

# poa\_safety

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## 5.1)People who experienced or worried about discrimination due to the pandemic [30]

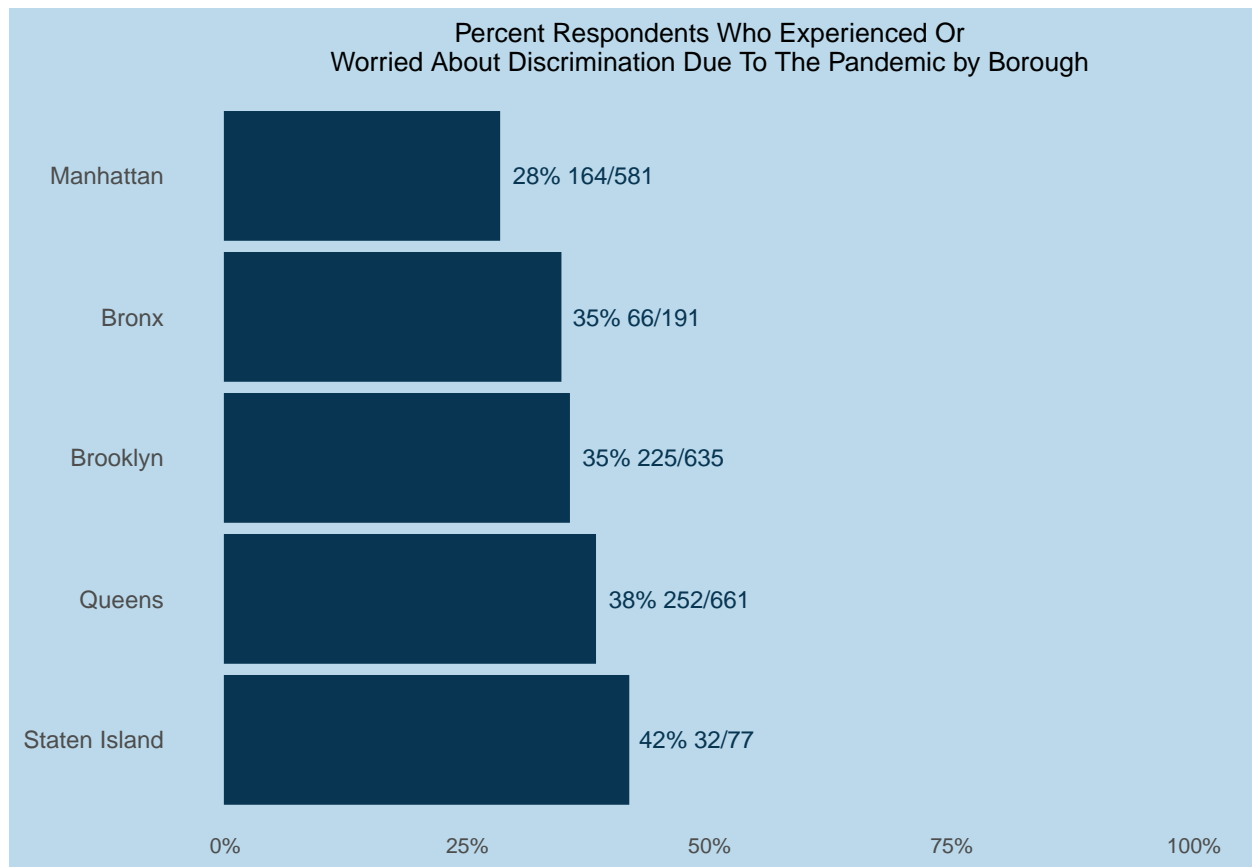
Run distribution over population Run distribution by sub-demographics (a-k) Compare and find gaps (test unequal proportions)

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

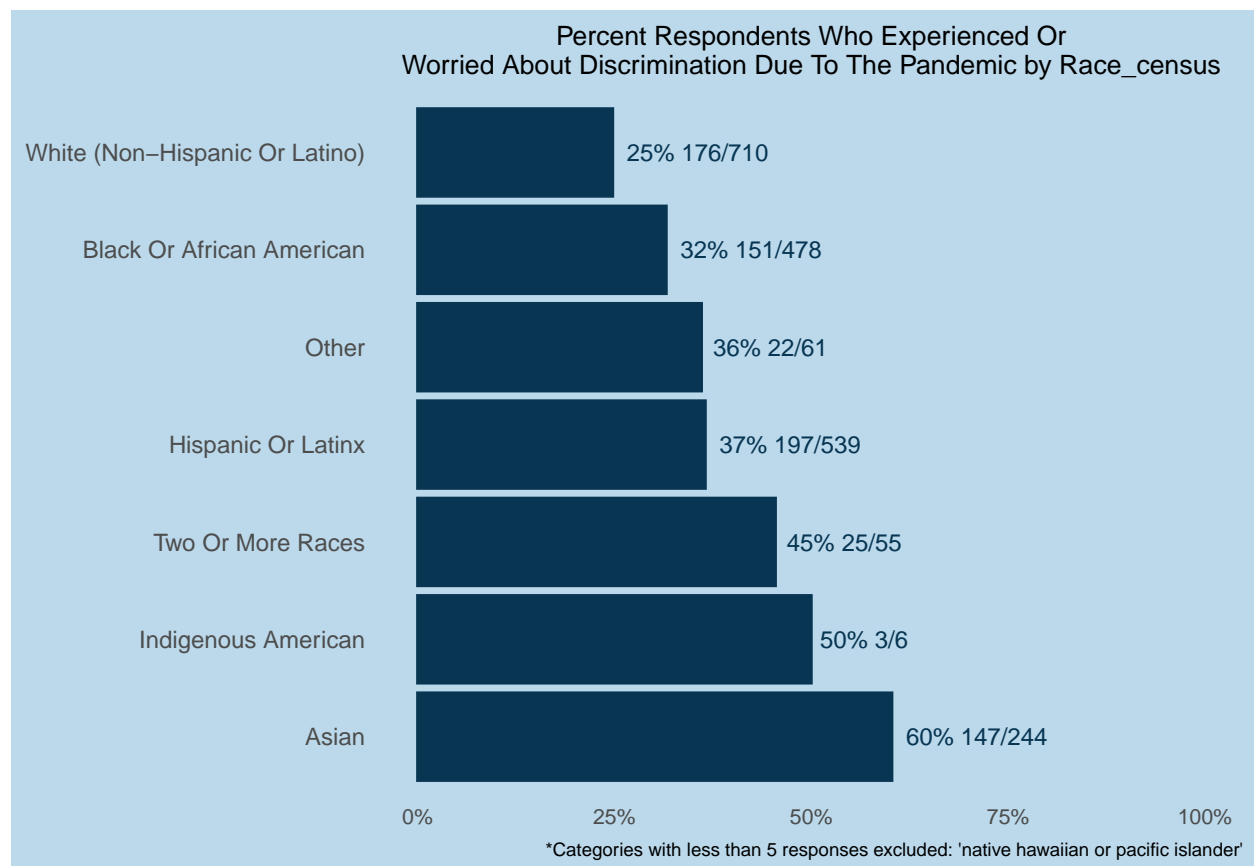
```
## [1] 0.3445221
```

```
make_plots(wrangled, demographics, "discrim_bi", title = "Percent Respondents who experienced or worried about discrimination due to the pandemic by borough")
```

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

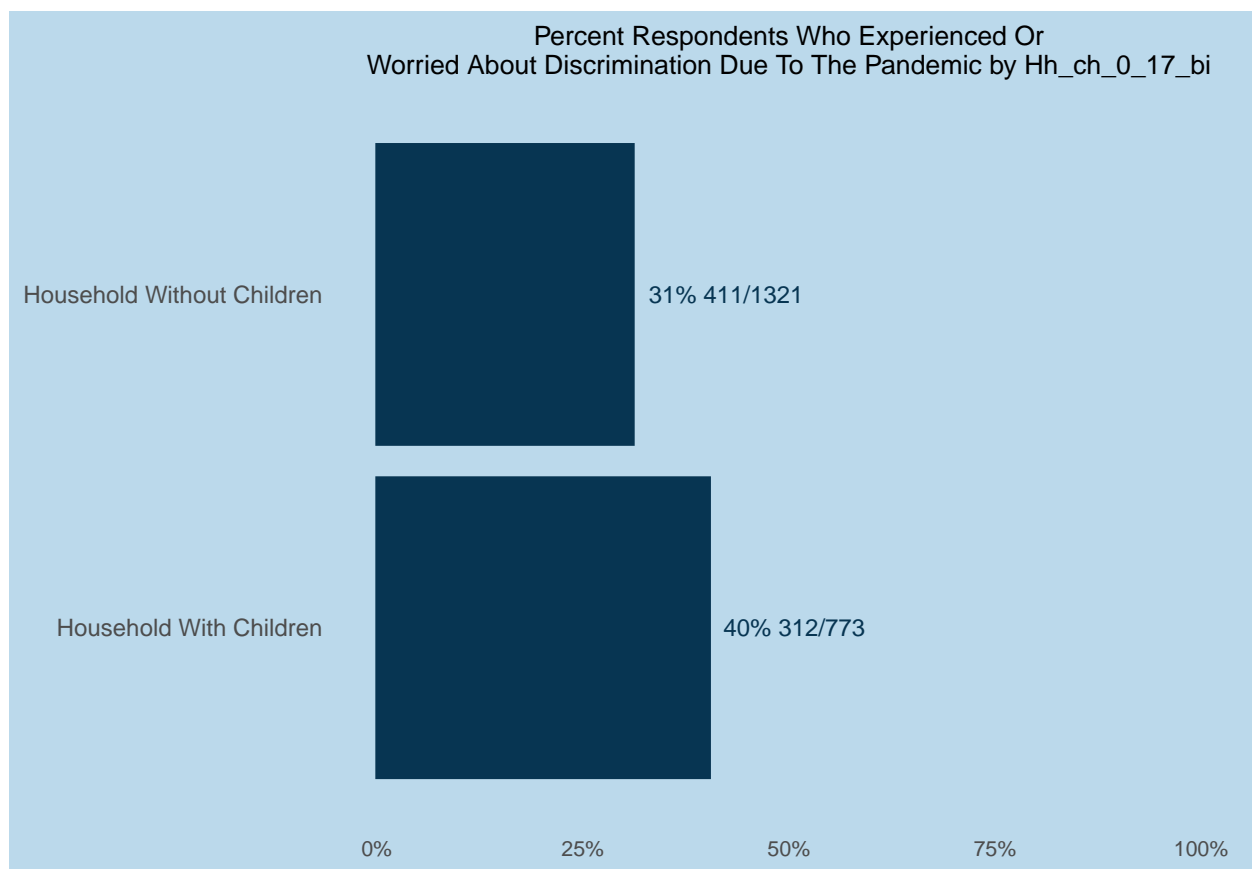


```
##
## $borough$p.values
## $borough$p.values$discrim_bi
##      manhattan bronx brooklyn queens staten island
## manhattan      NA   NA   0.0086 0.00029      NA
## bronx          NA   NA      NA      NA      NA
## brooklyn      0.00860 NA      NA      NA      NA
## queens        0.00029 NA      NA      NA      NA
## staten island   NA   NA      NA      NA      NA
##
##
##
## $gen
## NULL
##
## $race_census
## $race_census$plot
```

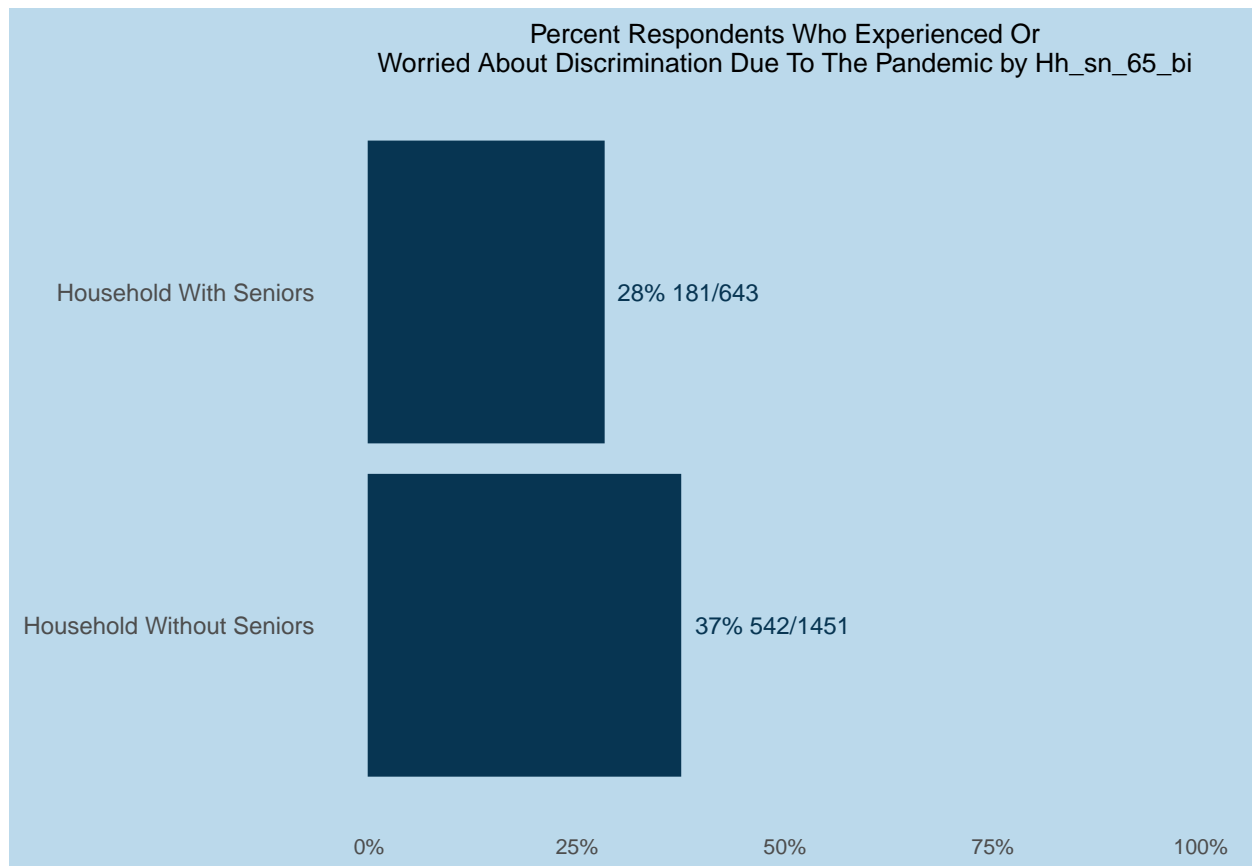


```
##
## $race_census$p.values
## $race_census$p.values$discrim_bi
##               white (non-hispanic or latino)
## white (non-hispanic or latino)              NA
## black or african american                    NA
## other                                         NA
## hispanic or latinx                          9.2e-06
## two or more races                          1.4e-03
## Indigenous American                         NA
## asian                                       1.3e-23
##               black or african american  other
## white (non-hispanic or latino)          NA    NA
## black or african american                NA    NA
## other                                    NA    NA
## hispanic or latinx                      NA    NA
## two or more races                       NA    NA
## Indigenous American                     NA    NA
## asian                                  2.5e-13 0.0011
##               hispanic or latinx two or more races
## white (non-hispanic or latino)          9.2e-06    0.0014
## black or african american                NA         NA
## other                                    NA         NA
## hispanic or latinx                      NA         NA
## two or more races                       NA         NA
## Indigenous American                     NA         NA
```

```
## asian 9.9e-10 NA
##
## Indigenous American asian
## white (non-hispanic or latino) NA 1.3e-23
## black or african american NA 2.5e-13
## other NA 1.1e-03
## hispanic or latinx NA 9.9e-10
## two or more races NA NA
## Indigenous American NA NA
## asian NA NA
##
##
## $hh_ch_0_17_bi
## $hh_ch_0_17_bi$plot
```



```
##
## $hh_ch_0_17_bi$p.values
## $hh_ch_0_17_bi$p.values$discrim_bi
## household without children household with children
## household without children NA 2.2e-05
## household with children 2.2e-05 NA
##
##
## $hh_sn_65_bi
## $hh_sn_65_bi$plot
```



```
##
## $hh_sn_65_bi$p.values
## $hh_sn_65_bi$p.values$discrim_bi
##           household with seniors household without seniors
## household with seniors              NA              5.4e-05
## household without seniors          5.4e-05              NA
##
##
##
## $inc_dist
## NULL
```

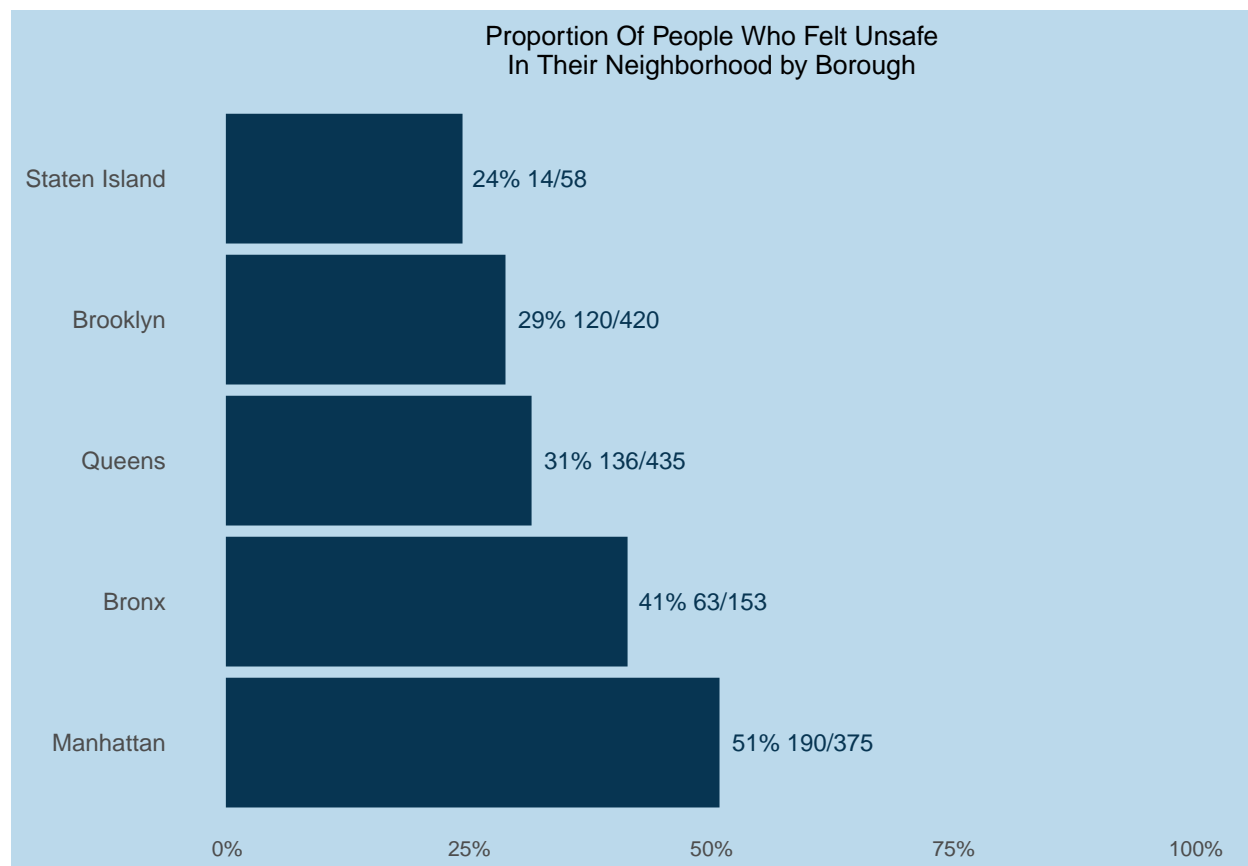
5.2) People who felt unsafe in their neighborhood in the past six months [17] Run distribution over population  
Run distribution by sub-demographics (a-m) Compare and find gaps (test unequal proportions)

```
mean(wrangled$diff_neigh)
```

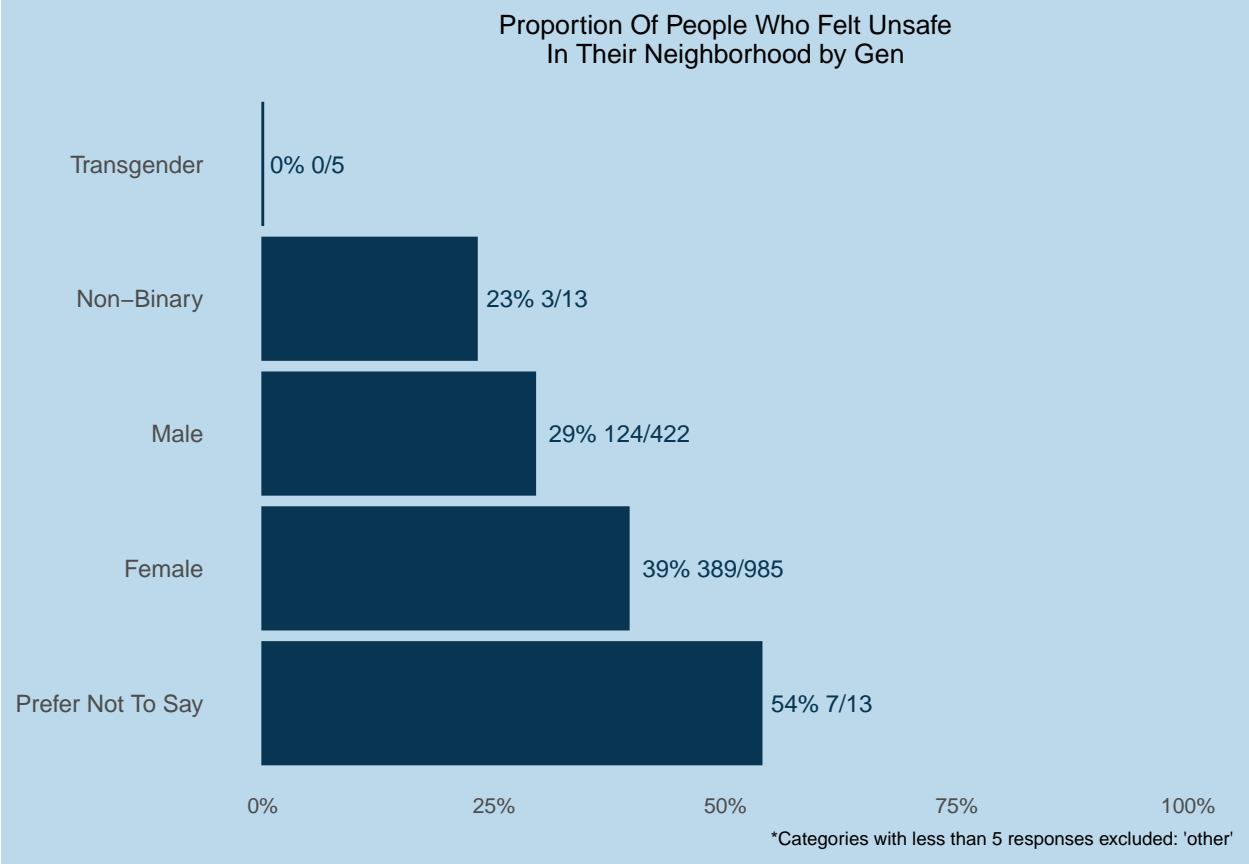
```
## [1] NA
```

```
make_plots(wrangled, demographics, "diff_neigh", title = "Proportion of People who felt unsafe\nin their neighborhood")
```

