Mobilizing Justice: Montreal Fair Pass Pilot

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This version: October 18, 2023

This report overviews the first wave of the Montreal Fair Pass Survey's data. The survey's spatial representation generally coincides with areas that concentrate populations from low-income groups. Individuals from low-income households appear to be over-represented in the survey as a whole (13 p.p. difference from the census data), Visible minorities, on the other hand, appear to be under-represented (29 p.p. difference). Other groups, such as women and man, and control (50 to 64 years old) and treatment (above 65 years old), showed no significant difference in representation. The code used to produce this report is found on the project's github repository.

1 Initial information

The original raw dataset contained 1970 respondents, of which we were able to geocode 1692 observations. 2 of them declared their residential location outside a 250 meter buffer around the island of Montreal (Census Division code equals to 2466), leaving us with 1690 respondents within the borders of the island and, therefore, in the final dataset.

2 Survey's representation

2.1 Demographics

The plot below shows comparisons of the survey's representation according to selected demographics. Categories where the red dot is on the right mean under-representation of the survey (i.e., the census' relative population of a given group is greater than the survey's), while categories where the blue dot is on the right equal over-representation of the survey (i.e., the survey's relative population of a given group is greater than the census'). The survey, then, over-represents for women, the control group (50-64 years old), and people within the

Low-income measure, and under-representation occurs for men, the treatment group (65 years or older), and visible minorities.

Differences in representation appear to be insignificant for the most groups, with the notable exception of Low-income and Visible Minorities. The former has a 13 p.p. over-representation, while the latter is under represented by 29 p.p.. These differences put into question MJ's capacity to assess the policy's effectiveness for visible minorities, given their under-representation on the survey. This is an unfortunate situation, considering those are historically and structurally marginalized groups that suffer disproportionately with transport poverty and transport-related social exclusion, and that these groups would be target audiences for a policy that reduces the monetary burden of transportation such as the fare-free pass program.
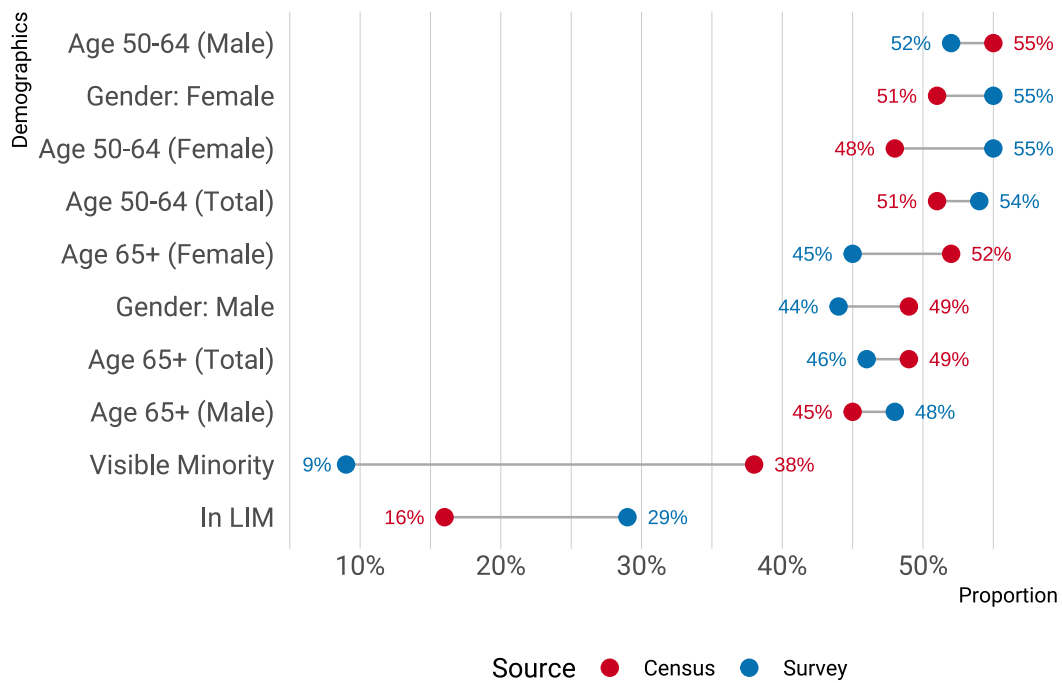

