poa_access

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Contents

6.1)People who had difficulty accessing resources [20]

Run binary distribution over population Indicators: food, PPE, transportation,housing Yes = 1+ indicators No = 0 indicators Run binary distribution by sub-demographics Compare and find gaps (test unequal proportions) Run categorical distribution over population Run categorical distribution over sub-demographics Compare and find gaps (test unequal proportions)

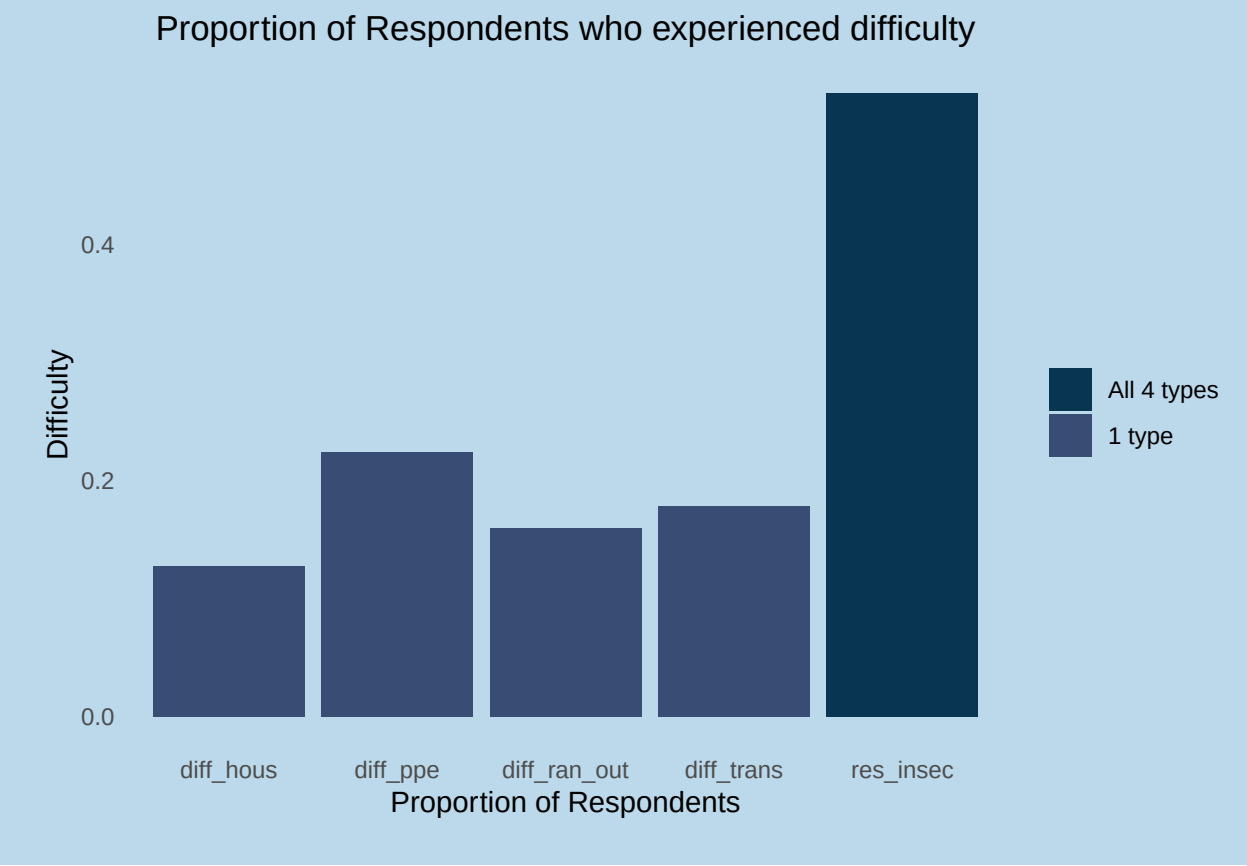
```
attributes(wrangled$res_insec)$labels
```

```
## difficulty accessing or ran out of food, housing, cleaning supplies or transportation
##                                                                                     1
##           no difficulty accessing food, housing, cleanning supplies or transportation
##                                                                                     0
```

```
mean(wrangled$res_insec, na.rm = TRUE)
```

```
## [1] 0.5274115
```

```
wrangled %>%
  mutate(across(c(diff_ran_out, diff_ppe, res_insec, diff_trans, diff_hous), as.integer)) %>%
  pivot_longer(cols = c("diff_ran_out", "diff_ppe", "res_insec", "diff_trans", "diff_hous")) %>%
  select(name, value) %>% group_by(name) %>% summarize(value = mean(value, na.rm = TRUE)) %>%
  mutate(analysis_variable = labelled(as.integer(name == "res_insec"), c("All 4 types" = 1, "1 type" = 0
  ggplot(aes(x = name, y = value, fill = labelled::to_factor(analysis_variable))) + geom_col() +
  xlab("Proportion of Respondents\n") + ylab("\nDifficulty") +
  ggtitle("Proportion of Respondents who experienced difficulty") +
  scale_fill_manual(NULL, values = project_pal)
```

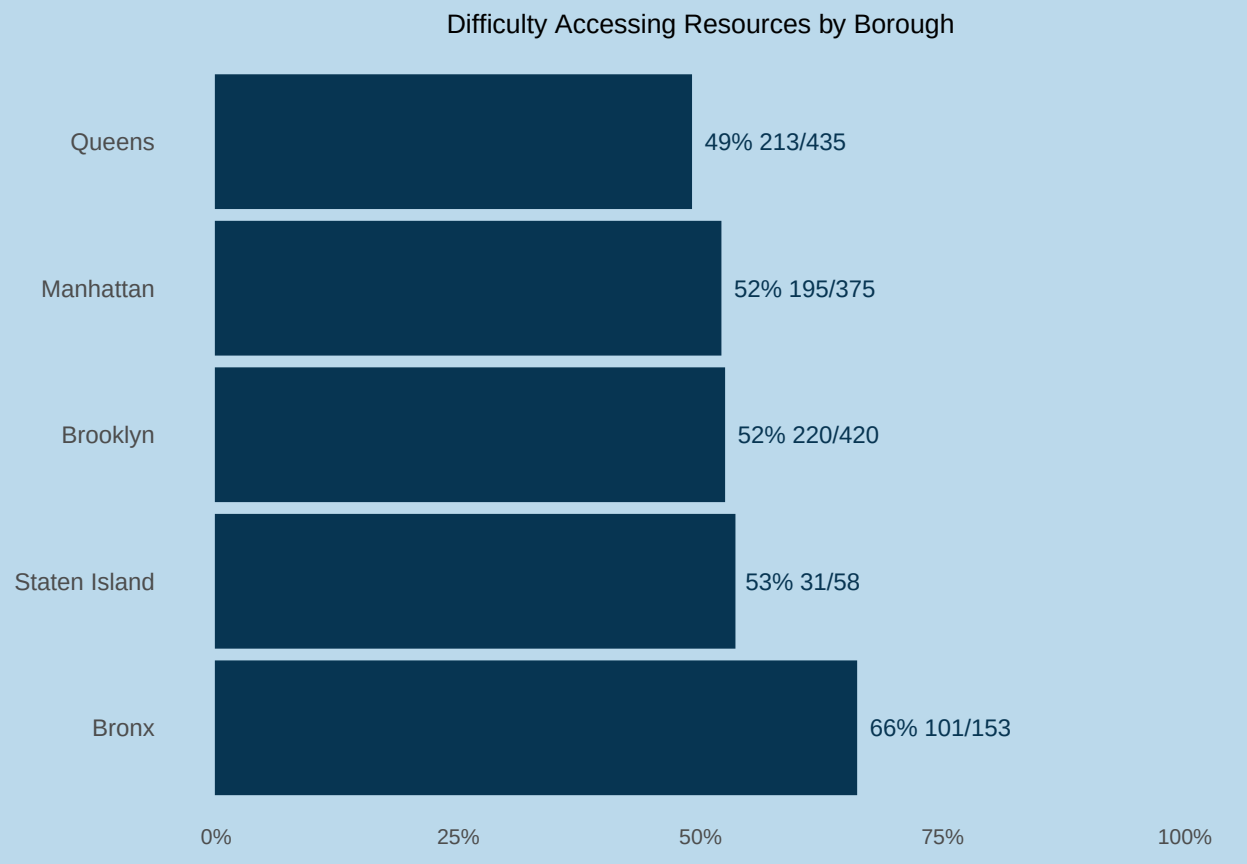



```
demographics
```

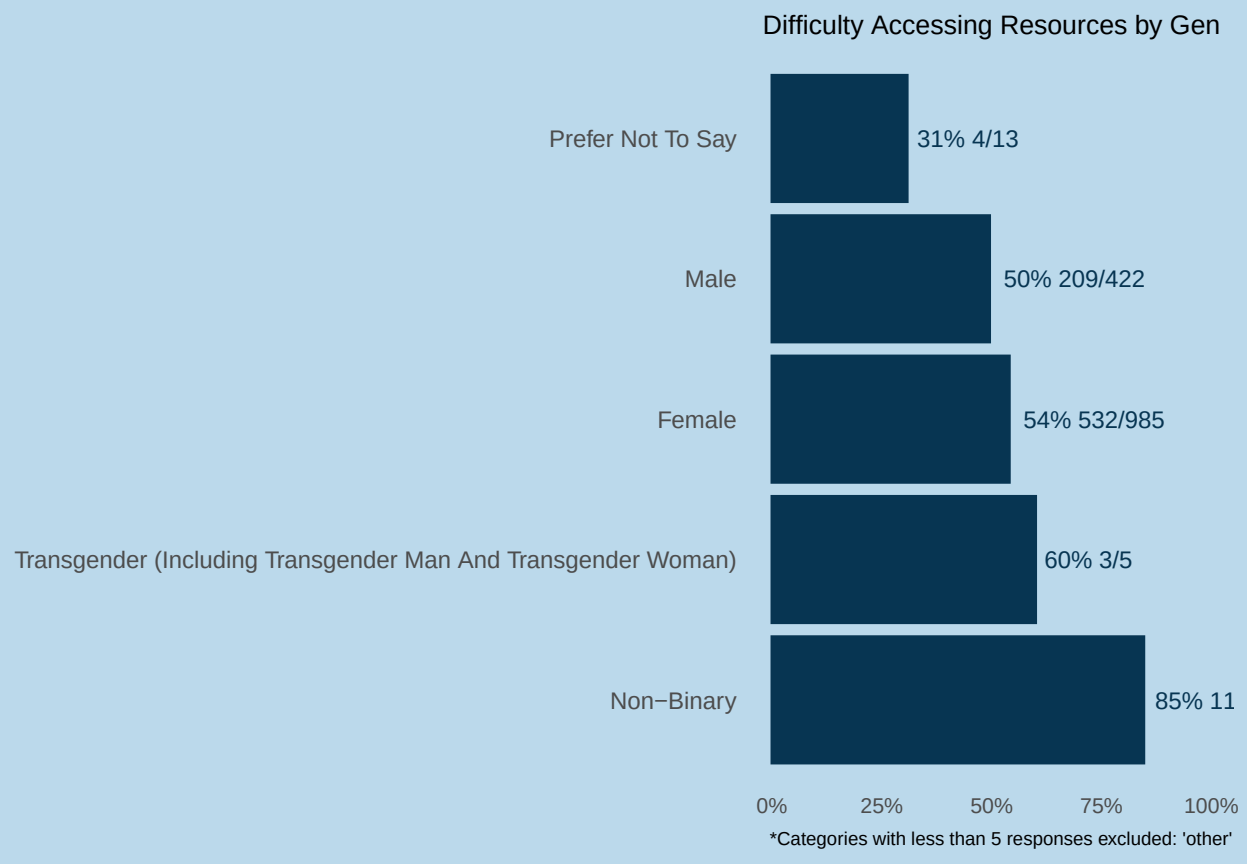
```
##         borough             gen     race_census   hh_ch_0_17_bi     hh_sn_65_bi
##       "borough"           "gen"   "race_census" "hh_ch_0_17_bi"   "hh_sn_65_bi"
##        inc_dist
##      "inc_dist"
```

```
# make a venn diagram

make_plots(wrangled, demographics, "res_insec", title = "Difficulty Accessing Resources")
```

```
## $borough
## $borough$plot
```

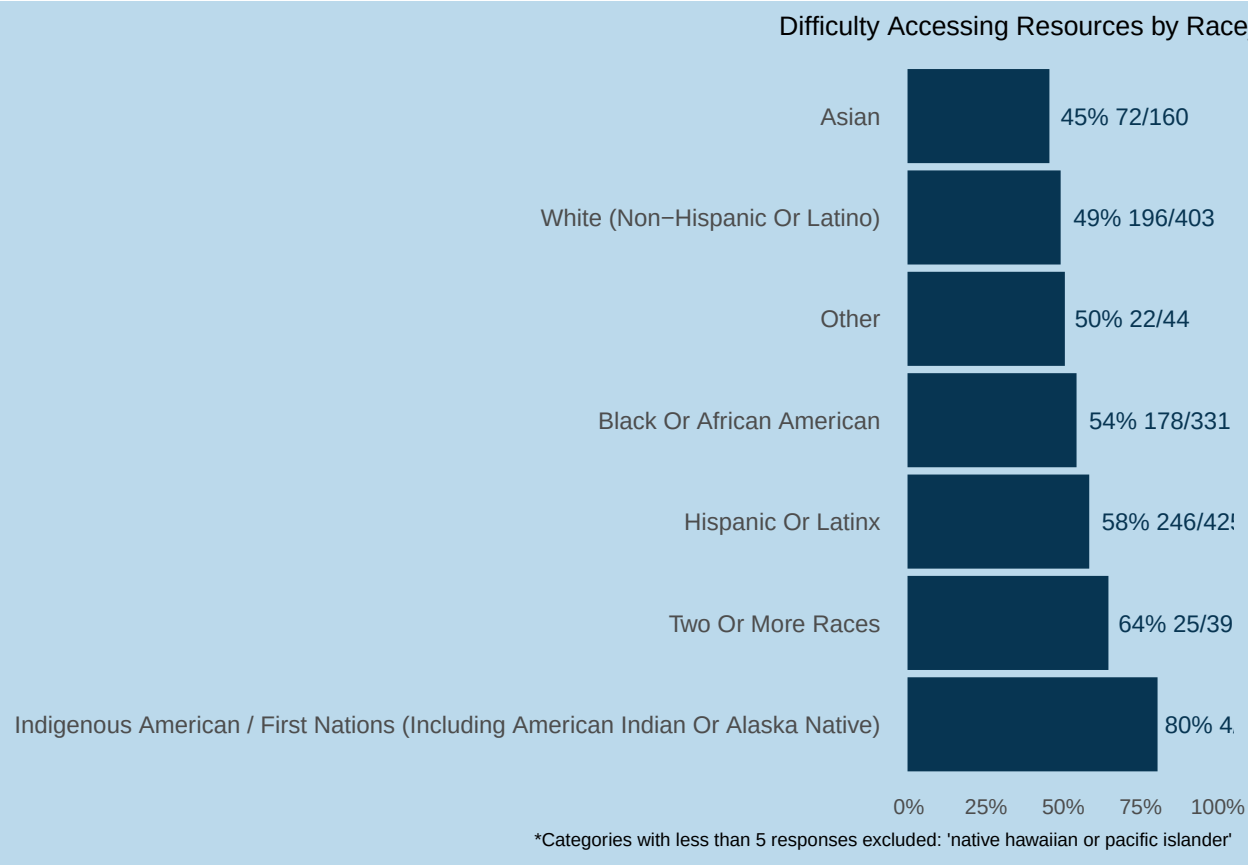



```
##
## $borough$p.values
## $borough$p.values$res_insec
##               queens manhattan brooklyn staten island  bronx
## queens            NA        NA       NA            NA 0.0004
## manhattan         NA        NA       NA            NA 0.0044
## brooklyn          NA        NA       NA            NA 0.0049
## staten island     NA        NA       NA            NA     NA
## bronx          4e-04    0.0044   0.0049            NA     NA
##
##
##
## $gen
## $gen$plot
```



