Adeel Arshid - Econometrics - HW#3

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load("~/Desktop/Household_Pulse_data.RData")

```r
load("~/Desktop/Household_Pulse_data.RData")

restrict1 <- (Household_Pulse_data$MS == "anxious") | (Household_Pulse_data == "no worry over past 2 wk
data_new <- subset(Household_Pulse_data$ANXIOUS,restrict1)

summary(restrict1)
```

```
##  RHISPANIC        RRACE          EEDUC           MS
##  Mode :logical   Mode :logical   Mode :logical   Mode :logical
##  FALSE:69114     FALSE:69114     FALSE:69114     FALSE:69114
##
##  EGENID_BIRTH    GENID_DESCRIBE   SEXUAL_ORIENTATION KIDS_LT5Y
##  Mode :logical   Mode :logical    Mode :logical      Mode :logical
##  FALSE:69114     FALSE:69114      FALSE:69114        FALSE:69114
##
##  KIDS_5_11Y      KIDS_12_17Y     ENROLLNONE      RECVDVACC
##  Mode :logical   Mode :logical   Mode :logical   Mode :logical
##  FALSE:69114     FALSE:69114     FALSE:69114     FALSE:69114
##
##  DOSESRV         GETVACRV        KIDDOSES        KIDGETVAC
##  Mode :logical   Mode :logical   Mode :logical   Mode :logical
##  FALSE:69114     FALSE:69114     FALSE:69114     FALSE:69114
##
##  HADCOVID        WRKLOSSRV       ANYWORK         KINDWORK
##  Mode :logical   Mode :logical   Mode :logical   Mode :logical
##  FALSE:69114     FALSE:69114     FALSE:69114     FALSE:69114
##
##  RSNNOWRKRV      CHLDCARE        CURFOODSUF      CHILDFOOD
##  Mode :logical   Mode :logical   Mode :logical   Mode :logical
##  FALSE:69114     FALSE:69114     FALSE:69114     FALSE:69114
##
##  ANXIOUS         WORRY           TENURE          LIVQTRRV
##  Mode :logical   Mode :logical   Mode :logical   Mode :logical
##  FALSE:69114     FALSE:37238     FALSE:69114     FALSE:69114
##                  TRUE :31876
##  RENTCUR         MORTCUR         EVICT           FORCLOSE
##  Mode :logical   Mode :logical   Mode :logical   Mode :logical
##  FALSE:69114     FALSE:69114     FALSE:69114     FALSE:69114
##
```

```
##     EST_ST          PRIVHLTH          PUBHLTH            REGION
##  Mode :logical    Mode :logical    Mode :logical    Mode :logical
##  FALSE:69114      FALSE:69114      FALSE:69114      FALSE:69114
##
##     INCOME          TBIRTH_YEAR     Num_kids_Pub_School Num_kids_Priv_School
##  Mode :logical    Mode :logical    Mode :logical       Mode :logical
##  FALSE:69114      FALSE:69114      FALSE:14006         FALSE:2684
##                                    NA's :55108         NA's :66430
##  Num_kids_homeschool Works_onsite    works_remote     Shop_in_store
##  Mode :logical        Mode :logical   Mode :logical    Mode :logical
##  FALSE:1693           FALSE:69114     FALSE:69114      FALSE:69114
##  NA's :67421
##  eat_in_restaurant
##  Mode :logical
##  FALSE:69114
##
```

```
summary(data_new)
```

```
##                                                     NA
##                                                      0
##                          no anxiety over past 2 wks
##                                                      0
##               several days anxiety over past 2 wks
##                                                      0
## more than half the days anxiety over past 2 wks
##                                                      0
##                             nearly every day anxiety
##                                                      0
##                                                   NA's
##                                                  31876
```

```
load("~/Desktop/Household_Pulse_data.RData")

Household_Pulse_data1 <- subset(Household_Pulse_data, eat_in_restaurant =="eat at restaurant indoors")


Household_Pulse_data2 <- subset(Household_Pulse_data, EEDUC =="bach deg")
summary(Household_Pulse_data2)
```

```
##        RHISPANIC          RRACE                 EEDUC              MS
##  Not Hispanic:18616   White:16833   less than hs:    0   NA        :  249
##  Hispanic    : 1459   Black: 1203   some hs      :    0   married   :12154
##                       Asian: 1245   HS diploma   :    0   widowed   :  878
##                       Other:  794   some coll    :    0   divorced  : 2538
##                                     assoc deg    :    0   separated :  228
##                                     bach deg     :20075   never     : 4028
##                                     adv deg      :    0
##  EGENID_BIRTH       GENID_DESCRIBE        SEXUAL_ORIENTATION
##  male  : 8355   NA          :  319   NA             :  417
##  female:11720   male        : 8143   gay or lesbian :  731
##                 female      :11401   straight       :17809
##                 transgender :   46   bisexual       :  666
```

