The background image shows a waterfront scene with several colorful houses, including a prominent yellow one on the left and a blue one on the right. A small boat with a yellow and red canopy is docked in the water. The houses and boat are reflected in the calm water. In the foreground, there are some bare, reddish-brown branches. The entire scene is framed by a dark brown border.

The housing impacts of short-term rentals in British Columbia's regions

Summer 2023 update

David Wachsmuth

July 2023



**A report prepared by researchers from
the Urban Politics and Governance
research group, School of Urban Planning,
McGill University**

Executive summary



This report analyzes short-term rentals (STRs) in the province of British Columbia, with a focus on commercial STRs and their impact on the province's housing market. It provides an overview of STRs in the province, including their geographic location and levels of commercial activity. It analyzes the impacts of STRs on housing availability and affordability. Finally, it lays out a set of STR regulatory principles for BC, based on Canadian best practices.

SHORT-TERM RENTALS IN BRITISH COLUMBIA'S REGIONS: MARKET OVERVIEW

- In June 2023, there was an average of **28,510 short-term rental listings active each day** in the province of British Columbia (a year-over-year increase of 17.8%, alongside 17.3% annual revenue growth).
- **The province's STR market is dominated by commercial operators**—the top 10% of hosts earned 48.8% of all revenue, while the top 1% of hosts—just 1,930 operators—earned 20.7% of revenue.
- **Multilistings—listings operated by hosts with other listings—accounted for 48.4% of active listings and 51.7% of total host revenue in June 2023,**

and that share has been climbing steadily since 2017.

- The Covid pandemic caused a massive decline in STR activity, but as of 2022 growth is strong across all regions of the province, and **BC's STR market is now at an all-time high.**

THE IMPACT OF STRS ON HOUSING AVAILABILITY AND AFFORDABILITY IN BC

- In June 2023, **short-term rentals were taking 16,810 housing units off of BC's long-term market.** This was a 19.1% increase compared to June 2022. Province-wide, commercial operators have weathered the pandemic much better than home sharers.
- We apply the regression model developed in Wachsmuth et al. (2022) to measure the

impact of commercial STRs on average rents in BC, and find that an increase of **one dedicated STR per 100 rental units predicts that average rents in the neighbourhood will be \$49 higher.**

- During the 2017-2019 pre-pandemic period, **the proliferation of dedicated STRs across BC accounts for as much as 19.8% of the increases in rents which BC households were subjected to.**
- In 2020, when the number of commercial STRs plummeted because of the pandemic, rents increased up to 29.7% less than they otherwise would have.
- **We estimate that 2022 rents increased up to 16.6% over baseline because of the resurgence of commercial STRs that year.** The average BC neighbourhood in a medium or large city saw up to a \$20 greater increase in monthly rent than would have been expected if dedicated STRs had not returned to growth in 2022.
- We estimate that **commercial STRs explain as much as \$455 million of the total \$10.0 billion in rent paid by BC households in large and mid-sized cities in 2022.**
- If the province's STR market remains on its current trajectory, **we expect STR-induced housing loss to increase 15.6% to 19,400 by summer 2024, implying a**

further \$23 increase in average monthly rents in medium and large cities in the province.

STR REGULATORY OPTIONS

- Vancouver's STR regulations—featuring **mandatory registration of all STRs and a principal-residence restriction**—are a **Canadian success story**, and have returned 800 housing units to the long-term market.
- The City of Toronto's principal residence restrictions and the Province of Quebec's province-wide registration system demonstrate **the importance of closing loopholes and prioritizing platform accountability.**
- STR regulatory responsibilities in BC should be shared between Province and municipalities, with the former operating **a mandatory registration system for the entire province which regulates platforms instead of booking durations**, and the latter setting operating rules in line with local priorities.
- Given the severity of BC's housing crisis, **municipalities or the Province should strongly consider principal-residence requirements** to redirect STR activity from commercial operations to home sharing, and thus relieve pressure on rising rents. These requirements are appropriate both for large cities and for smaller communities.

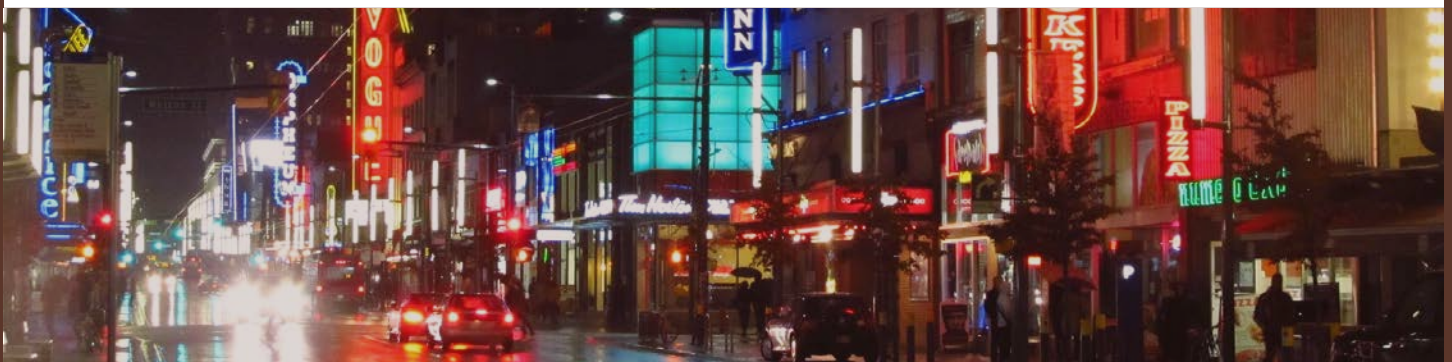
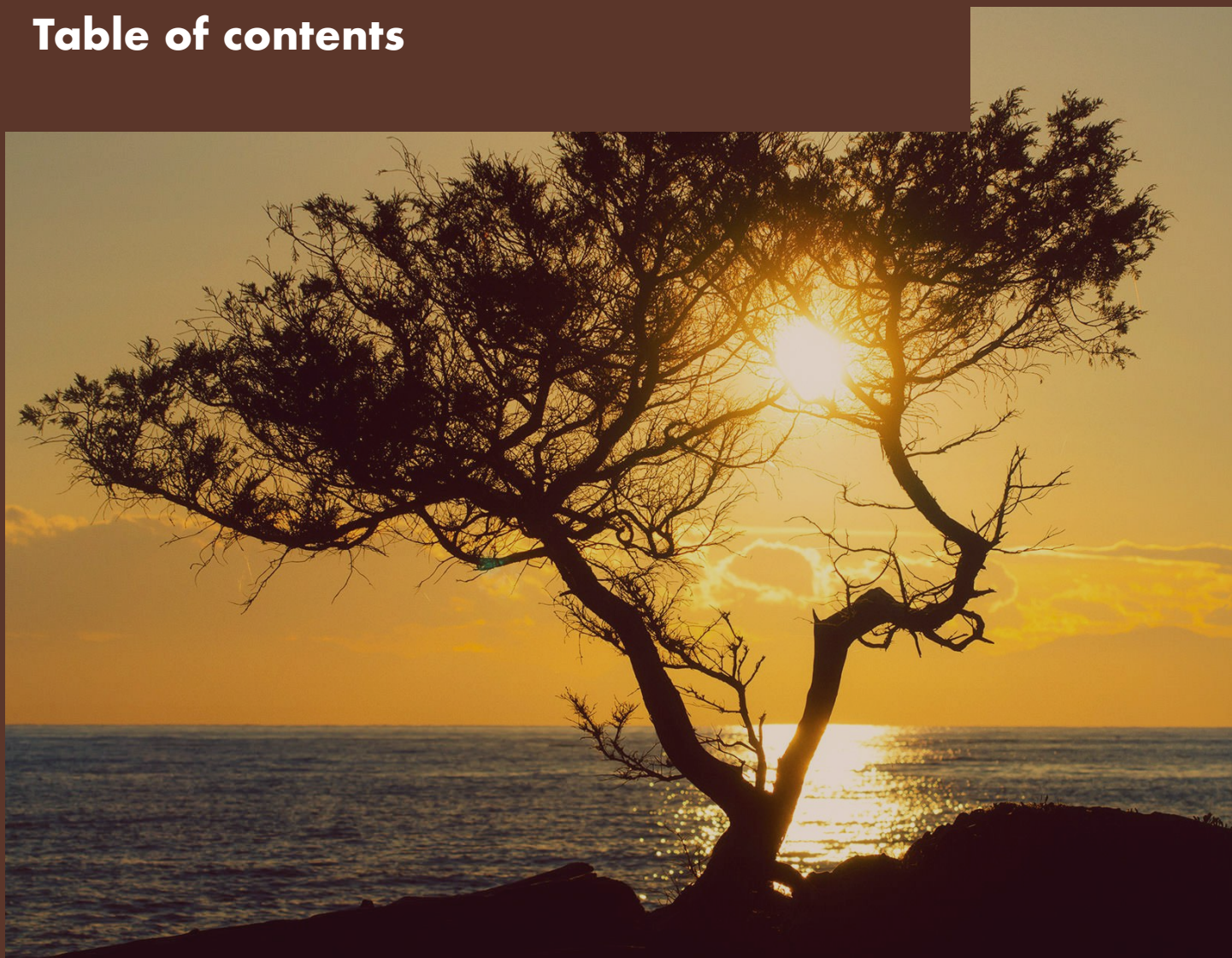


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1. Introduction

In January 2023, the Urban Politics and Governance research group (UPGo) at McGill University was commissioned by the British Columbia Hotel Association to conduct market research and analysis on short-term rentals (STRs) in the province of British Columbia, the impact of STRs on the province's housing market, and the policy options available for regulating STRs. The result was "The housing impacts of short-term rentals in British Columbia's regions: Analysis and recommendations" (Wachsmuth 2023). This report updates the findings of that research in light of the surge in STR activity in British Columbia in the first half of 2023.

Specifically, in this report we provide:

1. A general market overview of short-term rentals in the province, including the volume, revenue, type, size and distribution of units, the presence of dedicated commercial operations, and the impact of Covid-19 on the STR market.
2. An analysis of the impact of dedicated STRs on housing availability and affordability in BC, specifically through an examination of the number of housing units converted to dedicated STRs and quantitative modelling to determine the impact of commercial STR prevalence on residential rents.
3. A set of regulatory recommendations, drawing on a set of Canadian examples and best practices.

The analysis is conducted using a distinction between six "tourism regions" defined by Destination British Columbia: Northern BC, Cariboo Chilcotin Coast, Vancouver Island, Thompson Okanagan, Kootenay Rockies, and Vancouver Coast and Mountains. In order to allow for proper demographic analysis, the approximate boundaries of the regions were reproduced using the administrative boundaries of Census Divisions defined by Statistics Canada. Figure 1 shows the names and boundaries of the tourism regions as they are defined in this report.

Data and methodology are discussed in the Appendix, and all the code used to generate the analysis in the report is available online at <https://github.com/UPGo-McGill/bc-report-2023>.

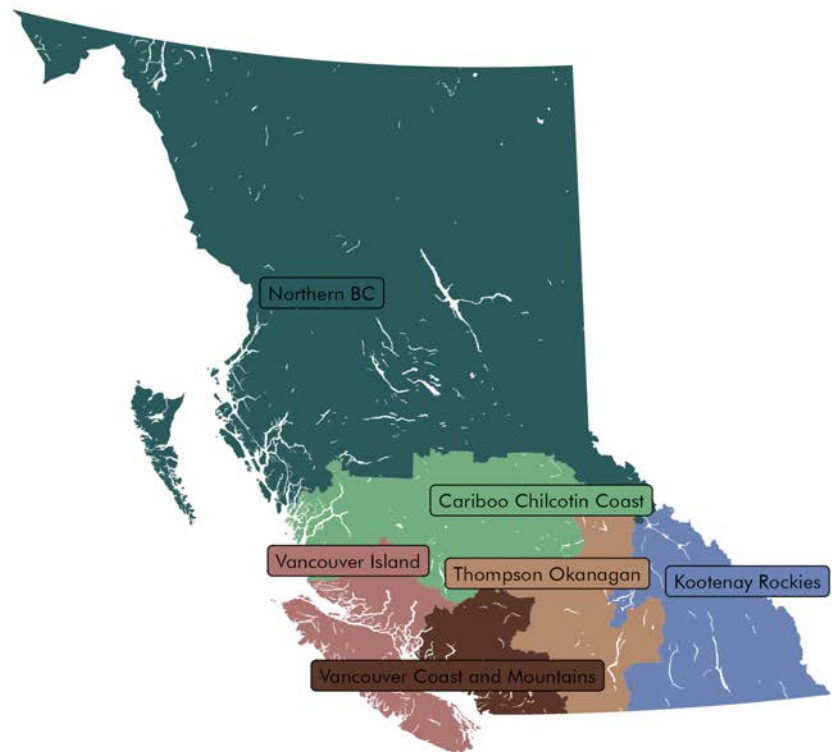


Figure 1. Tourism regions in British Columbia

2. Short-term rentals in British Columbia's regions: Market overview



In June 2023, there was an average of 28,510 short-term rental listings active each day in the province of British Columbia (an increase of 17.8% from 2022, alongside 17.3% annual revenue growth). The province's STR market is dominated by commercial operators—the top 10% of hosts earned 48.8% of all revenue, while the top 1% of hosts—just 1,930 operators—earned 20.7% of revenue. Multilistings—listings operated by hosts with other listings—accounted for 48.4% of active listings and 51.7% of total host revenue in June 2023, and that share has been climbing steadily since 2017. The Covid pandemic caused a massive decline in STR activity, but as of 2022 growth is strong across all regions of the province, and BC's STR market is now at an all-time high.

ACTIVE LISTINGS AND HOST REVENUE

In June 2023, there was a daily average of 28,510 active short-term rental listings being operated out of housing units in the province of British Columbia. (Active listings are those which are not just displayed on a STR platform, but are either reserved or available for reservations, and they are the most straightforward way to assess the size of an STR market.)

The 28,510 STR listings active on average each day in June 2023 were operated by 21,700 hosts who collectively earned \$133.8 million in revenue that month (an average of \$5,800 per listing, and a median of \$3,000 per listing, among listings that received at least one reservation).

BC's STR market has been growing rapidly in 2023. Compared to June 2022, active listings have grown 17.8%, while host revenue has grown 17.3%. In fact, despite the Covid-19 pandemic, BC's STR market is now at an all-time high.

