

Stat123_lab3

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#1

#a
library(readxl)
sfo <- read_excel("SFO_Recovery_Onsite_December_2020.xlsx", sheet = 'Data')

#b
length(sfo$Q4)

[1] 1086

dim(sfo)[1]

[1] 1086

print("there are 1086 observations")

[1] "there are 1086 observations"

#c
length(sfo)

[1] 42


dim(sfo)[2]

[1] 42

print("there are 42 columns")

[1] "there are 42 columns"

head(sfo)

# A tibble: 6 × 42
  Respnum CCGID Source LANG TERM BAREA Q1 Q2 Q2a Q2b Q3_1 Q3_2
  <dbl> <dbl> <dbl> <dbl> <dbl> <chr> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
1      6      1      1      1      2 D      2      7      2    NA      1      2
2      7      2      1      1      2 D      3      4      2    NA      4     NA
3      8      3      1      1      2 D      2      1      1      1      0     NA
4      9      4      1      1      2 D      6      1      2    NA      2     NA
5     10      5      1      1      2 D      2      2      2    NA      0     NA
6     11      6      1      1      2 D      3      2      2    NA      0     NA
#  30 more variables: Q3_3 <lgl>, Q4 <dbl>, Q5a <dbl>, Q5b <dbl>, Q5c
<dbl>,
# Q5d <dbl>, Q5e <dbl>, Q5f <dbl>, Q6_1 <dbl>, Q6_2 <dbl>, Q7 <dbl>,
# Q7a <chr>, Q7a_1 <dbl>, Q7a_2 <dbl>, Q7a_3 <dbl>, Q8 <dbl>, Q9 <chr>,
# Q10 <chr>, Q11 <dbl>, Q12 <dbl>, Q12_Country <chr>, CountryCode <dbl>,
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# Q13 <dbl>, Q14 <dbl>, Q14_3_other <lgl>, Q15 <dbl>, Q16 <chr>, Q16_1
<dbl>,
# Q16_2 <dbl>, Q16_3 <dbl>

print("after investigating the excel, we noted that the two columns can be
considered individuals, so there are 40 variables in the dataset.")

[1] "after investigating the excel, we noted that the two columns can be
considered individuals, so there are 40 variables in the dataset."

#d
q4 <- sfo$Q4
q4 <- factor( q4, levels = c(1,2,3,4,5,0))
(tab <- table(q4))

q4
  1    2    3    4    5    0
159 186 291 253 188    9

(tabrf = tab / sum(tab))

q4
      1      2      3      4      5      0
0.146408840 0.171270718 0.267955801 0.232965009 0.173112339 0.008287293

tabnames <- c("Not at all", "Slightly", "Mildly", "Somewhat", "Very", "No
response")

names(tabrf) <- tabnames

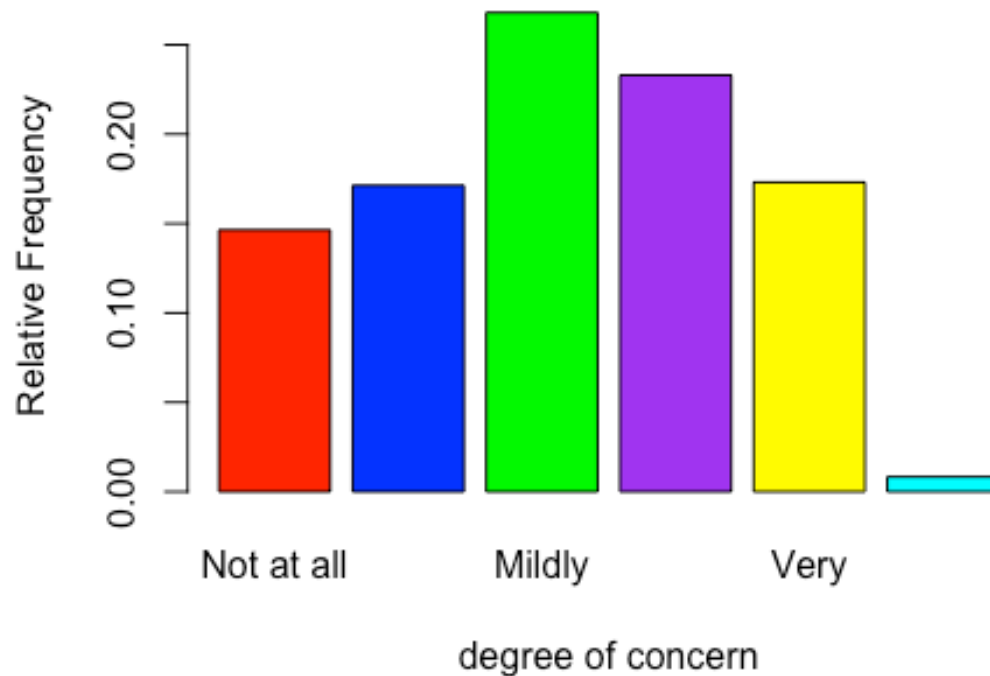
tabrf

  Not at all    Slightly      Mildly    Somewhat      Very No response
0.146408840 0.171270718 0.267955801 0.232965009 0.173112339 0.008287293

barplot(tabrf, main = "Travelers Concern During the Current Covid-19
Situation", xlab = "degree of concern", ylab = 'Relative Frequency', col =
c("red", "blue", "green", "purple", "yellow", "cyan"))

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Travelers Concern During the Current Covid-19 Situa



```
#e
print("Most people feel a mild degree of concern about the covid situation,
with a few more people somewhat or very concerned. The least people did not
respond, or are not at all worried.")
```

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[1] "Most people feel a mild degree of concern about the covid situation,
with a few more people somewhat or very concerned. The least people did not
respond, or are not at all worried."
```