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# Household Formation and the Housing Stock



OFFICE OF THE PARLIAMENTARY BUDGET OFFICER  
BUREAU DU DIRECTEUR PARLEMENTAIRE DU BUDGET

The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

This report provides estimates of household formation and the housing stock in Canada. The report also provides an estimate of the housing gap at the national level based on the total vacancy rate.

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**Yves Giroux**

**Parliamentary Budget Officer**

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# Highlights

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PBO estimates suggest that household formation surged above pre-pandemic levels, reaching 460,000 (net) new households in 2023—well in excess of record net housing completions of 242,000 units.

PBO estimates that suppressed household formation in Canada amounted to 631,000 households in 2021. That is, the number of households in 2021 in Canada would have been 631,000 (4.1 per cent) higher if attainable housing options had existed.

Based on PBO estimates, the total vacancy rate in Canada (the number of vacant units, for sale or rent, relative to the housing stock) reached a record low of 5.1 per cent in 2023—1.8 percentage points below its 2000-2019 average of 6.9 per cent.

Under PBO's status quo baseline outlook, over 2024 to 2030, household formation outpaces net completions (272,000 households versus 255,000 units annually, on average). This imbalance pushes the total vacancy rate lower to 3.9 per cent in 2025, before stabilizing at around 4.0 per cent by 2030.

Relative to PBO's baseline outlook, 1.3 million additional units—181,000 annually, on average—would need to be completed by 2030 to eliminate Canada's housing gap, accounting for suppressed household formation.

Combined with the baseline outlook for completions, closing the housing gap in Canada would result in 3.1 million net housing units completed by

2030, which translates into 436,000 units completed annually, on average, over 2024 to 2030.

# Summary

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This report provides estimates of household formation and the housing stock in Canada. The report also provides an estimate of the housing gap at the national level based on the total vacancy rate. The scope of this report is limited to assessing housing imbalances at the national level, which can mask important variations across regions.

## Household formation and the housing stock

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Since 2015, and prior to the start of the pandemic, household formation (that is, the change in the number of households) increased steadily, reaching 238,000 in 2019, while net housing units completed (that is, completions plus conversions less demolitions) remained relatively stable, averaging 188,000 units annually.

- Our demographic demand-based estimates suggest that household formation surged above pre-pandemic levels, reaching 460,000 (net) new households in 2023—well in excess of record net housing completions of 242,000 units in that year.

To provide an estimate of the demand for housing requires accounting for “suppressed” household formation, that is, the number of households that—due to a lack of attainable housing options—were not formed.

- We estimate that suppressed household formation in Canada amounted to 631,000 households in 2021. That is, the number of households in 2021 in Canada would have been 631,000 (4.1 per cent) higher if attainable housing options had existed.

Housing completions are the ultimate source of additions to the housing stock, with demolitions more than offsetting the contribution from conversions. To estimate the housing stock over 2000 to 2023, we adopt an

approach used by the Bank of Canada in its recent analysis of housing supply.

- We estimate that the housing stock in Canada increased by 4.5 million units from 12.6 million in 2000 to 17.1 million units in 2023. This increase represents an average of 195,000 net housing completions annually.

While assessing household formation relative to net housing completions helps to gauge the imbalance in housing “flows”, the total vacancy rate—the number of vacant units, for sale or rent, relative to the total stock of housing units—provides a more complete “stock” perspective of the imbalance in the housing market.

- Reflecting the unmatched increase in household formation, we estimate that the total vacancy rate in Canada reached a record low of 5.1 per cent in 2023—1.8 percentage points below its 2000-2019 average of 6.9 per cent. This deterioration indicates growing excess demand, putting further upward pressure on house prices and rents.

## Medium-term outlook

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Informed by our projection of residential investment in PBO’s March Economic and Fiscal Outlook, to construct a baseline profile of the housing stock, we assume that net housing completions of 255,000 units per year will be maintained over 2024 to 2030. This outlook reflects status quo policy and does not incorporate recently announced measures from the upcoming Budget 2024.

To construct a baseline projection of household formation, we use a recently updated version of Statistics Canada’s M1 scenario that reflects more recent trends in the flow of non-permanent residents and immigration. Our medium-term outlook for household formation, however, reflects only demographic factors (that is, population growth and population ageing).

- In our baseline outlook, household formation outpaces net housing completions (272,000 households versus 255,000 units annually, on average). This imbalance in housing market flows pushes the total vacancy rate lower to 3.9 per cent in 2025 before stabilizing at around 4.0 per cent by 2030.
- With the vacancy rate projected to decrease further and remain far away from its long-term historical average, excess demand in the housing market would intensify under our baseline outlook.

## PBO estimates of the housing gap in Canada

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Assessing the imbalance in the housing market by comparing the total vacancy rate to its long-term historical average provides a natural framework for estimating the housing gap in Canada at the national level. Such an approach, however, must be modified to account for suppressed household formation.

At the national level, we define the housing gap as the number of additional units that would be required to return the total vacancy rate to its long-term average by 2030, accounting for suppressed household formation.

- Relative to our baseline outlook, we estimate that 1.3 million additional units—181,000 units annually, on average, over 2024 to 2030—would need to be completed by 2030 to eliminate the housing gap in Canada.
- Combined with our baseline outlook, closing the housing gap would result in 3.1 million net housing units completed by 2030, which translates into 436,000 units completed annually, on average, over 2024 to 2030. This pace of housing completion would represent an increase of 80 per cent above the record level of net completions in 2023, sustained for 7 years.

## Baseline net housing completions and estimated housing gap

	Number of housing units
Housing gap in 2030	1,266,000
Baseline net completions, 2024-2030	1,785,000
<b>Total net housing completions, baseline and housing gap, 2024-2030</b>	<b>3,051,000</b>

Source:

Office of the Parliamentary Budget Officer.

Given the uncertainty surrounding our medium-term outlook, we consider alternative construction and population growth scenarios to assess the sensitivity of our baseline estimate of the housing gap. Interacting these scenarios produces an illustrative range of estimates of the housing gap.

- Under higher construction and lower population growth scenarios, our estimate of the housing gap in 2030 would decrease to 0.7 million units. Under lower construction and higher population growth scenarios, our estimate of the housing gap would increase to 1.9 million units.

In its [September 2023 update](#), Canada Mortgage and Housing Corporation (CMHC) estimated a housing supply gap in Canada of 3.5 million units. CMHC's housing gap represents the additional units that would be required to restore housing affordability to levels "last seen around 2004" by 2030.

- CMHC's estimated housing gap in 2030 of 3.5 million units is almost three times larger than PBO's estimate of 1.3 million units. This difference presumably reflects returning housing affordability to the highly favourable conditions targeted under CMHC's approach.
- Combining baseline projections for net housing completions and gap estimates, CMHC's analysis indicates that 5.1 million units will be needed over 2023 to 2030 (639,000 net completions per year on average)—well above PBO's estimate of 3.1 million units over 2024 to 2030 (436,000 net completions per year on average).

# Introduction

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In September 2023, Statistics Canada released its [annual demographic estimates](#), highlighting that Canada’s population grew by 1.2 million people (2.9 per cent)—the highest growth rate since 1957—to an estimated 40.1 million as of July 1, 2023. According to Statistics Canada, 98 per cent of this growth came from (net) international migration, with the number of non-permanent residents in Canada increasing by a record 46 per cent.

In its January [Monetary Policy Report](#), the Bank of Canada noted that “a larger increase in newcomers than in the past is adding pressure to the structural supply constraint in housing”. Indeed, the Bank assessed that the larger influx of newcomers has helped push the total vacancy rate—the number of vacant units, for sale or rent, relative to the total stock of housing units—to record lows.