Compared to 2019—prior to the onset of the Covid-19 pandemic—BC's STR market in 2023 features significantly more active listings earning dramatically more money. In June 2019, there were 26,300 daily active listings operated out of houses in BC (8.4% lower than 2023). These listings were operated by 18,130 hosts (19.7% lower), who collectively earned \$77.4 million in revenue (72.9% lower), with an average of \$4,300 (36.5% lower) and a median of \$2,400 (25.1% lower) per listing. The sharp increase in revenue is mostly explained by a substantial increase in the average nightly price of a STR in BC, which increased 44.8% from \$181 in June 2019 to \$262 in June 2023.

Figure 2 displays active listings per day across each of the province's six tourism regions. It demonstrates that, in Cariboo Chilcotin Coast, Northern BC and Thompson Okanagan, STR activity had already fully recovered from the

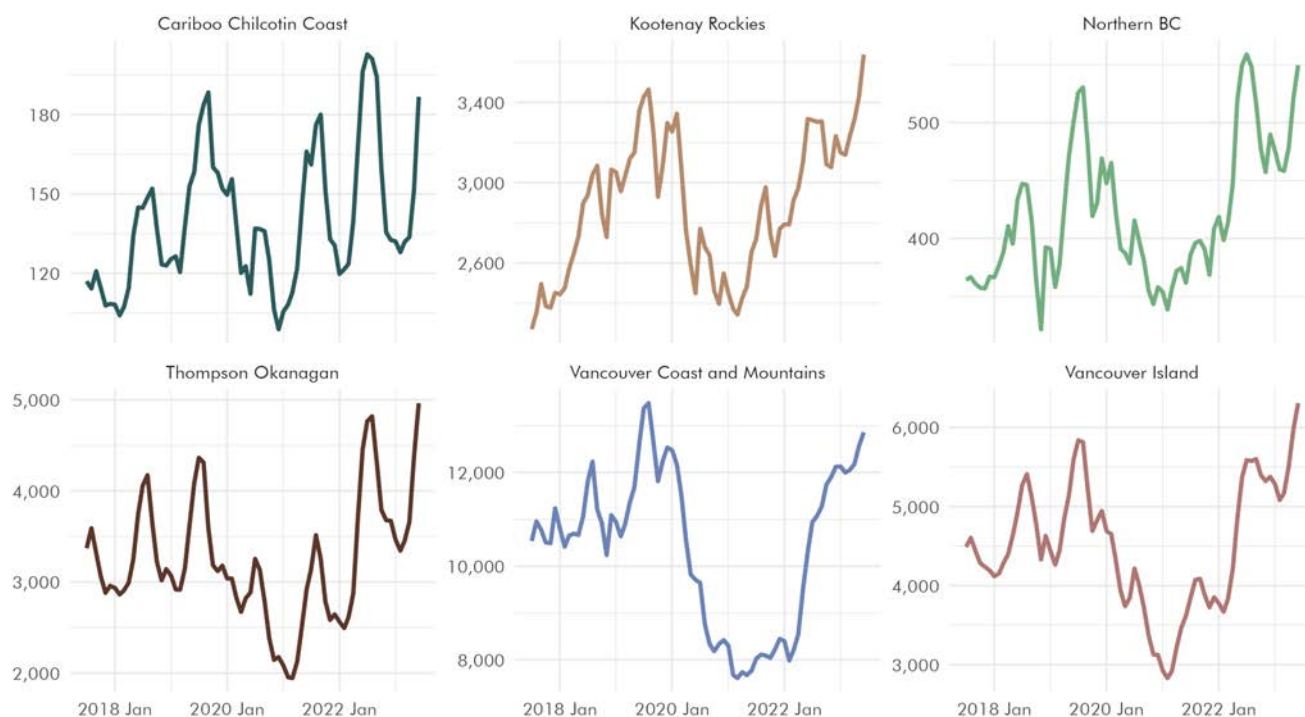


Figure 2. Daily active STR listings in British Columbia (monthly average)

pandemic by 2022 and remains steady on a seasonal growth trajectory. In the Kootenay Rockies, Vancouver Coast and Mountains, and Vancouver Island regions, meanwhile, STR activity has surged

in the first half of 2023, and is at or nearing all time highs in all three regions. Table 1 summarizes key STR market activity across the six regions and their largest cities.

City	Daily active listings (June 2023)	Listing growth (June 2022-2023)	Active listings as % of dwellings (June 2023)	Host revenue (June 2023)	Rev. growth (June 2022-2023)
<i>British Columbia</i>	28,510	17.8%	1.3%	\$133.8 million	17.3%
<i>Cariboo Chilcotin Coast</i>	190	-4.9%	0.6%	\$0.6 million	3.4%
Non-urban areas	170	-4.0%	0.8%	\$0.6 million	2.8%
One Hundred Mile House	3	-41.9%	0.3%	\$0.0 million	71.7%
Quesnel	3	-33.1%	0.1%	\$0.0 million	-21.4%
Williams Lake	11	9.2%	0.2%	\$0.0 million	25.6%
<i>Kootenay Rockies</i>	3,640	9.7%	3.1%	\$17.1 million	16.3%
Castlegar	9	37.2%	0.2%	\$0.0 million	66.6%
Cranbrook	19	116.0%	0.2%	\$0.1 million	132.3%
Creston	6	4.8%	0.2%	\$0.0 million	-13.9%
Fernie	120	-4.8%	3.7%	\$0.5 million	-1.0%
Golden	90	23.9%	4.7%	\$0.4 million	51.0%
Invermere	180	12.4%	8.1%	\$1.0 million	6.3%
Kimberley	140	-2.7%	3.4%	\$0.8 million	-10.6%
Nelson	130	19.5%	2.4%	\$0.4 million	2.7%
Non-urban areas	2,630	11.1%	4.0%	\$12.7 million	20.4%
Revelstoke	140	-14.6%	3.8%	\$0.6 million	3.6%
Rossland	90	-4.3%	4.3%	\$0.3 million	18.7%
Salmon Arm	60	53.2%	0.8%	\$0.1 million	12.4%
Trail	18	26.5%	0.5%	\$0.0 million	-12.4%

Table 1. STR activity by region and municipality

City	Daily active listings (June 2023)	Listing growth (June 2022-2023)	Active listings as % of dwellings (June 2023)	Host revenue (June 2023)	Rev. growth (June 2022-2023)
<i>Northern BC</i>	550	0.0%	0.5%	\$1.5 million	18.3%
Dawson Creek	19	-34.3%	0.3%	\$0.0 million	-34.3%
Fort St. John	20	-12.0%	0.2%	\$0.0 million	-6.4%
Kitimat	10	19.0%	0.2%	\$0.0 million	51.0%
Non-urban areas	290	-6.6%	0.6%	\$0.9 million	13.7%
Prince George	120	8.9%	0.4%	\$0.2 million	20.8%
Prince Rupert	40	61.1%	0.6%	\$0.1 million	37.7%
Smithers	20	114.3%	1.0%	\$0.1 million	123.4%
Terrace	15	-16.9%	0.3%	\$0.0 million	8.9%
Valemount	16	-11.4%	2.6%	\$0.1 million	29.1%
<i>Thompson Okanagan</i>	4,960	11.3%	2.1%	\$25.6 million	11.7%
Kamloops	160	32.7%	0.4%	\$0.5 million	29.8%
Kelowna	1,410	13.0%	2.1%	\$7.2 million	7.6%
Merritt	17	222.8%	0.5%	\$0.0 million	229.7%
Non-urban areas	1,610	9.8%	2.7%	\$9.0 million	9.9%
Oliver	13	-3.0%	0.5%	\$0.0 million	-15.4%
Osoyoos	120	-3.0%	3.6%	\$0.7 million	5.3%
Peachland	140	21.9%	4.9%	\$0.7 million	19.6%
Penticton	390	17.6%	2.1%	\$2.4 million	14.8%
Summerland	80	-15.3%	1.5%	\$0.5 million	-24.1%
Sun Peaks Mountain	320	2.8%	20.9%	\$1.0 million	73.7%
Vernon	220	5.3%	1.0%	\$0.9 million	14.4%
West Kelowna	480	14.0%	3.2%	\$2.6 million	15.7%

Table 1. STR activity by region and municipality (continued)

City	Daily active listings (June 2023)	Listing growth (June 2022-2023)	Active listings as % of dwellings (June 2023)	Host revenue (June 2023)	Rev. growth (June 2022-2023)
<i>Vancouver Coast & Mountains</i>	12,860	24.9%	1.0%	\$59.3 million	30.3%
Abbotsford	180	57.1%	0.3%	\$0.5 million	89.9%
Burnaby	680	10.9%	0.6%	\$2.4 million	4.8%
Chilliwack	140	28.0%	0.4%	\$0.5 million	-1.1%
Langley	30	80.8%	0.3%	\$0.1 million	50.8%
Non-urban areas	3,530	38.8%	0.9%	\$15.9 million	36.9%
North Vancouver	280	26.9%	1.0%	\$1.3 million	41.1%
Pemberton	30	17.2%	2.0%	\$0.1 million	6.4%
Richmond	920	21.4%	1.1%	\$2.8 million	4.2%
Sechelt	190	-0.6%	3.3%	\$1.0 million	-17.3%
Squamish	160	8.5%	1.6%	\$0.9 million	8.3%
Surrey	1,160	59.3%	0.6%	\$3.1 million	29.4%
Vancouver	3,220	26.6%	1.0%	\$19.7 million	43.6%
Whistler	2,330	2.2%	23.1%	\$11.0 million	23.5%
<i>Vancouver Island</i>	6,310	17.5%	1.6%	\$29.6 million	2.0%
Campbell River	130	24.2%	0.8%	\$0.5 million	25.8%
Comox	40	6.6%	0.6%	\$0.1 million	5.4%
Nanaimo	390	18.3%	0.9%	\$1.2 million	15.6%
Non-urban areas	3,960	21.0%	1.6%	\$18.1 million	9.7%
Parksville	120	0.2%	1.7%	\$0.7 million	-10.9%
Port Alberni	60	98.3%	0.7%	\$0.1 million	31.2%
Sidney	50	53.2%	0.8%	\$0.2 million	59.1%
Sooke	180	16.9%	2.8%	\$1.0 million	15.8%
Tofino	280	-0.8%	23.7%	\$2.2 million	-30.5%
Ucluelet	280	13.2%	28.2%	\$1.4 million	-29.8%
Victoria	800	7.4%	1.5%	\$4.0 million	3.8%

Table 1. STR activity by region and municipality (continued)

HOME SHARERS AND COMMERCIAL OPERATORS

An important distinction in STR markets is between “home sharing” and “commercial operations”. Home sharing occurs when the principal resident of a housing unit rents out part or all of that housing unit on a temporary basis. A family with a spare bedroom that they rent on Airbnb as a private-room listing is an example of home sharing, as is a condo unit whose occupant travels frequently for business, and rents out the entire unit when she is out of town. A commercial operation, by contrast, is an STR listing which is not located in the host’s principal residence, and is operated in a more or less full-time fashion. Unlike home sharing arrangements, commercial STRs remove housing units from the long-term market, since each housing unit which is being operated as a full-time STR could instead be housing a long-term resident.

One way to distinguish between commercial operators and home sharers is to look at what type

of listings are operated on STR platforms. STRs can be entire-home or private-room, and the former is more likely to be a home sharing arrangement than the latter. (Listings can also be shared-room, but these are very rare.) The overwhelming majority of the STR listings active in June 2023 were entire homes (86.9%), and this proportion increased noticeably during the pandemic (from 78.7% in June 2019), presumably in part because non-commercial STR operators have become less willing to share their homes with strangers.

Another way to distinguish between home sharers and commercial operators is to examine the distribution of revenue among hosts. If revenue is evenly distributed among a large number of hosts earning modest amounts of money, that suggests that home sharing is common. If, by contrast, revenue is concentrated among a small number of high earners, that suggests that most STR activity is conducted by commercial operators, regardless of

