Catalogue no. 36-28-0001 ISSN 2563-8955

**Economic and Social Reports** 

# Municipal variations in the housing arrangements of international students



by Max Stick, Feng Hou and Haozhen Zhang

Release date: December 19, 2024



Statistics Statistique Canada Canada



#### How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, www.statcan.gc.ca.

You can also contact us by

#### Email at infostats@statcan.gc.ca

Telephone, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following numbers:

Statistical Information Service	1-800-263-1136
<ul> <li>National telecommunications device for the hearing impaired</li> </ul>	1-800-363-7629
Fax line	1-514-283-9350

#### Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on <a href="http://www.statcan.gc.ca">www.statcan.gc.ca</a> under "Contact us" > "Standards of service to the public."

#### Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Published by authority of the Minister responsible for Statistics Canada

© His Majesty the King in Right of Canada, as represented by the Minister of Industry, 2024

Use of this publication is governed by the Statistics Canada Open Licence Agreement.

An HTML version is also available.

Cette publication est aussi disponible en français.



# Municipal variations in the housing arrangements of international students

by Max Stick, Feng Hou and Haozhen Zhang

DOI: https://doi.org/10.25318/36280001202401200003-eng

### Abstract

Understanding how international students use the housing market across different municipalities can inform policy and planning decisions regarding housing supply, urban infrastructure and services to better accommodate the needs of a diverse student population. This study uses the 2021 Census of Population to examine the extent to which international students engage in the rented and owned housing sectors and the share of students living in roommate households within these markets. The results show that the majority of international students depend on the rental market for their housing needs, ranging from 65% in Brampton to 92% in Montréal across the municipalities analyzed. International students living in rented homes were more likely to reside in roommate households than those living in owner-occupied homes. Among those living in owner-occupied homes, a large proportion were subtenants who likely paid rent but were not counted in the rental market. Across municipalities, there was substantial variability in the housing arrangements of international students, mostly reflecting the availability of rented housing stock and the sociodemographic characteristics of international students.

Keywords: International students, rental market, roommate households, subtenants

#### Authors

Max Stick and Feng Hou are with the Social Analysis and Modelling Division, Analytical Studies and Modelling Branch, at Statistics Canada. Haozhen Zhang is with the Research and Evaluation Branch at Immigration, Refugees and Citizenship Canada.

#### Acknowledgments

This study was conducted by Immigration, Refugees and Citizenship Canada and Statistics Canada. The authors would like to thank Nermin Aga, Brahim Boualam, Joshua Gordon, Chantal Goyette, Allison Leanage and René Morissette for their advice and comments on an earlier version of this article.

For many international students<sup>1</sup> in Canada, finding housing that meets one's needs can be challenging, because the cost of housing can account for a large proportion of a student's living expenses (Calder et al., 2016). International students have reported unique challenges when finding affordable and suitable housing, including being unfamiliar with the housing system, being in a new location, and facing possible discrimination and other barriers (Calder et al., 2016; El Masri & Khan, 2022; Sotomayor et al., 2022). While many universities offer accommodations, the development of university residences has not kept pace with student needs (Pottie-Sherman et al., 2023). To find housing, some students turn to strategies such as living with roommates or sharing accommodations in crowded dwellings with other students (Sotomayor et al., 2022; Stick et al., 2024). Additionally, the ability to find housing may differ geographically as local housing markets vary because of a range of factors, including structural characteristics (such as population density and the share of newcomers in the local population), locational attributes, and differences in homeownership rates and affordability (Hiebert, 2017; Singh, 2022; Statistics Canada, 2022a).

Understanding how international students use the housing market across different municipalities can inform policy and planning decisions regarding the housing supply, urban infrastructure and services to better accommodate the needs of a diverse student population. Knowledge of the housing market's accessibility for international students can also help educational institutions provide adequate support services, including orientation and accommodation assistance.

This study uses the 2021 Census of Population to examine the extent to which international students enumerated in the long-form census questionnaire engage in the rented and owned housing sectors<sup>2</sup> and the share of students living in roommate households within these markets. Furthermore, this study considers how these outcomes are affected by the local housing market, structural characteristics of the municipality and sociodemographic characteristics of international students. The analysis focuses on the 10 census subdivisions (CSDs)<sup>3</sup> with the highest number of international students and the 5 CSDs with the highest share of international students in the total population. Other CSDs are aggregated in a distinct category.

### The majority of international students live in rented units

In 11 of the 15 CSDs examined in this article, over three-quarters of all international students were living in rented units (Table 1, observed). Montréal had the largest share of international students living in rented units (91.8%), whereas Brampton had the lowest share (64.7%). In the remaining top CSDs, Winnipeg, Surrey and Calgary also had a relatively lower share of international students living in rented units.

