Age and Gender Analysis in Shelter System Flow

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Abstract

This research project provides an investigation of Toronto's actively homeless population, offering additional knowledge about the demographics of this population. According to my investigation, the age range of 25–44 accounts for the greatest percentage of those who are homeless, or about 39.36% of the total, while the 45–64 age group accounts for 30.03%. Gender distribution shows that men make up 61.86% of the population, women 36.73%, and people who identify as transgender, non-binary, or two-spirit make up approximately 1.41%.These statistics show the critical need for targeted interventions and support services addressing the specific needs of these demographic groups within the homeless community.

Introduction

Homelessness is a complex problem that poses significant challenges for people, communities, and legislators. This research aims to investigate the complexities of this problem by focusing on how age and gender affect homelessness in urban areas specifically Toronto. Through the analysis of data from the Shelter System Flow dataset, which is derived from the Shelter Management Information System (SMIS) of the City of Toronto, this study seeks to offer a more comprehensive grasp of the demographic patterns within the homeless population.

Toronto's approach to homelessness, characterized by a range of services including emergency shelters and respites, reflects the city's commitment to addressing this complex social problem. However, the persistence and evolving nature of homelessness necessitate a continuous examination of the underlying factors. The aim of this research is to determine how age and gender affect homelessness in Toronto, providing a data-driven perspective on the distribution and dynamics of homelessness among different demographic groups.

In the following sections, I will present a detailed analysis of the Toronto Shelter System Flow dataset, exploring the patterns and trends of homelessness among different age and gender groups. The paper will then discuss the implications of these findings, considering both the broader social context and the specific realities of homelessness in Toronto. Finally, we will address the limitations of our study and suggest directions for future research, emphasizing the importance of continuous and nuanced exploration of this critical social issue.

Data

The data utilized in this study is sourced from the City of Toronto's Shelter Management Information System (SMIS), focusing specifically on the "Toronto Shelter System Flow" data set. This dataset is an important resource for understanding the dynamics of homelessness in Toronto and is used to track the flow of individuals experiencing homelessness as they enter and exit the shelter system. The data is collected and managed by the City of Toronto, which funds and operates a range of services for the homeless, including emergency shelters, respites, and other allied services.

2.1 Toronto Shelter System Flow

The "Toronto Shelter System Flow" dataset provides monthly data on individuals experiencing homelessness, including those who are entering and leaving the shelter system. It records various parameters such as the number of unique individuals who have accessed the shelter system at least once in the past three months, their demographic information, and their current status in the system (e.g., actively homeless, moved to housing, became inactive).

The dataset categorizes individuals into different groups based on criteria such as chronic homelessness, family status, age (including youth), and refugee status. It also includes specific definitions for each category. For instance, "chronic homelessness" is defined according to federal guidelines, and Indigenous identity is determined based on self-identification during intake.

2.2 Limitations and Context

While the dataset provides extensive information, it has some limitations. It only includes data on individuals who have used overnight services and does not account for those exclusively sleeping outdoors or utilizing non-city-funded homelessness services. Additionally, sites not using SMIS and funded by other government levels are excluded. This limitation is crucial to acknowledge as it impacts the comprehensiveness of the dataset.

2.3 Ethical and Statistical Considerations

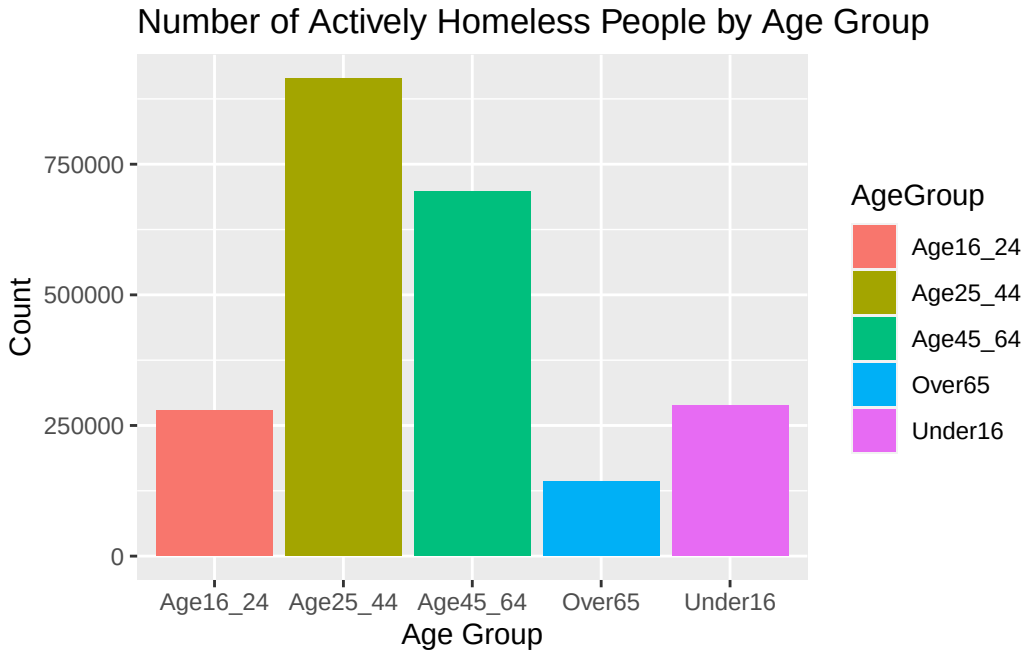
The dataset raises important ethical considerations, particularly regarding the privacy and confidentiality of individuals experiencing homelessness. The City of Toronto ensures that data collection and reporting comply with relevant privacy laws and ethical standards. From a statistical standpoint, the dataset provides a great source for analysis, but the previously mentioned limitations must be taken into account when drawing conclusions or generalizing findings.