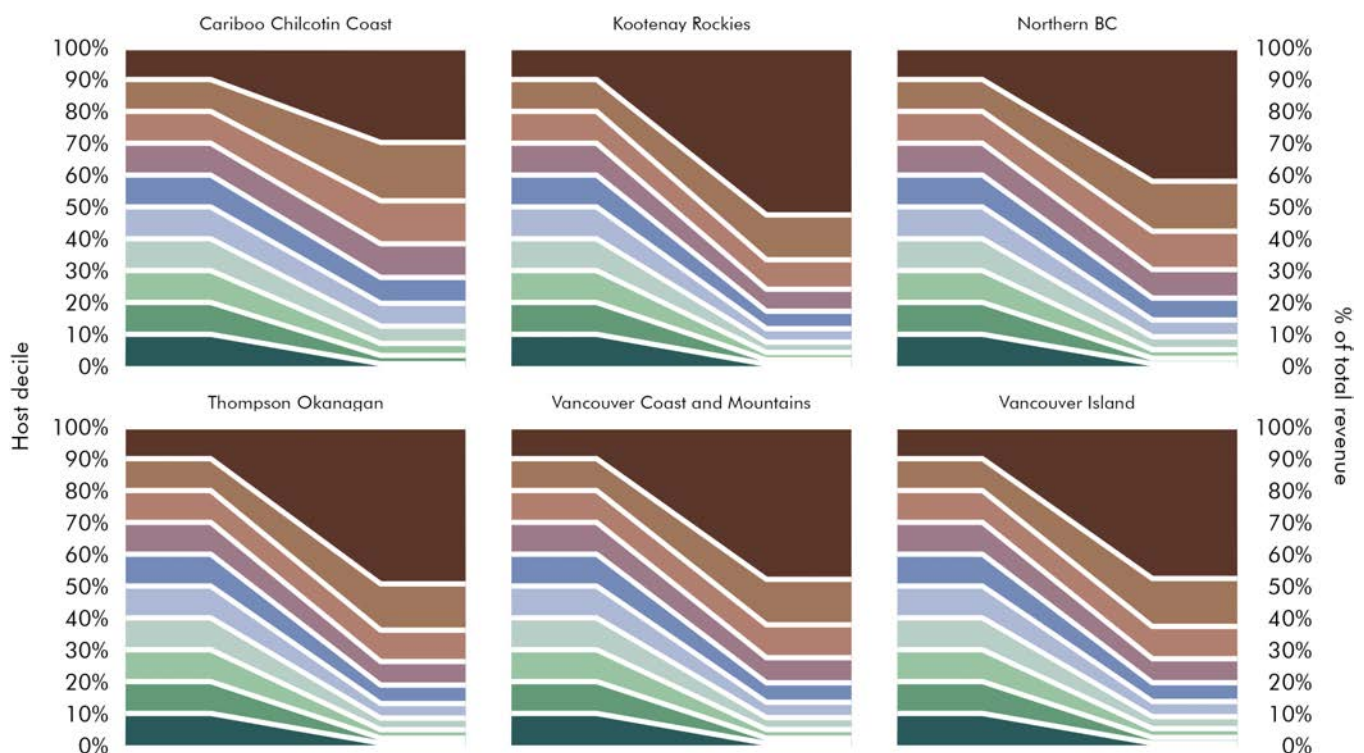


Figure 3. STR host revenue distribution in British Columbia

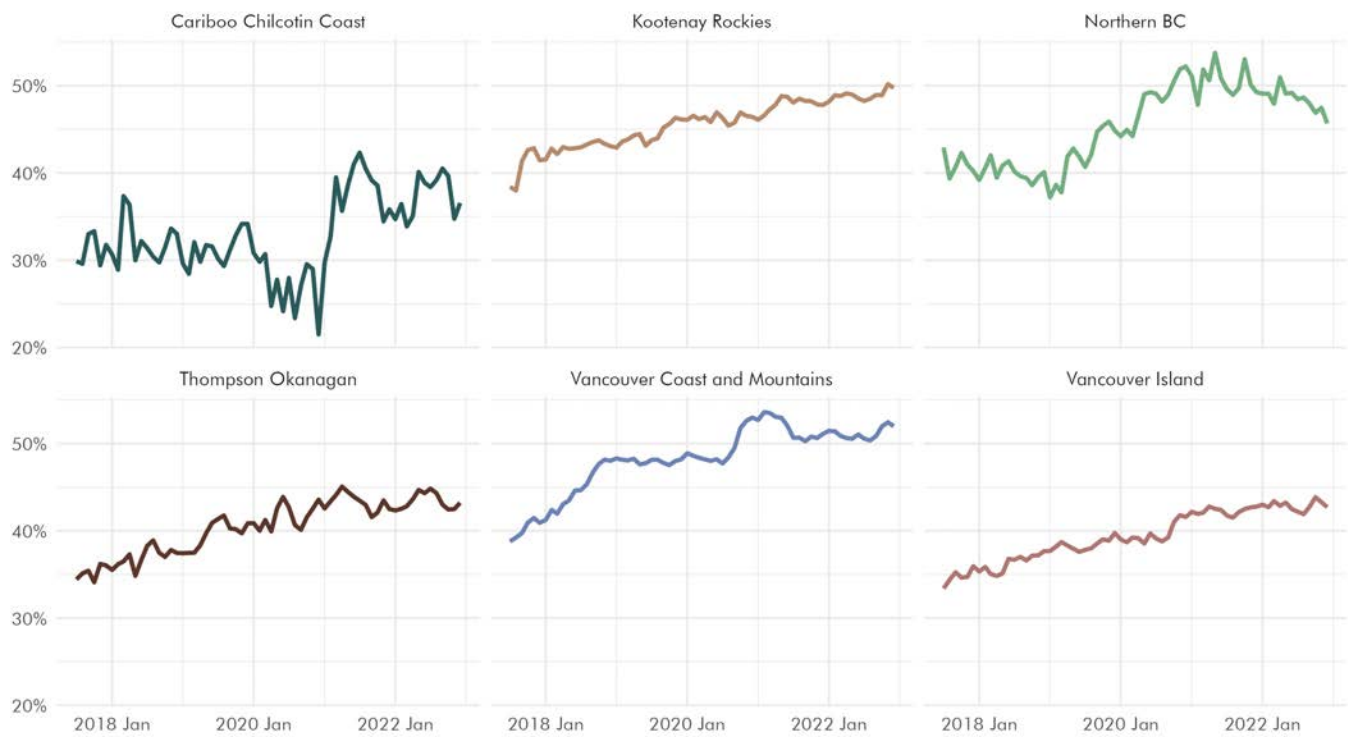


Figure 4. Multilistings as a share of active daily listings (14-day average)

how many hosts are active on the platform. Across British Columbia, host revenue in mid-2023 was in fact highly concentrated. The top 10% of hosts earned 48.8% of all revenue, while the top 1% of hosts—just 1,930 operators—earned 20.7% of revenue. By contrast, the median host earned \$3,000 in June 2023. This pattern suggests that BC has a large number of hosts who are casual home sharers, but that the STR market is dominated by a much smaller number of commercial operators. Figure 3 shows the distribution of host revenue for each of the province’s tourism regions. Revenue is more highly concentrated in the Vancouver Coast and Mountains region (implying a high dominance of commercial operations), while in the Cariboo Chilcotin Coast region revenue is somewhat more equitably distributed (implying more presence of genuine home sharing).

Finally, one simple method of identifying commercial STR operators is to identify listings operated by hosts who have multiple listings in operation simultaneously. These “multilistings” by

definition cannot be home sharing arrangements, since the host cannot have multiple principal residences. We consider entire-homes to be “multilistings” if they are operated by hosts who are simultaneously operating other entire-home listings. We define private-room multilistings as cases where a host has three or more private-room listings operating on the same day. Since nearly all entire-home listings have three or fewer bedrooms, there will be extremely few cases where a host operating three private-room STR listings in a dwelling unit has not converted the entire unit into a dedicated STR.

In June 2023, 48.4% of active listings in British Columbia were multilistings, earning 51.7% of total host revenue. Figure 4 shows the share of all active listings which are multilistings over time. Multilistings have been growing steadily since 2017, both in terms of listings and revenue percentage, and they are somewhat more common in the Vancouver area and the Kootenay Rockies area than in the Vancouver Island region.

In sum, BC's STR market is increasingly dominated by commercial operators at the expense of home sharers, who have been pushed to the margins.

Commercial operators are particularly common in resort communities and large cities, but there is no part of the province where they are not dominant.

GROWTH TRENDS

Until early 2020, the number of active STR listings in British Columbia was steadily increasing (with the exception of Vancouver, where the 2018 introduction of the City's STR regulations caused a large one-time drop in the number of active listings). Figure 5 shows the change in active listings relative to one year earlier, which is a convenient way to remove seasonal variation to identify underlying growth trends. The figure indicates that, from 2018 through the beginning of the pandemic, active listings were growing in all different community types. The pandemic halted BC's STR market growth, with active listings collapsing in March 2020. But, while listing growth again turned positive in Cariboo Chilcotin Coast, Kootenay Rockies, and Thompson Okanagan in early 2021,

active listings continued to shrink until the end of 2021 in the other regions, which include BC's largest cities. By 2022, all regions were seeing robust growth, and it is clear that the pandemic's impacts on BC's STR market have now receded.

Overall, the year-over-year change in average active listings from June 2017 to 2018 was 9.6%, and the year-over-year change from 2018 to 2019 was 13.3%. Because of the Covid-19 pandemic, the year-over-year change in active daily listings turned negative in 2020 and 2021: the change was -26.3% in 2020 and -10.9% in 2021. In 2022 and 2023, growth rebounded sharply, with 38.4% and 17.8% year-over-year changes, respectively.

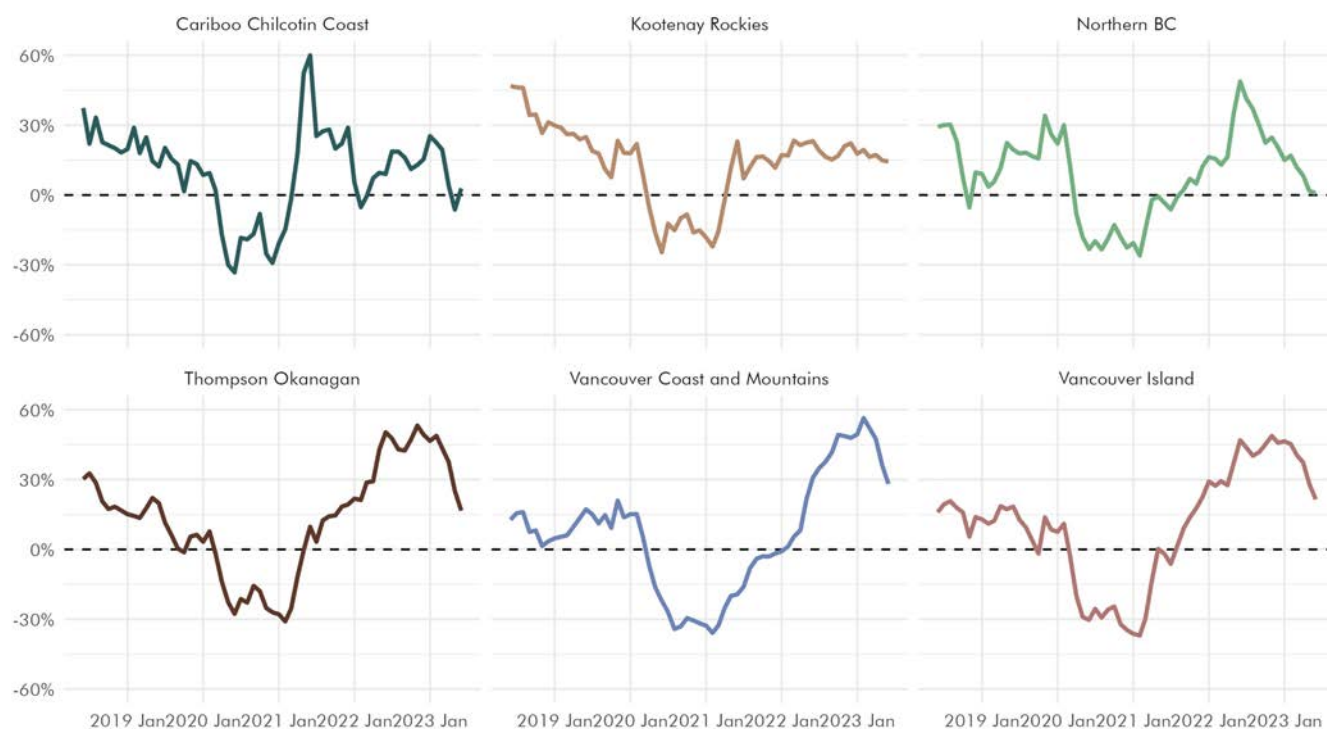


Figure 5. Change in active daily listings compared to one year earlier (monthly average)

3. The impact of STRs on housing availability and affordability in BC



In June 2023, STRs were taking 16,810 housing units off of BC's long-term market. This was a 19.1% increase compared to June 2022. Province-wide, commercial operators have weathered the pandemic much better than home sharers. We apply the regression model developed in Wachsmuth et al. (2022) to measure the impact of commercial STRs on average rents in BC, and find that an increase of one dedicated STR per 100 rental units predicts that average rents in the neighbourhood will be \$49 higher. In fact, during the 2017-2019 pre-pandemic period, the proliferation of dedicated STRs across BC accounts for fully 19.8% of the increases in rents which BC households were subjected to. In 2020, when the number of commercial STRs plummeted because of the pandemic, rents increased 29.7% less than they otherwise would have. By contrast, we estimate 2022 rents increased 16.6% over baseline because of the resurgence of commercial STRs that year. The average BC neighbourhood in a medium or large city saw a \$20 greater increase in monthly rent than would have been expected if dedicated STRs had not returned to growth in 2022. In total, we estimate that commercial STRs explain \$455 million of the total \$10.0 billion in rent paid by BC households in large and mid-sized cities in 2022. If the province's STR market remains on its current trajectory, we expect STR-induced housing loss to increase 15.6% to 19,400 by summer 2024, implying a further \$23 increase in average monthly rents in medium and large cities in the province.

INTRODUCTION

BC's housing market has been under considerable stress in the past years, with housing prices and rents rising, and rental vacancy rates falling. These are symptoms of a market where the supply of housing is insufficient to meet demand. One possible explanation for both the insufficient supply and elevated demand for housing in BC is the growth in short-term rentals. Tourists are now able to compete with residents for housing—adding demand to the local housing market—while landlords are now able to shift their properties out of the conventional housing market to become dedicated STRs—reducing the supply of conventional housing. Research has found that renting a housing unit on the STR market frequently offers landlords greater potential revenue than conventional leases (Wachsmuth & Weisler 2018), especially in transit-accessible neighborhoods

(Deboosere et al. 2019). Multiple studies have also found that Airbnb and other STR platforms increase housing costs (Barron, Kung, & Proserpio 2020; Horn & Merante 2017; Garcia-Lopez et al. 2019).

This chapter builds on our previous research (Wachsmuth et al. 2022), which determined the impact of commercially-operated short-term rentals on housing availability, measured through the number of housing units removed from the long-term market by STRs, and housing affordability, measured through average market rents. In that previous work, we were able to establish these impacts only in large- and medium-sized cities in the province. Here we extend that analysis to small towns and rural areas, to comprehensively identify the housing-market impacts of commercial STRs.

STR-INDUCED HOUSING LOSS

STRs can remove long-term housing from the market either directly, when tenants of a unit are evicted or not replaced at the end of a lease and the unit is converted to a STR, or indirectly by absorbing new construction or investment properties which otherwise would have gone onto the long-term market. To obtain the exact number of units that have been occupied as STRs, landlords or units would need to be individually surveyed, which is infeasible because STR hosts are mostly anonymous on major STR platforms such as Airbnb and Vrbo. Instead, we use the daily activity of listings, alongside structural characteristics such as listing type and location, to estimate which listings are operating as dedicated STRs and are therefore not available as conventional long-term housing.

Frequently Rented Entire-Home (FREH) listings: The number of frequently-rented units is one way to estimate STR-induced housing loss. If a STR is available for reservations the majority of the year

and receives many bookings, it is reasonable to assume that it is not serving as an individual's principal residence at the same time. Along these lines, we define frequently rented entire-home (FREH) listings as entire-home listings which were available on Airbnb or Vrbo the majority of the year (at least 183 nights) and were booked a minimum of 90 nights. We then apply a statistical model (described in the appendix) to the FREH data in order to generate an estimate of FREH activity based on three months of listing activity. This allows us to detect listings which are operating in a full-time manner but have not yet been listed for an entire year, and allows us to account for relatively short-term changes in market conditions.

Ghost hostels: In addition to FREH listings, it is possible that entire housing units have been subdivided into multiple private-room listings, each of which appearing to be a spare bedroom

or the like, while actually collectively representing an apartment removed from the long-term housing market. We call these clusters of private-room listings “ghost hostels”, building on the advocacy group Fairbnb.ca’s term “ghost hotels” — multiple FREH listings located in a single building, collectively serving as de facto hotels instead of long-term housing (Wieditz 2017). We detect ghost hostels by finding clusters of three or more private-room listings operated by a single host, whose reported locations are close enough to each other that they are likely to have originated in the same actual housing unit. (Airbnb and Vrbo obfuscate listing locations by shifting them randomly up to 200 m.)

