

Cost of Living in Toronto*

Are low-income families able to survive financially here?

Hyunje Park

September 27, 2024

This paper analyzes the living-cost data from low-income families living in Toronto, which is hosted publicly by the Open Data Toronto. It uses information on household income, expenses, government fiscal transfers, grants and benefits to determine if low-income families are able to survive financially in Toronto. It was discovered that expenses exceeded income for most families (meaning low-income families were not able to make ends meet in Toronto), and rent, food costs were among the highest expenses. This finding is important as it shows cost disparity in expenses, and provide insights to fiscal policymakers on what areas to better support low-income families with their living costs.

Table of contents

1	Introduction	2
2	Data	3
2.1	Overview of the Dataset	3
2.2	Average Income of the 11 Households	4
2.3	Average Expenses of the 11 Households	4
2.4	Difference between Income and Expense	5
3	Results	6
4	Discussion	7
5	Conclusion	8
6	Appendix	8
6.1	A.1 Detailed Information on the 11 Households	8

*Code and data are available at: <https://github.com/davidpxrk/cost-of-living-toronto>

1 Introduction

Toronto is the biggest and the most populous city in Canada. As the fourth largest city in North America, Toronto serves as a catalyst when it comes to being an international hub for many businesses, arts, sports and diverse cultures, attracting people from all around the world to come to Toronto to study at some of the best institutions, work or even simply travel as a tourist. More importantly, Toronto is the most diverse city in Canada, with many people of different cultures, backgrounds, ethnicity coexist, and bridge cultural gaps and create a unity.

While Toronto may seem like a perfect place to live, residents have said this to be far from the truth, with many struggling financially to meet ends, especially for those from a low income background. For example, according to the Daily Bread Food Bank, 1/10 people in Toronto relied on food banks in 2023, a huge increase from 1/20 from 2022 (*Daily Food Bank: Who's Hungry Report 2023: A Call to Action From a City in Crisis* 2023).

According to the City of Toronto, the threshold for LIM_AT (threshold to be considered low income) was \$26,503 for 1 person household, \$37,480 for two person household and \$53,005 for a four person household (*2021 Census: Families, Households, Marital Status and Income* 2022). 13.2% of Toronto's population fell under this category of low-income. Furthermore, Toronto continues to have a higher rate of low income than any other regions in the GTHA at 8.09% (*2021 Census: Families, Households, Marital Status and Income* 2022), highlighting an issue of income discrepancy.

This paper aims to analyze if low income families living in Toronto are financially able to survive. The analysis focuses on two different metrics; income (which includes income from employment, government benefits and transfers such as GST/HST credit, Canada Pension Plan and Canada Worker Benefits) and expenses (which includes rent, childcare, food and transportation costs). The difference between income and expenses can assess whether or not low-income families are able to survive, and can guide future policymakers on what areas of expenses the low-income families can get additional support.

The paper is organized as follows: Section 2 (Data) of this paper introduces the raw dataset of interest and some of the initial observations. Section 3 (Results) highlights some of the key insights that were derived from the data analysis. Section 4 (Discussion) discusses the observations from Section 3 and draws a conclusion from the findings. Finally, Section 5 (Conclusion) draws a brief summary of the key findings.

2 Data

This report uses the “About Cost of living in Toronto for low-income households” (Gelfand 2022) dataset, which is published publicly by the Social Development, Finance & Administration of Toronto on City of Toronto’s Open Data Portal. This data contains 17 variables on income and expenses such as **employment income**, **GST/HST credits**, **pension benefits**, **rent**, **food**, **transportation costs** for 11 different scenarios of a low-income household. The 11 different scenarios of low-income household were manually selected by the City of Toronto to reflect different household characteristics that can increase the reliance on social assistance, such as type of income, single-parent household, etc. A detailed explanation of this 11 household scenarios can be found in the Section 6 . The dataset is also within a monthly time period, reflecting monthly income and expenses.

The dataset was downloaded and analyzed using the **R Programming Language** (R Core Team 2023), **opendatatoronto** (Gelfand 2022), **knitr** (Xie 2014), **tidyverse** (Wickham et al. 2019), **here** (Müller 2020), **dplyr** (Wickham et al. 2023) and **sf** (Pebesma 2018).