This report builds on earlier PBO analysis of household formation and the housing stock.<sup>1</sup> The scope of this report is limited to assessing housing imbalances at the national level, which can mask important variations across regions.

The report first presents historical estimates of household formation and provides an estimate of suppressed household formation in 2021. We then present PBO’s estimate of the housing stock and the total vacancy rate over 2000 to 2023.

Next, the report provides a medium-term outlook for the total vacancy rate and presents an estimate of the “housing gap”—that is, the projected number of additional housing units required to balance housing demand and supply based on the total vacancy rate. The report concludes with a sensitivity analysis of our housing gap estimate to alternative construction and population growth scenarios.

# Households and household formation

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## Estimating the number of households

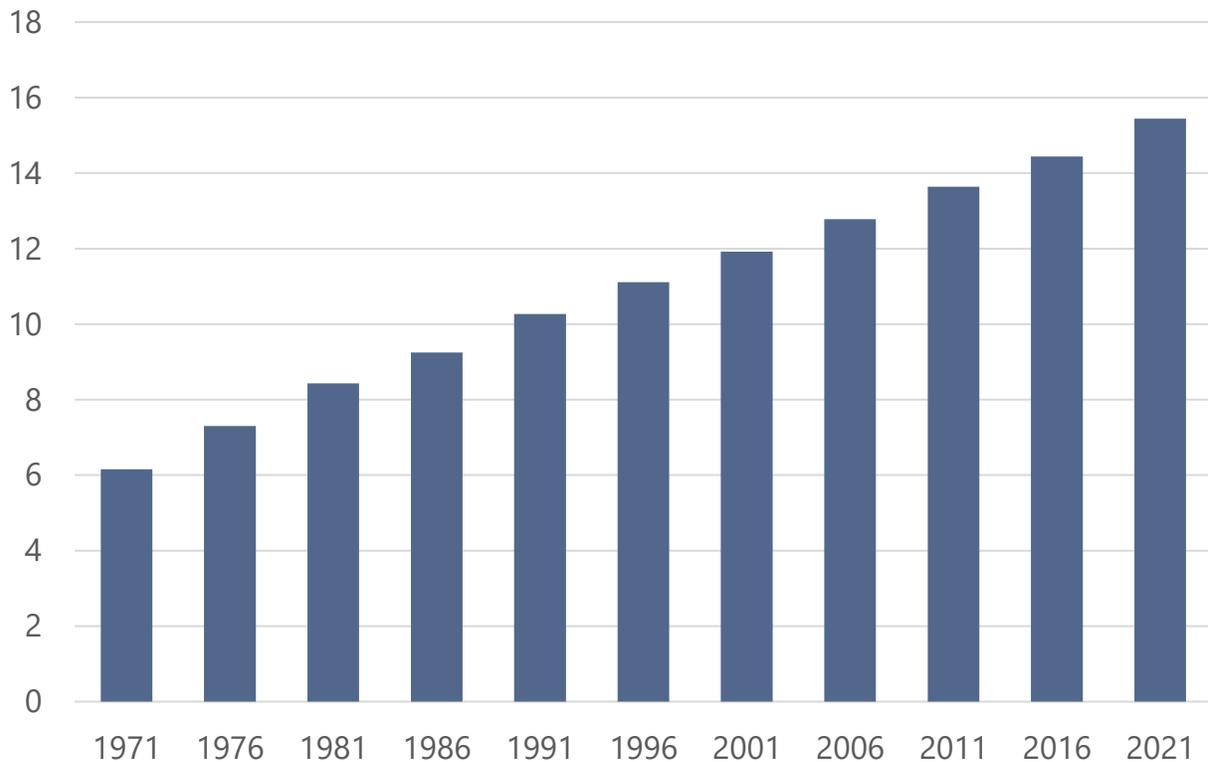
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In this report, we adopt the Census definition of a household, which is defined as a person or a group of persons (other than foreign residents) who occupy a private dwelling and do not have a usual place of residence elsewhere in Canada. Household formation is the net change in the number of households.

To construct historical estimates of the number of households, Census-based headship rates (that is, the ratio of the number of household heads or maintainers to the population 15 years of age and older) are multiplied by population estimates that have been adjusted for undercounting. Our Census-based headship rates were calculated for provinces and the territories (combined) across various age groups. At the national level, our estimates of the number of households represent the aggregation across provinces, the territories, and age groups.

Figure 1 presents PBO estimates of the number of households for Census years 1971 to 2021. We estimate that the number of households in Canada more than doubled over 50 years from 6.2 million in 1971 to 15.4 million households in 2021.

**Figure 1**  
Number of households in Canada, millions



Source:  
Statistics Canada and Office of the Parliamentary Budget Officer.

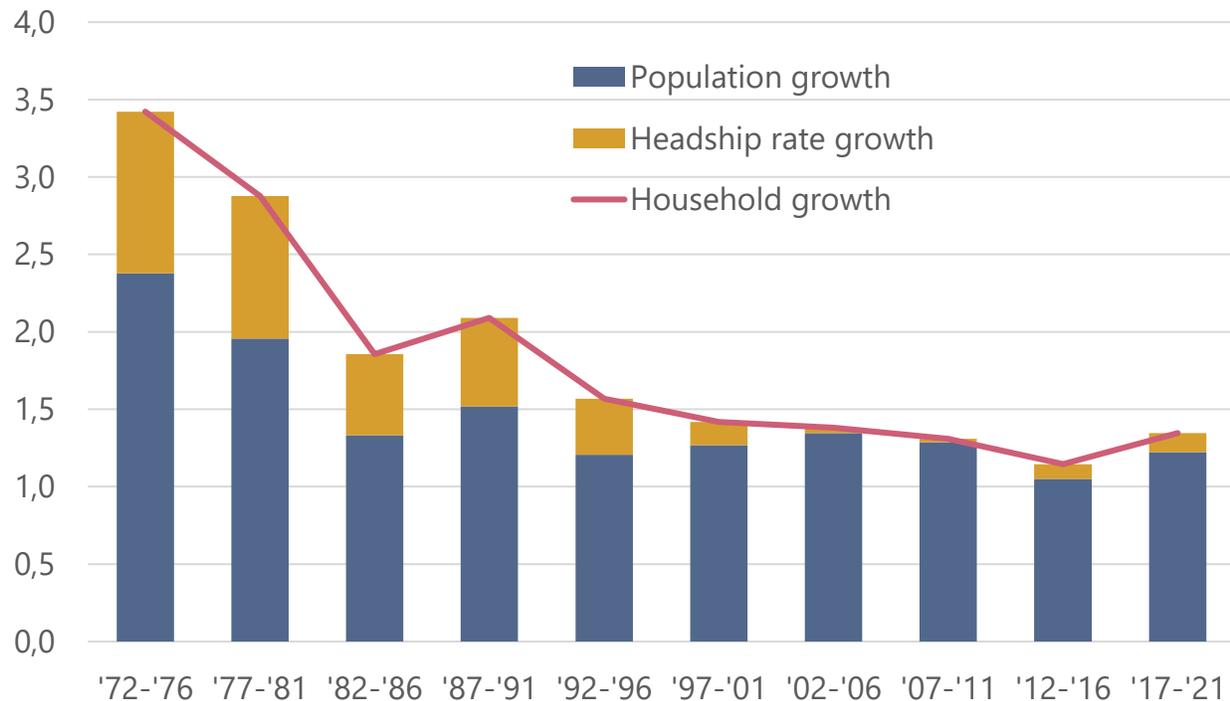
## Decomposing household formation

Household formation, that is the growth in the number of households, can be decomposed into population (aged 15 years and older) growth and growth in the aggregate headship rate.