In June 2023, there were 15,740 FREH listings in British Columbia, and 1,080 more housing units which were operating as ghost hostels. (We refer to these listings collectively as “dedicated STRs”.) In total, therefore, short-term rentals were taking 16,810 housing units off of BC’s long-term market at the end of the year. In the absence of

commercial STRs, in other words, there would have been 16,810 more homes available for BC residents to live in. From June 2022 to June 2023, dedicated STRs grew 19.1% year-over-year, which is faster than the 17.8% growth rate of active STRs in the same time period. More strikingly, while the number of active daily listings was 8.4% higher in June 2023 than in June 2019, the number of housing units which STRs took off of BC’s housing market was 19.1% higher (14,120 in June 2019 and 16,810 in June 2023). In other words, dedicated STRs have grown at more than twice the rate of overall STR activity since 2019. Province-wide, commercial operators have weathered the pandemic much better than home sharers, and now account for a larger share of the total STR market than they did prior to the pandemic.

As with other patterns related to STR activity during the pandemic, the large cities saw much more severe drops in dedicated STRs than smaller communities and resort towns did. Figure 6 shows STR-induced housing loss by tourism region, and

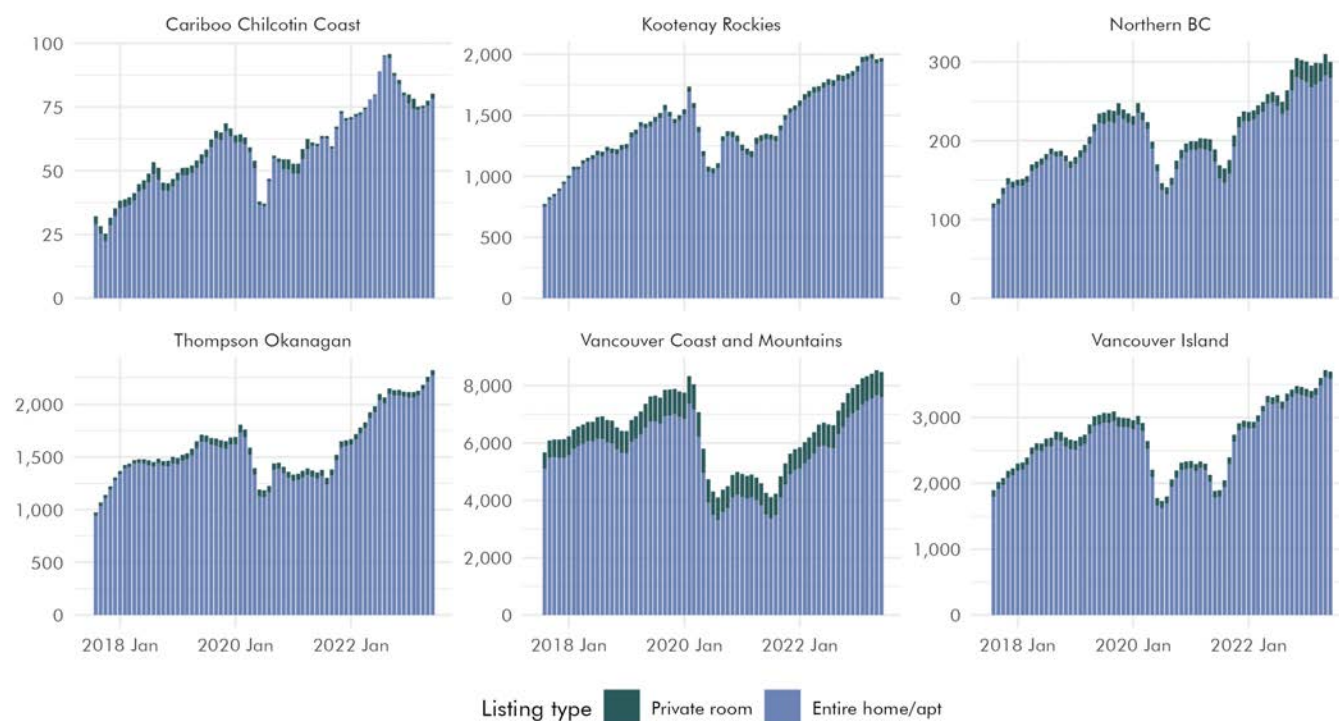


Figure 6. Housing units converted to dedicated STRs in British Columbia (seasonally adjusted monthly average)

demonstrates that the Vancouver Coast and Mountains region experienced a much sharper drop in dedicated STRs in 2020 than the other regions, and took much longer to recover. By the end of 2022, STR-induced housing loss in every region had exceeded its pre-pandemic peak, and in most regions there are now substantially more housing units operating as dedicated STRs than at any time in the past.

Trend analysis: housing loss

Using trend analysis, it is possible to estimate how much STR-induced housing loss would have been expected to have occurred in the absence of the pandemic—this counterfactual scenario establishes an important baseline for a post-pandemic housing landscape, in which short-term rentals return to their previous growth trend.

Figure 7 displays the shortfall between actual STR-induced housing loss and the housing loss which would have been expected in the absence of the pandemic. (We conservatively assume that the

growth rate would have decayed by 1.5% each month after March 2020, to account for the likelihood that the STR market will eventually reach saturation.)

In the central cities, there are still several thousand fewer dedicated STRs than what pre-pandemic growth trends would have predicted. In particular, in June 2023 there were only 8,500 housing units operating as dedicated STRs in the Vancouver Coast and Mountains region, while the previous trend would have predicted 11,020—29.7% more.

By contrast, Thompson Okanagan had actually seen its actual dedicated STR counts come close to catching the pre-pandemic trend by the middle of 2022. This region has seen relatively robust and growing tourist accommodation demand from late 2020 onward.

Overall, the pre-pandemic trend would have predicted 21,100 housing units converted to dedicated STRs in BC by June 2023—25.2% higher

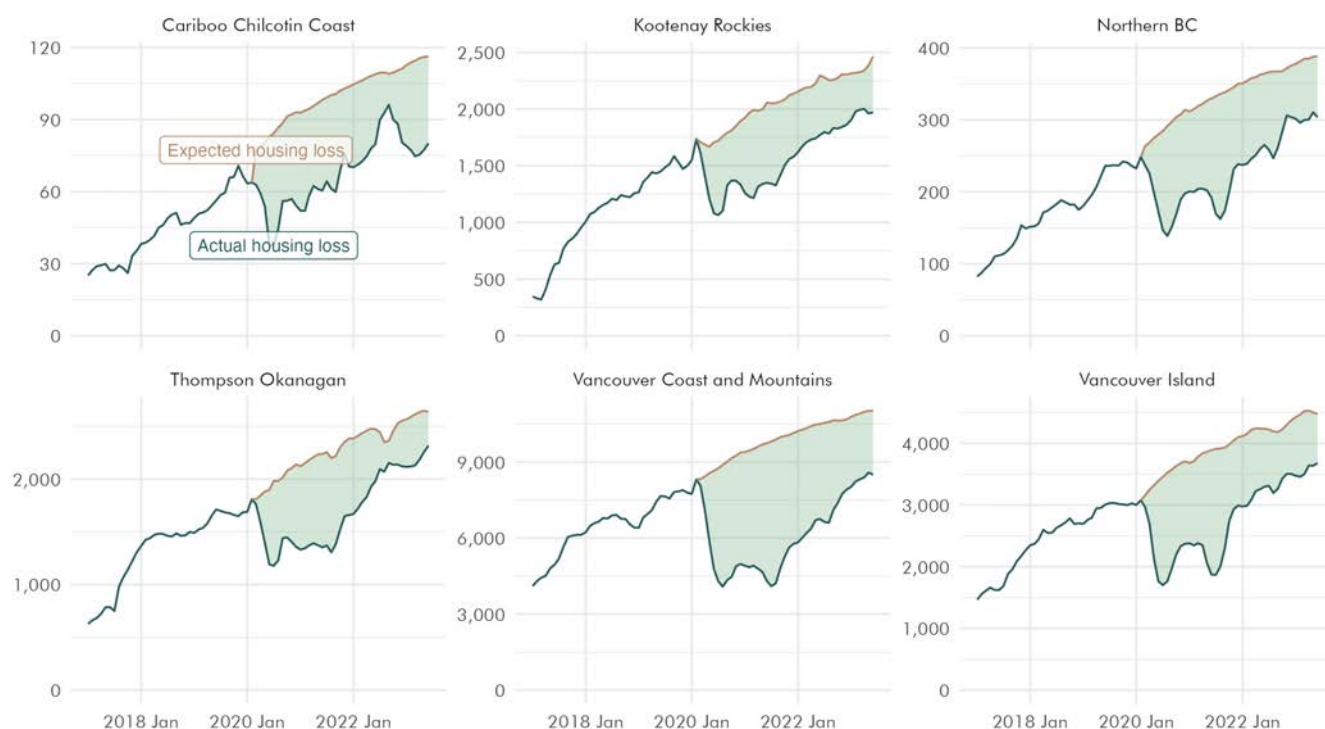


Figure 7. Actual and expected STR-induced housing loss during the Covid-19 pandemic (monthly average)

than the actual figure of 16,810. The implication is that, despite the rapid growth in dedicated STRs in

the last year, this growth will likely continue into the future in the absence of any regulatory changes.

THE IMPACT OF DEDICATED STRS ON RESIDENTIAL RENTS IN BC

Until recently, no empirical research existed in a Canadian context to evaluate the impact of STRs on housing prices or rents. Barron et al. (2020) answered these questions through an examination of every US Airbnb listing between 2012 and 2016. This study found that a 1% growth in Airbnb listings in a location predicts a 0.018% increase in monthly rents and a 0.026% increase in house prices. While these numbers might appear small, they occurred in the context of STR growth rates which were quite high; the authors find that the growth of Airbnb was responsible for *one fifth of all rent growth and one seventh of all housing-price growth* in the United States during the study period.

Last year, we developed a mixed-effect linear regression model covering large and mid-sized urban regions in BC from 2016-2021 (Wachsmuth et al. 2022). The model answered the question: “What is the predicted increase in average monthly rent in a community when the prevalence of dedicated STRs increases by one dedicated STR per 100 rental units?” We answered this question while controlling for time (since rents have been steadily increasing since 2016), community type, and the proportion of a neighbourhood’s dwelling units which are renter-

occupied. (Full methodological details are available in Wachsmuth et al. 2022.)

We found that an increase of one dedicated STR per 100 rental units predicts that average rents in the neighbourhood will be \$49 higher. From 2016-2021, we estimated that, if there had been no commercial STRs, BC renters would have saved \$2.0 billion in rent. During the 2017-2019 pre-pandemic period, the proliferation of dedicated STRs across BC accounted for fully 19.8% of the increases in rents which BC households were subjected to. The average BC neighbourhood in a medium or large city saw a \$72 increase in monthly rent each of these years, of which \$17 could be attributed to the growth of dedicated STRs. In 2020, when the number of commercial STRs plummeted because of the pandemic, our estimate was that 2020 rents increased 29.7% less than they otherwise would have, because of the decrease in commercial STRs that year. Extrapolating from trends through spring 2022, we concluded that, if the province’s STR market were to return to its pre-pandemic trajectory by the end of 2023, the loss of housing to STRs would be expected to drive up average monthly rents in medium and large cities in the province by \$63 above their levels at the end of spring 2022.



Table 2 presents the mixed-effect regression model developed in Wachsmuth et al. (2022), which predicts monthly rents using the prevalence of dedicated STRs. The model accounts for nearly all of the observed variation in average monthly rents (adjusted $R^2 = 0.966$), and confirms a strong independent effect of dedicated STRs on rents. Controlling for the other factors present in the model, an increase of one dedicated STR per 100 rental units predicts that average asking rents in the neighbourhood will be \$48.65 higher. (The model also finds that each year since 2016 is associated with a \$59.15 increase in average rent, and that each additional percentage point of a neighbourhood's housing units which is composed of rental units is associated with a \$1.78 increase in average rent. Finally, the model offers different starting rents for different community types, assuming no commercial STRs, no renters, and the year 2016.)

This model was developed with CMHC rent data and STR data spanning 2016-2021. Using the 2016-2021 parameters, the model can extrapolate the further effects of STR growth in 2022 and 2023 on rental housing costs in BC. Moreover, Census data can help address the spatial limitation of our previous model. CMHC only administers the Rental Market Survey in mid-sized and large urban regions—"census agglomerations" and "census metropolitan areas" respectively—so the model was developed without data from many smaller communities which are nevertheless important tourist destinations. Most notably, Whistler was excluded from the analysis, as were small communities such as Tofino and Ucluelet.

Here we use all-of-province but less frequently updated rent data from the 2016 and 2021 Canadian Census, to extend the model's predictions to more communities in BC—in particular, smaller communities which resemble the "resort town / non-urban" category we used to develop the model, but for which no CMHC data

was available. Both these extensions—temporally through 2023 and spatially to more areas of the province—imply a certain decrease in accuracy, but in exchange allow a more up-to-date and comprehensive picture of the interactions between commercial STR growth and affordability in the long-term rental market. The below results should thus be taken as broad estimates rather than precise certainties.

The burden of STRs on BC renter households

From 2016-2021, BC tenants in large and mid-sized cities paid \$49.0 billion in rent. During the same time period, we estimate that 4.1% (\$2.0 billion) of this amount was due to the presence of commercial STRs. Put differently, if there had been no commercial STRs, BC renters would have saved \$2.0 billion in rent. In 2019, when the STR market was at its pre-pandemic peak, we estimate dedicated STRs were responsible for 5.3% of the total rents paid by tenants. This is a province-wide

	Dependent variable: Average monthly rent
Dedicated STRs / 100 rental units	48.65*** (7.90)
Renter (%)	1.78** (0.68)
Year (0 = 2016)	59.15*** (5.11)
Tier: mid-sized cities	657.77*** (33.01)
Tier: core cities	1,043.31*** (43.47)
Tier: large regions	1,064.32*** (29.96)
Tier: Resort towns / non-urban	724.67*** (42.45)
Observations	737
R^2	0.967
Adjusted R^2	0.966
Residual Std. Error	233.71 (df = 730)
F Statistic	3,017.12*** (df = 7; 730)
Note	*p<0.1; **p<0.05; ***p<0.01

Table 2. Mixed-effect regression model predicting average monthly rents in BC (Wachsmuth et al. 2022)

Tourism region	Median monthly rent chg. (2017-19)	Median impact of STR chg. on rent chg. (2017-19)	Total impact of STR chg. on rent chg. (2017-19)	Median monthly rent chg. (2020)	Median impact of STR chg. on rent chg. (2020)	Total impact of STR chg. on rent chg. (2020)
Cariboo Chilcotin Coast	\$14	\$4 (0.0%)	17.3%	\$90	-\$1 (-1.0%)	-1.0%
Kootenay Rockies	\$37	\$15 (49.2%)	55.6%	\$14	-\$3 (-65.2%)	-10.4%
Northern BC	\$22	\$6 (11.0%)	31.5%	\$4	\$1 (-5.8%)	6.8%
Thompson Okanagan	\$54	\$53 (91.6%)	70.6%	\$57	-\$3 (-10.0%)	-22.4%
Vancouver Island	\$60	\$18 (18.0%)	36.0%	\$50	-\$20 (-24.1%)	-37.4%
Vancouver Coast and Mountains	\$74	\$8 (7.1%)	11.0%	\$35	-\$10 (-6.9%)	-30.6%

Table 3. Comparison of estimated impact of change in dedicated STRs on monthly rent for mid-sized and large cities, 2017-2019 and 2020

average; in some communities the amount of rent increases attributable to STRs was lower, but in others it was substantially higher.

