TORONTO City Planning

This bulletin estimates how much new housing stock may be needed to accommodate households suitably in the future if recent trends continue. This constitutes one of several analyses to inform the Municipal Comprehensive Review of the Official Plan with respect to the Provincial Growth Plan for the Greater Golden Horseshoe. Available from https://www.toronto.ca/citygovernment/data-research-maps/researchreports/planning-development/.



Right-Sizing Housing and Generational Turnover

Highlights

In 2016, almost 135,000 Toronto households were underhoused while 488,025 households were overhoused.

The rate of overhousing increases with the age of the household, from 24.3% for households aged 15-34 to 66.0% for households aged 70 and over.

Two in ten couple family with children households and three in ten lone-parent households were underhoused.

65,310 households or 65.4% of all underhoused households with children resided in mid/high-rise dwellings.

49,655 households experienced both underhousing and affordability issues.

About 60% of the overall estimated increase in demand for housing between 2016 and 2051 could be fulfilled by turnover.

Future demand would not be fulfilled for houses, units with three + bedrooms, or purpose-built rental units, without changes in supply or demand.

Older generations' housing stock could accommodate an additional 207,240 persons by 2051 due to turnover to younger, larger households.

One quarter of Toronto's forecasted population growth to 2051 could be accommodated in the existing housing stock due to turnover.



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Executive Summary

This executive summary outlines the objective of the bulletin, the underlying methods used in the analysis, and the major findings. It summarizes the implications of these findings for the ongoing monitoring of housing occupancy trends and for planning and long-range growth management.

Objective

How might Torontonians be accommodated in housing suitable to their needs? As the population grows and changes, what is the range of need for the different types of housing? How many units of which types of housing are needed today and tomorrow? How much of the city's population growth and changing needs might be accommodated in the housing we already have? These are but a few of the endless array of questions about housing need and housing supply that are important in planning for the future of Toronto. To explore these questions, this bulletin has been prepared as one of a number of key inputs to planning for a complete range of housing and long-range growth management as part of the Municipal Comprehensive Review of the Official Plan with respect to A Place to Grow, the Provincial Growth Plan for the Greater Golden Horseshoe, 2020.

This bulletin builds on the findings of the Housing Occupancy Trends 1996-2016 (HOT) bulletin published in 2019 which highlighted emerging trends in housing occupancy in response to changing demographic conditions and housing stock.

Two of the key trends identified were that the vast majority of new housing in the city of Toronto is being built in the form of mid/high-rise units, and, that average sizes of condominium units, the prevalent tenure of recent development, are shrinking. While these types of dwellings may suit the increasing populations of empty nesters and people who live alone, they may not meet the needs of all households in Toronto. The number of families with children living in mid/high-rise units is increasing. But are these units meeting those families' needs? How likely is it that sufficient family-sized housing might become available in the near future by older households downsizing to smaller units?

This bulletin aims to expand upon the initial findings of the HOT bulletin to better understand:

- How well Toronto's housing stock is meeting the needs of its occupants for bedrooms;
- Whether the Baby Boomer generation is downsizing more or differently than their predecessors did;
- How much of the future increase in demand for housing is likely to be fulfilled by the existing stock through older generations turning over units; and
- Where in the city is such turnover due to older generations downsizing likely to occur?

Underlying Methodology

The findings in this bulletin rely on the demographic and housing characteristics of Toronto's population in 2016 to explore trends in housing suitability and to estimate the demand for housing as the existing population ages. These same demographic and housing characteristics are used to assess the potential for the turnover of housing between households and generations to meet that demand from 2016 to 2051. By applying the characteristics of Toronto's existing population and the way the population currently arranges itself into households, the future number of households, and the type of dwellings required to accommodate them, are estimated. The analysis is designed to purposely focus on age as the key demographic driver for the housing demand reported in this bulletin. Note

that all references to the number and types of households and dwellings required to accommodate Toronto's future population are estimates, not projections.

Section 1: Concepts and Context

Concepts

Generations are groups of people who were born at a similar time (see Figure E - 1). Each generation is perceived to have experienced historic events, such as recessions and housing booms, together as a group at roughly the same age. Discussing housing trends and needs through a generational lens provides an opportunity to analyze the population by their stage in life and the generational factors influencing their housing choices.

Housing turnover occurs when a household vacates its dwelling and a new household moves in. Turnover of the housing stock occurs as individual preferences and needs change, and as people move for family, work, financial or other reasons. Downsizing is a form of turnover. In the context of this bulletin, 'downsizing' is generalized to refer to households with a Primary Household Maintainer (PHM) aged 50 years or more and their transition from being "overhoused" in more bedrooms than required to one in which they occupy dwellings with fewer bedrooms.

Housing Occupancy Trends 1996-2016: A Look Back

The previous bulletin in this series, Housing Occupancy Trends 1996-2016 (HOT), highlighted emerging trends in housing occupancy in response to changing demographic conditions and housing stock. Key findings included:

- Baby Boomers make up the largest number of households in the city and therefore their decisions will continue to have a major influence on housing occupancy. Together, the Baby Boomers and older generations occupy well over half of all houses and low-rises, and many of these households are likely to be (or will soon become) 'emptynesters'.
- Toronto's population is growing, and net migration is the main source of population growth. The majority of people moving to Toronto are younger than the city's overall age distribution and all positive net migration since 2006 is in younger age groups. As of 2016, the number of Millennials surpassed the number of Baby Boomers and is approaching the Baby Boomers' population at its peak. The Millennial generation faces a different market and composition of stock than their predecessors did. Over time, housing demand will grow, and the Millennial generation and generations that follow will

increasingly affect the composition of the housing demanded.

- The number of non-family households in the city continues to rise, particularly in regards to persons living alone; one-person households accounted for almost one out of every three households in Toronto in 2016. The proportion of households that are couples with children is in decline. Lone-parent family households have increased by nearly 25%.
- All household types, including couples with children and loneparent families, are increasingly living in mid/high-rise units. Onebedroom mid/high-rise units may meet the suitability needs of the growing numbers of oneperson households. But do these physically smaller-sized units meet the needs of family households with children, or two-or-more-person non-family households?
- While owner households grew three times as fast as renter households between 1996 and 2016, there was a trend reversal between 2011 and 2016 as renter households grew three times as fast as owner households. Rentership has increased despite relatively little construction of new purpose-built rental units.

Figure E - 1: Generations by Year Born and Age in 2016



Source: City of Toronto, City Planning

Section 2: Housing Suitability

What is Housing Suitability?

The Statistics Canada Census of Population includes an indicator for crowding called **housing suitability**. The housing suitability indicator and the National Occupancy Standard (NOS) on which it is based were developed by the Canada Mortgage and Housing Corporation (CMHC). This indicator measures whether the dwelling has a sufficient number of bedrooms for the size and composition of the household that occupies it.

To discuss the relationship and fit of households within their dwellings, this analysis has devised a separate set of terms, based around the NOS, to describe suitability. This bulletin has categorized all households into three groups referred to as overhoused, right-sized and underhoused (see Figure E - 2). **Overhoused** households are households with a surplus of bedrooms in comparison to the size and composition of these households. Overhoused households exclude one-person households living in one-bedroom units. **Right-sized** households are households with no bedroom surplus or shortfall. Rightsized households include one-person households living in one-bedroom units. Households in unsuitable dwellings are those living below the suitability standard, having a shortfall of bedrooms and are referred to as **underhoused**.

Toronto Housing Suitability (1996-2016)

In 2016, almost 135,000 Toronto households lived in 'unsuitable' housing, meaning that their dwellings contained too few bedrooms to suit the size and composition of their households, based on the age, sex, and relationships among household members (see Figure E - 3 on page 11). At the same time, there were more than three times as many households who were 'overhoused' – that is, whose dwelling units had more bedrooms than required to suit the size and composition of their households.

Between 1996 and 2016, the number of right-sized households increased from 380,995 households in 1996 to 490,100 households, an increase of





Source: City Planning, adapted from CMHC's National Occupancy Standard (NOS).

109,105 households. At the same time, overhoused households increased by 130,375 and underhoused households decreased by 30,125.

A combination of changes to demographics and housing stock, alongside regional housing market conditions, are likely causing underhousing to decrease and overhousing to increase. While the declining number of underhoused households is undoubtedly a positive observation, the underlying factors causing this are complex. It would be remiss to conclude outright that a reduction in underhoused households indicates that Toronto had a more equitable housing mix and supply in 2016 than in 1996, when instead there is a more complex interplay of factors.

Underhoused households who remain in unsuitable housing are either involuntarily underhoused, where affordability and other issues are barriers to acquiring housing to suit their needs, or they prefer to be underhoused. Common reasons for this preference include ethnocultural norms that value the familial closeness that can be found in multigenerational households. A growing rate of overhousing may also include another form of constrained mobility, for example, if older generations who would prefer to downsize are unable to find housing to meet their needs. These changes are far-reaching and cross-generational, in that the delayed turnover of housing stock may reduce the opportunity for younger households to find suitable housing.

Toronto Housing Suitability by Household and Dwelling Characteristics (1996-2016)

Based on the foregoing analysis of suitability trends, a number of research questions emerged. These include to what extent is the housing suitability of a household impacted by age (e.g. young or older persons heading a household),

Figure E - 3: Number of Households by Suitability Indicator, 1996 to 2016



by household type (e.g. are they family or non-family households), or by tenure (renters or owners). Are there differences in suitability rates between lower and higher density housing or between older dwellings and more recently constructed dwellings? Key findings include:

- Half of all households aged 50-69 were overhoused in 2016. This rate compares to 24.3% of households aged 15-35 and 37.5% of households aged 35-49.
- There were almost 100,000 households of families with children that were underhoused, comprising almost 60,000 couples with children and just over 40,000 lone-parent households.
- Almost two thirds of underhoused households are in a mid/high-rise units (62.9%) and 31.5% are in houses and low-rises.

 Nearly 100,000 renter households were underhoused in 2016 compared with 37,010 underhoused owner households.

Figure E - 4 ranks the household and dwelling characteristics for each of the three suitability categories by number of households. This identifies in greater detail the characteristics that have a higher propensity to be underhoused, right-sized or overhoused in 2016.

The overall findings show that overhousing occurs at a higher rate among older households, among owner households and in households occupying houses and low-rises.

Underhousing occurs at a higher rate among larger households, among family households (particularly those with children), among households occupying mid/high-rise units, among renters and among younger households. These underhoused

Figure E - 4: Ranked Household and Dwelling Characteristics, by Suitability, 2016

		UNDERHOUSED (n=134,8	20)		RIGHT-SIZED (n=490,100)		OVERHOUSED (n=488,025)		
	Rank	Characteristic	Hhlds	Rank	Characteristic	Hhlds	Ran	c Characteristic	Hhlds
	1	35-49	55,170	1	50-69	152,505	1	50-69	199,005
AGE OF	2	50-69	43,565	2	15-34	146,175	2	70+	117,215
PHM	3	15-34	29,840	3	35-49	137,400	3	35-49	115,320
	4	70+	6,250	4	70+	54,020	4	15-34	56,450
	1	Couples with children	59,675	1	1 person	219,970	1	Couples without children	156,555
	2	Lone-parent	40,1 85	2	Couples with children	99,820	2	1 person	140,025
HOUSEHOLD	3	2 or more persons	18,115	3	Couples without children	66,510	3	Couples with children	134,350
TYPE	4	Multiple-family	13,860	4	Lone-parent	57,820	4	Lone-parent	34,825
	5	Couples without children	2,990	5	2 or more persons	36,985	5	2 or more persons	13,285
	1-pe	erson households cannot be under	housed	6	Multiple-family	8,995	6	Multiple-family	8,975
TENURE	1	Renter	97,815	1	Renter	328,760	1	Owner	388,745
TENONE	2	Owner	<mark>3</mark> 7,010	2	Owner	161,325	2	Renter	99,250
DWELLING	1	Mid/High-Rises	84,865	1	Mid/High-Rises	296,780	1	Houses and Low-Rises	340,760
TYPE	2	Houses and Low-Rises	42,420	2	Houses and Low-Rises	174,750	2	Mid/High-Rises	111,490
	3	Row/ Townhouses	7,535	3	Row/ Townhouses	18,570	3	Row/ Townhouses	35,775
		<u>.</u>				000 500			177 000
	1	2 bedrooms	50,980	1	1 bedroom	262,500		3 bedrooms	177,620
DEDDOOMO	2		47,510		2 bedrooms	117,170		4 or more bedrooms	162,850
BEDROOMS	3		24,090	3	3 bedrooms	69,205	3	2 bedrooms	147,535
	4	4 or more bedrooms	9,135		4 or more bearooms	21,970	Stu	dio and 1 bedroom units cannot be o	verhoused
	5	510010	3,105	5	Studio	19,250			
	1	1961 to 1980	53 500	1	1961 to 1980	154 375	1	Before 1961	201 885
		Before 1961	30 320		Before 1961	130 915		1961 to 1980	139 735
CONSTRUCTION	3	1981 to 2000	30 315		2001 to 2016	115 575		1981 to 2000	76.005
	4	2001 to 2016	20 700	J A	1981 to 2000	89 230		2001 to 2016	70.375
	-	2001 10 2010	20,700		1001 10 2000	00,200	L -	2001 10 2010	0,070

households are a primary focus of this bulletin, as they represent a more vulnerable subset of the housing population and understanding their needs has implications for the policy interventions to address these issues.

The numbers and locations of overhoused households are an additional focus of the bulletin, as trends in overhousing have implications for growth management and planning for existing and future populations.

A look further at underhousing

Looking further at the types of households experiencing underhousing shows that families (particularly those in mid/high-rise dwellings) experience higher rates of underhousing. Key findings include:

- The underhousing rates for loneparents are significantly higher than for couple family with children households, which indicates that in addition to the total number of children, suitability rates vary depending on the parental structure of family households.
- Almost half (46.6%) of underhoused households in mid/high-rise units are couples with children households, despite the fact that couples with children account for only 16.6% of all households in mid/high-rise units. Another 30.3% or 25,745 underhoused households in mid/high-rise are lone-parent households, despite the fact that lone-parent families only make up 11.6% of all households in mid/ high-rise units. The occupancy and suitability rates suggest that mid/high-rise units tend to meet the needs of households without children more than the needs of households with children. These occupancy rates also reflect self-selection, whereby family households with children may not consider mid/high rise units if they have the choice of other dwelling types.

- Couples with children and loneparent households account for notable proportions of right-sized mid/high-rise dwellers, with 12.4% and 9.6% of the share respectively. These results suggest that mid/ high-rise units can meet the needs of some families with children, from the perspective of this bulletin's definition of suitability.
- Underhousing of families with children in mid/high-rises is concentrated in the two middle age groups aged 35 to 49 and 50 to 69. This analysis suggests that while younger households (35-49) with children are highly represented in mid/high-rises, there are also significant numbers of older households with children who are residing in mid/high-rises. Adult children who live at home are likely contributing to high levels of underhousing observed in the older households.
- The more recently a mid/high-rise apartment was built, the more likely it is to be suitable for its occupants who have recently moved in. This trend may appear counterintuitive, given that newer units tend to be smaller in square footage on average than are older units. One potential explanation is that occupants of newly constructed units will have moved in recently and therefore have chosen it based on the current composition of the household. It is therefore more likely to be suitable for their needs, at that time. These smaller units are satisfying a segment of market demand; they appeal to the households that choose them.

Housing decisions and motivations

The number of households which are underhoused in Toronto does not paint a complete picture of the latent demand for housing units with more bedrooms. It does not include those who decided to obtain larger housing elsewhere, but who would prefer to live in Toronto if such housing were available within their preferred size and price range. It also does not identify households that would prefer to grow in size but for which to do so would result in them being underhoused. Thirdly, it excludes potential households that people would like to form but have decided not to, such as young adults who have decided to remain in their parents' homes for the time being.

Similarly, the number of households which are overhoused does not reveal how many overhoused households would prefer to right-size but cannot find available or affordable housing, as opposed to those who would prefer to remain overhoused. It is difficult to predict the potential future trends in housing without exploring the preferences, motivations and constraints of the current occupants.

The 2018 Canadian Housing Survey results for the city of Toronto confirm that the motivations of younger households to move differ from those of older households. Younger households are predominantly looking for larger housing, an opportunity for home ownership, and to accommodate a new and growing family (see Figure E - 5). Older households are instead predominantly motivated by the need to reduce housing costs, a change in the size of a household and to be closer to family. A household move, therefore, is often tied to the stage of life of a person or household, and thus the housing they require to accommodate their needs at that time.

The same housing stock serves different households at different stages of their life-cycles. The available supply of such housing depends both on the amount of housing that becomes available by other households leaving that housing, such as older households choosing to downsize, as well as the amount of new supply being built. While eventually all of the housing occupied by older generations will turn over, the timing of the availability becomes a critical factor in how quickly the market responds and the timing of some segments of supply.

15 to 49 years 50 years and over Upgrade to a larger or better quality dwelling Become a homeowner Be in a more desirable neighbourhood Change in household or family size New job or job transfer Form own household Reduce commuting time Reduce housing costs Be closer to family Forced to move* New school Personal health reasons Other reasons Natural disaster or fire 0% 5% 10% 15% 20% 25%

* By a landlord, a bank or other financial institution or the government. Source: Statistics Canada, Canadian Housing Survey 2018, custom tabulation

Figure E - 5: Reasons for Moving in the Past Five Years by Age of Respondent, 2018

Why do people live in unsuitable housing?

Some of what the NOS considers to be unsuitable housing may not be considered as such by those living in these circumstances. Some cultures prefer larger families, and enjoy the social benefits that may come with living with extended family. While the NOS can reveal households where underhousing may be involuntary, it cannot differentiate between those households that choose to have fewer than the optimum number of bedrooms to suit the household composition and those who have no choice. Where households are underhoused out of necessity rather than out of choice, that type of underhousing is involuntary. Some underhousing among specific groups may be involuntary. Aboriginal, immigrant, refugee and racialized populations in Canada often experience higher rates of underhousing than the general population.^{1,2,3} Other potential sources of involuntarily underhoused households include divorce, separation, women fleeing violence, and eviction. Attempts to address underhousing should aim to assist those who are involuntarily underhoused, while acknowledging the choices of those who may choose to be underhoused out of preference.

Affordability challenges may account for at least some of the underhousing among these groups. To estimate how much underhousing is due to necessity rather than preference, this bulletin examines how much of underhousing correlates with high shelter cost-toincome (STIR) ratios.

The traditional benchmark for what is considered unaffordable is spending 30% or more of income on housing. The majority of underhoused households spent an affordable share of their income on housing. However, 36.9% of all underhoused households spent more than 30% of their income on shelter, 49,680 households in total, equating to 4.5% of all households in Toronto. These households have a demand for housing that is currently unmet. Affordability-related underhousing is more prevalent among younger households.

Why do people live in housing with surplus bedrooms?

Similar to underhousing, some households choose to be overhoused and some have trouble finding housing that would allow them to right-size. There are many reasons why a household might prefer to remain overhoused including a household's deliberate choice to use these bedrooms as home gyms, playrooms, quest rooms or home offices. Furthermore, the general consensus in the literature is that most senior Canadians want to age in place. At all ages, there is also a certain portion of the population that values having more space, and that can afford to have it.

Section 3: Housing Turnover

Is there any evidence of older adults beginning to downsize within Toronto?

There were more households aged 50-69 moving within Toronto, and in particular, more of these households were moving into mid/high-rise units in 2016 than in the past. However, the increases in these numbers can largely be explained by the increase in the total number of households aged 50-69 as the large Baby Boomer generation aged into this age group (see Figure E - 1 on page 9 for generational definitions).

The Baby Boomers are following in the footsteps of their predecessors. They moved within Toronto and into mid/ high-rise units at about the same rates as the Silent Generation did at the same age. These results suggest that these mobility characteristics are more a function of age than of generation. Households in Toronto tend to follow these patterns as they reach certain ages, regardless of which of the two generations they are from.

These findings indicate that there is little evidence that Baby Boomers are about to downsize at high rates out of houses and low-rises. While their choices in the future may still diverge from those of the Silent Generation, past trends indicate that their downsizing is likely to continue to occur at similar rates to their predecessors as they age. Despite this pattern, the large size of the Baby Boomer population will mean that even the low mobility rates historically exhibited by older adults could yield large amounts of housing turnover in the future.

How much housing could be freed up in the future by housing turnover of older households?

This bulletin estimated three scenarios of future households and housing demand to 2051: a Base Scenario and a Low and a High Unmet Demand Scenario. The unmet demand scenarios add on a certain amount of additional housing that may be required over and above the Base Scenario in order to house Toronto's future population more comprehensively. The scenarios are defined as follows:

- The Base Scenario represents an estimated number of future households assuming future populations will form households at the same rates as in 2016.
- The Low Unmet Demand Scenario adds an additional demand component that is the percentage of households by age that are living in housing that is both unsuitable and unaffordable.
- The High Unmet Demand Scenario adds an additional demand component that is the percentage of households by age that are living in housing that is unsuitable, regardless of affordability.

Housing Characteristic	Demand fulfilled	Demand <u>not</u> fulfilled			
Dwelling Types	Apartments and other units	Single-detached houses Semi-detached houses			
Number of Bedrooms	Studios One-bedroom units Two-bedroom units	Three-bedroom units Four-or-more-bedroom units			
Tenure	Owned units	Rented units			

Table E - 1: Summary of the types of housing where demand is fulfilled by turnover plus new supply and the types of housing where demand is not fulfilled (in all three scenarios)

In all three scenarios, about 60% of the increase in demand for housing in the future could be fulfilled by older generations' housing stock turning over. In other words, only about 40% of the future increase in demand for housing would need to be fulfilled by new housing completions built between 2016 and 2051.

However, the results vary by dwelling type, number of bedrooms, and tenure. Table E -1 on page 16 consolidates the types of housing (by their characteristics) into two groups: the types of housing demanded that would be fulfilled by a combination of turnover plus new supply in all three scenarios (demand fulfilled), and those types of housing demanded that would not be fulfilled under current conditions. This involves various assumptions, including that historic completion levels continued into the future. Demand for row/townhouses would be fulfilled in the Base Scenarios, but not in the Low and High Unmet Demand Scenarios.

Figure E - 6 summarises the annual number of additional completions over and above recent average completions for each of these dwelling characteristics that would be required to fulfill the estimated demand in each scenario. Negative numbers indicate that no additional completions of these types would be required beyond recent average completions to meet the estimated demand. Positive numbers indicate that more annual completions would be required above and beyond recent completion levels.

Figure E - 6: Summary of Annual Additional Units Required to be Built beyond Recent Completion Trends to Fulfill Residual Demand



The housing characteristics with positive numbers are those which are most important to future planning. They represent the additional number by which annual completions would need to increase in order to reduce housing mismatch and to better meet the needs of underhoused households. The analysis has identified shortfalls between demand and supply for suitable housing with certain characteristics, and that some shortfalls could be overcome with more modest increases to supply of certain dwelling types, while others will require larger shifts. The largest increase is estimated at 3,263 purpose-built rental units annually in the High Unmet Demand Scenario (see Figure E - 6 on page 17). The average annual number of total completions between 1985 and 2019 was 10.721 units. That means that 30.4% more units in the form of purpose-built rental units would need to be built beyond recent average annual

completions in order to fulfill future households' needs for suitable housing (see Figure E - 7). For units with other characteristics, the needed increase is smaller; for example, only 6.9% more units would be needed in the form of four-or-more-bedroom units in the same scenario.

These results suggest that there will be a persistent unmet demand for houses. units with three or more bedrooms, and purpose-built rental units if current completion levels continue, especially when considering the needs of those who are underhoused. This bulletin has estimated the magnitude of the number of units that future households might demand to satisfy their suitability needs based on demographic drivers. There will likely be a need for creative solutions to increase the supply of units with these characteristics within the city. Rental housing protection, enhanced housing options and the inclusion of policies in a number of Secondary

Figure E - 7: Required Annual Additional Units as a Percentage of Total Average Annual Completions



Plans that require a set proportion of two-or-more bedroom units in new developments are a few of the solutions that the City has adopted that should defray some of the identified shortfalls in units with three or more bedrooms.

The potential of existing housing to accommodate future population growth

The preceding analysis provides a basis for understanding how older generations' housing stock, and the succession of households over time within it. could meet the needs of existing and future generations as they age. The findings of the previous chapters addressed the question about what percentage of the growth in housing need could be met by the turnover of housing. The next question posed is how much more population could be accommodated in the city when this housing turnover occurs. As the City continues to accommodate a growing population, it is important to recognize that not all future population growth needs to, or should be, accommodated in new housing stock alone. The Growth Plan stresses the importance of considering the existing housing stock in accommodating current and future population housing needs, as does the Official Plan through its policies regarding more efficient use of the existing housing stock.

The focus of the next step is to estimate the unused population capacity within the dwellings occupied by older generation households. The unused population capacity in the existing dwellings is arrived at by comparing the population of these dwellings if they were occupied by younger households in the future through housing turnover, to the population that occupies these dwellings now. To simulate changes in the population capacity of the housing stock arising from this turnover of housing, a combination of citywide and local area trends in person per household (PPH) rates are applied to the 2016 occupied housing stock.

PPH rates are a measure of household size, and refer to the average number of persons in households. The characteristics of the households and dwellings can cause the PPH rate of a group of households to fluctuate for many reasons. The age of the occupants, the household type (family or non-family), the type of dwelling and when they were built, the amount of development activity in the area, and wider demographic and market forces, can all influence PPH rates. For example, younger households tend to have larger household sizes than older ones. PPH rates are more likely to increase as older households move out and younger ones move in.

Population cycles within

neighbourhoods cause the population levels to continually rise and fall over time. These local population cycles are used to estimate the unused population capacity of the housing. The difference between the smaller older household population and the larger younger household population provides the measure of additional population capacity in an area. Key findings from this analysis include:

- It is estimated that the population housed in dwellings occupied by older generation households would be 16.1% higher if these dwellings were occupied by younger generation households upon turnover.
- Houses and low-rises have the greatest capacity to accommodate additional population on turnover. Almost 60% of the estimated additional population capacity is anticipated to occur from the turnover of houses and low-rises, with mid/high-rises accounting for 33.3% and row/townhouses accounting for 7.5%.
- The areas within the city that have the greatest opportunity to accommodate additional population in the existing housing stock are found in Etobicoke York,



- North York and Scarborough areas. The complete turnover of the city's existing older generation household stock and the repopulation of local areas arising from this turnover is expected to be a subtle occurrence, taking place in some degree in almost all residential areas in the city, but especially those in the city's outer suburbs. See Figure E - 8 on page 20.
- By 2051, it is estimated that almost all of the 2016 housing occupied by older generation households will have turned over, and that the capacity for an additional 207,240 persons within the existing housing stock could be realised.
- Approximately 25% of Toronto's forecasted population growth in the Growth Plan between 2016 and 2051 could be accommodated in the existing housing stock as a result of unused population capacity.

The estimates of generational housing turnover provides a discernible measure of the additional population capacity of the existing housing based on the turnover of housing in large areas of the city that were built in and around the same time. This process of housing turnover happens continually across the city. Yet, because of the period of construction and first occupancy of the city's suburbs, just as there was suburban expansion within the city in the 1960s, 1970s and 1980s, there will be a contemporary turnover of this housing to 2051. A unique opportunity exists for repopulation of this housing and its increased occupancy of this substantial supply of housing, particularly in the houses and low-rise stock.

Conclusion

This bulletin expands on the findings in Housing Occupancy Trends 1996-2016 (HOT) bulletin to examine issues of housing suitability, right-sizing, and turnover in Toronto. The findings in this bulletin represent a snapshot of recent right-sizing and turnover trends in Toronto, and what those trends might look like in the future if current conditions continued into the coming years.

Several new City initiatives that may help to enable turnover, increase the housing supply, or increase the affordable housing supply are being implemented. These initiatives include: the HousingTO 2020-2030 Action Plan, new Secondary Plans that require two-or-more-bedroom units in new developments, the Growing Up: Planning for Children in New Vertical Communities Urban Design Guidelines, the Expanding Housing Options in Neighbourhoods project, the Housing Now initiative, the proposed Inclusionary Zoning policy, the permission to build secondary suites and laneway suites, the regulation of short-term rentals, and the establishment of a new Vacant Home Tax.

The City will continue to monitor issues of right-sizing and turnover over time.

Through exploring the above topics, this bulletin represents one of several analyses to support the ongoing implementation of the Official Plan. It informs the Municipal Comprehensive Review of the Official Plan with respect to the Provincial Growth Plan for the Greater Golden Horseshoe by estimating how much new housing stock may be needed in the future if recent trends continue, and how much additional population could be housed in older generation dwellings when those dwellings turn over to younger generation households. This will help the City to understand how much new housing to plan for, and what housing characteristics that new housing will need to have. This information will help the City to achieve its vision for a "city where people of all ages and abilities can enjoy a good quality of life," with "affordable housing choices that meet the needs of everyone throughout their life".⁴

1. Introduction

Objective

How might Torontonians be accommodated in housing suitable to their needs? As the population grows and changes, what is the range of need for the different types of housing? How many units of what types of housing are needed today and tomorrow? How much of the city's population growth and changing needs might be accommodated in the housing we already have? These are but a few of the endless array of questions about housing need and housing supply that are important in planning for the future of Toronto. To explore these questions, this bulletin has been prepared as one of a number of key inputs to planning for a complete range of housing and long-range growth management. These inputs form part of the Municipal Comprehensive Review of the Official Plan with respect to A Place to Grow, the Provincial Growth Plan for the Greater Golden Horseshoe, 2020.

This bulletin builds on the findings of the Housing Occupancy Trends 1996-2016 (HOT) bulletin published by City Planning in 2019 which highlighted emerging trends in housing occupancy in response to changing demographic conditions and housing stock. Two of the key trends identified were that the vast majority of new housing in the city of Toronto is being built in the form of mid/high-rise units, and, that average sizes of condominium units, the prevalent form of recent development, are shrinking. While these types of dwellings may suit the increasing populations of empty nesters and people who live alone, they may not meet the needs of all households in Toronto. The number of families with children living in mid/high-rise units is increasing. But are these units meeting those families' needs? How likely is it that sufficient family-sized housing might become available in the near future by older households downsizing to smaller units? Such questions were beyond the scope of the HOT bulletin.

This bulletin aims to expand upon the initial findings of the HOT bulletin to better understand:

- How well Toronto's housing stock is meeting the needs of its occupants for bedrooms;
- Whether the Baby Boomer generation is downsizing more or differently than their predecessors did;
- How much of the future increase in demand for housing is likely to be fulfilled by the existing stock through older generations turning over units; and
- Where in the city is such turnover due to older generations downsizing likely to occur?

Bulletin Layout

The bulletin is organised into three sections:

- 1. Concepts and Context
- 2. Housing Suitability
- 3. Housing Turnover

Concepts and Context: The first section of the bulletin provides background information including concepts used throughout the bulletin, a planning policy scan and a recap of the key trends reported in the Housing Occupancy Trends 1996-2016 (HOT) bulletin.

Housing Suitability: The second section of the bulletin explores the suitability of the housing stock to the households that occupy it. It outlines how well households "fit" in their housing. In 2016, almost 135,000 Toronto households lived in 'unsuitable' housing, meaning that their dwellings contained too few bedrooms to suit the size and composition of their households, based on the age, sex, and relationships among household members. At the same time, there were over three times as many households who were 'overhoused' - that is, whose dwelling units had more bedrooms

than required to suit the size and composition of their households. This is one measure of the mismatch of households and housing in Toronto. Chapter 5, Chapter 6, and Chapter 7 compare the characteristics of these households to define the subsets of households that are underhoused in higher proportions, and similarly which households are more likely to be overhoused. Chapter 8 examines the implications of these housing suitability findings. It suggests possible reasons for "involuntary" housing mismatch: households that would prefer to have as many bedrooms as matches their household composition, but that are unable to obtain housing that meets their desired criteria.

Housing Turnover: The third section of the bulletin lays the foundation to explore the extent to which downsizing Baby Boomers may help alleviate problematic underhousing. Chapter 9 examines whether or not Baby Boomers are beginning to downsize more than the previous generation did when they were the same age. It explores older adults moving, and moving into mid/high-rise units, as measures for downsizing. This chapter finds that Baby Boomers are downsizing in greater numbers than their predecessors did, but only because the Baby Boomer generation is larger than previous generations; Baby Boomers are still downsizing at about the same rates as the previous generation did. This suggests that it is reasonable to assume that Baby Boomers will continue to downsize at predictable rates in the future.

The latter parts of the third section estimate how much of the future housing demand can be met by the amount of housing stock that existed in 2016. In the past, much of the discussion around the demand and supply of housing has been focussed on the supply of new housing. The focus of **Chapter 10** is to estimate how much of the future household growth can be accommodated by the existing housing stock. Households led by

persons aged 50 and over accounted for over half of all households in Toronto in 2016. As these households age and the dwellings turn over, this chapter estimates how well that supply will serve the demand generated by the large younger population that comes after it, and estimates when that supply might come to fruition. In Chapter 11. additional scenarios are considered for low and high measures of "unmet demand," which estimate how much additional housing might be required to house underhoused households suitably. These analyses provide a range of measures of how much of future housing demand could be met by the turnover of the older generation's housina.

Chapter 12 comprises the final part of section three and the bulletin, and focusses on the population in the existing housing stock and person per household (PPH) rates in Toronto. By comparing older and younger household PPH rates, the unused population capacity in older household dwellings is estimated. The findings spatially illustrate where within the city additional population capacity could be accommodated in the dwellings currently occupied by older household dwellings, if these dwellings turned over and were re-occupied by younger households. These findings demonstrate where the existing housing stock has significant potential to accommodate current and future population needs.

Chapter 13 summarises the findings discussed throughout the bulletin as well as their potential implications. Through exploring the above topics, this bulletin constitutes one of several analyses to support the ongoing implementation of the Official Plan. It will inform the Municipal Comprehensive Review by estimating how much new housing stock may be needed in the future if recent trends continue.

A Glossary and several explanatory appendices are also provided at the end of the document.

Underlying Methodology

The findings in this bulletin rely on the demographic and housing characteristics of Toronto's population in 2016 to explore trends in housing suitability and to estimate the demand for housing as the existing population ages. These same demographic and housing characteristics are used to assess the potential for the turnover of housing between households and generations to meet that demand from 2016 to 2051. By replicating the innate characteristics of Toronto's existing population and the way the population currently arranges itself into households, the future number of households, and the type of dwellings required to accommodate them, is estimated. The analysis is designed to purposely focus on age as the key demographic driver for the housing demand reported in this bulletin.

All references to the number and types of households and dwellings required to accommodate Toronto's future population are estimates, not projections. The household estimates do not include the projection of changing demographic trends over time, nor the assessment of changing housing characteristics, nor any forecasting of overall market conditions nor any scenarios of the potential impacts of proposed planning policy changes not yet implemented. Instead, the analysis purposely assumes a continuation of trends in housing occupancy as of 2016, prevailing economic conditions, and a continued supply of housing units based on the

average completion rates over the 1981 to 2019 period. A similar approach is undertaken to explore spatial trends in housing occupancy, wherein the 2016 dwelling and household characteristics inform the estimation of how much additional population could be accommodated in the current housing stock. The methodologies employed by the various analyses have been deliberately designed so that the impact of demographics, in this case, age, can be estimated independently of all other factors that drive or influence housing demand.

Interpretation

The findings reported in this bulletin measure the potential shortfalls and mismatches in the types of housing units demanded and supplied that could occur if the 2016 demographic trends in Toronto continued into the future, and if the delivery of units to the market continued as it has in the past. The findings of this bulletin must be interpreted in this context.



See Acknowledgement for image credit.

Section 1. Concepts and Context

2. Concepts, Geographic Areas and Data Sources

The following chapter introduces some of the more commonly used terms found in this bulletin. A Glossary on page 150 provides more specific definitions.

Concepts

Primary Household Maintainer (PHM)

Statistics Canada defines the primary household maintainer as the first person in the household who pays the rent or the mortgage, taxes, or other expenses for the dwelling. Where there are two or more people who are listed as household maintainers, the first person listed is the household maintainer.

The PHM is used in the bulletin as a proxy or representative for all members of a household and the age of the PHM has been taken as an indicator of the life stage of the household. Thus, occupancy trends of PHMs represent the housing decisions of households at various stages as they age, and how their housing needs change. Throughout this bulletin, terms such as "age of the household" refer to the characteristics of the PHM.

Age Groups

Where possible, the analysis in this bulletin is grouped by specific age categories of adults based on the generations they belong to, as follows:

- 15-34,
- 35-49,
- 50-69, and
- 70 and over

This categorization of the overall population into four groupings enables us to identify trends among people and households at different life stages over the study period. The Housing Occupancy Trends 1996-

2016 (HOT) bulletin examined distinct age groupings of households with similar changes in the proportion of households. These age groupings and their patterns of growth and decline are important indicators because changes in our choice of housing are largely dependent upon age-related life-cycle events. Changes in the relative size of the household groups by age trigger changes in occupancy rates by increasing the demand for both starter homes and "move up" housing. Therefore, to explore the effect of growing and shrinking age groups on housing demand, the distribution of households were regrouped into the four age groups of the Primary Household Maintainer (PHM) which parallel the population changes. The Statistics Canada Census of Population defines PHMs as 15 years of age or older. Children 0 to 14 years of age are included in discussions of the total population, as are children aged five years and above with respect to migration and mobility findings.

Generations

Generations are groups of people who were born at a similar time (see. Figure 1 on page 27). Each generation is perceived to have experienced historic events, such as recessions and housing booms, together as a group at roughly the same age. For this reason, disparities can exist between generations which shape their housing opportunities and their preferences. Discussing housing trends and needs through a generational lens provides an opportunity to analyze the population by their stage in life and the generational factors influencing their housing choices. The generations referred to in the bulletin are defined as follows based on their age as of the 2016 Census:

- Generations Not Yet Born: those born after the 2016 Census Day, May 10, 2016.
- **Generation Z**: those born between May 11, 2001 and May 10, 2016. They were aged 0-14 in 2016.

- Millennials: those born between May 11, 1981 and May 10, 2001. They were aged 15-34 in 2016.
- **Generation X**: those born between May 11, 1966 and May 10, 1981. They were aged 35-49 in 2016.
- Baby Boomers: those born between May 11, 1946 and May 10, 1966. They were aged 50-69 in 2016.
- The Silent Generation: those born between May 11, 1926 and May 10, 1946. They were aged 70-89 in 2016.
- Earlier Generations: those born before May 11, 1926. They were aged 90 and over in 2016.

These generations were derived based on their relative population sizes and recognisability as distinct generations. The authors also attempted to maintain consistent ranges of birth years of either 15 or 20 years. The Baby Boomer generation is generally defined as including those born between 1946 and 1965, so the authors rounded this to the nearest census period for a 20-year range.⁵

The other generations were built around the Baby Boomers, due to their primacy as a large and distinct group over the study timeframe. Generation X includes the Baby Busters, those born just after the Baby Boomers between 1966 and 1971 when fertility rates declined notably. The populations of each five-year birth cohort in Generation X peaked at lower levels than the Baby Boomer cohorts did, so those born in the 15 years between 1966 and 1981 were grouped together under one generation. See Figure 2 on page 28.

Four five-year cohorts born between 1981 and 2001 were grouped into the Millennials generation. The oldest three of the four cohorts have grown noticeably in recent years, distinguishing them from the cohorts of Generation X. Although the oldest two cohorts tend to differ from the youngest two in terms of their housing demands, the youngest two cohorts' populations were too small for them to form their own generation in this bulletin; their data would have been suppressed for certain analyses. Moreover, Statistics Canada deems that persons aged 15 and over as the minimum age a person can be considered as the household maintainer. It was important therefore to keep the cohort born between 1996 and 2001, who were 15 years in 2016, together in a generation with other adult cohorts.

Figure 1: Generations by Year Born and Age in 2016



The remaining generations were based on a best fit of all other age groups with cohorts of the same generation. The Silent Generation includes four cohorts born between 1926 and 1946 who were aged 70-89 in 2016. Data for all four of these cohorts is available for each Census year between 1996 and 2016, while for the Earlier Generations. data becomes increasingly sparse for the oldest cohorts in the latest Census years as they begin to pass on in greater numbers. Generation Z includes three cohorts born between 2001 and 2016, who were all children in 2016. Generations Not Yet Born include future cohorts whose characteristics and experiences are not yet known, but require representation in the analyses undertaken in this bulletin.

Turnover and Downsizing

Housing turnover occurs when a household vacates its dwelling and a new household moves in. Turnover of the housing stock occurs as individual preferences and needs change, and as people move for family, work, financial

or other reasons. Downsizing is a form of turnover. In the context of this bulletin, 'downsizing' is generalized to refer to households with a PHM aged 50 years or more and their transition from being an overhoused household to one in which they occupy dwellings with fewer bedrooms. Overhoused households are those with more bedrooms than they require. Overhoused households younger than 50 are not considered downsizing candidates yet, as due to their younger age these households are still in their childbearing years. A number of these younger households may increase in size with the arrival of new or additional children, increasing the amount of housing these households would require to be suitably housed under this bulletin's definition. Other markers of turnover include households aging out of private housing (due to mortality or institutionalization), cohabitation resulting in the joining of two individual households into one, and households migrating out of Toronto.



Figure 2: Population Size by Generation and Cohort, 1961-2016

Section 1. Concepts and Context

Dwelling Types

Dwelling Types are defined differently by Statistics Canada and Canada Mortgage and Housing Corporation (CMHC). For the most part, this bulletin relies on the definitions of dwelling types as defined by Statistics Canada, unless otherwise stated. The dwelling type descriptions used by both Statistics Canada and CMHC are described in detail in the Glossary on page 150.

Prior to the 2006 Census, Statistics Canada classified single- and semidetached dwelling structures that contained apartments as either singledetached or semi-detached structures. In 2006, Statistics Canada classified single- and semi-detached dwellings with apartments as apartments or flats in duplexes or units in apartments with less than five storeys. Approximately 53,000 units were reclassified as a result. Any change in the classification of dwelling units impacts our understanding of housing occupancy trends.

To effectively deal with the reclassification issue, for analysis from 1996-2016 this bulletin categorizes all dwellings types from Census data into three categories:

- Houses and low-rise units which include single- and semi-detached houses, apartments or flats in duplexes, units in apartments with less than five storeys and other dwellings such as mobile homes;
- Row/townhouses; and
- Mid/high-rise units, which includes apartment units in buildings with five or more storeys.

In Chapter 10 and Chapter 11, CMHC housing completions are utilised. Completion data by dwelling type rely on the definitions of the Canada Mortgage and Housing Corporation (CMHC) and are described in the Glossary on page 150. As the CMHC definitions of dwelling types differ to Statistics Canada definitions of dwelling types, the terms 'Ground-related' and 'Apartment and Other' are introduced. The dwelling type descriptors group similar dwelling types together to combine dwelling types into those that are estimated to have future shortfalls and those estimated to have future surpluses compared to what future households might demand.

Data Sources

Census Data, Statistics Canada

Results in this bulletin are based primarily on the 1996, 2001, 2006, 2011 and 2016 Censuses of Canada and the 2011 National Household Survey (NHS) unless otherwise indicated. Totals vary slightly from table to table as Statistics Canada randomly rounds data up or down to a multiple of five (and in some cases 10). This is a confidentiality procedure intended to prevent the possibility of associating these data with any identifiable individual. The totals of each table and figure are the sum of the individual population characteristics in that table as provided by Statistics Canada, each of which may have been randomly rounded. As a result, due to random rounding, the totals for any one table may vary from the total population count for that area as reported by Statistics Canada.

Other Data

Other data sources include those of Toronto City Planning, Canada Mortgage and Housing Corporation (CMHC), Municipal Property Assessment Corporation (MPAC), and Statistic's Canada's Canadian Housing Survey.

20-Year Study Period

Unless otherwise stated, the Study Period refers to the 20-year period from 1996 to 2016. Figures and tables show data for all five Census years where possible, with some exceptions for clarity where only select Census years are shown.

Geographic Areas

Toronto

All figures and tables refer to the city of Toronto unless otherwise specified. All references to Toronto refer to the city of Toronto and the Toronto Census Division unless otherwise indicated (see Figure 3).

Greater Toronto and Hamilton Area (GTHA)

The Greater Toronto and Hamilton Area (GTHA) includes Toronto and the city of Hamilton and the regional municipalities of Halton, Peel, York and Durham. The Rest of the GTHA refers to the GTHA excluding Toronto.

Toronto Census Metropolitan Area (CMA)

Statistics Canada publishes data at the Census Metropolitan Area (CMA) level. A CMA is formed by one or more adjacent municipalities centred on a population centre (known as the core). A CMA must have a population of at least 100,000 of which 50,000 or more must live in the core. Some data is not publicly available at the City of Toronto Census Division level. As a result, some of the literature cited in this bulletin refers to the Toronto CMA, as this is often the only geography for which certain data is publicly available. The Toronto CMA covers much of area from Milton in the west to Ajax in the east, and as far north as Georgina to Lake Ontario in the south.



Figure 3: Map of Toronto and the Rest of the GTHA

Source: City of Toronto, City Planning

3. Planning Policy Scan

Planning at the City of Toronto is governed by a number of provincial and municipal pieces of legislation. These documents provide guidance and direction to the City on how to manage population growth and household change, among other things. While the primary focus of most planning legislation with regards to housing is on the location, form, and affordability of new residential development, these documents also speak to the need to consider existing land, housing, and infrastructure when planning to accommodate population growth.

The Provincial Policy Statement, 2020

(**PPS**) is the highest-level planning framework in Ontario. It encourages planning authorities throughout the province to facilitate a range and mix of housing options to respond to the needs of current and future residents. It envisions efficient development patterns that optimise land, resources and infrastructure.⁶

Broadly, the PPS calls on planning authorities to:

- Plan for land uses and densities that efficiently use land and resources;⁷ and
- Identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through intensification and redevelopment where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs⁸ (emphasis added).

In other words, the PPS calls on municipalities to consider existing resources when planning for future growth.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2020

builds on the PPS to establish a unique land use planning framework for the GGH⁹ that supports the achievement of complete communities, a thriving economy, a clean and healthy environment, and social equity."10 This document defines complete communities as "places...that offer and support opportunities for people of all ages and abilities to conveniently access most of the necessities for daily living, including an appropriate mix of jobs, local stores, and services, a full range of housing, transportation options and public service facilities. Complete communities are age-friendly and may take different shapes and forms appropriate to their contexts."11

The Growth Plan stresses that "it is important to optimize the use of the existing urban land supply as well **as the existing building and housing stock** to avoid over-designating land for future urban development while also providing flexibility for local decisionmakers to respond to housing need and market demand,"¹² (**emphasis added**). With this language, the Growth Plan acknowledges that the existing housing stock must be taken into consideration when planning to accommodate the current and future population's housing needs.

The Growth Plan provides population and employment forecasts for upperand single-tier municipalities including the City of Toronto. These forecasts are to be used for planning and managing growth to the horizon of the Growth Plan. The City of Toronto is required by the *Places to Grow Act* to amend its Official Plan to conform to the policies and schedules of the Growth Plan. These legislated requirements are achieved through a conformity exercise defined by the Growth Plan as a Municipal Comprehensive Review (MCR).







The City of Toronto's Official Plan

guides development and growth management within the city's boundaries. It sets out a vision for a "city where people of all ages and abilities can enjoy a good quality of life," with "affordable housing choices that meet the needs of everyone throughout their life." ¹³ In particular, the following policies in the Official Plan speak explicitly to the need to consider existing resources when undertaking planning exercises, including the protection of existing rental stock:

"2(1): Toronto will work with neighbouring municipalities, the Province of Ontario and Metrolinx to address mutual challenges and to implement the Provincial framework for dealing with growth across the GTA which:...

> b) makes better use of existing urban infrastructure and services; ...(and)

f) encourages GTA municipalities to provide a full range of housing types in terms of form, tenure and affordability, and particularly encourages the construction of rental housing in all communities....¹⁴

"3.2.1(1): A full range of housing, in terms of form, tenure and affordability, across the City and within neighbourhoods, will be provided and maintained to meet the current and future needs of residents. A full range of housing includes: ownership and rental housing, affordable and mid-range rental and ownership housing, social housing, shared and/ or congregate-living housing arrangements, supportive housing, emergency and transitional housing for homeless people and at-risk groups, housing that meets the needs of people with physical disabilities and housing that makes more efficient use of the existing housing stock.

3.2.1(2): The existing stock of housing will be maintained, improved and replenished. The City will encourage the renovation and retrofitting of older residential apartment buildings. New housing supply will be encouraged through intensification and infill that is consistent with this Plan,"¹⁵ (emphasis added).

Moreover, Chapter 5 of the Official Plan mandates that the progress of the Plan towards its objectives will be monitored periodically by analysing, among other things, demographic trends:

> "5.4(1) Appropriate targets and indicators will be established to serve as a basis for assessing progress toward achieving the objectives of this Plan. Progress will be assessed periodically and will be informed by analyses of:

> > a) the social, economic, environmental and fiscal trends affecting the City, the region, the province and the country;

b) population, employment and housing trends...¹⁶

This research bulletin constitutes one such analysis to support the ongoing implementation of the Official Plan within the context of the provincial land use planning framework.

4. Housing Occupancy Trends 1996-2016: A Look Back

The previous bulletin in this series, Housing Occupancy Trends 1996-2016 (HOT), highlighted emerging trends in housing occupancy in response to changing demographic conditions and housing stock. This chapter highlights the key findings from that bulletin that led to the research questions pursued in this bulletin.

Baby Boomers make up the largest number of households in the city and therefore their decisions will continue to have a major influence on housing occupancy. Together, the Baby Boomers and older generations occupy well over half of all houses and low-rises, and many of these households are likely to be (or soon become) 'empty-nesters'. The housing decisions of these older age groups will undoubtedly have an impact on the types and supply of housing available for younger households, particularly should they wish to own houses and low-rise dwellings. While aging in place is a positive societal advancement to the extent that seniors can continue to live independently in their residences later into life than previous generations if they so choose, this advancement also has the potential to delay the turnover of housing stock to younger households. Whether and when Toronto's Baby Boomers make a move to downsize will have a big impact on the future supply of ground-related housing and the cyclical turnover of the ground-related housing stock.

At the same time, Toronto's population is growing, and net migration is the main source of population growth. The majority of people moving to Toronto are younger than the city's overall age distribution and all positive net migration since 2006 is in younger age groups. As of 2016, the number of Millennials surpassed the number of Baby Boomers and is approaching the Baby Boomers' population at its peak. The Millennial generation faces a different market and composition of stock than their predecessors did. Over time, housing demand will grow, and the Millennial generation and generations that follow will increasingly affect the composition of the housing demanded. These trends suggest that many of the young newcomers to Toronto will need to live in new housing stock, as the housing freed up by households leaving will be insufficient to meet their demand. But how much new housing stock might be required in the future? Will tomorrow's older adults demand the same kind of housing as they have in the past? Will they free up housing at the same rates? These questions were outside the scope of HOT, but have important implications for the amount and type of housing that should be built in Toronto in the coming years. This bulletin explores these concepts and their implications.

While the age composition of the population is changing, the types of households that they form are also changing. The number of non-family households in the city continues to rise, particularly among persons living alone; one-person households accounted for almost one out of every three households in Toronto in 2016. While couples without children have maintained the same proportion of households over the past 20 years, the proportion of households that are couples with children is in decline. Lone-parent family households have increased by nearly 25%.

At the same time, the composition of the housing stock has also changed. Between 2010/2011 and 2018/2019, apartments generally accounted for 90% of Toronto completions each year. On average, recently-built condominium units in medium/highrise buildings were close to half the size of condominium units built 20 years prior. At the same time that average unit sizes have shrunk, the proportion of one-bedroom units in mid/ high-rise buildings has increased. All household types, including couples with children and lone-parent families, are increasingly living in mid/high-rise units. One-bedroom mid/high-rise units may meet the suitability needs of the growing numbers of one-person households. But do these physically smaller-sized units meet the needs of family households with children, or twoor-more-person non-family households? These issues were introduced in the HOT bulletin and this bulletin provides further analysis and insight into the housing mismatch.

The HOT bulletin also revealed that while owner households arew three times as fast as renter households between 1996 and 2016, the trend reversed between 2011 and 2016 as renter households grew faster than owner households. Rentership has increased despite relatively little construction of new purpose-built rental units, relying instead on the secondary rental market that includes rented condominiums for example. Renter households also had lower average household incomes than owner households, and a greater share of renter households struggled with affordability challenges compared to owner households. These trends suggest that tenure may be intertwined with households' decisions about how many bedrooms they can afford, and that there is an unmet demand for secure purpose-built rental housing. The current bulletin will examine how suitability differs between tenures and will also estimate how much rental housing may be demanded in the future.



See Acknowledgement for image credit.

Section 2: Housing Suitability

5. Toronto Housing Suitability (1996-2016)

This chapter provides an overview of the changes in Housing Suitability in Toronto between 1996 and 2016, summarising the key observations from this trend analysis and identifying research questions that require further analysis in the more detailed sections to follow.

What is Housing Suitability?

The Statistics Canada Census of Population includes an indicator for crowding called **housing suitability**. This indicator measures whether the dwelling has a sufficient number of bedrooms for the size and composition of the household that occupies it. Housing suitability is distinct from the Census variable referred to as 'dwelling condition', which refers to whether the dwelling is in need of repairs.

