch-surfing or living in unofficial housing (Lin et al., 2018). Though these processes meet immediate needs, they subject the students to precarious living conditions and informal tenure relationships, which are often not legally protected (Nethercote, 2020).

Table 4.12: Test Results for Role of Social and Co-ethnic Networks.

Test	**Variable**	**Statistic**	**p-value**	**Significance**
Logistic Regression	Use of Social Networks (Male vs. Female)	OR = 0.42 (0.18–0.98)	0.0488	*
Chi-Square	Social Support by Region	$\chi^2 = 8.45$	0.132	ns
Chi-Square	Social Support by Gender	$\chi^2 = 4.12$	0.042	*

Source: Field Survey, 2025. (* $p < 0.05$; ns = not significant)

The analysis revealed that gender was a significant factor influencing both the use of social networks and levels of social support. Logistic regression indicated that males were significantly less likely to use social networks compared to females (OR = 0.42, 95% CI: 0.18–0.98, p = 0.0488). Similarly, a chi-square test showed that social support differed significantly by gender ($\chi^2 = 4.12$, p = 0.042), suggesting that one gender perceived or reported stronger social support than the other. In contrast, no significant difference was observed in social support across regions ($\chi^2 = 8.45$, p = 0.132), implying that geographic location did not play a decisive role in shaping social support among respondents. Overall, these findings highlight gender as a key determinant of social network engagement and perceived support, while regional variations appear less influential.

While my findings on international graduate students housing experience and housing pathways of young adult theories are not novel, the study re-echo these experiences and advances young adult housing pathway theories for broader scholarly discussions and policy evaluations. It also reemphasis but often overlooked housing experiences of international graduate students and the silent ordeals they go through. Existing literature identifies that housing is not just a tangible need but also a site where social inclusion, well-being, and study integration are negotiated (Arthur & Flynn, 2013). For international graduate students, housing difficulties tend to be exacerbated by structural disadvantage in terms of limited access to economic accommodation solutions, foreign rental markets, lack of local connections, and discriminatory landlord practices (Holton & Mouat, 2021). Therefore, providing meaningful insights into policies and provide recommendations that can be implemented to enhance housing experience that affect male and female differently in the short run to long run is key for achieving good social inclusion and well-being.

4.7 Summary of Chapter.

The chapter provides the findings of the studies which were organized under research questions and objectives of the study. The findings indicate that while stable housing was the most common experience, a substantial proportion of respondents encountered housing instability and frequent moves, underscoring the precarious nature of housing for many international graduate students. Shared housing was most common which yielded the most stable housing, followed by university housing and staying with connections. Location, price and safety was prioritized by most international graduate students. Small number of respondents considered factors like pet-friendliness and religious proximity. The findings revealed that European students faced higher difficulty, though this finding is based on a very small number of cases (N = 2) which can be seen as outlier whiles most African students reported higher negative impacts and lower housing stability. Asian students (33.6%) had higher housing stability but more unofficial housing.

The final chapter will focus on the summary of key findings of this research based on the questions and objectives as well as limitations encountered, generalizability of the research and suggestions for future research.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction.

The housing experiences of international graduate students are complex, multidimensional, and strongly conditioned by structural constraints within the rental market. Chapter Four established several key findings that form the foundation of this discussion. Data analysis was conducted using Microsoft Excel for quantitative survey responses, calculating descriptive statistics such as percentages, and NVivo (Version 15) for qualitative interview data, enabling thematic coding of student experiences. This section interprets these findings in light of the study's objectives, situates them within the broader scholarship, and provides policy and institutional recommendations to improve the housing experiences of international graduate students in Kitchener/Waterloo.