Another way of framing these results is to look at the share of the change in rent which is attributable to the change in dedicated STR prevalence. The conclusion is sobering. During the 2017-2019 pre-pandemic period, the proliferation of dedicated STRs across BC accounts for fully 19.8% of the increases in rents which BC households were subjected to in the areas in which CMHC gathers rent data. The average BC neighbourhood in a medium or large city saw a \$72 increase in monthly rent each of these years, of which \$17 can be attributed to the growth of dedicated STRs. (As a plausibility check on these results, they are quite close to Barron et al. [2020]’s independent finding that approximately 20% of the rent increases in the 100 largest US cities from 2012-2016 were attributable to the growth of Airbnb.)

In 2020, when the number of commercial STRs plummeted because of the pandemic, the opposite effect occurred: the return of these units to the long-term market exerted downward pressure on rising rents. Our estimate is that 2020 rents increased 29.7% less than they otherwise would have, because of the decrease in commercial STRs that year. The average BC neighbourhood in a medium or large city saw a \$45 increase in monthly rent, which was \$14 less than expected because of the decline in dedicated STRs.

Table 3 summarize the estimated STR rent burden for mid-sized and large cities in each of the six tourism regions in the province. It makes clear that an enormous proportion of the pre-pandemic increase in rent in smaller communities which host large numbers of tourism can be ascribed to the explosive growth of dedicated STRs in these areas. More than half of the 2017-2019 rent growth in larger cities in the Kootenay Rockies regions can be explained by the proliferation of commercial

STRs there—and that proportion climbs to more than two thirds in the Thompson Okanagan region.

Likewise, an enormous cause of the much lower increase in average rents experienced on Vancouver Island, in the lower mainland, and in the Okanagan in 2020 can plausibly be ascribed to the collapse of their cities' STR markets during the pandemic, and the resulting return of many commercial STRs to the long-term rental market.

Rising STR rent burdens in 2022

As established above, STR markets across the province returned decisively to growth in 2022, with commercial STRs in particular growing rapidly in all regions. Accordingly, Table 4 extends our rent impact model to 2022. In each of the six tourism regions in the province, the estimated impact of commercial STRs on rents was negative in 2021, reflecting the continued weakness of the STR market in the second year of the pandemic.

However, over the course of 2022, this pattern reversed itself in every one of the regions.

Overall we estimate that, across mid-sized and large cities in the province, 2022 rents increased 16.6% more than they otherwise would have, because of the resurgence of commercial STRs that year. The average BC neighbourhood in a medium or large city saw a \$20 greater increase in monthly rent than would have been expected if dedicated STRs had not returned to growth in 2022.

Both because of the rapid growth in commercial STRs in 2022 and because of the previously high level of commercial STRs in the province, our rent model estimates that \$455 million (4.6%) of the total \$10.0 billion in rent paid by BC households in large and mid-sized cities in 2022 can be attributed to the presence of commercial STRs in those communities. The evidence is clear: after a two-year respite because of the collapse of long-distance during the Covid pandemic, commercial STRs are once again eroding rental housing affordability across the province of BC.

Tourism region	Median monthly rent chg. (2021)	Median impact of STR chg. on rent chg. (2021)	Total impact of STR chg. on rent chg. (2021)	Median monthly rent chg. (2022)	Median impact of STR chg. on rent chg. (2022)	Total impact of STR chg. on rent chg. (2022)
Cariboo Chilcotin Coast	-\$15	-\$2 (-2.5%)	-10.3%	\$54	\$6 (12.5%)	10.6%
Kootenay Rockies	\$59	-\$5 (-8.8%)	-10.1%	\$129	\$17 (13.5%)	20.0%
Northern BC	\$45	-\$3 (-2.6%)	-3.8%	\$42	\$7 (15.2%)	12.8%
Thompson Okanagan	\$56	-\$6 (-3.4%)	-10.9%	\$151	\$15 (10.1%)	16.3%
Vancouver Island	\$53	-\$6 (-13.0%)	-6.5%	\$117	\$14 (10.4%)	18.9%
Vancouver Coast and Mountains	\$40	-\$7 (-3.7%)	-28.0%	\$114	\$19 (13.9%)	16.6%

Table 4. Comparison of estimated impact of change in dedicated STRs on monthly rent for mid-sized and large cities, 2021 and 2022

Trend analysis: STR rent burden

The sharp change in the impact of commercial STRs on rents in BC during the pandemic raises the question of what would have happened if commercial STRs had continued to grow on their pre-pandemic trajectory— and, more importantly, what will happen under the increasingly likely scenario that they return to that trajectory in the near future. Figure 8 extends the STR housing loss trend analysis from Figure 7, above, one year into the future, through June 2024, and adds an additional trend line based on the trajectory of commercial STRs since March 2021 (one year after the start of the pandemic). To be clear, it is impossible to make any concrete STR forecasts that far into the future, given the continuing uncertainty associated with the Covid pandemic, and the possibility of provincial or municipal regulatory action, but this analysis offers a plausible estimate of 1) what a return to the pre-pandemic STR status quo would like in

BC, 2) the extent to which each of the province's six tourism regions is currently on such a trajectory, and 3) what the implications for renters would be.

If the province's STR market were to return to its pre-pandemic trajectory by June 2024, this would imply that there would be 21,500 housing units operating as dedicated STRs—a 28.1% increase over the actual number of 16,810 as of June 2023. Current growth trends imply that commercial STR activity will not have returned to pre-pandemic levels by summer 2024, but the gap is predicted to be narrow in the Kootenay Rockies, Thompson Okanagan, and Vancouver Coast and Mountains regions in particular. Current trends predict 19,400 commercial STRs in British Columbia by summer 2024—a 15.6% year-over-year change.

If this trend holds true, the implication is that STR activity will drive up average monthly rents in medium and large cities in the province by an

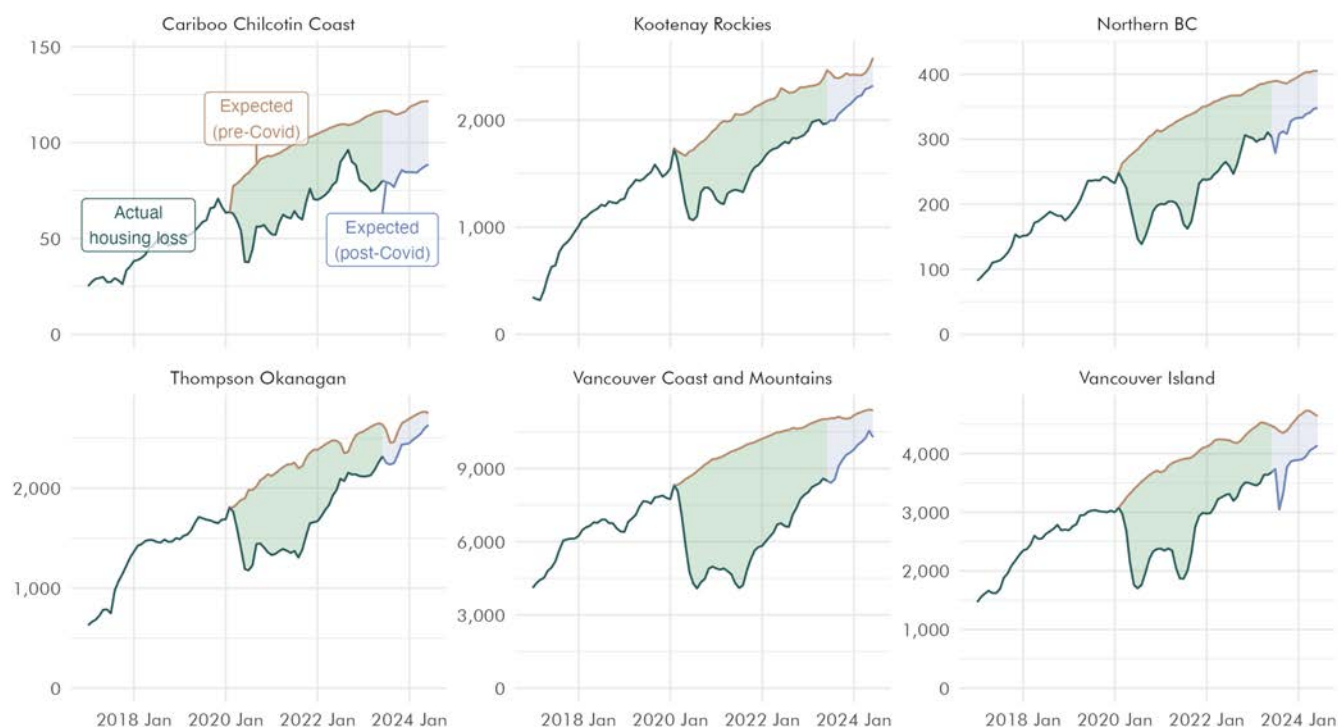


Figure 8. Actual and expected STR-induced housing loss through June 2024 (monthly average)

additional \$23 by summer 2024. This is an extra \$277 the average renter household in a medium or large city could be paying per year because of the growth of commercial STRs—\$151 million in total each year. To be clear, these figures are extrapolations from broad trends, and there is considerable uncertainty in them. But the broad trends themselves are clear: commercial STRs are once again driving up BC rents.

STRs and housing affordability in the Cariboo Chilcotin Coast region

Figure 9 and Table 5 summarize the impacts of commercial STRs on housing availability and affordability in the Cariboo Chilcotin Coast region. (In Table 5 and subsequent tables, values are omitted if the community in question is too small to permit reliable estimates.) Across the entire region,

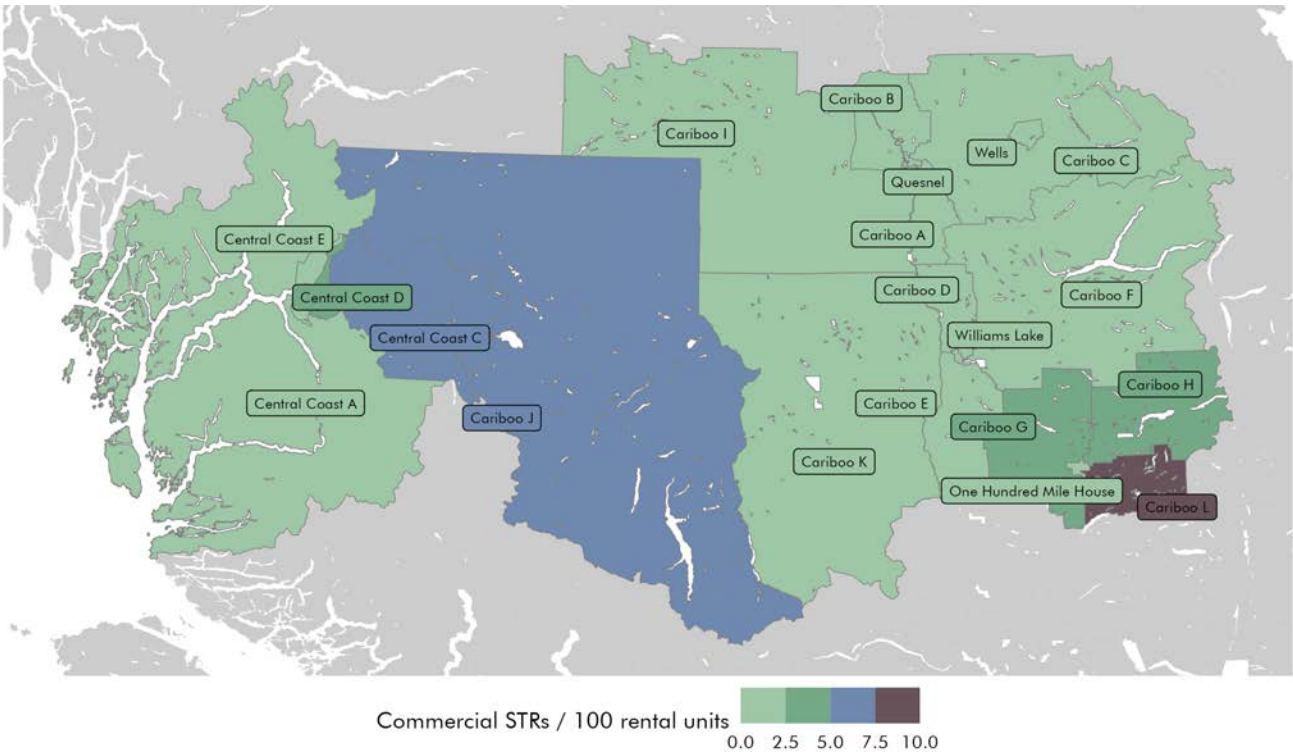


Figure 9. Commercial STRs per 100 rental units in the Cariboo Chilcotin Coast region (June 2023)

Tourism region	STR housing loss (June 2022)	STR housing loss (June 2023)	% increase in housing loss (June 2022-2023)	Commercial STRs per 100 rental units (June 2023)	Est. impact of STR change on rent change (2022)	Est. total extra rent paid (2022)
Cariboo Chilcotin Coast	80	80	0.4%	1.1	\$9	\$0.5 million
One Hundred Mile House	1	2	69.8%	0.5	-	-
Other areas	70	70	0.6%	2.6	\$11	\$0.4 million
Quesnel	2	2	-17.3%	0.1	-	-
Williams Lake	6	5	-11.9%	0.3	-	-

Table 5. Impacts of commercial STRs on housing availability and affordability in the Cariboo Chilcotin Coast region

commercial STRs increased more than a third between 2021 and 2022, from 60 to 80, and have since levelled off. As of June 2023, 1.1 out of every 100 rental units in the region was operating as a dedicated STR, and these commercial STRs are responsible for the average renter household's rent having increased by an estimated \$9 per month over the course of 2022—a total of \$0.5 million extra rent paid by Cariboo Chilcotin Coast renters in 2022 because of the presence of commercial STRs.