Figure 2 shows that household formation decreased from 3.4 per cent (230,000 net new households) annually, on average, over 1972-1976 to 1.3 per cent (201,000) annually, on average, over 2017-2021. The decrease in household formation over this period was driven by sizeable declines in both population growth and growth in the aggregate headship rate. Moreover, since 2001, population growth has accounted for almost all of household formation.

**Figure 2**

## Household formation decomposition, per cent



Source:

Statistics Canada and Office of the Parliamentary Budget Officer.

The decrease in the contribution from population growth in the 1980s reflects the sharp decline in the total fertility rate following the baby-boom period (1946-1966). However, the diminishing contribution from growth in the aggregate headship rate reflects offsetting factors.

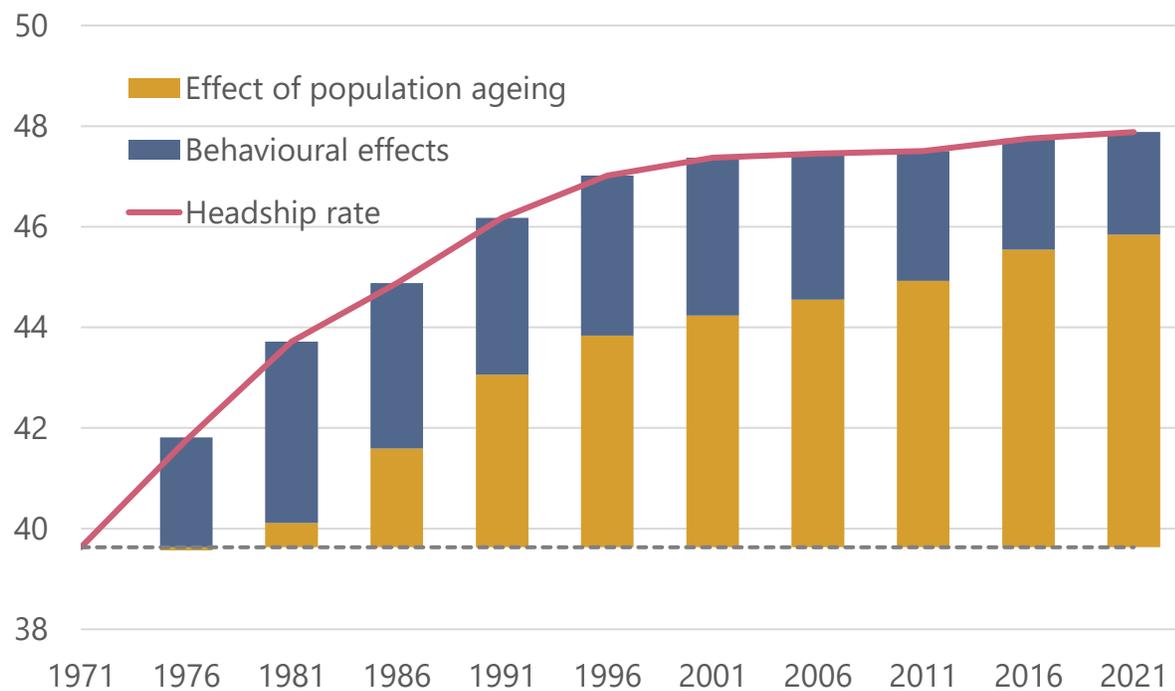
Younger age groups are more likely to share accommodation and therefore less likely to form households compared to older age groups. Given this life cycle pattern, an ageing population would, all else equal, result in an increase in the aggregate headship rate as the share of the population in older age groups rises. In terms of assessing fluctuations in the aggregate headship rate, we refer to this as the “demographic effect”. However, age group specific headship rates can also fluctuate across time and influence the aggregate headship rate. This “behavioural effect” can encompass a variety of economic factors such as housing costs, unemployment, interest

rates and income growth, and social factors such as attitudes toward marriage and divorce.<sup>2</sup>

Figure 3 provides estimates of the contributions from demographic and behavioural effects to the change in the aggregate headship rate from 1971 to 2021.<sup>3</sup> Our estimates indicate that since 1976, population ageing has put increasing upward pressure on the aggregate headship rate, accounting for more than three-quarters of the increase in the aggregate headship rate observed from 1971 to 2021. However, since 2001, increases in the aggregate headship rate have moderated, as behavioural effects have tempered the upward pressure from population ageing.

### Figure 3

Contributions to the change in the aggregate headship rate since 1971, per cent



Source:

Statistics Canada and Office of the Parliamentary Budget Officer.

To estimate household formation beyond 2021, we assumed that provincial and territorial age-group specific headship rates would remain at their 2021

levels. As a result, our estimates of household formation in 2022 and 2023 reflect demographic changes only and do not capture any changes in behavioral effects beyond 2021. Given these assumptions, we estimate that a record 460,000 (net) new households were formed in 2023, bringing the total number of households in Canada to 16.2 million.

## Suppressed household formation

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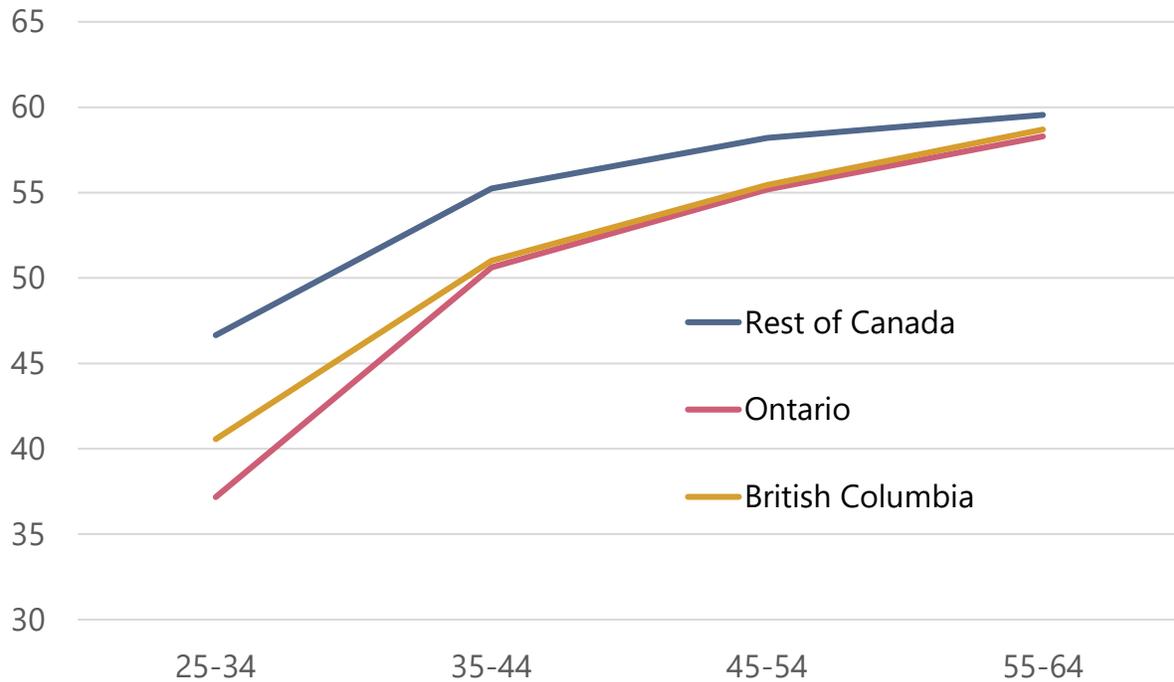
[Moffatt \(2022\)](#) notes that “the number of households is inherently a function of the number of homes, so they cannot be treated as independent”. To provide an estimate of the demand for housing therefore requires accounting for “suppressed” household formation, that is, the number of households that “would have been formed but are not due to a lack of attainable options”.<sup>4</sup>

To estimate suppressed household formation based on the most recent Census data available, we follow Moffatt (2022) and adopt the “rest of Canada” benchmark, where the rest of Canada excludes Ontario and British Columbia.<sup>5</sup>

According to Canada Mortgage and Housing Corporation (CMHC), residents in Ontario and British Columbia faced the highest ratio of shelter-costs to income, spending on average over 55 per cent of household income on shelter costs.<sup>6</sup> These two provinces also have the lowest headship rates across most age groups. This is particularly evident for the 25-34 age group (Figure 4), the period during which adults are the most likely to establish their own household. While the headship rate of this age group has been relatively stable for the rest of Canada, it has steadily decreased for the two provinces with the highest relative shelter costs.