Figure 1: Proportion of respondents by Source and Demographics

2.2 Spatial

The two maps below give an overview of the spatial representation of survey. The map on the left shows how the relative participation of the population below the Low Income Measure is spatially distributed in the Island of Montreal according to the 2021 Census. It seems

clear that this group, which constitutes part of the target audience of the fare-free policy, are spatially concentrated on the eastern and northern parts of the island. The map on the right complements the former, showing the under and over-representation of the survey against the population over 50 years old according to the census. The survey's over-representation appears to be located on the regions that concentrate groups from low-income households, while under-representation occurs on less-populated and regions with low participation of the equity deserving groups from an income's perspective.
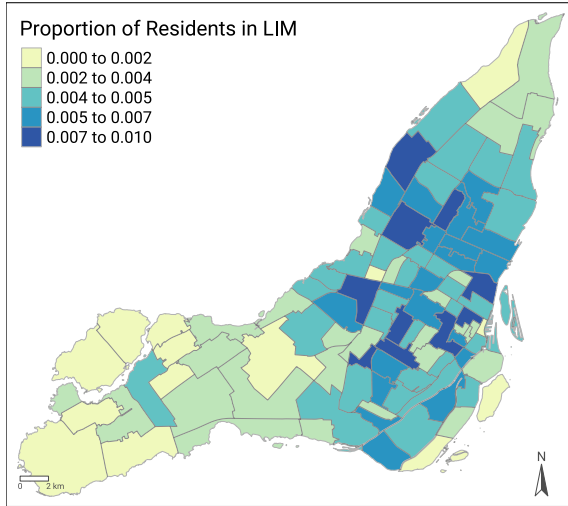