To examine whether observed patterns were explained by the sociodemographic characteristics of students and the housing market and structural characteristics of the CSD, a series of logistic regression models was run. All models included the gender, age, region or country of birth, and year of first permit of international students. These characteristics were included because disparities in housing

<sup>1.</sup> The term "international students" in this article refers to individuals holding study permits.

<sup>2.</sup> In the 2021 Census of Population, respondents were not asked to identify the specific owner of their dwelling. In this study, engagement in the owned housing sector refers to people who live in a dwelling that is owned by a member of the household. Engagement in the rented housing sector refers to people who live in a dwelling that is not owned by any member of the household.

<sup>3.</sup> CSDs are commonly referred to as municipalities (determined by provincial and territorial legislation). They also include areas treated as municipal equivalents for statistical purposes (e.g., Indian reserves, Indian settlements and unorganized territories).

arrangements have been shown for men and women, people in various age groups, new arrivals, and people from different population groups (Statistics Canada 2022b, 2023; Stick et al., 2023; Tuey & Bastien, 2023).

Local housing conditions, including the availability of and competition for housing units, can also affect the housing arrangements of international students. Correspondingly, the models also included the share of total dwellings that are apartments, the share of total dwellings that are rented units, population density, the share of the population who are non-permanent residents and recent immigrants who gained permanent residency in Canada within the past five years, and the median rental cost of the CSD.<sup>4</sup>

The adjusted rates (Table 1, adjusted) are based on results from logistic regression models holding all covariates at the same value across CSDs. An increase or a decrease in adjusted rates relative to the observed rates depends on the association between each covariate and the outcome, as well as the values of the covariates in the CSDs.

When these characteristics were considered, the share of international students living in rented units decreased by 16.3 percentage points in Montréal and 4.8 percentage points in Vancouver but increased by 8.9 percentage points in Calgary and 10.5 percentage points in Brampton (Table 1, adjusted). Further decomposition analysis reveals that the difference in the share of rented dwellings among total dwellings in a municipality was the main factor accounting for the changes between the observed and adjusted shares of international students living in rented units. A much larger proportion of the housing stock was rented in Montréal (63.6%) and Vancouver (54.5%) than in Brampton (21.9%) and Calgary (31.2%, data not shown). These results suggest that the availability of rented units relative to the total housing stock in a local housing market is a key factor affecting international students' engagement in the rental market.

The adjusted shares of international students living in rented units were about 26 percentage points lower in Metro Vancouver A (where the University of British Columbia is located) and 29 percentage points lower in Charlottetown (where the University of Prince Edward Island is located) than the observed shares. In Metro Vancouver A and Charlottetown, high shares of rented units (57.3% and 54.2% of dwellings, respectively) and strong demand, marked by a large proportion of newcomers (non-permanent residents and immigrants who gained permanent residency in Canada within five years before the 2021 Census) in the population, account for the discrepancy between observed and adjusted shares of international students living in rented units.

There were large differences between international and Canadian-born students' participation in the rented and owned housing markets (Chart 1). International students tend to live in owner-occupied homes in much smaller proportions than Canadian-born students<sup>5</sup> in all CSDs. The gap between these groups was over 40 percentage points in 12 of the 15 CSDs.<sup>6</sup>

# Many international students in rented units live in roommate households

Among international students living in rented units, the share residing in roommate households<sup>7</sup> exceeded 40% across most top CSDs, except for Calgary and Metro Vancouver A (Table 1, observed).

<sup>4.</sup> All covariates included in logistic regression models are derived from the 2021 Census of Population.

<sup>5.</sup> The term "Canadian-born students" refers to those aged 18 to 24 who were born in Canada and had attended college, trade school, CEGEP or university at any time since September 2020.

<sup>6.</sup> In the study sample of Canadian-born students, about 82% are children or grandchildren of another person in the household.7. Roommate households are defined as two or more people residing together who are not part of a census family.

Despite this general pattern, living arrangements vary geographically. While Brampton had the lowest share of international students in rented units (64.7%), it also had the highest share of international students living in roommate households (70.8%). Conversely, Calgary had the second-lowest share of international students living in rented units (67.5%), coupled with the lowest share of students in roommate households (34.9%).

