Mobilizing Justice: Montreal Fair Pass Pilot

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This version contains only the updated tables and visualizations from the new report. The text can be found at the onedrive link.

# 1. Descriptive analysis

## 1.1 Who took the survey?

### 1.1.1 TAB response rate CONTROL X TREATMENT

contigency test between response rate and age\_control\_treatment variable

Spearman's rank correlation rho  
  
data: df\_first$response\_rate and df\_first$age\_groups\_control\_treat  
S = 744944248, p-value = 0.002342  
alternative hypothesis: true rho is not equal to 0  
sample estimates:  
 rho   
0.07399131

| **Characteristic** | **Did not start wave 2**, N = 5851 | **Started wave 2**, N = 1,1051 |
| --- | --- | --- |
| Age groups (Control and Treatment) |  |  |
| Control (50-64) | 345 (59%) | 566 (51%) |
| Treatment (65-over) | 240 (41%) | 539 (49%) |
| Age groups (5 years intervals) |  |  |
| Age 50-54 | 88 (15%) | 123 (11%) |
| Age 55-59 | 101 (18%) | 170 (15%) |
| Age 60-64 | 146 (26%) | 270 (25%) |
| Age 65-69 | 109 (19%) | 226 (21%) |
| Age 70-74 | 66 (12%) | 181 (16%) |
| Age 75-79 | 41 (7.2%) | 85 (7.7%) |
| Age 80-84 | 19 (3.3%) | 35 (3.2%) |
| Age 85-89 | 1 (0.2%) | 7 (0.6%) |
| Age 90 and over | 0 (0%) | 3 (0.3%) |
| Missing | 14 | 5 |
| 1n (%) | | |

### 1.1.2 TAB response rate DEMOGRAPHICS

contigency test between response rate and age\_control\_treatment variable

Spearman's rank correlation rho  
  
data: df\_first$response\_rate and df\_first$visible\_minority  
S = 855359864, p-value = 1.733e-07  
alternative hypothesis: true rho is not equal to 0  
sample estimates:  
 rho   
-0.1280614

Spearman's rank correlation rho  
  
data: df\_first$response\_rate and df\_first$immigrant  
S = 870334750, p-value = 5.139e-06  
alternative hypothesis: true rho is not equal to 0  
sample estimates:  
 rho   
-0.1112027

|  | **Did not start wave 2, N = 1690** | | | **Started wave 2, N = 1690** | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Characteristic** | **Control (50-64)**, N = 3451 | **Treatment (65-over)**, N = 2401 | **Total**, N = 5851 | **Control (50-64)**, N = 5661 | **Treatment (65-over)**, N = 5391 | **Total**, N = 11051 |
| Visible minority |  |  |  |  |  |  |
| Non-visible minority | 279 (84%) | 197 (86%) | 476 (85%) | 505 (90%) | 512 (96%) | 1,017 (93%) |
| Visible minority | 51 (15%) | 30 (13%) | 81 (14%) | 44 (7.9%) | 21 (3.9%) | 65 (5.9%) |
| Native NA origins | 1 (0.3%) | 3 (1.3%) | 4 (0.7%) | 11 (2.0%) | 3 (0.6%) | 14 (1.3%) |
| Missing | 14 | 10 | 24 | 6 | 3 | 9 |
| Is Immigrant |  |  |  |  |  |  |
| No | 252 (74%) | 185 (78%) | 437 (76%) | 469 (83%) | 462 (86%) | 931 (85%) |
| Yes | 89 (26%) | 51 (22%) | 140 (24%) | 93 (17%) | 74 (14%) | 167 (15%) |
| Missing | 4 | 4 | 8 | 4 | 3 | 7 |
| Gender |  |  |  |  |  |  |
| Female | 193 (57%) | 137 (58%) | 330 (57%) | 312 (56%) | 280 (52%) | 592 (54%) |
| Male | 145 (43%) | 98 (41%) | 243 (42%) | 247 (44%) | 257 (48%) | 504 (46%) |
| Other | 1 (0.3%) | 2 (0.8%) | 3 (0.5%) | 2 (0.4%) | 1 (0.2%) | 3 (0.3%) |
| Missing | 6 | 3 | 9 | 5 | 1 | 6 |
| Has post-secondary education |  |  |  |  |  |  |
| Yes | 276 (82%) | 189 (81%) | 465 (82%) | 454 (82%) | 445 (83%) | 899 (83%) |
| No | 61 (18%) | 43 (19%) | 104 (18%) | 101 (18%) | 89 (17%) | 190 (17%) |
| Missing | 8 | 8 | 16 | 11 | 5 | 16 |
| 1n (%) | | | | | | |