The housing suitability indicator and the <u>National Occupancy Standard</u> (NOS) on which it is based were developed by the Canada Mortgage and Housing

Corporation (CMHC).¹⁷ The Standard requires that there are no more than two persons per bedroom, irrespective of the household's composition. Generally, the NOS deems a dwelling to be suitable for a household if every household member has their own bedroom. There are some exceptions where the NOS deems sharing a room to be acceptable including couples, same sex pairs of children under the age of 18 years and two oppositesex children under the age of five. Another exception to the general NOS rule that each member requires their own bedroom, is that one-person households do not require a bedroom; these households can occupy a studio unit and the dwelling that this person occupies is considered suitable.

The NOS measures the depth of suitability by counting bedroom shortfalls and surpluses. A dwelling that has a shortfall of one or more bedrooms is considered unsuitable for its household, while a dwelling with the exact number of bedrooms or a surplus of one or more bedrooms is considered suitable. A bedroom surplus does not



Source: City Planning, adapted from CMHC's National Occupancy Standard (NOS).
always mean that the space is not utilised. For example, the surplus bedroom(s) may be used for alternative uses including guest rooms, home offices, play rooms, and so on.

To discuss the relationship and fit of households within their dwellings, this analysis has devised a separate set of terms, based around the NOS, to describe suitability. This bulletin has categorized all households into three groups referred to as overhoused, rightsized and underhoused (see Figure 4 on page 36). **Overhoused** households are households with a surplus of bedrooms. Right-sized households are households with no bedroom surplus or shortfall. Households in unsuitable dwellings are those living below the suitability standard, having a shortfall of bedrooms and are referred to as underhoused.

Due to the exception noted in the NOS whereby persons living alone in a studio are considered to be in suitable housing, it follows that a person living alone who occupies a unit with at least one bedroom is therefore deemed to have a surplus of bedrooms based on the NOS's definition. However, nearly 30% of overhoused households in Toronto constitute one-person households living in one-bedroom units. Given that the one bedroom is being used as a bedroom, the authors of this bulletin have concluded that classifying such households as overhoused does not accurately reflect their lived experience as there is no surplus bedroom. Therefore, for the purposes of this bulletin, the authors have adopted a modified version of the NOS definition that considers oneperson households living in one-bedroom units to be right-sized. See Sidebar: Are One-Bedroom Units Occupied by One Person Right-Sized or Overhoused? for more information.

All references to these suitability terms refer to a categorization of households rather than individuals unless otherwise specified. The three categories are designed to permit a closer inspection of household circumstances beyond the NOS designations of housing as

Are One-Bedroom Units Occupied by One Person Right-Sized or Overhoused?

The NOS considers all one-bedroom units occupied by one person as not suitable, by a surplus of one bedroom (i.e. overhoused). For a one-bedroom unit to be considered as having no surplus or shortfall (i.e. rightsized), the unit would need to be occupied by a couple. This bulletin treats one-person households differently from the NOS.

One-bedroom surpluses are the most prevalent type of NOS-derived overhousing in Toronto. The rising number of one-person households occupying one-bedroom units is increasingly driving that growth. Between 1996 and 2016, over three quarters of the increase in one bedroom surplus households under the NOS definition (+123,965 households) was due to the increase in the number of one-bedroom units occupied by one person (+93,745 households).

In 2016, one-bedroom units occupied by one person (200,715 households) represented almost a third (29%) of the 688,720 NOS-derived overhoused households, whereas in 1996 these same household types accounted for 23% of all overhoused households.

Would a person living alone in a one-bedroom considered themselves to be overhoused? In the lived experience of the occupant, the bedroom is more than likely used for its intended purpose as a sleeping area and is not surplus in the sense of being empty or used for alternative uses (e.g. office, gym, playroom, etc.). Therefore for the purposes of this bulletin, these households are not deemed to be overhoused.

Given the large number of these households in Toronto, this bulletin has interpreted the NOS differently in defining the suitability categories used in the analysis. This bulletin categorises one-person, one-bedroom units as right-sized, and not overhoused. The effect is that there are a greater number of right-sized households, and a lower number of overhoused households reported in this bulletin, than if the NOS differentiations had been rigidly applied.

See Figure 78 and Figure 79 in Appendix A on page 152 for a comparison of the NOS definition with the modified definition used in this bulletin.

suitable or not suitable by further subcategorising households in suitable units into right-sized and overhoused households. The measure of rightsizing is an important housing indicator to monitor as it indicates balance, or imbalance, as the case may be, between housing and households.

The terms underhoused, right-sized and overhoused are used for brevity and do not constitute judgements about the choices household members have made. Occupants of these households may not consider themselves to be either under- or overhoused. As will be discussed later in greater detail in Chapter 8, many households may prefer to be underhoused due to cultural norms, familial closeness, or to reduce shelter costs in favour of other things they value more than space. While underhousing is undoubtedly a problem for those who would prefer more bedrooms but cannot afford or obtain them. Census results do not distinguish between these households that are underhoused by necessity and those that are underhoused by choice. In addition, while bedroom type is positively correlated with unit size, there are vast differences in unit sizes within each bedroom type that can impact livability. For example, a small twobedroom unit would be less ideal for a couple family with children than a larger unit, even though both may satisfy the definition of 'suitable' housing.

Similarly, those considered overhoused by this bulletin's definition include those who choose to have more bedrooms than the standard to use for alternative uses (e.g. offices, studios, and so on) or for future use as bedrooms if they are planning to have children. There are also overhoused households who would prefer to be right-sized but cannot find appropriate housing. Overhousing and underhousing are potential problems for some households: these conditions are not a concern for all who experience them while for others they represent personal deprivation and persistent social need.

This NOS-derived categorization is only one measure of underhousing, and a Western-centric model at that. Other models from around the world have different definitions of overcrowding. For example, the UN-Habitat measure defines overcrowding as more than three people per hospitable room;18 many households that the NOS considers underhoused might be suitably housed under the UN-Habitat definition. Central to the NOS is the measurement of persons per bedroom. Alternative measurements of suitability identified by the U.S. Department of Housing and Urban Development (HUD) include persons-per-room, unit square footage-per-person and hybrid methods of all of the aforementioned.¹⁹

The definitions in this bulletin also differ from the City of Toronto's Local Occupancy Standards, which are used for Rent-Geared-to-Income (RGI) units.²⁰ These standards set the minimum and maximum number of bedrooms a household would qualify for in a RGI unit. In contrast to NOSbased standards, these standards do not consider a studio unit to be underhoused if a two-person household requests it, and furthermore considers one or two adults per bedroom to be acceptable. Many households that this bulletin's definition considers underhoused might be deemed suitable if one of the alternative methods of measurement were used, or if the City's local occupancy standards were applied.

Nonetheless, the NOS is a federally recognised and accepted standard that enables the City to consistently track housing suitability over time. It is also the only standard for which data is readily available, and easily modified to re-classify one-person, one-bedroom households from overhoused to rightsized, as has been done in this bulletin. As will be discussed in later chapters, identifying the category of underhoused households is the primary focus of this research, as underhoused households represent the most vulnerable subset of households. That said, understanding more about overhousing provides important insights into understanding how the existing housing stock is occupied, and the potential of the existing housing stock to accommodate future population growth.

It is also important to distinguish between housing suitability and affordability. Suitability is concerned with the number of bedrooms per household, but it does not consider the cost of the dwelling (although the two are related, as affordability burdens may push households into unsuitable housing). An overhoused household can be living in affordable or unaffordable housing, in much the same way as underhoused and rightsized households can also be living in affordable or unaffordable housing. The three categories of suitability should not be misconstrued as indicators of housing affordability.

Toronto: Underhoused, Right-Sized and Overhoused Households

The number of right-sized households increased between 1996 and 2016. As shown in Figure

5 and Table 22 in Appendix A, the number of right-sized households increased from 380,995 households in 1996 to 490,100 households in 2016, an increase of 109,105 households. However, as shown in Figure 6, despite this increase, the percentage share of right-sized housing increased only slightly, from 42.2% and 44.0% over the same period. In other words, while there is a higher reported number of right-sized households overall, the increase in these right-sized households grew at about the same pace as overall household growth (see Figure 7 on page 40).

The addition of almost 250,000 newly built dwellings to the housing stock between 1997 and 2016 has not translated into a significant increase in right-sizing.²¹ The increase of housing supply alone appears to have been insufficient to contribute to increased

Figure 5: Number of Households by Suitability Indicator, 1996 to 2016

Overhoused
Right-Sized

Underhoused



Figure 6: Percent of Households by Suitability Indicator, 1996 to 2016



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rates of right-sizing. Within Toronto, low rental vacancies and high rents during this time period may have disincentivised downsizing and rapid house price escalation may have prevented growing households from moving into larger housing. Given that 40.3% of the recently-built housing stock consisted of one-bedroom units (see Figure 8 on page 41), predominantly in the condominium sector, it is possible that this increase in right-sizing was experienced by households with certain characteristics more than others; this experience will be explored in Chapter 6 and Chapter 7.

At the same time, overhoused households increased by 130,375 and underhoused households decreased by 30,125.

Between 1996 and 2016, the number of overhoused households increased significantly, while underhoused households declined at a comparatively moderate rate. An additional 130,375 households were found to be overhoused in 2016 compared to 1996, as shown in Figure 5 on page 39. The growth of overhoused households equates to a 36.5% percent change, as shown in Figure 7. In contrast, total households in Toronto grew by 23.2% over the same time period. The increase in overhoused households has therefore outpaced total household growth. The growing share of overhoused households from 39.6% in 1996 to 43.8% in 2016 (see Figure 6 on page 39) indicates that there is a discrepancy between housing expectations based on housing suitability and the reality of housing occupancy, which varies with demographics and socioeconomic characteristics.

At the same time, underhousing decreased by 18.3%. In 2016, 12.1% of households were underhoused compared to 18.3% in 1996. Although underhousing remains an issue for a subset of the population, this decrease in underhousing in general suggests an improvement in overall living conditions.

A combination of changes to demographics and housing stock, alongside regional housing market conditions, are likely causing underhousing to decrease and overhousing to increase. While the declining number of underhoused households is undoubtedly a positive observation, the underlying factors



Figure 7: Percent Change of Households by Suitability Indicator, 1996 to 2016

causing this are complex. It would be remiss to conclude outright that a reduction in underhoused households indicates that Toronto has a more equitable housing mix and supply for all households, when instead there is a more complex interplay of factors.

As discussed in Chapter 4, the composition of households in Toronto has changed significantly, with a notable increase in the number and proportion of persons living alone occurring over the last two decades. As a result, the range of housing stock required to suit the diversity of household types in 1996 differs to that required in 2016, and will differ again in the future. The changing composition of the city's population and the types and sizes of households they have formed may be one reason for the declining number of underhoused households over the 20-year period. Chapter 6 of this bulletin explores this further by analysing which types of households are experiencing underhousing.

Added to this, the Toronto housing market does not exist in isolation; it is part of a wider regional GTHA housing market. Households move around in this market, and there is a continuous flow of households in and out of the region. As discussed in the Housing Occupancy Trends 1996-2016 (HOT) bulletin, persons aged 35-49 are driving the net flow of migration from Toronto to the Rest of the GTHA. Part of Toronto's decline in underhousing may also be a reflection of: (1) people outside the city who self-select themselves for the housing Toronto has to offer; (2) pent-up demand for new household formation in the face of high housing costs; and (3) the number of households who move out of the city in order to acquire more affordable or suitable housing. All of these reasons could leave a smaller number of underhoused households relative to new household formation and in-migration compared to 1996. The NOS as modified here, and right-sizing, are lenses through which to study the housing mismatch: they are indicators of housing inequality and social choice but they are not measures of the degree of housing inequality experienced by individual households.

Underhoused households who remain in unsuitable housing are either involuntarily underhoused, where affordability and other issues are barriers to acquiring housing to suit their needs, or they prefer to be underhoused. Common reasons for this preference include ethnocultural norms that value the familial closeness that can be found in multi-generational households. This is why it is important to understand more about what portion of the underhoused population is truly 'stuck' and without choice. This topic is discussed further in Chapter 8.

At the other end of the spectrum. there has been an increase in the number of overhoused households. Overhousing will always occur to some degree, and it is important to note that a surplus of bedrooms does not mean that these rooms are not used, as they can include such uses as guest bedrooms and home offices. A growing rate of overhousing may also include another form of constrained mobility, for example, if older generations who would prefer to downsize are unable to find housing to meet their needs. These changes are far-reaching and cross-generational, in that the delayed turnover of housing stock may reduce the opportunity for younger households to find suitable housing, which is discussed further in Chapter 10.

Figure 8: Number and Percent of Dwellings Built between 1996 and 2016 by Number of Bedrooms, 2016

Studios 1.6% 4,125			
1-bed	2-bed	3-bed	4+ bed
40.3%	33.6%	12.7%	11.7%
100,845	84,135	31,765	29,330

Underhousing by Bedroom Shortfall

Most underhoused households are short by one bedroom, accounting for over 100,000 households each year which equates to almost one in 10 households in Toronto (see Figure 9). A shortfall of one bedroom means that one more additional bedroom is required for that household to be suitably housed. The higher the number of bedroom shortfalls, the more underhoused a household is Overall, the number of one-bedroom shortfalls has remained largely unchanged between 1996 and 2016, notwithstanding the decline in underhoused households overall.

The reduction in the number of underhoused households is due to the decline in two-bedroom shortfalls and three-or-more bedroom shortfalls over the 20-year period. The more extreme counts of underhousing have halved over 20 years; three-or-more

bedroom shortfalls declined by 61.6% compared to declines of 43.8% and 1.9% for two-bedroom shortfalls and one-bedroom shortfalls, respectively.

The reduction in the number of underhoused households by shortfalls of two or more bedrooms is notable. As was discussed in the previous section, reasons for this decline may include larger households migrating out of Toronto to the Rest of the GTHA or further afield; the diversity of housing stock evolving in the city (for example, more townhomes and condominium units with two or more bedrooms): and the changing demographics of the city's households, where average household sizes are becoming smaller and the housing stock responds better to that demand. It is important to note that a shift toward less imbalance does not necessarily mean an improvement in housing diversity but a better match between the housing demanded overall and the housing available at that point in time.

Figure 9: Number of Underhoused Households by Bedroom Shortfall, 1996-2016



- Shortfall of three or more bedrooms
- Shortfall of two bedrooms
- Shortfall of one bedroom

The largely unchanged number of households underhoused by a one-bedroom shortfall suggest that there is an inherent sub-sector of the households that are underhoused. whether it be by preference or by circumstances. These 100,000 households are not necessarily the same 100.000 households over the time period; instead the composition of these 100,000 or so households constantly changes and includes a mix of long-term underhoused households and newly underhoused households. Depending on the unit layout, a household categorised with a one-bedroom shortfall may not consider themselves to be underhoused, considering that these living arrangements can include an adult child who is 18 years and over sharing a room with a sibling, or two children of the opposite sex over age 5 years who share a room. There will always be some amount of underhousing by the definition used in this bulletin; the challenge is to separate those who chose it and those who are unable to find alternatives. This concept is explored further in Chapter 8 and Chapter 11.

Overhousing by Bedroom Surplus

One-bedroom surpluses are the most prevalent type of overhousing, accounting for almost 200,000 households in 2016 and increasing by 30,215 households since 1996 (see Figure 10). The number of households with two- and three-or-more-bedroom surpluses also grew significantly during the 20-year period, increasing by about 50,000 households each, or 100,000 households in total. The number of three-or-more-bedroom surplus households in 2016 (106,920) was almost double what was reported in 1996 (59,910). Three-or-more bedroom surpluses grew by 78.5% compared to 39.6% and 18.5% for two-bedroom surpluses and one-bedroom surpluses respectively.

The growth in the number of two- and three-bedroom surpluses implies that overhousing may increasingly be occurring in larger unit types. This brings into question how much overhousing occurs in low-density housing versus high-density housing, how much of the overhoused stock is occupied by older households, and the magnitude of the potential for housing turnover. Chapter 7 will look further at overhousing by dwelling type and age of the household to provide further insight.

Figure 10: Number of Households Living in Overhoused Housing, 1996-2016

- Surplus of three or more bedrooms
- Surplus of two bedrooms



Surplus of one bedroom

Toronto Housing Suitability comparison with the Rest of the GTHA

Comparing housing suitability rates between Toronto and the Rest of the GTHA illustrates the contrast between the two areas, though they co-exist within the one regional housing market. The two areas differ to each other in multiple ways, not least of which includes the type of housing stock, demographics, household compositions and market conditions that exist in each part of the region. The different compositions and markets within these two areas affect the rates of housing suitability.

In contrast to Toronto, right-sizing as a percentage of all housing has declined across the Rest of the GTHA from 30.2% in 1996 to 25.3% in 2016, see Figure 11 on page 44 and Table 23 in Appendix A. In 2016, two in five Toronto households were right-sized (44.0%) compared to

one in four households (25.3%) in the Rest of the GTHA. Over the 20-year period, there has consistently been a higher rate of right-sized households in Toronto compared to the Rest of the GTHA. At the same time, overhousing is more prevalent in the Rest of the GTHA compared to Toronto. About two thirds (68.5%) of households in the Rest of the GTHA were overhoused, compared to 43.9% in Toronto in 2016. Increasing rates of overhousing is evidently a trend that is occurring across the wider region. In 2016, the rate of underhousing in the Rest of the GTHA (6.2%) was half that of Toronto (12.1%). Underhousing rates have declined modestly in the Rest of the GTHA over the 20-year period compared to a more significant decline in Toronto.

The composition of the existing housing stock in Toronto differs significantly to that in the Rest of the GTHA. In 2016, half of Toronto's dwellings were in houses and low-rises, compared to almost three quarters for the Rest of the GTHA.²² Houses and low-rises generally have more bedrooms than mid/high-rise apartments.

However, the lower right-sizing and underhousing rates and the higher overhousing rates in the Rest of the GTHA compared to Toronto are due to many factors. It is not only the different mix of housing stock that creates the difference in these rates; the demographic, ethno-cultural, household and dwelling characteristics, alongside the differences in peak periods of construction, price ranges, market operation and size of units in the two areas are all contributors.

The next chapter will examine Toronto's suitability indicators against different household characteristics in order to explore which households have a higher propensity to be underhoused, right-sized, or overhoused.



Figure 11: Percent of Households in Toronto versus the Rest of the GTHA by Suitability, 1996-2016

6. Toronto Housing Suitability by Household and Dwelling Characteristics (1996-2016)

As the previous chapter outlined, Toronto's overall rates of right-sizing and overhousing have increased slightly while underhousing declined between 1996 and 2016. At the outset, the decline in the rate of underhousing appears to be a favourable outcome, as it indicates there are fewer households in Toronto that are experiencing a shortfall in bedrooms. However, it can only be regarded as a favourable outcome if this improved suitability is equitably distributed. In turn, what household groups are experiencing overhousing? The next part of the analysis examines whether the changes in suitability have been experienced uniformly across different types of household and dwelling types. As this chapter will show, this has not

been the case. Certain household configurations have experienced higher rates of underhousing, at the same time that other household types were increasingly becoming overhoused.

Based on the foregoing analysis of suitability trends, a number of research questions have emerged. These include to what extent is the housing suitability of a household impacted by age (e.g. young or older persons heading a household), by household type (e.g. are they family or non-family households), or by tenure (renters or owners)? Are there differences in suitability rates between lower and higher density housing or between older dwellings and more recently constructed dwellings?

To address these questions, an analysis of household and dwelling characteristics with the suitability indicator was undertaken. The time series analysis begins with examining suitability by selected Household Characteristics over the 20-year period. These include the age of the primary household maintainer, household type and tenure. The objective is to determine how demographic and household composition and suitability rates are related. The next sections relate suitability to the characteristics of the dwellings these households occupy, in terms of their dwelling type (i.e. houses and low-rises, row/townhouses and mid/high-rise units), how many bedrooms they contain, and the time periods in which they were constructed. The chapter concludes with some key insights based on the trend analysis and includes a ranking table of the most dominant household and dwelling characteristics observed for each of the three housing suitability categories in 2016.

Housing Suitability by Age of Primary Household Maintainer

The primary household maintainer (PHM) is the first person listed on the Census form of a household who pays the rent or the mortgage, taxes, or other expenses for the dwelling. The age of



Figure 12: Number of Households (000s) by Age of PHM and Suitability, 1996-2016

Chapter 6. Toronto Housing Suitability by Household and Dwelling Characteristics (1996-2016)

the PHM is used as a proxy for the age and decisions of the household and its members. See Age Groups in Chapter 2 for an explanation of how the age groupings were determined to allow for reporting on suitability trends of people and households at similar life stages. Table 24 and Table 25 in Appendix A show the total population and number of households by age over time.

As a proportion, the 35-49 and 50-69 year old groups are right-sizing at similar rates as in the past (see Figure 13). In contrast, younger households aged 15-34 are right-sizing more, increasing from 52.0% in 1996 to 62.9% in 2016. The share of senior households aged 70 and over that are right-sizing is lower in 2016 versus 1996 (30.4% versus 36.1%, respectively). The percent share of right-sized households decreases steadily with age. The youngest households right-sized about twice as much in 2016 as the oldest households.

Underhousing is declining among younger household groups (15-34 and 35-49) and remains relatively unchanged for older households (50-69 and 70 and over). In 2016, the largest number of underhoused households were headed by persons aged 35-49 (see Figure 12 on page 45 and Table 26 in Appendix A). However, underhoused households in the 35-49 age group have declined in number since 2006. The reason for this is less about improved suitability, but is instead largely due to the high number of Baby Boomers aging out of this group in the intervening years to 2016 (see Table 25 in Appendix A). This movement of the large number of Baby Boomers through the age groups as they age is also the leading reason why there is an increase to 43,565 households in 2016 for the 50-69 year old group (the age of the Baby Boomers in 2016).

The rate of overhousing increases with the age of the household. Half of all households aged 50-69 were overhoused in 2016. This rate compares to 24.3% of households aged 15-34 and 37.5% of households aged 35-49. Younger households may be less likely than older households to be in a position to afford to rent or purchase a dwelling with more bedrooms than they need. Additionally, much of the new housing supply that has been built as these young households have begun forming has been built in the form of units with few bedrooms as discussed in Chapter 4; this correlates with the higher rates of underhousing observed in younger households compared to older households.23 The most senior households (aged 70 and over) had the highest rate of overhousing at 66.0%, and that rate has been increasing.



Figure 13: Percent of Households by Age of PHM and Suitability, 1996-2016

This trend may be linked to improved health in older age and increasing life expectancies, allowing older persons to remain in their homes longer than was possible for many in the past, including into widowhood years. Overall, as a group, the older households (aged over 50 years) have higher proportions of overhousing, in part due to unoccupied bedrooms formerly occupied by children i.e. empty nesting, as well as improved socioeconomic status.

Housing Suitability by Household Type

The absolute number of underhoused households has declined for every household type between 1996 and 2016 (see Figure 14 and Table 27 in Appendix A). The decline in absolute numbers occurred despite the fact that there were more households of every type formed between 1996 and 2016. Proportionally, more households are right-sizing and overhousing, and the absolute numbers of those underhoused has declined (see Figure 15 on page 48). In 2016, there were almost 100,000 households of families with children that were underhoused, comprising almost 60,000 couples with children and just over 40,000 lone-parent households. Two in 10 couple family with children and three in 10 lone-parent households were underhoused in 2016. Of the 134.825 total underhoused households. 44.3% were couple family households with children and 29.8% were loneparent households (see Figure 16 on page 48). The fact that households with children together make up nearly three quarters of all underhousing suggests that children may be sharing

Figure 14: Number of Households (000s) by Household Type and Suitability, 1996, 2006 & 2016



Chapter 6. Toronto Housing Suitability by Household and Dwelling Characteristics (1996-2016)

bedrooms beyond what this bulletin considers to be suitable, and/or that families with children may be struggling to obtain suitable housing.

Lone-parent family and multiple-family households have experienced the smallest declines in underhousing (1,890 and 310 households respectively) when compared to the 16,410 fewer underhoused couple family with children households over the same 20-year period. This trend suggests that underhousing among lone-parent and multiple-family households may be a persistent condition. In 2016, underhousing was highest among the non-couple family households including 43.5% of multiplefamily households and 30.3% loneparent family households. For multiplefamily households, the presence of additional household members may make it challenging to obtain enough bedrooms to house them suitably. For lone-parent households, which are predominantly single-income households, it may be more difficult for many of them to afford dwellings with more bedrooms, compared to couple families which are more likely to be dual-income earners. One-person households have the highest rates of right-sizing, as over three-fifths (61.1%) of one-person households were right-sized in 2016. Much of this right-sizing depends on the modified definition that considers oneperson households to be right-sized if they are living in one-bedroom units (see Sidebar: Are One-Bedroom Units Occupied by One Person Right-Sized or Overhoused? on page 37). Twoor-more person non-family households and lone-parent families also have high rates of right-sizing, with 54.1% and 43.5% of them right-sizing in 2016 respectively.





Figure 16: Percent of Underhoused Households by Households Type, 2016

Couples without Children 2.2%Multiple Families 10.3%Couples with Children
44.3%Lone Parent Families
29.8%

2+ Person Non-Family 13.4%

There are also large numbers of overhoused couple families, both with and without children. In 2016, 45.7% of couple families with children were overhoused compared to the higher 69.3% of couple families without children. Conversely, 20.3% of couple families with children were underhoused compared with 1.3% of couple families without children. As a group, households with children therefore have lower rates of overhousing, and higher rates of underhousing than households without children.

Housing Suitability by Tenure

The rates of right-sizing for renter and owner households have both increased over the study period, with renter households increasing more than owners. In 2016, about three fifths (62.5%) of renter households were right-sized compared to about one quarter (27.5%) of owners (see Figure 18). The high rates of right-sizing among renters also represent many households living alone in one-bedroom units.

Underhousing occurs significantly more in households that rent than those that own. Almost a fifth of renters (18.6%) were found to be underhoused in 2016, whereas for owners this rate was a much lower 6.3%. Nearly 100,000 renter households were underhoused in 2016 compared with 37,010 underhoused owner households (see Figure 17 and Table 28 in Appendix A), a ratio of 2.6 to 1.

In 2016, approximately two thirds (66.2%) of owner households were overhoused, compared to a little less than one fifth (18.9%) of renter households. As discussed in Chapter 4, the 2015 average household incomes of owners were significantly higher than those of renters. It follows that renters may be less able to afford to acquire more space than they require as per this bulletin's definition of suitability. Owners may be more able to select their dwelling to serve their housing needs over a longer timeframe, and thus may deliberately acquire more space than required at that time.

Figure 17: Number of Households by Tenure and Suitability, 1996-2016



Figure 18: Percent Share of Households by Tenure and Suitability, 1996-2016



The higher rates of overhousing in owner households compared to younger households may also be indicative of older households that are empty-nesters. Figure 17 on page 49 showed that in 2016 there were almost 389,000 owner households who were overhoused. Figure 19 provides a breakdown of these overhoused owner households by age of PHM, showing higher rates of overhousing for older owner households than younger owner households. Over two-thirds of the owner households aged 50-69 were overhoused; this rate increases to 83.2% for owner households aged 70 and over. Figure 19 also provides the same breakdown for the 99,000 overhoused renter households in 2016, showing that renter households also had higher rates of overhousing in older versus younger households. These trends indicates that overhousing occurs more in owner households. and given that older households have higher rates, empty-nesting may be one reason for these higher rates of overhousing. It is notable that the rates of overhousing in older owner households are about three times higher than in older renter households.

Housing Suitability by Dwelling Type

Dwelling types have been categorised into three groups referred to as houses and low-rises, row/townhouses and mid/high rises. See Dwelling Types in Chapter 2 for an explanation of what dwelling types are in each group.

The absolute number of underhoused households declined in houses and low-rises and row/townhouses between 1996 and 2016; however, the number in mid/high-rise units held steady (see Figure 20 on page 51 and Table 29 in Appendix A). Proportionally, households living in each of the three dwelling type categories were overhoused more and underhoused less in 2016 than in 1996 (see Figure 21 on page 51). Households in houses and low-rises were right-sized slightly less in 2016 than in 1996 by 5,785 households. The opposite was true for those in mid/highrise units, which increased by 112,790 right-sized households, an increase of 61.3%.



Figure 19: Percent Share of Owner and Renter Households that are Overhoused, by Age of PHM, 2016

Section 2: Housing Suitability



Figure 20: Number of Households by Dwelling Type and Suitability, 1996-2016

Figure 21: Percent Share of Households by Dwelling Type and Suitability, 1996-2016



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Overhousing increased overall over the last 20 years. Overhousing rose by 63,460 households or 22.9% in houses and low-rises, and by 51,805 households or 86.8% in mid/high-rise units. Underhousing declined in all three dwelling types. Overall, this represents a considerable improvement in housing suitability over the 1996-2016 period for all three dwelling type categories.

Almost two thirds of the 134,820 underhoused households are in a mid/ high-rise units (62.9%) and 31.5% are in houses and low-rises (see Figure 22). The rate of underhousing was higher in mid/high rise dwellings than in houses and low-rise and in row/townhouses. In 2016, 17.2% of all mid/high-rise households were underhoused compared to 7.6% of households living in houses and low-rises.

The rate of overhousing was higher for houses and low-rises (61.1%) and row/ townhouses (57.8%) when compared with mid/high-rises (22.6%). The underhousing and overhousing rates for row/townhouses were consistently in between the rates of houses and low-rises and mid/high-rises for each Census year. These trends suggest that housing suitability and dwelling types are closely linked; however, the trends in suitability are related to many other factors. Identifying those factors is the subject of this research.

Figure 22: Percent of Underhoused Households and Dwelling Type, 2016



Figure 23: Number of Households (000s) by Suitability and Number of Bedrooms, 2016



Housing Suitability by Number of Bedrooms

Recognising that dwellings with no bedrooms (studios) or one bedroom cannot be overhoused, all other households living in dwellings with two or more bedrooms right-sized less, overhoused more, and underhoused less proportionally in 2016 than in 1996 (see Figure 24). Notable too are the increases to the number of overhoused households in two-, three-, and four-ormore-bedroom dwellings, indicating that overhousing is increasing in dwellings of all sizes (see Figure 23 on page 52 and Table 30 in Appendix A).

There has been a significant increase in the number of right-sized one-bedroom dwellings. In 2016, there were more right-sized households living in onebedroom dwellings (262,500) than in any other bedroom type. In contrast, the number of right-sized households living in three-bedroom and four-ormore-bedroom dwellings has remained relatively unchanged over the twenty year period. This may be the case because the number of three-or-more person households has grown by only 31,110 between 1996 and 2016.²⁴ The significant increase in the number of right-sized one-bedroom dwellings is largely attributed to the increase in persons living alone in these dwelling types (see Sidebar: Are One-Bedroom Units Occupied by One Person Right-Sized or Overhoused? on page 37).

The Census reported fewer dwellings with no bedrooms in 2016 than in 1996, and resulting decreases were observed to both the numbers of underhoused and right-sized households.

Underhousing occurred most among households with one or two bedrooms in 2016. While there has been a decline in the number of underhoused households in Toronto overall, there has been a slight increase in underhoused households living in two-bedroom units. One- and two-bedroom dwelling units in 2016 were found to accommodate both the most underhoused and rightsized households. The same bedroom types are occupied by a wide range of household types and sizes, some who fit better than others. See Sidebar: Housing Families Suitably on page 54 for more information.



Figure 24: Percent of Households by Suitability and Number of Bedrooms, 2016

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Housing Families Suitably

Eradicating underhousing such that there is a 0% underhousing rate is impractical, as there will always be households whose preference it is to be underhoused by this bulletin's definition, in addition to those households who are underhoused not by choice but by necessity (e.g. due to housing costs). When examining suitability by bedroom types, households in four-or-more-bedroom dwellings have the greatest opportunity to be suitably housed. In 2016, households who occupied dwellings with four or more bedrooms had the lowest underhousing rates, at just under 5% (see Figure 20). Their 5% underhousing rate can therefore be said to represent the minimum acceptable rate of underhousing that may always exist in the household stock. By applying a 5% minimum threshold rate of underhousing, it is possible to measure what types of housing units (by number of bedrooms) would be required to make up reported shortfalls for family households. In this example, the shortfall of one bedroom experienced by underhoused family households is explored.

In 2016, there were 116,730 underhoused family households. **The majority** of these underhoused family households, almost 90,000, had a shortfall of one bedroom. These 90,000 households reside in dwellings with a range of bedrooms, from no bedrooms to four or more bedrooms. If all but 5% of these family households were to gain the one extra bedroom they need, and therefore no longer have a shortfall, what bedroom type units, and how many, would be in highest demand to facilitate this upgrade?

The analysis shows that the majority of family households with one bedroom shortfalls reside in two-bedroom units and one-bedroom units. As shown in Figure 25, it follows therefore that three-bedroom units would be in highest demand, followed by two-bedroom units, to right-size these shortfalls. The results of this analysis underline the importance of ensuring that multi-bedroom units continue to be supplied so that family households (in particular) have a diverse mix of housing to choose from to more suitably house themselves, should that be their preference.

Figure 25: Units by Bedroom Type Required to Right-Size Underhoused Family Households with a One-Bedroom Shortfall, 2016



Note: Family households include couples with children, couples without children, lone-parent families and multiple-family households.

Housing Suitability by Period of Construction

The proportion of right-sized households is higher in more recent periods of construction, ranging from 36.1% before 1960 to 55.9% in 2016 (see Figure 27). This may in part be explained by the growing numbers of one-bedroom dwellings occupied by one person, particularly when one considers that 43% of all dwellings built between 2001 and 2016 were one-bedroom units.²⁵

The largest number of dwellings occupied by underhoused households were built in the 1960s and 1970s. As illustrated by Figure 26 and Table 31 in Appendix A, there were also more units in the housing stock built in the 1960s and 1970s than there were for later periods, which may have contributed to these higher volumes. However, as a percentage share of total dwellings by period, there is a notably higher percentage share of dwellings constructed between 1961 and 2000 that house underhoused households compared to older and more recent periods. This trend occurs despite the decline in total stock built from 1981 to 2000, suggesting that housing suitability is linked more to how the dwellings are being occupied rather than to the volume of housing built.

Dwellings built during this 1961 to 2000 period are also less expensive than in the periods preceding and following them. The early 1960s also heralded the apartment block construction boom in Toronto, to house the large population growth of the post-war economic boom. This type of housing stock has been subsequently protected by rental regulation measures, and median shelter costs are typically lower for dwellings built in this era (see Figure 28 on page 56), which suggests a correlation between underhousing, housing cost, income and affordability. This also indicates that underhoused households are more likely to occupy this stock despite this housing being less expensive. In other words, lower shelter costs is a necessary condition to reducing underhousing, but not a sufficient condition in and of itself: a combination of factors explains the persistence of underhousing.

Figure 26: Number of Households by Suitability and Period of Construction, 2016



Figure 27: Percent of Households by Suitability and Period of Construction, 2016



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Figure 28: Median Shelter Cost by Period of Construction (in 2015 Dollars), 2016

Figure 29: Number and Percent of Dwellings by Dwelling Type and Period of Construction, 2016



The largest numbers of overhoused households were also residing in older dwellings, with more than 200,000 overhoused households living in dwellings built before 1961, accounting for two fifths (41.4%) of all overhoused households in Toronto. This pre-1961 overhousing may be related to the fact that 53.1% of all houses and low-rises were built during this time (see Figure 29 on page 56). As a percentage share, 55.6% of households in dwellings built before 1961 were overhoused. This rate has declined steadily to 34.1% in 2016. This trend mirrors the increased amount of right-sizing over time due to increasing numbers of one-person households living in one-bedroom units.

Summary of Trend Analysis

The table shown in Figure 30 ranks the household and dwelling characteristics for each of the three suitability categories by number of households. This identifies in greater detail the characteristics that have a higher propensity to be underhoused, rightsized or overhoused in 2016.

The results of the below summary table and time series analysis are presented in Table 1 on page 58.

Figure 30: Ranked Household and Dwelling Characteristics, by Suitability, 2016

	UNDERHOUSED (n=134,820)				RIGHT-SIZED (n=490,100)		OVERHOUSED (n=488,025)		
	Rank	Characteristic	Hhlds	Rank	Characteristic	Hhlds	Ran	c Characteristic	Hhlds
	1	35-49	55,170	1	50-69	152,505	1	50-69	199,005
AGE OF	2	50-69	43,565	2	15-34	146,175	2	70+	117,215
PHM	3	15-34	29,840	3	35-49	137,400	3	35-49	115,320
	4	70+	6,250	4	70+	54,020	4	15-34	56,450
	1	Couples with children	59,675	1	1 person	219,970	1	Couples without children	156,555
	2	Lone-parent	40,1 <mark>85</mark>	2	Couples with children	99,820	2	1 person	140,025
HOUSEHOLD	3	2 or more persons	18,115	3	Couples without children	66,510	3	Couples with children	134,350
TYPE	4	Multiple-family	13,860	4	Lone-parent	57,820	4	Lone-parent	34,825
	5	Couples without children	2,990	5	2 or more persons	36,985	5	2 or more persons	13,285
	1-pe	erson households cannot be under	noused	6	Multiple-family	8,995	6	Multiple-family	8,975
TENURE	1	Renter	97,815	1	Renter	328,760	1	Owner	388,745
TENORE	2	Owner	<mark>3</mark> 7,010	2	Owner	161,325	2	Renter	99,250
DWELLING	1	Mid/High-Rises	84,865	1	Mid/High-Rises	296,780	1	Houses and Low-Rises	340,760
TYPE	2	Houses and Low-Rises	42 ,420	2	Houses and Low-Rises	174,750	2	Mid/High-Rises	111,490
	3	Row/ Townhouses	7,535	3	Row/ Townhouses	18,570	3	Row/ Townhouses	35,775
		2 bedrooms	50,980		1 bedroom	262,500	1	3 bedrooms	177,620
DEDDOOMO	2	1 bedroom	47,510	2	2 bedrooms	117,170		4 or more bedrooms	162,850
BEDROOMS	3	3 bedrooms	24,090	3	3 bedrooms	69,205	3	2 bedrooms	147,535
	4	4 or more bearooms	9,135	4	4 or more bearooms	21,970	Stu	idio and 1 bedroom units cannot be o	verhoused
	5	510010	3,105	5	510010	19,250			
	1	1961 to 1980	53 500	1	1961 to 1980	154 375	1	Before 1961	201 885
		Before 1961	30 320		Before 1961	130 915		1961 to 1980	139 735
CONSTRUCTION	3	1981 to 2000	30 315	3	2001 to 2016	115 575		1981 to 2000	76,005
	4	2001 to 2016	20,700	4	1981 to 2000	89.230	4	2001 to 2016	70,375
	· · ·						<u> </u>		

Key Findings

This chapter identified that underhousing occurs at a higher rate among larger households, among family households (particularly those with children), among households occupying mid/high-rise units, among renters and among younger households. These underhoused households are a primary focus of this bulletin, as they represent a more vulnerable subset of the housing population, and understanding their needs has implications for the policy interventions to address these issues. To better understand how concentrated underhousing is among households with more than one of these characteristics, the next chapter presents a more in-depth analysis of underhoused households by examining how multiple characteristics associated with underhousing intersect.

Additionally, this research has illustrated how overhousing occurs at a higher rate among older households, among owner households and in households occupying houses and low-rises. The numbers and locations of overhoused households are an additional focus of the bulletin, as trends in overhousing have implications for growth management and planning for existing and future populations. Understanding more about the magnitude of the present-day housing stock occupied by overhoused households informs growth management policy direction, as there is potential for additional capacity to accommodate population growth in these dwellings in the future as older households are ultimately succeeded by younger and potentially larger households on average. Chapter 10, Chapter 11, and Chapter 12 discuss these concepts in further detail.

Table 1: Summary of Key Findings of Toronto's Housing Suitability, by Household andDwelling Characteristics, 2016

	UNDERHOUSED	RIGHT-SIZED	OVERHOUSED
Age of PHM	Underhoused households were more typically headed by those younger than 50 years of age.	Right-sized households were more commonly headed by older persons (50 and over).	Overhoused households were more commonly headed by older persons (50 and over). The rate of overhousing is higher for older households than younger households and has been increasing across all age groups.
Household Type	Underhoused households were more likely to have children than to not. Lone-parent households had higher rates of underhousing than couples with children.	Persons living alone right- sized the most.	Couples without children had the highest rates of overhousing.
Tenure	Underhousing occurs more in households that rent versus households that own.	Right-sizing occurs more in households who rent.	Overhousing occurs more in households who own than households that rent.
Dwelling Type	The majority of underhoused reside in mid/high-rise dwellings.	The majority of right-sized reside in mid/high-rise dwellings	The majority of overhoused households reside in houses and low-rise dwellings.
Bedroom	Underhousing was most prevalent in one- and two-bedroom dwellings.	Right-sizing occurs more in one-bedroom dwellings.	Overhousing occurs most in three-bedroom dwellings. Rates of overhousing are higher in dwellings with more bedrooms.
Period of Construction	Rates of underhousing were highest among dwellings built between 1961 and 2000.	Rates of right-sizing were highest among dwellings built between 1961 and 2000.	Households in dwellings built before 1961 overhoused the most, both in terms of rates and absolute numbers.

7. A Look Further at Underhousing

The purpose of this chapter is to examine further the characteristics of households that are experiencing underhousing in greater depth based on the preceding analysis. The initial findings present further hypotheses that will be explored via the following questions:

- To what extent are larger households underhoused more?
- To what extent is the rate of underhousing related to the number of children in a household?

- Do underhoused families with children live in mid/high-rise units at higher rates than other dwelling types?
- Do families with children right-size more in mid/high-rise units or in houses and low-rises?
- Are underhoused families with children in mid/high-rises more often headed by a younger PHM?
- How does the rate of underhousing vary by the period of construction in mid/high-rise dwellings?

Figure 31: Proportion of Households by Suitability, Household Size and Household Type, 2016*



* Some household type and size combinations are not shown in the chart as they had counts of 0. For example, couples with children cannot have fewer than three people by definition. One-person households that occupy private dwellings cannot live in unsuitable housing according to this bulletin's suitability definition.

To what extent are larger households underhoused more?

For all household types in 2016, higher underhousing rates are observed in households with more persons. Over 40% of all household types with five persons or more were categorised as underhoused (see Figure 31 on page 59 and Table 32 in Appendix A). For lone-parent households and two-person or more non-family households, underhousing rates surpassed 50% in households with four or more persons. While the rates are higher, the sum of the underhoused households among those two household types with four or more persons are much smaller amounting to 17,285 households or 12.8% of all 134,825 underhoused households (see Figure 32).

Lone-parent families with fewer than three persons right-size more, and overhoused less, than other family households. For family households, it is therefore not only the size of the household that affects housing suitability, but also the type of family household.

Larger lone-parent family households right-size less than any other

household type. As discussed, more than half of lone-parent households are underhoused in households with four or more persons. This suggests that once the lone-parent household size reaches a threshold of four or more persons there are barriers to achieving suitability (likely related to income, housing costs and supply of larger dwelling types).



* Some household type and size combinations are not shown in the chart as they had counts of 0. For example, couples with children cannot have fewer than three people by definition. One-person households that occupy private dwellings cannot live in unsuitable housing according to this bulletin's suitability definition and are therefore not shown.

Figure 32: Underhousing by Household Size and Type, 2016*

To what extent is the rate of underhousing related to the number of children in a household?

Knowing more about larger households and suitability rates, the following section categorises the family household types into groupings organised by the estimated number of children, to directly compare the number of children in underhoused households by underhousing rates. Family households with children refer to couple family with children and lone-parent family households. Multiple-family households are excluded from this analysis as the number of children in these households cannot be estimated from the Census descriptions. See Sidebar.

One-Child Households: In 2016, there were 12,640 underhoused three-person couple family households with children (i.e. typically two adults and one child) and 11,210 underhoused two-person lone-parent family households (i.e. one adult and one child). This equates to 13.2% of all households with one child being underhoused in 2016. These 23,850 households equate to 17.6% of all 134,825 underhoused households.

Multiple-Child Households: In 2016, underhousing was higher in family households with two or more children than in one-child households. In 2016, a combined total of 35,300 households with two children were underhoused, representing 22.0% of the total number of family households with two children and 26.2% of all underhoused households. For family households with three or more children, the underhousing rate increases to 47.6%, for a total of 40,705 underhoused family households with three of more children. The analysis shows that underhousing rates are higher when the number of children that reside in a family are higher, with almost half of all family households with three or more children being underhoused in 2016.

When the same rates are compared for loneparent to couple with children households, the underhousing rates for lone-parents are significantly higher than for couple family with children households (see Figure 33). This indicates that in addition to the total number of children, suitability rates vary depending on the parental structure of family households.

Number of Children in Underhoused Households

The number of 'children' residing in underhoused households can be estimated by comparing the size of the household, measured in persons, to the household type. For example, a three person lone-parent household would typically equal to two children and one adult.

'Children' in this instance refers to the parent-child relationship and not age, and consequently includes adult 'children' of any age living with their parents.

In 2016, it is estimated that at least 166,165 'children' resided in underhoused households. These households include 'couple family with children' and 'lone-parent family' household types.

This equates to at least one in four of Toronto's total 'children' being underhoused. As this estimate excludes any children living in multiple-family households, the count is likely higher than 166,165.

Figure 33: Rates of Underhousing for Lone Parents, Couple Family with Children Households and Combined Rates for both Household Types, 2016

Lone-Parent Couple with Children Both family types

70% 62.4% 60% 47.6% 50% 42.0% 40% 34.6% 30% 22.0% 13.2% 17.6% 16.5% 20% 11.2% 10% 0% Households with Households with Households with 1 child 2 children 3 or more children

Note: Excludes children living in multiple-family households.



Figure 34: Number of Households by Suitability, Dwelling Type and Household Type, 2016

Do underhoused families with children live in mid/high-rise units at higher rates than other dwelling types?

Planning for underhoused families with children in mid/high-rise units continues to be important, as these households are living in mid/high-rise units more than in other dwelling types. Almost half (46.6%) of underhoused households in mid/high-rise units are couples with children households, despite the fact that couples with children account for only 16.6% of all households in mid/ high-rise units (see Figure 35). This amounts to 39,565 underhoused couple with children households living in mid/ high-rises (see Figure 34 on page 62 and Table 33 in Appendix A).

Another 30.3% or 25,745 underhoused households in mid/high-rise are loneparent households, despite the fact that lone-parent families only make up 11.6% of all households in mid/ high-rise units. Collectively, these two household types equate to 65,310 underhoused households with children living in mid/high-rises units in 2016. In contrast, there are 29,065 underhoused households of these same household types living in houses and low-rises and 5,480 households in row/townhomes. This shows that underhoused families with children do live in more mid/ high-rise dwellings than in the other two dwelling types combined. Of all underhoused households with children in 2016, approximately twothirds (65.4%) resided in mid/high-rise dwellings, as shown in Figure 36.





Figure 36: Underhoused Households with Children by Dwelling Type, 2016



Note: Households with children refer to couple family with children and lone-parent family households.

Do families with children rightsize more in mid/high-rise units or in houses and low-rises?

As shown in the previous section, nonfamily households make up 61.4% of right-sized households and 52.5% of overhoused households in mid/highrise units (see Figure 35 on page 63). Second to non-family households are couples without children households who account for 39.9% of overhoused and 16.3% of right-sized households in mid/high-rise units. These rates contrast with the lower right-sizing and overhousing rates (all less than 12.4%) for all other household types that include children living in mid/high-rises units.

Aside from the rates, it should be noted that there are over twice as many households without children living in mid/high-rises than households with children in mid/high-rises (see Table 33 in Appendix A). As there are many more households without children in mid/high-rise units, the occupancy and suitability rates suggest that mid/ high-rise units tend to meet the needs of households without children more than the needs of household types with children. These occupancy rates also reflect self-selection, whereby family households with children may not consider mid/high rise units if they have the choice of other dwelling types.

Some families with children are able to obtain exactly as much housing as they need in the form of mid/high-rise housing. Couples with children and lone-parent households account for notable proportions of right-sized mid/ high-rise dwellers, with 12.4% and 9.6% of the share respectively (see Figure 35 on page 63). This equates to 65,255 family with children households that were right-sized in mid/high-rise units in 2016. These results suggest that mid/ high-rise units can meet the needs of some families with children, from the perspective of this bulletin's definition of suitability. However, as discussed earlier, households with more children have higher rates of underhousing than those with fewer children (see Figure 33 on page 61). As discussed in the

Figure 37: Proportion of Households by Suitability and Household Type in Houses and Low-Rises, 2016



review of housing occupancy trends in Chapter 4, many mid/high-rise units built in recent years were one-bedroom units.

The findings show lower rates of rightsizing for families with children in mid/ high-rises relative to other household types. This finding, coupled with the recent construction of significant proportions of one-bedroom units in mid/high-rises, outwardly suggests that recently-built mid/high-rise units may be less likely to meet the suitability needs of households with children. However, this does not appear to be the case, as will be seen in the discussion of the suitability rates of households by dwelling types for recent periods of construction on page 66.

Houses and Low-Rises: More families with children households are right-sized in houses and lowrises (78,025) than in mid/high-rise dwellings (65,255) (see Figure 34 on page 62). This finding is expected given that houses and low-rises have a larger average square footage and contain more bedrooms on average than mid/high-rise units. There were 54,510 right-sized couples with children and 23,515 right-sized lone-parent families in houses and low-rises in 2016, accounting for 31.2% and 13.5% of right-sized households in this dwelling type (see Figure 37 on page 64). This amounts to more than 78,000 family with children households that were right-sized in houses and low-rise units in 2016.

Are underhoused families with children in mid/high-rises more often headed by a younger PHM?

Underhousing of families with children in mid/high-rises is concentrated in the two middle age groups aged 35 to 49 and 50 to 69. In 2016, a quarter (24.6%) of the 84,846 underhoused households in mid/ high-rise units were couple families with children with a PHM aged 35-49 years (20,855 households, see Table 34 in Appendix A and Figure 38). Loneparent households aged 35-49 (10,910) accounted for 12.9% of the

Figure 38: Number of Underhoused Households in Mid/High-Rise Units by Household Type and Age of PHM, 2016



Adult Children Living at Home

Adult children who live at home are likely contributing to high levels of underhousing observed in the older households.

The number of adults aged 18 and over living with their parents in Toronto has grown from 259.325 in 1996 to 331.190 in 2016, an increase of 27.7%. Based on their age, one would anticipate that many of these adult children live with parent(s) aged 50-69. As a result, households in the 50-69 age group may be experiencing underhousing at new levels due in part to their adult children remaining in, or returning to, the family home. The decisions of younger persons therefore affect occupancy and housing suitability rates across all age groups, and not just their own.

Once a child turns eighteen they are required to have their own bedrooms to meet the suitability definition used in this bulletin. In practical terms, this means that the same family home that was once suitable for younger children may no longer be suitable once that child reaches adulthood and continues to reside there. underhoused households in mid/highrise units. Couple families with children with a PHM aged 50-69 also accounted for 13.2% (11,195 households). This analysis suggests that while younger households (35-49) with children are highly represented in mid/high-rises, there are also significant numbers of older households with children who are residing in mid/high-rises. See the Sidebar: Adult Children Living at Home for more discussion on this topic.

How does the rate of underhousing vary by the period of construction in mid/ high-rise dwellings?

The majority of the recently-built units in the city are mid/high-rise units, the average physical size of which has declined steadily since 1996 as outlined in Chapter 4. Based on the research outlined in this bulletin, mid/high-rise units have higher rates of underhousing than other dwelling types. However, underhousing occurs more in older housing stock than newer housing stock. At the outset, this seems to suggest that the mid/high-rise units built in recent years are being occupied by households that fit the stock better. This section examines the suitability rates of the mid/high-rise dwelling by their period of construction to compare rates of underhousing in recently built mid/ high-rise units compared to older ones. A comparison of the suitability rates of household types in recently built dwellings is also provided.

The more recently a mid/high-rise apartment was built, the more likely it is to be suitable for its occupants who have recently moved in. This is illustrated by the lower underhousing rate (10.4%) and higher right-sizing rate (65.8%) observed for the 2001 to 2016 period of construction compared to all other periods (see Figure 39 and background Table 35 in Appendix A). This trend may appear counterintuitive,

Figure 39: Percent of Households in Mid/High-Rise Units by Suitability and Period of Construction, 2016



given that newer units tend to be smaller in square footage on average than are older units. One potential explanation is that occupants of a newly constructed unit will have moved in recently and therefore have chosen it based on the current composition of the household. This does not necessarily mean that new mid/highrise units are generally better able to meet the needs of households than older units, especially when new units are becoming smaller in size over time. These smaller units are satisfying a segment of market demand; they appeal to the households that choose them.

It is also possible that the smaller size of the new mid/high-rise units may deter households that are larger or expect to become larger from considering these units in the first place, due to their inadaptability. The size and layout of units affects occupancy; not all one-bedroom units, for example, are equal. Older mid/high-rise apartments built prior to 2001 are generally less expensive as discussed earlier, and larger in physical size, and therefore underhoused households with lower household income may purposely seek out these older units as they offer more space and potential for adaptability if the household should grow.

