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The First Year of Homeless Shelter Use and What it Tells Us

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EXECUTIVE SUMMARY

Understanding for how long people stay in emergency shelters can help policymakers and those working in the homeless-serving sector monitor progress toward making homelessness rare, brief and non-recurring and help them understand what policies and approaches will enable them to attain that goal.

If people stay in shelters for long periods, the shelter system can be described as "static" in the sense that the same people using shelter this month are the same people who used it last month and will be the same people who will be using it next month. In this case, the sector faces the challenge of re-housing people who have been without a home for a long time. If instead people move through shelters quickly, the system is more dynamic, and the focus can shift toward shelter diversion programs intended to keep people in their housing and helping people return to housing as quickly as possible.

This paper examines shelter use in Calgary, Alberta between 2009 and 2024 using anonymized administrative data on 52,129 single people. The data cover about 99 per cent of the emergency shelter beds available to single people in Calgary. People were grouped into annual cohorts according to the year they first entered the shelter system. Their shelter use was then tracked for the following 365 days.

The results show how shelter stays have changed over time and how they differ across age and sex. Most people entering Calgary's shelters do not stay for very long. Across the 16 cohorts, an average of 30 per cent stayed for only one night. A total of 62.3 per cent stayed between one and 10 nights, while 13.4 per cent stayed between 11 and 30 nights. Thus, just under 76 per cent of new shelter users spent 30 nights or fewer in shelter during the year following their first admission. Only about 4.8 per cent spent six months or more in shelter.

Changes in shelter-use patterns are directly linked to housing affordability. As rents rise relative to incomes, the share of new shelter entrants staying a very short time declines while the share experiencing longer stays increases. A less affordable rental market appears to trap people in shelters, increasing both length of stay and the shelter capacity required.

Housing costs, incomes, labour-market conditions and government policies all affect people's ability to keep or regain housing. Policies that improve the affordability of minimally adequate housing could reduce the number of people entering shelters and shorten the length of stays during that critical year following first admission.

Shelters will continue to provide an important safety net, but reducing long stays and the demand for shelter capacity will also require policies that make it easier for people with low incomes to find housing. Government decisions affecting social assistance, immigration, land prices, zoning and development costs influence these outcomes through their effects on the rent-to-income ratio. All levels of government have roles to play in helping achieve the goal of making homelessness rare, brief, and non-recurring.

1. INTRODUCTION

Understanding what influences the length of time someone spends in shelter is important for policymakers and community-based organizations hoping to determine which policies and approaches are successful at minimizing homeless shelter use. If the shelter population is static, in the sense that the people using shelters today are the same as those who used shelters last month and will be the same as those who will use shelters next month, then shelter and system operators face a difficult and expensive challenge. They need to rehouse people who have been experiencing sheltered homelessness for a long time. In that scenario, supportive housing programs are essential for success in dealing with homelessness. However, if the same-sized shelter population is dynamic, meaning that individuals using a shelter tonight will not return, and their place will be taken by someone new to the shelter system who will also stay a short time, then operators face a different and easier task. They need to provide little more than a bed to someone transitioning from one form of shelter to another. If all experiences of homelessness were like this, supportive housing programs could take a back seat. Moving to the fore would be shelter-diversion policies intended to help people retain their housing and to minimize lengths of shelter stays.

Understanding what influences lengths of stays in shelters is also important for evaluating progress toward the oft-cited goal of homeless-serving sectors to ensure the experience of homelessness is infrequent and short. That goal has at times been described as achieving functional zero, an expression meant to convey the understanding that eliminating homelessness in the literal sense is not achievable.[1] The goal, rather, is that all experiences of homelessness should be brief, rare and non-recurring. A measure of success in that regard is to see emergency shelters becoming more dynamic and less static.

This paper uses data describing homeless shelter use in Calgary, Alberta over the period from 2009 to 2025. The paper aims to help shelter operators, the system co-ordinator and governments better understand the length of time people use a homeless shelter when circumstances require them to do so. The paper will also provide insights into how the length of time people use a shelter has changed and, finally, provide preliminary evidence of the impact on shelter use and shelter capacity of housing, labour-market conditions and government policy choices. In all these ways, the paper provides insights into whether progress is being made toward ensuring the experience of homelessness in Calgary is brief, rare and non-recurring.

To gain these insights, observations are made of changes in the use of emergency shelters by annual cohorts of people who are new to sheltered homelessness.[2] The measure of progress toward a more dynamic shelter system and toward functional zero is obtained by observing how these cohorts differ in their use of shelters during the 365 days following first admission. If stays in shelter are becoming shorter with each cohort, so that the shelter system is becoming more dynamic, it suggests that people are finding it possible to more quickly recover from the initial cause of their homelessness. This may be due to improvements in supports provided by the homeless-serving sector, better housing market conditions and/or improved systems of income support. Correlations with measures of change in these conditions offer insight into the contributions each has made to reducing shelter stays by new entrants and so moving Calgary toward reaching the goal of making homelessness rare, infrequent and non-recurring.

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1 See Turner, Albanese and Pakeman (2017) for discussion.

2 The focus is on people whose experience with homelessness involves the use of emergency shelters. In Calgary's 2026 point-in-time count, a biennial count of the number of people experiencing homelessness on a chosen night, 75 per cent of people counted as homeless were identified as using a shelter. Determining the duration of homelessness for those who do not use shelters is extremely difficult as the data are poor, unreliable and only available from biennial point-in-time counts.

Focus is maintained on the 365 days following first admission to a shelter because of evidence that the initial time in shelter is an important measure of the likelihood of future stays. The length of an initial stay in shelter may affect people's physical or mental health, or may simply affect their physical appearance, in ways that make it harder for them to re-establish housing.[3] Minimizing that initial stay is therefore important for increasing the likelihood people can maintain their resilience to bad outcomes and so regain housing, should it be lost.

Using Canadian data, Chen et al. (2021) find support for this hypothesis by reporting that the duration of homeless shelter stays negatively influences housing outcomes. Thus, failing to minimize the time spent in shelter by those newly admitted has a cascading effect on time spent in shelter in future years and so slows progress toward functional zero. Using data from Australia, Cobb-Clarke et al. (2016) report that controlling for unobserved heterogeneity, duration in shelter has an inverted U-shape with exit rates from shelters initially increasing with time in shelter before falling. Thus, there may be a critical period soon after initial entry into shelter when the likelihood of rehousing is greatest.

Gaetz (2014) and Gaetz et al. (2018) place an emphasis on early intervention to reduce the time that youth spend experiencing homelessness. Their analysis suggests that all else being equal, time in shelter is more likely to persist for youth because they enter homelessness without prior experience living independently, establishing employment, managing a budget or building support networks. This makes youth less resilient to housing loss than adults who are better equipped to re-establish housing. Thus, it is particularly important to ensure that youth's first admission to shelter is short.[4]

The next section describes the approach to measuring the experience of sheltered homelessness by first-time shelter users. The sections following describe the data that are used and adjustments made to those data to identify first admissions and the length of homeless episodes. The results of the analysis are then described and their implications are discussed. The paper ends with a summary and a conclusion.

2. THE APPROACH

The approach is to allocate uniquely identified first-time users of homeless shelters into annual cohorts who entered a homeless shelter in Calgary for the first time in that year. Thus, a member of the 2009 cohort entered Calgary's shelter system for the first time in 2009 and so on.

For each member of each cohort, the total number of days in shelter during the 365 days following their first night's stay is recorded. Observing how the distribution of the number of days in shelter varies by cohort provides insight into whether shelter stays are becoming more or less dynamic over time. These changes are reported by two broad age categories and by sex.

These data also afford the opportunity to correlate changes in the number of new admissions to shelter and their lengths of stay, with changes in housing, labour markets and government policy choices. This paper provides broad measures of these influences and anticipates finer analyses planned for future research.

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[3] Sometimes referred to as "scarring," these changes may be sensitive to one's age, sex and ethnicity.
[4] Toros et al. (2019) report that for youth who experience homelessness, the percentage for whom it will prove to be persistent grows with the length of the initial experience.

3. THE DATA

The analysis uses anonymized administrative data provided by the Calgary Homeless Foundation and the Government of Alberta describing the daily use of emergency homeless shelters by uniquely identified single people in Calgary over the period from Jan. 1, 2008 to Dec. 31, 2025.[5] The data describe the number of overnight stays in emergency shelters operated by four providers: Mustard Seed, Salvation Army, Alpha House and the Calgary Drop-in Centre. These four shelter providers historically account for approximately 99 per cent of all emergency shelter beds for single people in Calgary.[6]

The focus of this project is to describe the experience of a person new to Calgary's shelter system. Identifying these people requires dealing with the issue of left censoring. The problem of left censoring arises when a variable of interest — in our case, whether someone has previously stayed in a homeless shelter — may have occurred prior to the start of one's dataset.