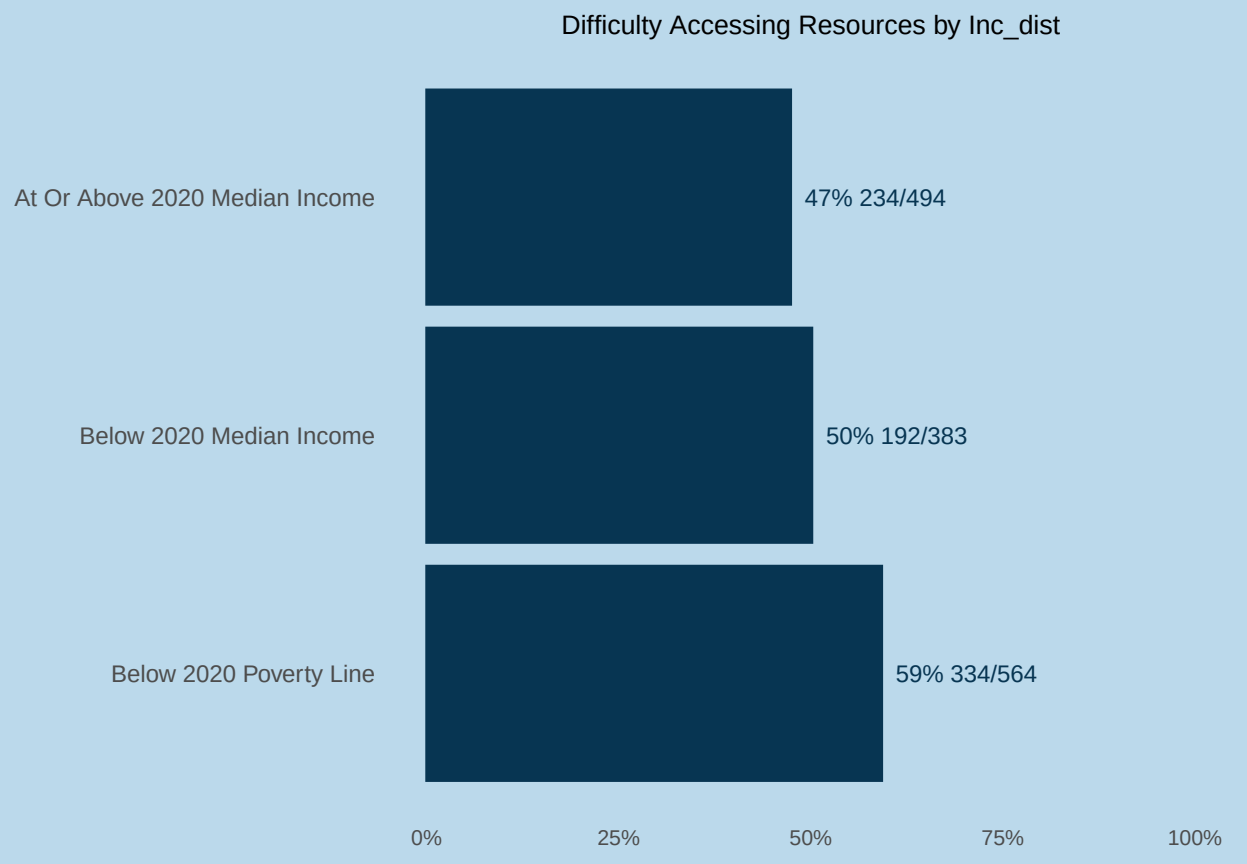

```
##
## $gen$p.values
## $gen$p.values$res_insec
##                                                                 prefer not to say
## prefer not to say                                                              NA
## male                                                                           NA
## female                                                                         NA
## transgender (including transgender man and transgender woman)                  NA
## non-binary                                                                  0.017
##                                                                  male female
## prefer not to say                                                  NA     NA
## male                                                               NA     NA
## female                                                             NA     NA
## transgender (including transgender man and transgender woman)      NA     NA
## non-binary                                                      0.027  0.055
##                                                                 transgender (including transgender man
## prefer not to say
## male
## female
## transgender (including transgender man and transgender woman)
## non-binary
##                                                                 non-binary
## prefer not to say                                                    0.017
## male                                                                 0.027
## female                                                               0.055
## transgender (including transgender man and transgender woman)           NA
```

```
## non-binary                                                                    NA
##
##
##
## $race_census
## $race_census$plot
```




```
##
## $race_census$p.values
## $race_census$p.values$res_insec
##                                                                                asian
## asian                                                                             NA
## white (non-hispanic or latino)                                                    NA
## other                                                                             NA
## black or african american                                                      0.084
## hispanic or latinx                                                             0.007
## two or more races                                                              0.050
## indigenous american / first nations (including american indian or alaska native)    NA
##                                                                                white (non-hispanic
## asian
## white (non-hispanic or latino)
## other
## black or african american
## hispanic or latinx
## two or more races
```

```
## indigenous american / first nations (including american indian or alaska native)
##                                                                                 other
## asian                                                                              NA
## white (non-hispanic or latino)                                                     NA
## other                                                                              NA
## black or african american                                                          NA
## hispanic or latinx                                                                 NA
## two or more races                                                                  NA
## indigenous american / first nations (including american indian or alaska native)   NA
##                                                                                 black or african ame
## asian
## white (non-hispanic or latino)
## other
## black or african american
## hispanic or latinx
## two or more races
## indigenous american / first nations (including american indian or alaska native)
##                                                                                 hispanic or latinx
## asian                                                                                       0.0070
## white (non-hispanic or latino)                                                              0.0094
## other                                                                                           NA
## black or african american                                                                       NA
## hispanic or latinx                                                                              NA
## two or more races                                                                               NA
## indigenous american / first nations (including american indian or alaska native)                NA
##                                                                                 two or more races
## asian                                                                                       0.050
## white (non-hispanic or latino)                                                              0.094
## other                                                                                          NA
## black or african american                                                                      NA
## hispanic or latinx                                                                             NA
## two or more races                                                                              NA
## indigenous american / first nations (including american indian or alaska native)               NA
##                                                                                 indigenous american
## asian
## white (non-hispanic or latino)
## other
## black or african american
## hispanic or latinx
## two or more races
## indigenous american / first nations (including american indian or alaska native)
##
##
##
## $hh_ch_0_17_bi
## NULL
##
## $hh_sn_65_bi
## NULL
##
## $inc_dist
## $inc_dist$plot
```




```
##
## $inc_dist$p.values
## $inc_dist$p.values$res_insec
##                                 at or above 2020 median income
## at or above 2020 median income                              NA
## below 2020 median income                                    NA
## below 2020 poverty line                                0.00015
##                                 below 2020 median income below 2020 poverty line
## at or above 2020 median income                       NA                 0.00015
## below 2020 median income                             NA                 0.00700
## below 2020 poverty line                           0.007                      NA
```

6.2) Local resource utilized over each challenge[33]

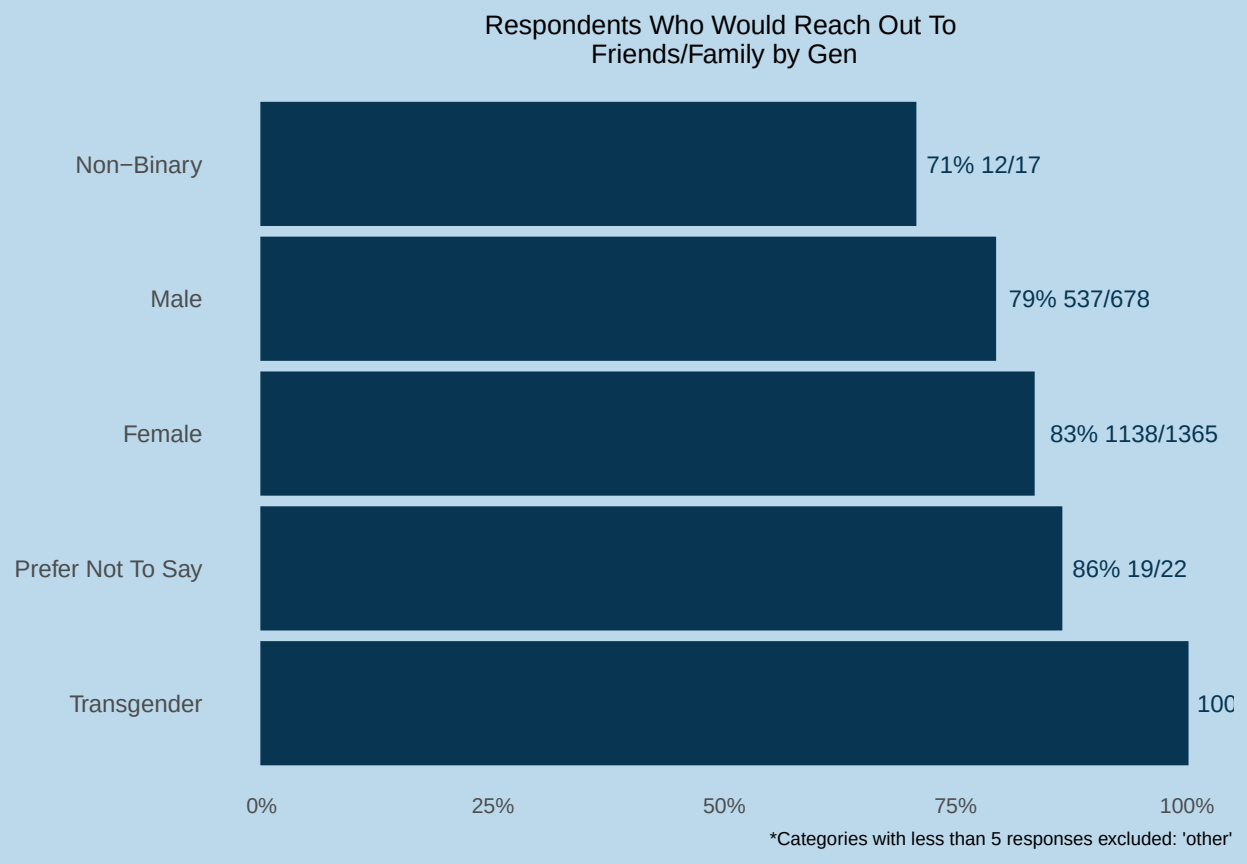
Run distribution of each resource people would turn to for each challenge over population Run distribution of each resource people would turn to for each challenge over sub-demographics (a-k) Compare and find gaps (test unequal proportions)

```
mean(str_detect(wrangled$lr_cc, ";"), na.rm = TRUE)
```

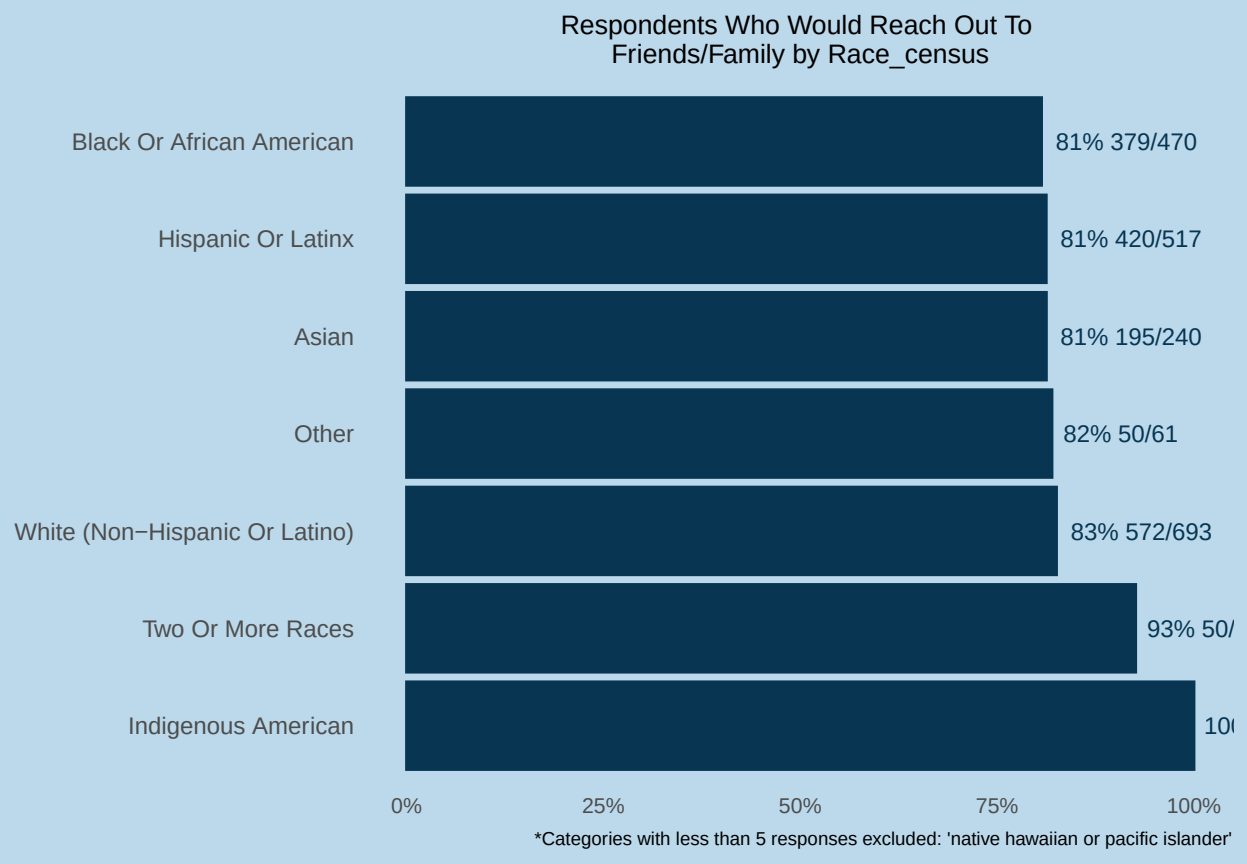
```
## [1] 0.2142516
```

```r
# lots of respondents just marked off not sure

resource_qs <- c("lr_fam", "lr_gov", "lr_fb", "lr_np")
names(resource_qs) <- resource_qs

lapply(resource_qs, function(q) {

  sym_q <- sym(q)

  pattern <- str_replace(q, "_", "_stress_")
  replacement <- survey_codebook_labelled$to_name[str_which(survey_codebook_labelled$full_name, pattern)

  df <- wrangled %>% mutate(across(all_of(demographics),
                            ~str_replace_all(labelled::to_factor(.),
                                             c("transgender.*" = "transgender",
                                               "indigenous.*" = "Indigenous American"))))

  make_plots(df, by_vars = demographics, hyp_var = q,
             title = glue::glue("Respondents who would reach out to \n {replacement}"))
})
```

```
## $lr_fam
## $lr_fam$borough
## NULL
##
## $lr_fam$gen
## $lr_fam$gen$plot
```

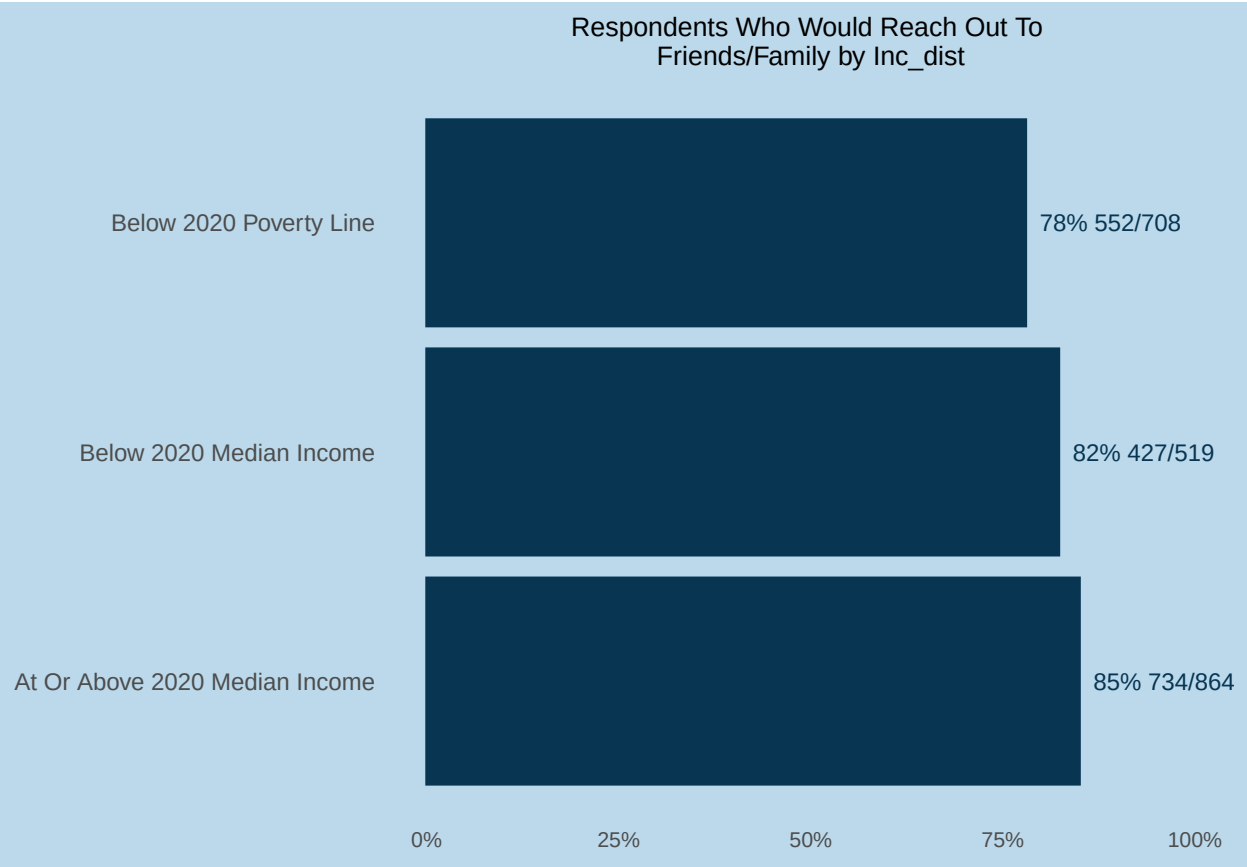



```
##
## $lr_fam$gen$p.values
## $lr_fam$gen$p.values$lr_fam
##                   non-binary  male female prefer not to say transgender
## non-binary                NA    NA     NA                NA          NA
## male                      NA    NA  0.025                NA          NA
## female                    NA 0.025     NA                NA          NA
## prefer not to say         NA    NA     NA                NA          NA
## transgender               NA    NA     NA                NA          NA
##
##
##
## $lr_fam$race_census
## $lr_fam$race_census$plot
```