2.1 Overview of the Dataset

The dataset published by **Social Development, Finance & Administration of Toronto** was last updated on August 2024 on an annual basis. However, the dataset uses price estimates from July 2022 - July 2023 for its income and expenses of the families. The variables chosen for this analysis were variables for the 11 households, for each entry of the income and expense types. See Table 1 for an overview. It is noted that expenses are not visible in Table 1 due to the long list of income that occupies the first rows.

Category	Item	Household_1	Household_2	Household_3
Income	Income from Employment	0	2687	9575
Income	Basic Allowance	494	0	0
Income	Maximum Shelter Allowance	756	0	0
Income	Old Age Security/Guaranteed Income Supplement	0	0	0
Income	Ontario Guaranteed Annual Income System	0	0	0
Income	Canada Child Benefit	1235	1192	248

Table 1: Sample of the Income/Expenses of Low Income Households in Toronto

It is also to note that the dataset for rent prices using **Toronto Regional Real Estate Board Market Rent** was chosen. Furthermore, there were several entries in the dataset that were irrelevant, such as **percentage of rent on income**, which were filtered out.

2.2 Average Income of the 11 Households

Table 2 shows that income from employment was the major income source for all the 11 households in Toronto by a large margin, at approximately \$1603 per month. This number also falls shy below the “low-income” threshold set by the City of Toronto, which is approximately \$2208.5 (*2021 Census: Families, Households, Marital Status and Income* 2022).

Type of Income	Average Income (\$)
Income from Employment	1603
Basic Allowance	365
Maximum Shelter Allowance	337
Old Age Security/Guaranteed Income Supplement	157
Ontario Guaranteed Annual Income System	8
Canada Child Benefit	480
GST/HST credit	48
Ontario Trillium Benefit	121
Canada Worker Benefit	43
Climate Action Incentive Payment (CAIP)	45
Pregnancy/Breast-feeding Nutritional Allowance (non-lactose intolerant)	4
Total	3106

Table 2: Average Income of Low Income Households in Toronto

The numbers may not add up properly as they were rounded to the nearest whole number.

2.3 Average Expenses of the 11 Households

There is a huge price disparity between the expenses of the 11 families. The biggest expense was rent, at an average of \$3146 per month, followed by food costs at \$705. The huge cost rent highlights a need for further investigation and is discussed in Section 4. See Table 3 for an overview of the dataset. Note that all the values are rounded up and therefore may not add up to the total.

Type of Expense	Average Expense in \$
Employment Insurance paid	24
Canada Pension Plan paid	81
Average Monthly Rent	3146
Food	705
Childcare	360
Transportation	460

Type of Expense	Average Expense in \$
Total	4670

Table 3: Average Expenses of Low Income Households in Toronto

2.4 Difference between Income and Expense

To better understand the relationship between the income and expenses of the 11 families, they were merged together into a single dataset. In addition to this, a variable for their difference was also created. See **Table 4** for a preview of the dataset.

Household	Total Income	Total Expenses	Remaining Funds
Household_1	2826	6782	-3956
Household_2	4192	7245	-3053
Household_3	9284	7245	2039
Household_4	2588	5089	-2501
Household_5	877	2670	-1793
Household_6	1386	3109	-1723
Household_7	2009	2963	-954
Household_8	2450	4011	-1561
Household_9	1426	3088	-1662
Household_10	4330	6107	-1777
Household_11	2793	3062	-269

Table 4: Difference of Income and Expenses of Low Income Households in Toronto

3 Results

Figure 1 shows income and expense for each household. Overall, expenses exceed income for all households. Only one household had an income that exceed expenses.