To deal with this issue, the first annual cohort is defined using observations from Jan. 1, 2009 to Dec. 31, 2009. It is assumed that a uniquely identified individual appearing in the data after Jan. 1, 2009 but not appearing during the previous 12 months (Jan. 1, 2008 to Dec. 31, 2008) was new to the shelter system in 2009.[7]

Interest in observing how a new entrant uses the shelter system in the 365 days following their first shelter stay requires dealing with the issue of right censoring. To do so, the last cohort is defined for people entering the shelter system for the first time during 2024. For those new entrants, the dataset is long enough to observe their use of the shelter system for a minimum of 365 days.

Addressing the issues of left and right censoring leaves a sample describing emergency homeless shelter use by first-time shelter users spanning the 16-year period Jan. 1, 2009 to Dec. 31, 2024. This sample contains 52,129 uniquely identified individuals staying in shelter a total of 1,674,586 nights during the 365 days following their first entry into shelter.

For each cohort, Table 1 reports the demographic characteristics of individuals in the cohort, the average number of daily first admissions and the average daily first admissions per one million Calgary residents aged 18+ years.

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[5] Observations of shelter stays from May 1, 2005 to Dec. 31, 2007 were also made available but preliminary examination of those data raises suspicions of there being missing interactions, causing the data to inaccurately identify shelter inflows.

[6] Based on data as reported in August 2019. See Government of Alberta (2025). Our data exclude emergency winter beds in these four shelters and those specifically for use by people escaping domestic violence.

[7] Censoring the data by more than 12 months would increase the likelihood of accurately identifying new admissions to the shelter system but would also reduce the size of the sample available for testing hypotheses on the sensitivity of shelter flows to changes in the environment external to the shelter system. The data were truncated by 12 months based on experiments showing only small effects on estimates of new admissions by truncating these data by more than this. See Jadidzadeh, Kneebone and Wilkins (2024) for further discussion of this issue.

Table 1. Demographic Characteristics and Average Daily Number of First Admissions, by Cohort

Cohort	First Admissions	Demographic Characteristics of First Admissions				Overnight Stays in 365 Days Following First Admission	Average Number of First Admissions per Day	Average Daily First Admissions per Million People aged 18+
		% Male	% Female	% Adults (25+ yrs)	% Youth (18-24 yrs)			
2009	5,355	86.5%	13.5%	88.5%	11.5%	121,480	14.7	13.3
2010	2,104	83.4%	16.6%	81.1%	18.9%	75,093	5.8	5.1
2011	2,420	81.0%	19.0%	80.3%	19.7%	111,179	6.6	5.6
2012	3,269	78.2%	21.8%	82.0%	18.0%	151,421	9.0	7.6
2013	4,394	79.9%	20.1%	81.6%	18.4%	145,565	12.0	9.9
2014	3,679	79.4%	20.6%	83.3%	16.7%	139,376	10.1	8.1
2015	3,280	77.1%	22.9%	81.7%	18.3%	105,409	9.0	7.1
2016	3,076	78.1%	21.9%	83.5%	16.5%	83,002	8.4	6.6
2017	2,978	73.8%	26.2%	83.0%	17.0%	77,614	8.2	6.3
2018	3,036	71.8%	28.2%	84.1%	15.9%	81,899	8.3	6.4
2019	3,281	72.5%	27.5%	85.1%	14.9%	74,462	9.0	6.8
2020	**1,955**	**71.1%**	**28.9%**	**86.3%**	**13.7%**	**45,074**	**5.4**	**4.0**
2021	2,422	68.2%	31.8%	86.0%	14.0%	70,230	6.6	4.9
2022	3,257	68.5%	31.5%	86.2%	13.8%	103,233	8.9	6.4
2023	3,852	70.5%	29.5%	87.2%	12.8%	141,189	10.6	7.1
2024	3,771	71.8%	28.2%	88.7%	11.3%	148,360	10.3	6.4
2009–24	52,129	76.2%	23.8%	84.5%	15.5%	1,674,586	8.9	6.9

* The shaded row identifies observations impacted by the COVID-19 pandemic, the first signs of which appeared in Calgary in early 2020. The pandemic quickly spread throughout the shelter system and required the application of protocols that reduced shelter capacity. Data on the number of people in Calgary aged 18 years and above are available from Government of Alberta (2026).

These data report several interesting levels and trends. First, there is a sizable average daily inflow of people new to the shelter system, an average of 8.9 people each day over our sample period. That number declined significantly prior to the pandemic. Adjusting for Calgary's over age 18 population (last column), the number of new daily admissions fell by nearly a third between 2013 and 2019. Following a sizable fall in daily admissions during and immediately after the pandemic, the number of new daily admissions has again settled at the pre-pandemic level of roughly 6.5 individuals. This occurred despite a near 16 per cent increase in the total number of first admissions from 2022 to 2024, something that speaks to rapid population growth. A noticeable and favourable trend is the fall in the percentage of new admissions aged 18-24 years, from 18.4 per cent in the 2013 cohort to 11.3 per cent in the 2024 cohort.

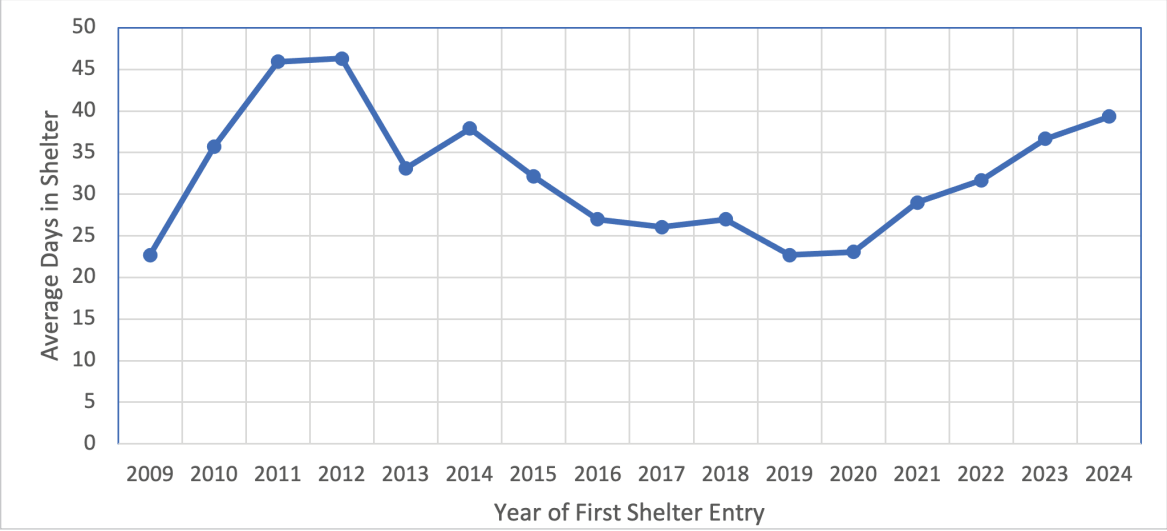
The next section describes how shelter use has changed over time by observing it during the 365 days following first admission for each cohort. Two measures are introduced. The first is to simply observe how the average number of nights in shelter has changed for each cohort. Increases in this measure suggest that new entrants to the shelter system are staying longer, increasing the demand for direct housing placements or efforts to reduce or subsidize rents. Decreases in the measure suggest new entrants are increasingly able to rehouse sooner, either because of successful direct housing placements or because of more favourable housing or labour markets.

A second informative measure is to observe changes in the distribution of shelter stays. An increase in the average number of shelter stays following first admission that is due to an increase in relatively few people staying for very long durations has a different implication than a more evenly distributed increase in the number of people staying for shorter durations. It is important, therefore, to observe changes in the distribution of stays.

4. THE RESULTS

The most basic summary of our findings is presented in Figure 1 as a plot of the average number of days in shelter that members of each cohort experienced during the 365 days following first admission.

