Town, Gown and Capital: The Student Housing Submarket and the Production of Urban Space

by

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The following served on the Examining Committee for this thesis. The decision of the Examining Committee is by majority vote.

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Author's Declaration

This thesis consists of material all of which I authored or co-authored: see Statement of Contributions included in the 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.

Statement of Contributions

I, Nicholas Revington, was the sole author of Chapters 1, 2, 5, 6 and 7, and the lead author of Chapters 3 and 4.

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Abstract

Student housing has emerged as a mainstream global asset class, while the concentration of students in particular neighbourhoods through a process of "studentification" has increasingly been recognized as an important phenomenon in a variety of international contexts. Yet student housing is often associated with vexing planning problems associated with noise disturbances, behavioural issues, and poor property upkeep. Therefore, attention to how the student housing submarket is formed and operates is essential.

This dissertation draws primarily on a case study of the City of Waterloo to investigate the role of a variety of actors including developers, investors, landlords and property managers, planners, institutions, students, and others in creating and shaping the student housing submarket. In doing so, it interrogates how and why student housing has become a favourable investment, the role of the life course therein, and the implications for planning practice. Waterloo is an especially salient case, as it is home to nearly half of Canada's private purpose-built student accommodations and is an exemplar of the so-called "knowledge economy city." The analysis combines political-economic and intergenerational approaches. Data are drawn from document analyses of planning reports and real estate industry filings, reports, grey literature, and related materials as well as semi-structured interviews with 44 key informants from the planning and real estate sectors, universities, and student and neighbourhood organizations, and 27 students.

The findings are described in four empirical article-based chapters. The first article demonstrates how planning in Waterloo has not merely responded to changes in the student housing submarket, but since the 1980s has actively anticipated change and as a result has shaped subsequent trajectories of studentification. The second article examines where and why the student housing sector in Canada has garnered the attention of large-scale finance-backed investors, and the strategies these players use in their attempts to extract value from the sector. It also considers the implications of this process for students and cities as it has played out in Waterloo. It concludes that the development of student housing in Canada has

been largely driven by the search for new avenues for profitable investment, and therefore studentification can be interpreted as a spatial and sectoral fix within capitalist urbanization. The third article investigates the role of planning, real estate strategies, and neighbourhood politics in shaping studentification at the local scale by producing "generationed" spaces based on a distinct student life course stage. It finds that creating a student neighbourhood in this way facilitates the extraction of rents, and argues for a radical reconfiguration of the politics of studentification based on intergenerationality. The final empirical chapter evaluates Waterloo's attempts to bring more non-student residents into a near-campus neighbourhood, a process and policy I call "post-studentification." Despite promise to address some issues, in practice, the strategy may not achieve its intended outcomes or be applicable as a model elsewhere, and may reinforce inequalities along the dimensions of class, age, and gender.

As a whole, the research contributes to understanding student housing as a matter of "town, gown, and capital" by theorizing studentification and its relationship to other urban processes, including capitalist urbanization. It also illustrates the centrality of the life course to these processes. Finally, given the role of planning therein, the dissertation provides practical recommendations for formal planning practice, post-secondary education institutions, and housing advocates for building a more equitable post-studentification city.

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In Memoriam

Alexandria “Alice” Jutai (March 15, 1921 – March 18, 2020)

Agnes Janet Elizabeth Revington (January 13, 1925 – March 19, 2020)

Table of Contents

List of Figures

List of Tables

Chapter 1: Introduction

Since the earliest Western universities emerged in Bologna, Oxford, Salamanca and Paris in the late 11th century, there have been clashes with the cities and towns that host them. "Housing was but one of the causes of tensions and disputes" in Paris at the time, for example, where the "presence of thousands of young students, mostly foreigners between the ages of fourteen and twenty, not yet in any formal way supervised by their masters, created a chronic problem of disorder" (Ferruolo, 1988, p. 30). This disorder sometimes turned violent. After a dispute over the price of wine, German students in Paris destroyed a tavern and brutally attacked its keeper. In retaliation, the keeper and his neighbours raided the German hostel, killing several students.

In the contemporary era, "town and gown" conflicts involve a range of issues. Among others, these may include payments in lieu of taxes for use of municipal services, universities' direct development impacts on nearby neighbourhoods (Bose, 2015; Ehlenz, 2016; Lafer, 2003; Perry & Wiewel, 2005; Rodin, 2007; Wiewel & Perry, 2008), and indirect effects on local residential geographies (Moos, Revington, Wilkin & Andrey, 2019). In the case of the latter, these effects may include gentrification (as conventionally understood; Lees et al., 2008), as well as youthification – the concentration of young adults in dense urban areas (Moos, 2016) – and, perhaps most commonly, studentification – the process by which a neighbourhood becomes dominated by student residents (Smith, 2005).

Studentification represents the primary focus of this dissertation, and in particular how student housing submarkets are formed, drawing in particular on the case of Waterloo, Ontario. The impacts of studentification are well known in both the academic literature and popular culture – consider the hijinks portrayed in films such as *Animal House* – and are in many ways similar to those documented in medieval Paris (albeit typically less violent). These impacts can include noise and rowdy partying (which at times can involve unsanctioned street parties and even riots), petty vandalism and other crime, poor property upkeep, failure to adhere to garbage collection routines, parking pressures, the displacement of other residents, and a reorientation of neighbourhood commercial and public services

(including the closure of schools) (*inter alia* Collins, 2010; Evans-Cowley, 2006; Hubbard, 2008; Sage et al., 2012a; Smith, 2005; Smith & Holt, 2007; Munro & Livingston, 2012; Woldoff & Weiss, 2018).

Indeed, managing the impacts of studentification is a major planning issue in many locales (Hubbard, 2008; Smith & Fox, 2019). In the UK, initiatives to broaden access to higher education and universities' corresponding inability to provide sufficient space in residence halls through the late 1990s and early 2000s made studentification a *national* political issue (D. Smith, 2008) and it remains so to this day (Oliver, 2018).[1] Within the academic literature, studentification is emerging as a global process taking place across both the so-called Global North and South, with local variations arising due to international differences in post-secondary education systems, urban and housing policy, and other local contextual factors. While early scholarly writings centred on the UK (Smith, 2005; Smith & Holt, 2007), studentification has now been identified in Australia (Davison, 2009; Fincher & Shaw, 2009; Haghighi, 2018), Chile (Prada, 2019), China (He, 2015; Gu & Smith, 2019), Ireland (Kenna, 2011), Israel (Avni & Alfasi, 2018), Malaysia (Sabri & Ludin, 2009), the Netherlands (Lager & van Hoven, 2019), South Africa's metropolitan (Gregory & Rogerson, 2019) and provincial (Visser & Kisting, 2019) cities, Spain (Garmendia et al., 2012), and the United States (Foote, 2017; Woldoff & Weiss, 2018). Major real estate consultancies pronounce student housing a "fully-established global real estate asset class" (Savills, 2016, p. 3). While studentification certainly exists in Canada (Charbonneau et al., 2006; Smith & Fox, 2019), it has generated little scholarly attention. By examining the case of Waterloo, Ontario, this dissertation extends this academic literature to the Canadian context. Waterloo is a particularly noteworthy case as it is, by far, Canada's largest private purpose-built student accommodation (PBSA) market.

Waterloo Region, with a population of about 560,000 is often held as a paragon of the knowledge economy within Canada. The region forms the western terminus of the so-called

[1] It was even the premise for the UK's Channel 4 sitcom *Fresh Meat*. Without enough space in residence, a university instead assigns a motley crew of six university "freshers" to a house it has rented on their behalf. Hilarity ensues.

"Toronto-Waterloo Innovation Corridor," which claims the second-largest concentration of start-up firms globally (*The Corridor*, n.d.). The economic development strategy of the Region (and its constituent municipalities) has placed an emphasis on high-tech industry (e.g. Waterloo EDC, n.d.), particularly following deindustrialization and the loss of traditional manufacturing employment. However, an older feature of Waterloo's knowledge economy is its longstanding role as the headquarters of several major insurance firms including Economical Insurance, Equitable Life of Canada, Manulife, and Sun Life, and the high-order service employment that accompanies them. A crucial part of Waterloo's knowledge economy narrative are its two universities, the University of Waterloo (UW) and Wilfrid Laurier University (WLU), and a major polytechnic college, Conestoga College. UW is especially known for its connections to industry and its role in regional innovation (Bathelt et al., 2011; Bramwell & Wolfe, 2008; Bramwell et al., 2008), with particular strengths in engineering and computer science.

Within the Region, the main campus of both universities, and a branch campus of Conestoga College, are located within the City of Waterloo, one of the Region's seven lower tier municipalities (three cities and four townships). It is here that the urban impacts of these post-secondary institutions – especially studentification – are felt most acutely. The city, with a population of approximately 133,000, has witnessed a student housing building boom as enrolment increased rapidly over the 2000s. Estimates from the Canada Mortgage and Housing Corporation (CMHC) suggest that while there were approximately 23,000 students requiring housing in the Region (i.e. not living at home with parents within the Region or commuting from outside the Region) in 2000, this figure reached 40,000 by 2012 and has increased modestly since then (McLerie, 2016; 2017). As a result, the City of Waterloo is exceptional in Canada in that it is home to nearly half the country's private PBSA. These trends render Waterloo a unique case warranting in-depth investigation through the lens of studentification.[2] For the most part, unless otherwise specified, this study will use Waterloo

[2] It is worth noting, however, that the volume of PBSA in Waterloo would not be exceptional within the context of the US or UK, widely considered the leading national PBSA markets (see e.g. Smith & Hubbard, 2014 on the UK).

to refer to the City rather than the Region, reflecting the empirical focus on the concentrated nature of studentification within the City and the important role of city-level planning interventions in shaping the process.

The main argument of the dissertation is that although there have long been conflicts between cities and their universities, the formation of student housing submarkets through contemporary studentification is an inherent feature of capitalism in that it is both produced by and enables the continued reproduction of capitalist urbanization. In other words, tensions regarding studentification should be viewed not so much as a conflict between "town and gown," but as one at the nexus of "town, gown, and capital." This arrangement also relies on capital's ability to exploit the "generationed" (Moos, 2014b) or age-differentiated nature of urban space. This points to the theoretical utility of combining political-economic and intergenerational perspectives in research, and to the practical need to address both class- and age-based conflicts pertaining to studentification simultaneously. Planning has played a significant role in shaping studentification, and likewise can contribute to building a "post-studentification" city that overcomes these challenges.

This dissertation follows an article format. In the first article, I review the role of young adults and students in urban residential structure, particularly in processes of youthification and studentification. In the second article, I introduce the Waterloo case via an examination of the city's history of planning for student housing over more than 30 years. Next, I situate Waterloo within the national context by considering the emergent financialization of PBSA in Canada, whereby investors have sought to establish student housing as an asset class, in the third article. This article also links this trend back to the local impacts experienced in Waterloo as a result. In the fourth article, I focus on the neighbourhood-scale politics and processes by which a distinct student housing submarket has been formed in Waterloo. Finally, in the fifth article, I describe a process and policy of what I call "post-studentification" as it exists in Waterloo, in which developments aimed at non-students may hold some promise, despite shortcomings, in reversing the impacts of studentification and creating an inclusive form of urbanism. A concluding chapter synthesizes the research and its implications for theory and practice.

The remainder of this introduction is structured as follows. First, I provide a brief review of the broader literature on universities and urban development, in which student housing is an underexplored facet. Second, I introduce student housing as a distinct residential submarket. Third, I present a summary of the Canadian housing and higher education policy context in which the Waterloo case is situated. Fourth, I outline the theoretical approach of the dissertation, drawing primarily on urban political economy and intergenerationality. Fifth, I flesh out the scope and aims of the dissertation. Sixth, I provide an overview of the study methods. Finally, I summarize the structure and contributions of the dissertation.

1.1 Universities and Urban Development

Studentification is but one facet of a much more complex relationship between cities and universities. Municipalities also recognize the positive impacts provided by the universities they host. For example, universities are seen to promote economic development through their contributions to knowledge creation; human capital creation; knowledge transfer; technological innovation; capital investment; the provision of regional leadership; the production of knowledge infrastructure; and the production of a favourable regional milieu (Goldstein, Maier & Luger, 1995; cited in Goldstein & Renault, 2004). Universities also represent major employers (of both high- and low-wage/skill jobs) and purchasers of local goods and services (Birch, 2014), and their students may contribute to the local labour pool and spend money in the local economy (Allinson, 2006). Some research even suggests that, for cities in smaller urban regions, universities may be able to substitute for the agglomeration effects of larger regions (Drucker, 2016; Goldstein & Drucker, 2006; Goldstein & Renault, 2004). Universities can also play a significant role in physical development through the construction of facilities related to their core functions as well as by leveraging their urban real estate holdings to participate in market-oriented development (Perry & Wiewel, 2005).

Even medieval leaders recognized that the new universities represented something special that distinguished their cities from other locales. Following the Paris incident

described above, the French king came down decisively on the side of the scholars – even though they had instigated the conflict – and instituted a series of scholarly privileges and immunities after the academic masters threatened to close shop and leave the city. That the monarchy was willing to grant these concessions is a testament to prevailing ideology of the time, which held that Paris' scholarly community was a prestigious symbol of France surpassing Athens and Rome to become the next great civilization (Ferruolo, 1988).

In the contemporary period, though universities do provide real benefits, their promotion as a tool of urban and regional economic development is likewise prone to something of an ideological motivation. This is particularly, but not exclusively, true in the US, where "anchor institutions" – so called because of their unlikeliness to relocate – have come to be seen as a key element of urban revitalization strategies (Adams, 2003; Silverman et al., 2019). Here, university resources are mobilized with a view to contributing to community and economic development, although the degree of engagement in this manner can vary (see also Ehlenz, 2018). More generally, universities are seen as a key component of a real or discursive "knowledge economy" in which certain forms of knowledge (and knowledge creation) are privileged (May & Perry, 2018). Expanding enrolment in post-secondary education and the development of branch campuses are often elements of this so-called knowledge economy (Addie et al., 2015; Scott & Harding, 2007), with implications for studentification as student populations expand or emerge in new places as a result.

Yet as Hartt et al. (2020) suggest, anchor-driven urban revitalization strategies draw much of their inspiration from a "surfeit of foundation-sponsored reports and working papers" while there remains in urban research a "dearth of critical, quality peer-reviewed academic articles that take a broader multi-city/institution view rather than focusing on individual case studies" (although see Ehlenz, 2018, 2019 for exceptions).[3] Other scholars have levelled the criticism that definitions of success can be quite different from the perspective of communities outside the university (and municipal government), yet this perspective is often neglected (Etienne, 2012). Finally, as some have pointed out, proximity

[3] For examples of these foundation-sponsored reports see, in the US: Kleiman et al. (2015); the UK: The Work Foundation (2010); and Canada: Dragicevic (2015).

to or the presence of a university is not enough to realize tangible economic benefits for the wider region. Access to capital, talent retention, and effective coordination between institutions, municipalities, and the private sector are all crucial components as well (Power & Malmberg, 2008).

Addie (2017b) offers a more forceful critique of conceptualizing universities in terms of their urban or regional economic development contributions: in addition to an overly narrow, instrumental focus on economic growth, this perspective fails to recognize the diversity of scales at which both the university and the urban operate and interact, with a tendency to reinforce a local-global binary in which the local scale is prioritized, and in doing so also misapprehends both the university and the city as "rational, monolithic and capable actors" (p. 1094). The result is simply a new domain of interurban competition within "cognitive-cultural capitalism" (Scott, 2011) wherein the strongest universities in the most dynamic cities (or regions) will win out (Goddard et al., 2014; Harrison et al., 2016; Rosen & Razin, 2007). This tendency would seem to undercut the very premise upon which the mobilization of institutional resources is justified in anchor-based redevelopment strategies: as a means of reviving struggling urban areas. Moreover, who receives the benefits provided by universities can be highly uneven along the axes of class and race (Bose, 2015; Ehlenz, 2016, 2019; Lafer, 2003; Silverman et al., 2019). In fact, universities tend to prioritize physical revitalization rather than address socio-economic concerns when they do wade into direct involvement with the local community, while "normative best-practices are chiefly absent from most reported universities' approaches" (Ehlenz, 2018, p. 87).

Turning our attention to studentification brings a variety of social concerns regarding the nature of universities' impacts on urban development back into the discussion. These concerns include a more nuanced picture of urban change than perspectives concerned with aggregate economic benefits provided to cities or regions by universities, by considering, for example, how universities are implicated in a social and economic restructuring of nearby neighbourhoods (Moos, Revington, Wilkin & Andrey, 2019). The studentification literature illustrates how universities can inflect the physical development of cities even without direct, strategic interventions of the institutions in the surrounding urban environment. Thus, while

neoliberal policy continues to promote particular visions of the knowledge economy (and the knowledge economy city) in the service of economic growth (May & Perry, 2018), studentification is likely to remain a common by-product.

1.2 Student Housing and Residential Submarkets

It has often been said that students in Waterloo have more choice of housing available to them than in any other place in Canada. This has always struck me as a curious statement. Toronto had 2,235,145 private dwellings in its Census Metropolitan Area (CMA) as of the 2016 census – a full order of magnitude more than the Kitchener-Cambridge-Waterloo CMA, with 210,896 dwellings (Statistics Canada, 2019b). Surely Toronto provides more housing options to those who study there.

Of course, what is actually implied by the assertion is something quite specific: that there is a certain *type* of housing appropriate to, or desired by, students, and which is somehow distinguished from the housing stock as a whole. From this perspective, students in Waterloo may indeed have the greatest choice of housing in the country. The city is home to nearly half of all private PBSA in Canada, exceeding 17,500 bed spaces. With over 800 bed spaces, Waterloo Co-operative Residences Inc. (WCRI) is Canada's largest, and North America's second-largest, student housing co-operative. Both the University of Waterloo (UW) and Wilfrid Laurier University (WLU) operate extensive residence facilities, with UW's among the largest in Canada. When student rentals of rooms, basement suites, shared houses, and conventional apartments are factored in, the options run the full gamut from (sometimes illegal) dingy digs to luxury living. Be that as it may, the question as to why and how a distinct student housing submarket has come to be in the first place remains unexamined. Its existence is largely taken for granted.

This taken-for-granted-ness is perhaps unsurprising given that submarkets in general remain relatively understudied in housing and urban research. While many definitions of housing submarkets exist, in general they involve the segmentation of dwelling types and residents according to both their characteristics and their location, and reflect both supply- and demand-side dynamics within the larger housing market (Bourne, 1981; Watkins, 2001).

Because housing is largely substitutable within a submarket, but relatively non-substitutable between different submarkets, a given type of housing unit may obtain a different price among different submarkets. It is therefore inappropriate to view urban housing markets as single entities; instead, they are composed of collections of interrelated submarkets (Galster, 1996). Moreover, submarkets are often segregated by income/class, race, life stage, or other resident characteristics (Harvey, 1974; Hwang, 2015).

Much of the literature on residential submarkets is interested in incorporating them into quantitative house price modelling to improve the reliability of these models. Approaches have sought to identify submarkets using statistical and spatial analysis techniques (Bourassa et al., 2003; Hwang, 2015; Rae, 2015; Wu & Sharma, 2012) and expert-defined boundaries (Keskin & Watkins, 2017). This perspective implicitly treats submarkets as something "out there" to be empirically uncovered, rather than investigate the genesis of these submarkets, and does not unpack the dynamics through which submarkets operate. As a result, it is subject to two epistemological blind spots: first, the unequal power relations that produce or arise from these submarkets, and their consequences; and second, the lived experiences and meanings thereof. Meanwhile, scholars interested in the dynamics of the real estate sector have tended to focus on the sector as a whole (e.g. Fainstein, 1994; Weber, 2015), or very broad submarkets such as commercial real estate (Charney, 2007) or condominiums (Rosen, 2017). The study of specific niche submarkets is therefore particularly warranted.

The studentification literature, to some extent, points to the creation of student housing submarkets, largely from a cultural consumption perspective, drawing on the work of Bourdieu (1984). Bourdieu's concept of habitus refers to the structure – "operating below the level of consciousness and language, beyond the reach of introspective scrutiny or control by the will" (1984, p. 466) – by which social position, according to one's economic and cultural capital, organizes cultural practices (broadly defined) as well as perceptions thereof (i.e., taste) into a particular lifestyle. Habitus therefore reflects and reproduces class position by coordinating one's practices among a variety of fields as well as with others of the same class. For example, dominant student lifestyles, which often involve an active nightlife, are

embodied in a "student habitus" representing a distinct pattern of cultural consumption (Chatterton, 1999). This habitus carries over to the realm of housing where it influences students' housing choices and thereby, in aggregate, the geography of studentification (Hubbard, 2009; Smith & Holt, 2007).

In this sense, studentification is an expression of students' cultural capital, mobilized instead of economic capital as they typically have no or low income while studying. Universities are "gentrification factories" (Smith, 2005), producing the presumed eventual middle-class consumers who will drive gentrification processes through their future consumption preferences. These preferences are nurtured in part through the cultural capital and future earnings potential imparted by higher education, and in part via their experiences living in studentified neighbourhoods as "apprentice gentrifiers" (Smith & Holt, 2007).

The more recent emergence of PBSA (as opposed to shared housing or campus-affiliated residence halls) represents a (re)commodification of student life and an attempt to cater to (and indeed, foster) transformations in the student habitus – particularly as it concerns changing expectations around student housing, for example in terms of the amenities and security features offered (Chatterton, 2010; Hubbard, 2009; Smith & Hubbard, 2014). Haghighi (2018) has even argued that the lifestyle promoted by these developments, their orientation to wealthier students, and even their architecture serve to suppress dissent. Studies have also shown how various actors such as landlords, institutions, and letting agents come together to shape the studentification process (e.g. Fincher & Shaw, 2009; Smith, 2005; Smith & Hubbard, 2014). However, these studies are not typically framed in terms of submarkets, per se.

Moreover, the (re)commodification of student housing through PBSA may indeed capture changing housing demands of students (and/or their parents, if they contribute towards paying the rent), but ultimately the context in which individual consumers can make choices in the housing market is determined beyond an individual's control (Harvey, 1974). Here we see a parallel with debates over gentrification, which is fitting since studentification is often conceptualized as either a form of gentrification or a distinct but closely related process (Smith & Holt, 2007; Moos, Revington, Wilkin & Andrey, 2019). Discussing the

canon of gentrification literature, Lees et al. (2008) caution that there is always the danger that a focus on the production of gentrifiers and their tastes limits effective resistance to gentrification and its attendant injustices by deflecting attention to the reasons the new middle class has chosen to reject the suburbs.

Likewise, in the case of studentification, there is a possibility that a focus on students' (shifting) lifestyles and institutional drivers of increased enrolment (Malet Calvo, 2018; Nakazawa, 2017) obscure other important dimensions of the process. Notably, this includes the influence of capital in shaping what housing options are available to students by providing particular types of housing in particular places, whether expressed through the investment decisions of small-scale landlords or large-scale financial firms (a point that also applies to gentrification; see Lees et al., 2008). It also includes the political contours and resulting policies regarding studentification (Hubbard, 2009; Munro & Livingston, 2012; Sage, Smith & Hubbard, 2013; D. Smith, 2008), and more specifically, the class- and age-based conflicts that arise from studentification (Sage et al., 2012a) and how they may be resolved. In short, there has been relatively little academic attention to the political-economic dimensions of studentification, while the cultural consumption perspective is comparatively well-developed. Therefore, while it is impossible to ignore the contributions of the cultural consumption perspective to the studentification literature, my aim is to advance debate by considering studentification primarily through a different set of lenses.

1.3 The Role of the State in the Canadian Context

Studentification is generally associated with increases in enrolment in post-secondary education resulting in heightened demand for student housing (Nakazawa, 2017), even if the way this plays out in practice is contingent on the particular context. Rising student housing demand and an inability to meet this demand through institutionally provided housing are often linked with the neoliberalization of higher education, in which market rationalities (often in service of growth in the "knowledge economy" [May & Perry, 2018]) have begun to supersede humanistic visions of the university and its intrinsic worth. While important differences between national systems of higher education remain, many have seen a

convergence with this neoliberal, market-oriented model (Schulze-Cleven & Olson, 2017; see also Eaton et al., 2016; Engelen et al., 2014). In this, Canada is no exception.

Constitutionally, education in Canada is a provincial responsibility, although historically and at present, both the federal and provincial governments have sought to increase participation in higher education, among domestic students and through increased enrolment of international students (Kirby, 2007; Metcalfe & Fenwick, 2009; Trilokekar & El Masri, 2017; Trilokekar & Kizilbash, 2013). As a result, domestic enrolment in post-secondary education in Canada has increased by 12% between 2006/07 and 2016/17, and the number of international students has increased by 134% over the same time period, doubling the share of international students from 6% to 12% of total enrolment (Statistics Canada, 2020). The rationale for these policies aligns with a neoliberal approach to the knowledge economy (May & Perry, 2018): supporting economic growth by relieving skilled labour shortages and providing a highly educated workforce, and in the case of international students, offsetting demographic decline and generating university revenue (from higher tuition fees) to compensate for decreased government funding (e.g., Government of Canada, 2014; see also Trilokekar & El Masri, 2017; Trilokekar & Kizilbash, 2013).[4]

Trends in higher education funding in Canada, based largely on data from Statistics Canada, are compiled and summarized by consulting firm Higher Education Strategy Associates (Usher, 2018b). While provincial funding for universities increased by more than

[4] While government support for international students in Canada formed part of a soft-power approach to global diplomacy in the 1950s and 1960s, policy shifts meant funding had dried up by the late 1970s, and "most provinces were charging differential fees to international students in Canada by 1986" (Trilokekar & Kizilbash, 2013, p. 3). Deliberate marketing of Canadian post-secondary education to international students began in the 1990s and accelerated in the 2000s and 2010s (ibid; see also Trilokekar & El Masri, 2017). Paying nearly four times the domestic rate, international students accounted for about 30% of undergraduate tuition fee revenues at Canadian universities in 2016/17 (Statistics Canada, 2019). According to one commentator (Usher, 2018b, p. 40), "Genuinely pan-Canadian trends in fee policies are few and far between. What does seem to currently unite Canadian provinces is the willingness to allow institutions to make up for falling government funding through international student tuition dollars." As a result, foreign students accounted for half of the University of Toronto's $1.3 billion tuition revenue in 2017/18 according to budget documents (Crawley, 2017). In British Columbia, universities posted a combined surplus of $340 million in 2018/19 resulting from a 37% increase in tuition and fee revenue over 2016, attributed to higher international enrolment (Olsen, 2019). Some have raised concerns about Canadian universities' overdependence on a large number of international students from a small number of countries (Basen, 2016; MacDonald, 2019; Usher, 2018a). Meanwhile, financial assistance to international students is scarce (Usher, 2018b).

50% from 2001/02 to 2009/10, it then decreased slowly but steadily until 2016/17; while trends differ between provinces, Ontario – with the largest post-secondary education sector and the site of the present study – had the lowest expenditure as a share of GDP of all provinces, at 0.77% (compared to a national average of 1%). Meanwhile, federal funds primarily support research directly, or capital investments for research, as opposed to other ancillary university functions, and have declined substantially since the 1970s. As a result, government funding as a share of university revenue has shrunk from nearly 80% in the early 1980s to approximately half today, with the remainder made up of student fees and other private sources.

This neoliberal "roll back" (Peck & Tickell, 2002) of state support for higher education has ramifications for universities' provision of housing. In a more competitive, market-oriented context, one path institutions may follow is to leave housing to the market, to refocus on core teaching and research mandates (or "bums in seats" rather than "heads in beds"). This direction could mean fully or partially privatizing a university's existing housing stock, or else simply choosing not to develop additional on-campus housing (while retaining existing dormitories), with the expectation that the private sector will meet future demand off-campus. Such a strategy may cut costs for the university, but may do so by passing higher costs on to students (Laidley, 2014). On the other hand, housing may be seen as an arena in which universities compete for students, thus becoming *more* rather than less of a focus for institutions. Improving or building new residences, however, may be costly to an institution or its students. In practice, these two directions are not mutually exclusive, as universities may turn to private partnerships to build a competitive institutional housing portfolio with minimal capital outlay (MacIntyre, 2003). Nonetheless, increases in enrolment have tended to outpace the construction of university residences (although it is also worth noting that it has not typically been the norm in Canada for students to live in residence for the duration of their studies, either).

While these tendencies exist in the Canadian post-secondary sector, it is important not to overstate them. For many universities, institutional housing continues to be seen as providing pedagogical and student support roles (including physical design elements and

ancillary services) that are not offered by private, profit-driven housing providers (on this perspective, *Academica Forum*, 2017; Kerr & Tweedy, 2006; see also Rugg et al., 2004). While universities adopting this perspective may still rely on partnerships with private capital to fund new housing, and therefore elements of a neoliberal approach, the objective is often to work around internal financial constraints rather than revenue generation, per se. This more-than-shelter view of housing as a crucial part of the educational experience serves to isolate institutional housing from the full brunt of neoliberal rationality, albeit not entirely, and some have continued with plans to develop university-managed housing without private partnerships.[5]

Housing policy in Canada also sees participation of both federal and provincial governments, with the federal level responsible for regulating the mortgage system and provincial involvement in other aspects of the housing sector such as rent control and social housing provision (Leone & Carroll, 2010). While CMHC once provided direct loans for the construction of student housing (CMHC, 1973), this has not been the case for a long time. Student housing received no mention in the Government of Canada's (2017) *National Housing Strategy*, and CMHC provides no dedicated funds for its construction. A "roll out" phase of neoliberalism (Peck & Tickell, 2002), or specific policies advancing a market-oriented approach, has been tepid at best with respect to student housing in Canada. CMHC has offered mortgage insurance for private lenders making loans to student housing developers since 2012, subject to higher premiums and certain other restrictions, particularly for non-university applicants, with greater flexibility introduced in 2017 (CMHC, 2012; 2017). However, with many PBSA developments exceeding CMHC's limit of four bedrooms per unit, it is evident that uptake of this program is mixed.

[5] Both UW and WLU hold this more-than-shelter view, according to interviews with housing administrators at both universities undertaken as part of this research, and UW recently built a new high-rise dormitory, Claudette Millar Hall, without third-party involvement. Nonetheless, housing clearly plays a role in inter-university competition. In an interview, referring to UW's Claudette Millar Hall, WLU director of residence Christopher Dodd said, "shit, have you been in the new building at Waterloo? … Oh my god, it is spectacular. Like, that's a recruitment tool. Kids want to live there. Kids want to come and live there. It's spectacular."

In other words, rather than a heavily state-mediated roll-out of a market-oriented model of student housing provision in Canada, the private student housing market – and the PBSA sector in particular – has arisen largely out of private sector initiative in the partial void left by decreased support for housing within post-secondary institutions. In much of the remainder of the dissertation, I set aside these institutional and policy issues and take as given the fact that there are a large number of students seeking housing beyond on-campus residences. This is not to dismiss the importance of these drivers of studentification (Nakazawa, 2017), but rather to place a greater emphasis on how and why the formation of student housing submarkets plays out as it does at the neighbourhood level.

Local planning also has a role to play in housing. At a high level of abstraction, planning consists of attempts to coordinate development within a given territory, including through the provision of public infrastructure as well as by restricting or encouraging private development. In practice, this activity holds in tension a variety of perspectives which emphasize to differing degrees technical considerations, social concerns, and relations of power in how resources ought to be distributed (Marcuse, 2011). A considerable amount of formal planning activity is performed by the state, particularly local governments, including by private firms contracted on their behalf, although grassroots movements may also engage in planning, sometimes outside of these formal channels. In this research, I focus on planning primarily as carried out by municipalities, and include in the definition of planning municipal policies that are concerned with development but are not necessarily enacted by a city's planning department – broadly, these policies may include bylaws, economic development strategies, or subsidies.

There are several ways in which planning, thus conceived, shapes housing. Planning determines how much housing can go where, for example through zoning. Restrictive zoning may prevent some types of development that would otherwise take place. Meanwhile, greater allowances for height or density are a necessary condition for larger developments, but are not sufficient in the absence of demand for development. However, planning can also promote real estate development, including the construction of housing. Weber (2015, pp. 76-77) identifies three mechanisms cities use to encourage development: relaxing the

regulatory burden on developers, public investment, and place branding. Planning has been increasingly oriented to this objective as economic development strategy in the neoliberal era (Fainstein, 1994). On the other hand, planning can also set requirements for new developments to provide affordable housing either directly or indirectly, for instance by collecting fees to fund affordable housing off-site (Hulchanski & Shapcott, 2004). Housing markets can be shaped indirectly by planning initiatives designed to promote particular economic development visions (Hutton, 2004), which in turn shapes the type of housing provided, as Lehrer and Wieditz (2009) demonstrate in the context of the "condofication" of Toronto.

In fact, of any level of government, municipalities have the longest history of involvement in housing. It was in cities that the poor housing conditions of industrial urbanization were most acutely felt (Harris, 2015), although municipalities in Canada are – as the well-worn phrase suggests – "creatures of the provinces" in that their powers are delegated by provincial governments. Early regulation of housing included municipal enforcement of building codes, maintenance and occupancy standards, and later land use zoning (Hodge & Gordon, 2014). Municipal property taxes, development charges, and infrastructure spending have often been biased towards suburban sprawl of single-family dwellings (Blais, 2010). While the resulting low-density development patterns are deeply entrenched, urban regions across the country have more recently adopted elements of a "smart growth" approach, favouring intensification of land use in select nodes and corridors (Filion & Kramer, 2012). In Ontario, this type of development is promoted by provincial policies. Since 2005, these policies include the *Growth Plan for the Greater Golden Horseshoe*, the region surrounding Toronto, of which Waterloo Region is a part (Ministry of Municipal Affairs and Housing, 2019). While Waterloo Region was not so long ago an archetype of the dispersed city form (Filion et al., 1999), it has in some respects preceded provincial mandates to promote intensification through its regional plan (Region of Waterloo, 2003) and the development of a light rail transit system along a central corridor.

Any of these planning trends may bear on student housing. However, unlike some jurisdictions, such as the UK, where PBSA represents a distinct class of land use subject to

less stringent building standards or other planning regulations as compared to generic apartments (Wainwright, 2017), in Ontario there is no legal distinction between off-campus student housing and generic apartments (institutional dorms remain an exception). This presents a challenge for planning to regulate student housing and the impacts of studentification. Attempts to do so have been fragmented between municipalities, and have not been subject to academic study in the Canadian context. Elsewhere, policies have sought to restrict student housing, including PBSA development, in some neighbourhoods (Hubbard, 2008; Pickren, 2012; Ruiu, 2017) or encourage it in others (Hubbard, 2009; Sage, Smith & Hubbard, 2013, D. Smith, 2008), and to more effectively enforce bylaws regarding property standards (Evans-Cowley, 2006), with varying degrees of success. This research is focused on how planning reacts to studentification, rather than how planning can shape studentification, including by pre-emptively responding to anticipated challenges.

1.4 Theoretical Approach

This research draws largely on geographical traditions that emphasize the importance of local contingencies of place, and what might be loosely termed structural perspectives. While an urban economist might, for instance, approach the topic of the student housing submarket in terms of supply and demand (e.g. Cortes, 2004), I am much more interested in understanding the factors that shape supply and demand.[6] Often these underlying conditions are beyond the direct influence of individual actors and rooted in social systems such as capitalism or patriarchy. In a 'looser' sense, individuals' actions may also be constrained by planning or other regulations. Much of the present work is based on a strong tradition of political economy in urban studies and housing research, particularly within geography but also parts of planning scholarship. However, I combine a political economy approach with an analysis of intergenerationality, or a relational life course perspective. The utility of this novel theoretical combination is in demonstrating how the dynamics of capitalist urbanization and of generational differences operate, not only simultaneously but in a

[6] "It is evident that the real inner laws of capitalist production cannot be explained by the interaction of supply and demand" (Karl Marx, *Capital*, vol. 3, cited in Harvey, 1982, pp. 9-10).

mutually reinforcing manner. The remainder of this section summarizes each of these strands of theory.

1.4.1 Urban political economy and housing markets

While it may have already been an issue during the 1200s in Paris and other medieval cities, the term studentification is of very recent coinage, coinciding with freshly garnered academic attention as increasing enrolment at UK universities generated widespread tensions with residents of nearby neighbourhoods (e.g., Smith, 2005). Yet studentification at the current conjuncture differs considerably from not only its medieval incarnation, but also from its immediate predecessors of the early- to mid-2000s. From a landscape dominated by small-scale buy-to-let investors renting out converted "single family" houses to students on something of an ad hoc basis, the geography of studentification has seen a shift toward greater provision of PBSA (Smith & Hubbard, 2014). Whatever the importance of other factors (such as rising enrolment and student lifestyles), the relative influence of large-scale capital – necessary to bring these developments to fruition – is clearly on the rise.

The increasing prevalence of PBSA holds parallels with "new-build gentrification" (Davidson & Lees, 2010), linked to the "vicissitudes of neoliberal urbanism and property-led regeneration" (Smith & Hubbard, 2014, p. 98). As the state has increasingly shied away from social service provision and managing the excesses of capitalism in favour of financial deregulation (at the national level) and municipal entrepreneurialism (at the local level) under neoliberalism, gentrification has become a widespread, rescaled "neoliberal spatial fix" (Hackworth, 2007). Unlike the piecemeal gentrification of earlier periods, capital is able to flow into the built environment with greater ease and in larger volume, tying the process more closely to the structural characteristics of urban land and property markets (ibid.; Smith, 2002). All that said, the perceived dichotomy between cultural consumption and political economy perspectives in gentrification and related research is a false one (Slater, 2011): both emerged from a shared reaction against neoclassical perspectives that see urban change as a result of natural market adjustments, and both see class as a central element. Furthermore, certain cultural predispositions – for example, the trend in loft living – can

enable new patterns of urban re-investment, which creates opportunities to realize those consumptive preferences. However, the focus here is largely (but not exclusively) on the political-economic aspect as this angle is less developed in the literature on studentification and therefore presents the greatest need for empirical investigation, theoretical elaboration, and potential for novel contributions. In this context, it would seem a reasonable hypothesis to posit that contemporary studentification is likewise increasingly tied to these structural dynamics. Whether this is so, and the specific nature of these ties, are matters of investigation.

Circuits of capital and uneven development

Existing literature on urban political economy provides a strong template for examining issues related to student housing. This scholarly tradition, largely based on the work of Marx, offers considerable insight into the role of capital in configuring the built environment in general, and urban housing markets more specifically. One influential framework for analyzing the circulation of capital in the urbanization process has been sketched by Harvey (1978), drawing on the work of Lefebvre (2003). According to Harvey's (1978) framework, capital is invested in the 'first circuit' of production to create commodities which are then sold by the capitalist to recoup the investment and make a profit. Wage labourers employed by the capitalist class provide a market for these products. To maintain their class position, a capitalist must continually reinvest a portion of their returns to improve production, resulting in a continued process of capital accumulation. This process reaches its limit when there remain no new opportunities for profitable reinvestment within the primary circuit. Capital is accumulated, but cannot be productively used, precipitating economic crisis.

The built environment, or secondary circuit, provides an outlet for this accumulated capital to be profitably invested anew, thus continuing the process of capital accumulation. Housing, factories, and office buildings, for example, can themselves be profitable to provide, but other aspects of the built environment such as transportation infrastructure can also restore the profitability of production in the first circuit, for example by reducing

distribution costs. While this 'capital switching' between the first and second circuits is virtually impossible to test empirically in its entirety given the complex range of actors and sites involved (Badcock, 1992; Beauregard, 1994; King, 1989a, 1989b), Christophers (2011) has been able to demonstrate capital switching into the built environment in the lead-up to the 2007 financial crisis as predicted by the framework, although whether this was a result of over-accumulation in the primary circuit remains unclear.

Aside from the fact that over-accumulation of capital is also possible in the secondary circuit, here arise at least two additional problems from the standpoint of capital. The first issue is that some forms of investment in the built environment, particularly major infrastructure, may benefit capitalists as a class, but may not be in the interests of individual capitalists to provide. This situation presents a limitation to the ability of the secondary circuit to renew the circulation of capital in the absence of state intervention. Second, the relative permanence of the built environment means that while a particular investment might facilitate the circulation of capital in the present, in the future it may in fact hinder capital accumulation. The fixed landscape may no longer be amenable to profitable production without substantial devaluation of capital in the built environment. This temporal contradiction may also precipitate economic crisis by impeding the flow of capital between circuits or geographical areas.

This unpalatable choice between either posing a barrier to continued capital accumulation, or devaluing existing fixed capital, has been posited as a crucial underlying structural condition of gentrification. According to Neil Smith's (1979) rent gap theory, when a parcel of urban land is developed, the site will be capitalized to capture as fully as possible the potential ground rent, or the maximum economic return given the site's "highest and best use." Over time, the site's existing structure and land use may become obsolete, for example due to metropolitan growth or restructuring, and the ground rent captured will begin to lag behind the site's potential ground rent. In other words, the durable nature of the existing structure and use of the land inhibits the potential for greater capital accumulation in the built environment. Shifting capital to more profitable opportunities elsewhere serves to devalue the site. However, in doing so, the gap between the capitalized ground rent and the potential

ground rent becomes sufficiently wide to justify profitable redevelopment or rehabilitation. This "return of capital, not people," as Smith calls it, results in gentrification.

This dynamic of gentrification can be seen as a particular form of uneven development, or the contradictory tendency of capitalism to both equalize the level of development across space in pursuit of growth, and to produce geographical differentiation that may stifle growth in some areas and encourage it in others (Smith, 1982). The validity of the rent gap has been exhaustively (and exhaustingly) debated (*inter alia* Bourassa, 1993; Clark, 1995; Smith, 1996; Hammel, 1999b) – with criticisms of the rent gap often subject to "many errors of interpretation and cursory, dismissive summaries" (Slater, 2017, p. 121) – and its direct measurement is notoriously difficult (although see Badcock, 1989; Clark, 1988; Hammel, 1999a). However, the theory has demonstrated continued conceptual usefulness in recent research (Paccoud et al., 2020; Porter, 2010; Teresa, 2019; Wachsmuth & Weisler, 2018), including in novel combinations with feminist (Wright, 2014), cultural-capital (Wu et al., 2017) and political-ecological theories (Maringanti & Jonnalagadda, 2015). Slater (2017) suggests further extensions of the rent gap focused on territorial stigmatization, displacement, and "planetary urbanization" (Brenner & Schmid, 2015).

Urbanization and the second circuit of capital

Indeed, the same provocative piece of writing that inspired Harvey's (1978) capital switching framework begins with the hypothesis that "Society has been completely urbanized" (Lefebvre, 2003, p. 1). In this 'urban revolution,' industrialization is subsumed by urbanization. For Harvey (1974), the question then becomes how the sustained switching of capital into the secondary circuit can be perpetuated. Critics have likewise pointed out that the capital switching framework neglects to adequately describe how capital is shifted from one circuit to another. According to Weber (2015, p. 50), "even when capital is tempted to switch to the property sector because of low returns elsewhere, it cannot do so on its own. Capital circulation must be engineered by the institutions and actors that mediate between the supply of capital and the demand for it." The property sector is complex and requires the coordination of many different interests such as landowners, construction interests,

financiers, investors who may buy the completed project, and eventual tenant-users (MacLaran, 2003). These actors influence *where*, in spatial and sectoral terms, capital eventually ends up in the built environment (Charney, 2001). For example, what developers build and where depends on their perceptions of what is desirable, and in turn shapes what is actually demanded (Kriese & Scholz, 2012; Lorimer, 1978; Pfeiffer et al., 2019). Intermediaries such as brokers have considerable latitude to influence these relationships (Weber, 2015).