### 1.1.3 Table time-variant socio-demographics

|  | **First** | | | **Second** | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Characteristic** | **Control (50-64)**, N = 5661 | **Treatment (65-over)**, N = 5391 | **Total**, N = 11051 | **Control (50-64)**, N = 5661 | **Treatment (65-over)**, N = 5391 | **Total**, N = 11051 |
| Any mobility limitation |  |  |  |  |  |  |
| No | 509 (92%) | 507 (94%) | 1,016 (93%) | 499 (92%) | 486 (94%) | 985 (93%) |
| Yes | 45 (8.1%) | 31 (5.8%) | 76 (7.0%) | 44 (8.1%) | 33 (6.4%) | 77 (7.3%) |
| Missing | 12 | 1 | 13 | 23 | 20 | 43 |
| Any functional limitation |  |  |  |  |  |  |
| No | 430 (78%) | 438 (81%) | 868 (79%) | 434 (80%) | 416 (80%) | 850 (80%) |
| Yes | 124 (22%) | 100 (19%) | 224 (21%) | 110 (20%) | 104 (20%) | 214 (20%) |
| Missing | 12 | 1 | 13 | 22 | 19 | 41 |
| Employment |  |  |  |  |  |  |
| Retired | 159 (28%) | 470 (87%) | 629 (57%) | 166 (30%) | 454 (86%) | 620 (58%) |
| Employed full-time | 265 (47%) | 34 (6.3%) | 299 (27%) | 262 (47%) | 29 (5.5%) | 291 (27%) |
| Employed part-time | 65 (12%) | 32 (5.9%) | 97 (8.8%) | 62 (11%) | 36 (6.8%) | 98 (9.1%) |
| Unemployed | 41 (7.3%) | 1 (0.2%) | 42 (3.8%) | 34 (6.2%) | 3 (0.6%) | 37 (3.4%) |
| Other | 15 (2.7%) | 1 (0.2%) | 16 (1.5%) | 13 (2.4%) | 3 (0.6%) | 16 (1.5%) |
| Full-time parent/homemaker | 15 (2.7%) | 1 (0.2%) | 16 (1.5%) | 15 (2.7%) | 1 (0.2%) | 16 (1.5%) |
| Missing | 6 | 0 | 6 | 14 | 13 | 27 |
| Annual income groups |  |  |  |  |  |  |
| Less than $15,000 | 44 (8.6%) | 8 (1.7%) | 52 (5.3%) | 38 (7.5%) | 7 (1.5%) | 45 (4.6%) |
| $15,000 to $29,999 | 84 (16%) | 137 (29%) | 221 (22%) | 82 (16%) | 136 (29%) | 218 (22%) |
| $30,000 to $59,999 | 185 (36%) | 159 (33%) | 344 (35%) | 172 (34%) | 167 (35%) | 339 (35%) |
| $60,000 to $89,999 | 90 (18%) | 105 (22%) | 195 (20%) | 104 (21%) | 99 (21%) | 203 (21%) |
| $90,000 to $119,999 | 68 (13%) | 37 (7.7%) | 105 (11%) | 66 (13%) | 36 (7.6%) | 102 (10%) |
| $120,000 to $149,999 | 24 (4.7%) | 20 (4.2%) | 44 (4.4%) | 24 (4.7%) | 18 (3.8%) | 42 (4.3%) |
| $150,000 to $179,999 | 8 (1.6%) | 8 (1.7%) | 16 (1.6%) | 11 (2.2%) | 7 (1.5%) | 18 (1.8%) |
| $180,000 to $209,999 | 6 (1.2%) | 1 (0.2%) | 7 (0.7%) | 6 (1.2%) | 2 (0.4%) | 8 (0.8%) |
| $210,000 or more | 3 (0.6%) | 3 (0.6%) | 6 (0.6%) | 4 (0.8%) | 0 (0%) | 4 (0.4%) |
| Missing | 54 | 61 | 115 | 59 | 67 | 126 |
| Household below LIM |  |  |  |  |  |  |
| No | 355 (70%) | 326 (68%) | 681 (69%) | 365 (72%) | 320 (68%) | 685 (70%) |
| Yes | 153 (30%) | 151 (32%) | 304 (31%) | 140 (28%) | 151 (32%) | 291 (30%) |
| Missing | 58 | 62 | 120 | 61 | 68 | 129 |
| Single-person household |  |  |  |  |  |  |
| No | 328 (58%) | 269 (50%) | 597 (54%) | 314 (57%) | 254 (48%) | 568 (53%) |
| Yes | 233 (42%) | 268 (50%) | 501 (46%) | 238 (43%) | 270 (52%) | 508 (47%) |
| Missing | 5 | 2 | 7 | 14 | 15 | 29 |
| Has Vehicle in Household |  |  |  |  |  |  |
| Yes | 327 (58%) | 325 (60%) | 652 (59%) | 315 (57%) | 309 (59%) | 624 (58%) |
| No | 237 (42%) | 213 (40%) | 450 (41%) | 238 (43%) | 217 (41%) | 455 (42%) |
| Missing | 2 | 1 | 3 | 13 | 13 | 26 |
| 1n (%) | | | | | | |