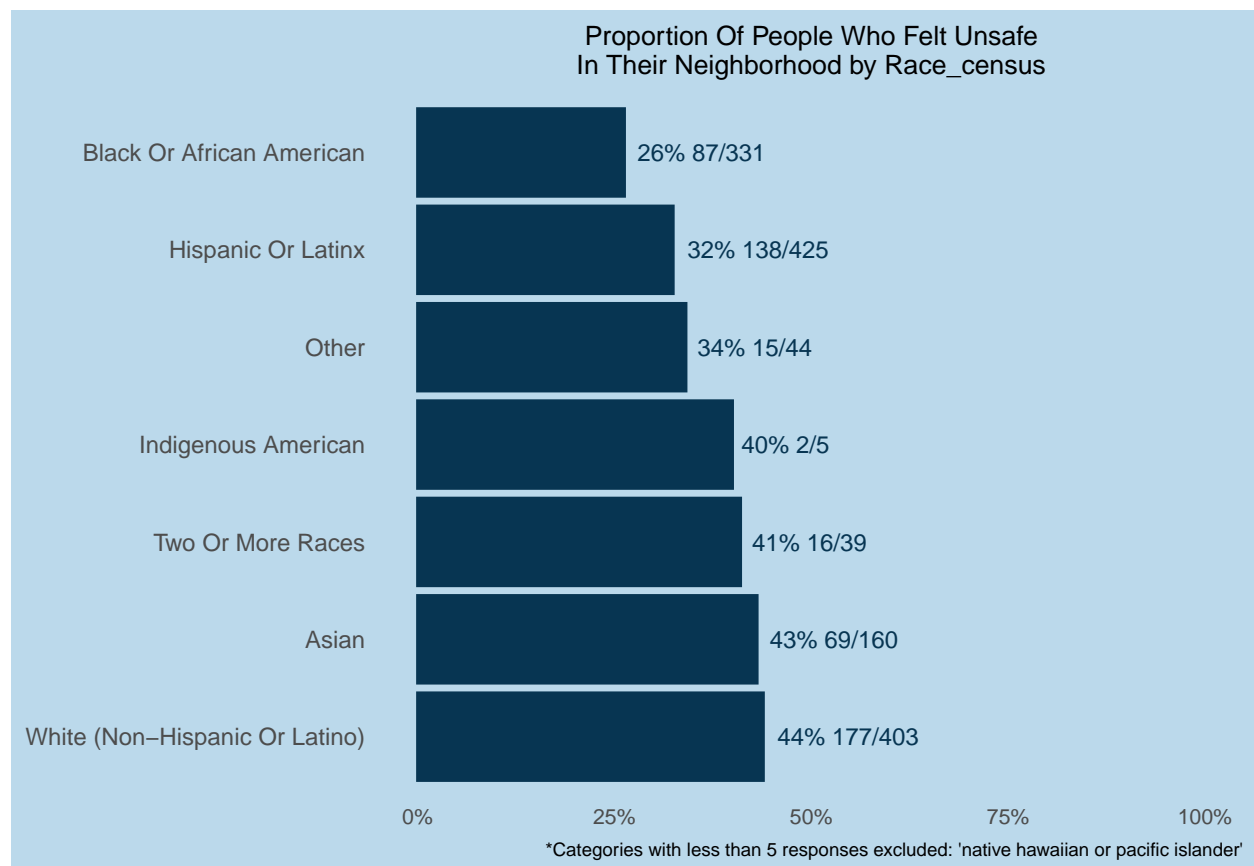
```
## $borough
## $borough$plot
```



```
##
## $borough$p.values
## $borough$p.values$diff_neigh
##          staten island brooklyn queens  bronx manhattan
## staten island          NA          NA      NA      NA  2.9e-04
## brooklyn              NA          NA      NA 0.0057  2.9e-10
## queens                NA          NA      NA      NA  3.0e-08
## bronx                  NA  5.7e-03      NA      NA      NA
## manhattan              0.00029  2.9e-10  3e-08      NA      NA
##
##
##
## $gen
## $gen$plot
```



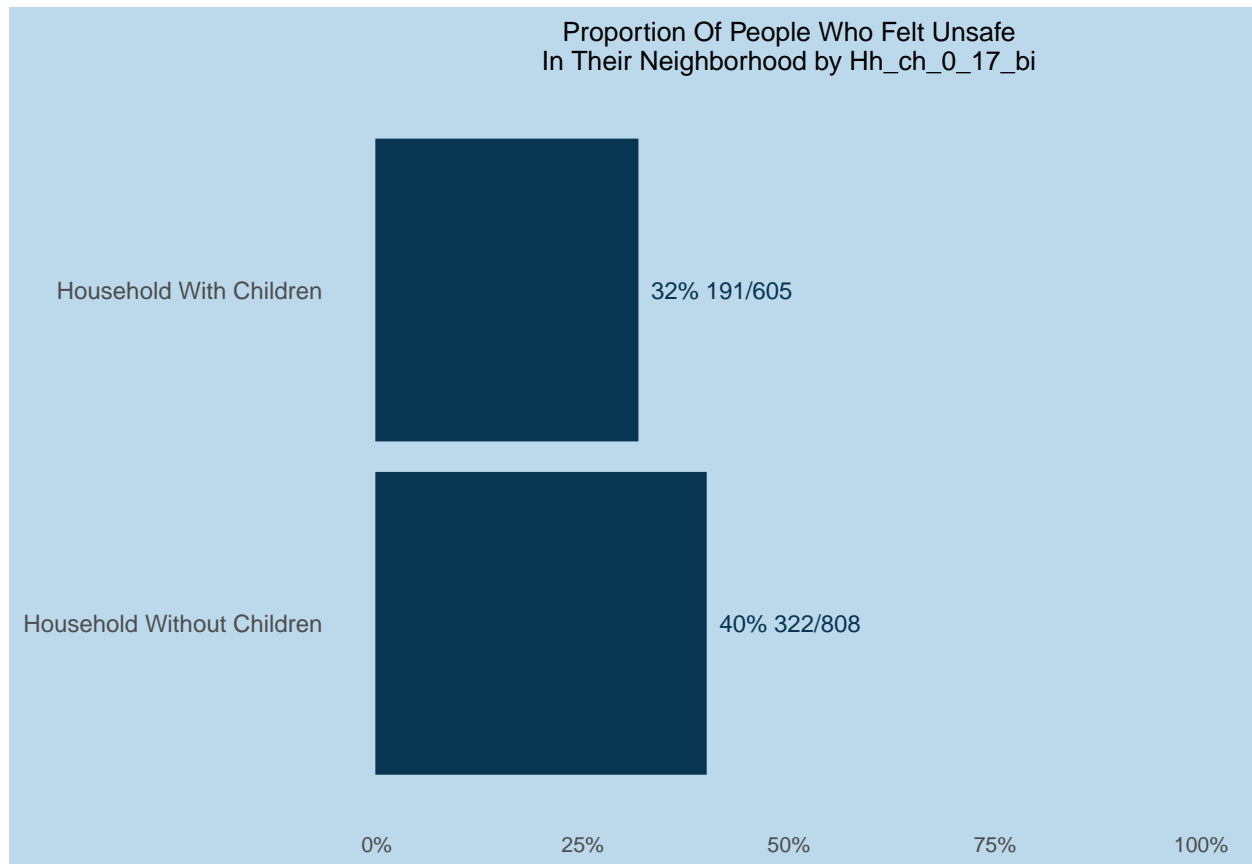
```
##
## $gen$p.values
## $gen$p.values$diff_neigh
##      transgender non-binary      male  female prefer not to say
## transgender      NA      NA      NA      NA      NA
## non-binary      NA      NA      NA      NA      NA
## male      NA      NA      NA 0.00039      NA
## female      NA      NA 0.00039      NA      NA
## prefer not to say      NA      NA      NA      NA      NA
##
##
##
## $race_census
## $race_census$plot
```



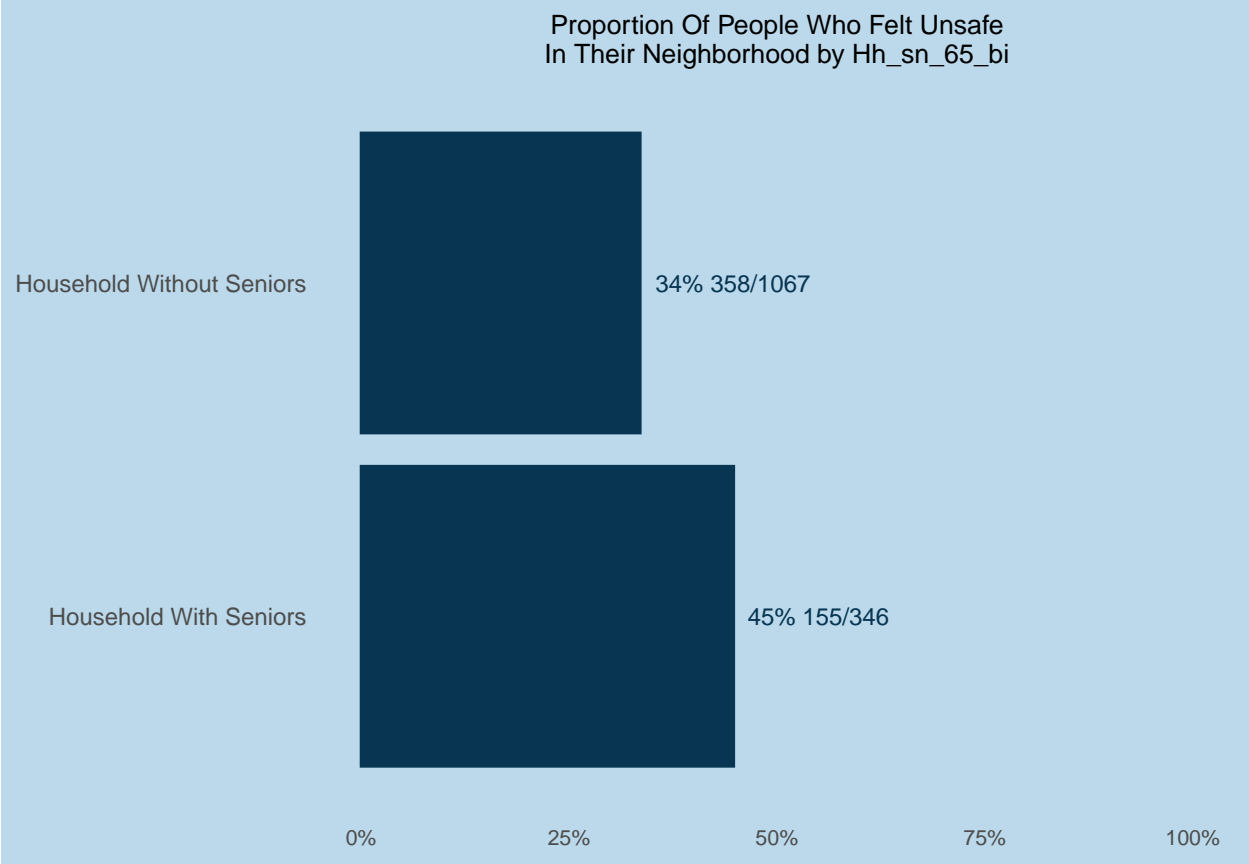
```
##
## $race_census$p.values
## $race_census$p.values$diff_neigh
##
## black or african american hispanic or latinx
## black or african american NA NA
## hispanic or latinx NA NA
## other NA NA
## Indigenous American NA NA
## two or more races NA NA
## asian 2.6e-04 NA
## white (non-hispanic or latino) 1.1e-06 9e-04
##
## other Indigenous American two or more races
## black or african american NA NA NA
## hispanic or latinx NA NA NA
## other NA NA NA
## Indigenous American NA NA NA
## two or more races NA NA NA
## asian NA NA NA
## white (non-hispanic or latino) NA NA NA
##
## asian white (non-hispanic or latino)
## black or african american 0.00026 1.1e-06
## hispanic or latinx NA 9.0e-04
## other NA NA
## Indigenous American NA NA
## two or more races NA NA
## asian NA NA
```



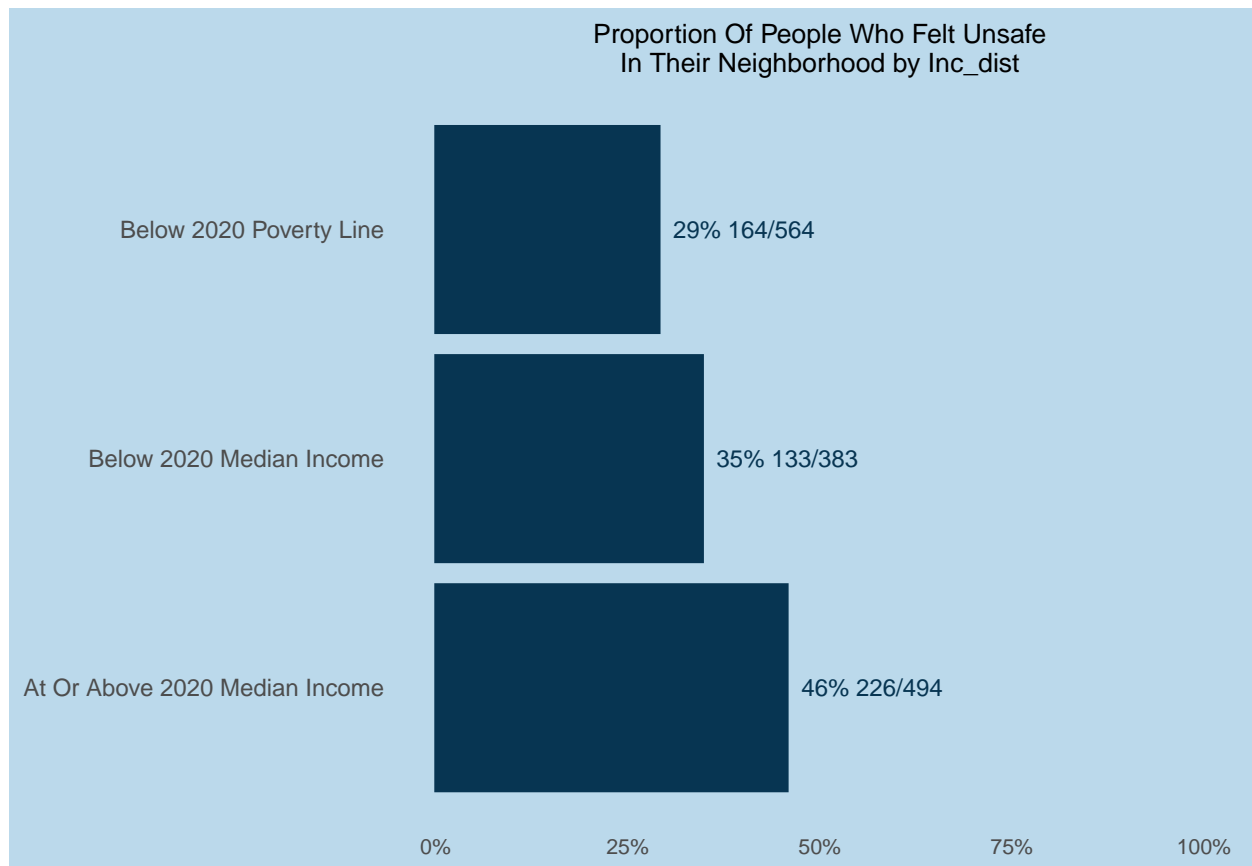
```
## white (non-hispanic or latino)      NA      NA
##
##
##
## $hh_ch_0_17_bi
## $hh_ch_0_17_bi$plot
```



```
##
## $hh_ch_0_17_bi$p.values
## $hh_ch_0_17_bi$p.values$diff_neigh
##           household with children household without children
## household with children              NA              0.0016
## household without children          0.0016              NA
##
##
##
## $hh_sn_65_bi
## $hh_sn_65_bi$plot
```



```
##
## $hh_sn_65_bi$p.values
## $hh_sn_65_bi$p.values$diff_neigh
##           household without seniors household with seniors
## household without seniors           NA           2e-04
## household with seniors           2e-04           NA
##
##
##
## $inc_dist
## $inc_dist$plot
```



```
##
## $inc_dist$p.values
## $inc_dist$p.values$diff_neigh
##
##          below 2020 poverty line below 2020 median income
## below 2020 poverty line          NA                      NA
## below 2020 median income          NA                      NA
## at or above 2020 median income    3e-08                  0.0013
##
##          at or above 2020 median income
## below 2020 poverty line          3.0e-08
## below 2020 median income          1.3e-03
## at or above 2020 median income          NA
```

### 5.3) Respondents who have a low income (below median income) are more likely to experience violence [12 & 13]

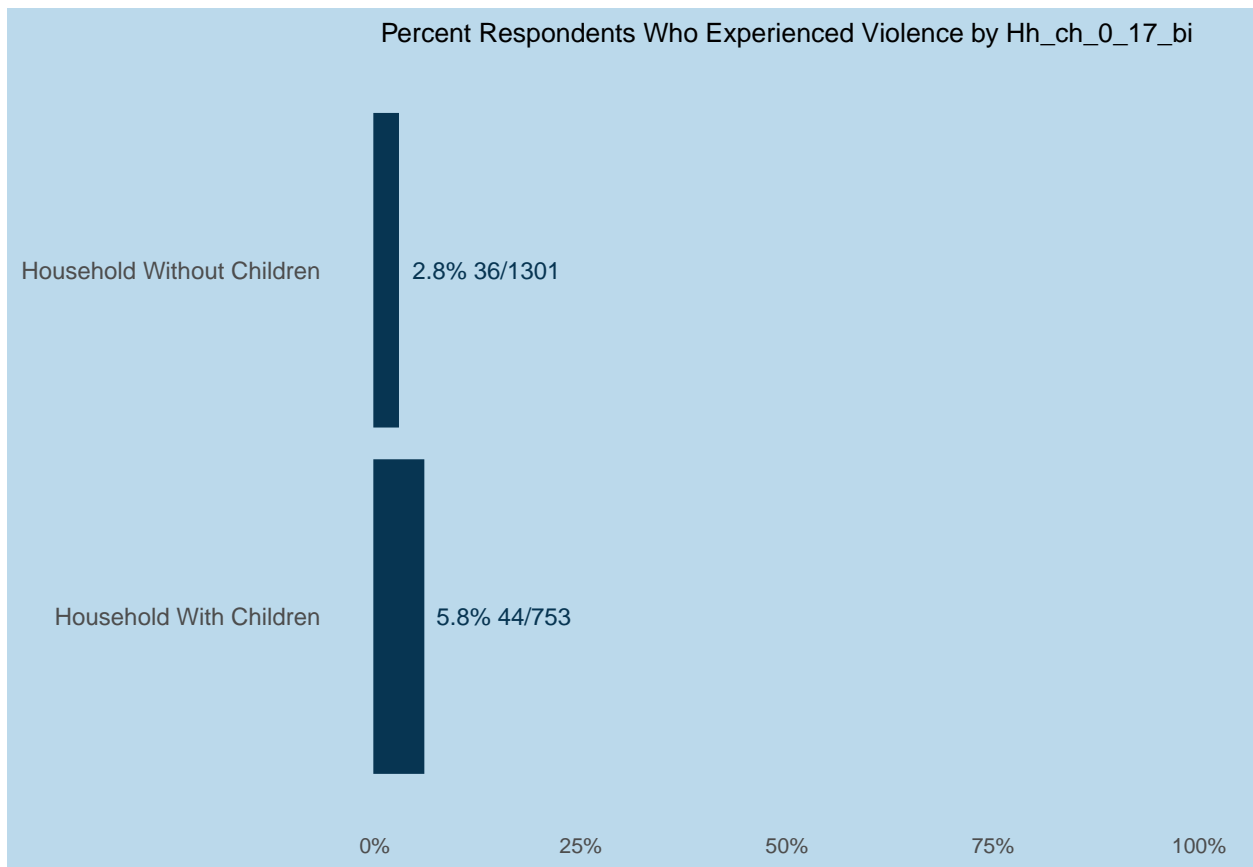
Find proportion who faced discrimination or violence[34] Find subset who are below median income[13]  
Compare and contrast with group who are above median income within the larger proportion

