Trabajo_Econometría_Final

```r
#a)

library(readxl)

datos_gastos <- load("EPFgastos_2023.RData")
head(datos_gastos)
```

```
## [1] "Microdatos" "Metadatos"
```

```r
# Leer de Metadatos
head(Metadatos)
```

```
##    Variable Diccionario.de.la.variable Longitud Tipo FormatoR
## 1    ANOENC                      <NA>        4    N       I4
## 2    NUMERO                      <NA>        5    N       I5
## 3    CODIGO                   ECOICOP        5    A       A5
## 4     GASTO                      <NA>       15    N    F15.2
## 5 PORCENDES                      <NA>        5    N     F5.2
## 6 PORCENIMP                      <NA>        5    N     F5.2
```

```r
str(Metadatos)
```

```
## 'data.frame':    14 obs. of  5 variables:
##  $ Variable                  : chr  "ANOENC" "NUMERO" "CODIGO" "GASTO"
...
##  $ Diccionario.de.la.variable: chr  NA NA "ECOICOP" NA ...
##  $ Longitud                  : num  4 5 5 15 5 5 12 15 13 13 ...
##  $ Tipo                      : chr  "N" "N" "A" "N" ...
##  $ FormatoR                  : chr  "I4" "I5" "A5" "F15.2" ...
```

```r
summary(Metadatos)
```

```
##    Variable         Diccionario.de.la.variable    Longitud
##  Length:14          Length:14                  Min.   : 4.00
##  Class :character   Class :character           1st Qu.: 5.00
##  Mode  :character   Mode  :character           Median :12.50
##                                                Mean   :10.14
##                                                3rd Qu.:13.00
##                                                Max.   :15.00
##      Tipo             FormatoR
##  Length:14          Length:14
##  Class :character   Class :character
##  Mode  :character   Mode  :character
##
##
##
```

```r
# Leer de Microdatos
head(Microdatos)
```

```
##   ANOENC NUMERO CODIGO     GASTO PORCENDES PORCENIMP  CANTIDAD
GASTOMON
## 1   2023      1  01113 153665.77         0         0  45995.20
153665.77
## 2   2023      1  01114 125441.44         0         0  12544.14
125441.44
## 3   2023      1  01124  78400.90         0         0  12544.14
78400.90
## 4   2023      1  01126  26969.91         0         0   6272.07
26969.91
## 5   2023      1  01128 135476.76         0         0  10453.45
135476.76
## 6   2023      1  01142 168091.54         0         0 188162.17
168091.54
##   GASTNOM1 GASTNOM2 GASTNOM3 GASTNOM4 GASTNOM5   FACTOR
## 1       NA       NA       NA       NA       NA 400.9541
## 2       NA       NA       NA       NA       NA 400.9541
## 3       NA       NA       NA       NA       NA 400.9541
## 4       NA       NA       NA       NA       NA 400.9541
## 5       NA       NA       NA       NA       NA 400.9541
## 6       NA       NA       NA       NA       NA 400.9541
```

```
str(Microdatos)
```

```
## 'data.frame':    1466620 obs. of  14 variables:
##  $ ANOENC   : int  2023 2023 2023 2023 2023 2023 2023 2023 2023 2023
...
##  $ NUMERO   : int  1 1 1 1 1 1 1 1 1 1 ...
##  $ CODIGO   : chr  "01113" "01114" "01124" "01126" ...
##  $ GASTO    : num  153666 125441 78401 26970 135477 ...
##  $ PORCENDES: num  0 0 0 0 0 0 0 0 0 0 ...
##  $ PORCENIMP: num  0 0 0 0 0 0 0 0 0 0 ...
##  $ CANTIDAD : num  45995 12544 12544 6272 10453 ...
##  $ GASTOMON : num  153666 125441 78401 26970 135477 ...
##  $ GASTNOM1 : num  NA NA NA NA NA NA NA NA NA NA ...
##  $ GASTNOM2 : num  NA NA NA NA NA NA NA NA NA NA ...
##  $ GASTNOM3 : num  NA NA NA NA NA NA NA NA NA NA ...
##  $ GASTNOM4 : num  NA NA NA NA NA NA NA NA NA NA ...
##  $ GASTNOM5 : num  NA NA NA NA NA NA NA NA NA NA ...
##  $ FACTOR   : num  401 401 401 401 401 ...
```

```
summary(Microdatos)
```

```
##      ANOENC         NUMERO         CODIGO              GASTO
##  Min.   :2023   Min.   :    1   Length:1466620     Min.   :        0
##  1st Qu.:2023   1st Qu.: 5224   Class :character   1st Qu.:     5049
##  Median :2023   Median :10396   Mode  :character   Median :    60789
##  Mean   :2023   Mean   :10354                      Mean   :   429434
##  3rd Qu.:2023   3rd Qu.:15478                      3rd Qu.:   258251
##  Max.   :2023   Max.   :20707                      Max.   :281924061
##
```