Moreover, many have noted the influence of government policy and planning in real estate investment. In early evaluations of the rent gap and capital switching frameworks, Badcock (1989, 1992) found that patterns of investment in the built environment of Adelaide, Australia had much to do with federal, state, and local policy. Closing the central city's rent gap, for example, was capital's "third best" option, but was favoured by these policies. Municipal governments, under neoliberalism, have increasingly pursued property-led economic development by encouraging speculative redevelopment rather than attempting to curb its excesses (Fainstein, 1994). Municipal governments may further shape the nature of reinvestment in the built environment by directing capital to areas deemed 'obsolete' by planners (Weber, 2002), manipulating the planning approvals process (Rutland, 2010), or developing their own financing mechanisms to encourage development (Weber, 2010). As a result, investment in the built environment displays considerable place contingency, despite the greater integration of regional and global capital markets (Leitner, 1994).

Some have argued that financial innovations enabled by state policy and the availability of credit at low interest rates are responsible for capital switching into the built environment, rather than over-accumulation in the primary circuit (Badcock, 1992; Beauregard, 1994; Walks, 2014). However, to prevent economic crisis and maintain legitimacy, governments have plenty of reason to intervene, including by setting interest rates, to shift capital between circuits, so their actions should not necessarily be seen as the root cause as they are made in response to other aspects of the economic context. The increasing privilege of finance capital in the economy moves "the search for profitable investment opportunities outside the sphere of production," giving finance and the built

environment greater autonomy from the primary circuit (Beauregard, 1994, p. 719). But this simply returns us to Harvey's Lefebvre-inspired question: how is this urbanization process, apparently decoupled from production, sustained?

For Harvey (1974), this question is answered by the ongoing attempts by the state, financial institutions, and landlords to generate new modes of consumption within the built environment. By establishing distinct, geographically delineated housing submarkets targeting particular subpopulations (for instance, based on race, ethnicity, class, or lifestyle), landlords are able to extract "class monopoly rent" within each submarket, capturing a higher rate of return than would otherwise prevail, as artificial scarcity can be maintained within each submarket. Profit-maximizing behaviours by the actors involved reinforce these conditions, even in the absence of explicit collusion. Despite debates regarding the theoretical validity of certain forms of monopoly land rent (Evans, 1991; Garza & Lizieri, 2019; Houghton, 1993; see also Ward & Aalbers, 2016), Harvey's theory of class monopoly rent has been mobilized to illuminate racial inequities in predatory subprime mortgage lending (Wyly et al., 2006, 2009, 2012), and to explain municipal government involvement in luxury neighbourhood redevelopment (Anderson, 2019). Class monopoly rent therefore represents a critical theory of submarkets, proposing that submarkets are the product of social relations within capitalist political economy.

The third circuit of capital

Before turning to a more in-depth discussion of the crucial role of finance in coordinating investment in the built environment and its implications, it is worth noting that Harvey also identified a third circuit of capital. This third circuit includes investments in science and technology meant to improve the production process and in the "reproduction of labour power" intended to increase the productivity of workers, for example through education (or, more coercively, through the suppression of worker dissent) (Harvey, 1978, p. 108). In an early evaluation of Harvey's framework, King (1989b) observed that links between the third circuit and urbanization were not well developed. For the most part, this continues to hold true, likely due to both the obvious immediacy of the secondary circuit

(built environment) to urbanization and the fact that debates over the framework coincided with an empirical interest in the central city office boom of the 1980s (e.g., Beauregard, 1994; Coakley, 1994; Leitner, 1994; Feagin, 1987). Yet in the context of the knowledge economy city, this tertiary circuit is of considerable significance. Growing enrolment in post-secondary education ropes capital into this circuit, especially in the case of international students who pay higher tuition fees. Research funding, whether from the state or private sources, is meant to eventually translate to innovations driving the economic growth of urban regions (May & Perry, 2018). Graduates, moreover, are expected to provide 'human capital' to the production process via their embodied skills and knowledge (Brown et al., 2010). In this regard, Addie (2017b) is correct to call for greater consideration of the direct role of the university in the production of the urban.

The role of finance

Movements of capital between these circuits are facilitated by the credit system. For example, firms engaged in production might borrow money to acquire new machinery, a household may take out a mortgage to buy a house, or an individual may take on student loans to pay their university tuition. However, more recently, in addition to coordinating investment between other sectors, the circulation of finance capital has emerged as a means of capital accumulation in and of itself, for example through the trading of housing-backed securities (Aalbers, 2008) – a fourth circuit of capital.

Scholars have referred to the increasing influence of finance within and beyond the economy as a process of financialization. While there are many definitions of (and debates around) financialization (French et al., 2011; Christophers, 2015), one that suggests the breadth of the term's usage without becoming too vague is offered by Aalbers (2016, p. 2): "the increasing dominance of financial actors, markets, practices, measurements and narratives, at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states and households." In other words, non-financial sectors of the economy and even daily life are increasingly enrolled in the logic of financial markets (Haiven, 2014; Hall, 2012; Martin, 2002). Yield and shareholder value dominate

decision-making at the expense of other objectives (Erturk et al., 2008; Froud & Williams, 2007).

In the case of real estate, Harvey (1982, p. 367) argues, "What is bought and sold is not the land, but title to the ground-rent yielded by it." The ownership of land becomes a claim on future rent and therefore a form of fictitious capital. Land is therefore treated as a financial asset (like stocks or bonds) and its price and use become coordinated by the interest rate. However, a number of elements pose barriers that impede land from being anything more than a "quasi-financial asset" (Coakley, 1994), such as the spatially fixed, infrequently traded, illiquid, and not easily comparable nature of physical structures attached to land (see also Gotham, 2006; 2009).

Innovations to securitize real estate therefore play a key role in financialization, as they seek to overcome these barriers. Real estate investment trusts (REITs) and mortgage-backed securities (MBS) allow investors to purchase standardized 'liquid securities' which can be traded in capital markets (Gotham, 2009). Rather than discrete income-producing assets (e.g., interest received on a single mortgage loan, or rent collected from a single apartment building), securitization allows multiple assets to be bundled, repackaged, and sold on to investors as shares in a total portfolio. In this way, risk is spread over diverse assets and geographic areas, and investors do not require the local knowledge or expertise in necessary for direct investment in real estate. Shareholders receive income based on the performance of the portfolio as a whole, and can exchange their shares as they would any other financial asset (Gotham, 2006; 2009; Waldron, 2018). Due to their role in advancing financialization in this way in the rental housing sector, August and Walks (2018) refer to REITs and similar financial vehicles such as private equity funds, institutional investors, and asset management firms as 'financialized landlords.' In Canada, as elsewhere, securitization has relied on state intervention. CMHC has implemented and directed residential mortgage securitization since 1987 (Walks & Clifford, 2015), and legislation enabling REITs was introduced in Canada in 1993 (August, forthcoming).

The circulation of finance through land markets in this manner "promotes activities on the land that conform to the highest and best uses, not simply in the present, but also in

anticipation of future surplus value production" (Harvey, 1982, p. 368), a useful social function. However, it is also prone to speculative excess, as investment in the appropriation of rent (e.g. through the pursuit of class monopoly rent) outstrips the actual capacity for production to create surplus value. Landowners, competing in space, may promote allocations of capital to land that are individually advantageous but on the whole detrimental to capital accumulation. Meanwhile, the aggressive management of rental housing by financialized landlords and the expansion of predatory mortgage lending to low-income and racially marginalized populations have resulted in widely documented harm to tenants and homebuyers alike. Impacts include evictions and foreclosure, harassment, and reduced quality of life for households, as well as an intensification of gentrification and deepening of socio-spatial inequality at broader scales (Alexandri & Janoschka, 2018; August, forthcoming; August & Walks, 2018; Fields, 2015; Fields & Uffer, 2016; García-Lamarca & Kaika, 2016; Newman, 2012; Teresa, 2016; Wyly et al., 2006).

Differentiation between urban housing markets

Finally, capital is also responsible for the differentiation of housing markets between (as opposed to within) urban areas. Responding to Martin's (2011) call for local geographies of finance in the wake of the US housing bubble, Smet (2016) proposed that differences between housing markets of urban regions are a product of the strategies of capital accumulation dominant in these regions, with implications for how surplus value is distributed in the housing market. These are classified into three ideal types, which are not necessarily mutually exclusive.

First, in places of production, housing is oriented toward the social reproduction of labour power necessary for production, and so the extraction of rent through housing is limited by the imperatives of production in a competitive market. Higher rent would ultimately increase the cost of labour power and render production uncompetitive. Second, in places of consumption, capital accumulation is based on appropriating a share of revenues generated elsewhere, including through the commodification of the built environment (e.g., through tourism). Thus, limit on upward pressures on housing prices are not set by local

conditions, resulting in relatively expensive housing markets. Finally, places of business services, where surplus value is appropriated in exchange for providing services necessary to the circulation of capital, and through the circulation of fictitious capital (e.g., finance), rents are not tied to locally-produced surplus value, but to capital flowing into and distributed through different regions. Like places of consumption, the result is relatively expensive housing markets. Additionally, places of business services are prone to speculation through a self-reinforcing mechanism:

> "In urban areas, in which the disciplining role of places of production was weakened or disappeared, the claim on future revenues in the form of rent was increasingly fuelled by claims on future revenue in the form of interest (i.e. financial capital), creating the possibility of a vicious circle of housing price speculations" (Smet, 2016, p. 507).

Summary

In summary, the urban political economy literature demonstrates how capitalism shapes housing markets in several ways. Processes of uneven development and capital switching underlie gentrification. The pursuit of continued returns in real estate encourages the formation of discrete residential submarkets. Furthermore, the intensified treatment of real property as financial asset, or financialization – while linked to the foregoing – drives its own set of inequities. Lastly, differences in housing markets between urban areas can arise as a result of how different strategies of capital accumulation distribute surplus value in urban regions. In all cases, these dynamics are heavily inflected by local context, mediated by policy (including local planning), and are carried out by individual actors and institutions. Empirically speaking, broad neoclassical- and Marxist-inspired theorizations of urban investment are both overwhelmed by these local contingencies (Skaburskis & Moos, 2008), as well as bound up with cultural and demographic changes (King, 1989a; 1989b).

Studying the student housing submarket opens new possibilities for contributing to urban political economic theory. For instance, it allows us to ask how and why financial investors have begun to take an interest in this niche submarket, and how this can inform conceptualizations of financialization. By considering in depth the roles of various actors in

shaping the student housing submarket, meanwhile, we can investigate how these political-economic processes are set in motion and shaped by local context. Finally, it opens a window for considering how political-economic processes can be intertwined with the life course, the importance of which is outlined in the following section.

1.4.2 Generations, the life course, and intergenerationality

Besides being shaped by broader capitalist processes, urban space is also shaped by age or generation (Hochstenbach, 2019) – what Moos (2014b), building on McDaniel's idea of a "generationed society" (2004), has called "generationed space." There are multiple meanings of the term "generation" in the social sciences (Biggs & Lowenstein, 2011; Vanderbeck, 2019). One common usage refers to familial generations, wherein one's siblings would be considered of the same generation; parents, aunts, and uncles would be considered an older generation; and one's own children, nieces, and nephews would be considered a younger generation, regardless of their numerical age. A second usage refers to historical generations, often associated with a particular birth cohort and shared experiences of particular historical events or circumstances. For instance, many Millennials (born between the early 1980s and late 1990s) entered labour and housing markets around the time of the global financial crisis in 2008 and the associated recession.

The final usage of the term "generation," and the one used in this research, refers to life course stages, or "age-related positions that are held within a wider social system" (Vanderbeck, 2019, p. 79). This definition can refer to broadly conceived notions of "children," "young adults," "older adults," or other categories, but also to specific transitions within the life course. Often, these transitions (for example, in no particular order: leaving the parental home, completing formal education, marriage/partnering, having children) – rather than a particular age – signify one's generational position in society. A relational perspective on the life course emphasizes how these transitions can differ between individuals, related to their class, gender, sexuality and race, as well as personal circumstances such as the formation and breakup of relationships. Moreover, an individual

may occupy a particular generational position in one context but not in another (Hopkins & Pain, 2007).

The association of particular functional aspects of a city with particular age groups is one example of how space is generationed. For example, children spend much of their time in schools where there are few adults aside from the teachers and a few administrative and maintenance staff, while there are seldom any children in most office work environments. Another example is in residential age segregation. The segregation of older adults is typically less pronounced than racial segregation, although in the US it is comparable to the degree of segregation between Hispanic and non-Hispanic whites (La Gory et al., 1980; Okraku, 1987; Winkler, 2013). Young adults tend to be less segregated than older adults in North America, but have become increasingly segregated in recent years through youthification (Moos, 2015; 2016).

A life course perspective is also valuable in the context of housing since housing needs, preferences, and constraints can vary considerably with life course stage (Beer & Faulkner with Paris & Clower, 2011; Clapham et al., 2014; Damhuis et al., 2019; Ford et al., 2002). For example, having children might require moving to a larger home, while declining health in old age may precipitate a move into a care facility. Conversely, in many countries, ideological dispositions posit home ownership itself as an important individual achievement in itself, and therefore a marker of life course stage. In fact, the two can be intertwined, as in the normative view that home ownership is a desirable precursor to having children (Ronald, 2008), such that life course stage determines housing needs, the achievement of which defines life course stage.

Age segregation

The literature on age segregation is relatively small, and typically focused on the segregation of older adults (aged 65 and above). Some of it is descriptive, and provides little theoretical discussion of its causes (Winkler & Klaas, 2012; Winkler, 2013). La Gory et al. (1980), meanwhile, proposed three theories to explain age segregation. The first is based on the Chicago School's ecological models of the city. Younger populations tend to be more

mobile, and so as they move out of neighbourhoods, they leave older residents behind. Likewise, differing housing requirements across the life course mean that the spatial distributions of populations at different life course stages may simply reflect the distribution of different types of housing stock. La Gory et al. (1980) posit that these trends will be more pronounced in more competitive housing markets, exacerbating age segregation. Second, a cultural model proposes that individuals may have preferences for segregated residential environments, either for lifestyle reasons (such as planned retirement communities) or as a response to the complex urban stimuli associated with diverse environments. Finally, a political model suggests that age segregation is a result of discrimination, resulting from stigma around ageing. These authors found limited support for the cultural and political models in a multi-city model based on US metropolitan areas. While the extent to which their quantitative measures are able to proxy the relevant cultural and political phenomena may be questioned, they nonetheless argued that political and cultural processes should be "subsumed" (p. 76) within the ecological model (see also La Gory et al., 1981). Okraku (1987) reached similar conclusions based on an analysis of Canadian cities.

Considering the increasing segregation of young adults, or youthification, through their concentration in denser urban environments, Moos (2015, 2016) proposes similar, though slightly different explanations. There is a cultural element to youthification, as young adults are attracted to the consumption amenities (e.g., nightlife) available in central locations as well as public amenities brought about by downtown revitalization in many cities. These characteristics speak to lifestyle differences loosely associated with particular life course stages. However, Moos (2014a; 2016; Moos, Filion, Quick & Walter-Joseph, 2019; Moos, Revington, Wilkin & Andrey, 2019) highlights that youthification also results from structural constraints under neoliberal urban restructuring. Housing and labour market challenges facing the Millennial generation,[7] for example, favour renting smaller or shared housing units and relying on public transit and active transport, which are commonly found in denser city centres. Moreover, downtown revitalization and its associated amenities are

[7] In the historical sense of the term.

linked to gentrification and entrepreneurial interurban competition, which are themselves the product of neoliberal urban restructuring (see also e.g. Hackworth, 2007; Harvey, 1989). Youthification (and age segregation more generally), then, is not entirely the result of a naturalized ecological process as suggested by earlier scholars working within the Chicago tradition, but a product of particular political-economic configurations.

Studentification as age segregation

Studentification can also be seen to represent a form of age segregation (Smith & Hubbard, 2014). While not all post-secondary students are young adults, studentification is typically associated with younger undergraduate students for whom the move off-campus represents their first time living outside the parental home or the institutional environment of on-campus housing (Rugg et al., 2004). Learning to live on one's own, largely outside of parental or institutional oversight, is therefore a common feature of the student life course stage. Many of the issues associated with studentification stem from students' negotiation of this transition, including petty vandalism, poor property maintenance, or improper adherence to garbage pickup schedules, and noisy (often alcohol-fuelled) partying. The resulting "student habitus" exhibits a different temporality from most other residents, with social activities often running into the early hours of the morning, even on weeknights (Chatterton, 1999). Disruptions to other residents, including older adults and families with children, can lead to the physical or emotional displacement of these residents (Lager & van Hoven, 2019; Sage et al., 2012a; 2012b).

Towards intergenerationality

Where age segregation reflects lifestyle differences between groups associated with a particular life course position, it may not be viewed as problematic (La Gory et al., 1980; Moos, 2015). However, some scholars raise concerns that it may have implications for the social isolation of older adults, as well as the transmission of social knowledge and culture from older to younger generations (or, indeed, vice versa), and that contact with older adults is important for children's socialization (Biggs & Lowenstein, 2011; Hagestad & Uhlenberg, 2006; Vanderbeck, 2019). While living in close proximity (e.g., age-integrated

neighbourhoods) does not necessarily result in increased contact between age groups, their separation precludes it, and can reinforce ageism (Hagestad & Uhlenberg, 2005).

Part of the solution, according to an emerging body of literature, is to promote relationships across generations, or intergenerationality (Vanderbeck, 2019; van Vliet, 2011). Intergenerationality promotes mutual understanding of the needs of other generational groups from one's own, and emphasizes the mutual interests of various age groups or life course stages (Vanderbeck, 2019). Doing so depends on developing what Biggs and Lowenstein (2011, p. 2) call "generational intelligence:" "an ability to reflect and act, which draws on an understanding of one's own and others' life-course, family and social history, placed within its social and cultural context." For these authors, generational intelligence is developed in four steps. First, through self-reflection, one must become aware of their own generational position and factors contributing to the associated generational identity. Second, it is necessary to understand the relationship between different generations with respect to a given context; that is, the generational position of various social actors with respect to each other, and their interests. Third, from here it is possible to consider power relations between generational actors within the given context, including both the values underlying them, and the normative principles by which these power relations ought to be negotiated. Finally, it is possible to act with the foregoing in mind, in a reflexive and sustained way, in the pursuit of intergenerationality.

While Biggs and Lowenstein (2011) apply their concept of generational intelligence to developing intergenerationality in a variety of contexts – including family and state roles in caregiving, and the workplace – intergenerationality is also salient in the context of housing. One example is intergenerational home sharing, where a young adult (often a student) lives in the home of an older adult or couple, either arranged privately or through a third-party organization (Bodkin & Saxena, 2017). This arrangement allows older adults to remain in their own homes as they age by offsetting their costs, providing support, and preventing social isolation while offering young adults a place to live at low cost. Generally, some exchange of services is expected, for example where the younger adult provides assistance with household tasks in exchange for reduced rent and/or meals; however, it can

go beyond an economic exchange, resulting in mutual support between participants, improved attitudes to other generational groups, and increased frequency of contact with other generational groups (Sánchez et al., 2011). Yet home sharing can also pose challenges related to clashing schedules or lifestyles, expectations regarding household or other support tasks, and the need for a thorough matching and dispute-mediating system (Bodkin & Saxena, 2017; Suen, 2012).

Another example of intergenerational housing is presented by university-based retirement communities (UBRCs). UBRCs involve older adults living on or near a university campus, and provide a favourable environment for ageing with the ability to participate in university activities or make use of campus amenities. Meanwhile, UBRCs provide opportunities for student learning – for example as dental students become familiar with older clients – or convenient part-time jobs, as well as financial benefits to the university through resident fees (Montepare et al., 2019; Smith et al., 2014). However, these arrangements might not be of interest to all potential residents. Ward et al. (2005) found that residents with prior connections to the university and an interest in campus activities (e.g., attending sporting events, lifelong learning opportunities, or serving as a mentor [Smith et al., 2014]) viewed an UBRC as a more favourable option. Moreover, meaningful intergenerationality requires broader engagement with other intergenerational activities across the university (Montepare et al., 2019).

Attention to intergenerationality in academic planning literature is sparse (a rare exception is Ritzdorf, 1987). Generally speaking, there is a need to move intergenerational thinking beyond its emergent popularity in social and cultural geographies (e.g. Vanderbeck & Worth, 2015), gerontology (e.g. Smith et al., 2014), and sociology (e.g. Sánchez et al., 2011) and into planning and related practice (Brown & Henkin, 2014; van Vliet, 2011). However, planners have engaged with notions of "age-friendly" (Alidoust & Bosman, 2016; Buffel et al., 2012; Steels, 2015) and "child-friendly" cities (Elshater, 2018; Gill, 2019; Wood, 2017), and more recently "cities for all ages" (Warner & Zhang, 2019). These literatures may provide useful starting points for developing intergenerational cities through planning, although some caution is warranted. Age- or child-friendly approaches stress the

need for particular interventions meant to benefit a particular life course stage. Often, such interventions are at best assumed to benefit other age groups, and at worst neglect the needs of other life course stages entirely. Meanwhile, as Biggs and Carr (2015, p. 105) write,

> "[the] notion of environments 'for all ages' does not currently appear to actively lead to alliances between other life course 'peripheries' such as children and is predominantly aimed at the generational centre of 'adult working life'. A shift in discourse from age to all ages runs the danger that it eclipses the specific needs of a particular age group and reinvents a 'universal urbanite'. … A drift towards 'friendliness for all ages' may then simply identify a form of idealisation: one that runs the risk of ignoring specifically intergenerational interaction and how it is affected by urban space and time."

The notion of intergenerationality allows us to confront the tensions in addressing specific needs of many particular life course stages – inherent in "age-friendly," "child-friendly," and "all ages" approaches, as critiqued by Biggs and Carr (2015) – by taking a relational approach to the life course (Hopkins & Pain, 2007). Such a relational approach provides an opportunity to avoid "inflexible responses to related social issues" based on fixed conceptual categories (Biggs & Lowenstein, 2011, p. xiii), without pretentions of an "age-neutral" or "age-irrelevant" society, as generational needs are continuously negotiated on an ongoing basis.[8]

In their critique of "age-friendly cities," Buffel and Phillipson (2016) argue that the concept does not adequately contend with the broader set of social and economic power relations at play within urban areas. Intergenerationality cannot be allowed to suffer the same weakness. Its relational underpinnings, however, are helpful in avoiding a shift into widespread intergenerational conflict that overlooks class, race, gender, or other differences that constitute salient dimensions of inequality, for example with respect to environmental sustainability (Manderscheid, 2012) or societal wealth (Christophers, 2018). There is

[8] A relational approach also makes sense from the perspective that any individual's generational position will, by definition, change along the life course in a way that differs from other forms of social difference. All adults were at one point children, and most children will one day be adults.

therefore a possibility for renewed theoretical insights regarding issues of studentification and residential age segregation by interweaving intergenerationality with a political economy approach.

Moreover, as some researchers have stressed, attention to age in urban space has tended to focus on intergenerational space from the perspective of children and youth at one extreme and the elderly at another extreme, with little attention to age groups in between (Vanderbeck, 2019). Post-secondary students are not typically at these poles of the age spectrum: they are no longer children, but in large part nor have they entered into regular full-time employment often associated with adulthood.[9] Likewise, not all non-student residents concerned about studentification will be especially old or young. Considering intergenerationality in the context of studentification therefore engages with underexplored configurations of intergenerational relationships.

1.5 Scope and Aims

On one level, this dissertation is concerned with student housing issues and the process of studentification. This includes advancing conceptualizations of studentification, its causes and its consequences (Nakazawa, 2017) as well as documenting new manifestations of the process as it evolves (Kinton et al., 2018). Greater understanding of these topics can contribute to more effective and equitable planning for student housing, provide insights for post-secondary education institutions that provide housing, and inform housing advocacy movements concerned with student housing.

Waterloo is the primary setting of this research, as its large student population and particularly advanced PBSA sector relative to the rest of the country makes it an instructive case, both in relation to other countries where PBSA is more common (such as the US or UK), but also as a model against which other Canadian cities can compare themselves. I do not mean this in the normative sense that Waterloo should be a blueprint for planning for student housing elsewhere in Canada. Instead, cities can see what has been more or less successful, and what the result might eventually be of adopting a particular approach to

[9] The ongoing casualization of labour notwithstanding.

student housing. Unavoidably, then, the research is partly about the local contingencies that shape studentification – in other words, what makes Waterloo unique.

However, on another level, this research is not really about student housing, or Waterloo. Rather, the case of student housing in Waterloo is used as an entry point to discussions on a much larger set of issues. These include the role of the state, via the planning system, in capitalist urbanization (Fogelsong, 1986; Harvey, 1985), and how this "real estate state" (Stein, 2019) has enabled a growing role for finance in shaping the city (Weber, 2015). This financialization of the city in general, and of housing in particular, is an increasingly global phenomenon with problematic implications for those without property or capital, and who must be dispossessed or displaced to make way for new development (Rolnik, 2019). Related to these issues is a renewed interest in urban land rent and its role in coordinating urban development (Haila, 2016; Ward & Aalbers, 2016). Student housing also serves as a useful context in which to consider the "generationed" aspects of urban space (Moos, 2014b), and more specifically an intergenerational approach (Vanderbeck, 2019), in conjunction with a political economy analysis of the city.

Specifically, the research seeks to address the following broad questions:

- How are niche residential submarkets created? What are the roles of various actors, including developers, investors, landlords and property managers, planners, institutions, students, and others in creating and shaping the student housing submarket in Waterloo Region?
- How can the study of student housing advance our knowledge of the political economy of housing? How and why do investors target PBSA for investment, and what does this reveal about the financialization of housing? How does class monopoly rent in student housing operate, in concrete terms and at the neighbourhood level, to extract value from the urban environment? How is the foregoing shaped by the life course, and in particular by the social construction of student life as distinct?
- How is planning implicated in the above, and how might planning respond?

1.6 An Overview of Methods

The research draws primarily on two methods: document analysis and semi-structured interviews. These methods are complemented and contextualized with quantitative/spatial data from the Canadian census, building permit records (accessed through the UW Geospatial Centre), and the Town and Gown Committee's student housing survey (provided by Ryan King, UW Department of Housing and Residences). Walking – understood as "a self-conscious, reflective project of wandering around to better understand an area's physical context, social context, and the spatial practices of its residents" (Pierce & Lawhon, 2015, p. 656) – throughout Waterloo's near-campus neighbourhoods also provided contextual understanding for interview and document analyses, and aided in the identification of key players (e.g. major providers of student housing, and their specific holdings). Walking also allowed opportunities to capture in photograph urban change as it unfolds (Figures 1.1-1.3). Additionally, while not formally included in the document analyses that form the basis of this research, I reviewed all articles returned by a search for "student housing" on the website of the local newspaper, the *Waterloo Region Record*, covering a period from 2009 to 2018.[10] These news articles, like walking, provided valuable contextual information to inform the study, particularly in the years preceding the start of this research (and my arrival in Waterloo Region) in late 2015. Taken together, the combination of document analysis and interviews, alongside contextual information from a variety of other sources, allows for a triangulation of research findings and the development of a rich understanding of the case study area.

[10] These searches also returned relevant hits from the *Waterloo Chronicle* and *Kitchener Post*, owned by the same publisher. The starting date of 2009 reflected the availability of articles on the newspaper's website at the time of search (late January, 2018).

Figure 1.1: Apartment building slated for redevelopment as The Hub, Albert St., February, 2016.

I conducted two distinct document analyses. The first examined planning documents and reports pertaining to student housing in the City of Waterloo from 1986 to 2016, with the help of two research assistants. The research assistants collected these documents through library and internet searches, and directly from the planning department at the City of Waterloo. These documents were analyzed with a view to uncovering how planning shaped the development of Waterloo's student housing submarket over time. The second document analysis examined real estate companies' prospectuses, annual reports, and other documents, retrieved either through their websites or public filings with the Canadian Securities Administrators (CSA, available at sedar.com), as well as firms' websites themselves, grey literature, and industry publications related to development and investment in PBSA in

Canada. From these sources, and additional details gleaned from news media and planning documents pertaining to PBSA developments in Canada, I compiled a database of the location, bed count, and ownership of private PBSA in the country. I also identified business strategies, geographical investment choices, and challenges facing firms involved in this sector through a qualitative, discursive reading of these documents (August & Walks, 2018; August, forthcoming).

Figure 1.2: The Hub under construction in May, 2017.

Likewise, I undertook two batches of semi-structured interviews. The first set of interviews was meant to elicit the motivations and strategies of various political-economic actors in (re)producing a distinct student housing submarket in Waterloo. These actors included developers, landlords, property managers, brokers, post-secondary institutions' housing and real estate administrators, student organizations, neighbourhood organizations,

planners, and city councillors, and were recruited to the study via email invitation. In all, I interviewed 44 key informants across 40 interviews between June and November, 2018.[11] Given the presence of a branch campus of Conestoga College in Waterloo, and similar processes of studentification unfolding in the Doon neighbourhood of Kitchener where the primary campus is located, these interviews included a student leader from the college's student association and two college administrators, as well as the city councillor for the Kitchener ward at the time, Yvonne Fernandes. Interviews averaged just under 45 minutes in length, and all were carried out in person at a location convenient to the interviewee (typically their office), except four which were carried out by phone.

Figure 1.3: The Hub nears completion, July 2018.

[11] Not all interviews were analyzed in each empirical chapter, as some categories of respondents were not relevant to the analysis in question. Neighbourhood representatives and representatives of Conestoga College and the City of Kitchener were omitted from analysis in Chapters 4 and 6, and student organization representatives, university representatives and a representative of a housing co-operative were also excluded from the analysis in Chapter 4.

Table 1.1: Key informants

Name or Code	Role	Name or Code	Role
N01	Representative of Neighbourhood Association	P01	Regional Planner
N02	Representative of Neighbourhood Association	P02	Regional Planner
N03	Representative of Neighbourhood Association	P03	Regional Planner
N04	Representative of Neighbourhood Association	P04	City Planner
N05	Representative of Neighbourhood Association	P05	City Planner
N06	Representative of Neighbourhood Association	P06	Private Planner
N07	Representative of Neighbourhood Association	S01	Representative of Student Association
R01	Real Estate Broker & Landlord	S02	Representative of Student Association
R02	Real Estate Broker	S03	Representative of Student Association
R03	Real Estate Broker	S04	Representative of Student Association
R04	Real Estate Broker & Student Housing Consultant	S05	Representative of Student Association
R05	Researcher, Real Estate Consultancy	S06	Representative of Student Association
R06	Developer's Representative	Glen Weppler	Director of Housing, UW
L01	Director, Student Housing Firm	Ryan King	Manager, Housing Occupancy and Operations & Town and Gown Committee Rep, UW
L02	Director, Student Housing Firm	Chris Read	Associate Provost, Students & Former Director of Housing, UW
L03	Student Housing Co-op Manager	Christopher Dodd	Director of Residence, WLU
L04	President, Property Management Firm	Adrianna Crusoe	Community Relations Coordinator & Town and Gown Committee Rep, WLU
L05	Partner, Student Housing Firm	Ulrike Gross	Assistant VP, Facilities and Asset Management, WLU
L07	Landlord	Brenda Cassidy	Director, Corporate Communications & Town and Gown Committee Rep, Conestoga College
L08	Landlord	Mike Dinning	Vice President of Student Affairs, Conestoga College
L09	Property Manager & Real Estate Broker	Jeff Henry	City of Waterloo Councillor
L10	Developer	Yvonne Fernandes	City of Kitchener Councillor

A summary of the interviewees is provided in Table 1.1. While there are relatively few respondents for any particular type of role, the range of interviewees allows for a breadth of analysis that would not be possible if the same number of interviewees had been sought from a narrower range of actors. This approach is consistent with similar recent research (e.g., Horton, 2019 on the financialization of UK care homes). Moreover, given the limited number of players in a single specialized submarket within one city, the interviews generally account for a large share (and in some cases all) of the relevant players in each category.

Interviews with UW and WLU students centred on their housing experiences in Waterloo, including where they had lived and were presently living as students, their housing search process (including why they chose to live at each respective location), issues they had encountered related to housing, perceptions of quality and affordability of housing in Waterloo Region, and where they anticipate living in the future (as a student and post-graduation). Students were recruited via social media, including posts on apartment-finding Facebook pages popular among students ("Student Housing in Waterloo," 45,000 members; "UW/WLU 4 Month Subletting," 27,000 members; and "Student Housing Waterloo," 19,000 members)[12] and on Twitter, and offered a $10 Starbucks or Tim Hortons gift card for participation. Interviews averaged approximately 35 minutes in length and were carried out in a meeting room at UW or at a café near UW or WLU, except one conducted by phone as the student was away from Waterloo on a work term.

The 27 students who participated in the study between September and November 2018 represented a wide range of experiences. They included ten UW undergraduates, eight WLU undergraduates, two joint UW-WLU undergraduates, and seven UW graduate students. Together, they had lived in 79 different housing arrangements as students in Waterloo, including in apartments[13] (40), university residences (16), rented houses (12), non-separated or illegal basement suites[14] (4), homestays or homeshares (2), the parental home (2), co-

[12] Membership figures are approximate, as of November 2019.
[13] Including separated units in subdivided houses.
[14] These units were classified distinctly from apartments or houses as in some cases they were not truly separated from the house's main dwelling unit and/or students reported significant shortcomings in quality because of their non-conformity with regulations, e.g. fire safety.

operative housing (2), and in one case, homeownership. Six identified as international students, while three had grown up in Waterloo Region. Ages ranged from 18 to 28 years old, with a median age of 21. The sample is not necessarily representative of the student population as a whole in Waterloo (nor is it intended to be); however, it is indicative of a diversity of housing experiences of students and provides detailed insight into particular experiences.

The interviews were digitally recorded and transcribed verbatim. The transcripts were then manually coded following an iterative, combined deductive-inductive approach (Palys & Atchison, 2014). Codes were assigned according to predefined themes based on the research questions (deductive coding) as well as to new themes that emerged in the process of the analysis (inductive coding). Each theme was subsequently re-coded, resulting in some cases in finer distinctions among sub-themes, and in other cases, new general themes that cut across those identified in the first round of coding. This procedure resulted in a refined picture of local urban planning and development in Waterloo's near campus neighbourhoods, and allowed for consideration of unanticipated findings that did not fit predefined themes.

1.7 Structure and Contributions of the Dissertation

This dissertation follows an article-based format. Chapter 2 provides a review of the (primarily geographical) literature on the role of young adults in the residential spatial structure of cities. It provides an overview of the processes of youthification (Moos, 2016) and studentification (Smith, 2005), and their relationships with individuals' housing pathways (Clapham, 2002, p. 63), or the "patterns of interaction (practices) concerning house and home, over time and space." In doing so, it argues that these urban processes can be seen, dialectically, to both result from, and structure, the housing pathways of young adults, particularly as these pathways fragment in complex ways given the contemporary housing and labour market challenges facing young adults (Clapham et al., 2014; Moos 2014a).

This observation suggests theoretical linkages between studentification, youthification, and gentrification, as individuals move from the parental home, to university, to post-graduate life – albeit not necessarily in linear fashion – and as one's housing pathway

may preclude others from following the same pathway. For instance, those who are able to mobilize social and cultural capital to secure relatively affordable housing in an expensive inner city may constrain those without the same level of social and cultural capital to live elsewhere. Investigation of these potentially conflicting, interwoven housing pathways – including in relation to other age groups – represents one area of needed research. Moreover, this article identifies a need to consider more fully the relationships between studentification, youthification, and gentrification, including how the structural dimensions of gentrification related to capital investment, financialization, and (uneven) urban development are implicated in studentification and youthification. Finally, there remains a gap in the literature concerning forms of difference besides class and age, such as race/ethnicity or gender, as they pertain to the processes of studentification and youthification. It would be impossible to fully resolve all of these issues within a single dissertation. However, the subsequent articles, when taken together, begin to address each of them to some degree or another. I have also undertaken to cover some of the ground not accounted for in this dissertation in parallel work with coauthors (Moos, Revington, Wilkin & Andrey, 2019; Revington et al., 2019), and some has been taken up by others (e.g. Opit et al., 2019).

Chapter 3 introduces the Waterloo case, and in particular, examines the history of planning for student housing in the city from 1986 to 2016. Planning has anticipated, and responded to, changes in the student housing submarket, and in doing so shaped subsequent trajectories of studentification. This particular historical experience therefore offers a number of practical lessons to other municipalities facing issues related to studentification in Canada and elsewhere. It also provides crucial context for the subsequent dissertation articles to delve more deeply into the political economy of the student housing submarket in Waterloo.

The fourth and fifth chapters engage most directly with political economy, albeit from slightly different angles. Chapter 4 considers the financialization of student housing in Canada, including where and why the sector has garnered the attention of large-scale finance-backed investors, the strategies these players use in their attempts to extract value from the sector, and finally, the implications of this process for students and cities as it has played out in Waterloo. In addition to situating the Waterloo case within a broader national picture, the

article argues that the development of PBSA in Canada has been largely driven by the search for new avenues for profitable investment. As a sectoral switch by capital to a new type of real estate asset and a spatial switch to secondary cities with universities, this "finance-driven new-build studentification" can be said to be characteristic of capitalist urbanization itself.

Chapter 5 reaches a similar conclusion but arrives at it not through a broad national-scale examination of the student housing sector, but rather from the fine-grained perspective of neighbourhood politics. Local planning, landlord strategies, and neighbourhood organizing, in defining a distinct student area in Waterloo, have facilitated the extraction of rents and further enabled the financialization described in the previous chapter, thereby reinforcing the delineation of a student neighbourhood. Yet the age-based conflicts of studentification that aid in establishing segregated student neighbourhoods demand a political response that takes this "generationed" (Moos, 2014b) dimension into account, as well. Such a politics would constitute a reconfiguration of the town-gown relationship away from the focus on tensions between student and non-student residents, or between institution and municipality (Hubbard, 2008; D. Smith, 2008; Woldoff & Weiss, 2018) and towards an intergenerational and non-capitalist approach to ensure adequate housing for residents of all ages and life course stages. The combination of intergenerational and non-capitalist approaches is imperative due to the mutually reinforcing effects of capitalist urbanization and generational difference. Yet to date, the literature on intergenerationality has tended to focus on the extremities of the life course – children and the elderly – rather than stages in between, such as young adulthood (Vanderbeck, 2019).

The sixth and final empirical chapter examines Waterloo's attempts, through planning, to achieve a higher share of non-student residents in the near-campus neighbourhood of Northdale. This policy and process of what I term "post-studentification" is unique in that it does not necessarily aim to reduce the number of students in the area (or what has been called "de-studentification" by Kinton et al., 2016). Instead, it seeks to bring non-students into a neighbourhood that remains heavily studentified. I argue that while this strategy holds promise as a partial solution to some of the "generationed" issues identified in the previous article, in practice there are a number of pitfalls related to the strategy's ability

to achieve its intended outcomes locally, its applicability as a model elsewhere, and its potential to reinforce inequalities along the dimensions of class, age, and gender. Nonetheless, the case is instructive in that it suggests possibilities for alternative policy responses to studentification, and provides insights into the relationship of studentification to gentrification and youthification.

The concluding chapter reflects on the contributions of this ensemble of articles as a whole. It summarizes the theoretical and practical planning implications of this body of work, sketches an outline of unfinished business, and highlights avenues for further research. Indeed, this project opens at least as many questions as it answers.

Chapter 2: Pathways and Processes: Reviewing the Role of Young Adults in Urban Structure

In light of demographic changes taking place in North America and Europe, the young adult phase of the life course – that is, the transition between adolescence and adulthood – is often seen as elongated relative to the past. Young adults are, for instance, living in the parental home longer, spending longer times in post-secondary education, and delaying or rejecting marriage and child-bearing (Clark, 2007; Côté & Bynner, 2008; Furlong & Cartmel, 2007). There is correspondingly a trend toward smaller household sizes and an increase in the number of single-person households (Beer et al., 2011; Townshend & Walker, 2015). Considerable recent work has drawn attention to the housing challenges particular to young adults. Compared to previous generations, today's young adults face an increasingly expensive housing market in cities in a number of national contexts across the Global North (Demographia, 2015). Neoliberal market reforms have directed support away from social housing (Beer et al., 2011; Sager, 2011) while facilitating an increasingly flexible, and therefore precarious, labour market (Arnold & Bongiovi, 2013; Vosko, 2006).

These trends have implications for the urban spatial patterns of young adults, the full breadth of which remain undertheorized. In this review, I interpret these patterns, and their implications for gentrification and related processes of youthification (Moos, 2016) and studentification (Smith, 2005), through a framework of housing pathways.[1] Housing pathways are "patterns of interaction (practices) concerning house and home, over time and space" (Clapham, 2002, p. 63), recognizing both the individual meanings and choices associated with housing, and broader structural constraints across the life course, and therefore variegated experiences of housing. The aim is to avoid "the inadequacies of traditional approaches in economics and geography, which assumed universal and simple

[1] In doing so, I zero in on age (and student status) as a particular form of social differentiation. Detailed discussion of intersecting forms of difference such as race, ethnicity, and gender among young adults is precluded by both space, and the emergent nature of the urban structure literature under review, which has not substantively dealt with these topics. I highlight this as one of several crucial avenues for further research later in this article.

attitudes and motivations" (Clapham, 2002, p. 63). This represents an improvement on concepts such as housing careers (which assume an upward trajectory from a single starting point to a universal goal, downplaying structural influences), housing histories (which focus on structure), and housing biographies (which privilege subjective experience) (Beer et al., 2011).[2]

I adopt this pathways framework to emphasize their place-based and spatial underpinnings and effects. Neighbourhood level processes such as gentrification, youthification, and studentification are bound to shape housing pathways, while simultaneously, the enactment of certain pathways as opposed to others shapes urban processes. At the same time, the individual pathways implicated in neighbourhood changes can offer potential insights into the links between gentrification, youthification, and studentification – illuminating, for example, how and when these processes do or do not interact or overlap.