The study confirmed that housing affordability is the primary concern for international graduate students in Kitchener/Waterloo, with 47.2% of respondents reporting their initial housing search as difficult or challenging, often requiring a high percentage of their limited income for rent. Students relied on coping mechanisms such as shared Housing (46.4%), social support networks (65.6%), and university/college housing (27.2%), which, while addressing immediate needs, often involved trade-offs like overcrowding, reduced privacy, and exposure to informal or risky rental contracts. Demographic characteristics, including regional origin, gender, and family status, significantly shaped housing experiences. For instance, Asian students frequently used electronic media, while African students leaned on co-ethnic and religious networks. Female students prioritized safety, sometimes at the expense of affordability, and married students or those with dependents faced unique challenges, such as long waiting lists for family housing. The study also highlighted inadequate institutional support, with 62.4% of participants using university housing

services but less than half reporting significant improvements, contrasted by the effectiveness of informal networks. Additionally, exclusion (36.0%) and discrimination (18.4%) based on international student status, financial capacity, race, or culture exacerbated housing insecurity and impacted students' well-being.

Cumulatively, these findings reflect a housing environment marked by student resilience but constrained by structural barriers of affordability, discrimination, and institutional inadequacy. This chapter interprets these findings, contextualizes them within existing literature, and proposes actionable recommendations.

5.2 Summary of Results.

This section summarizes the findings based on the study's objectives which sought to identify various means of securing and maintaining affordable housing units in Waterloo/Kitchener by international graduate students, including the financial mechanisms they use to navigate housing challenges, assess how cultural and racial elements influence the housing choice of international graduate students. Including how nationality, language, race, sexuality, marital status, etc., contribute to the general housing experience of international graduate students and lastly develop actionable guidelines, measures, and policies to ensure the availability and affordability of international graduate student housing. This further ascertains recommendations to provide improved international graduate student housing, consequently improving their overall housing experience.

5.2.1 Financial Strategies Adopted by International Graduate Students.

International graduate students in Kitchener/Waterloo employ a mix of cost-reduction, support-seeking, and risk-bearing strategies to secure housing. Shared housing was the most common tactic (46.4%), followed by university housing (27.2%) and staying with friends or family (12.0%).

Social support networks, as data suggest, were widely used (65.6%), as was university support (62.4%). Search behaviors reflected financial constraints, with 72.0% relying on free platforms compared to 19.2% using paid services. A notable minority engaged in high-risk options: 24.0% lived in unofficial housing, defined as accommodations not regulated by formal lease agreements, such as sublets, room rentals through informal networks, or arrangements without legal protections, and 17.6% signed no formal contracts, increasing vulnerability. These findings align with Calder et al. (2016), who argue that international students, often lacking credit histories, are pushed toward precarious alternatives in formal rental markets.

The effectiveness of these strategies varied. Shared housing yielded high stability (72.4%), improvement (43.1%), and satisfaction (31.0%). Social support networks also performed strongly, with 64.6% achieving stable housing and 39.0% reporting improvements. University support, while less effective for improvement (29.5%), had 41.0% satisfaction, suggesting perceived legitimacy despite slower outcomes. Unofficial housing, despite risks, showed high stability (66.7%), improvement (53.3%), and satisfaction (46.7%), reflecting a trade-off where immediate needs are met but exposure to discrimination (26.7% reported bias) and insecurity persists. Similar risks are noted in Canadian and Australian contexts (Calder et al., 2016; Ike et al., 2020; Berg & Farbenblum, 2020).

Discrimination and exclusion were prevalent, with 36.0% reporting exclusion due to international status and 18.4% facing direct discrimination based on financial capacity (34.8%), student status (43.5%), or race/culture (43.5% combined). These practices drive reliance on precarious arrangements, perpetuating marginalization (CBC News, 2024; Pillai et al., 2024). Qualitative data support this. "*Four of us shared the money in the flat to save money*," shared a student during an interview in Waterloo on July 15, 2025, highlighting cost-saving efforts. Another noted, "*My Ghanaian mates hooked me up with an honest landlord*" during an interview in Kitchener on June

25, 2025, emphasizing the role of co-ethnic networks. Asian students frequently used platforms like Xiaohongshu, while African students relied on diaspora or church networks, outperforming outdated university housing lists (Wilson et al., 2023).

