# Better Household Living Conditions Improve Life Satisfaction

Rachel Oh, Yang Shang

19/10/2020

**Abstract**

This report describes the effects of household living conditions on life satisfaction. It is found that better household living conditions do improve life satisfaction to a certain degree. These results are important as it is fundamental that people know what makes them satisfied with their lives because no human would wish to have an unsatisfying life.

## Introduction

Full code and data supporting this analysis is available at: https://github.com/hyunbani/household-living-conditions-and-life-satisfaction

## Data

The data was collected from Statistics Canada's General Social Survey (GSS), which is an annual survey with statistical information on the living conditions and well-being of people living in Canada. In this report, we are using the data collected in 2017, through telephone interview.

People of interest were those who are 15 years of age and older, living in the 10 provinces. However, it would be costly and impractical to survey each and every household in Canada, so random sampling was chosen as a method to determine the sample of 43,000 people, which reflects the population. In order to ensure that the sample is an accurate reflection of the population as a whole, the survey results from all sampled households were collected, and only one eligible person per household was interviewed.

People who did not answer the telephone calls were excluded from the sample. However, there still exist some non responses for some of the questions being asked, and these are recorded as 'NA' in the dataset.

Since the answers are kept strictly confidential, the respondents must have provided the answers in a more honest manner, leading to an increase in accuracy of data information. However, the collection method was not very efficient since it took a lot of time to collect answers through telephone interview, and many people tend to not answer the phone calls.

| Case | Life Satisfaction | Household Size | Owned | Partner | No Child | Single House |
|------|------|------|------|------|------|------|
| 1 | 8 | 1 | 1 | 0 | 1 | 0 |
| 2 | 10 | 2 | 1 | 0 | 1 | 1 |
| 3 | 8 | 2 | 1 | 0 | 1 | 1 |
| 4 | 10 | 2 | 1 | 0 | 1 | 0 |
| 5 | 8 | 2 | 0 | 1 | 1 | 0 |
| 6 | 9 | 2 | 1 | 0 | 1 | 1 |
| 7 | 4 | 1 | 0 | 0 | 1 | 0 |
| 8 | 10 | 1 | 0 | 0 | 1 | 0 |

| Case | Life Satisfaction | Household Size | Owned | Partner | No Child | Single House |
|------|-------------------|----------------|-------|---------|----------|--------------|
| 9    | 8                 | 1              | 1     | 0       | 1        | 0            |
| 10   | 5                 | 6              | 1     | 0       | 1        | 1            |

# Model

# Results

# Discussion

# References

- R Core Team (2020). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

- JJ Allaire and Yihui Xie and Jonathan McPherson and Javier Luraschi and Kevin Ushey and Aron Atkins and Hadley Wickham and Joe Cheng and Winston Chang and Richard Iannone (2020). rmarkdown: Dynamic Documents for R. R package version 2.3. URL https://rmarkdown.rstudio.com.

- Yihui Xie and J.J. Allaire and Garrett Grolemund (2018). R Markdown: The Definitive Guide. Chapman and Hall/CRC. ISBN 9781138359338. URL https://bookdown.org/yihui/rmarkdown.

- Wickham et al., (2019). Welcome to the tidyverse. Journal of Open Source Software, 4(43), 1686. URL https://doi.org/10.21105/joss.01686

- Paul-Christian Bürkner (2017). brms: An R Package for Bayesian Multilevel Models Using Stan. Journal of Statistical Software, 80(1), 1-28. doi:10.18637/jss.v080.i01

- Paul-Christian Bürkner (2018). Advanced Bayesian Multilevel Modeling with the R Package brms. The R Journal, 10(1), 395-411. doi:10.32614/RJ-2018-017

- Canadian General Social Surveys (2017). General social survey on Family (cycle 31). URL https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=335816

- Stan Development Team (2020). RStan: the R interface to Stan. R package version 2.21.1. URL http://mc-stan.org/.

- Hadley Wickham and Evan Miller (2020). haven: Import and Export 'SPSS', 'Stata' and 'SAS' Files. R package version 2.3.1. URL https://CRAN.R-project.org/package=haven

- Jacob Kaplan (2020). fastDummies: Fast Creation of Dummy (Binary) Columns and Rows from Categorical Variables. R package version 1.6.2. URL https://CRAN.R-project.org/package=fastDummies

  Yihui Xie (2020). knitr: A General-Purpose Package for Dynamic Report Generation in R. R package version 1.30.

  Yihui Xie (2015) Dynamic Documents with R and knitr. 2nd edition. Chapman and Hall/CRC. ISBN 978-1498716963

  Yihui Xie (2014) knitr: A Comprehensive Tool for Reproducible Research in R. In Victoria Stodden, Friedrich Leisch and Roger D. Peng, editors, Implementing Reproducible Computational Research. Chapman and Hall/CRC. ISBN 978-1466561595