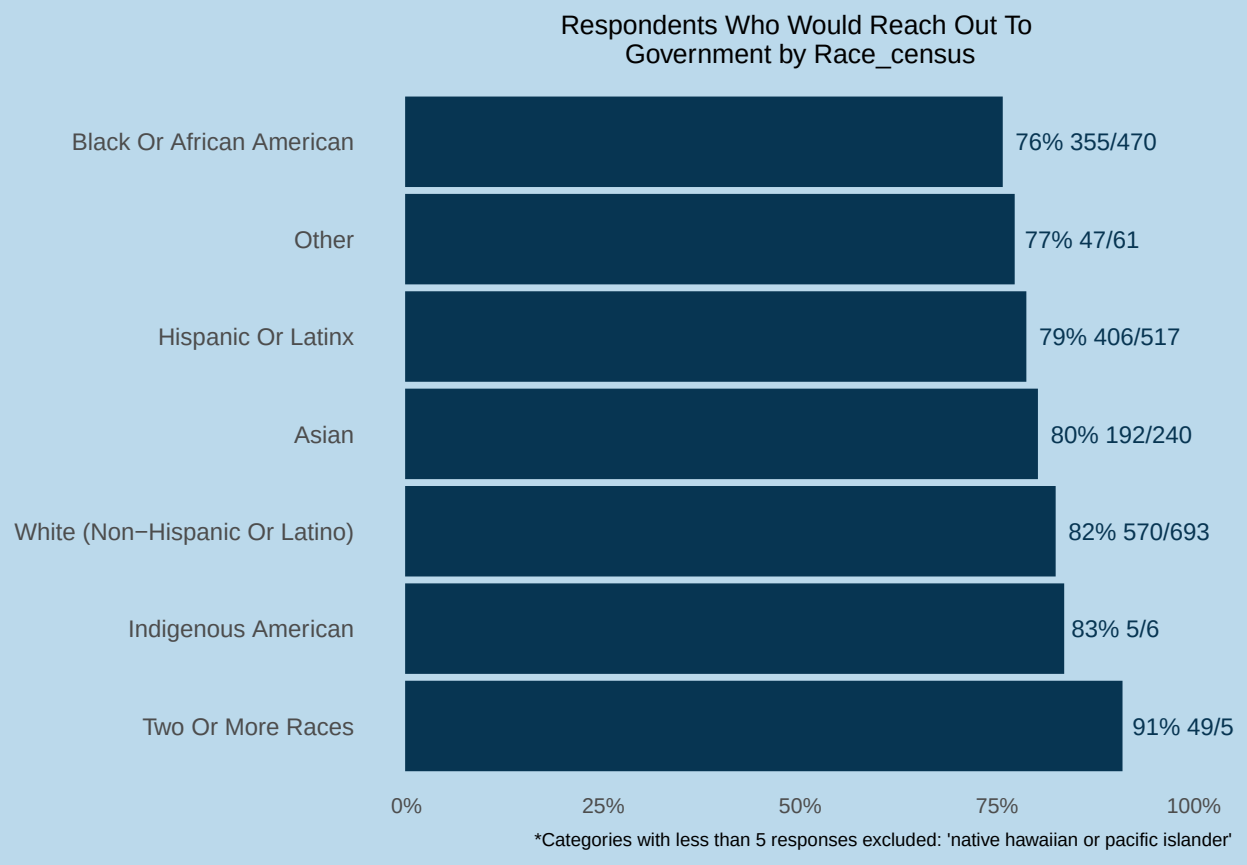

```
##
## $lr_fam$race_census$p.values
## $lr_fam$race_census$p.values$lr_fam
##                                 black or african american hispanic or latinx
## black or african american                              NA                 NA
## hispanic or latinx                                     NA                 NA
## asian                                                  NA                 NA
## other                                                  NA                 NA
## white (non-hispanic or latino)                         NA                 NA
## two or more races                                   0.048              0.058
## Indigenous American                                    NA                 NA
##                                 asian other white (non-hispanic or latino)
## black or african american          NA    NA                              NA
## hispanic or latinx                 NA    NA                              NA
## asian                              NA    NA                              NA
## other                              NA    NA                              NA
## white (non-hispanic or latino)     NA    NA                              NA
## two or more races               0.069    NA                           0.086
## Indigenous American                NA    NA                              NA
##                                 two or more races Indigenous American
## black or african american               0.048                    NA
## hispanic or latinx                      0.058                    NA
## asian                                   0.069                    NA
## other                                      NA                    NA
## white (non-hispanic or latino)          0.086                    NA
## two or more races                          NA                    NA
```

```
## Indigenous American                          NA                   NA
##
##
##
## $lr_fam$hh_ch_0_17_bi
## NULL
##
## $lr_fam$hh_sn_65_bi
## NULL
##
## $lr_fam$inc_dist
## $lr_fam$inc_dist$plot
```



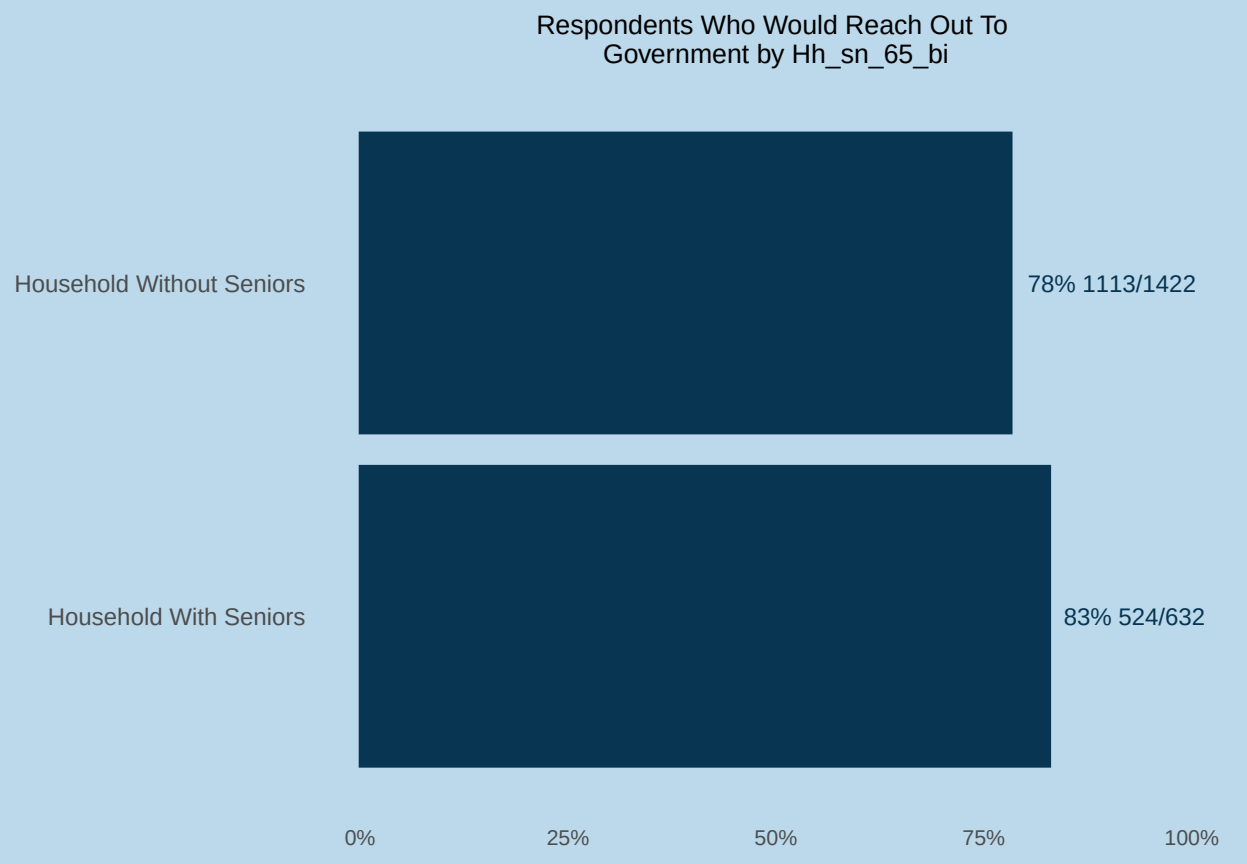

```
##
## $lr_fam$inc_dist$p.values
## $lr_fam$inc_dist$p.values$lr_fam
##                                below 2020 poverty line below 2020 median income
## below 2020 poverty line                             NA                    0.074
## below 2020 median income                       0.07400                       NA
## at or above 2020 median income                 0.00045                       NA
##                                at or above 2020 median income
## below 2020 poverty line                               0.00045
## below 2020 median income                                   NA
## at or above 2020 median income                             NA
##
```

```
##
##
##
## $lr_gov
## $lr_gov$borough
## NULL
##
## $lr_gov$gen
## NULL
##
## $lr_gov$race_census
## $lr_gov$race_census$plot
```

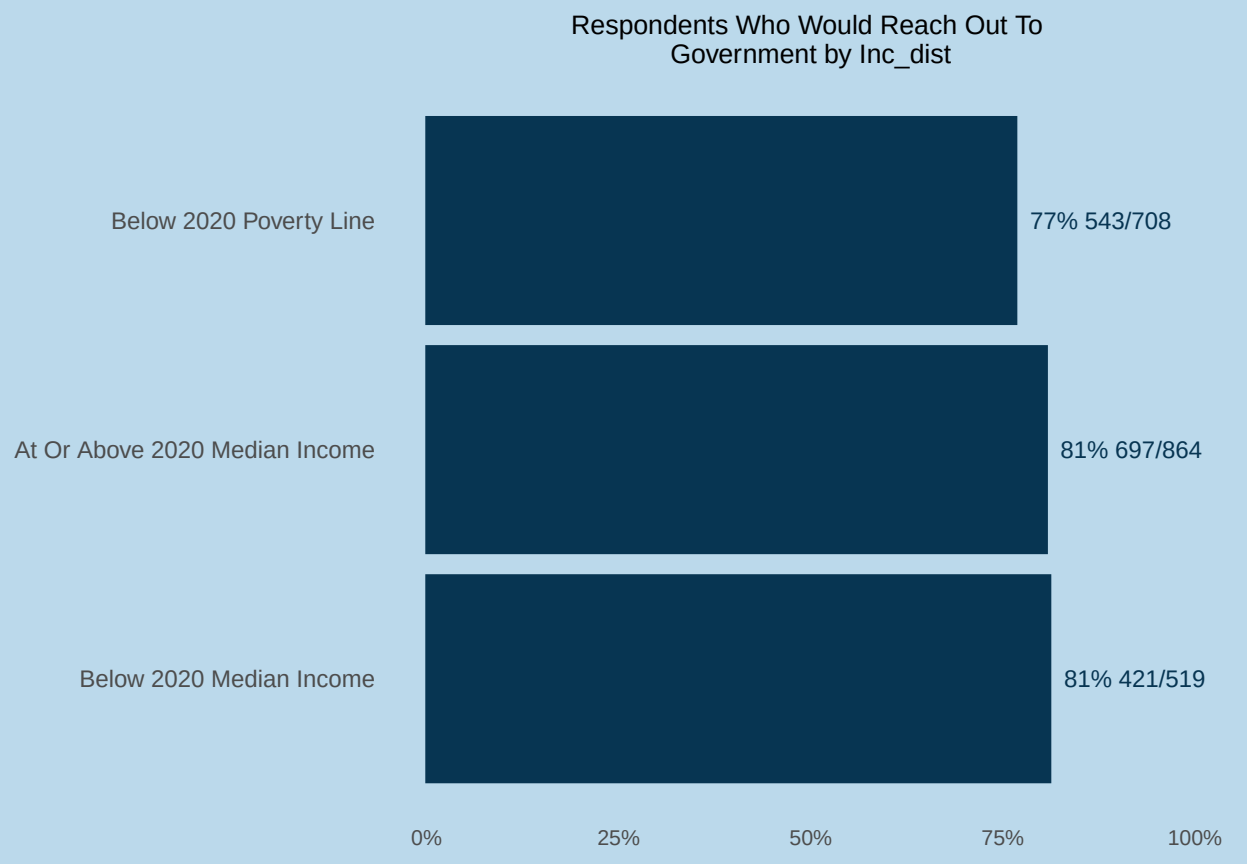



```
##
## $lr_gov$race_census$p.values
## $lr_gov$race_census$p.values$lr_gov
##                                 black or african american other
## black or african american                              NA    NA
## other                                                  NA    NA
## hispanic or latinx                                     NA    NA
## asian                                                  NA    NA
## white (non-hispanic or latino)                     0.0067    NA
## Indigenous American                                    NA    NA
## two or more races                                  0.0190 0.085
##                                 hispanic or latinx asian
```

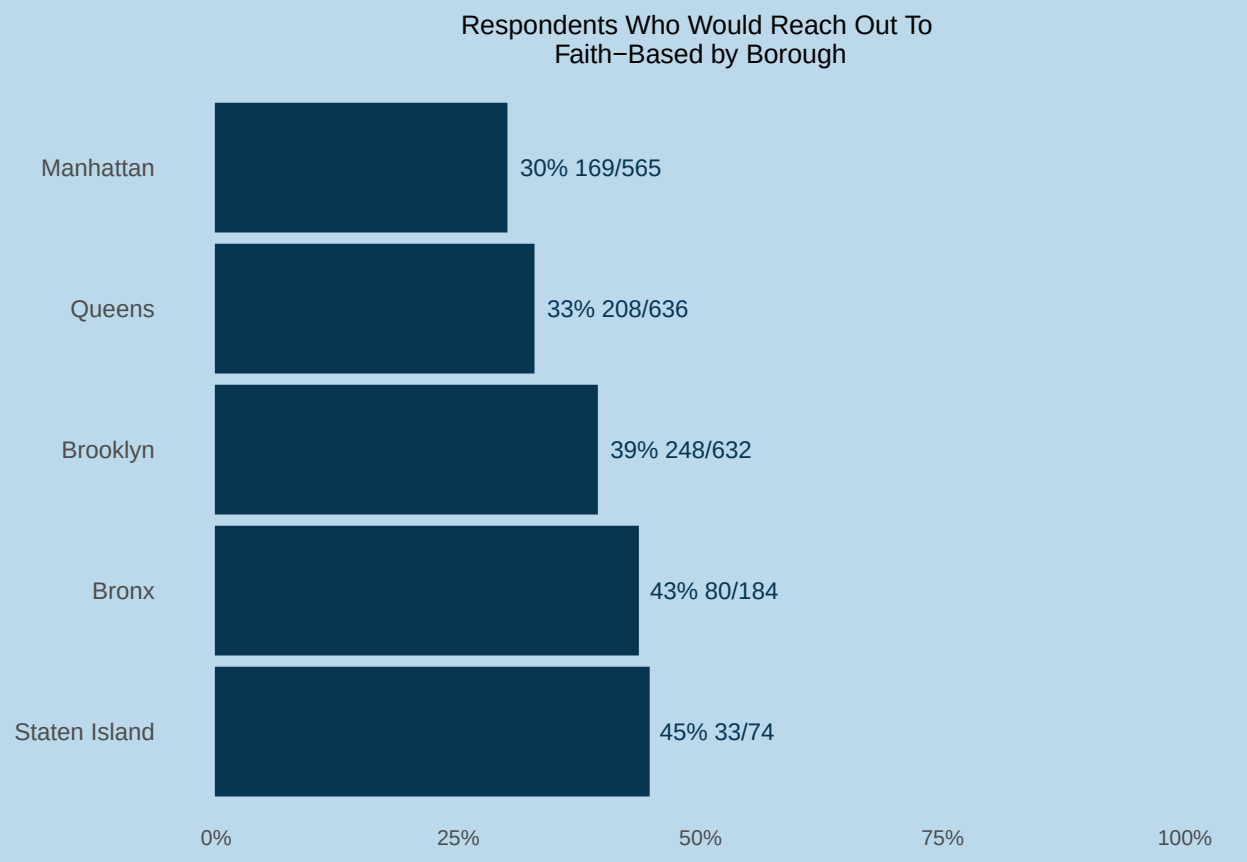
```
## black or african american                      NA    NA
## other                                          NA    NA
## hispanic or latinx                             NA    NA
## asian                                          NA    NA
## white (non-hispanic or latino)                 NA    NA
## Indigenous American                            NA    NA
## two or more races                           0.052 0.097
##                                 white (non-hispanic or latino)
## black or african american                               0.0067
## other                                                      NA
## hispanic or latinx                                         NA
## asian                                                      NA
## white (non-hispanic or latino)                             NA
## Indigenous American                                        NA
## two or more races                                          NA
##                                 Indigenous American two or more races
## black or african american                        NA             0.019
## other                                            NA             0.085
## hispanic or latinx                               NA             0.052
## asian                                            NA             0.097
## white (non-hispanic or latino)                   NA                NA
## Indigenous American                              NA                NA
## two or more races                                NA                NA
##
##
##
## $lr_gov$hh_ch_0_17_bi
## NULL
##
## $lr_gov$hh_sn_65_bi
## $lr_gov$hh_sn_65_bi$plot
```