The low rate of underhousing (10.4%) for total households living in mid/ high-rise apartment dwellings constructed between 2001 and 2016 does not mean there are low rates of underhousing across all households living in them, or that it is a rate that will be sustained. Examining the household types and suitability rates for mid/high-rise dwellings built in all periods prior to 2011 shows how almost half (49.1%) of all couple with children households and 45.1% of lone-parent households were underhoused (see Figure 40). This contrasts with the rates observed in dwellings built more recently (2011 to 2016), where right-sizing rates were higher and underhousing rates lower for all household types. These higher right-sizing rates again serve to illustrate how the households who moved during that five-year period selected dwellings to suit their compositions when they moved. However, this does not signify that these lower underhousing rates will be sustained, but only that they were suitable for those households based on the composition of households seeking housing at that time.

Figure 40: Percent Share of Households in Mid/High-Rise Units by Household Type, All Periods of Construction Before 2011 vs. 2011 to 2016 Period of Construction, 2016



8. What are some potential causes of, and solutions for, involuntary housing mismatch?

The number of households that are underhoused in Toronto does not paint a complete picture of the latent demand for housing units with more bedrooms. It does not include those who decided to obtain larger housing elsewhere, but who would prefer to live in Toronto if such housing were available within their preferred size and price range. It also does not identify households that would prefer to grow in size but for which to do so would result in them being underhoused. Thirdly, it excludes potential households that people would like to form but have decided not to, such as young adults who have decided to remain in their parents' homes for the time being. Similarly, the number of households that are overhoused does not reveal how many overhoused households would prefer to right-size but cannot find available or affordable housing, as opposed to those who would prefer to remain overhoused.

It is difficult to plan for the potential future trends in housing without exploring the preferences, motivations and constraints of the current occupants. This chapter provides some explanations for why people may choose to live in the households and dwellings they do, and why they may choose to be underhoused or overhoused. It distinguishes between involuntary under- and overhousing - those households that would prefer to right-size but are unable to - and those who elect to be mismatched. This chapter also explores some of the initiatives the City has undertaken that may help alleviate involuntary housing mismatch.

Housing decisions and motivations

Before discussing why a household may be under- or overhoused, it is important to first establish some of the fundamental reasons why people and households move. This section begins by discussing the results of the Canadian Housing Survey (CHS), providing insights into the motivating factors of those households who have moved or are likely to move soon. The discussion then turns to identifying characteristics or circumstances that correlate with mobility. The section ends by introducing the concept of the housing life-cycle, which is essentially the flow of people and households through different household compositions and housing stock as they age. Together, these discussions provide insight into the decisions and factors that influence the movement of households.

The Canadian Housing Survey (CHS) is a new survey performed by Statistics Canada and sponsored by CMHC that will run biennially until 2028. The 2018 survey provides insights into dwelling and neighbourhood satisfaction, first-time homebuyers, and housing affordability, as well as many other important dwelling and household characteristics.

The survey asks questions that are not covered by the Census, including questions about respondents' motivation for moving. The 2018 Canadian Housing Survey results for the city of Toronto confirm that the motivations of younger households to move differ from those of older households. Younger households are predominantly looking for larger housing, an opportunity for home ownership, and to accommodate a new and growing family (see Figure 41 on page 69 and Table 36 in Appendix A). Older households are instead predominantly motivated by the need to reduce housing costs, a change in the size of a household and to be closer to family.

Many residential moves are preceded by some "push" factor - some event or circumstance that makes their current location less desirable or functional. For example, one study found that those who moved but had not intended to previously had experienced some kind of unexpected event.²⁶ Clarke and Lisowski (2017) found in one longitudinal study that 35% of moves were preceded by a change in family composition, either from singlehood to couplehood or vice versa.²⁷ Other push factors include the birth of children. which may necessitate a larger home, and low satisfaction with the dwelling and/or the neighbourhood, which if strong enough may overrule the costs of moving. Two other common events that Clarke and Lisowski found to precede a move were job changes and significant income increases.28 A job change may make commuting impractical without a move, while a significant income raise may open up new housing possibilities

Conversely, the absence of a "push" factor is often associated with stability; being in a stable relationship, already having children, or being retired were found to negatively correlate with intentions to move.²⁹ Akbari et al. (2020) found that high real estate costs in the GTA contributed to a general reluctance to move, even in the face of hypothetical large increases in commuting costs.³⁰ Many overhoused households may experience compelling reasons to stay put and an absence of strong push factors, and may therefore see no immediate reason to move.

Certain characteristics of household members also tend to be associated with mobility. For example, recent immigrants tend to move at higher rates than other households, which may reflect incremental changes as they adjust to their new county.³¹ Additionally, renters tend to move more than owners (see Figure 42 on page 70). Some renters may struggle to secure stable housing, as demonstrated by the movers who were forced to move in Figure 41, while others may choose to rent for the relative ease and lower transaction costs of vacating a rented unit compared to an owner-occupied dwelling unit. Non-permanent residents in particular tend to rent more often after moving as opposed to owning,³² as they may be in the process of establishing themselves or deciding where to settle.

Figure 41: Reasons for Moving in the Past Five Years by Age of Respondent, 2018



* By a landlord, a bank or other financial institution or the government. Responses may not sum to 100% as respondents were able to select multiple responses. Source: Statistics Canada, Canadian Housing Survey 2018, custom tabulation.

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Mobility is highest among young people and declines steadily with age (see Figure 43 on page 71). As Clark and Lisowski have stated, many young people are "making adjustments in where they want to live and whom they want to live with."33 For many individuals as they move through life, mobility is associated with many of the push factors mentioned above, including cohabitation, marriage, the birth of a child, separation, divorce, and job and income changes. Of course, there can be great variability in the timing of such events in a person's life, and many people never experience many of these events. However, when these events do occur, they tend to happen when people are younger. For example, the average age of first-time motherhood in Toronto was 30.1 in 2011.34 The average age of first marriage in Canada in 2008 (the most recent year for which such data is available) was 29.6 for women and 31.0 for men, while the average age of divorce was 41.9 and 44.5, respectively.³⁵ Rentership is also more prevalent among young people (see Figure 44 on page 71), which is associated with mobility as mentioned above.

A household move, therefore, is often tied to the stage of life of a person or household, and thus the housing they require to accommodate their needs at that time. An individual's life-cycle can take many paths as children become adults, form households and enter old age, and they may be influenced by many of the household transition push factors described above throughout their lives. As we come to understand the complexity of household composition and the demands of households with different characteristics for different types of housing at different stages in their household life-cycle, we turn to focus on the housing stock that is sought and its turnover from one household to another, the composition of new housing supply, the demand for that housing, and the match and mismatch between demand and supply over time.

Life course theory tells us that, as individuals undergo various life-cycle transitions, their housing needs change. The same housing stock serves different households at different stages of their life-cycles. For example, as young couples have children, they may begin to demand larger housing units. The available supply of such housing depends both on the amount of housing that becomes available by other households leaving that housing, such as older households choosing to downsize, as well as the amount of new supply being built.



Figure 42: Percent of Households by Tenure and Mobility Status, 2016





Figure 44: Percent of Households by Age of PHM and Tenure, 2016



This one scenario illustrates how the housing decisions of one segment of the population can have direct repercussions on the housing supply for another. It also represents some of the interactions within the complex problem of population growth and change versus supply at the time that Toronto has become built out and can no longer expand through greenfield development.

While eventually all of the housing occupied by older households will turn over at some point, the timing of the availability becomes a critical factor in how quickly the market responds and the timing of some segments of supply. Chapter 10 of the bulletin examines in further detail this exact timing issue, by estimating the future demand for housing by younger generations, and comparing the demand to the predicted timing and volume of housing turnover by older generations.

Why do people live in unsuitable housing?

Some of what the NOS considers to be unsuitable housing may not be considered as such by those living in these circumstances. Some cultures prefer larger families, and enjoy the social benefits that may come with living with extended family.³⁶ Additionally, first-generation immigrant women tend to have more children than Canadianborn women; 61.8% of births in Toronto were to women born outside of Canada in 2012 versus 38.2% to Canadian-born despite the fact that only 52% of women in Toronto were born outside of Canada in 2011.^{37,38} Immigrants may also be more likely to live with extended family members in one household.^{39,40} In some cultures, particularly South Asian and Chinese communities, it is more common or preferable for children to continue living with their parents into adulthood compared to other cultures.41,42 All of these conditions could lead to larger household sizes and/or to bedroom sharing, which is correlated with underhousing as this bulletin defines it

but not necessarily from the perspective of those households (see Sidebar: Adult Children Living at Home on page 66).

Some underhousing among immigrants or ethnic minority groups may be involuntary. Aboriginal, immigrant, refugee and racialized populations in Canada often experience higher rates of underhousing than the general population. 43,44,45 Recent immigrants may also rely on relatives for support if they have limited social networks and/or knowledge of local language and culture or if they are experiencing economic hardships.⁴⁶ For example, nearly one in five newcomers surveyed in the Longitudinal Survey of Immigrants to Canada in the Toronto CMA lived in multiple-family households, which tend to have higher rates of underhousing as noted in Chapter 6.⁴⁷ In one 2014 study, half of all surveyed families in aging rental buildings in Toronto were living in overcrowded conditions, and many of those families were immigrants or racialized.48 There is evidence that affordability challenges may account for at least some of the underhousing among these groups.49 For example, Hiebert et al. (2006) has associated the higher levels of overcrowding among immigrant households in the Toronto CMA compared to those in Vancouver and Montreal with the higher rents found in the Toronto area.⁵⁰ Additionally, the shelter allowance for refugees via the Resettlement Assistance Program typically does not cover all rental costs, and 62.9% of recent refugees lived below the affordability standard in the Toronto CMA in 2016.⁵¹ Living in smaller and less expensive housing may be a way of mitigating these shelter cost challenges.

Other potential sources of involuntarily underhoused households include divorce, separation and women fleeing violence. A study on women leaving violent relationships found that almost all of the participants experienced poverty, which significantly limited their housing choices. What housing they found was often both unsuitable and unaffordable.⁵² The experiences
of these women speak to the need for housing that can be both affordable to a single income earner and suitable for a lone parent with children. This aligns with earlier findings (per Figure 15 on page 48) that lone-parent households have higher rates of underhousing than couple with children households. The typical high average rent and low vacancy rates of two-bedroom apartments in Toronto (\$1,591 and 1.3% in 2019, respectively)⁵³ suggest that there is a need for more affordable and available housing for lone-parent families.

Additionally, for households that have been forced to leave their homes due to eviction, violence, or other reasons, many choose to double up with another family. Many prefer this to moving to a shelter, as often there are no shelters in their neighbourhood and they wish to maintain strong social ties to their community.⁵⁴ While many households facing housing issues like overcrowding expect that these conditions will be temporary, a study on aging rental buildings in Toronto found that families that had several housing issues, such as being behind on their rent or living in units needing repairs, lived in their units longer than those that did not.⁵⁵ Discrimination by landlords and in the labour force often meant their circumstances became long-term.

The NOS is only one measure of underhousing, and a Western-centric model at that. Other models from around the world have different definitions of overcrowding, as discussed in Chapter 5. While the NOS can reveal households where underhousing may be involuntary, it cannot differentiate between those households that choose to have fewer than the optimum number of bedrooms to suit the household composition and those who have no choice. Attempts to address underhousing should aim to assist those who are involuntarily underhoused, while acknowledging the choices of those who may choose to be underhoused out of preference. The following section on affordability offers one approach to distinguish these two groups.

To what extent is underhousing related to affordability challenges?

To estimate how much underhousing is due to necessity rather than preference, this section examines how much of underhousing correlates with high shelter cost-to-income (STIR) ratios. The traditional benchmark for what is considered unaffordable is CMHC's definition: spending 30% or more of income on housing.⁵⁶

The majority of underhoused households spent an affordable share of their income on housing. Of the 134,825 underhoused households in Toronto, over 85,000 underhoused households paid less than 30% of their income on shelter in 2016, compared to 28,010 spending 30-49% and 21,670 spending over 50% of their income on shelter (see Figure 45 and Table 37 in Appendix A). Against the STIR benchmark of CMHC, 49,680 underhoused households are paying unaffordable shelter costs (30% or more of their income).



Figure 45: Number of Underhoused Households by Shelter-Cost-to-Income Ratio and Age of PHM, 2016

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These 49.680 households mean that 4.5% of all households in Toronto are experiencing both suitability and affordability issues. And more than one third of underhoused households are experiencing affordability challenges. In 2016, 36.9% of all underhoused households spent an unaffordable amount (more than 30%) of their income on shelter (see Figure 46). For the remaining 63.1% who are paying affordable shelter costs, their underhousing could be due to preferences, or other non-voluntary reasons such as lack of available suitable units or discrimination by landlords as discussed above. It is also possible that some of these households have chosen to be underhoused to avoid spending more than 30% of their income on housing, or to spend less of their income on housing in general.

Affordability-related underhousing is more prevalent among younger

households. Half (49.6%) of underhoused households aged 15-34 paid more than 30% of their income on housing in 2016, meaning their housing was unaffordable. The ratio declines steadily with age, with only about one quarter (26.2%) of underhoused households aged 70 and over spending 30% or more of their income on shelter. This trend reflects household income earning power and asset accumulation as younger households generally have not had as much time to advance in their employment careers and wealth accumulation. In addition, they may be forming households and obtaining housing at a time when housing costs are high (relative to when older generations may have last transacted in the market). The pattern indicates that underhousing is more likely to coincide with affordability challenges among younger households than among older ones.

Figure 46: Percent of Underhoused Households by Shelter Cost-to-Income Ratio and Age of PHM, 2016



Households that are both underhoused and spending 30% or more of their income on shelter represent one measure of unmet demand for housing. These 49,680 households may not have been able to trade off underhousing for affordability or vice versa. Figure 47 shows the percent of households living in housing that is both unsuitable and unaffordable by age of PHM. So while some households facing both underhousing and affordability challenges are not actively seeking other accommodations, efforts should be made to ensure that these 49,680 households have the opportunity to seek affordable alternatives within the city. These households have a demand for housing that is currently unmet. Towards this effort, Chapter 11 will incorporate this measure of unmet demand into the estimate of the number, type and size of dwellings that may be needed in the future to accommodate population growth.

Figure 47: Percent of Households by Age of PHM and Combined Suitability and Shelter Cost-to-Income Ratio 2016



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Figure 48: Percent of Households by Tenure, Age of PHM and Combined Suitability and STIR, 2016



Figure 48 on page 76 depicts this same measure of unmet demand by tenure. These tenure-specific ratios result in a more robust measure of unsuitability by tenure than the rates by age alone. The values in this figure will be used to calculate a measure of unmet demand by tenure in Chapter 11.

What is the City doing that might alleviate underhousing?

Where households are underhoused out of necessity rather than out of choice, that type of underhousing is involuntary. While there may be many systemic causes of involuntary underhousing that require attention, the focus and remit of this bulletin is land use planning analysis and planning interventions.

Between 2015 and 2019, an average of 18,325 residential units were completed annually, and there was a further eight to thirteen years' supply of units in the 2019 Development Pipeline.⁵⁷ Unfortunately, simply building a large supply of housing has not been sufficient to address involuntary underhousing, particularly when larger units have historically been in short supply. City Planning's May 2020 bulletin, 'Condominiums: Two Decades of New Housing' shows that from 2002-2018, two- and three-bedroom units represented 32% and 4% (respectively) of the total of 186,094 condominium units registered in Toronto.58

Some newer planning initiatives may prove to address the problem more directly. Several newly-adopted Secondary Plans require a certain number of two-or-more-bedroom units to be built in new developments within their geographies. For example, the Downtown Plan and the Yonge-Eglinton Secondary Plan both require that 40% of units in developments containing more than 80 new residential units in those geographies be provided in a combination of two- or three-bedroom units.59,60 Several other plans have adopted similar requirements, including the

ConsumersNext Secondary Plan, the Don Mills Crossing Secondary Plan, the Golden Mile Secondary Plan, the Keele-Finch Secondary Plan, and the Sherway Area Secondary Plan. In 2020, City Council adopted the final **Growing Up: Planning for Children in New Vertical Communities Urban Design Guidelines**, which encourage private developers to build family-friendly units.⁶¹

Other initiatives aim to tackle housing affordability challenges, which intersects with underhousing as reported in the previous section. As a non-profit owned by the City, Toronto Community Housing (TCH) is the largest social housing provider in Canada and the second largest in North America.⁶² Its core business is to provide clean, safe, well-maintained, affordable homes for residents. TCH provides homes to nearly 60,000 low and moderate-income households, housing 110,000 residents from many different backgrounds with a diversity in age, education, language, mental and physical disability, religion, ethnicity and race. TCH has 2,100 buildings and 50 million square feet of residential space, which represent a \$9 billion public asset. Through collaboration and with residents' needs at the forefront. TCH connects residents to services and opportunities, and helps foster great neighbourhoods where people can thrive. TCH is the master developer for the revitalization of six communities (Regent Park, Lawrence Heights, Alexandra Park, Allenbury Gardens, 250 Davenport and Leslie Nymark) that will include 4,500 replaced or renovated Rent-Geared-to-Income rental units and 12,500 new market-rate condominiums.

The City's **Housing Now** initiative⁶³ will develop City-owned sites for affordable housing within mixed-income, mixeduse, transit-oriented communities. At the time of reporting, Phases One and Two are expected to deliver up to 11,710 new residential units, including up to 4,320 affordable rental homes, on 17 sites across the city. Program targets for the Housing Now Initiative include that all new market rental and ownership units are to be provided in accordance with the unit sizes set out in the Growing Up Guidelines.⁶⁴

Inclusionary Zoning⁶⁵ is a proposed policy and zoning framework that requires a certain percentage of affordable housing gross floor area in new residential developments, creating mixed-income housing. Municipalities can implement inclusionary zoning in Protected Major Transit Station Areas (PMTSAs) which are areas surrounding and including an existing or planned higher order transit station that have a detailed implementation framework in accordance with Section 16(15) of the Planning Act or in areas where a development permit system has been required by the Minister of Municipal Affairs and Housing.66

The Modular Housing Initiative aims to alleviate the most urgent form of underhousing, homelessness. This initiative is an innovative and costeffective way to build small-scale infill housing while providing a rapid, dignified response to connect people experiencing homelessness with homes and appropriate supports to help them achieve housing stability.67 Modular housing, which is essentially prefabricated housing, is built off-site in a factory and transported to the site for assembly. City Council has approved the first two phase of the project that will create will create 250 modular homes on City-owned sites in 2020 and 2021.

Expanding Housing Options in Neighbourhoods is a City of Toronto initiative to facilitate more low-rise housing in residential neighbourhoods to meet the needs of our growing city.68 The City is working to expand opportunities for "missing middle" housing forms in Toronto, ranging from duplexes to low-rise walk-up apartments. All of these housing types can be found in many parts of Toronto today, but they are also limited in where they can be newly built. Expanding Housing Options in Neighbourhoods is one solution among a range of City initiatives to increase housing choice and access and create a more equitable, sustainable city. Priority projects endorsed by Council to be advanced in 2020-2021 include:

- permitting new types of accessory housing such as garden suites and coach houses;
- allowing more residential units in forms compatible with existing houses, such as duplexes and triplexes, where they are currently not permitted; and
- zoning to allow more low-rise housing options on major streets.

As these initiatives are all either recently implemented or currently underway their impact is not yet known. City Planning will continue to monitor housing supply as well as the degree of over- and underhousing experienced by the city's households.

Why do people live in housing with surplus bedrooms?

Similar to underhousing, some households choose to be underhoused and some have trouble finding housing that would allow them to right-size. There are many reasons why a household might prefer to remain overhoused. One reason why households may be overhoused is the household's deliberate choice to use these bedrooms as home gyms, playrooms, guest rooms or home offices. The Census asked respondents to count all rooms originally designed as bedrooms, regardless of whether they were still used for that purpose.⁶⁹ With respect to the use of bedrooms as home offices, more than 7% of the population worked from home in 2016 (see Figure 49).

In 2016, 55% of households aged 50 and over were overhoused. One possible reason that many older persons continue living in a home with more bedrooms than they need as they age is the cost of moving, even to a smaller dwelling. A 2018 poll of Canadians aged 55 and over found that, of those not intending to downsize, 35% believed downsizing is too expensive and only 22% felt that the cost would be worth it.⁷⁰ Moreover, 27% of those who had already downsized found it to be more expensive than they expected. About two-fifths (41%) of downsizers and those who planned to downsize stated that they would need the equity

from their home to live comfortably as they age, suggesting that downsizing was a necessity for many rather than a preference.

The majority of households aged 60 and above have paid off their mortgages (see Figure 50 on page 79) or live in rental units that are subject to annual rent increase limits (see Figure 51 on page 79). (Note that rental units subject to annual rent increase limits in 2016 were those that were first built or occupied before November 1, 1991.)⁷¹ Many older households therefore benefit from relatively low or fixed costs of living. and downsizing may incur new or higher costs than what they experience currently. In general, people move less as they age, as discussed earlier in this chapter (see Figure 43 on page 71). Chapter 9 will estimate the extent to which older households have actually begun to downsize.

Furthermore, the general consensus in the literature is that most senior Canadians want to age in place.⁷² A recent survey by Mustel Group and Sotheby's International Realty Canada of those aged 54 and over found that 88% of respondents in the Toronto CMA want to live in their current neighbourhood as long as possible, while 86% want to live in their current dwelling as long as possible.⁷³ Aging in place can allow senior adults to maintain social connections and independence, and the option is

Figure 49: Percent of Population Who Worked from Home, 2016

Worked at usual place Worked outside Canada No fixed workplace address Worked at home 0.7% 80.4% 11.5% 7.4% % 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Figure 50: Percent of Owner Households by Age of PHM and Presence of Mortgage, 2016



Figure 51: Percent of Renter Households by Age of PHM and Period of Construction, 2016

		Before 19	91	1	991 or	Later	
15-19		41.2%			58.8	3%	
20-24		52.2%			4	17.8%	
25-29		60.3	3%			39.7%	ó
30-34		6	7.0%			33.0)%
35-39			74.2%			2	5.8%
40-44			80.3%				19.7%
45-49			81.5%				18.5%
50-54			83.5%				16.5%
55-59			85.3%				14.7%
60-64			87.0%	6			13.0%
65-69			85.2%				14.8%
70-74			85.4%				14.6%
75-79			86.3%	6			13.7%
80-84			83.7%				16.3%
85-89			85.1%				14.9%
90+			84.7%				15.3%
	0%	20%	40%	60	0%	80%	100%

becoming more practical to more older adults than in the past due to improved health and life expectancies.⁷⁴ Home care and government supports such as the Senior Homeowners' Property Tax Grant also allow many seniors with various health or financial concerns to remain in their homes.⁷⁵ To support older adults' abilities to remain in their community, city policy makers and builders need to ensure the provision of a balanced mix of dwelling types and sizes in communities across the city.

At all ages, there is also a certain portion of the population that values having more space, and that can afford to have it. In 2014, the Pembina Institute surveyed GTA homebuyers about the attributes they deemed most important when choosing where to live. Several of the top attributes were characteristics associated with overhousing, including 14.6% who most valued living in a detached single-family home and 9.8% who valued a large or spacious house.76 While there will always be some who want to have more bedrooms than they require according to the NOS as modified here, the greater concern is for older households that would prefer to downsize but that are unable to do so due to a lack of available units that they can afford. The latter group is the one that might benefit most from policies and programs that have a goal of ensuring that there is a sufficient diversity and range of housing to meet Torontonians' needs.

What is the City doing that might alleviate overhousing?

From a planning perspective, solutions to involuntary overhousing, meaning those who wish to right-size but cannot, involve ensuring that there is sufficient affordable housing stock of the type that involuntary overhousers seek, in the areas they seek. There is little evidence in the literature about those who wish to downsize but cannot in Toronto. However, several new City initiatives aim to increase or maintain the housing supply and housing options, which may help address involuntary overhousing.

The **HousingTO 2020-2030 Action Plan** is the City's blueprint for action across the full housing spectrum to address the City's vast and growing housing needs. Two of its actions in particular could assist with right-sizing.

- City action #28 calls for development charges deferrals to non-profit long-term care (LTC) providers creating new LTC beds.⁷⁷ More LTC beds could help older adults to move from private to institutional housing, particularly for older adults who may currently be stuck in housing that no longer meets their needs because of a lack of available beds.
- City action #60 is to report on the feasibility of establishing a new Vacant Home Tax in 2020 with the revenues from that program being directed to support the City's housing programs and initiatives.78 The prime objective of the tax as a tool is to reduce the prevalence of residential properties left vacant that might otherwise be used to increase housing availability and affordability. Such a tax may encourage homeowners to sell surplus properties or rent them long-term instead of keeping them vacant or renting them out short-term. In December 2020. City Council recommended that implementation of a Vacant Home Tax commence in the 2022 taxation year.

Secondary Suites: On July 23, 2018, City Council adopted Official Plan Amendment 418 to encourage the creation of second units, which are self-contained residential units subordinate (or 'second') to a primary dwelling in which both kitchen and bathroom facilities are provided.⁷⁹ Policy 3.2.1.10 was added to the Official Plan to encourage the increase the supply and availability of rental housing within neighbourhoods across the city through the provision of second suites.⁸⁰ Recent zoning changes have been made to facilitate the creation of additional housing supply and housing options across the city. Zoning by-law 549-2019 was approved by Council in March 2019 to permit secondary suites as of right,⁸¹ which are self-contained living accommodation for an additional person or persons living together as a separate single housekeeping unit, in which both food preparation and sanitary facilities are provided for the exclusive use of the occupants of the suite, located in and subordinate to a dwelling unit. Secondary suites could help households to right-size by dividing their dwellings into two smaller units, provided that one unit is secondary to the primary dwelling.

Laneway Suites: On July 16, 2019, City Council adopted the Official Plan and Zoning By-law amendments permitting Laneway Suites in R. RD. RS, RT and RM zones under Zoning By-law 569-2013.82 A laneway suite is a self-contained residential unit located on the same lot as a detached house. semi-detached house, townhouse, or other low-rise dwelling. A laneway suite is typically located in the rear yard next to a public laneway and is generally smaller in scale and completely detached from the main house on the lot. Laneway housing could add to the supply of highly-desired low-rise housing in the city and might help those who want to age in place to remain in their neighbourhood.

Regulation of Short-Term Rentals:

In December 2017 and January 2018, City Council approved the regulation of short-term rentals in Toronto. The zoning by-law amendments were subsequently appealed, and approved by the LPAT in November 2019. The amendments are now in effect. They introduce licensing and registration of short-term rental units, and restrict short-term rentals to a host's primary private residence only. Entire residences can be rented short-term for up to 180 nights a year, or up to three bedrooms in a unit can be rented for an unlimited number of nights. These restrictions may also cause some hosts to return some units to the market, especially for

those hosts who have multiple shortterm rental units.

Regulation of Rental Housing Demolitions and Conversions:

Since 2006, the City's Official Plan has contained policies protecting against the demolition of affordable and mid-range rental housing without replacement, as well as the conversion of rental housing to condominium. through the planning approvals process where at least six rental dwelling units are being demolished/converted. The City regulates the demolition and conversion of rental housing through Chapter 667 of the Toronto Municipal Code, the City's Rental Housing Demolition and Conversion Control Bylaw, which requires anyone proposing to demolish or convert any part of a rental property containing six or more dwelling units to apply to the City for a Rental Housing Demolition and Conversion Permit. Together, Chapter 667 and the City's Official Plan housing policies aim to protect and replenish the existing rental stock.

Similar to the initiatives that may help alleviate underhousing, those that may alleviate overhousing by increasing housing options are also new. City Planning will continue to monitor housing supply as well as the degree of over- and underhousing experienced by the city's households.



See Acknowledgement for image credit.

Section 3: Housing Turnover

9. Is there any evidence of older adults beginning to downsize within Toronto?

Chapter 5 established the extent of the housing mismatch in Toronto using suitability indicators. This chapter will examine the extent to which older adults have begun to right-size via downsizing, defined in this bulletin as moving from being overhoused to being right-sized at age 50 or older.

According to CMHC, "when seniors decide to move to accommodations that better meet their needs, in many cases, they vacate family sized home[s] and thus free-up units for younger generations."83 It appears that at least some of the underhousing problem could be addressed if these overhoused households downsized into smaller units, freeing up their larger units for larger households. A survey by the Pembina Institute in the GTA found that 52 percent of homebuyers aged 60 and over would choose to live in a condominium, townhouse or modest-sized house on a smaller lot, in a walkable, transit-friendly area rather than in a larger home in an automobilecentric area.⁸⁴ A survey of people aged 54-72 by Royal LePage revealed that 49% of Ontario respondents plan to move into a smaller home as they age and 46% would consider moving to a condominium.⁸⁵ Figure 41 on page 69 indicates that reducing housing costs was the second most common reason why older adults moved in Toronto in the past five years. On the contrary, CMHC found that increasing wealth and community supports for seniors may mean that the turnover of existing housing supply in the Toronto CMA may be delayed by seniors aging in their own homes.86

This literature reveals what older adults are considering doing, but have they actually begun making these choices? Recall that those aged 50-69 in 2016 were Baby Boomers, a generation distinct from their predecessors, the Silent Generation, who were seniors aged 70 to 89 in 2016. The Baby Boomers came of age during more affluent conditions than the Silent Generation, and it is possible that the social and economic conditions each generation lived through may have shaped their preferences differently. This chapter investigates whether there is any evidence that Baby Boomers in Toronto have begun to downsize in large numbers, and whether Baby Boomers are demonstrating signs of choosing a different path than the generation that came before them. This chapter determines whether we can expect Baby Boomers to downsize within Toronto at the same rate as the previous generation.

This chapter will measure downsizing in two ways:

- 1. older households that moved in the past five years; and
- 2. older households that moved in the past five years into mid/high-rise units.

While housing stock occupied by older adults will inevitably turn over as they age, this information will inform the estimation of the timing of older households downsizing in the future, which we will see in Chapter 10.

How much are older adults moving within Toronto?

First, we will explore the number of households that moved from one dwelling to another within Toronto in the past five years. These type of movers are non-migrants, meaning that they moved within the same census subdivision (municipality), that is, within the city of Toronto itself. Each move within Toronto represents a choice and may be an opportunity for a household to re-evaluate its housing needs and preferences. Each move is therefore also an opportunity for households to right-size. By understanding the magnitude of older households that moved within Toronto, we can begin to understand the magnitude of the potential for downsizing.

More households moved within Toronto than to Toronto. A combined total of 86,135 households with PHMs in the two age groups aged 50 and older moved within Toronto in the five years before the 2016 Census. Housing vacated by older households can create opportunities for younger adults to trade up to larger dwellings that become available. Chapter 10 will build on this concept to estimate how much housing older adults might free up in the future.

Figure 52: Mover Households by Age of PHM and Five-Year Mobility Status, 1996, 2006 & 2016



Chapter 9. Is there any evidence of older adults beginning to downsize within Toronto?

Are Baby Boomers in Toronto moving more than their predecessors?

Older adult households are vacating units in larger numbers than in the past, which could create housing opportunities for younger households (see Figure 52 on page 85). The number of older households that moved within Toronto in the past five years is growing because there are more older households aged 50 and older overall, particularly those aged 50-69 who were Baby Boomers in 2016. The number of mover households within Toronto increased by 65.8% for households aged 50-69 between 1996 and 2016. The number of households aged 70 and over that moved within Toronto has remained consistent since 2006 at around 15,000 households. As the Baby Boomers age into later years, the number of older mover households will grow.

If we look at mover households within Toronto by generation instead of by age group, the number of Baby Boomer households who moved within Toronto in the previous five years has more than halved between 1996 (when they were 30-49) and 2016 (when they were 50-69), from 159,140 to 70,320 (see Figure 53). This generation has moved from a large number of dwellings over the past twenty years. At the same time, the number of dwellings that were freed up by Baby Boomer households that moved within Toronto has decreased in recent years as they have aged. This suggests that Baby Boomers have not been moving in increasing numbers over time, yet have represented a large group of movers over time. The near future decisions of the Baby Boomers, and whether they elect to age in place for as long as they can, will have a bearing on the volume and timing of housing that is freed up by Baby Boomers.

Figure 53: Households that Moved within Toronto in the past Five Years by Generation, 1996-2016

	N	1iller	nnial	s		Gen	erati	ion X	[E	Baby	Воо	mer	s	Sil	ent	Gene	erati	on		E	arlie	r	
	Bori	n 198	81-2	001	В	orn 1	1966	5-198	81	В	orn :	1946	-196	56	В	orn :	1926	-194	16	Bor	n 19	26 o	r ea	rlier
200K-										40														
							9	45		159,1	.185	0												
150K				570			23,54	.27,9	855		138	0,52												
				101,6		875	Ĥ		103,			13	.,675	0										
100K			8		6	84,							91	0,32	0	~								
FOR		S	48,0		47,1										12,40	6,770	440	15	8	2				
SUK		1,97														ñ	29,	22,0	15,20	2,07	485	225	15	
ОК	396	-																		-	ŵ	5	2,2	615
	2001	2006	2011	2016	1996	2001	2006	2011	2016	1996	2001	2006	2011	2016	1996	2001	2006	2011	2016	1996	2001	2006	2011	2016

Baby Boomer households moved within Toronto in the five years prior to the 2016 Census at a slightly higher rate compared to Silent Generation households at the same age (see Figure 54). In 2016 when Baby Boomers were aged 50-69, 17.8% of them had moved within Toronto in the previous five years. In 1996 when the Silent Generation was the same age, 16.6% of them moved within Toronto in the previous five years.

These data suggest that Baby Boomers are downsizing at a slightly higher rate than their predecessors.

The current trend suggests that the Baby Boomers are moving slightly more than their predecessors, but overall appear to be following the same trajectory as the Silent Generation as of 2016. It is important to note that the housing stock, housing market, and interest rates in 1996 were different than what they were in 2016, and that these factors are likely to shift again in the future. Such changes may influence Baby Boomers' future downsizing decisions. It will become increasingly important to monitor Baby Boomers' mobility in the coming years as they age.

However, just because Baby Boomers moved does not necessarily mean that they downsized. A more precise measure of downsizing involves a consideration of dwelling type, which is discussed next.

Figure 54: Percent of Households by Mobility and Generation, 1996-2016



Chapter 9. Is there any evidence of older adults beginning to downsize within Toronto?

Are older Torontonians moving into mid/high-rise units within Toronto?

Residential moves alone are only one part of the downsizing equation. Examining the type of dwellings that older households move to can also shed light on the extent to which older adults may be downsizing. Mid/highrise units tend to have fewer bedrooms than houses and low-rises (see Figure 55 and supporting Table 38 in Appendix A). Based on this premise, if older households are moving into mid/ high-rise units, that may suggest that they are downsizing. Unfortunately the Census does not provide information on the dwelling type from which they moved, but only the type of dwelling to which they moved.

More non-migrant households aged 50-69 are choosing mid/highrise units over time. Between 1996 and 2016, the absolute number of households aged 50-69 who moved within Toronto to mid/high-rise units in the past five years increased from 22,150 to 36,245 households (see Figure 56 on page 89).

Households aged 70 and over that moved within Toronto have consistently moved to mid/high-rise units more than houses and low-rises since 1996.

The number of households aged 50-69 moving to houses and lowrises has been consistent over the past ten years. Just under 30,000 households in this age group that moved within Toronto have moved to houses and low-rises in the five years prior to each Census period since 2006. This number held steady despite the



Figure 55: Percent of Households by Dwelling Type and Number of Bedrooms, 2016

fact that there were about 94,000 more total households aged 50-69 in 2016 compared to 2006. This means that the number of households aged 50-69 moving to houses and low-rises are a declining share of the households over time; they are choosing other housing.

When older households move within Toronto, increasing numbers of them are choosing mid/high-rise units.

Together, the number of households aged 50-69 and aged 70 and over that moved within Toronto to mid/ high-rise units totaled 48,095 in 2016. The concept of the housing life-cycle suggests that most of those who move at age 50 or later are not looking for accommodation with many bedrooms. If these households moved from a larger dwelling, up to 48,095 older households potentially downsized between 2011 and 2016 within Toronto. These 48,095 dwellings have turned over and may have become occupied by larger households.

It should be noted that some of the households that moved to row/ townhouses and to houses and lowrises may also have downsized to smaller units. As discussed earlier, it is not possible to determine from Census data what type of dwelling these households moved from. It is possible that some households that moved to mid/high-rise units moved into units with the same number of bedrooms or more than they occupied previously. Neither of these scenarios would constitute downsizing. However, it appears that the majority of the increase in the number of older non-migrant households moving to mid/high-rise units may be due to the large size of the Baby Boomer generation, rather than to an increase in older adults' propensity to choose this type of dwelling.

Figure 56: Number of Households that Moved within Toronto in the Past Five Years by Age of PHM and Dwelling Type, 1996, 2006 & 2016



Chapter 9. Is there any evidence of older adults beginning to downsize within Toronto?

Baby Boomer households in Toronto are not moving into mid/ high-rise units at a higher rate than their predecessors. Comparing the mobility rates of the Baby Boomer households in 2016 to the Silent Generation households in 1996, when both generations were aged 50-69, demonstrates whether Baby Boomers are moving into mid/high-rise at lower or higher rates than the Silent Generation did. In the five years preceding 2016, 51.5% of Baby Boomer households moving within Toronto chose mid/highrise units. In the five years preceding 1996, the same proportion of Silent Generation movers within Toronto (52.2%) chose mid/high-rise units (see Figure 57). In other words, Baby Boomer households aged 50-69 moved within Toronto into mid/high-rise units almost as much as Silent Generation households did at the same age. This trend is consistent across the two generations despite the fact that 77.0%

of the supply built between 1996 and 2016 consisted of mid/high-rise units.87 In other words, the rate at which older adults moved into mid/high-rise units as they aged did not change despite the changing composition of the housing stock.

These data suggest that Baby Boomers will downsize into mid/highrise units in the future at similar rates to the Silent Generation. That Baby Boomer households are downsizing into mid/high-rise units at about the same rate as their predecessors suggests that downsizing relates more to age rather than to generation. That is, households appear to move to different dwelling types at about the same rates when they reach a certain age, regardless of when they were born.

However, because the Baby Boomers are a large population group, the continuation of these occupancy trends



Figure 57: Percent of Households that Moved within Toronto in the Past Five Years by Generation and Dwelling Type, 1996-2016



and rates suggests that larger numbers of older households will move towards mid/high-rise units in the coming years, potentially leading to a future turnover of many houses and low-rises. The amount and timing of housing freed up by older generations' housing turnover will be explored in Chapter 10.

What are the implications of older adults' downsizing trends?

This chapter demonstrated that there were more households aged 50-69 moving within Toronto and more households aged 50-69 moving within Toronto into mid/high-rise units in 2016 than in the past. However, the increases in these numbers can largely be explained by the increase in the total number of households aged 50-69 as the large Baby Boomer generation aged into this age group.

The Baby Boomers are following in the footsteps of their predecessors. They moved within Toronto and into mid/ high-rise units at about the same rates as the Silent Generation did at the same age. These results suggest that these mobility characteristics are more a function of age than of generation. Households in Toronto tend to follow these patterns as they reach certain ages, regardless of which of the two generations they are from. These results also indicate that there is little evidence that Baby Boomers are about to downsize at high rates out of houses and low-rises, despite the preferences some of them indicated in some surveys.88,89 While their choices in the future may still diverge from those of the Silent Generation, past trends indicate that their downsizing is likely to continue to occur at similar rates to their predecessors as they age. Despite this pattern, the large size of the Baby Boomer population will mean that even the low mobility rates historically exhibited by older adults could yield large amounts of housing turnover in the future. To the extent that Baby Boomers will downsize at the about same rate as their predecessors, this pattern will inform an estimate of the future demand for housing that could be fulfilled by today's older households downsizing and turning over in the following chapter.

10. How much housing could be freed up in the future by turnover of housing by older generations?

Chapter 7 established that there are large numbers of underhoused households aged 35-49 living in mid/ high-rise units with children. Chapter 6 revealed that there are large numbers of overhoused households aged 50-69. As the Baby Boomers move through the household life-cycle, they increase the demand for dwellings of certain types, and continue to occupy them as they age. Eventually, the Baby Boomers themselves will age out of the private stock and the number of older households will decline, freeing up this stock for other households to occupy, which could include some of the underhoused households described in Chapter 6.

This chapter describes how Toronto's population could demand housing in the future and estimates how much of the future demand for housing may be fulfilled by housing that exists today versus housing that will need to be built in the future. *A Place to Grow*, the Provincial Growth Plan for the Greater Golden Horseshoe, forecasts the population that the City must plan to accommodate by 2051.⁹⁰ This chapter estimates the number of households in each Census year from 2021 to 2051 to reflect that time horizon.

While the household estimates in this bulletin incorporate the same planning horizon as the Growth Plan's forecasts, note that these household estimates are neither forecasts nor projections. Forecasts may take into account planning and housing policy changes as well as market forces and business cycles, which are beyond the scope of the household estimates presented here. Projections incorporate changes to demographic rates over time, including trends in fertility, mortality, mobility, housing occupancy and housing completion rates. The household estimates presented here hold all of these rates steady over time to provide a comprehensive snapshot of what the housing demand could be if current conditions were extended to 2051. These household estimates are a simplified scenario of current conditions extended to 2051 against which to isolate and assess the magnitude of housing turnover over the period.

The steps undertaken to complete these estimates were:

- Estimate future population by five-year birth cohorts in each Census year from 2021 to 2051 using 2016 population as a baseline and applying mortality, institutionalization, migration, and fertility rates described in Appendix B.
- 2. Apply 2016 headship rates to the population estimates to estimate the potential number of households by five-year birth cohorts in each Census year from 2021 to 2051.
- 3. Group the estimated number of future households into younger and older generations for each Census year from 2021 to 2051.
- Compare the increase in households of younger generations to the decrease in households of older generations to estimate how much of younger generations' increase in housing demands might be fulfilled by older generations' housing turnover.

Each of these steps will be described in more detail in the following sections.

How many people might there be in Toronto in the future?

What factors are influencing how guickly older households are declining? Demographically, the number of older households depends on the number of older people. Appendix B examines the demographic factors that cause population to decline and the factors that cause population to grow. There are three measurable factors that contribute to the declining older population and therefore households: mortality, institutionalization and mobility. These variables suggest the extent to which older households will turn over housing to younger and typically larger-sized households. Thereafter trends in migration and fertility are analysed to inform how future housing demand might grow. Table 2 on page 93 shows the resulting population estimates organised by generation (see the definition of Generations in Chapter 2 on page 26) based on the assumption that the rate of each population change component described in Appendix B will continue in the future.

Generation	Birth Year	Age in 2016	2021	2026	2031	2036	2041	2046	2051
Not Yet Born	2046-2051	Not Applicable	0	0	0	0	0	0	152,359
	2041-2046	Not Applicable	0	0	0	0	0	147,440	147,778
	2036-2041	Not Applicable	0	0	0	0	142,652	142,980	145,668
	2031-2036	Not Applicable	0	0	0	141,279	141,603	144,266	157,051
	2026-2031	Not Applicable	0	0	145,706	146,041	148,787	161,973	197,291
	2021-2026	Not Applicable	0	148,695	149,037	151,839	165,295	201,338	246,542
	2016-2021	Not Applicable	142,642	142,969	145,658	158,566	193,141	236,506	258,943
	2011-2016	0 to 4	136,312	138,876	151,183	184,148	225,493	246,886	253,261
Generation Z	2006-2011	5 to 9	137,564	149,755	182,409	223,364	244,554	250,869	251,090
2	2001-2006	10 to 14	138,374	168,547	206,389	225,969	231,804	232,009	231,111
	1996-2001	15 to 19	177,257	217,055	237,646	243,783	243,998	243,054	240,902
Millenniele	1991-1996	20 to 24	238,469	261,093	267,835	268,071	267,033	264,670	256,768
millenmais	1986-1991	25 to 29	255,050	261,636	261,866	260,853	258,544	250,825	238,820
	1981-1986	30 to 34	230,374	230,577	229,685	227,652	220,855	210,285	195,688
	1976-1981	35 to 39	196,478	195,718	193,985	188,194	179,187	166,748	152,800
Generation X	1971-1976	40 to 44	181,684	180,076	174,700	166,338	154,792	141,844	122,490
	1966-1971	45 to 49	189,235	183,585	174,799	162,665	149,058	128,720	94,862
	1961-1966	50 to 54	196,367	186,969	173,990	159,436	137,681	101,466	51,438
Baby	1956-1961	55 to 59	174,051	161,969	148,421	128,169	94,456	47,884	10,264
Boomers	1951-1956	60 to 64	143,189	131,212	113,308	83,504	42,332	9,074	1,945
	1946-1951	65 to 69	119,625	103,303	76,130	38,594	8,273	1,773	380
	1941-1946	70 to 74	80,833	59,571	30,199	6,473	1,388	297	64
The Silent	1936-1941	75 to 79	56,131	28,455	6,100	1,307	280	60	13
Generation	1931-1936	80 to 84	30,736	6,588	1,412	303	65	14	3
	1926-1931	85 to 89	8,746	1,875	402	86	18	4	1
Earlier	1926 + Earlier	90+	5,402	1,158	248	53	11	2	1

Table 2: Estimated Future Population in Private Households by Generation, 2021-2051

How many households might there be in Toronto in the future?

The next step is to estimate how the future population might distribute itself into households, by applying 2016 headship rates to the future populations, by age. Headship rates indicate what percentage of people in each age group are Primary Households Maintainers (PHMs). The occupancy rates of PHMs represent the housing decisions of households at various stages as they age. Therefore, the headship rate converts the future population estimates by age into future household estimates by age, which can then be used to predict the amount and type of housing those future households would demand based on age-specific occupancy rates.

Table 3 shows the actual population, number of households, and headship rates by age for 2016. Headship rates are calculated by dividing the number of households in each age group by the population in that age group. For example, 2.7% of people aged 15-19 headed a household in 2016. A person must be 15 years of age or older to head a household.

To estimate the future distribution of households by age, the 2016 agespecific headship rates in this table were multiplied by the future population estimates, by age, for all future Census

Age	Households	Population	Headship Rate
0 to 4		136,000	
5 to 9		135,025	
10 to 14		127,110	
15 to 19	4,000	145,525	2.7%
20 to 24	34,565	194,745	17.7%
25 to 29	86,270	232,950	37.0%
30 to 34	107,625	224,575	47.9%
35 to 39	101,455	196,305	51.7%
40 to 44	99,290	182,390	54.4%
45 to 49	107,145	190,925	56.1%
50 to 54	118,630	202,410	58.6%
55 to 59	107,775	182,800	59.0%
60 to 64	90,650	153,870	58.9%
65 to 69	78,025	130,545	59.8%
70 to 74	56,350	93,605	60.2%
75 to 79	46,175	76,165	60.6%
80 to 84	38,135	60,630	62.9%
85 to 89	24,265	40,800	59.5%
90+	12,575	25,200	49.9%

Table 3: Population, Households, and HeadshipRates by Age, 2016

years. The results of this calculation comprise the Base Scenario household estimates and are found in Table 39 in Appendix A and Figure 58, summarized by generation. The curves in this graph and their timing represent the 2016 headship rates applied to generations, thus converting the entire population into households. As such, each curve represents hundreds of thousands of households and the outcome of their household life-cycle trajectories.

The Base Scenario represents an estimated number of future households assuming future populations will form households at the same rates as in 2016. This is a key assumption of this method. The Base Scenario therefore embodies the same mixture of suitable

and unsuitable households that existed in 2016, without any adjustment to redress the issues of unsuitability. The next chapter will explore Low and High Unmet Demand Scenarios. These Unmet Demand Scenarios consider how much additional housing beyond the Base Scenario might be required to provide enough housing availability to suitably house involuntarily underhoused households or all underhoused households. Note that all scenarios explored in this bulletin are demographic exercises only; considerations of macroeconomics and the market are outside the scope of this bulletin. These scenarios do not attempt to predict what households will be able to afford, only how much

housing they might demand based on fixed household rates and if current demographic conditions extended into the future.

As older generations age or move out of the city, the Base Scenario anticipates that the Baby Boomer households would decrease by a factor of 10 (from 395,080 to 36,874) between 2016 and 2051. By 2051, the youngest Baby Boomers would be 85 years of age. Silent Generation and Earlier Generation households would decline to almost 0 by 2051, as the youngest in these generations would be 105 years old. Generation X households would increase slightly to a peak of 323,613 in 2026 and decline thereafter.

Figure 58: Base Scenario Household Estimates by Generation, 2021-2051



2016 household numbers are actual values from the 2016 Census; all other years are estimates. Younger generations are shown in blue and older generations are shown in grey. Younger generations refer to those born after May 10, 1966 and include Not Yet Born, Generation Z, Millennials, and Generation X all of whom were less than 50 years of age in 2016. Older generations refer to those born on or before May 10, 1966 and include Baby Boomers, the Silent Generation and Earlier generations, all of whom were aged 50 years or above in 2016.

Chapter 10. How much housing could be freed up in the future by turnover of housing by older generations?

Younger households would increase greatly from 2016 to 2051; the number of Millennial households would peak in 2041, doubling from 232,460 to 564,425 while Generation Z households peak in 2051, surging from 0 households in 2016 to nearly 400,000. The household estimates also consider those not born as of yet in 2016. As a future emerging generation, the generation referred to as not yet born could reach household numbers of 254,733 in this timeframe to 2051. The magnitudes in this table represent the estimated current and future demand for housing, location, amenities and services, and the interaction between the generations against the backdrop of the housing stock they occupy now, and in future.

Base Scenario: How much of younger generations' demand for housing could be fulfilled by turnover in the future, assuming 2016 headship rates remain stable?

Over decades, households represent the flow of people through the housing stock. As the number of younger generation households increase, their demand for housing increases. Meanwhile, the older generations as a whole will require less housing over time as they move out of Toronto, move to institutional settings, or pass on. Comparing the growth in younger generation households to the decline in older generation households indicates how much of younger generations' increase in demand for housing might be fulfilled by the turnover of housing from older households to the younger households that may succeed them. It also indicates how much of younger generations' increase in demand for housing might need to be fulfilled by new housing supply.

Note that some older generation households will also move around within Toronto. This analysis examines the change in households as opposed to attempting to estimate how many households within each generation will seek new versus existing housing. This analysis focuses on the difference between the amount of housing that existed in 2016 and the amount of housing demanded over time. It assumes that the number of households that existed in 2016 will continue to be housed in the future. The next step is to determine how much of younger generations' increase in demand might be fulfilled by older generations' housing turnover.

Table 4: Base Scenario: Estimated Younger Generations' Increase in Demand that could be fulfilled by Turnover of Older Generations, 2016-2051

Generation Grouping	2016- 2021	2016- 2026	2016- 2031	2016- 2036	2016- 2041	2016- 2046	2016- 2051
Change in younger generations' demand	144,348	283,545	416,051	545,616	671,224	788,072	887,802
Change in older generations' households (i.e. turnover)	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666
Percent of change in younger generations' demand fulfilled by turnover	60.3%	58.1%	57.8%	58.5%	59.5%	60.2%	60.3%
Younger generations' increase in demand not fulfilled by turnover i.e. residual demand (cumulative)	57,326	118,730	175,421	226,297	271,708	313,392	352,136
Residual demand (five years)	57,326	61,404	56,691	50,876	45,410	41,684	38,744

Around 60% of younger generations' increase in demand for housing in the future could be fulfilled by older generations' housing stock turning over in each future Census period to 2051 (see Table 4 on page 96). For example, between 2016 and 2021, younger generations are estimated to increase by 144,348 households while older generations are estimated to decrease by 87,021 households. These 87,021 dwellings that would become available constitute 60.3% of the 144,348 increase in dwellings the younger generations would demand in the Base Scenario. This percentage remains fairly stable across all future Census periods, ranging from 57.8% to 60.3%. This percentage is sustained over the study period to 2051 due to the large number of Baby Boomers who continue to age and whose housing will continue to be freed up, at the same time that a comparatively large number of younger generation households are seeking housing.

The residual number of dwellings demanded by younger generations that is not fulfilled by turnover could be fulfilled by new units if the volume of dwelling completions in Toronto continue at past rates. The difference between the units freed up by older households turning over and the increase in units demanded by new younger generation households averages 50,305 units every five years over the 35 year period to 2051 (for a total of 352,136). According to CMHC, 375,247 units were completed in Toronto over the 35-year period between 1989 and 2019 (see Table 5).91 By comparing completions over the last 35 years to the estimated average demand for units in the next 35 years, the residual demand for housing by the younger generation households could therefore be fulfilled by new units if the pace of completions in Toronto continues.

While this analysis concentrates on the demand for occupied private units, a sustained pace of residential construction that is comparable to the pace of the last 35 years would also need to continue to cover the ongoing replacement of aging units lost through demolition or no longer habitable. Past analyses have indicated demolition rates of 8% and 10% of new construction. Between the 2006 to 2016 Censuses, occupied private units increased by 13,360 units per year on average, while from 2007 to 2016 inclusive, CMHC residential completions averaged 14,699 units per year or by 110% of the increase in occupied private units. In addition, unoccupied units that already exist would continue to facilitate normal housing turnover. In 2016, there were 54,120 unoccupied units as reported by Statistics Canada, which has increased slightly since 2006.

The next sections explore whether the increase in demand by younger generations could be fulfilled by specific categories of dwelling type, bedroom or tenure, and the analyses yield nuanced results.