Decision-making prioritized location (77.6%), price (75.2%), and safety (60.8%). Social and religious networks mitigated cost and safety concerns, while university housing appealed for perceived safety despite inflexibility. Reliance on free platforms underscored financial precarity but risked misinformation or scams, with social networks serving as a critical filter.

These strategies provide temporary relief but do not address structural barriers like high rents, discrimination, and competitive markets. As University Affairs (2024) notes, affordability issues for international students are systemic, necessitating broader policy and institutional changes.

5.2.2 Demographic Influences on Housing Experiences.

Housing experiences among international graduate students in Kitchener/Waterloo vary significantly by regional origin, gender, and family status. African (45.6%) and Asian (33.6%) students formed the largest groups, with distinct challenges. African students reported higher rates of exclusion (29.8%) and landlord bias against cultural practices. In contrast, Asian students leveraged online platforms, achieving stable housing (73.8%) and engaging in unofficial housing (33.3%), indicating both resourcefulness and risk. These patterns align with Noreiga and Justin (2020), who note that cultural background shapes strategies and vulnerabilities, and Menlah (2024), who highlights cultural mediation of housing access.

Gender significantly influenced experiences, with 62.7% of female respondents prioritizing safety compared to 59.5% of males. Women often paid higher rents or chose locations near campus for safety, reporting intimidation or inappropriate landlord interactions. The experience from women and the data echo Calder et al. (2016), who found that female international students prioritize

personal safety, which impacts housing decisions. Women relied on reputable networks for safe housing, while men were more flexible with unofficial arrangements.

Family and marital status amplified challenges. Married students with dependents faced long waitlists for family housing and a shortage of suitable units. One respondent, interviewed in Waterloo on July 20, 2025, noted their co-tenant " does not drink or smoke" but lamented being number 153 on the family housing list, with a multi-year wait. This scenario led some to overcrowded or costly private rentals, aligning with Calder et al. (2016), who note that student families face prolonged wait times and limited options.

The findings underscore the importance of gender in understanding patterns of social network use and perceived social support. The lower likelihood of social network use among males compared to females may reflect broader gendered communication patterns, where women are often found to engage more actively in relationship maintenance and community interaction, both offline and online. Likewise, the significant variation in perceived social support by gender suggests that females may draw more consistently on social networks for both emotional and instrumental support. However, this result should be interpreted with caution, as gendered expectations surrounding help-seeking and reporting behaviors may also influence responses. By contrast, the absence of significant regional differences indicates that contextual factors such as geographic location may not be as influential as individual-level characteristics in shaping perceived support. This finding could also be related to sample composition or the possibility that regional differences in support networks are less pronounced in the study setting. Taken together, the results highlight the need for gender-sensitive approaches when examining or strengthening social support systems, while suggesting that regional variation may play a comparatively limited role (Smith & Khawaja, 20; Athur & Flynn, 2011).

The results indicate that both regional background and gender play selective but important roles in shaping participants reported experiences. The finding that respondents from Europe were significantly more likely to report high levels of difficulty compared to those from other regions may reflect cultural, structural, or contextual differences in expectations and adjustment. For example, students or migrants from European backgrounds may perceive greater challenges due to differences in institutional systems, or they may have higher standards for what constitutes difficulty, or very small number which participated in the survey which cannot be used for generalization, leading to a greater likelihood of reporting such experiences. Gender also emerged as a significant factor in the use of social support, with males less likely to rely on these resources than females. This aligns with existing literature suggesting that women are generally more engaged in help-seeking and community-oriented behaviors, while men may be less inclined to seek support due to cultural norms surrounding independence and self-reliance.

By contrast, discrimination—whether measured by region, gender, or as a binary construct—was not found to be a significant predictor in this study. This could suggest that discrimination is either less prevalent among the respondents, inconsistently reported, or that it does not directly translate into measurable outcomes within the framework of this analysis. Similarly, although the odds ratio for high difficulty suggested nearly double the likelihood of association, the lack of statistical significance indicates insufficient evidence to confirm a robust effect, which may be related to sample size or variability within responses. Taken together, these findings highlight the importance of recognizing both cultural/regional and gendered dynamics when examining lived experiences, while also acknowledging that not all expected predictors, such as discrimination, exert a measurable influence in this dataset.