```
##    PORCENDES        PORCENIMP         CANTIDAD            GASTOMON
##  Min.   :  0.00   Min.   :  0.00   Min.   :        3   Min.   :
0
##  1st Qu.:  0.00   1st Qu.:  0.00   1st Qu.:     6975   1st Qu.:
3990
##  Median :  0.00   Median :  0.00   Median :    25794   Median :
54925
##  Mean   : 35.02   Mean   : 18.03   Mean   :   246844   Mean   :
338673
##  3rd Qu.:100.00   3rd Qu.:  0.03   3rd Qu.:    89383   3rd Qu.:
236014
##  Max.   :100.00   Max.   :100.00   Max.   :154039892   Max.
:281924061
##                                    NA's   :868803
##     GASTNOM1            GASTNOM2           GASTNOM3           GASTNOM4
##  Min.   :        0   Min.   :       5   Min.   :      14   Min.   :
109007
##  1st Qu.:    93194   1st Qu.:   18915   1st Qu.:   22404   1st Qu.:
2454095
##  Median :   222209   Median :   82291   Median :  247074   Median :
4174416
##  Mean   :   850514   Mean   :  526706   Mean   : 1257816   Mean   :
6277646
##  3rd Qu.:   530339   3rd Qu.:  228444   3rd Qu.: 1129303   3rd Qu.:
7755687
##  Max.   :181898820   Max.   :68280456   Max.   :50008463   Max.
:204459598
##  NA's   :1464131     NA's   :1465809    NA's   :1464953    NA's
:1446155
##     GASTNOM5           FACTOR
##  Min.   : NA       Min.   :  28.0
##  1st Qu.: NA       1st Qu.: 430.0
##  Median : NA       Median : 716.9
##  Mean   :NaN       Mean   : 937.2
##  3rd Qu.: NA       3rd Qu.:1229.4
##  Max.   : NA       Max.   :8716.5
##  NA's   :1466620
```

```
# Gran parte de los Gastonom son nulos
sum(!is.na(Microdatos$GASTNOM1))
```

```
## [1] 2489
```

```
sum(!is.na(Microdatos$GASTNOM2))
```

```
## [1] 811
```

```
sum(!is.na(Microdatos$GASTNOM3))
```

```
## [1] 1667
```

```
sum(!is.na(Microdatos$GASTNOM4))
```

```
## [1] 20465
```

```
sum(!is.na(Microdatos$GASTNOM5))
```

```
## [1] 0
```

```
#b)
```

```
head(Microdatos$CODIGO)
```

```
## [1] "01113" "01114" "01124" "01126" "01128" "01142"
```

```
Microdatos$CODIGO2 <- substr(Microdatos$CODIGO, 1, 2)
```

```
head(Microdatos$CODIGO2)
```

```
## [1] "01" "01" "01" "01" "01" "01"
```

```
#c)
```

```
library(dplyr)
```

```
## Adjuntando el paquete: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
EPF_G12_2023 <- Microdatos %>%
  select(NUMERO, CODIGO2, GASTO, GASTOMON, FACTOR) %>%
  group_by(NUMERO, CODIGO2) %>%
  summarize(GTOTAL = sum(GASTO / FACTOR, na.rm = TRUE),GMONTOTAL =
sum(GASTOMON / FACTOR, na.rm = TRUE)
  )
```

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

```
head(EPF_G12_2023)
```

```
## # A tibble: 6 × 4
## # Groups:   NUMERO [1]
##   NUMERO CODIGO2 GTOTAL GMONTOTAL
##    <int> <chr>    <dbl>     <dbl>
## 1      1 01       4411.     4411.
## 2      1 03        365.      365.
## 3      1 04      11753.     2335.
```

```
## 4      1 05        638.      638.
## 5      1 06        433.      433.
## 6      1 08        552.      552.
```

```
#d)

library(tidyr)

EPF_G12T_2023_mejorado <- EPF_G12_2023 %>%
  pivot_wider(
    names_from = CODIGO2,
    values_from = c(GTOTAL, GMONTOTAL),
    names_glue = "{CODIGO2}_{.value}"
  )

head(EPF_G12T_2023_mejorado)
```

```
## # A tibble: 6 × 25
## # Groups:   NUMERO [6]
##   NUMERO `01_GTOTAL` `03_GTOTAL` `04_GTOTAL` `05_GTOTAL` `06_GTOTAL`
`08_GTOTAL`
##    <int>       <dbl>       <dbl>       <dbl>       <dbl>       <dbl>
<dbl>
## 1      1       4411.        365.      11753.        638.      433.
552.
## 2      2       4114.        608.       6949.        106.      679.
515.
## 3      3       3549.       1217.       9969.        206.       NA
540.
## 4      4       3648.        612.       7767.       6703.        8.70
720.
## 5      5      17998.       4152.      12830.       1222.     5625.
3120.
## 6      6      30598.       8365.       6670.       2493.     1294.
827.
## # ℹ 18 more variables: `09_GTOTAL` <dbl>, `11_GTOTAL` <dbl>,
`12_GTOTAL` <dbl>,
##   `02_GTOTAL` <dbl>, `07_GTOTAL` <dbl>, `10_GTOTAL` <dbl>,
##   `01_GMONTOTAL` <dbl>, `03_GMONTOTAL` <dbl>, `04_GMONTOTAL` <dbl>,
##   `05_GMONTOTAL` <dbl>, `06_GMONTOTAL` <dbl>, `08_GMONTOTAL` <dbl>,
##   `09_GMONTOTAL` <dbl>, `11_GMONTOTAL` <dbl>, `12_GMONTOTAL` <dbl>,
##   `02_GMONTOTAL` <dbl>, `07_GMONTOTAL` <dbl>, `10_GMONTOTAL` <dbl>
```

```
#Al fichero que sale de este apartado, en teoria julian
#segun el archivo quire que le llamemos  EPF_G12T_2023
#añadimos una T al anterior

#e)

EPF_G12T_2023_mejorado_nax0 <- EPF_G12T_2023_mejorado %>%
```

```
  mutate(across(where(is.numeric), ~replace_na(., 0)))

EPF_G12T_2023_mejorado_nax0
```

```
## # A tibble: 20,707 × 25
## # Groups:   NUMERO [20,707]
##    NUMERO `01_GTOTAL` `03_GTOTAL` `04_GTOTAL` `05_GTOTAL` `06_GTOTAL`
##     <int>       <dbl>       <dbl>       <dbl>       <dbl>       <dbl>
##  1      1       4411.        365.      11753.        638.       433.
##  2      2       4114.        608.       6949.        106.       679.
##  3      3       3549.       1217.       9969.        206.         0
##  4      4       3648.        612.       7767.       6703.         8.70
##  5      5      17998.       4152.      12830.       1222.      5625.
##  6      6      30598.       8365.       6670.       2493.      1294.
##  7      7       4059.          0       13419.        127.         0
##  8      8      10518.        837.       6562.       1326.         0
##  9      9       6606.        866.       6978.       1744.        39.9
## 10     10        820.        292.       6774.        724.      1314.
## # ℹ 20,697 more rows
## # ℹ 19 more variables: `08_GTOTAL` <dbl>, `09_GTOTAL` <dbl>,
`11_GTOTAL` <dbl>,
## #   `12_GTOTAL` <dbl>, `02_GTOTAL` <dbl>, `07_GTOTAL` <dbl>,
`10_GTOTAL` <dbl>,
## #   `01_GMONTOTAL` <dbl>, `03_GMONTOTAL` <dbl>, `04_GMONTOTAL` <dbl>,
## #   `05_GMONTOTAL` <dbl>, `06_GMONTOTAL` <dbl>, `08_GMONTOTAL` <dbl>,
## #   `09_GMONTOTAL` <dbl>, `11_GMONTOTAL` <dbl>, `12_GMONTOTAL` <dbl>,
## #   `02_GMONTOTAL` <dbl>, `07_GMONTOTAL` <dbl>, `10_GMONTOTAL` <dbl>
```

```
#f)

# Calcular GTOTAL y GMONTOTAL desde Microdatos
totales <- Microdatos %>%
  group_by(NUMERO) %>%
  summarize(
    GTOTAL = sum(c_across(starts_with("GASTO")) / FACTOR, na.rm = TRUE),
    GMONTOTAL = sum(c_across(starts_with("GASTOMON")) / FACTOR, na.rm =
TRUE),
    .groups = "drop"
  )

# Unir los totales con el archivo EPF_G12T_2023_mejorado_nax0


EPF_G12T_2023 <- EPF_G12T_2023_mejorado_nax0 %>%
  left_join(totales, by = "NUMERO")  # Unir por el identificador del
hogar (NUMERO)

EPF_G12T_2023
```