STRs and housing affordability in the Kootenay Rockies region

Figure 10 and Table 6 summarize the impacts of commercial STRs on housing availability and affordability in the Kootenay Rockies region. Throughout the entire region, the number of commercial

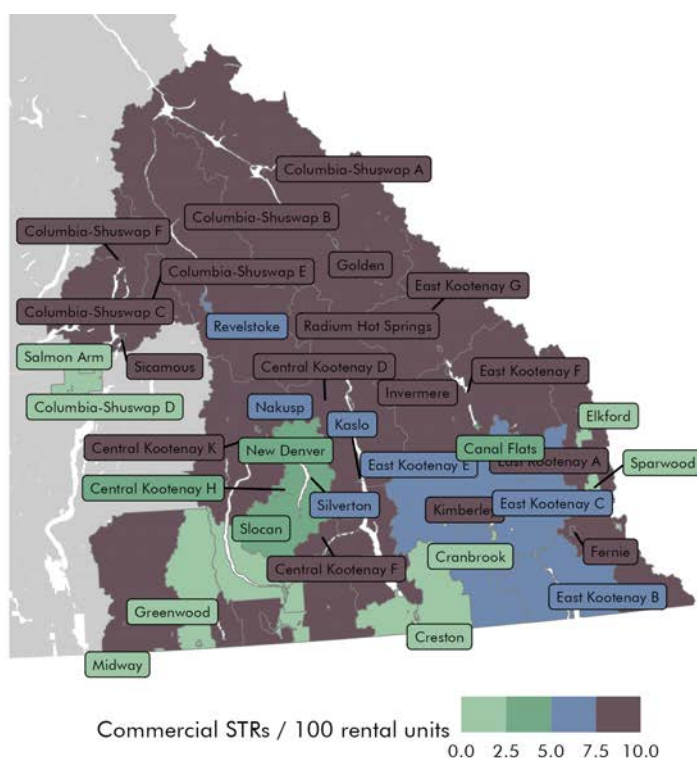


Figure 10. Commercial STRs per 100 rental units in the Kootenay Rockies region (June 2023)

Tourism region	STR housing loss (June 2022)	STR housing loss (June 2023)	% increase in housing loss (June 2022-2023)	Commercial STRs per 100 rental units (June 2023)	Est. impact of STR change on rent change (2022)	Est. total extra rent paid (2022)
Kootenay Rockies	1,770	1,970	11.2%	8.3	\$48	\$13.4 million
Castlegar	4	7	67.2%	0.7	-	-
Cranbrook	7	13	95.7%	0.5	-	-
Creston	4	3	-19.6%	0.4	-	-
Fernie	80	80	7.0%	9.0	\$75	\$0.8 million
Golden	50	70	34.5%	11.3	\$88	\$0.6 million
Invermere	90	100	8.6%	14.6	\$170	\$1.3 million
Kimberley	90	90	1.1%	9.6	\$30	\$0.3 million
Nelson	70	80	9.0%	4.1	\$64	\$1.5 million
Other areas	1,220	1,390	13.9%	13.4	\$57	\$7.1 million
Revelstoke	80	70	-12.9%	7.3	\$61	\$0.7 million
Rossland	40	40	-5.1%	10.2	\$112	\$0.5 million
Salmon Arm	30	30	-7.5%	1.5	\$8	\$0.2 million
Trail	10	9	-8.9%	0.7	-	-

Table 6. Impacts of commercial STRs on housing availability and affordability in the Kootenay Rockies region



STRs increased more than ten percent to 1,970 from an already high baseline of 1,770.

As of June 2022, fully 8.3 out of every 100 rental units in the region was operating as a dedicated STR. This is by far the highest rate of commercial STRs among the six tourism regions in the province. To some extent this reflects the fact that rental housing is proportionately less common in Kootenay Rockies than in other parts of the province, but the region's disproportionate concentration of commercial STRs remains even when it is expressed as a proportion of all dwelling units, not just rentals.

The 1,970 commercial STRs in Kootenay Rockies are responsible for the average renter household's rent having increased by an estimated \$48 per month over the course of 2022—a total of \$13.4 million extra rent paid by Kootenay Rockies renters in 2022 because of the presence of commercial STRs.

STRs and housing affordability in the Northern BC region

Figure 11 and Table 7 summarize the impacts of commercial STRs on housing availability and affordability in the Northern BC region. Across the entire region, commercial STRs increased by nearly a third between 2021 and 2022 and then a further 14.5% from June 2022 to June 2023, from 260 to 300. At the same time, the total share of commercial STRs expressed as a percentage of rental units remains relatively low in the Northern BC region. As of the end of 2022, 1.0 out of every 100 rental units in the region was operating as a dedicated STR, which is the lowest rate among the province's six tourism regions. These commercial STRs are responsible for the average renter household's rent having increased by an estimated \$8 per month over the course of 2022—a total of \$2.8 million extra rent paid by Northern BC renters in 2022 because of the presence of commercial STRs.

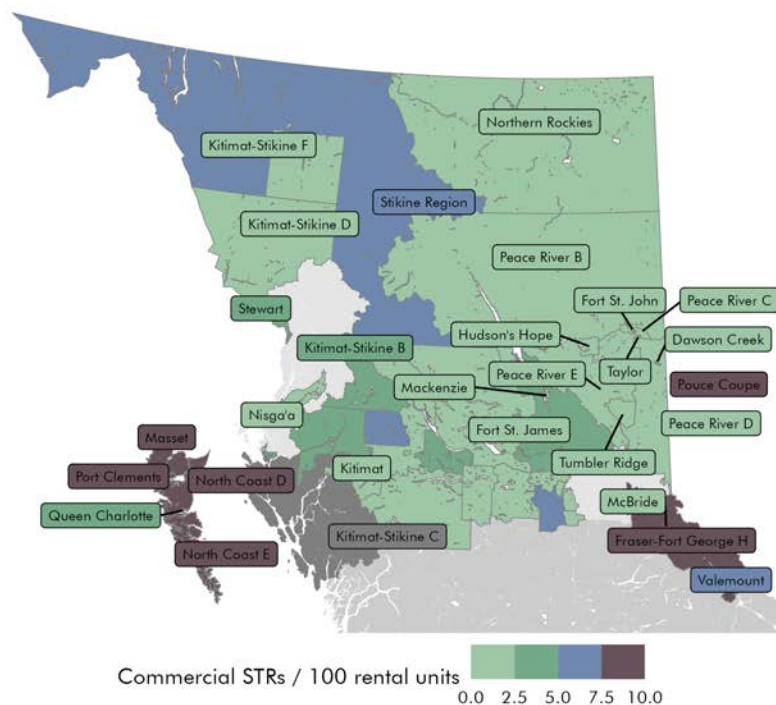


Figure 11. Commercial STRs per 100 rental units in the Northern BC region (June 2023)

Tourism region	STR housing loss (June 2022)	STR housing loss (June 2023)	% increase in housing loss (June 2022-2023)	Commercial STRs per 100 rental units (June 2023)	Est. impact of STR change on rent change (2022)	Est. total extra rent paid (2022)
Northern BC	260	300	14.5%	1.0	\$8	\$2.8 million
Dawson Creek	18	16	-13.2%	0.6	\$9	\$0.3 million
Fort St. John	10	14	47.4%	0.4	-	-
Kitimat	4	4	0%	0.4	-	-
Other areas	140	150	9.6%	1.8	\$11	\$1.1 million
Prince George	50	60	15.7%	0.6	\$6	\$0.8 million
Prince Rupert	15	20	35.0%	0.9	\$12	\$0.3 million
Smithers	6	13	104.1%	1.8	-	-
Terrace	7	9	17.1%	0.6	-	-
Valemount	12	14	11.9%	7.5	\$11	\$0.0 million

Table 7. Impacts of commercial STRs on housing availability and affordability in the Northern BC region

STRs and housing affordability in the Thompson Okanagan region

Figure 12 and Table 8 summarize the impacts of commercial STRs on housing availability and affordability in the Thompson Okanagan region.

Throughout the entire region, the number of commercial STRs increased by 40% between 2021 and 2022, and increased a further 17.6% from June 2022 (1,920) to June 2023 (2,260). As of the end of 2022, 3.4 out of every 100 rental units in the region was operating as a

dedicated STR. This is the second highest rate of commercial STRs among the six tourism regions in the province, and reflects particularly strong growth in commercial STRs in Kamloops and Kelowna.

The 2,260 commercial STRs in the Thompson Okanagan region are responsible for the average renter household's rent having increased by an estimated \$34 per month over the course of 2022—a total of \$25.7 million extra rent paid by Thompson Okanagan renters in 2022 because of the presence of commercial STRs.

STRs and housing affordability in the Vancouver Island region

Figure 13 and Table 9 summarize the current and projected impacts of commercial STRs on housing availability and affordability in the Vancouver Island region. Throughout the entire region, the

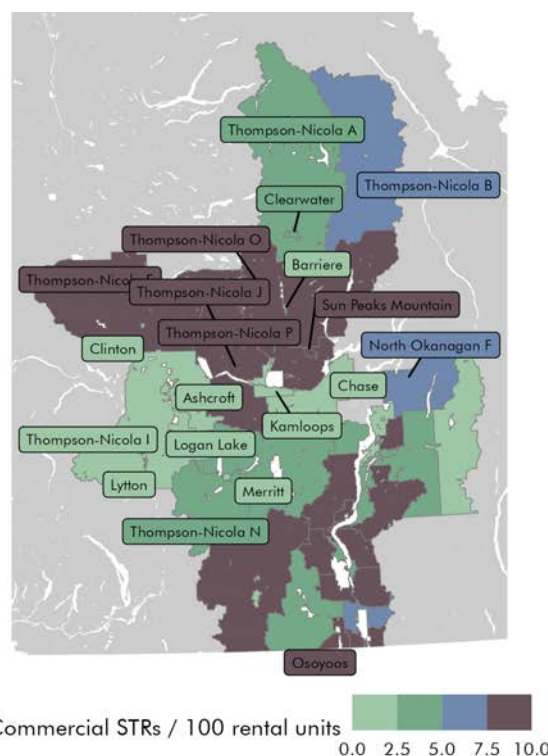


Figure 12. Commercial STRs per 100 rental units in the Thompson Okanagan region (June 2023)

Tourism region	STR housing loss (June 2022)	STR housing loss (June 2023)	% increase in housing loss (June 2022-2023)	Commercial STRs per 100 rental units (June 2023)	Est. impact of STR change on rent change (2022)	Est. total extra rent paid (2022)
Thompson Okanagan	1,980	2,320	17.0%	3.5	\$32	\$23.9 million
Kamloops	80	100	26.8%	0.8	\$9	\$1.4 million
Kelowna	520	650	25.3%	2.7	\$31	\$8.8 million
Merritt	3	7	118.2%	0.9	-	-
Oliver	6	7	13.6%	1.3	-	-
Osoyoos	50	50	2.0%	8.4	\$35	\$0.3 million
Other areas	680	770	13.0%	8.2	\$41	\$4.6 million
Peachland	50	60	18.0%	11.6	\$43	\$0.3 million
Penticton	170	200	14.4%	2.9	\$33	\$2.7 million
Summerland	50	40	-14.8%	4.3	\$12	\$0.1 million
Sun Peaks Mountain	90	120	32.8%	28.6	\$405	\$2.0 million
Vernon	100	110	5.8%	1.5	\$23	\$2.0 million
West Kelowna	180	210	14.8%	8.0	\$57	\$1.7 million

Table 8. Impacts of commercial STRs on housing availability and affordability in the Thompson Okanagan region

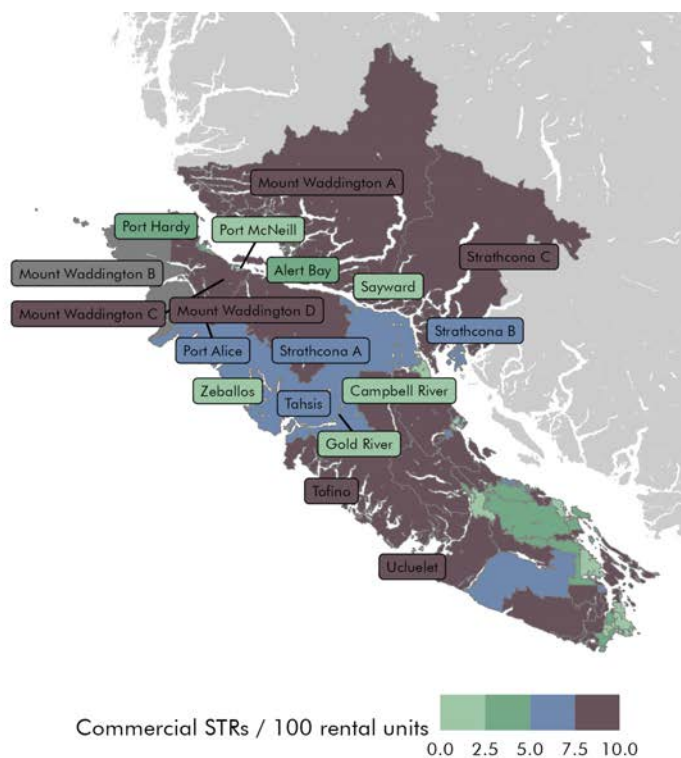


Figure 13. Commercial STRs per 100 rental units in the Vancouver Island region (June 2023)

Tourism region	STR housing loss (June 2022)	STR housing loss (June 2023)	% increase in housing loss (June 2022-2023)	Commercial STRs per 100 rental units (June 2023)	Est. impact of STR change on rent change (2022)	Est. total extra rent paid (2022)
Vancouver Island	3,300	3,680	11.6%	3.1	\$33	\$48.1 million
Campbell River	50	60	24.3%	1.4	\$19	\$1.0 million
Comox	20	30	21.9%	1.7	\$10	\$0.2 million
Nanaimo	180	210	14.4%	1.4	\$17	\$3.1 million
Other areas	1,920	2,190	14.1%	3.7	\$33	\$23.3 million
Parksville	70	70	4.8%	3.7	\$33	\$0.8 million
Port Alberni	14	30	132.1%	1.2	\$6	\$0.2 million
Sidney	20	30	46.3%	2.3	\$18	\$0.3 million
Sooke	90	100	9.9%	7.9	\$72	\$1.1 million
Tofino	220	200	-10.6%	35.4	-	-
Ucluelet	180	170	-3.4%	51.4	-	-
Victoria	530	580	10.5%	1.8	\$35	\$13.4 million

Table 9. Impacts of commercial STRs on housing availability and affordability in the Vancouver Island region



number of commercial STRs increased by more than a third between 2021 and 2022, and by 11.6% from 3,300 in June 2022 to 3,680 in June 2023. As of June 2023, 3.1 out of every 100 rental units in the region was operating as a dedicated STR. Tofino and Ucluelet both have extremely high concentrations of commercial STRs when expressed as a proportion of total rental housing—35.4% and 51.4% respectively—but this simply reflects the complete dominance of STRs in these communities, rather than an underlying lack of rental housing.