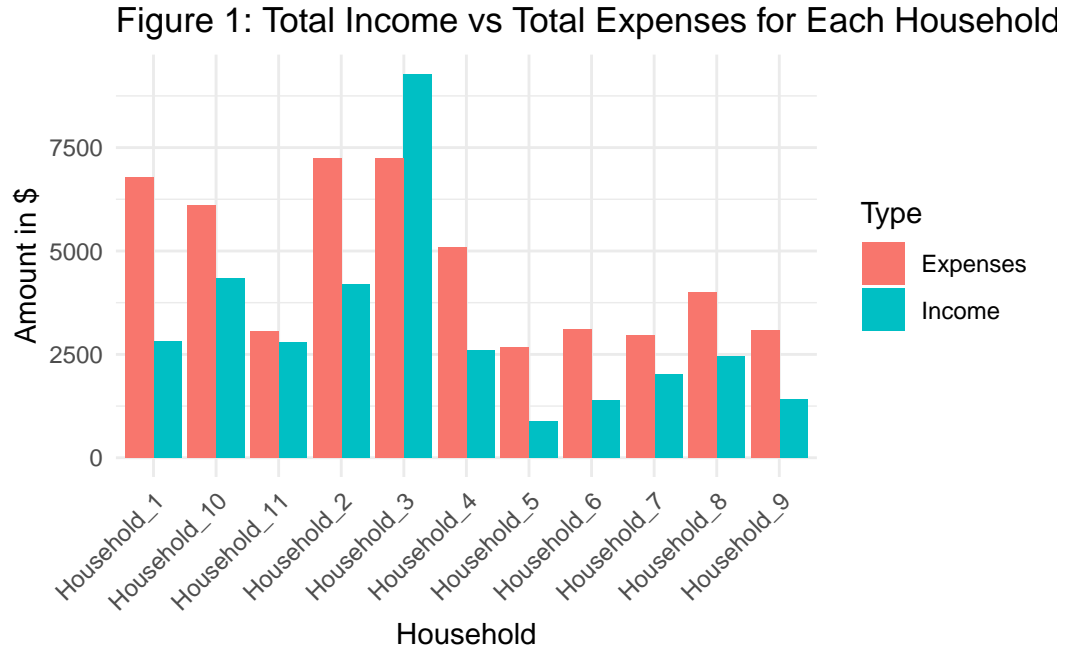


Figure 1: Total Income and Expenses of Low Income Households in Toronto

Furthermore, Figure 2 gives us a better understanding of the spending behind the high expenses. Rent was by far the most expensive, comprising 66% of the expenses.

Figure 2: Cost Breakdown of Expenses

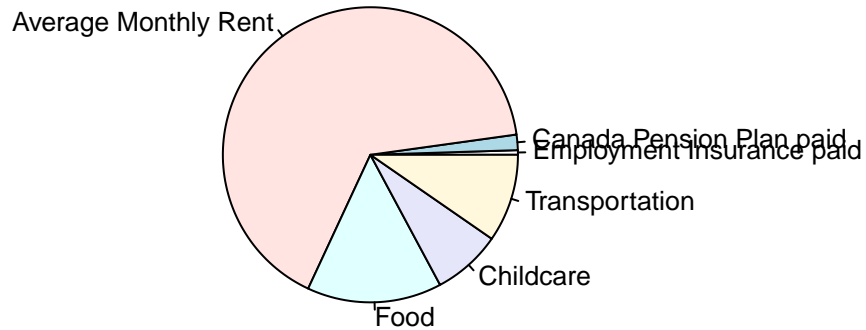


Figure 2: Expense Breakdown of Low Income Households in Toronto

4 Discussion

The tables and graphs above show that the expenses of these families exceed far of the income, suggesting they are not financially able to survive in Toronto. Furthermore, rent comprised 66% of the total expenses, highlighting a need for policymakers to focus on housing prices. However, this raises the question, would providing more income to these families solve their financial issues? While giving more money to these families certainly help, but having more money does not necessarily mean these families are utilizing their funds in an efficient way. For example, rent prices could differ significantly if a family chooses to reside in a less populated area and if the house contained less rooms. Furthermore, food prices can be significantly less if the families utilized low-costing grocery stores over eating out at restaurants.

Without context to this information, determining the efficiency of spending of the families is impossible. However, looking at the results suggest some inefficiencies in spending. For example, in **Figure 3**, the average rent was \$3146 per month for the 11 families, a big difference from the average rent for a one-bedroom condo of \$2,529 in Toronto for Q2 of 2023 (*Rental Market Report: TTREB Releases 2024 Q2 Rental Market Statistics 2024*). Expenses such as this could suggest that expenses could be correlated with poor financial decisions, however more research must be conducted to draw those conclusions.