#### Table 1

#### Housing arrangements of international students

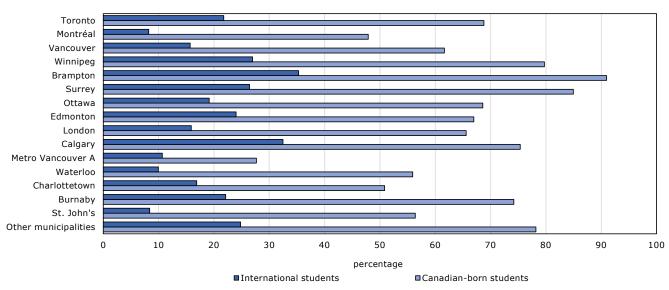
	 Living in rental units	Among residents in rented units	Among residents in owned homes	
		Roommate households	Subtenants	Roommate households
Count	261,290	131,110	27,570	15,730
		Observed rate		
Top 10: Total study permit holders				
Toronto	78.2	48.2	45.5	24.8
Montréal	91.8	52.2	21.9	31.0
Vancouver	84.3	45.5	49.4	28.1
Winnipeg	73.0	59.5	36.5	23.8
Brampton	64.7	70.8	51.8	21.7
Surrey	73.6	58.7	39.2	17.5
Ottawa	80.9	58.7	33.4	36.3
Edmonton	76.0	46.6	25.9	18.7
London	84.1	54.3	34.5	26.7
Calgary	67.5	34.9	27.2	14.8
Top 5: Population share of study permit holders				
Metro Vancouver A	89.3	37.3	35.0	26.2
Waterloo	90.0	66.7	51.5	50.9
Charlottetown	83.1	62.4	26.1	11.1
Burnaby	77.9	41.6	49.5	23.9
St. John's	91.6	63.3	48.7	53.3
Other municipalities <sup>1</sup>	75.2	46.0	36.6	18.5
		Adjusted rate <sup>2</sup>		
Top 10: Total study permit holders				
Toronto	73.4	54.6	44.7	21.4
Montréal	75.5	52.0	24.3	21.9
Vancouver	77.1	63.5	44.6	25.5
Winnipeg	72.9	50.8	41.2	20.7
Brampton	75.2	48.9	62.7	20.6
Surrey	78.1	47.0	41.6	18.5
Ottawa	79.5	52.7	28.5	31.0
Edmonton	77.9	43.9	23.0	16.0
London	78.5	46.5	36.0	22.8
Calgary	76.5	41.1	26.8	15.7
Top 5: Population share of study permit holders				
Metro Vancouver A	60.0	34.7	36.8	14.3
Waterloo	87.7	53.7	64.9	39.8
Charlottetown	57.3	45.9	33.0	5.8
Burnaby	82.0	58.0	53.3	29.8
St. John's	89.2	60.3	42.8	49.1
Other municipalities	81.0	46.5	34.4	22.1

1. Antigonish, Wolfville and Sainte-Anne-de-Bellevue (fewer than 250 study permit holders) are coded as other municipalities.

2. Adjusted rates are predicted probabilities (multiplied by 100 for ease of interpretation) based on results from logistic regression models that control for gender, age (continuous), year of first permit, region of birth (world region and top five countries), the percentage of total dwellings that are apartments (in the census subdivision [CSD]), the percentage of total dwellings that are rental units (CSD), population density (CSD), the percentage of newcomers in the population (CSD) and median rental cost (CSD).

Note: Only CSDs with a population greater than 2,000 are included. Indian reserves, Tsawwassen Lands and CSDs with no study permit holders are excluded. Students in dwellings provided by a local government, a First Nation or an Indian band (less than 1%) are also excluded. Source: Statistics Canada, 2021 Census of Population.

Statistics Canada Catalogue no. 36-28-0001 The adjusted rates of roommate households decreased by 22 percentage points in Brampton and 12 percentage points in Surrey (Table 1, adjusted). Decomposition results show that international students' country of origin explained most of the difference between the observed and adjusted rates in Brampton and Surrey, the two CSDs where most international students came from India (see Stick et al., 2024). There were also large differences between the observed and adjusted rates of international students living in roommate households in Waterloo and Charlottetown. However, these differences were largely explained by the housing market and structural conditions of the CSDs, specifically the share of dwellings that are rented units.





Note: Excludes students in dwellings provided by a local government, a First Nation or an Indian band (fewer than 1%). Source: Statistics Canada, 2021 Census of Population.

## Many international students living in owner-occupied homes are subtenants

Subtenancy<sup>8</sup> was a common housing arrangement among international students living in owner-occupied homes where they likely pay rent but are not counted as being in the rented housing market (Table 1, observed). Over 40% of international students in Toronto, Vancouver, Brampton, Waterloo, Burnaby and St. John's were subtenants. In all other CSDs, the share of international students living as subtenants ranged from 20% to 40%. Coinciding with the decline in the share of one-census-family households in the broader population (Statistics Canada, 2022b), these results suggest that a large share of international students also reside in non-traditional housing arrangements. Furthermore, international

<sup>8.</sup> Subtenants were identified at the individual level and are defined as individuals who (1) are living in a dwelling owned by a member of the household; (2) are living in a one-census-family household with additional people, a multiple-census-family household, or a non-census-family household of two or more people; and (3) are unrelated to Person 1 of the household (the first person listed on the census questionnaire). An additional measure of subtenancy was considered as a robustness check, and similar estimates were found.

student subtenants may be beneficial for homeowners who rent rooms in their primary residence to offset living expenses.