**Figure 4**

Selected headship rates for core age groups in 2021, per cent



Source:

Statistics Canada and Office of the Parliamentary Budget Officer.

Based on the rest of Canada benchmark, we estimate that suppressed household formation amounted to 631,000 households in 2021. That is, the number of households in 2021 in Canada would have been 631,000 (4.1 per cent) higher if attainable housing options had existed.

This highlights an additional challenge for the housing market as supply not only faces demand from existing households and newcomers to Canada, but also from individuals, especially young adults, who may be delaying forming a household.

# Housing stock

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## Estimating the number of housing units

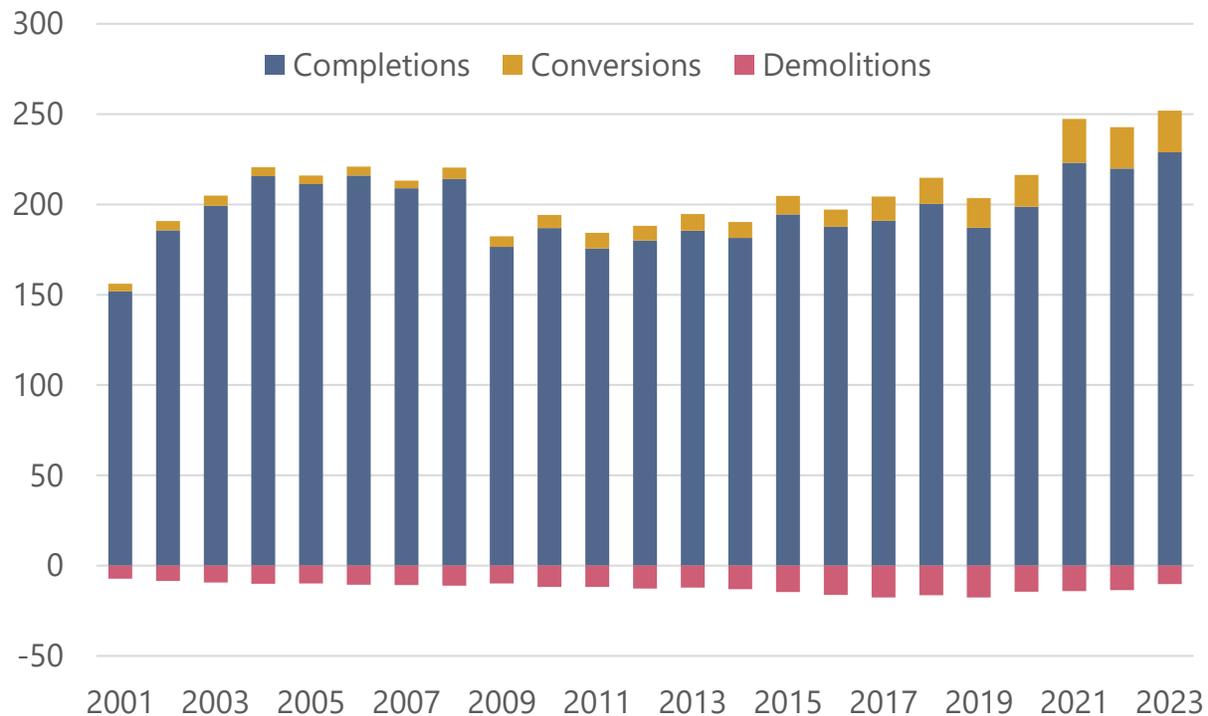
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To estimate the stock of housing units in Canada over 2000 to 2023, we adopt the approach used by the Bank of Canada in its recent analysis of housing supply to calculate the total vacancy rate.<sup>7</sup> This approach<sup>8</sup> adjusts for Census undercounting and extrapolates the housing stock from 2001 using flows of housing completions, conversions (that is, “additional housing units created from non-residential buildings or other types of residential units”) and demolitions. The following equation describes the evolution of the housing stock:

$$\text{Housing stock}_t = \text{Housing stock}_{t-1} + \text{Completions}_t + \text{Conversions}_t - \text{Demolitions}_t$$

Figure 5 shows the contributions to the housing stock from the annual flows of completions, conversions and demolitions. Housing completions are the ultimate source of additions to the housing stock, with demolitions more than offsetting the contribution from conversions. Net housing completions are defined as completions plus conversions less demolitions.

**Figure 5**  
Contributions to the housing stock, thousands



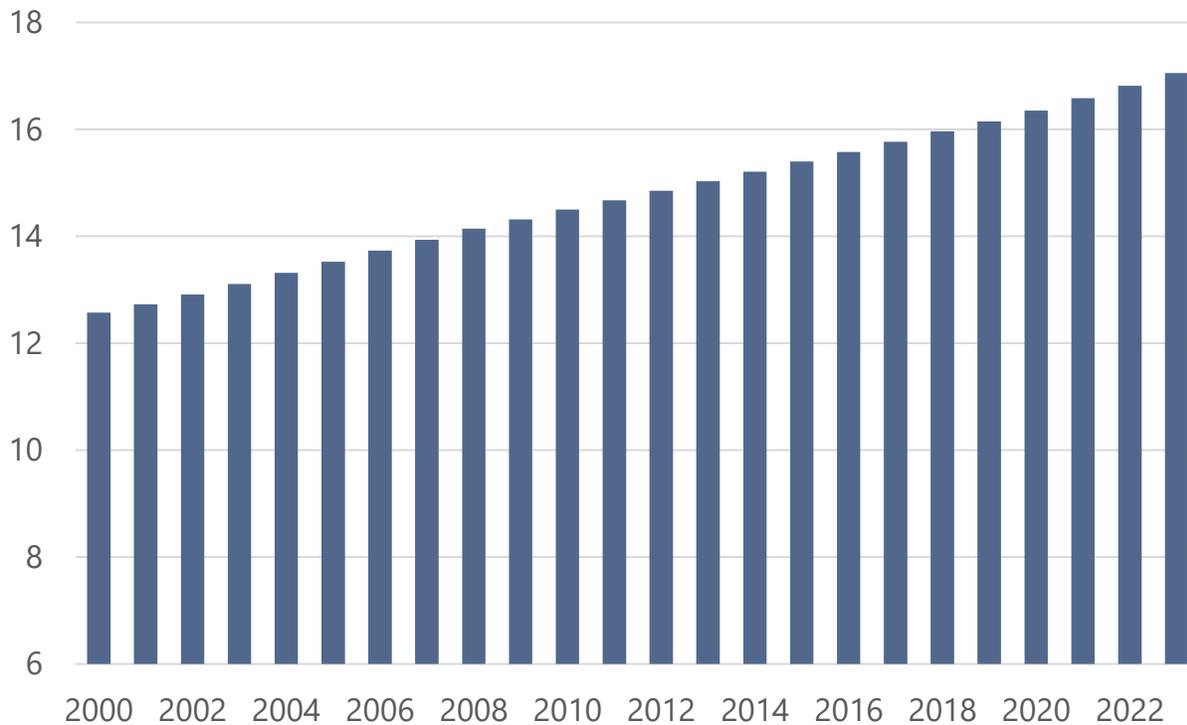
Source:  
Statistics Canada and Office of the Parliamentary Budget Officer.