I focus on the North American and European context, given their preponderance in Anglophone scholarship and relative degree of similarity, although references will be made to other contexts where appropriate. Nonetheless, considerable differences exist between national contexts. For instance, the importance of familism in certain cultures – where high value is placed on the family rather than the individual – means it is more common historically and contemporarily for young adults to live in the parental home for longer than is typical in North America or northern and western Europe, as is the case in southern Europe and some Asian countries (Emmanuel, 2013; Li, 2013; Poggio, 2013; Yip, 2013). These differences in norms problematize the notion that the changes taking place in North America and northern Europe are inherently either good or bad. Rather, these changes may represent

[2] In suggesting the metaphor of "belonging" be used alongside that of "transitions" in research on youth, Cuervo and Wyn (2014, p. 905) argue that the "metaphor of pathways positions young people as navigators who make personal choices to invest in education, valorising the structures and relationships that create failure and inequality. What this approach leaves out of the picture is the overlapping structures and sets of relationships which create meaning for young people and that play a crucial role in their decision-making about education and work." This use of the term pathways, drawn from policies in the UK and Australia, is not the same as that elaborated by Clapham (2002) and adopted in this paper, which is very much concerned with both structures and meanings.

more of a convergence with much of the rest of the world. However, labour and housing market trends in several countries have placed greater strain on families as a support system for young adults (Emmanuel, 2013; Poggio, 2013; Sage, Evandrou & Falkingham, 2013), and in some places where cohabitation with relatives is common, there is evidence that young adults nonetheless yearn for housing independent of older generations of the family (Zavisca, 2013; Yip, 2013).

Regardless of cultural norms surrounding young adults' housing, the structural, cultural and demographic changes that have altered the nature of young adulthood – in particular by lengthening it and blurring its edges – are likely to be disruptive in some way, and of disproportionate impact. Indeed, while issues of housing affordability and labour market precariousness are not unique to young adults, this period remains the stage in life when most leave the parental home for the first time and make decisions regarding having children and pursuing homeownership (Öst, 2012a), and these remain significant life events. Largely due to post-Fordist and neoliberal economic restructuring, the incomes of young adults have declined relative to both older age groups and young adults in the past (Moos, 2014a) while the flexibilization of work reduces eligibility for mortgages, independent of income (Öst, 2012b).

Buying into the market has therefore become less attainable to many, and homeownership among young adults is increasingly stratified by income and unstable (Beer et al., 2011; Brown & Lafrance, 2013; Öst, 2012b). In the most expensive metropolitan areas, those able to buy have generally not benefitted from the price appreciation experienced by existing owners, requiring instead large mortgages that put young households in a position of greater financial vulnerability than others (Walks, 2013), for instance in the event of a market crash or job loss. Conversely, government interventions to *prevent* real estate crashes via a bailout of that sector can represent a redistribution of wealth from non-owners to owners, with young adults over-represented in the former rather than the latter (Walks, 2014).

Amidst these demographic and market changes, the housing experiences and geographies of young adults have also evolved. I begin by charting the diverse housing pathways experienced by young adults through an overview of recent literature within

geography and related fields concerned with the constraints faced by young adults in accessing housing and the strategies used to overcome them. In the subsequent two sections, respectively, I explore the connections between these housing pathways and the changing spatial patterns of young adults generally, and higher education students specifically, bringing these concepts into conversation with each other. In doing so, I critically review the relationship of these trends to gentrification. Finally, I identify some directions for further research before concluding briefly.

2.1 Changing Housing Pathways of Young Adults

As a result of the particular challenges facing them, some have argued that since the 1980s, young adults can be conceived of entering a specific "youth" housing market – rather than simply entering the housing market at large – which is characterized by "shared housing, precarious housing, temporary housing and frequent mobility, and which is clearly distinct from accessing and holding housing in a 'mature' or 'adult' market" (Ford et al., 2002, p. 2456). Consequent to this change, there has been a shift in the housing pathways of young adults since the earlier postwar period.

Based on an extensive set of interviews, Ford et al. (2002) identify three factors on which such pathways depend: the ability of young adults to plan and control entry to independent living; constraints such as income, access to welfare benefits, local housing market conditions, and so forth; and the degree of family support. They also identify five ideal-type housing pathways. However, more recent work has uncovered a broader range of pathways through the use of cluster analysis, positing the existence of nine pathways, and estimating the population of each within the UK (Clapham et al., 2014). In a study of Amsterdam, others have identified three primary housing pathways (Hochstenbach & Boterman, 2015). Presented in Table 2.1, these pathways should be considered not as immutable categories, but as common outcomes given individuals' resources, constraints, and choices.

Table 2.1: Ideal-type classifications of young adults' housing pathways

Source	Pathways	Characteristics
Ford, Rugg & Burrows (2002)	Chaotic	No planning, substantial constraints, absence of family support
	Unplanned	No planning, substantial constraints, some family support
	Constrained	Planning, substantial constraints, family support
	Planned (non-student)	Substantial planning, fewer constraints, family support
	Student	Planned, manageable constraints, considerable family support
Clapham et al. (2014)	Stay at home to own	Living at home to save for owner-occupied housing
	Two-parent families	Leave family home to owner-occupied or private rental housing, usually as a couple and with help from parents, eventual move to owner-occupied
	Early nesters	Leave family home by 21, usually to owner-occupied housing, family support required due to limited income
	Dual income-no kids-owners	Rental housing as stepping-stone to owner-occupation, highly qualified and high income
	Young professional renters	Enter private rented sector when leaving home for post-secondary education and remain as young adults, usually sharing with others, value flexibility of renting
	In the social queue	Desire to remain in social rented sector, low income
	Social renting families	Couples that remain in social rented sector, secure own social rented home when having children
	Lone parents	Usually women, enter social rented sector when child is born
	Chaotic	Movement between social and private rented sectors, usually periods of homelessness
Hochstenbach & Boterman (2015)	Linear	Official housing sectors, high stability
	Progressive chaotic	Informal, temporary and private rental sectors; seek alternative housing options to access neighbourhoods out of reach in official housing market using social and cultural capital
	Reproductive chaotic	Informal, temporary and private rental sectors; forced to continue to select alternative housing options out of necessity

This diversity of experience is corroborated by Sage, Evandrou, and Falkingham (2013), who examine, over five years, the migration patterns of former university students in the UK. Reasons for moving were diverse, and not merely for employment. Moreover, nearly half of respondents returned to the parental home during the study period, and doing so remained a common reason to move within the first four moves made by respondents. It would seem, contra Ford et al. (2002), that students do not pursue a homogenous pathway.

Similarly, chaotic pathways should not necessarily be equated with marginality. While those who are unable to deal with housing constraints may continue to "reproduce" their precarity, alternative housing arrangements (often informal or semi-illegal) and frequent moves can also be a strategy to access housing in ideal neighbourhoods in the absence of adequate economic capital (Hochstenbach & Boterman, 2015; see also Mendez, 2011).

Despite differences in methodology, geography, timeframe, and the number of pathways identified, some coherent conclusions can be drawn from this ensemble of literature. In particular, it is obvious that the housing experiences of young adults are heterogeneous, often drawing on the "parental safety net" (Sage, Evandrou & Falkingham, 2013) of gifts and loans (Heath & Calvert, 2013) and friend networks, through what may be described as social and cultural capital (Hochstenbach & Boterman, 2015). There is also an increasing reliance on the private rental sector of the housing market. As young adults spend longer amounts of time in this sector, they increase competition for rental housing, pushing up rents, with negative implications for low income groups (Ford et al., 2002). It appears that shifts toward this sector are producing a convergence in pathways, whereby renting is more common regardless of substantial differences in the context and conditions of – and reasons for – renting (Clapham et al., 2014).

There is also a spatial dimension to these trends. Yet despite the inclusion of "space" in their definition (Clapham, 2002), little attention has been given to how individual pathways are implicated in neighbourhood changes or vice versa. However, housing pathways unfold in particular places, and young adults have distinct urban geographies that are usefully interpreted through a pathways framework.

2.2 Changing Geographies of Young Adults

With changes in young adults' housing pathways, it is imperative to understand broader changes in the geographies of young adults. A burgeoning literature has developed on the geographies of youth, predominantly centred on the everyday spaces of youth as well as contesting the nature of childhood and youth. Much of this has focused on children, or sometimes up to the age of about 25 (although boundaries are, of course, fuzzy – see

Valentine, 2003) rather than young adults more broadly defined (Evans, 2008; Hörschelmann & van Blerk, 2012; Vanderbeck, 2007). Some have observed that among those who do consider young adults, housing is often overlooked relative to employment and education (Arundel & Ronald, 2016; Cuervo & Wyn, 2014; Hoolachan et al., 2017), although this may be changing. Gorman-Murray (2015), for example, has examined the diverse relationships between gender (specifically, masculinities) and domesticities to demonstrate how these are spatially constructed at home. Beyond attention to the micro-spaces of home, research has also problematized the extent to which economic factors explain young adults' return to rural home regions, arguing for a greater role of sense of home and place (Haartsen & Thissen, 2014; Rérat, 2014).

Economic factors, of course, do have some role to play. Hoolachan et al. (2017) found geographical differences in difficulties faced by young adults in the private rental sector in Scotland between urban and rural regions as well as between expensive and less expensive markets. Regional differences in housing systems and welfare regimes also matter (Arundel & Ronald 2016). Some metropolitan areas have higher relative populations of young adults than others: typically, those with strong economic performance and therefore greater opportunity for young adults to begin working careers, although high housing costs in the most "global" of these cities may also be a deterrent. Meanwhile, cities with poorer economic prospects appear less adept at attracting young adults and therefore tend to feature older average populations (Rosenberg & Wilson, 2010; Moos, 2016).

Patterns of change also exist within cities, and so it is necessary to consider the relationality of these changes to young adults' life course changes (Hall et al., 2009). In fact, urban change is not entirely external to young adults. Young adults are increasingly found in the denser central neighbourhoods of cities in North America (Moos, 2014b; 2016; Generationed City, n.d.), the UK (Bromley et al., 2007) and continental Europe (Buzar, Hall & Ogden, 2007; Buzar et al., 2007; Kabisch & Haase, 2011; van Criekingen, 2010), especially those with improved downtown amenities. However, for the most part, young adults have not been the focus of study per se. In an examination of trends in 10 regionally diverse Canadian cities, Meligrana and Skaburskis (2005) found that among factors such as

distance to the central business district, income and rent levels, and dwelling characteristics, the presence of young adults was also linked to gentrification. In particular, typical gentrifying households are "young, well-educated, highly mobile and single-person households" (p. 1585), with gentrifying census tracts seeing an increase in the proportion of those aged 25-39, from 24 to 32 percent.

Re-urbanization, conceptualized as an increase in the population of the core of an urban agglomeration, also appears to be driven by young adults. In four UK cities, Birmingham, Bristol, Cardiff, and Swansea, policies to repopulate inner cities have resulted in a disproportionate share of young adults and lone-person households within city centres by 2001 (Bromley et al., 2007). While increased since 1991, there was already a relatively high proportion of young adults in these areas at that time, and this increase is not entirely the result of increasing numbers of students. Bromley et al. (2007, p. 144) further note that these city centres are of "similar, or of higher, social status than the city districts as a whole," and have experienced a "striking" rise in status since 1991. Meanwhile, in Leipzig, Germany; Ljubljana, Slovenia; Bologna, Italy; and Leon, Spain, re-urbanization has likewise been dominated by single-person households, flat-sharing adults, and young parents (Buzar et al., 2007). The importance of young adults to this process, at least in Europe, is confirmed by Kabisch and Haase (2011), who find that younger, smaller households are a key driver of re-urbanization across the whole continent.

An emerging body of literature, particularly that of Moos, has explicitly considered the location patterns of young adults. Moos (2014b) models the location patterns of young adults in Montreal and Vancouver, in both 1981 and 2006. While household characteristics, such as size, remain the most important determinants of residential location, young adults are increasingly associated with density over time, as well as to rapid transit in Vancouver, after controlling for other factors associated with residential location decisions. However, the models also identify an association between young adult populations and distance from the centre, implying that the centralized pattern is at least in part a result of demographic characteristics constraining choices rather than a preference for central living. Moos (2014b) argues that the presence of urban amenities and smaller dwelling units in central

neighbourhoods draws young adults to these places, while the high costs of living in these areas push them away, tending toward "decentralized concentration" rather than centralization, especially in Vancouver, where housing prices are higher.

In a separate paper, Moos (2016) models urban density as a function of census tract characteristics, including age, household size, household income, the share of immigrants, and the share of potential gentrifiers (as identified by their employment in the quaternary sector of the economy), for both 1981 and 2006 in Montreal, Toronto, and Vancouver.[3] Considering density an indicator of urbanity, Moos (2016) finds that the presence of young adults became an increasingly strong predictor of urban living over the period of study, although it bears noting that the share of immigrants remained more closely associated with density. At the same time, the significance of age, distinct from that of the share of potential gentrifiers or of income, suggests a separate – although not necessarily mutually exclusive – process, which Moos terms "youthification."

However, as van Criekingen (2010, p. 384) argues, largely in response to the re-urbanization literature (e.g., Buzar, Hall & Ogden, 2007; Buzar et al., 2007) – but no less pertinently here – it is important not to "inappropriately [bring] the social class dimension out of the discussion of urban change." Indeed, as Moos (2016) himself notes, youthification appears to be common in areas that are both already gentrified, and that already contained relatively high shares of young adults (see also Moos, 2014b). Van Criekingen (2010) also empirically demonstrates that young adults living in central Brussels are generally educated, mobile white-collar workers. As they are predominantly renters, they have contributed to gentrification by pushing up rents, displacing or further impoverishing low-income groups that traditionally comprise renters in the inner area. This example illustrates concretely that diverse housing pathways are entangled, as some young adults' experiences may exclude others from particular urban spaces, and thereby confine them to a separate set of pathways.

Nevertheless, the concept of "forever young" neighbourhoods (Moos, 2016) does seem to carry some weight. "Re-urbanizing" young adults in both Britain and continental

[3] Location quotient maps of all 57 metropolitan areas in the US and Canada with population over 1 million suggest some generalizability beyond these three cities (see Generationed City, n.d.).

Europe express intentions to move out of central neighbourhoods in the long term, often for what they perceive to be better neighbourhoods for raising children (Bromley et al., 2007; Buzar et al., 2007). This mobility is facilitated by the high share of these households in rental tenure (Bromley et al., 2007; van Criekingen, 2010). The young adults implicated in gentrification of Canadian cities were also characterized by a high level of residential mobility (Meligrana & Skaburskis, 2005). It would seem that youthification (and gentrification) by young adults is tied to particular housing pathways associated with mobility and advantaged trajectories. Increasingly, university studenthood plays an important role in shaping these pathways.

2.3 Studentification: Studenthood and the Neighbourhood

University students, who largely but not exclusively represent a subgroup of young adults, also possess distinct geographies. Notably, these geographies are expressed through the process of "studentification," which "engenders the distinct social, cultural, economic and physical transformations within university towns, which are associated with the seasonal, in-migration of [higher education] students" (Smith, 2005, p. 73), particularly within specific neighbourhoods. Academically, the subject is most widely documented in the United Kingdom, although it is evident across the Anglo-American world – as in Melbourne, Australia (Davison, 2009; Fincher & Shaw, 2009); Cork City, Ireland (Kenna, 2011); Waterloo, Canada (Charbonneau et al., 2006); Athens, Georgia, USA (Pickren, 2012) – and elsewhere, such as in Ciudad Real, Spain (Garmendia et al., 2012); Kuala Lumpur, Malaysia (Sabri & Ludin, 2009); and Guangzhou, China (He, 2015).

Conventionally, studentification has been associated with the expansion of higher education and increasing numbers of students domestically (e.g., Smith, 2009), while others have drawn attention to the importance of the increasing number of international students in driving the process in many English-speaking countries as a result of the "internationalisation of 'Western' education systems" (Waters, 2006, p. 1053; Fincher & Shaw, 2009). He (2015) in particular has drawn attention to the role of institutional actors in shaping the geographical contingencies of studentification across international contexts, such that the form it takes

may be considerably different in different places. Within the UK, such highly-concentrated student neighbourhoods are most common – and most segregated – in cities with higher proportions of students in the total urban population (Munro et al., 2009). Studentification can proceed slowly, over decades, or quickly, within the span of a couple years (Sage et al., 2012b), sometimes quietly, and at other times with vocal opposition from local non-student residents (Hubbard, 2008).

Such opposition usually centres on the disruption of supposedly "balanced" neighbourhoods by students who are less-than-mindful of noise (e.g., from parties) or garbage pickup routines, the deterioration of the physical environment, the displacement of families and the resultant decline of local schools, pressure on parking due to the increase in houses in multiple occupation, and the pricing-out of other residents (Bromley, 2006; Hubbard, 2008; Munro & Livingston, 2012; Smith & Holt, 2007; Smith, 2005). These disruptions have been the impetus for a variety of planning and policy interventions such as thresholds on the amount of student housing permitted within a neighbourhood (Hubbard, 2008), limits on the number of unrelated occupants permitted in a single apartment (Bromley, 2006; Pickren, 2012), licensing procedures for landlords of housing in multiple occupation, regulating property conversions, and identifying sites to develop student housing that will have less impact on established neighbourhoods (D. Smith, 2008). Many communities have also developed "town and gown" committees, including representatives from both the university and the community at large, to manage the impacts of institutions on the local area; these, however, usually extend beyond a narrow focus on studentification to incorporate a broader range of issues (Kemp, 2013; Bromley, 2006).

Scholars have also focused on studentification as a process of segregation and displacement. Student lifestyles are temporally (e.g. on weeknights rather than weekends) and spatially constructed (in particular parts of the city) (Chatterton, 1999). However, these spaces can be sources of tension and conflict, and as traditional students are typically upper- or middle-class, they are best seen as producing exclusive geographies, rather than to be celebrated as exemplars of the "consumption-oriented postmodern city as a stage for the enactment of lifestyle" (Chatterton, 1999, p. 132). Indeed, a common response to the issues

posed by studentification is an increase in the amount of purpose-built student accommodation (PBSA). While this may serve to reduce the concentration and proliferation of students living in traditional neighbourhoods (Hubbard, 2009) – although certainly not always, as it may in fact draw students to the neighbourhoods surrounding the PBSA (Sage, Smith & Hubbard, 2013) – the irony is that such a strategy simply reinforces the segregation of students from the rest of society (Smith & Hubbard, 2014).

Furthermore, most of these developments take the form of exclusive "student villages" marketed to a particular view of the student lifestyle (Smith & Hubbard, 2014), forming "de facto gated communities" (Hubbard, 2009, p. 1920). Those excluded from these high-amenity, high-rent PBSAs are not only non-students, but less affluent students as well (Smith & Hubbard, 2014), lending support to the claim that student pathways are not homogenous. In some instances, studentification may even take the form of *actual* gated communities that actively displace working-class populations (Pickren, 2012). Once again, we see how particular housing pathways – in this case, those of affluent students – collide with other pathways – those of less-affluent students and the working class – and that these create tangible impacts on the urban environment.

In this way, studentification may be more akin than youthification to "classic" definitions of gentrification, although hopefully this review makes clear that these terms are inherently interrelated in complex ways. Indeed, Smith (2005) outlines the economic, social, cultural, and physical commonalities between studentification and gentrification. For instance, both processes entail revalorization and recommodification of housing, displacement by a generally middle-class population, shared cultural practices of incomers, and physical alterations to properties. The university is thus posited as a "gentrification factory" which grants students access to professional status, with life in studentified neighbourhoods contributing to the development of middle-class cultural practices likely to carry into future housing choices (Smith, 2005, p. 86; Smith & Holt, 2007; Sage, Smith & Hubbard, 2013). As Sage, Smith, and Hubbard (2013) observe, through the expansion of higher education and the growth of PBSA, studentification is increasingly important in shaping the potential housing pathways of a larger proportion of the population, as it creates

certain cultural preferences regarding the choice to live on or off campus, and as young adults live in age- and class-segregated environments that may cultivate preferences for such environments in future residential decisions. In the Australian context, early gentrification was in fact shaped by prior studentification associated with the expansion of higher education (Davison, 2009). More directly, universities may actively engage in gentrification of nearby neighbourhoods under class-based and racialized discourses of improvement, in the name of student safety and in an attempt to compete globally to attract and retain students through appealing streetscapes (Bose, 2015). The enactment of certain pathways therefore can be seen to have exclusionary impacts on more disadvantaged pathways.

On the other hand, some have conceived of studentification in more ambivalent terms. It may be seen not as a process of privileged gentrification but as one of "spatial marginalisation" due to students' propensity for indebtedness, low current incomes, disconnect with local communities, and separation from "mainstream" cultural spaces (Hubbard, 2008, p. 324; although Hubbard's later writing [2009; Smith & Hubbard, 2014], emphasizes the exclusivity of studentified spaces). Perhaps most interestingly, Hubbard (2008) notes the parallels between exclusionary discourses some pre-existing residents have openly employed regarding studentification, and xenophobic and racist sentiments that would normally be considered inappropriate. However, the implicitly class-based reactions to studentification mean students are often exempted from the "near demonisation of young people" for behaviour that in other contexts has received a correspondingly punitive response, such as binge drinking or congregating in supposedly-threatening groups (Munro & Livingston, 2012, p. 1688).

Studentification, if we are to consider it a form of gentrification (Smith & Holt, 2007), is nonetheless a process that upsets conventional definitions of gentrification. It may involve a physical downgrading of the built environment (after an initial upgrading to make housing suitable for multiple occupation) concurrent with socio-economic upgrading (Smith & Holt, 2007) and a reversal of tenurial transformation back toward renting rather than owner-occupation (Smith, 2005). Therefore, studentification might be considered similar to Rose's (1984) notion of the "marginal gentrifier," whereby despite contributing to the

gentrification process, its actors are not fully integrated into the privileged middle class position. Student pathways might therefore be suitably seen as aligning with strategies to leverage social and cultural capital to access housing that would otherwise be unattainable (Hochstenbach & Boterman, 2015) and to develop a sense of home and belonging in a largely institutional context (Holton & Riley, 2016).

2.4 Pathways Forward: Directions for Research

A number of directions for further research emerge from this discussion. The first relates primarily to a need to further explore the connections between studentification, youthification, and gentrification. To begin, research is needed to substantiate the claim that studentification does indeed shape preferences that carry on to later housing choices (Smith, 2005; Smith & Holt, 2007; Sage, Smith & Hubbard, 2013), and to what degree. This would provide a greater understanding of the extent to which studentification is a driver of youthification and traditional forms of gentrification. Meanwhile, youthification – like gentrification – is likely to have both cultural and economic explanations in terms of both how young adults' identities are constructed and the constraints they face in labour and housing markets. Here, a pathways framework could provide a tool to consider both the individual meanings and choices associated with these processes as well as the structural forces constraining them. The studentification literature has begun to think through the overlaps with gentrification, as well as some points of divergence between the processes (Smith, 2005). However, as the proliferation of PBSA makes clear (Smith & Hubbard, 2014), there remains a need to refocus attention on the role of capital in the studentification process, and the continuities between studentification and broader discussions of new-build gentrification and the financialization of real estate (Davidson & Lees, 2010; Aalbers, 2008). Such a research program would provide a further account of how studentification, youthification, and gentrification play off or contradict each other.

Second, research is needed to explicitly examine the role of studentification, youthification, and gentrification in shaping individual housing pathways, and vice versa, at both a broader societal scale, and that of the individual. For instance, demographic transitions

that produce more young, single-person households may – among other factors – drive youthification, while the concentration of young adults in smaller housing stock typical of the phenomenon may simultaneously discourage the formation of larger households. Furthermore, as young adults' differential access to homeownership increasingly contributes to a worsening of disparities in wealth and well-being (McKee, 2012), there is a need to explore the potential divergence between young adults' housing pathways over time, and the implications for youthification and studentification. In particular, a greater understanding is required of how these processes place certain pathways in conflict with each other. For example, increased time spent in the rental sector by young adults places differing housing pathways in conflict as it increases the demand for rental housing, in turn pushing up rents, with negative implications for low income households (Ford et al., 2002; Clapham et al., 2014; van Criekingen, 2010).

Attention must also be given to the ways young adults' housing pathways interact with those of other age groups. Age segregation produced by youthification and studentification may contribute to ageism and reinforce prejudices while hindering socialization and healthy ageing (Valentine, 2015; Hagestad & Uhlenberg, 2006). Meanwhile, the burdens of high housing costs and/or weak labour market position impact other family members through the "ripple effect," as parents need to support their adult children, potentially diverting support from their own elderly parents (the young adults' grandparents) and affecting the relative well-being of each generation (Sage, Evandrou & Falkingham, 2013). This is in keeping with recent calls to reconceptualise residential mobility as relational practice (Coulter et al., 2016) and to incorporate the "from below" experiences of displacement and housing affordability struggles lacking from much of the gentrification (and related) literature (Slater, 2011, p. 580).

Third, attention must be given to forms of difference among youth such as gender, race, and ethnicity (Young, 1997; Valentine, 2003). Indeed, while the concepts of youthification and studentification arose as a means of adding nuance to debates on gentrification by showing how age and student status themselves matter as a form of difference, these emerging literatures have done little to explore substantive differences

between young adults.[4] Likewise, the research on housing pathways reviewed here gives little attention to these forms of difference, despite the fact that a pathways framework is conceptually well adapted to account for meanings and experiences of housing deriving from gender, race, ethnicity, or other axes of differentiation, in addition to those of class or household type (Clapham, 2002). Research should make use of this versatility of the pathways approach.

To summarize, a pathways approach could provide insight into the links between youthification, studentification, and gentrification; the interactions between these processes and individual pathways, as well as among individual pathways; and forms of difference that intersect with young adulthood within the youthification and studentification processes. In studying these issues, it may be valuable to engage with literature on the geographies of age, which focuses broadly on the meanings and politics of age and relationships between generations (Hopkins & Pain, 2007; Vanderbeck, 2007; Vanderbeck & Worth, 2015). Taken together, these areas of research are crucial to a complete understanding of the residential geographies of young adults.

2.5 Conclusion

Broadly speaking, changes in demographic trends as well as high housing prices and precarious labour markets have combined to create unique challenges and circumstances for young adults in terms of housing outcomes. In response, young adults may engage in a variety of housing pathways, often depending on family support or social and cultural capital to access suitable housing, but also potentially subject to a certain degree of precarity. This typically entails greater reliance on the private rental sector. These diverse pathways are expressed in urban space, as young adults are increasingly found in denser, inner city areas, through a process of youthification that is distinct from but nonetheless linked to gentrification. Students, as a particular subgroup of young adults, also tend to cluster in particular neighbourhoods, producing their own geographies of segregation. These spatial

[4] A notable exception is an account of studentification in Melbourne leading to the segregation of foreign students (Fincher & Shaw, 2009).

patterns in turn shape young adults' housing pathways as they exclude certain households from particular spaces, thus constraining the pathways available to them.

Yet, the interconnections between gentrification, youthification, and studentification remain theoretically and empirically underdeveloped, as are the ways these processes simultaneously shape and are shaped by individual housing pathways. Greater understanding is also needed as to how difference, for instance in terms of race, ethnicity, and gender, figures into youthification and studentification. To get at these issues, research must address individual experience, relationships between individuals, and connections to broader urban and social processes.

Chapter 3: The Urban Dormitory: Planning, Studentification, and the Construction of an Off-Campus Student Housing Market

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Post-secondary student housing often presents a confounding challenge for planners. Despite the positive impacts universities and their students may bring to the urban economy, student housing is commonly associated with neighbourhood disturbances related to noise, unkempt property, and the displacement of permanent residents. The process by which students become concentrated in particular neighbourhoods, and the attendant social, cultural, economic, and physical changes to urban areas, has been termed "studentification" (Smith, 2005). Globally, studentification differs according to urban and institutional context (Garmendia et al., 2012; He, 2015), and may occur within the existing stock of houses and apartments, or privately developed accommodations marketed exclusively to students (Smith & Hubbard, 2014).

Universities are seen as increasingly important in the knowledge economy, and are correspondingly expanding enrolment and their physical footprint through campus expansion and satellite campuses. As enrolment has increased, some cities have observed growing numbers of students housed off-campus in private housing markets rather than in traditional institutional accommodations. This trend raises questions about the role of planning. We use the term "urban dormitory" to refer to all privately rented off-campus student housing within an urban region. While studentification typically refers to concentrations of students in particular urban areas (Munro et al., 2009; Smith & Holt, 2007), recent research emphasizes that students' residential geographies may well include broader areas of the city (Allen & Farber, 2018; Malet Calvo, 2018). Reference to the urban dormitory thereby draws attention to the potential role of planning in shaping student housing markets across a city – not only in "studentified" areas of concentrated student housing.

We analyze how planning has dealt with student housing in the case of Waterloo, Ontario, from 1986 to 2016, with a view to drawing broader lessons about planning for the urban dormitory. A city of approximately 133,000, located in an integrated region with about 560,000 residents, Waterloo experienced a rapid rise in local university enrolment from roughly 23,000 students in 2000 to approximately 40,000 by 2012, and an ensuing boom in privately developed off-campus student housing (McLerie, 2016; 2017). While the Waterloo case appears, in some respects, to be unique in Canada thus far, this description of the contingent process of studentification in a new international context indicates one potential trajectory other places may follow and from which they may learn.

Waterloo's urban dormitory is an example of what Beauregard (2005) calls a "thickly textured" property market. He highlights the importance of contextual factors beyond supply and demand in shaping urban change, including actions of the state and institutions, local history, and differences between real estate subsectors. Planning is one such contextual factor, as it may direct the outcome of development and "discipline" capital rather than simply accede to its demands (Charney, 2015). At times, planning may also lead the economic and physical restructuring of the city for the knowledge economy ahead of market and social forces (e.g., Hutton, 2004). However, it is just as often the case that market forces stymie planning initiatives (Jones, 2014). We therefore provide insight into how and to what extent planning has shaped the local student housing market, and hence studentification, over the long term.

We begin by positioning studentification as one facet of the knowledge economy city. We subsequently introduce the Waterloo case, and then identify and describe three distinct periods of planning for student housing in Waterloo. Next, we synthesize the major findings across the three periods, relating them to broader discussions about planning for student housing, and the role of planning and local context in shaping urban change. We conclude with recommendations for planning the urban dormitory locally and beyond.

3.1 Studentification and the Knowledge Economy

The transition toward a knowledge economy has a number of implications for the urban environment. These include implications for the socio-economic restructuring of cities and new dimensions of interurban competition (Hutton, 2004; Lafer, 2003; Scott, 2011). In more tangible terms, the knowledge economy has introduced new elements of the built form including science and technology parks, often closely affiliated with research universities (Hobbs et al., 2017; Massey et al., 1992; Shearmur & Doloreux, 2000), and a reterritorialization of higher education institutions in the form of new branch campuses (Addie et al., 2015). Beyond these physical phenomena, the knowledge economy has also been linked to novel social transformations, including some forms of "youthification" – referring to the concentration of young adults in high-density urban areas (Moos, 2016; Moos, Revington, Wilkin & Andrey, 2019) – and particular variants of tech-sector led gentrification (Stehlin, 2016).

A corollary to these developments has been the "massification" of higher education and correspondingly the increasing enrolment and growth of universities as part of the knowledge economy (Scott & Harding, 2007), resulting in increased student populations in cities hosting these post-secondary institutions. Changing geographies of student housing, especially newer forms of privately-developed housing (MacIntyre, 2003; Smith & Hubbard, 2014), can therefore be interpreted as another important facet of the knowledge economy city. Students are generally temporary urban residents and, despite impacts on the local economy, do not necessarily contribute to the local skilled labour pool (Brown et al., 2010; Comunian et al., 2015; Munro et al., 2009). Therefore students, and their influence on urban areas, are often overlooked in discussions of the knowledge economy.

The notable exception is the literature on "studentification," which focuses on the impacts of residential concentrations of students in select neighbourhoods (Smith, 2005; Chapter 2). These impacts include noise disturbances; failure to follow curbside garbage pickup routines; general deterioration of the physical environment; pressure on parking space due to an increase in shared housing; and the displacement of other residents, including families and the resultant decline of schools, through both escalating housing prices and loss

of sense of place (Bromley, 2006; Hubbard, 2008; Munro & Livingston, 2012; Smith & Holt, 2007; Smith, 2005). The impacts may also involve changes to urban amenities, commercial businesses, and services as these become oriented towards the student population (Chatterton, 1999; Collins, 2010). While concentrations of students may pose challenges, students also bring diversity and youthfulness to urban neighbourhoods, and contribute to the local economy through their spending habits (Allinson, 2006; Sage, Smith & Hubbard, 2013). Meanwhile, the proliferation of new, privately-developed, high-density apartments has prompted new concerns over the exclusivity and surveillance of some student spaces, and parallels to new-build gentrification (Hubbard, 2009; Kenna, 2011; Smith & Hubbard, 2014; Chapter 2).

Studentification is especially well documented in the UK, where the term was first coined (Smith, 2005), but is also occurring in North American "college towns" (Bromley, 2006; Charbonneau et al., 2006; Evans-Cowley, 2006; Pickren, 2012) and Australian cities (Davison, 2009; Fincher & Shaw, 2009). While no hard-and-fast rule applies, often studentification is more pronounced in small or midsized cities where the student population represents a relatively large share (Munro et al., 2009). Indeed, studentification is a contingent process, dependent on local factors such as institutional provision of on-campus student housing and housing market characteristics (Hubbard, 2008; Sage et al. 2012b). In Spain, Garmendia et al. (2012) have documented the "vertical studentification" of individual apartment buildings rather than neighbourhoods. In China, studentification has emerged as an informal alternative to restrictive institutional dormitories in students' search for cultural consumption (He, 2015). However, studentification is not necessarily a universal phenomenon (Malet Calvo, 2018). It does not fully capture the impact of students on urban space (Collins, 2010), nor is it the only important aspect of student geographies (Holton & Riley, 2013).

Nonetheless, studentification remains an important planning issue in many communities, alongside other aspects of the "town and gown" relation such as local or regional knowledge transfer, community and economic development, research partnerships, and university-led real estate development or gentrification (Bose, 2015; Ehlenz, 2016;

Harding et al., 2007; Lafer, 2003; Lederer & Seasons, 2005; Perry & Wiewel, 2005). Various attempts to deal with problems related to student housing include regulating the amount of development or concentration of housing rented to students (e.g. Hubbard, 2008) and more rigorous enforcement of building, property standards, and zoning codes (e.g. Evans-Cowley, 2006). In the UK in particular, where studentification of shared rental housing has attracted considerable political opposition and local regulation of such housing has had limited effectiveness (D. Smith, 2008), encouraging purpose-built development is often posited as a planning solution by directing these developments to "appropriate" areas, thereby attracting students away from other segments of the housing market (Hubbard, 2009). However, such development can actually reinforce rather than mitigate concerns over the impacts of studentification (Sage, Smith & Hubbard, 2013). Prior research focuses predominantly on particular instances of neighbourhood disturbance and planning intervention, and little research has explored the role of planning in shaping student housing markets more generally, or over a longer time frame, beyond specific points of conflict. A notable exception, Darren Smith's (2008) tracing of the politics of studentification in the UK, points to the ongoing importance of planning and policy in shaping student housing markets; however, the focus is on the debates surrounding these forms of regulation rather than on planning and policy themselves, or their outcomes.

Others have argued, from a more conceptual standpoint, for greater attention to planning for student housing. According to MacIntyre (2003), purpose-built, well-planned student housing is more likely to provide positive outcomes than uncoordinated development and haphazard participation of students in the local housing market. To this end, Ruiu (2017) advocates for greater collaborative management between universities and cities that aims to minimize the disruptive impacts of students on cities while most fully leveraging the benefits.

The increasingly privatized provision of student housing reflects broader trends in post-secondary education, including expansion, changes in funding models, and a more competitive environment (MacIntyre, 2003). There exist several models of private involvement in student housing, including various types of partnerships with universities, but those without any formal connection to universities appear to be increasingly the most

common arrangement (see also Smith & Hubbard, 2014). As our research shows, this is certainly the case in Waterloo.

3.2 The Waterloo Case

The Region of Waterloo is an upper-tier municipality consisting of three urban municipalities and four rural townships with a population of approximately 560,000. Located west of Toronto in southern Ontario, the Region of Waterloo lies in one of the most urbanized portions of Canada (Figure 3.1). Historically, it has been paradigmatic of the dispersed city form (Filion et al., 1996). Rather than growing outward from one original settlement area, the area developed around no less than five distinct cores: Uptown Waterloo, Downtown Kitchener, and three towns (Galt, Hespeler, and Preston) that were amalgamated to form the City of Cambridge in 1973. While Downtown Kitchener is the largest of these (and Hespeler the smallest), none represent a particularly dominant central business district, especially since much of the region's urban growth occurred in the decades immediately following World War II, when the metropolitan area was one of the fastest-growing in Canada. This period saw the proliferation of suburban retail, industrial, and low-density housing development alongside automobile-oriented planning, including a partial ring road around Kitchener and Waterloo, connected by an expressway link to Highway 401, Ontario's principal east-west transportation corridor. Suburbanization was also aided and abetted by the obsolescence of inner-city industrial sites and deindustrialization more generally, and unsuccessful attempts to revitalize Downtown Kitchener (Filion et al., 1996).

Waterloo Region is also increasingly paradigmatic of the knowledge economy city. Faced with a precipitous decline in manufacturing employment, the Region has embraced an economic development strategy focused on the knowledge economy and high-tech industry, supported by local industry groups and buffered by the reputation of the University of Waterloo (UW) as a top-quality industry-friendly and innovative university, especially in the areas of engineering and computer science (Bathelt et al., 2011; Bramwell et al., 2008; Bramwell & Wolfe, 2008). The Region, and specifically the City of Waterloo, is also home

to several major insurance firm headquarters, and hence a sizeable presence of higher-order service employment.

Simultaneously, increasing concerns over urban sprawl, including the preservation of the natural environment and the rural/small-town character of the Region's four townships, and the unsustainable costs of municipal infrastructure and service provision for low-density development, have led to recent urban intensification efforts (Region of Waterloo, 2003). Efforts to increase density centre along the historic corridor linking Uptown Waterloo and Downtown Kitchener and the development of a light rail transit (LRT) system, which was approved in 2011 and scheduled to open in 2018 (Region of Waterloo, 2012; Bellemare, 2017). In part, the desire to create a more "urban" feel is pitched as a means of attracting skilled workers of the knowledge economy (see e.g. City of Kitchener, 2015, p. 14).

Our study focuses on the City of Waterloo, which is home to the primary campuses of two of Ontario's 22 public universities – UW and Wilfrid Laurier University (WLU), with combined enrolment of approximately 40,000 (McLerie, 2016; 2017) – and a small branch campus of applied polytechnic Conestoga College. It is the only mid-sized city in Ontario with two universities (among larger cities, Ottawa also has two, while Toronto has four). While this renders Waterloo unique in some respects, it has led the City to be more experimental and forward-thinking in policy and planning pertaining to student housing than elsewhere in Canada. Waterloo has the most advanced purpose-built student housing market in the country (Vanecko, 2015), the existence and form of which are due in large part to these regulatory interventions, as demonstrated below.

University students live throughout the metropolitan area (Town and Gown Committee, 2016), but are notably concentrated in City of Waterloo neighbourhoods around the main UW and WLU campuses and particularly in an inner-suburban area known as Northdale, located between the two campuses (Figure 3.1). This area is also where the bulk of private student housing development has taken place. The other cities within the Region host branch campuses of UW, WLU, McMaster University, and the main campus of Conestoga College. While conflicts related to student housing certainly exist in these cities

(e.g. Ponciano, 2017), they are outside the scope of our analysis. In what follows, "Waterloo" refers to the City of Waterloo, unless otherwise specified.

To examine how planning has shaped the student housing market in Waterloo, we turned to a document analysis. Through Internet and library searches and from the City's planning department, we sought out all documents pertaining to planning or regulating student housing in the city from 1986 to 2016. A total of 43 documents were analyzed. These included broad strategic documents produced by Council, monitoring reports and discussion papers produced or commissioned by planners and other municipal staff, and specific plans and bylaws. The Region's growth management strategy, universities' campus plans, and a Canada Mortgage and Housing Corporation (CMHC) report were also included in the analysis for context.

From these documents, we identified what regulations concerning student housing were in place, why they were implemented, and the context of the student housing market at the time. Student theses, published research, and the researchers' extensive familiarity with the metropolitan area provided additional context. On this basis, we were able to identify three distinct periods in the history of planning for student housing in Waterloo: a low-density period, existing up until approximately 1998; a transition period between 1998 and 2011, in which higher-density housing for students began to be developed; and a contemporary period since 2011 wherein planning has more liberally enabled high-density housing for students. The subsequent section describes each of these in turn.

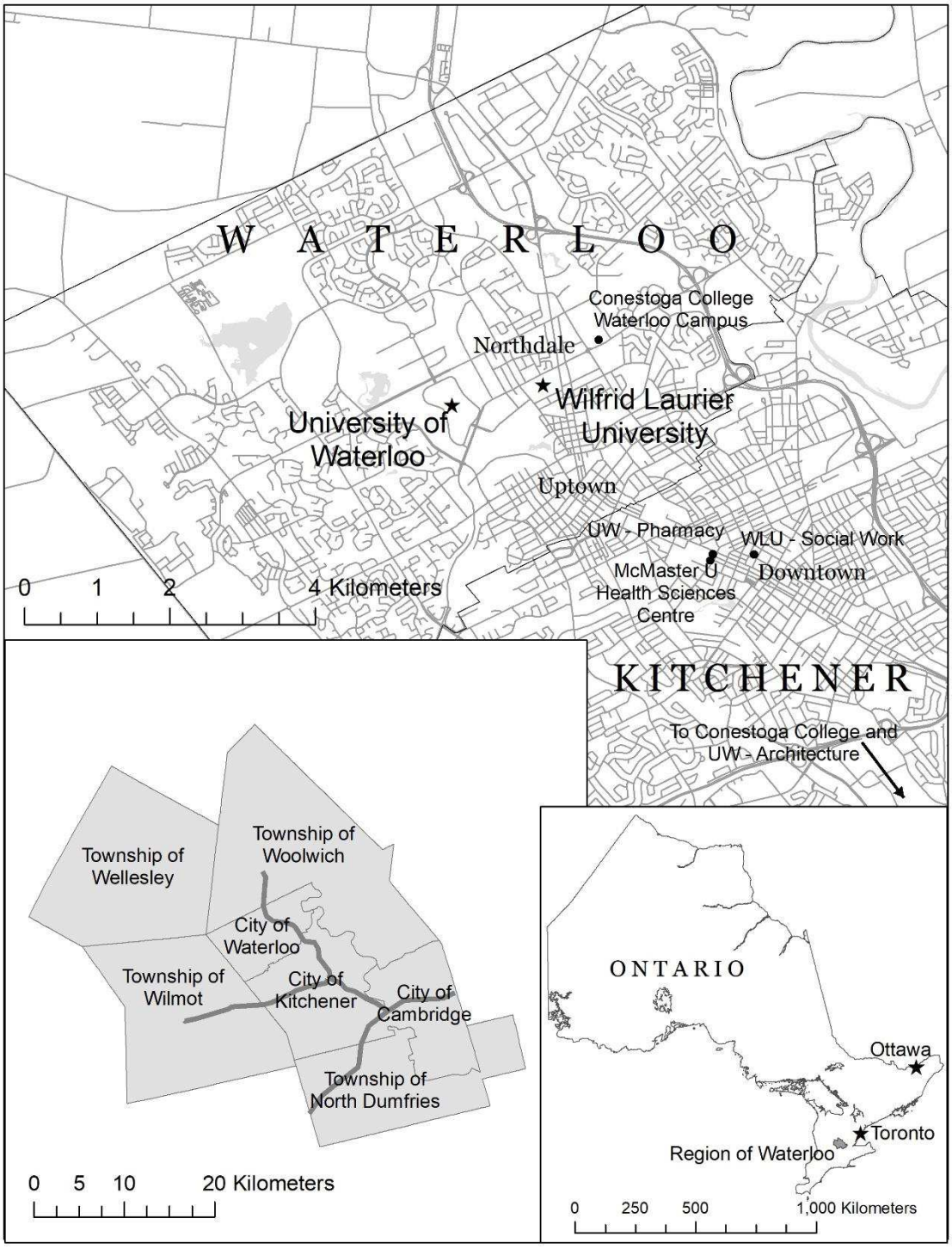

Figure 3.1: Post-secondary institutions in the Region of Waterloo. Created by the author with data from DMTI Spatial.

