FACT SHEET

METHODOLOGY:

**Summary:** We used data on incomes and shelter costs to calculate what percent of a single earner’s after-tax income would be spent on purchasing or renting various types of homes in the City of Toronto. The results of these calculations were mapped using GIS. The objective of this project is to illustrate the housing situation for five sectors of the economy that are critical to a functioning city.

**Data and Assumptions:**

**Median Sale Price for Homes**

We used data on the median sale price for the month of April 2019 within 35 real estate zones for 4 types of homes (detached homes, condo townhomes, condominium apartments and attached/row/townhouses). This was obtained from the Toronto Real Estate Board’s *April 2019 Market Watch* report.

**Median Rent for a Housing Unit**

We used self-reported data provided by the most recent CMHC rental market survey (compiled in October 2018) on the average rent for homes within 112 neighbourhoods in the City of Toronto for the following bedroom counts (Bachelor, 1 bedroom, 2-bedroom, 3 bedroom).

**Occupation and Wage Data**

We obtained wage data for the following occupations from Statistics Canada, as displayed on the Ontario Labour Market Job Profiles website: [https://www.iaccess.gov.on.ca/labourmarket/search.xhtml](https://www.iaccess.gov.on.ca/labourmarket/search.xhtml)

We chose the following 5 occupations to analyse:

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Annual Salary</th>
<th>Annual After-Tax Income</th>
<th>Monthly After-Tax Income (MATI)</th>
<th>MATI 50%</th>
<th>MATI 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paramedic</td>
<td>$91,256</td>
<td>$67,208</td>
<td>$5,601</td>
<td>$2,800</td>
<td>$1,680</td>
</tr>
<tr>
<td>Construction Formworker</td>
<td>$80,000</td>
<td>$59,580</td>
<td>$4,965</td>
<td>$2,483</td>
<td>$1,490</td>
</tr>
<tr>
<td>Social &amp; Community Service Worker</td>
<td>$50,932</td>
<td>$39,585</td>
<td>$3,298</td>
<td>$1,649</td>
<td>$990</td>
</tr>
<tr>
<td>Assistant Grocery Store Manager</td>
<td>$43,005</td>
<td>$34,293</td>
<td>$2,857</td>
<td>$1,429</td>
<td>$857</td>
</tr>
<tr>
<td>Sous-Chef</td>
<td>$38,000</td>
<td>$30,590</td>
<td>$2,550</td>
<td>$1,275</td>
<td>$765</td>
</tr>
</tbody>
</table>

We calculated the after-tax income using the Simple Tax Calculator: [https://simpletax.ca/calculator](https://simpletax.ca/calculator)

The wages were informally confirmed in discussions with people in those positions, or from industry groups and modified to better reflect the Toronto context when relevant. They are reflective of the median salary and are intended to be illustrative since different employers may pay more or less for these positions.
Monthly After-Tax Income

To calculate after tax incomes for these occupations, we used Simple Tax’s online calculator which applies a marginal tax rate, with the following assumptions:

- No other income sources (e.g. investment income, gifts, rental income, disability payments, etc.)
- No dependents or other taxable benefits

Monthly Property Tax Costs


Monthly Mortgage Costs

We assumed that a buyer had already made a 5% down payment (not included in the cost calculations), and was locked into a 3.29% mortgage interest rate, with a 25-year amortization.

Note that the costs of housing do not include utilities, home insurance, mortgage insurance, down payment costs, typical closing costs (e.g. legal, commission, land transfer taxes, title search, etc.) or any costs of upkeep (e.g. maintenance, renovations).

Ratio of Income to Expenditure Formula:

Ownership

% of Income Required: MATI for each occupation / (Monthly Mortgage Costs + Monthly Property Tax Costs)

Monthly Mortgage Costs = \( \frac{rP}{(1-1(1+r)^{-N})} \), where:

\( r = \) Monthly interest rate. Assume a 3.29% mortgage interest rate. 3.29%/12 = 0.274%

\( P = \) Mortgage Principal. Assume 95% of the median sale price of the home (buyer made a 5% down payment that is not included in costs)

\( N = \) Number of payments (term) remaining. Assume a 25-year amortization. \( N = 25*12 = 300 \)

So, for a $800,000 house:

\[ \text{Monthly Mortgage Costs} = 0.274% \times (95% \times $800,000) / (1 - 1(1+0.274%)^{-300}) \]

\[ = $3,718.88 \]

Monthly Property Tax Costs = 0.61477% * Median Sale Price

Renters:

% of Income Required = MATI/Median Rent for a Housing Unit