Note:  
For 2023, total national completions were estimated using the historical relationship between total completions and total CMA completions.

We estimate that the housing stock increased by 4.5 million units from 12.6 million units in 2000 to 17.1 million units in 2023 (Figure 6). This increase represents an average of 195,000 net housing completions annually.

**Figure 6**

The stock of housing in Canada, 2000 to 2023, millions of units



Source:  
Office of the Parliamentary Budget Officer.

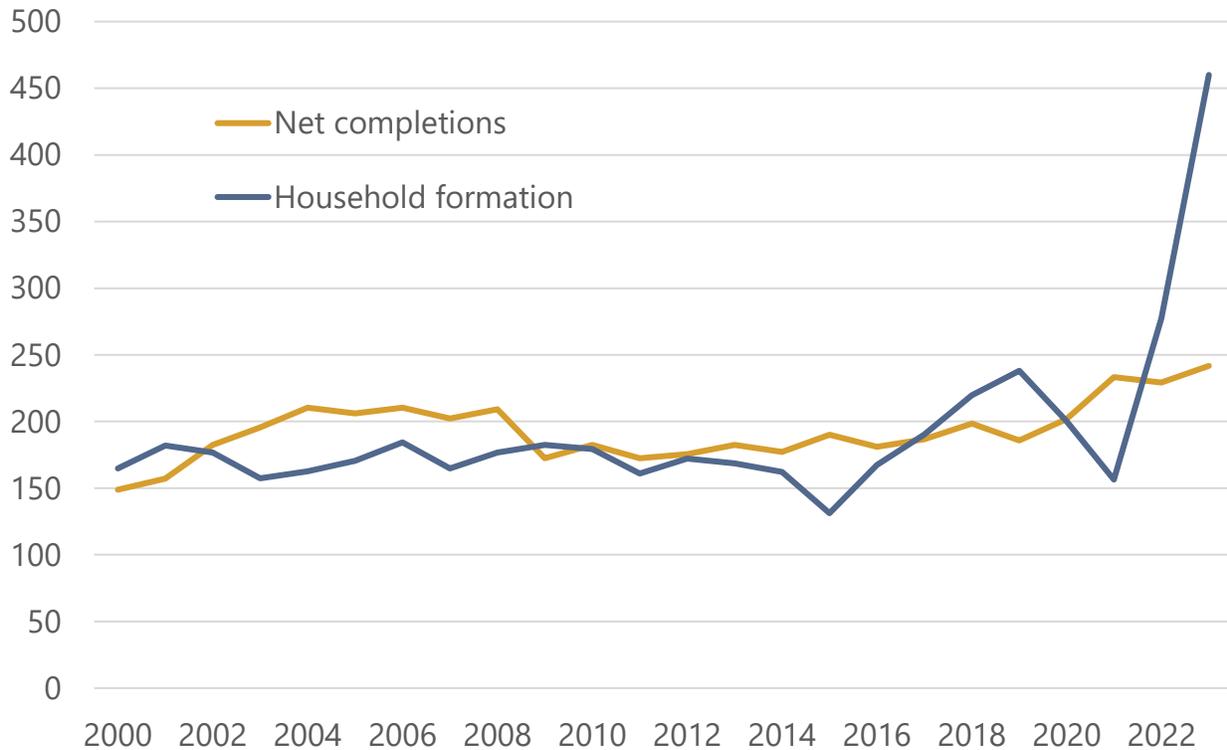
## Vacancy rate

Figure 7 compares our (annual) estimates of household formation and net housing completions from Statistics Canada.<sup>9</sup> It is important to note that our estimates of household formation in 2022 and 2023 reflect only demographic factors (that is, population growth and population ageing).

Since 2015, and prior to the start of the pandemic in 2020, household formation increased steadily, reaching 238,000 in 2019, while net household completions remained relatively stable, averaging 188,000 units over the same period. Our demographic demand-based estimates suggest that household formation surged above pre-pandemic levels in 2022 and 2023—well in excess of net housing completions.

**Figure 7**

Household formation and (net) housing completions, thousands



Source:

Statistics Canada and Office of the Parliamentary Budget Officer.

While assessing housing completions relative to household formation helps to gauge the imbalance in housing “flows”, the total vacancy rate provides a more complete “stock” perspective of the imbalance in the housing market. The United States Congressional Budget Office notes that the vacancy rate is “a key measure of the balance between supply and demand in the housing market”.<sup>10</sup>

The total vacancy rate represents the number of vacant units, to purchase or rent, relative to the total stock of housing units, which includes both occupied and vacant dwelling units.<sup>11</sup> Comparing the actual vacancy rate to its long-term historical average provides a measure of the imbalance in the housing market.<sup>12</sup>

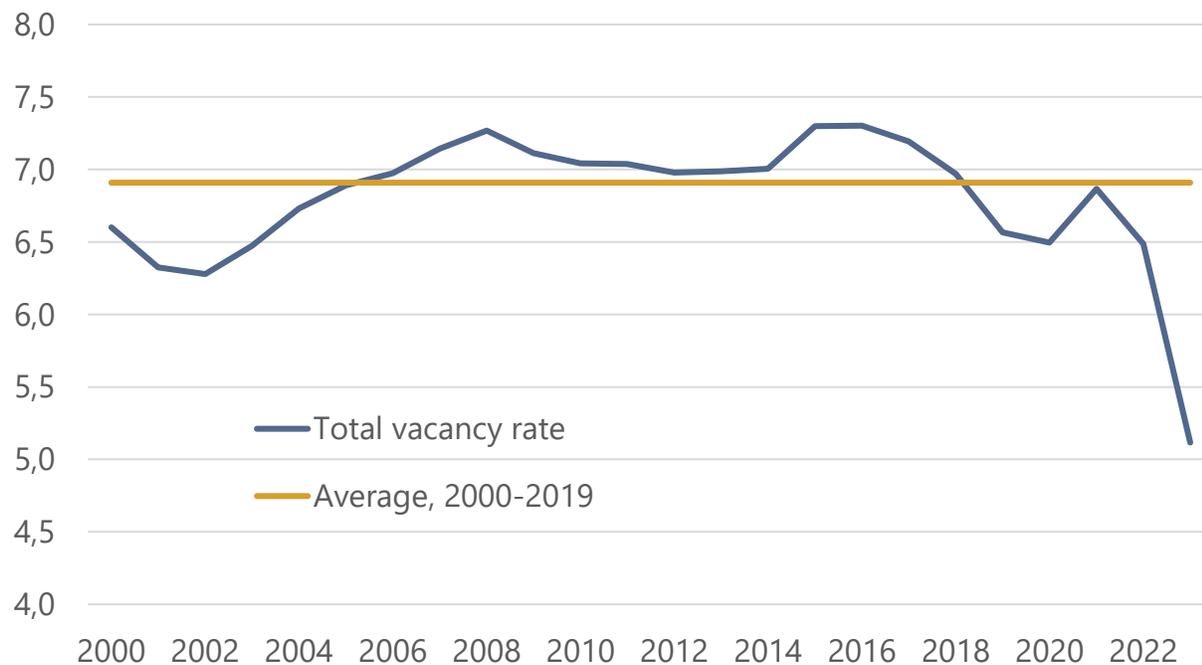
A vacancy rate above its historical average suggests excess supply in the housing market, which would put downward pressure on house prices and rents. Similarly, a vacancy rate below its historical average suggests excess demand, which would put upward pressure on house prices and rents.