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

```
## [1] 0.3629424
```

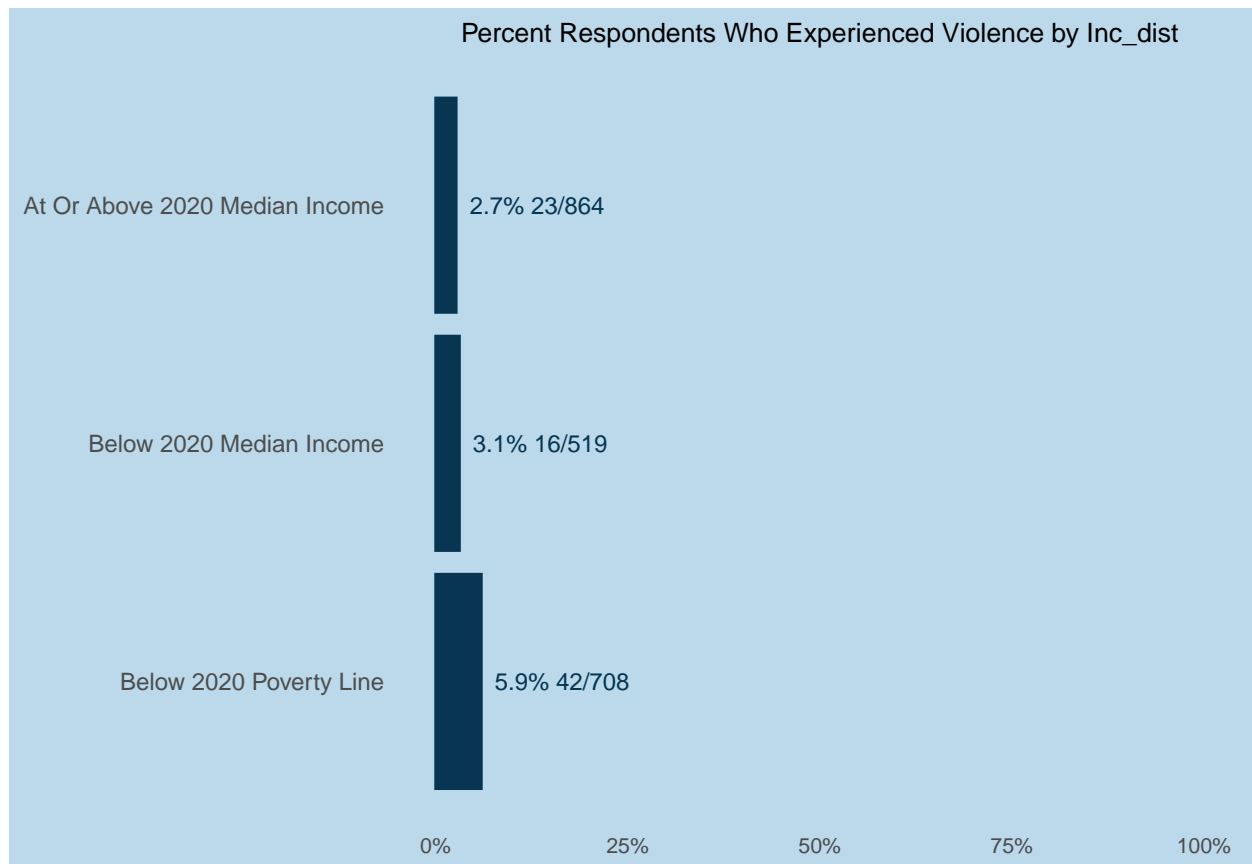
```
make_plots(wrangled, demographics, "exp_vi", title = "Percent Respondents Who experienced violence")
```

```
## $borough
## NULL
##
## $gen
## NULL
##
## $race_census
## NULL
##
## $hh_ch_0_17_bi
## $hh_ch_0_17_bi$plot
```



```
##
## $hh_ch_0_17_bi$p.values
## $hh_ch_0_17_bi$p.values$exp_vi
## household without children household with children
## household without children NA 8e-04
## household with children 8e-04 NA
##
##
## $hh_sn_65_bi
```

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



```
##
## $inc_dist$p.values
## $inc_dist$p.values$exp_vi
##
## at or above 2020 median income
## at or above 2020 median income NA
## below 2020 median income NA
## below 2020 poverty line 0.0019
##
## below 2020 median income below 2020 poverty line
## at or above 2020 median income NA 0.0019
## below 2020 median income NA NA
## below 2020 poverty line NA NA
```

#### 5.4) Respondents who are homemakers are more likely to experience verbal abuse and physical violence since the pandemic started [14, 15, 34, 35]

Find proportion of respondents who faced discrimination or violence when homemakers before [14] compared to after [15] the pandemic Compare proportion of respondents who experienced violence and were home-

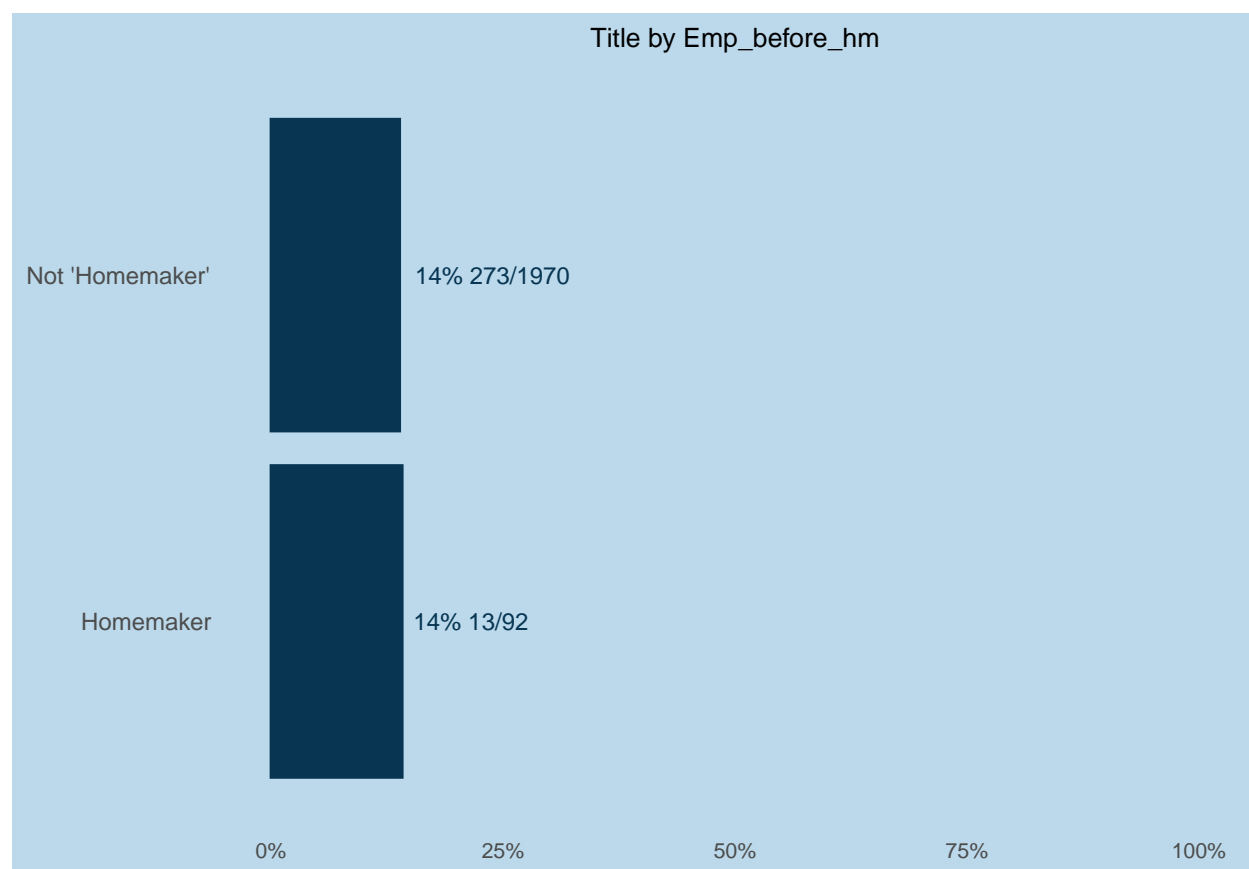
makers before but not after, with those who were homemakers after but not before Compare homemakers to nonhomemakers Run on subdemographics (a-m)

```
wrangled %>% count(emp_before_hm, emp_after_hm)
```

```
## # A tibble: 5 x 3
##       emp_before_hm    emp_after_hm      n
##       <int+lbl>      <int+lbl> <int>
## 1  0 [not 'homemaker'] 0 [not 'homemaker'] 1979
## 2  0 [not 'homemaker'] 1 [homemaker]      23
## 3  1 [homemaker]       0 [not 'homemaker'] 26
## 4  1 [homemaker]       1 [homemaker]      70
## 5 NA                  NA                47
```

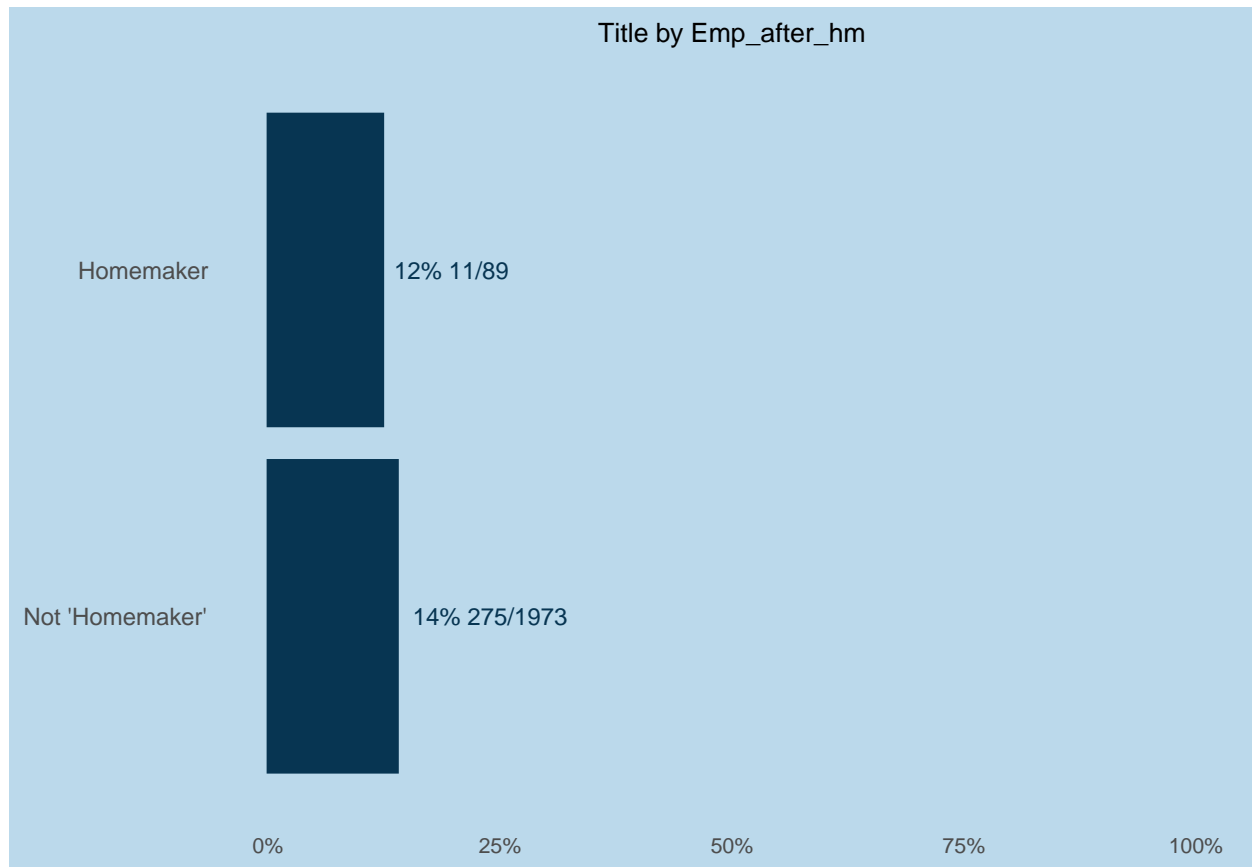
```
make_plots(wrangled %>% mutate(emp_hm = emp_before_hm == 1 & emp_after_hm == 1),
  c("emp_before_hm", "emp_after_hm", "emp_hm"), "exp_ab_or_vi", show = TRUE)
```

```
## $emp_before_hm
## $emp_before_hm$plot
```

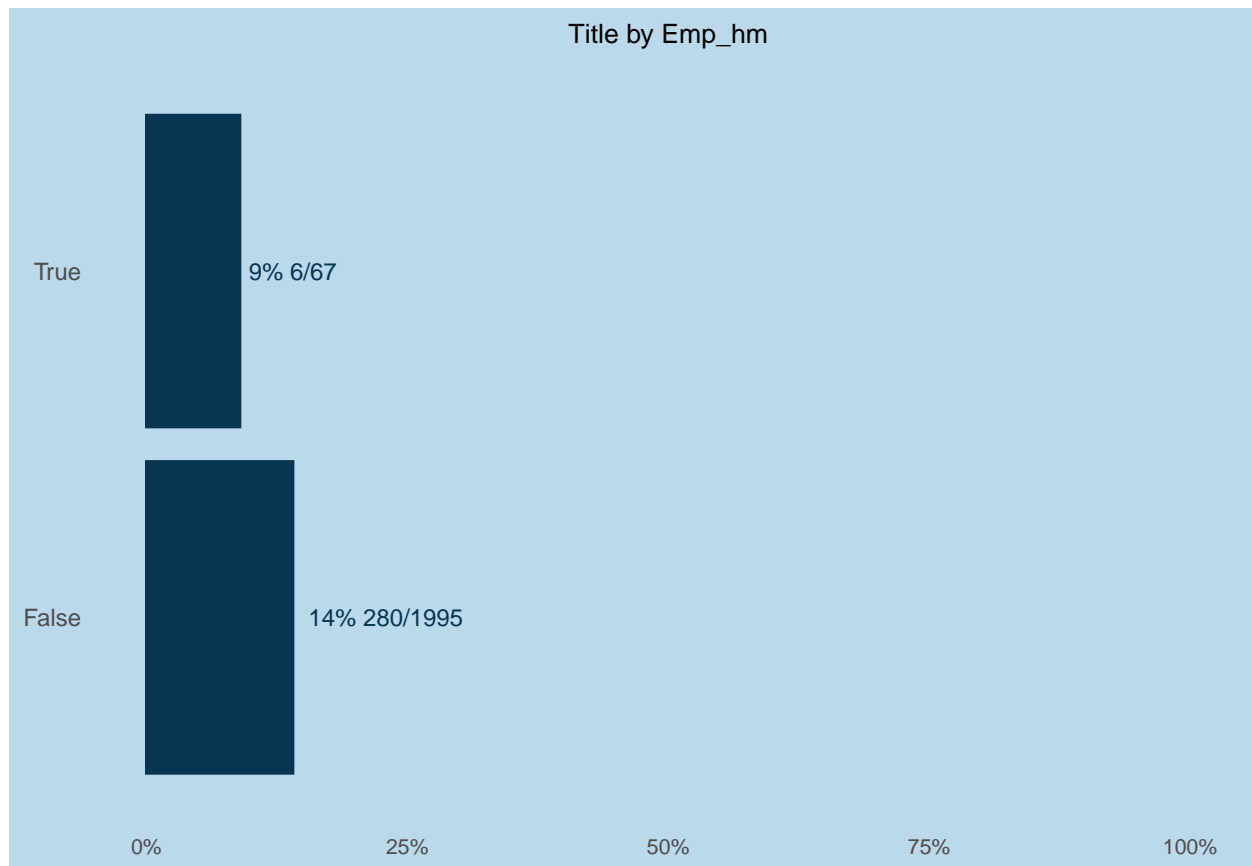


```
##
## $emp_before_hm$p.values
## $emp_before_hm$p.values$exp_ab_or_vi
##       not 'homemaker' homemaker
```

```
## not 'homemaker'      NA      NA
## homemaker            NA      NA
##
##
##
## $emp_after_hm
## $emp_after_hm$plot
```



```
##
## $emp_after_hm$p.values
## $emp_after_hm$p.values$exp_ab_or_vi
##      homemaker not 'homemaker'
## homemaker      NA      NA
## not 'homemaker' NA      NA
##
##
##
## $emp_hm
## $emp_hm$plot
```



```
##
## $emp_hm$p.values
## $emp_hm$p.values$exp_ab_or_vi
##      TRUE FALSE
## TRUE    NA    NA
## FALSE   NA    NA
```

## 5.5) Respondents in the gig economy are more worried about delta variants [41]

1. Find proportion of respondents who were in the gig economy and those who are not [15]
2. Find subset who are worried about delta variants [26a]
  - a. Compare proportion who are gig economy with those who are not

```
make_plots(wrangled, "emp_before_gig", "vrnts_con", title = "Concern for Delta Variants")
```

```
## $emp_before_gig
## NULL
```



## 5.6 - 5.7

### 5.6) Respondents who felt unsafe in their neighborhoods were dissatisfied with other community services [32]

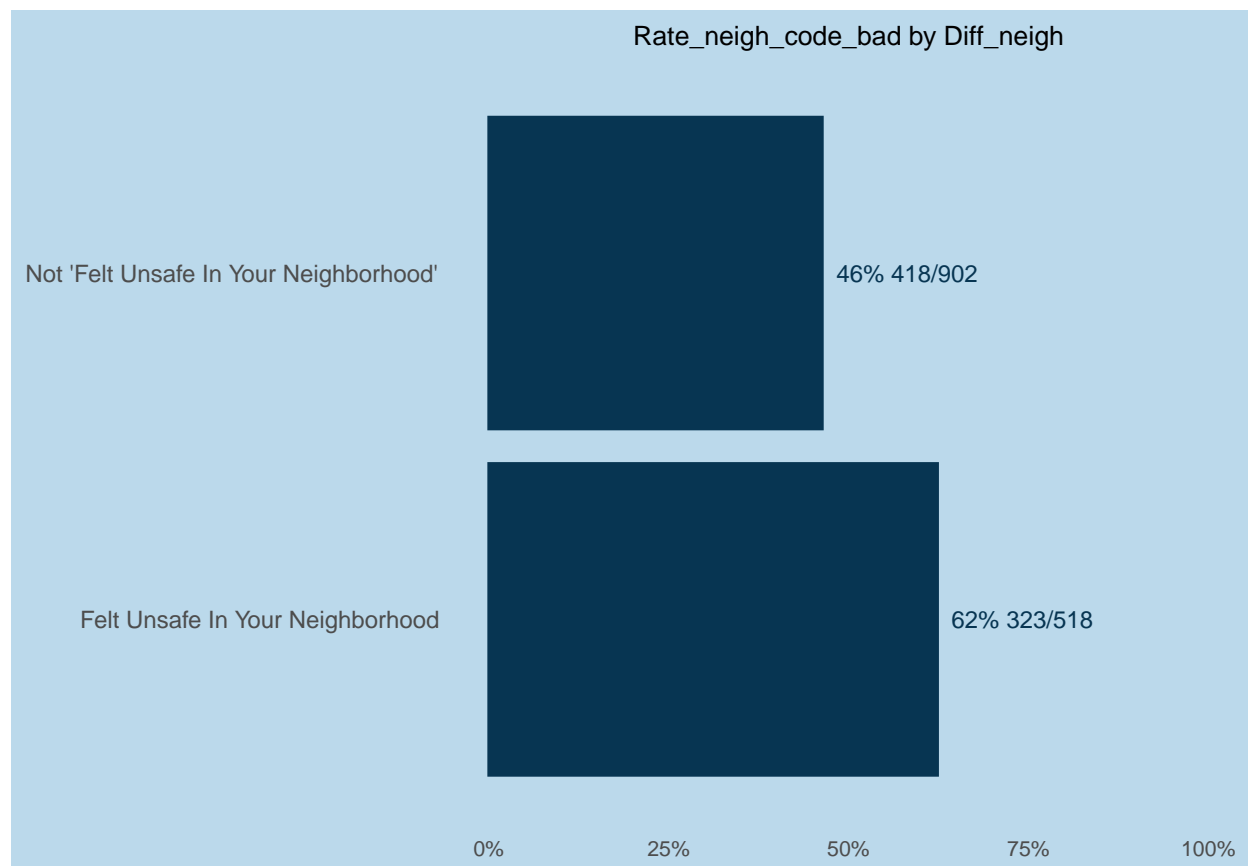
Find proportion of respondents who felt unsafe in their neighborhood [17] Run binary distribution of who did and did not feel unsafe over the following categories from question 32: Emergency medical services Maintenance of parks and recreational facilities Police responsiveness to calls or complaints Prevents of local crime / safety Group respondents by whether or not they were dissatisfied with one of the above four listed neighborhood services Compare those who did and did not feel unsafe

### 5.7) Respondents who are dissatisfied with housing code enforcement are more likely to feel unsafe in their neighborhood[32, 17]

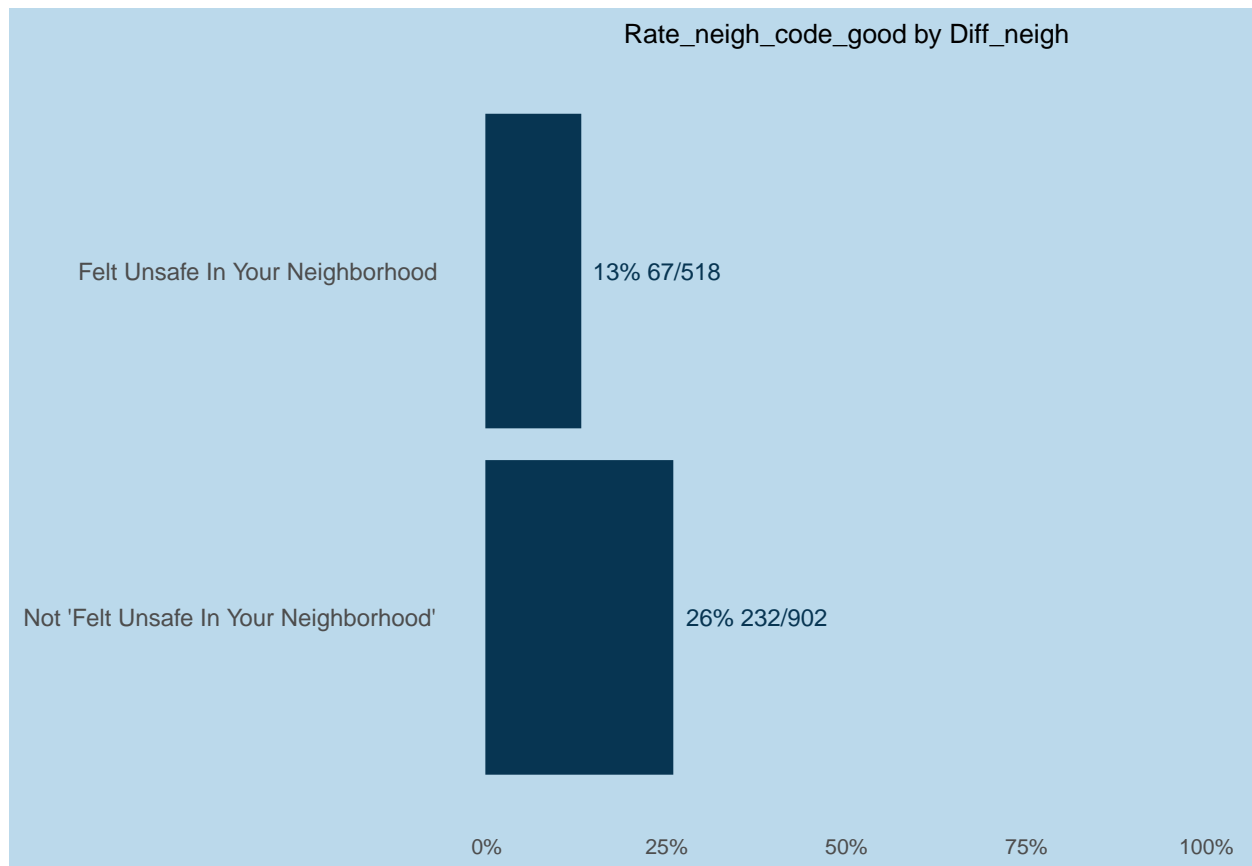
Find proportion who felt unsafe in neighborhood Find subset who are dissatisfied with housing code enforcement Compare proportion who did and did not feel unsafe depending on dissatisfaction with housing code enforcement

```
rate_neigh <- select(wrangled, starts_with("rate_neigh") & (ends_with("good") | ends_with("bad"))) %>%  
lapply(rate_neigh, function(item) {  
  make_plots(wrangled, "diff_neigh", item,  
             title = item)  
})
```