Table 5: Housing Completions in Toronto in the Past 35 Years by Five-Year Time Period, 1985-2019

Year	Completions
1985 - 1989	40,268
1990 - 1994	36,362
1995 - 1999	26,395
2000 - 2004	52,826
2005 - 2009	60,265
2010 - 2014	67,505
2015 - 2019	91,626
Five-Year Average	53,607
Total	375,247
Younger generations' residual demand (demand not fulfilled by turnover) in 2051	352,136
Recent completions as a percent of residual demand in 2051	106.5%

Chapter 10. How much housing could be freed up in the future by turnover of housing by older generations?

Base Scenario: What types of dwellings will younger generations demand in the future?

Households' housing decisions depend largely on their resources, needs, and the housing stock available and new housing that is soon to be built. Some households move out of the city in search of the housing that they seek, while at the same time new households are formed and others move into the city for the housing that the city's market offers. The interactions between demand and supply occur in the context of a regional housing market. The challenge is to anticipate the demand, acknowledge the changing patterns of demand and supply, and to encourage and support a range of housing that increases the opportunity of households to find the housing that they seek in the community in which they would prefer to live.

In addition, the land and housing in central locations tends to be more desired and thus more expensive, resulting in the resolution of the discrepancy between supply and demand by households voting with their feet. The conundrum of distinguishing housing preferences from housing choice is that we can only detect actual choices by the outcome of the stock households occupied on Census Day, but this does not reveal the housing stock they might have preferred, all other things being equal. Yet, preferences evolve at the same time that the demographic composition of the population changes. With two variables changing at once, we hold one of them (preferences) constant to assess the implications of the change in the other (demographics).

The challenge in putting a number to the magnitude of the discrepancy between choices and preferences is to make some assumption about future housing preferences, such as assuming that they might be like those of past generations. With this assumption about future occupancy rates, the changes in demand due to the growth of the population can then be used to assess the demand for different types of housing. On this basis, and accounting for people moving in and out of the city for the housing they seek, the net change in demand can be measured.

Estimating future demand by dwelling type can indicate what types of dwellings younger generations might occupy in the future, and how much of their increase in demand might be fulfilled by older generations' dwellings turning over. This analysis assumes that households in each age group would occupy different dwelling types at the same rate in the future as they did in 2016. For example, 4.9% of households aged 15-19 lived in single-detached dwellings in 2016, so this analysis assumes that those aged 15-19 in each future Census year would also occupy single-detached dwellings at the same rate. By applying these age-specific rates to each generation as they age and by focusing on net household change, this method takes into account the fact that some households at every age will move around within the city and that some of the future supply will be consumed by households that already lived in Toronto.

Three tables in Appendix C provide background information used in this section. Table 42 lists the occupancy rates by age of PHM and dwelling type for 2016. Table 43 shows the resulting numbers of households by dwelling type when these occupancy rates are applied to the future household estimates. Table 44 shows the background data by dwelling type that support the tables in this section.

Table 6: Base Scenario: Estimated Percent of Younger Generations' Increase inDemand Fulfilled by Older Generations' Turnover by Dwelling Type, 2016-2051(Cumulative)

Dwelling Type	2016-2021	2016-2026	2016-2031	2016-2036	2016-2041	2016-2046	2016-2051
Single-Detached	67.5%	62.0%	60.2%	60.4%	61.3%	62.4%	63.1%
Semi-Detached	65.6%	60.4%	57.8%	57.9%	59.0%	60.7%	61.7%
Row/Townhouse	63.2%	61.8%	61.3%	61.8%	62.1%	61.9%	60.9%
Duplex	65.6%	65.3%	64.0%	63.3%	62.7%	61.9%	61.2%
Low-Rise Apartment*	57.3%	58.7%	60.1%	60.4%	60.2%	59.5%	58.2%
Mid/high-Rise Apartment	54.6%	53.1%	53.7%	55.3%	57.2%	58.2%	58.4%
Other Single-Attached House	53.3%	50.6%	51.2%	55.3%	59.3%	60.6%	61.1%
Total	60.3%	58.1%	57.8%	58.5%	59.5%	60.2%	60.3%

At least half of younger generations' demand for each dwelling type could be fulfilled by turnover cumulatively in each future Census year (see Table 6 on page 98).

Younger generations' increase in demand for single-detached and semi-detached units would not be fulfilled by older generations' dwellings turning over and new development combined in the Base Scenario. If younger generations' future demand for different types of housing (based on their occupancy rates) were to follow similar patterns as that of the older generations, then their numbers will also indicate their future demand for different types of housing. Twothirds of younger generations' increase in demand for single-detached and semi-detached units could be fulfilled by older generations' dwellings turning over by 2051 (see Table 6). However, the residual demand – the difference between younger generations' increase in demand and turnover – amounts to nearly 100,000 single-detached units in the 35-year period between 2016 and 2051 (see Table 7 Row C). Only 44.7% of that amount was built in the 35 years between 1985 and 2019 (see Row E).⁹² For semi-detached units, the difference between the increase in demand and housing turnover is 25,572 units, while only 28.9% of that difference (7,396 semi-detached units) has actually been built in the past 35 years.

Table 7: Base Scenario Demand by Dwelling Type to 2051 versus Recent Completionsfrom 1985-2019

			Ground-Related						
Row	Measure	Single- Detached	Semi-Detached	Row (Townhouse)	and Other				
А	Change in younger generations' demand by 2051	269,014	66,685	53,145	499,018				
В	Change in older generations' households (i.e. turnover) by 2051	-169,774	-41,113	-32,376	-292,387				
с	Younger generations' increase in demand not fulfilled by turnover by 2051 (A+B) i.e. residual demand	99,240	25,572	20,769	206,631				
D	Recent completions, 1985-2019*	44,324	7,396	21,029	302,498				
E	Recent completions as a percent of residual demand in 2051 (D/C)	44.7%	28.9%	101.3%	146.4%				
F	Total additional units required to be built beyond recent completion trends to fulfill residual demand by 2051 (C-D)	54,916	18,176	-260	-95,867				
G	Average annual additional units required to be built beyond recent completion trends to fulfill residual demand (F/35)	1,569	519	-7	-2,739				
Н	Annual additional units required to be built beyond recent completion trends to fulfill young generations' demand, combining ground-related units (G)		2,081		-2,739				
I	Average annual completions, 1985-2019 (D/35)	1,266	211	601	8,643				
J	Estimated annual completions required to fulfill residual demand (G+I)	2,835	730	593	5,904				

Table should be read from top to bottom within each column. *Source: CMHC Housing Now Tables, 1985-2019. Note that CHMC's dwelling type definitions differ from those in the Census, and that this table is organized by CMHC's dwelling type categories. For the above analysis, younger generations' increase in demand not fulfilled by turnover for the Apartment and Other category equals the sum of the duplex, low-rise apartment, mid/high-rise apartment and other single-attached house values for 2046-2051. See Sidebar: Ground-Related Dwellings & Apartment and Other Dwellings on page 100 for more information on the ground-related dwelling category.

Ground-Related Dwellings & Apartment and Other Dwellings

Statistics Canada and CMHC define dwelling types in different ways. The detailed definitions are provided in the Glossary on page 150 for reference. To compare dwelling data between the two sources, as occurs in Table 7, the dwelling types are grouped together into two categories referred to as "Ground-related dwellings" and "Apartment and other".

Ground-related dwellings

refers to Statistics Canada defined single-detached houses, semi-detached houses, and row houses. Groundrelated dwellings also refer to CMHC-defined singleddetached, semi-detached and row (townhouse) dwellings.

Apartment and other refers to Statistics Canada defined apartments in a building that has five or more storeys, apartment units in buildings with less than five storeys, apartments or flats in duplexes, and other single-attached houses. The CMHC dwelling classification of "Apartment and other" includes all dwellings other than singledetached, semi-detached and row (townhouse) dwellings. "Apartment and other" also includes structures commonly known as stacked townhouses, duplexes, triplexes, double duplexes and row duplexes.

The average number of annual single-detached and semi-detached completions would need to increase by a minimum of 1,569 and 519 units respectively between 2016 and 2051 to fulfill the Base Scenario demand for these dwelling types (Row G). Within Toronto, 2,835 single-detached units and 730 semi-detached units would need to be built annually in order to fulfill younger generations' increase in demands from 2016 to 2051 (Row J). These numbers reflect the average number of units expected to be built (Row I) plus the minimum additional units required to meet the residual demand (Row G).

Toronto is built out, and current planning legislation encourages a more efficient, compact form that enables efficient use of infrastructure and enables complete communities.93 Given these circumstances, it is improbable that new development based on recent completion trends would be sufficient to make up the residual demand for single- and semi-detached houses. However, the continued demand for houses encourages municipalities and markets to support denser low-rise housing forms such as duplexes, triplexes, walkup apartments, and townhouses (as the city of Toronto is exploring through the Expanding Housing Options in Neighbourhoods project). Such forms expand the range of available housing options while managing growth and the provision of services required to support it and improve quality of life while not magnifying the negative consequences of overdevelopment, congestion, traffic, and loss of privacy.

Older generations' housing turnover combined with new development could more than fulfill all of young generations' increase in demand for row/townhouses. Three-fifths (60.9%, see Table 6 on page 98) of younger generations' increase in demand for row/townhouses could be fulfilled by older generations turning over by 2051. The difference between younger

generations' increase in demand and older generations' housing turnover would be 20,769 row/townhouses by 2051 (see Table 7 on page 99, Row C). In the past 35 years, 21,029 row/townhouses were built (Row D) or 101.3% of the difference between younger generations' increase in demand and older generations' housing turnover (Row E). Therefore it is plausible that the difference between younger generations' increase in demand and older generations' housing turnover of row/townhouses could be fulfilled by new development, if the pace of these completions continues to 2051 at the same rate experienced over the last 35 years.

All of younger generations' increase in demand for duplexes, low-rise apartments. mid/high-rise units and other single attached houses could be fulfilled by older generations turning over and by new development combined. Around 60% of younger generations' increase in demand for these dwelling types could be fulfilled by older generations turning over by 2051 (see Table 6). The combined residual demand for these dwelling types would be 206,631 units (see Table 7, Row C). In the past 35 years, 302,498 of these types of units were built (Row D) or 146.4% of the difference (Row E). This finding suggests that the new development could more than fulfill the difference between younger generations' increase in demand and older generations' turnover of apartment and other unit types, given the increase in development of these types in recent years.

If the past rates of completions were to continue to 2051, there would be an annual shortfall of 2,081 ground-related units (including single- and semidetached houses and row/townhouses) and an annual surplus of 2,739 apartment and other units, versus the increase in the units to be demanded by younger generations (see Row H). Overall, at current completion rates, there would be a surplus of 658 dwelling units per year. The issue is not the total supply required but the mismatch between the types of units demanded and the composition of the existing supply.

Base Scenario: How many bedrooms will younger generations demand in the future?

The above analysis estimates that younger generations' increase in demands for row/townhouses, apartments and other dwelling types would be fulfilled due to a combination of older generations turning over their housing and new development. However, if younger generations demand single- and semi-detached housing at the same rate as their predecessors, and if the market continues to produce these dwelling types at the same level as it has over the past 35 years, younger generations' increase in demands for these dwelling types would not be fulfilled.

Is it possible that the increase in demand for single- and semi-detached houses could be fulfilled by units with the desired number of bedrooms, regardless of what type of dwelling those bedrooms are in? If so, how many units of each bedroom type would we need to build to fulfill the demand? Again, this analysis assumes that households in each age group would occupy dwellings with different numbers of bedrooms at the same rate in the future as they did in 2016. Three tables in Appendix D support this section. Table 45 lists these occupancy rates by age of PHM and number of bedrooms for 2016. Table 46 shows the resulting numbers of households by number of bedrooms when these occupancy rates are applied to the future household estimates. Table 47 shows the background data by number of bedrooms that support the tables in this section.

At least half of younger generations' increase in demand for almost all bedroom types could be fulfilled by older generations' turnover in every Census year between 2021 and 2051 (see Table 8).

Older generations' turnover and new development combined could fulfill all of younger generations' increase in demand for units with two or fewer bedrooms if younger generations demand bedrooms at the same rates as their predecessors and if recent completion trends persist. In the Base Scenario, younger generations would demand 6,587 studio units, 84,139

Table 8: Base Scenario: Estimated Percent of Younger Generations' Increase inDemand Fulfilled by Older Generations' Turnover by Number of Bedrooms, 2016-2051(Cumulative)

Number of Bedrooms	2016-2021	2016-2026	2016-2031	2016-2036	2016-2041	2016-2046	2016-2051
Studios	53.2%	50.6%	53.4%	55.8%	58.4%	59.7%	59.9%
1 Bedroom	47.0%	48.8%	52.4%	55.3%	56.9%	57.3%	56.7%
2 Bedrooms	59.6%	56.9%	56.5%	57.1%	58.5%	59.3%	59.4%
3 Bedrooms	67.7%	62.2%	59.7%	59.3%	60.0%	61.2%	62.1%
4+ Bedrooms	67.6%	64.5%	62.6%	62.5%	62.8%	63.1%	63.0%
Total	60.3%	58.1%	57.8%	58.5%	59.5%	60.2%	60.3%

units with one bedroom, and 96,492 units with two bedrooms surplus to the number of zero-, one- and two-bedroom units that older generations would vacate (see Table 9, Row C). In the 35 years preceding 2016, within Toronto there were 7,540 studio units built, 144,525 units with one bedroom built, and 135.940 units with two bedrooms built (Row D). If the same number of units were built in the 35 years between 2016 and 2051, that would equal 114.5%, 171.8%, and 140.9% respectively of the difference between the increase in younger demand and turnover of studio and one- and twobedroom units, respectively (Row E). While such surplus units are still likely

to be occupied, they may not represent what their occupants might prefer or need.

Younger generations' increase in demand for units with three or more bedrooms would not be fulfilled by older generations turning over and by new development combined in the Base Scenario. More than 60% of younger generations' increase in demand for units with three bedrooms or four or more bedrooms could be fulfilled by older generations turning over at every future census period to 2051 (see Table 8 on page 101). Despite this, new construction could fulfill only 62.3% of the residual demand for three-bedroom units and 78.7% of

Table 9: Base Scenario Demand by Number of Bedrooms to 2051 versus RecentCompletions from 1981-2016

Bow	Maasura	Units witl	n 2 or Fewer	Bedrooms	Units with 3 or More Bedrooms		
now	weasure	Studios	1 Bed- room	2 Bed- rooms	3 Bed- rooms	4+ Bed- rooms	
Α	Change in younger generations' demand by 2051	16,407	194,145	237,813	250,451	188,970	
В	Change in older generations' households (i.e. turnover) by 2051	-9,820	-110,007	-141,322	-155,429	-119,104	
С	Younger generations' demand not fulfilled by turnover by 2051 (A+B) i.e. residual demand	6,587	84,139	96,492	95,022	69,866	
D	Recent completions, 1981-2016*	7,540	144,525	135,940	59,195	55,000	
E	Recent completions as a percent of residual demand in 2051 (D/C)	114.5%	171.8%	140.9%	62.3%	78.7%	
F	Total additional units required to be built beyond recent completion trends to fulfill residual demand by 2051 (C-D)	-953	-60,386	-39,448	35,827	14,866	
G	Annual additional units required to be built beyond recent completion trends to fulfill residual demand (F/35)	-27	-1,725	-1,127	1,024	425	
Н	Annual additional units required to be built beyond recent completion trends to fulfill residual demand, combined into surpluses and shortfalls (G)		-2,880		1,4	48	
I	Average annual completions, 1981-2016 (D/35)	215	4,129	3,884	1,691	1,571	
J	Estimated annual completions required to fulfill residual demand (G+I)	188	2,404	2,715	1,996		

Table should be read from top to bottom within each column. *Note: CMHC does not collect data on completions by number of bedrooms. The 2016 Census counts by period of construction are used here as a proxy for completions. ** Values in Row H vary slightly from the sum of values in Row G due to rounding.

the residual demand for four-or-morebedroom units if recent completions trends continue (see Table 9 on page 102, Row E). This is because younger generations would demand an estimated 95,022 more three-bedroom units and 69,866 more four-or-morebedroom units in the 35 years between 2016 and 2051 than turnover might fulfill (Row C); in contrast, over the 35 years between 1981 and 2016 only 59,159 three-bedroom units and 55,000 four-ormore-bedroom units were actually built (Row D).

The average number of threebedroom and four-or-more-bedroom units required annually would need to increase every year between 2016 and 2051 to fulfill the Base Scenario demand for these units (Row G). Within Toronto, 2,715 three-bedroom units annually and 1,996 four-or-morebedroom units would need to be built annually in order to fulfill younger generations' increase in demands in the next 35 years (Row J). These numbers include the minimum additional units required to be built annually (1,024 and 425 respectively, Row G) on top of the average annual completions (1,691 and 1,571 respectively, Row I) that were built in the 35 years between 1981 and 2016 to make up the difference between turnover and recent completions.

It is plausible that future housing needs could be fulfilled by units with the demanded number of bedrooms, regardless of what type of dwelling those bedrooms are in. The estimated shortfall in three-or-more bedroom units

is 1,448 and the surplus in studio, oneand two-bedroom units is 2.880 units per annum (see Row H). This amounts to 27 fewer studio completions, 1,725 fewer one-bedroom completions, and 1,127 fewer two-bedroom completions annually between 2016 and 2051 (Row G). This surplus is approximately double the 1.448 additional three-ormore bedroom completions required annually (Row H). In other words, if the Toronto market could build 1,448 three-or-more bedroom units annually instead of some or all of the 2.880 twoor-fewer bedroom units. it would fulfill the estimated future demand. However. note that this analysis does not estimate what future households might be able to afford. Under current market conditions. units with three or more bedrooms may be prohibitively expensive for some of the households that might prefer them. This bulletin focuses on demographics as affordability is dealt with via other policies and programs, such as the HousingTO Action Plan 2020-2030 and implementation of Inclusionary Zoning policies.94

Base Scenario: How much housing will younger generations demand by tenure?

Estimating demand by tenure quantifies how much demand may be fulfilled by tenure if recent development activity and trends continue. Estimating future demand for housing by tenure is more challenging than doing so by dwelling type or number of bedrooms. It is relatively easy for a unit to change

Tenure	2016-2021	2016-2026	2016-2031	2016-2036	2016-2041	2016-2046	2016-2051
Owner	65.9%	59.7%	58.4%	59.1%	60.4%	61.7%	62.3%
Renter	56.6%	56.9%	57.5%	58.0%	58.4%	58.1%	57.4%
Total	60.3%	58.1%	57.8%	58.5%	59.5%	60.2%	60.3%

Table 10: Base Scenario: Estimated Percent of Younger Generations' Increase in Demand Fulfilled by Older Generations' Turnover by Tenure, 2016-2051 (Cumulative)

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tenure, with the exception of rental units in buildings with six or more units (excluding condominium buildings), which are protected from conversion by the Official Plan.95 In contrast, the number of bedrooms in a dwelling can change over time such as in mid/ high-rise apartments built with knockout panels that can enable units to be combined, and certain dwelling types can change over time such as through the conversion of a single-detached house to a duplex. However, such changes involve construction and costs that make them less likely or frequent. Still, tenure is a fundamental component of the housing stock that households seek and occupy. Approximately half of Toronto households rent, yet only 14.6% of Toronto completions in the 35 years between 1985 and 2019 have been rental completions (see Table 11. Row D). It is therefore important to estimate future households by tenure.

For consistency with the methodology used to calculate future households by dwelling type and number of bedrooms, tenure has also been calculated based on the proportion of households by tenure as they were in 2016. Three tables in Appendix E support this section. Table 48 lists these occupancy rates by age of PHM and tenure for 2016. Table 49 shows the resulting numbers of households by tenure when these occupancy rates are applied to the future household estimates. Table 50 shows the background data by tenure that support the tables in this section. Note that the following discussion of future rental completions refers to purpose-built rental completions.

Most of the purpose-built rental units built between 1985 and 2016 were constructed in the 1980s and early 1990s before rent controls were introduced; rental completions in recent years have rebounded somewhat since the early 2000s when annual rental completions were under 500, but still averaged less than 2,000 units per year between 2015 and 2019. Averaging annual completions by tenure over a longer period of time and extending this into the future smooths out some of

Row	Measure	Owner	Renter
Α	Change in younger generations' demand by 2051	549,701	338,106
В	Change in older generations' households (i.e. turnover) by 2051	-342,479	-194,120
С	Younger generations' demand not fulfilled by turnover by 2051 (A+B) i.e. residual demand	207,222	143,986
D	Recent completions, 1985-2019*	320,459	54,788
Е	Recent completions as a percent of residual demand in 2051 (D/C)	154.6%	38.1%
F	Total additional units required to be built beyond recent completion trends to fulfill residual demand by 2051 (C-D)	-113,237	89,198
G	Annual additional units required to be built beyond recent completion trends to fulfill residual demand (F/35)	-3,235	2,549
Н	Average annual completions, 1985-2019 (D/35)	9,156	1,565
I	Estimated annual completions required to fulfill residual demand (G+H)	5,921	4,114

Table 11: Base Scenario Demand by Tenure to 2051 versus Recent Completions from1985-2019

Table should be read from top to bottom within each column. *Source: CMHC Housing Now Tables, 1985-2019. Owner completions include units with an intended tenure of freehold, condominium, or co-op. Rental completions are purpose-built.

the variability in completion rates that is likely to take place between 2016 and 2051.

A higher proportion of the younger generations' increase in demand for owned housing could be fulfilled by older generations' housing turnover by 2051 than for rented housing (see Table 10 on page 103). While more than half of the increase in demand for each tenure could be fulfilled by turnover by 2051, 62.3% of the increase in ownership demand could be fulfilled by turnover versus 57.4% for rental demand.

Younger generations' increase in demand for rented units would not be fulfilled by older generations turning over and by new development combined in the Base Scenario. The difference between younger generations' increase in demand and turnover amounts to more than 140,000 rented units in the 35-year period between 2016 and 2051 (see Table 11 on page 104, Row C),⁹⁶ whereas only 54,788 rental units or 38.1% of that amount has been built in the 35 years between 1985 and 2019 (Rows D and E).

The average number of annual rental completions would need to increase by 2,549 between 2016 and 2051 to fulfill the Base Scenario demand for these units (Row J). Within Toronto, 4.114 rental units would need to be built annually in order to fulfill the increase in younger generations' demands in the 35 years between 2016 and 2051 (Row I). This number includes 2,549 more rental units annually on top of the 1,565 average annual rental completions that were built in the 35 years between 1985 and 2019 (Rows G and H). Given that 4,114 or more rental completions per year has only been achieved once in that time period (in 1993), it is very unlikely that this level of rental development could be achieved consistently in the future without expanded policy and program support for the rental housing sector.

Older generations' dwelling turnover and new development combined could more than fulfill all of younger generations' increase in demand for ownership units if younger generations demand ownership housing at the same rates as their predecessors and if recent completion trends persist. Under the Base Scenario, younger generations would demand 207,222 ownership units over and above the number of ownership units that older generations would vacate (Row C). In the 35 years between 1985 and 2019, 320,459 ownership units (Row D) were built in Toronto. If the same number of units were built in the 35 years between 2016 and 2051, that would equal 154.6% of the difference between younger generations' increase in demand and turnover of ownership units (Row E). Many younger generation households may aspire to home ownership, and some have benefitted from recent low interest rates making mortgages more affordable. However, many younger generation households also struggle with higher debt-to-income ratios than their predecessors.⁹⁷ It is possible that the younger generations' future demand for ownership housing may be the same as the older generations. However, if interest rates rise in the future, that could temper younger generations' demand for ownership housing. This would suggest that the supply of ownership housing estimated in the Base Scenario could exceed the estimated demand by an even larger amount than shown in Row F.

The estimated surplus in ownership units is 3,235 units per year, and the shortfall in purpose-built rental is a minimum of 2,549 units per year (Row G). If four out of five of the estimated surplus ownership units were instead developed as purpose-built rental units, the demand for rental units could be fulfilled.

While some ownership units are rented out, these so-called secondary rental units are less secure than purposebuilt rentals. Both condominium rental units and other secondary rental units do not provide for security of tenure, as a tenancy can be lawfully terminated if the unit is required for use by the owner or their immediate family. Even if a secondary rental unit is vacated voluntarily, it can be sold at any point after becoming vacant, meaning that the secondary rental stock is not necessarily long-term rental stock. Condominiums are also not subject to the City's rental housing replacement policies nor its Rental Housing Demolition and Conversion By-law (Chapter 667 of the Toronto Municipal Code), meaning any rental condominium units that undergo demolition or major alterations do not require replacement. So while some privately-owned units will be rented out in the future, they will not offset the demand for secure, long-term rental housing.

11. How Much Housing Would Toronto Need in the Future if Unmet Demand is Taken into Account?

The previous chapter estimated a "Base Scenario" for future household estimates - that is, it estimated how much housing might be needed if people in the future were housed at the same rates as they were in 2016. However, as mentioned in Chapter 8, there is some pent-up demand for housing in Toronto over and above those who are housed now, or the way that they are housed now. The status quo reflected in the baseline does not account for the housing needs of more vulnerable households. While the needed housing may already exist in the city in the form of dwellings with overhoused households, those households have a right to remain in their units. Complete right-sizing of all households in the city is an impossible ideal. An appropriate goal is to ensure the delivery of more housing with the characteristics underhoused households are seeking so that those who do not wish to be underhoused have more opportunities to have their needs met.

This section will explore how much housing might be required in the future considering two possible scenarios for unmet demand, a low and a high. These scenarios add on a certain amount of additional housing that may be required over and above the Base Scenario in order to house Toronto's future population more comprehensively. The Low Unmet Demand Scenario's additional demand component is the percent of households by age that are living in housing that is both unsuitable and unaffordable; the High Unmet Demand Scenario's additional demand component is the percent of households by age that are living in housing that is unsuitable, regardless of affordability.

Note that both Unmet Demand Scenarios therefore involve an element of double-counting: the households with unmet needs are counted both in the Base Scenario as well as in the additional Unmet Demand Component for each Unmet Demand Scenario. Although there may technically be enough housing in the Base Scenario to house underhoused households suitably, that housing is occupied by other households. Therefore, the Unmet Demand Scenarios assume that additional housing beyond the Base Scenario would be needed in order for there to be enough housing available to meet underhoused households' suitability needs. Insofar as the Unmet Demand Scenarios doublecount some households, the Unmet Demand Scenarios likely overestimate the amount of housing that might be required to accommodate underhoused households suitably. Conversely, some of the additional housing required may come to be occupied by households that were already suitably housed. The true demand for housing therefore falls somewhere between the Base Scenario and the Unmet Demand Scenarios.

Low Unmet Demand Scenario

As described in Chapter 8, households that are both underhoused and spending 30% or more of their income on shelter may constitute involuntarily underhoused households, or those who would prefer not to be underhoused but are unable to find or afford suitable housing. This subset represents a low measure of unmet demand for housing referred to here as the Low Unmet Demand Component. Table 12 on page 107 shows:

- The Base Demand Component;
- The Low Unmet Demand Component, or the additional estimated housing demanded by households facing both affordability and suitability challenges. These estimates are the results of multiplying the rates of households experiencing both underhousing

and unsuitability (shown in Figure 47 on page 75) by the Base Scenario household estimates (shown in Table 39 on page 163). And,

The Low Unmet Demand Scenario estimates, or the sum of the Base and Low Unmet Demand Components. Recall that the Low Unmet Demand Scenario double-counts households facing both suitability and affordability challenges by counting them both in their unsuitable housing (in the Base Demand Component) and in the housing they would need to be suitably housed (in the Low Unmet Demand Component). The Low Unmet Demand Scenario therefore likely overestimates the amount of housing that might be required to accommodate underhoused households suitably. At the same time, some of the additional housing required may come to be occupied by households that were already suitably housed. The Low **Unmet Demand Scenario thus** represents a minimum demand for additional affordable and suitable housing.

Again, note that all scenarios explored in this bulletin are demographic exercises only. The Low Unmet Demand Scenario does not attempt to predict what households will be able to afford, only how much pent-up demand for housing exists because some households are unable to find housing with the characteristics they are looking for. The aim of the Low Unmet Demand Scenario is to determine how much housing would be demanded in the future if sufficient housing supply was available to enable involuntarily underhoused households to meet their housing needs.

Table 12: Estimated Low Unmet Demand Scenario Future Households by Generation,2016-2051

Demand Component	Generation	2016*	2021	2026	2031	2036	2041	2046	2051
Base Demand Component	Not Yet Born	0	0	0	0	4,358	38,824	127,774	254,733
	Generation Z	0	3,803	34,031	112,965	223,697	320,510	374,274	397,277
	Millennials	232,460	361,067	466,251	523,765	551,738	564,425	563,286	550,232
	Generation X	307,890	319,827	323,613	319,671	306,173	287,815	263,089	225,911
	Baby Boomers	395,080	375,909	348,573	309,918	249,158	172,184	97,711	36,874
	Silent Generation + Earlier	177,500	109,649	59,193	22,033	4,103	880	189	40
Low Unmet Demand Component	Total	1,112,930	1,170,256	1,231,660	1,288,351	1,339,227	1,384,638	1,426,322	1,465,066
	Not Yet Born	0	0	0	0	710	4,421	9,445	16,178
	Generation Z	0	619	3,883	8,414	13,902	19,036	23,950	26,918
	Millennials	14,918	22,901	29,117	33,867	34,930	31,010	24,282	16,663
	Generation X	20,830	19,641	16,074	11,346	7,125	4,524	2,912	2,159
	Baby Boomers	12,487	8,088	5,052	3,323	2,360	1,379	782	295
	Silent Generation + Earlier	1,636	878	474	176	33	7	2	0
	Total	49,871	52,126	54,600	57,126	59,060	60,376	61,372	62,213
Total Low Unmet Demand Scenario (Base + Low Unmet Demand Components)	Not Yet Born	0	0	0	0	5,068	43,245	137,219	270,911
	Generation Z	0	4,423	37,914	121,379	237,599	339,546	398,223	424,195
	Millennials	247,378	383,968	495,368	557,632	586,668	595,435	587,567	566,894
	Generation X	328,720	339,467	339,687	331,017	313,298	292,338	266,001	228,069
	Baby Boomers	407,567	383,997	353,625	313,240	251,518	173,563	98,493	37,169
	Silent Generation + Earlier	179,136	110,527	59,667	22,210	4,136	887	190	41
	Total	1,162,801	1,222,383	1,286,260	1,345,477	1,398,288	1,445,014	1,487,694	1,527,279

* 2016 values are actual household values from the 2016 Census. All other values are future estimates.

Table 13 summarises the Base Demand Components and the Low Unmet Demand Components of the household estimates into generational groupings. The Low Unmet Demand Scenario assumes that there are involuntarily underhoused households of all ages whose housing needs would not be fulfilled if 2016 occupancy rates continued into the future as was done in the Base Scenario. The Low Unmet Demand Components shown in Rows 2 and 4 of Table 13 represent the additional housing supply that could help these households fulfill their housing needs.

The calculations for the future demand in the Low Unmet Demand Scenario are therefore slightly different than the calculations in the Base Scenario. In the Low Unmet Demand Scenario, the additional demand components generated by both younger and older generations' unmet demand is added to the younger generations' Base demand. This is because the Unmet demand components for both generational groups represent additional housing needed that does not currently exist and cannot therefore be turned over. Together, these three components (younger generations' Base demand plus both generations' Unmet demand) represent the future demand that must be made up by either turnover of older generations' housing or by new housing supply. Therefore Row 5 of Table 13 sums Rows 1, 2 and 4, or the younger generations' Base and Low Unmet demand components and the older generations' Low Unmet demand component, to identify the future demand from all three components.

The change over time in the three demand components summarised in Row 5 of Table 13 appear in Row A of Table 14 on page 109, while the change in older generations' Base Demand shown in Row 3 of Table 13 appears in Row B of Table 14.

Adding in a low measure of unmet demand changes the percent of demand that could be fulfilled by turnover very little. Adding all ages' unmet demand to younger generations' Base Scenario demand still results in about 60% of the future increase in demand being fulfilled by turnover (see Table 14, Row C) in each census year to 2051, cumulatively. By 2051, younger generation households plus households

Table 13: Additional Demand Generated by Adding in the Low Unmet DemandComponent by Generation, 2016-2051

Row	Generational Grouping	Demand Component	2016	2021	2026	2031	2036	2041	2046	2051
1	_ Younger Generations	Base	540,350	684,698	823,895	956,401	1,085,966	1,211,574	1,328,422	1,428,152
2		Low Unmet	35,748	43,161	49,074	53,627	56,667	58,990	60,588	61,917
3	Older Generations	Base	572,580	485,559	407,765	331,951	253,261	173,064	97,899	36,914
4		Low Unmet	14,123	8,966	5,526	3,499	2,393	1,386	784	296
5	Sum of younger generations' Base and Low Unmet Components, plus older generations' Low Unmet component		590,221	736,824	878,495	1,013,526	1,145,027	1,271,950	1,389,795	1,490,365
of all ages with unmet demands would increase by 900,144 households while older generations' Base Scenario households would decrease by 535,666. These 535,666 dwellings that could be freed up constitute 59.5% of the additional 900,144 dwellings the younger generations and those with unmet demands would demand in this scenario. This compares to 60.3% in the Base Scenario.

The low measure of unmet demand is attainable and adds a degree of equity to the estimates. In the Base Scenario, 352,136 units would be required to be built to make up the difference between the increase in demand and the number of units freed up by older generations turning over by 2051 (see Table 4 on page 96). In the Low Unmet Demand Scenario, that figure is 364,478 units. The low measure of unmet demand adds around 12,000 to the total number of completions that would be required to fulfill the

demand by 2051. This is a relatively small addition, well within typical annual completions. Therefore, applying the low measure of unmet demand in future planning efforts is both realistic and more conservative than considering the Base Scenario alone. However, as was the case with the Base Scenario and as will be discussed later in this chapter, demand varies by dwelling type, bedroom and tenure and so ensuring that there is an appropriate mix of housing is crucial to meeting future housing needs. This mix may indicate that there are surplus units with certain characteristics than are required to address suitability needs while there may be higher demand for units with other characteristics to meet these same needs.

Table 14: Low Unme	t Demand S	Scenario	: Estimated	Cumulative	Increase in	Demand	that
could be fulfilled by	Turnover of	f Older (Generations,	2016-2051			

Row	Measure	2016- 2021	2016- 2026	2016- 2031	2016- 2036	2016- 2041	2016- 2046	2016- 2051
А	Change in demand (i.e. change in Row 5 of Table 13)	146,603	288,274	423,306	554,806	681,729	799,574	900,144
В	Change in older generations' households (i.e. turnover, change in Row 3 of Table 13)	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666
С	Percent of increase in demand fulfilled by turnover (B/A)	59.4%	57.2%	56.8%	57.6%	58.6%	59.4%	59.5%
D	Residual demand (increase in demand not fulfilled by turnover) (A-B)	59,582	123,459	182,676	235,487	282,213	324,893	364,478
E	(From Table 4) Base scenario residual demand not fulfilled by turnover	57,326	118,730	175,421	226,297	271,708	313,392	352,136
F	Difference in residual demand in 2051 between Base + Low Unmet Demand Scenarios (D-E)	2,256	4,729	7,255	9,190	10,505	11,502	12,342

Table should be read from top to bottom within each column. Note: "Demand" in this table includes younger generations' Base Scenario demand plus all ages' Low Unmet Demand, unless otherwise specified.

High Unmet Demand Scenario

As discussed in Chapter 8, some underhoused households are satisfied with their current housing situation while others may have chosen where they live out of necessity. The Low Unmet Demand Scenario in the previous section estimated how much supply would be needed to house households at the same rate as in 2016, with extra housing to support those who experienced both underhousing and affordability challenges, who may be involuntarily underhoused. Some amount of those who are underhoused but are not facing affordability challenges represent another measure of unmet demand.

However, it is difficult to quantify how many of these underhoused households may have chosen housing that does not fulfill their housing needs to avoid having to spend more than 30% of their income on shelter. Recent research sheds some light on what percentage of Toronto residents would prefer housing with different characteristics than their current homes. In one recent study, 19% of those who lived in very car-oriented neighbourhoods indicated they would prefer to live somewhere more walkable and with smaller homes.⁹⁸ Four percent of those who lived in more walkable neighbourhoods stated that they would prefer a less walkable one with larger homes.

Another recent series of studies by RBC and the Pembina Institute found that there is a noticeable unmet demand when comparing where respondents currently lived to where they would prefer to live if housing costs were the same.^{99,100} In the most recent version of the study (2014), 6.0% more respondents would prefer to live in a downtown neighbourhood than the number who actually did. Nine percent fewer respondents would prefer to live in some form of a suburban neighbourhood compared to the percent who actually did. While the literature on this topic is limited, the above studies suggest that there is a range of between four and 19% of Toronto residents who would prefer to live elsewhere than their current dwelling. This range is comparable to the range of underhousing by age (see Figure 13 on page 46). Therefore, a High Unmet Demand Scenario was also calculated, which represents the additional housing beyond the Base Scenario that might be required to provide enough housing availability to meet the suitability needs of all underhoused households. Table 15 on page 111 shows:

- The Base Demand Component;
- The High Unmet Demand Component, or the additional estimated housing demanded by all households facing suitability challenges. These estimates are the results of determining how many units of each bedroom type would be required to suitably house all underhoused households. (More information on this methodology is available on page 115). And,
- The High Unmet Demand Scenario estimates, or the sum of the Base and High Unmet Demand Components. Recall that the High Unmet Demand scenario doublecounts underhoused households by counting them both in their unsuitable housing (in the Base Demand Component) and in the housing they would need to be suitably housed (in the High Unmet Demand Component). The High Unmet Demand Scenario therefore likely overestimates the amount of housing that might be required to accommodate underhoused households suitably, and thus represents a maximum upper range of unmet demand by underhoused households. At the same time, some of the additional housing required may come to be occupied by households that were already suitably housed. The High Unmet Demand Scenario thus represents

a minimum demand for additional suitable housing.

While not all of those who are underhoused may be unhappy with their circumstances, the underhousing by age rates appear to be a reasonable proxy for households who would prefer to live elsewhere than their current unit. This High Unmet Demand Scenario therefore represents an upper range of overall unmet demand.

Again, note that all scenarios explored in this bulletin are demographic exercises only. The High Unmet Demand Scenario does not attempt to predict what households will be able to afford, only how much pent-up demand for housing exists because some households are unable to find the suitable housing they are looking for. The aim of the High Unmet Demand Scenario is to determine how much housing would be demanded in the future if sufficient housing supply with the characteristics households are looking for were available to enable underhoused households to meet their housing suitability needs.

Table 15: Estimated High Unmet Demand Scenario Future Households by Generation,2016-2051

Demand Component	Generation	2016*	2021	2026	2031	2036	2041	2046	2051
	Not Yet Born	0	0	0	0	4,358	38,824	127,774	254,733
	Generation Z	0	3,803	34,031	112,965	223,697	320,510	374,274	397,277
	Millennials	232,460	361,067	466,251	523,765	551,738	564,425	563,286	550,232
Base Demand	Generation X	307,890	319,827	323,613	319,671	306,173	287,815	263,089	225,911
Component	Baby Boomers	395,080	375,909	348,573	309,918	249,158	172,184	97,711	36,874
	Silent Generation + Earlier	177,500	109,649	59,193	22,033	4,103	880	189	40
	Total	1,112,930	1,170,256	1,231,660	1,288,351	1,339,227	1,384,638	1,426,322	1,465,066
	Not Yet Born	0	0	0	0	676	5,914	15,908	31,700
	Generation Z	0	590	5,184	14,105	27,742	43,975	58,646	67,456
High Unmet Demand Component	Millennials	28,961	49,797	69,271	83,844	89,978	83,783	70,072	52,504
	Generation X	52,217	51,509	44,873	35,092	23,933	15,744	10,289	7,442
	Baby Boomers	38,978	26,968	17,863	11,662	8,086	5,006	2,613	930
	Silent Generation + Earlier	5,550	3,154	1,579	556	101	22	5	1
	Total	125,707	132,018	138,771	145,260	150,517	154,443	157,533	160,033
	Not Yet Born	0	0	0	0	5,035	44,737	143,682	286,433
	Generation Z	0	4,394	39,216	127,070	251,439	364,485	432,920	464,733
Total High Unmet Demand	Millennials	261,421	410,865	535,522	607,608	641,716	648,209	633,358	602,735
Scenario	Generation X	360,107	371,336	368,486	354,764	330,106	303,559	273,378	233,353
Unmet Demand	Baby Boomers	434,058	402,878	366,436	321,580	257,244	177,190	100,323	37,804
Components)	Silent Generation + Earlier	183,050	112,803	60,772	22,589	4,204	901	193	41
	Total	1,238,637	1,302,274	1,370,431	1,433,611	1,489,744	1,539,081	1,583,854	1,625,100

* 2016 values are actual household values from the 2016 Census. All other values are future estimates.

Table 16 summarises the Base Demand Components and the High Unmet Demand Components of the household estimates into generational groupings. The High Unmet Demand Components shown in Rows 2 and 4 of this table represent the amount of additional housing that might be required to house all households suitably.

Similar to the Low Unmet Demand Scenario, in the High Unmet Demand Scenario, the additional demand components generated by both younger and older generations' Unmet demand (Rows 2 and 4 of Table 16) is added to the younger generations' Base demand (Row 1) to obtain the total future demand (Row 5). Together, the change in these three components (younger generations' base demand plus both generations' unmet demand) represent the future increase in demand that must be made up by either turnover of older generations or by new housing supply. The change in Row 5 over time appears in Row A in Table 17 on page 113, while the change in older generations' base demand appears in Row B.

Adding in a high measure of unmet demand changes the percent of demand that could be fulfilled by turnover very little. By 2051, younger generation households plus underhoused households of all ages would increase by 922,128 households (see Row A of Table 17) while older generations' Base Scenario households would decrease by 535,666. These 535,666 dwellings that could be freed up constitute 58.1% of the additional 922.128 dwellings the younger generations and those who are underhoused would demand in this scenario. This compares to 60.3% in the Base Scenario and 59.3% in the Low Unmet Demand Scenario.

The high measure of unmet demand is attainable. In the Base Scenario, 352,136 units would be required to be built to make up the difference between the increase in demand and the number of units freed up by older generations turning over by 2051 (see Table 4 on page 96). In the High Unmet Demand Scenario, that residual demand is 386,505 units (Row D). The high measure of unmet demand adds around 34,000 to the total number of completions that would be required to fulfill the demand by 2051. This

Table 16: Additional Demand Generated by Adding in the High Unmet Demand Component by Generation, 2016-2051

Row	Generational Grouping	Demand Component	2016	2021	2026	2031	2036	2041	2046	2051
1	Younger	Base	540,350	684,698	823,895	956,401	1,085,966	1,211,574	1,328,422	1,428,152
2	Generations	High Unmet	81,179	101,896	119,329	133,041	142,330	149,416	154,915	159,102
3	Older	Base	572,580	485,559	407,765	331,951	253,261	173,064	97,899	36,914
4	Generations	High Unmet	44,528	30,122	19,442	12,218	8,187	5,027	2,617	931
5	Sum of young generations' B High Unmet co plus older gen High Unmet co	er dase and omponents, nerations' omponent	666,057	816,716	962,666	1,101,660	1,236,483	1,366,017	1,485,955	1,588,185

amount is less than the five-year average number of completions over the 35 years between 1985 and 2019 (see Table 5 on page 97). The high measure of unmet demand, spread out over the 35-year period between 2016 and 2051, is therefore within the realm of possibility. Those extra 34,000 units could help to create additional supply that might reduce housing pressure for underhoused households.

However, it is the characteristics of the housing stock rather than the total volume of housing supplied that matters more in meeting the needs of underhoused households. The suitability challenges experienced by underhoused households will only be lessened by continuing to deliver a range of housing across the city. To that end, the following sections will explore the household estimates in both unmet demand scenarios by number of bedrooms, dwelling type and tenure. The high unmet demand section for all three variables depends on bedroom breakdowns (as will be explained in the following section), so unmet demand household estimates will be examined by number of bedrooms first.

Unmet Demand Scenarios: How many bedrooms will households demand in the future?

As mentioned in the Base Scenario, it is possible in the unmet demand scenarios that some of the demand for single-detached and semi-detached unit could be satisfied by housing supply with the desired number of bedrooms, regardless of what type of dwelling those bedrooms are in. Therefore, this section examines the household estimates in the unmet demand scenarios by number of bedrooms.

Two tables in Appendix F support the analysis of the Low Unmet Demand

Scenario household estimates discussed in this section. Table 51 shows the numbers of households by number of bedrooms in the Low Unmet Demand Scenario when the age-specific rates of households experiencing both underhousing and unsuitability (shown in Figure 47 on page 75) are multiplied by the Base Scenario household estimates by number of bedrooms and age shown in Table 46 and added to those same Base Scenario estimates. Table 52 shows the background data by number of bedrooms that supports this section.

The Low Unmet Demand Scenario section of Table 18 on page 114 summarises the analysis of the data found in these background tables.

Table 17: High Unmet Demand Scenario: Estimated Cumulative Increase in Demand that could be fulfilled by Turnover of Older Generations, 2016-2051

Row	Measure	2016- 2021	2016- 2026	2016- 2031	2016- 2036	2016- 2041	2016- 2046	2016- 2051
А	Change in demand (i.e. change in Row 5 of Table 16)	150,659	296,609	435,604	570,426	699,960	819,898	922,128
В	Change in older generations' households (i.e. turnover, change in Row 3 of Table 16))	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666
С	Percent of increase in demand fulfilled by turnover (B/A)	57.8%	55.6%	55.2%	56.0%	57.1%	57.9%	58.1%
D	Residual demand (incrase in demand not fulfilled by turnover) (A-B)	63,638	131,794	194,975	251,107	300,444	345,217	386,462
Е	(From Table 3) Base scenario residual demand not fulfilled by turnover	57,326	118,730	175,421	226,297	271,708	313,392	352,136
F	Difference in residual demand in 2051 between Base + High Unmet Demand Scenarios (D-E)	6,312	13,064	19,554	24,810	28,736	31,825	34,326

Table should be read from top to bottom within each column. Note: "Demand" in this table includes younger generations' Base Scenario demand plus all ages' Low Unmet Demand, unless otherwise specified.

Table 18: Unmet Demand Scenarios by Number of Bedrooms to 2051 versus Recent Completions from 1981-2016

			Low U	nmet Deman	d Scenario			High Ur	ımet Deman	d Scenario	
		Studios	1 Bedroom	2 Bedrooms	3 Bedrooms	4+ Bedrooms	Studios	1 Bedroom	2 Bedrooms	3 Bedrooms	4+ Bedrooms
A	Change in demand by 2051	16,626	197,358	241,331	253,560	191,252	16,407	194,557	247,534	263,761	199,854
ш	Change in older generations' households (i.e. turnover) by 2051	-9,820	-110,007	-141,322	-155,429	-119,104	-9,820	-110,007	-141,322	-155,429	-119,104
ပ	Increase in demand not fulfilled by turnover by 2051 (A+B) i.e. residual demand	6,807	87,352	100,009	98,131	72,149	6,587	84,550	106,213	108,332	80,751
Δ	Recent completions, 1981-2016*	7,540	144,525	135,940	59,195	55,000	7,540	144,525	135,940	59,195	55,000
ш	Recent completions as a percent of residual demand in 2051 (D/C)	110.8%	165.5%	135.9%	60.3%	76.2%	114.5%	170.9%	128.0%	54.6%	68.1%
L	Total additional units required to be built beyond recent completion trends to fulfill residual demand by 2051 (C-D)	-733	-57,173	-35,931	38,936	17,149	-953	-59,975	-29,727	49,137	25,751
IJ	Annual additional units required to be built beyond recent completion trends to fulfill residual demand (F/35)	-21	-1,634	-1,027	1,112	490	-27	-1,714	-849	1,404	736
Т	Annual additional units required to be built beyond recent completion trends to fulfill residual demand, combined into surpluses and shortfalls (G)		-2,681		1,6	02		-2,590		2,1	40
-	Average annual completions, 1981-2016 (D/35)	215	4,129	3,884	1,691	1,571	215	4,129	3,884	1,691	1,571
ר ר	Estimated annual completions required to fulfill residual demand (G+I)	194	2,496	2,857	2,804	2,061	188	2,416	3,035	3,095	2,307

Table should be read from top to bottom within each column. "Demand" in this table includes younger generations' Base Scenario demand plus all ages' unmet demand. *Note: CMHC does not collect data on completions by number of bedrooms. The 2016 Census counts by period of construction are used here as a proxy for completions.

In the High Unmet Demand Scenario, it was possible to break down the future household estimates by dwelling type, number of bedrooms and tenure more precisely than in the Low Unmet Demand Scenario. This is because the required variables crossed against bedroom shortfalls were available while shelter cost-to-income ratios crossed against bedroom shortfalls were not. The household estimates by number of bedrooms in the High Unmet Demand Scenario were therefore calculated slightly differently than in the Base or Low Unmet Demand Scenarios. In the High Unmet Demand Scenario, the calculation for each number of bedrooms depended on the characteristics of underhoused households that would require that number of bedrooms. So, for example, underhoused households that would require a two-bedroom unit under the NOS include households living in studio units with a two-bedroom shortfall and households living in one-bedroom units with a one-bedroom shortfall. Therefore, the additional demand for two-bedroom units in the High Unmet Demand Scenario was estimated by:

- multiplying the age-specific rate of households in studio units with a two-bedroom shortfall by the number of households in studio units in the Base Scenario, and
- adding the age-specific rate of households living in one-bedroom units with a one-bedroom shortfall multiplied by the number of households in one-bedroom units in the Base Scenario.

Table 53 in Appendix F describes the formulae applied to each number of bedrooms to obtain the high unmet demand estimates by number of bedrooms.

Three additional tables inAppendix F support the analysis of the High Unmet Demand Scenario household estimates discussed in this section. Table 54 identifies the rates of underhousing by age of PHM, number of bedrooms, and bedroom shortfall. Table 55 shows the numbers of households by number of bedrooms in the High Unmet Demand Scenario when the rates in Table 54 are applied to the future household estimates by number of bedrooms in the Base Scenario summarised in Table 46 according to the formulae in Table 53. Table 56 shows the background data by number of bedrooms that supports this section.

The High Unmet Demand Scenario section of Table 18 on page 114 summarises the analysis of the data found in these background tables.

Figure 59 on page 116 summarises the minimum annual number of additional completions over and above recent average completions for each of these bedroom types that would be required to fulfill the estimated increase in demand in each scenario, shown in Row G of Table 18. Negative numbers indicate that no additional completions of these types would be required beyond recent average completions to meet the estimated increase in demand. Positive numbers indicate that more annual completions would be required above and beyond recent completion levels.

Sufficient two-or-fewer-bedroom units would still be built, even after adding in unmet demand. More than 100% of the residual demand for two-or-fewerbedroom units – demand that is not fulfilled by turnover - would be fulfilled by new supply in both unmet demand scenarios (Table 18, Row E). While the supply of one-bedroom units brought about by turnover is not expected to meet the increase in demand, the continued supply of new one-bedroom units is expected to bridge the supply gap, by 165.5% of the residual increase in demand in the Low Scenario and 170.9% in the High Scenario. The comparable numbers for two-bedroom and studio units would be 135.9% and 110.8% respectively in the Low Scenario and 128.0% and 114.5% in the High Scenario.

Note that the demands for studio and one-bedroom units are lower in the High Scenario than in the Low Scenario because the Low Scenario applies a flat rate to all bedroom types, while the High Scenario estimates how many additional bedrooms households would need to be suitably housed. Units with fewer bedrooms cannot address the suitability needs of much of the unmet demand.

In both the Low and High Unmet Demand Scenarios, Toronto would need to build more three- and fouror-more-bedroom units annually on top of current average completions to fulfill the increase in demand by 2051 (see Table 18 on page 114, Row G and Figure 59). In the Low Scenario, a minimum of an additional 1,112 three-bedroom units and 490 four-or-more bedroom units would be required per year, while in the High Scenario the comparable numbers are 1,404 and 736 respectively. These values still represents a small fraction of the total units built annually. For example, between 1985 and 2019 an average of 10,721 total units were built annually in Toronto. Combined, 1,112 three-bedroom units and 490 four-ormore-bedroom units equal 14.9% of this average annual number of units built. In other words, if 14.9% more units built annually were three-or-more bedroom units instead of two-or-fewer bedroom units, the future increase in demands would be fulfilled in the Low Unmet Demand Scenario. The comparable value in the High Unmet Demand Scenario is 20.0%. These amounts are conceivably within the scope of what could be built annually on average in the future.