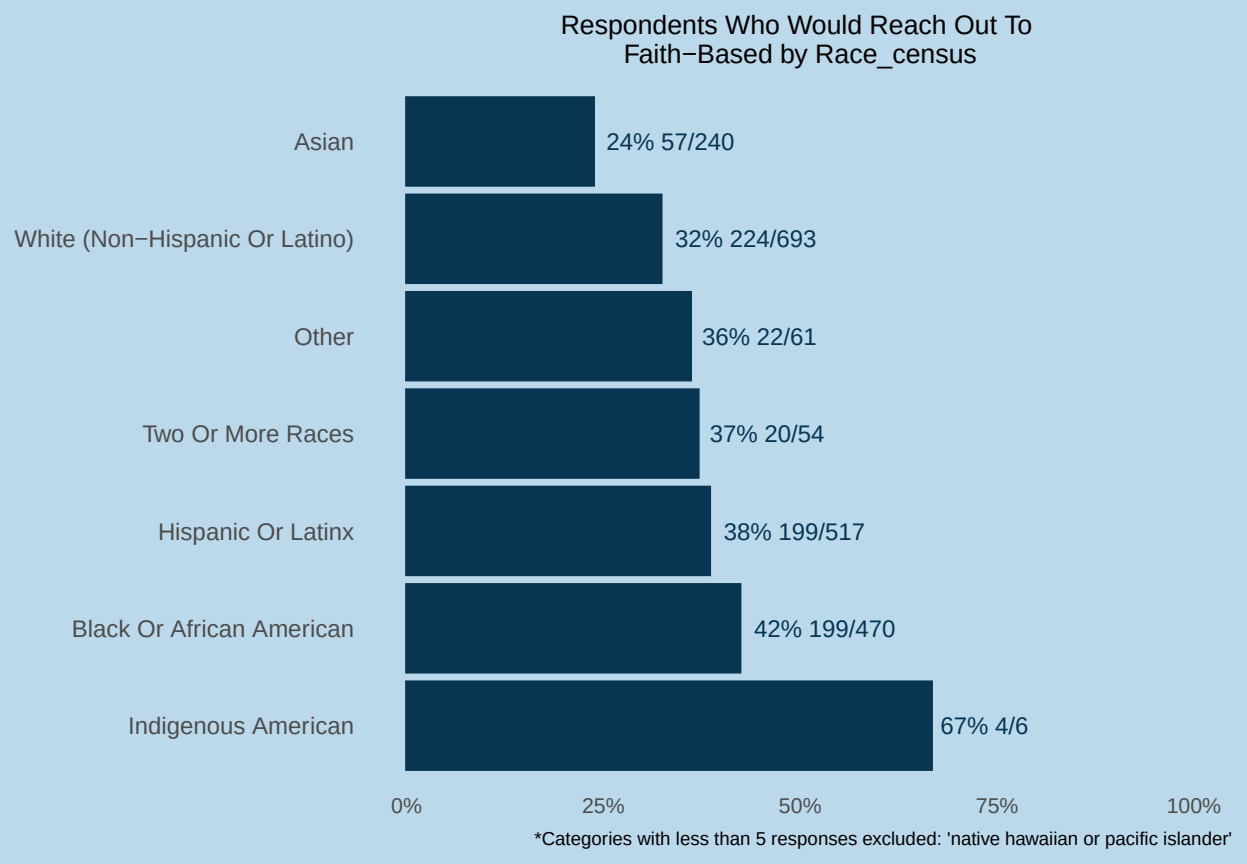

```
##
## $lr_gov$hh_sn_65_bi$p.values
## $lr_gov$hh_sn_65_bi$p.values$lr_gov
##                           household without seniors household with seniors
## household without seniors                        NA                 0.019
## household with seniors                        0.019                    NA
##
##
##
## $lr_gov$inc_dist
## $lr_gov$inc_dist$plot
```




```
##
## $lr_gov$inc_dist$p.values
## $lr_gov$inc_dist$p.values$lr_gov
##                                 below 2020 poverty line
## below 2020 poverty line                              NA
## at or above 2020 median income                    0.063
## below 2020 median income                          0.073
##                                 at or above 2020 median income
## below 2020 poverty line                                  0.063
## at or above 2020 median income                              NA
## below 2020 median income                                    NA
##                                 below 2020 median income
## below 2020 poverty line                            0.073
## at or above 2020 median income                        NA
## below 2020 median income                              NA
##
##
##
##
## $lr_fb
## $lr_fb$borough
## $lr_fb$borough$plot
```

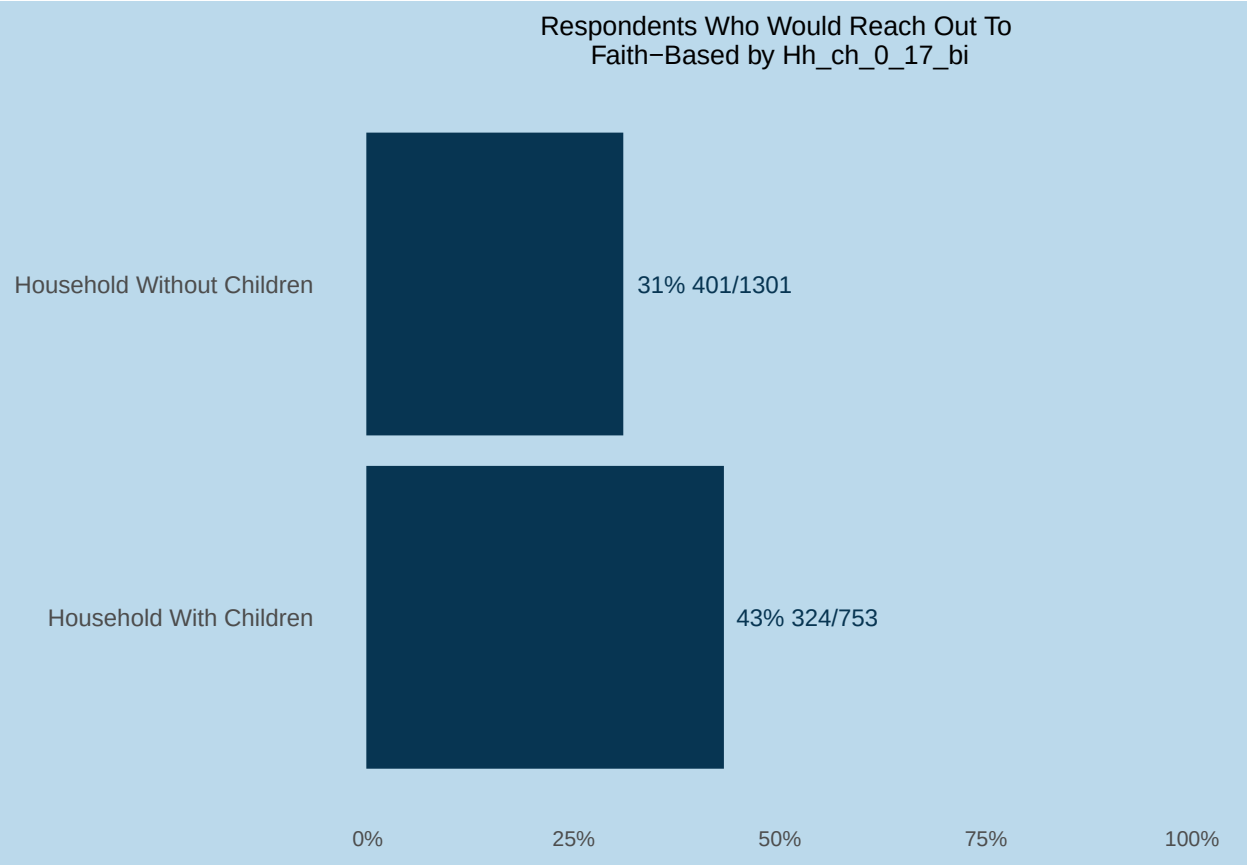



```
##
## $lr_fb$borough$p.values
## $lr_fb$borough$p.values$lr_fb
##               manhattan queens brooklyn   bronx staten island
## manhattan            NA     NA   0.0009 0.00096         0.015
## queens               NA     NA   0.0180 0.00910         0.056
## brooklyn        0.00090 0.0180       NA      NA            NA
## bronx           0.00096 0.0091       NA      NA            NA
## staten island   0.01500 0.0560       NA      NA            NA
##
##
##
## $lr_fb$gen
## NULL
##
## $lr_fb$race_census
## $lr_fb$race_census$plot
```

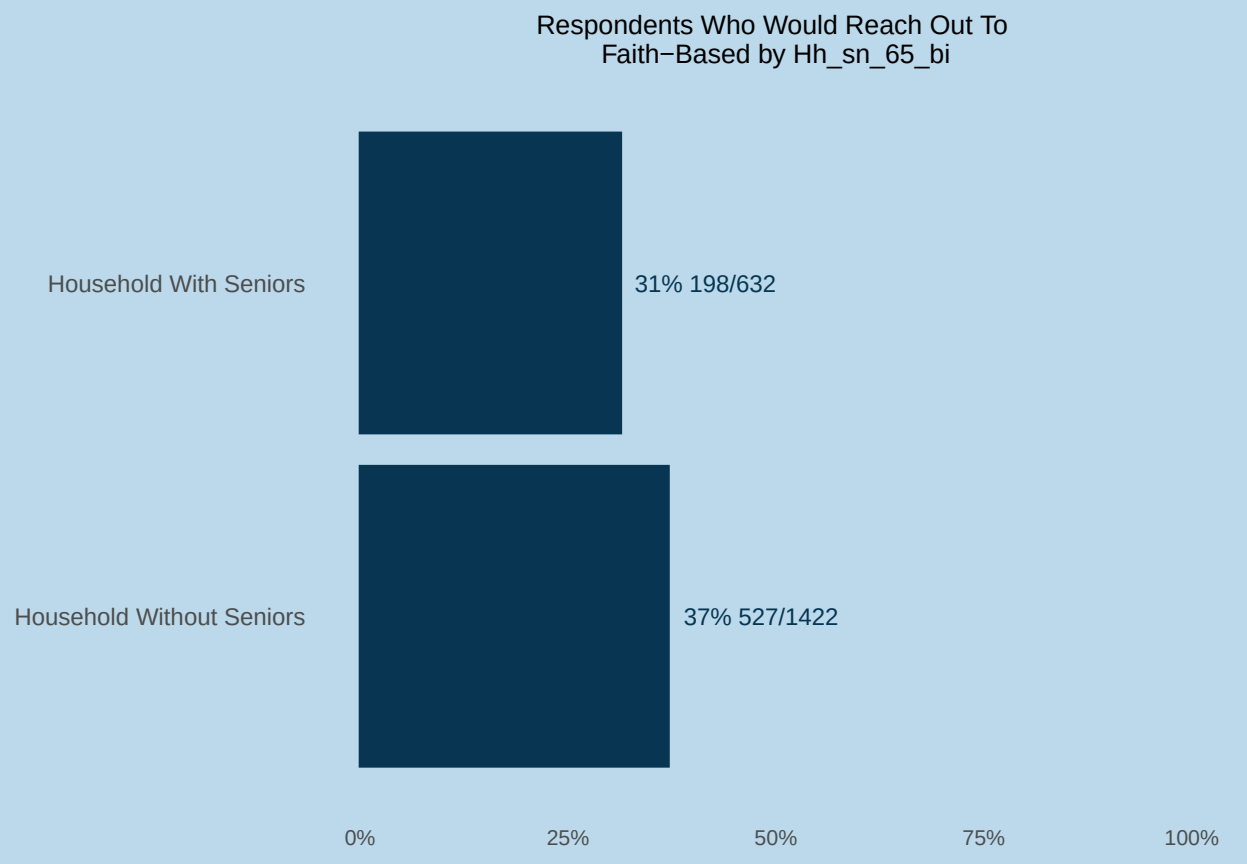



```
##
## $lr_fb$race_census$p.values
## $lr_fb$race_census$p.values$lr_fb
##                                 asian white (non-hispanic or latino) other
## asian                              NA                         0.01600 0.074
## white (non-hispanic or latino) 1.6e-02                              NA    NA
## other                          7.4e-02                              NA    NA
## two or more races              6.6e-02                              NA    NA
## hispanic or latinx             9.4e-05                         0.03000    NA
## black or african american      1.6e-06                         0.00062    NA
## Indigenous American                NA                              NA    NA
##                                two or more races hispanic or latinx
## asian                                      0.066            9.4e-05
## white (non-hispanic or latino)                NA            3.0e-02
## other                                         NA                 NA
## two or more races                             NA                 NA
## hispanic or latinx                            NA                 NA
## black or african american                     NA                 NA
## Indigenous American                           NA                 NA
##                                black or african american Indigenous American
## asian                                            1.6e-06                  NA
## white (non-hispanic or latino)                   6.2e-04                  NA
## other                                                 NA                  NA
## two or more races                                     NA                  NA
## hispanic or latinx                                    NA                  NA
## black or african american                             NA                  NA
```

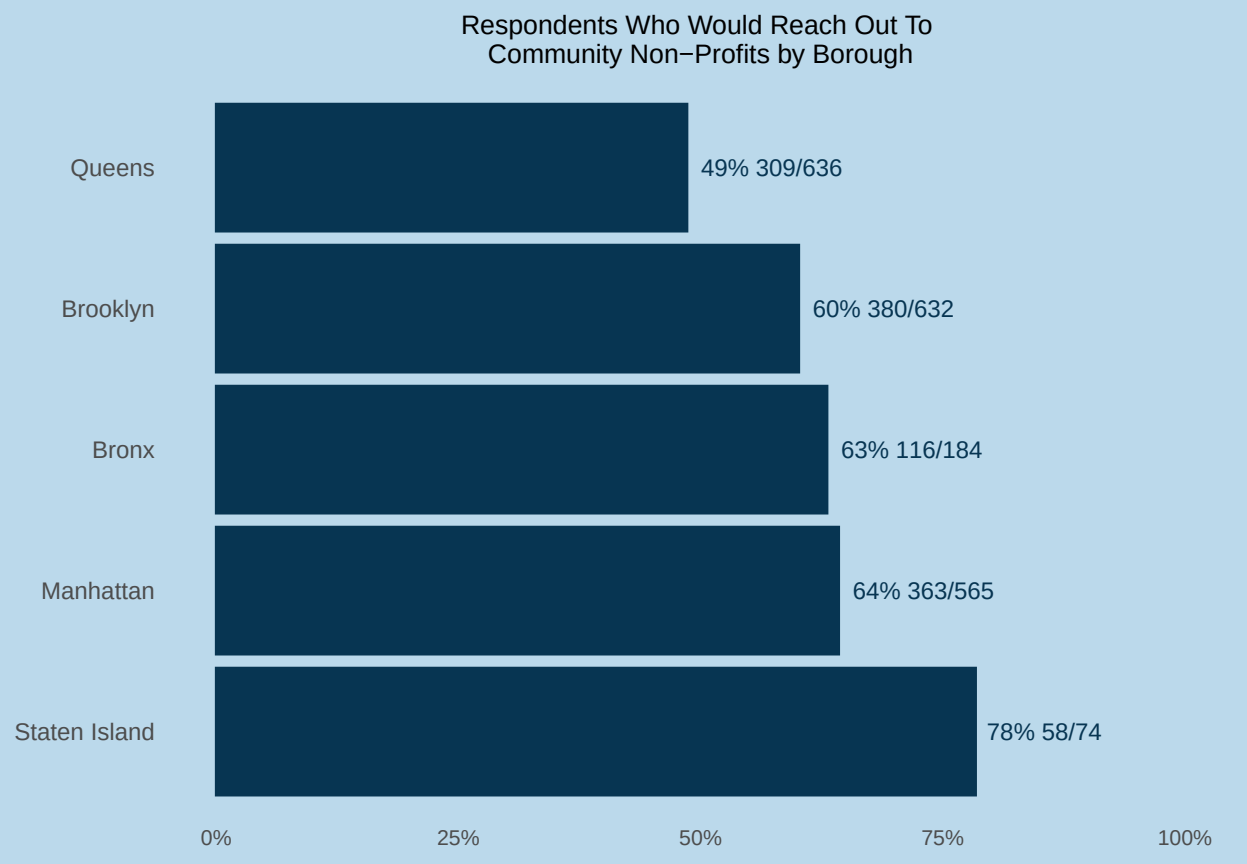
```
## Indigenous American                                    NA                   NA
##
##
##
## $lr_fb$hh_ch_0_17_bi
## $lr_fb$hh_ch_0_17_bi$plot
```



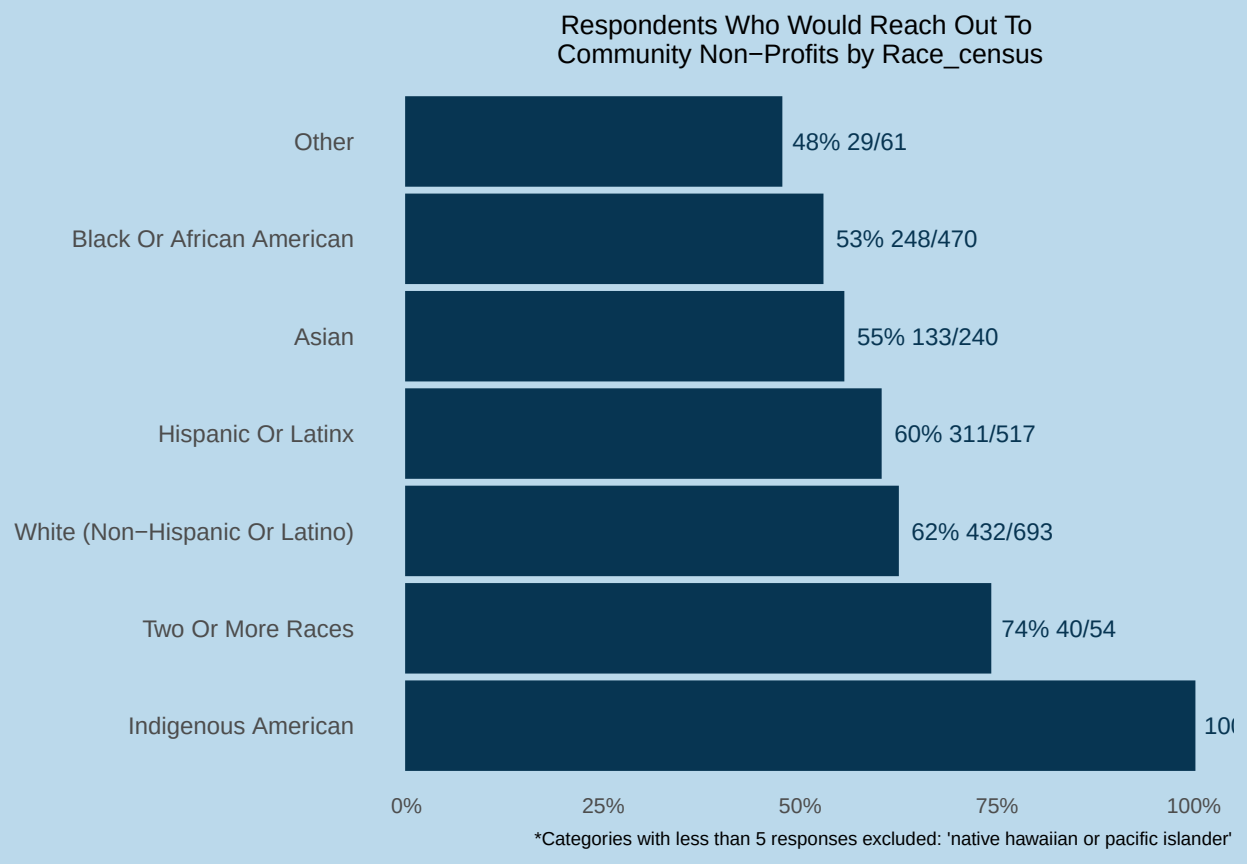

```
##
## $lr_fb$hh_ch_0_17_bi$p.values
## $lr_fb$hh_ch_0_17_bi$p.values$lr_fb
##                             household without children household with children
## household without children                         NA                 3.2e-08
## household with children                        3.2e-08                      NA
##
##
##
## $lr_fb$hh_sn_65_bi
## $lr_fb$hh_sn_65_bi$plot
```




```
##
## $lr_fb$hh_sn_65_bi$p.values
## $lr_fb$hh_sn_65_bi$p.values$lr_fb
##                           household with seniors household without seniors
## household with seniors                        NA                     0.014
## household without seniors                  0.014                        NA
##
##
##
## $lr_fb$inc_dist
## NULL
##
##
## $lr_np
## $lr_np$borough
## $lr_np$borough$plot
```