Figure 1. Average Number of Days in Shelter During the 365 Days Following First Entry, All Ages, All Genders

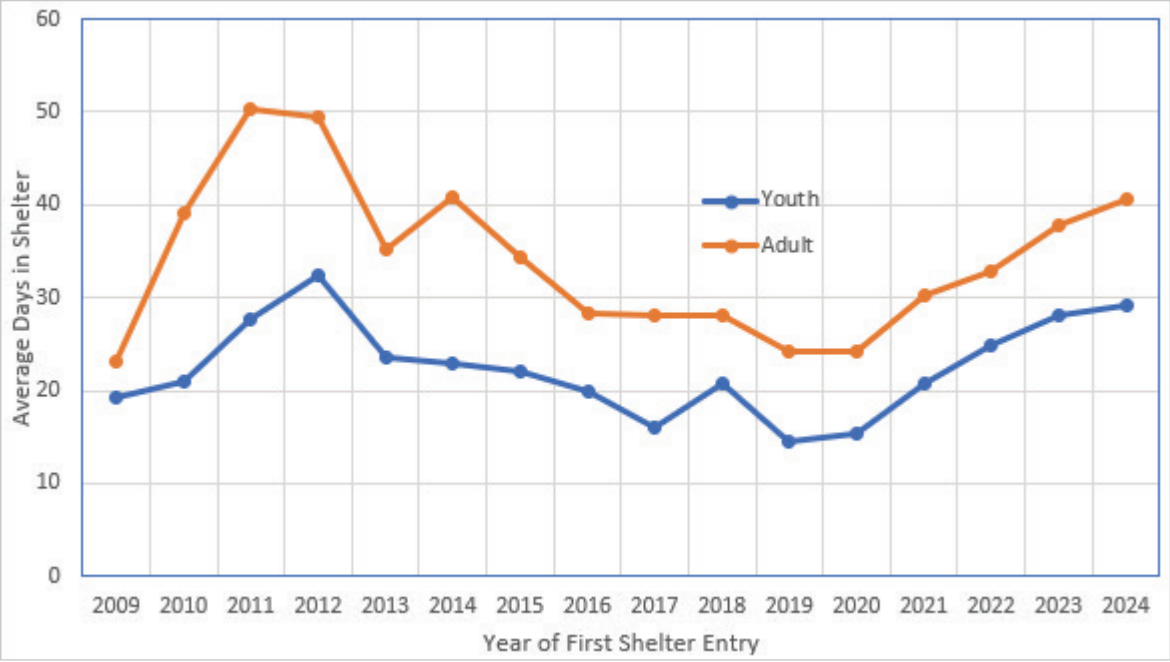


Before commenting on the pattern of change, it is important to emphasize that these data show that the average new entrant to the shelter system is not making constant use of the shelter in the 365 days that follow. For example, in 2019, the year before the pandemic, the average new entrant spent a total of 23 of the next 365 days in shelter. In that same year, the median number of days in shelter was just three, suggesting a large percentage of stays were very short. The difference between mean and median is why it is important to examine the distribution of stays by each cohort. This is discussed in detail below.

The data presented in Figure 1 show significant variation in the average number of shelter stays during the 365 days following first admission across cohorts, from a minimum of 23 days for the 2019 cohort to a maximum of 46.5 days for the 2012 cohort. For cohorts entering shelter during the pandemic (2020 and 2021) and those following, days in shelter following first admission have steadily increased. For those in the 2024 cohort, the average person spent 39 of the next 365 days in shelter.

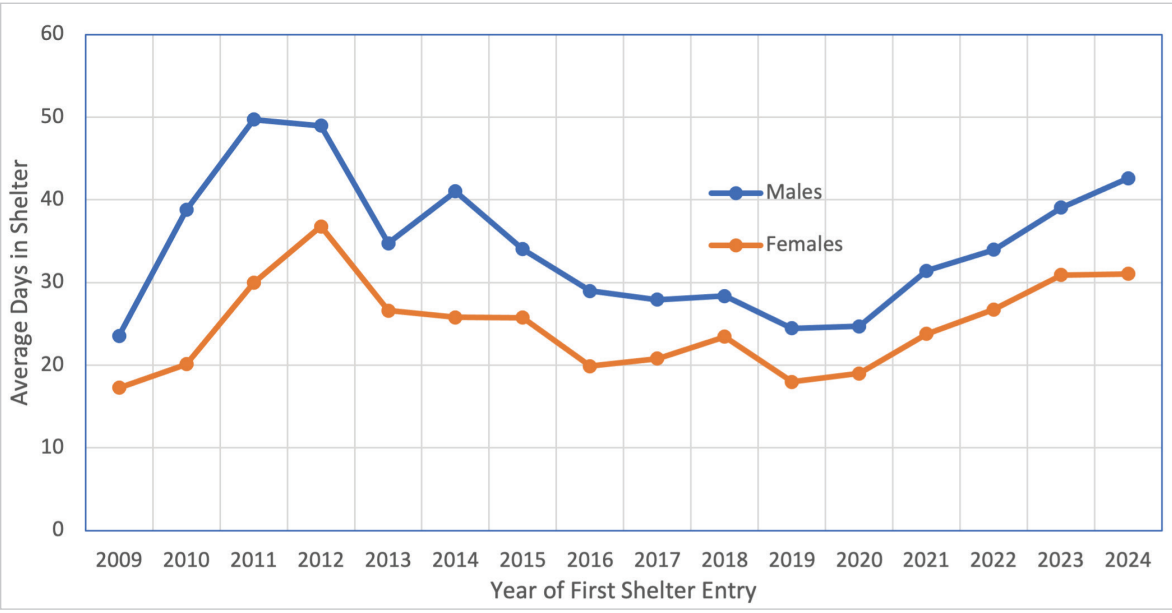
Figure 2 shows that this pattern of change in shelter stays following first admission is not sensitive to our choice of broad age groups; namely, youth (aged 18-24 on first entry to shelter) and adults (aged 25+ years on first entry to shelter). It is noteworthy that on average, youth who are new to the shelter system spend considerably less time in shelter than adults who are new to the system. In the year prior to the pandemic, the comparators were 14.5 days (youth) and 24.5 days (adults), respectively. By 2024, however, these days in shelter had increased to 30 and 40.5, respectively.

Figure 2. Average Number of Days in Shelter During the 365 Days Following First Entry, Adults versus Youth



In Figure 3, we compare patterns associated with men and with women. Although there is a difference in the length of stays by women relative to men throughout the period, the pattern of change closely mimics that observed for men. In the 365 days following first admission, women consistently spend less time in shelter than men.

Figure 3. Average Number of Days in Shelter During the 365 Days Following First Entry, Male versus Female

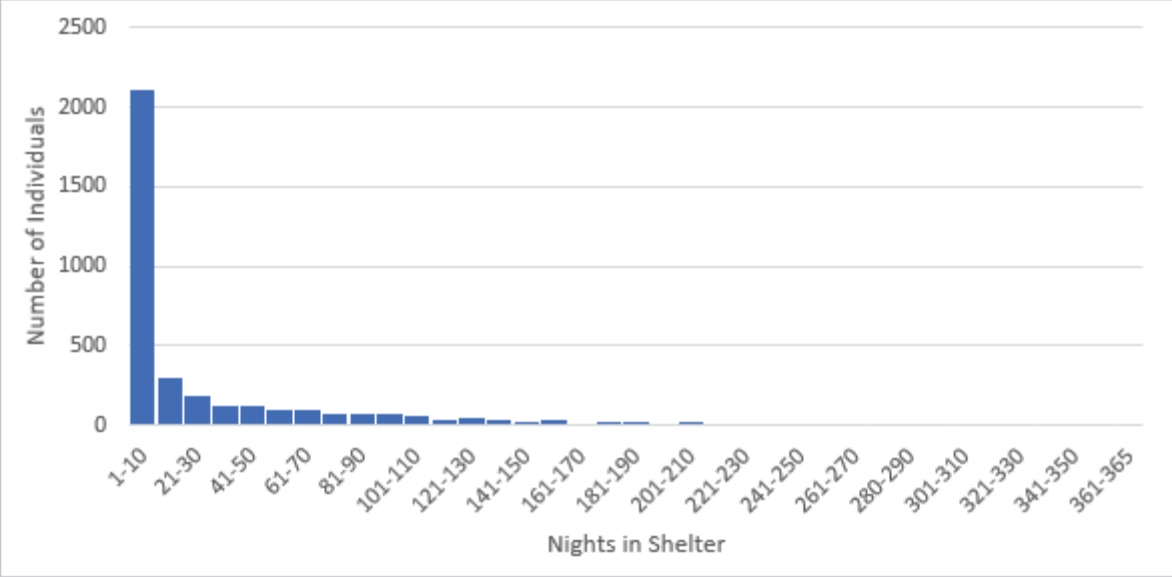


The change in the average number of nights in shelter following first admission is one interesting indicator of change in shelter use but it does not show how the distribution of stays during those 365 days has changed. This is key because emergency shelters are purposed with providing shelter for those seeking short stays. If all shelter stays were very short, this would be consistent with meeting the goal of ensuring episodes of homelessness are rare and short. Ideally, very few people should stay in shelter for more than short periods.