Figure 59: Annual Additional Units Required to be Built beyond Recent Completion Trends to Fulfill Residual Demand, by Number of Bedrooms



Table 19: Unmet Demand Scenarios by Dwelling Type to 2051 versus Recent Completions from 1985-2019

			.ow Unmet D)emand Scenari	o		High Unmet I	Demand Scenar	io
Row	Measure	Single Detached	Semi- Detached	Row (Townhouse)	Apartment	Single Detached	Semi- Detached	Row (Townhouse)	Apartment
			around-Rela	ted	and Other		Ground-Rela	ted	and Other
۷	Change in demand by 2051	272,035	67,526	53,923	506,725	271,615	67,718	54,950	527,907
ш	Change in older generations' households (i.e. turnover) by 2051	-169,774	-41,113	-32,376	-292,387	-169,774	-41,113	-32,376	-292,387
ပ	Increase in demand not fulfilled by turnover by 2051 (A+B) i.e. residual demand	102,261	26,412	21,548	214,338	101,841	26,605	22,574	235,519
Δ	Recent completions, 1985-2019*	44,324	7,396	21,029	302,498	44,324	7,396	21,029	302,498
ш	Recent completions as a percent of residual demand in 2051 (D/C)	43.3%	28.0%	97.6%	141.1%	43.5%	27.8%	93.2%	128.4%
L	Total additional units required to be built beyond recent completion trends to fulfill residual demand by 2051 (C-D)	57,937	19,016	519	-88,160	57,517	19,209	1,545	-66,979
U	Annual additional units required to be built beyond recent completion trends to fulfill residual demand (F/35)	1,655	543	15	-2,519	1,643	549	44	-1,914
т	Annual additional units required to be built beyond recent completion trends to fulfill residual demand, categorised into surpluses and shortfalls (G)		2,213		-2,519		2,236		-1,914
_	Average annual completions, 1985-2019 (D/35)	1,266	211	601	8,643	1,266	211	601	8,643
ר	Estimated annual completions required to fulfill residual demand (G+I)	2,922	755	616	6,124	2,910	760	645	6,729

Census and this table is organized by CMHC's dwelling type categories. For the above analysis, increase in demand not fulfilled by turnover for the Apartment and Other category Table should be read from top to bottom within each column. *Source: CMHC Housing Now Tables, 1985-2019. Note 1: CHMH's dwelling type definitions differ from those in the Apartment and Other Dwellings on page 100 for more information on the ground-related dwelling category. Note 2: "Demand" in this table includes younger generations' Base equals the sum of the duplex, low-rise apartment, mid/high-rise apartment and other single-attached house values for 2046-2051. See Sidebar: Ground-Related Dwellings & Scenario demand plus all ages' unmet demand.

Unmet Demand Scenarios: What types of dwellings will households demand in the future?

This section will explore the household estimates in both unmet demand scenarios by dwelling type. Both scenarios assume that underhoused households want to remain in the same dwelling type they are in currently, just with enough bedrooms to meet their suitability needs. Two tables in Appendix G support the analysis of the Low Unmet Demand Scenario household estimates discussed in this section. Table 57 shows the numbers of households by dwelling type in the Low Unmet Demand Scenario when the age-specific rates of households experiencing both underhousing and unsuitability (shown in Figure 47 on page 75) are multiplied by the Base Scenario household estimates by dwelling type and age shown in

Table 43 and added to those same Base Scenario estimates. Table 58 shows the background data by dwelling type that support this section.

The Low Unmet Demand Scenario section of Table 19 on page 117 summarises the analysis of the data found in these background tables.

The household estimates by dwelling type in the High Unmet Demand Scenario depend on the ratios of underhousing that are specific to each dwelling type and number of bedroom combination. For example, mid/high-rise units tend to have higher numbers of one-, two- and three-ormore bedroom shortfalls in units with up to three bedrooms than other types of dwellings do; therefore, applying underhousing ratios that are specific to both dwelling type and number of bedrooms yields a more precise estimate of high unmet demand than applying a flat underhousing rate to all dwelling types. Table 59 in Appendix G describes the formulae applied to each dwelling type to obtain the high unmet demand estimates by dwelling type, using single-detached houses as an example.

Three additional tables in Appendix G support the analysis of the High Unmet Demand Scenario household estimates discussed in this section. Table 60 identifies the percent of underhoused households by age of PHM, dwelling type, and bedroom shortfall. Table 61 shows the numbers of households by dwelling type in the High Unmet Demand Scenario when the rates in Table 60 are applied to the future household estimates by dwelling in the Base Scenario summarised in Table 43 according to the formulae in Table 59. Table 62 shows the background data by dwelling type that support this section. The High Unmet Demand Scenario

Figure 60: Annual Additional Units Required to be Built beyond Recent Completion Trends to Fulfill Residual Demand, by Dwelling Type



section of Table 19 summarises the analysis of the data found in these background tables.

Figure 60 on page 118 summarises the minimum annual number of additional completions over and above recent average completions for each of these dwelling types that would be required to fulfill the estimated increase in demand in each scenario, shown in Row G of Table 19. Negative numbers indicate that no additional completions of these types would be required beyond recent average completions to meet the estimated increase in demand. Positive numbers indicate that more annual completions would be required above and beyond recent completion levels.

The supply of new apartment and other units are anticipated to fulfill the residual demand for them, including the additional unmet demand factor in both the Low and the High Unmet Demand Scenarios. More than 140% of the increase in demand for Apartment and Other units that is not fulfilled by turnover would be fulfilled by new supply in the Low Scenario (see Table 19, Row E). The comparable figure for the High Scenario is 128.4%. If recent completion trends continue, an excess of 88,160 apartment and other units might be built beyond the residual demand in the Low Scenario or 66.979 in the High Scenario (see Table 19, Row F).

In the Low and the High Unmet Demand Scenarios, a minimum of 15 additional row/townhouses would need to be built annually to fulfill the added demand for them (see Table 19, Row G and Figure 60). In both Unmet Demand scenarios, over 90% of the increase in demand for row/townhouses that is not fulfilled by turnover could be fulfilled by new supply if that supply was built at the same rate as it was over the 35 years between 1981 and 2016 (see Row E). In the Unmet Demand Scenarios. the increase in demand for singledetached and semi-detached units is greater than the supply that could be achieved by turnover and new development combined. The Low Unmet Demand Scenario would require a minimum of an additional 1,655 single-detached and 543 semidetached units to be built annually between 2016 and 2051 (Table 19, Row G and Figure 60), over and above the average number of completions in the 35 years prior. The High Unmet Demand Scenario would require a minimum of an additional 1,643 singledetached and 549 semi-detached units beyond recent completion levels.

Note that the demands for singledetached houses are lower in the High Scenario than in the Low because the Low Scenario applies a flat rate to all bedroom types, while the High Scenario estimates how many additional bedrooms households would need to be suitably housed. Since this scenario assumes that underhoused households would want to remain in the same dwelling type, and since singledetached houses have relatively low rates of underhousing, fewer units of these types are demanded in the High Unmet Demand Scenario compared to mid/high-rise apartments and low-rise apartments.

The numbers in the Base Scenario (1,569 and 519 respectively; see Table 7 on page 99, Row G) were found to be unlikely based on recent completion trends in Toronto. It is therefore expected that insufficient numbers of these low-density dwelling types would be built by 2051 to offset the Low Unmet Demand Component on top of the Base Scenario demand. However. it may still be possible that this demand could be fulfilled by other forms of "missing middle" development such as garden suites, laneway housing, row/ townhouses. low-rise apartments and other forms of gentle intensification.

Unmet Demand Scenarios: How much housing will younger generations demand by tenure?

This section estimates future households under the unmet demand scenarios by tenure, as tenure is the third characteristic of the housing stock that planning processes can influence.

Household estimates by tenure in the Low Unmet Demand Scenario were calculated slightly differently than the estimates by dwelling type or number of bedrooms in the Low Scenario. The number of households by age of PHM, suitability and shelter cost-toincome ratio were also available by tenure. Therefore, rather than applying the same flat rate of households experiencing suitability and affordability challenges by age to both owner and renter households, the tenure-specific rates shown in Figure 48 on page 76 were applied.

Two tables in Appendix H support the analysis of the Low Unmet Demand Scenario household estimates discussed in this section. Table 63 shows the numbers of households by tenure in the Low Unmet Demand Scenario when the tenure-andage-specific rates of households experiencing both underhousing and unsuitability (shown in Figure 48 on page 76) are multiplied by the Base Scenario household estimates by tenure and age shown in Table 49 in Appendix E and added to those same Base Scenario estimates. Table 64 shows the background data by tenure that supports this section. The Low Unmet Demand Scenario section of Table 20 summarises the analysis of the data found in these background tables.

Table 20: Unmet Demand Scenarios by Tenure to 2051 versus Recent Completionsfrom 1985-2019

Bow	Мороцио	Low I Demand	Jnmet Scenario	High U Demand	Jnmet Scenario
now	weasure	Owner	Renter	Owner	Renter
Α	Change in demand by 2051	552,801	347,338	559,018	363,119
В	Change in older generations' households (i.e. turnover) by 2051	-342,479	-194,120	-342,479	-194,120
с	Increase in demand not fulfilled by turnover by 2051 (A+B) i.e. residual demand	210,322	153,219	216,539	168,999
D	Recent completions, 1985-2019*	320,459	54,788	320,459	54,788
E	Recent completions as a percent of residual demand in 2051 (D/C)	152.4%	35.8%	148.0%	32.4%
F	Total additional units required to be built beyond recent completion trends to fulfill residual demand by 2051 (C-D)	-110,137	98,431	-103,920	114,211
G	Annual additional units required to be built beyond recent completion trends to fulfill residual demand (F/35)	-3,147	2,812	-2,969	3,263
Н	Average annual completions, 1985-2019 (D/35)	9,156	1,565	9,156	1,565
I	Estimated annual completions required to fulfill residual demand (G+H)	6,009	4,378	6,187	4,829

Table should be read from top to bottom within each column. *Source: CMHC Housing Now Tables, 1985-2019. Owner completions include units with an intended tenure of freehold, condominium, or co-op. "Demand" in this table includes younger generations' Base Scenario demand plus all ages' unmet demand.

The household estimates by tenure in the High Unmet Demand Scenario depend on the ratios of underhousing that are specific to each tenure and number of bedroom combination. For example, renter households tend to have higher numbers of one, two and three-or-more bedroom shortfalls in units with up to two bedrooms than owners do; therefore, applying underhousing ratios that are specific to both tenure and number of bedrooms vields a more precise estimate of high unmet demand than applying a flat underhousing rate to both tenures. Table 65 in Appendix H describes the formulae applied to each tenure to obtain the high unmet demand estimates by dwelling type, using renter households as an example.

Three additional tables in Appendix H support the analysis of the High Unmet Demand Scenario household estimates discussed in this section. Table 66 identifies the percent of underhoused households by age of PHM, tenure, and bedroom shortfall. Table 67 shows the numbers of households by tenure in the High Unmet Demand Scenario when the rates in Table 66 are applied to the future household estimates by tenure in the Base Scenario summarised in Table 49 according to the formulae in Table 65. Table 68 shows the background data by tenure that supports this section. The High Unmet Demand Scenario section of Table 20 on page 120 summarises the analysis of the data found in these background tables for the High Unmet Demand Scenario.

Figure 61 summarises the minimum annual number of additional completions over and above recent average completions for each of these dwelling types that would be required to fulfill the estimated increase in demand in each scenario, shown in Row G of Table 20. Negative numbers indicate that no additional completions of these types would be required beyond recent average completions to meet the estimated increase in demand. Positive numbers indicate that more annual completions would be required above and beyond recent completion levels.





More than enough ownership units would still be built, even after adding in unmet demand. More than 150% of the increase in demand for ownership units that is not fulfilled by turnover would be fulfilled by new supply in the Low Unmet Demand Scenario (see Table 20, Row E). In the High Unmet Demand Scenario, the comparable value is 148% (see Row E).

In the Unmet Demand Scenarios, it becomes even less realistic that the increase in demand for rental units would be fulfilled by turnover and new development combined. The Low Unmet Demand Scenario would require a minimum of an additional 2,812 rental units to be built annually between 2016 and 2051 (see Table 20, Row G and Figure 61 on page 121), over and above the average number of completions in the 35 years prior. The High Unmet Demand Scenario would require a minimum of an additional 3,263 rental completions annually. However, the number of annual completions required to fulfill the demand in the Base Scenario (2,549; see Table 11 on page 104, Row G) was already above the level of recent rental completions. It is even less likely

that enough rental units would be built by 2051 to offset the Low or High Unmet Demand on top of the Base Scenario demand.

Note that while household formation creates demand for housing, household formation is also constrained by insufficient housing supply. In particular, insufficient purpose-built rental supply may delay young adults from forming new households. Increasing the number of rental completions could help mitigate this pent-up demand.

Summary Comparison of the Base and Unmet Demand Scenarios

This chapter estimated three scenarios of future households and housing demand to 2051: a Base Scenario and a Low and a High Unmet Demand Scenario. In all three scenarios, about 60% of the increase in demand for housing in the future could be fulfilled by older generations' housing stock turning over. In other words, only about 40% of the future increase in demand for housing would need to be fulfilled by new housing completions built between 2016 and 2051.

Variable	Dwelling Characteristic	Base Scenario	Low Unmet Demand Scenario	High Unmet Demand Scenario
	Single-Detached	1,569	1,655	1,643
	Semi-Detached	519	543	549
Dweining Type	Row (Townhouse)	-7	15	44
	Apartment and Other	-2,739	-2,519	-1,914
	Studio	-953	-21	-27
	1 Bedroom	-1,725	-1,634	-1,714
Number of Bedrooms	2 Bedrooms	-1,127	-1,027	-849
Bearbonie	3 Bedrooms	1,024	1,112	1,404
	4+ Bedrooms	425	490	736
Topuro	Owner	-3,235	-3,147	-2,969
lenure	Renter	2,549	2,812	3,263

Table 21: Annual Number of Additional Completions beyond Recent CompletionsLevels Required to Fulfill Residual Demand

However, the results vary by dwelling type, number of bedrooms, and tenure. Table 21 on page 122 and Figure 62 summarise the average annual number of additional completions over and above recent average completions for each of these dwelling characteristics that would be required to fulfill the estimated increase in demand in each scenario. These values were shown in Row G in Tables 18-20 earlier in Chapter 10 and Chapter 11. Negative numbers indicate that no additional completions of these types would be required beyond recent average completions to meet the estimated increase in demand. For housing with the following characteristics, the increase in demand would be fulfilled by a combination of turnover plus new supply in all three scenarios, assuming that historic completion levels remained stable in the future:

- Apartments and other units
- Studios
- One-bedroom units
- Two-bedroom units
- Owned units.

Positive numbers indicate that more annual completions would be required above and beyond recent completion levels. In other words, future demand to meet suitability needs would not be fulfilled for housing with the following characteristics, in any scenario:

- Single-detached houses
- Semi-detached houses
- Three-bedroom units
- Four-or-more-bedroom units
- Purpose-built rental units.

Demand for row/townhouses would be fulfilled in the Base and Low Unmet Demand Scenarios, but not in the High Unmet Demand Scenario.

Figure 62: Summary of Annual Additional Units Required to be Built beyond Recent Completion Trends to Fulfill Residual Demand



Chapter 11. How Much Housing Would Toronto Need in the Future if Unmet Demand is Taken into Account?

The housing characteristics with negative numbers, i.e. the dwelling characteristics that are expected to be produced in surplus, are still likely to be occupied by someone. There is a pent-up demand in Toronto consisting of, for example, adult children living with their parents but wanting to form their own households. Such households will likely continue to self-select themselves for surplus apartments and other units, units with few bedrooms and/or owned units.

The housing characteristics with positive numbers are what is most important to future planning. They represent the minimum additional number by which annual completions would need to increase in order to reduce housing mismatch and to better meet the needs of underhoused households. The analysis has identified shortfalls between demand and supply for housing with certain characteristics, and that some shortfalls could be overcome with more modest increases to supply of certain dwelling types, while others will require larger shifts. The largest increase is estimated at 3,263 purpose-built rental units annually in the High Unmet Demand Scenario (see Figure 62 on page 123). The average number of total completions between 1985 and 2019 was 10,721 units.¹⁰¹ That means that 30.4% more units in the form of purpose-built rental units would need to be built beyond recent average annual completions in order fulfill future households' needs for suitable housing (see Figure 63). For units with other characteristics, the needed increase is smaller; for example, only 6.9% more units would be needed in the form of four-or-more-bedroom units in the same scenario.

Note that the housing characteristics households are expected to demand could overlap in the form of the units

Figure 63: Required Annual Additional Units as a Percentage of Total Average Annual Completions



realized. It would not be necessary to build, for example, 1,643 singledetached houses plus 1,404 threebedroom units plus 3,263 purpose-built rental units separately as the High Unmet Demand Scenario numbers might suggest. If the supply of threebedroom rental units was increased, that increased supply would cater to both the shortfalls of three-bedroom units and rental units in tandem. Underhousing could still be reduced even if some of the additional required units exhibited two or three of these characteristics.

Note that the Unmet Demand Scenarios double-count underhoused households by counting them both in their unsuitable housing (in the Base Demand Component) and in the housing they would need to be suitably housed (in the Unmet Demand Component). This is because the type of housing underhoused households demand likely already exists but is occupied by other households. The actual demand for housing therefore likely falls somewhere between the Base Scenario and the Unmet Demand Scenarios.

Regardless, these results suggest that there will be a persistent unmet demand for houses, units with three or more bedrooms, and purposebuilt rental units if current completion levels continue, especially when considering the needs of those who are underhoused. How the market delivers these units is beyond the scope of this exercise. This bulletin has estimated the magnitude of the number of units that future households might demand to satisfy their suitability needs based on demographic drivers. There will likely be a need for creative solutions to increase the supply of units with these characteristics within the city. In addition to planning policies that require more units in new developments to have two or more bedrooms, the City's Expanding Housing Options in Neighbourhoods initiative may help fulfill at least some of this anticipated demand.¹⁰²

12. The Potential of Existing Housing to Accommodate Future Population Growth

Overview

The findings of Chapter 10 and Chapter 11 estimate that about 60% of the increase in estimated future demand for housing could be fulfilled by the turnover of older generations' housing. The preceding analysis provides a basis for understanding how older generations' housing stock, and the succession of households over time within it, could meet the needs of existing and future generations as they age. This analysis has centred on how many units are required to accommodate the future demand for housing by households.

The findings of the previous chapters addressed the question about what percentage of the growth in households need could be fulfilled by the turnover of housing. The question posed in this chapter is how much more *population* could be accommodated in the city when this turnover occurs. This enables the estimation of how much of the forecasted population growth in Toronto could be accommodated in the existing housing stock. This is another means by which to assess how much additional new housing is required.

As discussed in Chapter 3, the City is mandated by both Provincial policy and the City's Official Plan to facilitate a range and mix of housing options to respond to the needs of current and future residents. As the City continues to accommodate a growing population, it is important to recognize that not all future population growth needs to, or should be, accommodated in new housing stock alone. The Growth Plan stresses the importance of considering the existing housing stock in accommodating current and future population housing needs, as does the Official Plan through its policies

regarding more efficient use of the existing housing stock.

In support of these policies, Chapter 10 and Chapter 11 considered the turnover of the existing 572,580 dwellings occupied by the older generations (born in 1966 or earlier) and estimated how much of the increase in younger generation households could be accommodated in the existing housing stock occupied by older generations. This chapter considers the same 572,580 older generation households, but focusses instead on the population in the dwellings occupied by these households. The focus is on estimating the unused population capacity within the dwellings occupied by older generation households in 2016.

The unused population capacity in the existing dwellings is arrived at by comparing the population of these dwellings if they were occupied by younger households in the future through housing turnover, to the population that occupied these dwellings in 2016. To simulate changes in the population capacity of the housing stock arising from this turnover of housing, a combination of citywide and local area trends in person per household (PPH) rates are applied to the 2016 occupied housing stock. Preceding the findings is an overview of Toronto's PPH rates. and the implications of the cyclical nature of population change at the neighbourhood and local level.

The findings of the analysis illustrate the areas within the city where additional population growth due to housing turnover is anticipated to occur. The chapter concludes by providing:

- a breakdown of how much additional population growth is estimated to occur in the different dwelling types;
- a timeframe for when this additional population growth is estimated to occur between 2016 and 2051; and

• a measure of how much of Toronto's targeted future population growth could be accommodated in the existing housing stock.

Why do person per household (PPH) rates fluctuate?

The Census is our lens through which we seek to understand how the population organizes itself into households and occupies housing. The Census is a snapshot of the population at a point in time. As reported in Housing Occupancy Trends, the average citywide person per household (PPH) rate is declining over time.¹⁰³ Overall, there are fewer people per household in 2016 (2.42 PPH) than there were in 1996 (2.60 PPH). However, a declining city-wide PPH rate does not mean that household sizes are smaller in all areas of the city. There are areas within the city where the PPH rates have increased over the same time period.

The natural ebb and flow of households, with varying demographic characteristics, in and out of dwellings citywide leads to localised patterns of declining and increasing PPH rates across the city. As will be discussed in this section, it can be challenging to isolate a definitive reason why a PPH rate is fluctuating in a particular area, as typically there are a combination of factors at play. Even in areas that appear to be demographically similar, the PPH fluctuations may be more pronounced in one area and may take longer to evolve in another, illustrating the cyclical and complex nature of fluctuating PPH rates which are affected by both local factors and wider trends.

Generally, PPH rates fluctuate as household occupants in an area age, or as housing is re-occupied by new and potentially younger households. The composition and age of the existing housing stock can also cause the PPH rate to fluctuate, especially in areas with there has been development activity. For example, redevelopment, intensification or renovation involving

changes in the type of existing housing such as restoration of flats back to a single-family home, or vice versa, can have an impact on PPH rates. The demographic composition of an area changes as existing households and newer households co-exist. Often there are competing factors in the one area that are independently causing PPH rates to decline and increase at the same time. For example, a PPH rate may decline when a large number of smaller households move into a new condominium development, at the same time that PPH rates may increase in the existing housing stock if older households are replaced by younger and larger households.

The dominant time period in which most dwellings were built can also impact the composition of households in a local area and their stages in the household life-cycle. For example, a recently constructed suburb predominantly occupied by young family households that are growing at the same time may lead to rising PPH rates. Conversely, in an older suburb with a significant proportion of older households, these older families may be decreasing in size as adult children leave the home, which may result in declining PPH rates. PPH rates may be lower in an area as people and households 'age in place', remaining in the same dwelling for an extended period of time, often decades. The household sizes decrease with children leaving the family home leading to 'empty-nesting', as well as with widowhood. Where neighbourhoods are comprised of a number of these households who age together, collectively their aging in place can cause the PPH rates to fall as their respective household sizes decrease. These types of PPH changes at the neighbourhood level will be discussed again in the section "Understanding the cyclical nature of neighbourhood population change".

Additionally, if there is a replacement of some of the older households with younger and larger households, the net result of these moves could increase PPH rates. Alternatively it could average out the PPH rates overall, depending on the volume and rate of turnover versus the number households still aging in place. The PPH rate may appear outwardly unchanged despite turnover occurring. In this example, the effect of declining older household PPH rates have been offset by increasing younger household PPH rates.

Given the breadth of demographic and housing characteristics that can cause the population, households and consequent PPH rates to fluctuate, it can be challenging to conclude definitively what is driving population change in any one area without first paying due attention to all of the aforementioned conditions.

PPH Rates in Toronto

Our understanding of household trends in Toronto is through examining successive snapshots of the households in Toronto at each Census year in the midst of their choices and life events as people live their lives and live together.

There are some principal household trends that affect PPH rates. For example, in an area that has had little to no construction activity and a stable dwelling stock, a rising PPH rate in a local area will often signify that younger and larger households are moving into dwellings formerly lived in by older generations and smaller households. As a family households ages, the PPH rate will usually rise and fall as children are born, reared and leave as young adults.

There are many other family and nonfamily household arrangements that will also result in rises and declines in PPH rates, such as increased rates of multi-generational households, adult children returning to the family home and more persons living alone. While Toronto households include all types of household arrangements, the trend of older households being smaller than

Figure 64: PPH Rates by Older and Younger Households, 2016



younger households does persist. As shown in Figure 64 on page 128, the 2016 PPH rates of older households (50 years and over) are generally found to be lower (2.31) than the PPH rate of younger households (less than 50 years), which averages a higher rate of 2.59. The PPH rates of the older and younger households are useful for comparison; however these average rates obscure the varied PPH rates by more specific age of Primary Household Maintainer (PHM) groups. Figure 65 shows that within the older and younger households, the PPH ranges can vary considerably when the four groupings of households by age of PHM are viewed. For example, while the average PPH rates of the younger household is 2.59, the average PPH rate of households aged 35-49 at 2.91 is significantly higher than the average rate of 2.02 for households aged 15-34. Similarly, in the older households group, the average PPH rate of 2.54 for households aged 50-69 is significantly higher than for the more

senior households aged 70 and over at 1.82. The average PPH rate in a local area can therefore vary significantly, depending on the distribution of households by age of PHM. The established difference in PPH rates by age of PHM provides the first foundational standard by which the impact of housing turnover on population will be assessed.

Age alone is not the only influencing factor that affects PPH rates. Among many other factors, changes to the composition of housing stock may also cause variances in PPH rates in different areas. As mid/high-rise dwellings typically have a smaller square footage than row/townhouses and houses and low-rises, mid/high-rise dwellings tend to be occupied by smaller-sized households than other dwelling types. As shown in Figure 66 on page 130, the average PPH of a mid/high-rise dwelling was 2.00, compared to 2.72 for houses and low-rises and 3.06 for row/ townhouses. A significant number of

Figure 65: PPH Rates by Age of PHM, 2016



Chapter 12. The Potential of Existing Housing to Accommodate Future Population Growth

new dwellings built recently in Toronto were mid/high-rise dwellings, as shown previously in Figure 29 on page 56. Consequently, as more mid/ high-rise units are constructed in any one area, the average PPH rate may start to decline, all other factors being equal. Given that the composition of housing stock in one area can differ significantly from that of another, the PPH trends by dwelling type provide the second foundational standard used to analyze housing turnover.

A wide array of demographic factors and market forces will influence PPH rates. For instance, societal and demographic changes in recent decades have resulted in more persons living alone or as part of two-or-moreperson non-family households; those trends also cause non-family PPH rates to decline on average. As non-family households include many persons living alone, non-family PPH rates are comparatively smaller on average than family households. As shown in Figure 67 on page 131, the average 2016 PPH of non-family households was 1.21 compared to 3.17 for family

households, meaning that family households have on average almost two more persons per household than non-family households. In addition, the PPH rates of family households have been declining over time as families have fewer children than in the past, or no children. In 1996, the average PPH for family household was 3.32 compared to 3.17 in 2016. Another reason for lowering family PPH rates may be due to the large number of Baby Boomer generation family households with children who have moved out, or are fast approaching the age of moving out. As the large number of Baby Boomer family households transition from households with children to households without children, the family household PPH rates will decline. While all of the above demographic changes may appear subtle when expressed as PPH rates, these gradual shifts compound over the years to significantly change the way in which households arrange themselves in Toronto's dwelling stock.

What other factors should be considered? When looking at PPH



Figure 66: PPH Rates by Dwelling Type, 2016

trends in a local area that is undergoing development activity, it can be challenging to determine what is causing a change in PPH rates. At a minimum, the impact of the following factors should be considered:

- the change in the distribution of ages arising from an influx of new residents versus existing residents;
- the impact of the type of new development in attracting different households types;
- changes to the existing housing stock through renovations; and
- the ever-changing cyclical nature of PPH rates that continue to occur in the existing households and established housing stock irrespective of any new development activity.

In sum, PPH rates at a local level are affected not only by the local cycles of younger households succeeding older households and aging, but also by citywide construction trends that tend to add more high-density development, and by wider societal and demographic shifts in household occupation trends such as more persons living alone and smaller family sizes. The prevailing housing market conditions will also have an impact, if for example an area that was predominantly popular with family households becomes increasingly unaffordable. It is challenging to control for these evolving city and societal household trends in addition to market forces, in this analysis.

In order to determine how much of the anticipated population growth can be accommodated in the existing housing, we examine the turnover of housing from one generation to the next, from older households to younger ones. For the purpose of this analysis, the 2016 PPH rates by the age of the PHM and dwelling type are considered as the two key inputs used to estimate future occupation of turnover dwellings. As discussed in Housing Occupancy Trends, housing choices of a household are strongly linked to the age of its members.¹⁰⁴ When the age of occupiers is considered alongside the dwelling





types they occupy, these two factors together provide a basis on which the unused population capacity can be measured. Household types and the period of construction were also considered, however, due to the small population and household numbers observed in some Census Tracts, these additional characteristics resulted in unexpected and unreliable PPH rates.

As shown in Figure 68, there are different levels of variance in the 2016 PPH rates by age of PHM when also examined by dwelling type. For example, comparing the age groups 35-49 to those 70 and over, the difference in PPH rates between these two groups is 1.20 in houses and lowrises (3.49 versus 2.20), 1.29 in row/ townhouses, and 1.13 in mid/high-rise units. These differentials suggest that if a household aged 35-49 moved into a dwelling formerly occupied by a household aged 70 and over, the population would likely increase, but the degree of that increase would vary based on the type of dwelling that was turned over. Based on the citywide PPH trends, under this scenario, there would be a higher population increase if the turnover occurred in row/townhouses than in houses and low-rises, and higher in houses and low-rises than in mid/high-rise units. For those reasons, the analysis undertaken in this section takes into account the composition of occupied dwellings by age of the PHM and by dwelling type in each Census Tract as the two key determinants of PPH rates. The 2016 PPH rates by age of PHM and by dwelling type are used to estimate the resulting population of dwellings occupied by older generation households once these dwellings turn over to younger generation households.

Figure 68: PPH Rates by Age of Primary Household Maintainer and by Dwelling Type, 2016



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Section 3: Housing Turnover

Understanding the cyclical nature of neighbourhood population change

Population cycles within neighbourhoods cause the population levels to continually rise and fall over time. These local population cycles are used to estimate the unused population capacity. Older households have smaller household sizes on average and therefore less population, while younger household have larger household sizes on average and therefore a higher population in comparison. The difference between the smaller older household population and the larger younger household population provides the measure of additional population capacity discussed later in this chapter.

PPH rates are used to compare and estimate population levels over time. The average PPH rate for the city overall has declined over time. As was discussed in *Housing Occupancy Trends*, a declining city-wide average PPH does not mean that households are getting smaller in all areas of the city.¹⁰⁵ As had been outlined in this chapter, declining and fluctuating PPH rates can occur for multiple reasons.

Furthermore, it is worth noting that comparing PPH rates across a defined time period will reveal only what has occurred within that snapshot of time. Occupation and subsequent turnover in an area can take decades to occur. A local area's declining PPH rate or declining population, looked at in isolation. cannot foretell what will occur in the future. For example, if a declining PPH rate has been observed in a local area, the area may continue to experience population loss and PPH declines for some time as older households age in place. Or the opposite may occur as younger households, particularly those with children, replace older households resulting in a resurgence of population and PPH rate increases. Caution should be exercised when using near-term PPH and population statistics to report

on trends that are occurring in an area over the long term, and what this means for the future. Declining PPH rates and declining population in the existing housing stock can dually signify that a population decrease may continue for some time yet or that a population increase is imminent if turnover is yet to occur.

The base year for assessing changes in PPH rates is important. When referring to population cycles, it is important to note that a population increase arising from turnover may not necessarily result in a population resurgence that matches or exceeds historic population levels. This is because as average city-wide PPH rates decline over time, there are less people living in each household. If the existing housing in a local area turns over to younger generation households, the collective population within the existing dwellings may be less than the younger generations who occupied these dwellings decades ago. For example, family households had an average PPH of 3.32 in 1996 compared to a lower rate of 3.17 in 2016. If 1,000 dwellings were occupied by family households, these average PPH rates would result in a population of 3.320 persons in 1996, compared to the lower population of 3,170 persons in 2016. All other factors being equal. this example illustrates how the decline in the average size of family households results in 150 fewer persons in the same 1,000 dwellings in 2016 than in 1996. The difference in population occurs due to the demographic changes over time, despite these dwellings being occupied by the same household type (family households) in both instances. Therefore, when measuring population change in a neighbourhood, the base year of the population statistics is key. In the analysis to come, 2016 PPH rates have been used.

The age of the existing housing stock can impact neighbourhood population cycles. First-time occupiers of a newly constructed neighbourhood set the course for the timing of the turnover to second and subsequent occupiers, in other words, generational turnover.

As a city's built form matures, it can be challenging to identify housing occupancy trends related to the age of the stock in the oldest parts of the city, as the oldest stock will have been through multiple re-occupations at various times. Figure 69 on page 134 illustrates the prevailing period of construction for all dwelling types across Toronto. The areas that are categorised as '1960 or before', concentrated in the inner parts of the city, fall within a category that is too broad to provide any meaningful insights on neighbourhood population cycles. However, for the housing stock that was built over the 1961 to 1980 period, most notably in the outer suburbs of Toronto, it is plausible that some of this stock is still occupied by first-time occupiers, or has recently turned over. When the prevailing period of construction is shown for houses and low-rises only (see Figure 70 on page 135), the outer suburban areas built out between 1961 and 1980 becomes even more apparent. Figure 71 on page 136 depicts the outer suburban areas that were built out between 1961 and 1980 more clearly again, by illustrating the house and low-rise dwelling stock built during this period as a percentage share of all houses and low-rises in each Census Tract.







The 1961 to 1980 timeframe of construction shows a comparatively recently built housing stock first occupied by today's older generations. The older generations first occupied these dwellings as young households. When neighborhoods are constructed and occupied, population will usually increase as new households are formed and these household expand and grow as families have children. Typically population will then decline as adult children depart the family home. What occurs next is that these neighborhoods will transition as older households age in place and new generations move in. These transitions may not occur at the exact same time in housing stock of the same vintage, as other factors such as house prices, gentrification, access to transit and areas of employment can result in some neighbourhoods transitioning faster than others.

A 1996 to 2016 comparison of the PPH rates in the 1961 to 1980 housing stock is shown in Figure 72 on page 138. Housing built in this period has a greater chance of being first occupied by Baby Boomers, the trailing generation of the older generations who were aged 50 and over in 2016, whose turnover we are trying to assess and whose housing is less likely to have turned over multiple times like the pre-1960s stock. Areas shown in blue indicate a PPH rate decline over the 1996-2016 period, and areas shown in orange indicate a PPH rate increase over the same period.

Figure 72 shows that for housing built 1961 to 1980, there are increases and decreases in average PPH across the city, including distinct increases in both Toronto's older inner suburbs and newer outer suburbs. However, there are many more local areas containing housing built during this period showing a decline in PPH than showing an increase. Given the cycle of households through this stock and these neighbourhoods, and the large size of the Baby Boomer generation, this suggests the possibility of subsequent increases in population with housing turnover.

The areas shown in orange that represent a PPH increase may signify that dwellings formerly occupied by the first-time occupants may have turned over in the last 20 years and that these dwellings are experiencing their second or subsequent cycles of occupation. The increase in PPH may reflect the turnover of older emptynester households to families with children households, for example. As noted earlier, a 20-year comparison of PPH rates provides only a snapshot of what has occurred, and potentially what is underway in terms of the neighbourhood population cycle.

Based on the period of construction of the housing that was built at about the same time, a subsequent rise in average PPH could be anticipated (in areas shown as blue) as this housing turns over, as has already occurred in other older housing.

While there are a myriad of demographic changes and market factors at play, this series of maps demonstrates the dynamism of the Toronto population and its households. the variety of demographic changes across the city and that the single citywide average PPH conceals a diversity of demographic change across Toronto's neighbourhoods. And therefore, the average number of persons per household is not declining uniformly across the city throughout time, many changes are happening at once, and we must plan for housing that will accommodate the complete range of housing need.

Figure 72: PPH Change in Houses and Low-Rises built from 1961 to 1980, by Census Tract, 1996 to 2016



What is meant by the existing housing stock?

Returning to the exercise of estimating unused population capacity in the existing housing stock, the existing housing stock in this case refers to the 572,580 dwellings that were occupied by a PHM aged 50 and over in 2016. These households are referred to as the "older generation" households and comprise the Baby Boomer and more senior households across the city. Due to the older age of these populations, these are the households that are most likely to turn over between 2016 and 2051. The older generation households occupied over half of all households in Toronto in 2016.¹⁰⁶ The Baby Boomer generation (aged 50-69 years in 2016) had the largest occupancy of Toronto dwellings of all age groups and generations, accounting for 35.5% of all households in 2016. As discussed in Chapter 6, older households have higher rates of overhousing than vounger households.

The future impact of the vast number of Baby Boomer households and their large size as a generation cannot be overstated. As the Baby Boomers and more senior households relocate, downsize or pass away in future years, a large amount of the housing occupied by these older generations will come back onto the housing market. The expectation is that these dwellings will tend to turn over to younger generation households. As has been demonstrated in the preceding section, younger households typically have larger household sizes than older households, and so these dwellings are expected to house more people overall in the future than they did in 2016.

The premise of this analysis is to estimate how much more population could be accommodated in the 572,580 dwellings that were occupied by older generation households in 2016. The results are framed as a snapshot of the potential uplift, based on the composition of demographic and household characteristics and the number of dwellings the older generation occupied in 2016.

How is the turnover of housing from older generation to younger generations estimated?

Housing turnover is simulated by substituting the 2016 PPH rates of younger generation households into the 572,580 dwellings occupied by older generation households in 2016. This substitution imitates the effect of a turnover of dwellings occupied by older generation households to younger generation households. Additional refinements and weightings included citywide trends and the differences in dwelling type composition and age of PHM distributions in each Census Tract. As has been established, the 2016 PPH rates of younger generation households were on average higher than those of older generation households. The turnover simulation therefore results in a larger number of people residing in these "turned over" dwellings when compared to the existing population that resided in these dwellings in 2016.

Key Findings

It is estimated that the population housed in dwellings occupied by older generation households would be 16.1% higher if these dwellings were occupied by younger generation households. In 2016, there were 572,580 older generation households comprised of 1,325,125 persons. If all of the existing 572,580 dwellings occupied by older generation households were to turn over to younger generation households, it is estimated that these dwellings could accommodate an additional 213,312 persons (based on the 2016 age- and dwelling type-specific PPH rates), for a total of 1,538,437 persons (see Figure 73 on page 140). The estimated additional capacity in these existing dwellings represents an increase of 16.1% in occupancy over and above the existing population occupation levels in 2016.

Houses and low-rises have the greatest capacity to accommodate additional population on turnover.

Almost 60% of the estimated additional population capacity is anticipated to occur from the turnover of houses and low-rises, with mid/high-rises accounting for 33.3% and row/ townhouses accounting for 7.5% (see Figure 74). Over half of the existing older generation households resided in houses and low-rises in 2016; therefore it follows that much of the opportunity for changes in population and occupancy would arise from turnover of these dwelling types. These dwellings also tend to have more bedrooms and are typically larger in size (see Figure 55 on page 88).

What can often be overlooked is the additional population capacity that can arise from the turnover of dwellings that are classified as mid/high-rise units. A third of the additional population occupancy, equating to an additional 71,102 persons, could be achieved in these dwelling types if they were occupied by younger generation households. Thus the number of people the housing stock accommodates at a particular point in time depends not only on the composition of the stock, but also on the age of the households aging in place in that stock, and the prospects for the turnover of that housing over the 35-year period.

The areas within the city that have the greatest opportunity to accommodate additional population in the existing housing stock are found in Etobicoke York, North York and Scarborough areas. See Figure 75 on page 141 and Figure 76 on page 142. The concentrations of the older generation households in various areas of the city lead to pockets where a higher capacity of 800 to 1,200 persons per Census Tract (CT) has been estimated, notably in areas outside of Toronto and East York, However, these pockets represent less than 10% of the additional population capacity (19,534 persons collectively). The more significant portion of the additional population

capacity may instead be realised across the outer suburban areas of the city, in the CTs with additional populations of less than 800 persons.

The complete turnover of the city's existing older generation household stock and the repopulation of local areas arising from this turnover is expected to be a subtle occurrence, taking place in some degree in almost all residential areas in the city, but especially those in the city's outer suburbs. The spatial analysis shows that the increases in local area population arising from turnover will be both subtle and widespread, as opposed to any one area experiencing a turnover in great magnitudes. As will be discussed shortly, the timing of these population changes are anticipated to occur gradually, too. It will therefore be the cumulative effect of over 570,000 dwellings occupied by older generation households gradually turning over in these local areas that produces a total population uplift that is significant.

Figure 73: Existing Population and Estimated Additional Population Capacity from Turnover of Dwellings Occupied by Older generation Households



Figure 74: Estimated Additional Population from Turnover of Dwellings Occupied by Older Generations, by Dwelling Type

Houses & Lo	ow-Rises	Row/ Townhou	ses	Mid/High-Rises	_
59.29 126,2	% 21	7.5% 15,989		33.3% 71,102	



By 2051, it is estimated that almost all of the 2016 housing occupied by older generation households will have turned over, and that the capacity for an additional 207,240 persons within the existing housing stock could be realised. The Household Estimates by Generation, 2021-2051 undertaken in Chapter 10 of this bulletin and summarised in Figure 58 on page 95 estimate the number of dwellings occupied by the older generation households (i.e. Baby Boomers and the Silent Generation and Earlier) to 2051. These older generation households are anticipated to decline in number over the time horizon to 2051. The decline in the number of these older generation households equally indicates when their respective dwellings will become available for turnover to younger generations. By correlating the rate of declining older generation households to the additional population capacity that is unlocked due to their decline, the timing for the turnover to younger generation households can be estimated, shown in Figure 77 on page 143. As the older generation households continue to age and more of their dwellings become available and occupied by larger younger generation households, the additional population capacity increases over time. By 2031, it is estimated that over 144,000 additional persons could be accommodated in the existing housing stock, increasing to over 207,000 by 2051. By 2051, it is anticipated that over 97% of the total additional population capacity arising from turnover of the existing

dwellings occupied by older generation households to younger generation households could be realised.

Approximately 25% of Toronto's forecasted population growth to 2051 could be accommodated in the existing housing stock as a result of unused population capacity. The forecasts supporting A Place to Grow, the Provincial Growth Plan for the Greater Golden Horseshoe as of 2020. anticipate that Toronto's population will grow from 2,819,000 persons in 2016 to 3,650,000 persons by 2051, a growth of 831,000 persons.¹⁰⁷ If over 207,000 persons are accommodated in the existing housing stock from the turnover of housing occupied by older generation households to younger generation households by 2051, the older generations' existing housing could account for 25% of the total forecasted population growth. As these dwellings turn over, in other dwellings in other parts of the city, households at different points in the household lifecycle will relocate, have children, or age in place and the population will rise or decline. The estimates of generational housing turnover provides a discernible measure of the additional population capacity of the existing housing based on the turnover of housing in large areas of the city that were built in and around the same time.

This process of housing turnover happens continually across the city. Yet, because of the period of construction and first occupancy of the city's suburbs, just as there was suburban

Figure 76: Distribution of Total Additional Population from Turnover of Dwellings Occupied by Older Generation Households, by Community Council Area

213,312 persons: Estimated Additional Population Capacity

28.5% Scarborough,	28.2% North York	24.9% Etobicoke York	18.4% Toronto & East York 39 219
00,039	60,079	55,155	55,215

expansion within the city in the 1960s, 1970s and 1980s, there will be a contemporary turnover of this housing to 2051. A unique opportunity exists for repopulation of this housing and its increased occupancy of this substantial supply of housing, particularly in the houses and low-rise stock .

In summary

The Growth Plan stresses the importance of considering the existing housing stock in accommodating current and future population housing needs. As has been discussed earlier in Section 2: Housing Suitability of this bulletin, 43.8% of Toronto's households were overhoused in 2016, and older households were found to have higher rates of overhousing than younger households. This demonstrates that a significant number of existing dwellings occupied by older households are not presently occupied to their fullest capacity. While this under-occupation is widely accepted, less is known about how under-occupied these dwellings are, and by extension, how much additional population could be accommodated in these dwellings were they occupied by larger households.

In the future, the large number of older households will decline as these older generations age. Therefore, there is a certainty that a significant number of these dwellings will return to market, and could be re-occupied by younger and larger households. The analysis estimates the capacity of the existing housing stock occupied by older generation households to accommodate more population if that stock turned over to younger and larger households over the course of time.

The results of the analysis found that if all existing older generation households' dwellings were to turn over to younger generation households, the population accommodated in these dwellings could be 16.1% higher than it is presently, equating to an additional population capacity of 213,312 persons. While almost 60% of the population capacity is expected to be realised in houses and low-rise units, a third of the total capacity is estimated to occur from turnover of mid/high-rise apartment units. The turnover of housing stock between 2016 and 2051 is anticipated to occur notably more in Etobicoke York, North York and Scarborough than in Toronto and East York. The estimated

timing for the turnover of these dwellings occupied by older generation households indicates that almost all of this additional capacity (97%) could be realised by 2051. If the additional population capacity is realised at these magnitudes and within this timeframe, the potential additional population in the existing housing stock would equate to 25% of the Growth Plan's forecasted population growth in the city.

In summary, the analysis demonstrates that the existing housing stock has significant potential to accommodate current and future population needs. Consequently, in assessing Toronto's continuing population growth and housing needs, it has been demonstrated that not all future population growth needs to be accommodated in new housing. This work is an important input to the Municipal Comprehensive Review of the Official Plan, to bring it into conformity with A Place to Grow and its population forecast to 2051.





Chapter 12. The Potential of Existing Housing to Accommodate Future Population Growth

13. Conclusion

This bulletin expands on the findings in Housing Occupancy Trends 1996-2016 (HOT) bulletin to examine issues of housing suitability, right-sizing, and turnover in Toronto. It sought to answer several questions that were beyond the scope of the HOT bulletin:

- How well Toronto's housing stock is meeting the needs of its occupants for bedrooms;
- Whether the Baby Boomer generation is downsizing more or differently than their predecessors did;
- How much of the future increase in demand for housing is likely to be fulfilled by the existing stock through older generations vacating or turning over units; and
- 4. Where in the city is such turnover due to older generations downsizing likely to occur?

How well is Toronto's housing stock meeting the needs of its occupants for bedrooms?

In 2016, almost 135,000 Toronto households lived in unsuitable housing while there were almost three times as many households who were overhoused. Most households that were underhoused were short by one bedroom. The number of one-bedroom shortfalls has remained steady since 1996, despite decreasing household sizes which would suggest that the average household requires fewer bedrooms than in the past. This implies that more dwellings with two or more bedrooms may be required to help tackle pervasive underhousing.

Underhousing is the most concerning suitability category as it points to potential issues of overcrowding and vulnerability. Underhousing occurs most often among households that are younger than 50, have children, rent, live in mid/high-rise dwellings, live in one- and two-bedroom dwellings, or live in dwellings built between 1961 and 2000. Underhousing is particularly concentrated in lone-parent families and households with multiple children, and families with children who live in mid/ high-rise units. Nearly half of all loneparent households in recently-built mid/ high-rise buildings were underhoused in 2016. This trend highlights the need to continue planning for and building family-sized units in mid/high-rise buildings.

It is important to distinguish between those who choose to be underhoused and those who would choose to be suitably housed if they could. Some households choose to be underhoused because of cultural norms or familial closeness. However, when households are underhoused because of a lack of available or affordable housing, this involuntary underhousing is a problem that can be addressed at least in part by planning efforts.

The City is undertaking several initiatives that may alleviate involuntary underhousing. New Secondary Plans that require two-or-more-bedroom units in new developments and the Expanding Housing Options in Neighbourhoods project to expand missing middle housing will increase housing opportunities in Toronto. The Housing Now initiative to develop new affordable housing on City-owned land and the proposed Inclusionary Zoning policy will increase the supply of affordable housing specifically, which may also help households that are underhoused to be able to afford to right-size. The City will monitor underhousing over time to see if it improves following the implementation of these initiatives.

Overhousing occurs most often among households that are aged 50 and over, do not have children, own their units, live in houses and low-rise dwellings, live in three-or-more-bedroom units, or live in dwellings built before 1961. Similar to underhousing, households may choose to be overhoused or they
may be preferring to right-size but unable to find housing of the type they desire that they can afford. The City's initiatives, including those to promote secondary suites and laneway suites, to regulate short-term rentals and to establish a new Vacant Home Tax, aim to increase the housing supply. The goal of increasing housing opportunities may enable more households to find housing that allows them to right-size.

Are Baby Boomers downsizing more or differently than their predecessors did?

The analysis has shown that the Baby Boomer households are following in the footsteps of their predecessors. They moved within Toronto at the same rates and moved into mid/high-rise units at the same rates as the Silent Generation did at the same ages. These results suggest that these mobility characteristics are more a function of age than of generation. Despite this pattern, the large size of the Baby Boomer population will mean that even the low mobility rates historically exhibited by older adults could yield large amounts of housing turnover in the future. To the extent that Baby Boomers will downsize at the about same rate as their predecessors, this pattern informed an estimate of the future demand for housing that could be met by today's older households' stock turning over.

How much of the future increase in demand for housing is likely to be fulfilled by the existing stock through older generations turning over units?

The analysis includes the development of three scenarios of future households to 2051, a Base Scenario and a Low and a High Unmet Demand Scenario. In all three scenarios, about 60% of the overall estimated future increase in demand for housing could be fulfilled by the turnover of housing that already existed in 2016. In other words, only about 40% of the future increase in demand for housing would need to be fulfilled by new housing completions built between 2016 and 2051.

However, the results vary by dwelling type, number of bedrooms, and tenure. For apartments, units with up to two bedrooms, and owned units, the demand would be fulfilled by a combination of turnover plus new supply in all three scenarios, assuming that historic completion levels remained stable. On the contrary, future demand would not be fulfilled for single- or semidetached houses, units with three or more bedrooms, or purpose-built rental units.

These results suggest that there will be a persistent unmet demand, particularly by those who are underhoused, for these types of units if current completion levels continue. It is clear that the housing that has been built in Toronto's recent memory has met the needs of some better than others. City builders will need to consider new approaches to how housing is planned and built if these needs are to be fulfilled, or at least reduced. Rental housing protection, the Expanding Housing Options in Neighbourhoods initiative and the inclusion of policies in a number of Secondary Plans that require a set proportion of two-or-more bedroom units in new developments are a few of the solutions that the City has adopted that may help fulfill at least some of this anticipated demand.

Where in the city is such turnover due to older generations downsizing likely to occur?

It is estimated that the population housed in dwellings occupied by older generation households would be 16.1% higher if, over time, these dwellings turned over and were occupied by younger generation households. The areas within the city that have the greatest opportunity to accommodate additional population in the existing housing stock are found in Etobicoke York, North York and Scarborough areas. The complete turnover of the city's existing older generation household stock and the repopulation of local areas arising from this turnover is expected to be a subtle occurrence, taking place in some degree in almost all residential areas in the city, but especially those in the city's outer suburbs.

Impacts of COVID-19 Pandemic on Housing Suitability and Turnover Trends

The trends explored in this bulletin are largely based on data from the 2016 and earlier Censuses. This bulletin assumes that the overarching historical demographic trends are long-lasting and slow-moving and that these demographic fundamentals will continue beyond the current COVID-19 pandemic. However, COVID-19 has temporarily disrupted the way in which people are living and working, which in turn is changing the way in which people arrange themselves into households, and the types of dwellings they require to be comfortably housed.

The year 2021 is a Census year. At the time of this bulletin's publication, the COVID-19 pandemic continues. The results of the 2021 Census, to take place in May 2021, are expected to reflect some of these household changes related to the pandemic. Future research using post-2021 Censuses will be required to understand whether these outcomes become long-term trends. Potential changes to housing suitability and turnover as explored in this bulletin may be compounded or accelerated by societal impacts of the COVID-19 pandemic.

Young adults in the family home

Underhousing may increase as more young adults return to the parental home, or defer plans to move. Moving back to the family home, or remaining there longer, has been prompted by the experiences of some young adults during the restrictions imposed in response to COVID-19 pandemic, which include reduced employment opportunities and the closure of in-class learning at post-secondary educational institutions.

For some young adults, living in the family home may be a temporary arrangement, while for others, the choice to move out post-pandemic may not be as readily available. Choices and timeframes may change as incomes decline and the job market takes time to rebound. The implications of more young adults living at home may be evidenced by delayed household formation in this younger age group, followed by pent-up demand for housing once deferred household formations do eventually occur. Any changes in household formation rates would impact how much housing younger generations would require in the future, and when they need it.

Currently there are no official statistics available on how many young people have returned to the family home; the 2021 Census results will provide future insight. In the United States, the COVID-19 pandemic has been attributed as a reason why many young adults (aged 18-29 years) have moved in with family members. For the first time since the Great Depression, the majority of young adults in the U.S. now live with their parents.¹⁰⁸

Seniors aging in place

Overhousing may increase as seniors (and their families) defer or change their plans to move elders into retirement homes, or seniors themselves elect to age in place in greater numbers and for longer than before. Congregate-care and collective living facilities have faced many challenges during the COVID-19 pandemic.

A July 2020 survey of 1,517 Canadians conducted by the National Institute on Ageing found that 60% of Canadians, and almost 70% of Canadians 65 years and older, report that COVID-19 has changed their opinion on whether or not they would arrange for themselves or an older loved one to live in a nursing or retirement home.¹⁰⁹ Over 90% of Canadians of all ages – and almost 100% of Canadians 65 years and older report that they plan on supporting themselves to live safely and independently in their own home as long as possible. Decreases or delays in the number of seniors moving to institutional settings would impact the amount and timing of housing that older generations would turn over to younger generations.

Working from home

Overhousing may increase as people purposely move to larger houses to accommodate space for home offices. Statistics Canada has reported that the percent of businesses in the Canadian Survey on Business Conditions with 10% or more of their workforce working remotely doubled between February and May 2020.¹¹⁰ Additionally, 22.5% of businesses surveyed expected that the current elevated level of remote work to continue after the pandemic restrictions have been lifted.

Demand for low-density housing has also increased since COVID-19.111 These types of units tend to contain more bedrooms and may provide more room for working from home than mid/high-rise units. With at least some companies opting to continue directing their staff to work from home demand may increase for homes with enough space to allow for home offices. For those households that can afford to make this choice to accommodate their needs, it is possible that for some, overhousing to accommodate home offices may increase in the future. Demand for housing in the suburbs in Toronto and the Rest of the GTHA may increase as work from home becomes more prevalent or reduces the need for full-time commuting.