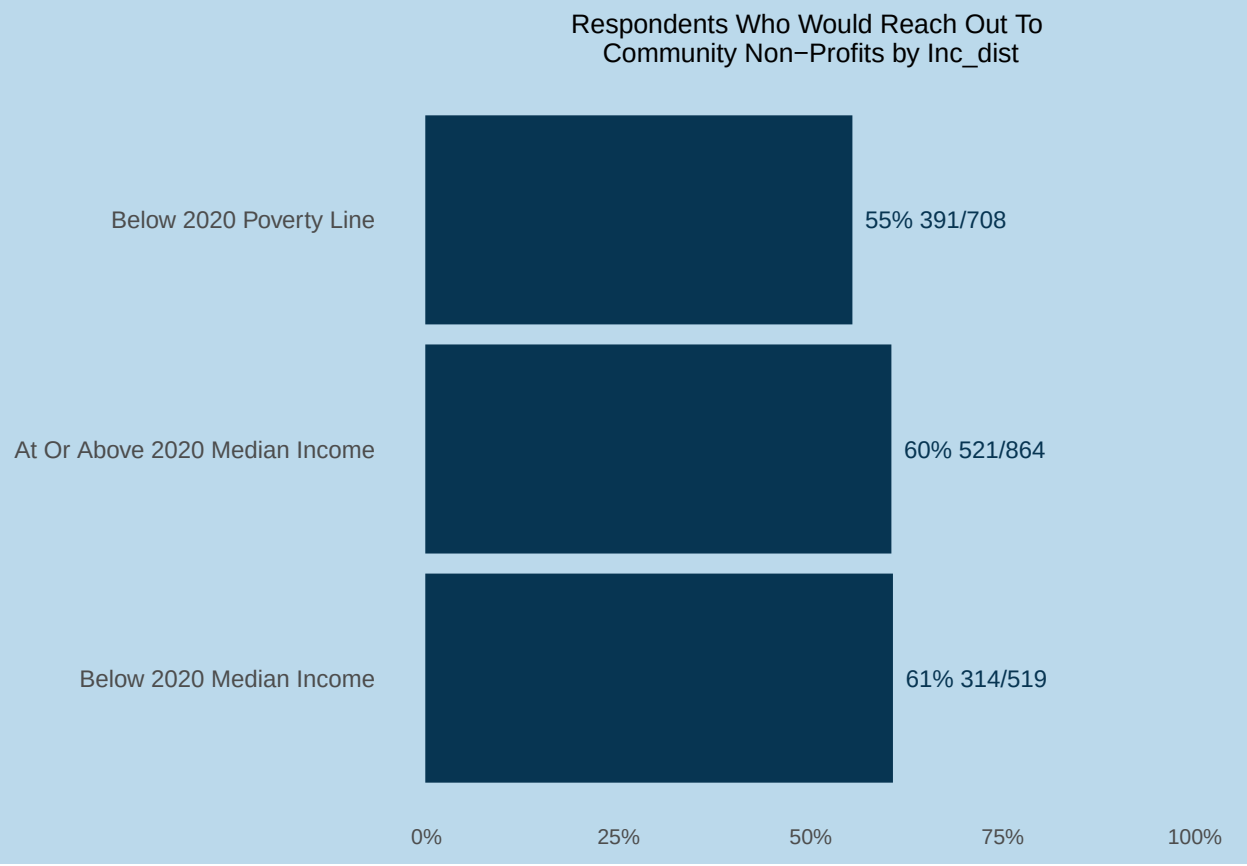



```
##
## $lr_np$borough$p.values
## $lr_np$borough$p.values$lr_np
##                queens brooklyn   bronx manhattan staten island
## queens             NA  4.7e-05 0.00074   6.7e-08       2.2e-06
## brooklyn      4.7e-05       NA      NA        NA       3.3e-03
## bronx         7.4e-04       NA      NA        NA       2.6e-02
## manhattan     6.7e-08       NA      NA        NA       2.3e-02
## staten island 2.2e-06  3.3e-03 0.02600   2.3e-02            NA
##
##
##
## $lr_np$gen
## NULL
##
## $lr_np$race_census
## $lr_np$race_census$plot
```




```
##
## $lr_np$race_census$p.values
## $lr_np$race_census$p.values$lr_np
##                                other black or african american asian
## other                             NA                        NA    NA
## black or african american         NA                        NA    NA
## asian                             NA                        NA    NA
## hispanic or latinx            0.0790                    0.0230    NA
## white (non-hispanic or latino) 0.0330                   0.0014 0.070
## two or more races             0.0068                    0.0046 0.018
## Indigenous American               NA                        NA    NA
##                               hispanic or latinx
## other                                  0.079
## black or african american              0.023
## asian                                     NA
## hispanic or latinx                        NA
## white (non-hispanic or latino)            NA
## two or more races                      0.064
## Indigenous American                       NA
##                               white (non-hispanic or latino) two or more races
## other                                                 0.0330            0.0068
## black or african american                             0.0014            0.0046
## asian                                                 0.0700            0.0180
## hispanic or latinx                                       NA             0.0640
## white (non-hispanic or latino)                           NA                 NA
## two or more races                                        NA                 NA
```

```
## Indigenous American                                    NA                 NA
##                                Indigenous American
## other                                            NA
## black or african american                        NA
## asian                                            NA
## hispanic or latinx                               NA
## white (non-hispanic or latino)                   NA
## two or more races                                NA
## Indigenous American                              NA
##
##
##
## $lr_np$hh_ch_0_17_bi
## NULL
##
## $lr_np$hh_sn_65_bi
## NULL
##
## $lr_np$inc_dist
## $lr_np$inc_dist$plot
```




```
##
## $lr_np$inc_dist$p.values
## $lr_np$inc_dist$p.values$lr_np
##                                below 2020 poverty line
```

```
## below 2020 poverty line                              NA
## at or above 2020 median income                    0.048
## below 2020 median income                          0.074
##                                 at or above 2020 median income
## below 2020 poverty line                                  0.048
## at or above 2020 median income                              NA
## below 2020 median income                                    NA
##                                 below 2020 median income
## below 2020 poverty line                            0.074
## at or above 2020 median income                        NA
## below 2020 median income                              NA
```

6.3)Which mode of transportation most frequently used [23]

Run distribution over population Run distribution by sub-demographics (a-k) Compare and find gaps (test unequal proportions)

```
wrangled %>% count(trans)
```

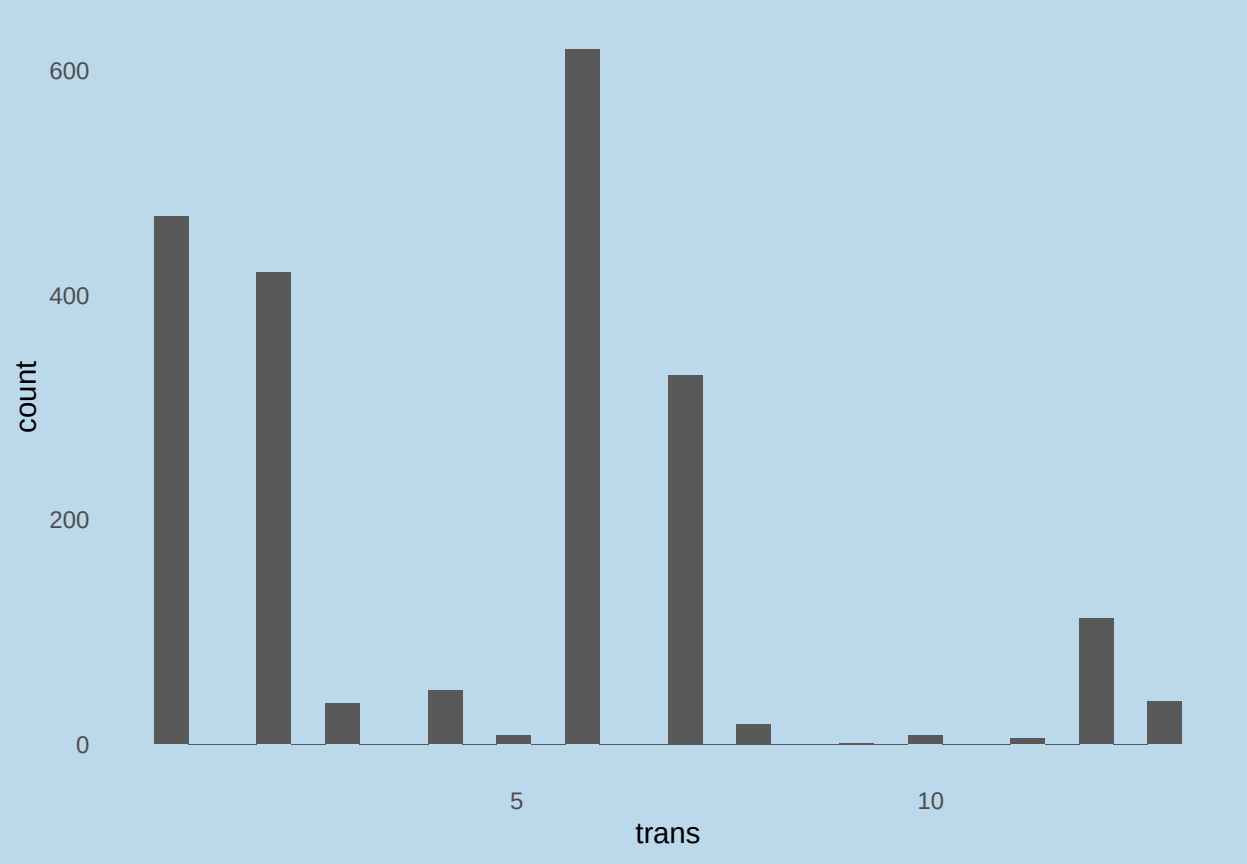
```
## # A tibble: 14 x 2
##                                       trans     n
##                                    <int+lbl> <int>
##  1  1 [drive alone]                            470
##  2  2 [public bus]                             420
##  3  3 [carpool]                                 36
##  4  4 [bike]                                    48
##  5  5 [scooter]                                  8
##  6  6 [subway]                                 619
##  7  7 [walk]                                   329
##  8  8 [commuter rail]                           18
##  9  9 [vanpool]                                  1
## 10 10 [private bus, shuttle]                     8
## 11 11 [ferry, commuter boat]                     5
## 12 12 [taxi, ride hail, for-hire vehicle]      112
## 13 13 [other]                                   38
## 14 NA                                           33
```

```
wrangled %>% ggplot(aes(x = trans)) + geom_histogram()
```

```
## Don't know how to automatically pick scale for object of type haven_labelled/vctrs_vctr/integer. Defa
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

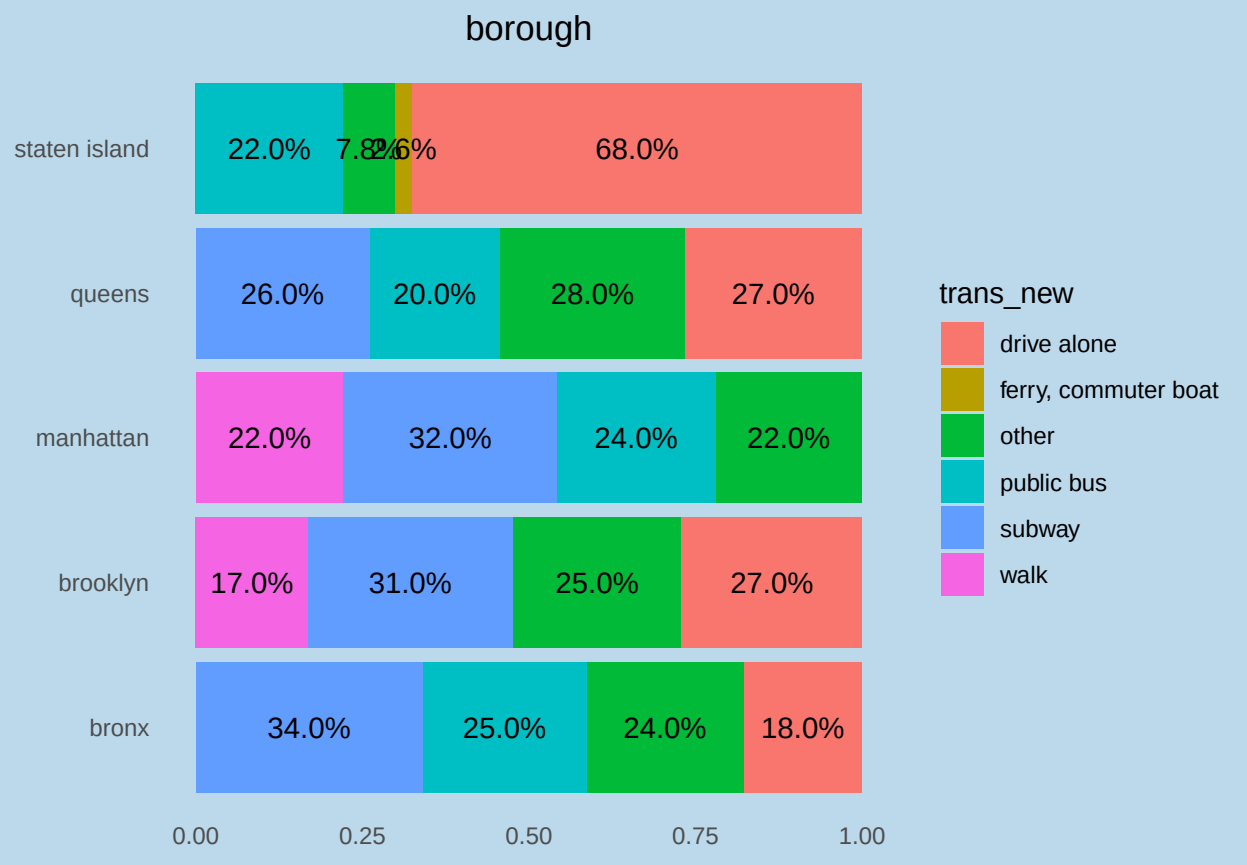
```
## Warning: Removed 33 rows containing non-finite values (stat_bin).
```



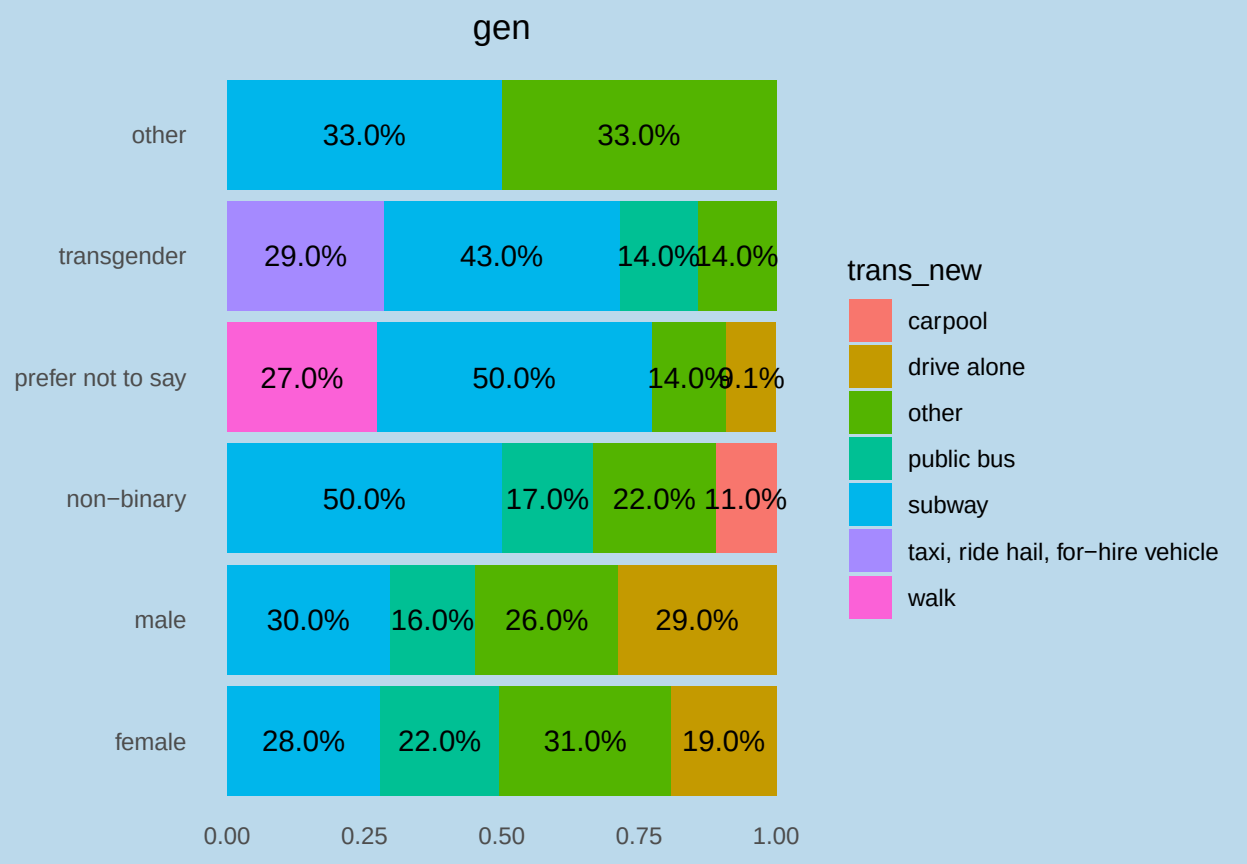

```
lapply(demographics, function(dm) {
  sym_dm <- sym(dm)
  wrangled %>%
    mutate(across(!!sym_dm, ~str_replace_all(labelled::to_factor(.),
                                        c("transgender.*" = "transgender",
                                          "indigenous.*" = "Indigenous American")))) %>%
    group_by(!!sym_dm) %>% count(!!sym_dm, trans) %>%
    arrange(dm, desc(n)) %>%
    mutate(trans_new = ifelse(row_number() < 4, to_character(trans), "other")) %>%
    group_by(!!sym_dm, trans_new) %>% summarize(n = sum(n)) %>%
    group_by(!!sym_dm) %>% mutate(denom = sum(n), prop = n/denom) %>%
    arrange(dm, prop) %>%
    mutate(label = ifelse(row_number()<=3, scales::percent(prop), "")) %>%
    filter(denom > 1) %>% na.omit() %>%


    ggplot(aes(x = prop, y = reorder(!!sym_dm, prop), fill = trans_new)) +
    geom_col(position = "fill") +
    geom_text(aes(label = scales::percent(signif(prop, 2))), position = position_fill(0.5)) +
    ggtitle(dm) + xlab(NULL) + ylab(NULL)
})
```

```
## `summarise()` has grouped output by 'borough'. You can override using the
## `.groups` argument.

