

A Statistical View of The Right to Vancouverism: Social Reproduction Placemaking in the Revanchist City

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1 Introduction

reference blog post and talk about the 2018 chs.

statistical questions:

Q1: how sound are statistical analyses in blog post?

Q2: can we expand that analysis to account for low-income women?

Q3: can we deep dive into vancouver?

2 Statistical Considerations of the 2018 CHS PUMF

In order to protect the privacy of survey respondents (i.e. preventing any respondent or household to be identified), data obtained in the CHS is modified in various ways. [Statistics Canada, 2021, Section 6] goes into detail about the safeguards used by Statistics Canada. These include decreasing the level of geographic detail; grouping answers into categories in questions that contain many answers; adding random noise to some quantitative variables; and rounding very small or large quantitative values, which normally correspond to extreme (i.e. rare) households.

The modified data, called the *public use microdata file* (PUMF), is then made public. Naturally, analyses based on the PUMF will differ from those carried out using the full master file of Statistics Canada due to the data modification process used to decrease disclosure risk. [Statistics Canada, 2021, Section 7] explains in detail all the limitations of analyses based on the PUMF. Succinctly, however, the PUMF should not be used to carry out statistical analyses. Rather, it should be used to conduct exploratory data analyses that might indicate which models are appropriate and possibly to obtain preliminary estimates of variables of interest.

Related to the first statistical question, the PUMF cannot be reliably used to measure variability, and it does not include bootstrap weights. Hence, practically any statistical test would produce invalid

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results. This is because, even if point estimates are not necessarily way off when compared with the values obtained from Statistics Canada's master file, there is no way to reliably measure the quality of each estimate. More so, the accuracy of point estimates depends on the number of variables that are being cross-tabulated. Again, there is no objective and reliable way to measure this accuracy.

Once preliminary results have been obtained and an appropriate model (or family of models) selected, the PUMF user guide Statistics Canada [2021] recommends requesting access to the CHS master files. Statistical analyses based on the full data files will be valid and, furthermore, can be made to a greater level of detail (e.g. geographically).

As for the second statistical question, the PUMF contains the gender of the reference person, i.e. the one answering the survey. This means that accounting for gender using the PUMF would be difficult as there is no indication of the relationship between the reference person and the main provider of each household. It is possible that the master file does contain information about each member of the household, including gender, although the PUMF guide is not very clear about this.

In terms of the third statistical question of, the PUMF only contains geographic information at the census metropolitan area (CMA), which for British Columbia (B.C.) corresponds to three categories: Vancouver, other large cities, and the rest of B.C. The confidential master file of Statistics Canada, however, does contain more detailed information that would allow a more granular analysis.

3 Exploratory Data Analysis

here we replicate some of the plots in the blog post but separating by gender and only for bc.

mention how gender is calculated in survey and limitations.

show plots, explain.

4 Conclusion

References

Statistics Canada. 2018 Canadian Housing Survey: Public Use of Microdata File User Guide. In *Canadian Housing Survey, 2018*. Abacus Data Network, 2021.