3.3 Three Periods of Planning for Student Housing in Waterloo

3.3.1 Low Density Period (Pre-1998)

In the period before 1998, the Waterloo student housing market was characterized by dispersed concentration in a predominantly low density built form. Many students lived off-campus in "single-family" houses dispersed throughout the city (e.g., accessory units, rooms rented in owner-occupied housing, or in shared rental housing). There were concerns from local residents over high concentrations within neighbourhoods near the universities. In some ways this represents the "sleepy status quo," setting the historical context against which later developments will be compared in our study. However, it is also important to recognize the role of the planning and policy interventions made during this period in shaping the student housing market at the time.

Persistent housing shortages both on and off campus in this period were a major feature of the student housing market, with implications for the geographical patterns of student living. Indeed, in 1974 a "tent campus" was erected on the UW grounds to protest the lack of housing options for students (Davidson, 1988). As enrolment increased with rising female and rural participation in higher education, alongside the movement of more students to economically-prosperous Southern Ontario, on-campus residences were only modestly expanded, and housing shortages continued into the 1980s. By 1987, only one-third of UW students and about 17% of WLU students lived on-campus (Davidson, 1988). On-campus rooms and lifestyles were limited in quantity and quality, as traditional student villages had waiting lists. Only the UW married student complex had flexible rent and leases (Kobayashi, 1986). In 1988, the provincial Ministry of Housing launched a $65 million funding program for on-campus housing to which WLU applied, but UW did not. UW felt that the recent construction of more residences in 1987 would be sufficient to meet demand for on-campus housing, and that the existing off-campus rental market provided adequate choice to students (Trushinski, 1988).

In fact, on-campus housing shortages compelled students to look for shelter elsewhere in the city, which consisted mostly of detached single-family homes. Here, students found

themselves facing a lack of choice and bargaining power, discriminating landlords, and high rents (Kobayashi, 1986). Surveys at the time found that approximately 40% of students reported being refused housing because of discriminating landlords (Johnston, 1974; Kobayashi, 1986).

In response to concerns regarding student behaviour in off-campus neighbourhoods, the City of Waterloo Council recommended encouraging the dispersion of student housing throughout the urban area (including the adjacent City of Kitchener) instead of concentrating student housing in a university precinct (Davidson, 1988). This policy orientation found concrete expression in the lodging house bylaw of 1986 (Slomke, 1986), which was also intended to improve the safety of rental housing following a deadly fire in a student-occupied house. The bylaw instituted a licensing program for lodging houses in the city and prohibited more than five unrelated persons from living in the same household within a single-family residential zone. However, in 1990, the Ontario Planning Act was amended to prohibit such regulation of residential land uses by the occupants' relationships. The city's zoning and lodging house bylaws were updated to comply with these Planning Act changes, and a 75-metre minimum distance separation between lodging houses in low-density zones was added to the zoning bylaw (Mahler, 1992). The regulations constrained the supply of off-campus housing for students and encouraged their dispersal through the city.

3.3.2 Nodes and Corridors: Transition Period (1998-2011)

Two events around the turn of the millennium drastically altered the planning landscape and thus the approach to student housing. These changes facilitated a shift toward higher densities. First, the province announced in 1998 that Grade 13 would be eliminated, resulting in a "double cohort" of university entrants in the 2003/2004 academic year. An abrupt spike in demand for student housing was therefore anticipated. Demand was also expected to increase due to growth in the university-aged population; a rise in the perceived importance of higher education in the development of a knowledge economy; and increasing international student enrolment (Charbonneau, 2002; City of Waterloo, 2001). However, the universities were not in a financial position to construct an adequate supply of housing to

meet this increased demand, as they were barely keeping up with their commitments to guarantee on-campus housing to all first-year students (Currie, 2003). Therefore, around 60% of students required off-campus housing (City of Waterloo, 2004).

Second, the City conducted a land supply study in 2000, which found that the city would run out of residential land by 2024 and employment land by 2009 (Currie, 2000). The structure of the upper-tier regional government does not allow for the annexation of land from adjacent rural municipalities, creating a de facto growth boundary for the city and raising pressing planning questions on how to accommodate future growth (of students or otherwise). In response, city planners adopted a new approach, in contrast to the earlier dispersal strategy.

In anticipation of the double cohort, small-scale developers and landlords began adding supply (Charbonneau, 2002; Charbonneau et al., 2006). This led to increasing concerns among long term residents of near-campus neighbourhoods about conversions to student housing, including the displacement of owner-occupied housing. Other concerns centred on absentee landlords, poor sense of community, increasing traffic congestion, reduced parking availability, noise complaints, and a sense of degradation in the neighbourhood (Charbonneau, 2002; Curic, 2008). Some worried that the development of a 'student ghetto' could harm student attraction and undermine the importance of the universities to the local knowledge economy (Currie, 2003; Lederer & Seasons, 2005). The Student Housing Task Force, convened in 1999, recommended a policy and zoning study to consider increasing density by adding apartment housing and revisiting the minimum distance separation in the lodging house bylaw (City of Waterloo, 2001). The city therefore undertook a Student Accommodation Study alongside a Height and Density Study to examine opportunities to accommodate future growth within the existing urban boundary (Currie, 2003; City of Waterloo, 2004).

Based on these studies, the city first considered creating a concentrated near-campus precinct that would prevent further conversions of housing to student rentals elsewhere in the city. Ultimately, the city settled on a hybrid approach, approved in 2005, intended to stabilize and preserve the low density neighbourhood, which residents wanted to remain single-

detached and owner-occupied (City of Waterloo, 2001; 2004). The approach was meant to promote intensification in nodes and corridors throughout the city as a solution to the land supply issue. In so doing, planning strategies sought to concentrate student housing at higher densities, which would provide a greater mix of housing types and draw students out of single detached houses (Currie, 2003, City of Waterloo, 2004). The minimum distance separation for lodging houses was increased to 150 metres in low-density zones, and a new 75-metre minimum distance separation was instituted for townhouses (City of Waterloo, 2004).

Improving public transit would also attract students to areas farther from the universities, decanting them from highly concentrated neighbourhoods (City of Waterloo, 2001; Charbonneau, 2002; Charbonneau et al., 2006). In 2007, students at both universities ratified the inclusion of a universal bus pass (UPass) in their fees, and the cash infusion was used by the regional transit agency to drastically improve bus service between the campuses and the rest of the city. Ever since, student pass riders have continued to increase as a share of total ridership (Andrea Mikkila, Transit Planner, Grand River Transit, personal communication, July 12, 2017).[1]

As a result of these planning interventions, Waterloo saw substantial construction of new purpose-built student apartments in nodes and corridors near the university campuses from 2005 onward. The vast majority of these were four- or five-bedroom units, which maximized density and minimized parking and other development costs by having kitchens and bathrooms shared by a larger number of student residents.

However, an Ontario Superior Court decision in 2003 significantly impeded enforceability of the city's lodging house bylaw (*Good v. Waterloo (City)*, 2003; 2004). By 2010, the nodes and corridors strategy had resulted in new construction of higher-density student housing, but it had neither reversed nor stalled conversions of owner-occupied housing in low-density neighbourhoods adjacent to the universities.

[1] Student pass riders include both UPass and other passes available to students at Conestoga College and other vocational and religious colleges.

3.3.3 High-density Concentration Period (2011-Present)

Elements of the nodes and corridors strategy failed to work as expected, particularly in that it did not draw students out of the low-density centres of residential neighbourhoods. As a result, the demands of long-time residents shifted away from preservation and towards being able to recoup the value of their investments in their homes and relocate elsewhere. A major barrier to doing so was finding a buyer willing to pay an adequate price for a house in a student-dominated neighbourhood without the guarantee of being able to redevelop the property as student housing. Many residents expressed frustration with, and mistrust of, the City's planning as a result. A new planning approach was required once again.

First, the City used new powers granted by changes to the Municipal Act in 2007 to regulate all forms of rental housing, excluding apartments, replacing the old lodging house program. The focus of the new rental housing by-law, adopted in 2011, was on safety and standards enforcement, supported by the student associations. Responding to concerns from the Ontario Human Rights Commission about the potential discriminatory impact of minimum distance separations, those provisions were removed from the rental housing by-law (Barry, 2011).

Second, a new plan was created for the neighbourhood immediately east of UW and north of WLU, now commonly known as Northdale. Unlike prior planning studies, this one was conducted by private consultants due to residents' frustration with the City. It proposed a new vision for the neighbourhood as revitalized and re-urbanized, to re-concentrate students and attract young professionals, and drew on updated information on student rentals and permanent residents in the neighbourhood (MMM Group, 2012b). The entire neighbourhood was rezoned for a mix of townhouses, mid-rise and high-rise apartments, and commercial uses (MMM Group, 2012a).

The Northdale plan sought to address residents' concerns that existing development in the neighbourhood lacked creativity, and risked producing a drab streetscape of similar-looking buildings (IBM, 2014). The plan implemented a higher standard of urban design, established new streetscape typologies, and called for new parks and enhanced public space (MMM Group, 2012a; Sweeny Stirling Finlayson & Co., 2012). The rationale for these

elements was a belief that these features are necessary to cater to a more diverse population, including young families (MMM Group, 2012a). It is also intended to ensure that the community is walkable, includes a mix of uses, and connects to and complements the Region's upcoming light rail transit system (City of Waterloo, 2016a). The City subsequently undertook a streetscape master plan, concluding in 2016, and purchased parkland (Lupsa, 2016; Ross, 2017).

Another core tenet of the plan was that housing needs to be flexible, with many types of accommodation, to adapt to the changing needs of the community, and to revitalize Northdale and bring families back to the area (MMM Group, 2012a). In addition to the zoning changes allowing higher-density development, this meant shifting away from the overwhelming provision of five-bedroom units to a mix of one-, two-, and three-bedroom units. This was achieved by revisiting minimum parking requirements, tying them to the number of bedrooms in a development, rather than the number of units (MMM Group, 2012a). This meant it was no longer advantageous for developers to construct units with many bedrooms to reduce the number of parking spaces they would need to provide.

As with the earlier nodes and corridors plan, the Northdale plan successfully enabled considerable construction of purpose-built student housing. According to building permit data, the City of Waterloo issued permits for 2992 units of private student housing with 7313 bedrooms between January 2012 and the end of April 2016, compared to 1348 units and 6492 bedrooms over the period 2007-2011, much of it within the Northdale plan area.[2] This represents a decrease, in keeping with planning objectives, in the average number of bedrooms per unit permitted from 4.8 to 2.4 between the two periods. As a result, Waterloo is the only mid-sized city in Southern Ontario to have produced an adequate volume of student housing to meet demand (McLerie, 2017).[3] The plan has also been successful in improving

[2] As there is no legal definition of student housing, these numbers are based on planners' identification of developments oriented to students. Some units may be occupied by non-students, and students may occupy other developments.

[3] However, other mid-size cities in Southern Ontario have seen more modest university enrollment increases, and given the expected stabilization of enrollment in the near future, these shortages are not anticipated to require major construction of new student housing in the long run (McLerie, 2017).

the amenities within buildings, incorporating retail uses, and adopting more inventive architecture (Figures 3.2 and 3.3).

Figure 3.2: Mixed-use development, as mandated by the Northdale Plan.

These successes must be qualified. Rather than simply meeting demand, some estimate that there is a potential surplus of nearly 1200 bed spaces in off-campus student housing in Waterloo (Curic, 2015; Town and Gown Committee, 2016). CMHC counts an additional 1400 bed spaces under construction (McLerie, 2017). An upper-bound estimate of potential new student housing construction yet to come (permitted but not yet constructed, or proposed but yet to receive permits) counts over 7000 bedrooms proposed by institutions and developers (Town and Gown Committee, 2016). In the meantime, enrolment has stabilized and demographic trends suggest a decline in the domestic university-aged population through 2022 (McLerie, 2017). Not all of these units will necessarily be constructed, and increasing

numbers of international students may partially offset domestic demographic decline, yet these trends raise new concerns about oversupply in Waterloo's student housing market. It also remains to be seen to what extent the new LRT system acts as a force of dispersion, and whether non-students will be willing to move into a revitalized and re-urbanized Northdale, given the continuing concentration of students (and therefore potential for neighbourhood disruptions).

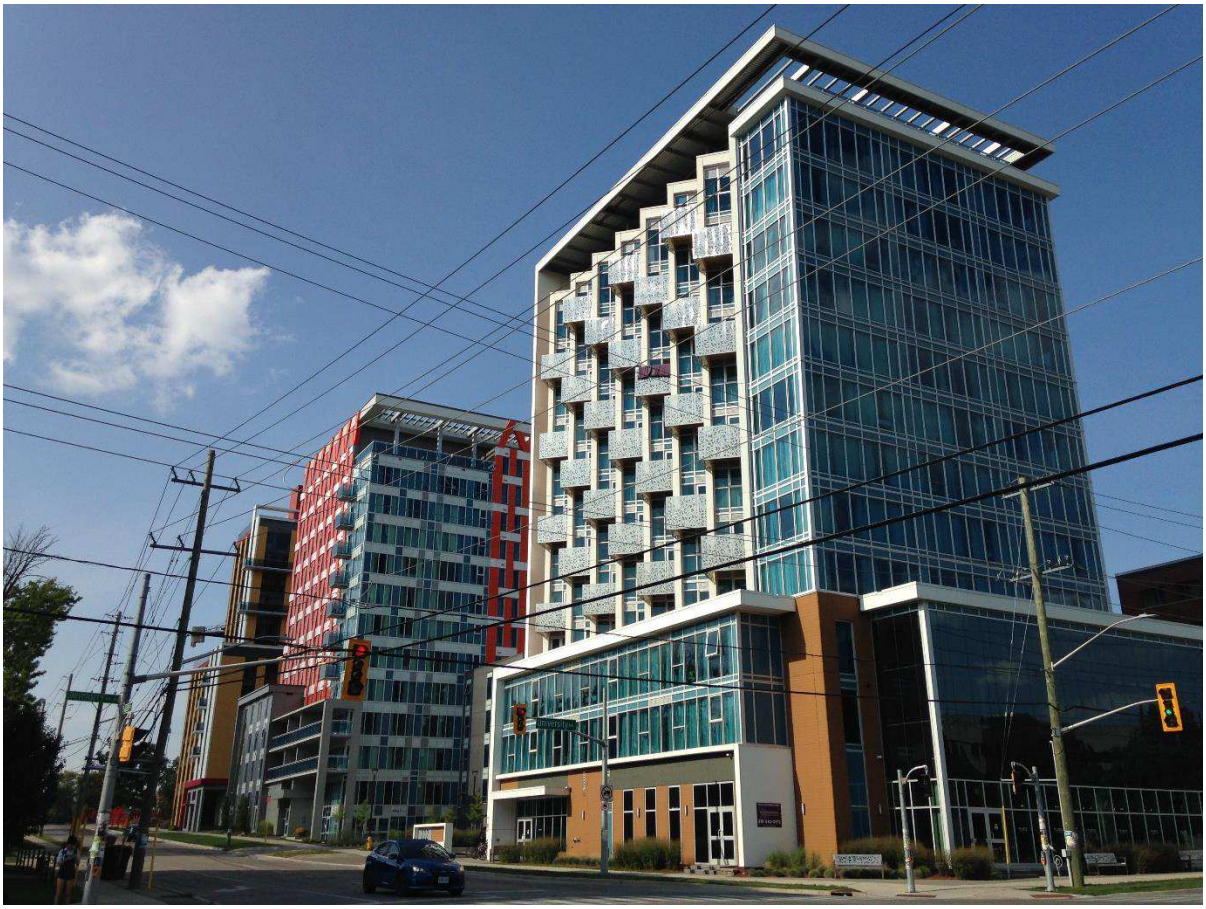

Figure 3.3: The Northdale Plan encouraged distinctive architecture to prevent drab, uniform streetscapes.

However, planners in Waterloo remain proactively engaged with these issues. For example, in September, 2016, the City of Waterloo's Town and Gown Committee, the Mayor of Waterloo, and CMHC hosted a "Repurposing Student Housing to Affordable Housing and Other Housing Opportunities Forum" (City of Waterloo, 2016b). The forum explored

creative ways of adapting vacant student housing to address shortages of affordable housing for refugee and immigrant families, seniors, those with addiction and mental health issues, and other low-income residents. However, successful cases of repurposing may be limited to older housing farther from the universities. In particular, surpluses of larger five-bedroom units near the campuses, from the nodes and corridors period (1998-2011), may pose greater challenges to adaptive reuse. We might also question whether it is just or desirable, from the perspective of marginalized residents, for supportive housing to be sited in a campus precinct, given the potential disturbances associated with student neighbourhoods.

3.4 Discussion: Planning the Urban Dormitory

The Waterloo case demonstrates the role of planning and local context in shaping the urban dormitory over a long time horizon, and in doing so provides a number of practical insights for planning the urban dormitory. There are two crucial, and related, theoretical points to be made here. First, the perspective offered in studies concerned with a shorter time frame, perhaps inadvertently, tends to portray planning as merely reacting to new concentrations of students. In reality, over the long time frame considered here – more than 30 years – planning has not only responded to external influences on the student housing market, but has also often proactively anticipated changes and attempted to direct development accordingly. Over this period, planners in Waterloo have maintained a consistent focus on housing and neighbourhood quality, and nuisance behaviour, albeit with a changing view of whether concentration or dispersion of student housing was the best approach. Second, local planning and policy has sought to regulate the student housing market in a broader sense than that implied by the term "studentification." Many regulations shaping this market have been applied more widely across the city, not only to areas that could be reasonably said to be "studentified." These longstanding attempts to regulate student housing have not been concerned solely with issues relating to studentification, per se – for instance, a perceived need for urban intensification.

For both these reasons, we argue it is necessary to extend debate beyond studentified neighbourhoods to encompass the broader urban dormitory. This conceptualization of the

urban dormitory aligns with calls to problematize the distinctions between the studentification of shared rental houses and the development of purpose-built student housing (Sage, Smith & Hubbard, 2013), as well as with the recognition that students' residential geographies may be distinct, yet do not always fall easily into the rubric of studentification (Malet Calvo, 2018). Moreover, it recognizes how the student housing market is shaped by planning policies that either do not pertain directly to student housing, or which are in force beyond the hotspots of intense studentification, even if these particular neighbourhoods are subject to additional planning frameworks.

We may view Waterloo's urban dormitory, in Beauregard's (2005) terms, as being a thickly textured market, given the weaving together of planners' responses to past development and anticipations of future changes alongside local contextual factors. For instance, the double cohort and ensuing enrolment increases through the 2000s were all the more urgent to address given several existing circumstances: first, the dispersed city's pre-existing housing stock and land supply constraints; second, restrictions on lodging houses that contributed to a shortage of off-campus accommodation for students; and third, local universities' inability and/or unwillingness to provide additional on-campus housing. Simultaneously, concerns over neighbourhood disruption and the perceived lack of urban amenities were seen as barriers to a transition to a knowledge-intensive urban economy. Waterloo planners foresaw these challenges and planned accordingly by adopting a higher-density nodes and corridors strategy. When elements of this plan proved unsuccessful in drawing students out of the centre of the low-density Northdale neighbourhood and in overproducing large units, the city adapted by developing a new plan for that neighbourhood. Such an adaptive approach continues as the city contemplates possible uses of surplus student housing.

Arguably, where effective planning is concerned, what is more important than whether or not planning can direct, control, or overcome market forces in urban development (Charney, 2015; Jones, 2014), is the extent to which planning is able to adapt to real or perceived failures or unintended consequences of past interventions. In this sense, planning the urban dormitory in Waterloo has been effective. Furthermore, planning-market tensions

in urban development may be heavily influenced by other non-market or institutional actors – in this case, universities.

Of course, the specific constellation of local contextual factors shaping Waterloo's urban dormitory and its planning are to some extent unique, as they would be in any particular place. However, the form and extent of the urban dormitory elsewhere – and indeed, the knowledge economy city more generally – is equally likely to be determined to a considerable degree by the contingencies of local history and planning. The advanced nature of Waterloo's student housing market is unique in Canada, although not compared to the USA or UK. The policy experimentation necessitated by this context is precisely what makes it an instructive case for cities elsewhere, and offers lessons upon which other cities can base their own responses crafted to local circumstances. Within Canada, planning conflicts concerning student housing exist from Victoria (Watts, 2018) to Halifax (Lee, 2017), and as developers increasingly seize on opportunities to invest in purpose-built student housing elsewhere (Vanecko, 2015), other cities may see a convergence with Waterloo's trajectory. The degree to which this is so will depend in large part on local planning's approach to the urban dormitory. Several recommendations applicable to other studentified contexts, in Canada and beyond, thus arise.

First, at issue is not simply managing student housing and its urban impacts, but doing so in a context subject to change due to local and extra-local forces. Planning interventions designed to address one issue pertaining to student housing at one point in time may then shape the subsequent development of the student housing market and therefore the nature of subsequent issues. Planning the urban dormitory must therefore take an adaptive and forward-thinking approach. Waterloo's forum to imagine new uses for surplus student housing is a particularly salient example for those places facing concerns related to the overbuilding of student housing (Mulhearn & Franco, 2018).

Second, this study confirms the findings of others that purpose-built student accommodation is not a panacea for concerns regarding studentification (Sage, Smith & Hubbard, 2013). Planning efforts to enable a substantial influx of private capital into the development of high-density student housing can address the issue of student housing

shortages, yet do not necessarily resolve other related town-gown conflicts. Such shortages, which have historically existed in mid-sized cities across Southern Ontario (McLerie, 2017), are no longer a concern in Waterloo, especially after the approval of the nodes and corridors strategy in 2005. However, the 2012 Northdale plan was drafted specifically in response to the failure of new high-density student housing along the perimeter of that neighbourhood to preserve the single-family character of the neighbourhood's interior in the face of strong market pressure. Moreover, a major shortcoming of planning has been its complicity in apparent overbuilding. Challenges remain in repurposing or repositioning much of this oversupply to non-student populations.

Third, given these limitations of purpose-built student housing, there remains an important role for planning regulation. Facilitating investment in student housing to meet demand should not be a case of planning simply stepping back and taking a laissez-faire approach. Rather, planning can be key in incorporating ground-floor retail uses and more interesting architecture, and in limiting unit sizes. It is unlikely these features would have been adopted without planning intervention in the Waterloo case.

Yet we can also point to shortcomings of other proposed approaches to regulating student housing. For example, Ruiu (2017, p. 855) argues that "only through a regulation of [the] number of students in established residential communities, the sustainability of communities can be ensured." The Waterloo experience suggests that this may not be the case. Regulation proved ineffectual in practice as a legal challenge rendered the city's lodging house bylaw unenforceable, and concerns over the discriminatory nature of minimum distance separations led the city to ultimately abandon them in 2011 (see also Hubbard, 2008). The restrictions also contributed to a housing shortage for students in the pre-1998 low density period. The City of Waterloo ultimately decided to focus on safety and standards enforcement, a strategy that also appears to have been relatively successful in neighbourhoods adjacent to the Ohio State University in Columbus, Ohio (Evans-Cowley, 2006), in combination with public realm improvements.

Finally, while the studentification process in Waterloo is not an example of collaborative management between local government and universities in the sense described

by Ruiu (2017), it does nonetheless point to another potential limitation of such an approach. Namely, university-municipal collaboration fails to directly incorporate private capital, which has been hugely influential in the development of purpose-built student housing. Successful collaborative management of this sort would either need to severely curtail the private, off-campus student housing market, or else expand the reach of collaborative management beyond merely a bipartite arrangement between "town" and "gown." Many public universities (and municipal governments) lack the necessary resources for the former in the contemporary neoliberal context (MacIntyre, 2003). Indeed, the proliferation of privately developed student housing demands that more attention be given to the role of capital and its agents in the studentification process (Smith & Hubbard, 2014; Chapter 2).

3.5 Conclusion

The Waterloo experience demonstrates that planning does not merely react to issues around student housing when they arise, but may in fact proactively anticipate changes in the market. Moreover, planning influences student housing markets in a broader sense than the term "studentification" implies. Regulations on student rental housing extend beyond narrowly-defined areas where such housing is especially concentrated, and the student housing market is also substantively shaped by planning interventions that are not directly focused on issues related to studentification. In other words, there is a need to expand both the scope of academic inquiry and the frame of planning intervention to consider the urban dormitory as a whole – that is, the entire urban extent of private student rental housing.

While Waterloo appears unique in Canada due to its particularly advanced student housing market, the shape this market has taken has been the product of planning. Current trends indicate that other Canadian cities will increasingly see similar purpose-built student housing developments (Vanecko, 2015). Regardless, Waterloo is not unique in its need to manage student housing issues, and its extensive history of attempting to do so – whether in shared rental houses or purpose-built apartments – makes it an instructive example for other cities in Canada and elsewhere.

Planning has considerable latitude to shape the urban dormitory, for better or for worse. Indeed, it has for over 30 years in Waterloo. Limitations such as the minimum distance separations in the city's former lodging house and zoning bylaws can lead to shortages of student housing. Pent up demand may be accommodated by larger, purpose-built developments, but such developments will not necessarily solve problems of neighbourhood disruption associated with studentification, either. A more promising approach, as exemplified in the 2012 Northdale plan, is for planning and policy to focus on guaranteeing public and private amenities, retail spaces, and desired unit sizes and design characteristics, as well as upholding safety and standards enforcement. The hot market for high-density student housing provides an opportunity for planning to make these demands of private developers. Despite being commonly positioned as a 'town and gown' issue, managing private off-campus student housing development actually means regulating private investment. However, the potential benefits and pitfalls of more explicit partnerships between municipal government, universities, and private-sector actors remain to be more thoroughly explored in both research and practice. Finally, planning the urban dormitory requires an approach that is adaptive and forward-thinking with respect to both changing local context and the unintended outcomes that are inevitable in attempts to regulate dynamic urban processes such as studentification in the knowledge economy city.

Chapter 4: Making a market for itself: The emergent financialization of student housing in Canada

With Martine August

Purpose-built student accommodation (PBSA) has recently moved from an obscure sector to a mainstream worldwide asset class, with a record USD$16.4 billion invested in existing stock globally in 2016, topping the previous year's record of $15 billion. Of this, the United States (US) and United Kingdom (UK), widely considered the most established national PBSA markets, attracted roughly $10 and $4 billion respectively. Meanwhile, between 2013-2016, Canada attracted less than $200 *million*. This is a disproportionately small amount, especially given that the Canada Pension Plan is a major PBSA investor abroad (Savills, 2015; 2016; 2017). Seeing the opportunity in underdevelopment, financial investors began in 2011 to create a market for PBSA in Canada, focusing on the luxury end of the sector and targeting secondary markets in southern Ontario.

We explore the financialization of private PBSA in Canada, documenting the business strategies of investors, its geographic concentration, and impacts on patterns of inequality in urban space. Our work brings together literatures exploring the financialization of housing and rental apartments (e.g. Aalbers, 2016; August & Walks, 2018; Fields, 2015; Teresa, 2016), and work on student-oriented gentrification, or "studentification" (Smith, 2005; Chapter 2), to make two interrelated arguments. First, we argue that financial investment into niche sectors like PBSA has required finance to 'make a market for itself' through the physical creation of PBSA assets within the private sector. While 'new-build studentification' (Sage, Smith & Hubbard, 2013) has elsewhere been driven by *student* demand for housing in today's knowledge-based economy (Foote, 2017; Moos, Revington, Wilkin & Andrey, 2019; Nakazawa, 2017), we find in Canada that *finance*-driven demand for an investment product is propelling the creation of PBSA. Second, we extend Smith and Holt's (2007) argument that studentification installs the cultural practices of gentrifiers in 'provincial' or 'secondary' cities. Beyond cultural practices, financialized PBSA provides

new opportunities for capital investment in the built environment of secondary cities, offering a product that is differentiated from generic rental housing. Financialized PBSA therefore functions as a spatial fix, with implications for segregation, displacement, and affordability at the local neighbourhood scale.

We begin by framing our study within literatures on financialization, housing, and studentification. We then document the financialization of student housing in Canada, examining the business strategies and geographical investment patterns of the firms that are reshaping this sector. Next, we turn to a case study of Waterloo, Ontario, where five finance-backed firms have acquired 4,259 beds in PBSA since 2012. Waterloo is a critical case, as it has the most advanced and most 'financialized' PBSA market. Home to the University of Waterloo (UW) and Wilfrid Laurier University (WLU), the city of 133,000 (within an urban region of 560,000) contains 42% of private PBSA in Canada – over 17,500 bed spaces. Our analysis asks what factors cultivate investor interest in student housing, and how this phenomenon affects student renters and the communities in which they live and study.

4.1 Financialization from Home to Dorm

Financialization has a variety of meanings (e.g., Christophers, 2015; French et al., 2011), but broadly refers to the increasingly dominant role of finance within global capitalism since the 1970s (Epstein, 2005; Krippner, 2005). Aalbers (2016, p. 2) defines it as "the increasing dominance of financial actors, markets, practices, measurements and narratives, at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states and households." With this process, non-financial sectors of the economy and daily life are being drawn into the orbit of finance, and made subject to its logics and practices (Foster, 2007; Martin, 2002). As a result, decision-making is increasingly shaped to align with the interests of investors, with a focus on delivering higher yields and building shareholder value, at the expense of other objectives (Erktuk et al., 2008; Froud & Williams, 2017). In the case of real estate, treating properties as pure financial assets to be managed and traded to drive earnings for investors undervalues the social value of land, properties, and

housing, and their usefulness for providing homes, places of refuge, and sites for building community (Rolnik, 2013).

Scholars studying the financialization of property have called real estate assets "quasi-financial" (Coakley, 1994) because they include physical structures that are spatially fixed, infrequently bought and sold, illiquid, and not easily comparable (Gotham, 2006; 2009). Innovations to securitize real estate that emerged in the 1980s overcame these limitations by rationalizing buildings and properties into legible and tradeable commodities. Real estate investment trusts (REITs) and other innovations have transformed "illiquid commodities into liquid securities" which can be bought and sold in capital markets (Gotham, 2009). REITs pool the capital of many shareholders to acquire portfolios of income-producing real estate assets. Investors buy shares of the total portfolio rather than an individual property, spreading risk over diverse assets and geographic areas, and eliminating the need for investors to have the local knowledge and expertise necessary for direct investment in real estate. Income is distributed to shareholders who can now treat real estate as an easily-exchanged financial asset (Gotham, 2006; Waldron, 2018). August and Walks (2018) use the term "financialized landlords" to refer to REITs and similar financial vehicles including private equity funds, institutional investors, and asset management firms that acquire rental housing properties. These entities differ from traditional landlords in that they aggressively manage housing as financial assets, affecting tenants but also remaking the sector for investors (August, forthcoming) – a process Ward and Swyngedouw (2018) call "assetization."

Recent literature demonstrates how housing is central to financialization (Aalbers, 2017). Much of this has centered on single-family housing and homeownership, examining home loans, credit scoring, and mortgage securitization (e.g. Aalbers, 2016; Gotham, 2009; Walks & Clifford, 2015). Researchers have linked the financialization of housing with the global financial crisis and subsequent restructuring of housing and financial markets, and demonstrated how predatory lending and the foreclosure crisis targeted harm towards low-income, racially-marginalized, and disadvantaged home buyers (e.g. Greece: Alexandri & Janoschka, 2018; Spain: García-Lamarca & Kaika, 2016; US: Wyly et al., 2006). Recently,

financial firms have begun to target rental housing, intensifying ties between local properties and global finance (August, forthcoming; August & Walks, 2018; Beswick et al., 2016; Fields, 2015; Fields & Uffer, 2016; Teresa, 2016; Waldron, 2018; Wijburg et al., 2018). Tenants are often subject to harassment, eviction, and reduced quality of life in buildings that are aggressively managed to deliver investor profits, which intensifies gentrification and deepens patterns of socio-spatial inequality (August, forthcoming; August & Walks, 2018; Fields, 2015; Fields & Uffer, 2016; Teresa, 2016).

The financialization of housing is related to the over-accumulation of capital in need of new avenues for profitable investment (Aalbers, 2016). Finance lubricates the switching of capital into real estate – or subsectors therein (Charney, 2001) – to provide a temporary sectoral "fix" (Harvey, 1982; 1985; Beauregard, 1994), but the financialization of housing also offers a "financial fix" (Aalbers, 2016 p. 95) by promoting the circulation of capital in housing-backed securities. The financialization of new housing sub-sectors, and in new geographic contexts, can also be seen as a form of spatial fix, as in the case of inner-city mortgage lending in the US (Wyly et al., 2004) and debt-fueled, speculative real estate investment in the European periphery (Alexandri & Janoschka, 2018; Byrne, 2016a; 2016b; García-Lamarca & Kaika, 2016; Waldron, 2018) in the lead up to the global financial crisis. These dynamics are intrinsically linked to uneven development, as unevenness creates both opportunities for and impediments to the profitable redeployment of capital (N. Smith, 2008).

Financialization in new geographies and sectors implies the creation of markets. Interdisciplinary researchers have shown that markets – far from being natural phenomena – are socially constructed by a variety of actors and circumstances (Berndt & Boeckler, 2009). For example, interventions by the state have been crucial in enabling mortgage securitization and the formation of REITs (Gotham, 2006; Waldron, 2018) while promoting homeownership and marginalizing the social-rental sector (Alexandri & Janoschka, 2018; García-Lamarca & Kaika, 2016; Walks & Clifford, 2015). Private sector actors, meanwhile, engage in developing standardized techniques to measure and manage new types of assets (Fields, 2018). These market-making efforts have opened up new fields to investment, and

enabled the development of new institutional architecture for financial vehicles that can harvest new sectors of the economy for profit with increasing sophistication.

Paralleling the transition of the multi-family rental market from the province of 'mom-and-pop' landlords to the domain of large-scale financial actors has been the emergence of 'new-build studentification' (Sage, Smith & Hubbard, 2013). Studentification entered the academic lexicon following a rapid rise in post-secondary enrolment in the UK during the 1990s to describe the concentration of students in neighbourhoods near universities. Smith (2005) linked studentification with gentrification, outlining the economic, social, cultural, and physical changes that accompany a rise in student population. University life shapes both the class position and consumption preferences of 'apprentice gentrifiers,' as students inhabit locales consonant with social and cultural student identities (Smith & Holt, 2007; see also Chatterton, 1999). These authors see studentification as a central component of gentrification in secondary cities with universities.

In the UK, financialization of student housing first followed an "investification" model (Hulse & Reynolds, 2018), in which one-off investors accessed 'buy-to-let' mortgages (Leyshon & French, 2009) to purchase shared houses as income properties to meet increased student housing demand. This process was superseded in the mid-2000s as corporate investors entered the PBSA sector (Hubbard, 2009; Smith & Hubbard, 2014), and "trail blazed" an agenda for financialization in the generic rental housing sector in the UK (Beswick et al., 2016). Local authorities also funneled new-build studentification into designated areas, to protect established neighbourhoods from perceived issues with student housing, like parking pressures, noisy parties, and physical deterioration (D. Smith, 2008; in Canada, see Chapter 3). While not always successful (Sage, Smith & Hubbard, 2013), these policies raise concerns about segregating wealthier students into higher-end purpose-built dwellings (Smith & Hubbard, 2014). The consolidation of PBSA portfolios by financialized landlords has led to increased rent levels, affecting both students and non-students in areas experiencing new-build studentification, in both the UK (Beswick et al., 2016; National Union of Students & Unipol, 2016) and the US (Laidley, 2014).

Despite the simultaneous emergence of new-build studentification and the financialization of residential real estate, studentification literature does little to expand on the role of finance. We fill this gap, exploring investor strategies and emergent geographies of PBSA in Canada, and contributing to debates on the dynamism of studentification and its links with urban processes (Foote, 2017; Moos, Revington, Wilkin & Andrey, 2019; Smith & Hubbard, 2014; Chapter 2). Student housing also presents an interesting case for scholars of financialization. Its swift rise from obscure sector to a global asset class demonstrates a trajectory that other niche residential asset classes may take (Savills, 2016). We bring these strands of scholarship together, outlining both the expansion and fragility of the financialization of PBSA.

4.1.1 Methods

First, we constructed a novel database identifying the location, bed count, and ownership of private PBSA in Canada. We identified PBSA through systematic internet searches specific to cities with post-secondary education institutions, a challenging task "since it is difficult to ascertain how PBSA is managed and controlled due to complex arrangements between organisations" (Smith & Hubbard, 2014, p. 96). Where possible, details were gathered from real estate companies' prospectuses, annual reports, and other documents, either through their websites or public filings with the Canadian Securities Administrators (CSA, available at sedar.com). As not all properties are owned by publicly-listed companies, and not all companies publicize the details of their holdings, we also consulted industry publications, news media, and planning documents pertaining to PBSA developments.

Second, we used qualitative document analysis to understand business strategies, geographical investment choices, and challenges facing firms. Third, to investigate impacts of this trend, we examined the case study of Waterloo, drawing on data from Statistics Canada, the Canada Mortgage and Housing Corporation (CMHC), municipal building permit records, and Waterloo's Town and Gown Committee. Finally, we conducted semi-structured interviews (n=20) with key informants involved in the student housing sector, between June-November 2018.

4.2 The Financialization of Student Housing in Canada

In the US and UK, financial investors have targeted the off-campus PBSA market, which is home to 12% and 23% of post-secondary students in those countries respectively (*Canadian Apartment Magazine*, 2016). In Canada, only 3% of students live in such housing, positioning off-campus PBSA as an untapped market for investors. There were approximately 1.3 million university students in Canada in 2017 (Universities Canada, 2017). About half live with family and 16% live in residence on campus. The remaining 33% living off-campus in rental housing are targets for the purpose-built sector (CUSC, 2011; CHC, 2015b; Vanecko, 2015).

While education is constitutionally a provincial responsibility, both the federal and provincial governments have pushed for increased participation in higher education (Kirby, 2007; Metcalfe & Fenwick, 2009). Canada is recruiting international students, hoping to attract 450,000 students by 2022, a 22% increase over 2015 (Savills, 2017). These policies align with neoliberal agendas, aiming to promote growth by developing a highly-educated workforce for the knowledge economy. International students are valued to generate revenue for universities to compensate for decreased public funding, and to relieve skilled labour shortages and demographic decline (Kirby, 2007; Trilokekar & Kizilbash, 2013; Government of Canada, 2014).

State support for student housing, meanwhile, is minimal – it receives no mention in Canada's 2017 *National Housing Strategy*, and state-run CMHC provides no dedicated financing for its construction. Since 2012, CMHC has offered mortgage insurance for student housing to private lenders, subject to higher premiums and other restrictions (which may be eased with institutional guarantees on the loan; CMHC, 2012). Eligible projects must be either on-campus or nearby, and were initially limited to unfurnished, self-contained units of no more than four bedrooms each off-campus. Changes in 2017 provided greater flexibility to borrowers through longer amortization periods, permissible non-residential components, and dropping restrictions on off-campus furnished suites (CMHC, 2017).

Yet demand for off-campus rental is expected to remain strong, since dormitory construction has not kept pace with enrolments, and since students typically live in dorms for

one year (CUSC, 2011). There is also room to expand PBSA across Canada, beyond existing concentrations in Ontario (Table 4.1), and new construction is planned in Winnipeg, Hamilton, Calgary, and elsewhere (Crowther, 2017; Keele, 2018; McFarland, 2018). For finance-backed firms, this landscape speaks to an opportunity to capitalize on, and indeed to *create* a market for PBSA, modelled after those in the US and UK.

Table 4.1: Canada's Largest Private PBSA Markets, 2018

City	Beds
1. Waterloo ON	17,567
2. London ON	4,096
3. Montréal QC	2,206
4. Kelowna BC	2,014
5. Oshawa ON	1,815
6. St. Catharines-Niagara ON	1,783
7. Ottawa ON	1,527
8. Toronto ON	1,455
9. Kingston ON	1,248
10. Hamilton ON	1,052
11. Kitchener ON	1,016
12. Barrie ON	993
13. Guelph ON	949
14. Greater Vancouver BC	832
15. Québec QC	686
All other cities	1,661
Total	*41,786*

Note: Properties with 20 beds or more, excluding private partnerships with educational institutions and co-operative housing.
Source: compiled by the authors from a variety of sources including publicly-filed reports, company websites, industry publications, news media, and planning documents.

In the UK, the financialization of PBSA preceded that of other multi-family rental housing (Beswick et al., 2016). In Canada, conversely, financial investors began to transform the multi-family sector in the 1990s (August, forthcoming), while the incipient financialization of PBSA began in 2011 (Table 4.2). One of the first firms was **Centurion** Apartment REIT (2017a), which operates ten student housing properties under the brand name "The Marq" with the objective of maximizing unit value and providing cash distributions to unitholders while growing the REIT's portfolio. Another is **CHC Student**

Housing, which includes a private partnership backed by **AIMCO** (which manages Alberta's public pensions), and a public arm (TSXV:CHC), launched in 2014 (CHC, 2014; Smycorp, 2013). Private **Canadian Student Communities (CSC) REIT** was established in 2016 with two Waterloo buildings and the intention to expand to other cities (*Marketwired*, 2016). In addition to REITs, capital management firms such as **Knightstone** and **Woodbourne** have targeted PBSA for providing stable cash flow and high returns. Since 2013, **CIBT Education Group** (TSX:MBA), an operator of private colleges, language schools, and recruitment services, has entered the student housing sector from a different angle. CIBT plans to house 10,000 students in an "Education Mega Center," "Global Education City," and other developments across greater Vancouver by leveraging its contacts with 20,000 students from 42 countries to capitalize on the region's low vacancy rate, high rents, and reputation for education (CIBT, 2018; Seftel-Kirk, 2014).

The financialization of PBSA in Canada also involves a unique "condo" model, in which developers build student rental housing and sell units as investment properties, while assuming responsibility for property management and lease-up. For developers this approach is more profitable than building first and then selling (or holding and renting out) a finished property, and it mirrors the virtual replacement, since the 1980s, of purpose-built rental construction with condominiums in Canada (Rosen & Walks, 2015). Unlike the generic condo market, however, in which owners may choose to rent out their unit rather than occupying it, in the student sector, units are designed to be rented from the outset (or 'buy to let'), and purchasers buy access to an expected income stream rather than a home – a form of "investification" (Hulse & Reynolds, 2018). Local developers such as Kelowna's **Mission Group** and Waterloo's **Prica Group** and **IN8 Developments** have made extensive use of this model.