## `summarise()` has grouped output by 'gen'. You can override using the `.groups`
```

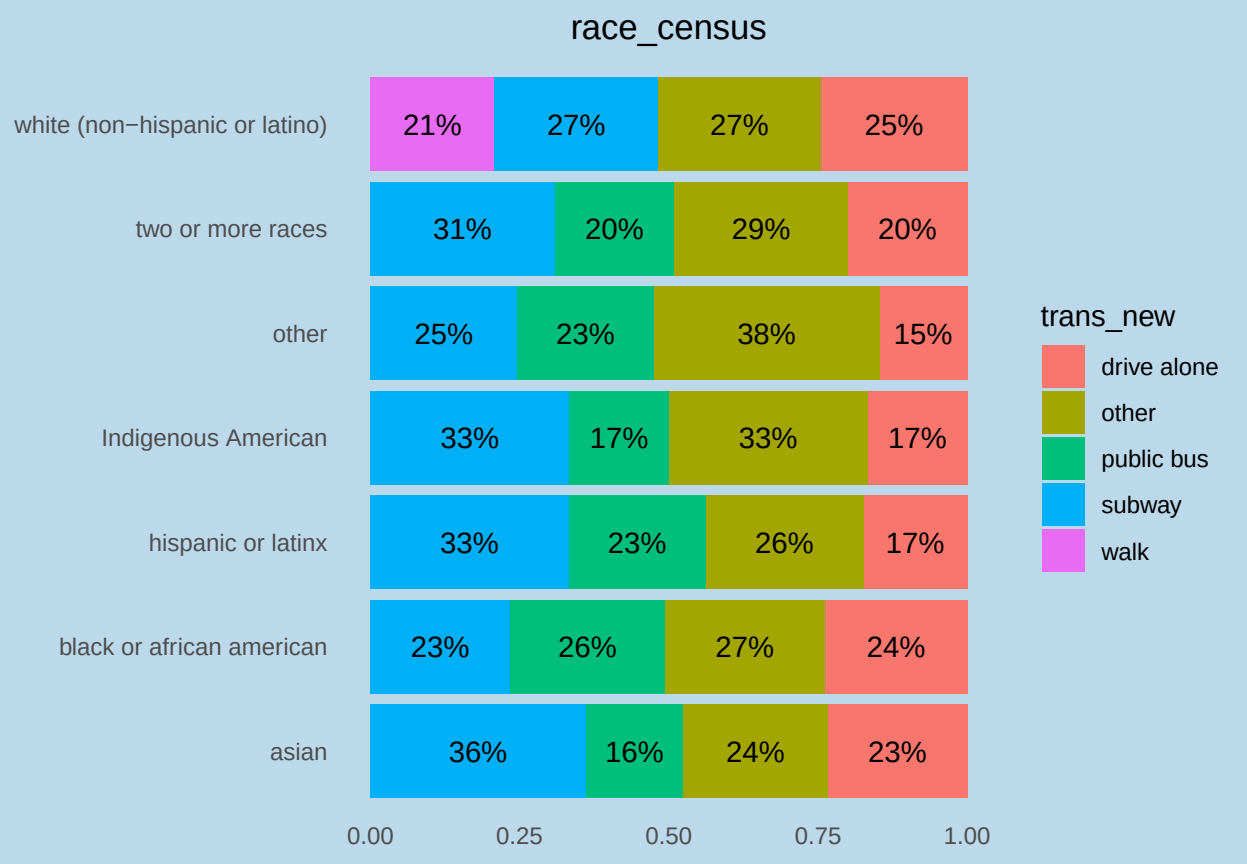
```
## argument.
## `summarise()` has grouped output by 'race_census'. You can override using the
## `.groups` argument.
## `summarise()` has grouped output by 'hh_ch_0_17_bi'. You can override using the
## `.groups` argument.
## `summarise()` has grouped output by 'hh_sn_65_bi'. You can override using the
## `.groups` argument.
## `summarise()` has grouped output by 'inc_dist'. You can override using the
## `.groups` argument.

## $borough
```



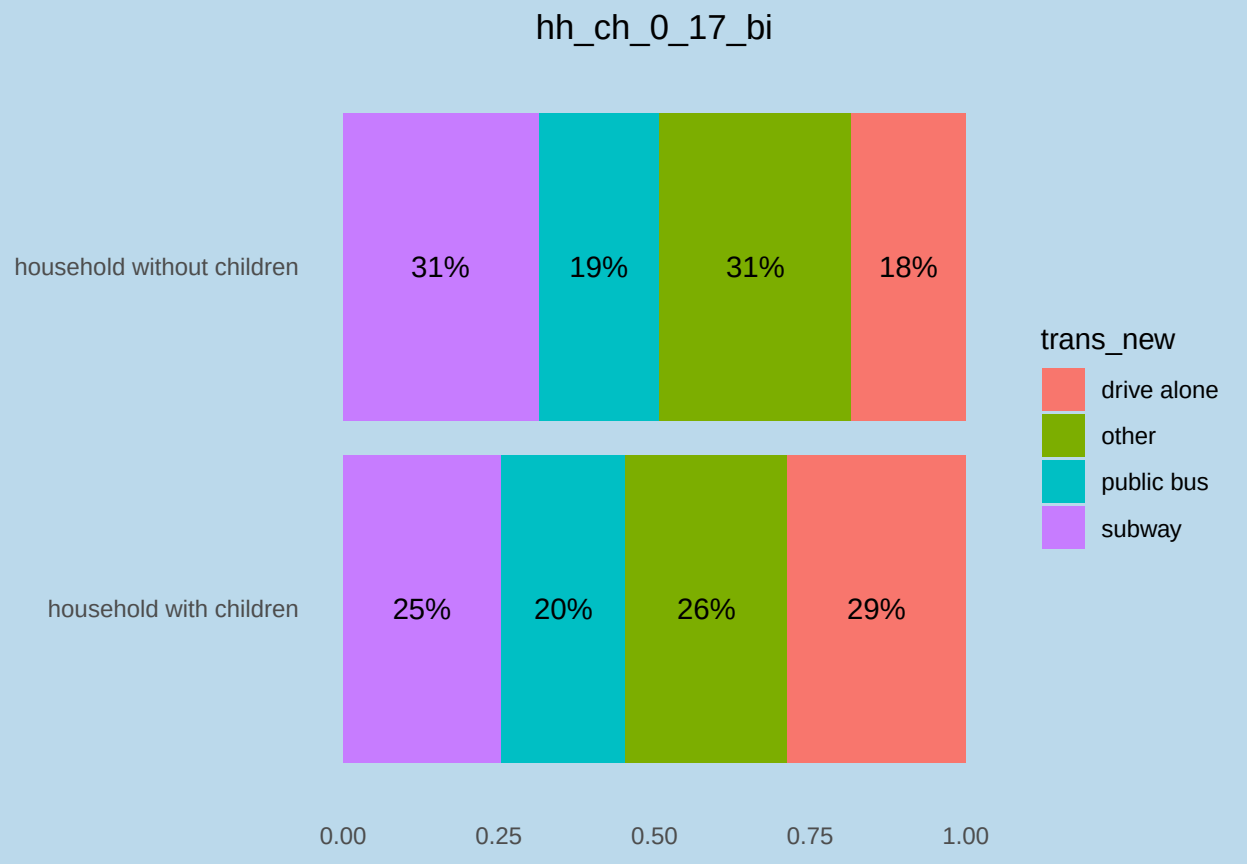

```
##
## $gen
```


gen
other
transgender
prefer not to say
non−binary
male
female
33.0%
33.0%
29.0%
43.0%
14.0%
14.0%
27.0%
50.0%
14.0%
9.1%
50.0%
17.0%
22.0%
11.0%
30.0%
16.0%
26.0%
29.0%
28.0%
22.0%
31.0%
19.0%
0.00
0.25
0.50
0.75
1.00
trans_new
carpool
drive alone
other
public bus
subway
taxi, ride hail, for−hire vehicle
walk

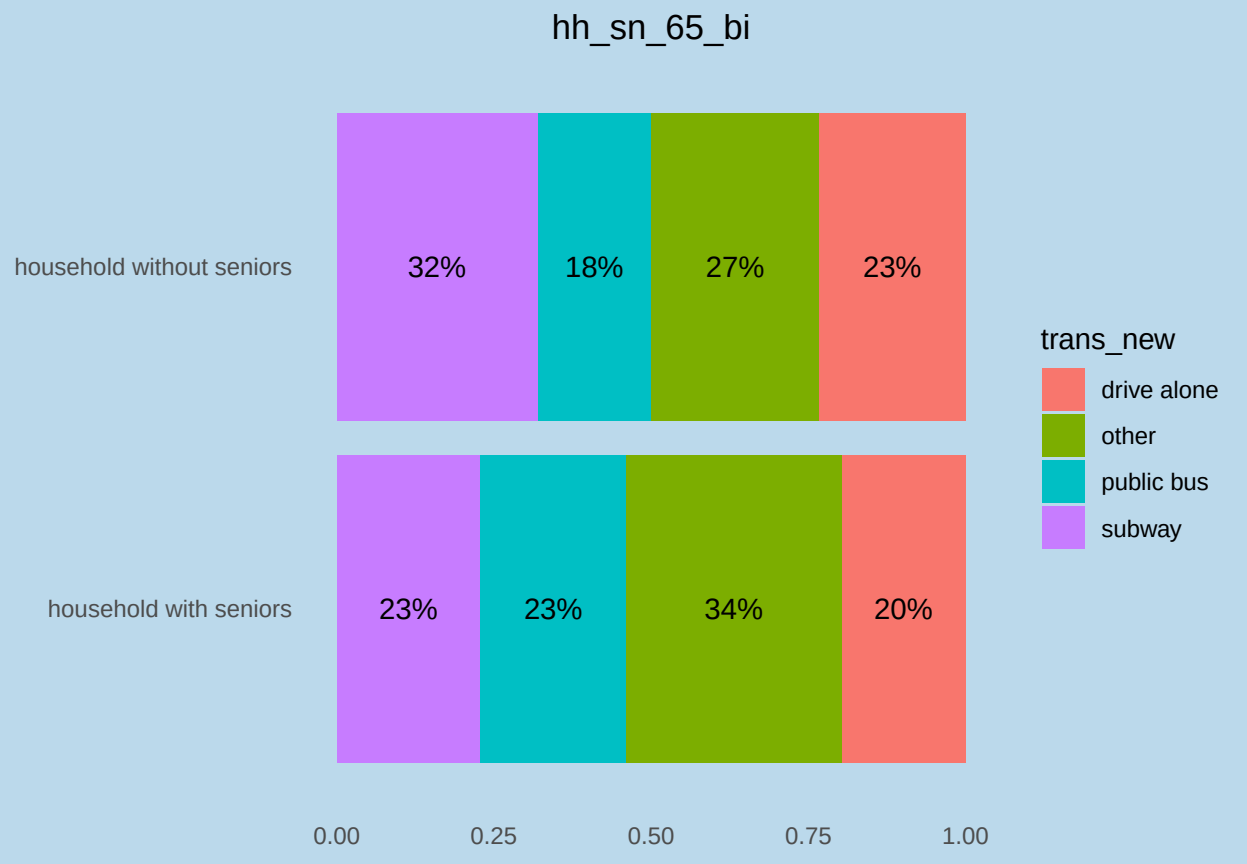
```
##
## $race_census
```


race_census
white (non−hispanic or latino)
two or more races
other
Indigenous American
hispanic or latinx
black or african american
asian
21%
27%
27%
25%
31%
20%
29%
20%
25%
23%
38%
15%
33%
17%
33%
17%
33%
23%
26%
17%
23%
26%
27%
24%
36%
16%
24%
23%
0.00
0.25
0.50
0.75
1.00
trans_new
drive alone
other
public bus
subway
walk

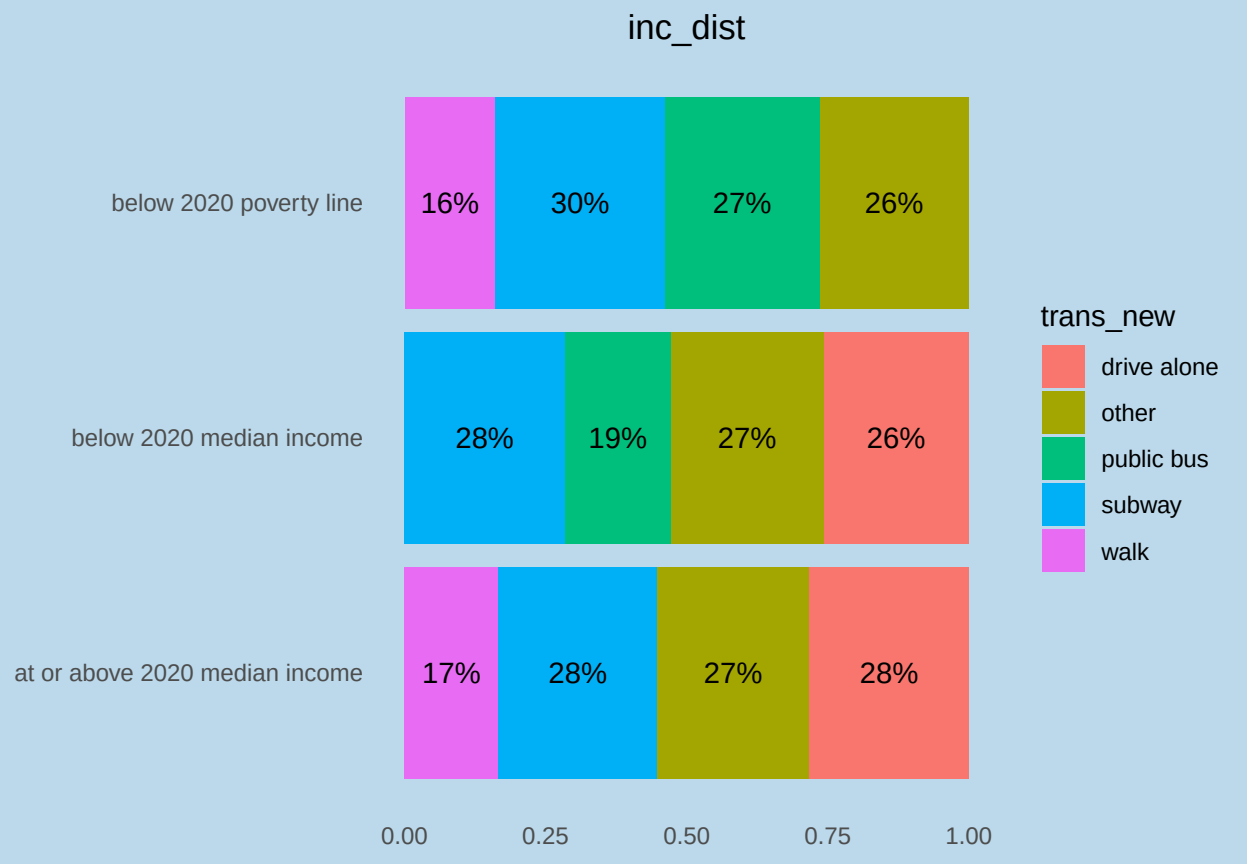
```
##
## $hh_ch_0_17_bi
```


hh_ch_0_17_bi
household without children
household with children
31%
19%
31%
18%
25%
20%
26%
29%
0.00
0.25
0.50
0.75
1.00
trans_new
drive alone
other
public bus
subway

```
##
## $hh_sn_65_bi
```


hh_sn_65_bi
household without seniors
household with seniors
32%
18%
27%
23%
23%
23%
34%
20%
0.00
0.25
0.50
0.75
1.00
trans_new
drive alone
other
public bus
subway