, any\_mobility\_limitation , any\_functional\_limitation , employment , income\_groups , in\_lim , lone\_household

## 1.2 What is their travel behavior?

|  | **First** | | | **Second** | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Characteristic** | **Control (50-64)**, N = 5661 | **Treatment (65-over)**, N = 5391 | **Total**, N = 11051 | **Control (50-64)**, N = 5661 | **Treatment (65-over)**, N = 5391 | **Total**, N = 11051 |
| Any mobility limitation |  |  |  |  |  |  |
| No | 509 (92%) | 507 (94%) | 1,016 (93%) | 499 (92%) | 486 (94%) | 985 (93%) |
| Yes | 45 (8.1%) | 31 (5.8%) | 76 (7.0%) | 44 (8.1%) | 33 (6.4%) | 77 (7.3%) |
| Missing | 12 | 1 | 13 | 23 | 20 | 43 |
| Any functional limitation |  |  |  |  |  |  |
| No | 430 (78%) | 438 (81%) | 868 (79%) | 434 (80%) | 416 (80%) | 850 (80%) |
| Yes | 124 (22%) | 100 (19%) | 224 (21%) | 110 (20%) | 104 (20%) | 214 (20%) |
| Missing | 12 | 1 | 13 | 22 | 19 | 41 |
| Employment |  |  |  |  |  |  |
| Retired | 159 (28%) | 470 (87%) | 629 (57%) | 166 (30%) | 454 (86%) | 620 (58%) |
| Employed full-time | 265 (47%) | 34 (6.3%) | 299 (27%) | 262 (47%) | 29 (5.5%) | 291 (27%) |
| Employed part-time | 65 (12%) | 32 (5.9%) | 97 (8.8%) | 62 (11%) | 36 (6.8%) | 98 (9.1%) |
| Unemployed | 41 (7.3%) | 1 (0.2%) | 42 (3.8%) | 34 (6.2%) | 3 (0.6%) | 37 (3.4%) |
| Other | 15 (2.7%) | 1 (0.2%) | 16 (1.5%) | 13 (2.4%) | 3 (0.6%) | 16 (1.5%) |
| Full-time parent/homemaker | 15 (2.7%) | 1 (0.2%) | 16 (1.5%) | 15 (2.7%) | 1 (0.2%) | 16 (1.5%) |
| Missing | 6 | 0 | 6 | 14 | 13 | 27 |
| Annual income groups |  |  |  |  |  |  |
| Less than $15,000 | 44 (8.6%) | 8 (1.7%) | 52 (5.3%) | 38 (7.5%) | 7 (1.5%) | 45 (4.6%) |
| $15,000 to $29,999 | 84 (16%) | 137 (29%) | 221 (22%) | 82 (16%) | 136 (29%) | 218 (22%) |
| $30,000 to $59,999 | 185 (36%) | 159 (33%) | 344 (35%) | 172 (34%) | 167 (35%) | 339 (35%) |
| $60,000 to $89,999 | 90 (18%) | 105 (22%) | 195 (20%) | 104 (21%) | 99 (21%) | 203 (21%) |
| $90,000 to $119,999 | 68 (13%) | 37 (7.7%) | 105 (11%) | 66 (13%) | 36 (7.6%) | 102 (10%) |
| $120,000 to $149,999 | 24 (4.7%) | 20 (4.2%) | 44 (4.4%) | 24 (4.7%) | 18 (3.8%) | 42 (4.3%) |
| $150,000 to $179,999 | 8 (1.6%) | 8 (1.7%) | 16 (1.6%) | 11 (2.2%) | 7 (1.5%) | 18 (1.8%) |
| $180,000 to $209,999 | 6 (1.2%) | 1 (0.2%) | 7 (0.7%) | 6 (1.2%) | 2 (0.4%) | 8 (0.8%) |
| $210,000 or more | 3 (0.6%) | 3 (0.6%) | 6 (0.6%) | 4 (0.8%) | 0 (0%) | 4 (0.4%) |
| Missing | 54 | 61 | 115 | 59 | 67 | 126 |