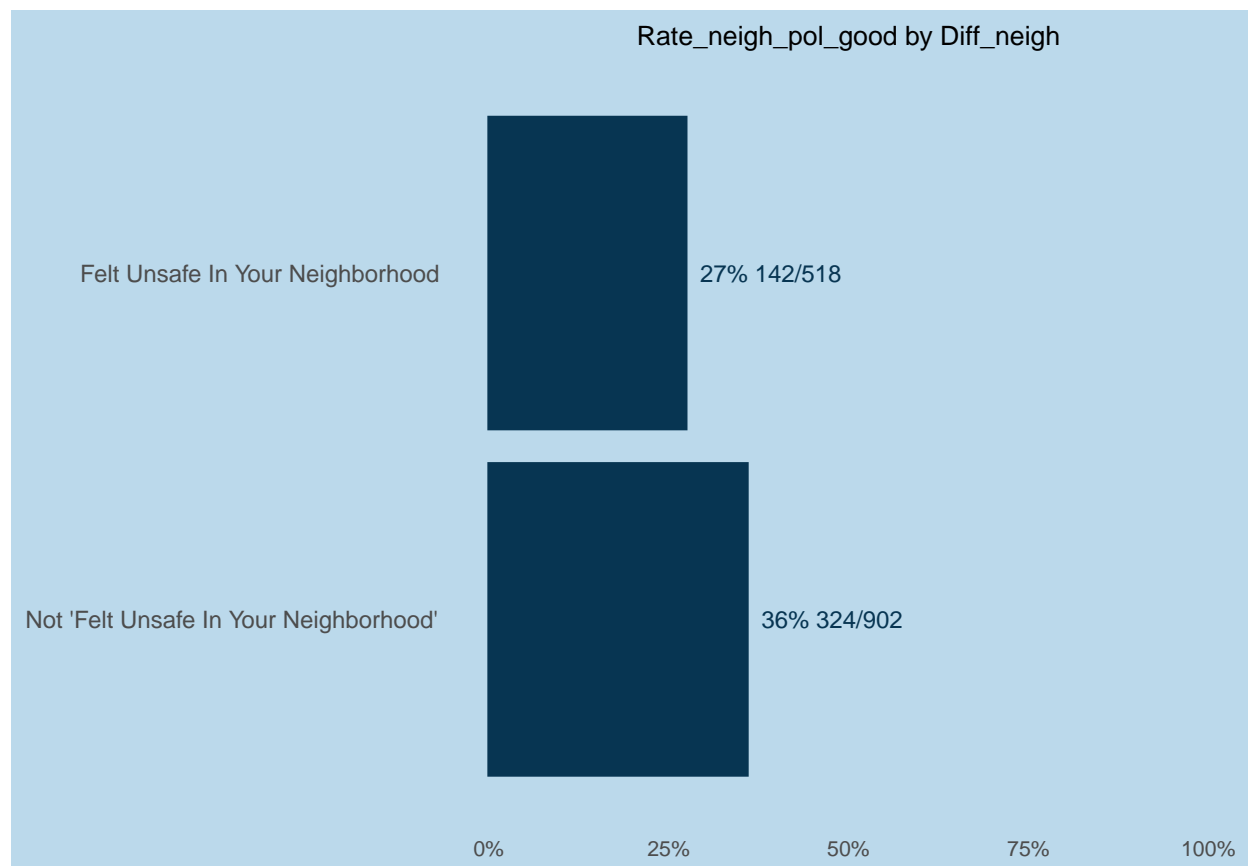
```
## [[1]]  
## [[1]]$diff_neigh  
## [[1]]$diff_neigh$plot
```



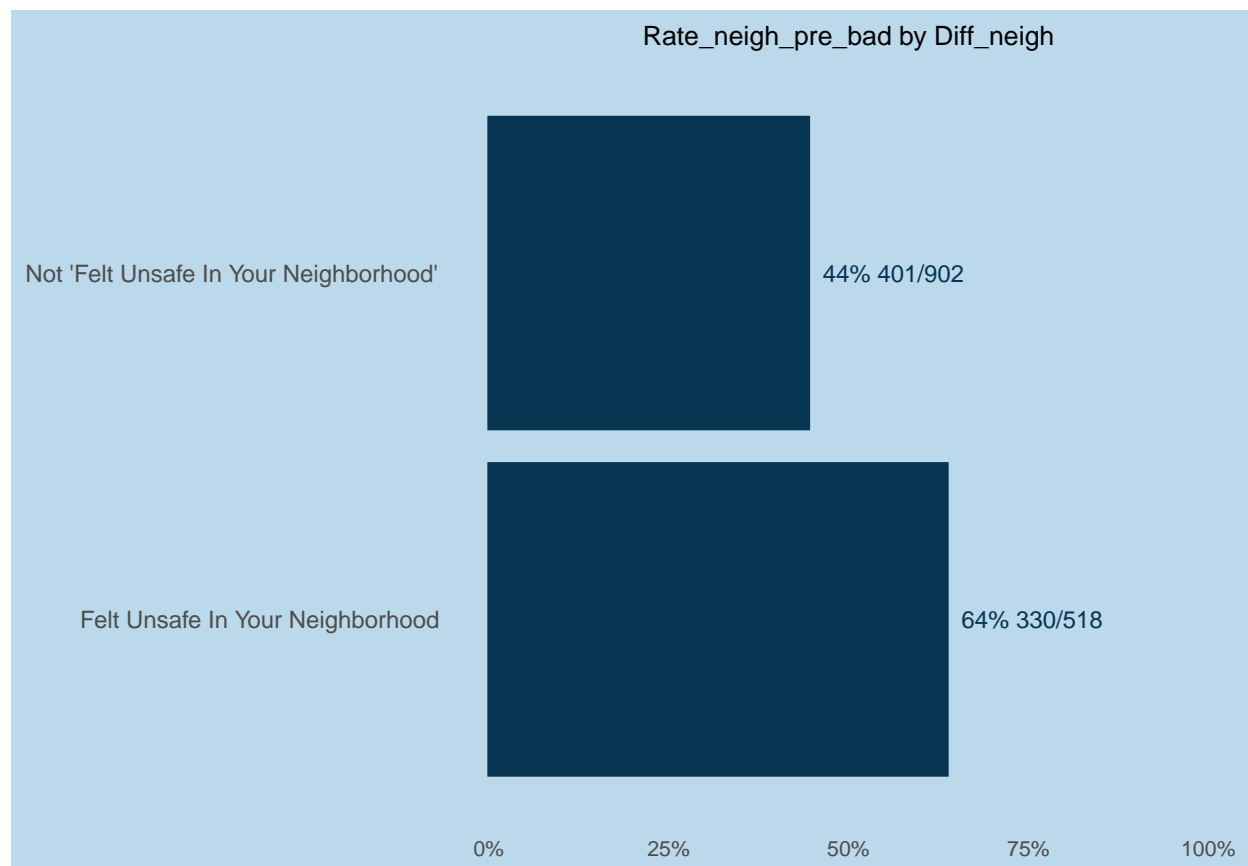
```
##
## [[1]]$diff_neigh$p.values
## [[1]]$diff_neigh$p.values$rate_neigh_code_bad
## not 'felt unsafe in your neighborhood' NA
## not 'felt unsafe in your neighborhood' 8.4e-09
## felt unsafe in your neighborhood 8.4e-09
## felt unsafe in your neighborhood NA
##
##
##
## [[2]]
## [[2]]$diff_neigh
## [[2]]$diff_neigh$plot
```



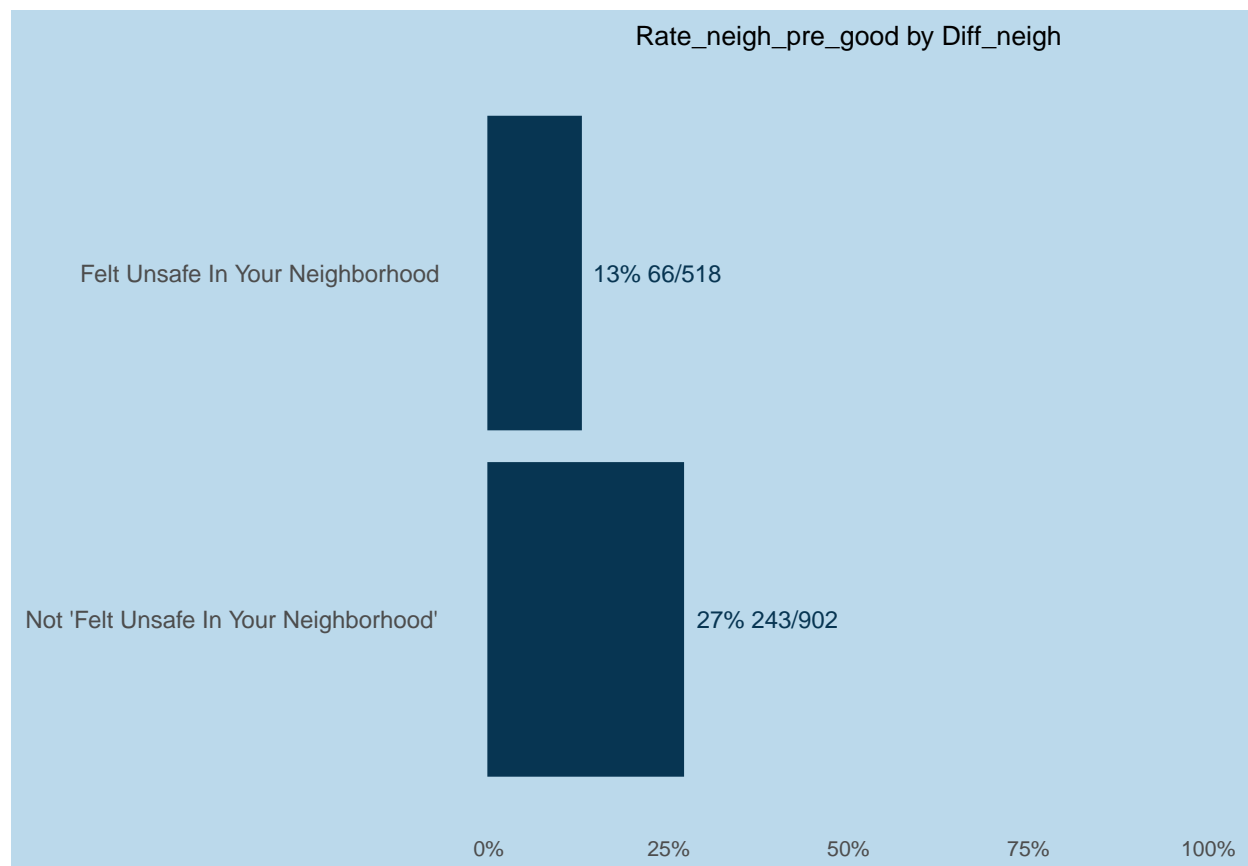
```
##
## [[2]]$diff_neigh$p.values
## [[2]]$diff_neigh$p.values$rate_neigh_code_good
## felt unsafe in your neighborhood NA
## felt unsafe in your neighborhood 1.9e-08
## not 'felt unsafe in your neighborhood' 1.9e-08
## not 'felt unsafe in your neighborhood' NA
##
##
##
##
## [[3]]
## [[3]]$diff_neigh
## NULL
##
##
## [[4]]
## [[4]]$diff_neigh
## [[4]]$diff_neigh$plot
```



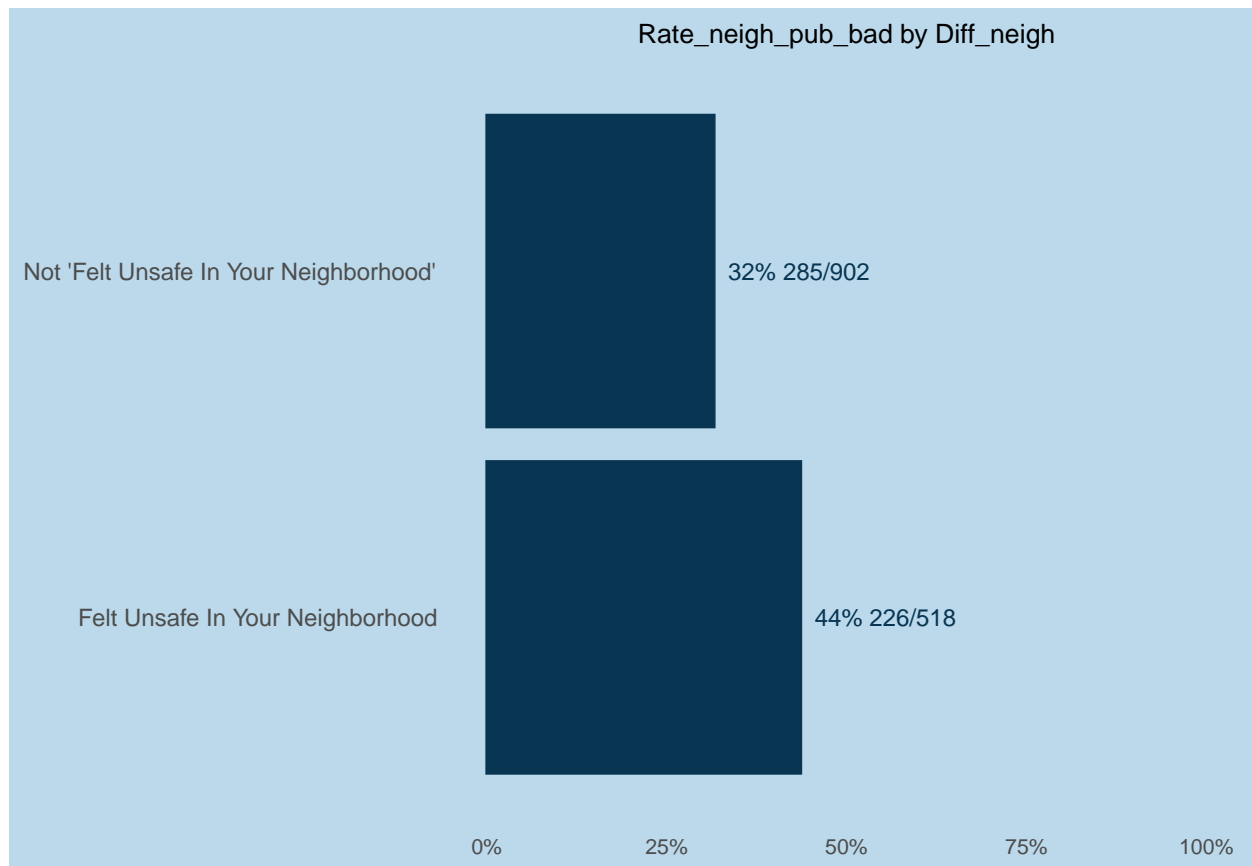
```
##
## [[4]]$diff_neigh$p.values
## [[4]]$diff_neigh$p.values$rate_neigh_pol_good
## felt unsafe in your neighborhood NA
## felt unsafe in your neighborhood 0.0012
## not 'felt unsafe in your neighborhood' 0.0012
## not 'felt unsafe in your neighborhood' NA
##
##
##
## [[5]]
## [[5]]$diff_neigh
## [[5]]$diff_neigh$plot
```



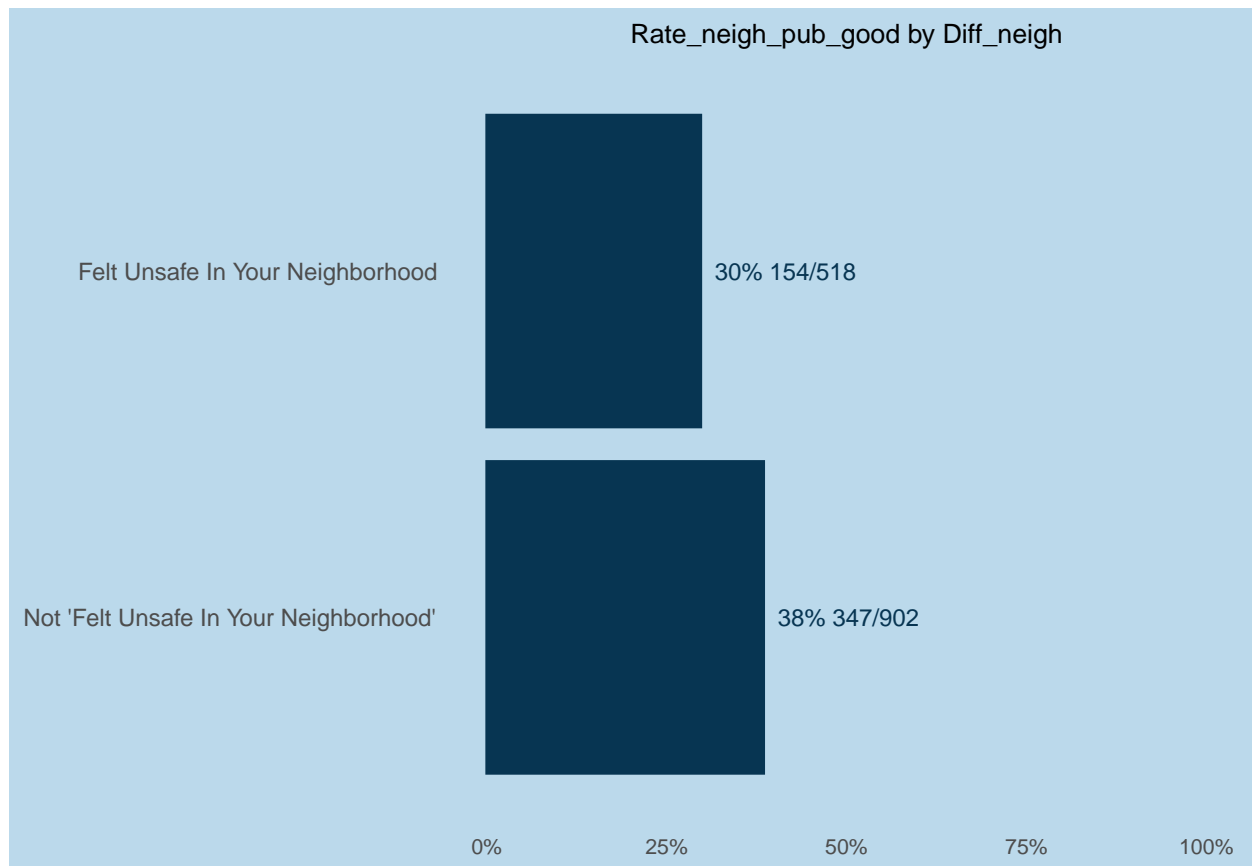
```
##
## [[5]]$diff_neigh$p.values
## [[5]]$diff_neigh$p.values$rate_neigh_pre_bad
##                                not 'felt unsafe in your neighborhood'
## not 'felt unsafe in your neighborhood'                                NA
## felt unsafe in your neighborhood                                     4.2e-12
##                                felt unsafe in your neighborhood
## not 'felt unsafe in your neighborhood'                               4.2e-12
## felt unsafe in your neighborhood                                     NA
##
##
##
## [[6]]
## [[6]]$diff_neigh
## [[6]]$diff_neigh$plot
```



```
##
## [[6]]$diff_neigh$p.values
## [[6]]$diff_neigh$p.values$rate_neigh_pre_good
## felt unsafe in your neighborhood NA
## felt unsafe in your neighborhood NA
## not 'felt unsafe in your neighborhood' 6.6e-10
## not 'felt unsafe in your neighborhood' 6.6e-10
## not 'felt unsafe in your neighborhood' NA
##
##
##
##
## [[7]]
## [[7]]$diff_neigh
## [[7]]$diff_neigh$plot
```