Some of Canada's biggest financialized landlords are attentive to student housing, but have stopped short of investing in PBSA. **Timbercreek** Asset Management, **CAPREIT** (Canadian Apartment Properties REIT), **Mainstreet** Equity (TSX:MEC), and **Killam** Apartment REIT – among Canada's 12 largest landlords (August, forthcoming) – all offer dedicated webpages for students with search tools for off-campus rentals in their multi-

family portfolios. Students and the low-cost housing they seek are clearly on the radar of these players as an untapped source for value extraction, whether this value is squeezed from their parents' pockets or from their own future earnings in the form of greater debt loads.

Table 4.2: Financialized Student Housing in Canada, 2018

Financialized Investor		City	Beds	Year Acquired
Knightstone Capital Management		Toronto ON[a]	2,200	2015 – 2017
		Montréal QC[b]	886	–
		Total	*3,086*	
Centurion REIT		Waterloo ON	1,374	2012 – 2016
		London ON	950	2012 – 2015
		Montréal QC	440	2011
		Total	*2,764*	
CHC Student Housing	Limited Partnership with AIMCO	Waterloo ON	955	2012
		Oshawa ON	587	2012
		Hamilton ON	449	2012
	TSXV:CHC	London ON	387	2014
		Trois-Rivières QC[a]	310	2014
		Kingston ON	18	2014
		(Windsor ON – sold 2017)	(117)	(2014)
		Total (excl. Windsor)	*2,706*	
Woodbourne Capital Management		Kingston ON	641	2011 – 2015
		Oshawa ON	373	2014 – 2015
		Barrie ON	360	2016
		Total	*1,374*	
Canadian Student Communities (CSC) REIT		Waterloo ON	*1,371*	2016 – 2017
Beaumont Partners (formerly with Campus Crest Communities)		Montréal QC	*1300*	2014
CIBT Education Group (TSX:MBA)		Greater Vancouver BC	*832*	2014 – 2018
Forum Equity Partners		Toronto ON[ab]	*800*	–
First Ontario Credit Union		St. Catharines ON	*468*	2016
Alignvest Student Housing (ASH) REIT		Waterloo ON	*455*	2018
CA Ventures		Ottawa ON	*432*	2014
Labourers International Union of North America; financed by union's pension fund		Hamilton ON	*400*	2018
Kayne Anderson Capital Advisors		Montréal QC	*280*	2014
Scholar Properties		Waterloo ON	104	2014
		Hamilton ON[b]	43	–
		London ON	20	2014
		Total	*167*	
		Grand Total	*16,435*	

[a] Partnership with a post-secondary education institution
[b] Under development
Source: compiled by the authors from a variety of sources including publicly-filed reports, company websites, industry publications, news media, and planning documents.

4.2.1 The Allure of Student Housing

A number of elements make PBSA attractive to investors. By-the-bed leasing generates higher returns than conventional rental housing (Smith, 2005; Smith & Hubbard, 2014) and parental guarantors reduce the risk of non-payment (CHC, 2015a). Apartments are typically arranged as four- or five-bedroom suites with shared kitchens and living areas to reduce costs. According to a partner in a student housing firm (L05), "the footprint of the bedrooms is much smaller than you would find in an apartment building … So it allows us to have many more students housed in the same facility," increasing revenue. PBSA is also seen as recession-resistant, since people return to school during economic downturns (Patterson, 2016).

Financialized landlords seek to "capitalize on the lack of high-end purpose-built student housing" (Woodbourne, 2017) by "bringing to Canada an amenity-rich campus living experience" modelled after the UK and Western Europe (Knightstone, n.d.; see also CHC, 2015a; Lobo, 2014; McFarland, 2018; Patterson, 2016). Unlike generic multi-family housing, in which financialized landlords purchase existing stock, the student sector includes new or freshly-renovated "luxury" developments. The former CEO of CHC explained that the opportunity in this sector is "modern student apartment buildings near campuses that include amenities … as well as parent-friendly touches such as ubiquitous security cameras" (Perkins, 2013). Centurion's first acquisition was "in a sorry state and clearly neglected" before the company "injected significant capital," installing granite counters and modernizing kitchens, bathrooms, and common areas, and offering "premium amenities including fitness and weight training rooms, a theatre, a games room, a lounge, a study room, CCTV coverage, underground parking, and onsite staff" (Anderson, 2013, p. 23-24). Knightstone (n.d.) argued the "spartan," unsafe, and unclean student living rite-of-passage is outdated, and that today's generation is "sophisticated," demanding "advanced technology, private baths, and resort-style facilities and services." At their CampusOne residence in downtown Toronto, students pay $1700 per room (before a meal plan), and get "condo-quality units … and a host of programming from yoga classes to animal-petting events" (McFarland, 2018).

In part, luxury branding and security are meant to assuage parents' concerns while targeting their wealth. CHC's strategy assumes that "parents generally pay their kids' rents" (Perkins, 2013). One broker was frank about the business model: "Mom and Dad get shaken down to pay more rent because the kid wants a better place closer to the school, right?" (R04). Regardless of who pays, this "luxury" housing is a freshened-up version of low-cost, small, shared multi-family housing, and its rebranding allows financialized landlords to define a market and charge far more than students would otherwise be paying.

With a focus on driving revenues from a "luxury" product, the ability to increase rents is important to investors. In Ontario, this is so easy that Centurion classifies student housing as "non-rent controlled" (2017b, p. 56). Ontario restricts rent increases each year to a provincially-set "guideline" amount (1.8% in 2018). Rent is decontrolled, however, once a unit becomes vacant. Because of its high turnover, PBSA operators are well-poised to benefit from "vacancy decontrol" (CHC, 2015a). In 2017, Centurion was unconcerned that a policy would extend rent controls to more buildings, expecting "virtually no impact on the student housing business" because "residents move out as they graduate" (2017a, p. 24).

In Canada, PBSA is also alluring because the potential market is growing. The sector is underdeveloped compared to the US and UK, and as investment opportunities flatten out abroad (Brass, 2018), a shift to countries like Canada is expected (Savills, 2015). International students are a potential source of demand (Savills, 2017), and industry watchers point to Canada's weak currency and high university rankings as pull-factors. Meanwhile, Trump's "Muslim Ban" in the US and "Brexit" in the UK may be push factors. Indeed, 2017 saw an 11% increase in country-wide international enrollment (Bothwell, 2017).

A further appeal of Canadian PBSA is paradoxically the *barriers* to investment, beginning with the fragmented nature of ownership. In 2013, the CEO of CHC explained that "the marketplace itself is non-existent in Canada, and that's one of the things that attracted us to it" (Perkins, 2013). Centurion was similarly drawn to the potential for consolidation in the sector, describing it as "highly fragmented … with few dominant competitors, ripe for consolidation by a well-capitalized and focused acquisitions strategy" (2017b, p. 55). This is in contrast to the generic multi-family sector, where competition for assets has brought down

the capitalization (or "cap") rate (the ratio of net operating income to asset price). As a director of one firm explained, "Multi-family's full. … The whole reason for [investing in] student [housing] is that it's got a disparate yield right now, right? We think that there's compression in the cap rates, *and* we think that there's an 'oligopoly play' where you can be the dominant player in that space" (L01). Centurion also spoke to other "barriers to competition," including the need for specialized management skills; higher equity requirements to purchase large newly-built properties; and the "niche and emerging nature of the business" that has prevented participation by institutional investors (2017b, p. 55).

4.2.2 The Perils of Student Housing Investment

The same barriers to investment in PBSA that are prized by those who overcome them have kept financialization at bay. While the limited stock of existing properties is alluring to investors, it has resulted in what one broker referred to as "a terrible catch-22" whereby "if there was more student housing product, there would be more buyers, but because there's not much product to buy, there are no buyers" (R04). Another broker concurred: "other markets [aside from Waterloo] don't have the availability, therefore don't have the number of investors. … If they had the supply, they would have the demand" (R03). Industry participants decried a lack of information about the sector in Canada, and the underdeveloped nature of the market means that consumers too are less familiar with PBSA (Morton, 2012; Peisner, 2014).

Firms have had to do substantial work to *create* this market by promoting familiarity with PBSA among financiers of construction and potential buyers, something interviewees described as "a big learning curve" (R03) or an "extra step" that few were willing to take (R05). Investors are wary of unproven markets, and banks have been hesitant to invest, due to their unfamiliarity with PBSA and the specialized management it requires (Morton, 2012; Peisner, 2014). Another broker lamented that financiers have "got to realize this is not a high-risk business as they think it is," and the challenge is: "You have to teach the guy the student housing building first, before he can buy it. … The marketplace isn't ready for something they don't understand" (R04). PBSA investors have also had to cultivate

connections with developers. A partner at one firm explained: “It means we have to work with developers to really bring it along. And that’s quite similar at many university towns in Canada” (L05).

Despite the recent spike in applications, Canada remains a minor destination for international students compared to Australia, the US, the UK, and western Europe (Statistics Canada, 2016), and many struggle to afford suitable housing (Calder et al., 2016). One broker explained that PBSA in Canada is not driven by an influx of wealthy international students: “A lot of people use the student visa in Canada as a way to immigrate here, right? They’re poor as heck. … They’re slumming it” (R04). While some PBSA providers have attracted wealthy international students, most do not specifically market to them (L05, R03). Others are “less interested in international students” because in the case of non-payment, “they’re very difficult to collect from” without a guarantor in the country (L01). Meanwhile, Canada’s aging population structure means new housing demand from domestic enrolment is not expected (McLerie, 2017).

Competition from the “condo” model for PBSA is another barrier facing financialized landlords. Centurion’s (2017a, p. 26) management described the impacts: “Student condominiums have become hot with retail investors. As a result, a large number of the potential student sites are being built as for sale to retail investor condominiums. It makes sense for developers to do so as retail investors will pay substantially more than the REIT will for the same property.”

These barriers have kept most large players on the sidelines and have led to failure for some, demonstrating the fragility of the sector. In 2014, **Campus Crest Communities**, a US-based REIT, launched a joint venture in Montreal to convert two hotels to PBSA, only to sell their stake a year later based on poor performance (Kucharsky, 2015; *PRNewswire*, 2015). CHC’s public entity has also struggled, failing twice to raise funds for expansion (CHC, 2018), with analysts issuing a “distress warning”, raising “significant doubt” over the firm’s ability to continue operating (The Deal, 2018). Financial difficulty is also widely rumored to be affecting the private CSC REIT and its development arm, JD Development Group.

In response to these challenges, some operators are finding greater opportunities and less risk in public-private partnerships to build or redevelop *on*-campus housing (Brass, 2018; McFarland, 2018). An example is "The Quad" in Toronto, where York University has partnered to build an 800-bed residence with developer Campus Suites and private equity firm **Forum Equity Partners** (*Canadian Apartment Magazine*, 2013). The dynamics of these partnerships, which differ from purely private investment in PBSA, are an important area for future study.

4.2.3 Geographies of Student Housing Investment

The most obvious geographic strategy for PBSA providers is to locate near post-secondary institutions (Patterson, 2016). CHC, for instance, acquires properties within two kilometres of a school (CHC, 2015a). Another strategy is to build near downtown or amenity-rich areas desirable to students, which lend themselves to a 'student habitus' (Chatterton, 1999; Hubbard, 2009). In London, Ontario for example, Centurion and CHC's properties are near Richmond Row, a popular nightlife area north of the city centre.

More interesting is the concentration of PBSA in particular cities. In Canada it is largely a 'secondary market' phenomenon (Table 4.1). As one interviewee described, "Sudbury can be an A market, if you're in the right location. You don't have to go to Toronto or Montréal to be in an A market" (L01). In the competitive landscapes of larger cities, prime sites for PBSA are outbid for other uses, such as luxury condominiums, retail, or offices (Lobo, 2014; Savills, 2016). As one broker recounted, "it's hard to find the land to make it work" in these cities "because other guys want to buy it. Condo guys want to buy it. Office guys want to buy it" (R04). By contrast, in secondary markets, PBSA can outbid most competitors for good sites. A broker in Waterloo (R01) reported that for his clients, "the profitability here is much better than what they're able to achieve in Toronto, so their investment dollars come here." A developer's representative (R06) agreed: "From a developer standpoint … investing in Waterloo is much easier than investing in, say, Toronto, because the input is lower." Furthermore, students are dispersed in larger cities, related to options for cultural consumption city-wide (Allen & Farber, 2018; Malet Calvo, 2018),

whereas smaller cities cannot absorb students within the existing rental stock, especially if students represent a large or rapidly increasing proportion of the population (Munro et al., 2009).

This bias towards secondary cities is not uniquely Canadian. In the UK, consultants JLL (2017, p. 10) found that despite a doubling of PBSA over the last decade, on a per-student basis, London faces a "chronic undersupply" relative to the country-wide average. They attributed this shortfall to high development costs, competing urban regeneration projects, requirements to provide affordable units, and high development charges in some boroughs. Conversely, provincial cities like Loughborough and Liverpool have high rates of PBSA provision, with the latter apparently overbuilt (Hubbard, 2009; Mulhearn & Franco, 2018). Likewise, the most active US markets for PBSA in 2018 were Tallahassee, Florida and College Station, Texas (Gunn, 2018). First-tier cities like New York, Boston, Washington DC, the Bay Area, and Los Angeles are conspicuously absent from the top 20 despite the presence of large, well-regarded institutions in these regions.

Canadian PBSA is heavily concentrated in southern Ontario. The region is one of the most densely urbanized parts of the country, with many mid-sized cities and universities located near Toronto (Addie et al., 2015). As one broker noted: "you can't understate the proximity to capital markets and proximity to people with access to capital" (L09). A partner in a Toronto-based firm explained, "It's easy to get in the car and drive [to other cities in southern Ontario] if something needs to be dealt with right away, versus if we're [invested] in Halifax or New Brunswick or Alberta" (L05). Additionally, despite the seemingly footloose nature of financial investment in a globalized economy, locational preferences of firms are linked to the historical rootedness of their managers. All of CHC's (2015b) directors, for example, held degrees from Ontario universities or had experience in the region, and Centurion CEO Greg Romundt graduated from Western University in London (Ruddy, 2015).

4.3 Local Impacts at the Leading Edge: The Case of Waterloo

Waterloo represents the leading edge of the financialization of PBSA in Canada. Five financialized landlords own 24% of the stock (Table 4.3) in a market representing 42% of the country's PBSA, with the remainder including beds run by private family firms, co-operative housing, and units in investor-owned condos. According to a local landlord and broker, financialization is a new trend. "Since 2003," he explained, "I've seen the landscape of student housing change from primarily mom-and-pop ventures to substantial interest from REITs and institutional investors in the upscale mixed-use student accommodations" (quoted in Patterson, 2016). These developments are reshaping the community around UW and WLU, presenting a novel Canadian example of finance-driven new-build studentification.

Table 4.3: Major Players in Waterloo PBSA (financialized landlords in bold), 2018

Company	Type	Beds
Prica Group / KW4Rent / Accommod8u	Condo & purpose-built rental	3,250
Sage Living by IN8 Developments	Condo	1,534
Centurion REIT[a]	**Purpose-built rental**	**1,374**
CSC REIT	**Purpose-built rental**	**1,371**
CHC LP & AIMCO	**Purpose-built rental**	**955**
ICON by Rise Real Estate	Condo	866
Waterloo Living	Purpose-built rental	574
ASH REIT	**Purpose-built rental**	**455**
Schembri Group of Companies[a]	Purpose-built rental	454
Sivon Investments	Purpose-built rental	415
Scholar Properties[b]	**Condo; retained as rental**	**104**
Other		6,215

[a] A 370-bed joint venture between Centurion and Schembri at 1 Columbia St. W. is included in Centurion's total.
[b] 15 other student-oriented developments are larger than Scholar Properties' Waterloo holdings, but Scholar is notable as an emerging financialized player active in other Ontario markets.
Source: compiled by the authors from a variety of sources including publicly-filed reports, company websites, industry publications, news media, and planning documents.

A highly-concentrated Waterloo PBSA boom has taken place, with building permits issued for 15,000 bedrooms between 1997-2016, in a region with 40,000 university students – capacity to house 38% of students in purpose-built student housing, compared to 3% nationwide (*Canadian Apartment Magazine*, 2016). Sixty-seven per cent of building permits

fell within a single census tract, which contains the Northdale neighbourhood (Figure 4.1). In the decade before 2011, UW and WLU experienced growing enrolment, and developers responded by building student rental housing, often in small apartments of four units with five bedrooms each. This was followed by the construction of larger, higher-amenity buildings, even after enrolments leveled off post-2011, in line with local planning goals to increase densities and improve development in the university precinct (McLerie, 2017; MMM Group, 2012a; Chapter 3). Financial vehicles have targeted this newer PBSA, built or acquired since 2012. Their focus fits the recommendations of market analysts: locations with high-ranking anchor universities that "are 'rising stars' teaching courses that the new workforce wants," and "embedded in local industry" with a focus on science, technology, engineering, and mathematics (STEM) subjects, as these "reflect a changing global jobs market" (Savills, 2015). In Canada, UW is the paradigmatic "entrepreneurial university," internationally known for its STEM programs, links to industry, and for training high-tech workers for both local firms and Silicon Valley (Bathelt et al., 2011; Bramwell & Wolfe, 2008; Gellman, 2016; Winter, 2013).

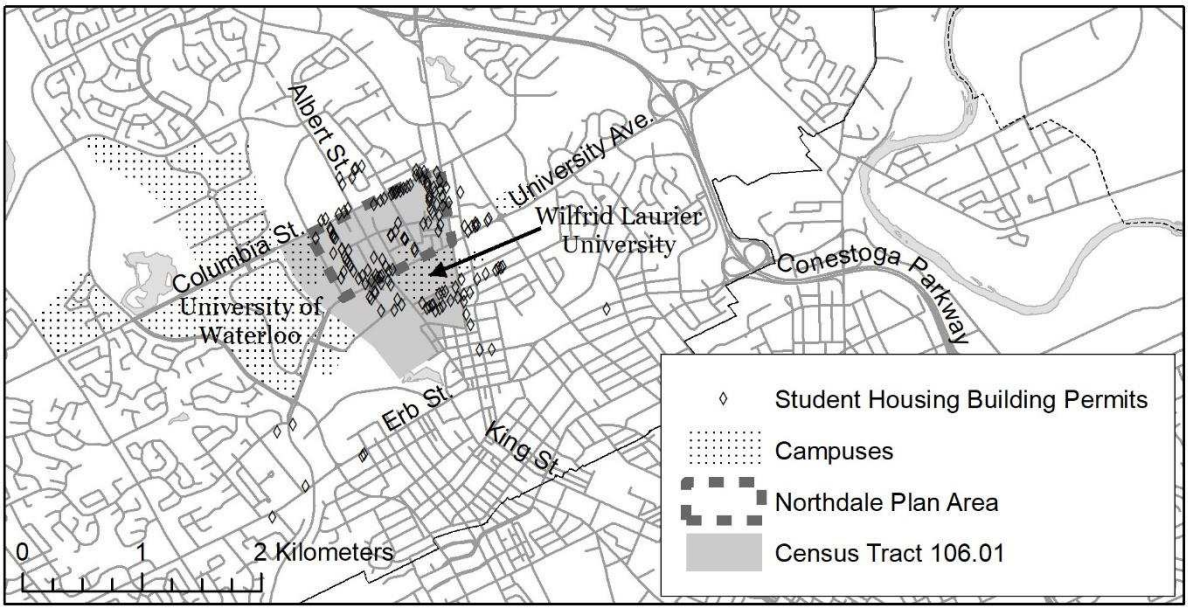

Figure 4.1: Student housing development in Waterloo is concentrated in and around the Northdale neighbourhood. Source: Region of Waterloo building permits.

PBSA developments are reshaping Northdale dramatically, replacing suburban-style bungalows (often shared by students) with high-rise towers. This is leading to housing improvements for some, as previous rental options were in notoriously bad shape (*Waterloo Chronicle*, 2010b). It is also intensifying the concentration of students into one area, a trend that reinforces patterns of gentrification and age segregation (Smith & Hubbard, 2014). For residents who remain in the area, these changes contribute to a lost sense of place (Davidson & Lees, 2010). As one long-time resident of the neighbourhood told the city council, "I am just appalled at what's happened in Northdale and I'm not the first one to say that" (quoted in Beattie, 2016), while another complained that "additional concrete bunkers are still springing up faster than weeds on a wet day. If this is the future, thank goodness I enjoyed the past" (Crockford, 2015). For others, it engenders displacement, including direct displacement of households to make way for these developments, and exclusionary displacement of future residents (Marcuse, 1986) who will be barred by high rental prices or excluded as non-students. "The areas around the university are beginning to look like a Monopoly board," remarked a 72-year resident. "Alas, there are too few houses for our hardworking families" (Holmes, 2014).

The financialization of PBSA appears to be affecting local housing affordability. As a long-time student housing area, Northdale has retained persistently lower-than-average incomes. Even as incomes rose by 90% between 1991-2016 in the wider metropolitan area, incomes in Northdale stagnated (Figure 4.2). Rents, however, skyrocketed in Northdale between 2011-2016, surpassing region-wide average rent levels after two decades of lagging behind. This sharp increase in Northdale's rents took place during the period of large-scale, finance-backed PBSA development. The City's Town and Gown Committee estimates that rents for a student bed in Waterloo have increased by 25% between 2003 (at the start of the PBSA boom) and 2014, after accounting for inflation (Brieva & Marfisi, 2016). According to CMHC, rents for some types of student accommodation softened after 2014 but remained notably high for apartments, which contain most new development in areas closest to campuses (McLerie, 2017). Another study found that students in Waterloo pay an estimated 10% more rent than employed households (Pi, 2017). As in the UK and US, the

financialization of student housing appears to be increasing housing costs for low-income students and non-students alike.

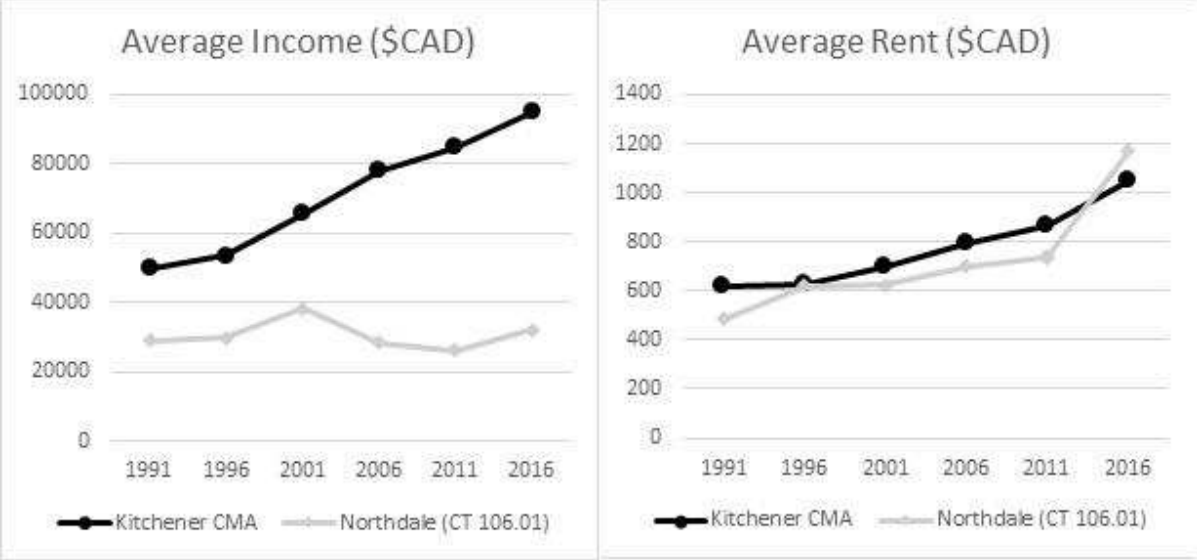

Figure 4.2: Average rent and income in Northdale (CT 106.01) and Kitchener-Cambridge-Waterloo CMA, 1991-2016. Note: Northdale Census Tract 2011 data estimated from constituent Dissemination Areas. Source: Statistics Canada, 2018.

The business models that drive these changes are based on squeezing money from students, many of whom are beset with financial hardship from attending university. From 2000-2010, over half of Ontario students graduated with debt, and the average amount owed increased from $22,700 to $26,900 (Statistics Canada, 2014). The Canadian Federation of Students (2015) has raised particular concern about increases in the number of students with large debts (over $25,000) and the rapid rise of private debt as opposed to government student loans. While some parents may pay for pricier PBSA, students, their families, and their future earnings are ultimately a new source of value extraction for investors.

4.4 A Back-to-School Movement by Capital, not Just Students[1]

We argue that firms play a key role in creating Canada's financialized PBSA sector, in what can be understood as a two-fold market creation story. On one level, a market is

[1] Our phrasing here is meant to echo Neil Smith (1979).

being created for off-campus PBSA itself – a market that did not widely exist before in Canada. The creation of this market entails not only expansion into new geographic areas, but also efforts to develop familiarity with PBSA among students as consumers, and among potential lenders (Morton, 2012; Peisner, 2014; interviews). Simultaneously, modeled after the US and UK, a market is being created for PBSA as an investment asset (whether through REITs or other vehicles, or through the purchase of condominiums for rental) – investment products that did not formerly exist in Canada. Importantly, it seems that the second trend is increasingly driving the first: the material market for PBSA is being created to provide a market for investment therein.

This trajectory of financialization differs from other sectors of the housing market. With multi-family housing or home mortgages, financialization has reshaped markets, but not created them (e.g. August, forthcoming; Walks & Clifford, 2015, respectively, in Canada). Even the creation of a new asset class from single-family rental (SFR) homes in the US did not create the sub-market; it involved securitizing, at scale, homes that were "long part of the overall rental picture in the United States" (Fields, 2018, p. 123). In Canada, PBSA is scarce in most places, and investors are making a market for this product as they build it.

The state's actions affect the PBSA market, but are secondary and incidental. As such, theories that emphasize the state's role in facilitating the financialization of broad sectors of real estate (such as home mortgages or rental housing) may be less helpful for understanding niche submarkets like student housing. Nonetheless, reduced funding for post-secondary education has created an opening for private PBSA, and state-led internationalization strategies (to drive enrolment growth) promise a source of demand. Federal legislation enabling REITs in 1993 is also a crucial state intervention to facilitate the financialization of real estate (Gotham, 2006; Waldron, 2018). Federal mortgage insurance has played a minor role and is subject to restrictions. Arguably, the most important intervention has been through local planning: Waterloo enabled higher-density PBSA to promote intensification, and to address town-gown conflicts (Chapter 3), inadvertently creating an opportunity for financialization.

The Waterloo case illustrates the shift from demand-driven to finance-driven new-build studentification. While Nakazawa (2017) argues that studentification is rooted in growing numbers of students, this alone cannot explain the variegated geographies of studentification. New-build studentification does not simply arise from growing post-secondary enrolment in a restructuring knowledge-economy city (Foote, 2017; Moos, Revington, Wilkin & Andrey, 2019). Indeed, it emerges from intentional efforts by firms to create products for investors. As a local planner perceived it, "it wasn't necessarily driven through student demand, although there was some component of that. But I think a lot of the demand came from the investor demand for an investible vehicle" (P02).

Our study also illustrates the broader function of financialized PBSA within capitalist political economy. We build on Smith and Holt (2007), who demonstrated how studentification fuels gentrification in the UK's provincial towns. While they focus on students as consumers who drive this change, we argue that it is also driven by capital seeking a spatial fix. Contemporary finance-driven new-build studentification enables investment in the built environment of secondary cities, which may be overlooked by conventional real estate investment, but ideal for PBSA. Financialized PBSA offers an outlet for capital to overcome barriers, including high land costs (in bigger cities) and decreased place advantage (in smaller ones). It also offers advantages as a 'sectoral' capital switch (Charney, 2001), with expectations for greater yield compared to other investments.

This spatial and sectoral switching of capital has implications for new patterns of uneven development. In Canada, the small flourishing of financialized investment that we document is largely concentrated in a handful of southern Ontario university towns. Waterloo, the most advanced PBSA market in the country, exhibits key factors that attract financialized investment. It is a secondary city with a high-tech university, recent surges in enrollment, international students, and connections with key players working in financialized firms. Within Waterloo, development is heavily concentrated, remaking the Northdale area physically and socially, creating a segregated student-oriented district, and engendering displacement and gentrification. It is also reshaping local affordability, driving high rents that affect both students and non-students alike. Moreover, it is capitalizing on housing need

facing the (typically) low-income population of students, many of whom take on substantial debt during their studies.

Yet as our work demonstrates, the process of finance-driven new-build studentification in Canada has been a rocky road. Even as some firms plan to expand nationally, many have struggled, speaking to the fragility of this process as it evolves in Canada and reflecting the volatility of financial investment (Aalbers, 2017). For critics of the unjust social and spatial outcomes associated with the financialization of real estate, these fractures can be explored for insights into how to alter, transform, and prevent the unfolding of this process.

4.5 Conclusion

Our research demonstrates, in the Canadian context, the incipient financialization of PBSA, a niche sector said to represent an emerging global asset class (Savills, 2016). This case underlines the variegated nature of processes of financialization (Aalbers, 2017), which have unfolded differently within the same country for very similar asset classes. Financialization is rampantly transforming generic multi-family rental housing across Canada (August, forthcoming), as financialized vehicles capitalize on strong existing demand, and purchase existing, ageing stock from non-financial entities and then reposition it to be more profitable. With PBSA, by contrast, the pattern has been reversed – demand has been actively cultivated by key players in the industry, who seek to create the PBSA product and drum up consumer interest in higher-cost student housing, in order to create an asset class *for investors*. The creation of this market is a response to investor demand, and seeks to replicate markets seen in the US and UK in a place where the form was virtually non-existent. Financialization is driving urban development to satisfy investor demand for new products (rather than simply colonizing and capitalizing on existing sectors), in other words – making a market for itself. In addition, this involves the 'fast' transfer of 'ideas that work' from entirely different jurisdictions, mirroring neoliberal "fast policy" (Peck & Theodore, 2015), but implemented by actors in the private sector, not the state.

The shift from demand-driven to finance-driven new-build studentification since 2011 represents a sectoral switching of capital in search of new opportunities for profitable investment from ever more niche real estate sectors, as well as a geographic switching into secondary centres. In this sense, studentification is more than an expression of provincial gentrification (Smith & Holt, 2007) – it is characteristic of capitalist urbanization more generally (Harvey, 1985). The Waterloo case, as an exemplary of this trend, illustrates the challenges of age segregation and housing affordability that arise from the financialization of PBSA, as well as the role of local planning in enabling it. However, outside of Waterloo, this process has also been fragile, pointing to the precarity of financial expansion into niche sectors, possibly presenting an opening to develop more equitable alternatives to financialized PBSA.

Further research should examine the dynamics of university-private sector housing partnerships and the changing role of the neoliberal university in (financialized) student housing. Given the emerging popularity of these partnerships, there is a role for institutions to cap rent at affordable levels, or to partner instead with not-for-profit entities to develop PBSA. Also, to the extent that further expansion of financialized PBSA depends on permissive local planning, tools like inclusionary zoning could be used to support production of affordable housing and limit financialization. Stronger support from government and universities for affordable student housing options would also circumscribe opportunities for financialized landlords. Another avenue for future research would explore this phenomenon as part of the financialization of housing across the life course, extract valuing from students, renters (August, forthcoming), and seniors living in retirement and long-term care facilities (Horton, 2019), and how value-grabbing (Andreucci et al., 2017) in real estate from cradle-to-grave drives indebtedness and affects well-being. There is an opportunity to explore the links between this financialization affecting people via real estate with the financialization of social reproduction, in which social policy retrenchment and neoliberal austerity are reshaping education, health care, care labour, and survival more broadly (Federici, 2018; Roberts, 2016; Karaagac, 2019).

Chapter 5: Age Segregation, Intergenerationality, and Class Monopoly Rent in the Student Housing Submarket

There is increasing recognition that urban space is "generationed" (Moos, 2014b), or shaped by differences in age or generation (Hochstenbach, 2019; Vanderbeck, 2019). One particular manifestation of this is in the formation of residential submarkets geared towards students, a process referred to as "studentification" (Smith, 2005). As students concentrate within a neighbourhood, households with children, older adults, and other residents often experience displacement pressures, ultimately leading to geographical age segregation within the city (Sage et al., 2012b; Lager & van Hoven, 2019). This process is increasingly amplified by the private development of purpose-built student accommodation (PBSA) (Smith & Hubbard, 2014).

Studentification entails, then, the conversion of urban space to student housing. Yet despite consensus between neoclassical and Marxian perspectives that land rent plays an important coordinating function for urban land uses (e.g., Alonso, 1964 and Harvey, 1982, respectively),[1] land rent has received sparse attention in critical urban research in recent decades, and is beginning to see a flourishing of contemporary re-engagement (Ward & Aalbers, 2016). Therefore, the application of theories of urban land rent to diverse urban phenomena suggests possibilities for fruitful research. In particular, Harvey's (1974) concept of class monopoly rent offers a critical theory of residential submarkets worth revisiting in light of the neighbourhood segmentation inherent in the studentification process.

I examine the role of various actors in the constitution of the student housing submarket in Waterloo, Canada through the lens of class monopoly rent. As a mid-sized city in southwestern Ontario with a well-recognized history of studentification and the largest concentration of PBSA in Canada (Charbonneau et al., 2006; Chapter 3; Chapter 4),

[1] There remain fundamental differences between these perspectives regarding the nature of this role (Haila, 1990). For example, neoclassical economics posits the sorting of land uses along a bid-rent curve, determined by users' "willingness to pay" (use determines value), whereas according to Harvey (1982), landowners' treatment of land as a financial asset necessitates active pursuit of more profitable use of the land (value determines use).

Waterloo represents an ideal case for this research. The analysis provides several contributions. First, by demonstrating the formal and informal mechanisms by which class monopoly rent operates in the student housing submarket – and its impacts on student tenants – it identifies temporal dynamics of power as crucial to a theory of rent. Second, by showing how studentification is both a product of, and serves to reproduce, capitalist urbanization, it illustrates how capitalism exploits and perpetuates at least certain forms of age segregation, in contrast to approaches that see age segregation as largely the result of naturalized ecological processes (La Gory et al., 1980). Finally, by bringing political economy and life course approaches into novel conversation with each other, the analysis points to a reconceptualization of the politics of the "town and gown" relationship in which intergenerationality, denoting relationships across generations (Vanderbeck, 2019), is crucial.

I begin by reviewing the literature on studentification and positioning it as a "generationed" process of residential submarket formation. In the subsequent section I review the concept of class monopoly rent as a theory of submarkets. After introducing the case study and methods, I turn to an exposition of the role of planning, the real estate sector, and others in enabling the extraction of class monopoly rent through the delineation of Waterloo's student housing submarket. The penultimate section discusses theoretical possibilities and existing foundations for a radical, intergenerational political response to the age and class conflicts of studentification. I conclude by reflecting on the theoretical implications of the research for understanding urban rent, studentification, and associated age segregation.

5.1 Studentification as "Generationed" Submarket

Urban space is "generationed" in that it is shaped by differences in age or between generations (Moos, 2014b). Generations refer to "age-related positions that are held within a wider social system" (Vanderbeck, 2019, p. 79) including those defined by life course stage. One expression of generationed space is residential age segregation. Existing literature highlights the segregation of older adults, often explained in terms of naturalized secession processes where upwardly mobile young adults move out of a neighbourhood, leaving older

residents behind (La Gory et al., 1980; Okraku, 1987). While older adults remain the most segregated age group in North America, young adults are often increasingly segregated (Moos, 2015), due to the prevalence of smaller units marketed to this demographic in urban centres in the context of housing and labour market challenges, a process Moos (2016) has called "youthification."

Studentification, meanwhile, encompasses the concentration of students in particular segments of the private rental market (Smith, 2005) and the development of high-amenity PBSA (Hubbard, 2009). While early research centred on the United Kingdom, studentification has been increasingly recognized as a global phenomenon, appearing in various guises in diverse contexts, from (among others) China (He, 2015) and Chile (Prada, 2019) to Canada, the empirical focus of this paper (Chapter 3). The process is typically associated with increasing university enrolment and urban socioeconomic restructuring in a knowledge-based economy (Foote, 2017; Moos, Revington, Wilkin & Andrey, 2019) and a (re)commodification of student life (Chatterton, 2010; Smith & Hubbard, 2014). The substantial, and at times rapid (Sage et al., 2012b), neighbourhood changes that accompany studentification mean that it is often a site of intense conflict in local politics (D. Smith, 2008).

Much of the conflict surrounding studentification relates to the distinct lifestyles and transition to life on one's own that are characteristic of the student life course stage. According to Hopkins and Pain (2007, p. 290), "A lifecourse approach involves recognition that, rather than following fixed and predictable life stages, we live dynamic and varied lifecourses which have, themselves, different situated meanings." Yet for many students, moving off campus is their first time away from parents and the heavily-regulated, institutional atmosphere of on-campus residence (Rugg et al., 2004). In this context, behavioural issues associated with vandalism, noise, parking violations, disregard for garbage collection procedures, and property maintenance are common (Hubbard, 2008; Munro et al., 2009; Sage et al., 2012a; D. Smith, 2005; 2008). Studentification often results in the closure of schools and displacement of families (Sage et al., 2012b), as well as the

proliferation of nightlife amenities serving a distinct "student habitus" (Chatterton, 1999) – another dimension of generationed urban space.

Lager and van Hoven (2019) suggest that studentification may have negative implications for older adults' ability to age in place due to the disturbances caused by students, as well as the potential disruption to broader social support networks. The result is "a distinct set of social relations associated with studentification, characterised by conflict rooted in class and age differences" (Sage et al., 2012a, p. 1060). Common policy responses to these conflicts have included various approaches to limit the number of students living in a neighbourhood (Hubbard, 2008) as well as attempts to decant them to other areas by enabling PBSA construction (Sage, Smith & Hubbard, 2013). While the success of these policies has been mixed, the aggregate result has been to reinforce symbolic and physical segregation between students and other residents.

Recent debates have sought deeper explanations of studentification. In a review of the literature, Nakazawa (2017) argues for a need to understand the institutional drivers of enrolment growth at the root of studentification. Malet Calvo (2018) suggests that, with too much focus on housing supply, the studentification literature does not go far enough in explaining students as consumers. Moreover, the geography of students is much broader than housing market phenomena, including domestic and transnational migration, and everyday lived experiences and identities (Holton & Riley, 2013).

In addition, the studentification literature does not go deep enough into the political economy of housing markets (Chapter 2). In an early academic discussion of studentification, Smith (2005, p. 79) wrote that "the realisation of long-term rental income from multiple students per annum can be viewed … as a closure of the rent gap", but that nonetheless studentification is "not essentially a product of urban land and property markets". However, while the rent gap has its place in urban theory (Slater, 2017), it is by no means the only expression of capitalism in urban space, or even the most important one. Indeed, Chapter 4 demonstrates connections between PBSA construction, financialization, and sectoral and spatial capital switching. Conceiving of studentification as the formation of a student housing

submarket, meanwhile, opens the door to Harvey's (1974) theory of class monopoly rent (CMR).

5.2 Class Monopoly Rent and Residential Submarkets

Broadly speaking, housing submarkets involve the segmentation of dwelling types and residents according to their characteristics and location (Watkins, 2001). Existing literature focuses on identifying submarkets through statistical and spatial analysis techniques (Bourassa et al., 2003; Hwang, 2015; Rae, 2015; Wu & Sharma, 2012) or expert-defined boundaries (Keskin & Watkins, 2017), often for the purposes of improving house price modelling. In doing so, it fails to address the dynamics by which submarkets are formed and operate. However, these dynamics are the central concern of CMR (Harvey, 1974).

CMR, according to Harvey (1974), refers to instances where landlords are able to guarantee themselves, as a group or class, a rate of return above what might otherwise prevail in a competitive housing market. Harvey provides the example of a disadvantaged urban neighbourhood with poor quality housing. Landlords could alternatively invest in, and achieve returns on, other (non-housing) investments. If the returns on housing are lower, individual landlords will shift their capital elsewhere, collectively producing a situation in which the supply of low-cost housing is low, quality is poor, and rents are, given the housing on offer, rather high. This scenario does not require any explicit conspiracy or collusion between individual landlords, but nonetheless results in a particular collective behaviour.

However, this scenario implies scarcity. If residents can simply move elsewhere in a large city with many housing providers, landlords will be incapable of capturing CMR. Across the city as a whole, it is difficult for landlords to maintain scarcity. However, scarcity can be artificially created by delineating smaller, discrete geographical submarkets, which can be defined on the basis of race, ethnicity, social status, lifestyle, and so forth. These differences all provide potential divisions along which island-like absolute spaces can be created and maintained. Scarcity may exist in any or all of these absolute spaces, and this is precisely what Harvey (1974) observes in inner-city Baltimore.

Despite its name, CMR is a form of absolute rent, arising as a result of artificially produced scarcity, and not a "true" monopoly rent arising from sole ownership of a unique, non-substitutable commodity (Ward & Aalbers, 2016). This is a potential site of confusion, as characteristics of CMR – non-substitutability of the land and constrained consumer sovereignty – can be described, in a looser sense, as monopolistic characteristics of a real estate market (Houghton, 1993). According to Harvey (1974; 1982), the pursuit of higher returns means that establishing these features is a structural imperative within capitalist urbanization, whether achieved by landlords on their own, or by the actions of financial institutions and governments (including via planning). Continued urbanization is only possible through continued investment in the built environment, which is incentivized by the higher returns afforded through the creation of "new modes of consumption and new social wants and needs" within distinct housing submarkets (Harvey, 1974, p. 250).

For Evans (1991), CMR is but one instance of the broader category of what neoclassical economists call "economic rent," and true monopoly rent, where a single landlord is able to extract higher rents than under a competitive scenario, exists only in very rare instances. Garza and Lizieri (2019) argue that monopoly land rents are impossible because if a land monopolist tried to withhold some land to make a higher return, rational buyers would refuse to buy, knowing that prices will fall if and when additional land is put up for sale in the future; the monopolist therefore maximizes revenue by putting all land for sale at the competitive price. Results of their empirical econometric test of land monopoly are consistent with this logic, finding prices are no higher in the monopolized area. Presumably, it would be even harder for a group of landlords to withhold land to manipulate prices, as would be the case with CMR.[2]

[2] This type of landlord behaviour is different from ordinary urban speculation, for example where a developer holds onto a downtown parking lot until surrounding parcels are redeveloped before building. The difference is that in the parking lot example, land owners are waiting for land values to appreciate before developing (acting as *price takers*), rather than withholding land to increase its price (behaving *monopolistically*). Landowners may be able to capture higher *differential* rents in this way, but not *class monopoly* (or *absolute*) rents. Pursuit of differential rent in this way helps to explain the timing of redevelopment, but not its submarket orientation.