| Household below LIM |  |  |  |  |  |  |
| No | 355 (70%) | 326 (68%) | 681 (69%) | 365 (72%) | 320 (68%) | 685 (70%) |
| Yes | 153 (30%) | 151 (32%) | 304 (31%) | 140 (28%) | 151 (32%) | 291 (30%) |
| Missing | 58 | 62 | 120 | 61 | 68 | 129 |
| Single-person household |  |  |  |  |  |  |
| No | 328 (58%) | 269 (50%) | 597 (54%) | 314 (57%) | 254 (48%) | 568 (53%) |
| Yes | 233 (42%) | 268 (50%) | 501 (46%) | 238 (43%) | 270 (52%) | 508 (47%) |
| Missing | 5 | 2 | 7 | 14 | 15 | 29 |
| Has Vehicle in Household |  |  |  |  |  |  |
| Yes | 327 (58%) | 325 (60%) | 652 (59%) | 315 (57%) | 309 (59%) | 624 (58%) |
| No | 237 (42%) | 213 (40%) | 450 (41%) | 238 (43%) | 217 (41%) | 455 (42%) |
| Missing | 2 | 1 | 3 | 13 | 13 | 26 |
| 1n (%) | | | | | | |

### 1.2.1 Transit use, cost barriers, and suppressed demand

|  | **First** | | | **Second** | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Characteristic** | **Control (50-64)**, N = 5661 | **Treatment (65-over)**, N = 5391 | **Total**, N = 11051 | **Control (50-64)**, N = 5661 | **Treatment (65-over)**, N = 5391 | **Total**, N = 11051 |
| Has Vehicle Household? |  |  |  |  |  |  |
| Yes | 327 (58%) | 325 (60%) | 652 (59%) | 315 (57%) | 309 (59%) | 624 (58%) |
| No | 237 (42%) | 213 (40%) | 450 (41%) | 238 (43%) | 217 (41%) | 455 (42%) |
| Missing | 2 | 1 | 3 | 13 | 13 | 26 |
| Has Free Pass? |  |  |  |  |  |  |
| Yes | 3 (75%) | 383 (72%) | 386 (72%) | 43 (7.7%) | 459 (87%) | 502 (46%) |
| No | 1 (25%) | 150 (28%) | 151 (28%) | 513 (92%) | 67 (13%) | 580 (54%) |
| Missing | 562 | 6 | 568 | 10 | 13 | 23 |
| Rides Transit As Would Like? |  |  |  |  |  |  |
| Yes | 370 (66%) | 392 (73%) | 762 (69%) | 366 (66%) | 403 (77%) | 769 (72%) |
| No | 191 (34%) | 144 (27%) | 335 (31%) | 185 (34%) | 120 (23%) | 305 (28%) |
| Missing | 5 | 3 | 8 | 15 | 16 | 31 |
| Has Cost Prevented Transit? |  |  |  |  |  |  |
| No | 372 (67%) | 467 (87%) | 839 (77%) | 389 (70%) | 405 (78%) | 794 (74%) |
| Yes | 185 (33%) | 71 (13%) | 256 (23%) | 163 (30%) | 116 (22%) | 279 (26%) |
| Missing | 9 | 1 | 10 | 14 | 18 | 32 |
| Difficulty Paying Transport Expenses? |  |  |  |  |  |  |
| No | 307 (55%) | 405 (76%) | 712 (65%) | 327 (59%) | 410 (79%) | 737 (69%) |
| Neither | 167 (30%) | 99 (19%) | 266 (24%) | 141 (26%) | 83 (16%) | 224 (21%) |
| Yes | 86 (15%) | 31 (5.8%) | 117 (11%) | 83 (15%) | 27 (5.2%) | 110 (10%) |
| Missing | 6 | 4 | 10 | 15 | 19 | 34 |
| 1n (%) | | | | | | |