```
## # A tibble: 20,707 × 27
## # Groups:   NUMERO [20,707]
##    NUMERO `01_GTOTAL` `03_GTOTAL` `04_GTOTAL` `05_GTOTAL` `06_GTOTAL`
##     <int>       <dbl>       <dbl>       <dbl>       <dbl>       <dbl>
##  1      1       4411.        365.      11753.        638.       433.
##  2      2       4114.        608.       6949.        106.       679.
##  3      3       3549.       1217.       9969.        206.         0
##  4      4       3648.        612.       7767.       6703.         8.70
##  5      5      17998.       4152.      12830.       1222.      5625.
##  6      6      30598.       8365.       6670.       2493.      1294.
##  7      7       4059.          0       13419.        127.         0
##  8      8      10518.        837.       6562.       1326.         0
##  9      9       6606.        866.       6978.       1744.        39.9
## 10     10        820.        292.       6774.        724.      1314.
## # ℹ 20,697 more rows
## # ℹ 21 more variables: `08_GTOTAL` <dbl>, `09_GTOTAL` <dbl>,
`11_GTOTAL` <dbl>,
## #   `12_GTOTAL` <dbl>, `02_GTOTAL` <dbl>, `07_GTOTAL` <dbl>,
`10_GTOTAL` <dbl>,
## #   `01_GMONTOTAL` <dbl>, `03_GMONTOTAL` <dbl>, `04_GMONTOTAL` <dbl>,
## #   `05_GMONTOTAL` <dbl>, `06_GMONTOTAL` <dbl>, `08_GMONTOTAL` <dbl>,
## #   `09_GMONTOTAL` <dbl>, `11_GMONTOTAL` <dbl>, `12_GMONTOTAL` <dbl>,
## #   `02_GMONTOTAL` <dbl>, `07_GMONTOTAL` <dbl>, `10_GMONTOTAL` <dbl>,
…


#g)

# Calcular la media por hogar del gasto total (GTOTAL)
media_gasto_total <- mean(EPF_G12T_2023$GTOTAL, na.rm = TRUE)

# Calcular la media por hogar para cada categoría de gasto
# Seleccionar las columnas relevantes basadas en el formato "XX_GTOTAL"


medias_por_codigo <- EPF_G12T_2023 %>%
  ungroup() %>%  # Eliminar cualquier agrupación previa
  select(matches("^\\d{2}_GTOTAL$")) %>%  # Seleccionar columnas con
formato "XX_GTOTAL"
  summarize(across(everything(), ~ mean(.x, na.rm = TRUE)))  # Calcular
medias

# Calcular el total acumulado de todas las medias
total_gasto_medias <- sum(medias_por_codigo, na.rm = TRUE)

# Calcular la distribución porcentual del gasto medio por categoría
# Dividir cada media de categoría por el total acumulado de todas las
categorías
distribucion_porcentual <- medias_por_codigo %>%
  mutate(across(everything(), ~ . / total_gasto_medias * 100))  #
```

```r
Convertir a porcentaje correctamente

# Mostrar resultados
print("Media del gasto total por hogar (GTOTAL):")

## [1] "Media del gasto total por hogar (GTOTAL):"

print(media_gasto_total)

## [1] 59545

print("Medias por categoría de gasto:")

## [1] "Medias por categoría de gasto:"

print(medias_por_codigo)

## # A tibble: 1 × 12
##   `01_GTOTAL` `03_GTOTAL` `04_GTOTAL` `05_GTOTAL` `06_GTOTAL`
`08_GTOTAL`
##         <dbl>       <dbl>       <dbl>       <dbl>       <dbl>
<dbl>
## 1       5549.       1391.      10323.       1366.       1307.
903.
## # ℹ 6 more variables: `09_GTOTAL` <dbl>, `11_GTOTAL` <dbl>,
`12_GTOTAL` <dbl>,
## #   `02_GTOTAL` <dbl>, `07_GTOTAL` <dbl>, `10_GTOTAL` <dbl>

print("Distribución porcentual del gasto medio por categoría:")

## [1] "Distribución porcentual del gasto medio por categoría:"

print(distribucion_porcentual)

## # A tibble: 1 × 12
##   `01_GTOTAL` `03_GTOTAL` `04_GTOTAL` `05_GTOTAL` `06_GTOTAL`
`08_GTOTAL`
##         <dbl>       <dbl>       <dbl>       <dbl>       <dbl>
<dbl>
## 1        16.6        4.17        31.0        4.10        3.92
2.71
## # ℹ 6 more variables: `09_GTOTAL` <dbl>, `11_GTOTAL` <dbl>,
`12_GTOTAL` <dbl>,
## #   `02_GTOTAL` <dbl>, `07_GTOTAL` <dbl>, `10_GTOTAL` <dbl>

#h)

# Cargar el archivo .RData
load("EPFhogar_2023.RData")

# Renombrar el data.frame al nombre solicitado
EPF_HOGAR_2023 <- Microdatos  # Cambiar el nombre del data.frame cargado
```

```r
# Comprobar el contenido del data.frame
print("Contenido de EPF_HOGAR_2023:")
```

```
## [1] "Contenido de EPF_HOGAR_2023:"
```

```r
str(EPF_HOGAR_2023)  # Ver la estructura del data.frame
```

```
## 'data.frame':    20707 obs. of  188 variables:
##  $ ANOENC       : int  2023 2023 2023 2023 2023 2023 2023 2023 2023
2023 ...
##  $ NUMERO       : int  1 2 3 4 5 6 7 8 9 10 ...
##  $ CCAA         : chr  "16" "09" "01" "02" ...
##  $ NUTS1        : chr  "2" "5" "6" "2" ...
##  $ CAPROV       : chr  "6" "6" "6" "6" ...
##  $ TAMAMU       : chr  "5" "5" "2" "5" ...
##  $ DENSIDAD     : chr  "2" "2" "2" "3" ...
##  $ CLAVE        : chr  "1" "1" "2" "1" ...
##  $ CLATEO       : chr  "2" "1" "2" "1" ...
##  $ FACTOR       : num  401 1576 962 621 261 ...
##  $ NMIEMB       : int  1 3 1 2 4 1 1 2 2 5 ...
##  $ TAMANO       : chr  "1" "3" "1" "2" ...
##  $ NMIEMSD      : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ NMIEMHU      : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ NMIEMIN      : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ NMIEM1       : int  1 1 1 2 4 1 1 2 2 4 ...