These findings underscore that housing challenges are intersectional, shaped by regional, gender, and family dynamics. Hastings et al. (2024) argue that the convergence of culture, gender, and family status creates acute vulnerabilities, necessitating inclusive, culturally sensitive policies.

5.2.3 Policy and Institutional Implications for Improving Student Housing. (R.O 3).

The study's third objective was to propose policy responses to improve housing conditions. Despite 62.4% of students seeking university housing support, less than half reported improvements, with qualitative accounts describing university housing lists as "outdated" or "unaffordable." The situation reflects national trends of institutional shortcomings in addressing student housing crises (University Affairs, 2024).

First, increasing affordable student housing stock is critical. Universities should partner with municipal governments and private developers to expand purpose-built student accommodations with flexible, semester-based leases to suit international students, varied program lengths, and reduce costs during breaks. This measure can potentially reduce reliance on high-risk shared or unofficial housing, which exposes students to insecurity.

Second, robust pre-arrival orientation programs are essential. Many students reported confusion about leases, tenant rights, and market competitiveness. As Hassan et al. (2023) suggested, pre-arrival online sessions could educate students on market standards, tenant rights, and red flags, reducing vulnerability to scams and misinformation.

Third, family housing policies must be prioritized. The multi-year waitlists and scarcity of family-suitable units, exemplified by the student "number 153 on the family housing list," disproportionately affect married students and those with dependents (Mulvey et al., 2024). Universities should develop family housing projects with shorter wait times and culturally inclusive designs.

Fourth, stronger anti-discrimination protections are needed. With 36.0% of students facing exclusion due to international status and 18.4% experiencing discrimination based on financial capacity, race, or culture, enhanced tenant rights enforcement and municipal advocacy are critical to hold landlords accountable.

Finally, universities should leverage community-based networks, which students find more effective than institutional support. Formal partnerships with diaspora associations, religious institutions, and cultural organizations could enhance housing support, providing trusted, culturally relevant guidance.

5.2.3.1 Generalizability of Findings to Other Canadian Cities and Beyond.

The housing challenges in Kitchener/Waterloo reflect local and universal dynamics, making the findings partially generalizable. Waterloo's medium-sized, university-driven context mirrors other Canadian cities like Kingston or Halifax, where student demand strains rental markets. Affordability issues (47.2% reporting difficult searches), reliance on informal networks (65.6%), and discrimination (36.0%) align with trends in larger cities like Toronto and Vancouver (University Affairs, 2024; CBC News, 2024). Internationally, parallels exist in university towns like Ann Arbor, Michigan, or Canberra/Melbourn, Australia, where students face similar supply shortages and resort to unofficial housing (24.0%) or networks (Berg & Farbenblum, 2020). However, Waterloo's tech-driven economy and specific student demographics (45.6% African, 33.6% Asian) may limit direct applicability to non-university-centric or demographically different cities. Future research comparing Waterloo to cities like Montreal or Calgary could strengthen generalizability, but the core issues-affordability, discrimination, and institutional gaps-are systemic and relevant across Canada and developed nations with international student populations.

5.4 Conclusion.

This study contributes to the literature on international student housing by detailing the experiences of graduate students in Kitchener/Waterloo. It highlights their reliance on financial and social strategies-shared housing, informal networks, and unofficial rentals-to navigate immediate needs. Still, these are insufficient against structural barriers like unaffordability, discrimination, and institutional inadequacy. Demographic factors shape experiences: African students face higher exclusion, Asian students leverage digital platforms but risk informal markets, women prioritize safety, and families encounter housing shortages. Institutional support, such as outdated housing lists, falls short, while informal networks prove more reliable (Wilson et al., 2023).

Addressing these challenges requires systemic reform. Universities must invest in affordable, flexible housing, prioritize family units, and partner with community networks. Municipalities should enforce anti-discrimination laws, and governments must center international student housing in affordability policies. Culturally sensitive approaches acknowledging diverse needs are essential to ensure stable, dignified housing that supports academic success and well-being. Without such changes, international students will continue facing housing insecurity, impacting their academic performance and integration into Canadian society. This study underscores that housing is not an individual issue but a systemic one, requiring collaborative, structural solutions.