THE DISTRIBUTION OF SHELTER STAYS

Figure 4 is a histogram showing the distribution of shelter stays during the 365 days following first admission by those in the 2024 cohort. That cohort consists of 3,771 individuals. The height of each bar measures the number of individuals who stayed in shelter for a 10-day range identified on the horizontal axis. Thus, the height of the first bar indicates that 2,111 of the 3,771 individuals entering a homeless shelter for the first time in 2024 stayed for between one and 10 nights during the 365 days following first admission. The second bar indicates that 304 individuals stayed between 11 and 20 nights. The very last bar indicates that 16 individuals stayed for between 361 and 365 nights.

Figure 4. Number of Individuals by Nights in Shelter Following First Admission, 2024 Cohort

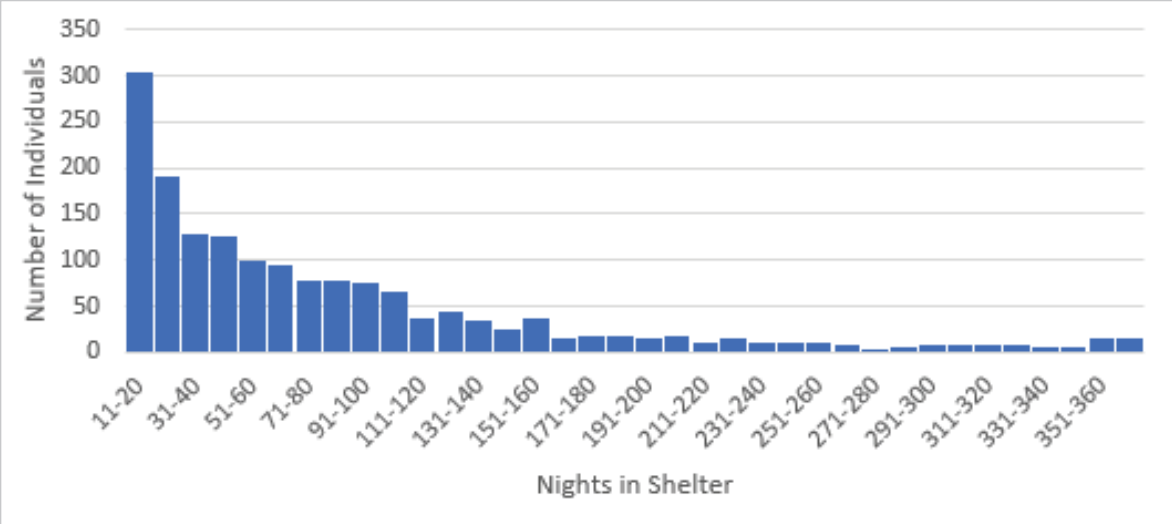


The fact that the histogram is dominated by the number of people staying between one and 10 nights is typical of histograms for the other 15 cohorts in the sample. This is encouraging for the shelter system and the homeless-serving sector because it means that for most people, shelters are being used for their intended purpose; namely, to provide very short-term respite to deal with a period of homelessness.

Further encouragement comes from the fact that in 2024, 921 of the 3,771 new entrants (24 per cent) to the shelter system stayed just that first night. A high percentage of new entrants to the shelter system staying just that first night is typical for other cohorts. Over the 16 years of our sample, an average of 30 per cent of new entrants to the shelter system stayed just that first night in shelter.

To better appreciate the distribution of nights in shelter by those who stay more than 10 nights during the 365 days following first admission, Figure 4a omits the number of individuals who stay between one and 10 days during the 365 days following first admission.

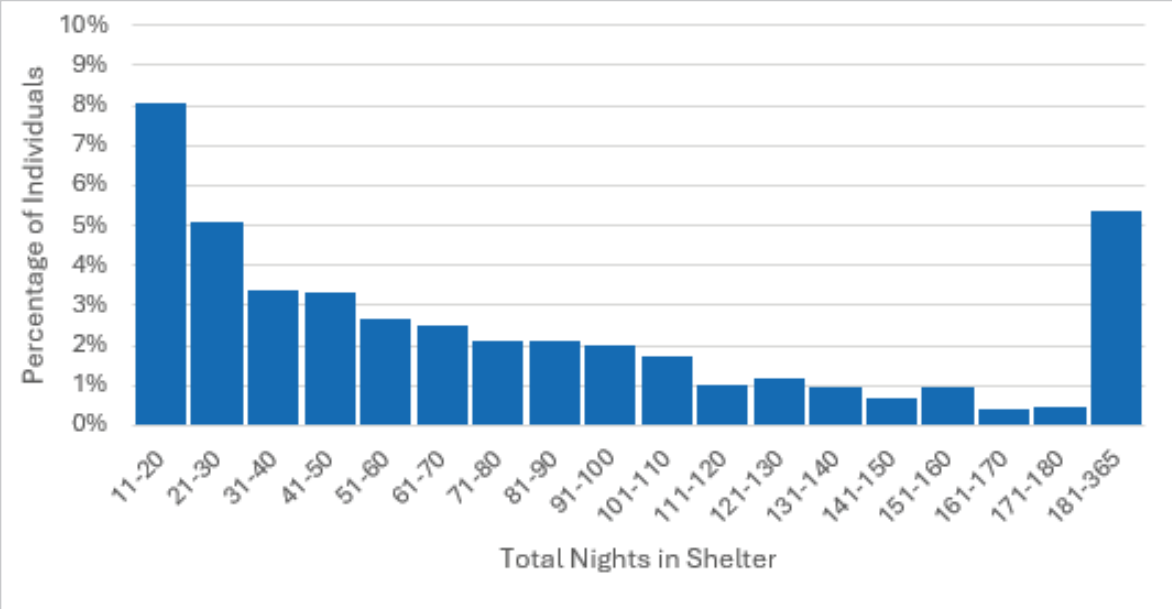
Figure 4a. Number of Individuals by Nights in Shelter Following First Admission, 2024 Cohort, Omitting Those Staying 1-10 Nights



The presentation of the data in Figure 4a makes it easier to observe those using the shelter for longer lengths of stay. Here again, it is encouraging to observe a high number of people staying in shelter for a relatively short period (11 to 20 nights) during the 365 days following first admission and for a steady reduction in the number of individuals staying for longer periods.

Comparing these data across cohorts is complicated by the fact each cohort is a different size. To deal with this issue, the information reported in Figure 4a can be expressed as a percentage of the number of individuals in the cohort. This is presented in Figure 5 for the 2024 cohort. Not shown in the figure are the 24 per cent of individuals admitted to shelter for the first time in 2024 who stayed just that first night and the 56 per cent who stayed less than 10 nights over the next 365 days. Figure 5 reports that eight per cent of all individuals in the 2024 cohort stayed in shelter for between 11 and 20 days during the 365 days following first admission. Individuals using shelter for more than 180 days (six months) following first admission are aggregated and represented 5.4 per cent of all individuals in the 2024 cohort.

Figure 5. Percentage of Individuals by Nights in Shelter Following First Admission, 2024 Cohort, Omitting Those Staying 1-10 Nights



In terms of these representations, the sector's goal is for the bars' height to be higher to the left and lower to the right. That is, it is desirable for a greater percentage of people in each cohort to stay for short periods in shelter. The appendix presents versions of Figure 4b for each of the 2009 to 2024 cohorts.

An interesting way of evaluating the change in how shelters are used over time is to focus on two unambiguous measures of success. One is to compare how the percentage of new admissions to shelter staying a short time, represented by stays between one and 20 days over the next 365 days, has changed over time. Another is to compare how the percentage of those staying a long time, represented by stays of more than 180 days, has changed over time. These comparisons are provided in Figures 6 and 7, respectively.