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```
##                 other       :  166   something else:  240
##                                      dont know     :  212
##
##             KIDS_LT5Y                              KIDS_5_11Y
## NA                       :18089   NA                         :17058
## Yes children under 5 in HH: 1986   Yes children 5 - 11 in HH: 3017
##
##
##
##
##
##             KIDS_12_17Y                              ENROLLNONE
## NA                       :17073   NA                         :18598
## Yes children 12 - 17 in HH: 3002   children not in any type of school: 1477
##
##
##
##
##
##           RECVDVACC                        DOSESRV
## NA                 :  238   NA                       : 1890
## yes got vaxx       :18272   yes got all doses        :17692
## no did not get vaxx: 1565   yes plan to get all doses:  437
##                             no will not get all doses:   56
##
##
##
##             GETVACRV                              KIDDOSES
## NA                     :18505   NA                            :17133
## definitely will get vaxx:  103   Yes kids got or will get all doses: 2145
## probably will get vaxx  :  139   no kids did not or will not       :  797
## unsure about vaxx       :  300
## probably not            :  351
## definitely not          :  677
##
##             KIDGETVAC                              HADCOVID
## NA                     :19264   NA                       :  364
## definitely will get vaxx:  100   yes doctor told had covid: 2427
## probably will get vaxx  :   84   no did not               :17200
## unsure about vaxx       :  162   not sure                 :   84
## probably not            :  142
## definitely not          :  236
## dont know yet           :   87
##             WRKLOSSRV                              ANYWORK
## NA                   :  506   NA                         :  527
## yes recent HH job loss: 1939   yes employment in last 7 days:12485
## no recent HH job loss :17630   no employment in last 7 days : 7063
##
##
##
##
##             KINDWORK                    RSNNOWRKRV
## NA               :7748   NA               :13308
## work for govt    :1868   retired          : 4047
```

```
##  work for private co:7227    other        :  927
##  work for nonprofit :1531    caring for kids:  359
##  self employed      :1456    laid off      :  345
##  work in family biz :  245   did not want  :  340
##                              (Other)       :  749
##                                    CHLDCARE
##  NA                               :16985
##  yes impacts to childcare because pandemic:  719
##  no                               : 2371
##
##
##
##
##                     CURFOODSUF
##  NA                        : 1704
##  had enough food           :15536
##  had enough but not what wanted: 2356
##  sometimes not enough food    :  385
##  often not enough food        :   94
##
##
##                                        CHILDFOOD
##  NA                                    :19055
##  often kids not eating enough because couldnt afford:   43
##  sometimes kids not eating enough               :  213
##  kids got enough food                           :  764
##
##
##
##                                     ANXIOUS
##  NA                                 :1979
##  no anxiety over past 2 wks         :7856
##  several days anxiety over past 2 wks         :6032
##  more than half the days anxiety over past 2 wks:1843
##  nearly every day anxiety                 :2365
##
##
##                              WORRY
##  NA                          :2008
##  no worry over past 2 wks         :9651
##  several days worried over past 2 wks        :5338
##  more than half the days worried over past 2 wks:1448
##  nearly every day worry           :1630
##
##
##                     TENURE
##  NA                  :2828
##  housing owned free and clear :4835
##  housing owned with mortgage  :8858
##  housing rented            :3419
##  housing occupied without rent: 135
##
##
##                              LIVQTRRV                RENTCUR
```

4