# 2. Update

## 2.1 Old analysis (1st wave only (demographics?))

q111 age\_groups\_control\_treat n  
 <char> <char> <int>  
1: No Control (50-64) 513  
2: No Treatment (65-over) 67  
3: Yes Control (50-64) 43  
4: Yes Treatment (65-over) 459  
5: <NA> Control (50-64) 355  
6: <NA> Treatment (65-over) 253

df\_both %>% filter(wave==“Second”) %>% count(q111, age\_groups\_control\_treat)

## 2.2 Update old (1st and 2nd wave combined)

Awareness of free pass and how did that translate to its use

awereness\_free\_pass age\_groups\_control\_treat n  
 <fctr> <char> <int>  
1: No Control (50-64) 89  
2: No Treatment (65-over) 28  
3: Yes Control (50-64) 817  
4: Yes Treatment (65-over) 750  
5: <NA> Control (50-64) 5  
6: <NA> Treatment (65-over) 1

has\_free\_pass\_wave1 age\_groups\_control\_treat n  
 <fctr> <char> <int>  
1: No Control (50-64) 3  
2: No Treatment (65-over) 227  
3: Yes Control (50-64) 3  
4: Yes Treatment (65-over) 539  
5: <NA> Control (50-64) 905  
6: <NA> Treatment (65-over) 13

has\_free\_pass\_wave1\_categories age\_groups\_control\_treat n  
 <fctr> <char> <int>  
1: No, but I’m planning to get it soon Control (50-64) 3  
2: No, but I’m planning to get it soon Treatment (65-over) 207  
3: Yes Control (50-64) 3  
4: Yes Treatment (65-over) 539  
5: No, but I’m not planning to get it Treatment (65-over) 20  
6: <NA> Control (50-64) 905  
7: <NA> Treatment (65-over) 13

fare\_type\_before\_pass\_q98 age\_groups\_control\_treat n  
 <fctr> <char> <int>  
1: Monthly or more Treatment (65-over) 92  
2: Limited daily Control (50-64) 1  
3: Limited daily Treatment (65-over) 312  
4: 3-day or weekly Treatment (65-over) 3  
5: Unlimited daily Treatment (65-over) 12  
6: Other Treatment (65-over) 12  
7: <NA> Control (50-64) 2  
8: <NA> Treatment (65-over) 108

fare\_type\_before\_pass\_q99 age\_groups\_control\_treat n  
 <fctr> <char> <int>  
1: <NA> Control (50-64) 3  
2: <NA> Treatment (65-over) 539

q111 age\_groups\_control\_treat n  
 <char> <char> <int>  
1: No Control (50-64) 513  
2: No Treatment (65-over) 67  
3: Yes Control (50-64) 43  
4: Yes Treatment (65-over) 459  
5: <NA> Control (50-64) 355  
6: <NA> Treatment (65-over) 253

## 2.3 New analysis only (2nd wave only)