```
##
## $inc_dist
```



6.5) People who experienced difficulty accessing transportation in the past year [20]

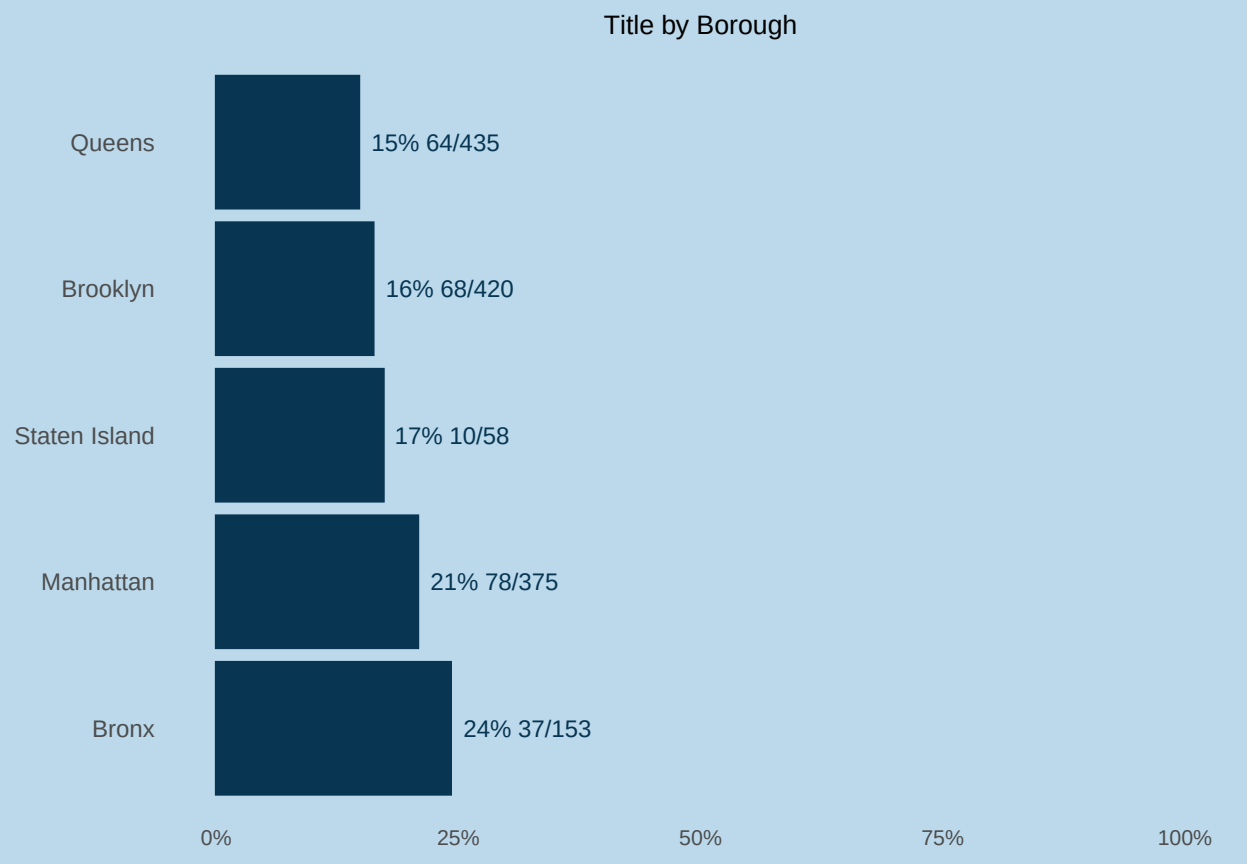
Run distribution over population Run distribution by sub-demographics (a-k) Compare and find gaps (test unequal proportions)

```
mean(wrangled$diff_trans, na.rm = TRUE)
```

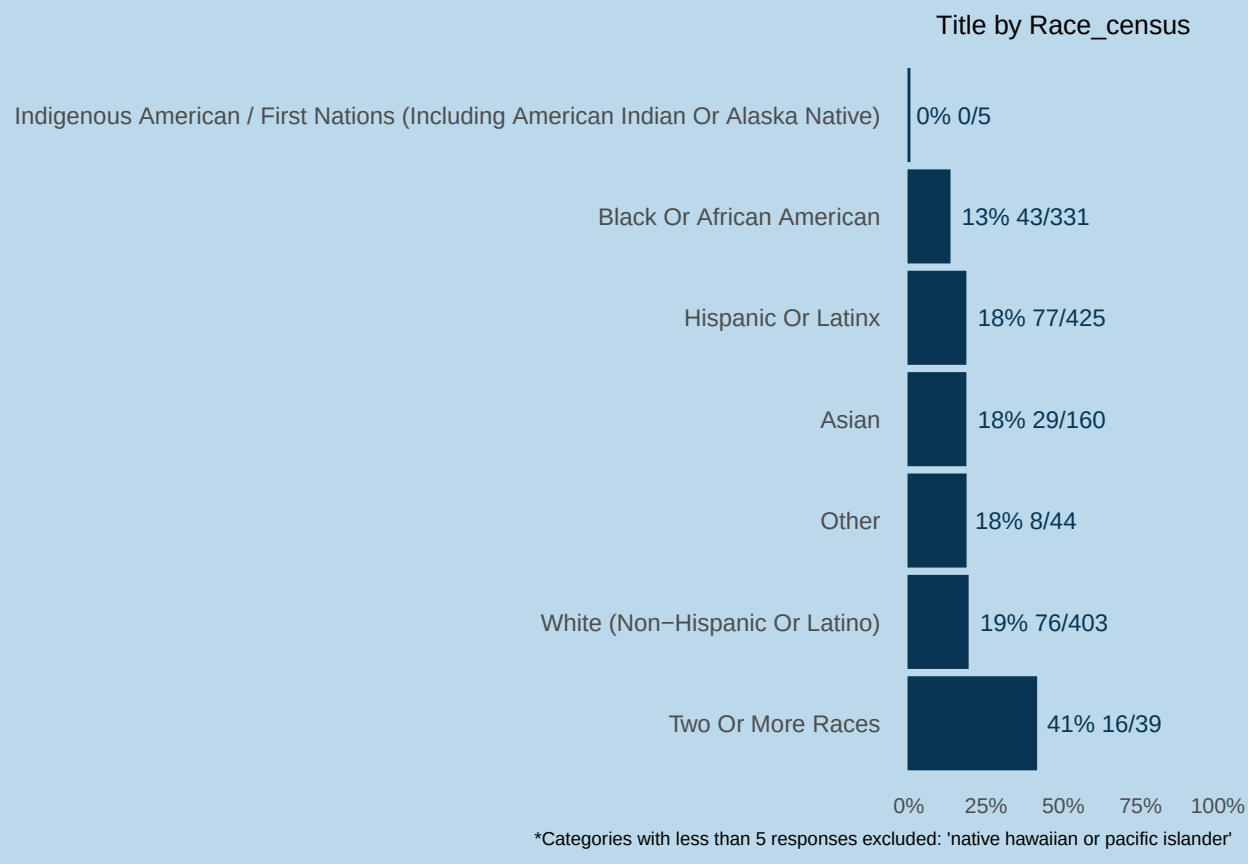
```
## [1] 0.1783484
```

```
make_plots(wrangled, demographics, "diff_trans")
```

```
## $borough
## $borough$plot
```




```
##
## $borough$p.values
## $borough$p.values$diff_trans
##               queens brooklyn staten island manhattan bronx
## queens            NA       NA            NA     0.029 0.011
## brooklyn          NA       NA            NA        NA 0.039
## staten island     NA       NA            NA        NA    NA
## manhattan      0.029       NA            NA        NA    NA
## bronx          0.011    0.039            NA        NA    NA
##
##
##
## $gen
## NULL
##
## $race_census
## $race_census$plot
```




```
##
## $race_census$p.values
## $race_census$p.values$diff_trans
##                                                                                 indigenous american
## indigenous american / first nations (including american indian or alaska native)
## black or african american
## hispanic or latinx
## asian
## other
## white (non-hispanic or latino)
## two or more races
##                                                                                 black or african ame
## indigenous american / first nations (including american indian or alaska native)
## black or african american
## hispanic or latinx                                                                               7
## asian
## other
## white (non-hispanic or latino)                                                                   4
## two or more races                                                                                1
##                                                                                 hispanic or latinx
## indigenous american / first nations (including american indian or alaska native)                NA
## black or african american                                                                  0.0700
## hispanic or latinx                                                                             NA
## asian                                                                                          NA
## other                                                                                          NA
## white (non-hispanic or latino)                                                                 NA
```

```
## two or more races                                                                    0.0013
##                                                                                      asian
## indigenous american / first nations (including american indian or alaska native)        NA
## black or african american                                                               NA
## hispanic or latinx                                                                      NA
## asian                                                                                   NA
## other                                                                                   NA
## white (non-hispanic or latino)                                                          NA
## two or more races                                                                   0.0043
##                                                                                     other
## indigenous american / first nations (including american indian or alaska native)      NA
## black or african american                                                             NA
## hispanic or latinx                                                                    NA
## asian                                                                                 NA
## other                                                                                 NA
## white (non-hispanic or latino)                                                        NA
## two or more races                                                                  0.041
##                                                                                    white (non-hispanic
## indigenous american / first nations (including american indian or alaska native)
## black or african american
## hispanic or latinx
## asian
## other
## white (non-hispanic or latino)
## two or more races
##                                                                                    two or more races
## indigenous american / first nations (including american indian or alaska native)                NA
## black or african american                                                                 1.8e-05
## hispanic or latinx                                                                        1.3e-03
## asian                                                                                     4.3e-03
## other                                                                                     4.1e-02
## white (non-hispanic or latino)                                                            2.3e-03
## two or more races                                                                             NA
##
##
##
## $hh_ch_0_17_bi
## NULL
##
## $hh_sn_65_bi
## NULL
##
## $inc_dist
## NULL
```

6.6) People who are renting public housing or with public assistance were more likely to experience difficulty finding housing in the past six year

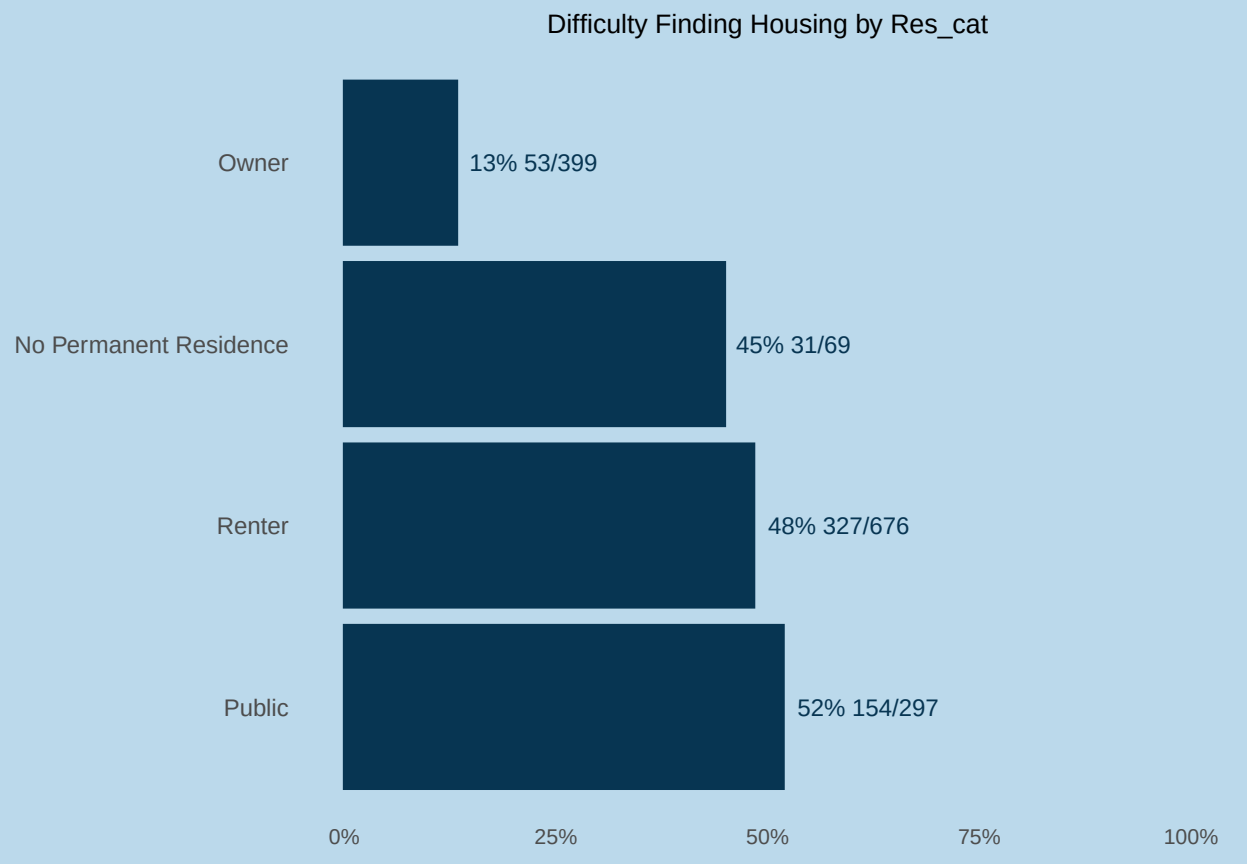
Find respondents who are renters of public housing or rent with public assistance [19] Find proportion of subset who indicated difficulty finding housing in the past year [20] Find proportion not in subset who indicated difficulty finding housing in the past year and compare (test unequal proportions)

```
mean(wrangled$res_cat == 1)
```

```
## [1] NA
```

```
make_plots(wrangled, "res_cat", "house_insec", title = "Difficulty finding housing")
```

```
## $res_cat
## $res_cat$plot
```




```
##
## $res_cat$p.values
## $res_cat$p.values$house_insec
##                           owner no permanent residence  renter  public
## owner                        NA                7.5e-10 6.5e-31 8.7e-28
## no permanent residence 7.5e-10                     NA      NA      NA
## renter                 6.5e-31                     NA      NA      NA
## public                 8.7e-28                     NA      NA      NA
```

6.7) Households below median income were more likely to have difficulty with transportation during the pandemic

Find three groups of population who are below median income in 2021 [13] Find the proportion of each subset of people who had difficulty with transportation [20] Compare and contrast the three groups on the

basis of who faced the highest number of transportation issues and test unequal proportions

```
mean(wrangled$inc_be_med_before, na.rm = TRUE)
```

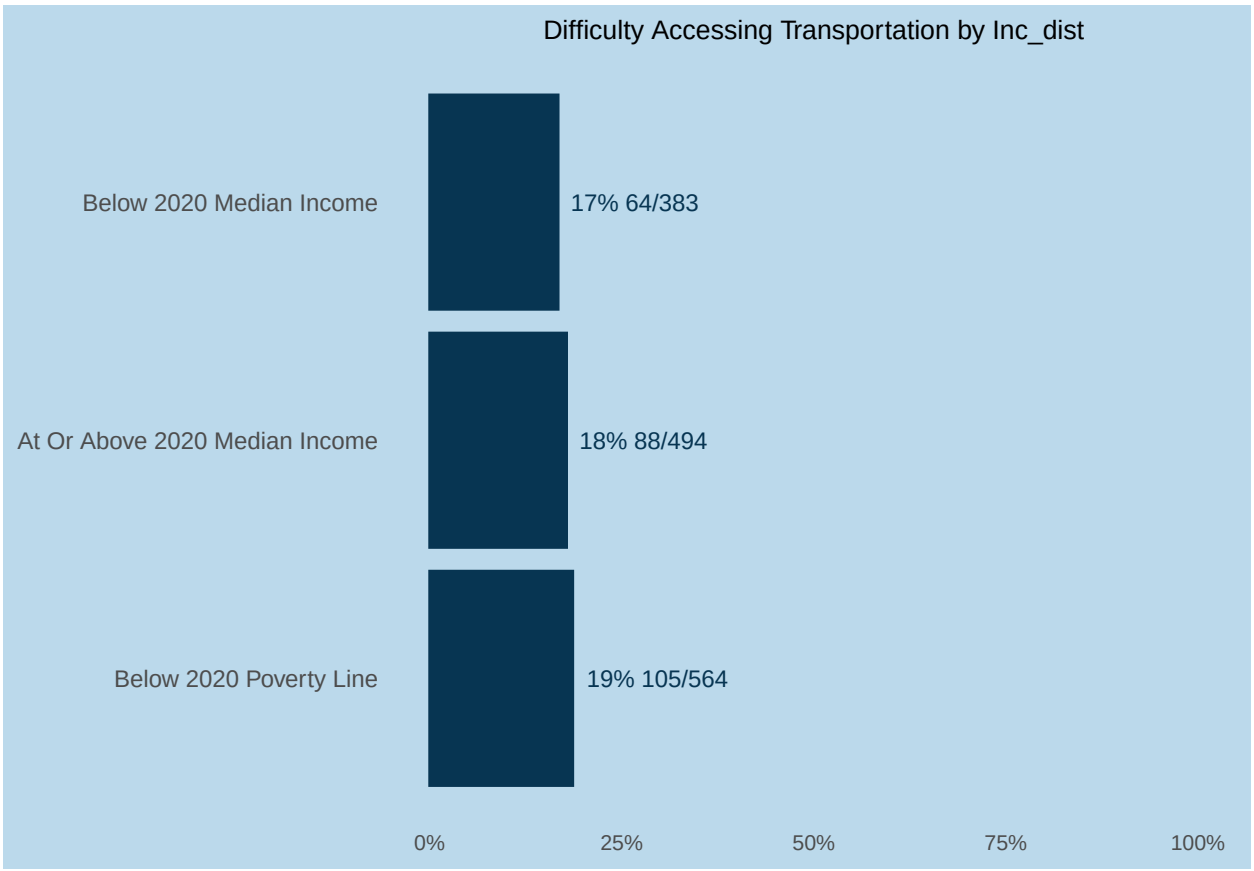
```
## [1] 0.5977121
```

```
wrangled %>% count(inc_dist, diff_trans) %>% mutate_if(is.labelled, to_character)
```