```
## live in detached 1 family        :12598   NA                          :16666
## NA                               : 2893   current on rent: 3193
## live in bldg w 5+ apts           : 2062   behind on rent :  216
## live in 1 family attached to others: 1444
## live in building with 3-4 apts   :  480
## live in bldg w 2 apartments      :  314
## (Other)                          :  284
##                    MORTCUR                                              EVICT
## NA                        :11237   NA                                          :19867
## current on mortgage: 8466   very likely evicted in next 2 months        :   30
## behind on mortgage :  372   somewhat likely evicted in next 2 months    :   45
##                             not very likely evicted in next 2 months    :   61
##                             not at all likely evicted in next 2 months  :   72
##
##
##                               FORCLOSE              EST_ST
## NA                                      :19711   California: 1652
## very likely forclosed in next 2 months     :   10   Texas     : 1176
## somewhat likely forclosed in next 2 months:   43   Washington:  809
## not very likely forclosed in next 2 months:  126   Florida   :  806
## not at all forclosed in next 2 months      :  185   Utah      :  598
##                                                  Oregon    :  574
##                                                  (Other)   :14460
##                PRIVHLTH                      PUBHLTH              REGION
## has private health ins:14825   has public health ins: 5776   Northeast:3098
## no private health ins : 2482   no public health ins :10944   South    :6389
## NA                    : 2768   NA                    : 3355   Midwest  :4006
##                                                               West     :6582
##
##
##
##                  INCOME        TBIRTH_YEAR   Num_kids_Pub_School
## NA                       :3726   Min.   :1933   Min.   :0.000
## HH income $100k - 149:3521   1st Qu.:1956   1st Qu.:1.000
## HH income $50k - 74.9:2816   Median :1969   Median :2.000
## HH income $75 - 99.9 :2594   Mean   :1969   Mean   :1.678
## HH income $200k +     :2099   3rd Qu.:1982   3rd Qu.:2.000
## HH income $150 - 199 :1795   Max.   :2003   Max.   :4.000
## (Other)                 :3524                  NA's   :16116
## Num_kids_Priv_School Num_kids_homeschool      Works_onsite
## Min.   :0.000        Min.   :0.000        NA           : 1647
## 1st Qu.:1.000        1st Qu.:0.000        worked onsite:10460
## Median :1.000        Median :1.000        no           : 7968
## Mean   :1.068        Mean   :0.864
## 3rd Qu.:2.000        3rd Qu.:2.000
## Max.   :2.000        Max.   :2.000
## NA's   :19242        NA's   :19606
##        works_remote              Shop_in_store
## NA             :2018   NA               : 1688
## worked remotely:8372   shopped in store:16481
## no             :9685   no               : 1906
##
##
##
```

```
## 
##                 eat_in_restaurant
## NA                        : 1769
## eat at restaurant indoors:10282
## no                        : 8024
## 
## 
## 
## 
```

```
Household_Pulse_data3 <- subset(Household_Pulse_data1, RRACE == "White")
summary(Household_Pulse_data3)
```