Figure 6. Percentage of Individuals Staying in Shelter for 1-20 Nights During 365 Days Following First Admission

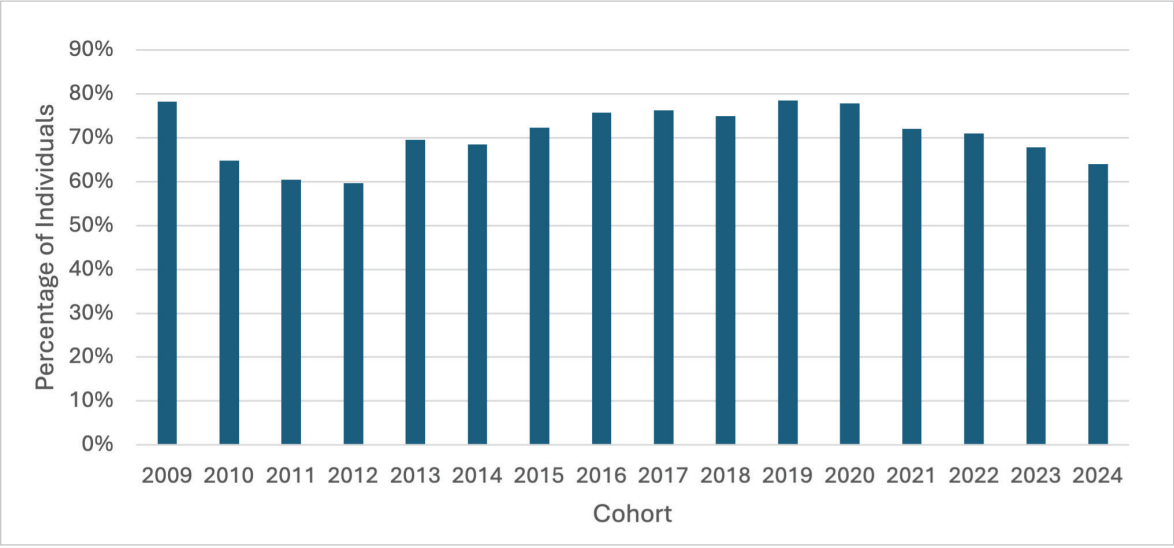
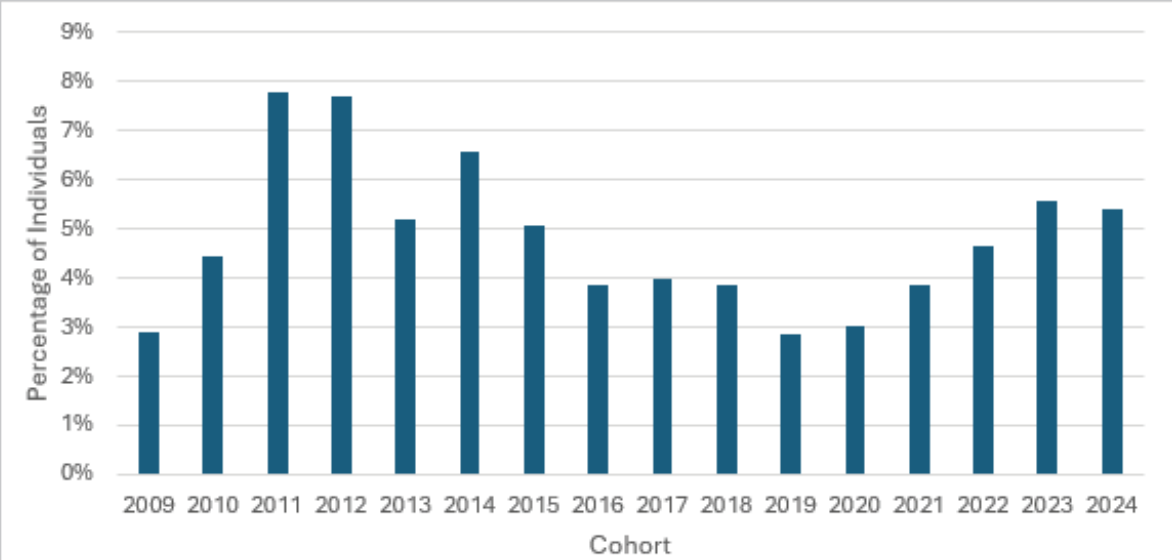


Figure 7. Percentage of Individuals Staying in Shelter for More than 180 Nights During 365 Days Following First Admission



The data in these two figures are useful for understanding how changes in the policies and approaches of the homeless-serving sector and changes in the external environment contribute to the length of time people spend in shelter. This is examined next.

THE EXTERNAL ENVIRONMENT'S ROLE

Higher rent-to-income ratios, poor labour-market outcomes, cost-of-living increases that strain the budgets of households with low income and societal problems dealing with issues of mental health, substance abuse and domestic violence have all been shown to contribute to people losing housing and to their difficulties in regaining housing once lost.[8] Data on first admissions and the number of nights in shelter following first admission offer interesting insights into the effect of these pressures on the shelter system.

To gain an appreciation of the external environment's influence on changes in shelter stays for each cohort, three sets of simple regressions are estimated. They are parsimonious in specification because only 16 annual observations are available, limiting degrees of freedom. In each set of regressions, the independent variable is a measure of housing cost relative to income. The measures used to define the independent variable are chosen to be relevant to people with low income. Focus is on the cost of housing relative to income because, in the literature, it is consistently found to be a statistically significant determinant of homeless shelter stays.

The numerator of the measure of the cost of housing is the median rent paid on a one-bedroom apartment in Calgary over the period 2009–2024.[9] The denominator is measured by the income support a single person receives from the provincial government's income-assistance program, Alberta Works.[10]

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[8] See Nooe and Patterson (2010) for a survey of the myriad factors that economic and social theories suggest as contributing to homelessness. Hanratty (2017) provides a survey of empirical studies using U.S. data that confirm these correlations. For a study using Canadian data, see Kneebone and Wilkins (2021).

[9] These data are available from the Housing Market Information Portal of the Canada Mortgage and Housing Corporation (CMHC). Initially, these reports were issued in April and October each year until 2016. Since 2016, they have consistently been published in October. Data from October are used here. These data are annual values.

[10] Data on social assistance income are defined as the amount available to a single person whom the Government of Alberta identifies as "expected to work." These data are annual and are available from Laidley and Oliveira (2025).

This measure of the cost of housing is consistent with our focus on single people, an assumption that their cheapest housing option is a one-bedroom rental and that income support is a reasonable measure of the level of income that shelter clients can access or reasonably hope to access.[11,12] Using social assistance as a measure of income is also useful as this income is a policy choice and so can be used to influence rates of homelessness. This issue is discussed below.

The first set of regressions, presented in Table 2, are intended to show the influence of the external environment on the number of first admissions. Separate calculations are presented for shelter clients identified as male, female, youth (aged 18-24 years) and adult (aged over 24 years).[13] The results indicate that an increase in the rent-to-income ratio has a positive influence on the number of new entrants into shelters. This suggests that as the cost of housing rises relative to income, more single people enter Calgary's shelter system for the first time. Using the first row of results as an example, a one per cent increase in the ratio of rent to income is associated with a 1.57 per cent increase in the number of first admissions to shelter. The sensitivity of new admissions to changes in the rent-to-income ratio is similar for men, for youth and for adults. Only the sensitivity of admissions into shelter by single women is not statistically significant.[14]

Table 2. Sensitivity of First Admissions to the Ratio of Rent to Income

Dependent Variable: Number of First Admissions, by Cohort			
	Constant	Rent Ratio	R^2
All	7.43 (0.25)*	1.57 (0.39)*	0.28
Men	7.02 (0.27)*	1.88 (0.48)*	0.34
Women	6.36 (0.34)*	0.64 (0.43)	0.04
Youth (18-24)	5.44 (0.23)*	1.88 (0.68)**	0.42
Adults (24+ yrs)	7.29 (0.27)*	1.50 (0.38)*	0.24

Notes: The dependent and independent variables are measured as natural logarithms making estimated coefficients elasticities. Estimation is by OLS. Newey-West HAC standard errors are reported in parentheses below the estimated coefficient. The symbols * and ** denote coefficients whose values are different from zero at the one per cent and at the five per cent level of statistical significance, respectively. N=16.

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11 The rent on a studio apartment is another option. However, studios are relatively few and a client with low income minimizes housing expenditures by sharing the cost of a one-bedroom rental. See Kneebone and Wilkins (2024) for a discussion of the choices available to people with very low income struggling to remain housed.