##  $ NMIEM2       : int  0 2 0 0 0 0 0 0 0 1 ...
##  $ NMIEM3       : int  0 2 0 0 0 0 0 0 0 1 ...
##  $ NMIEM4       : int  1 1 1 2 4 1 1 2 2 4 ...
##  $ NMIEM5       : int  0 2 0 0 0 0 0 0 0 1 ...
##  $ NMIEM6       : int  1 1 1 2 4 1 1 2 2 4 ...
##  $ NMIEM7       : int  0 0 0 0 0 0 0 0 0 1 ...
##  $ NMIEM8       : int  0 2 0 0 0 0 0 0 0 0 ...
##  $ NMIEM9       : int  0 0 0 0 2 0 0 0 0 0 ...
##  $ NMIEM10      : int  0 0 0 0 0 0 0 0 0 1 ...
##  $ NMIEM11      : int  1 1 1 0 2 0 0 0 2 1 ...
##  $ NMIEM12      : int  0 0 0 2 0 1 1 2 0 1 ...
##  $ NMIEM13      : int  0 0 0 0 0 0 0 0 0 1 ...
##  $ NUMACTI      : int  1 1 1 0 2 0 0 0 2 1 ...
##  $ NUMINACTI    : int  0 2 0 2 2 1 1 2 0 4 ...
##  $ NUMOCU       : int  1 1 1 0 2 0 0 0 2 1 ...
##  $ NUMNOCU      : int  0 2 0 2 2 1 1 2 0 4 ...
##  $ NUMESTU      : int  0 0 0 0 2 0 0 0 0 0 ...
##  $ NUMNOESTU    : int  1 3 1 2 2 1 1 2 2 5 ...
##  $ NNINOSD      : int  0 2 0 0 2 0 0 0 0 1 ...
##  $ NHIJOSD      : int  0 2 0 0 2 0 0 0 0 1 ...
##  $ UC1          : num  1 2 1 1.7 3.1 1 1 1.7 1.7 3.6 ...
##  $ UC2          : num  1 1.6 1 1.5 2.5 1 1 1.5 1.5 2.8 ...
##  $ PF2TEO       : int  0 0 0 1 3 0 0 1 1 3 ...
##  $ PF2RECO      : int  0 0 0 0 3 0 0 1 1 2 ...
##  $ TIPHOGAR1    : chr  " 2" " 4" " 2" " 5" ...
```