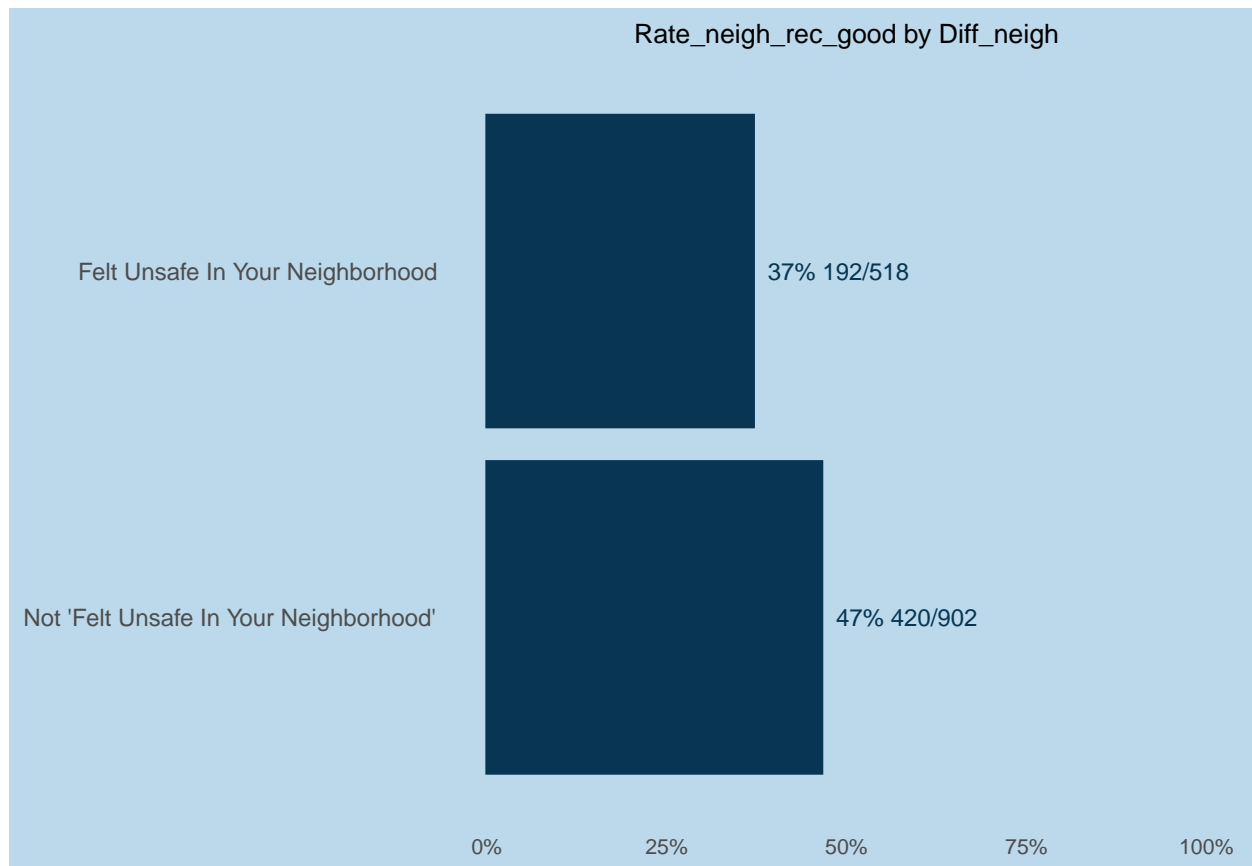


```
##
## [[7]]$diff_neigh$p.values
## [[7]]$diff_neigh$p.values$rate_neigh_pub_bad
##                                     not 'felt unsafe in your neighborhood'
## not 'felt unsafe in your neighborhood'                                     NA
## felt unsafe in your neighborhood                                         7.1e-06
##                                     felt unsafe in your neighborhood
## not 'felt unsafe in your neighborhood'                                   7.1e-06
## felt unsafe in your neighborhood                                         NA
##
##
##
##
## [[8]]
## [[8]]$diff_neigh
## [[8]]$diff_neigh$plot
```



```
##
## [[8]]$diff_neigh$p.values
## [[8]]$diff_neigh$p.values$rate_neigh_pub_good
## felt unsafe in your neighborhood
## felt unsafe in your neighborhood NA
## not 'felt unsafe in your neighborhood' 0.0011
## not 'felt unsafe in your neighborhood'
## felt unsafe in your neighborhood 0.0011
## not 'felt unsafe in your neighborhood' NA
##
##
##
##
## [[9]]
## [[9]]$diff_neigh
## NULL
##
##
## [[10]]
## [[10]]$diff_neigh
## [[10]]$diff_neigh$plot
```





```
##
## [[10]]$diff_neigh$p.values
## [[10]]$diff_neigh$p.values$rate_neigh_rec_good
##                                felt unsafe in your neighborhood
## felt unsafe in your neighborhood                                NA
## not 'felt unsafe in your neighborhood'                        0.00062
##                                not 'felt unsafe in your neighborhood'
## felt unsafe in your neighborhood                                0.00062
## not 'felt unsafe in your neighborhood'                        NA
```

## 5.8, 5.10

5.8) Respondents of certain races are more likely to experience abuse / violence / discrimination [34, 35]

Run binary distribution by race

5.10) Respondents who have a low income (at or below median income) are more likely to experience violence [13, 34 ]

1. Find proportion who faced abuse or violence [34]
2. Find subset who are below median income[13]

a. Compare and contrast with group who are above median income within the larger proportion

```
wrangled$inc_be_med
```

```
## <labelled<integer>[2145]>
```

```
##      [1] 1 0 0 0 0 1 1 1 0 1 0 1 1 1 1 1 1 1 1 1 1
##     [25] 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
##     [49] 1 1 1 0 1 1 1 1 1 0 0 1 0 1 1 1 1 1 1 1 0
##     [73] 0 0 1 1 0 1 1 0 1 1 0 0 1 0 1 0 1 1 1 1 0
##     [97] 0 1 0 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1
##    [121] 1 0 1 1 1 1 1 1 1 1 1 0 1 1 1 1 0 1 NA NA NA NA 1 1
##    [145] 1 1 NA 1 1 1 0 0 0 1 1 1 1 1 1 0 1 0 0 0 0 1 1
##    [169] 1 0 0 1 0 0 1 1 0 0 0 0 1 1 0 1 0 0 1 1 0 1 1
##    [193] 0 1 0 1 1 1 0 0 0 0 1 1 0 1 1 1 1 1 0 0 1 0 0
##    [217] 1 1 1 1 1 1 1 1 1 0 1 0 0 1 1 1 1 1 0 0 1 0
##    [241] 0 1 0 1 0 1 0 1 1 1 0 0 0 1 1 1 1 1 0 1 0 0 0
##    [265] 0 1 1 0 0 0 0 1 1 1 0 1 0 0 0 0 1 0 0 0 0 0 1
##    [289] 0 0 0 1 0 0 0 1 1 0 1 1 1 1 1 0 1 1 0 0 1 1 1
##    [313] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1
##    [337] 1 0 0 1 0 0 1 0 0 0 1 0 0 1 0 1 0 0 1 1 1 0 1
##    [361] 0 0 0 1 1 1 1 0 0 1 1 0 1 1 1 0 1 1 0 1 0 1 0
##    [385] 0 1 0 1 0 0 1 1 1 0 0 1 0 1 1 1 1 0 1 1 1 1 1
##    [409] 1 0 1 1 1 1 1 1 0 1 1 1 0 1 1 0 1 0 1 1 NA NA NA 1
##    [433] 1 0 NA 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 0 1 1
##    [457] 0 1 1 0 1 1 1 1 NA 1 1 1 1 1 1 0 0 1 1 0 1 1 NA 1
##    [481] 1 0 0 0 1 1 0 1 1 0 1 1 1 NA 0 1 1 1 1 1 1 0 1
##    [505] 1 1 1 1 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 0
##    [529] 1 1 0 0 0 0 1 1 0 0 0 1 0 1 1 0 1 1 0 0 0 0 0
##    [553] 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0 0
##    [577] 1 0 0 0 0 1 0 0 0 0 0 0 1 0 0 1 0 0 0 1 1 1 0
##    [601] 0 1 1 0 0 1 1 0 1 1 1 0 0 0 1 1 0 1 1 1 1 0 0
##    [625] 1 1 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0 1 0 0 1 0 1
##    [649] 1 0 0 0 1 1 1 1 1 1 0 1 1 NA 1 1 0 1 0 1 1 1 1
##    [673] 1 1 0 0 0 1 0 0 0 1 1 1 1 0 1 0 1 1 0 1 1 0 0
##    [697] 0 0 0 1 0 0 0 0 0 0 0 1 1 1 0 0 0 1 1 0 0 1 0
##    [721] 0 1 1 0 0 1 1 1 0 1 0 1 1 0 1 1 1 0 1 1 0 1 1
##    [745] 1 1 1 0 1 0 1 0 1 1 1 0 1 1 0 1 0 1 1 1 1 0 0
##    [769] 1 1 0 1 1 1 0 0 1 1 1 0 0 1 0 0 1 0 0 1 1 1 0
##    [793] 0 1 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 0 0 1 1 0 1
##    [817] 0 0 1 1 1 1 0 1 0 0 0 0 0 1 1 0 1 0 1 1 0 1 1
##    [841] 0 1 1 0 1 1 0 1 1 1 1 1 0 0 1 1 1 1 1 1 0 1 0
##    [865] 0 0 0 1 1 0 1 1 1 1 0 1 0 0 1 0 1 0 0 0 0 1 1
##    [889] 1 0 1 0 1 0 1 0 0 1 1 0 1 1 1 1 1 1 1 1 0 1 1
##    [913] 1 0 1 0 0 0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 0 1 0
##    [937] 1 0 1 1 1 0 0 1 1 1 0 1 1 1 0 1 1 1 1 1 1 1 1
##    [961] 1 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 0 1 1 1 0
##    [985] 0 1 0 0 0 0 0 0 1 0 0 0 1 1 0 1 0 1 0 1 0 0 0
##   [1009] 1 0 0 1 0 1 0 1 1 1 1 NA 1 1 0 1 0 1 0 0 0 0 1 1
##   [1033] 1 0 0 0 0 1 0 0 1 1 1 1 1 0 1 0 0 1 1 1 1 0 0
##   [1057] 0 0 1 1 0 0 0 0 1 1 1 0 1 1 0 0 0 1 0 0 0 0 1
##   [1081] 0 1 0 1 0 1 1 0 0 0 1 1 1 0 1 0 1 0 1 0 1 0 1
##   [1105] 0 1 0 0 0 1 0 1 1 1 1 0 1 0 0 1 0 1 1 1 0 0 0
##   [1129] 0 1 0 1 0 0 0 0 1 1 1 1 1 0 1 1 0 1 0 1 1 0 0
##   [1153] 0 1 1 1 NA 1 0 0 1 1 1 1 0 1 0 0 NA 1 1 0 1 1 1 1
```

```

## [1177] 0 0 0 1 0 1 0 0 0 1 0 1 1 0 0 0 1 1 1 1 1 1 1 1
## [1201] 0 0 0 0 1 0 0 1 1 1 1 1 1 1 0 0 0 NA 0 0 0 0 0
## [1225] 0 0 0 1 0 0 0 1 1 0 0 0 0 1 NA 1 0 0 1 0 0 1 0 1
## [1249] 1 1 0 1 0 0 1 NA 1 1 1 1 0 1 0 0 0 0 1 1 0 0 0 1
## [1273] 1 0 0 1 0 0 1 1 1 0 1 1 1 0 1 1 0 1 0 0 1 0 1 1
## [1297] 0 0 1 0 1 NA NA 1 1 0 1 1 NA 0 1 1 0 0 1 0 1 0 NA 1
## [1321] 1 0 1 1 0 0 1 0 0 0 0 1 0 1 0 1 0 0 1 0 0 1 0 0
## [1345] 1 1 1 0 0 0 1 0 1 1 0 NA 0 0 0 0 0 0 1 1 0 1 1 1
## [1369] 0 1 1 1 1 0 0 0 0 0 0 0 0 1 1 1 1 0 NA 0 1 0 0 0
## [1393] NA 0 1 1 1 0 0 0 1 0 1 NA 0 0 1 0 1 1 1 0 1 1 1 1
## [1417] NA 0 NA 0 1 0 1 1 0 0 1 0 1 1 1 1 0 1 1 1 1 1 1
## [1441] NA 1 1 1 1 1 1 0 0 0 0 1 1 NA 0 1 1 NA 0 0 1 1 0 1
## [1465] 1 0 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 0 1 1 0 1 1
## [1489] 0 1 1 NA 1 NA 1 1 0 0 0 0 NA NA 0 NA 1 NA 1 NA NA 1 0 0
## [1513] NA NA 1 0 1 1 NA NA NA 1 1 NA 1 0 0 0 0 0 0 0 1 1 1 1
## [1537] 1 0 1 0 0 1 1 1 0 0 0 1 NA 1 0 0 1 1 0 1 1 0 0 1
## [1561] 0 1 0 1 1 1 0 1 0 0 0 1 0 0 1 0 1 0 0 1 1 1 0 0
## [1585] 1 1 1 1 1 0 0 0 0 1 1 0 0 1 0 0 0 1 1 0 1 0 0 1
## [1609] 1 1 0 1 1 1 0 1 1 1 0 1 1 1 1 1 0 1 1 0 0 1 0 1
## [1633] 1 0 1 0 0 1 0 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 0 0
## [1657] 1 1 1 1 1 0 1 0 0 1 1 1 1 1 1 0 1 1 0 1 1 1 0
## [1681] 1 0 1 1 0 1 1 0 1 1 0 1 1 1 0 1 0 1 1 1 0 1 1 0
## [1705] 0 1 1 1 1 1 0 1 1 1 1 1 1 0 0 1 0 0 0 1 1 1 0 1
## [1729] 1 1 1 1 1 1 1 0 1 0 0 1 1 0 0 1 0 0 0 1 0 1 1 0
## [1753] 1 0 1 1 0 0 0 0 0 0 1 1 1 1 0 0 1 0 0 0 1 0 0 1
## [1777] 1 0 1 1 1 1 1 0 0 0 0 0 0 1 0 0 1 1 0 1 0 1 0 1
## [1801] 0 1 0 0 0 0 0 0 1 1 0 1 1 0 1 1 1 0 1 1 1 1 0 1
## [1825] 1 1 0 0 1 0 1 1 1 1 0 1 0 0 0 0 1 1 0 1 1 1 1 0
## [1849] 0 0 1 0 1 1 0 1 1 0 1 0 0 0 1 0 1 0 1 1 1 1 0 0
## [1873] 1 0 1 0 0 0 1 0 1 0 1 0 1 0 0 1 0 0 0 0 0 0 0 1
## [1897] 0 0 1 1 0 0 1 1 0 1 0 0 0 0 0 1 0 0 1 0 1 1 0 0
## [1921] 1 0 0 0 1 1 0 0 0 0 0 0 0 0 1 1 1 0 0 1 0 1 1 1
## [1945] 0 1 1 0 0 0 0 1 1 1 0 0 0 1 0 1 1 0 0 0 0 0 1 1
## [1969] 1 0 1 0 0 0 0 1 1 1 0 1 1 1 0 1 1 0 1 1 0 0 1 1
## [1993] 1 1 1 0 0 1 1 1 0 1 0 0 1 1 1 0 1 0 1 0 0 1 1 1
## [2017] 0 0 0 1 1 0 1 1 1 1 1 0 1 1 0 1 0 1 1 0 1 1 1 1
## [2041] 1 0 1 0 0 0 1 0 1 1 0 1 0 1 1 1 0 0 0 1 0 1 0 1
## [2065] 0 0 0 0 1 1 1 1 1 1 0 1 1 0 0 1 1 0 1 0 0 1 0 1
## [2089] 0 1 1 1 0 1 0 1 1 1 1 1 1 0 0 1 1 1 0 0 1 0 0 0
## [2113] 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 1
## [2137] 0 0 0 0 0 0 0 0 0 0

```

```
##
```

```
## Labels:
```

```
## value label
```

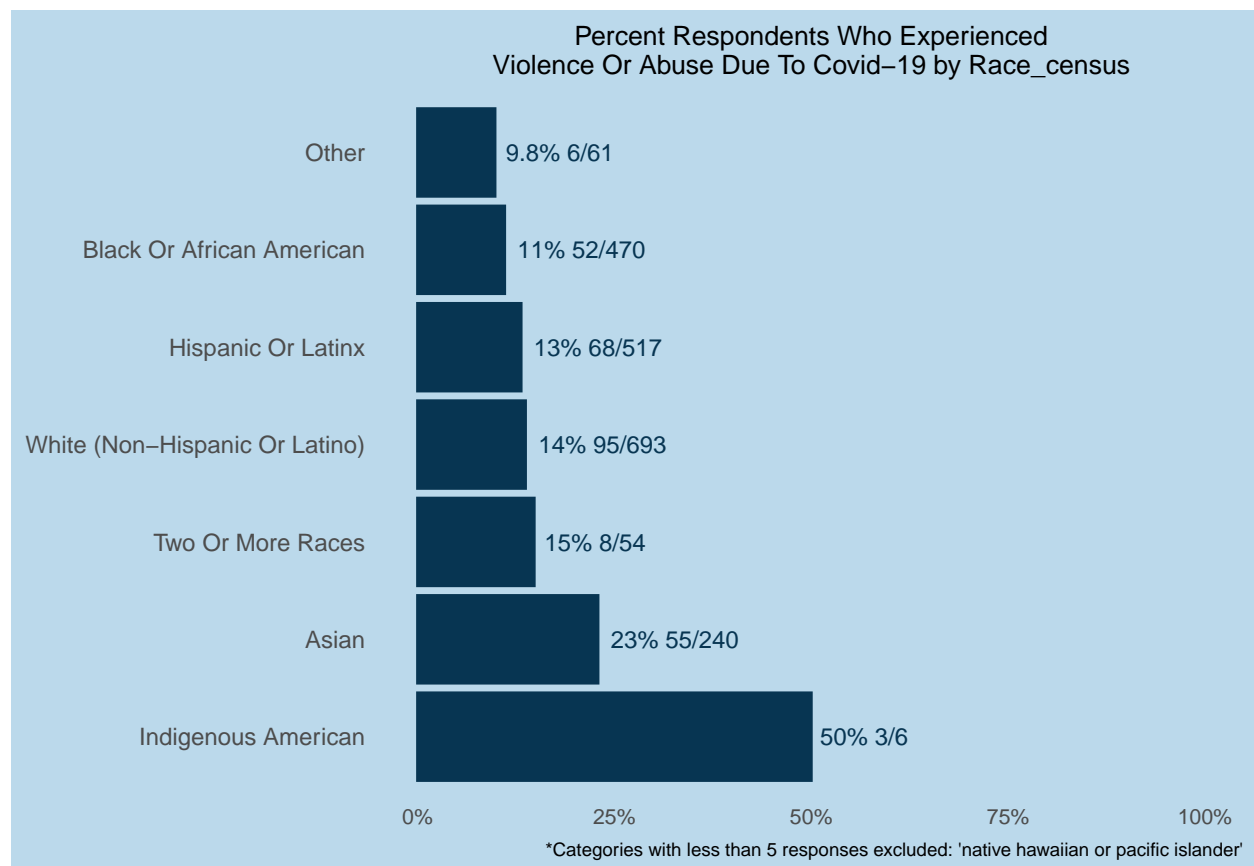
```
## 1 at or below median income level before and after
```

```
## 0 above median income either before or after the start
```

```
make_plots(wrangled, c("race_census", "inc_be_med_before", "inc_be_med"), "exp_ab_or_vi", title = "Perce
```

```
## $race_census
```

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



```
##
## $race_census$p.values
## $race_census$p.values$exp_ab_or_vi
##           other black or african american
## other                NA                NA
## black or african american    NA                NA
## hispanic or latinx           NA                NA
## white (non-hispanic or latino) NA                NA
## two or more races            NA                NA
## asian                     NA            4.8e-05
## Indigenous American         NA                NA
##           hispanic or latinx
## other                NA
## black or african american    NA
## hispanic or latinx           NA
## white (non-hispanic or latino) NA
## two or more races            NA
## asian                     0.001
## Indigenous American         NA
##           white (non-hispanic or latino) two or more races
## other                NA                NA
## black or african american    NA                NA
## hispanic or latinx           NA                NA
## white (non-hispanic or latino) NA                NA
## two or more races            NA                NA
## asian                     0.0012            NA
```

```
## Indigenous American          NA          NA
##          asian Indigenous American
## other          NA          NA
## black or african american    4.8e-05      NA
## hispanic or latinx          1.0e-03      NA
## white (non-hispanic or latino) 1.2e-03      NA
## two or more races          NA          NA
## asian          NA          NA
## Indigenous American          NA          NA
##
##
## $inc_be_med_before
## NULL
##
## $inc_be_med
## NULL
```

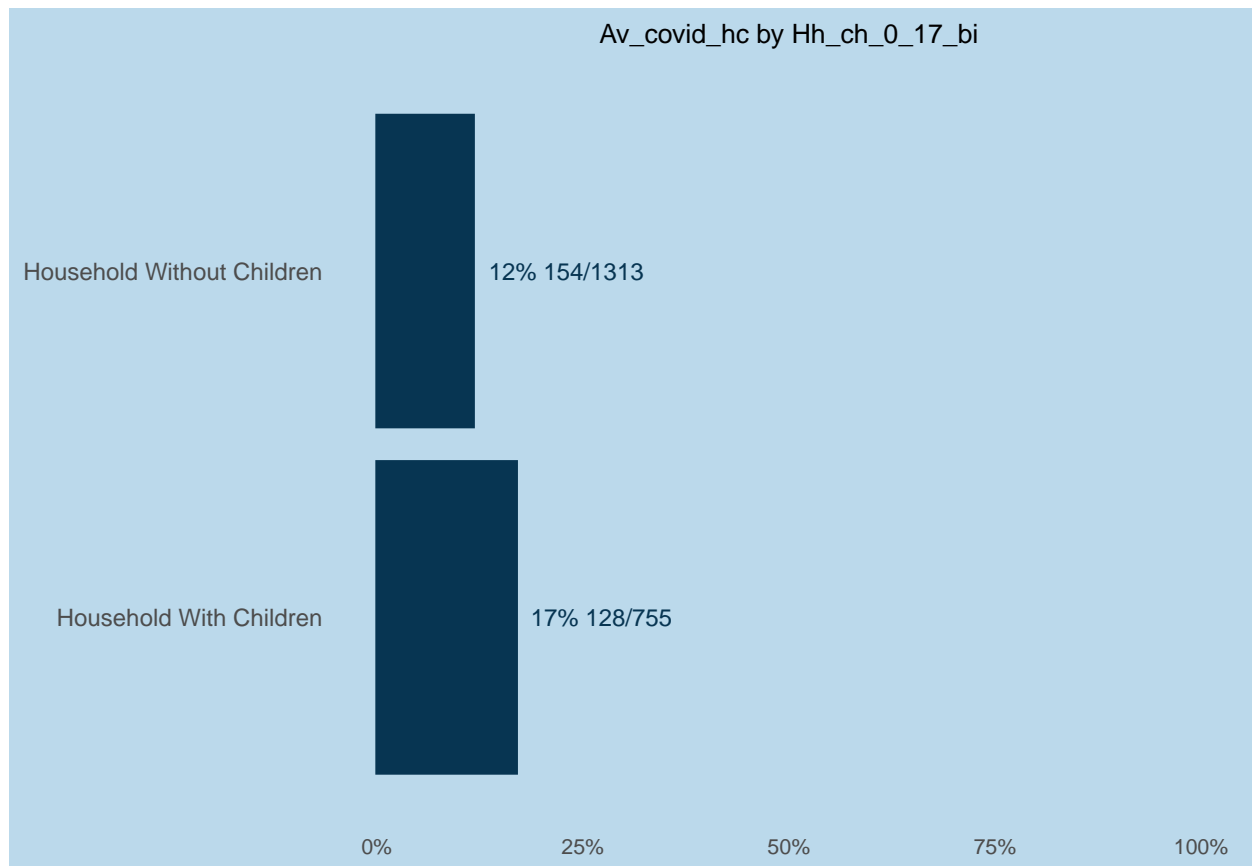
## 5.9) Distribution over each activity/place which has been avoided due to safety concern