5 Conclusion

In summary, this paper investigated the income and expenses of 11 different low-income household scenarios in Toronto. It showed that the average expenses far exceeded the average incomes, proving it impossible for low-income families to survive in Toronto. Furthermore, rent was the biggest expense, comprising 66% of the total average income, showing that aspect the biggest need for financial aid. Further research may be required to investigate into consumer spending behaviour that could help understand the reasoning behind the high expenses.

6 Appendix

6.1 A.1 Detailed Information on the 11 Households

The 11 different scenarios of low-income household were manually selected by the City of Toronto to reflect different household characteristics that can increase the reliance on social assistance, such as type of income, single-parent household, etc. The structure of the 11 households is as follows:

Household 1: 2 adults (male and female ages 31-50) with no income, 2 children (unable to contribute to income).

Household 2: 2 adults (male and female ages 31-50) with minimum wage pay (\$15.00/hr), 2 children (unable to contribute to income).

Household 3: 2 adults (male and female ages 31-50) with median income, 2 children (unable to contribute to income).

Household 4: 1 adult (female age 31-50) with no income, 2 children (unable to contribute to income).

Household 5: 1 adult (male age 31-50) with no income.

Household 6: 1 adult (male age 31-50) under Ontario Disability Support Program, 2 children (unable to contribute to income).

Household 7: 1 adult (female age 70+) under Old Age Security/Guaranteed Annual Income Supplement.

Household 8: 2 adults (male and female age 31-50) under Ontario Disability Support Program.

Household 9: 1 adult (female age 19-30) under Ontario Disability Support Program.

Household 10: 1 adult (female age 31-50) with minimum wage pay (\$15.00/hr) with 2 children (unable to contribute to income).

Household 11: 1 adult (female age 31-50) with minimum wage pay (\$15.00/hr).

The children mentioned are under the mandatory working age limit and therefore unable to join the workforce.

7 Statement on LLMs

LLMs and other generative AI tools were not used in the making of this paper.

References

- 2021 Census: Families, Households, Marital Status and Income*. 2022. City of Toronto. <https://www.toronto.ca/wp-content/uploads/2022/07/9877-City-Planning-2021-Census-Backgrounder-Families-Hhlds-Marital-Status-Income.pdf>.
- Daily Food Bank: Who's Hungry Report 2023: A Call to Action From a City in Crisis*. 2023. Daily Bread Food Bank. <https://www.dailybread.ca/wp-content/uploads/2023/11/DB-WhosHungryReport-2023-Digital.pdf>.
- Gelfand, Sharla. 2022. *Opendatatoronto: Access the City of Toronto Open Data Portal*. <https://CRAN.R-project.org/package=opendatatoronto>.
- Müller, Kirill. 2020. *Here: A Simpler Way to Find Your Files*. <https://CRAN.R-project.org/package=here>.
- Pebesma, Edzer. 2018. "Simple Features for R: Standardized Support for Spatial Vector Data." *The R Journal* 10 (1): 439–46. <https://doi.org/10.32614/RJ-2018-009>.
- R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Rental Market Report: TTREB Releases 2024 Q2 Rental Market Statistics*. 2024. Toronto Regional Real Estate Board. <https://trreb.ca/market-data/rental-market-report/>.
- Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Golemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. <https://doi.org/10.21105/joss.01686>.
- Wickham, Hadley, Romain François, Lionel Henry, Kirill Müller, and Davis Vaughan. 2023. *Dplyr: A Grammar of Data Manipulation*. <https://CRAN.R-project.org/package=dplyr>.
- Xie, Yihui. 2014. "Knitr: A Comprehensive Tool for Reproducible Research in R." In *Implementing Reproducible Computational Research*, edited by Victoria Stodden, Friedrich Leisch, and Roger D. Peng. Chapman; Hall/CRC. <http://www.crcpress.com/product/isbn/9781466561595>.