```
##  $ TIPHOGAR2    : chr  " 2" " 4" " 2" " 5" ...
##  $ TIPHOGAR3    : chr  " 2" " 9" " 2" " 4" ...
##  $ TIPHOGAR4    : chr  " 3" " 8" " 1" " 5" ...
##  $ TIPHOGAR5    : chr  " 3" " 8" " 1" " 5" ...
##  $ TIPHOGAR6    : chr  " 1" " 2" " 1" " 5" ...
##  $ TIPHOGAR7    : chr  " 1" " 7" " 1" " 3" ...
##  $ TIPHOGAR8    : chr  " 2" " 3" " 2" " 1" ...
##  $ TIPHOGAR9    : chr  " 1" " 4" " 1" " 2" ...
##  $ TIPHOGAR10   : chr  " 1" " 2" " 1" " 3" ...
##  $ TIPHOGAR11   : chr  " 1" " 2" " 1" " 3" ...
##  $ SITUOCUHOG   : chr  "-9" "-9" "-9" " 8" ...
##  $ SITUACTHOG   : chr  "-9" "-9" "-9" " 8" ...
##  $ NORDENSP     : int  1 1 1 1 1 1 1 1 1 1 ...
##  $ EDADSP       : int  50 41 64 70 60 69 79 76 40 68 ...
##  $ SEXOSP       : chr  " 6" " 6" " 1" " 1" ...
##  $ PAISNACSP    : chr  " 1" " 1" " 1" " 1" ...
##  $ NACIONASP    : chr  " 1" " 1" " 1" " 1" ...
##  $ PAISSP       : chr  "  " "  " "  " "  " ...
##  $ SITURESSP    : chr  " 1" " 1" " 1" " 1" ...
##  $ ECIVILLEGALSP: chr  " 1" " 5" " 4" " 2" ...
##  $ NORDENCOSP   : int  99 99 99 2 2 99 99 2 2 2 ...
##  $ UNIONSP      : chr  "  " "  " "  " "  " ...
##  $ CONVIVENCIASP: chr  " 3" " 3" " 3" " 1" ...
##  $ NORDENPASP   : int  99 99 99 99 99 99 99 99 99 99 ...
##  $ PAISPADRESP  : chr  " 1" " 1" " 1" " 1" ...
##  $ NORDENMASP   : int  99 99 99 99 99 99 99 99 99 99 ...
##  $ PAISMADRESP  : chr  " 1" " 1" " 1" " 1" ...
##  $ ESTUDIOSSP   : chr  " 3" " 7" " 4" " 3" ...
##  $ ESTUDREDSP   : chr  " 2" " 4" " 3" " 2" ...
##  $ SITUACTSP    : chr  " 1" " 1" " 2" " 4" ...
##  $ SITUREDSP    : chr  " 1" " 1" " 1" " 2" ...
##  $ OCUSP        : chr  " 1" " 1" " 1" " 2" ...
##  $ JORNADASP    : chr  " 1" " 2" " 1" "  " ...
##  $ PERCEPSP     : chr  " 1" " 1" " 1" " 1" ...
##  $ IMPEXACPSP   : int  -9 -9 850 -9 2570 1400 958 -9 -9 -9 ...
##  $ INTERINPSP   : chr  "03" "02" "02" "05" ...
##  $ TRABAJO      : chr  " 1" " 1" " 1" " 1" ...
##  $ OCUPA        : chr  " 4" " 4" " 4" " 3" ...
##  $ OCUPARED     : chr  " 3" " 3" " 3" " 2" ...
##  $ ACTESTB      : chr  " C" " R" " G" " D" ...
##  $ ACTESTBRED   : chr  " 2" " 3" " 3" " 2" ...
##  $ SITPROF      : chr  " 1" " 1" " 1" " 1" ...
##  $ SECTOR       : chr  " 6" " 1" " 6" " 6" ...
##  $ CONTRATO     : chr  " 1" " 1" " 1" " 1" ...
##  $ TIPOCONT     : chr  " 1" " 1" " 1" " 1" ...
##  $ SITSOCI      : chr  " 2" " 4" " 2" " 8" ...
##  $ SITSOCIRE    : chr  " 2" " 2" " 2" " 5" ...
##  $ REGTEN       : chr  "1" "2" "1" "1" ...
##  $ TIPOEDIF     : chr  " 4" " 2" " 2" " 2" ...
##  $ ZONARES      : chr  " 3" " 7" " 3" " 7" ...
```

```
##  $ TIPOCASA     : chr  " 2" " 2" " 2" " 2" ...
##  $ NHABIT       : int  4 5 5 5 5 5 6 6 5 7 ...
##  $ ANNOCON      : chr  " 1" " 1" " 6" " 6" ...
##  $ SUPERF       : int  85 90 85 87 87 100 128 95 90 120 ...
##  $ AGUACALI     : chr  " 1" " 1" " 1" " 1" ...
##  $ FUENAGUA     : chr  " 3" " 2" " 3" " 1" ...
##  $ CALEF        : chr  " 1" " 1" " 6" " 1" ...
##  $ FUENCALE     : chr  " 3" " 2" "  " " 1" ...
##   [list output truncated]
```

```
summary(EPF_HOGAR_2023)  # Resumen de las variables
```

```
##      ANOENC         NUMERO          CCAA              NUTS1
##  Min.   :2023   Min.   :    1   Length:20707       Length:20707
##  1st Qu.:2023   1st Qu.: 5178   Class :character   Class :character
##  Median :2023   Median :10354   Mode  :character   Mode  :character
##  Mean   :2023   Mean   :10354
##  3rd Qu.:2023   3rd Qu.:15530
##  Max.   :2023   Max.   :20707
##
##     CAPROV             TAMAMU            DENSIDAD           CLAVE
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##     CLATEO              FACTOR           NMIEMB          TAMANO
##  Length:20707       Min.   :  28.0   Min.   : 1.000   Length:20707
##  Class :character   1st Qu.: 419.9   1st Qu.: 2.000   Class :character
##  Mode  :character   Median : 699.5   Median : 2.000   Mode  :character
##                     Mean   : 932.5   Mean   : 2.505
##                     3rd Qu.:1226.8   3rd Qu.: 3.000
##                     Max.   :8716.5   Max.   :11.000
##
##     NMIEMSD             NMIEMHU            NMIEMIN              NMIEM1
##  Min.   :0.0000000   Min.   :0.00e+00   Min.   :0.0000000   Min.
:1.000
##  1st Qu.:0.0000000   1st Qu.:0.00e+00   1st Qu.:0.0000000   1st
Qu.:2.000
##  Median :0.0000000   Median :0.00e+00   Median :0.0000000   Median
:2.000
##  Mean   :0.0007244   Mean   :9.66e-05   Mean   :0.0002415   Mean
:2.178
##  3rd Qu.:0.0000000   3rd Qu.:0.00e+00   3rd Qu.:0.0000000   3rd
Qu.:3.000
##  Max.   :1.0000000   Max.   :1.00e+00   Max.   :2.0000000   Max.
```

```
:9.000
##
##      NMIEM2           NMIEM3           NMIEM4          NMIEM5
##  Min.   :0.0000   Min.   :0.0000   Min.   :1.000   Min.   :0.000
##  1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:1.000   1st Qu.:0.000
##  Median :0.0000   Median :0.0000   Median :2.000   Median :0.000
##  Mean   :0.3263   Mean   :0.3852   Mean   :2.119   Mean   :0.442
##  3rd Qu.:0.0000   3rd Qu.:1.0000   3rd Qu.:3.000   3rd Qu.:1.000
##  Max.   :8.0000   Max.   :8.0000   Max.   :9.000   Max.   :8.000
##
##      NMIEM6          NMIEM7           NMIEM8          NMIEM9
##  Min.   :1.000   Min.   :0.00000   Min.   :0.0000   Min.   :0.0000
##  1st Qu.:1.000   1st Qu.:0.00000   1st Qu.:0.0000   1st Qu.:0.0000
##  Median :2.000   Median :0.00000   Median :0.0000   Median :0.0000
##  Mean   :2.063   Mean   :0.08973   Mean   :0.2955   Mean   :0.2465
##  3rd Qu.:2.000   3rd Qu.:0.00000   3rd Qu.:0.0000   3rd Qu.:0.0000
##  Max.   :9.000   Max.   :4.00000   Max.   :6.0000   Max.   :4.0000
##
##     NMIEM10          NMIEM11         NMIEM12          NMIEM13
##  Min.   :0.0000   Min.   :0.000   Min.   :0.0000   Min.   :0.00000
##  1st Qu.:0.0000   1st Qu.:0.000   1st Qu.:0.0000   1st Qu.:0.00000
##  Median :0.0000   Median :1.000   Median :0.0000   Median :0.00000
##  Mean   :0.1996   Mean   :1.184   Mean   :0.4273   Mean   :0.06206
##  3rd Qu.:0.0000   3rd Qu.:2.000   3rd Qu.:1.0000   3rd Qu.:0.00000
##  Max.   :5.0000   Max.   :6.000   Max.   :3.0000   Max.   :2.00000
##
##     NUMACTI        NUMINACTI        NUMOCU         NUMNOCU
##  Min.   :0.000   Min.   :0.00   Min.   :0.000   Min.   :0.000
##  1st Qu.:1.000   1st Qu.:0.00   1st Qu.:0.000   1st Qu.:1.000
##  Median :1.000   Median :1.00   Median :1.000   Median :1.000
##  Mean   :1.275   Mean   :1.23   Mean   :1.084   Mean   :1.421
##  3rd Qu.:2.000   3rd Qu.:2.00   3rd Qu.:2.000   3rd Qu.:2.000
##  Max.   :7.000   Max.   :8.00   Max.   :6.000   Max.   :8.000
##
##     NUMESTU         NUMNOESTU         NNINOSD          NHIJOSD
##  Min.   :0.0000   Min.   : 0.000   Min.   :0.0000   Min.   :0.0000
##  1st Qu.:0.0000   1st Qu.: 2.000   1st Qu.:0.0000   1st Qu.:0.0000
##  Median :0.0000   Median : 2.000   Median :0.0000   Median :0.0000
##  Mean   :0.1996   Mean   : 2.305   Mean   :0.5711   Mean   :0.5635
##  3rd Qu.:0.0000   3rd Qu.: 3.000   3rd Qu.:1.0000   3rd Qu.:1.0000
##  Max.   :4.0000   Max.   :10.000   Max.   :8.0000   Max.   :8.0000
##
##       UC1              UC2             PF2TEO         PF2RECO
##  Min.   :1.000   Min.   :1.000   Min.   :0.000   Min.   :0.0000
##  1st Qu.:1.700   1st Qu.:1.500   1st Qu.:1.000   1st Qu.:0.0000
##  Median :1.700   Median :1.500   Median :1.000   Median :1.0000
##  Mean   :1.988   Mean   :1.687   Mean   :1.167   Mean   :0.9227
##  3rd Qu.:2.400   3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:1.0000
##  Max.   :7.600   Max.   :5.600   Max.   :8.000   Max.   :8.0000
##
```

```
##   TIPHOGAR1          TIPHOGAR2          TIPHOGAR3          TIPHOGAR4
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##   TIPHOGAR5          TIPHOGAR6          TIPHOGAR7          TIPHOGAR8
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##   TIPHOGAR9          TIPHOGAR10         TIPHOGAR11         SITUOCUHOG
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##   SITUACTHOG           NORDENSP         EDADSP         SEXOSP
##  Length:20707       Min.   :1.000   Min.   :18.00   Length:20707
##  Class :character   1st Qu.:1.000   1st Qu.:46.00   Class :character
##  Mode  :character   Median :1.000   Median :56.00   Mode  :character
##                     Mean   :1.172   Mean   :56.34
##                     3rd Qu.:1.000   3rd Qu.:66.00
##                     Max.   :9.000   Max.   :85.00
##
##   PAISNACSP          NACIONASP            PAISSP           SITURESSP
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##  ECIVILLEGALSP        NORDENCOSP      UNIONSP          CONVIVENCIASP
##  Length:20707       Min.   : 1.00   Length:20707       Length:20707
```

```
##  Class :character   1st Qu.: 2.00   Class :character   Class
:character
##  Mode  :character   Median : 2.00   Mode  :character   Mode
:character
##                     Mean   :37.82
##                     3rd Qu.:99.00
##                     Max.   :99.00
##
##    NORDENPASP    PAISPADRESP          NORDENMASP    PAISMADRESP
##  Min.   : 1.00   Length:20707       Min.   : 1.00   Length:20707
##  1st Qu.:99.00   Class :character   1st Qu.:99.00   Class :character
##  Median :99.00   Mode  :character   Median :99.00   Mode  :character
##  Mean   :97.97                      Mean   :95.79
##  3rd Qu.:99.00                      3rd Qu.:99.00
##  Max.   :99.00                      Max.   :99.00
##
##   ESTUDIOSSP         ESTUDREDSP         SITUACTSP          SITUREDSP
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##     OCUSP            JORNADASP           PERCEPSP           IMPEXACPSP
##  Length:20707       Length:20707       Length:20707       Min.   :   -
9.0
##  Class :character   Class :character   Class :character   1st Qu.:   -
9.0
##  Mode  :character   Mode  :character   Mode  :character   Median :   -
9.0
##                                                           Mean   :
617.6
##                                                           3rd Qu.:
1200.0
##                                                           Max.
:25000.0
##                                                           NA's   :121
##   INTERINPSP          TRABAJO             OCUPA            OCUPARED
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
```

```
##    ACTESTB           ACTESTBRED          SITPROF             SECTOR
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##    CONTRATO           TIPOCONT           SITSOCI           SITSOCIRE
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##     REGTEN            TIPOEDIF           ZONARES            TIPOCASA
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##      NHABIT          ANNOCON             SUPERF        AGUACALI
##  Min.   :-9.000   Length:20707       Min.   : -9.0   Length:20707
##  1st Qu.: 4.000   Class :character   1st Qu.: 75.0   Class :character
##  Median : 5.000   Mode  :character   Median : 90.0   Mode  :character
##  Mean   : 5.068                      Mean   :101.7
##  3rd Qu.: 6.000                      3rd Qu.:115.0
##  Max.   : 8.000                      Max.   :300.0
##
##    FUENAGUA            CALEF              FUENCALE          DISPOSIOV
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##      NUMOVD         REGTENV1            MESESV1          DIASV1
##  Min.   :1.000   Length:20707       Min.   :-9.00   Min.   :-9.000
```

```
##  1st Qu.:1.000   Class :character   1st Qu.:12.00   1st Qu.:-9.000
##  Median :1.000   Mode  :character   Median :12.00   Median :-9.000
##  Mean   :1.079                      Mean   :11.37   Mean   :-8.314
##  3rd Qu.:1.000                      3rd Qu.:12.00   3rd Qu.:-9.000
##  Max.   :3.000                      Max.   :12.00   Max.   :29.000
##  NA's   :17747                      NA's   :17747   NA's   :17747
##    AGUACV1            FUENACV1           CALEFV1            FUENCAV1
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##    REGTENV2           MESESV2          DIASV2         AGUACV2
##  Length:20707       Min.   : 1.00   Min.   :-9.000   Length:20707
##  Class :character   1st Qu.:12.00   1st Qu.:-9.000   Class :character
##  Mode  :character   Median :12.00   Median :-9.000   Mode  :character
##                     Mean   :11.07   Mean   :-8.675
##                     3rd Qu.:12.00   3rd Qu.:-9.000
##                     Max.   :12.00   Max.   :29.000
##                     NA's   :20495   NA's   :20495
##    FUENACV2           CALEFV2            FUENCAV2           REGTENV3
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##     MESESV3          DIASV3        AGUACV3            FUENACV3