```
## # A tibble: 9 x 3
##   inc_dist                      diff_trans                                    n
##   <chr>                         <chr>                                     <int>
## 1 below 2020 poverty line       not 'difficulty accessing or using trans~   459
## 2 below 2020 poverty line       difficulty accessing or using transporta~   105
## 3 below 2020 poverty line       <NA>                                        162
## 4 below 2020 median income      not 'difficulty accessing or using trans~   319
## 5 below 2020 median income      difficulty accessing or using transporta~    64
## 6 below 2020 median income      <NA>                                        145
## 7 at or above 2020 median income not 'difficulty accessing or using trans~   406
## 8 at or above 2020 median income difficulty accessing or using transporta~    88
## 9 at or above 2020 median income <NA>                                       397
```

```
make_plots(wrangled, "inc_dist", "diff_trans", show = "yes", title = "Difficulty Accessing Transportati
```

```
## $inc_dist
## $inc_dist$plot
```



```
##
## $inc_dist$p.values
## $inc_dist$p.values$diff_trans
##                                 below 2020 median income
## below 2020 median income                              NA
## at or above 2020 median income                        NA
## below 2020 poverty line                               NA
##                                 at or above 2020 median income
## below 2020 median income                                    NA
## at or above 2020 median income                              NA
## below 2020 poverty line                                     NA
##                                 below 2020 poverty line
## below 2020 median income                             NA
## at or above 2020 median income                       NA
## below 2020 poverty line                              NA
```

6.8)People with limited or no internet access are more likely to use friends and family as resources

Find respondents who have limited internet access or no internet access [22] Find subset of respondents who are most likely to turn to friends/family for support [33] it's not "most likely" but did or did not list them Find proportion not in subset and compare (test unequal proportions)

```
mean(wrangled$lr_fam, na.rm = TRUE)
```

```
## [1] 0.8192253
```

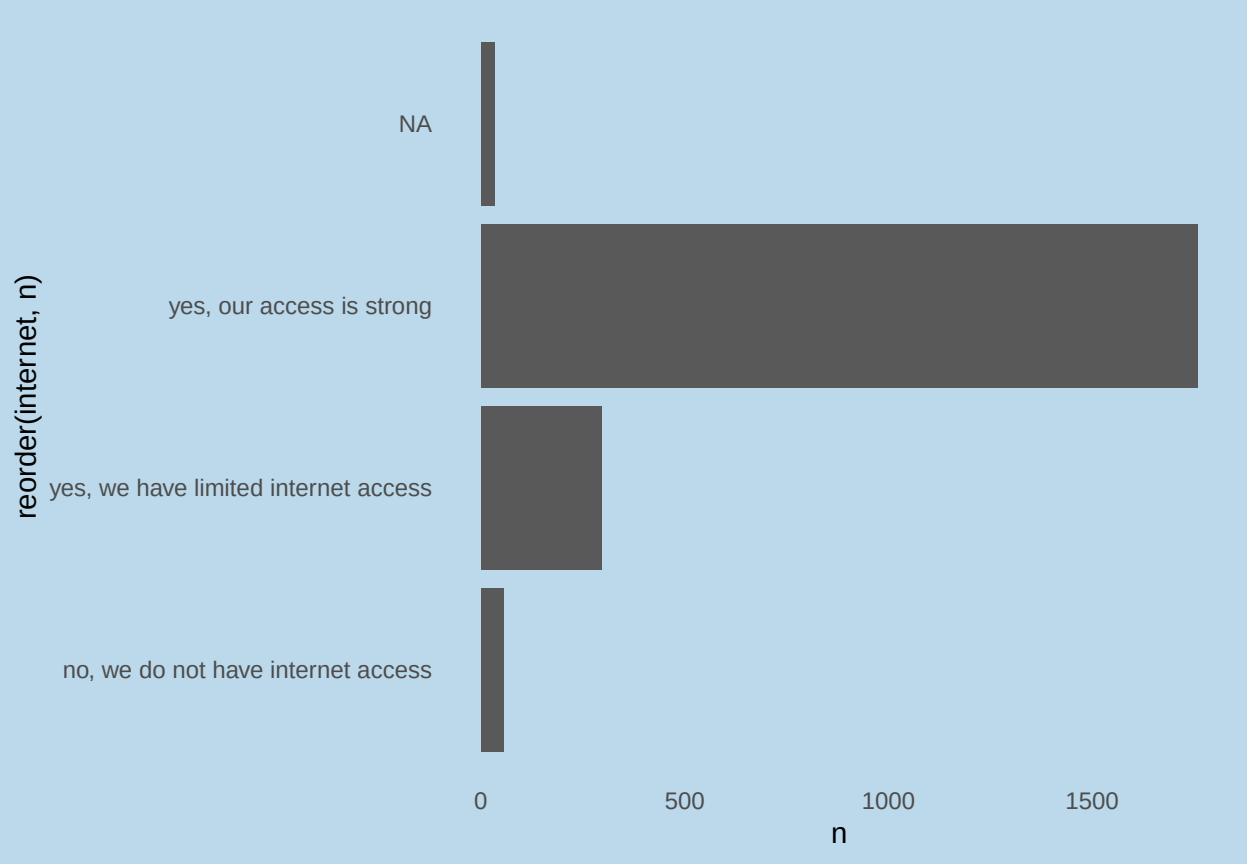
```
mean(wrangled$internet_acc, na.rm = TRUE)
```

```
## [1] 0.9585082
```

```
mean(wrangled$internet_lim, na.rm = TRUE)
```

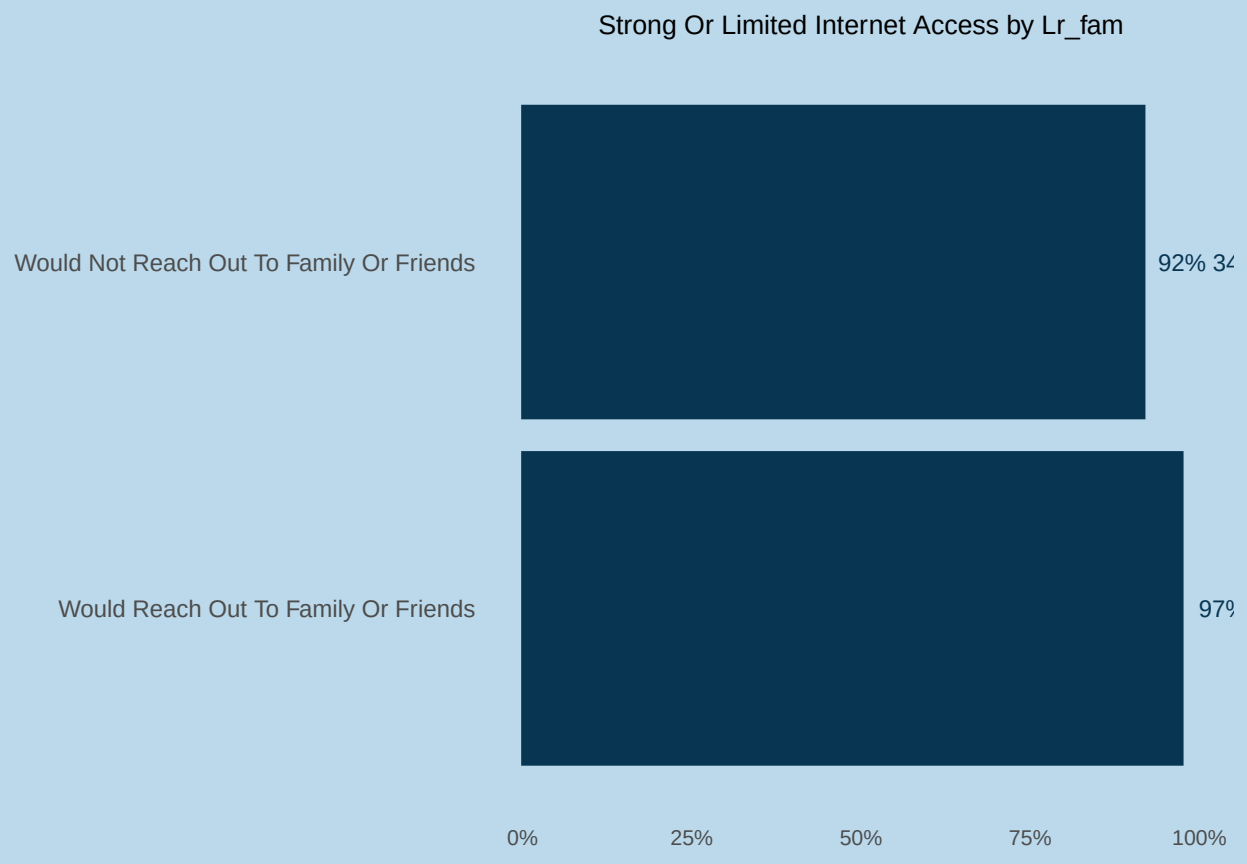
```
## [1] 0.1671402
```

```
count(wrangled, internet) %>% mutate_if(is.labelled, to_character) %>%
  ggplot(aes(x = n, y = reorder(internet, n))) + geom_col()
```




```
make_plots(wrangled, "lr_fam", "internet_acc", title = "Strong or Limited Internet Access")
```

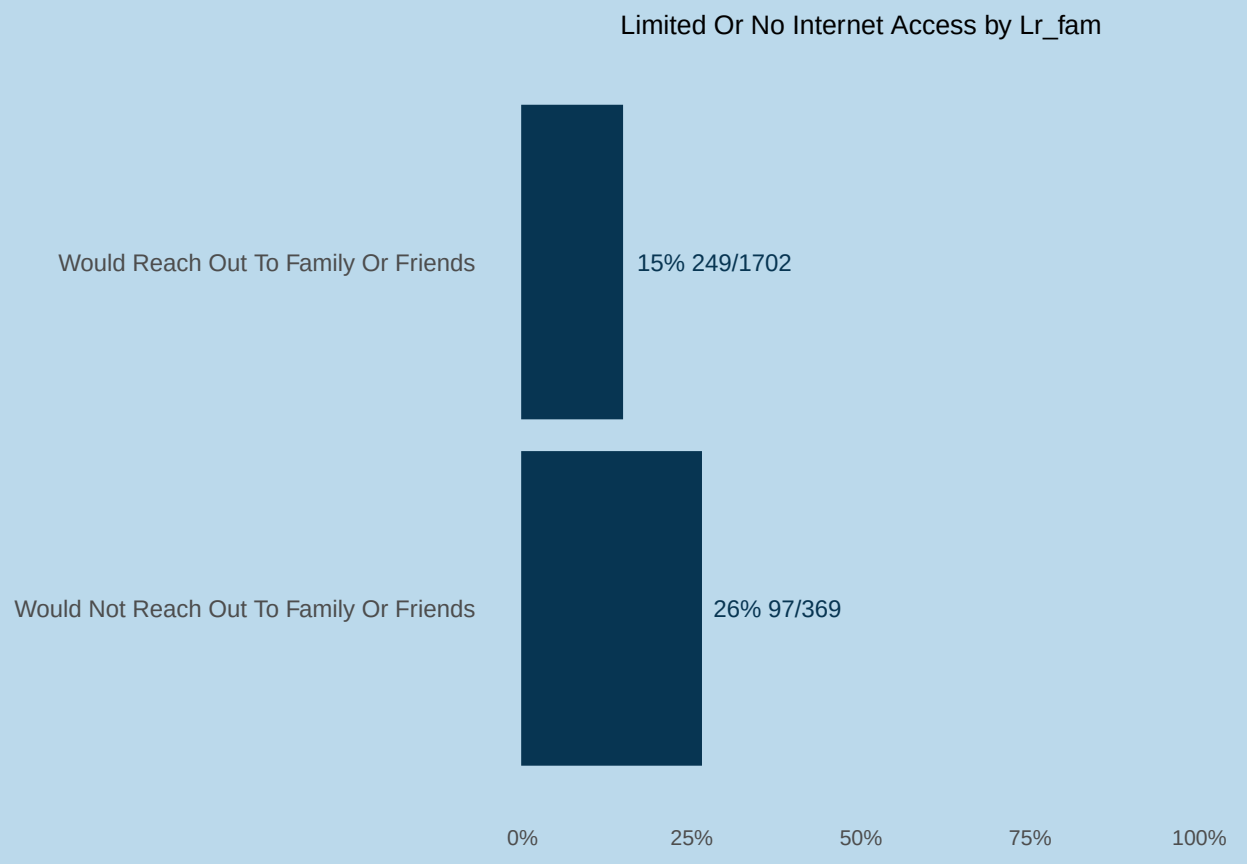
```
## $lr_fam
## $lr_fam$plot
```




```
##
## $lr_fam$p.values
## $lr_fam$p.values$internet_acc
##                                          would not reach out to family or friends
## would not reach out to family or friends                                       NA
## would reach out to family or friends                                      2.3e-07
##                                          would reach out to family or friends
## would not reach out to family or friends                              2.3e-07
## would reach out to family or friends                                       NA
```

```
make_plots(wrangled, "lr_fam", "internet_lim", title = "Limited or No Internet Access")
```

```
## $lr_fam
## $lr_fam$plot
```




```
##
## $lr_fam$p.values
## $lr_fam$p.values$internet_lim
##                                          would reach out to family or friends
## would reach out to family or friends                                       NA
## would not reach out to family or friends                                8.1e-08
##                                          would not reach out to family or friends
## would reach out to family or friends                                     8.1e-08
## would not reach out to family or friends                                      NA
```

6.9)People with limited or no internet access are more likely to use faith-based resources

Find respondents who have limited internet access or no internet access [22] Find subset of respondents who are most likely to use faith-based resources [33] Find proportion not in subset and compare (test unequal proportions)

```
make_plots(wrangled, "lr_fb", "internet_acc", title = "Strong or Limited Internet Access")
```

```
## $lr_fb
## NULL
```

```
make_plots(wrangled, "lr_fb", "internet_lim", title = "Limited or No Internet Access")
```

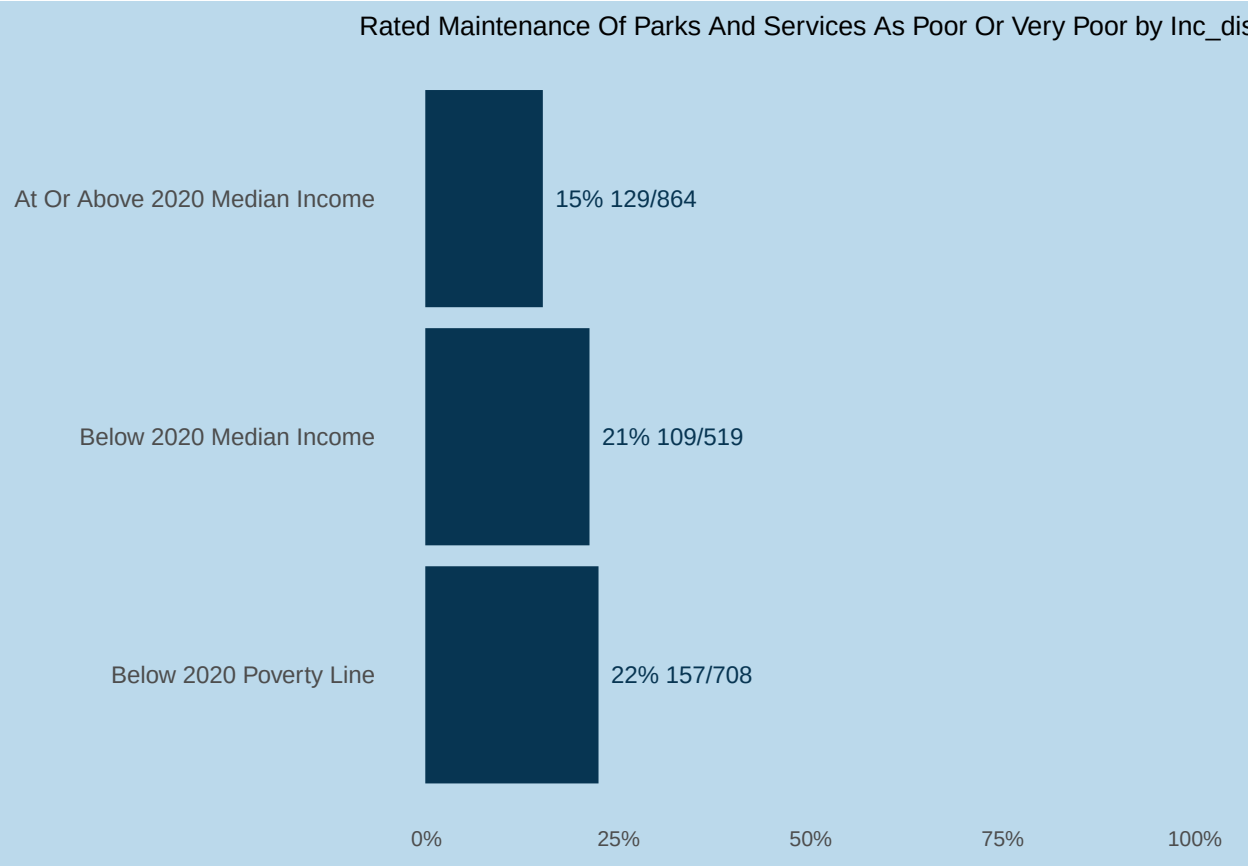
```
## $lr_fb
## NULL
```

6.10) Households below median income are more likely to rate maintenance of parks and services as poor [13, 32]

Find proportion of respondents who are below median income or at median income [13] Find subset of respondents who rated maintenance of parks and services as poor [32] Find proportion not in subset and compare (test unequal proportions)

```
make_plots(wrangled, "inc_dist", "rate_neigh_rec_bad", title = "Rated Maintenance of Parks and Services
```

```
## $inc_dist
## $inc_dist$plot
```




```
##
## $inc_dist$p.values
## $inc_dist$p.values$rate_neigh_rec_bad
##                                at or above 2020 median income
```

```
## at or above 2020 median income                          NA
## below 2020 median income                              0.00480
## below 2020 poverty line                               0.00027
##                                 below 2020 median income below 2020 poverty line
## at or above 2020 median income                   0.0048                 0.00027
## below 2020 median income                             NA                      NA
## below 2020 poverty line                              NA                      NA
```