Nonetheless, relative to other concepts advanced by Harvey, such as the theory of capital switching between circuits (Harvey, 1978; see also Badcock, 1992; Beauregard, 1994; Charney, 2001), CMR has received limited attention (Anderson, 2014). Wyly and coauthors represent a notable exception. In another study of the Baltimore-Washington region, Wyly et al. (2006) documented the shift in the exploitation of CMR from the purview of slum landlords to predatory, subprime mortgage capital. Many of the same racialized inner-city neighbourhoods that faced exploitative rents and land-instalment contracts in Harvey's (1974) time were found to be the targets of a race- and class-segmented subprime mortgage market that could not be attributed to characteristics of individual borrowers. Subsequent work demonstrated how CMR was extracted in this manner across the entire US urban system (Wyly et al., 2009; 2012). This reconfiguration of CMR represents a rescaling of the phenomenon from one dominated by local landlords and lenders to a broad web of national and transnational agents involved in originating and securitizing increasingly complex financial instruments. Local collusion was no longer possible or relevant, as capital depended instead on the pursuit of market niches rather than head-on competition (Wyly et al., 2012).

In contrast to the broad-scale quantitative analyses provided by Wyly et al. (2006; 2009; 2012), Anderson (2019) provides a micro-level qualitative analysis of CMR in the gentrification of Portland's Pearl District. Here, a small group of developers have worked together to redevelop the former industrial district, focusing on "micro-markets" and timing developments so as to minimize direct competition with each other. The neighbourhood is discursively branded as unique, given its mixed-use and former industrial character, implying that it is not directly substitutable with other central Portland neighbourhoods. The local government itself has facilitated and even participated in the pursuit of CMR in attempts to boost municipal revenue (e.g., through the use of tax increment financing to fund infrastructure). Therefore, Anderson (2019, pp. 17-18) argues that CMR is a prevalent feature of the neoliberal city demanding investigation of how it is "differentially institutionalised across such variegated contexts" within the "broader project of building a general theory of rent under capitalism (Ward & Aalbers, 2016)." It is to this project that I aim to contribute.

5.3 Case Study and Methods

I take as a case study the city of Waterloo, Ontario, Canada, located about 110 km west of Toronto. The city has a population of about 133,000, within an urban region of about 560,000. Waterloo represents an especially salient case for analysis, given its particular geography of higher education and resulting student housing submarket. The city is home to nearly half the PBSA in Canada (Chapter 4), as well as the main campuses of the University of Waterloo (UW) and Wilfrid Laurier University (WLU), and a branch campus of Conestoga College. These institutions have a combined total enrolment of approximately 60,000 students, although the number requiring housing (e.g., not living in the parental home or commuting from outside the region) is closer to 40,000. Some students also live in the adjacent cities of Kitchener and Cambridge, which host branch campuses of UW, WLU, McMaster University, and the main campus of Conestoga College; while similar dynamics of studentification exist in these cities, they remain much more pronounced in Waterloo.

In recent years, UW and WLU have consistently housed around 80% of first-year students in university-managed residences. Yet as total enrolment has increased over this time, more students have had to seek housing off-campus, driving studentification. Beyond the question of student numbers, the universities play little role in the off-campus housing market and are therefore not a primary focus of this paper, which is concerned with the internal dynamics of this market.

The student housing submarket in Waterloo has undergone three simultaneous rescalings in the past two decades. The first is a *geographical* rescaling, from a broad, dispersed "urban dormitory" (Chapter 3) in which, despite some areas of concentration, students lived across the urban area, to deliberate planning attempts to re-concentrate students, and student housing development, within a circumscribed area known as Northdale, situated between UW and WLU. The second rescaling is a *physical* one, as the form of "typical" student housing has shifted from small shared rental houses to larger, higher amenity PBSA (Figure 5.1). Third, the student housing submarket has undergone a *financial* rescaling from smaller-scale, locally based ("mom and pop") landlords to the participation of larger investors such as real estate investment trusts (REITs) and pension funds (Chapter 4).

Waterloo represents the leading edge of these changes within Canada, but is comparable to many UK and US PBSA markets.

Figure 5.1: The rescaling of the student housing submarket from shared houses (foreground) to high-density PBSA (background).

These rescalings are partial and related. They are partial in that students continue to live across the urban area despite the aggregate centralizing trend, including in rented detached houses, many of which are owned by small landlords. The continued existence of this segment of the student housing submarket does not negate the drastic changes in the sector. Meanwhile, these rescalings are related because the geographical re-concentration of students has been enabled by higher density construction, which is made possible by the entry of substantial volumes of capital. As I demonstrate below, these rescalings are a cause and consequence of the quest for CMR.

I draw primarily on semi-structured key informant interviews (n=44) with developers, landlords, property managers, planners, city councillors, postsecondary institutions' housing

administrators, representatives of neighbourhood organizations, and student leaders, recruited purposively based on their involvement in the student housing sector, conducted June-November 2018. I also interviewed students from UW and WLU (n=27), in September-November 2018, recruited through popular local apartment-finding Facebook pages and Twitter. Local news media, industry grey literature, and local planning documents also inform this research.

5.4 Constructing a submarket: Class monopoly rent in student housing

Evidence of CMR in the student housing submarket is provided in existing research, although it has not been framed as such. For instance, the rent for a student bed rose 25% (after inflation) from 2003 to 2014, according to the City of Waterloo's Town and Gown Committee (Brieva & Marfisi, 2016). This is not wholly attributable to region-wide increases in housing costs. Using census data, Chapter 4 found that rents in the Northdale student housing precinct jumped from below to above the metropolitan average between 2011 and 2016 despite stagnant neighbourhood incomes. Meanwhile, a rental housing survey of Kitchener and Waterloo estimated that students pay 10% more in rent than employed households, controlling for unit, neighbourhood, and individual characteristics (Pi, 2017). The Canada Mortgage and Housing Corporation (CMHC) reported that rents declined slightly after 2014 for some types of student housing, but remained high for apartments (McLerie, 2017), which account for the most recent developments closest to the university campuses (i.e., in Northdale), where the highest concentration of students live (Figure 5.2). Taken together, this evidence points to the intensified extraction of CMR from students, enabled in part by the concentration of students in a delineated geographical area.

Student demand cannot be overlooked in the development of Waterloo's student housing submarket. Many students expressed a preference for living as close to campus as possible. Jack was "looking to have a short walking time to campus. […] Something within a reasonable price range as well for the area. But other than that I didn't really have a preference." Distance was also a primary consideration for Jane and her roommate: "she hates walking or busing to class. And then we knew that if we went any further, that that

would dissuade us from going to class." In fact, many students restricted their housing search to Northdale to remain close to campus from the beginning. As Sarah described, "I think we looked at another place on Sunview and some places on Albert Street. All in the same area, because we wanted to stay close." Some, like Sandra, also found living near other students advantageous since "you can find common ground, because your priorities are kind of the same." Some students lived, or had considered living, farther away from campus. While some of these students were seeking alternative lifestyles (Chatterton, 1999), many who were drawn farther afield simply sought cheaper rent.

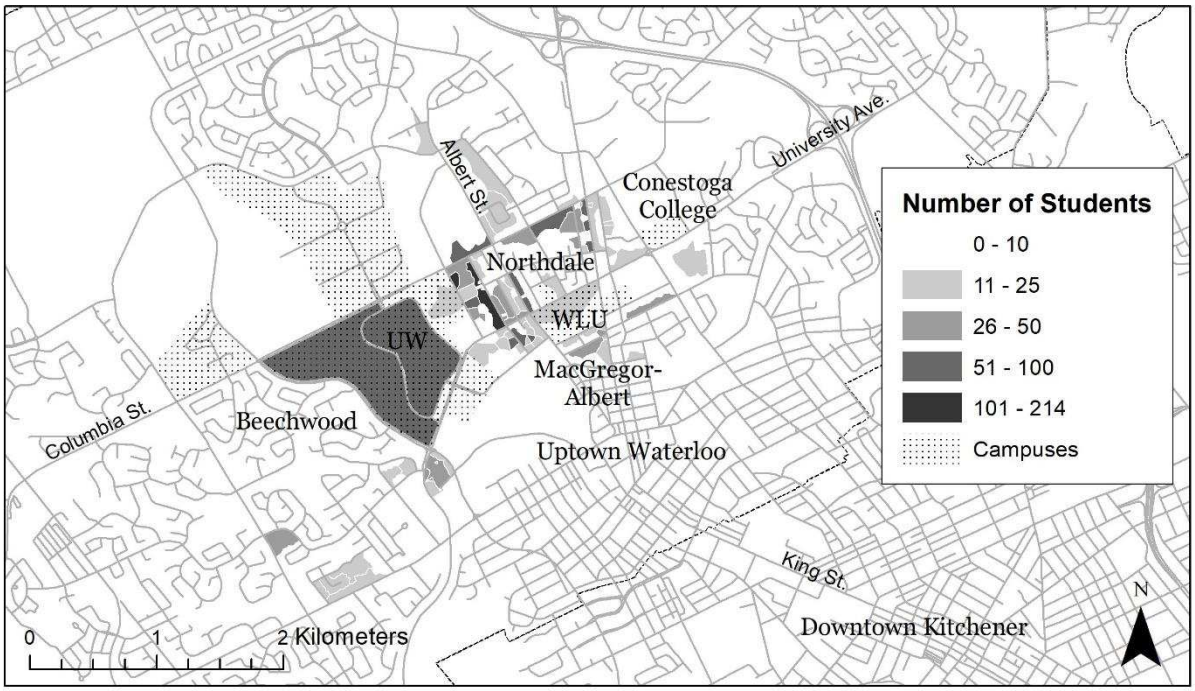

Figure 5.2: A survey from fall 2016 shows that students are concentrated within postal codes in and around the Northdale neighbourhood. The survey sample included 6692 responses, of which 4254 listed valid postal codes within the Region of Waterloo. Source: Created by the author with data from the City of Waterloo's Town and Gown Committee.

This preference for proximity, and the implied land rent gradient, represents "differential rent" (Ward & Aalbers, 2016), reflecting the classic bid-rent curve of urban economics rather than CMR. However, student demand alone does not explain the geography of the Waterloo student housing submarket. Planning, the real estate sector, and

neighbourhood politics have all had a role to play in superimposing CMR on top of differential rent.

5.4.1 Planning and rental regulations

The considerable role of planning in shaping studentification in Waterloo is detailed elsewhere (Chapter 3). In brief, while municipalities are prohibited from restricting who lives where, the City of Waterloo has carefully tiptoed around the issue of "people zoning" in its Official Plan (OP). The OP calls for "housing to support post-secondary education institutions" to be encouraged first on campus, or failing that, in "those portions of the designated Nodes and Corridors which are in close proximity to the main campus" or in "a comprehensively planned and designated area set out in a District Plan" (City of Waterloo, 2018, pp. 174-175). According to one planner (P06), this strategy was relatively easy to implement politically as it minimizes potential disruptions to existing neighbourhoods.

The "Nodes and Corridors" include areas near UW and WLU designated for higher density development in 2005 with the twofold objective of minimizing urban sprawl, and enabling the construction of apartments to house a growing student population, within the broader context of provincial and regional growth management policies. However, in 2011, with the continued concentration of students in often-dilapidated detached houses in near-campus neighbourhoods, the city moved to introduce a rental housing licensing program for properties with fewer than five units. Landlords were "mad as hell" (Outhit, 2011) with the proposal, expressing concern over increased costs, reduced revenues, and lost property value (thereby demonstrating their commitment to the existing regime of CMR). Mike Milovick (2012), President of Protecting Rental Options Waterloo and Vice President of the Waterloo Regional Apartment Managers Association, landlord interest groups, charged that the regulations were discriminatory against students and families who rent.

Rental licensing may have played a role in shifting the student housing market toward a greater share of PBSA, as one landlord claimed (L07). However, the failure of the nodes and corridors planning model to decant students from established residential neighbourhoods ultimately led to the adoption of the Northdale Plan in 2012 – the District Plan referred to in

the OP (MMM Group, 2012a). The Northdale Plan provided for higher density development throughout the neighbourhood, in response to concerns from existing residents that they could not sell their houses to families (who did not want to live in a student precinct), landlords (facing rental restrictions), or developers (who could not redevelop at higher densities outside the nodes and corridors). Landlord opposition to rental licensing largely fell away with the new Northdale Plan. In sharp contrast to initial concerns, one broker (R01) informed me that because "there are rules and regulations that define what legal student housing is," the "regulation is actually helping in some ways" to encourage investment in student housing.

While these plans have had a crucial role in enabling the provision of safe, clean, modern housing for students (with PBSA typically replacing run-down houses), they have also served to reinforce the conditions for CMR by delineating an absolute space for the student housing submarket. By doing so, planning has taken a majority preference of students to live in proximity to campus, and universalized and codified it in zoning.

5.4.2 Real estate strategies

This universalizing tendency is also promulgated by the real estate sector. As one broker (R03) put it, "wherever tenants are going to go, that's where you want to invest," adding that the scale of proximity to campuses is "micro": "it's hundreds of metres. Maybe tens of metres at a point." Another (R01) reported that "when I set up the clients, I don't want to see them outside of a 2 km radius of either Wilfrid Laurier or University of Waterloo." A partner at a student housing firm (L05) joked that they aimed to acquire properties no more than "one and a half songs on their iPhone" from campus, or "500m to 750m away from the epicentre." New development in and around Northdale has pulled students from outlying areas. Many key informants reported that this "de-studentification" (Kinton et al., 2016) has resulted in the conversion of student houses back to the generic rental market or owner-occupation. However, this trend has been heavily mediated by property management firms and is not simply a matter of the high volume of new PBSA construction. One student housing firm kept its occupancy rates high by reducing the number of units they manage, as

"There are a lot of houses that we used to manage that were further away that can no longer sustain renting to students" (L04). As a result, these units are no longer marketed to students. These behaviours of individual firms point to how CMR can arise without collusion.

Property managers also have a role with respect to market share. Waterloo's student housing market is quite fragmented, with many small players. The largest five landlords, including condos with rental management provided by the developer, account for less than half of PBSA market share (Table 5.1). Third-party property managers allow disparate small owners to collectively attain a market share commensurate with other large players (and to access more sophisticated real estate expertise). For example, Domus, a leading student-focused property management firm, manages approximately 2000 bedrooms in Waterloo – more than most entities in Table 5.1. A UW housing administrator who coordinates an annual housing fair commented that "many of the smaller landlords are now working with larger property management groups to help lease out their spaces" as the market sees a "shift away" from individual ownership, maintenance, and operations.

Table 5.1: Estimated market share, five largest PBSA landlords, Waterloo, 2018

Company	**Bedrooms**	**Market Share**	**"Micro Market" Orientation**
Prica Group / KW4Rent / Accommod8u	3250	19%	Mid-range PBSA
Sage Living by IN8 Developments	1534	9%	Young professional lifestyle
Centurion REIT / The Marq	1374	8%	High-end PBSA
CSC REIT / Rez-One	1371	8%	High-end PBSA; international students
CHC LP & AIMCO / Luxe I & II	955	5%	High-end PBSA
Total	8484	48%	
Source: Calculated based on data presented in Chapter 4.			

Yet while property management relationships serve to consolidate market share in a fragmented sector, the existence of "micro markets" also means that direct competition between firms is limited (Anderson, 2019). As a developer (L10) explained, "we focus on a particular niche within the student market, which might only comprise 5 or 10% of the

student population, but that's what we'll do and we'll do well at it; someone else will cover some of the other bases." For example, several students named the ICON and Luxe developments as the highest quality. Others like KW4Rent are perceived to occupy a lower-quality niche, while smaller landlords with subdivided houses for rent typically serve the lowest end of the submarket. Management firm Rez-One has a reputation for attracting international students, and Sage Living promotes a young professional lifestyle.

Alternative housing options have not been immune to these dynamics, and have had to define their own niches within the student housing submarket. A manager of Waterloo Cooperative Residence Inc. (WCRI) – North America's second-largest student housing cooperative and the largest in Canada, with over 800 beds – described having "to find new angles for providing housing. […] So we really try and emphasize the fact that we are a community-based organization" (L03). According to Glen Weppler, UW's Director of Housing and Residences, "We've hired a marketing manager recently […] in part because we now have to be more explicit in what the benefits are of living on campus. And historically, we haven't had to market." However, the clear divide between primarily university-managed first-year accommodations and the upper-year-dominated private off-campus market attenuates competition, a fact acknowledged by both parties. As Weppler put it, "landlords and property managers and developers generally accept that universities own the first-year market, and so they don't really try to attract first-year students." Founders of a student housing firm agreed: "we're happy for them to have them, and we take them thereafter, once they move off-campus" (L01), having learned to live independently (L02). Most students expressed a desire to avail themselves of the "housing advantage" (Rugg et al., 2004) provided by university residence as a stepping stone between living at home with parents, and living independently in the private rental market.

The real estate sector has also adopted other tactics to maximize CMR. With considerable variability in the market as students leave Waterloo for the summer or take up internships for co-operative education programs, landlords and property managers avoid semester-to-semester volatility by nearly exclusively offering 12-month leases, despite

student demand for four- or eight-month leases.[3] Arthur found that housing providers were all "looking for a 12-month lease, but there was only the one company that […] was willing to do an eight-month lease" after he offered to pay a higher rate. In contrast to some interviewees in the real estate sector (L05, L09) who suggested that students do not mind taking full-year leases, several, like Kathy, reported "stress in finding a subletter." A common – but illegal – practice is for prospective subletters to offer leaseholders large sums of cash or above-contract rates to take over their lease during busier times of the year, such as fall semester, resulting in aggressive bidding wars. In the slower summer months, cheap sublets can be a boon to students who need housing, but the leaseholder typically incurs a loss. Seasonal volatility is thereby externalized onto students.

There are also attempts to lock students into leases for the longer term, through multi-year leases. "We see a lot of three and four year leases with the option to terminate on a one-year basis," one broker (R02) reported, "and from a landlord perspective they have the comfort of knowing there's one year terms rather than going month-to-month" (the legal default otherwise). Often, the option to terminate must be exercised shortly into the lease: "the way that the leases are structured, is students have to give you […] almost eight to ten months of advanced notice if they're not coming back for the following September" (L05). This situation contributes to a sense of urgency among students to find housing. Students' limited time means they cannot fully evaluate all choices available – including, for instance, those outside the artificially delineated student housing submarket. Others "sometimes forget [to cancel the lease before the deadline] so they are stuck with two-year leases at places they are not satisfied with" (Sarah).

These conditions of CMR enable other abuses, including the common practice of charging illegal key deposits. Rapid turnover means that students are likely to move out before a dispute is resolved by the Landlord-Tenant Board, and some students believed that landlords had no incentive to provide quality housing as a result. Michael felt "like some

[3] Co-operative WCRI, which does offer four- and eight-month leases, is an exception.

students are getting conned. […] They know a student is not going to get a lawyer and do anything about it."

5.4.3 The relational constitution of submarkets

The delineation of the student housing submarket as absolute space is relational. That is, it depends on how adjacent submarkets are constituted as predominantly non-student areas. In other words, it is important to explain why studentification has not happened, or has been limited, elsewhere in the city – including other neighbourhoods proximate to the universities. Neighbourhood organizations have a major role to play here.[4]

While resident advocacy was central to the adoption of the rental licensing bylaw and the Northdale Plan, which helped to define the neighbourhood as a student area, residents living directly to the south of Northdale and WLU also fought successfully to have their neighbourhood, known as MacGregor-Albert, recognized as a heritage conservation district in 2006 (N07). Implemented at a time of rapid studentification, including the conversion of owner-occupied single-detached houses to shared student rental housing, the heritage conservation plan (Borgal et al., 2006) limited property owners' ability to demolish existing housing to construct apartments or to add large additions to their properties. While students still can and do live in MacGregor-Albert, these new heritage regulations effectively stalled the further studentification of the neighbourhood and have prevented the development of PBSA that is characteristic of Northdale.

Representatives of neighbourhood organizations also described informal mechanisms by which studentification is kept at bay. For example, when neighbourhood residents move, "we try to find out before [the house] comes up for sale publicly, and find out if people we know are interested in buying it privately" (N04). Neighbourhood organizations emphasized wanting to preserve the "family" or "community" character of their neighbourhoods: "it's not a formal committee – but we have a group who does encourage members, who, when they

[4] There are three types of neighbourhood organizations in Waterloo: covenanted home associations, formal neighbourhood associations in partnership with the City of Waterloo, and neighbourhood groups recognized by the City but without a formal partnership. Despite differences, all are concerned with promoting community connections and recreation opportunities.

sell their house, to try to sell to a family" (N01). By contrast, "A lot of people feel that students should stay within the areas that are kind of designed, with the high-rises" in Northdale (N02). Meanwhile, the formal structure of the organizations is "a convenient organizational thing that we have everyone's email addresses and we can communicate, and I guess maybe that would help mobilize" opposition to rapid neighbourhood change (N05). For one, forming a neighbourhood organization signalled to both the city and students that "there are other people other than students who live here" and provided "a moral compass of students that are moving in to know that this is a functioning neighbourhood, that it's not dominated by students" (N04).

In these non- or less-studentified neighbourhoods, keeping students out can be read as preserving CMR capitalized into property values. In the suburban areas to the west of UW known as Beechwood, the initial developers created exclusive covenanted neighbourhoods in the 1980s, which can be interpreted as an attempt to capture CMR (Harvey, 1974). The urban heritage of MacGregor-Albert, meanwhile, is also non-substitutable to some degree. Therefore, owners stand to lose value on their homes through the erosion of CMR. As one neighbourhood representative (N02) explained, "We pay a lot of money for our houses, and for our membership [in the neighbourhood association], and to have that neighbourhood experience, and I think that some neighbours might see that [a student neighbourhood] as not what they are buying into." Another (N03) felt that studentification "would act to negatively affect property values in the neighbourhood, simply because there's sort of a maximum that you can charge for a house that's going to turn into a student rental." However, "because the houses are expensive" in these neighbourhoods, "it's not a good value for a landlord to buy a house and rent it out to students. It just doesn't make sense as an investment" (N02). Preserving land values through CMR becomes a prime motivator for deterring studentification, as well as a deterrent thereof.

5.5 Challenging a submarket: Contestations and limitations

In political-economic terms, studentification can be seen as the formation of a generationed submarket in which differences in life course stage are exploited by capital to

extract CMR. Studentification is therefore an inherent feature of capitalist urbanization, not in a specific sense, but in the general sense that it fulfills a need for differentiation (Harvey, 1974): capitalism contributes to age segregation, which in turn is necessary for its reproduction via ongoing urbanization. This process is contingent on the distinctiveness of life course stages. Sharpening the contrast between studentified Northdale and other near-campus neighbourhoods, for instance, has enabled the shift from "mom-and-pop" landlords to large scale financialized investment, or "finance-driven new-build studentification" (Chapter 4).

Viewed through this lens, conflicts between incoming students and incumbent residents (Lager & van Hoven, 2019; Sage et al. 2012a) – and the exploitation of student tenants – are symptomatic of the powerful influence capital wields in shaping urban space (Slater, 2017). Specifically, these impacts are the result of developers' and landlords' investment decisions, tempered by planning and local context. This framing invites us to reconceive the politics of studentification, not in terms of students versus long-term residents, but rather as students and long-term residents versus capital. This is a radically different politics of studentification than that typically described in the literature (Hubbard, 2008; D. Smith, 2008) – and evidenced in the Waterloo case – in which local governments, at the behest of resident groups, have sought to maintain "balanced" communities through planning policies limiting student housing in certain areas. While some of these policies have been problematized as discriminatory and calls have been made to better account for the benefits that students bring to a community, increase the political representation of students, and create policies that better integrate students into the community (Hubbard, 2008; Munro & Livingston, 2012), none of this debate seeks to reconfigure the underlying capitalist social relations behind the creation of the student housing submarket.

However, unlike conventional gentrification, incumbent residents' concerns are not primarily about economic displacement, but rather centre on issues related to student behaviour and poor property upkeep (Hubbard, 2008; Munro et al., 2009; Sage et al., 2012a; D. Smith, 2005; 2008). These particular concerns are not solved by abolishing capitalism, private property relations, and so forth, as the conventional Marxian response would hold. If

conflicts regarding studentification are "rooted in class and age differences" (Sage et al., 2012a, p. 1060), then it is only appropriate that the political response takes both of these dimensions into account simultaneously. What is needed is an intergenerational approach, whereby mutual understanding of the different needs of other generational groups is promoted and the mutual interests of residents of all ages are emphasized (Vanderbeck, 2019). The impacts that both students and other incumbent residents face at the hands of capital, while different, nonetheless provide a point of commonality from which such an intergenerational approach may emerge. Intergenerationality would break down age segregation and therefore the generationed neighbourhood conditions for CMR, while mitigating against the negative property value impacts of studentification with which incumbent residents are concerned. Moreover, by undoing the spatial delineation of the student housing submarket, an intergenerational politics would contest capitalist urbanization based on the creation of exclusive absolute spaces and open possibilities for radical alternatives.

Elements of this politics already exist. Some neighbourhood associations reach out to students by holding neighbourhood BBQs and actively encourage their participation in community events. These associations recognize the tangible benefits students provide to the community, such as helping to run the neighbourhood swimming pool, and appreciate the diversity, science outreach, and economic impact students bring (N02, N04). Others interpret the neighbourhood association's mandate more narrowly, to maintain common amenities but otherwise remain apolitical: "it's not obvious that our mandate is political, and you know, if someone's renting houses to students, the people who own those houses are members of the neighbourhood association as well, and de facto the renters are too" (N03). Universities and the Town and Gown Committee are also engaged in relationship building activities with local communities, such as WLU's City Studio program where students work on solutions to municipal problems. The Town and Gown Committee has focused on improving student safety and wellbeing, not only managing the negative impacts of studentification on other residents. Student advocacy through this forum has shifted thinking to recognize students as residents (interviews).

However, as one student leader (S01) described it, students' positive contributions get "obscured every year because no one pays attention" and they are overshadowed by high-profile negative incidents like unsanctioned street parties. Attempts by neighbourhoods to be inclusive of students risk being paternalistic, and intergenerational relationships may remain too superficial to effect meaningful change (Vanderbeck, 2019). Student and neighbourhood leaders also identified the insular design of PBSA as a limitation for building community between students and non-students (S02, N06).

Students have sought to contest the abuses enabled by CMR through collective action. Unscrupulous landlord behaviour prompted an abortive attempt to form a tenants association in September 2018. In February 2019, undergraduates at UW approved a fee levy to support a legal aid service for students (Umholtz, 2019). "Yes" campaign posters referenced landlord-tenant disputes with the phrase "EZ2Rent" rendered to look like the logo of PBSA provider KW4Rent (Figure 5.3). Student associations have also advocated for rental housing protections.

However, most organized student response to housing issues is reactive rather than proactive, such as guiding students to the appropriate resources (e.g., legal clinics, or the Landlord-Tenant Board) in the event of a problem, or educating students about their legal rights and responsibilities. These strategies are important, but on their own limited in their effectiveness. The high turnover of students means that education must be ongoing. Moreover, these actions do not confront the issue of submarket segmentation that facilitates the extraction of CMR more generally.

Yet there is unmet potential to build partnerships with region-wide tenant advocacy movements, which would by necessity build intergenerational relationships by extending beyond students. These partnerships could promote alternative forms of housing for students and non-students alike, including social and co-operative housing. They might also take note of actually-existing forms of intergenerational living including university-based retirement communities or intergenerational homeshare programs (Montepare et al., 2019; Sánchez et al., 2011). The extent to which these models can be scaled up remains to be seen.

Figure 5.3: Legal aid referendum poster at UW referencing student housing issues, January 2019. Lester is a street in Northdale.

There are also internal contradictions to CMR. As Harvey (1974, p. 254) writes: "The perpetual tendency to try to realize value without producing it is, in fact, the central contradiction of the finance form of capitalism." One can only build so much student housing – and rent it out at such a price – before demand is exhausted, unless enrolment growth keeps pace or students have more money available to spend on housing. The former is not expected in the near term given demographic trends (McLerie, 2017), while the latter is unlikely due to recent government cuts to student financial support (Nanowski, 2019). While fears of "carnage" in the local rental market due to PBSA oversupply (Outhit, 2017) have to date been overblown – CMHC (2018) reports a 3% rental vacancy rate for the entire Kitchener-Cambridge-Waterloo metropolitan area – new construction continues. Some developers have attempted to keep abreast of the market by shifting their product to appeal to other demographics, in particular young professionals, by building smaller one- and two- (as opposed to four- and five-) bedroom units (P05, R03).[5] While this strategy may be profitable in the short term, in the long term it may dilute the absolute space of the student submarket and undermine landlords' ability to capture CMR by increasing the substitutability between submarkets.

Meanwhile, a substantial share of PBSA development has been built as condominiums for sale to investors with the developer taking responsibility for property management, often with a rental guarantee period. One broker (R03) suggested that the expiry of this period could be "a destabilizing piece of the student rental business" as fragmented ownership could undermine CMR: "The small condo owner will not be disciplined, will not care, and will just want to fill the space […] and he's not a professional at this, so he won't understand the game […]. So that's where the erosion of rents might happen. I see a bit of a downward spiral in that way."

[5] This shift in prevailing unit sizes is partly market-driven, but also incentivized within the Northdale Plan (see Chapter 3).

5.6 Discussion and Conclusion

Paradoxically, increasing the supply of PBSA spatially constrained the range of housing marketed (and subsequently rented) to students. The dynamics of CMR operate to delineate a circumscribed absolute space – the student housing submarket – in which greater value can be extracted from students in the form of rent. The partitioning of housing into submarkets by planners, the real estate sector, neighbourhood associations, and others allows scarcity to persist even within abundance. Debates over CMR therefore have relevance for broader debates over the role of housing supply in affordability (Been et al., 2019). Increasing housing supply may not contribute to lower housing prices, as neoclassical economics predicts, if this housing can be identified with a particular discrete submarket. The greater the non-substitutability between submarkets, the less likely added supply will contribute to overall lower housing prices across the entire housing market. Moreover, increasingly niche specializations within a submarket, or what Anderson (2019) calls "micro markets," may preclude new supply from decreasing prices within a submarket.

However, the existence of CMR would seem to contradict a substantial body of literature that considers it a theoretical impossibility, or at least highly unlikely (Evans, 1991; Garza & Lizieri, 2019; Houghton, 1993). The key to resolving this contradiction is *power*. There is, specifically, a temporal dynamic to the power relations of CMR (as Wyly et al. [2006, p. 109] duly note). In the case of student housing, students require a room before the academic term begins; have short stays that mean formal channels of dispute resolution are not viable; and face time pressures in finding future housing while studying. These realities conflict with the assumptions of models in which buyers will not buy if a land monopolist tries to extract a monopoly price, so the monopolist must lower their price to the competitive price or receive no income at all (Garza & Lizieri, 2019). In these models, land is implicitly substitutable *over time*; in reality it is not. Housing is a necessity. Most students do not have the option to forgo a place to live if the monopolist does not drop their price.

The implication is that rent theory must account for power, not only through the rent relation itself, but in the various ways it manifests and impinges thereon. Temporality is an important dimension of these power relations and one deserving of further investigation.

Landlords and property managers in Waterloo have leveraged their position in the market to stabilize the appropriation of rent in the seasonally volatile student housing submarket, by externalizing this volatility onto students. Students have relatively limited power given their limited search time, inexperience, lack of financial capacity, and barriers to collective action associated with high turnover. Given the importance of property managers within the dynamics of CMR, the question of who or what is a landlord also needs to be addressed by a theory of rent.

Like Anderson (2019), this study finds that CMR is indeed a widespread, relevant feature of contemporary neoliberal urbanism. The somewhat banal case of student housing demonstrates an application of the concept beyond race and class exploitation (Wyly et al., 2006, 2009, 2012) or high-end urban redevelopment schemes (Anderson, 2014, 2019). More importantly, it also illustrates how studentification, and therefore certain forms of age segregation, are intrinsic to the dynamics of capitalist urbanization. Other forms of age segregation, such as retirement communities, may also exemplify CMR. The dialectical relationship between generationed space, delineated on the basis of a distinct life course stage, and capitalist urbanization calls for an intergenerational politics to address the class- and age-based conflicts of studentification.

Such an intergenerational politics demonstrates the analytical value of bringing together political economic and life course approaches. Specifically, it represents a radical reworking of the politics of town and gown, away from conflicts between students and other residents, or institutions and municipalities, and towards a unified front against the predations of capitalist urbanization. Additional research is required into what makes for an effective intergenerational approach, especially given that much existing work focuses on children and/or the elderly, but not generational groupings in between (Vanderbeck, 2019). This project must investigate possible alternatives to class- and age-segregated housing characteristic of contemporary studentification. In Waterloo, the recent shift in housing development to target young professionals as well as students may provide valuable insights. Will the submarket, and therefore CMR, ultimately coalesce around students and young professionals, or continue to broaden, causing the pursuit of CMR to collapse under its own

weight? Or alternatively, might incipient intergenerationality develop into a successful contestation from below?

Chapter 6: Post-studentification? Promises and Pitfalls of a Near-Campus Urban Intensification Strategy

Studentification, referring to the process by which students become concentrated in particular neighbourhoods, is increasingly recognized as a global phenomenon. Recent academic literature documents cases in Canada (Chapter 3), Chile (Prada, 2019), China (He, 2015), Spain (Garmendia et al., 2012), and the United States (Foote, 2017), among others, since the process was identified in the United Kingdom over a decade ago (Smith, 2005; Smith & Holt, 2007; Hubbard, 2008; 2009). Despite the benefits students can bring to communities, studentification is associated with a host of issues relating to student behaviour, poor property upkeep, and the displacement of other residents, particularly in the Anglo-American context. Policies to mitigate these issues generally fall into two inherently exclusive camps: attempts to limit where students live within an urban area, and efforts to encourage students to live in purpose-built student accommodations in particular areas.

Besides being a locus of "town and gown" conflicts, student housing is one aspect of the broader relationship between universities and urban development. Processes of studentification are therefore central to near-campus urban (re)development in a variety of international contexts (Nakazawa, 2017; Perry & Wiewel, 2005; Wiewel & Perry, 2008). Recent research highlights how this type of (re)development can be implicated in other processes of urban change such as gentrification or "youthification" (Moos, 2016), whereby young adults are concentrated in particular areas (Bose, 2015; Moos, Revington, Wilkin & Andrey, 2019).

Drawing primarily on key informant interviews, I investigate the emergence of a novel policy approach to studentification and near-campus urban development, and a distinct trajectory of urban change associated with it, in the City of Waterloo, Ontario, Canada. This policy and process, which I call "post-studentification," represents a potential alternative, based on a purportedly more inclusive urban vision, to existing policies meant to mitigate the perceived negative social impacts of studentification. An examination of the unfolding of this process contributes not only to understanding to what extent post-studentification achieves

this promise – and its pitfalls – but also to elaborating the dynamism of studentification (Kinton et al., 2018) and its links to other facets of urban change (Moos, Revington, Wilkin & Andrey, 2019).

The City of Waterloo, located about 100 km west of Toronto, represents an ideal case for this research. One of three urban jurisdictions within the Region of Waterloo (population 560,000), the city has a population of approximately 133,000 and is home to two major universities, the University of Waterloo (UW) and Wilfrid Laurier University (WLU). As the universities witnessed rapid enrolment growth over the 2000s, studentification of some near-campus neighbourhoods meant that by the early 2010s, they had developed a notorious reputation as a "student ghetto" (*Waterloo Chronicle*, 2010a). Since then, the city has made a concerted effort to revitalize these areas. Meanwhile, Waterloo is also home to a burgeoning tech economy, itself linked to the presence of the universities (Bramwell & Wolfe, 2008), and substantial employment in other high-order services, particularly insurance.

I begin by outlining trajectories of studentification as described in academic literature, emphasizing several of the most common variants of the process, relationships to other dimensions of urban change, and the political and associated policy responses. Next, I sketch out a conceptual outline of post-studentification. I then describe the methods of the study and introduce the Waterloo context, including a brief history of its studentification. In the subsequent section, I describe empirically emerging post-studentification Waterloo. Then, I evaluate this case of post-studentification from three perspectives: the extent to which it aligns with local policy objectives, its transferability to other contexts, and its consequences for urban inequality. In the final section, I reflect on the broader theoretical and practical policy implications of the study with respect to (post)-studentification and related urban processes.

6.1 Trajectories and Politics of Studentification

Studentification is a dynamic process (Kinton et al., 2018) that can exemplify several diverse trajectories. "Classic" studentification, as described by Smith (2005) in the UK, involves students living in shared accommodations within the existing housing stock. With

enrolment increases outpacing institutional provision of housing, small-scale investor-landlords purchase housing to rent out to students, and occasionally convert interior common spaces to additional bedrooms. This piecemeal investment often drives up property values even as the physical quality of this housing deteriorates. As this type of studentification takes place within established neighbourhoods (or even within an apartment block; Garmendia et al., 2012), it is here where the greatest potential exists for "town and gown" conflicts, as student lifestyles are placed in contact with those of existing residents (D. Smith, 2008). Disruptive behaviour, noise, poor property upkeep, and parking issues on the part of students are oft-cited concerns in such neighbourhoods, sometimes alongside other deep-seated changes such as the closure of local schools and reorientation of local businesses (Hubbard, 2008; Sage et al., 2012a; D. Smith, 2005; 2008; Munro & Livingston, 2012). Existing residents are often displaced as they move out of a neighbourhood they perceive to be declining.

Private developers soon realized that students constituted a significant source of demand for rental housing, and while universities were largely unable or unwilling to accommodate this demand on campus, existing shared student rental housing was often of relatively poor quality. A sort of corporatized "new-build studentification" (Sage, Smith & Hubbard, 2013) therefore emerged. This purpose-built student accommodation, or PBSA, tends to feature higher-end amenities catering to a student lifestyle, all-inclusive rent, and heightened security such as key fob entry, surveillance cameras, and on-site staff (Hubbard, 2009; Kenna, 2011). The luxury and quasi-gated nature of these developments has raised concerns about the segregation not only of students from other residents, but also of wealthier students from their poorer peers (Smith & Hubbard, 2014). Taken to the extreme, this has resulted in what Smith (2018) has referred to as "super-studentification": the emergence of ultra-luxury housing aimed at the absolute wealthiest of students.

Besides meeting a market demand, PBSA also became attractive in policy discourse as a means of addressing the perceived issues of "classic" studentification by redirecting student demand away from established neighbourhoods (Hubbard, 2009; D. Smith, 2008). As empirical literature has shown, this is by no means guaranteed to be successful (Sage, Smith

& Hubbard, 2013; Chapter 3). Where it is successful, the outcome is often "de-studentification". De-studentification refers to an emptying of neighbourhoods of students, either as enrolment at local institutions declines, or as students are shuffled into new purpose-built student accommodations or other near-campus housing developments (Kinton et al., 2016; Kinton et al., 2018; Mulhearn & Franco, 2018). De-studentification therefore results in either the vacancy of neighbourhood housing units, or their re-conversion to other uses such as single-family housing.

Studentification has also been linked to other types of urban change. Several existing studies consider the spatial and temporal overlaps between studentification and other urban processes (Foote, 2017; Moos, Revington, Wilkin & Andrey, 2019; Chapter 2). It is common for urban universities to engage in activities to effectively gentrify their surrounding neighbourhoods to create an environment attractive for prospective students and faculty (Bose, 2015; Ehlenz, 2019; Etienne, 2012; Mapes et al., 2017). Likewise, a by-product of central-city revitalization schemes might be to attract more students to a gentrified area (Bromley et al., 2007). Studentification and gentrification may also be coincident as students, and developments oriented towards them, actively displace working-class neighbourhoods (Pickren, 2012; Sage et al., 2012a). Conversely, students may be "marginal gentrifiers" (Rose, 1984) who, attracted to cheap rents, prime a neighbourhood for subsequent gentrification (Davison, 2009). There is also evidence in some contexts that studentification can lead to youthification, or a concentration of non-student young adults in dense urban areas (Moos, 2016), as it shapes post-graduation housing preferences (He, 2015; Sage, Smith & Hubbard, 2013; Smith, 2005). Studentification and youthification may also occur simultaneously if urban amenities cater to young adults regardless of educational status (Ma et al., 2018; Moos, Revington, Wilkin & Andrey, 2019).

While some municipalities have addressed issues related to studentification through increased enforcement of bylaws (Evans-Cowley, 2006), elsewhere researchers have documented a discourse of "thresholds," whereby non-student residents view their neighbourhoods reaching a "tipping point" once a certain number of households are occupied by student renters. Once this threshold is reached, according to this narrative, the

neighbourhood is irreparably changed and takes on a distinct feel as a student area. This discourse is hugely problematic from a moral standpoint, as it adopts discriminatory attitudes considered unacceptable in the context of race or ethnicity to a new group, effectively penalizing all students for the behaviours of a subset (Hubbard, 2008; Munro & Livingston, 2012). Yet, it remains a central feature in many attempts to regulate studentification through policy.

In practice, the threshold discourse has manifested in attempts to limit the number of students residing in an area in several ways. One approach has been to place restrictions on rental housing (Ruiu, 2017). This may involve directly limiting the number of properties in an area that can be rented to students (Hubbard, 2008). Indirectly, regulations may target students by capping the number of unrelated persons that can live together (Pickren, 2012) or by requiring a minimum distance between rented houses (Chapter 3). An alternative strategy has been to encourage PBSA development in designated areas (Hubbard, 2009; Sage, Smith & Hubbard, 2013, D. Smith, 2008). While the framing of this type of new-build studentification is more positive in that it focuses on providing housing for students rather than by explicitly restricting it, ultimately the policy objective remains the same: reducing the number of students in established neighbourhoods to ensure a "balanced" mix of population (D. Smith, 2008).

6.2 Post-studentification: A Conceptual Outline

None of this literature identifies empirical examples of neighbourhood transitions that might be referred to as "post-studentification," where heavily studentified neighbourhoods adopt a more "balanced" (D. Smith, 2008) mix of population that retains a high proportion of students while gaining other residents. The characteristics of these new residents, and therefore the links to other processes of urban population change and the mechanisms thereof, remain an empirical question.[1] Nonetheless, the potential for such post-studentified

[1] For example, post-studentification could represent a process of marginalization where some residents are forced to live in a largely student precinct because of a lack of other options, or a process of gentrification as quality amenities attract high-income residents.

neighbourhoods has important theoretical and policy implications given the centrality of student/non-student conflicts related to noise and property upkeep in local politics of the "town and gown" relationship in a variety of international contexts (Nakazawa, 2017). In particular, the concept of post-studentification contests the inevitability of the threshold or tipping point discourse. In doing so, it allows for alternative trajectories of studentification, which may result in vastly different outcomes, including an ostensibly more inclusive brand of urbanism than the threshold or tipping point discourse promotes. From a conceptual standpoint, beyond an influx of non-students into a previously (and perhaps still) student-dominated area, post-studentification would also involve shifts in urban development from the unique provision of PBSA toward housing that accommodates a broader range of residents, and public and private amenities that cater to a more diverse population. This and other potential trajectories of studentification are summarized in Table 6.1.