```
##         RHISPANIC           RRACE              EEDUC              MS
## Not Hispanic:25731   White:27958   less than hs:  69   NA       :  147
## Hispanic    : 2227   Black:    0   some hs     :  217   married  :17745
##                      Asian:    0   HS diploma  :2650   widowed  : 1525
##                      Other:    0   some coll   :5627   divorced : 3753
##                                    assoc deg   :3038   separated:  331
##                                    bach deg    :8925   never    : 4457
##                                    adv deg     :7432
## EGENID_BIRTH       GENID_DESCRIBE       SEXUAL_ORIENTATION
## male  :12209   NA         :  202   NA           :  331
## female:15749   male       :11992   gay or lesbian:  949
##                female     :15514   straight      :25397
##                transgender:   46   bisexual      :  812
##                other      :  204   something else:  240
##                                    dont know     :  229
## 
##                    KIDS_LT5Y                         KIDS_5_11Y
## NA                       :25874   NA                       :24224
## Yes children under 5 in HH: 2084   Yes children 5 - 11 in HH: 3734
## 
## 
## 
## 
## 
##                    KIDS_12_17Y                                ENROLLNONE
## NA                        :23617   NA                               :26417
## Yes children 12 - 17 in HH: 4341   children not in any type of school: 1541
## 
## 
## 
## 
## 
##              RECVDVACC                        DOSESRV
## NA                 :  107   NA                      : 3392
## yes got vaxx       :24661   yes got all doses       :23832
## no did not get vaxx: 3190   yes plan to get all doses:  640
##                             no will not get all doses:   94
## 
## 
## 
##                  GETVACRV                                KIDDOSES
```

```
## NA                    :24727   NA                                 :23650
## definitely will get vaxx:  129  Yes kids got or will get all doses: 2779
## probably will get vaxx  :  204  no kids did not or will not       : 1529
## unsure about vaxx       :  556
## probably not            :  756
## definitely not          : 1586
##
##               KIDGETVAC                        HADCOVID
## NA                    :26405   NA                      :  102
## definitely will get vaxx:  130  yes doctor told had covid: 4034
## probably will get vaxx  :  170  no did not              :23704
## unsure about vaxx       :  298  not sure                :  118
## probably not            :  277
## definitely not          :  523
## dont know yet           :  155
##             WRKLOSSRV                         ANYWORK
## NA                    :   47   NA                           :   98
## yes recent HH job loss: 2129  yes employment in last 7 days:17676
## no recent HH job loss :25782  no employment in last 7 days :10184
##
##
##
##
##            KINDWORK              RSNNOWRKRV
## NA                :10480   NA               :17969
## work for govt     : 2746   retired          : 6963
## work for private co: 9838  other            : 1262
## work for nonprofit : 2160  did not want     :  385
## self employed      : 2329  caring for kids  :  357
## work in family biz :  405  sick or disabled :  300
##                            (Other)          :  722
##                          CHLDCARE
## NA                                   :24069
## yes impacts to childcare because pandemic:  574
## no                                   : 3315
##
##
##
##
##                 CURFOODSUF
## NA                       :  618
## had enough food          :23961
## had enough but not what wanted: 2837
## sometimes not enough food     :  439
## often not enough food         :  103
##
##
##                                    CHILDFOOD
## NA                                          :26812
## often kids not eating enough because couldnt afford:   37
## sometimes kids not eating enough                   :  212
## kids got enough food                               :  897
##
##
```