5.5 Limitations of the Study.

While this study makes important contributions, I acknowledge these limitations which include the following.

1. As an international graduate student in Waterloo, the insider knowledge enhanced rapport and trust with participants but may have introduced bias in data analysis and interpretation.

2. The study captured housing experiences at a single point in time and does not reflect changes that occur throughout students' academic trajectories.
3. Reliance on participants' accounts may have been affected by recall bias, underreporting of sensitive issues such as discrimination, or social desirability in responses.
4. The research was conducted in Kitchener/Waterloo, Canada, where it accommodates a huge number of international graduate students from different countries around the world, with the research having a perspective of students from different countries, fewer than ten, may affect its generalization.
5. Lastly, categorizing study respondents by broad destination regions introduces analytical limitations, as these categories may obscure diverse migration backgrounds, For example, respondents grouped under 'Europe' may originate from Asia or Africa, reflecting educational mobility rather than geographic identity.

5.6 Suggestions for Future Research

Despite the study contribution to literature, knowledge and application of this study, building on these findings, future research may also consider:

Firstly**,** comparative studies across cities. Examining international graduate student housing in multiple Canadian cities would highlight regional differences in affordability, accessibility, and policy responses.

Also**,** longitudinal approaches. Tracking students across their programs would provide insight into evolving housing pathways, coping strategies, and long-term impacts on well-being and integration.

Again**,** policy evaluation studies. Focused research on the effectiveness of institutional and municipal housing policies, including purpose-built student housing and rental regulations, would inform practical solutions.

Furthermore**,** graduate vs. undergraduate comparisons. Exploring differences across education levels could clarify how responsibilities, length of stay, and family arrangements influence housing challenges.

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APPENDICES

International Graduate Students' Housing Experience Questionnaire

All the information to be provided by the respondent(s) will be treated as strictly confidential. Please give accurate information to help achieve the actual objective of the survey which is to understand international graduate students' housing experience.

Study Title: Understanding International Graduate Student Housing experience in Kitchener/waterloo.

Faculty Supervisor: Zhu (Joe) Qian, PhD, School of Planning, University of Waterloo. Phone: 1-519-888-4567 Ext: 48426, Email: z3qian@uwaterloo.ca

Student Investigator: Saluhu Mohammed, MA, School of Planning, University of Waterloo. Email: s25moham@uwaterloo.ca

This letter explains what the study is about, possible risks and benefits, and your rights as a research participant. You may print/save a copy for your records. If you do not understand something in the letter, please ask one of the investigators before consenting to participate.

What is the study about?

The rising number of international students pursuing education in Canada highlights an urgent need for affordable, inclusive housing. While Canada is a top destination for global learners, its housing policies often overlook the unique needs of these students, who face challenges finding suitable and affordable places to live. The tight housing market, particularly in cities like Kitchener-Waterloo, adds to the pressure, making it difficult for students to settle and thrive in their academic journeys. Ultimately, this research seeks to enhance student well-being, improve academic performance, and foster an inclusive environment for all. By addressing these critical issues, we can move closer to a more equitable housing system that reflects Canada’s commitment to diversity and global education.

What does participation involve?

Participation in the study will consist of an online anonymous questionnaire that takes approximately 10 minutes. You will first be asked some demographic information such as age, gender, education level, Income and status in Canada. The remaining questions ask about your experience about housing as an international graduate student in Kitchener/Waterloo, Canada. With your permission, anonymous quotations from the open-ended responses may be used in papers and publications.

Who may participate in the study?

To participate in the study, you need to be at least 18 years of age, and an International Graduate student who has reside in Kitchener/Waterloo.

Is participation in the study voluntary?

Your participation in this study is voluntary. You may decline to answer any question(s) you prefer not to answer by skipping to the next question and may stop participating at any time by not submitting your responses and closing your web browser.