Increased disparities in housing suitability

The disparity in suitability conditions may widen between those who are able

to afford to choose a larger dwelling or to trade off a central location for more rooms versus those who cannot. As the pandemic continues and in the recovery that may follow, the economic situation of some Toronto residents is likely to improve while the situation of others may deteriorate, and the impacts of these disparities may reach beyond the pandemic. Such a situation highlights the need to continue monitoring housing occupancy and suitability as a basis for evidenced-based planning and policy.

Parting thoughts and next steps

The findings in this bulletin represent a snapshot of recent right-sizing and turnover trends in Toronto, and what those trends might look like in the future if current conditions continued into the coming years. Several new City initiatives that may help to enable turnover, increase the housing supply, or increase the affordable housing supply are being implemented. The City will continue to monitor issues of rightsizing and turnover over time.

Through exploring the above topics, this bulletin represents one of several analyses to support the ongoing implementation of the Official Plan. It informs the Municipal Comprehensive Review of the Official Plan with respect to the Provincial Growth Plan for the Greater Golden Horseshoe by estimating how much new housing stock may be needed in the future if recent trends continue, and how much additional population could be housed in older generation households' dwellings when those dwellings turn over to younger generation households. This will help the City to understand how much new housing to plan for, and what housing characteristics that new housing will need to have. This information will help the City to achieve its vision for a "city where people of all ages and abilities can enjoy a good quality of life," with "affordable housing choices that meet the needs of everyone throughout their life".¹¹²



See Acknowledgement for image credit.

Glossary and Appendices

14. Glossary

Dwelling Type

Characteristics that define a dwelling's structure are defined in different ways by different organizations. The majority of this bulletin relies on Census data and therefore on Statistics Canada's definitions of dwelling types, except where otherwise noted. The characteristics used by Statistics Canada¹¹³ and CMHC¹¹⁴ are described as follows.

Statistics Canada's Dwelling Type Definitions

- Single-detached house A single dwelling not attached to any other dwelling or structure (except its own garage or shed). A single-detached house has open space on all sides, and has no dwellings either above it or below it.
- Semi-detached house One of the two dwellings attached side by side (or back to front) to each other, but not to any other dwelling or structure (except its own garage or shed). A semi-detached dwelling has no dwellings either above it or below it, and the two units together have open space on all sides.
- Row house One of three or more dwellings joined side by side (or occasionally side to back), such as a town house or garden home, but not having any other dwellings either above or below.
- Apartment or flat in a duplex One of two dwellings, located one above the other, may or may not be attached to other dwellings or buildings.
- Apartment in a building that has five or more storeys – A dwelling unit in a high-rise apartment building which has five or more storeys.

- Apartment in a building that has fewer than five storeys – A dwelling unit attached to other dwellings units, or other nonresidential space in a building that has fewer than five storeys.
- Other single-attached house A single dwelling that is attached to another building and that does not fall into any of the other categories, such as a single dwelling attached to a non-residential structure (e.g., a store or a church) or occasionally to another residential structure (e.g., an apartment building).
- Mobile home A single dwelling, designed and constructed to be transported on its own chassis and capable of being moved to a new location on short notice. It may be placed temporarily on a foundation, such as blocks, posts or a prepared pad (which may be covered by a skirt).
- Other movable dwelling A single dwelling, other than a mobile home, used as a place of residence, but capable of being moved on short notice, such as a tent, recreational vehicle, travel trailer or houseboat.

Canada Mortgage and Housing Corporation's Dwelling Type Definitions

CMHC's definitions come from its Starts and Completions Survey, and are as follows.

 A "Single-Detached" dwelling (also referred to as "Single") is a building containing only one dwelling unit, which is completely separated on all sides from any other dwelling or structure. Includes link homes, where two units may share a common basement wall but are separated above grade. Also includes cluster-single developments.

- A "Semi-Detached (Double)" dwelling (also referred to as "Semi") is one of two dwellings located side-by-side in a building, adjoining no other structure and separated by a common or party wall extending from ground to roof.
- A "Row (Townhouse)" dwelling is a one family dwelling unit in a row of three or more attached dwellings separated by a common or party wall extending from ground to roof.
- The term "Apartment and other" includes all dwellings other than those described above, including structures commonly known as stacked townhouses, duplexes, triplexes, double duplexes and row duplexes.
- **Mobile homes** are included in the surveys, where a mobile home is typically defined as a type of manufactured house that is completely assembled in a factory and then moved to a foundation before it is occupied.
- Trailers or any other movable dwelling (the larger often referred to as a mobile home) with no permanent foundation are excluded from the survey.
- Conversions and/or alterations within an existing structure are excluded from the surveys as are seasonal dwellings, such as summer cottages, hunting and ski cabins, trailers and boat houses; and hostel accommodations, such as hospitals, nursing homes, penal institutions, convents, monasteries, military and industrial camps, and collective types of accommodation such as: hotels, clubs, and lodging homes.

Bedrooms

'Bedrooms' refers to rooms in a private dwelling that are designed mainly for sleeping purposes even if they are now used for other purposes, such as guest rooms and television rooms. Also included are rooms used as bedrooms now, even if they were not originally built as bedrooms, such as bedrooms in a finished basement. Bedrooms exclude rooms designed for another use during the day, such as dining rooms and living rooms, even if they may be used for sleeping purposes at night. By definition, one-room private dwellings such as bachelor or studio apartments have zero bedrooms.

Household Types

Household refers to a person or group of persons who or occupy the same dwelling and do not have a usual place of residence elsewhere. Household type refers to the relationship between the members of a household. There are two main categories: family households and non-family households.

- Family households are composed of a married couple or two persons living common-law, with or without children, or a lone parent living with at least one child in the same dwelling. A multiple family household refers to a household in which two or more census families occupy the same private dwelling.
- Non-Family households consist of either one person living alone or of two or more persons who share a dwelling, but do not constitute a family (i.e. are not related by birth, adoption, marriage or consensual union).

Household types that include the descriptor 'children' refer to the parental-child relationship and not age. Children may be children by birth, marriage, common-law union or adoption regardless of their age or marital status as long as they live in the dwelling and do not have their own married spouse, common-law partner, or child of their own living in the dwelling. Grandchildren living with their grandparent(s) but with no parents present also constitute a census family.¹¹⁵ When discussed in the context of household types, reference to the word 'children' will therefore include both children and adults of all ages living at home with their parents.

Mobility Status

Mobility indicates whether the person lived in the same residence on the reference day, May 10, 2016, as they did five years before, May 10, 2011. This distinguishes 'movers' and 'nonmovers.' 'Movers' include non-migrants, people who moved within the same city or town; internal migrants, people who moved to a different city or town within Canada); and external migrants, people who came from another country to live in Canada.

15. Appendix A: Background Tables and Figures

Figure 78: Comparison of the Number of Households by Suitability According to the NOS versus the Bulletin Suitability Definitions, 1996-2016



Figure 79: Comparison of the Percent of Households by Suitability According to the NOS versus the Bulletin Suitability Definitions, 1996-2016



Table 22: Number of Households by Suitability Indicator, Toronto, 1996-2016

Suitability	1996	2001	2006	2011	2016
Underhoused	164,945	158,670	153,515	144,790	134,820
Shortfall of one bedroom	107,270	108,670	104,790	106,515	105,250
Shortfall of two bedrooms	41,715	37,405	36,730	28,240	23,450
Shortfall of three or more bedrooms	15,960	12,595	11,990	10,045	6,130
Right-Sized	380,995	393,895	403,690	437,450	490,100
Overhoused	357,650	390,515	422,240	465,615	488,025
Surplus of one bedroom	163,360	172,935	176,280	184,545	193,575
Surplus of two bedrooms	134,380	147,860	162,270	181,450	187,530
Surplus of three or more bedrooms	59,910	69,720	83,690	99,620	106,920
Total Households	903,605	943,070	979,440	1,047,875	1,112,925

Table 23: Number of Households by Suitability in the Rest of the GTHA, 1996-2016

Suitability	1996	2001	2006	2011	2016
Underhoused	68,770	73,125	87,580	99,740	87,825
Right-Sized	270,215	294,395	313,230	331,380	359,835
Overhoused	555,215	658,055	780,145	891,915	972,080
Total Households	894,195	1,025,575	1,180,965	1,323,035	1,419,740

Table 24: Population by Age Group, 1996-2016

Age	1996	2001	2006	2011	2016
0-14	425,475	433,820	409,620	400,860	398,135
15-34	742,915	721,435	704,580	746,530	797,795
35-49	553,640	608,220	609,600	595,430	569,620
50-69	445,680	476,625	519,855	597,230	669,625
70+	217,705	241,410	259,615	274,995	296,400
Total	2,385,415	2,481,510	2,503,270	2,615,045	2,731,575

Table 25: Number of Households by Age of PHM, 1996-2016

Age of PHM	1996	2001	2006	2011	2016
15-34	214,515	193,675	188,285	210,430	232,460
35-49	303,310	329,540	331,875	331,875 321,940	
50-69	255,240	273,175	301,495	348,210	395,080
70+	130,495	146,690	157,790	157,790 167,295	
Total	903,560	943,080	979,445	1,047,875	1,112,930

Table 26: Number of Households by Suitability and Age of PHM, 1996-2016

Age of PHM	Suitability	1996	2001	2006	2011	2016
	Underhoused	53,990	42,100	36,450	34,015	29,840
15.04	Right-Sized	111,640	104,695	102,925	120,785	146,175
15-34 years	Overhoused	48,875	46,860	48,905	55,635	56,450
	Total Households	214,505	193,655	188,280	210,435	232,465
35-49 years	Underhoused	73,090	76,595	71,920	61,210	55,170
	Right-Sized	129,545	140,220	139,425	137,830	137,400
	Overhoused	100,665	112,705	120,535	122,900	115,320
	Total Households	303,300	329,520	331,880	321,940	307,890
	Underhoused	31,700	33,775	37,800	41,675	43,565
50 60 veero	Right-Sized	92,735	100,375	111,455	128,450	152,505
50-69 years	Overhoused	130,810	139,035	152,235	178,085	199,005
	Total Households	255,245	273,185	301,490	348,210	395,075
	Underhoused	6,155	6,195	7,335	7,885	6,250
70+ years	Right-Sized	47,055	48,580	49,875	50,380	54,020
	Overhoused	77,305	91,910	100,570	109,030	117,215
	Total Households	130,515	146,685	157,780	167,295	177,485

Household Type	Suitability	1996	2001	2006	2011	2016
	Underhoused	76,085	77,565	71,860	66,010	59,675
Couples with	Right-Sized	97,695	102,455	98,425	98,165	99,820
Children	Overhoused	104,270	112,800	119,370	125,860	134,350
	Total Households	278,050	292,820	289,655	290,035	293,845
	Underhoused	12,290	9,330	10,320	4,915	2,990
Couples without	Right-Sized	42,450	47,205	46,865	52,305	66,510
Children	Overhoused	124,700	131,365	136,845	150,485	156,555
	Total Households	179,440	187,900	194,030	207,705	226,055
	Underhoused	42,075	38,680	39,940	39,585	40,185
Lone Parent	Right-Sized	43,375	46,720	48,515	54,705	57,820
Families	Overhoused	21,185	26,210	30,105	33,755	34,825
	Total Households	106,635	111,610	118,560	128,045	132,830
	Underhoused	14,170	17,780	16,285	15,705	13,860
Multiple Femilies	Right-Sized	7,530	9,420	9,025	8,225	8,995
	Overhoused	5,405	6,940	7,325	7,405	8,975
	Total Households	27,105	34,140	32,635	31,335	31,830
	Underhoused	1 Pers	son households	cannot be under	rhoused, by defi	nition
1 Dereen	Right-Sized	163,620	163,500	177,385	195,075	219,970
reison	Overhoused	88,310	102,650	118,135	135,610	140,025
	Total Households	251,930	266,150	295,520	330,685	359,995
	Underhoused	20,320	15,315	15,115	18,565	18,115
2+ Person Non-	Right-Sized	26,330	24,585	23,475	28,980	36,985
Families	Overhoused	13,765	10,560	10,465	12,535	13,285
	Total Households	60,415	50,460	49,055	60,080	68,385

Table 27: Number of Households by Suitability and Household Type, 1996-2016

Table 28: Number of Households by Suitability and Tenure, 1996-2016

Tenure	Suitability	1996	2001	2006	2011	2016
Owner	Underhoused	41,040	44,240	48,060	47,125	37,010
	Right-Sized	110,805	126,380	142,440	150,315	161,325
	Overhoused	277,125	307,920	342,075	374,355	388,745
	Total Households	428,970	478,540	532,575	571,795	587,080
	Underhoused	123,900	114,430	105,450	97,665	97,815
Bontor	Right-Sized	270,195	267,505	261,245	287,140	328,760
nemer	Overhoused	80,515	82,595	80,160	91,285	99,250
	Total Households	474,610	464,530	446,855	476,090	525,825

Table 29: Number of Households by Suitability and Dwelling Type, 1996-2016

Dwelling Type	Suitability	1996	2001	2006	2011	2016
	Underhoused	67,380	60,945	56,600	54,310	42,420
Houses and	Right-Sized	180,535	179,080	175,250	125,560	174,750
Low-Rises	Overhoused	277,300	296,105	313,385	331,520	340,760
	Total Households	525,215	536,130	545,235	511,390	557,930
	Underhoused	9,305	9,175	8,610	8,255	7,535
Row/	Right-Sized	16,465	18,095	17,740	18,200	18,570
Townhouses	Overhoused	20,670	24,850	28,810	34,210	35,775
	Total Households	46,440	52,120	55,160	60,665	61,880
	Underhoused	88,260	88,550	88,305	82,225	84,865
Mid/High Diese	Right-Sized	183,990	196,710	210,690	247,960	296,780
Mia/Hign-Rises	Overhoused	59,685	69,570	80,055	99,890	111,490
	Total Households	331,935	354,830	379,050	430,075	493,135

Table 30: Number of Households by Suitability and Number of Bedrooms, 1996-2016

Number of Bedrooms	Suitability	1996	2001	2006	2011	2016			
	Underhoused	30,780	21,750	24,035	7,885	3,105			
Chudia	Right-Sized	56,655	38,970	42,065	24,400	19,250			
510010	Overhoused	Studio units cannot be overhoused, by definition							
	Total Households	87,435	60,720	66,100	32,285	22,355			
	Underhoused	59,075	54,370	54,025	53,625	47,510			
1 Bodroom	Right-Sized	144,895	167,855	178,560	219,075	262,500			
i Bedroom	Overhoused	1 bedroom units cannot be overhoused, by definition							
	Total Households	203,970	222,225	232,585	272,700	310,010			
	Underhoused	41,655	48,725	44,710	49,990	50,980			
2 Padrooma	Right-Sized	89,530	94,115	92,255	105,985	117,170			
2 Bedrooms	Overhoused	102,115	114,565	122,515	138,210	147,535			
	Total Households	233,300	257,405	259,480	294,185	315,685			
	Underhoused	25,745	25,990	23,730	25,565	24,090			
3 Bodroomo	Right-Sized	70,490	72,135	70,165	69,550	69,205			
3 Bedrooms	Overhoused	156,560	166,405	174,290	181,985	177,620			
	Total Households	252,795	264,530	268,185	277,100	270,915			
	Underhoused	7,680	7,840	7,010	7,720	9,135			
4 or more	Right-Sized	19,430	20,815	20,645	18,440	21,970			
Bedrooms	Overhoused	98,975	109,540	125,425	145,440	162,850			
	Total Households	126,085	138,195	153,080	171,600	193,955			

Table	31:	Number	of Househ	olds by	v Suitabilitv	and	Period o	of Constructio	n. 1996-2016
IUNIC	v	Humber	ormousen	0103 03	ouncasinity	unu			, 1000-201C

Suitability	Before 1961	1961 to 1980	1981 to 2000	2001 to 2016
Underhoused	30,320	53,500	30,315	20,700
Right-Sized	130,915	154,375	89,230	115,575
Overhoused	201,885	139,735	76,005	70,375
Total Households	363,120	347,610	195,550	206,650

Table 32: Number of Households by Suitability, Household Type and Household Size, 2016

Household Type	Suitability	1 person	2 persons	3 persons	4 persons	5+ persons
	Underhoused			12,640	20,980	26,050
Couples with	Right-Sized			35,890	44,840	19,085
Children	Overhoused			64,135	53,295	16,920
	Total Households			112,665	119,115	62,055
	Underhoused		1,605	655	385	345
Couples without	Right-Sized		61,780	3,900	570	260
Children	Overhoused		149,315	6,305	700	235
	Total Households		212,700	10,860	1,655	840
	Underhoused		11,210	14,320	9,175	5,480
Lone Parent	Right-Sized		32,870	18,410	5,165	1,365
Families	Overhoused		23,830	8,680	1,840	475
	Total Households		67,910	41,410	16,180	7,320
	Underhoused				1,650	12,215
Multiple Femilies	Right-Sized				1,995	7,000
	Overhoused				2,965	6,015
	Total Households				6,610	25,230
	Underhoused	-				
1 Porcon	Right-Sized	219,970				
i Feison	Overhoused	140,020				
	Total Households	359,990				
	Underhoused		11,675	3,815	1,610	1,020
2+ Person Non-	Right-Sized		30,070	5,335	1,090	490
Family	Overhoused		11,085	1,745	290	160
	Total Households		52,830	10,895	2,990	1,670

Table 33: Number of Households by Suitability, Household Type and Dwelling Type, 2016

Dwelling Type	Suitability	Couples with Children	Couples without Children	Lone-Parent	Multiple- Family	Non-Family
	Underhoused	17,280	910	11,785	7,325	5,160
Houses and	Right-Sized	54,510	17,610	23,515	6,965	72,170
Low-Rises	Overhoused	117,620	101,765	27,540	8,355	85,460
	Total Households	189,410	120,285	62,840	22,645	162,790
	Underhoused	2,820	70	2,660	1,750	220
Row/	Right-Sized	8,610	630	5,750	925	2,640
Townhouses	Overhoused	11,200	10,310	4,460	455	9,340
	Total Households	22,630	11,010	12,870	3,130	12,200
	Underhoused	39,565	2,020	25,745	4,805	12,740
Mid/High-	Right-Sized	36,710	48,275	28,545	1,110	182,145
Rises	Overhoused	5,520	44,480	2,805	165	58,515
	Total Households	81,795	94,775	57,095	6,080	253,400

Table 34: Number of Households in Mid/High-Rises by Suitability, Household Type and Age of PHM, 2016

Household Type	Suitability	15-34	35-49	50-69	70+
	Underhoused	6,895	20,855	11,195	590
Couples with	Right-Sized	6,055	16,470	12,620	1,555
Children	Overhoused	575	1,840	2,560	565
	Total Households	13,525	39,165	26,375	2,710
	Underhoused	840	555	415	205
Couples without	Right-Sized	24,030	10,155	8,460	5,625
Children	Overhoused	9,035	7,320	14,935	13,185
	Total Households	33,905	18,030	23,810	19,015
	Underhoused	4,455	10,910	8,715	1,650
Lone Parent	Right-Sized	4,290	9,540	11,470	3,240
Families	Overhoused	270	820	1,140	595
	Total Households	9,015	21,270	21,325	5,485
	Underhoused	765	1,790	1,790	470
Multiple Femilies	Right-Sized	175	295	475	165
	Overhoused	30	30	70	25
	Total Households	970	2,115	2,335	660
	Underhoused	-	-	-	-
1 Doroon	Right-Sized	52,325	36,650	45,095	27,435
reison	Overhoused	10,355	10,350	19,390	16,940
	Total Households	62,680	47,000	64,485	44,375
	Underhoused	8,420	2,030	1,900	400
2+ Person Non-	Right-Sized	13,980	2,620	3,080	940
Family	Overhoused	680	195	420	160
	Total Households	23,080	4,845	5,400	1,500

Table 35: Number of Households in Mid/High-Rise Units by Suitability and Period of Construction, 2016

Suitability	Before 1960	1961 to 1980	1981 to 2000	2001 to 2016
Underhoused	12,480	36,350	20,480	15,555
Right-Sized	33,565	100,640	63,770	98,805
Overhoused	9,225	37,395	29,070	35,810
Total Households	55,270	174,385	113,320	150,170

Reason for Moving	Number o Housel	Percent of Mover Households		
	15-49	50+	15-49	50+
Upgrade to a larger or better quality dwelling	87,900	20,800	24.3%	19.9%
Become a homeowner	76,700	8,200	21.2%	7.8%
Be in a more desirable neighbourhood	63,500	13,800	17.5%	13.2%
Change in household or family size	59,500	17,600	16.4%	16.8%
Form own household	56,600	2,800	15.6%	2.7%
New job or job transfer	55,600	8,000	15.4%	7.6%
Reduce commuting time	42,300	8,200	11.7%	7.8%
Reduce housing costs	25,800	19,100	7.1%	18.3%
Be closer to family	23,000	16,400	6.4%	15.7%
Forced to move*	22,700	15,200	6.3%	14.5%
New school	22,000	5,600	6.1%	5.4%
Personal health reasons	12,500	14,900	3.5%	14.2%
Natural disaster or fire	2,200	0	0.6%	0.0%
Other reasons	1,500	1,800	0.4%	1.7%
Total Movers	361,900	104,600	100.0%	100.0%

Table 36: Reasons for Moving in the Past Five Years by Age Group

* By a landlord, a bank or other financial institution or the government. Responses may not sum to 100% as respondents were able to select multiple responses. Source: Statistics Canada, Canadian Housing Survey 2018, custom tabulation.

Table 37: Number of Underhoused Households by Age of PHM and Shelter Cost-to-Income Ratio, 2016

Age of PHM	Spending less than 30% of household income on housing costs	Spending 30%-49% of household income on housing costs	Spending 50% or more of household income on housing costs	Total underhoused households
15-34	15,015	6,755	8,025	29,795
35-49	34,330	12,300	8,500	55,130
50-69	31,075	7,785	4,680	43,540
70+	4,615	1,170	465	6,250

			Houses and						
Number of Bedrooms	Single- detached house	Semi- detached house	Apartment or flat in a duplex	Apartment in a building that has fewer than five storeys	Other single- attached house	Total Houses and Low- rises	Row/- townhouse	Mid/High- rise	Total
No bedrooms	185	80	290	5,165	10	5,730	105	16,520	22,360
1 bedroom	4,310	2,110	7,510	64,440	305	78,675	2,185	229,125	310,010
2 bedrooms	27,395	7,795	9,925	56,050	630	101,795	9,770	204,105	315,685
3 bedrooms	111,135	40,150	13,315	25,830	1,050	191,480	37,645	41,765	270,925
4 or more bedrooms	126,635	21,950	16,545	14,165	845	180,140	12,175	1,620	193,950
Total	269,660	72,080	47,575	165,650	2,845	557,810	61,875	493,140	1,112,930

Table 39: Base Scenario Household Estimates by Generation, 2021-2051

Generation Grouping	Generation	Age in 2016	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
	Not Yet Born	N/A	2016- 2051	0	0	0	0	4,358	38,824	127,774	254,733
Younger	Generation Z	0 to 14	2001- 2016	0	3,803	34,031	112,965	223,697	320,510	374,274	397,277
Generations	Millennials	15 to 34	1981- 2001	232,460	361,067	466,251	523,765	551,738	564,425	563,286	550,232
	Generation X	35 to 49	1966- 1981	307,890	319,827	323,613	319,671	306,173	287,815	263,089	225,911
Older	Baby Boomers	50 to 69	1946- 1966	395,080	375,909	348,573	309,918	249,158	172,184	97,711	36,874
Generations	Silent Generation + Earlier	70+	1946 + Earlier	177,500	109,649	59,193	22,033	4,103	880	189	40
	Total			1,112,930	1,170,256	1,231,660	1,288,351	1,339,227	1,384,638	1,426,322	1,465,066

*2016 household numbers are actual values from the 2016 Census; all other years are estimates. Younger generations refer to those born after May 10, 1966 and include Not Yet Born, Generation Z, Millennials, and Generation X all of whom were less than 50 years of age in 2016. Older generations refer to those born on or before May 10, 1966 and include Baby Boomers, the Silent Generation and Earlier generations, all of whom were aged 50 years of above in 2016.

16. Appendix B: Demographic Reasons for Population Growth

What are the demographic reasons for population decline?

What percent of people pass away?

While Toronto's population is aging and people are living longer than in the past, eventually today's older adults will pass on. Over time, their housing will turn over. Understanding the mortality rates by age today can help us to estimate deaths over time, and how that might impact how much housing is needed to house the future population, which was explored in Chapter 10.

Mortality is highly concentrated in the oldest age groups. The mortality rate increases steadily with increasing age, especially for ages 70 and over. Those aged 70-74 had a mortality rate of 1.4% in 2016 while those in the oldest age group of 85 and over had a mortality rate of 10.8% (see Figure 80).

The mortality rate has been decreasing gradually over time for most ages. Generally, a smaller percentage of people die each year in each age group as population health improves and life expectancies increase. The one exception is

Figure 80: Single-Year Mortality Rate by Age, 1995-2015*

% Mortality											
0.00%					14.49%						
Age	1995	2001	2006	2009	2015						
0-4	0.16%	0.15%	0.14%	0.15%	0.11%						
5-9	0.01%	0.01%	0.01%	0.01%	0.00%						
10-14	0.01%	0.01%	0.01%	0.01%	0.01%						
15-19	0.03%	0.03%	0.03%	0.03%	0.02%						
20-24	0.04%	0.04%	0.04%	0.04%	0.03%						
25-29	0.05%	0.04%	0.03%	0.04%	0.04%						
30-34	0.10%	0.06%	0.06%	0.04%	0.05%						
35-39	0.14%	0.09%	0.08%	0.07%	0.06%						
40-44	0.19%	0.13%	0.12%	0.13%	0.09%						
45-49	0.28%	0.22%	0.20%	0.20%	0.16%						
50-54	0.40%	0.33%	0.33%	0.29%	0.26%						
55-59	0.63%	0.52%	0.49%	0.42%	0.41%						
60-64	1.02%	0.79%	0.77%	0.60%	0.63%						
65-69	1.66%	1.45%	1.09%	0.97%	0.93%						
70-74	2.64%	2.16%	1.83%	1.67%	1.43%						
75-79	3.96%	3.50%	3.02%	2.89%	2.38%						
80-84	7.03%	5.93%	4.95%	4.79%	4.27%						
85+	14.49%	13.49%	11.84%	10.40%	10.79%						

*Note: The number of deaths by age is only available for certain years. Mortality rates for 1995 and 2015 are based on estimated populations in those years. The mortality rate for 2009 is based on the number of deaths in 2009 and the population in 2011.

for people aged 85 and over, who experienced a slight increase in mortality rate in 2016. This is likely due to the fact that more and more people are living longer and aging into this category. The mortality rate increases as people approach increasingly advanced age; for example, in 2015 the single-year mortality rate for those aged 85-89 was 7.5% and 16.2% for ages 90 and over. (Note that 2015 is the only year for which data is available for the 85 and over age group broken down into 85-89 and 90 and over.) So as more people in the 85 and over category age past 90, the mortality rate for the 85 and over age group will increase.

Although mortality rates are generally declining, the household estimates in

Chapter 10 are based on the rates by age in 2015, with one minor exception. This is because mortality rates cannot decline indefinitely. The exception is that a modified mortality rate of 10.67% for those aged 90 and over was used in the household estimates calculations, as the actual value of 16.2% yielded a population of zero for people aged 90 and over when the other assumptions were added in.

What percent of people are moving into institutions?

An institutional resident is a "person who lives in an institutional collective dwelling, such as a hospital, a nursing home or a prison. This includes residents under care or

Figure 81: Percent of Population who are Institutional Residents under Care or Custody, 2006-2016

0.00%			30.25%
A	2006	2011	2016
Age	2006	2011	2010
0-4	0.21%	0.23%	0.28%
5-9	0.12%	0.15%	0.16%
10-14	0.15%	0.17%	0.13%
15-19	0.43%	0.39%	0.28%
20-24	0.46%	0.42%	0.38%
25-29	0.38%	0.33%	0.28%
30-34	0.40%	0.39%	0.34%
35-39	0.51%	0.41%	0.41%
40-44	0.59%	0.50%	0.42%
45-49	0.59%	0.60%	0.52%
50-54	0.58%	0.63%	0.64%
55-59	0.63%	0.69%	0.73%
60-64	0.70%	0.74%	0.79%
65-69	0.92%	0.92%	0.89%
70-74	1.51%	1.31%	1.36%
75-79	3.11%	2.49%	2.28%
80-84	7.01%	5.47%	4.92%
85-89	14.21%	11.56%	10.53%
90+	30.25%	25.01%	23.49%

Figure 82: Percent of Population who were Out-Migrants in the Previous Five Years, 2006-2016



custody (e.g., patients or inmates) or employee residents and family members living with them, if any."¹¹⁶ As institutional residents do not live in private households, we must separate them from the population in private households to estimate how many private households might exist in the future. To estimate future households in Chapter 10, one must examine the rate of institutionalization by age in recent years.

Institutional residents are highly concentrated in the oldest age groups. The percentage of the population that are institutional residents under care or custody is less than 5% for all age groups younger than 80 (see Figure 81 on page 165). Institutionalization increases steadily in the oldest age groups, from 4.92% for ages 80-84 to 23.49% for ages 90 and over in 2016.

The institutionalization rate has been decreasing gradually over time for the oldest age groups. The institutionalization rate for those aged 90 and over declined from 30.25% in 2006 to 23.49% in 2016. Similar to the declining mortality rate, this is likely a result of improved health and increasing life expectancies.

Similar to the mortality rates, the institutionalization rates applied in the household estimates in Chapter 10 are based on of the rates by age the most recent period, 2016. Again, there is a limit to how far the rates can decline, and it is not yet clear if they are stabilizing or if they will continue to decline in the future.

What percent of people are moving out of Toronto?

The rate of out-migration is highest among children aged 5-14 and adults aged 25-44. More than 10.0% of each of these age groups moved out of Toronto in 2016. These out-migrants will lessen the need for large familysized housing in the future.

Older adults aged 50 and over migrated out of Toronto at a lower rate than their younger counterparts. Roughly 7.0% of those aged 50-69 moved out of Toronto in 2016. Out-migration decreased with increasing age into the older age groups, with about 3.0% of those 75 and over moving out of Toronto in 2016.

Out-migration generally decreased between 2006 and

2016. The absolute number of outmigrants has declined between 2006 and 2016 for most age groups except for a few groups aged 55 and over that have increased slightly (see Figure 83). The outmigration rate has declined in every age group (see Figure 82 on page 166). These rates cannot decline indefinitely, and it is out of scope to try to estimate how the rates might change in the future. But the fact that they have decreased in recent years suggests that it is more appropriate to assume that future out-migration rates by age may be closer to those in 2016 than to the rates in previous years.

Figure 83: Number of Out-Migrants in the Previous Five Years by Age, 2006-2016



Figure 84: Percent of Population who were In-Migrants in the Previous Five Years, 2006-2016



5.0% 10.0% 15.0% 20.0% 25.0% 30.0% 35.0%

What are the demographic components of population growth?

What percent of people are moving into Toronto?

The rate of in-migration is highest among younger adults aged 20-34. More than one third (35.2%) of people in Toronto aged 25-29 in 2016 moved to the city in the previous five years. These inmigrants will add to the demand for larger housing in the coming years.

In-migration rates are relatively stable over time. There is much less variation in in-migration rates than in out-migration rates from one Census period to the next. For most ages, the in-migration rate fluctuated by less than 3.0% between Census years. The change in rates is in part driven by external factors such as world conditions and federal immigration targets. For the purposes of this analysis, these rates will be considered stable over time.

How many babies are born in Toronto?

While most of Toronto's population growth is due to in-migration, fertility also plays a role. Estimating future fertility will help to understand how large the future population may be, and therefore how much housing the future population may demand.

The female share of the population is slightly lower among younger ages (48.98% for those 15-19) compared to older ages within their childbearing years (52.41% for those 45-49, see Table 40 on page 169). Fertility rates are calculated as the number of live births per female population. The numbers of live births in 2019 were divided by estimates of the female population in 2019 to obtain 2019 fertility rates. The future female population was then estimated in order to estimate future births. This calculation assumed that babies may be born to women aged 15 to 49 and that the percent of the population that

was female by age in 2016 would remain constant in the future.

Fertility rates vary by age. In 2019, women aged 30-34 had the highest fertility rate, with 8.57 live births per 100 women age 30-34. Fertility rates in Toronto have declined for most age groups since 2016; therefore, the household estimates calculated in Chapter 10 applied the 2019 fertility rates shown in Table 41 to more accurately represent the current condition. These annual fertility rates were multiplied by five in the household estimates calculation to approximate the number of live births that might occur in each future fiveyear Census period. It is possible that these calculations may overstate future fertility, but estimating how fertility rates may continue to decline in the future is beyond the scope of this bulletin.

 Table 40: Female Population by Age, 2016

Age	Total Population	Female Population	% Female
15 to 19 years	145,525	71,280	48.98%
20 to 24 years	194,750	97,330	49.98%
25 to 29 years	232,945	119,035	51.10%
30 to 34 years	224,580	115,680	51.51%
35 to 39 years	196,310	102,240	52.08%
40 to 44 years	182,390	95,860	52.56%
45 to 49 years	190,925	100,065	52.41%

Table 41: Fertility Rates by Age, 2019

Age	2019
15 to 19	0.35%
20 to 24	1.56%
25 to 29	4.44%
30 to 34	8.57%
35 to 39	6.97%
40 to 44	1.92%
45 to 49	0.13%

17. Appendix C: Background Tables for Base Scenario Household Estimates by Dwelling Type

Age of PHM	Single- Detached Houses	Semi- Detached Houses	Row/ Townhouses	Apartments or Flats in Duplexes	Low-Rise Apartments*	Mid/High-Rise Apartments	Other Single- Attached Houses
15 to 19	4.6%	1.9%	3.5%	3.6%	12.0%	74.1%	0.3%
20 to 24	3.9%	1.7%	2.0%	3.6%	20.5%	68.1%	0.1%
25 to 29	5.0%	2.0%	2.5%	3.8%	22.2%	64.4%	0.2%
30 to 34	10.2%	4.0%	4.6%	4.0%	20.1%	56.9%	0.1%
35 to 39	17.3%	6.1%	6.2%	4.3%	17.4%	48.5%	0.2%
40 to 44	23.4%	7.1%	6.9%	4.4%	15.5%	42.4%	0.3%
45 to 49	26.6%	7.3%	7.1%	5.0%	15.4%	38.4%	0.2%
50 to 54	29.0%	7.6%	7.3%	5.3%	14.5%	36.0%	0.3%
55 to 59	30.7%	7.7%	7.0%	5.1%	13.8%	35.5%	0.3%
60 to 64	32.5%	7.3%	6.2%	4.4%	12.8%	36.5%	0.3%
65 to 69	32.5%	7.4%	5.9%	4.1%	11.6%	38.2%	0.3%
70 to 74	31.9%	7.5%	5.1%	3.7%	10.3%	41.1%	0.4%
75 to 79	33.9%	8.5%	4.3%	2.9%	9.1%	41.0%	0.3%
80 to 84	36.0%	8.8%	3.2%	2.9%	7.1%	41.7%	0.4%
85 to 89	37.2%	8.9%	2.4%	2.5%	6.9%	41.9%	0.2%
90+	38.7%	7.0%	1.2%	2.9%	5.6%	44.3%	0.2%

Table 42: Occupancy Rates by Age of PHM and Dwelling Type, 2016

*Low-rise apartments are apartments in buildings with fewer than 5 storeys.

Table 43: Estimated Base Scenario Future Households by Generation and DwellingType, 2016-2051

Dwelling Type	Generation	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
		2031-2036	0	0	0	0	0	0	0	200
	Not Yet	2026-2031	0	0	0	0	0	0	206	1,358
	Born	2021-2026	0	0	0	0	0	210	1,386	4,563
		2016-2021	0	0	0	0	202	1,330	4,377	12,672
	Concration	2011-2016	0	0	0	192	1,268	4,173	12,082	22,664
	7	2006-2011	0	0	191	1,256	4,134	11,968	22,450	31,918
		2001-2006	0	176	1,160	3,819	11,058	20,743	29,492	34,484
		1996-2001	185	1,220	4,017	11,630	21,815	31,016	36,266	40,954
	Millonnials	1991-1996	1,340	4,413	12,777	23,968	34,077	39,844	44,994	46,510
	IVIIIIEI II IIdis	1986-1991	4,310	12,481	23,413	33,288	38,922	43,953	45,433	45,699
Households		1981-1986	10,990	20,615	29,310	34,271	38,701	40,005	40,238	38,070
	Concration	1976-1981	17,565	24,976	29,203	32,978	34,089	34,288	32,440	29,350
Single-	Y	1971-1976	23,185	27,109	30,613	31,644	31,829	30,114	27,246	25,158
Houses		1966-1971	28,485	32,170	33,254	33,448	31,645	28,631	26,437	21,476
nouses		1961-1966	34,410	35,569	35,777	33,849	30,625	28,278	22,972	11,378
	Baby	1956-1961	33,110	33,305	31,510	28,509	26,324	21,384	10,592	1,983
	Boomers	1951-1956	29,445	27,856	25,203	23,272	18,905	9,364	1,753	376
		1946-1951	25,395	22,978	21,217	17,236	8,537	1,598	343	73
		1941-1946	17,975	16,602	13,487	6,680	1,250	268	57	12
	The Silent	1936-1941	15,640	12,708	6,294	1,178	253	54	12	2
	Generation	1931-1936	13,730	6,799	1,273	273	58	13	3	1
		1926-1921	9,025	1,689	362	78	17	4	1	0
	Earlier	1921 + Earlier	4,870	1,043	224	48	10	2	0	0
		2031-2036	0	0	0	0	0	0	0	81
	Not Yet	2026-2031	0	0	0	0	0	0	84	593
	Born	2021-2026	0	0	0	0	0	85	605	1,842
		2016-2021	0	0	0	0	82	580	1,767	5,010
	Concretion	2011-2016	0	0	0	78	553	1,685	4,777	8,032
	Generation	2006-2011	0	0	77	548	1,669	4,732	7,956	9,706
	۷.	2001-2006	0	71	507	1,542	4,372	7,351	8,968	9,437
		1996-2001	75	533	1,622	4,598	7,731	9,431	9,924	10,753
	Milloppiala	1991-1996	585	1,782	5,052	8,494	10,362	10,903	11,814	11,666
	willerinais	1986-1991	1,740	4,935	8,298	10,122	10,651	11,541	11,396	10,282
Households		1981-1986	4,345	7,306	8,913	9,378	10,162	10,034	9,053	8,695
Living	Constation	1976-1981	6,225	7,595	7,991	8,659	8,550	7,715	7,409	6,891
in Semi-	Generation	1971-1976	7,050	7,418	8,038	7,937	7,161	6,878	6,396	6,281
Detached	^	1966-1971	7,795	8,447	8,341	7,526	7,228	6,722	6,601	5,232
Houses		1961-1966	9,035	8,922	8,050	7,731	7,190	7,060	5,596	2,717
	Baby	1956-1961	8,305	7,493	7,197	6,693	6,573	5,210	2,529	360
	Boomers	1951-1956	6,625	6,362	5,917	5,811	4,606	2,236	319	68
		1946-1951	5,800	5,395	5,297	4,199	2,038	290	62	13
		1941-1946	4,220	4,145	3,286	1,595	227	49	10	2
	The Silent	1936-1941	3,905	3,096	1,503	214	46	10	2	0
	Generation	1931-1936	3,345	1,623	231	50	11	2	0	0
		1926-1921	2,155	307	66	14	3	1	0	0
	Earlier	1921 + Earlier	885	190	41	9	2	0	0	0

Table 43: Estimated Base Scenario Future Households by Generation and Dwelling Type, 2016-2051 (Continued)

Dwelling Type	Generation	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
		2031-2036	0	0	0	0	0	0	0	151
	Not Yet	2026-2031	0	0	0	0	0	0	156	715
	Born	2021-2026	0	0	0	0	0	159	729	2,287
		2016-2021	0	0	0	0	153	699	2,193	5,702
	Concration	2011-2016	0	0	0	146	667	2,091	5,436	8,058
	7	2006-2011	0	0	144	661	2,072	5,385	7,982	9,499
	۷	2001-2006	0	133	610	1,914	4,976	7,375	8,777	9,213
		1996-2001	140	642	2,013	5,233	7,756	9,231	9,689	10,349
	Millonnials	1991-1996	705	2,212	5,749	8,521	10,141	10,645	11,370	10,535
	IVIIIIEI II IIdis	1986-1991	2,160	5,616	8,324	9,907	10,398	11,106	10,291	8,761
Households		1981-1986	4,945	7,330	8,723	9,156	9,779	9,062	7,714	6,851
Living	Constantion	1976-1981	6,245	7,433	7,802	8,333	7,722	6,573	5,838	4,645
in Row/	V	1971-1976	6,900	7,242	7,736	7,168	6,102	5,419	4,312	3,193
Townhouses	^	1966-1971	7,610	8,129	7,533	6,412	5,695	4,532	3,355	1,893
		1961-1966	8,695	8,057	6,859	6,091	4,847	3,589	2,024	731
	Baby	1956-1961	7,500	6,385	5,670	4,512	3,341	1,885	681	63
	Boomers	1951-1956	5,645	5,013	3,989	2,954	1,666	602	56	12
		1946-1951	4,570	3,637	2,693	1,519	549	51	11	2
		1941-1946	2,845	2,107	1,189	429	40	9	2	0
	The Silent	1936-1941	1,985	1,120	405	38	8	2	0	0
	Generation	1931-1936	1,210	437	41	9	2	0	0	0
		1926-1921	580	54	12	2	1	0	0	0
	Earlier	1921 + Earlier	155	33	7	2	0	0	0	0
		2031-2036	0	0	0	0	0	0	0	157
	Not Yet	2026-2031	0	0	0	0	0	0	162	1,257
	Born	2021-2026	0	0	0	0	0	165	1,283	3,477
		2016-2021	0	0	0	0	158	1,230	3,336	4,993
	Constation	2011-2016	0	0	0	151	1,173	3,181	4,760	5,619
	7	2006-2011	0	0	149	1,162	3,151	4,715	5,566	6,057
	۷	2001-2006	0	138	1,074	2,911	4,357	5,143	5,597	6,483
		1996-2001	145	1,129	3,062	4,582	5,409	5,886	6,818	7,480
	Milloppiale	1991-1996	1,240	3,364	5,034	5,942	6,467	7,490	8,218	7,712
	willerinais	1986-1991	3,285	4,918	5,805	6,317	7,317	8,028	7,533	6,208
Households		1981-1986	4,330	5,111	5,562	6,443	7,069	6,633	5,466	4,745
Living in	Constian	1976-1981	4,355	4,740	5,490	6,023	5,652	4,658	4,043	3,437
Apartments	V	1971-1976	4,400	5,096	5,592	5,247	4,324	3,753	3,191	2,172
or Flats in	^	1966-1971	5,355	5,876	5,514	4,544	3,944	3,353	2,282	1,744
Duplexes		1961-1966	6,285	5,898	4,860	4,219	3,586	2,441	1,865	756
	Baby	1956-1961	5,490	4,524	3,927	3,339	2,272	1,737	704	147
	Boomers	1951-1956	4,000	3,472	2,951	2,009	1,535	623	130	28
		1946-1951	3,165	2,691	1,831	1,400	568	118	25	5
		1941-1946	2,105	1,433	1,095	444	92	20	4	1
	The Silent	1936-1941	1,350	1,032	418	87	19	4	1	0
	Generation	1931-1936	1,115	452	94	20	4	1	0	0
		1926-1921	600	125	27	6	1	0	0	0
	Earlier	1921 + Earlier	360	77	17	4	1	0	0	0

Table 43: Estimated Base Scenario Future Households by Generation and Dwelling Type, 2016-2051 (Continued)

Dwelling Type	Generation	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
		2031-2036	0	0	0	0	0	0	0	519
	Not Yet	2026-2031	0	0	0	0	0	0	535	7,196
	Born	2021-2026	0	0	0	0	0	546	7,344	20,230
		2016-2021	0	0	0	0	524	7,045	19,406	24,969
	Concration	2011-2016	0	0	0	499	6,717	18,503	23,806	22,786
		2006-2011	0	0	495	6,653	18,328	23,582	22,571	21,125
	۷	2001-2006	0	457	6,148	16,935	21,789	20,856	19,520	19,920
		1996-2001	480	6,465	17,810	22,915	21,933	20,528	20,950	20,495
	Milloppials	1991-1996	7,100	19,567	25,176	24,097	22,554	23,017	22,517	20,874
	IVIIIIEI II IIAIS	1986-1991	19,110	24,594	23,540	22,032	22,484	21,996	20,391	18,042
Households		1981-1986	21,655	20,727	19,399	19,797	19,367	17,954	15,886	13,552
Living in	Constation	1976-1981	17,660	16,530	16,870	16,503	15,299	13,537	11,548	9,479
Low-Rise	Y	1971-1976	15,345	15,660	15,320	14,202	12,566	10,720	8,799	6,748
Apartments**		1966-1971	16,455	16,099	14,925	13,205	11,265	9,246	7,091	4,239
		1961-1966	17,220	15,964	14,125	12,049	9,890	7,585	4,534	2,112
	Baby	1956-1961	14,860	13,149	11,217	9,207	7,061	4,221	1,966	287
	Boomers	1951-1956	11,625	9,916	8,139	6,242	3,731	1,738	254	54
		1946-1951	9,040	7,421	5,691	3,402	1,584	231	50	11
		1941-1946	5,805	4,453	2,662	1,240	181	39	8	2
	The Silent	1936-1941	4,195	2,508	1,168	171	37	8	2	0
	Generation	1931-1936	2,710	1,262	184	39	8	2	0	0
		1926-1921	1,675	245	52	11	2	1	0	0
	Earlier	1921 + Earlier	705	151	32	7	1	0	0	0
		2031-2036	0	0	0	0	0	0	0	3,198
	Not Yet	2026-2031	0	0	0	0	0	0	3,299	23,853
	Born	2021-2026	0	0	0	0	0	3,366	24,342	58,763
		2016-2021	0	0	0	0	3,229	23,351	56,370	70,571
	Constation	2011-2016	0	0	0	3,079	22,264	53,746	67,285	63,423
		2006-2011	0	0	3,050	22,054	53,238	66,650	62,824	57,951
	۷	2001-2006	0	2,818	20,378	49,192	61,585	58,050	53,547	49,852
		1996-2001	2,960	21,431	51,734	64,767	61,050	56,314	52,428	50,802
	Milloppials	1991-1996	23,535	56,838	71,157	67,073	61,870	57,601	55,815	53,681
	IVIIIIEI II IIAIS	1986-1991	55,510	69,510	65,520	60,438	56,268	54,523	52,438	51,286
		1981-1986	61,205	57,692	53,216	49,545	48,008	46,173	45,158	44,651
Households	Constation	1976-1981	49,155	45,346	42,218	40,908	39,344	38,480	38,048	37,849
in Mid/High-	Generation	1971-1976	42,095	39,191	37,975	36,523	35,721	35,319	35,135	30,482
Rise Units	^	1966-1971	41,180	39,907	38,381	37,538	37,116	36,922	32,033	24,871
		1961-1966	42,685	41,053	40,151	39,700	39,493	34,263	26,602	12,828
	Baby	1956-1961	38,215	37,377	36,957	36,764	31,896	24,764	11,942	2,270
	Boomers	1951-1956	33,045	32,672	32,501	28,197	21,893	10,557	2,007	430
		1946-1951	29,785	29,631	25,707	19,960	9,625	1,829	392	84
		1941-1946	23,180	20,116	15,618	7,531	1,432	307	66	14
	The Silent	1936-1941	18,950	14,716	7,096	1,349	289	62	13	3
	Generation	1931-1936	15,900	7,665	1,457	312	67	14	3	1
		1926-1921	10,175	1,934	415	89	19	4	1	0
	Earlier	1921 + Earlier	5,575	1,195	256	55	12	3	1	0

Table 43: Estimated Base Scenario Future Households by Generation and Dwelling Type, 2016-2051 (Continued)

Dwelling Type	Generation	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
		2031-2036	0	0	0	0	0	0	0	11
	Not Yet	2026-2031	0	0	0	0	0	0	11	46
	Born	2021-2026	0	0	0	0	0	11	47	143
		2016-2021	0	0	0	0	11	45	137	179
	Concretion	2011-2016	0	0	0	10	43	131	170	310
	Generation	2006-2011	0	0	10	42	129	169	307	434
	۷.	2001-2006	0	10	39	120	156	283	401	309
		1996-2001	10	41	126	164	298	421	325	357
	Milloppiala	1991-1996	45	138	180	327	463	357	392	407
Households	willermais	1986-1991	135	176	320	452	348	383	398	419
Living		1981-1986	155	282	398	307	337	350	369	397
in Other	Osusation	1976-1981	240	339	261	288	299	314	339	335
Single-	Generation	1971-1976	315	243	267	277	292	314	311	225
Attached	^	1966-1971	255	280	291	307	330	327	237	211
Houses		1961-1966	300	312	328	353	349	253	226	69
	Baby	1956-1961	290	305	329	325	236	210	65	12
	Boomers	1951-1956	270	291	287	208	186	57	11	2
		1946-1951	265	262	190	169	52	10	2	0
		1941-1946	205	149	133	41	8	2	0	0
	The Silent	1936-1941	140	125	38	7	2	0	0	0
	Generation	1931-1936	135	41	8	2	0	0	0	0
		1926-1921	55	10	2	0	0	0	0	0
	Earlier	1921 + Earlier	30	6	1	0	0	0	0	0

* 2016 values are actual household values from the 2016 Census. All other values are future estimates. **Low-rise apartments are apartments in buildings with fewer than 5 storeys.

Table 44: Base Scenario Background Data by Dwelling Type, 2021-2051

Measure	Dwelling Type	2021	2026	2031	2036	2041	2046	2051
	Single-Detached House	37,101	77,878	120,434	161,679	200,215	236,987	269,014
	Semi-Detached House	10,271	21,023	31,068	40,706	49,842	58,935	66,685
Change in younger	Row/Townhouse	10,032	19,929	28,746	36,756	43,573	49,138	53,145
	Duplex	7,262	14,171	20,213	25,910	31,126	35,144	38,430
generations'	Low-Rise Apartment*	22,294	41,876	59,035	75,021	89,723	102,558	112,368
cumulative	Mid/high-Rise Apartment	57,093	107,990	155,477	204,053	254,855	303,082	345,593
	Other Single-Attached House	354	738	1,139	1,551	1,951	2,287	2,627
	Total	144,348	283,545	416,051	545,616	671,224	788,072	887,802
	Single-Detached House	-25,050	-48,253	-72,478	-97,620	-122,635	-147,868	-169,774
	Semi-Detached House	-6,742	-12,688	-17,960	-23,580	-29,416	-35,755	-41,113
Change	Row/Townhouse	-6,342	-12,322	-17,629	-22,732	-27,048	-30,411	-32,376
in older	Duplex	-4,766	-9,249	-12,944	-16,391	-19,527	-21,740	-23,533
generations'	Low-Rise Apartment*	-12,767	-24,564	-35,467	-45,338	-54,011	-61,021	-65,369
households, cumulative	Mid/high-Rise Apartment	-31,151	-57,351	-83,553	-112,786	-145,707	-176,484	-201,880
	Other Single-Attached House	-188	-373	-583	-857	-1,158	-1,386	-1,606
	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

Low-rise apartments are apartments in buildings with fewer than 5 storeys.