```
##
##                                            ANXIOUS
##  NA                                          : 1120
##  no anxiety over past 2 wks                  :13529
##  several days anxiety over past 2 wks        : 8287
##  more than half the days anxiety over past 2 wks: 2278
##  nearly every day anxiety                    : 2744
##
##
##                                            WORRY
##  NA                                          : 1138
##  no worry over past 2 wks                    :15958
##  several days worried over past 2 wks        : 7226
##  more than half the days worried over past 2 wks: 1754
##  nearly every day worry                      : 1882
##
##
##                    TENURE
##  NA                       : 2418
##  housing owned free and clear : 7965
##  housing owned with mortgage  :13043
##  housing rented               : 4335
##  housing occupied without rent:  197
##
##
##                            LIVQTRRV                RENTCUR
##  live in detached 1 family        :19437   NA              :23635
##  NA                               : 2501   current on rent: 4118
##  live in bldg w 5+ apts           : 2447   behind on rent :  205
##  live in 1 family attached to others: 1814
##  live in mobile home              :  610
##  live in building with 3-4 apts   :  604
##  (Other)                          :  545
##           MORTCUR                                      EVICT
##  NA                :14948   NA                                      :27760
##  current on mortgage:12612   very likely evicted in next 2 months      :   22
##  behind on mortgage :  398   somewhat likely evicted in next 2 months  :   42
##                              not very likely evicted in next 2 months  :   56
##                              not at all likely evicted in next 2 months:   78
##
##
##                              FORCLOSE                EST_ST
##  NA                                      :27571   California  : 1639
##  very likely forclosed in next 2 months      :   11   Texas       : 1549
##  somewhat likely forclosed in next 2 months:   42   Florida     : 1131
##  not very likely forclosed in next 2 months:  125   Utah        :  991
##  not at all forclosed in next 2 months     :  209   Washington  :  945
##                                                   Massachusetts:  823
##                                                   (Other)     :20880
##              PRIVHLTH                 PUBHLTH              REGION
##  has private health ins:21814   has public health ins: 9636   Northeast:4283
##  no private health ins : 3889   no public health ins :15300   South     :8718
##  NA                    : 2255   NA                   : 3022   Midwest   :6379
##                                                              West      :8578
```

```
##
##
##
##                      INCOME       TBIRTH_YEAR   Num_kids_Pub_School
##   HH income $100k - 149:5195   Min.   :1933   Min.   :0.000
##   HH income $50k - 74.9:4068   1st Qu.:1954   1st Qu.:1.000
##   NA                   :3976   Median :1966   Median :2.000
##   HH income $75 - 99.9 :3806   Mean   :1967   Mean   :1.728
##   HH income $200k +    :3253   3rd Qu.:1980   3rd Qu.:2.000
##   HH income $150 - 199 :2598   Max.   :2003   Max.   :4.000
##   (Other)              :5062                  NA's   :22658
##   Num_kids_Priv_School Num_kids_homeschool       Works_onsite
##   Min.   :0.000        Min.   :0.000        NA            :  444
##   1st Qu.:1.000        1st Qu.:0.000        worked onsite:16930
##   Median :1.000        Median :1.000        no           :10584
##   Mean   :1.081        Mean   :0.846
##   3rd Qu.:2.000        3rd Qu.:2.000
##   Max.   :2.000        Max.   :2.000
##   NA's   :26893        NA's   :27400
##            works_remote           Shop_in_store
##   NA              :  903   NA               :  204
##   worked remotely:10404   shopped in store:26068
##   no             :16651   no               : 1686
##
##
##
##
##                  eat_in_restaurant
##   NA                    :    0
##   eat at restaurant indoors:27958
##   no                    :    0
##
##
##
##
```

vaccination status and covid status of workers working onsite and remotely.

```
restrict1 <- (Household_Pulse_data$Works_onsite == "worked onsite") & (Household_Pulse_data$RECVDVACC ==
restrict2 <- (Household_Pulse_data$Works_remote == "worked remotely") & (Household_Pulse_data$RECVDVACC
data_Works_onsite <- subset(Household_Pulse_data,restrict2)
data_Works_remote <- subset(Household_Pulse_data, restrict1)
```

Summary of vaccination status and covid status of workers working onsite and remotely.

```
summary(data_Works_onsite$RECVDVACC)
```

```
##                NA       yes got vaxx no did not get vaxx
##                 0                  0                   0
```

```
summary(data_Works_remote$RECVDVACC)
```

```
##                NA       yes got vaxx no did not get vaxx
##               176              57016                7439
```

```
summary(data_Works_onsite$HADCOVID)
```

```
##                      NA yes doctor told had covid          no did not
##                       0                         0                   0
##                not sure
##                       0
```

```
summary(data_Works_remote$HADCOVID)
```

```
##                      NA yes doctor told had covid          no did not
##                      77                      6226               58221
##                not sure
##                     107
```