1. Run sub demographic distribution over each activity/place which has been avoided
2. Run over responses over each population

```
av_covid <- wrangled %>% select(starts_with("av_covid_") & !ends_with("text")) %>% colnames()

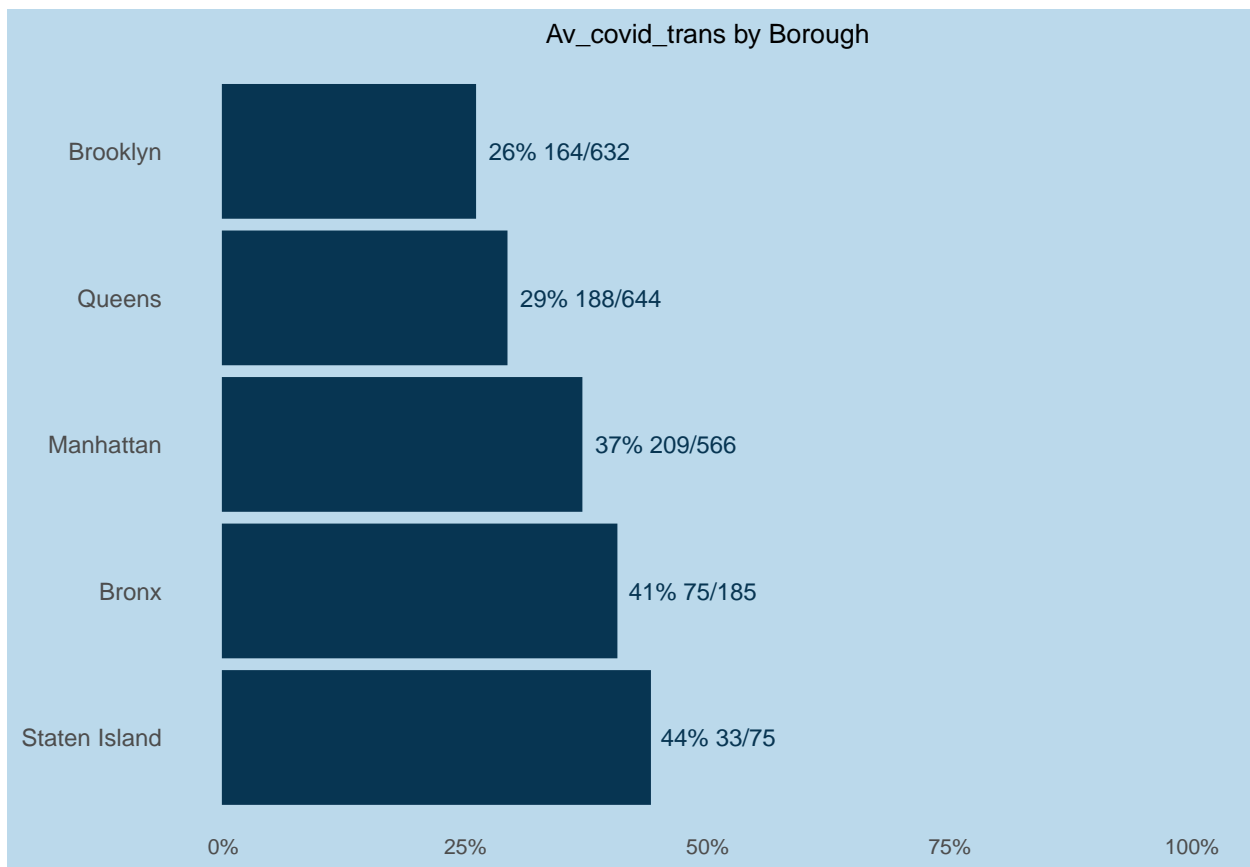
lapply(av_covid, function(av) {
  make_plots(wrangled, demographics, av, title = av)
})
```

```
## [[1]]
## [[1]]$borough
## NULL
##
## [[1]]$gen
## NULL
##
## [[1]]$race_census
## NULL
##
## [[1]]$hh_ch_0_17_bi
## [[1]]$hh_ch_0_17_bi$plot
```



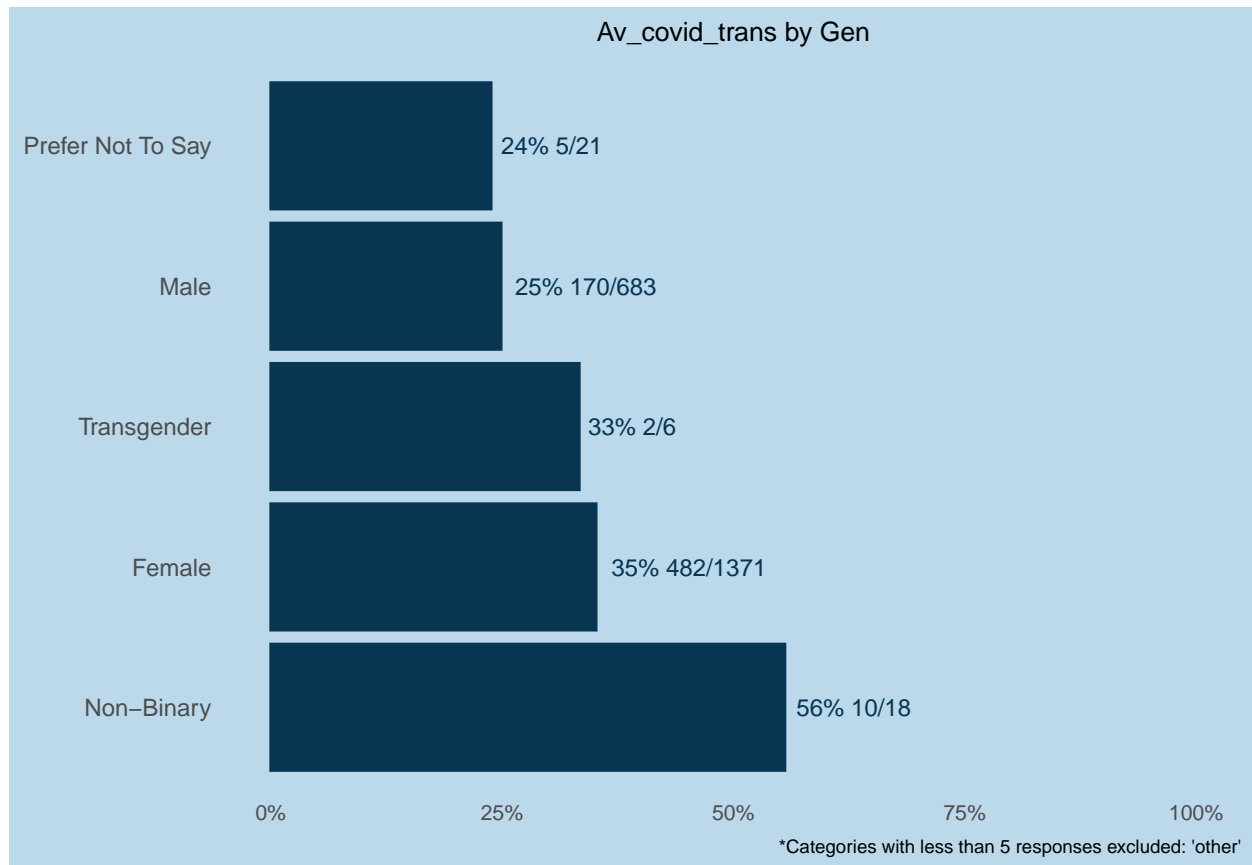
```
##
## [[1]]$hh_ch_0_17_bi$p.values
## [[1]]$hh_ch_0_17_bi$p.values$av_covid_hc
##           household without children household with children
## household without children           NA           0.0011
## household with children           0.0011           NA
##
##
## [[1]]$hh_sn_65_bi
## NULL
##
## [[1]]$inc_dist
## NULL
##
##
## [[2]]
## [[2]]$borough
## NULL
##
## [[2]]$gen
## NULL
##
## [[2]]$race_census
## NULL
##
```

```
## [[2]]$hh_ch_0_17_bi
## NULL
##
## [[2]]$hh_sn_65_bi
## NULL
##
## [[2]]$inc_dist
## NULL
##
##
## [[3]]
## [[3]]$borough
## [[3]]$borough$plot
```



```
##
## [[3]]$borough$p.values
## [[3]]$borough$p.values$av_covid_trans
##
##      brooklyn queens manhattan  bronx staten island
## brooklyn      NA      NA  5.5e-05 0.00018      0.0016
## queens        NA      NA  5.2e-03 0.00460      NA
## manhattan    5.5e-05 0.0052      NA      NA      NA
## bronx        1.8e-04 0.0046      NA      NA      NA
## staten island 1.6e-03      NA      NA      NA      NA
##
##
```

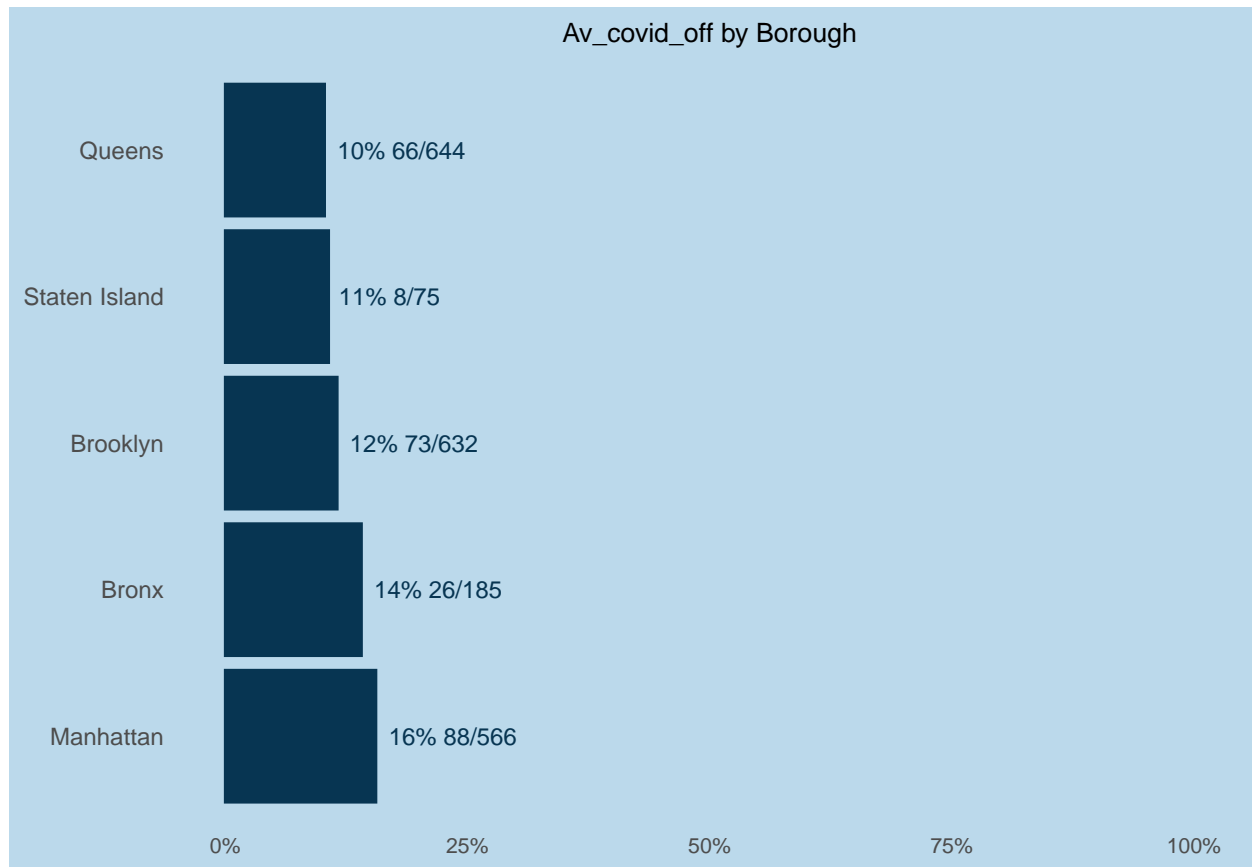
```
##
## [[3]]$gen
## [[3]]$gen$plot
```



```
##
## [[3]]$gen$p.values
## [[3]]$gen$p.values$av_covid_trans
##           prefer not to say    male transgender  female non-binary
## prefer not to say           NA      NA          NA      NA      NA
## male                       NA      NA          NA 3.2e-06      NA
## transgender                 NA      NA          NA      NA      NA
## female                     NA 3.2e-06          NA      NA      NA
## non-binary                  NA      NA          NA      NA      NA
##
##
##
## [[3]]$race_census
## NULL
##
## [[3]]$hh_ch_0_17_bi
## NULL
##
## [[3]]$hh_sn_65_bi
## NULL
##
```

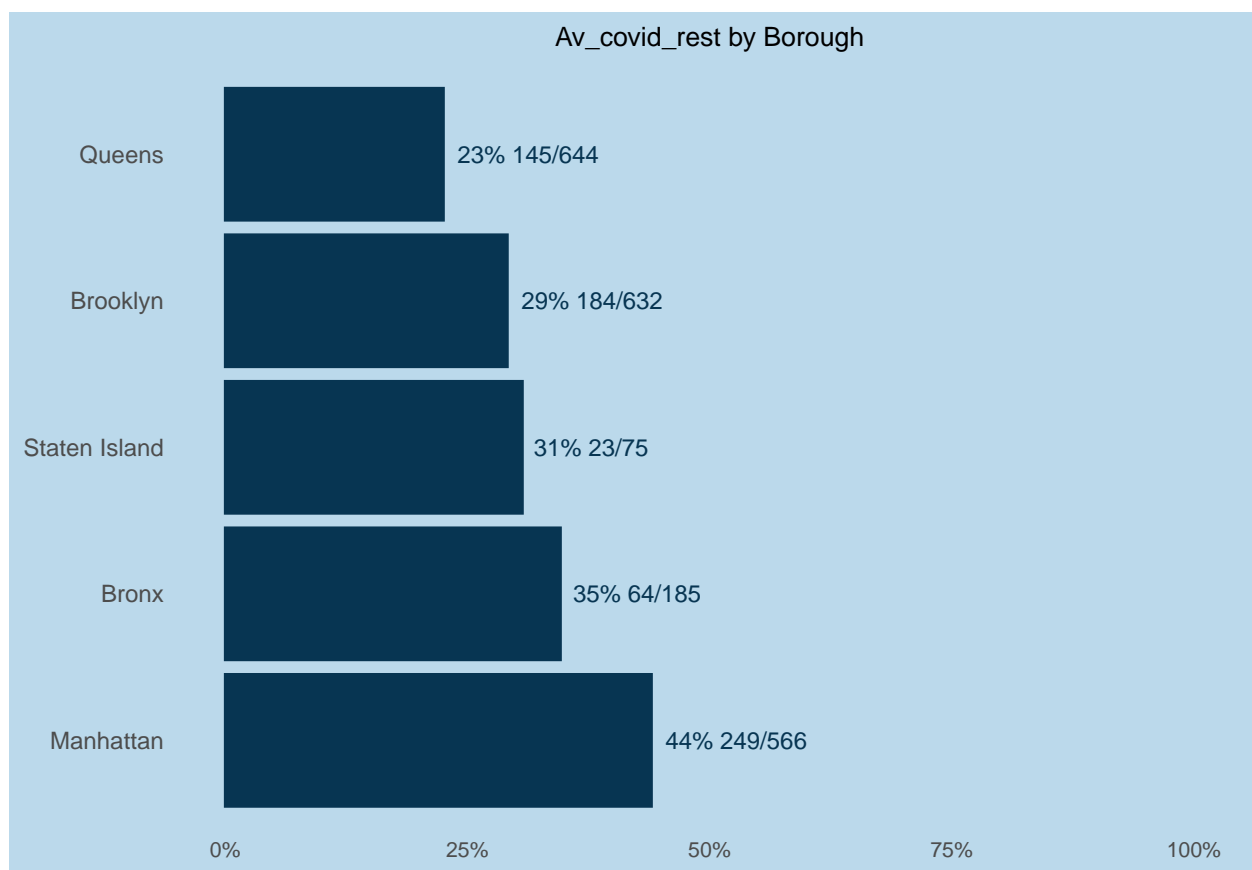


```
## [[3]]$inc_dist
## NULL
##
##
## [[4]]
## [[4]]$borough
## [[4]]$borough$plot
```



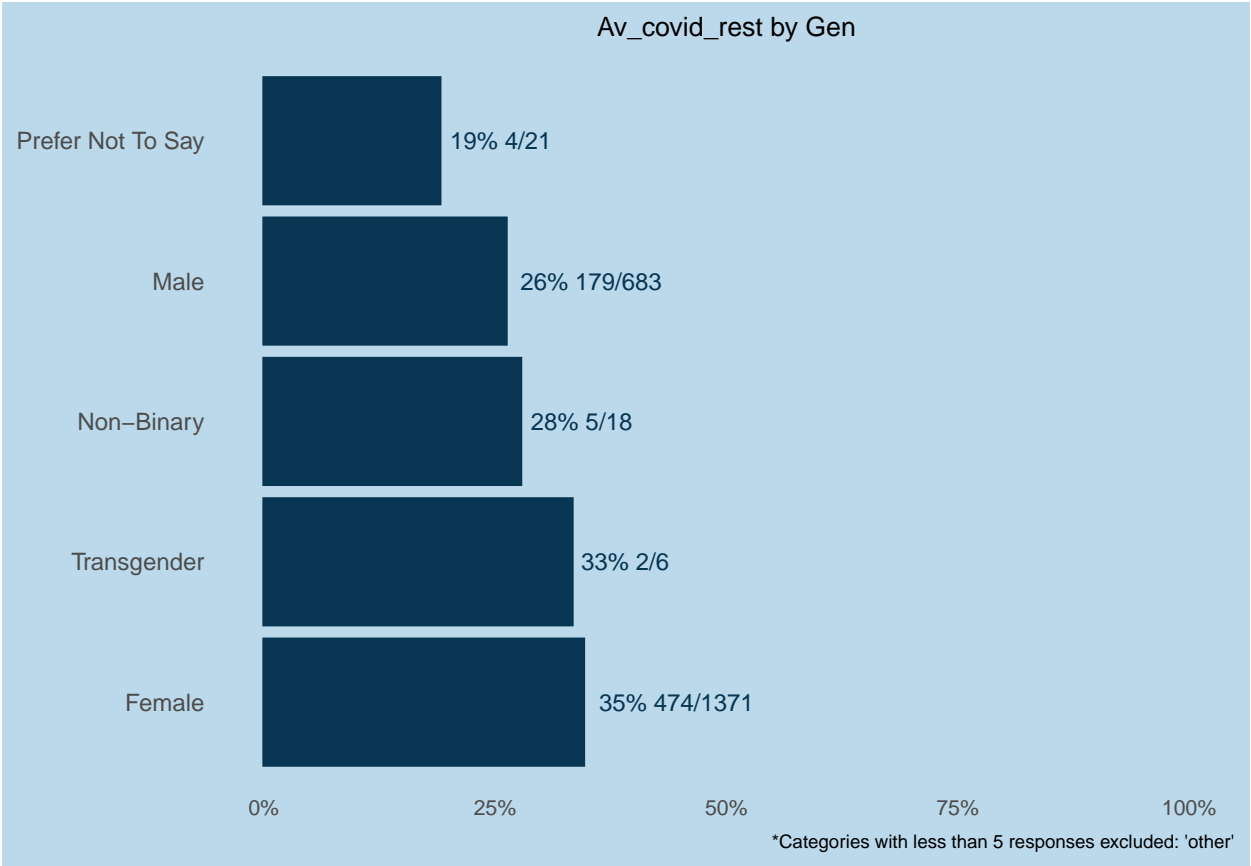
```
##
## [[4]]$borough$p.values
## [[4]]$borough$p.values$av_covid_off
##      queens staten island brooklyn bronx manhattan
## queens      NA      NA      NA      NA      0.0075
## staten island NA      NA      NA      NA      NA
## brooklyn      NA      NA      NA      NA      NA
## bronx          NA      NA      NA      NA      NA
## manhattan    0.0075      NA      NA      NA      NA
##
##
##
## [[4]]$gen
## NULL
##
## [[4]]$race_census
## NULL
```

```
##
## [[4]]$hh_ch_0_17_bi
## NULL
##
## [[4]]$hh_sn_65_bi
## NULL
##
## [[4]]$inc_dist
## NULL
##
##
## [[5]]
## [[5]]$borough
## [[5]]$borough$plot
```