Figure 2: Population in LIM (Census)
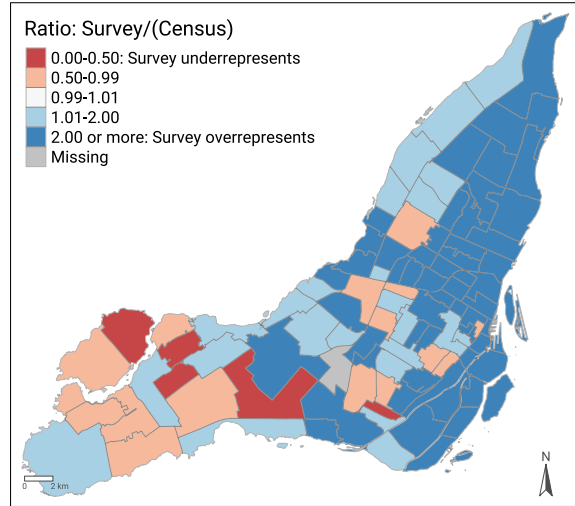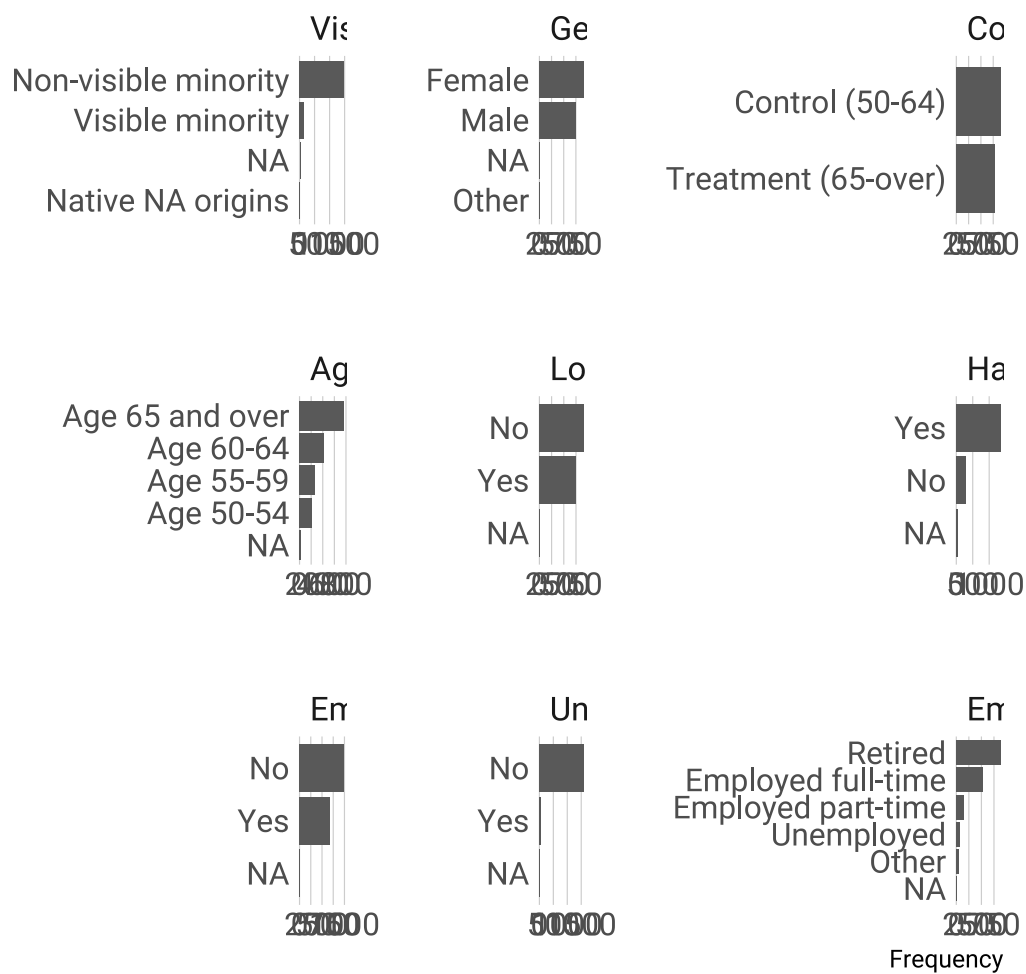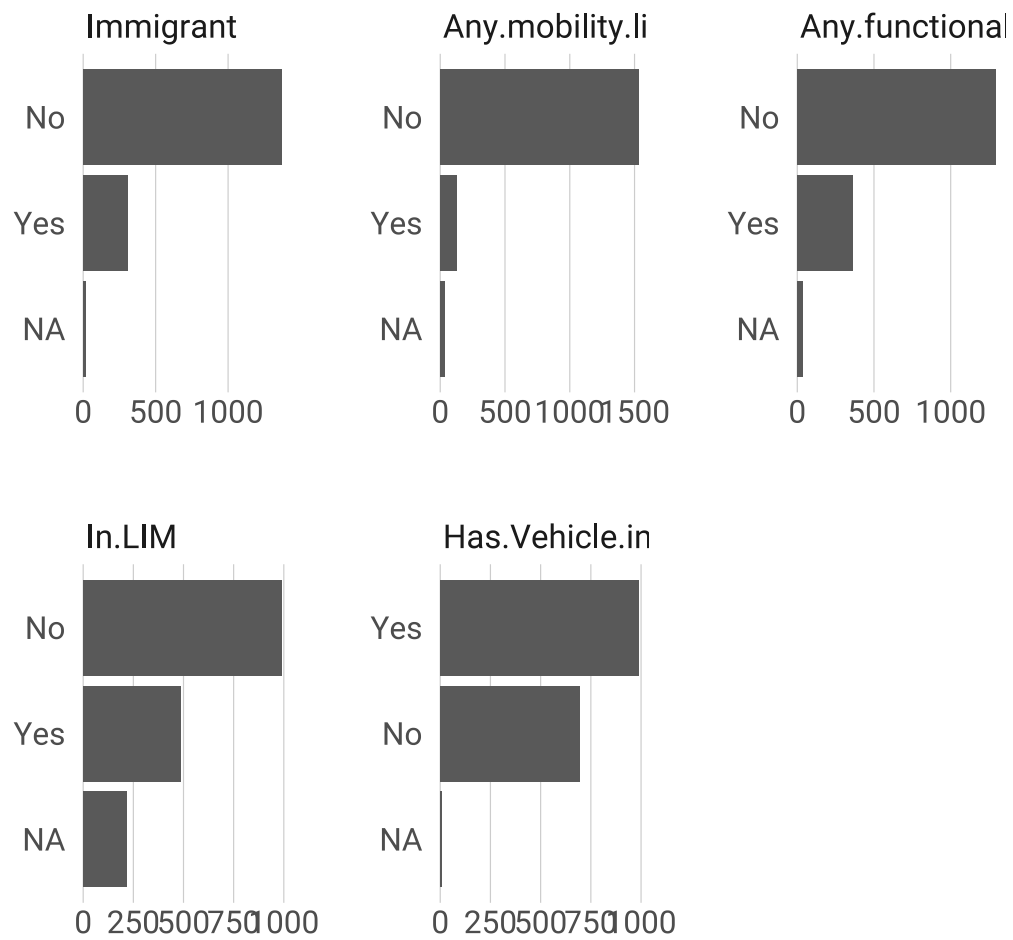

Figure 3: Under/over-representation ratio of survey respondents vs. population over 50

3 Descriptive analysis

Below, we get some basic information on who took the survey and what are some of the results related to their travel behavior.

3.1 Who took the survey?

Vis

Non-visible minority	
Visible minority	
NA	
Native NA origins	

500900

Ge

Female	
Male	
NA	
Other	

250750

Co

Control (50-64)	
Treatment (65-over)	

250750

Ag

Age 65 and over	
Age 60-64	
Age 55-59	
Age 50-54	
NA	

246800

Lo

No	
Yes	
NA	

250750

Ha

Yes	
No	
NA	

60000

Em

No	
Yes	
NA	

250600

Un

No	
Yes	
NA	

500600

Em

Retired	
Employed full-time	
Employed part-time	
Unemployed	
Other	
NA	

250750

Frequency

Immigrant · Any.mobility.li · Any.functional
In.LIM · Has.Vehicle.in

Frequency

3.2 What is their travel behavior