18. Appendix D: Background Tables for Base Scenario Household Estimates by Number of Bedrooms

Age of PHM	Studio Units	Units with 1 Bedroom	Units with 2 Bedrooms	Units with 3 Bedrooms	Units with 4 or More Bedrooms
15 to 19	2.7%	40.7%	39.3%	9.4%	7.9%
20 to 24	4.3%	46.7%	34.4%	9.4%	5.2%
25 to 29	3.3%	53.0%	30.6%	8.7%	4.5%
30 to 34	2.5%	45.1%	30.7%	14.1%	7.6%
35 to 39	1.9%	33.3%	30.4%	21.4%	13.0%
40 to 44	1.5%	24.4%	30.2%	25.6%	18.3%
45 to 49	1.2%	21.0%	28.3%	27.7%	21.7%
50 to 54	1.7%	19.2%	26.7%	29.0%	23.4%
55 to 59	1.5%	19.5%	26.1%	29.0%	23.9%
60 to 64	1.8%	20.6%	26.1%	28.7%	22.8%
65 to 69	1.9%	22.2%	25.4%	27.9%	22.6%
70 to 74	2.2%	22.1%	27.1%	28.1%	20.5%
75 to 79	2.2%	21.4%	26.6%	30.3%	19.5%
80 to 84	2.1%	20.6%	26.7%	32.6%	18.1%
85 to 89	1.9%	20.3%	27.3%	33.7%	16.9%
90+	1.8%	20.9%	31.6%	31.5%	14.1%

Table 45: Occupancy Rates by Age of PHM and Number of Bedrooms, 2016

Table 46: Estimated Base Scenario Future Households by Generation and Number ofBedrooms, 2016-2051

Number of Bedrooms	Generation	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
		2031-2036	0	0	0	0	0	0	0	119
	Not Yet	2026-2031	0	0	0	0	0	0	122	1,510
	Born	2021-2026	0	0	0	0	0	125	1,541	2,974
		2016-2021	0	0	0	0	120	1,478	2,853	3,084
	Concration	2011-2016	0	0	0	114	1,409	2,720	2,941	2,503
		2006-2011	0	0	113	1,396	2,695	2,913	2,479	2,106
		2001-2006	0	104	1,290	2,490	2,692	2,291	1,946	1,598
		1996-2001	110	1,356	2,618	2,831	2,409	2,047	1,680	2,339
	Millonniale	1991-1996	1,490	2,877	3,110	2,647	2,249	1,846	2,569	2,262
	willerindis	1986-1991	2,810	3,038	2,585	2,197	1,803	2,510	2,209	2,600
		1981-1986	2,675	2,276	1,934	1,588	2,210	1,945	2,289	2,249
Households	Generation	1976-1981	1,940	1,648	1,353	1,883	1,658	1,951	1,916	2,032
Living in Studios	Y	1971-1976	1,530	1,256	1,748	1,539	1,811	1,779	1,886	1,656
Oldalos		1966-1971	1,320	1,837	1,617	1,903	1,869	1,982	1,741	1,252
		1961-1966	1,965	1,730	2,035	1,999	2,120	1,862	1,339	567
	Baby	1956-1961	1,610	1,895	1,861	1,974	1,733	1,246	528	92
	Boomers	1951-1956	1,675	1,645	1,745	1,532	1,102	467	81	17
		1946-1951	1,500	1,591	1,397	1,004	426	74	16	3
		1941-1946	1,245	1,093	786	333	58	12	3	1
	The Silent	1936-1941	1,030	741	314	54	12	3	1	0
	Generation	1931-1936	800	339	59	13	3	1	0	0
		1926-1921	450	78	17	4	1	0	0	0
	Earlier	1921 + Earlier	225	48	10	2	0	0	0	0
		2031-2036	0	0	0	0	0	0	0	1,757
	Not Yet	2026-2031	0	0	0	0	0	0	1,812	16,369
	Born	2021-2026	0	0	0	0	0	1,849	16,704	48,375
		2016-2021	0	0	0	0	1,774	16,024	46,405	55,916
	Constation	2011-2016	0	0	0	1,691	15,278	44,245	53,313	43,538
		2006-2011	0	0	1,675	15,134	43,827	52,809	43,127	33,314
	۷	2001-2006	0	1,548	13,984	40,496	48,796	39,849	30,782	27,271
		1996-2001	1,630	14,706	42,589	51,318	41,909	32,373	28,680	27,170
	Millonniale	1991-1996	16,155	46,791	56,381	46,043	35,567	31,510	29,851	29,506
	IVIIII EI II	1986-1991	45,705	55,076	44,978	34,743	30,780	29,160	28,823	28,948
Households		1981-1986	48,495	39,603	30,592	27,103	25,676	25,379	25,489	25,948
Living in	Concration	1976-1981	33,750	26,068	23,094	21,879	21,626	21,720	22,110	20,330
Dweilings	V	1971-1976	24,200	21,439	20,310	20,075	20,162	20,525	18,872	15,897
Bedroom	^	1966-1971	22,530	21,343	21,096	21,188	21,569	19,832	16,706	12,273
		1961-1966	22,830	22,565	22,663	23,071	21,213	17,869	13,127	6,214
	Baby	1956-1961	21,005	21,097	21,477	19,747	16,634	12,220	5,785	1,073
	Boomers	1951-1956	18,650	18,987	17,457	14,706	10,803	5,114	948	203
		1946-1951	17,310	15,916	13,407	9,849	4,662	865	185	40
		1941-1946	12,455	10,491	7,707	3,648	677	145	31	7
	The Silent	1936-1941	9,885	7,262	3,438	638	137	29	6	1
	Generation	1931-1936	7,845	3,713	689	148	32	7	1	0
	Generation	1926-1921	4,930	914	196	42	9	2	0	0
	Earlier	1921 + Earlier	2,635	565	121	26	6	1	0	0

Table 46: Estimated Base Scenario Future Households by Generation and Number of Bedrooms, 2016-2051 (Continued)

Number of Bedrooms	Generation	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
		2031-2036	0	0	0	0	0	0	0	1,698
	Not Yet	2026-2031	0	0	0	0	0	0	1,751	12,042
	Born	2021-2026	0	0	0	0	0	1,787	12,289	27,900
		2016-2021	0	0	0	0	1,714	11,789	26,764	38,148
	Constation	2011-2016	0	0	0	1,634	11,240	25,518	36,372	39,752
		2006-2011	0	0	1,619	11,134	25,277	36,028	39,376	41,270
	2	2001-2006	0	1,496	10,288	23,356	33,290	36,384	38,134	36,694
		1996-2001	1,575	10,819	24,563	35,011	38,264	40,105	38,590	37,727
	Milloppiale	1991-1996	11,885	26,986	38,465	42,039	44,061	42,397	41,449	39,479
	willer it liais	1986-1991	26,360	37,575	41,066	43,042	41,416	40,490	38,565	36,763
Households		1981-1986	33,085	36,159	37,899	36,468	35,652	33,957	32,371	29,740
Living in	Concretion	1976-1981	30,815	32,294	31,075	30,379	28,936	27,583	25,342	24,957
Dwellings	Generation	1971-1976	29,980	28,846	28,201	26,861	25,606	23,525	23,168	19,725
Bedrooms	^	1966-1971	30,315	29,635	28,227	26,908	24,722	24,346	20,728	15,933
Dealeonio		1961-1966	31,700	30,192	28,781	26,443	26,041	22,171	17,043	8,351
	Baby	1956-1961	28,105	26,793	24,616	24,242	20,639	15,865	7,774	1,618
	Boomers	1951-1956	23,685	21,762	21,431	18,246	14,026	6,872	1,431	307
		1946-1951	19,840	19,539	16,635	12,787	6,265	1,304	280	60
		1941-1946	15,290	13,017	10,006	4,903	1,021	219	47	10
	The Silent	1936-1941	12,265	9,428	4,620	962	206	44	9	2
	Generation	1931-1936	10,185	4,990	1,039	223	48	10	2	0
		1926-1921	6,625	1,379	296	63	14	3	1	0
	Earlier	1921 + Earlier	3,975	852	183	39	8	2	0	0
		2031-2036	0	0	0	0	0	0	0	404
	Not Yet	2026-2031	0	0	0	0	0	0	417	3,278
	Born	2021-2026	0	0	0	0	0	425	3,345	7,986
		2016-2021	0	0	0	0	408	3,209	7,661	17,526
		2011-2016	0	0	0	389	3,059	7,304	16,710	28,026
	Generation	2006-2011	0	0	385	3,031	7,235	16,552	27,761	34,959
	Ζ.	2001-2006	0	356	2,800	6,685	15,294	25,651	32,302	35,986
		1996-2001	375	2,945	7,031	16,085	26,977	33,971	37,845	40,893
	Millowniala	1991-1996	3,235	7,724	17,672	29,638	37,323	41,579	44,927	43,897
	willenniais	1986-1991	7,545	17,263	28,952	36,459	40,617	43,887	42,881	40,357
Households		1981-1986	15,200	25,493	32,103	35,764	38,643	37,757	35,535	32,611
Living in		1976-1981	21,725	27,355	30,475	32,928	32,174	30,280	27,788	25,847
Dwellings	Generation	1971-1976	25,395	28,290	30,567	29,867	28,108	25,796	23,993	22,467
Redrooms	^	1966-1971	29,730	32,122	31,386	29,538	27,108	25,214	23,609	19,422
Dedicoms		1961-1966	34,360	33,571	31,595	28,995	26,969	25,253	20,774	10,298
	Baby	1956-1961	31,250	29,412	26,992	25,106	23,508	19,339	9,587	1,614
	Boomers	1951-1956	26,000	23,862	22,195	20,783	17,097	8,475	1,427	306
		1946-1951	21,755	20,235	18,947	15,587	7,727	1,301	279	60
		1941-1946	15,835	14,826	12,197	6,046	1,018	218	47	10
	The Silent	1936-1941	13,970	11,492	5,697	959	206	44	9	2
	Generation	1931-1936	12,415	6,153	1,036	222	48	10	2	0
		1926-1921	8,170	1,376	295	63	14	3	1	0
	Earlier	1921 + Earlier	3,965	850	182	39	8	2	0	0

Table 46: Estimated Base Scenario Future Households by Generation and Number of Bedrooms, 2016-2051 (Continued)

Number of Bedrooms	Generation	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
		2031-2036	0	0	0	0	0	0	0	340
	Not Yet Born	2026-2031	0	0	0	0	0	0	350	1,819
		2021-2026	0	0	0	0	0	357	1,856	4,070
		2016-2021	0	0	0	0	343	1,780	3,904	9,420
	Generation	2011-2016	0	0	0	327	1,698	3,722	8,982	17,073
	Generation	2006-2011	0	0	324	1,682	3,687	8,897	16,912	25,040
	۷	2001-2006	0	299	1,554	3,407	8,221	15,627	23,137	28,148
		1996-2001	315	1,634	3,583	8,646	16,434	24,333	29,603	33,062
	Milloppiale	1991-1996	1,795	3,936	9,499	18,056	26,734	32,524	36,323	36,241
Households	willerinais	1986-1991	3,845	9,279	17,638	26,115	31,771	35,483	35,403	32,029
l iving in		1981-1986	8,170	15,530	22,995	27,975	31,243	31,172	28,202	26,412
Dwellings	Constation	1976-1981	13,235	19,594	23,838	26,623	26,562	24,031	22,506	18,820
with 4	Generation	1971-1976	18,190	22,128	24,714	24,658	22,308	20,893	17,470	14,514
or More	^	1966-1971	23,255	25,971	25,912	23,443	21,955	18,359	15,252	10,786
Bedrooms		1961-1966	27,780	27,716	25,075	23,484	19,637	16,314	11,537	5,162
	Baby	1956-1961	25,800	23,343	21,861	18,280	15,187	10,740	4,805	725
	Boomers	1951-1956	20,635	19,327	16,161	13,426	9,495	4,248	641	137
		1946-1951	17,620	14,734	12,241	8,657	3,873	584	125	27
		1941-1946	11,530	9,578	6,774	3,030	457	98	21	5
	The Silent	1936-1941	9,025	6,383	2,855	431	92	20	4	1
	Generation	1931-1936	6,895	3,084	465	100	21	5	1	0
		1926-1921	4,095	618	132	28	6	1	0	0
	Earlier	1921 + Earlier	1,780	381	82	18	4	1	0	0

Table 47: Base Scenario Background Data by Number of Bedrooms, 2021-2051

Measure	Number of Bedrooms	2021	2026	2031	2036	2041	2046	2051
	Studios	2,518	4,494	6,711	9,048	11,711	14,298	16,407
Change in	1 Bedroom	34,109	62,234	87,205	114,498	142,810	170,210	194,145
younger	2 Bedrooms	39,796	77,387	112,816	146,162	179,894	210,884	237,813
base demand,	3 Bedrooms	38,343	78,166	117,179	153,741	188,421	221,569	250,451
cumulative	4+ Bedrooms	29,567	61,250	92,125	122,151	148,373	171,096	188,970
	Total	144,348	283,545	416,051	545,616	671,224	788,072	887,802
	Studios	-1,341	-2,276	-3,584	-5,046	-6,836	-8,533	-9,820
Change in older	1 Bedroom	-16,036	-30,391	-45,671	-63,373	-81,293	-97,460	-110,007
generations'	2 Bedrooms	-23,720	-44,065	-63,763	-83,402	-105,179	-125,084	-141,322
households, cumulative	3 Bedrooms	-25,943	-48,585	-69,920	-91,126	-113,075	-135,594	-155,429
	4+ Bedrooms	-19,997	-39,514	-57,706	-76,387	-93,149	-108,025	-119,104
	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

19. Appendix E: Background Tables for Base Scenario Household Estimates by Tenure

Table 48: Occupancy Rates by Age of PHM and Tenure, 2016

Age of PHM	Owned Dwellings	Rented Dwellings
15 to 19	23.2%	76.8%
20 to 24	16.0%	84.0%
25 to 29	22.1%	77.9%
30 to 34	34.9%	65.1%
35 to 39	44.7%	55.3%
40 to 44	51.5%	48.5%
45 to 49	55.6%	44.4%
50 to 54	59.3%	40.7%
55 to 59	61.3%	38.7%
60 to 64	64.1%	35.9%
65 to 69	65.4%	34.6%
70 to 74	66.4%	33.6%
75 to 79	69.1%	30.9%
80 to 84	70.8%	29.2%
85 to 89	71.8%	28.2%
90+	70.1%	29.9%
Table 49: Estimated Base Scenario Future Households by Generation and Tenure,2016-2051

Tenure	Generation	Birth Year	2016*	2021	2026	2031	2036	2041	2046	2051
		2031-2036	0	0	0	0	0	0	0	1,002
		2026-2031	0	0	0	0	0	0	1,034	5,608
	NOT YET BOTT	2021-2026	0	0	0	0	0	1,055	5,723	20,157
		2016-2021	0	0	0	0	1,012	5,490	19,337	43,285
		2011-2016	0	0	0	965	5,235	18,436	41,269	58,460
	Generation Z	2006-2011	0	0	956	5,185	18,262	40,880	57,908	70,379
		2001-2006	0	883	4,791	16,874	37,773	53,507	65,030	72,078
		1996-2001	930	5,039	17,746	39,725	56,272	68,391	75,803	83,733
	Milloppiale	1991-1996	5,535	19,497	43,644	61,824	75,138	83,281	91,994	92,727
	willerinais	1986-1991	19,045	42,634	60,393	73,399	81,354	89,865	90,581	90,181
Households		1981-1986	37,540	53,177	64,629	71,633	79,128	79,758	79,406	76,507
Living in		1976-1981	45,315	55,071	61,040	67,426	67,963	67,663	65,192	61,060
Owned	Generation X	1971-1976	51,120	56,663	62,591	63,090	62,811	60,518	56,681	51,286
Dwellings		1966-1971	59,545	65,775	66,299	66,006	63,596	59,564	53,894	42,268
		1961-1966	70,360	70,914	70,602	68,024	63,711	57,647	45,210	21,976
	Baby	1956-1961	66,015	65,724	63,324	59,310	53,664	42,087	20,458	3,588
	Boomers	1951-1956	58,100	55,982	52,433	47,442	37,207	18,086	3,172	17
		1946-1951	51,035	47,803	43,252	33,921	16,489	2,892	16	3
	The Cilent	1941-1946	37,405	33,844	26,543	12,902	2,263	12	3	1
	The Silent	1936-1941	31,890	25,010	12,157	2,132	12	3	1	0
	Generation	1931-1936	27,015	13,132	2,303	13	3	1	0	0
		1926-1921	17,435	3,058	17	4	1	0	0	0
	Earlier	1921 + Earlier	8,810	48	10	2	0	0	0	0
		2031-2036	0	0	0	0	0	0	0	3,314
	Not Yet Born	2026-2031	0	0	0	0	0	0	3,418	29,409
		2021-2026	0	0	0	0	0	3,488	30,012	71,146
		2016-2021	0	0	0	0	3,346	28,790	68,250	80,810
		2011-2016	0	0	0	3,191	27,450	65,072	77,048	72,431
	Generation Z	2006-2011	0	0	3,160	27,190	64,458	76,320	71,747	66,311
		2001-2006	0	2,920	25,124	59,559	70,520	66,295	61,271	57,619
		1996-2001	3,075	26,422	62,637	74,164	69,721	64,437	60,596	57,457
	Millennials	1991-1996	29,025	68,817	81,481	76,599	70,795	66,575	63,125	58,658
		1986-1991	67,220	79,595	74,826	69,156	65,034	61,664	57,300	50,516
Households		1981-1986	70,085	65,886	60,893	57,263	54,296	50,454	44,480	40,453
Living in		1976-1981	56,145	51,888	48,795	46,267	42,992	37,902	34,471	30,926
Rented	Generation X	19/1-19/6	48,165	45,296	42,949	39,910	35,184	31,999	28,708	22,973
Dwellings		1966-1971	47,600	45,134	41,939	36,974	33,627	30,168	24,142	17,398
	D.I.	1961-1966	48,280	44,859	39,548	35,968	32,269	25,823	18,610	8,615
	Baby	1956-1961	41,760	36,816	33,483	30,039	24,039	7 000	8,020	1,534
	Boomers	1046 1051	J2,545	29,001	20,000	12,201	15,315	1,090	1,300	203
		1940-1951	20,985	24,211	10,000	5.050	0,404	1,230	185	40
	The Cilent	1026 1041	14.095	10,005	10,920	5,058	907	145	31	1
	Generation	1021 1026	14,200	5 1 4 9	4,700	140	137	- 29	0	1
	Generation	1026 1021	6.925	1,207	904	140	32	7		0
	Earlier	1920-1921 1921 +	3,765	565	121	26	6	1	0	0
		Lanier								

Note: 2016 values are actual household values from the 2016 Census. All other values are future estimates.

Table 50: Base Scenario Background Data by Tenure, 2021-2051

Measure	Tenure	2021	2026	2031	2036	2041	2046	2051
Change in vounger	Owner	79,709	163,059	247,098	329,514	409,379	484,824	549,701
generations' base demand,	Renter	64,643	120,491	168,958	216,107	261,850	303,253	338,106
cumulative	Total	144,348	283,545	416,051	545,616	671,224	788,072	887,802
Change in older	Owner	-52,550	-97,424	-144,316	-194,715	-247,338	-299,205	-342,479
generations' households,	Renter	-36,559	-68,565	-97,114	-125,283	-152,863	-176,310	-194,120
cumulative	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

20. Appendix F: Background Tables for Unmet Demand Scenarios' Household Estimates by Number of Bedrooms

Table 51: Estimated Low Unmet Demand Scenario Future Households by Generationand Number of Bedrooms, 2016-2051

Number of Bedrooms	Census Year*	Not Yet Born)	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation + Earlier	Total
	2016	0	0	7,562	5,115	6,957	3,785	23,419
	2021	0	121	10,170	5,030	7,000	2,317	24,639
	2026	0	1,560	10,871	4,948	7,138	1,195	25,711
Households	2031	0	4,307	9,850	5,511	6,579	409	26,656
Studio Units	2036	139	7,240	9,219	5,457	5,432	74	27,561
	2041	1,782	8,386	8,802	5,800	3,678	16	28,464
	2046	4,860	7,827	9,109	5,604	1,979	3	29,384
	2051	8,199	6,628	9,726	4,987	685	1	30,226
	2016	0	0	119,122	85,935	82,262	38,100	325,419
	2021	0	1,800	165,990	73,132	80,217	23,128	344,267
Households	2026	0	17,434	185,115	67,731	76,082	12,247	358,609
Living in	2031	0	61,479	169,271	65,363	68,098	4,537	368,750
with 1	2036	2,063	114,590	142,546	64,802	53,820	866	378,687
Bedroom	2041	19,895	144,891	125,051	63,043	36,357	186	389,422
	2046	69,597	135,147	117,723	58,328	20,206	40	401,041
	2051	130,142	111,188	114,876	48,965	7,590	9	412,770
Households	2016	0	0	77,673	97,279	106,619	48,785	330,356
	2021	0	1,739	118,664	96,389	100,397	29,903	347,092
	2026	0	13,275	150,853	91,887	92,786	16,272	365,072
Living in	2031	0	38,888	166,674	87,144	82,592	6,239	381,537
with 2	2036	1,993	74,200	169,544	81,114	67,607	1,307	395,765
Bedrooms	2041	15,133	103,743	165,684	76,639	46,583	280	408,061
	2046	43,901	121,163	157,555	70,002	26,739	60	419,421
	2051	84,949	125,698	148,092	61,195	10,418	13	430,365
	2016	0	0	27,995	82,043	116,967	54,850	281,856
	2021	0	414	56,822	93,121	109,398	34,975	294,730
Households	2026	0	3,549	91,303	96,997	101,170	19,562	312,582
Living in Dwellings	2031	0	10,866	125,703	95,614	91,430	7,388	331,002
with 3	2036	475	27,137	152,569	89,435	76,006	1,304	346,926
Bedrooms	2041	4,048	52,538	165,744	82,571	54,804	279	359,983
	2046	12,277	81,809	168,107	76,220	32,324	60	370,795
	2051	30,992	105,669	162,560	68,376	12,376	13	379,986
	2016	0	0	15,020	58,370	94,757	33,636	201,782
	2021	0	348	32,323	71,797	86,985	20,204	211,656
Households	2026	0	2,097	57,226	78,124	76,448	10,391	224,286
LIVING IN	2031	0	5,839	86,133	77,384	64,541	3,636	237,532
with 4+	2036	399	14,432	112,791	72,490	48,653	585	249,349
Bedrooms	2041	2,387	29,988	130,155	64,286	32,142	125	259,083
	2046	6,584	52,277	135,073	55,846	17,245	27	267,053
-	2051	16,628	75,012	131,641	44,545	6,099	6	273,931

* 2016 values are actual household values from the 2016 Census. All other values are future estimates.

Table 52: Low Unmet Demand Scenario Background Data by Number of Bedrooms,2021-2051

Measure	Number of Bedrooms	2021	2026	2031	2036	2041	2046	2051
	Studios	2,560	4,568	6,821	9,188	11,880	14,497	16,626
Change in younger	1 Bedroom	34,884	63,581	89,002	116,641	145,297	173,083	197,358
generations' base	2 Bedrooms	40,455	78,781	114,944	148,811	182,884	214,149	241,331
low unmet demand	3 Bedrooms	38,817	79,311	119,066	156,196	191,202	224,533	253,560
cumulative	4+ Bedrooms	29,871	62,017	93,456	123,954	150,450	173,295	191,252
	Total	146,603	288,274	423,306	554,806	681,729	799,574	900,144
	Studios	-1,341	-2,276	-3,584	-5,046	-6,836	-8,533	-9,820
Change in older	1 Bedroom	-16,036	-30,391	-45,671	-63,373	-81,293	-97,460	-110,007
generations'	2 Bedrooms	-23,720	-44,065	-63,763	-83,402	-105,179	-125,084	-141,322
households, cumulative	3 Bedrooms	-25,943	-48,585	-69,920	-91,126	-113,075	-135,594	-155,429
	4+ Bedrooms	-19,997	-39,514	-57,706	-76,387	-93,149	-108,025	-119,104
	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

Table 53: Required Number of Bedrooms to Offset Shortfalls

Number of Bedrooms Required to Offset Shortfall	Characteristics of Underhoused Households that Require that Number of Bedrooms*	Formula to Calculate Additional High Unmet Demand Component by Number of Bedrooms
Studios	None	No additional demand generated
1 Padraam	Ctudios w/ 1 bodroom shortfoll	Number of Base Scenario households in studio units
	Studios w/ T bedroom shortiali	x Rate of households in studios with a 1-bedroom shortfall
		(Number of Base Scenario households in studio units
0 Padroama	Studios w/ 2 bedroom shortfall	x Rate of households in studios with a 2-bedroom shortfall)
2 Bedrooms	1 bedroom units with 1 bedroom	+ (Number of Base Scenario households in 1-bedroom units
	Shortan	x Rate of households in 1-bedroom units with a 1-bedroom shortfall)
		(Number of Base Scenario households in studio units
	Studios w/ 3+ bedroom shortfall	x Rate of households in studios with a 3+-bedroom shortfall)
	1 bedroom units with 2 bedroom	+ (Number of Base Scenario households in 1-bedroom units
3 Bedrooms	snorttali	x Rate of households in 1-bedroom units with a 2-bedroom shortfall)
	2 bedroom units with 1 bedroom shortfall	+ (Number of Base Scenario households in 2-bedroom units
		x Rate of households in 2-bedroom units with a 1-bedroom shortfall)
		(Number of Base Scenario households in 1-bedroom units x Rate of households in 1-bedroom units with a 3+-bedroom shortfall)
		+ Number of Base Scenario households in 2-bedroom units
	shortfall	x (Rate of households in 2-bedroom units with a 2-bedroom shortfall
4 or More Bedrooms	2 bedroom units with 2 or 3+	+ Rate of households in 2-bedroom units with a 3-bedroom shortfall)
	bedroom shortfall	+ Number of Base Scenario households in 3-bedroom units
:	3 bedroom units with any shortfall	x (Rate of households in 3-bedroom units with a 1-bedroom shortfall
		+ Rate of households in 3-bedroom units with a 2-bedroom shortfall
		+ Rate of households in 3-bedroom units with a 3+-bedroom shortfall)

*Households living in four-or-more bedroom units with bedroom shortfalls are excluded from the list because adding four-or-more bedroom units to the housing supply would not necessarily address their housing shortfall.

Table 54: Underhousing Rates by Age of PHM, Number of Bedrooms, and Bedroom Shortfalls, 2016

	3 4 or more	edrooms Bedrooms	edrooms Bedrooms 2.7% 0.0%	3drooms Bedrooms 2.7% 0.0% 1.5% 0.0%	Image Image <th< th=""><th>Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0%</th><th>Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0% 0.4% 0.4%</th><th>Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5%</th><th>Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0% 0.4% 0.4% 0.7% 0.5% 1.0% 0.8%</th><th>Atrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 0.9% 0.5% 0.9% 0.5%</th><th>Image Image 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 0.4% 0.7% 0.5% 1.0% 0.8% 0.7% 0.8% 0.7% 0.8% 0.7% 0.8% 0.0% 0.4% 0.7% 0.8% 0.6% 0.4%</th><th>Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0% 0.4% 0.4% 0.7% 0.5% 1.0% 0.5% 0.9% 0.5% 0.9% 0.5% 0.9% 0.5% 0.9% 0.5% 0.4% 0.5% 0.4% 0.5% 0.4% 0.5% 0.4% 0.5% 0.4% 0.5%</th><th>Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 1.0% 0.8% 0.7% 0.4% 0.4% 0.4% 0.7% 0.4% 0.7% 0.6% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.2% 0.2%</th><th>Image Image 2.7% 0.0% 1.5% 0.0% 1.5% 0.0% 0.4% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 1.0% 0.5% 0.9% 0.5% 0.9% 0.5% 0.9% 0.5% 0.4% 0.2% 0.2% 0.2% 0.2% 0.2%</th><th>AdroomsBedrooms2.7%0.0%1.5%0.0%0.8%1.0%0.4%0.4%0.4%0.4%0.7%0.8%1.0%0.4%0.4%0.4%0.6%0.4%0.4%0.2%0.2%0.2%0.1%0.1%0.1%0.1%</th><th>Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 1.5% 0.0% 0.4% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 1.0% 0.5% 0.9% 0.4% 0.9% 0.5% 0.9% 0.2% 0.1% 0.2% 0.1% 0.1% 0.2% 0.2% 0.1% 0.1% 0.2% 0.1% 0.2% 0.2% 0.1% 0.3%</th><th>Afrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.4% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 0.7% 0.5% 0.9% 0.4% 0.7% 0.5% 0.7% 0.5% 0.9% 0.4% 0.0% 0.5% 0.10% 0.2% 0.1% 0.1% 0.1% 0.1% 0.2% 0.2% 0.1% 0.1% 0.2% 0.3% 0.0% 0.4%</th></th<>	Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0%	Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0% 0.4% 0.4%	Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5%	Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0% 0.4% 0.4% 0.7% 0.5% 1.0% 0.8%	Atrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 0.9% 0.5% 0.9% 0.5%	Image Image 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 0.4% 0.7% 0.5% 1.0% 0.8% 0.7% 0.8% 0.7% 0.8% 0.7% 0.8% 0.0% 0.4% 0.7% 0.8% 0.6% 0.4%	Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 1.0% 0.4% 0.4% 0.7% 0.5% 1.0% 0.5% 0.9% 0.5% 0.9% 0.5% 0.9% 0.5% 0.9% 0.5% 0.4% 0.5% 0.4% 0.5% 0.4% 0.5% 0.4% 0.5% 0.4% 0.5%	Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.8% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 1.0% 0.8% 0.7% 0.4% 0.4% 0.4% 0.7% 0.4% 0.7% 0.6% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.6% 0.4% 0.2% 0.2%	Image Image 2.7% 0.0% 1.5% 0.0% 1.5% 0.0% 0.4% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 1.0% 0.5% 0.9% 0.5% 0.9% 0.5% 0.9% 0.5% 0.4% 0.2% 0.2% 0.2% 0.2% 0.2%	AdroomsBedrooms2.7%0.0%1.5%0.0%0.8%1.0%0.4%0.4%0.4%0.4%0.7%0.8%1.0%0.4%0.4%0.4%0.6%0.4%0.4%0.2%0.2%0.2%0.1%0.1%0.1%0.1%	Adrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 1.5% 0.0% 0.4% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 1.0% 0.5% 0.9% 0.4% 0.9% 0.5% 0.9% 0.2% 0.1% 0.2% 0.1% 0.1% 0.2% 0.2% 0.1% 0.1% 0.2% 0.1% 0.2% 0.2% 0.1% 0.3%	Afrooms Bedrooms 2.7% 0.0% 1.5% 0.0% 0.4% 1.0% 0.4% 0.4% 0.4% 0.4% 0.7% 0.5% 0.7% 0.5% 0.9% 0.4% 0.7% 0.5% 0.7% 0.5% 0.9% 0.4% 0.0% 0.5% 0.10% 0.2% 0.1% 0.1% 0.1% 0.1% 0.2% 0.2% 0.1% 0.1% 0.2% 0.3% 0.0% 0.4%
	2 Bedrooms Beo		0.6%	0.6%	0.6% 0.8% 0.6%	0.6% 0.8% 0.6% 0.4%	0.6% 0.8% 0.6% 0.4% 0.8%	0.6% 0.8% 0.6% 0.4% 0.8% 1.0%	0.6% 0.8% 0.6% 0.4% 0.8% 1.3%	0.6% 0.8% 0.4% 0.4% 1.0% 1.0%	0.6% 0.8% 0.4% 0.4% 0.8% 1.3% 1.3% 0.9%	0.6% 0.8% 0.4% 0.4% 0.8% 1.0% 1.0% 0.9% 0.9%	0.6% 0.8% 0.8% 0.4% 0.8% 1.0% 1.3% 1.3% 0.9% 0.9% 0.3%	0.6% 0.8% 0.4% 0.4% 0.3% 1.0% 1.0% 0.9% 0.5% 0.3%	0.6% 0.8% 0.8% 0.4% 0.8% 1.0% 1.0% 1.3% 0.8% 0.3% 0.3% 0.3%	0.6% 0.8% 0.8% 0.4% 0.4% 1.0% 1.0% 1.0% 0.5% 0.5% 0.2% 0.2%	0.6% 0.8% 0.8% 0.4% 0.3% 1.0% 1.0% 1.0% 0.9% 0.3% 0.3% 0.2% 0.2% 0.2%
	1 Bedroom		%0:0	0.0%	0.0% 0.4% 0.3%	0.0% 0.4% 0.3% 0.2%	0.0% 0.4% 0.3% 0.2% 0.4%	0.0% 0.4% 0.3% 0.2% 0.4%	0.0% 0.4% 0.3% 0.2% 0.4% 0.9%	0.0% 0.4% 0.3% 0.2% 0.4% 0.9%	0.0% 0.4% 0.3% 0.2% 0.4% 0.9% 0.9% 0.9%	0.0% 0.4% 0.3% 0.2% 0.4% 0.9% 0.9% 0.8% 0.8%	0.0% 0.4% 0.3% 0.2% 0.4% 0.9% 0.9% 0.8% 0.6% 0.6%	0.0% 0.4% 0.3% 0.2% 0.9% 0.9% 0.9% 0.3% 0.3%	0.0% 0.4% 0.3% 0.2% 0.9% 0.9% 0.9% 0.8% 0.3% 0.3%	0.0% 0.4% 0.3% 0.2% 0.9% 0.9% 0.8% 0.8% 0.8% 0.3% 0.3% 0.3%	0.0% 0.4% 0.3% 0.2% 0.9% 0.9% 0.8% 0.8% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3%
	Studio		%0.0	%0.0 0.0%	0.0%	0.0% 0.0% 0.5% 0.4%	0.0% 0.0% 0.5% 0.4% 2.6%	0.0% 0.0% 0.5% 0.4% 2.6% 4.6%	0.0% 0.0% 0.5% 0.4% 2.6% 4.6% 3.8%	0.0% 0.5% 0.4% 2.6% 3.8% 2.6%	0.0% 0.0% 0.4% 2.6% 3.8% 3.8% 1.9%	0.0% 0.5% 0.4% 2.6% 3.8% 2.6% 1.9% 0.6%	0.0% 0.5% 0.4% 2.6% 3.8% 2.6% 1.9% 1.9% 0.6%	0.0% 0.5% 0.4% 2.6% 4.6% 3.8% 2.6% 1.9% 0.6% 0.6%	0.0% 0.5% 0.4% 2.6% 4.6% 2.6% 1.9% 1.9% 0.6% 0.8%	0.0% 0.5% 0.4% 2.6% 2.6% 2.6% 1.9% 0.6% 0.6% 0.8% 0.0%	0.0% 0.5% 0.4% 2.6% 4.6% 2.6% 1.9% 1.9% 0.6% 0.8% 0.0%
	4 or more Bedrooms		0.0%	0.0%	0.0%	0.0% 2.0% 1.7%	0.0% 2.0% 1.7% 1.4%	0.0% 2.0% 1.7% 1.4%	0.0% 2.0% 1.7% 1.4% 1.0%	0.0% 2.0% 1.7% 1.4% 1.3% 1.3%	0.0% 2.0% 1.4% 1.3% 1.3% 1.1% 1.1%	0.0% 2.0% 1.7% 1.4% 1.3% 1.3% 1.1% 1.1% 1.10%	0.0% 2.0% 1.7% 1.4% 1.3% 1.3% 1.1% 1.1% 1.1% 0.4% 0.4%	0.0% 2.0% 1.7% 1.4% 1.3% 1.3% 1.1% 1.1% 0.4% 0.4% 0.4%	0.0% 2.0% 1.7% 1.3% 1.3% 1.13% 1.13% 1.13% 0.4% 0.4% 0.4% 0.4%	0.0% 2.0% 1.7% 1.3% 1.3% 1.1% 1.1% 0.4% 0.4% 0.3%	0.0% 2.0% 1.7% 1.3% 1.3% 1.1% 1.1% 1.1% 0.4% 0.4% 0.4% 0.4% 0.2%
	3 Bedrooms		%0.0	0.0%	0.0%	0.0% 2.0% 2.1% 1.3%	0.0% 2.0% 2.1% 1.3%	0.0% 2.0% 2.1% 1.3% 1.8% 2.4%	0.0% 2.0% 2.1% 1.3% 2.4% 2.9%	0.0% 2.0% 2.1% 1.3% 1.8% 2.4% 2.9%	0.0% 2.0% 2.1% 1.3% 2.4% 2.4% 2.9% 1.9%	0.0% 2.0% 2.1% 1.3% 1.8% 2.4% 2.9% 2.9% 1.9%	0.0% 2.0% 2.1% 1.3% 2.4% 2.9% 2.9% 1.9% 1.3%	0.0% 2.0% 2.1% 1.3% 1.8% 2.4% 2.9% 2.9% 1.9% 1.3% 0.7% 0.8%	0.0% 2.0% 2.1% 1.3% 2.4% 2.9% 2.9% 1.9% 1.3% 0.7% 0.4%	0.0% 2.0% 2.1% 1.3% 1.3% 2.4% 2.9% 2.9% 1.3% 0.7% 0.8% 0.4%	0.0% 2.0% 2.1% 1.3% 2.4% 2.9% 2.9% 1.9% 1.3% 0.7% 0.4% 0.4%
	2 Bedrooms		2.6%	2.6% 2.4%	2.6% 2.4% 1.4%	2.6% 2.4% 1.4% 1.5%	2.6% 2.4% 1.4% 1.5% 3.0%	2.6% 2.4% 1.5% 3.0% 4.5%	2.6% 2.4% 1.4% 1.5% 3.0% 5.0%	2.6% 2.4% 1.5% 3.0% 4.5% 5.0%	2.6% 2.4% 1.4% 3.0% 4.5% 5.0% 3.7%	2.6% 2.4% 1.5% 3.0% 4.5% 4.5% 5.0% 3.7% 2.2%	2.6% 2.4% 1.5% 3.0% 4.5% 5.0% 3.7% 3.7% 1.1%	2.6% 2.4% 1.5% 3.0% 4.5% 5.0% 4.4% 3.7% 2.2% 1.1% 0.9%	2.6% 2.4% 1.5% 3.0% 4.5% 5.0% 4.4% 3.7% 2.2% 1.1% 0.9%	2.6% 2.4% 1.4% 1.5% 3.0% 4.5% 5.0% 4.4% 3.7% 2.2% 0.9% 0.9% 0.5%	2.6% 2.4% 1.5% 3.0% 4.5% 5.0% 4.4% 3.7% 2.2% 1.1% 0.9% 0.9% 0.6%
_	1 Bedroom E	/01/ 0	0.4%	3.4% 1.5%	0.4% 1.5% 1.3%	3.4% 1.5% 1.3% 1.4%	3.4% 1.5% 1.3% 3.7%	3.4% 1.5% 1.3% 3.7% 5.0%	3.4% 1.5% 1.3% 3.7% 5.0% 4.8%	3.4% 1.5% 1.3% 3.7% 5.0% 3.5% 3.5%	3.4% 1.5% 1.3% 3.7% 5.0% 3.5% 3.5%	3.4% 1.5% 1.3% 3.7% 5.0% 5.0% 3.5% 3.5% 3.5% 3.5%	3.4% 1.5% 1.3% 3.7% 5.0% 5.0% 3.5% 3.5% 3.0% 3.0% 0.9%	3.4% 1.5% 1.3% 1.4% 3.7% 5.0% 3.5% 3.5% 3.5% 0.5% 0.9% 0.9%	3.4% 1.5% 1.3% 1.4% 3.7% 5.0% 5.0% 3.5% 3.5% 0.5% 0.9% 0.5% 0.5%	3.4% 1.5% 1.3% 1.4% 3.7% 3.7% 3.7% 3.7% 3.5% 3.5% 3.5% 0.50% 0.9% 0.7% 0.5% 0.5% 0.3% 0.3%	3.4% 1.5% 1.3% 1.4% 3.7% 3.7% 3.7% 3.7% 3.7% 3.7% 0.7% 0.5% 0.5% 0.5% 0.7%
	Studio	8.7%		6.4%	6.4% 4.6%	6.4% 4.6% 6.4%	6.4% 4.6% 6.4% 10.6%	6.4% 4.6% 6.4% 10.6% 7.8%	6.4% 4.6% 6.4% 10.6% 7.8% 7.6%	6.4% 4.6% 6.4% 10.6% 7.8% 5.1%	6.4% 4.6% 6.4% 10.6% 7.8% 7.6% 5.1%	6.4% 4.6% 6.4% 10.6% 7.8% 7.8% 5.1% 4.3%	6.4% 4.6% 6.4% 10.6% 7.8% 7.6% 5.1% 4.3% 4.3% 3.0%	6.4% 4.6% 6.4% 10.6% 7.8% 7.8% 5.1% 4.3% 4.5% 2.8%	6.4% 4.6% 6.4% 7.8% 7.6% 7.6% 7.6% 7.6% 8.3% 4.3% 4.3% 3.0% 2.8%	6.4% 4.6% 6.4% 10.6% 7.8% 7.8% 7.6% 5.1% 4.3% 4.5% 2.8% 2.8% 2.8%	6.4% 4.6% 6.4% 6.4% 7.8% 7.6% 7.6% 7.6% 8.1% 4.3% 4.3% 4.3% 2.1% 2.8% 2.8% 2.4% 0.0%
4-Or-	More- Bedroom Unit	4.7%)00 O	2.8%	2.ờ% 4.3%	2.8% 4.3% 3.5%	2.8% 4.3% 3.5% 3.5%	2.8% 4.3% 3.5% 3.5% 3.3%	2.8% 4.3% 3.5% 3.5% 3.3%	2.8% 4.3% 3.5% 3.5% 3.3% 3.9% 4.6%	2.8% 4.3% 3.5% 3.5% 3.9% 4.6%	2.8% 4.3% 3.5% 3.5% 3.3% 4.6% 4.6% 3.2%	2.8% 4.3% 3.5% 3.5% 3.3% 3.9% 4.6% 4.5% 1.5%	2.8% 4.3% 3.5% 3.5% 3.3% 4.6% 4.6% 4.5% 3.2% 1.5%	2.8% 4.3% 3.5% 3.5% 3.3% 3.9% 4.6% 4.5% 1.5% 1.5%	2.8% 4.3% 3.5% 3.5% 3.9% 4.6% 4.5% 1.5% 1.9% 1.6%	2.8% 4.3% 3.5% 3.5% 3.3% 4.6% 4.5% 4.5% 1.5% 1.2% 1.8%
	3-Bedroom Unit	8.1%	8.5%		6.4%	6.4% 6.1%	6.4% 6.1% 7.1%	6.4% 6.1% 7.1% 8.2%	6.4% 6.1% 7.1% 8.2% 10.1%	6.4% 6.1% 7.1% 8.2% 10.1%	6.4% 6.1% 7.1% 8.2% 10.1% 8.8%	6.4% 6.1% 7.1% 8.2% 10.1% 8.8% 5.8%	6.4% 6.1% 7.1% 8.2% 10.1% 8.8% 5.8% 3.6%	6.4% 6.1% 7.1% 8.2% 10.1% 8.8% 5.8% 2.5%	6.4% 6.1% 7.1% 8.2% 10.1% 8.8% 5.8% 3.6% 2.2%	6.4% 6.1% 7.1% 8.2% 10.1% 8.8% 5.8% 5.8% 2.5% 2.1%	6.4% 6.1% 7.1% 8.2% 10.1% 8.8% 5.8% 5.8% 2.2% 2.2% 1.5%
	2-Bedroom Unit	9.3%	9.9%		8.6%	8.6%	8.6% 11.6% 18.4%	8.6% 11.6% 18.4% 22.1%	8.6% 11.6% 18.4% 22.1% 21.8%	8.6% 11.6% 18.4% 22.1% 21.8% 18.3%	8.6% 11.6% 18.4% 22.1% 21.8% 18.3% 12.7%	8.6% 11.6% 18.4% 22.1% 21.8% 18.3% 12.7% 9.4%	8.6% 11.6% 18.4% 22.1% 21.8% 18.3% 12.7% 9.4%	8.6% 11.6% 18.4% 22.1% 22.1% 18.3% 18.3% 9.4% 4.8% 3.9%	8.6% 11.6% 18.4% 22.1% 21.8% 18.3% 18.3% 9.4% 9.4% 2.9%	8.6% 11.6% 18.4% 22.1% 22.1% 18.3% 18.3% 18.3% 18.3% 3.9% 2.5% 2.5%	8.6% 11.6% 18.4% 22.1% 21.8% 18.3% 12.7% 9.4% 4.8% 3.9% 2.5% 2.3%
	1-Bedroom Unit	19.6%	17.1%		10.9%	10.9%	10.9% 13.6% 18.6%	10.9% 13.6% 18.6% 19.0%	10.9% 13.6% 18.6% 19.0% 16.1%	10.9% 13.6% 18.6% 19.0% 16.1%	10.3% 13.6% 18.6% 19.0% 16.1% 11.6%	10.3% 13.6% 18.6% 19.0% 16.1% 14.6% 8.8%	10.3% 13.6% 18.6% 19.0% 16.1% 8.8% 6.2%	10.3% 13.6% 18.6% 19.0% 16.1% 14.6% 8.8% 6.2% 4.4%	10.3% 13.6% 18.6% 19.0% 16.1% 14.6% 8.8% 6.2% 4.4%	10.3% 13.6% 18.6% 19.0% 16.1% 14.6% 8.8% 6.2% 4.4% 3.2%	10.3% 13.6% 18.6% 19.0% 16.1% 14.6% 10.7% 8.8% 6.2% 4.4% 4.4%
	Studio	0.0%	8.4%	11 00/2	0/0.11	9.3%	9.3%	9.3% 8.3% 6.9%	9.3% 9.3% 6.9% 5.3%	9.3% 8.3% 5.3% 5.3%	-1.9% 9.3% 8.3% 5.9% 5.9% 3.7%	 9.3% 8.3% 5.3% 5.9% 3.7% 3.3%	-1.9% 9.3% 8.3% 5.9% 3.7% 3.3% 5.7%	-1.3% 9.3% 6.9% 5.3% 5.9% 3.7% 5.7% 7.6%	-1.9% 9.3% 8.3% 5.9% 5.9% 3.7% 5.7% 5.7% 7.6% 3.9%	-1.9% 9.3% 6.9% 5.3% 3.7% 3.7% 5.7% 7.6% 7.6% 8.8%	9.3% 9.3% 8.3% 5.9% 5.9% 3.7% 3.7% 3.7% 3.7% 3.7% 3.7% 3.7% 3.3% 6.8% 6.8%
	Age of PHM	15 to 19	20 to 24			30 to 34	30 to 34 35 to 39	20 0 23 30 to 34 35 to 39 40 to 44	20 10 23 30 to 34 35 to 39 40 to 44 45 to 49	20 10 23 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54	20 to 29 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59	20 to 29 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59 60 to 64	20 to 23 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59 60 to 64 65 to 69	 Z5 to Z5 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59 60 to 64 65 to 69 70 to 74 	 Z5 to Z3 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59 60 to 64 65 to 69 70 to 74 75 to 79 	 Z5 to Z5 35 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59 60 to 64 65 to 69 70 to 74 70 to 74 80 to 84 	 Z5 to Z3 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59 60 to 64 65 to 69 70 to 74 75 to 79 80 to 84 85 to 89

Table 55: Estimated High Unmet Demand Scenario Future Households by Generationand Number of Bedrooms, 2016-2051

Number of Bedrooms	Census Year*	Not Yet Born	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation + Earlier	Total
	2016	0	0	7,085	4,790	6,750	3,750	22,375
	2021	0	104	9,548	4,741	6,861	2,299	23,553
	2026	0	1,403	10,248	4,718	7,039	1,186	24,593
Households	2031	0	4,000	9,262	5,325	6,510	406	25,502
Living in Studio Units	2036	120	6,795	8,671	5,337	5,381	73	26,378
	2041	1,603	7,924	8,348	5,712	3,649	16	27,251
	2046	4,516	7,366	8,748	5,543	1,963	3	28,140
	2051	7,687	6,207	9,449	4,940	680	1	28,962
	2016	0	0	112,695	80,816	80,110	37,986	311,607
	2021	0	1,548	157,105	69,138	78,905	23,075	329,771
Households	2026	0	15,767	175,488	64,736	75,363	12,241	343,595
Living in	2031	0	57,735	159,926	63,372	67,784	4,524	353,341
with 1	2036	1,774	108,592	134,511	63,584	53,667	859	362,987
Bedroom	2041	17,997	137,689	118,880	62,392	36,282	184	373,425
	2046	65,391	127,835	113,241	58,008	20,200	39	384,714
	2051	123,186	104,559	112,006	48,828	7,569	8	396,157
	2016	0	0	87,936	106,036	111,905	49,985	355,862
Households	2021	0	1,809	134,648	102,592	104,683	30,628	374,360
	2026	0	14,722	169,194	96,692	96,375	16,599	393,583
Living in	2031	0	43,656	183,801	91,601	85,155	6,378	410,591
with 2	2036	2,073	84,186	183,321	84,889	69,309	1,337	425,115
Bedrooms	2041	16,788	117,882	175,625	79,706	47,721	287	438,009
	2046	49,297	135,594	165,723	72,320	27,275	61	450,270
	2051	96,213	137,083	155,377	62,740	10,650	13	462,075
	2016	0	0	35,369	99,495	127,874	55,970	318,709
	2021	0	547	70,991	109,868	116,590	35,549	333,545
Households	2026	0	4,625	113,000	110,529	105,691	19,828	353,674
Living in	2031	0	14,182	152,948	105,595	94,012	7,486	374,222
with 3	2036	627	34,235	181,915	95,864	77,711	1,313	391,665
Bedrooms	2041	5,275	65,457	192,210	86,653	55,731	281	405,608
	2046	16,023	100,743	188,973	78,557	32,770	60	417,125
	2051	39,103	128,251	177,189	69,943	12,541	13	427,041
	2016	0	0	18,331	68,990	107,414	35,379	230,114
	2021	0	385	38,572	84,997	95,838	21,251	241,044
Households	2026	0	2,698	67,592	91,811	81,968	10,918	254,987
Living in	2031	0	7,497	101,672	88,871	68,119	3,795	269,955
with 4+	2036	442	17,631	133,298	80,431	51,176	621	283,599
Bedrooms	2041	3,074	35,533	153,145	69,097	33,808	133	294,790
	2046	8,455	61,382	156,674	58,950	18,116	29	303,606
	2051	20,245	88,633	148,714	46,901	6,365	6	310,865

* 2016 values are actual household values from the 2016 Census. All other values are future estimates.

Table 56: High Unmet Demand Scenario Background Data by Number of Bedrooms,2021-2051

Measure	Number of Bedrooms	2021	2026	2031	2036	2041	2046	2051
Change in younger	Studios	2,518	4,494	6,711	9,048	11,711	14,298	16,407
	1 Bedroom	34,200	62,379	87,405	114,754	143,111	170,567	194,557
generations' base	2 Bedroom	42,218	81,785	118,492	152,655	187,325	219,492	247,534
high unmet demand,	3 Bedroom	40,780	83,550	125,433	164,082	199,973	234,010	263,761
cumulative	4 Bedroom	30,927	64,386	97,547	129,872	157,824	181,516	199,854
	Total	150,659	296,609	435,603	570,426	699,960	819,898	922,129
	Studios	-1,341	-2,276	-3,584	-5,046	-6,836	-8,533	-9,820
Change in older	1 Bedroom	-16,036	-30,391	-45,671	-63,373	-81,293	-97,460	-110,007
generations'	2 Bedroom	-23,720	-44,065	-63,763	-83,402	-105,179	-125,084	-141,322
households,	3 Bedroom	-25,943	-48,585	-69,920	-91,126	-113,075	-135,594	-155,429
	4 Bedroom	-19,997	-39,514	-57,706	-76,387	-93,149	-108,025	-119,104
	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

21. Appendix G: Background Tables for Unmet Demand Scenarios' Household Estimates by Dwelling Type

Table 57: Estimated Low Unmet Demand Scenario Future Households by Generation and Dwelling Type, 2016-2051

Dwelling Type	Census Year*	Not Yet Born	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation + Earlier	Total
	2016	0	0	17,826	73,910	126,148	61,799	279,683
	2021	0	205	41,171	89,367	122,262	39,153	292,158
Households	2026	0	1,506	74,063	97,622	115,351	21,813	310,354
Living in	2031	0	5,647	109,972	101,498	103,960	8,323	329,400
Detached	2036	235	17,416	141,839	99,812	85,183	1,601	346,086
Houses	2041	1,717	39,162	163,126	94,497	61,110	343	359,955
	2046	6,395	68,256	173,938	87,072	35,944	74	371,680
	2051	19,902	95,089	176,312	76,704	13,921	16	381,944
	2016	0	0	7,149	22,495	30,711	14,642	74,998
	2021	0	83	15,470	24,894	28,782	9,436	78,666
Hausabalda	2026	0	651	25,430	25,574	26,839	5,167	83,661
Living in Semi-	2031	0	2,326	34,735	24,982	24,692	1,897	88,632
Detached	2036	95	6,980	41,355	23,477	20,597	291	92,795
nouses	2041	742	14,613	44,194	21,648	14,915	62	96,174
	2046	2,633	23,123	44,003	20,630	8,575	13	98,976
	2051	7,973	29,015	42,658	18,578	3,184	3	101,410
	2016	0	0	8,433	22,159	27,275	6,840	64,707
	2021	0	155	16,788	24,200	23,610	3,781	68,535
	2026	0	844	26,404	24,218	19,501	1,665	72,632
Households	2031	0	2,922	34,966	22,708	15,243	483	76,322
Townhouses	2036	178	8,167	40,475	19,985	10,505	51	79,360
	2041	960	15,755	42,242	16,789	6,175	11	81,933
	2046	3,305	23,641	40,775	13,658	2,794	2	84,175
	2051	9,387	28,583	37,642	9,827	815	1	86,255
	2016	0	0	9,571	15,063	19,564	5,582	49,781
	2021	0	161	15,440	16,668	16,959	3,144	52,371
Households	2026	0	1,363	20,685	17,418	13,775	1,664	54,905
Living in	2031	0	4,536	24,795	16,388	11,086	565	57,371
or Flats in	2036	184	9,215	27,909	14,256	8,039	118	59,721
Duplexes	2041	1,554	13,817	29,562	11,952	4,958	25	61,868
	2046	5,130	16,947	29,261	9,623	2,746	5	63,713
-	2051	10,504	19,388	26,972	7,425	944	1	65,233

Table 57: Estimated Low Unmet Demand Scenario Future Households by Generation and Dwelling Type, 2016-2051 (Continued)

Dwelling Type	Census Year*	Not Yet Born	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation + Earlier	Total
	2016	0	0	51,407	52,807	54,469	15,233	173,915
	2021	0	531	75,857	51,267	47,489	8,688	183,832
Llavaahalda	2026	0	7,383	7,383 91,216 49,481		39,762	4,132	191,974
Living in	2031	0	25,827	94,535	45,495	31,241	1,480	198,577
Low-Rise	2036	609	49,740	91,832	40,065	22,483	232	204,961
Apartments**	2041	8,436	66,644	88,134	34,042	13,885	50	211,191
	2046	29,242	70,065	83,262	27,747	6,858	11	217,183
	2051	56,231	68,157	75,249	20,665	2,484	2	222,788
	2016	0	0	152,581	141,400	148,235	74,459	516,676
	2021	0	3,277	218,564	132,155	143,702	45,991	543,688
	2026	0	26,113	256,479	124,514	137,247	25,041	569,394
Households in	2031	0	79,937	257,296	119,044	125,950	9,411	591,638
Units	2036	3,755	145,733	241,720	114,762	103,880	1,833	611,684
	2041	29,774	188,936	226,582	112,441	71,985	393	630,110
	2046	90,305	195,257	214,782	106,375	41,270	84	648,073
	2051	166,511	182,841	206,436	94,092	15,737	18	665,634
	2016	0	0	367	865	1,159	570	2,961
	2021	0	11	678	916	1,194	334	3,133
Households	2026	0	55	1,090	860	1,150	184	3,340
Living in	2031	0	185	1,333	902	1,068	51	3,538
Attached	2036	13	348	1,539	941	831	10	3,682
Houses	2041	63	618	1,595	970	535	2	3,783
	2046	209	936	1,546	896	306	0	3,893
	2051	402	1,124	1,626	779	85	0	4,016

* 2016 values are actual household values from the 2016 Census. All other values are future estimates. **Low-rise apartments are apartments in buildings with fewer than 5 storeys.