12 Not all people using shelters rely solely on income support. The preferred measure of the income available to single people exposed to a high risk of homelessness would recognize this. In 2022, the average after-tax income of a single person in Alberta with income in the first decile of the income distribution was $7,750 (Statistics Canada 2026). While Statistics Canada deems the value for 2022 as of acceptable quality, users are advised caution with respect to values for other years. In 2022, the amount of social assistance available to a single person in Alberta was $9,800 (Laidley and Oliveira 2025). Given the reliability of data on income support and the apparent similarity to the values of after-tax income observed for 2022, we chose to use the more reliable measure of income-support data to represent the average after-tax income available to a single person at risk of homelessness.

13 Ages are those reported at the time of first admission to shelter.

14 The literature recognizes that women use homeless shelters differently than men. This is frequently cited as being because they have accompanying children and/or are escaping domestic violence. But in this paper, domestic violence shelters and family shelters have been excluded from the analysis. Understanding why first admissions into non-DV shelters by single women are less sensitive to the cost of housing than first admissions by men is an issue that deserves more attention than we can give here.

The information presented in Table 3 is meant to show the sensitivity of lengths of stay in shelters to changes in the external environment. Here, the dependent variable is the average number of nights in shelter during the 365 days following first admission.

Table 3. Sensitivity of Nights in Shelter Following First Admission to the Ratio of Rent to Income

Dependent Variable: Number of Nights in Shelter per New Admission During 365 Days Following First Admission, by Cohort			
	Constant	Rent Ratio	R^2
All	2.90 (0.23)*	1.36 (0.35)*	0.27
Men	2.97 (0.24)*	1.35 (0.34)*	0.25
Women	2.75 (0.23)*	1.10 (0.35)*	0.20
Youth (18-24)	2.95 (0.24)*	1.38 (0.33)*	0.26
Adults (24+ yrs)	2.52 (0.22)*	1.40 (0.56)**	0.29

Notes: See Table 2.

The sensitivity of nights in shelter to the rent-to-income ratio is statistically significant and similar regardless of breakdown by age and sex. A one per cent increase in the ratio of rent to income is associated with approximately a 1.4 per cent increase in the number of overnight stays during the 365 days following first admission.

Finally, in Table 4, we investigate to what extent changes in the external environment, measured again by changes in the ratio of rent to income, are associated with the extremes in lengths of shelter stays investigated earlier in Figures 5 and 6.

Table 4. Sensitivity of Very Short and Very Long Nights in Shelter Following First Admission to the Ratio of Rent to Income

Dependent Variable: Percentage of New Admissions by Length of Stay in Shelter			
	Constant	Rent Ratio	R^2
Between 1-20 days	-0.20 (0.09)*	-0.38 (0.17)**	0.15
Between 180-365 days	-3.91 (0.30)*	2.07 (0.40)*	0.33

Notes: See Table 2.

Two regressions are estimated. The first shows how the number of people staying in shelter for between one and 20 days over the 365 days following first admission varies with the ratio of rent to income. The coefficient on this ratio is negative and statistically significant, suggesting that as the ratio of rent to income rises, fewer people newly admitted to shelters stay for between one and 20 days. In the second regression, the coefficient is positive and statistically significant, suggesting that as the ratio of rent to income rises, more people admitted to shelter for the first time stay for more than six months.

The results presented in Tables 2, 3 and 4 paint a picture of external influences being associated with the number of people newly admitted to homeless shelters, the length of time they spend in shelters following first admission and how lengths of stays shift between extremes of very short and much longer stays.

In Tables 5 and 6, the sensitivities identified in Tables 2, 3 and 4 are used to simulate how specific changes in the external environment impact shelters. In Table 5, the regression estimates presented in Table 3 are used to show how a $100-per-month increase in the median rent paid on a one-bedroom apartment impacts shelter use. In 2024, this would have represented a 6.3 per cent increase in the median monthly rent. For these calculations, the level of income support is assumed constant.

Table 5. Effects of $100 Increase in Monthly Rent with No Change in Income Support, 2024 Cohort

	% Change				
	All	Men	Women	Youth (18-24)	Adults (25+)
On first admissions	10.0%	12.0%	4.2%	12.0%	9.5%
On nightly stays in 365 days following first admission	8.7%	8.5%	7.0%	8.8%	8.9%
On nightly stays in 365 days following first admission lasting 1-20 nights	-2.4%				
On nightly stays in 365 days following first admission lasting more than 180 nights	13.1%				

The calculations reported in the first row in Table 5 indicate the $100 increase in monthly rent is associated with a 10 per cent increase in first admissions to shelter. This is equivalent to 377 people joining the 2024 cohort. The calculations reported in the second row indicate that a $100 increase in monthly rent is associated with an 8.7 per cent increase in nights in shelter during the 365 days following first admission. This is an increase of 12,907 nights. If we assume $100 as the per-night cost of accommodating someone in shelter, that is an additional cost of $1,290,700 to the shelter system. The third and fourth rows of calculations indicate, for clients of all ages and sex, that a $100 increase in monthly rent reduces short-term stays by 2.4 per cent and increases long-term stays by 13.1 per cent. Thus, the increase in rents shifts the length of stay following first admission from short-term to long-term stays.

Note that the results presented in Table 5 can also be used to infer the effects of failing to index income-support payments. They show that the implications for the shelter system of an inflationary environment causing rents to increase by 6.3 per cent, with no offsetting change in incomes, are associated with a significant increase in both the number of new admissions to the shelter system and lengths of stay in shelter.

Table 6 shows the effect of an increase in income support on the shelter system. Here, we assume a $500 increase in annual income support payable to a single person eligible for Alberta Works benefits.[15] In 2024, this would have been equivalent to an increase in income of 4.5 per cent. For these calculations, rent is assumed to be unchanged.

Table 6. Effects of $500 Increase in Income Support with No Change in Rent, 2024 Cohort

	% Change				
	All	Men	Women	Youth (18-24)	Adults (25+)
On first admission	-6.8%	-8.0%	-7.1%	-5.7%	-8.1%
On nightly stays in 365 days following first admission	-5.9%	-5.8%	-4.7%	-6.0%	-6.1%
On nightly stays in 365 days following first admission lasting 1-20 nights	1.6%				
On nightly stays in 365 days following first admission lasting more than 180 nights	-8.9%				

If made in 2024, this increase in income would have reduced the size of the 2024 cohort by 6.8 per cent or 256 persons. For that cohort, the number of nights in shelter during the 365 days following admission would have fallen by 5.9 per cent and so by 8,753 nights. If we assume $100 as the per-night cost of accommodating someone in shelter, that reduction in overnight stays represents a saving to the shelter system of $875,324. Finally, the last two rows of calculations report that a $500 increase in annual income would increase short stays in shelter by 1.6 per cent and reduce long stays by 8.9 per cent. Thus, the increase in income twists the distribution of nights in shelter away from long stays and toward shorter stays.

5. DISCUSSION

The calculations in the previous section are meant to highlight how sensitive to external influence some key metrics are for evaluating the efforts of a homeless-serving sector to progress toward the goal of making experiences with homelessness rare and short. Changes in rents relative to income were shown to not only influence the size of inflows into the shelter system but also to decrease the percentage of stays in shelter that are very short-term while increasing the percentage that are long-term. These influences are statistically significant and have quantitatively large effects.

This confirms for Calgary what research on housing markets in the U.S. has found; namely, that even modest efforts to increase the affordability of minimally adequate housing could have significant impacts on homelessness and reduce flows into emergency shelters.[16] It is worth emphasizing that the findings reported here indicate that increasing the affordability of minimally adequate housing shortens lengths of stay in shelter during the most critical time of one's experience with homelessness; namely, the 365 days following first admission.

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[15] Recalling the discussion in footnote 13, this can also be interpreted as the effect of an increase of $500 to the after-tax income of a single person with income that places them in the first decile of the income distribution. Thus, an increase in the GST credit of $500 per year, for example, would have this same impact.

[16] See, for example, Quigley, Raphael and Smolensky (2001) and Khadduri (2010).

The results reported here should be understood as representing a preliminary investigation into the determinants of lengths of stays in Calgary's emergency shelters. The presentation is largely descriptive and the empirical analysis measuring the effects of influences external to the shelter system on new entries and lengths of stays in shelters is limited. However, the data underlying what has been presented here describe shelter use by 52,129 uniquely identified individuals who used Calgary's shelters over the 16 years between 2009 and 2024. These data provide the opportunity to relate people's lengths of stay to their individual characteristics, to more detailed descriptions of housing and labour-market conditions and to changes in the policies of the homeless-serving sector. This is the subject of future research.