We calculate the number of vacant units residually by subtracting our estimates of the number of households from our estimates of the housing stock. Since, by definition, a household requires occupying a private dwelling, we consider the number of occupied dwellings to be equivalent to our estimate of the number of households.

Reflecting the unmatched increase in household formation, the vacancy rate reached a record low of 5.1 per cent in 2023, 1.8 percentage points below its 2000-2019 historical average of 6.9 per cent (Figure 8). The deterioration in the vacancy rate indicates growing excess demand, putting further upward pressure on house prices and rents.

**Figure 8**

Total vacancy rate, per cent



Source:  
Office of the Parliamentary Budget Officer.

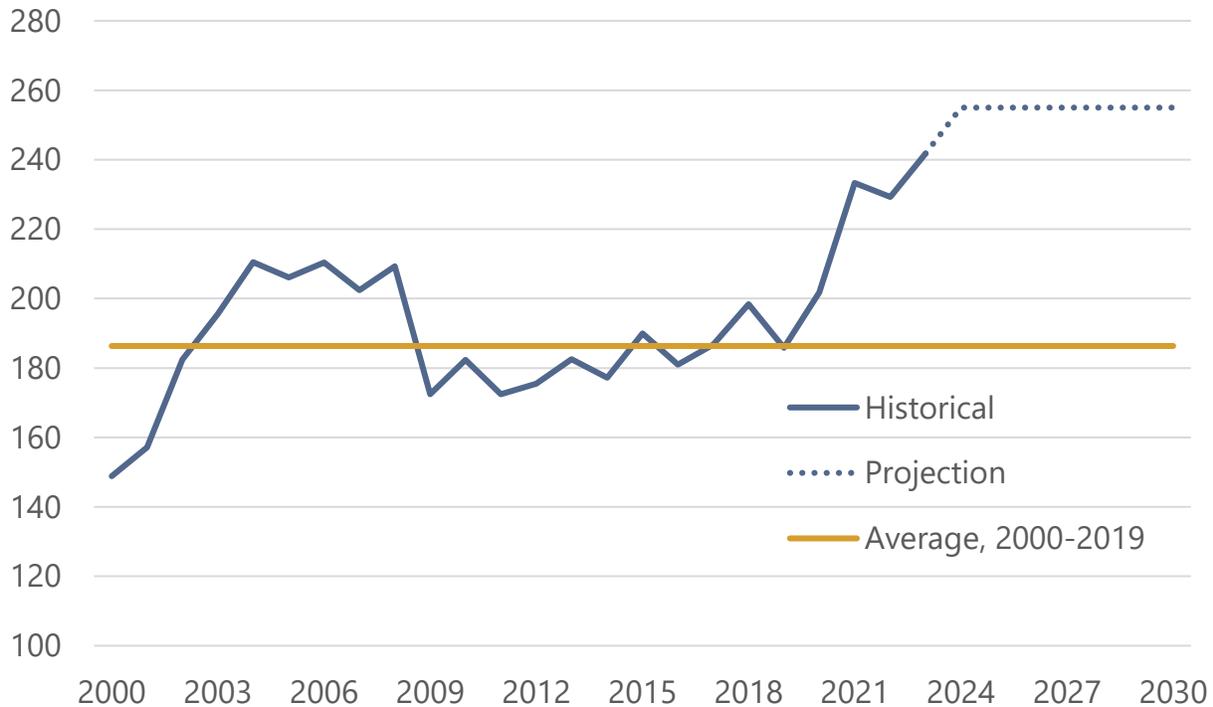
# Medium-term outlook

In preparing its Economic and Fiscal Outlook (EFO), PBO does not produce a projection of the housing stock in units and its underlying flows (that is, completions, conversions, and demolitions).

Informed by our outlook for residential investment in the March EFO, to construct a baseline profile of the housing stock we assume that net housing completions of 255,000 units per year will be maintained over 2024 to 2030 (Figure 9). This is moderately higher than the record number of net housing completions observed in 2023 (242,000 units). This outlook reflects status quo policy and does not incorporate recently announced measures from the upcoming Budget 2024.

**Figure 9**

Baseline net housing completions, thousands of units



Source:

Statistics Canada and Office of the Parliamentary Budget Officer.

Note:

The projection period covers 2024 to 2030.

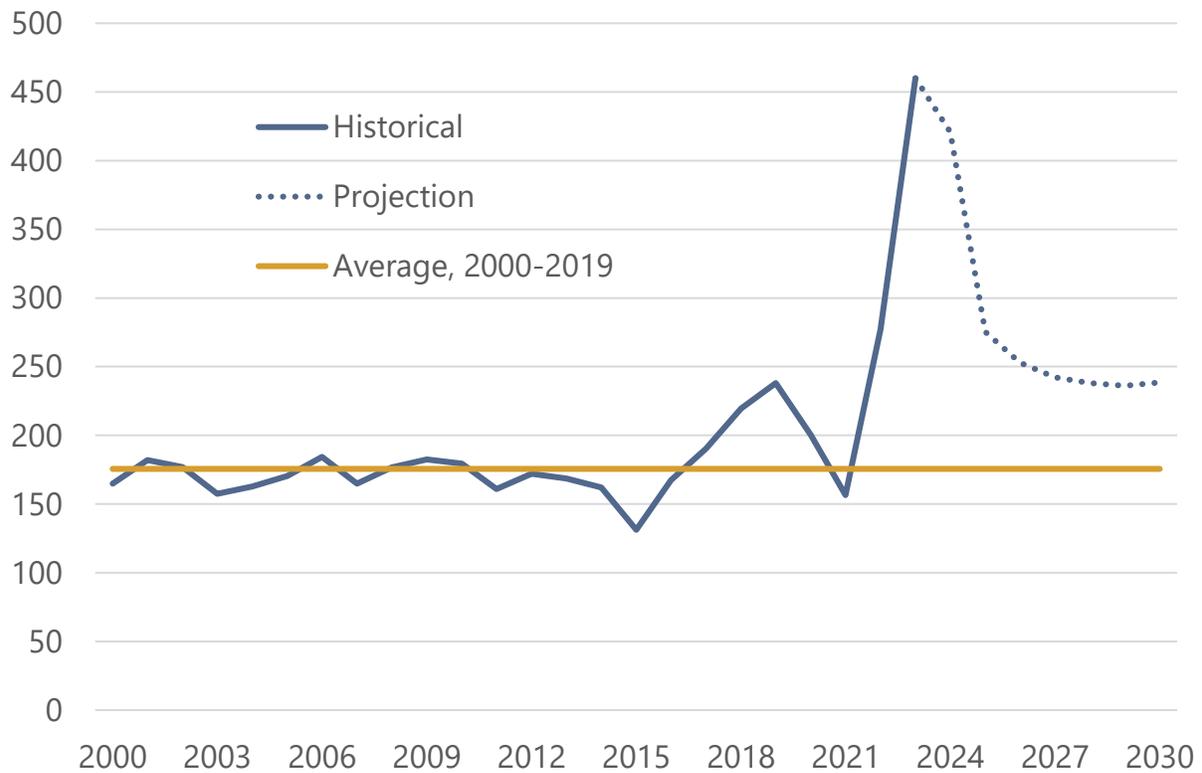
Based on our assumed pace of net completions, the stock of housing in Canada would reach 18.8 million units in 2030—an increase of 10.5 per cent relative to 2023.