Will I receive anything for participating in the study?

In appreciation of the time you have given to this study, you can enter your name into a draw for 1 of 10 prizes. The prizes include $10 to Sobeys. Your odds of winning one of the prizes is 1 in 40. Information collected to draw for the prizes will not be linked to the study data in any way, and this identifying information will be stored separately, then destroyed after the prizes have been provided. The amount received is taxable. It is your responsibility to report this amount for income tax purposes.

What are the possible benefits of the study?

Participation in this study will not provide any personal benefit to you. Data from this study may contribute to the policies to solve housing challenges to international graduate students.

What are the risks associated with the study?

There are no known or anticipated risks associated with participation in this study. If a question or the topic makes you uncomfortable, you can choose not to provide a response.

How is data collected, stored, and protected?

This anonymous questionnaire will not ask for your name or other identifying information. As described above, email addresses will be separately collected for sending gift cards. Removing your responses later is not possible because the researchers will have no way of identifying which responses are yours. This survey is hosted by Google Form, which has multiple safeguards in place, although no Internet transmission is ever fully secure. Collected data will be securely stored on password-protected computers for at least 5 years. The data that you provide in this study will not be shared publicly to any other person or institution.

Who is sponsoring/funding this study?

Self-Funded

Has the study received ethics clearance?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB 47141). If you have questions for the Board, contact the Office of Research Ethics, toll-free at 1-833-643-2379 (Canada and USA), 1-519-888-4440, or reb@uwaterloo.ca.

Who should I contact if I have questions regarding my participation in the study?

If you have any questions about this study or need more information before you decide whether to participate, please contact one of the researchers named above.

Welcome to the research study!

You have read the Letter of Information.

You have been provided an opportunity to ask questions.

Your participation in the study is voluntary.

You are 18 years of age.

You are currently an International Graduate student.

You are aware that you may choose to terminate your participation at any time for any reason.

By agreeing to participate in the study you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

Are you an international Graduate Student (i.e. on study permit) living in Kitchener/Waterloo?

If Yes, then you can proceed to participate.

Yes
No

Section 1: Housing Pathways.

Housing pathways are, thus, distinct sets of living and dwelling conditions that vary in price, quality, tenure and temporality.

1. **How long have you lived in Kitchener/Waterloo?**
    a) Less than 6 months
    b) 6–12 months
    c) 1–2 years
    d) Over 2 years

2. How many times have you moved since arriving in Kitchener/Waterloo?

    a) 0
    b) 1
    c) 2
    d) 3 or more

3. **What type of accommodation did you first live in?**

a) University-arranged housing
b) Private shared flat
c) Studio/apartment
d) Hostel
e) Stayed with friends/family
f) Other: _____

4. **Did you have a formal (Legal) rental contract for your first housing arrangement?**

a) Yes
b) No
c) Not sure

5. **How would you describe your current housing situation?**

a) Permanent and stable (Infrequent moves; relatively planned and foreseeable)
b) Temporary or uncertain (Frequent moves; forced and at short notice)
c) Informal or without a contract (Frequent moves; forced and at short notice)
d) Relative Permanent and Stable (Infrequent moves; relatively planned and assisted by real estate agents)
e) Other: _____

6. **Do you feel your housing conditions have improved, stayed the same, or worsened since arriving?**

a) Improved
b) Stayed the same
c) Worsened

7. **What were the most important factors in choosing your current housing?**

a) Price
b) Location
c) Safety

d) Amenities
e) Other:

Section 2: Housing Search Experience

8. **How did you search for housing?** *(Select all that apply)*

a) University resources (website, office)
b) Facebook Market
c) Housing websites (e.g., PadMapper, Kijiji, Places4Students, **4Stay, Accommod8U, ICON, RezOne, and WOCH**)
d) Real estate agencies
e) Personal connections
f) Other: _____