In that future research, it will be important to investigate to what extent changes in external conditions impact the timing of individuals' entry into and lengths of stay in shelters. Kneebone and Wilkins (2024) suggest that attention should be paid to the potential for changes in housing market conditions to impact shelter use with a lag. They hypothesize that an increase in the rent-to-income ratio sets in motion a multi-year effort by households to conserve income for the payment of rent by increasing their reliance on food banks and other charities. Jadidzadeh and Kneebone (2025) provide empirical evidence to support this hypothesis by showing food bank use increases in years prior to first entry into a homeless shelter. This suggests that changes to both the contemporaneous rent-to-income ratio and to lagged values of that measure may influence shelter entries and lengths of stay.

The calculations presented in the previous section have shown the potential importance of variables that policymakers are at least partially able to influence. Thus, federal policy choices able to influence immigration levels, provincial control of social-assistance incomes and municipal influences on land prices, zoning rules and development charges have all been shown to influence the ratio of rent to income.[17] When evaluating the performance of agencies tasked with assisting individuals and families to manage and recover from homelessness, it is important to recognize the very wide range of responsibilities and the wide scope of policy actions that can contribute to solutions.

6. CONCLUSIONS

A frequently stated goal of homeless-serving sectors is that all experiences of homelessness should be rare, brief and non-recurring. This is consistent with the realization that literal zero homelessness is not possible. Whether due to family crises, mental illness, substance abuse or traumatic childhood experiences, there will always be people experiencing homelessness. Unfavourable housing and labour markets as well as racial and ethnic prejudices exacerbate the problem. Highly responsive social services and a rental market able to provide housing at a cost affordable to those with very low income can minimize lengths of homelessness periods, but realistically they cannot prevent all experiences of homelessness.

An implication is that homeless shelters have an enduring role to play in addressing homelessness. They serve people's needs for temporary shelter following a short-lived loss of housing. Ideally, rehousing should be fast and all stays in homeless shelters would be very short.

Averaging across our 16 cohorts, observations of shelter stays during the 365 days following first admission shows that an average of 30 per cent of new admissions to Calgary's shelter system stayed just that one night. An average of 62.3 per cent stayed between one and 10 nights during the 365 days following admission and a further 13.4 per cent stayed between 11 and 30 nights. Thus, over the period 2009–2024, an average of just under 76 per cent of new admissions to the shelter system stayed 30 nights or fewer in shelter during the 365 days following. An average of 4.8 per cent of new admissions proved to be long-stayers, spending six months or more in shelter.

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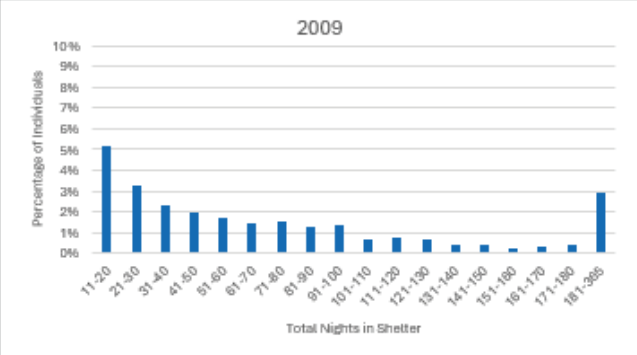
[17] See CMHC (2022) for a description of the number and impact of local housing restrictions and regulations on housing construction costs in Canada's largest metropolitan areas.

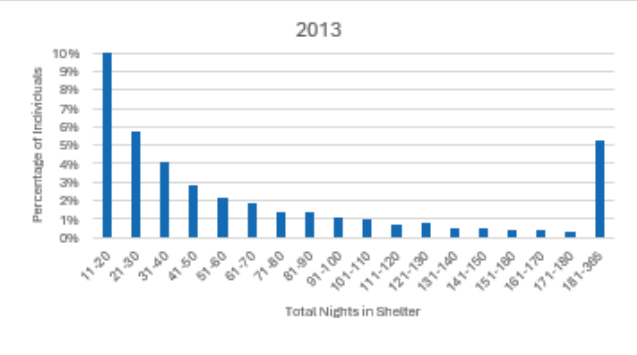
The data show no evidence of a monotonic trend in either the percentage of new admissions staying for very short or for very long periods. Instead, these percentages have been shown to vary in ways that are correlated with changes in the ratio of rent to income. As the ratio of rent to income rises, the percentage of new admissions to shelter who stay for only short periods falls and the percentage who stay for longer periods rises. Thus, an increase in the ratio of rent to income twists the distribution of nights in shelter away from short stays and toward longer stays. A sensible interpretation of this observation is that a less affordable rental market traps people in shelters and requires shelters to maintain higher capacities.

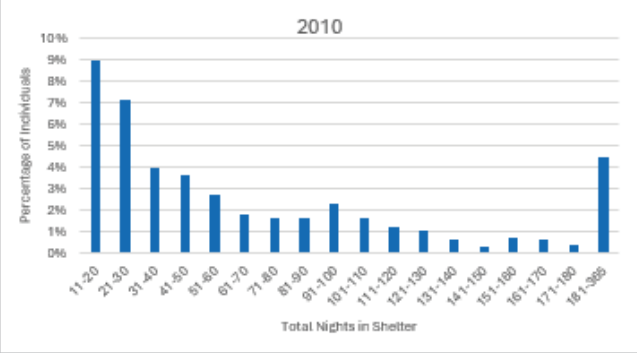
The number of new entrants and their length of stay in emergency shelters offers a possible metric for evaluating a homeless-serving sector's efforts to make the experience of homelessness both rare and short. It is important to note, however, that homeless-serving sectors operate in an environment where the causes of homelessness and the reasons for lengths of stay in shelters lie largely outside their influence or control. How individuals and families are able to retain housing is due to variations in housing and labour markets, the policy choices of every level of government and the vagaries of life, circumstances and bad luck.

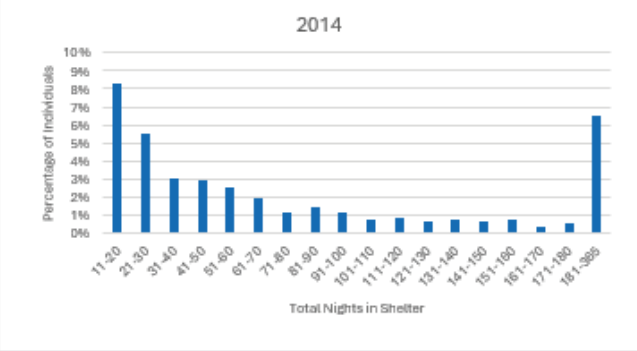
APPENDIX

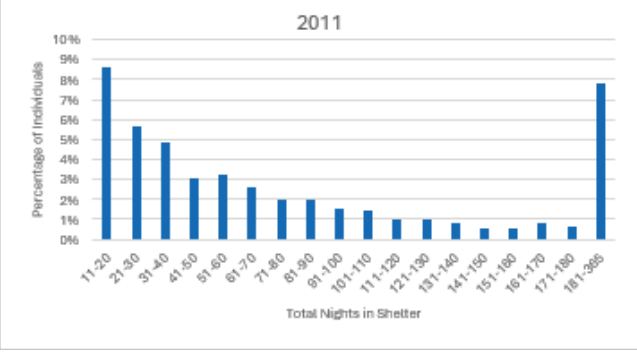
This appendix contains 16 histograms of nights spent in shelter by people newly admitted to the Calgary shelter system during a specified year. The number of nights reported on the horizontal axis are those spent in shelter during the 365 days following first admission. The height of each column measures the percentage of newly admitted clients who stayed the number of nights defined on the horizontal axis. The horizontal axis defines the total number of nights in shelter in 10-night increments. For clarity of presentation, the percentage of clients staying between one and 10 nights is omitted.