Although lower than the observed shares of international students in rented units, many international students in owner-occupied dwellings live in roommate households. The highest proportion of roommate households was in St. John's (53.3%), and the lowest share was in Charlottetown (11.1%).

In summary, this study demonstrates that the majority of international students depend on the rental market for their housing needs, ranging from 64.7% in Brampton to 91.8% in Montréal across the municipalities analyzed. This differs from the housing patterns of Canadian-born students, who mostly live in owner-occupied homes.

International students living in rented homes were more likely to reside in roommate households than those living in owner-occupied homes. Among those living in owner-occupied homes, a large proportion were subtenants, who likely paid rent but were not counted in the rental market. As subtenants, international students may generate rental income or help offset housing expenses for homeowners.

Across municipalities, there was substantial variability in the housing arrangements of international students, suggesting there is no fixed pattern. Significant variations in housing arrangements underscore the influence of local housing market conditions, including the availability of rented housing stock, and the sociodemographic characteristics of international students. Roommate households are a common choice, suggesting that international students use inventive and adaptive strategies to find housing amid affordability challenges, limited availability and other circumstances of the local housing market. Given that international students are a unique population group—temporary residents with restrictions on the number of hours they can work off campus—these insights are pivotal for informing more targeted housing policies and improving student support services.

### References

Calder, M. J., Richter, M. S., Mao, Y., Kovacs Burns, K., Mogale, R. S., & Danko, M. (2016). International Students Attending Canadian Universities: Their Experiences with Housing, Finances, and Other Issues. *Canadian Journal of Higher Education*, *46*(2), 92–110. <u>https://doi.org/10.47678/cjhe.v46i2.184585</u>

El Masri, A., & Khan, N. (2022). International Students' Lived Experiences: A Review of Literature. *CGEI Resources and Reports*, 1. <u>https://source.sheridancollege.ca/cgei\_resources/1</u>

Hiebert, D. (2017). Immigrants and refugees in the housing markets of Montreal, Toronto and Vancouver, 2011. *Canadian Journal of Urban Research*, *26*(2), 52–78.

Pottie-Sherman, Y., Christensen, J., Foroutan, M., & Zhou, S. (2023). Navigating the housing crisis: A comparison of international students and other newcomers in a mid-sized Canadian city. *Canadian Geographies*, 1–13. <u>https://doi.org/10.1111/cag.12869</u>

Singh, V. (2022). Dynamics of affordability and immigration in the Canadian housing market. *International Journal of Housing Markets and Analysis*, *15*(3), 709–732. <u>https://doi.org/10.1108/IJHMA-04-2021-0037</u>

Sotomayor, L., Tarhan, D., Vieta, M., McCartney, S., & Mas, A. (2022). When students are house-poor: Urban universities, student marginality, and the hidden curriculum of student housing. *Cities*, *124* 103572, 1–13. <u>https://doi.org/10.1016/j.cities.2022.103572</u>

Statistics Canada. (2022a). Home alone: More persons living solo than ever before, but roomies the fastest growing household type. *The Daily*. <u>https://www150.statcan.gc.ca/n1/daily-guotidien/220713/dq220713a-eng.htm</u>

Statistics Canada. (2022b). To buy or to rent: The housing market continues to be reshaped by several factors as Canadians search for an affordable place to call home. *The Daily*. <u>https://www150.statcan.gc.ca/n1/daily-quotidien/220921/dq220921b-eng.htm</u>

Statistics Canada. (2023). A tale of two renters: Housing affordability among recent and existing renters in Canada. *Census in Brief*. <u>https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-X/2021016/98-200-X2021016-eng.cfm</u>

Stick, M., Hou, F., & Schimmele, C. (2023). The housing trajectories of Canadian-born racialized population groups. *Economic and Social Reports, 3*(12), 1–16. https://doi.org/10.25318/36280001202301200003-eng

Stick, M., Hou, F., & Zhang, H. (2024). Housing international students: Housing suitability across municipalities. *Economic and Social Reports*, *4*(5), 1–6. <u>https://doi.org/10.25318/36280001202400500001-eng</u>

Tuey, C., & Bastien, N. (2023). Non-permanent residents in Canada: Portrait of a growing population from the 2021 Census. *Insights on Canadian Society*, 1–18. <u>https://www150.statcan.gc.ca/n1/pub/75-006-x/2023001/article/00006-eng.htm</u>