The 3,770 commercial STRs in the Vancouver Island region are responsible for the average renter household's rent having increased by an estimated \$33 per month over the course of 2022—a total of \$48.1 million extra rent paid by renters in the region in 2022 because of the presence of commercial STRs.

STRs and housing affordability in the Vancouver Coast and Mountains region

Figure 14 and Table 10 summarize the current and projected impacts of commercial STRs on

housing availability and affordability in the Vancouver Coast and Mountains region. Throughout the entire region, the number of commercial STRs increased by nearly 40% between 2021 and 2022. From June 2022 to June 2023, the number increased by a further 25.9%, from 6,750 to 8,500. The suburban areas of Metro Vancouver saw particularly rapid growth—commercial STRs increased by more than 40% in Surrey, for example, while Langley was not far behind.

As of the end of 2022, 1.8 out of every 100 rental units in the region was operating as a dedicated STR. The 8,290 commercial STRs in the Vancouver Coast and Mountains region are responsible for the average renter household's rent having increased by an estimated \$17 per month over the course of 2022—a total of \$100.2 million extra rent paid by renters in the region in 2022 because of the presence of commercial STRs. (We have excluded Whistler from these rent calculations, because it was not included in the original modelling and operates as an extreme outlier.)

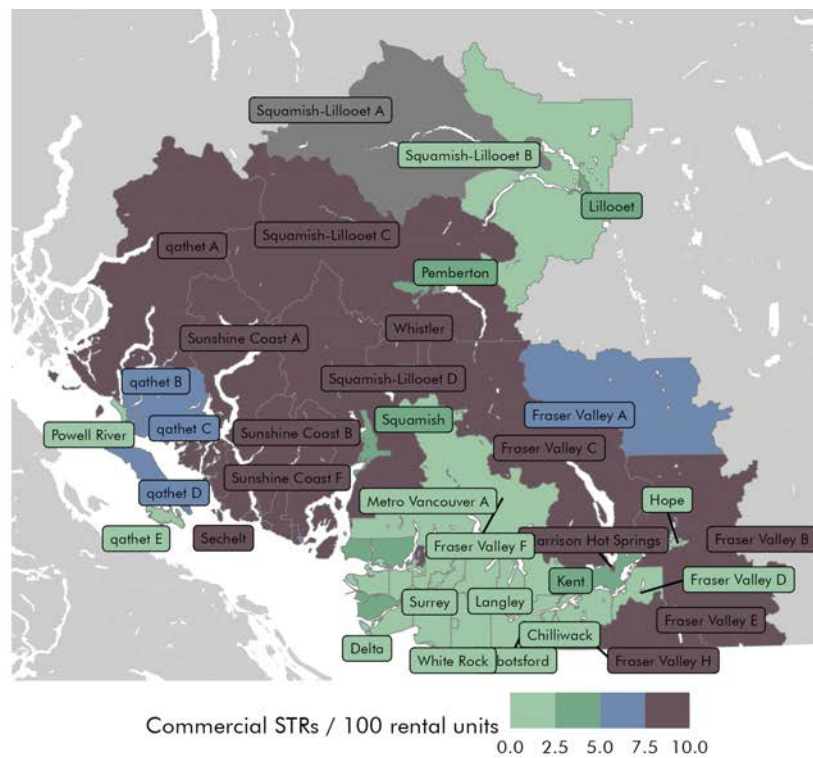


Figure 14. Commercial STRs per 100 rental units in the Vancouver Coast and Mountains region (June 2023)

Tourism region	STR housing loss (June 2022)	STR housing loss (June 2023)	% increase in housing loss (June 2022-2023)	Commercial STRs per 100 rental units (June 2023)	Est. impact of STR change on rent change (2022)	Est. total extra rent paid (2022)
Vancouver Coast & Mnts.	6,750	8,500	25.9%	1.8	\$17	\$100.2 million
Abbotsford	70	110	49.3%	0.6	\$7	\$1.4 million
Burnaby	540	570	5.2%	1.3	\$17	\$8.5 million
Chilliwack	60	80	22.9%	0.8	\$6	\$0.7 million
Langley	12	17	36.8%	0.3	\$4	\$0.2 million
North Vancouver	160	200	27.8%	1.5	\$27	\$4.3 million
Other areas	1,570	2,080	32.7%	2.0	\$15	\$19.5 million
Pemberton	11	15	30.0%	2.9	\$47	\$0.3 million
Richmond	640	730	14.5%	3.0	\$23	\$6.8 million
Sechelt	120	110	-7.2%	10.2	\$46	\$0.6 million
Squamish	100	110	16.8%	3.8	\$15	\$0.5 million
Surrey	470	660	40.8%	1.1	\$12	\$8.3 million
Vancouver	1,990	2,580	30.0%	1.4	\$23	\$49.1 million
Whistler	1,010	1,230	21.5%	27.8	-	-

Table 10. Impacts of commercial STRs on housing availability and affordability in the Vancouver Coast and Mountains region

5. STR regulatory options for British Columbia



In this final chapter we examine several recent Canadian attempts to regulate STRs, and conclude by offering a set of principles to guide the construction of a provincial STR regulation framework in British Columbia—a task that is now overdue. Evidence from across Canada suggests that the simplest, most effective approach is for the Province to take the lead by establishing a single mandatory STR registration system for all of BC which regulates platforms instead of booking durations, while municipalities or the Province should strongly consider establishing principal-residence requirements to redirect their STR markets towards home sharing and away from commercial operations.

VANCOUVER: THE EARLY SUCCESS STORY

In April 2018, the City of Vancouver enacted regulations on the operations of short-term rentals in the City, defined as rentals offered for thirty or fewer consecutive days (City of Vancouver, 2020a). Under these regulations, each STR operator is required to obtain a license for their rental unit, the license being valid for one year.

The listing can only be operated out of the host's principal residence, either for the entire dwelling or for individual rooms. The registration is mandatory on any rental platform, although Airbnb is the only platform that agreed to require hosts in Vancouver to fill out a license field in their online listing, to engage in data sharing, and to



Figure 15. Active listings (L), FREH listings (C), and multilistings (R) in Montreal, Toronto and Vancouver (2017-01-01 = 100)

undertake operator education (City of Vancouver, 2020b). In August 2018, shortly before the City's announced start date for enforcement of the registration system, Airbnb removed approximately 2,400 listings which had not received licenses, which amounted to 30.8% of all displayed listings. Using trend analysis, we estimated that, by mid-2019, the Vancouver STR regulation reduced active STR listings by more than one third, compared to the counter-factual scenario where the regulations had not been introduced (Wachsmuth et al. 2021b). We also estimated that the City's regulations reduced commercial STRs by a similar proportion, thus returning more than 800 housing units to the long-term market. The analysis in chapter 3 of this report demonstrates that these regulatory actions have exerted significant downward pressure on the growth of residential rents in Vancouver.

Further evidence supporting the notion that Vancouver's STR regulations have been effective

at reducing the dedicated STRs which drive up housing costs comes from comparing Vancouver with peer cities nationally and with the rest of the Metro Vancouver region. As Figure 15 demonstrates, Vancouver's STR growth trajectory lagged significantly behind Montreal and Toronto (which did not have comparable STR restrictions at the time, and thus serve as useful contrasting cases) from 2018 through the end of 2019, and the difference was particularly large with respect to frequently-rented entire home (FREH) listings. Through 2017, FREH listings were growing at nearly identical rates in Toronto and Vancouver, while by 2019 Toronto had nearly twice the total FREH growth which Vancouver had.

Figure 16 demonstrates that the same pattern holds true comparing the city of Vancouver to the rest of the Vancouver region—the growth rate of FREH listings in the rest of the region has vastly exceeded Vancouver's since 2018.

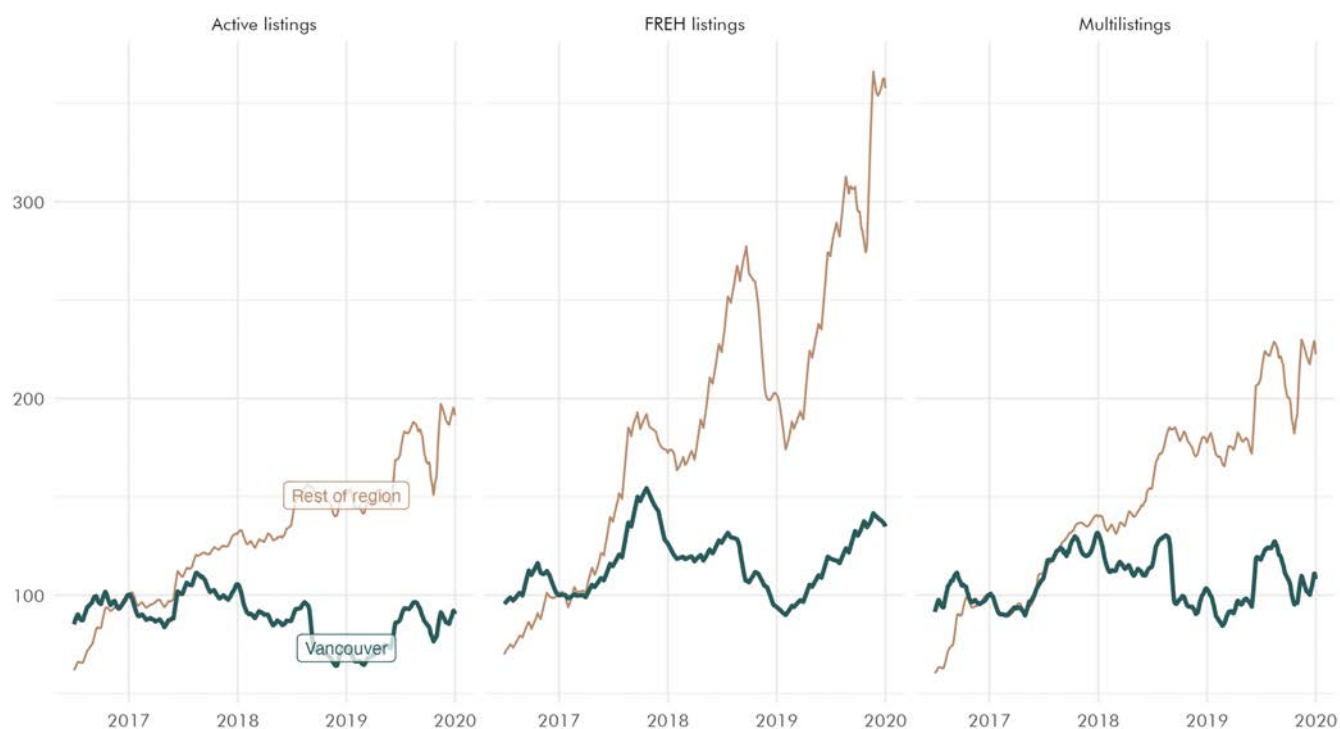


Figure 16. Active listings (L), FREH listings (C), and multilistings (R) in the city of Vancouver and the rest of the Vancouver region (2017-01-01 = 100)

TORONTO: THE IMPORTANCE OF CLOSING LOOPHOLES

In early 2021, the City of Toronto's STR regulations came into force, requiring all STR listings to be registered, and limiting STRs to a host's principal residence. The vast majority of hosts failed to register their listings, however. In theory, this means that they should have been removed from online STR platforms such as Airbnb. And indeed, just prior to the implementation date in early January, Airbnb removed 2,600 Toronto listings from its site. However, this was only a small fraction of the listings which were not registered, and Airbnb forcibly shifted the overwhelming majority of remaining listings to a minimum rental length of 28 days, which exempts them from the registration requirement.

According to an analysis we conducted for the City of Toronto (Wachsmuth et al. 2021c), in

November of 2020, only 6.3% of Toronto listings had a minimum stay of 28 days or more, while at the beginning of February 2021 it was 72.2%. While it was too early to tell at the time of our analysis what the long-term impacts of Toronto's STR regulations would be, it is clear that the fact that STR with a minimum 28-day reservation period are exempted from the need to register has created a serious loophole in Toronto's registration scheme. In other words, offering an option for hosts not to register acts as a serious barrier to effective regulation.

Toronto's registration system was thus successful at shifting market behaviour, but it did so by diverting properties out of the system, instead of capturing them within the system. Effective STR rules, therefore, should recognize the 28-day-minimum loophole and work to close it.

QUEBEC: A PROVINCIAL REGISTRATION SYSTEM

Since 2020, the Province of Quebec has required all STR operators in the province to register their listings with the provincial government. While a lack of enforcement effort has hampered the effectiveness of this system so far, the basic contours of Quebec's rules suggest a plausible model for a productive provincial role in STR regulations. Quebec's system has three distinguishing features.

First, registration is mandatory for all STRs, with no exceptions. Second, the Province does not put any significant conditions on the operation of a STR—for example, a principal residence requirement or a maximum number of annual reservations. It simply requires hosts to be registered. Third, hosts need to identify whether their STR is located in their principal residence, and, if it is not, they have to obtain a slightly

different permit from the one which principal-residence operators obtain.

Following the tragic March 2023 fire in Montreal in which seven people died in an illegal STR, the Province further tightened the rules, specifically holding Airbnb and other STR firms accountable for enforcing permits on their platforms. It is too soon to know how this new set of rules is performing, but the combination of mandatory registration and platform accountability should allow for a lightweight but effective regulatory system which gives municipalities the ability to define STR regulatory priorities but also gives them the information they need to enforce their rules. Quebec's provincial STR registration system thus provides a strong model for the rest of the country to follow.