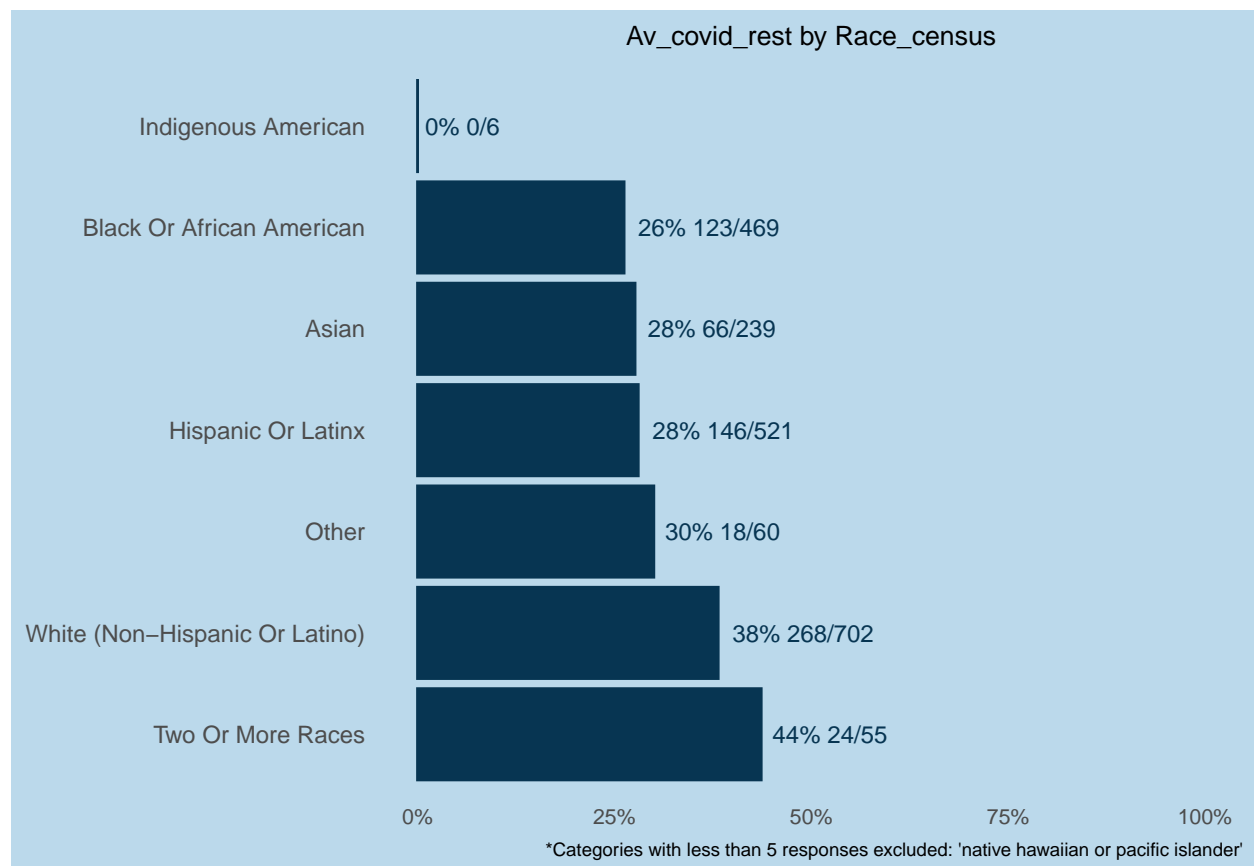


```
##
## [[5]]$borough$p.values
## [[5]]$borough$p.values$av_covid_rest
##
##      queens brooklyn staten island  bronx manhattan
## queens      NA  8.5e-03      NA  0.0012  2.9e-15
## brooklyn  8.5e-03      NA      NA      NA  1.2e-07
## staten island  NA      NA      NA      NA      NA
## bronx      1.2e-03      NA      NA      NA      NA
## manhattan  2.9e-15  1.2e-07      NA      NA      NA
##
```

```
##
##
## [[5]]$gen
## [[5]]$gen$plot
```

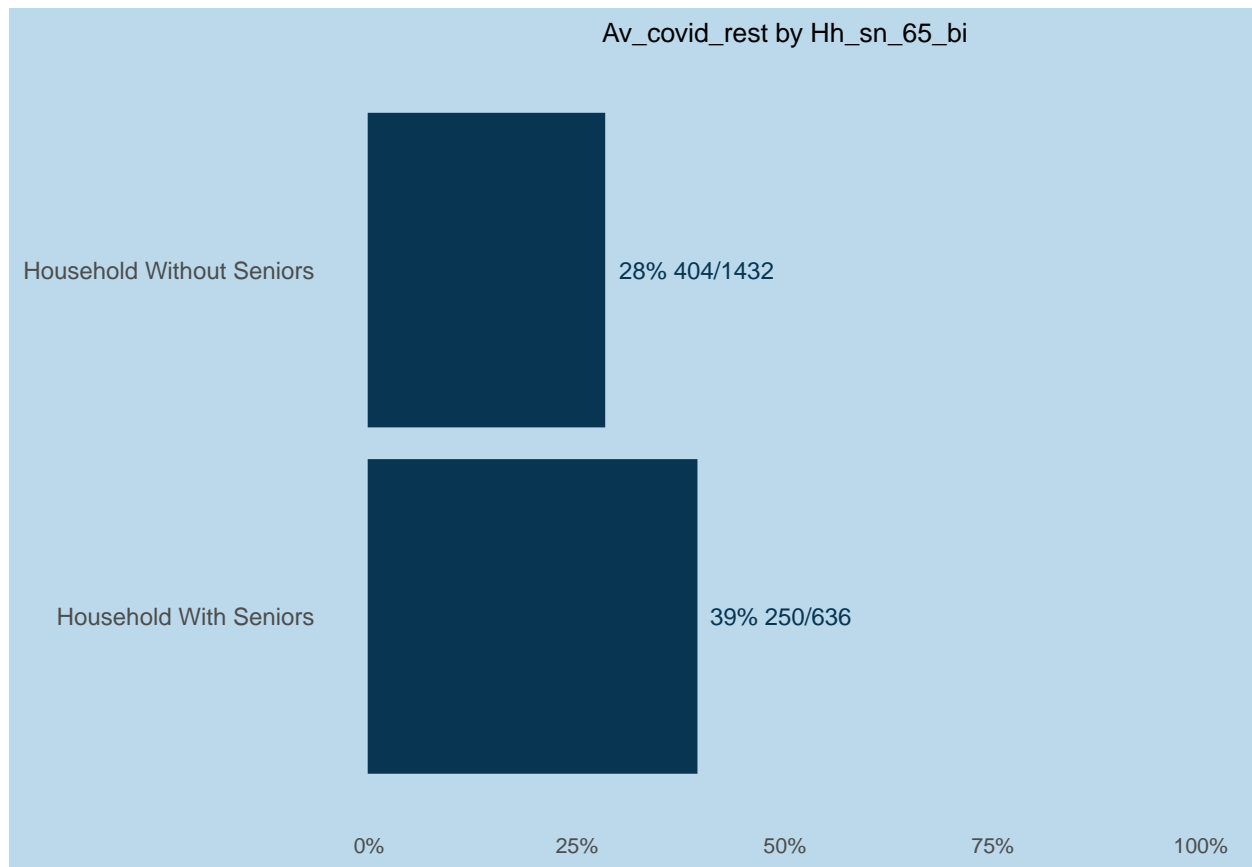


```
##
## [[5]]$gen$p.values
## [[5]]$gen$p.values$av_covid_rest
##           prefer not to say    male non-binary transgender  female
## prefer not to say           NA      NA          NA          NA      NA
## male                       NA      NA          NA          NA 0.00015
## non-binary                  NA      NA          NA          NA      NA
## transgender                  NA      NA          NA          NA      NA
## female                      NA 0.00015          NA          NA      NA
##
##
##
## [[5]]$race_census
## [[5]]$race_census$plot
```

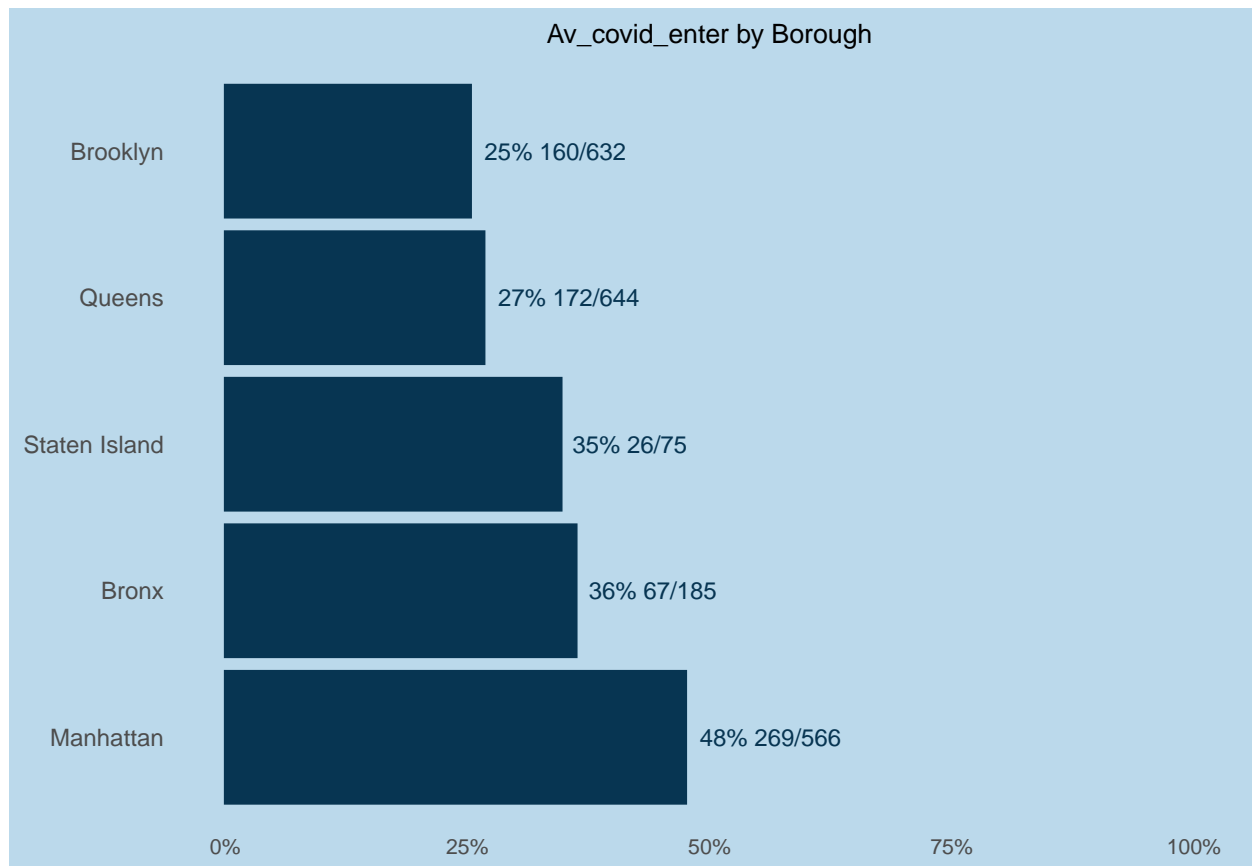


```
##
## [[5]]$race_census$p.values
## [[5]]$race_census$p.values$av_covid_rest
##               Indigenous American black or african american
## Indigenous American                NA                      NA
## black or african american          NA                      NA
## asian                             NA                      NA
## hispanic or latinx                 NA                      NA
## other                             NA                      NA
## white (non-hispanic or latino)     NA                    2.8e-05
## two or more races                  NA                    1.0e-02
##               asian hispanic or latinx other
## Indigenous American          NA          NA    NA
## black or african american     NA          NA    NA
## asian                         NA          NA    NA
## hispanic or latinx            NA          NA    NA
## other                         NA          NA    NA
## white (non-hispanic or latino) 0.0041      0.00026  NA
## two or more races             NA          NA    NA
##               white (non-hispanic or latino) two or more races
## Indigenous American                NA                      NA
## black or african american          2.8e-05                  0.01
## asian                             4.1e-03                   NA
## hispanic or latinx                 2.6e-04                   NA
## other                             NA                      NA
## white (non-hispanic or latino)     NA                      NA
```

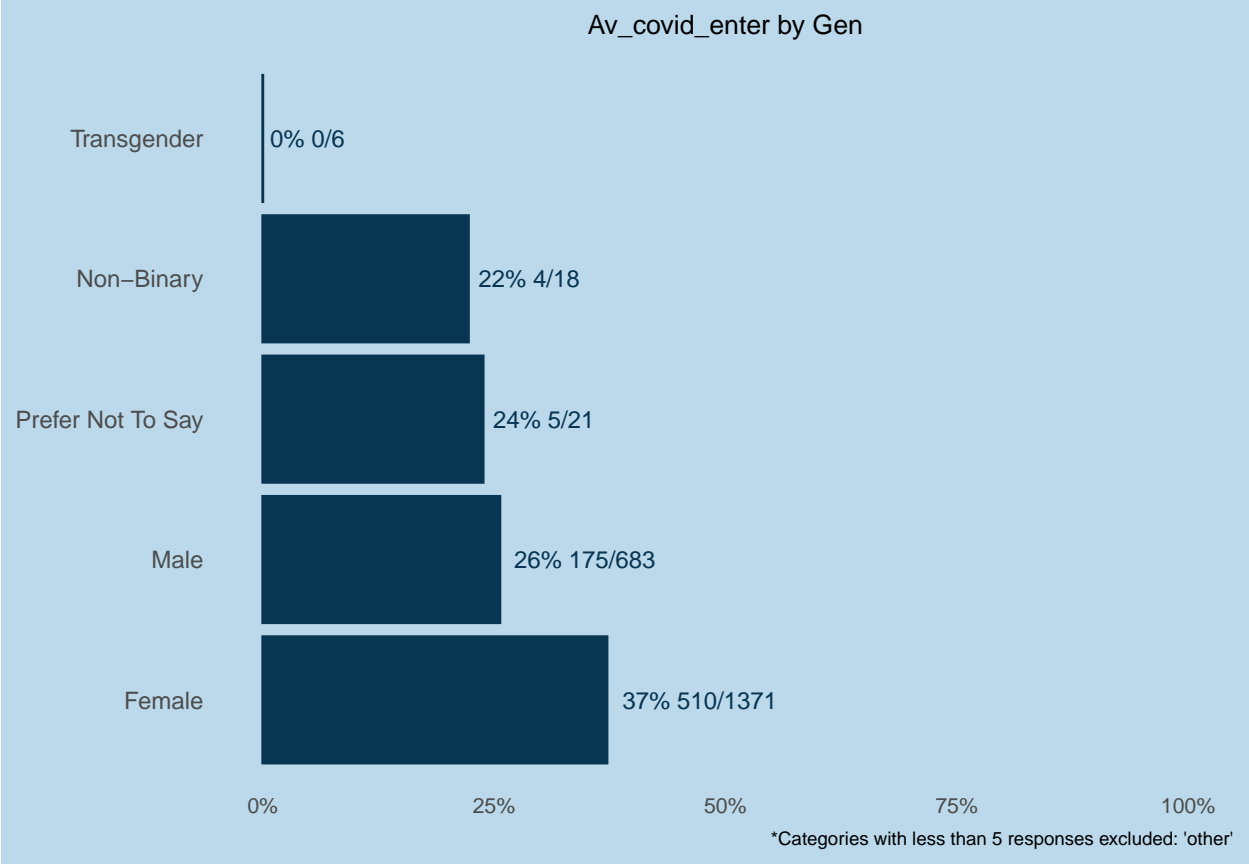
```
## two or more races
##
##
##
## [[5]]$hh_ch_0_17_bi
## NULL
##
## [[5]]$hh_sn_65_bi
## [[5]]$hh_sn_65_bi$plot
```



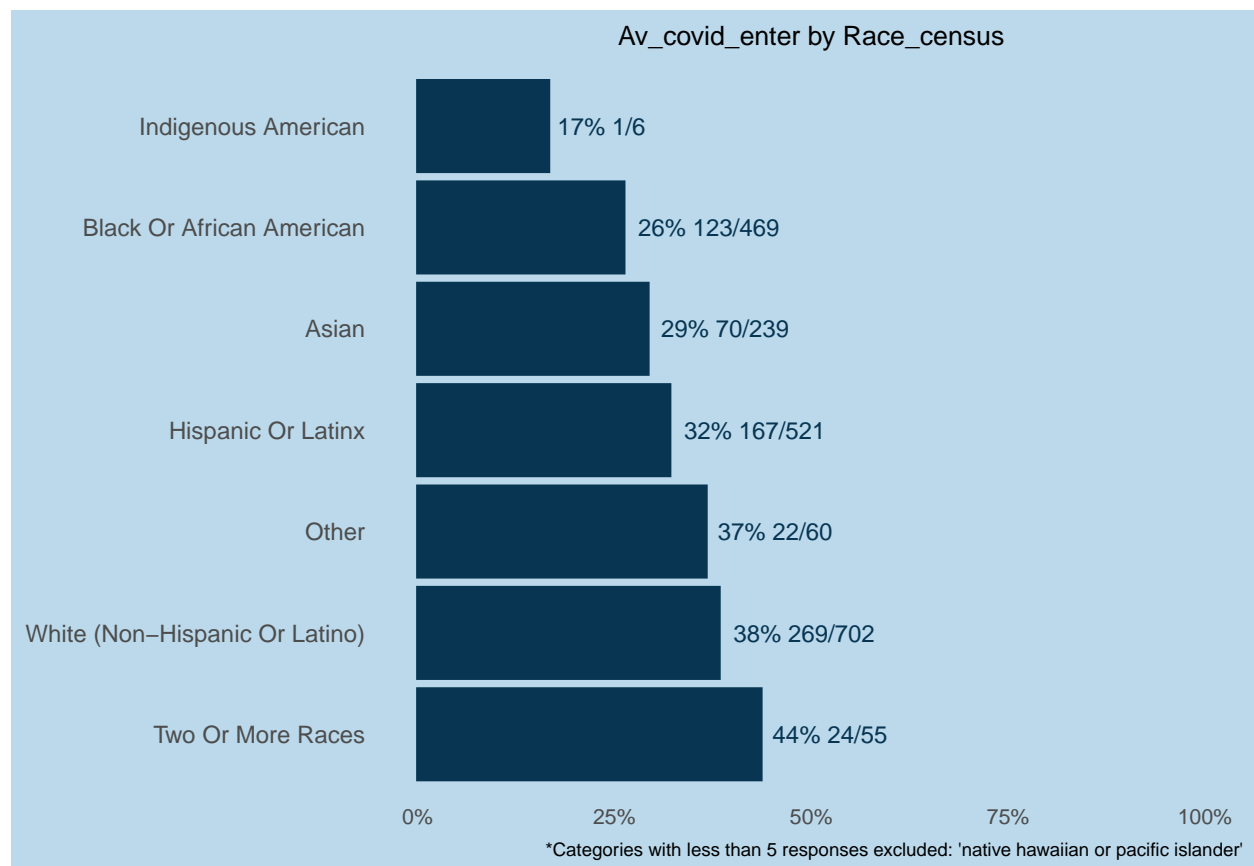
```
##
## [[5]]$hh_sn_65_bi$p.values
## [[5]]$hh_sn_65_bi$p.values$av_covid_rest
## household without seniors household with seniors
## household without seniors NA 7.2e-07
## household with seniors 7.2e-07 NA
##
##
##
## [[5]]$inc_dist
## NULL
##
##
## [[6]]
## [[6]]$borough
## [[6]]$borough$plot
```



```
##
## [[6]]$borough$p.values
## [[6]]$borough$p.values$av_covid_enter
##
##      brooklyn  queens staten island  bronx manhattan
## brooklyn      NA      NA           NA 0.0048  1.9e-15
## queens        NA      NA           NA   NA  9.5e-14
## staten island  NA      NA           NA   NA      NA
## bronx          4.8e-03  NA           NA   NA  9.3e-03
## manhattan      1.9e-15 9.5e-14       NA 0.0093      NA
##
##
##
## [[6]]$gen
## [[6]]$gen$plot
```



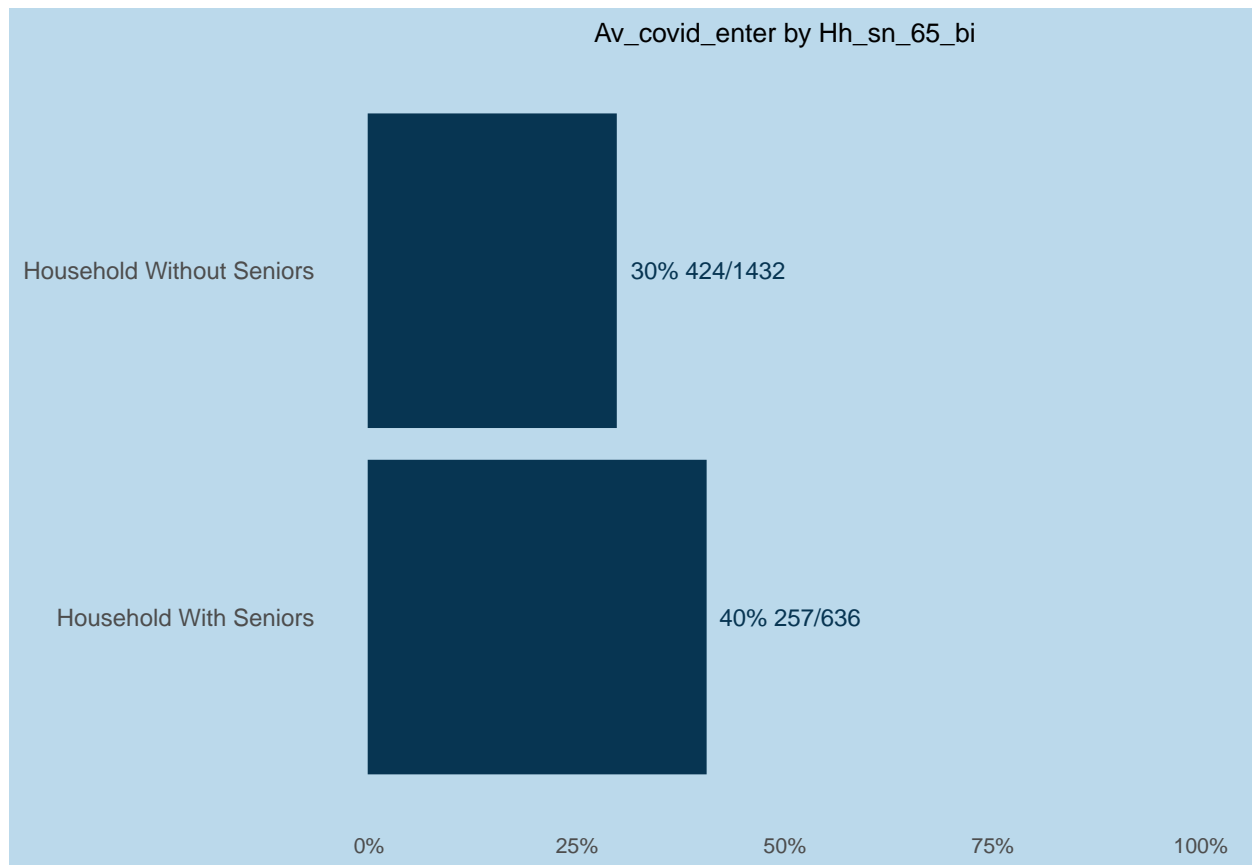
```
##
## [[6]]$gen$p.values
## [[6]]$gen$p.values$av_covid_enter
##               transgender non-binary prefer not to say    male  female
## transgender              NA      NA              NA      NA      NA
## non-binary                NA      NA              NA      NA      NA
## prefer not to say         NA      NA              NA      NA      NA
## male                      NA      NA              NA      NA  2.1e-07
## female                    NA      NA              NA  2.1e-07      NA
##
##
##
## [[6]]$race_census
## [[6]]$race_census$plot
```