9. **How difficult was it to find your first accommodation?**

a) Very easy
b) Somewhat easy
c) Difficult
d) Very difficult

10. **Have you ever been excluded from a housing opportunity because you are an international graduate student?**

a) Yes
b) No
c) Not sure

11. **Have you experienced any form of discrimination during your housing search?**

a) Yes (please briefly describe): _____
b) No

12. **Have you ever stayed in a place where you couldn't register officially?**

a) Yes
b) No

Section 3: Support and Impact

13. **Did your university provide enough support with housing search?**

a) Yes
b) No
c) Somewhat
d) I didn't ask for support

14. **Did you rely on friends, family, or cultural communities to find housing?**

a) Yes
b) No

15. **Has your housing situation ever negatively impacted your studies or mental health?**

a) Yes (please explain briefly): _____
b) No

16. **Do you plan to move in the next 6–12 months?**

a) Yes
b) No
c) Not sure

Section 4: Background Information

17.Sex

a) Male
b) Female
c) Intersex
d) Prefer not to say

e) Other:

18. Age

a) 22–25
b) 26–30
c) Over 30

19. Your Nationality?

20. What is your academic level?

a) Masters
b) PhD
c) Other:

Section 5: Final Reflections
21. What would make your housing experience better?
Section 6: Interview Participation (Optional)

22. Would you be willing to participate in a short follow-up interview to share more about your housing experiences?

a) Yes
b) No
c) Maybe (please contact me with more details)

If yes or maybe, please provide your contact information below:

- **Email address:**
- **Preferred way to be contacted**

  Email:

  Phone Call:

  Regular SMS:

  WhatsApp:

- **Time zone or general availability for the interview:**

Thank you for completing this survey!

Your insights are important and may help shape better housing policies and support for international graduate students.

International Graduate Student Interview Guide.

International Graduate Students' Housing Experience Questionnaire

All the information to be provided by the respondent(s) will be treated as strictly confidential. Please give accurate information to help achieve the actual objective of the interview which is to understand international graduate students' housing experience.

Study Title: Understanding International Graduate Student Housing experience in Kitchener/waterloo.

Faculty Supervisor: Zhu (Joe) Qian, PhD, School of Planning, University of

Waterloo. Phone: 1-519-888-4567 Ext: 48426, Email: z3qian@uwaterloo.ca

Student Investigator: Saluhu Mohammed, MA, School of Planning, University of Waterloo. Email: s25moham@uwaterloo.ca

This letter explains what the study is about, possible risks and benefits, and your rights as a research participant. You may print/save a copy for your records. If you do not understand something in the letter, please ask me before consenting to participate.

What is the study about?

The rising number of international students pursuing education in Canada highlights an urgent need for affordable, inclusive housing. While Canada is a top destination for global learners, its housing policies often overlook the unique needs of these students, who face challenges finding suitable and affordable places to live. The tight housing market, particularly in cities like Kitchener-Waterloo, adds to the pressure, making it difficult for students to settle and thrive in

their academic journeys. Ultimately, this research seeks to enhance student well-being, improve academic performance, and foster an inclusive environment for all. By addressing these critical issues, we can move closer to a more equitable housing system that reflects Canada's commitment to diversity and global education.

What does participation involve?

Participation in the study will consist of an interview that takes approximately 30-40 minutes. You will first be asked some demographic information such as age, gender, education level and status in Canada. The remaining interview questions ask about your experience about housing as an international graduate student in Kitchener/Waterloo, Canada. With your permission, anonymous quotations from the open-ended responses may be used in papers and publications.

Who may participate in the study?

To participate in the study, you need to be at least 18 years of age, and an International Graduate student who has reside in Kitchener/Waterloo.

Is participation in the study voluntary?

Your participation in this study is voluntary. You may decline to answer any question(s) you prefer not to answer by asking me to skip to the next question and may stop participating at any time.

Will I receive anything for participating in the study?

In appreciation of the time you have given to this study, you can enter your name into a draw for 1 of 5 prizes. The prizes include $15 to Sobeys. Your odds of winning one of the prizes is 1 in 10. Information collected to draw for the prizes will not be linked to the study data in any way, and this identifying information will be stored separately, then destroyed after the prizes have been provided. The amount received is taxable. It is your responsibility to report this amount for income tax purposes.