Table 58: Low Unmet Demand Scenario Background Data by Dwelling Type, 2021-2051

Measure	Dwelling Type	2021	2026	2031	2036	2041	2046	2051
	Single-Detached House	37,526	78,925	122,195	164,024	202,907	239,865	272,035
	Semi-Detached House	10,410	21,351	31,594	41,377	50,593	59,734	67,526
Change in	Row/ Townhouse	10,170	20,246	29,244	37,384	44,274	49,879	53,923
generations'	Duplex	7,356	14,373	20,534	26,331	31,613	35,672	38,985
base demand	Low-Rise Apartment*	22,684	42,623	60,129	76,384	91,286	104,289	114,241
unmet demand,	Mid/High-Rise Apartment	58,163	110,070	158,515	207,794	259,141	307,881	350,839
cumulative	Other Single-Attached House	360	751	1,160	1,578	1,979	2,318	2,660
	Total	146,603	288,274	423,306	554,806	681,729	799,574	900,144
	Single-Detached House	-25,050	-48,253	-72,478	-97,620	-122,635	-147,868	-169,774
	Semi-Detached House	-6,742	-12,688	-17,960	-23,580	-29,416	-35,755	-41,113
	Row/ Townhouse	-6,342	-12,322	-17,629	-22,732	-27,048	-30,411	-32,376
Change in older	Duplex	-4,766	-9,249	-12,944	-16,391	-19,527	-21,740	-23,533
households,	Low-Rise Apartment*	-12,767	-24,564	-35,467	-45,338	-54,011	-61,021	-65,369
cumulative	Mid/High-Rise Apartment	-31,151	-57,351	-83,553	-112,786	-145,707	-176,484	-201,880
	Other Single-Attached House	-188	-373	-583	-857	-1,158	-1,386	-1,606
	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

*Low-rise apartments are apartments in buildings with fewer than 5 storeys.

Table 59: Required Number of Bedrooms to Offset Shortfalls by Dwelling Type, with Single Detached Houses as an Example

Number of Bedrooms Required to Offset Shortfall	Characteristics of Underhoused Households that Require that Number of Bedrooms*	Formula to Calculate Additional High Unmet Demand Component by Number of Bedrooms*
Studios	None	No additional demand generated
1 Bedroom	Studios w/ 1 bedroom shortfall	Number of Base Scenario households in studio units x Rate of households in studios with a 1-bedroom shortfall x Percent of households in studio units with a 1-bedroom shortfall that were in single-detached houses
2 Bedrooms	Studios w/ 2 bedroom shortfall 1 bedroom units with 1 bedroom shortfall	 (Number of Base Scenario households in studio units x Rate of households in studios with a 2-bedroom shortfall x Percent of households in studio units with a 2-bedroom shortfall that were in single-detached houses) + (Number of Base Scenario households in 1-bedroom units x Rate of households in 1-bedroom units with a 1-bedroom shortfall x Percent of households in 1-bedroom units with a 1-bedroom shortfall that were in single-detached houses)
3 Bedrooms	Studios w/ 3+ bedroom shortfall 1 bedroom units with 2 bedroom shortfall 2 bedroom units with 1 bedroom shortfall	 (Number of Base Scenario households in studio units x Rate of households in studios with a 3+-bedroom shortfall x Percent of households in studio units with a 3+-bedroom shortfall that were in single-detached houses) + (Number of Base Scenario households in 1-bedroom units x Rate of households in 1-bedroom units with a 2-bedroom shortfall x Percent of households in 1-bedroom units with a 2-bedroom shortfall x Percent of households in 1-bedroom units with a 2-bedroom shortfall x Percent of households in 1-bedroom units with a 2-bedroom shortfall that were in single-detached houses) + (Number of Base Scenario households in 2-bedroom units x Rate of households in 2-bedroom units with a 1-bedroom shortfall x Percent of households in 2-bedroom units with a 1-bedroom shortfall

Table 59: Required Number of Bedrooms to Offset Shortfalls by Dwelling Type, with Single Detached Houses as an Example (Continued)

Number of Bedrooms Required to Offset Shortfall	Characteristics of Underhoused Households that Require that Number of Bedrooms*	Formula to Calculate Additional High Unmet Demand Component by Number of Bedrooms*
4 or More Bedrooms	1 bedroom units with 3+ bedroom shortfall 2 bedroom units with 2 or 3+ bedroom shortfall 3 bedroom units with any shortfall	 (Number of Base Scenario households in 1-bedroom units x Rate of households in 1-bedroom units with a 3+-bedroom shortfall x Percent of households in 1-bedroom units with a 3+-bedroom shortfall that were in single-detached houses) + Number of Base Scenario households in 2-bedroom units x (Rate of households in 2-bedroom units with a 2-bedroom shortfall x Percent of households in 2-bedroom units with a 2-bedroom shortfall that were in single-detached houses) + (Rate of households in 2-bedroom units with a 2-bedroom shortfall that were in single-detached houses) + (Rate of households in 2-bedroom units with a 3+-bedroom shortfall x Percent of households in 2-bedroom units with a 3+-bedroom shortfall that were in single-detached houses) + Number of Base Scenario households in 3-bedroom units x [(Rate of households in 3-bedroom units with a 1-bedroom shortfall x Percent of households in 3-bedroom units with a 1-bedroom shortfall x Percent of households in 3-bedroom units with a 2-bedroom shortfall x Percent of households in 3-bedroom units with a 1-bedroom shortfall x Percent of households in 3-bedroom units with a 2-bedroom shortfall x Percent of households in 3-bedroom units with a 2-bedroom shortfall x Percent of households in 3-bedroom units with a 2-bedroom shortfall x Percent of households in 3-bedroom units with a 2-bedroom shortfall x Percent of households in 3-bedroom units with a 2-bedroom shortfall x Percent of households in 3-bedroom units with a 3+-bedroom shortfall x Percent of households in 3-bedroom units with a 3+-bedroom shortfall x Percent of households in 3-bedroom units with a 3+-bedroom shortfall x Percent of households in 3-bedroom units with a 3+-bedroom shortfall x Percent of households in 3-bedroom units with a 3+-bedroom shortfall x Percent of households in 3-bedroom

*Households living in four-or-more bedroom units with bedroom shortfalls are excluded from the list because adding four-ormore bedroom units to the housing supply would not necessarily address their housing shortfall.

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			<u>ה</u>	Ingle-Detached	I HOUSE				Semi-Detached	House	
Shortfall	Age or PHM	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms
	15 to 19	%0:0	%0.0	%0.0	%0:0	100.0%	0.0%	0.0%	0.0%	%0.0	0.0%
	20 to 24	%0.0	1.1%	%0.0	7.4%	16.7%	%0.0	0.5%	%0.0	%0.0	25.0%
	25 to 29	%0.0	0.8%	2.6%	15.5%	34.4%	0.0%	0.7%	0.7%	6.2%	15.6%
	30 to 34	%0:0	1.1%	2.7%	14.8%	48.3%	0.0%	0.8%	1.2%	4.9%	6.9%
	35 to 39	%0.0	1.0%	3.1%	17.2%	58.1%	0.0%	0.7%	0.9%	9.7%	12.9%
	40 to 44	8.7%	1.7%	4.7%	19.0%	52.1%	%0.0	0.7%	1.0%	6.0%	12.6%
	45 to 49	%0.0	1.2%	4.2%	19.9%	47.0%	0.0%	0.7%	1.2%	10.2%	14.2%
One-	50 to 54	%0.0	1.0%	5.9%	25.8%	47.6%	0.0%	1.2%	1.2%	9.8%	14.6%
Shortfall	55 to 59	%0.0	1.3%	5.1%	25.8%	51.5%	0.0%	0.4%	1.5%	11.3%	17.9%
	60 to 64	%0.0	1.5%	7.0%	28.3%	47.4%	%0.0	0.9%	1.6%	9.7%	18.0%
	65 to 69	11.1%	2.3%	6.3%	23.2%	46.3%	0.0%	%0.0	%0.0	16.1%	20.4%
	70 to 74	9.5%	1.9%	9.8%	37.5%	46.7%	9.5%	%0.0	2.5%	8.8%	17.8%
	75 to 79	%0.0	%0.0	7.0%	22.6%	56.5%	%0.0	%0.0	2.8%	16.1%	13.0%
	80 to 84	%0.0	3.8%	4.0%	44.2%	78.3%	12.5%	3.8%	6.0%	23.1%	13.0%
	85 to 89	%0.0	7.5%	13.3%	37.5%	30.8%	%0.0	%0.0	10.0%	8.3%	23.1%
	+06	%0.0	8.0%	%0.0	50.0%	100.0%	0.0%	%0.0	18.2%	20.0%	0.0%
	15 to 19	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	0.0%
	20 to 24	%0.0	%0.0	5.1%	%0.0	50.0%	%0.0	%0.0	3.4%	0.0%	25.0%
	25 to 29	%0.0	2.6%	2.6%	12.1%	50.0%	%0.0	%0.0	2.6%	%0.0	0.0%
	30 to 34	5.4%	1.4%	4.0%	24.4%	66.7%	%0.0	1.4%	0.0%	0.0%	8.3%
	35 to 39	%0.0	1.2%	1.7%	21.1%	38.7%	0.0%	0.8%	0.0%	6.6%	6.5%
	40 to 44	%0.0	1.2%	2.6%	11.6%	37.0%	8.7%	1.2%	0.7%	7.4%	23.9%
	45 to 49	%0.0	2.8%	2.0%	16.0%	48.3%	%0.0	0.9%	2.3%	7.1%	10.0%
Two-	50 to 54	%0.0	2.6%	2.5%	16.7%	44.3%	0.0%	0.0%	0.7%	9.1%	13.1%
Shortfall	55 to 59	12.5%	1.6%	4.4%	16.0%	37.3%	%0.0	3.1%	0.0%	8.4%	25.4%
	60 to 64	%0.0	5.5%	6.7%	18.8%	52.5%	%0.0	%0.0	1.9%	5.8%	20.0%
	65 to 69	0:0%	6.5%	4.8%	21.9%	26.7%	%0.0	0.0%	0.0%	21.9%	0.0%
	70 to 74	%0.0	0.0%	15.4%	19.2%	50.0%	0.0%	0.0%	0.0%	19.2%	25.0%
	75 to 79	%0.0	0.0%	0.0%	45.5%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	80 to 84	33.3%	0.0%	20.0%	%0.0	60.0%	33.3%	0.0%	0.0%	22.2%	0.0%
	85 to 89	%0.0	0.0%	0.0%	66.7%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%
	+06	0.0%	%0.0	%0.0	0.0%	100.0%	0.0%	0.0%	%0.0	0.0%	0.0%

21. Appendix G: Background Tables for Unmet Demand Scenarios' Household Estimates by Dwelling Type

			Si	ingle-Detached	l House				Semi-Detached	House		
all	Age of PHM	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms	
	15 to 19	0.0%	0.0%	%0.0%	%0.0	%0.0	0.0%	%0:0	0.0%	0.0%	0.0%	
	20 to 24	%0.0	%0.0	10.5%	18.2%	%0.0	%0.0	%0.0	0.0%	0.0%	0.0%	
	25 to 29	%0.0	%0.0	5.9%	%0.0	100.0%	%0.0	7.7%	%0.0	%0.0	0.0%	
	30 to 34	%0.0	9.5%	9.1%	18.2%	58.8%	%0.0	%0.0	%0.0	18.2%	%0.0	
	35 to 39	16.7%	13.8%	4.1%	29.4%	77.8%	%0.0	6.9%	%0.0	%0.0	%0.0	
L	40 to 44	21.4%	4.7%	3.2%	16.2%	57.9%	14.3%	%0.0	%0.0	5.4%	10.5%	
	45 to 49	%0.0	4.9%	7.4%	14.8%	41.2%	%0.0	9.8%	0.0%	6.6%	17.6%	
re	50 to 54	30.0%	5.4%	7.9%	12.9%	42.9%	20.0%	%0.0	6.3%	8.1%	10.7%	
E :	55 to 59	%0.0	%0.0	3.8%	18.4%	50.0%	0.0%	8.3%	0.0%	7.9%	%0.0	
a	60 to 64	%0.0	25.0%	8.7%	23.8%	80.0%	%0.0	%0.0	%0.0	9.5%	%0.0	
	65 to 69	%0.0	%0.0	13.3%	%0.0	50.0%	%0.0	30.0%	%0.0	%0.0	50.0%	
	70 to 74	%0.0	%0.0	%0.0	%0.0	33.3%	%0.0	%0.0	%0.0	%0.0	22.2%	
	75 to 79	%0.0	50.0%	%0.0	50.0%	%0.0	%0.0	%0.0	28.6%	%0.0	%0.0	
	80 to 84	%0.0	%0.0	%0.0	%0.0	50.0%	0.0%	%0.0	0.0%	40.0%	%0.0	
	85 to 89	0.0%	0.0%	%0.0	%0.0	0.0%	0.0%	%0.0	0.0%	0.0%	100.0%	
	+06	0.0%	%0.0	%0.0	%0.0	0.0%	%0.0	%0.0	0.0%	%0.0	%0.0	

				Bow/townhoits	Q			Anar	tment or flat in	a dunlay	
:	Age of	-	-		00			שלע		a uupiev	
Shortfall	PHM	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms
	15 to 19	0.0%	%0.0	%0.0	40.0%	0.0%	0.0%	%0.0	6.7%	0.0%	0.0%
	20 to 24	%0.0	0.5%	1.7%	9.3%	%0.0	%0.0	2.2%	3.4%	9.3%	25.0%
	25 to 29	%0.0	0.4%	2.2%	15.5%	21.9%	%0.0	3.2%	4.2%	6.2%	6.3%
	30 to 34	0.0%	0.5%	2.7%	17.5%	19.0%	%0.0	2.6%	3.0%	6.6%	6.9%
	35 to 39	0.0%	0.6%	2.3%	23.9%	18.3%	%0.0	2.1%	2.5%	3.6%	5.4%
	40 to 44	0.0%	0.8%	2.2%	22.4%	16.8%	%0.0	2.2%	2.9%	5.0%	8.4%
	45 to 49	0.0%	0.7%	2.0%	19.5%	19.7%	%0.0	1.8%	2.3%	4.2%	8.2%
One- Dedroom	50 to 54	0.0%	0.7%	2.4%	20.3%	18.1%	0.0%	2.8%	2.3%	4.2%	8.3%
Shortfall	55 to 59	0.0%	0.4%	1.7%	19.8%	14.5%	0.0%	2.2%	2.4%	5.1%	5.5%
	60 to 64	0.0%	1.2%	0.7%	18.3%	15.8%	0.0%	0.9%	2.3%	5.0%	6.8%
	65 to 69	0.0%	0.9%	2.6%	16.1%	7.4%	0.0%	1.4%	1.6%	4.5%	18.5%
	70 to 74	0.0%	%0.0	1.6%	10.0%	11.1%	0.0%	%0.0	3.3%	7.5%	11.1%
	75 to 79	0.0%	2.3%	4.2%	11.3%	8.7%	0.0%	%0.0	2.8%	4.8%	8.7%
	80 to 84	0.0%	3.8%	%0.0	15.4%	8.7%	12.5%	3.8%	4.0%	3.8%	0.0%
	85 to 89	0.0%	%0.0	%0.0	16.7%	15.4%	0.0%	5.0%	6.7%	0.0%	15.4%
	+06	0.0%	%0.0	%0.0	0.0%	0.0%	0.0%	%0.0	0.0%	0.0%	0.0%

				Row/townhous	a			Anar	tment or flat in	a dunlex	
Shortfall	Age of PHM	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms
	15 to 19	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	%0.0	%0.0	0.0%
	20 to 24	0.0%	0.0%	0.0%	15.4%	25.0%	0.0%	4.0%	10.2%	15.4%	0.0%
	25 to 29	0.0%	0.0%	2.6%	12.1%	14.3%	0.0%	1.7%	6.5%	12.1%	14.3%
	30 to 34	5.4%	2.9%	3.0%	22.0%	16.7%	0.0%	3.6%	3.0%	0.0%	0.0%
	35 to 39	0.0%	0.8%	2.2%	23.7%	29.0%	4.8%	2.4%	3.3%	5.3%	6.5%
	40 to 44	0.0%	1.7%	2.6%	21.5%	17.4%	0.0%	2.5%	1.5%	5.0%	6.5%
	45 to 49	0.0%	0.9%	1.3%	18.9%	16.7%	14.3%	4.7%	2.0%	2.4%	8.3%
Two-	50 to 54	10.5%	1.3%	1.8%	18.2%	26.2%	0.0%	0.0%	2.5%	6.1%	3.3%
Shortfall	55 to 59	12.5%	0.0%	1.5%	17.6%	18.6%	0.0%	3.9%	2.4%	5.0%	10.2%
	60 to 64	0.0%	7.3%	1.9%	20.3%	10.0%	0.0%	0.0%	2.9%	5.8%	10.0%
	65 to 69	0.0%	0.0%	0.0%	12.5%	46.7%	0.0%	6.5%	4.8%	6.3%	13.3%
	70 to 74	0.0%	0.0%	0.0%	7.7%	25.0%	0.0%	0.0%	0.0%	11.5%	0.0%
	75 to 79	0.0%	0.0%	0.0%	18.2%	0.0%	0.0%	%0.0	8.0%	%0.0	%0.0
	80 to 84	0.0%	0.0%	%0.0	0.0%	40.0%	%0.0	%0.0	0.0%	22.2%	%0.0
	85 to 89	0.0%	0.0%	0.0%	0.0%	0.0%	%0.0	%0.0	0.0%	%0.0	%0.0
	+06	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	%0.0	0.0%	%0.0	%0.0
	15 to 19	0.0%	0.0%	%0.0	0.0%	0.0%	%0.0	%0.0	50.0%	0.0%	0.0%
	20 to 24	0.0%	%0.0	%0.0	18.2%	0.0%	0.0%	13.3%	0.0%	0.0%	0.0%
	25 to 29	%0.0	0.0%	0.0%	16.7%	0.0%	%0.0	%0.0	5.9%	16.7%	0.0%
	30 to 34	0.0%	0.0%	0.0%	18.2%	17.6%	%0.0	%0.0	0.0%	%0.0	%0.0
	35 to 39	16.7%	6.9%	%0.0	11.8%	22.2%	%0.0	%0.0	4.1%	%0.0	0.0%
	40 to 44	%0.0	4.7%	3.2%	18.9%	21.1%	%0.0	7.0%	4.8%	8.1%	0.0%
Three.	45 to 49	0.0%	4.9%	2.5%	14.8%	23.5%	%0.0	4.9%	0.0%	0.0%	11.8%
or-More	50 to 54	0.0%	%0.0	3.2%	14.5%	17.9%	%0.0	5.4%	0.0%	3.2%	14.3%
Bedroom	55 to 59	%0.0	8.3%	%0.0	18.4%	31.8%	%0.0	%0.0	5.7%	%0'0	9.1%
Shortrall	60 to 64	100.0%	%0.0	%0.0	9.5%	0.0%	0.0%	%0.0	8.7%	0.0%	0.0%
	65 to 69	0.0%	%0.0	%0.0	0.0%	0.0%	0.0%	%0.0	13.3%	25.0%	0.0%
	70 to 74	0.0%	0.0%	%0.0	50.0%	22.2%	%0.0	%0.0	0.0%	0.0%	%0.0
	75 to 79	0.0%	%0.0	%0.0	0.0%	100.0%	0.0%	%0.0	0.0%	0.0%	0.0%
	80 to 84	0.0%	%0.0	%0.0	0.0%	0.0%	0.0%	%0.0	0.0%	0.0%	0.0%
	85 to 89	0.0%	%0.0	%0.0	0.0%	0.0%	0.0%	%0.0	0.0%	0.0%	0.0%
	+06	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	%0.0	0.0%	%0.0	0.0%

	10 02 V		Ľ	ow-Rise Apartme	ents			2	/id/High-Rise L	Jnits	
Shortfall	PHM	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms
	15 to 19	0.0%	3.1%	13.3%	%0.0	0.0%	0.0%	96.9%	80.0%	60.0%	%0.0
	20 to 24	20.8%	17.5%	17.7%	18.5%	16.7%	79.2%	78.1%	76.3%	55.6%	16.7%
	25 to 29	24.2%	18.4%	18.8%	21.6%	21.9%	75.8%	76.2%	71.1%	33.0%	%0.0
	30 to 34	15.7%	17.6%	16.1%	13.1%	15.5%	84.3%	77.4%	74.0%	43.2%	3.4%
	35 to 39	19.4%	16.8%	17.0%	10.4%	3.2%	80.6%	78.6%	74.1%	35.3%	2.2%
	40 to 44	26.1%	18.6%	16.7%	8.9%	4.2%	65.2%	75.8%	72.3%	38.0%	4.2%
	45 to 49	21.4%	20.2%	16.4%	9.0%	8.7%	78.6%	75.4%	73.8%	36.9%	2.2%
One- Dodroom	50 to 54	39.1%	22.6%	16.5%	9.9%	8.7%	60.9%	71.5%	71.5%	29.8%	2.0%
Shortfall	55 to 59	16.7%	21.0%	13.5%	9.5%	7.7%	83.3%	74.6%	75.6%	28.0%	3.0%
	60 to 64	22.2%	23.4%	15.3%	9.3%	10.5%	77.8%	72.0%	72.7%	29.3%	1.5%
	65 to 69	27.8%	19.2%	15.3%	9.7%	3.7%	61.1%	76.2%	74.1%	30.3%	3.7%
	70 to 74	14.3%	19.4%	13.9%	12.5%	8.9%	66.7%	78.7%	68.9%	21.3%	%0.0
	75 to 79	22.2%	17.4%	15.5%	9.7%	13.0%	77.8%	80.2%	67.6%	32.3%	0.0%
	80 to 84	12.5%	11.3%	14.0%	%0.0	0.0%	62.5%	73.6%	72.0%	13.5%	%0.0
	85 to 89	%0.0	15.0%	%0.0	16.7%	15.4%	100.0%	72.5%	%0.0%	20.8%	%0.0
	+06	%0.0	16.0%	18.2%	%0.0	0.0%	%0'0	76.0%	63.6%	30.0%	0.0%
	15 to 19	%0.0	18.2%	28.6%	0.0%	0.0%	100.0%	81.8%	71.4%	0.0%	0.0%
	20 to 24	27.8%	10.0%	10.2%	30.8%	0.0%	72.2%	86.0%	71.2%	38.5%	%0.0
	25 to 29	23.1%	11.1%	14.3%	9.1%	21.4%	76.9%	84.6%	71.4%	54.5%	0.0%
	30 to 34	16.2%	17.9%	12.9%	12.2%	8.3%	73.0%	72.9%	77.2%	41.5%	%0.0
	35 to 39	14.3%	15.0%	10.0%	9.2%	6.5%	81.0%	79.8%	82.8%	34.2%	6.5%
	40 to 44	8.7%	14.9%	17.2%	9.1%	6.5%	82.6%	78.5%	74.8%	43.8%	8.7%
	45 to 49	23.8%	11.7%	16.3%	9.5%	10.0%	61.9%	%0.62	75.4%	46.2%	6.7%
Two-	50 to 54	21.1%	14.8%	17.0%	7.6%	9.8%	68.4%	81.3%	75.4%	41.4%	0.0%
Shortfall	55 to 59	25.0%	16.5%	18.0%	9.2%	8.5%	50.0%	74.8%	73.7%	43.7%	0.0%
	60 to 64	42.9%	16.4%	12.4%	5.8%	7.5%	57.1%	70.9%	72.4%	43.5%	%0.0
	65 to 69	30.0%	12.9%	16.7%	9.4%	13.3%	70.0%	74.2%	73.8%	28.1%	0.0%
	70 to 74	33.3%	23.5%	19.2%	7.7%	0.0%	66.7%	76.5%	65.4%	34.6%	%0.0
	75 to 79	40.0%	50.0%	16.0%	%0.0	0.0%	60.0%	50.0%	68.0%	36.4%	0.0%
	80 to 84	0.0%	0.0%	30.0%	0.0%	0.0%	33.3%	100.0%	50.0%	55.6%	%0.0
	85 to 89	0.0%	33.3%	22.2%	%0.0	0.0%	0.0%	66.7%	77.8%	33.3%	%0:0
	+06	0.0%	0.0%	0.0%	50.0%	%0.0	0.0%	100.0%	100.0%	50.0%	%0.0

	4 or more bedrooms	0.0%	%0.0	%0.0	11.8%	%0.0	0.0%	%0.0	7.1%	%0.0	%0.0	0.0%	%0.0	%0.0	0.0%	%0.0	%0.0
Inits	3 bedrooms	100.0%	45.5%	50.0%	45.5%	47.1%	45.9%	50.8%	46.8%	55.3%	47.6%	75.0%	50.0%	50.0%	60.0%	%0.0	%0.0
/////////////////////	2 bedrooms	50.0%	89.5%	82.4%	81.8%	79.6%	77.8%	69.1%	74.6%	79.2%	82.6%	53.3%	100.0%	42.9%	100.0%	%0.0	%0.0
2	1 bedroom	0.0%	66.7%	76.9%	61.9%	65.5%	69.8%	53.7%	59.5%	70.8%	58.3%	50.0%	71.4%	50.0%	100.0%	%0:0	100.0%
	Studios	0.0%	0.0%	100.0%	0.0%	50.0%	64.3%	75.0%	50.0%	100.0%	%0.0	100.0%	%0.0	%0.0	0.0%	%0.0	0.0%
	4 or more bedrooms	%0.0	%0.0	%0.0	11.8%	%0.0	10.5%	5.9%	7.1%	9.1%	20.0%	0.0%	22.2%	%0.0	50.0%	%0.0	100.0%
ents	3 bedrooms	0.0%	18.2%	16.7%	0.0%	11.8%	5.4%	13.1%	11.3%	0.0%	9.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
w-Rise Apartme	2 bedrooms	0.0%	0.0%	5.9%	9.1%	12.2%	11.1%	21.0%	7.9%	11.3%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%
L	1 bedroom	0.0%	20.0%	15.4%	28.6%	6.9%	14.0%	22.0%	29.7%	12.5%	16.7%	20.0%	28.6%	0.0%	0.0%	0.0%	0.0%
	Studios	0.0%	0.0%	0.0%	100.0%	16.7%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Δne of	MHd	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	+06
	Shortfall							Three.	or-More	Bedroom	Shortfall						

			Other	Single-Attached	House	
Shortfall	Age of PHM	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms
	15 to 19	0.0%	0.0%	0.0%	0.0%	0.0%
	20 to 24	0.0%	0.0%	0.9%	0.0%	0.0%
	25 to 29	0.0%	0.2%	0.4%	2.1%	0.0%
	30 to 34	0.0%	0.0%	0.3%	0.0%	0.0%
	35 to 39	0.0%	0.2%	0.2%	0.0%	0.0%
	40 to 44	0.0%	0.2%	0.2%	0.7%	1.7%
	45 to 49	0.0%	0.0%	0.2%	0.3%	0.0%
One- Bedroom	50 to 54	0.0%	0.0%	0.2%	0.3%	0.8%
Shortfall	55 to 59	0.0%	0.0%	0.3%	0.5%	0.0%
	60 to 64	0.0%	0.0%	0.5%	0.0%	0.0%
	65 to 69	0.0%	0.0%	0.0%	0.0%	0.0%
	70 to 74	0.0%	0.0%	0.0%	2.5%	4.4%
	75 to 79	0.0%	0.0%	0.0%	3.2%	0.0%
	80 to 84	0.0%	0.0%	0.0%	0.0%	0.0%
	85 to 89	0.0%	0.0%	0.0%	0.0%	0.0%
	90+	0.0%	0.0%	0.0%	0.0%	0.0%
	15 to 19	0.0%	0.0%	0.0%	0.0%	0.0%
	20 to 24	0.0%	0.0%	0.0%	0.0%	0.0%
	25 to 29	0.0%	0.0%	0.0%	0.0%	0.0%
	30 to 34	0.0%	0.0%	0.0%	0.0%	0.0%
	35 to 39	0.0%	0.0%	0.0%	0.0%	6.5%
	40 to 44	0.0%	0.0%	0.7%	1.7%	0.0%
	45 to 49	0.0%	0.0%	0.7%	0.0%	0.0%
Two-	50 to 54	0.0%	0.0%	0.0%	1.0%	3.3%
Shortfall 5 Shortfall 6 7 7 8 8 9 1	55 to 59	0.0%	0.0%	0.0%	0.0%	0.0%
	60 to 64	0.0%	0.0%	1.9%	0.0%	0.0%
	65 to 69	0.0%	0.0%	0.0%	0.0%	0.0%
	70 to 74	0.0%	0.0%	0.0%	0.0%	0.0%
	75 to 79	0.0%	0.0%	8.0%	0.0%	0.0%
	80 to 84	0.0%	0.0%	0.0%	0.0%	0.0%
	85 to 89	0.0%	0.0%	0.0%	0.0%	0.0%
	90+	0.0%	0.0%	0.0%	0.0%	0.0%
	15 to 19	0.0%	0.0%	0.0%	0.0%	0.0%
	20 to 24	0.0%	0.0%	0.0%	0.0%	0.0%
	25 to 29	0.0%	0.0%	0.0%	0.0%	0.0%
	30 to 34	0.0%	0.0%	0.0%	0.0%	0.0%
	35 to 39	0.0%	0.0%	0.0%	0.0%	0.0%
	40 to 44	0.0%	0.0%	0.0%	0.0%	0.0%
Three-	45 to 49	0.0%	0.0%	0.0%	0.0%	0.0%
or-More	50 to 54	0.0%	0.0%	0.0%	3.2%	0.0%
Bedroom	55 to 59	0.0%	0.0%	0.0%	0.0%	0.0%
Shortfall	60 to 64	0.0%	0.0%	0.0%	0.0%	0.0%
	65 to 69	0.0%	0.0%	0.0%	0.0%	0.0%
	70 to 74	0.0%	0.0%	0.0%	0.0%	0.0%
	75 to 79	0.0%	0.0%	28.6%	0.0%	0.0%
	80 to 84	0.0%	0.0%	0.0%	0.0%	0.0%
	85 to 89	0.0%	0.0%	0.0%	0.0%	0.0%
	90+	0.0%	0.0%	0.0%	0.0%	0.0%

Table 61: Estimated High Unmet Demand Scenario Future Households by Generationand Dwelling Type, 2016-2051

Dwelling Type	Census Year*	Not Yet Born	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation + Earlier	Total
	2016	0	0	17,573	72,082	126,176	61,951	277,781
	2021	0	176	40,321	87,924	122,511	39,236	290,169
Households	2026	0	1,424	72,366	96,832	115,645	21,876	308,143
Living in	2031	0	5,548	107,379	101,536	104,158	8,344	326,964
Single- Detached	2036	202	17,196	139,196	99,980	85,405	1,602	343,581
Houses	2041	1,623	38,371	161,177	94,768	61,244	343	357,527
	2046	6,286	66,604	173,121	87,213	36,052	74	369,350
	2051	19,621	92,727	176,399	76,903	13,956	16	379,622
	2016	0	0	7,034	22,236	31,249	14,832	75,351
	2021	0	71	15,206	24,899	29,239	9,580	78,996
Households	2026	0	605	24,958	25,951	27,170	5,274	83,958
Living in Semi-	2031	0	2,279	34,291	25,419	25,051	1,908	88,947
Detached	2036	82	6,879	41,175	23,894	20,856	296	93,182
Houses	2041	690	14,385	44,457	21,925	15,146	63	96,666
	2046	2,582	22,659	44,654	20,868	8,752	14	99,529
	2051	7,846	28,661	43,401	18,842	3,202	3	101,956
	2016	0	0	8,625	23,325	28,960	6,988	67,897
	2021	0	145	17,319	25,780	24,718	3,888	71,850
	2026	0	836	27,478	25,908	20,155	1,716	76,094
Households	2031	0	2,970	36,648	24,258	15,600	494	79,969
Townhouses	2036	166	8,367	42,883	21,023	10,732	51	83,222
	2041	952	16,275	45,044	17,354	6,354	11	85,989
	2046	3,361	24,637	43,508	13,965	2,880	2	88,353
	2051	9,603	30,082	39,911	10,041	834	0	90,471
	2016	0	0	9,941	15,524	20,096	5,698	51,259
	2021	0	152	15,990	17,175	17,396	3,217	53,931
Households	2026	0	1,398	21,465	17,884	14,069	1,715	56,531
LIVING IN Apartments	2031	0	4,728	25,582	16,847	11,330	575	59,062
or Flats in	2036	174	9,584	28,744	14,641	8,216	117	61,477
Duplexes	2041	1,595	14,305	30,462	12,214	5,079	25	63,679
	2046	5,349	17,549	30,034	9,813	2,833	5	65,584
	2051	10,908	19,990	27,702	7,591	961	1	67,153
	2016	0	0	53,239	57,563	58,661	15,845	185,307
	2021	0	505	79,528	56,346	50,438	9,012	195,829
Households	2026	0	7,468	97,052	53,956	41,914	4,252	204,641
Living in	2031	0	26,506	102,000	49,233	32,605	1,534	211,877
Low-Rise	2036	579	51,571	100,363	42,652	23,391	244	218,800
Apartments**	2041	8,534	70,120	96,382	35,926	14,398	52	225,413
	2046	30,017	75,153	90,436	29,021	7,054	11	231,691
	2051	58,264	74,301	80,909	21,500	2,574	2	237,551

 Table 61: Estimated High Unmet Demand Scenario Future Households by Generation and Dwelling Type, 2016-2051 (Continued)

Dwelling Type	Census Year*	Not Yet Born	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation + Earlier	Total
	2016	0	0	164,575	168,438	167,703	77,084	577,799
	2021	0	3,334	241,788	158,218	157,331	47,490	608,162
	2026	0	27,427	291,038	147,043	146,259	25,742	637,508
Households in	2031	0	84,831	300,299	136,517	131,707	9,669	663,023
Inits	2036	3,821	157,465	287,709	126,948	107,732	1,878	685,552
OTILO	2041	31,277	210,383	268,972	120,363	74,372	403	705,769
	2046	95,852	225,327	249,968	111,536	42,429	86	725,199
	2051	179,759	217,775	232,718	97,630	16,170	19	744,070
	2016	0	0	395	920	1,210	602	3,127
Households Living in	2021	0	10	711	993	1,232	361	3,306
	2026	0	58	1,166	911	1,210	182	3,527
Living in Other Single	2031	0	208	1,411	956	1,113	50	3,738
Attached	2036	11	376	1,645	968	886	10	3,896
Houses	2041	66	646	1,715	994	580	2	4,003
	2046	236	991	1,635	947	303	0	4,113
	2051	431	1,197	1,694	831	84	0	4,238

* 2016 values are actual household values from the 2016 Census. All other values are future estimates. **Low-rise apartments are apartments in buildings with fewer than 5 storeys.

Table 62: High Unmet Demand Scenario Background Data by Dwelling Type, 2021-2051

Measure	Dwelling Type	2021	2026	2031	2036	2041	2046	2051
	Single-Detached House	37,438	78,615	121,661	163,420	202,381	239,437	271,615
	Semi-Detached House	10,387	21,295	31,557	41,411	50,732	59,933	67,718
Change in	Row/Townhouse	10,295	20,518	29,702	38,057	45,140	50,867	54,950
denerations'	Duplex	7,438	14,520	20,747	26,608	31,947	36,064	39,427
base demand	Low-Rise Apartment*	23,288	43,898	62,037	78,831	94,117	107,405	117,612
+ all ages' high	Mid/High-Rise Apartment	61,513	117,060	168,777	220,539	273,676	323,883	368,151
unmet demand, cumulative	Other Single-Attached House	368	773	1,194	1,627	2,034	2,372	2,717
	Total	150,667	296,620	435,613	570,433	699,966	819,902	922,130
Change in older	Single-Detached House	-25,050	-48,253	-72,478	-97,620	-122,635	-147,868	-169,774
	Semi-Detached House	-6,742	-12,688	-17,960	-23,580	-29,416	-35,755	-41,113
	Row/Townhouse	-6,342	-12,322	-17,629	-22,732	-27,048	-30,411	-32,376
	Duplex	-4,766	-9,249	-12,944	-16,391	-19,527	-21,740	-23,533
generations'	Low-Rise Apartment*	-12,767	-24,564	-35,467	-45,338	-54,011	-61,021	-65,369
nousenoids, cumulative	Mid/High-Rise Apartment	-31,151	-57,351	-83,553	-112,786	-145,707	-176,484	-201,880
oundative	Other Single-Attached House	-188	-373	-583	-857	-1,158	-1,386	-1,606
	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

*Low-rise apartments are apartments in buildings with fewer than 5 storeys.

22. Appendix H: Background Tables for Unmet Demand Scenarios' Household Estimates by Tenure

Table 63: Estimated Low Unmet Demand Scenario Future Households by Generationand Tenure, 2016-2051

Tenure	Census Year*	Not Yet Born	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation + Earlier	Total
	2016	0	0	64,831	160,557	249,633	123,040	598,061
	2021	0	963	123,632	182,625	243,103	75,339	625,662
Households	2026	0	6,129	191,440	194,772	231,180	41,166	664,687
Living in	2031	0	23,937	253,471	200,339	209,636	15,103	702,486
Owned	2036	1,103	62,930	300,292	196,736	171,774	2,286	735,121
Dwellings	2041	6,979	115,739	329,807	189,163	121,109	16	762,812
	2046	27,120	168,595	345,264	176,589	69,083	3	786,654
Households	2051	71,999	206,806	348,653	155,256	25,670	1	808,383
	2016	0	0	182,511	168,173	157,924	56,100	564,708
	2021	0	3,440	260,326	156,852	140,876	33,101	594,596
	2026	0	31,763	303,923	144,921	122,440	17,321	620,368
Living in	2031	0	97,410	304,174	130,677	103,597	6,304	642,163
Rented	2036	3,942	174,661	286,389	116,549	79,746	1,172	662,459
Dwellings	2041	36,241	223,799	265,640	103,155	52,466	188	681,489
	2046	110,065	229,633	242,310	89,410	28,715	40	700,174
	2051	198,879	217,401	218,225	72,820	10,592	9	717,927

* 2016 values are actual household values from the 2016 Census. All other values are future estimates.

Table 64: Low Unmet Demand Scenario Background Data by Tenure, 2021-2051

Measure	Tenure	2021	2026	2031	2036	2041	2046	2051
Change in younger	Owner	80,151	164,049	248,740	331,775	412,089	487,798	552,801
demand + all ages'	Renter	66,446	124,225	174,568	223,035	269,645	311,776	347,338
low unmet demand, cumulative	Total	146,592	288,269	423,303	554,805	681,729	799,568	900,134
Change in older	Owner	-52,550	-97,424	-144,316	-194,715	-247,338	-299,205	-342,479
generations'	Renter	-36,559	-68,565	-97,114	-125,283	-152,863	-176,310	-194,120
households, cumulative	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

Table 65: Required Number of Bedrooms to Offset Shortfalls by Tenure, with Rented Units as an Example

Number of Bedrooms Required to Offset Shortfall	Characteristics of Underhoused Households that Require that Number of Bedrooms*	Formula to Calculate Additional High Unmet Demand Component by Number of Bedrooms*
Studios	None	No additional demand generated
1 Bedroom	Studios w/ 1 bedroom shortfall	Number of Base Scenario households in studio units x Rate of households in studios with a 1-bedroom shortfall x Percent of households in studio units with a 1-bedroom shortfall that were in rented units
2 Bedrooms	Studios w/ 2 bedroom shortfall 1 bedroom units with 1 bedroom shortfall	 (Number of Base Scenario households in studio units x Rate of households in studios with a 2-bedroom shortfall x Percent of households in studio units with a 2-bedroom shortfall that were in rented units) + (Number of Base Scenario households in 1-bedroom units x Rate of households in 1-bedroom units with a 1-bedroom shortfall x Percent of households in 1-bedroom units with a 1-bedroom shortfall that were in rented units)
3 Bedrooms	Studios w/ 3+ bedroom shortfall 1 bedroom units with 2 bedroom shortfall 2 bedroom units with 1 bedroom shortfall	 (Number of Base Scenario households in studio units x Rate of households in studios with a 3+-bedroom shortfall x Percent of households in studio units with a 3+-bedroom shortfall that were in rented units) + (Number of Base Scenario households in 1-bedroom units x Rate of households in 1-bedroom units with a 2-bedroom shortfall x Percent of households in 1-bedroom units with a 2-bedroom shortfall that were in rented units) + (Number of Base Scenario households in 2-bedroom shortfall that were in rented units) + (Number of Base Scenario households in 2-bedroom units x Rate of households in 2-bedroom units with a 1-bedroom shortfall x Percent of households in 2-bedroom units with a 1-bedroom shortfall that were in rented units)

Table 65: Required Number of Bedrooms to Offset Shortfalls by Tenure, with Rented Units as an Example (Continued)

Number of Bedrooms Required to Offset Shortfall	Characteristics of Underhoused Households that Require that Number of Bedrooms*	Formula to Calculate Additional High Unmet Demand Component by Number of Bedrooms*
4 or More Bedrooms	1 bedroom units with 3+ bedroom shortfall 2 bedroom units with 2 or 3+ bedroom shortfall 3 bedroom units with any shortfall	 (Number of Base Scenario households in 1-bedroom units x Rate of households in 1-bedroom units with a 3+-bedroom shortfall x Percent of households in 1-bedroom units with a 3+-bedroom shortfall that were in rented units) + Number of Base Scenario households in 2-bedroom units x (Rate of households in 2-bedroom units with a 2-bedroom shortfall x Percent of households in 2-bedroom units with a 2-bedroom shortfall that were in rented units) + (Rate of households in 2-bedroom units with a 2-bedroom shortfall that were in rented units) + (Rate of households in 2-bedroom units with a 3+-bedroom shortfall that were in rented units) + Number of Base Scenario households in 3-bedroom units with a 3+-bedroom shortfall that were in rented units) + Number of Base Scenario households in 3-bedroom units x [(Rate of households in 3-bedroom units with a 1-bedroom shortfall that were in rented units) + (Rate of households in 3-bedroom units with a 1-bedroom shortfall that were in rented units) + (Rate of households in 3-bedroom units with a 2-bedroom shortfall that were in rented units) + (Rate of households in 3-bedroom units with a 1-bedroom shortfall that were in rented units) + (Rate of households in 3-bedroom units with a 2-bedroom shortfall that were in rented units) + (Rate of households in 3-bedroom units with a 2-bedroom shortfall that were in rented units) + (Rate of households in 3-bedroom units with a 2-bedroom shortfall that were in rented units) + (Rate of households in 3-bedroom units with a 3+-bedroom shortfall that were in rented units) + (Rate of households in 3-bedroom units with a 3+-bedroom shortfall that were in rented units)

*Households living in four-or-more bedroom units with bedroom shortfalls are excluded from the list because adding four-or-more bedroom units to the housing supply would not necessarily address their housing shortfall.

Table 66: Percent of Underhoused Households by Tenure, Number of Bedrooms, Bedroom Shortfall and Age of PHM, 2016

				Owner					Renter		
Shortfall	Age of PHM	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms	Studios	1 bedroom	2 bedrooms	3 bedrooms	4 or more bedrooms
	15 to 19	0.0%	12.7%	22.6%	0.0%	0.0%	0.0%	87.3%	77.4%	100.0%	100.0%
	20 to 24	12.0%	8.7%	10.6%	19.6%	50.0%	88.0%	91.3%	89.4%	80.4%	50.0%
	25 to 29	6.1%	12.3%	11.5%	29.2%	57.6%	93.9%	87.7%	88.5%	70.8%	42.4%
	30 to 34	6.0%	13.4%	13.2%	33.3%	67.9%	94.0%	86.6%	86.8%	66.7%	32.1%
	35 to 39	28.1%	12.7%	17.0%	38.0%	73.9%	71.9%	87.3%	83.0%	62.0%	26.1%
	40 to 44	28.6%	14.3%	18.3%	40.7%	73.1%	71.4%	85.7%	81.7%	59.3%	26.9%
	45 to 49	13.3%	13.3%	20.6%	50.6%	76.0%	86.7%	86.7%	79.4%	49.4%	24.0%
One-	50 to 54	26.1%	19.5%	27.4%	59.1%	80.4%	73.9%	80.5%	72.6%	40.9%	19.6%
Shortfall	55 to 59	41.7%	17.8%	31.0%	62.5%	84.6%	58.3%	82.2%	69.0%	37.5%	15.4%
	60 to 64	18.2%	20.7%	36.2%	62.0%	82.8%	81.8%	79.3%	63.8%	38.0%	17.2%
	65 to 69	0.0%	13.1%	35.1%	68.6%	85.2%	100.0%	86.9%	64.9%	31.4%	14.8%
	70 to 74	21.1%	14.4%	39.2%	74.7%	83.7%	78.9%	85.6%	60.8%	25.3%	16.3%
	75 to 79	0.0%	19.8%	41.4%	68.9%	87.0%	100.0%	80.2%	58.6%	31.1%	13.0%
	80 to 84	21.4%	29.4%	43.8%	85.2%	90.9%	78.6%	70.6%	56.3%	14.8%	9.1%
	85 to 89	0.0%	20.5%	45.2%	62.5%	83.3%	100.0%	79.5%	54.8%	37.5%	16.7%
	+06	0.0%	16.0%	38.5%	69.2%	66.7%	0.0%	84.0%	61.5%	30.8%	33.3%
	15 to 19	100.0%	0.0%	%0.0	%0.0	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
	20 to 24	10.0%	3.9%	3.6%	33.3%	42.9%	90.0%	96.1%	96.4%	66.7%	57.1%
	25 to 29	11.5%	9.2%	6.8%	18.8%	53.8%	88.5%	90.8%	93.2%	81.3%	46.2%
	30 to 34	20.6%	5.8%	7.8%	51.2%	62.5%	79.4%	94.2%	92.2%	48.8%	37.5%
	35 to 39	17.1%	10.8%	21.3%	48.7%	79.3%	82.9%	89.2%	78.7%	51.3%	20.7%
	40 to 44	13.0%	6.6%	14.0%	34.4%	65.2%	87.0%	93.4%	86.0%	65.6%	34.8%
ŀ	45 to 49	25.0%	13.8%	15.7%	37.3%	75.0%	75.0%	86.2%	84.3%	62.7%	25.0%
Bodroom	50 to 54	20.0%	20.1%	19.1%	45.7%	67.7%	80.0%	79.9%	80.9%	54.3%	32.3%
Shortfall	55 to 59	28.6%	21.3%	20.2%	41.2%	83.1%	71.4%	78.7%	79.8%	58.8%	16.9%
	60 to 64	13.3%	18.2%	27.4%	54.3%	83.3%	86.7%	81.8%	72.6%	45.7%	16.7%
	65 to 69	22.2%	20.0%	27.3%	65.6%	81.3%	77.8%	80.0%	72.7%	34.4%	18.8%
	70 to 74	28.6%	0.0%	35.7%	65.2%	75.0%	71.4%	100.0%	64.3%	34.8%	25.0%
	75 to 79	0.0%	20.0%	21.7%	66.7%	77.8%	100.0%	80.0%	78.3%	33.3%	22.2%
	80 to 84	100.0%	0.0%	50.0%	60.0%	60.0%	0.0%	100.0%	50.0%	40.0%	40.0%
	85 to 89	%0.0	25.0%	22.2%	100.0%	100.0%	100.0%	75.0%	77.8%	0.0%	0.0%
	+06	%0.0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%

Table 66: Percent of Underhoused Households by Tenure, Number of Bedrooms, Bedroom Shortfall and Age of PHM, þ

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	4 or more bedrooms	%0.0	0.0%	25.0%	47.1%	%0'0	58.8%	25.7%	21.4%	40.0%	55.6%	%0'0	%0'0	0.0%	%0'0	50.0%	%0'0
	3 bedrooms	100.0%	80.0%	100.0%	45.5%	62.5%	62.9%	57.4%	69.0%	61.0%	52.2%	57.1%	40.0%	0.0%	57.1%	0.0%	0.0%
Renter	2 bedrooms	100.0%	90.0%	90.6%	87.5%	91.7%	90.3%	87.7%	78.8%	86.8%	81.8%	58.3%	100.0%	40.0%	50.0%	0.0%	100.0%
	1 bedroom	0.0%	86.7%	92.9%	87.0%	100.0%	92.9%	75.0%	86.1%	80.0%	75.0%	37.5%	1 00.0%	40.0%	100.0%	100.0%	1 00.0%
	Studios	0.0%	0.0%	100.0%	%0'0	%0'02	%6'92	80.0%	25.6%	40.0%	100.0%	100.0%	%0'0	0.0%	%0'0	%0'0	%0'0
	4 or more bedrooms	%0.0	0.0%	75.0%	52.9%	100.0%	41.2%	74.3%	78.6%	%0.09	44.4%	100.0%	100.0%	100.0%	100.0%	20.0%	%0'0
	3 bedrooms	0.0%	20.0%	0.0%	54.5%	37.5%	37.1%	42.6%	31.0%	39.0%	47.8%	42.9%	60.0%	100.0%	42.9%	%0.0	%0.0
Owner	2 bedrooms	%0.0	10.0%	9.4%	12.5%	8.3%	9.7%	12.3%	21.2%	13.2%	18.2%	41.7%	%0.0	60.0%	50.0%	100.0%	%0.0
	1 bedroom	0.0%	13.3%	7.1%	13.0%	%0.0	7.1%	25.0%	13.9%	20.0%	25.0%	62.5%	0.0%	60.0%	%0.0	%0.0	0.0%
	Studios	0.0%	0.0%	0.0%	0.0%	30.0%	23.1%	20.0%	44.4%	60.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
	Age of PHM	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	+06
	Shortfall							Three-	or-More	Bedroom	Shortfall						

 Table 67: Estimated High Unmet Demand Scenario Future Households by Generation

 and Tenure, 2016-2051

Tenure	Census Year*	Not Yet Born	Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation + Earlier	Total
	2016	0	0	66,811	166,696	258,793	124,765	617,066
	2021	0	962	127,810	190,335	250,056	76,408	645,572
Hausahalda	2026	0	6,278	198,087	203,232	236,210	41,741	685,548
Living in	2031	0	24,636	262,843	208,468	213,179	15,252	724,378
Owned	2036	1,103	64,884	312,607	202,870	174,333	2,306	758,103
Dweilings	2041	7,150	119,682	343,642	193,519	122,834	22	786,848
	2046	27,914	174,520	359,411	179,579	70,045	5	811,473
	2051	74,200	214,686	361,142	157,656	25,919	1	833,605
	2016	0	0	194,595	193,411	175,265	58,280	621,551
	2021	0	3,431	283,043	181,001	152,822	34,306	654,603
Housebolds	2026	0	32,938	337,424	165,254	130,226	17,858	683,699
Households Living in Rented	2031	0	102,434	344,755	146,295	108,402	6,539	708,424
	2036	3,932	186,545	329,108	127,236	82,911	1,220	730,953
Dweilings	2041	37,588	244,792	304,567	110,040	54,353	199	751,538
	2046	115,768	258,389	273,947	93,800	29,590	43	771,537
	2051	212,221	250,047	241,593	75,697	10,983	9	790,550

Table 68: High Unmet Demand Scenario Background Data by Tenure, 2016-2051

Measure	Tenure	2021	2026	2031	2036	2041	2046	2051
Change in younger	Owner	81,056	165,905	251,627	335,753	417,120	493,612	559,018
demand + all ages'	Renter	69,610	130,713	183,987	234,686	282,850	326,295	363,119
high unmet demand, cumulative	Total	150,662	296,613	435,609	570,433	699,965	819,902	922,132
Change in older	Owner	-52,550	-97,424	-144,316	-194,715	-247,338	-299,205	-342,479
generations'	Renter	-36,559	-68,565	-97,114	-125,283	-152,863	-176,310	-194,120
households, cumulative	Total	-87,021	-164,815	-240,629	-319,319	-399,516	-474,681	-535,666

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