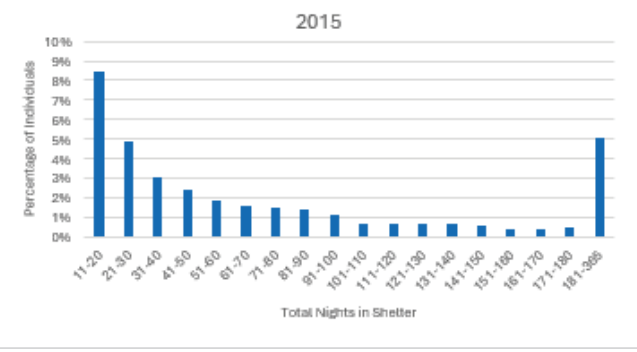


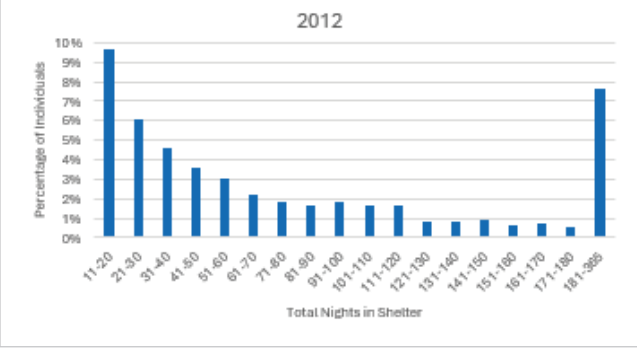


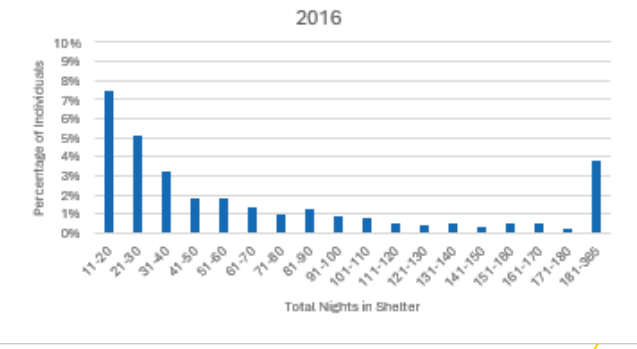


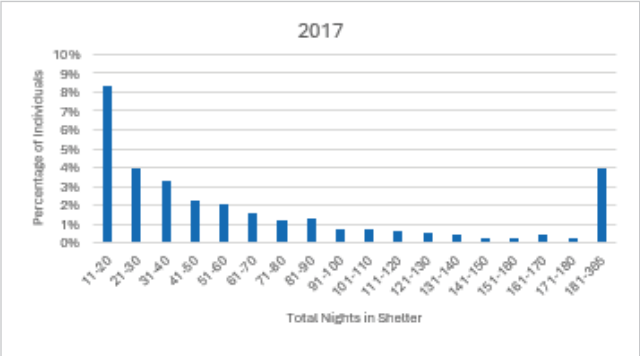


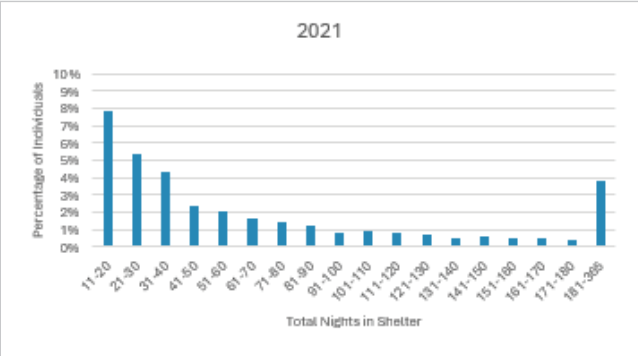


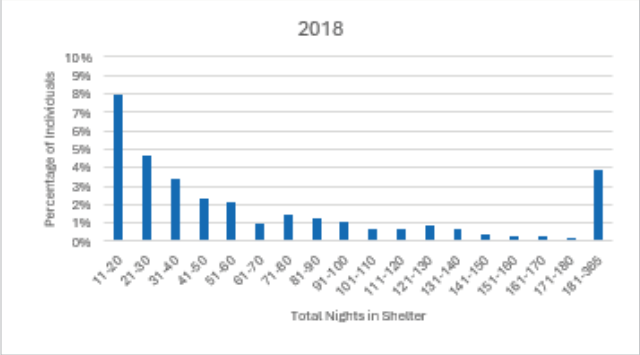


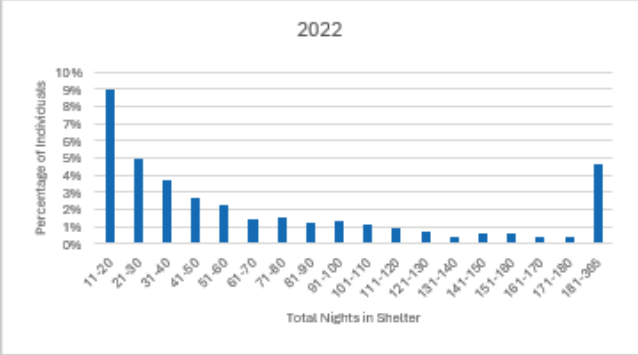


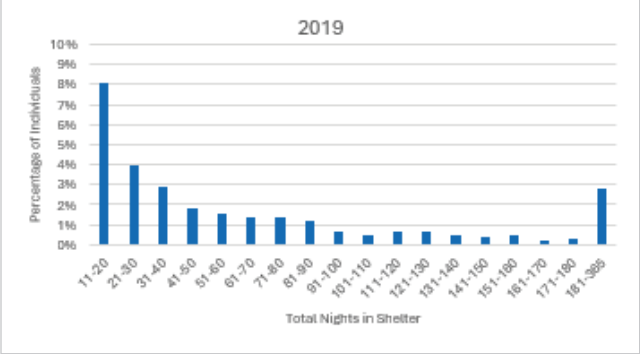


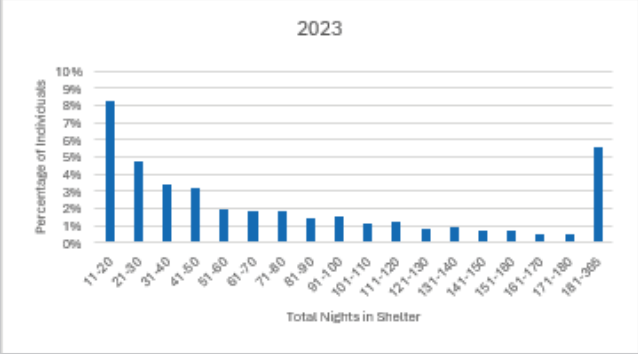

2017
Percentage of Individuals
Total Nights in Shelter

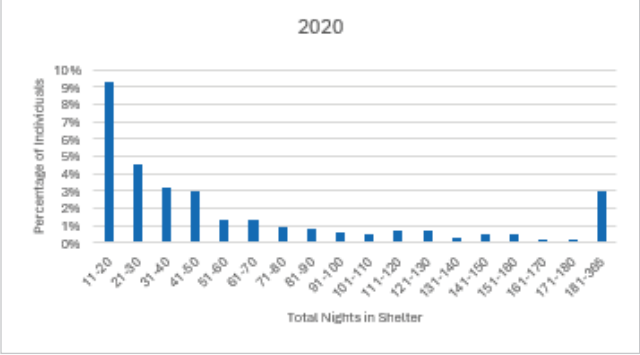

2021
Percentage of Individuals
Total Nights in Shelter

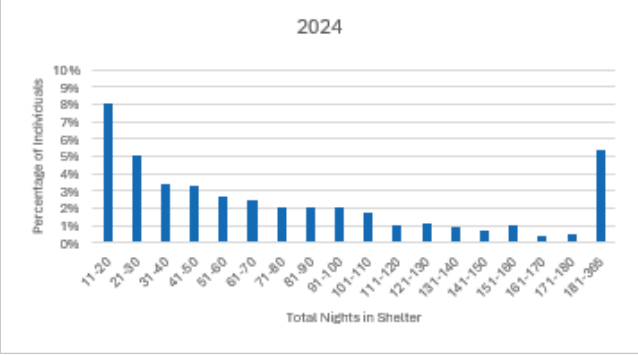

2018
Percentage of Individuals
Total Nights in Shelter


2022
Percentage of Individuals
Total Nights in Shelter


2019
Percentage of Individuals
Total Nights in Shelter


2023
Percentage of Individuals
Total Nights in Shelter


2020
Percentage of Individuals
Total Nights in Shelter


2024
Percentage of Individuals
Total Nights in Shelter

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Ron Kneebone is Professor Emeritus in Economics at the University of Calgary. From 2006 to 2009 he was Director of the Institute for Advanced Policy Research at the University of Calgary. In 2009, he joined the newly established School of Public Policy, where his initial focus was on research into the finances of Canadian provincial governments. While Prof. Kneebone continues to work closely with co-authors to study the political economy of provincial budgetary choices, for the past 15 years, he has also engaged with community organizations to investigate issues of homelessness, poverty, and domestic violence. This close engagement includes serving on the Board of Directors of the Calgary Homeless Foundation from 2016 to 2019. Professor Kneebone is currently a Research Fellow with the School of Public Policy.

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