Table 6.1: Neighbourhood characteristics of some potential studentification trajectories

Process	Population Change	Capital Investment	Outcome
"Classic" studentification (e.g. Smith, 2005)	Increase in students, displacement of non-students	Piecemeal	Students living in shared accommodations in the existing housing stock.
New-build studentification (e.g. Sage, Smith & Hubbard, 2013; Smith & Hubbard, 2014)	As above, also potential displacement of poorer students	In situ influx of capital into PBSA	Students living in private purpose-built housing. In extreme cases, "super-studentification:" very wealthy students living in expensive, luxury student housing.
De-studentification (e.g. Kinton et al., 2016)	Decrease in students, possible replacement by non-students	Influx of capital into PBSA in *other* neighbourhoods; or, decline in total student population and no new capital investment	Housing stock is left vacant or re-converted to other uses.
Post-studentification (conceptual)	Increase or continued high concentration of students *and* increase in non-students	Influx of capital into a variety of housing types, as well as other amenities	Diverse housing stock caters to a diverse range of population? A socially mixed neighbourhood?

Some examples of sporadic, isolated elements of post-studentification exist. For instance, Smith and Holt (2007, p. 156) argue that "many recent graduates may continue to deploy their cultural capital, in lieu of economic capital, by carving out distinctive residential

niches, and reproducing the cultural practices of studenthood to maintain social and cultural identities" resulting in a "blurring" between student and post-student lifestyles. Hubbard (2009, p. 1908) reports one PBSA provider offering "similarly managed properties upon graduation" with "developments promising 'hassle-free graduate housing'." Some neighbourhood population changes brought about by university-led revitalization may represent cases of post-studentification rather than conventional forms of gentrification if the incumbent population is largely low-income because it is temporarily poor students as opposed to long-term working class residents (Ehlenz, 2019; Moos, Revington, Wilkin & Andrey, 2019). Without being investigated through this lens, it is impossible to say, but it may be that post-studentification has been lumped in with gentrification. The lack of examples of post-studentification in academic debate may also be because of the relatively underdeveloped literature on studentification (as compared to gentrification) and its interactions with other urban processes, or due to an actual paucity of cases of this phenomenon.

6.3 Methods

This paper examines incipient post-studentification in the case of Waterloo, drawing primarily on semi-structured interviews with key informants (n=33) from the local real estate and planning sectors (developers, brokers, landlords, property managers, and planners) as well as student organizations and universities to outline the driving factors behind post-studentification as both policy and process. Interviews were carried out between June and November, 2018, and averaged approximately 45 minutes in length. They were recorded, transcribed verbatim, and manually coded. Coding followed an iterative, combined deductive-inductive approach (Palys & Atchison, 2014), where codes were assigned according to predefined themes (deductive coding) as well as to new themes that emerged in the process of the analysis (inductive coding). Each theme was subsequently re-coded, resulting in some cases in finer distinctions among sub-themes, and in other cases, new general themes. This procedure resulted in a refined picture of local urban planning and development in Waterloo's near campus neighbourhoods. The study is also informed by a

systematic review of relevant planning documents and news media in the context of a larger research project on student housing submarkets (Chapter 3; Chapter 4; Chapter 5).

6.4 Context: Studentification in Waterloo

Studentification in Waterloo is detailed extensively in existing academic literature (Charbonneau et al., 2006; Chapter 3; Chapter 4; Chapter 5). In brief, as enrolment increased rapidly at the city's two universities over the early 2000s, the existing municipal lodging house licensing system became untenable. This system had sought to limit concentrations of students by instituting a minimum-distance separation between lodging houses. Increasing housing demand from students therefore led to early studentification of neighbourhoods farther afield from the campuses and strong incentives for landlords to flout the rules in near-campus neighbourhoods. Ultimately, a court challenge rendered the lodging house bylaw unenforceable in 2003.

Meanwhile, the City was running out of room to grow within its existing boundaries and held no prospect of annexing additional space within the framework of the Regional government. Intensification along nodes and corridors was seen as the solution to both the dispersed city's land supply issue and residents' concerns about studentification in near campus neighbourhoods. It was hoped that the higher densities permitted in the nodes and corridors near the universities would allow development of apartments that would draw students out of other residential areas.

However, despite PBSA construction in the nodes and corridors, students continued to concentrate in the Northdale neighbourhood, an area of wartime and post-war suburban detached houses located between UW and WLU. By 2011, a door-knocking survey carried out in Northdale on behalf of the city found that in the three survey subareas, respectively, 77%, 81%, and 97% of dwelling units were occupied by students (MMM Group, 2012b). Existing residents expressed frustrations with the ongoing impacts of studentification, which meant it was also difficult to sell their houses to other potential long-term residents. Investors, meanwhile, preferred to buy properties in the designated nodes and corridors where they could be assured of the ability to redevelop at higher density.

In response to public pressure, the city began a new planning process ultimately resulting in the Northdale Land Use and Community Improvement Plan Study in 2012 (hereafter "Northdale Plan"), with the following vision statement: "By 2029, Northdale is revitalized and reurbanized into a diverse, vibrant and sustainable neighbourhood, integrated with educational, residential, commercial, cultural, heritage and recreational functions, and improved open space, pedestrian, cycling and transit networks" (MMM Group, 2012a, p. 25). Attracting non-student residents is a central part of this vision, as the plan aims to "provide a new opportunity for permanent residents to live in a mixed use, urban neighbourhood" (MMM Group, 2012a, p. 24) and accommodate "a diverse demographic including students, families and professionals" (p. 26). While not specified in the plan, respondents expressed that the long-term goal is for one in three residents to be non-students (planner P04; Councillor Jeff Henry). To achieve these ends, the Northdale Plan allows for urban intensification throughout the neighbourhood, with maximum heights ranging from six to 25 storeys. The result of the plan has been sustained redevelopment in the near-campus area, making Waterloo by far the largest concentration of PBSA in Canada (Chapter 4), but also suggesting an incipient process of post-studentification.

In contrast to some other prominent examples (e.g. Bose, 2015; Ehlenz, 2019; Etienne, 2012; Mapes et al., 2017), Waterloo's universities have had a minimal role in near-campus urban redevelopment. While they did construct some new residences on existing university lands – and WLU acquired some private student housing, largely with a view to long-term land banking rather than providing housing, per se – by and large, development has been left up to the private sector to build and the municipality to regulate with little involvement of either university.

6.5 Post-studentification in Waterloo?

This section describes incipient post-studentification in Waterloo as a result of the Northdale Plan and other factors. The primary marker of post-studentification is, by definition, a pattern of population change whereby an increasing number of non-student residents live within a student-dominated area. A secondary criteria is a shift in

neighbourhood amenities to support this population change. Finally, elements of the local context have also shaped the emergence of post-studentification in Waterloo.

6.5.1 Population change

One long-term goal of the Northdale Plan is to achieve a population mix whereby one in three Northdale residents is a non-student, a clear policy of post-studentification. The degree to which progress is achieved towards this goal is unclear. As the councillor for the ward containing Northdale, Jeff Henry, put it, "it's not information you can collect, and nobody really does collect it." For instance, the census does not directly identify post-secondary students, and moreover, tends to undercount students in situ, as they are often enumerated at their "permanent" residence (i.e., at their parents' house) rather than their "temporary" term-time address. Nonetheless, interviewees provided evidence that a process of post-studentification was underway.

Several key informants reported that non-students were increasingly moving into buildings in and around Northdale. One broker's (R02) client had a recent development near UW that was "seeing more non-students rent there than students now, overall." Municipal and regional planners monitoring development in and near Northdale also observed developers selling condo units to non-students for owner occupation. As one planner (P03) put it, "There's a lot of techies that would look at these buildings as a stopgap to something else," for instance to rent while saving up to buy a larger house or condo. The area is well-situated with respect to major nodes of professional employment, including the universities themselves as well as private businesses housed in UW's Research and Technology Park, adjacent offices, and Uptown Waterloo, making it ideal for young professionals. According to Ulrike Gross, responsible for WLU's real estate portfolio, "it's really a terrific opportunity to be very close to where they work and what that means is that you get away from the homogeneous student ghetto and to a more diverse demographic living in this housing area." Reportedly, this trend is driven in part by local tech companies "looking for large-scale rentals, so they're taking blocks, you know, ten, twelve units at a time" to house employees, but also to some extent from seniors looking to downsize (R02).

A primary factor in this incipient process of post-studentification has been a reorientation of the actual residential development activity from a focus exclusively on students, or PBSA, to a broader market. There are two main reasons for this. First, as developers realized the PBSA market was becoming saturated, some deliberately shifted the style of building they constructed, and correspondingly, the demographics to which they marketed their products. One planner (P02) observed the trend that "they are being marketed now towards students-slash-young professionals, and there's an additional emphasis on this, young professionals." According to one developer (L10), "What we build now is we focus more on what I'd refer to as market condos or market units, a typical unit layout and type of building that would be generic for any urban centre and build them near universities." Another (R06) agreed that in addition to attracting students, "we were trying to appeal to people who actually work in Waterloo" in no small part because "they can afford something that is a little bit better than what a student could."

The second reason for this shift in development activity pertains to the Northdale Plan itself. The plan encouraged smaller unit sizes, in contrast to the preponderance of five-bedroom units that dominated development in the neighbourhood prior to the Northdale Plan. In the words of one planner (P04), "the hope is" that the plan will "bring about that balance" between students and non-students by having "that right product, and having a product that is more attractive to non-students." The one- and two-bedroom units that have accounted for most new development were incentivized in the plan through changes to the development fee structure and by tying parking requirements to the number of bedrooms rather than the number of units (see also Chapter 3).

For one broker and property manager (L09), the result is that the distinction between student housing and the rest of the market is becoming irrelevant: "I don't think there is [a definition of student housing] anymore… it's so diverse that I think it's somewhat become meaningless and some of the student housing, or housing rented by students, could easily be rented by non-students, whether they be twenty years old, thirty years old, or seventy years old, and certainly some of them could well also be owned and lived in long term [by] families."

6.5.2 New amenities

Undoubtedly, part of the neighbourhood's success in attracting non-student residents has depended on improvements to public and private amenities. The Northdale Plan zoned much of the neighbourhood for mixed-use, requiring ground-floor retail spaces in residential buildings and a higher standard of urban design. One planner (P04) explained: "That's needed to support and have a complete neighbourhood, so people have a place they're hoping to live, work, learn and play." Indeed, another planner in the city's economic development office reported, "now all of a sudden, going from zero amenities, there's over 25 shops and stores now in Northdale" (P05). For one broker (R01), this was a "big driver" in making the neighbourhood appealing, "especially as things go forward, where buildings are built with amenities in them. So amenities being, you know, Asian restaurants, or Wacky Tabacky [marijuana paraphernalia] shops, or whatever it is, I think that's becoming more and more important." While some of these amenities certainly remain oriented to the student demographic, others have become "a regional kind of hidden gem type place" (student leader, S01) that, at least anecdotally, attract customers from across the region.

For its part, the city has also invested in public infrastructure, including streetscaping and parkland. These public and private improvements are mutually reinforcing as development charges support the creation of parks, which in turn enhance the value of private development. As an economic developer (P05) explained, "you have to be in alignment in proportion of private sector with public sector improvements." Infrastructure provided by the regional government, such as a new light rail transit system that passes between Northdale and UW, may play a similar role. According to another planner (P06), "it's transit-supportive development, or maybe the transit is supporting the high-density development," but the ultimate effect "from a wider city-building perspective" is to create "a more complete and attractive street." WLU is also working closely with the local school district and the City of Waterloo to create a community space on joint properties in the area.

6.5.3 Other factors

Another element driving post-studentification in Waterloo has been high regional housing prices. With strong employment growth in the local tech sector, the region experiences substantial endogenous demand for housing. However, the region is also in close proximity to Toronto and therefore sees considerable spillover from its expensive housing market. Regional and provincial growth controls also limit low-density urban sprawl. As a result, there is substantial demand for apartments and condominiums as a cheaper alternative to detached home ownership. For one developer (L10), "there's other towns with universities [in Ontario] where you can still buy a house for like $250,000, whereas in Waterloo, you'd be hard pressed to buy one for less than $500,000. So that's an important factor for us." Young professionals in the tech sector, in particular, see this housing as affordable relative to other major centres of the tech industry such as Toronto or the San Francisco Bay Area.

Meanwhile, selected corridors zoned for high-density development in the city do not always match where there is market demand for such development. While in principle higher-density development can (and does) take place elsewhere, Northdale remains an attractive location for developers of the more economical housing options provided in high-density buildings relative to detached houses, due to its proximity to employment and other amenities. This is despite the fact that Northdale remains largely a student precinct, but also because of it: Not-In-My-Backyard-ism prevalent elsewhere in the city is less likely to be experienced in student-dominated Northdale (P06; see also Chapter 3; Chapter 5), resulting in post-studentification. At the same time, the tight housing market has mitigated against the urban decline associated with de-studentification (Kinton et al., 2016) elsewhere in the city precipitated by the volume of new development in Northdale.

6.6 Promises and Pitfalls of Post-studentification

This section begins by reviewing some of the benefits and limitations of post-studentification as experienced in Waterloo. While this discussion pertains to this particular case study, commonalities with studentification and university-driven urban development elsewhere (Nakazawa, 2017; Perry & Wiewel, 2005; Wiewel & Perry, 2008) mean that many

of the issues raised are likely to be experienced in other instances of post-studentification. However, there are also several features of post-studentification that may prevent it from arising in other contexts. Finally, post-studentification may produce urban inequalities along the axes of class, gender, and age.

6.6.1 Achieving intended outcomes locally

In several ways, key informants report that the Northdale Plan has achieved, or is progressing towards achieving, its goals with respect to post-studentification. As we have already seen, a new diversified housing stock has moved away from traditional five-bedroom PBSA units and has begun to attract non-student residents. New commercial spaces and parks also provide attractive amenities for residents of the neighbourhood, and in some cases the wider city-region. In a sense, Northdale is becoming "almost a second downtown if you will" (broker R02), and with ongoing developments soon to be completed, "we won't recognize it, and I think everyone's going to be pretty happy with the end result, considering where we came from" – a heavily studentified neighbourhood of run-down housing, few amenities, and a strongly negative public perception. The high-density housing form also partially mitigates against some of the negative aspects of studentification. According to one planner (P06), "there's not that opportunity in an apartment building, to have great big, huge outdoor parties […] which, when it gets out of hand, can be negative." Another broker (R04) agreed that while the neighbourhood still had its shortcomings, "it's still way better than those run-down houses with kids urinating on the bushes on Friday night and sun tanning up on the roof."

However, in other respects, the Northdale Plan is less certain to meet its goals. Northdale continues to hold a negative perception as a studentified area, with one broker referring to it as little more than a "nice student ghetto" (R04). Another (R03) concurred that "those buildings are typically in locations most renters wouldn't want to live, because they're in student-ghettoized areas." As a result, the appeal to non-students remains somewhat limited, as one property manager specializing in student accommodations (L04) described: "Once you kind of graduate, you're looking for more: I don't want to deal with roommates

anymore, I don't want to put up with roommate issues, I kind of want my own space. And I can probably find cheaper living not in a student area. Because as soon as you don't have to live right by the university, your options are a lot more open." Lifestyle and behavioural issues related to studentification aside, some also questioned whether the type of housing provided – increasingly, small one- and two-bedroom condos – would be suitable for families (P02).

As a result, non-student residents in Northdale are often what might be termed marginal non-students: "acquaintances, friends or spouses of students" (property manager L09) or those who had recently graduated. A researcher at a brokerage (R05) suggested that "people would probably live there because it's comfortable for them because they moved there when they were in school, and then when they start to make more money, they'll move out of there. […] I don't think someone's going to physically move in to this if they haven't lived in [PBSA] before." In other words, while "that's no longer […] technically considered a student" it represents "a very similar demographic and profile very often, and a very similar lifestyle" (L09). In this sense, it is unclear to what extent non-student residents are meaningfully different from students with respect to the planning goal of achieving a mixed population. Moreover, while the goal of one in three Northdale residents being non-students is perhaps realistic, it is not particularly ambitious, and there is no mechanism for monitoring it.

According to Councillor Henry, the concentration of young adults means it is difficult for the city to know what kinds of public park amenities to provide: "we have never built a park focused and targeted on the young adult demographic. We have not. There is not one in the city. If you are 8 years old, we know how to build a park for you. If you are 80, we know that we're supposed to provide benches every so many feet […]." The same challenge applies to community-building initiatives that might lead to grassroots provision of, or advocacy for, public amenities due to high resident turnover. As a student leader (S02) explained, "I know it's kind of been a target area to have a community association, but it's really difficult when you don't have permanent members who are staying more than the four years in that area."

Another challenge pertains to the neighbourhood's mixed-use component, and in particular retail space. Balancing the quantities and timing of individual uses is a common issue in mixed-use development (Beauregard, 2005). For some key informants, there is *too much* commercial space: "The reality is, we don't need that much retail space" (broker R03) and as a result "it's going to take a long time before that's fully functional and beneficial" (planner P06). Despite some successful businesses, these informants noted that many retail spaces remained vacant while several other businesses have struggled. These new retail spaces compete with successful pre-existing commercial plazas at either end of the Northdale neighbourhood. Meanwhile, the neighbourhood still lacks key services such as a grocery store. Another broker felt there was *not enough* retail and other diversity of uses in Northdale. However, he indicated that continued residential intensification could make these other uses more feasible. As a result, "Other people are going to want to go there on a Friday night besides students, right? And other people will be there on a July afternoon, because all the students are gone."[2] Indeed, that is the as-yet unrealized ideal of post-studentification. "From a city standpoint, that would be desirable, wouldn't it?" (R04).

6.6.2 Applicability as a model elsewhere

Whatever the benefits and flaws of post-studentification, the question remains as to whether and to what extent the process is likely to unfold in other contexts. This, in turn, will determine whether policies with the objective of post-studentification are a feasible alternative to segregationist strategies to deal with problems associated with studentification, such as limitations on the number of student-occupied houses within an area or encouraging single-purpose student housing away from established neighbourhoods (Hubbard, 2008; 2009; Pickren, 2012; Ruiu, 2017; Sage, Smith & Hubbard, 2013; Smith & Hubbard, 2014; Chapter 3). In fact, several contextual elements that prevail in Waterloo and have contributed to post-studentification may not be present in other locations.

[2] Due to co-operative education programs with rotating work terms at both universities, but particularly at UW, not "all" students are gone during the summer, although there are certainly fewer.

For one interviewee, the extent of blurring between housing for students and non-students was Waterloo-specific, and had much to do with the local economic development focus on high-tech industry, for example by being part of Canada's Technology Triangle (along with Kitchener and Cambridge), which has contributed to considerable housing demand. "London [Ontario] has a great university, no one stays in London. They go there to get their degree. Waterloo, they come there and they stay there and they open up business" (R04). As a result, "Waterloo has an advantage that Toronto would have, that maybe McGill [University, in Montreal] would have, that Kingston [home to Queen's University] wouldn't have. […] There's just that natural employment base there." UW is especially known for spurring spin-off businesses and generating talented workers for the regional economy (Bramwell & Wolfe, 2008). While the volume of tech employment is important, so too is its location proximate to the universities. Office space along Phillip Street, immediately to the north of Northdale, has in recent years seen "close to 4000 new jobs, wherein all these companies are hiring young talent," according to an economic development planner (P05). "So if you're in fourth year university, fifth year university, come out of school, where you going to live? Well, probably nearby."

Other place-specific features such as Waterloo's recently revitalized central Uptown area are seen as attractive to young workers and students alike, as one broker (R04) described: "It's like Nashville, it's just a cool place." While comparisons to the country music capital of the world may be hyperbolic, it does seem likely that there is a self-reinforcing effect at play where amenities attract residents, who in turn spend money which supports the amenities. Waterloo is, in other words, "planning for 'cool'" (Vinodrai, 2018) in general, not only in Northdale. Accordingly, "The Waterloo brand is seen as safety, is seen as growth, and is seen as a positive future" (L09). For post-studentification to occur, a planner (P05) summarized, "you need high growth universities, […] and you need a strong tech sector and economy." In contrast, for those cities with weaker employment and housing markets, it may be challenging to realize the type of intensive development supportive of post-studentification. Even with this type of development, the resulting surplus of housing

could lead to more affordable rents, but also de-studentification, disinvestment and decline or abandonment in some parts of the city (Kinton et al., 2016; Mulhearn & Franco, 2018).

6.6.3 Implications for urban inequality

Post-studentification in Waterloo is effectively a form of gentrification. This represents a continuation from studentification-as-gentrification, as PBSA displaced more affordable housing options and non-student populations (see Chapter 4; Chapter 5). As one student leader (S01) put it, "if you're looking for more affordable rent, you can't… you have to move further out, essentially." This relationship is intrinsic, according to a planner (P05): "if you want to attract a more diverse neighbourhood, it can't all be run-down student housing. So the idea of walk-in clinics, new streets being developed, high end finishes, that means the cost of the projects goes up, by the way. There's no more cheap housing." This class-based exclusion is unsurprising in light of the tendency for housing in high-amenity mixed-use urban areas to be less affordable than elsewhere in a city (Moos et al., 2018).

In theory, the intermixing of student and non-student populations could be desirable for reducing age segregation, and in particular fostering intergenerational understanding rather than exacerbating town and gown conflict (Chapter 5). However, in practice this is limited by the fact that post-studentification has tended to involve "marginal non-students." These recent graduates, dropouts, young professionals, and friends or partners of students often hold similar lifestyle preferences to students (see also Smith & Holt, 2007), and while they may be a few years older than most students, they do not contribute substantially to altering the age profile of the neighbourhood. Post-studentification can therefore also be said to be a form of youthification (Moos, 2016), providing a concrete link between youthification and universities (Moos, Revington, Wilkin & Andrey, 2019) and reinforcing age segregation.

These class- and age-based inequalities also intersect with issues of gender. As feminist scholars have noted, urban planning and development is often masculinist in that it overlooks social reproduction and care work, placing instead an emphasis on interurban competition and profit (e.g., Curran, 2018). This is no doubt the case in Northdale, where post-studentification has been driven by economic development strategies that emphasize

competition on the basis of the highly gendered tech sector. The Kitchener-Cambridge-Waterloo metropolitan area is one of only two in Canada with a higher male share of the unmarried, university-educated 25 to 34 year-old population (Flanagan, 2018).[3]

Meanwhile, social reproduction and care work are hampered by the fact that the city seeks to provide public amenities specifically geared to the young adult professional and student population that dominates the neighbourhood, rather than children or the elderly. The lack of public amenities for the latter groups is self-reinforcing of age segregation as it reduces the appeal of the area to them. Likewise, the increasing prevalence of high-end one- and two-bedroom apartments suggests a lack of housing appropriate for larger households with children, as one planner (P02) was hesitant to outright admit: "But definitely marketing towards these smaller units, it may be an issue because one thing that we have been hearing – so this isn't something we're saying, but something we're hearing – is kind of the lack of family-oriented, sized units, or units in buildings that might be of interest to a family." This type of housing also limits the possibility for multi-generational living, which could otherwise offset age segregation (Curran, 2018).

That post-studentification in Northdale is perceived to result mainly from young professionals temporarily occupying a lower step on a housing ladder also reflects and reproduces certain gendered assumptions about housing. First, there is an expectation that family and detached home ownership are the eventual goal, and second, that certain environments (high density, urban) are not appropriate for raising children (Curran, 2018; Fincher, 2004; Kern, 2010; Raynor, 2018). Negative perceptions (and to some extent, ongoing realities) of studentification in Northdale likely reinforce these assumptions, even where five-bedroom units in older PBSA may technically be large enough to suitably house larger households with children.

[3] The gap is small, with 180 more unmarried university-educated men than women in the 25-34 age bracket, but nonetheless unusual, with only Calgary exhibiting the same pattern in Canada. There are 4,515 more unmarried men than women at any education level in this age bracket in Kitchener-Cambridge-Waterloo (Flanagan, 2018).

6.7 Discussion and Conclusions

The promise of post-studentification is the potential for mixed populations and land uses to coexist with a large concentration of students, thereby addressing many of the challenges commonly associated with studentification. It is therefore of great potential interest to urban policymakers. Existing policy approaches have sought to achieve "balanced" populations by limiting the number of students living in an area – often by proxy, through rental housing restrictions – or by encouraging the construction of PBSA in exclusive student villages set apart from other neighbourhoods (Hubbard, 2008; 2009; Pickren, 2012; Ruiu, 2017; Sage, Smith & Hubbard, 2013; Smith & Hubbard, 2014; Chapter 3). Alternatively, greater enforcement of zoning, building, housing, and other regulatory codes or bylaws may successfully treat the symptoms of studentification but not the root issues, and in doing so, risks disproportionate impact on marginalized (e.g. racialized, low-income) non-student residents (Evans-Cowley, 2006; Bose, 2015). By contrast, post-studentification represents a preferable policy orientation because it attempts to achieve a diverse community by making it appealing to a wide cross-section of the population, rather than by excluding certain groups. In other words, it represents a more inclusive urbanism than most other policy responses to studentification, at least in theory.

In practice, post-studentification in Waterloo has been largely limited in scope and scale to a marginal non-student demographic including friends of students and young professionals. Northdale has not yet entirely shed its reputation as a student area, and small one- and two-bedroom apartments are perceived as unsuitable for families. On the surface it may seem obvious that these marginal non-students would be the most compatible with students, but this is not necessarily the case, as examples of intergenerational living such as university-based retirement communities (UBRCs; Montepare et al., 2019) and intergenerational homeshare programs (Sánchez et al., 2011) attest. Similarly, some instances of studentification have resulted in minimal intergenerational conflict (He, 2015).

There have also been challenges in achieving the desired public and private amenities to support post-studentification, particularly with respect to the retail element of mixed use development. The transferability of post-studentification as a policy may also be limited

insofar as it depends on strong local housing and labour markets and a large volume of professional employment in close proximity to near-campus neighbourhoods. Finally, rather than represent a diverse and inclusive urbanism, post-studentification may represent a continuation of gentrification and the displacement of affordable housing; have minimal capacity to reduce age segregation; and reproduce gendered assumptions regarding urban development.

While connections between studentification and youthification have been identified (Moos, Revington, Wilkin & Andrey, 2019; Chapter 2), the particular pathways of this relationship remain largely unspecified. This study finds that post-studentification is closely tied to youthification, and therefore represents one "mechanism of youthification" (Ma et al., 2018). Youthification follows on from studentification within a neighbourhood due to the characteristics of the local housing stock, public and private amenities, as well as broader regional housing and employment market trends. In particular, high housing costs and local planning provisions have favoured the development of high-density housing, beyond five-bedroom units in PBSA, in near-campus neighbourhoods where students already live.

That youthification proceeds from studentification via the mechanism of post-studentification lends some empirical support to the notion that studentification shapes students' post-graduation housing decisions (He, 2015; Sage, Smith & Hubbard, 2013; Smith, 2005; Smith & Holt, 2007), albeit in a limited way. It may be a case of former students remaining in a familiar neighbourhood and housing arrangement as they bide their time before they are able to realize longer-term housing aspirations. These long-term aspirations may be quite unlike those offered in purpose-built student accommodation. In other words, life in studentified neighbourhoods might shape former students' *tolerance* for certain types of housing rather than their ultimate preference.

As a long-range plan, the Northdale Plan is less than a decade old, and it may therefore seem unfair to critique before it has time to realize its aims. However, the plan was implemented following the failure of a previous long-range plan to address community concerns in near-campus neighbourhoods. The Northdale Plan, for all its imperfections, is a product of an adaptive planning process that recognized the need to account for a changing

context and the shortcomings of earlier plans (Chapter 3). In this light, it would not be inappropriate to introduce tweaks to the plan that address the pitfalls of actually-existing post-studentification, for example by providing for more family-oriented housing and amenities, and affordable housing options.

Moreover, there is a need for further research on post-studentification to determine the extent of this process in other contexts, as well as of the potential for more successful policies of post-studentification (however defined). Empirically, examples of more "complete" processes of post-studentification, with a more diverse population range, would offer important theoretical and practical insight into the process. There is evidence that sporadic elements of post-studentification exist in other contexts (Hubbard, 2009; Smith & Holt, 2007; Ehlenz, 2019), suggesting it is a concept with wider purchase. The contingencies of these other places are likely to result in variations of the process that mirror the diversity of studentification – for instance as differently expressed in China (He, 2015), Spain (Garmendia et al., 2012), or Chile (Prada, 2019) as opposed to the Anglo-American global north – presenting opportunities for crucial comparative research.

Likewise, future research should revisit Northdale again after a few years to see how (or whether) it has evolved as build-out is completed and the neighbourhood matures: Will incipient post-studentification remain limited, as at present, or will it indeed achieve its promise of a more diverse community? Alternatively, will it be a passing phenomenon as the neighbourhood reverts to a more "typical" studentified neighbourhood? These questions are not merely of quaint, local importance, but are crucial to a broader discussion of how cities may respond positively to the challenges posed by studentification (D. Smith, 2008). The answers would illuminate the extent to which it is possible to transform town-gown relations to build diverse and inclusive near-campus urban neighbourhoods.

Chapter 7: Conclusion: From Town, Gown and Capital to the Post-studentification City

The case of Waterloo suggests that as far as contemporary studentification is concerned, "town and gown" conflicts are driven as much by residents, students, municipalities, and universities as they are by the remaking of urban space for capitalist accumulation, and are therefore better understood as an issue of "town, gown and capital." Indeed, the real estate sector – with tacit support from planning and neighbourhood associations – has delineated a well-defined student housing submarket both as an absolute space for extracting class monopoly rent, and as niche asset class. Therefore, studentification can be read as being a product of and producer of capitalist urbanization. However, defining this submarket has relied on its differentiation as a generationed space, where differences in life course stage between students and other residents can be profitably exploited. The implication is that to address the issues of studentification requires confrontation of both their class- and age-based dimensions simultaneously. Given that planning has had an outsized role in shaping the current configuration of the student housing submarket, it might also have much to offer in building a post-studentification city. However, incipient, actually-existing post-studentification evidences limited success in achieving this promise. These overarching conclusions are elaborated upon below.

In the following section, I will focus on the empirical and theoretical contributions of the research to three related areas of scholarship: the relationships between processes of studentification, youthification, and gentrification; broader theorizations of studentification; and the implications for understanding capitalist urbanization. The next section considers the practical implications of the research for planning practice and praxis. This section is likewise divided in three parts. The first part is concerned with formal planning practice, as carried out by the state. Meanwhile, the second part addresses post-secondary education institutions' provision of, or support for, student housing. The third part considers the work of student organizations and activists in housing struggles.

The final section addresses limitations of the study and corresponding possibilities for future research. It begins with the research approach, before moving on to substantive topics meriting greater attention. These topics include the neglected role of gender and race in studentification. New emerging configurations of studentification also deserve attention, such as studentification pertaining to the influx of international students at suburban colleges, which differs in important ways from studentification at urban universities, and further empirical examples and theoretical elucidation of post-studentification. Lastly, the present research points to new directions in theorizing urbanization through the lens of what Harvey (1978) called the "tertiary circuit of capital".

7.1 Empirical and Theoretical Contributions

This dissertation contributes to three broad, overlapping areas of the literature. First, it contributes to theorizing the linkages between urban processes of studentification, youthification, and gentrification. Second, it advances theorizations of contemporary studentification in its own right. Finally, it informs wider debates over the nature of capitalist urbanization, in particular by bringing together political economy and intergenerationality.

7.1.1 Housing pathways of studentification, youthification, and gentrification

As argued in Chapter 2, one way of understanding the theoretical and empirical linkages between studentification, youthification, and gentrification is through the interactions between individual housing pathways, which are in turn structured by a variety of factors and imbued with meaning (Clapham, 2002). The process of studentification in Waterloo has shaped individual housing pathways in several ways. It has, for example, constrained the housing pathways of many students to a circumscribed area in and around the Northdale neighbourhood through a number of informal mechanisms supporting the pursuit of class monopoly rent, including via the entry of financialized firms into the local PBSA market. Other neighbourhoods' attempts to restrict student housing also constrain student housing pathways in defense of an even more privileged set of pathways – those of middle-class households (often discursively positioned as "families"). Simultaneously, this process has dispersed other students seeking cheaper housing to areas farther away as the housing

pathways of affluent students collide with those of less affluent students and the working class. Indeed, these imbrications can have impacts on the pathways of other residents, such as the older residents expressing concerns of physical and social displacement quoted in Chapter 4, and by leading to age segregation. In this sense, studentification can be seen as a form of gentrification, while also maintaining the status of other nearby neighbourhoods.

The research also confirms the diversity of student housing pathways. Some of these pathways arise due to the pursuit of alternative lifestyles in and of themselves (such as the desire to avoid mainstream student cultures), while others result from attempts to save money, including by living at home with parents. These different pathways illustrate the variety of strategies students use to leverage social and cultural capital to access housing (Hochstenbach & Boterman, 2015). Some student housing pathways were characterized by very high turnover associated with co-op terms, while others were relatively stable in comparison. However, the volatility of student housing pathways has in some ways benefitted capital by establishing uneven power relations between students and landlords, and through the ability of landlords to externalize temporal volatility onto students (Chapter 5).

There is also evidence to suggest that studentification fosters particular housing preferences (He, 2015; Sage, Smith & Hubbard, 2013; Smith, 2005; Smith & Holt, 2007) as they carry over from student life to young professional life, for example in the post-studentification process whereby former students continue to live in the Northdale area. However, this might also reflect a tolerance of, rather than a desire for, this type of living as a "holding pattern" until more desirable housing options are available, once an individual earns a higher income and builds up savings. Post-studentification, in other words, is enabled by a tight housing market constraining the pathways of those who are not students, too, and who cannot afford to buy detached houses as they otherwise might. At least in Waterloo, therefore, post-studentification results in youthification.

Finally, these housing pathways are shaped by a variety of other factors. For instance, the way student housing is regulated is implicated here. In the pre-1998 period of low-density "dispersed concentration" of students in Waterloo, as a result of policies such as the lodging house bylaw (Chapter 3), students were often required to search for housing farther afield as

there was limited supply close to the universities. In contrast, now that local policy has favoured a high-density concentration of students in a university precinct since 2011, living farther away from the universities is generally a strategy to find affordable housing. The type of housing produced – and assumptions about it – also shapes housing pathways, with Northdale perceived as a temporary location to live, and not for families, in part due to an abundance of apartments (Chapter 6). Also, student housing pathways are affected by universities' ability and willingness to house students. If all students were housed on campus, for example, there would be little conflict between student housing pathways and those of other residents. While this is likely an unrealistic scenario (and not necessarily ideal), it nonetheless illustrates how external conditions shape housing pathways.

7.1.2 Theorizing studentification

Aside from demonstrating the links between studentification, youthification, and gentrification in relation to housing pathways, this research also offers several other contributions to theorizing studentification. One contribution is through greater consideration of the role of the state, through local planning, in shaping the student housing submarket. Much of the existing literature on planning responses to studentification examines local governments' responses to issues of studentification (Evans-Cowley, 2006; Hubbard, 2008; 2009; Sage, Smith & Hubbard, 2013), including the political configurations of these policy debates (D. Smith, 2008). Focusing on planning responses to studentification, however, elides the ways studentification responds to planning. Indeed, planning does not only react to increasing student populations and the problems that may arise as a result; it can proactively anticipate changes and shape the contours of subsequent studentification processes to a considerable extent (Chapter 3). In doing so, planning can also inadvertently create opportunities for financialized firms to enter the PBSA sector and extract class monopoly rent (Chapters 4 and 5). The role of planning, in other words, is not neutral.

Moreover, planning may regulate student housing across the vast 'urban dormitory' of off-campus housing options. The influence of planning is not limited to areas of particularly intense studentification. Introducing the concept of the urban dormitory

recognizes – and provides a bridge with – critiques of the studentification literature that highlight that not all students live in studentified neighbourhoods, nor does studentification encompass the entirety of students' housing experiences even if they do live in such areas (Holton & Riley, 2013; 2016). Also, studentification is not a universal process – in some locations, it may not arise, despite large student populations (Malet Calvo, 2018) and in others it may be quite different from experiences in Anglophone countries that dominate the literature (e.g., He, 2015; Gu & Smith, 2019 on studentification in China; Prada, 2019 on Chile; Garmendia et al., 2012 on Spain). Yet, these disparate contexts may still be said to have their own urban dormitories.

This dynamism of studentification processes (Kinton et al., 2018) is on display with the identification of a distinct urban process of what I call "post-studentification." Post-studentification involves the in-movement of non-student residents to a previously studentified neighbourhood while retaining a large concentration of students. In this way it is clearly distinct from "de-studentification" (Kinton et al., 2016) in which students abandon an area, allowing it to (re)-convert to non-student occupation, as well as to dominant narratives of studentification in which the influx of students displaces other residents. However, as the case of Waterloo shows, post-studentification can also be a policy orientation, in which deliberate attempts are made to integrate non-student populations into a student precinct (e.g. by permitting certain types of development and supporting public and private amenities). This also contrasts with conventional policy responses to issues relating to studentification. Policy typically attempts to either prevent studentification from occurring (e.g. Hubbard, 2008; Ruiu, 2017), or to direct it towards certain areas of PBSA development (e.g. Hubbard, 2009; Sage, Smith & Hubbard, 2013; D. Smith, 2008). In practice, incipient post-studentification in Waterloo has not attracted a diverse non-student population, likening it to youthification (a concentration of young adults) and gentrification (high-end development). In theory, however, post-studentification need not be defined as resulting in these particular outcomes; linkages between gentrification, studentification, and youthification, for instance, can be highly varied (Moos, Revington, Wilkin & Andrey, 2019).

However, one of the primary insights of this dissertation is that while studentification as a form of town and gown conflict related to housing may date to the founding of the medieval university itself, its present incarnations are distinctly capitalist and of a much more recent vintage. Indeed, contemporary studentification, and in particular what we might call "finance-driven new-build studentification," is produced by and reproduces capitalist urbanization. In this way, it is linked to gentrification as an expression of uneven development (Smith, 1982). Studentification can therefore be said to be a "global" process not only in the sense that it is occurring in many locations around the world but that it is also tied to global processes of capitalist urbanization (see also Addie, 2017b). This observation has implications for understanding both studentification, and capitalist urbanization.

7.1.3 Studentification and capitalist urbanization

Studentification is a matter of "town, gown, and capital." The creation of PBSA is increasingly driven by finance seeking an asset in which to invest, rather than an increase in student enrolment or demand, per se. Waterloo represents a prime example of the shift from demand-driven to finance-driven new-build studentification. Early PBSA was constructed by local developers in response to rapidly increasing enrolment at UW and WLU over the 2000s; yet, after 2012, much more modest increases in enrolment have been met with substantial continued PBSA development and the entry of financialized landlords into the local student housing submarket (Chapter 4; see also McLerie, 2017). These developments do not necessarily accommodate new demand from increased enrolment, but rather have cannibalized housing options for students that are more distant to campus, or are of lower cost and quality. It is therefore important not to limit theorizations of studentification to the institutional drivers of enrolment growth or cultural consumption perspectives, although these are nonetheless valuable (Moos, Revington, Wilkin & Andrey, 2019; Nakazawa, 2017; Smith & Holt, 2007).

This finance-driven new-build studentification serves as both a sectoral and spatial capital switch for financial capital (Beauregard, 1994; Charney, 2001; Harvey, 1978). It is a sectoral switch insofar as PBSA is perceived to offer higher rates of return than other

mainstream real estate sectors such as multifamily apartment buildings. It is a spatial switch in that PBSA provides new opportunities to invest profitably in secondary centres that otherwise lack the place advantages of major metropolitan areas. In doing so, it also provides a means of overcoming barriers that exist to investing in larger centres like Toronto or Vancouver, such as the high cost of land.

With relatively little PBSA existing in Canada (outside of Waterloo), acquiring PBSA as an asset to realize these capital switches has required first creating the physical PBSA. This is a case, in other words, of financialization creating – rather than merely transforming – an asset. This is in contrast to other real estate assets, where financialization has infiltrated long-existing sectors and linked them more closely to circuits of global finance, such as home mortgages (Walks & Clifford, 2015), multifamily rental housing (August, forthcoming), or single-family rental housing (Fields, 2018).

Creating this market for PBSA depends on establishing student housing as a distinct product, which in turn relies on certain hegemonic aspects of the student life course stage being constructed as distinct from other, non-student life course stages. In other words, it demonstrates how capital exploits (and reproduces) the "generationed" (Moos, 2014b) nature of urban space. At the national scale, firms aim to create luxury brands that appeal to both students and their parents with a suite of amenities presumed to cater to a collegiate lifestyle and differentiate their product from "generic" multifamily apartments (Chapter 4). Meanwhile, at the local scale, a much broader range of actors come together to collectively define a distinct student housing submarket – planners, the real estate sector, neighbourhood organizations, and others (Chapter 5). As demonstrated in the Waterloo case, zoning changes that allowed for higher-density construction near the universities enabled the development of large volumes of PBSA. Competition among student housing providers has likewise concentrated developments targeting students in this area, while housing farther afield is no longer marketed to students. At the same time property management arrangements and orientation to finer-grained "micro markets" (Anderson, 2019) consolidate the submarket. To preserve property values and minimize disruptive behaviours, neighbourhood organizations have for their part sought to keep studentification at bay – and therefore contained in the

Northdale neighbourhood – through restrictive covenants, advocacy for particular planning outcomes (including, in one case, a heritage conservation district), and informal strategies to ensure buyers of neighbourhood properties intend to live in them rather than rent them out to students.

The result of creating this discrete submarket is that landlords are able to extract class monopoly rent from student tenants, which serves to make profitable PBSA as an asset class. This dynamic demonstrates how age segregation, at least in the form it takes within contemporary processes of studentification (Sage et al., 2012a; Lager & van Hoven, 2019), is a result of capitalist urbanization and vice versa. By contrast, the relatively small literature seeking to explain (rather than merely document) age segregation emphasizes naturalized social-ecological processes of neighbourhood secession. According to this view, age segregation results from upwardly mobile younger residents moving out of neighbourhoods, leaving less-mobile elderly residents behind (La Gory et al., 1980; Okraku, 1987). Alternatively, some have sought to explain age segregation as a result of the overlay of the life course with the spatial distribution of housing units (Damhuis et al., 2019; Moos, 2015). Smaller units (such as city centre apartments) are more amenable to smaller, younger households, while larger units (such as detached suburban houses) are more likely to be occupied by older, larger households that have been able to accumulate wealth for longer. While some older households may eventually downsize, many who prefer to "age in place" may continue to occupy larger homes even after their children have moved out (Clark & Deurloo, 2006). My argument is not that these perspectives are incorrect; rather, it is that they do not account for all forms of age segregation. Capitalist urbanization can also perpetuate generationed space, and generationed space may serve to reproduce capitalist urbanization.