REGULATORY PRINCIPLES FOR BC

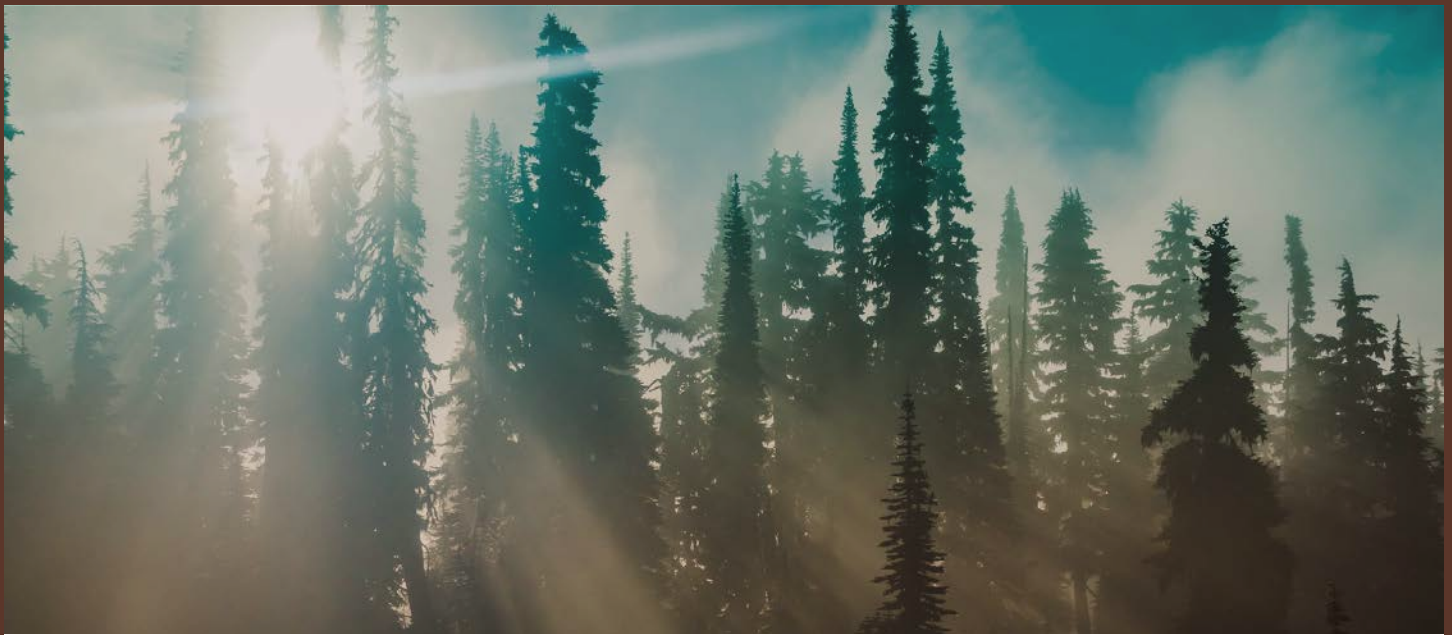
As British Columbia emerges from the Covid pandemic, it is likely that the STR market will quickly return to its pre-pandemic status quo. This means that the temporary respite from STR-induced housing loss and rising rents will likely reverse itself. Meanwhile, regulation of STRs is piecemeal at best, and many communities likely to bear the brunt of the housing cost impacts do not have adequate frameworks in place to mitigate these impacts. Now is thus an excellent time for BC's STR regulations to be updated, and the simplest, most effective approach is for the Province should take the lead by establishing a single mandatory STR registration system for all of BC, while municipalities strongly consider establishing principal-residence requirements to redirect their STR markets towards home sharing and away from commercial operations.

It is helpful to distinguish between three tasks that regulators need to accomplish: 1. They must decide

on the appropriate regulations for the jurisdiction. 2. they must gather the information necessary to enforce the rules 3. they must enforce the rules.

Municipalities are the best positioned to tackle the first task: deciding on the most appropriate rules. Different communities can and should have different priorities for how they choose to balance STRs and housing issues. However, the severity and ubiquity of housing affordability issues in British Columbia suggests that many if not all municipalities should strongly consider introducing a principal-residence requirement into their STR rules. Alternatively, the Province could establish a default rule according to which STRs are limited to principal residences, and require municipalities to explicitly opt out of this provision if they wish to allow commercial STRs.

Our research in this report demonstrates that commercial STRs are significantly eroding rental



housing affordability across the province, so redirecting STR activity from commercial operations (which remove housing from the long-term market) to casual home-sharing operations (which do not) is likely to be sound public policy for most if not all municipalities in BC. Since 1) casual home-sharing represents a diminishing share of actual STR activity in markets which are not constrained by regulations, but a large continuing pool of potential STR activity in a regulation-constrained market (e.g. Wachsmuth et al. 2021a), and 2) STR research has generally found a high level of substitutability between STRs and traditional hotel and B&B accommodations (e.g. Hajibaba & Dolnicar 2017; Zervas et al. 2017), municipalities should feel confident restricting commercial STRs in favour of non-commercial ones. This will simultaneously help alleviate housing affordability problems and redirect STR earnings from larger commercial operators to local residents who will be newly empowered to engage in home sharing.

Empirical research, in addition to the pioneering experience of the City of Vancouver, strongly suggests that a principal residence requirement is the best means of redirecting STR activity away from commercial operations and toward home sharing, while simultaneously reducing the

housing affordability burden of STRs on local residents.

By contrast, with respect to the second task, information gathering, there very much is a viable “one size fits all” model, and it is one in which the Province takes the lead. The provincial government should follow the lead of Quebec and establish a single mandatory registration system for all STRs operating in British Columbia. The information requirements for a registration system do not vary much between localities, so there are massive economies of scale in having a single system. Large municipalities are probably in a position to follow Vancouver’s lead and implement registration systems on their own, but for the vast majority of BC municipalities, this isn’t a viable possibility.

The experience of Airbnb shifting listings to a 28-day minimum in Toronto to avoid the need to comply with regulations further implies that the Province should not make a distinction between “short-term” and “long-term” rentals for the purposes of registration. The simplest way to avoid the 28-day loophole is to have the Province’s registration requirement unconnected with any length of stay, and simply to adhere to listings which are advertised on online STR platforms. A

small number of legitimate longer- term rentals operating on these platforms will potentially be required to register when they wouldn't otherwise have had to, but this is a small price to pay to ensure that the registration system captures all STR activity in BC.

This approach could be accomplished by defining the category of activity being regulated to refer to the means of a property's rental as opposed to the length of its rental. Registration should be mandatory for all properties which are rented on online platforms such as Airbnb and Vrbo, which not only display listings on behalf of hosts but also perform nearly all the mediation between hosts and guests, including collecting and processing payments, handling disputes, and policing the behaviour of both hosts and guests. Rental agreements on these platforms are rarely if ever formalized through a lease.

By contrast, registration should not be required for properties advertised on other online platforms which simply allow for the advertisement of properties but do not perform any important mediation function between landlords and tenants. Prominent examples of this type of platform are Craigslist and Facebook Marketplace. Prospective tenants use these platforms to identify possible apartments, but all the business of concluding a tenancy arrangement are conducted directly between the parties. These rental agreements are usually formalized through a lease.

Making this distinction the basis of STR regulations will remove the incentives for hosts or platforms to reclassify listings with 28-day minimums to avoid the need to register. By contrast, any distinction based on a maximum length of stay will create precisely this type of incentive, and the recent experience of Toronto and several jurisdictions in the United States has proven that this incentive will be turned into a loophole, and the loophole will be exploited.

Finally, regulatory enforcement should be a responsibility shared between both the Province and the municipalities. The Province can enforce the use and validity of the registration system, while municipalities can use the information in the registration system to enforce local bylaws. Municipalities can use their local knowledge, gained from inspections and complaints, to report registration problems to the Province, with the result that the overall STR regulatory system could be self-strengthening.

Establishing such a system will by no means solve all of BC's housing affordability problems. But, compared with the longer-term solutions which will be needed to ensure that the province's housing supply is adequate to housing needs, better regulation of short-term rentals is arguably the lowest hanging fruit capable of meaningfully addressing rapidly escalating housing costs.



Appendix. Data and methodology



The analysis in this report is based on a combination of private and public data sources. The key sources are the following:

- **Listing and activity data about Airbnb and Vrbo short-term rental listings gathered by the consulting firm AirDNA.** This data includes canonical information about every short-term rental (STR) listing on the Airbnb and Vrbo (including HomeAway) platforms which was active in British Columbia between January 1, 2016 and December 31, 2022. The data includes “structural” information such as the listing type (entire home, private room, shared room or hotel room), the number of bedrooms, and the approximate location of the listing. AirDNA collects this information through frequent web scrapes of the public Airbnb and Vrbo websites. The data also includes estimates of listing activity (was the listing reserved, available, or blocked, and what was the nightly price?), which AirDNA produces by applying a machine-learning model to the publicly available calendar information of each listing. We use this data for our core analysis of the STR market, including our counts of active listings, our breakdown of different listing types, our estimates of STR-induced housing loss, and our estimates of listings which are commercial operations.
- **Additional data about Airbnb listings collected by UPGo researchers.** This includes information to verify activity, location and registration numbers, and listing photographs which were obtained through web scrapes.
- **Data about long-term rental listings on Kijiji and Craigslist.** This data includes the geographic location of listings advertised, the asking rent, the number of bedrooms, the number of bathrooms, the title, and the photographs attached to the posting. This data was collected by UPGo through web scrapes conducted each Monday from March 30 to October 12, 2020. We use this data to identify STR listings which have been transferred to the long-term market.
- **Data from Statistics Canada and the Canada Mortgage and Housing Corporation (CMHC).** We use this data to analyze population and dwelling counts.

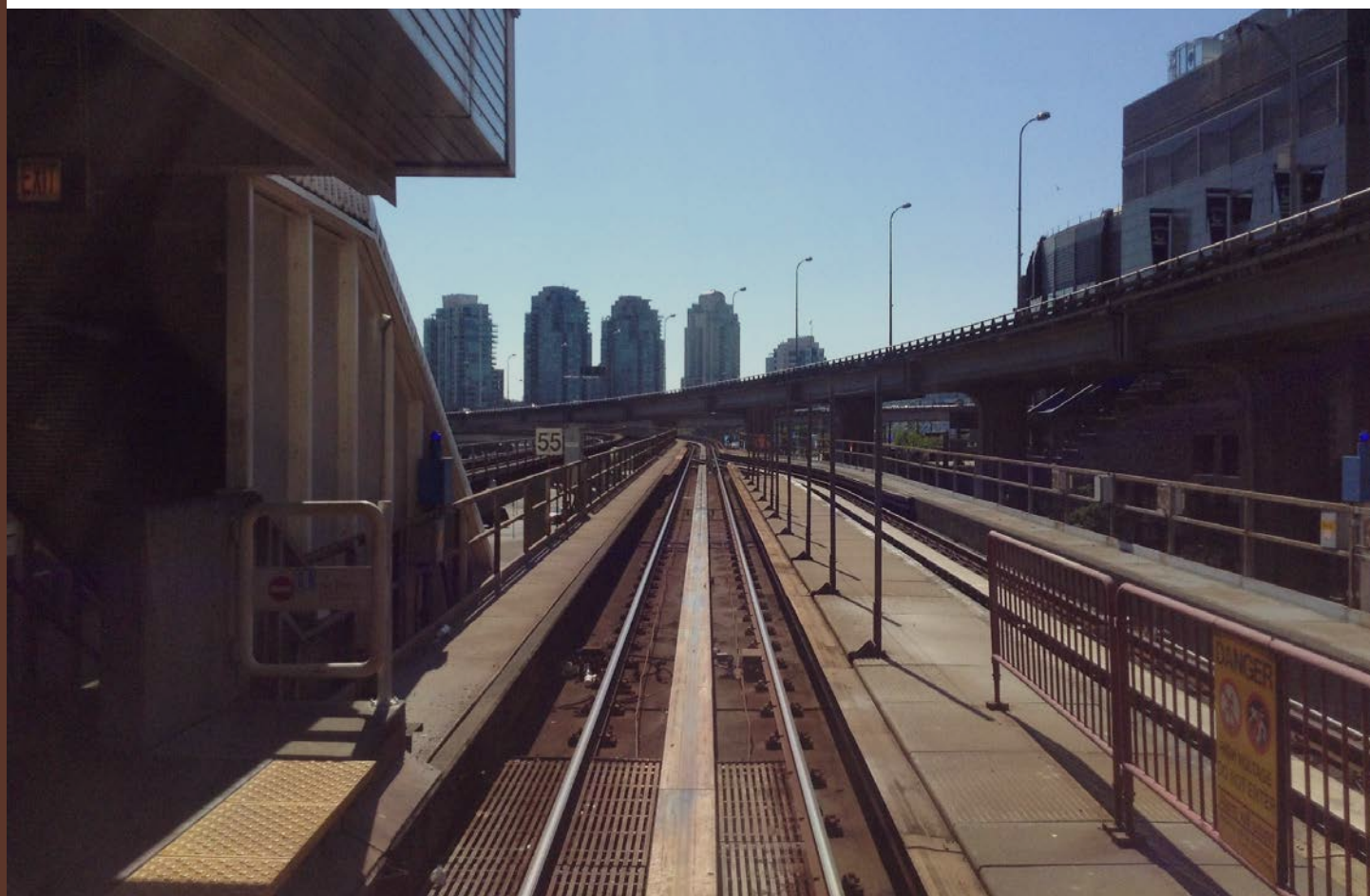
Data cleaning: We process the raw STR data we receive from AirDNA through an extensive data cleaning pipeline, using our **strr** software package (Wachsmuth, 2021b), the code for which is available at <https://github.com/UPGo-McGill/strr>.

FREH modelling: We define “frequently rented entire-home listings” as entire-home STR listings which are available for a majority of the year (so 183 days or more in a 365-day period), and which are reserved at least 90 days of that year. This is a consistent and conservative way to estimate listings operated sufficiently often that they are unlikely to be their host’s principal residence. But this indicator is slow to adapt to sudden shocks in STR activity, since it incorporates the past 12 months of a listing’s activity. Given that the COVID-19 pandemic caused STR activity to drop dramatically, we wanted to capture the associated changes at shorter timescales than the one year which our FREH concept allows us to. So

we developed a linear regression model which predicts FREH status based on three months of listing activity instead of a full year, and which is calibrated both to routine seasonal variation and to a given market’s specific dynamics. We then apply seasonal adjustment to the results to produce a time-insensitive measure of full-time STR activity. All of the FREH results reported here are the results of this model rather than the raw FREH calculations themselves.

Rent regression model: Details of our rent regression model are available in Wachsmuth et al. (2022).

In order to facilitate public understanding and scrutiny of our work, complete methodological details, along with all the code used to produce this analysis, are freely available under an MIT license on the UPGo GitHub page at <https://github.com/UPGo-McGill/bc-report-2023-summer>.



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ABOUT UPGO

UPGo, the Urban Politics and Governance research group at McGill University, conducts rigorous, public-interest research into pressing urban governance problems—particularly those that exceed or challenge city boundaries. UPGO has published numerous peer-reviewed journal articles and policy reports on short-term rentals in cities in Canada and around the world, including “Short-term rentals in Canada: Uneven growth, uneven impacts” and “The high cost of short-term rentals in New York City”. UPGO is led by Prof. David Wachsmuth, the Canada Research Chair in Urban Governance at McGill University’s School of Urban Planning, and is online at upgo.lab.mcgill.ca.



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