What are the possible benefits of the study?

Participation in this study will not provide any personal benefit to you. Data from this study may contribute to the policies to solve housing challenges to international graduate students and stimulate more scholarly debate.

What are the risks associated with the study?

There are no known or anticipated risks associated with participation in this study. If a question or the topic makes you uncomfortable, you can choose not to provide a response.

How is data collected, stored, and protected?

This interview will not ask for your name or other identifying information. As described above, email addresses will be separately collected for sending gift cards. Removing your responses later is not possible because the researchers will have no way of identifying which responses are yours. The interview will be saved in a recorder and save in a secure place after the interview and will be deleted from the recorder. Collected data will be securely stored on password-protected computers for at least 5 years. The data that you provide in this study will not be shared publicly to any other person or institution.

Who is sponsoring/funding this study?

Self-Funded

Has the study received ethics clearance?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB 47141). If you have questions for the Board, contact the Office of Research Ethics, toll-free at 1-833-643-2379 (Canada and USA), 1-519-888-4440, or reb@uwaterloo.ca.

Who should I contact if I have questions regarding my participation in the study?

If you have any questions about this study or need more information before you decide whether to participate, please contact one of the researchers named above.

CONSENT FORM

By providing your consent, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

☐ I agree to participate in this study

☐ I do not agree to participate in this study

☐YES ☐NO I agree to have my interview audio recorded.

☐YES ☐NO I agree to the use of quotations in any paper or publication that comes from this research with the understanding that a pseudonym will be used in place of my real name

☐YES ☐NO I would like to review and approve my quotations before they are used as study results.

☐YES ☐NO I agree that my data can be shared in an online repository as described in the information letter.

☐YES ☐NO I agree to allowing my study data to be used for future purposes as described in the information letter.

Thank you for agreeing to be part of this research study.
At this stage, I am interviewing international graduate students who agreed to participate and share about their housing experiences. During this interview, I will ask you a series of questions about your housing experiences in Kitchener/Waterloo. This interview will run between 30 to 40 minutes, depending on your time and level of interest in my study. You can end the interview at any time, and you may skip any questions you do not wish to answer. Your identity will be kept strictly confidential. I will not use your name in any publication stemming from the research. I would like to record this interview so that I can transcribe it later. As per University policy, data will be kept for a minimum of five years, as required by Waterloo University's policy on Integrity in Scholarly Research.
General Background

1. Where are you from, and what program are you studying and what level?
2. How long have you lived in Kitchener/Waterloo and your current place?
3. Where do you live? On-campus or off-campus, near or far from campus?

Initial Housing Experience

1. How did you find your first accommodation?
2. What were your expectations about housing before you arrived?
3. What kind of housing did you live in when you first arrived in Kitchener/Waterloo?
4. How did you find this housing?
5. What kind of housing do you live in now?
6. How long have you lived in this housing?
7. How satisfied are you with your current housing?

Housing Pathway

1. How many times have you moved since arriving?
2. What were the reasons for each move?
3. Have your housing conditions improved or worsened over time?

Housing Search Strategies

1. What methods or platforms did you use to find housing?
2. Did you face any difficulties using these methods?

Barriers and Discrimination

1. Have you ever been excluded from a housing opportunity because you are an international graduate student? If so, would you like to tell me about your experience?
2. Have you experienced or witnessed discrimination during your housing search? Have you ever felt taken advantage of or harassed by your landlord (or roommates) because you are an international graduate student (temporal resident)?

Support and Networks System

1. Did your university offer any housing support?

2. Did you rely on friends, family, or community networks to find housing?

Going into the future.

1. Do you plan to move again soon? Why or why not?
2. What would make your housing experience better?

General Questions

1. In your survey, you mentioned x. Could you tell me more about your answer?
2. What would you like to change (if anything) about your housing pathway situation in the short-term? What about in the medium- or long-term?
3. Is there anything else that I have not asked you, or we have not talked about, that you'd like to mention and/or add?

Thank you.