It may be argued that within capitalist cities, the spatial distribution of housing units is already an outcome of capitalist urbanization, and therefore, the distribution of households by age is too. My argument differs in two key respects. First, residential age segregation is not simply the result of a spatial distribution of housing units determined exogenously by the capitalist system; rather, the production of generationed space can be the objective from the

start. In other words, it may be more appropriate, in some instances, to think of capitalist urbanization as producing generationed space, resulting in particular spatial distributions of housing units. Why capitalist urbanization would deliberately produce generationed space points to the second key difference: by creating divisions in space that can be profitably exploited, age segregation enables further capitalist urbanization. Capitalist urbanization and the production of generationed space exist in dialectical relationship.

It seems unlikely that the imbrication of capitalist urbanization and generationed space is limited to contemporary studentification. It surely applies in the context of extreme examples like upscale retirement communities and master-planned "active adult lifestyle communities" or "age-restricted communities" (Bosman, 2014; McHugh & Larson-Keagy, 2005; Trolander, 2011). A subtler expression of this phenomenon might be found in gentrification due to the competition among middle-class families to live close to desirable schools (e.g., Lipman, 2011; Wu et al., 2017) resulting in above-average concentrations of young children.[1] A particularly interesting question for further research is the extent to which those forms of age segregation that do not necessarily arise as a direct consequence of capitalist urbanization nonetheless provide a differential that can be exploited by capital to further accumulation.

If issues related to studentification arise from conflicts stemming from class and age or generation, then the political response to these issues has to be directed at these two dimensions simultaneously to be successful. This dissertation contributes to this politics by bringing together in its analysis theories of political economy (e.g. Harvey, 1982; 1985) and intergenerationality (e.g. Vanderbeck, 2019) in a novel way. Christophers (2018), for example, presents a compelling argument that increasing generational differences in wealth – in which housing plays a central role – are primarily a product of worsening structural

[1] Generationed space resulting from the desire to live in higher-ranking school districts would likely be harder to identify than other forms of age segregation. This is because, first of all, it would entail higher concentrations of school-aged children as well as their parents (a bimodal distribution). Second, parents of school aged children may represent a wide age spectrum; this variation in numerical age but similarity in life course stage bolsters the argument that life course stage represents a more meaningful delineation of generations (see Vanderbeck, 2019). These factors would be exacerbated by the tendency for age segregation to be less pronounced than racial segregation to begin with (La Gory et al., 1980; Okraku, 1987; Winkler, 2013).

inequalities according class, race and gender, rather than arising from age per se. To some extent, differences in wealth between young and old are to be expected insofar as wages, the accrual of housing wealth, and ownership of other assets (including direct or indirect ownership of income-producing capital) tend to increase, on average, over one's working life. These tendencies alone do not explain *worsening* intergenerational inequality. However, according to Christophers (2018), they do mean the young are more prone to the increasingly severe and uneven exploitation of labour by capital under neoliberalism, and *this* is what drives the growing wealth gap between generations. Moreover, intra-generational inequalities are likely to be transmitted between generations due to within-family transfers of wealth (e.g., through gifts, loans, or inheritances; see also McKee, 2012; Worth, 2018). As a result, Christophers (2018) concludes, housing struggles should centre on these underlying structural causes of increasing inequality rather than generational differences.

I share with Christophers (2018, p. 116) a concern that popular framings of increasing inequality between generations can both obfuscate underlying causes and "risk fomenting an adversarial politics of young against old." However, with studentification, the lifestyle differences between young students and typically older non-student residents often have class dimensions (Sage et al., 2012a), but cannot simply be reduced to such. The student life course stage, as a generational position, is in fact central to capitalism's extraction of class monopoly rent from the student housing submarket. In other words, generational differences matter to social inequality in ways that go beyond Christophers' (2018) narrow conceptualization.

Another contribution of this research has been its focus on intergenerationality in the context of age groups beyond the 'extremes' of young children and seniors, which garner the bulk of attention in this literature (Vanderbeck, 2019). Although geographies of youth sometimes include people up to about 25 years in age (Evans, 2008), which would include most undergraduate students, this literature does not always consider youth in relation to other generations.

As a mutually reinforcing class- and age-based process, genuine alternatives to studentification would need to contest both of these facets simultaneously. On the surface,

the Northdale Plan appears to offer some potential to integrate a more diverse group of residents through a policy of post-studentification. Yet ultimately, its shortcomings in practice are at least partially, at root, because of its inability to address class and age issues simultaneously. For instance, the neighbourhood remains largely age segregated as it has not been able to shake its reputation as a student area, so non-students living there tend to be "marginal": recent graduates, friends or partners of students, and early-career young professionals. Meanwhile, and as a result, the market-driven redevelopment of Northdale has continued to produce expensive apartments that cater to this life course stage. The outcome is also a gentrified space that may preclude students with fewer resources – or other low-income residents – from living there. Northdale remains, in reality, a generationed and capitalist space.

The relationship between submarket creation at the national and local neighbourhood scales illustrates the link between financialization and class monopoly rent, and planning's implication therein. Class monopoly rent, by ensuring higher rents than would otherwise prevail, provides a fertile ground for financialized firms, while the intensified treatment of real estate as financial asset brought on by financialization favours the formation of submarkets amenable to class monopoly rent. More specifically, this research demonstrates in fine detail how class monopoly rent is produced and maintained, and more generally how niche submarkets are created. Previous research on class monopoly rent has largely taken a broad-scale quantitative approach (Wyly et al. 2006; 2009; 2012), although Anderson (2019) has recently produced a micro-level qualitative analysis of class monopoly rent in a single neighbourhood. One contribution of the present research is to incorporate two key elements missing from Anderson's (2019) account. First, the perspectives of residents (in this case students) are crucial in illustrating how they experience exploitation via class monopoly rent. Second, the simultaneous social construction of adjacent neighbourhoods in relation to the neighbourhood in question demonstrates that the dynamics at play in class monopoly rent extend beyond what real estate and finance capital (and planning) wish to make of that specific neighbourhood. In concrete terms, the definition of Northdale as a student area depends on the definition of adjacent neighbourhoods as family areas, and vice versa.

The investigation of class monopoly rent presented here also demonstrates important temporal power relations. A central mechanism in enabling the extraction of class monopoly rent is that renters have little option to forgo a place to live entirely, and therefore experience very real constraints on their time to find a place to live. The power this confers to landlords and property managers allows them to circumvent the reason why some scholars are skeptical of any form of monopoly rent (Evans, 1991; Garza & Lizieri, 2019; Houghton, 1993) – that if a land monopolist raises their price, buyers will wait and the monopolist will receive no income. While these tendencies are exacerbated in the student housing submarket by rapid turnover and students' relative inexperience in the housing market, they are no less relevant to rental housing more generally. In the case of student housing, with its seasonal variability, class monopoly rent also provides a mechanism to externalized volatility onto students. It remains a question for further research whether this particular dynamic applies in other contexts, or is specific to student housing.

7.2 Implications for Planning Practice and Praxis

It is all well and good to recognize the issues of studentification as arising simultaneously from both the classed and generationed dimensions of urban space, but what is to be done about them? Intergenerationality demands more than simply housing people of different generations in close proximity, although age segregation can certainly hinder it (Hagestad & Uhlenberg, 2005). It requires sustained engagement across generations for the mutual benefit of all, something which requires deliberate thought and effort. It is likewise not enough to adopt intergenerationality within a capitalist framework, given that capital's influence underlies many of the tensions of studentification. This section reflects on practical implications of this research for formal (municipal) planning, post-secondary education institutions, and student organizations and activists, respectively, to address issues related to studentification as symptomatic of broader conflicts related to class and age. While some elements discussed here may individually focus on either the capitalist or generationed aspect of studentification, these should be seen as components of a strategy that must necessarily include both, not as a panacea unto themselves.

7.2.1 Formal planning

Radical action is not likely to come from within formal planning, given its institutionalized relationship with the (neo)liberal state and, as a result, its contradictory need to both regulate (i.e., limit) and promote capitalist urban development (Harvey, 1985;[2] Foglesong, 1986; Stein, 2019). This does not necessarily mean that planners have no role in addressing issues related to studentification. It simply means that they are inherently partial and limited, and perhaps even susceptible to capitalist co-optation. Specifically, they may be able to address some issues more adequately than others. For example, planning interventions have been beneficial in terms of public improvements to the urban realm and the elimination of many unsafe and unsanitary housing units, yet have been less effective at ensuring access to affordable housing for all – arguably, they have enabled or even encouraged the development of housing that is not affordable to many (as Chapters 4 and 5 have shown).

As this research has shown, planning can make a number of contributions to ameliorating issues related to studentification by intervening in the physical environment and public realm. Perhaps first among these is creating an adequate supply of housing by enabling higher density development through zoning changes. This is in sharp contrast to attempts to limit student housing, whether by constraining lodging houses as was done previously in Waterloo, or by preventing PBSA development by maintaining low-density zoning, as remains common near many universities in Canada. These limitations are counterproductive for several reasons. First, by constraining supply they create additional opportunities for landlords to extract absolute rent from the housing market above and beyond the existing configurations of class monopoly rent. Second, as the Waterloo case demonstrates, these types of regulations create incentives for landlords to skirt the rules, leading in some instances to unsafe living conditions in unlicensed lodging houses. Third, they also forced students to seek housing farther afield, leading to studentification and its attendant issues being experienced over a broader area of the city. Eliminating this supply bottleneck has allowed housing provision to keep up (and perhaps exceed) enrolment growth

[2] As David Harvey (1985, p. 184) writes, "The commitment to the ideology of harmony within the capitalist social order remains the still point upon which the gyrations of planning ideology turn."

(McLerie, 2017), and in doing so has by and large replaced unsafe, poor quality housing in converted houses with safe, modern, higher-quality apartments.

This higher density development is also desirable from a variety of other perspectives. It reduces the environmental impacts of urban sprawl, as well as the cultural impacts, for instance on the local rural Mennonite heritage in Waterloo Region. It also reduces the cost of infrastructure and service provision relative to low-density development, and in the case of the western edge of the Northdale neighbourhood, complements the Region's nearby LRT system with transit-supportive residential densities.

Another role for physical planning in addressing studentification is in improving the quality of the urban realm. Here, planning can intervene directly in the public realm by providing amenities such as parks and streetscaping. Streetscaping can provide an aesthetic benefit, but can also serve to promote other ends, for example by favouring active transportation by slowing traffic and improving sidewalks and bike lanes, or increasing perceptions of nighttime safety through street lighting. Planning can also indirectly influence the quality of private development through zoning and design guidelines. Mixed-use zoning can be used to ensure private amenities such as retail spaces are incorporated in new developments. In Waterloo, the presence of retail space is generally seen as a benefit, although achieving an optimal balance between different types of uses remains a challenge, with some retail spaces vacant or underutilized, an issue common to mixed-use development more generally (Beauregard, 2005). Whether or not one likes the aesthetic of recent developments in the Northdale area, it is difficult to argue that they are not more visually interesting than earlier PBSA (Figure 7.1). An additional strategy is to focus bylaw enforcement on safety and property standards issues to address the physical deterioration that often accompanies studentification, particularly in neighbourhoods where the housing stock is predominantly converted houses rather than purpose-built for rental (Chapter 3; see also Evans-Cowley, 2006). However, it is worth noting that increased code enforcement can have serious drawbacks, including inequitable effects on marginalized groups (Bose, 2015).

Figure 7.1: Early PBSA in Waterloo is in a bland and boxy style.

Crucially, PBSA and other physical improvements are not a panacea for issues relating to studentification (Sage, Smith & Hubbard, 2013); hence, the need for an intergenerational approach. Most of the points above simply represent good planning, regardless of whether it is oriented to students or not. In other words, planning can be made amenable to intergenerationality. To this end, planning should adopt a policy of post-studentification that attempts to bring student and non-student residents together, rather than foster an exclusive urbanism that attempts to limit student residence in certain neighbourhoods (Hubbard, 2008; Ruiu, 2017) and/or encourage it in others (Hubbard, 2009; Sage, Smith & Hubbard, 2013; D. Smith, 2008), as have been the dominant policy strategies elsewhere. In doing so, planning must be wary of the shortcomings of "actually existing" post-studentification, for example as described in Waterloo in Chapter 6, and cognizant of

the fact that post-studentification may be more difficult to implement in weaker housing and labour markets.

In practice, post-studentification means ensuring appropriate housing types and public amenities for a diverse range of households, including families with children. Planning can encourage different unit sizes through parking requirements and development charges. In Waterloo, this has been done to encourage the development of fewer five-bedroom units oriented solely to students and more one- and two-bedroom units. While in theory this greater diversity of unit types appeals to a broader segment of the population, in practice, planning has struggled to ensure the creation of units that are seen as amenable to raising children. Part of the issue is not related to housing, per se, but to the broader perception of the neighbourhood as a student area. There is therefore a need to create a neighbourhood where people want to – and are able to – live for the long term, not merely as a stopgap to buying a condo or detached house elsewhere in the city that perpetuates "forever young" youthified neighbourhoods (Moos, 2014b; 2016). In other words, planning needs to provide an infrastructure for care work and social reproduction in order to achieve a truly post-studentified neighbourhood. Parks and other amenities must cater to a wide age range. At present, there are no elementary schools or retirement facilities in Northdale, for instance. As a result, any post-studentification (as process) we can speak of in the neighbourhood is derived largely from "marginal non-students," for example recent graduates who have found entry-level jobs nearby (Chapter 6).

In a more general sense, planning should be careful not to reinforce conditions of class monopoly rent by aiding in the delineation of a distinct student housing submarket (or other submarkets, for that matter). Therefore, planners should resist the temptation to treat student housing differently, as doing so reinforces the ability of capital to extract value by creating new opportunities for spatial and sectoral capital switching (Chapter 4) and through the capture of class monopoly rents (Chapter 5). Legally speaking, in Ontario, there is no legal definition of student housing (with the exception of institutional residences) as distinct from other forms of rental housing, and municipalities are prohibited from so-called "people zoning." However, this is not to say that people zoning does not exist in practice; it does,

only in more insidious, implicit ways. The challenge is that insofar as planning exists to manage the process of capitalist urbanization, capital will require the creation of such submarkets from planning.

Moreover, there may be a role for formal planning to promote intergenerationality through the planning *process*, in addition to a focus on outcomes. For instance, this might entail deliberate attempts to include post-secondary students in planning decisions. Student representation on the Town and Gown Committee and WLU's City Studio program offer existing elements of intergenerational engagement in the city-building process that could be developed further. There is scope for considerably more of this type of engagement between post-secondary institutions, the municipality, and its residents through community-based service learning, although this approach is certainly not without its challenges, either (Angotti et al., 2011).

In Waterloo, planning regarding student housing issues has demonstrated a flexible, adaptive approach, and this has perhaps been one of its greatest strengths. Outcomes have never been – and likely never will be – perfect, but planning has at least anticipated and attempted to respond to issues in a forward-thinking manner. This orientation suggests an openness to supporting other alternatives to the status quo. As housing affordability emerges as a concern among students and other residents alike, one small piece of the solution could be to use inclusionary zoning and other related planning tools to ensure the provision of at least some affordable housing (Hulchanski & Shapcott, 2004). There may also be a role for planning and municipal governments to support alternative models of housing provision, such as co-operative housing, social housing, and other affordable housing arrangements, including by leveraging existing municipally owned lands for these purposes. The city of Montreal, for example, is contributing $5.3 million to the construction of a LEED-certified student housing co-operative in Angus Technopôle built by non-profit developer UTILE[3] that is expected to provide students with rents 15-25% below market rate (Ouellette Vézina, 2019).

[3] UTILE is an acronym which stands for "l'Unité de travail pour l'implantation de logement étudiant" [the work unit for the implementation of student housing].

Ultimately, support for these alternatives is needed from higher levels of government in the form of dedicated funds, which may include funds to post-secondary institutions for housing provision. Municipalities and post-secondary institutions should prioritize these issues in their dealings with the relevant federal and provincial ministries. Greater municipal and institutional support for tenant organizing might be justified to overcome the high turnover of students, which poses challenges for both sustained collective organizing in response to issues facing student tenants, and intergenerational alliance-building with other non-student-focused housing activism in the region. Such an arrangement would go beyond the limited existing engagement with students focused on education about tenants' rights and responsibilities, and allow students to take ownership of their own housing struggles in conjunction with broader housing movements. This is likely to be far more effective in preventing landlord abuses such as extortive key deposits than trying to caution thousands of individual incoming students every year that this practice is illegal only to have these same students face a wildly asymmetrical power relation as an individual tenant counterposed with a large corporate landlord. However, it should be noted that officially sanctioned support for housing struggles is only likely to back certain types of advocacy, and more radical action may only be possible outside of this arrangement (August & Webber, 2019).

7.2.2 Post-secondary institutions[4]

For their part, post-secondary institutions could promote alternative housing arrangements intended to build intergenerationality, rather than perpetuating "generationed" urban space via largely age-segregated dormitories. For instance, university-based retirement communities (Montepare et al., 2019; Smith et al., 2014) would bring non-students into the campus environment. Beyond a housing perspective, use of university athletic, library, and other facilities by older adults could set the stage to build meaningful intergenerational relationships. While these facilities are often conceived as an alternative revenue-generating

[4] Something to consider might be a deeper rethinking of the university itself; while I do not wish to foreclose this possibility, its elaboration is beyond the scope of this discussion (see *inter alia* Addie, 2017a; May & Perry, 2018).

scheme by universities, and are therefore costly to live in, in principle they could house lower-income older adults within the social justice-oriented class- and age-based radical politics proposed here. Another possibility is to expand home share programs that place students (or other young adults) in the homes of older adults, typically with the expectation of lower rent in exchange for providing household help, such as taking trash to the curb (Sánchez et al., 2011). While home shares can provide for close intergenerational relationships and affordable housing options, there are challenges in ensuring personal fit between hosts and guests (Bodkin & Saxena, 2017). In general, there is a need for more planning research into these types of housing alternatives.

In the absence of greater state support for institutions to provide housing, institutional partnerships with a third party have emerged as a means for universities and colleges to access private capital. The particular arrangements are varied, with the private partner(s) assuming more or less responsibility for operations in different circumstances (MacIntyre, 2003). Seen in relation to traditional university-managed dorms, public-private partnerships may appear to be yet another avenue for the privatization and financialization of the university (Eaton et al., 2016; Engelen et al., 2014; Laidley, 2014). But seen from the perspective of fully private PBSA, these partnerships may in fact offer another partial strategy for placing limits on the ability of capital to extract rent from students, by capping rents, or at least providing reduced rents for students who need it most. Another alternative would be for institutions to partner with not-for-profit developers who do not hold the same fiduciary responsibilities to shareholders to maximize profits as do financialized firms. Again, more research is needed on the potential advantages and disadvantages of various partnership models for providing housing to students in an equitable fashion.

As institutions, universities cannot really "solve" housing affordability issues writ large but conceivably could take an interest in ensuring affordable housing for their faculty, staff, and students. Indeed, affordability concerns have brought Toronto's four universities together in a joint project called StudentDwellTO to understand and address housing challenges facing their students. The irony is that logics of financialization undermine these (and other) humanistic values by promoting the use of campus land and resources for the

"highest and best use" as determined by the market above all other criteria: exchange value over use value. Even if this financialized vision is never fully realized, its hegemony serves to impede any genuine alternatives.

7.2.3 Student organizations and activism

There is considerable scope for students to effect change in the housing market, whether through existing formal organizations like student unions, the creation of new organizations such as tenant associations, or through informal associations through collective action. Student advocacy has already proved successful in the introduction of the standardized lease in Ontario, as well as through input into local housing bylaws. One area of current advocacy by students is for an expedited Landlord-Tenant Board process that better matches the short timeframes of student life. However, students should be wary of a faster process, which could have the unintended negative consequence of harming tenants by allowing them to be evicted more quickly. Awareness campaigns to promote students' housing rights and responsibilities are also valuable, but do not fundamentally rework the power relations that disadvantage students in the housing market. More substantial gains will require sustained organizing over a long timeframe, in conjunction with local housing related activism outside the student housing sector, to build solidarity in housing struggles. At least in Waterloo, recent political activism on student housing issues has been rather tame compared to the infamous 'tent campus' of 1974. While Haghighi (2018) has argued that the architecture and institutional context of PBSA is such that it minimizes dissent, continued landlord abuses may in fact galvanize a collective response.

In addition to building coalitions with other housing struggles in the region, student activists and organizations must also "jump scales" (Smith, 1992, p. 60), "to organize the production and reproduction of daily life and to resist oppression and exploitation at a higher scale." Specifically, these struggles must contest the selective withdrawal of the state from housing support, which has continued to promote homeownership and enable REITs while marginalizing social housing, cooperative housing, and homeless shelters at federal and provincial levels (August, forthcoming; Suttor, 2016; Walks & Clifford, 2015). Likewise,

students must contest the roll back of state support for post-secondary education, which has reduced funds available for institutionally provided student housing. Student housing in the form of dorms represents a partial solution to the twin class- and age-based conflicts of studentification as it does not necessarily provide an intergenerational environment (although see the alternatives described above). Institutional housing can also be both paternalistic and privileging (Rugg et al., 2004). However, taking housing out of the market – and, often, pairing it with other social and academic supports – can prevent the exploitation of students by private landlords as well as the reconfiguration of near-campus neighbourhoods through PBSA development at the whims of capital.

Students should also advocate against reduced funding to universities as this has contributed to a dependence on increasing enrolment through internationalization, as international students pay higher tuition fees. The target here is not international students but a neoliberal framework that forces universities' dependence on international students for revenue. International students interviewed for this research often struggled to find and afford housing in Waterloo Region, and typically lived in shared houses or apartments further away from campus. In some instances, they faced racial or ethnic discrimination by landlords. That many international students in Canada struggle to afford the cost of living, including shelter, in addition to other barriers in adapting to life in a different culture, is borne out in other research (Calder et al., 2016). There is a demonstrated need to provide affordable housing options for international students.

Activists should avoid arguments that universities should limit their intake of students to relieve housing pressures, as this could serve as an exclusionary barrier to access to higher education. Nor should activists vilify international students, whom some perceive as the causal source of demand for high-cost PBSA being built. Moreover, according to several key informants, quoted in Chapter 4, the perception that PBSA in Waterloo is built to target international student consumers is not entirely accurate: many do not specifically market to this group, and in fact some see drawbacks in doing so as it is harder to pursue unpaid accounts. Certainly, some providers have pursued the international student segment of the market, particularly JD Developments' Rez-One brand (associated with Canadian Student

Communities REIT), which has produced marketing materials in English, French, and Mandarin, but this remains the exception more than the rule. The perception of the dominance of this strategy may be reinforced by high-profile local media coverage of JD Developments' early projects and their international financial backing (Desmond, 2013).

Student organizations may themselves take up a role in providing alternative housing options. In another example from Montréal, the Concordia Student Union (2019) undertook to develop the 144-bed Woodnote Housing Cooperative in the Plateau neighbourhood to provide affordable housing for students following a referendum with 89% of voters in favour.[5] Conceivably, student organizations could also provide grants to existing student housing cooperatives to modernize or expand facilities to match contemporary needs and expectations.

7.3 Limitations and Further Research

There are several shortcomings of the present work, many of which provide interesting avenues for future research. One set of limitations pertains to the qualitative case study approach of this research. Another set of limitations pertains to areas of enquiry that have received minimal attention in this study, but which warrant further investigation. These include the role of gender in studentification, the relationship between race and studentification, new emergent configurations of studentification, and the need for a broader theorization of what I call tertiary circuit urbanization. Each of these is discussed in turn.

7.3.1 Research approach

One of the study's greatest strengths is also potentially its greatest limitation: it is focused on the exceptional case of Waterloo's student housing submarket. Waterloo has an order of magnitude more private PBSA than any other city in Canada. While other cities – in particular London, Montréal, Kelowna, and Oshawa – have a fair volume of PBSA and may slowly converge with Waterloo, their experiences reflect a far more "typical" recent

[5] Like the Angus Technopôle project, Woodnote is supported by the City of Montréal and is being developed in partnership with UTILE.

trajectory of Canadian university cities. These more moderate encounters with PBSA from a planning perspective might therefore be more relatable to other cities with emerging PBSA markets than the Waterloo experience.

On the contrary, the Waterloo case is not exceptional when viewed in relation to the US or UK student housing landscape, making it a salient comparator to these international contexts. It is therefore possible to speak to broader debates over the "dynamism" of studentification (Kinton et al., 2018) from the vantage point of Waterloo in a way that may be more challenging in a city where PBSA is not as common. Waterloo shares with many US and UK cities (as well as some Western European and Australian cities) a high volume of PBSA development and a similar milieu with respect to the land use planning system, higher education sector, and capitalist political economy, suggesting a level of transferability of findings from Waterloo to these other contexts.

Generally speaking, there is very little comparative or multi-city research on the topic of studentification from either an international or intra-national perspective. Gu and Smith (2019) provide an exception in their insightful comparison of studentification in China to the UK experience. Yet even here, the comparison relies largely on considering empirical research in China (primary sources) with established literature from the UK (secondary sources), rather than a combined empirical and theoretical investigation of two or more contexts simultaneously. Further explicitly comparative and/or multi-city research into studentification (and post-studentification) is needed.

Another limitation of the research is its reliance primarily on qualitative methods. This is not to position qualitative methods as inferior to quantitative methods, but to highlight the complementary strengths of different approaches. It is highly unlikely that a quantitative approach would be able to provide satisfactory answers to many of the research questions posed in this study. It would, however, help illuminate different aspects of the subject. Bourne (1981), for instance, argues that empirical study of housing submarkets should calculate the price elasticities of demand for different segments of housing; if they are different, this confirms that distinct submarkets exist. Hedonic price analyses could also illuminate the factors contributing to higher housing costs in student housing, and provide

more reliable estimates for the impacts of PBSA on housing affordability, controlling for a variety of factors.[6] Quantitative approaches might also be well-suited to a multi-city analysis, as data from many cities could be combined in a single model. (By contrast, applying the present qualitative approach to many cities would quickly become unwieldy.) However, these quantitative approaches would likely require additional data that is difficult to amass independently, or expensive to acquire from proprietary sources (e.g. private brokerages).

Within the confines of the qualitative methods used here, another limitation pertains to non-response from some potential informants. Some larger players within Waterloo's student housing submarket declined or did not respond to requests for interviews. However, the sample does include representatives of several other major firms and some smaller players in the sector. Also, informants' responses were beginning to demonstrate saturation, as common themes reappeared in the interviews, and substantial information about "missing" players was nonetheless available from other interviewees (e.g., brokers were knowledgeable about firms developing and operating PBSA), grey literature, and news media. As a result, the marginal benefit of additional interviews may not be as great as one might assume.

Future work could also engage more closely with students' experiences, and consider students' housing pathways in greater detail. Part of this work could consider how the financialization of student housing is linked to student debt and a broader financialization of student life, and the implications thereof (Adamson, 2009; McClanahan, 2011). In particular, a housing pathways approach could prove to be a useful technique for examining social difference with respect to studentification. The following sections describe the need for further study of gender and race, respectively, in studentification research.

7.3.2 Gender and studentification

While gender issues have been discussed in the context of post-studentification (Chapter 6), there remains a need to delve more deeply into the role of gender in

[6] It should be noted, however, that whether something is affordable "controlling for" a variety of factors is immaterial if in reality, those factors push the price beyond what an individual or household is able to spend on housing (see Revington & Townsend, 2016).

studentification. This mirrors the literature on gentrification more broadly, as recently outlined by Curran (2018). While Curran is certainly not the only one to attempt to rectify this shortcoming (e.g. Kern 2007; 2010; van den Berg, 2013; 2018), her work does helpfully identify five domains in which gentrification is an inherently gendered process. These domains are housing markets, labour markets, social reproduction, urban safety, and queer spaces. This provides an approximate guide to how studentification might likewise be an inherently gendered process.

Gentrification, as it came to be widely recognized in the academic literature in the 1970s and 1980s, was driven by the expanding participation of women in the paid labour force – particularly in white-collar work – in the postwar period, which offered some women the emancipatory promise of living independently in the central city, where work and home could be balanced (Warde, 1991; Wekerle, 1984). Yet in practice, gentrification has tended to reproduce traditional gender roles in a variety of ways, for example by continuing to undervalue women's formal and informal work of social reproduction, and by perpetuating masculinist growth-oriented urban development strategies. Gentrification is therefore an inherently gendered process for the simple reason that it has been both constitutive of, and profoundly shaped by, gender relations (Curran, 2018).

Likewise, studentification is also an inherently gendered process insofar as historical increases in enrolment in higher education have been due in no small part to increases in women's enrolment. Increasing enrolment is typically a necessary precursor to studentification (Nakazawa, 2017), although characteristics of local housing markets, institutions, and other factors may alter the precise form the process takes, as I have shown (Chapter 4; see also He, 2015). During the 1980s, as participation in higher education increased among both men and women, it grew faster among women. In 1980, 45% of full-time undergraduates in Canada were women. By 1987, the share of women had surpassed that of men, and through the 1990s, overall enrolment growth was driven almost entirely by an increasing share of women in higher education (Association of Universities and Colleges of Canada [AUCC], 2011). By 2006-2007, women's share peaked at nearly 58% of full-time undergraduates in Ontario, and has since stabilized, sitting at just under 56% of full-time

undergraduate enrolment as of 2018-2019 (Council of Ontario Universities, 2019). Similar trends can be observed in most other OECD countries (AUCC, 2011). Indeed, these gendered increases in enrolment over the 1990s and early 2000s are precisely what precipitated discussion of studentification in academic literature (Smith, 2005), although attention to gender remains absent. While the largest increases in women's enrolment appear to be historical, women remain the majority of undergraduate students.

Studentification is also gendered in that the way it has played out has tended to either outright neglect to consider issues of social reproduction, or to produce spaces coded as inappropriate for social reproduction – and in particular, raising children. The earlier discussion of post-studentification identified this issue (Chapter 6), but it is worth noting that other, non-studentified spaces were simultaneously coded as favourable by some interviewees, and this was seen as a reason for keeping studentification at bay. As one neighbourhood representative (N02) related, "I think that to most people, they think Beechwood is a family neighbourhood with nice schools and parks and it's not a student neighbourhood. It's just not the way that we think about things." For another (N03), if studentification "meant that there were fewer families in the neighbourhood, that would – from the perspective of a parent, and someone who organizes the pool for kids – that would be somewhat problematic…. The core of the neighbourhood kids is a key part of the value of living in the neighbourhood."

According to a partner at one student housing firm (L05), PBSA is deliberately constructed in a way that does not appeal to larger households with children, to save on costs: "…the bedrooms are larger [in generic apartments], because they're accommodating – they're built for families, right? Whereas students don't need the same footprint for a bedroom." Perhaps in part as a result of this trend, UW has reported that "We have some demand [for student family housing] that we presently are not able to meet" with existing on-campus housing stock (Glen Weppler), and one director of a student housing firm (L01) suggested this was a possible niche for the private market to fill: "We don't get families, we don't get graduate students, per se…. I think if you go build a grad building and say it's [company name] Gold, you know, and you call it a different product, […] there are

opportunities to enhance that." This gap in the market speaks to how studentification to date has sidelined concerns over social reproduction because it has been more profitable to construct housing geared to single undergraduate students than for a diverse range of households.

Another way studentification can said to be gendered is in its marketing to, or implicit reliance on, women tenants on the grounds of personal safety. In many ways, this mirrors the marketing of generic urban condominiums to women (Kern, 2010). As one director of a student housing firm (L01) told me, "our [tenant] population is typically female because we're high-security, and highly amenitized. They don't have to go across the campus to go to the gym." Conversely, despite the rise of PBSA, another director of a student housing firm suggested that there will always remain a place for shared houses in the student housing submarket among "frats" and "hockey players": "Guys like the keg parties" (L02). Shared houses are thereby coded as male. This coding was re-inscribed during WLU's homecoming celebrations in September 2018, when a bedsheet spray-painted with a misogynistic message was hung from the porch of a student house (*CBC News*, 2018). Similar signs were hung a year later at student houses in London, Ontario (Lupton, 2019). Unlike generic condominiums, however, PBSA is not marketed only to its prospective residents, but to their parents as well. This is itself potentially gendered. As one broker (R04) claimed, "Fathers will pay more for their daughters than their sons."

This research did not uncover any links between studentification and queer spaces, but nor was it deliberately seeking them out. Others have argued that hetero- and cis-normative assumptions about student housing can be problematic for LGBTQ students. It is common for university residences to be gender-segregated (even co-ed facilities often separate genders by floor), and ads seeking roommates often specify that they are seeking an all-male or all-female apartment. Queer students may not know if their assigned roommates are knowledgeable about or accepting of LGBTQ identities. Arun-Pina (2018) documents the difficulty of fitting into these gender-binary spaces as a queer student experiencing a social and psychological distance – despite close physical proximity – from the rest of their women's dormitory in Bangalore, India. In response to these issues, some institutions, such

as the University of Saskatchewan, have begun to offer students the option to live in designated queer housing (Levy, 2019).

The upshot of all of this is that like gentrification, gender is constitutive of studentification, which in turn reinforces traditional gender roles in ways that demand to be unpacked further.

7.3.3 Race and studentification

Another dimension of studentification requiring further attention is its relationship to race. Race receives no mention in Nakazawa's (2017) review of the studentification literature, and I identified it as a gap in the literature in Chapter 2. This absence is somewhat surprising given the presence, in the US context, of many elite institutions in inner-city neighbourhoods that have been systematically disinvested and are home to a disproportionate Black population. Indeed, urban research has commented on the racial dimensions of universities' development initiatives generally (Bose, 2015; Etienne, 2012; Lafer, 2003), yet to date has not done so with direct reference to studentification in particular, and specifically to private PBSA development. Likewise, there is a considerable literature on race and campus space, but it does not make connections to studentification (Andersson et al., 2012; Cabrera, 2018; Keels, 2019; Yu et al., 2018). This may be changing, as unpublished research has begun to explore links between race and studentification in American cities (Addie, 2019; Etienne, 2017; Revington et al., 2019).

Fincher and Shaw (2009), in their study of studentification in Melbourne, Australia, found that international students – predominantly from Asia, and therefore racialized in contrast to majority white Australian students – were segregated within PBSA. This appears to be in contrast to the North American and British experience, where PBSA is often associated with privileged, rather than marginalized, students (see also Nakazawa, 2017), although in Waterloo it appears that some developments (but certainly not all) do target international students (principally from China). Yet absent further study, it is difficult to say whether it is race or citizenship status, or some combination thereof, that is the most salient factor in these trends.

The questions this further research might address are numerous. For instance, how does studentification differ between cities with many or few racialized residents, or between historically black colleges and universities (HBCUs) and the Ivy League? How is studentification, and perhaps especially PBSA development, implicated in the production of racial space? What role do the real estate industry, planning, and educational institutions themselves have in constructing whiteness in relation to studentification? Does the displacement of incumbent racialized populations through studentification differ from displacement via other forms of gentrification? How do students of colour experience life in studentified neighbourhoods?

The salience of these questions was illustrated on March 1, 2019, when Zayd Atkinson, a black student in Boulder, Colorado, was held at gunpoint by no fewer than eight police officers during a 22-minute standoff. The incident arose after a white officer confronted Atkinson about his right to be on the property of a private student housing complex. As it turns out, Atkinson was merely picking up trash on the patio of the apartment building where he lived and worked. Despite Atkinson providing his student identification, the officer attempted to detain him and called for backup when Atkinson asserted his right to be on the property. Internal police investigations later revealed that the officer's actions were "not supported by reasonable suspicion that Mr. Atkinson was committing, had committed, or was about to commit a crime" (quoted in Sandell & Hutchinson, 2019). This incidence of racial profiling suggests a coding of collegiate space, including studentified space, as white – a space where "Doing Yard Work While Black"[7] is enough to provoke threats of state violence.

7.3.4 New configurations of studentification

Interviews with representatives from Conestoga College drew attention to the studentification occurring around its primary campus in the Doon neighbourhood in Kitchener's south end, driven primarily by the internationalization of college education in

[7] This slogan appeared on signs held by concerned citizens responding to the incident at a city council meeting shortly thereafter (Stevens & Mervosh, 2019).

response to federal and provincial initiatives (Government of Canada, 2014; Government of Ontario, 2018). It appears this form of studentification is different from the process as described elsewhere in the literature. These differences represent an important area of future study given that the number of international students enrolled in a college program in Canada increased by 57% between 2012-2013 and 2016-2017 (compared to an increase of 37% at universities; Statistics Canada, 2019c). Despite a substantial literature on international student mobility (Brooks & Waters, 2011; Raghuram, 2013; Riaño et al., 2018), little is known about the internationalization of *college* education, for either international students or the cities that host them.

Colleges have traditionally been oriented to serving students from the local area, and therefore have tended to offer only minimal amounts of institutionally affiliated housing. Yet they are far more likely than universities to be located in suburban areas with few conventional rental housing options nearby. In other words, colleges and their environs are typically poorly equipped to deal with the housing challenges reportedly facing arriving college students and incumbent residents alike (e.g., Jackson, 2017; Maru, 2018).

While it is increasingly common for colleges to offer bachelor degrees, their programming generally retains an applied or polytechnic orientation, which suggests a different social/cultural class orientation of its students and lacks the cultural distinction of elite universities (Tran, 2016; see also Bourdieu, 1984). These characteristics challenge the notion that studentification represents a "gentrification factory" manufacturing the cultural consumption preferences of the middle class (Smith, 2005). Rather than students as metaphorical "apprentice gentrifiers" (Smith & Holt, 2007), students might be *literal* apprentices for blue-collar (albeit relatively well-paid) work.

Moreover, the salience of international students to college-driven studentification presents an opportunity to incorporate themes of citizenship, difference, and experiences of home into the studentification literature. These themes are well developed in scholarship on international student mobility (e.g., Anderson, 2012; Leung, 2017; Sondhi, 2013; Sondhi & King, 2017; Walton-Roberts, 2015). However, to date, they have not been substantively

integrated into discussions of the urban impacts of higher education (Holton & Riley, 2013; see also Chapter 2; for exceptions, see Fincher & Shaw, 2009; Collins, 2010).

Further research is required into post-studentification as well. The first task would be to determine the extent to which there are other cases of student neighbourhoods gaining substantial non-student populations, or policies intended to achieve this. Such examples would offer insights into how we might build a more equitable response to issues related to studentification, rather than by trying to constrain students to certain areas of the city. They would also provide a basis for a more advanced theorization of post-studentification as an urban process.

7.3.5 Tertiary circuit urbanization

Studentification is by definition tied to post-secondary education institutions, which fall within Harvey's (1978) tertiary circuit of capital, comprised of a variety of functions such as education, research, health care, police, prisons, defense, and other social services. These functions, though different, are unified in their distinction from production proper (the primary circuit), the built environment (secondary circuit), and finance (quaternary circuit) in facilitating capital accumulation by improving the production process (for example through healthy, well-trained workers or new technologies) or preventing disruption to it (such as through the police protection of property). Even though PBSA, as a component of the built environment, is part of the secondary circuit, it is clear that it depends on tertiary circuit activities, namely the research and teaching carried out at universities.

Yet King's (1989b) observation that links between the tertiary circuit and others within the urbanization process are poorly developed in urban theory largely continues to hold true, even if elements of this circuit have been critically studied in their own right. This is a curious omission given that neoliberalism has contributed to what Lake (2015, p. 76) has called a "financialization of public policy," "manifested in the extent to which urban policy is designed as a means for the ends of private investment rather than a means … for the ends of urban social policy." Indeed, there are distinct urban contours to the privatization and financialization of things traditionally falling under the responsibility of the state – not only

universities (Eaton et al., 2016; Engelen et al., 2014), but also elementary schools (Cohen, 2017; Lipman, 2011), health and elder care (Henry, 2015; Horton, 2019; Hunter & Murray, 2019; Strauss & Xu, 2018), and prisons (Guenther, 2017). All of these elements are imbricated in uneven urban development between and with regions, for example as they are re-concentrated in particular cities or neighbourhoods, or leveraged to spur market-oriented growth, and therefore have impacts on urban housing and real estate markets (Adams, 2003; Elhenz, 2019; Silverman et al., 2019). There are, in other words, important connections between the secondary and tertiary circuits (as well as between both of these and finance, the quaternary circuit) requiring further empirical study and theoretical conceptualization.

Doing so might take seriously Addie's (2017b) call to consider the role of the university in the production of the urban (and not merely in a narrow economic development sense) on a global scale, and extend it to a variety of components of the tertiary circuit of capital: How are hospitals, for instance, implicated in the production of the urban? As cities compete for redistributive funds from governments via these tertiary circuit activities (Harvey, 1989), it may also be worth revisiting Smet's (2016) framework linking housing markets with their broader urban economies by adding "places of redistribution" to this model, alongside places of production, consumption, and business services. This project would also create opportunities to integrate and synthesize a variety of related theoretical strands of work on capitalist urbanization (Harvey, 1978; 1985), social infrastructures, and social reproduction (Federici, 2014; Roberts, 2016; including links between real estate, care, and labour, e.g. Horton, 2019).

Discerning the impacts of places of redistribution on housing markets presents challenges for research in that the effect may depend on the type of redistribution in question, and since relatively few places represent an ideal-type place of redistribution.[8] Some places heavily reliant on redistribution may be places in decline, where opportunities to extract rent are low and therefore housing markets are inexpensive regardless of the impacts of redistribution. On the contrary, they may be similar to places of consumption or business

[8] Kingston, Ontario might be one example of a city approximating an "ideal-type" place of redistribution, as might some other college towns and smaller provincial or state capitals.

services in that what is at stake is the appropriation of a share of revenues that is not necessarily tied to local production and its disciplining effects on local housing markets. In the case of universities, their particular built environments (classrooms, research labs) are found in discrete locations,[9] and therefore their impacts are likely to be concentrated in the urban areas where they are found, much like places of business services. Moreover, while I am wary of viewing students as "consumers," there are overlaps with places of consumption, as capital accumulation in university cities depends in part upon the circulation of revenues brought by students coming to the urban area to study. Students' spending is often disconnected from the production process taking place in their city of study, coming instead from income earned at summer jobs elsewhere, their parents' income, or student loans. Studentification, however, represents just one facet of the relationship between universities and housing markets (Moos, Revington, Wilkin & Andrey, 2019), let alone the much broader range of tertiary circuit activities.

7.4 Conclusion

The case of contemporary studentification in Waterloo demonstrates not only how urban space is shaped by capitalism, or divided by age, but rather how these two dimensions interact and are in fact mutually reinforcing. The creation of a student housing submarket has provided profitable opportunities for PBSA development, enabling a continued cycle of capital accumulation. Yet this PBSA development not only depends on the distinction of the student life course stage from others, but reinforces an age-segregated urban space. Addressing the myriad issues associated with studentification will require untangling this knot. The combination of intergenerationality with a political economy approach such as I have advanced provides one promising framework for future research into the creation of alternative intergenerational spaces. A just post-studentification city is still possible.

[9] However, online learning and the reterritorialization of higher education through the development of branch campuses somewhat erode the importance of location (Addie et al., 2015).

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