##  Min.   : 6.00   Min.   :-9      Length:20707       Length:20707
##  1st Qu.:12.00   1st Qu.:-9      Class :character   Class :character
##  Median :12.00   Median :-9      Mode  :character   Mode  :character
##  Mean   :11.14   Mean   :-9
##  3rd Qu.:12.00   3rd Qu.:-9
##  Max.   :12.00   Max.   :-9
##  NA's   :20685   NA's   :20685
##    CALEFV3            FUENCAV3           REGTENV4           MESESV4
##  Length:20707       Length:20707       Length:20707       Min.   : NA
##  Class :character   Class :character   Class :character   1st Qu.: NA
##  Mode  :character   Mode  :character   Mode  :character   Median : NA
##                                                           Mean   :NaN
##                                                           3rd Qu.: NA
##                                                           Max.   : NA
##                                                           NA's
```

```
:20707
##      DIASV4        AGUACV4            FUENACV4           CALEFV4
##  Min.   : NA     Length:20707       Length:20707       Length:20707
##  1st Qu.: NA     Class :character   Class :character   Class
:character
##  Median : NA     Mode  :character   Mode  :character   Mode
:character
##  Mean   :NaN
##  3rd Qu.: NA
##  Max.   : NA
##  NA's   :20707
##    FUENCAV4           REGTENV5           MESESV5          DIASV5
##  Length:20707       Length:20707       Min.   : NA     Min.   : NA
##  Class :character   Class :character   1st Qu.: NA     1st Qu.: NA
##  Mode  :character   Mode  :character   Median : NA     Median : NA
##                                        Mean   :NaN     Mean   :NaN
##                                        3rd Qu.: NA     3rd Qu.: NA
##                                        Max.   : NA     Max.   : NA
##                                        NA's   :20707   NA's   :20707
##    AGUACV5            FUENACV5           CALEFV5            FUENCAV5
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##    REGTENV6           MESESV6          DIASV6        AGUACV6
##  Length:20707       Min.   : NA     Min.   : NA     Length:20707
##  Class :character   1st Qu.: NA     1st Qu.: NA     Class :character
##  Mode  :character   Median : NA     Median : NA     Mode  :character
##                     Mean   :NaN     Mean   :NaN
##                     3rd Qu.: NA     3rd Qu.: NA
##                     Max.   : NA     Max.   : NA
##                     NA's   :20707   NA's   :20707
##    FUENACV6           CALEFV6            FUENCAV6           REGTENV7
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##     MESESV7          DIASV7        AGUACV7            FUENACV7
##  Min.   : NA     Min.   : NA     Length:20707       Length:20707
##  1st Qu.: NA     1st Qu.: NA     Class :character   Class :character
```

```
##  Median : NA     Median : NA     Mode  :character   Mode  :character
##  Mean   :NaN     Mean   :NaN
##  3rd Qu.: NA     3rd Qu.: NA
##  Max.   : NA     Max.   : NA
##  NA's   :20707   NA's   :20707
##    CALEFV7            FUENCAV7           REGTENV8            MESESV8
##  Length:20707       Length:20707       Length:20707       Min.   : NA
##  Class :character   Class :character   Class :character   1st Qu.: NA
##  Mode  :character   Mode  :character   Mode  :character   Median : NA
##                                                           Mean   :NaN
##                                                           3rd Qu.: NA
##                                                           Max.   : NA
##                                                           NA's
:20707
##      DIASV8        AGUACV8            FUENACV8           CALEFV8
##  Min.   : NA     Length:20707       Length:20707       Length:20707
##  1st Qu.: NA     Class :character   Class :character   Class
:character
##  Median : NA     Mode  :character   Mode  :character   Mode
:character
##  Mean   :NaN
##  3rd Qu.: NA
##  Max.   : NA
##  NA's   :20707
##    FUENCAV8           REGTENV9            MESESV9          DIASV9
##  Length:20707       Length:20707       Min.   : NA     Min.   : NA
##  Class :character   Class :character   1st Qu.: NA     1st Qu.: NA
##  Mode  :character   Mode  :character   Median : NA     Median : NA
##                                        Mean   :NaN     Mean   :NaN
##                                        3rd Qu.: NA     3rd Qu.: NA
##                                        Max.   : NA     Max.   : NA
##                                        NA's   :20707   NA's   :20707
##    AGUACV9            FUENACV9           CALEFV9            FUENCAV9
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##      GASTOT             IMPUTGAS          GASTMON             GASTNOM1
##  Min.   :   101368   Min.   :  0.000   Min.   :    29747   Min.   :
159
##  1st Qu.: 10996051   1st Qu.:  0.000   1st Qu.:  7875952   1st Qu.:
254297
##  Median : 19963545   Median :  0.000   Median : 15173710   Median :
538142
##  Mean   : 30415659   Mean   :  6.427   Mean   : 23995370   Mean   :
```

```
1752426
##  3rd Qu.: 37866865   3rd Qu.:  6.575   3rd Qu.: 29671618   3rd Qu.:
1155031
##  Max.   :498329830   Max.   :100.000   Max.   :429270343   Max.
:181898820
##                                        NA's   :7           NA's
:19499
##     GASTNOM2           GASTNOM3           GASTNOM4            CAPROP
##  Min.   :   67399   Min.   :    3005   Min.   :   126678
Length:20707
##  1st Qu.:  491238   1st Qu.:  368010   1st Qu.:  2686945   Class
:character
##  Median : 1154633   Median : 1012750   Median :  4755928   Mode
:character
##  Mean   : 3992138   Mean   : 2466800   Mean   :  7258717
##  3rd Qu.: 3264684   3rd Qu.: 2742804   3rd Qu.:  8749755
##  Max.   :68280456   Max.   :50008463   Max.   :204459598
##  NA's   :20600      NA's   :19857      NA's   :3008
##     CAJENA             PENSIO             DESEM              OTRSUB
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##     RENTAS             OTROIN             FUENPRIN          FUENPRINRED
##  Length:20707       Length:20707       Length:20707       Length:20707
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##
##     IMPEXAC         INTERIN             NUMPERI          COMIMH
##  Min.   :    0   Length:20707       Min.   :-9.00   Min.   :  0.00
##  1st Qu.: 1390   Class :character   1st Qu.: 1.00   1st Qu.: 14.00
##  Median : 2244   Mode  :character   Median : 2.00   Median : 28.00
##  Mean   : 2515                      Mean   : 1.42   Mean   : 30.09
##  3rd Qu.: 3218                      3rd Qu.: 2.00   3rd Qu.: 42.00
##  Max.   :36400                      Max.   : 7.00   Max.   :154.00
##
##      COMISD             COMIHU             COMIINV           COMITOT
##  Min.   : 0.00000   Min.   : 0.00000   Min.   :  0.000   Min.   :
0.00
##  1st Qu.: 0.00000   1st Qu.: 0.00000   1st Qu.:  0.000   1st Qu.:
```