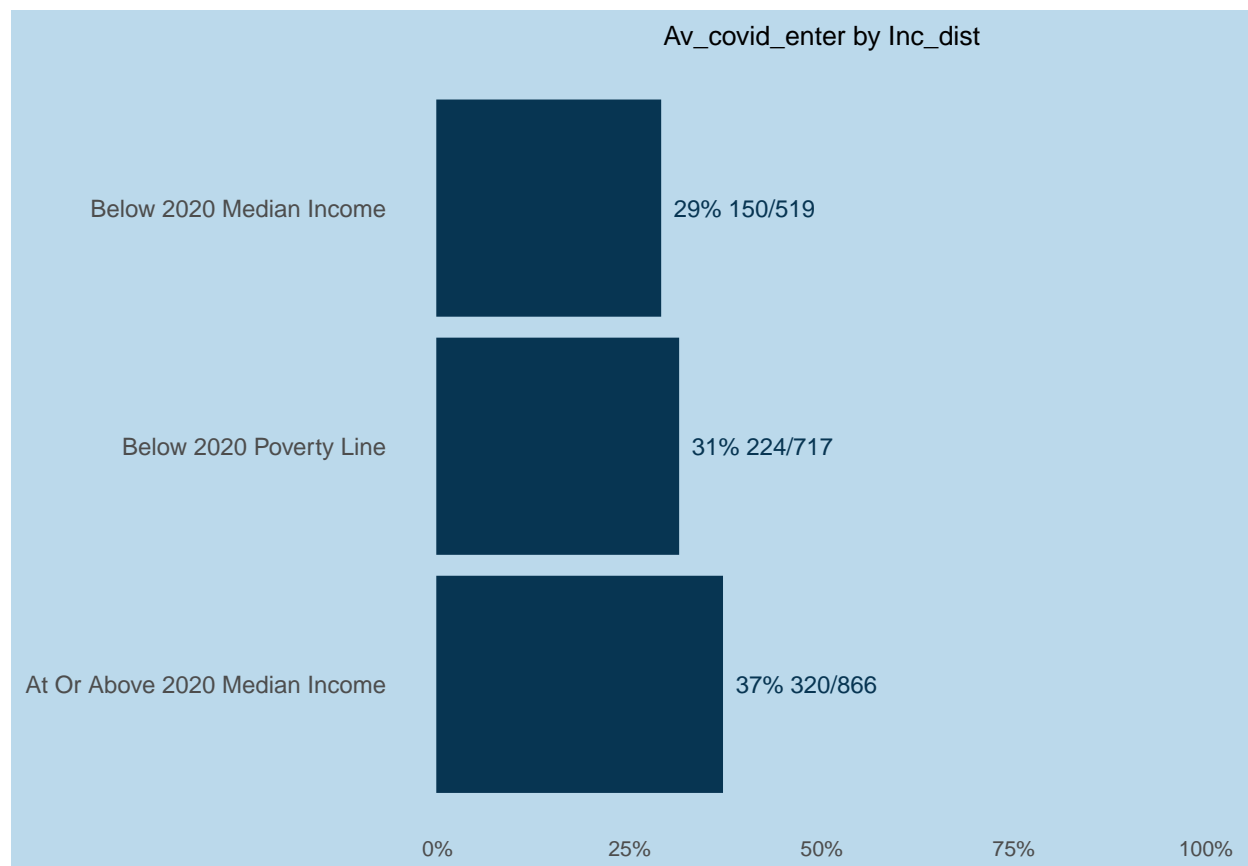
```
##
## [[6]]$race_census$p.values
## [[6]]$race_census$p.values$av_covid_enter
##               Indigenous American black or african american
## Indigenous American                NA                      NA
## black or african american          NA                      NA
## asian                             NA                      NA
## hispanic or latinx                 NA                      NA
## other                             NA                      NA
## white (non-hispanic or latino)     NA                    2.3e-05
## two or more races                  NA                    1.0e-02
##               asian hispanic or latinx other
## Indigenous American          NA          NA    NA
## black or african american     NA          NA    NA
## asian                         NA          NA    NA
## hispanic or latinx            NA          NA    NA
## other                         NA          NA    NA
## white (non-hispanic or latino) NA          NA    NA
## two or more races             NA          NA    NA
##               white (non-hispanic or latino) two or more races
## Indigenous American                NA                      NA
## black or african american          2.3e-05                  0.01
## asian                             NA                      NA
## hispanic or latinx                 NA                      NA
## other                             NA                      NA
## white (non-hispanic or latino)     NA                      NA
```



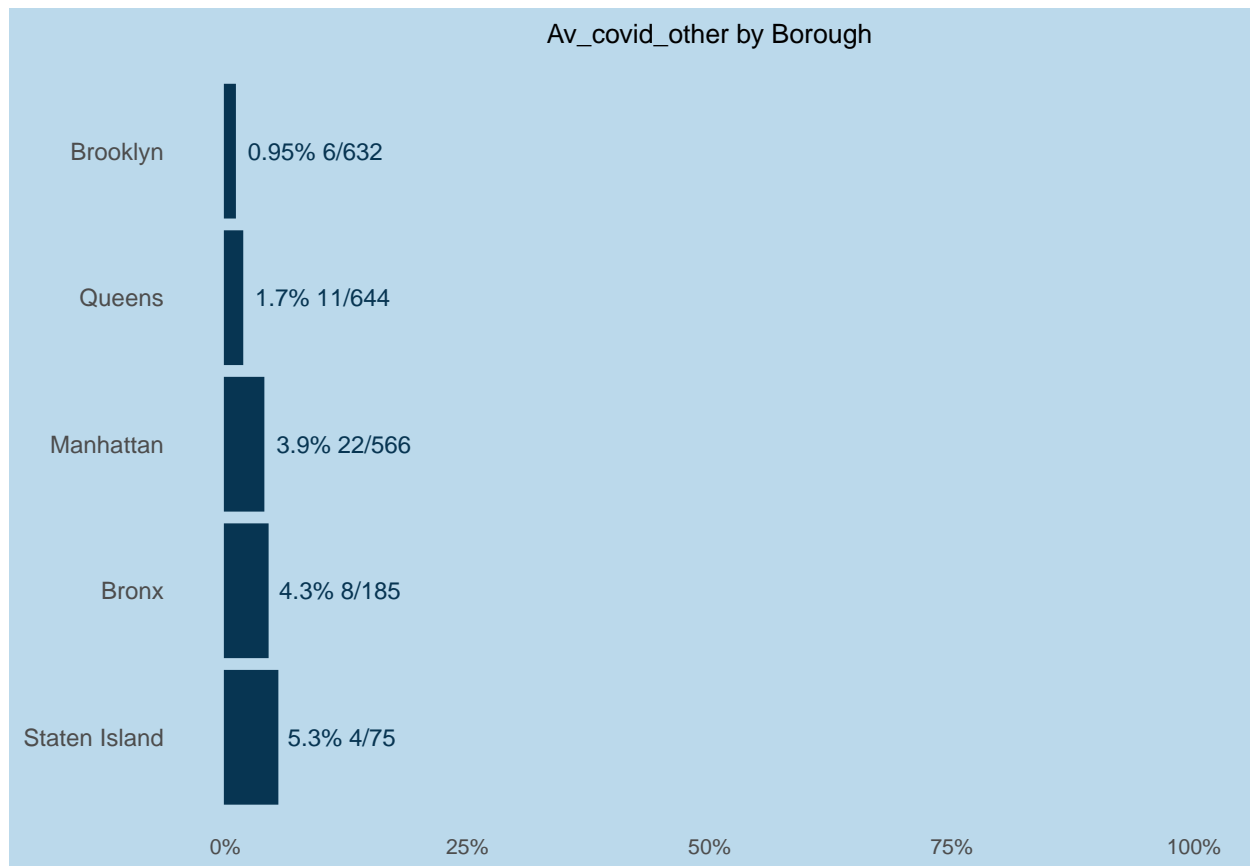
```
## two or more races
##
##
##
## [[6]]$hh_ch_0_17_bi
## NULL
##
## [[6]]$hh_sn_65_bi
## [[6]]$hh_sn_65_bi$plot
```



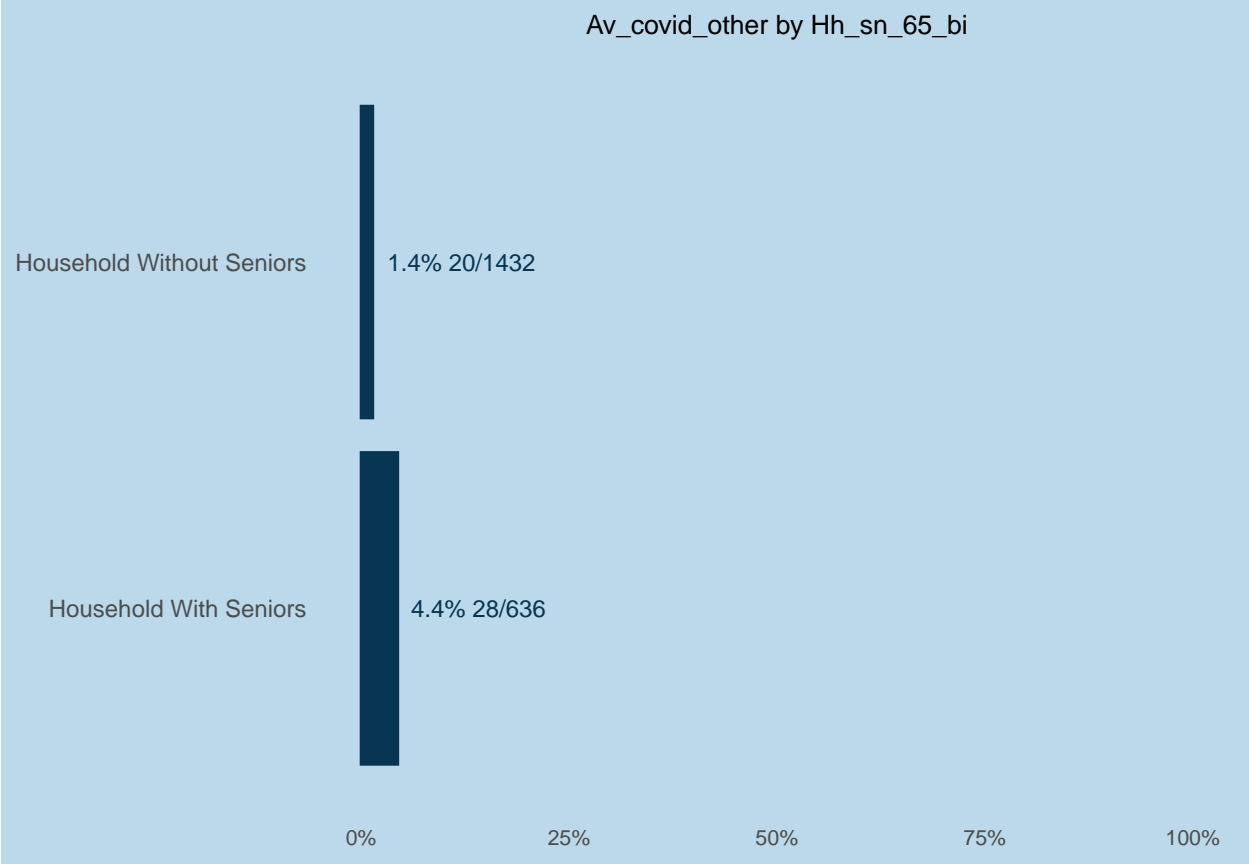
```
##
## [[6]]$hh_sn_65_bi$p.values
## [[6]]$hh_sn_65_bi$p.values$av_covid_enter
## household without seniors household with seniors
## household without seniors NA 1.8e-06
## household with seniors 1.8e-06 NA
##
##
##
## [[6]]$inc_dist
## [[6]]$inc_dist$plot
```



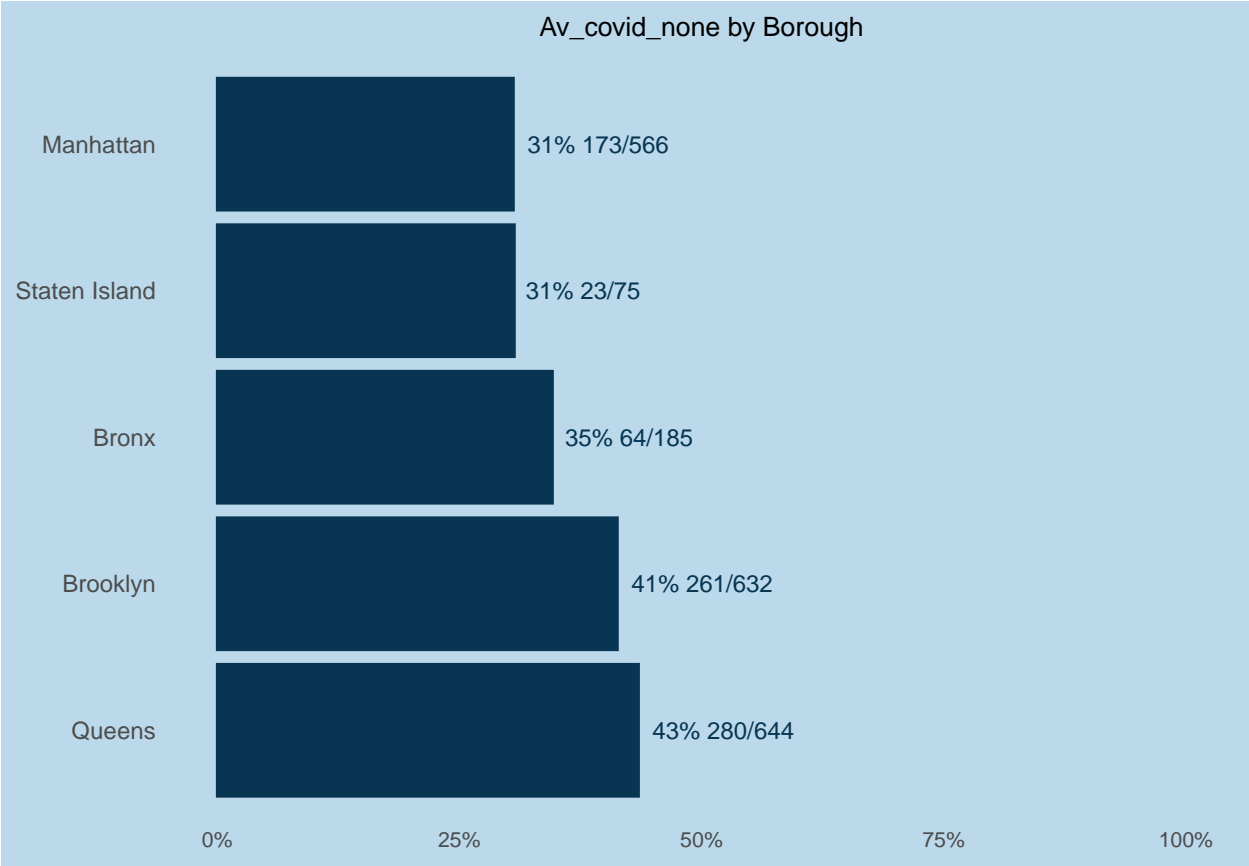
```
##
## [[6]]$inc_dist$p.values
## [[6]]$inc_dist$p.values$av_covid_enter
##
##          below 2020 median income below 2020 poverty line
## below 2020 median income          NA                      NA
## below 2020 poverty line          NA                      NA
## at or above 2020 median income    0.0027                  NA
##
##          at or above 2020 median income
## below 2020 median income          0.0027
## below 2020 poverty line          NA
## at or above 2020 median income    NA
##
##
##
##
## [[7]]
## [[7]]$borough
## [[7]]$borough$plot
```



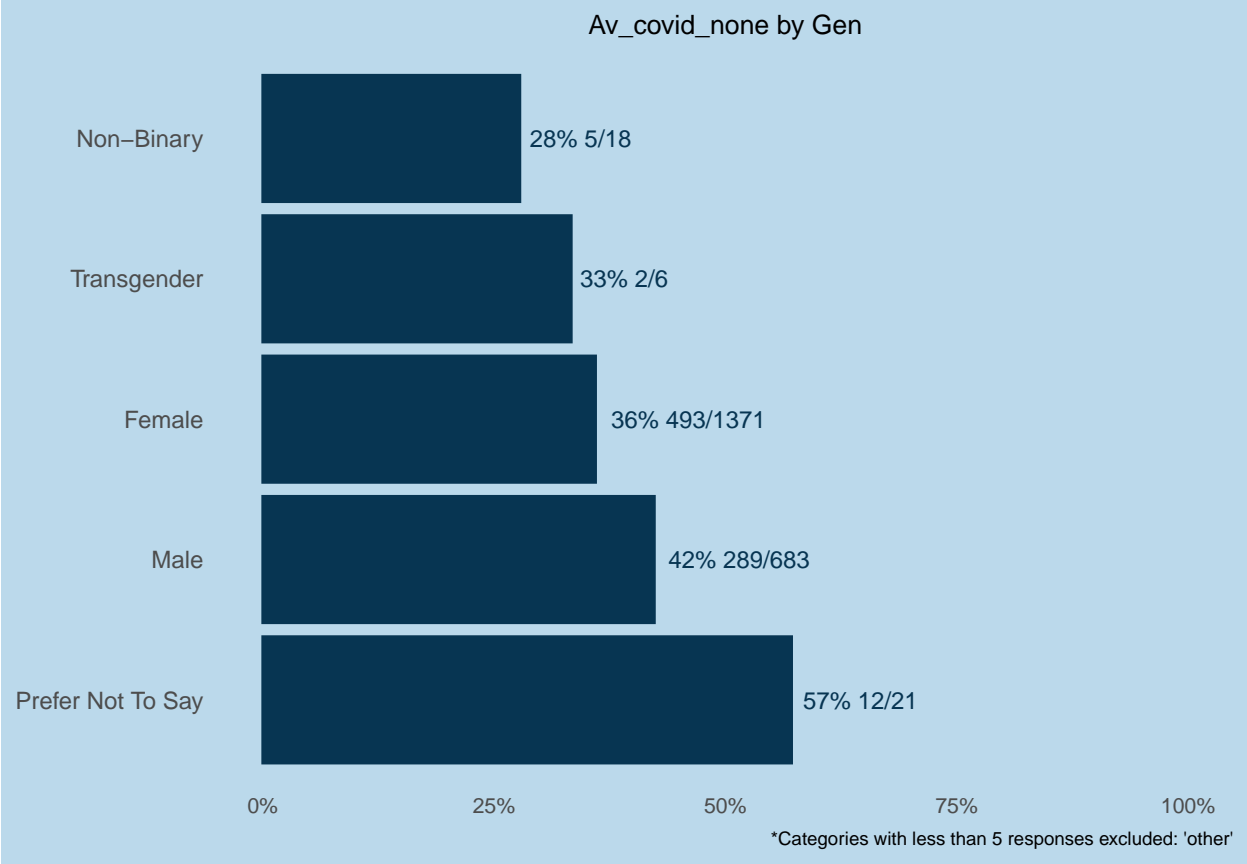
```
##
## [[7]]$borough$p.values
## [[7]]$borough$p.values$av_covid_other
##               brooklyn queens manhattan bronx staten island
## brooklyn          NA      NA      0.0015    NA          NA
## queens            NA      NA          NA    NA          NA
## manhattan         0.0015    NA          NA    NA          NA
## bronx             NA      NA          NA    NA          NA
## staten island     NA      NA          NA    NA          NA
##
##
##
## [[7]]$gen
## NULL
##
## [[7]]$race_census
## NULL
##
## [[7]]$hh_ch_0_17_bi
## NULL
##
## [[7]]$hh_sn_65_bi
## [[7]]$hh_sn_65_bi$plot
```



```
##
## [[7]]$hh_sn_65_bi$p.values
## [[7]]$hh_sn_65_bi$p.values$av_covid_other
##           household without seniors household with seniors
## household without seniors           NA           5.6e-05
## household with seniors           5.6e-05           NA
##
##
##
## [[7]]$inc_dist
## NULL
##
##
## [[8]]
## [[8]]$borough
## [[8]]$borough$plot
```



```
##
## [[8]]$borough$p.values
## [[8]]$borough$p.values$av_covid_none
##      manhattan staten island bronx brooklyn queens
## manhattan      NA          NA   NA  0.00015 4.8e-06
## staten island    NA          NA   NA       NA    NA
## bronx            NA          NA   NA       NA    NA
## brooklyn         1.5e-04      NA   NA       NA    NA
## queens           4.8e-06      NA   NA       NA    NA
##
##
##
## [[8]]$gen
## [[8]]$gen$plot
```



```
##
## [[8]]$gen$p.values
## [[8]]$gen$p.values$av_covid_none
##               non-binary transgender female   male prefer not to say
## non-binary           NA           NA     NA     NA           NA
## transgender          NA           NA     NA     NA           NA
## female               NA           NA     NA 0.006           NA
## male                 NA           NA 0.006     NA           NA
## prefer not to say    NA           NA     NA     NA           NA
##
##
##
## [[8]]$race_census
## NULL
##
## [[8]]$hh_ch_0_17_bi
## NULL
##
## [[8]]$hh_sn_65_bi
## NULL
##
## [[8]]$inc_dist
## NULL
```