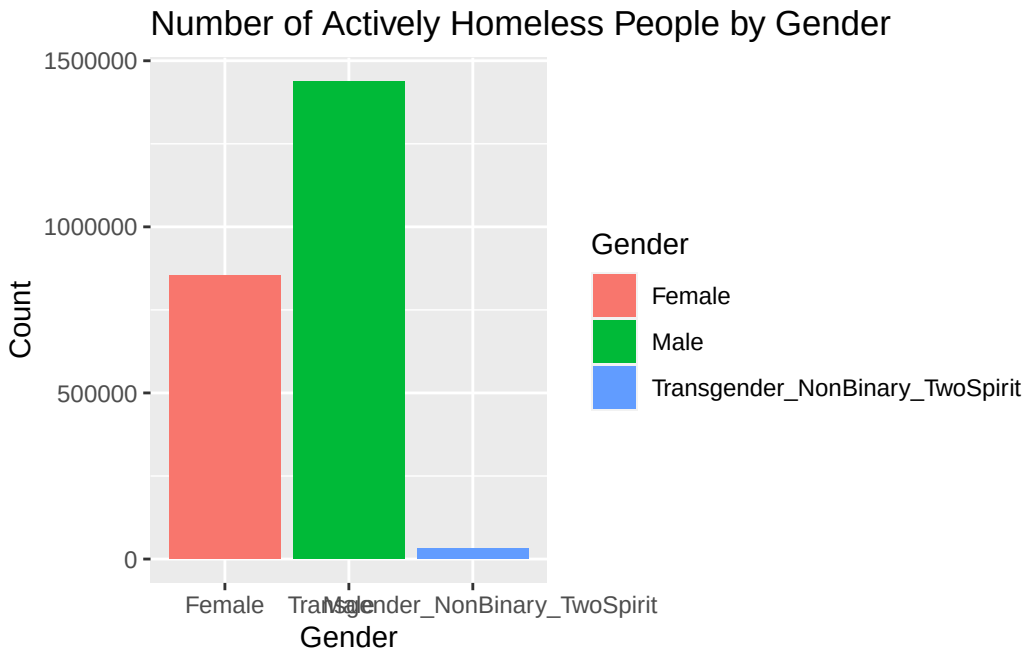
2.4 Data Accessibility and Quality

The dataset scores high in terms of freshness, metadata, accessibility, completeness, and usability. This indicates that the data is up-to-date, well-described, easily accessible for different users, and has no major issues regarding missing data or usability. Such attributes enhance the reliability and relevance of the dataset for research purposes.

3 Results

The following bar graphs show the distribution of the actively homeless populations by age and gender. It also showcases two tibbles which have the proportion of the actively homeless population by age and gender.






```
# A tibble: 5 x 3
  AgeGroup  Count Proportion
  <chr>     <int>      <dbl>
1 Under16  288742      12.4
2 Age16_24 278477      12.0
3 Age25_44 913692      39.4
4 Age45_64 697142      30.0
5 Over65   143528       6.18
```

```
# A tibble: 3 x 3
  Gender                            Count Proportion
  <chr>                             <int>      <dbl>
1 Male                            1437230      61.9
2 Female                           853302      36.7
3 Transgender_NonBinary_TwoSpirit   32782       1.41
```

References

This research was conducted using (R Core Team 2024), (Wickham 2024) and (*Opendatatoronto: Official Source for Toronto Open Data* 2024)

Acknowledgments

Find more details here: Age and Gender Analysis in Shelter System Flow

Opendatatoronto: Official Source for Toronto Open Data. 2024. https://open.toronto.ca/.
R Core Team. 2024. *The r Project for Statistical Computing*. https://www.r-project.org/.
Wickham, Hadley. 2024. *Tidyverse: Collection of Open Source Packages*. https://www.tidyverse.org/.