To construct a baseline projection of household formation beyond 2021, we assumed that provincial age-group specific headship rates would remain at their 2021 levels. These headship rates were then applied to Statistics Canada's population estimates to 2023, and then to a recently updated version of Statistics Canada's M1 scenario that reflects more recent trends in the flow of non-permanent residents and immigration.<sup>13</sup> Consequently, our outlook for household formation reflects only demographic factors (population growth from natural growth and net migration and population ageing).

We project that household formation will average 272,000 annually over 2024 to 2030 (Figure 10). Based on our projection, the number of households in Canada would reach 18.1 million in 2030—an increase of 11.8 per cent relative to 2023. Table 1 details the projected number of households by province and the territories (combined) in 2023 and 2030.

**Figure 10**

Projected household formation, thousands of households



Source:

Statistics Canada and Office of the Parliamentary Budget Officer.

Note:

The projection period covers 2024 to 2030. Estimates in 2022 and 2023, as well as projections over 2024 to 2030, reflect only the demographic demand for housing.

**Table 1**

## Projected number of households in 2023 and 2030

Year	2023	2030	Change from 2023
NL	236,000	248,000	12,000
PE	72,000	85,000	13,000
NS	467,000	521,000	54,000
NB	362,000	399,000	37,000
QC	3,926,000	4,169,000	243,000
ON	5,986,000	6,745,000	759,000
MB	559,000	631,000	72,000
SK	481,000	544,000	63,000
AB	1,808,000	2,134,000	326,000
BC	2,239,000	2,559,000	320,000
<b>Territories</b>	47,000	53,000	6,000
<b>Canada</b>	16,183,000	18,087,000	1,904,000

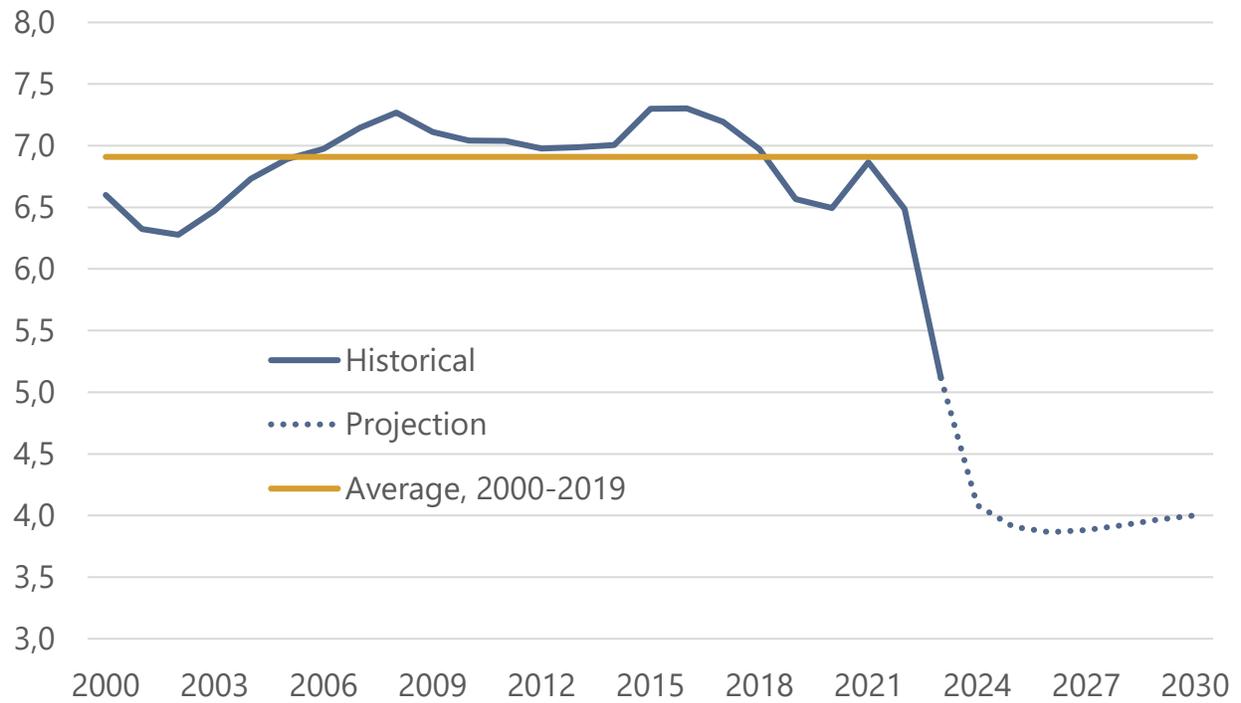
Source:

Office of the Parliamentary Budget Officer.

In our baseline projection, household formation outpaces net housing completions (272,000 households versus 255,000 units annually, on average). This imbalance in housing market flows pushes the total vacancy rate lower to 3.9 per cent in 2025 before stabilizing at around 4.0 per cent by 2030 (Figure 11).

With the vacancy rate projected to decrease further and remain far away from its long-term historical average, excess demand in the housing market would intensify under our baseline outlook.

**Figure 11**  
Projected total vacancy rate, per cent



Source:  
Office of the Parliamentary Budget Officer.

Note:  
The projection period covers 2024 to 2030.

# Housing gap

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Assessing the imbalance in the housing market by comparing the total vacancy rate to its long-term historical average provides a natural framework for estimating the housing gap in Canada at the national level. Such an approach, however, must be modified to account for suppressed household formation.

At the national level, we define the housing gap as the number of additional units that would be required to return the total vacancy rate to its long-term historical average by 2030, accounting for suppressed household formation. That is, the number of additional net housing completions that are required to eliminate: any excess demographic demand and suppressed household formation; and any remaining gap between the total vacancy rate and its average level observed over 2000 to 2019.

In our baseline outlook, the deterioration in the vacancy rate reflects our expectation that housing construction under status quo policy will not keep up with demographic demand. Under our baseline outlook, net housing completions of 255,000 per year are sustained over 2024 to 2030 but fall short of keeping pace with household formation (272,000 annually, on average).

To eliminate the excess demographic demand in the baseline outlook (that is, projected household formation less net housing completions), we estimate that an additional 385,000 units would be required (Table 2).<sup>14</sup>

Based on the assumption that suppressed household formation remains unchanged at our estimated level in 2021, an additional 631,000 units would be required to eliminate suppressed household formation.

Eliminating excess demographic demand and suppressed household formation still leaves the projected vacancy rate in 2030 below its 2000-

2019 average. To return the vacancy rate to its long-term historical average by 2030 would require another 250,000 units.

**Table 2**

Baseline net housing completions and estimated housing gap

	Number of housing units
Excess demographic demand	385,000
Suppressed household formation	631,000
Return to average vacancy rate	250,000
<b>Housing gap in 2030</b>	<b>1,266,000</b>
Baseline net completions, 2024-2030	1,785,000
<b>Total net housing completions, baseline and housing gap, 2024-2030</b>	<b>3,051,000</b>

Source:

Office of the Parliamentary Budget Officer.

In total, relative to our baseline outlook, we estimate that 1.3 million additional units—181,000 annually, on average, over 2024 to 2030—would need to be completed by 2030 to eliminate the housing gap in Canada, beyond the 1.8 million completions expected in our baseline scenario for that same period.

Combined with our baseline outlook, closing the housing gap would result in 3.1 million net housing units completed by 2030, which translates into 436,000 units completed annually, on average, over 2024 to 2030. This pace of net housing completion would represent an increase of 80 per cent above the record level of completions in 2023, sustained for 7 years.

Based on our estimates and framework, increasing the housing stock by 3.1 million units by 2030 would theoretically eliminate the contribution of excess demand as a driver for shelter costs. However, this would not be sufficient to fully address affordability concerns across all provinces and territories. Other factors, such as household income, interest rates and regional disparities would also need to be considered. Moreover, the geographic distribution and core characteristics of these additional units

would need to be aligned with the demand side to improve the balance in housing markets.

In its [September 2023 update](#), CMHC estimated a housing supply gap in Canada of 3.5 million units. CMHC's housing gap represents the additional units that would be required to restore housing affordability to levels "last seen around 2004" by 2030.

CMHC's estimated housing gap in 2030 of 3.5 million units is almost three times larger than PBO's estimate of 1.3 million units. This difference presumably reflects returning housing affordability to the highly favourable conditions targeted under CMHC's approach.

Similar to PBO's approach, CMHC's housing gap is in addition to housing units constructed under a baseline projection. Under its baseline, CMHC projected that 1.7 million units would be completed (on a net basis) over 2023 to 2030, which is equivalent to 208,000 net housing completions per year on average. This pace of housing construction is well below PBO's baseline of 255,000 units per year assumed over 2024 to 2030.

Combining baseline projections for net housing completions and gap estimates, CMHC's analysis indicates that 5.1 million units will be needed over 2023 to 2030 (639,000 net completions per year on average)—well above PBO's estimate of 3.1 million units over 2024 to 2030 (436,000 net completions per year on average).

# Sensitivity analysis

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Given the uncertainty surrounding our medium-term outlook, we consider alternative construction and population growth scenarios to assess the sensitivity of our baseline estimate of the housing gap. These scenarios are intended to illustrate the impact of changes on both the supply and demand side of the housing market at the national level.

Under our higher construction scenario, net housing completions are 25,000 units higher per year, resulting in 280,000 completions annually over 2024 to 2030. Under our lower construction scenario, net housing completions are 25,000 units lower per year, resulting in 230,000 completions annually over 2024 to 2030. Under these scenarios, the housing stock in 2030 ranges from 18.7 million units (lower construction) to 19.0 million (higher construction).

For household formation, our alternative scenarios are based on: a higher population growth projection (with higher fertility, higher life expectancy, higher immigration rates, and higher level of non-permanent residents); and, a lower population growth projection (with lower fertility, lower life expectancy, lower immigration rates and lower level of non-permanent residents).<sup>15</sup> Under these scenarios, the total number of households in 2030 ranges from 17.7 million (lower population growth) to 18.6 million (higher population growth).

Interacting these scenarios produces an illustrative range of estimates of the housing gap (Table 3). Under higher construction and lower population growth scenarios, our estimate of the housing gap in 2030 would decrease to 0.7 million units. Under lower construction and higher population growth scenarios, our estimate of the housing gap would increase to 1.9 million units.

**Table 3**

Estimates of the housing gap under alternative scenarios, millions of units

<b>Scenario:</b>	<b>Lower population growth</b>	<b>Baseline population growth</b>	<b>Higher population growth</b>
<b>Lower construction</b>	1.0	1.4	1.9
<b>Baseline construction</b>	0.8	1.3	1.8
<b>Higher construction</b>	0.7	1.1	1.6

Source:

Office of the Parliamentary Budget Officer.

# Notes

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<sup>1</sup> See PBO's December 2016 report, [Household Formation and the Housing Stock: A Stock-Flow Perspective](#) and its [May 2017 Update](#).

<sup>2</sup> We follow Paciorek (2013) and refer to fluctuations in age-group specific headship rates as "behavioural" effects. For additional information, see [The Long and the Short of Household Formation](#) by A. Paciorek (April 2013).

<sup>3</sup> Our decomposition of the demographic and behavioural effects differs from Paciorek (2013). For a detailed discussion, see Note 8 in PBO's December 2016 report, [Household Formation and the Housing Stock: A Stock-Flow Perspective](#).

<sup>4</sup> As defined in [Ontario's Need for 1.5 Million More Homes](#) by M. Moffatt (August 2022).

<sup>5</sup> Moffatt (2022) estimates suppressed household formation for Ontario in 2021 by applying the rest of Canada benchmark.

Similarly, we apply 2016 age-group specific headship rates, calculated for the rest of Canada average, to corresponding age groups in Ontario and British Columbia in 2021. The number of suppressed households is calculated as the difference between the number of households in Ontario and British Columbia in 2021 under the benchmark, and our estimate of the number of households in these provinces in 2021.

This approach likely underestimates suppressed household formation outside of these two provinces, but also likely overestimates the difference in headship rates (relative to the benchmark) related to affordability and housing availability. As such, we judge that our estimate of suppressed household formation in 2021 is roughly balanced when considered at the national level.

<sup>6</sup> [Canada's Housing Supply Shortage: Restoring affordability by 2030.](#)

<sup>7</sup> We thank Bank of Canada staff for providing detailed information and underlying data to replicate their estimates of the housing stock in units.

Under the Bank's approach, the starting point for the housing stock (2001) is adjusted to account for the undercounting of private dwellings based on the 2001 Census. Beyond 2001, the housing stock is extrapolated using net household completions.

<sup>8</sup> We apply the Bank's approach to our annual series. To estimate the housing stock in 2000, we apply the 2001 adjustment for Census undercounting (in percentage terms) to Statistics Canada's estimate of the housing stock in 2000 from (discontinued) Table 030-0001. Our estimates of the number of households suggest that 2001 Census private dwellings were undercounted by approximately 1.4 per cent (181,000 units).

<sup>9</sup> To produce annual estimates of the number of households (up to 2021), we first interpolated age-group specific headship rates between Census years and then multiplied these rates by Statistics Canada's annual population estimates. For 2022 and 2023, we maintained provincial and territorial age-group specific headship rates at their 2021 levels.

<sup>10</sup> [The Outlook for Housing Starts, 2009 to 2012.](#)

<sup>11</sup> This definition of the vacancy rate is taken from Bank of Canada Deputy Governor Gravelle's December 2023 speech, [Economic progress report: Immigration, housing and the outlook for inflation.](#)

<sup>12</sup> For a more detailed discussion of using the vacancy rate to gauge the stock imbalance in the housing market, see PBO's December 2016 report, [Household Formation and the Housing Stock: A Stock-Flow Perspective](#), which follows the approach used in Reynaud (2015), [Gauging Housing Supply in Canada: A Stock Approach.](#)

<sup>13</sup> At PBO's request, the Centre for Demography at Statistics Canada produced updated population projections. This update uses the total population as of July 1, 2023 as a base level and incorporates the Government's most recent immigration plan. This update also included a revised approach for the non-permanent resident component. PBO adjusted the updated projections to account for Statistics Canada population estimates by age and gender as of July 1, 2023 that were released on February 21.

On March 24, the Government announced its intention to decrease the non-permanent residents population to 5 per cent over the next three years. According to the Government, this target will be finalized in the fall following consultation with provinces and territories.

In our view, the net demographic impact in 2030 of a reduction in the share of non-permanent residents in the population will depend on the (yet-to-be specified) framework put in place to achieve this target. Consequently, our baseline demographic projections do not reflect the Government's March 24 announcement. The low population growth/baseline construction scenario presented in the sensitivity analysis can be used to gauge the impact of a lower population level on our baseline estimate of the housing gap.

<sup>14</sup> The additional 385,000 units reflects excess demographic demand estimated over 2022 and 2023, and projected excess demographic demand over 2024 to 2030. Our estimated vacancy rate in 2021 is very close to the 2000-2019 historical average (6.87 per cent and 6.91 per cent, respectively). Further, at the national level, we estimate that cumulative household formation over 2017 to 2021 matched net housing completions over the same period (1.005 million and 1.006 million, respectively).

<sup>15</sup> Our alternative population scenarios use the baseline levels in 2024 (by age, sex and province/territory) as a starting point, which are then extrapolated using corresponding growth rates from Statistics Canada's recently updated "high" and "low" population growth projections.