```
18.00
##  Median : 0.00000   Median : 0.00000   Median :  0.000   Median :
28.00
##  Mean   : 0.02931   Mean   : 0.04124   Mean   :  1.227   Mean   :
31.39
##  3rd Qu.: 0.00000   3rd Qu.: 0.00000   3rd Qu.:  0.000   3rd Qu.:
42.00
##  Max.   :14.00000   Max.   :56.00000   Max.   :140.000   Max.
:154.00
##
```

```
#i)

# Cargar el fichero EPFmhogar_2023.RData
load("EPFmhogar_2023.RData")

# Filtrar el subfichero Microdatos para obtener solo las observaciones
donde SUSPRIN == 1
EPF_MHOGAR_2023 <- Microdatos %>%
  mutate(SUSPRIN = as.numeric(SUSPRIN)) %>%  # Asegurar que SUSPRIN sea
numérica
  filter(SUSPRIN == 1) %>%  # Filtrar por SUSPRIN == 1
  select(NUMERO, everything())  # Seleccionar todas las variables
relevantes

# Comprobar el resultado
print("Resumen del nuevo data frame EPF_MHOGAR_2023:")

## [1] "Resumen del nuevo data frame EPF_MHOGAR_2023:"

print(dim(EPF_MHOGAR_2023))  # Número de observaciones y variables

## [1] 20707    33

print(str(EPF_MHOGAR_2023))  # Estructura del nuevo data frame

## 'data.frame':    20707 obs. of  33 variables:
##  $ NUMERO     : int  1 2 3 4 5 6 7 8 9 10 ...
##  $ ANOENC     : int  2023 2023 2023 2023 2023 2023 2023 2023 2023 2023
...
##  $ NORDEN     : int  1 1 1 1 1 1 1 1 1 1 ...
##  $ CATEGMH    : chr  " 1" " 1" " 1" " 1" ...
##  $ SUSPRIN    : num  1 1 1 1 1 1 1 1 1 1 ...
##  $ RELASP     : chr  " 1" " 1" " 1" " 1" ...
##  $ EDAD       : int  50 41 64 70 60 69 79 76 40 68 ...
##  $ SEXO       : chr  " 6" " 6" " 1" " 1" ...
##  $ PAISNACIM  : chr  " 1" " 1" " 1" " 1" ...
##  $ NACIONA    : chr  " 1" " 1" " 1" " 1" ...
##  $ PAISNACION : chr  "  " "  " "  " "  " ...
##  $ SITURES    : chr  " 1" " 1" " 1" " 1" ...
##  $ ECIVILLEGAL: chr  " 1" " 5" " 4" " 2" ...
```

```
##  $ NORDENCO   : chr  "99" "99" "99" "02" ...
##  $ UNION      : chr  "  " "  " "  " " 1" ...
##  $ CONVIVENCIA: chr  " 3" " 3" " 3" " 1" ...
##  $ NORDENPA   : chr  "99" "99" "99" "99" ...
##  $ PAISPADRE  : chr  " 1" " 1" " 1" " 1" ...
##  $ NORDENMA   : chr  "99" "99" "99" "99" ...
##  $ PAISMADRE  : chr  " 1" " 1" " 1" " 1" ...
##  $ ESTUDIOS   : chr  " 3" " 7" " 4" " 3" ...
##  $ ESTUDRED   : chr  " 2" " 4" " 3" " 2" ...
##  $ SITUACT    : chr  " 1" " 1" " 2" " 4" ...
##  $ SITURED    : chr  " 1" " 1" " 1" " 2" ...
##  $ OCU        : chr  " 1" " 1" " 1" " 2" ...
##  $ JORNADA    : chr  " 1" " 2" " 1" "  " ...
##  $ PERCEP     : chr  " 1" " 1" " 1" " 1" ...
##  $ IMPEXACP   : int  -9 -9 850 -9 2570 1400 958 -9 -9 -9 ...
##  $ INTERINP   : chr  "03" "02" "02" "05" ...
##  $ NINODEP    : chr  " 6" " 6" " 6" " 6" ...
##  $ HIJODEP    : chr  " 6" " 6" " 6" " 6" ...
##  $ ADULTO     : chr  " 1" " 1" " 1" " 1" ...
##  $ FACTOR     : num  401 1576 962 621 261 ...
## NULL
```

```r
# Verificar las primeras filas para revisar el contenido


head(EPF_MHOGAR_2023)
```

```
##   NUMERO ANOENC NORDEN CATEGMH SUSPRIN RELASP EDAD SEXO PAISNACIM
NACIONA
## 1      1   2023      1       1       1      1   50    6         1
1
## 2      2   2023      1       1       1      1   41    6         1
1
## 3      3   2023      1       1       1      1   64    1         1
1
## 4      4   2023      1       1       1      1   70    1         1
1
## 5      5   2023      1       1       1      1   60    1         1
1
## 6      6   2023      1       1       1      1   69    6         1
1
##   PAISNACION SITURES ECIVILLEGAL NORDENCO UNION CONVIVENCIA NORDENPA
PAISPADRE
## 1                  1           1       99                 3       99
1
## 2                  1           5       99                 3       99
1
## 3                  1           4       99                 3       99
1
## 4                  1           2       02     1           1       99
1
```

```
## 5                  1           2       02     1           1       99
1
## 6                  1           4       99                 3       99
1
##   NORDENMA PAISMADRE ESTUDIOS ESTUDRED SITUACT SITURED OCU JORNADA
PERCEP
## 1       99         1        3        2       1       1   1       1
1
## 2       99         1        7        4       1       1   1       2
1
## 3       99         1        4        3       2       1   1       1
1
## 4       99         1        3        2       4       2   2
1
## 5       99         1        5        4       1       1   1       1
1
## 6       99         1        2        1       7       2   2
1
##   IMPEXACP INTERINP NINODEP HIJODEP ADULTO    FACTOR
## 1       -9       03       6       6      1  400.9541
## 2       -9       02       6       6      1 1575.6164
## 3      850       02       6       6      1  962.4654
## 4       -9       05       6       6      1  621.0969
## 5     2570       06       6       6      1  260.8524
## 6     1400       03       6       6      1  886.0453
```

```
#j)

# Fusionar EPF_HOGAR_2023 y EPF_MHOGAR_2023
fusion_hogar <- EPF_HOGAR_2023 %>%
  inner_join(EPF_MHOGAR_2023, by = "NUMERO")  # Usando NUMERO como clave

# Fusionar el resultado anterior con EPF_G12T_2023
EPF_2023 <- fusion_hogar %>%
  inner_join(EPF_G12T_2023, by = "NUMERO")  # Usando NUMERO como clave

# Verificar dimensiones y estructura del nuevo data frame
print("Dimensiones del data frame EPF_2023:")
```

```
## [1] "Dimensiones del data frame EPF_2023:"
```

```
print(dim(EPF_2023))  # Debe tener 20707 filas y 246 columnas
```

```
## [1] 20707   246
```

```
print("Estructura del data frame EPF_2023:")
```

```
## [1] "Estructura del data frame EPF_2023:"
```

```
print(str(EPF_2023))
```

```
## 'data.frame':    20707 obs. of  246 variables:
##  $ ANOENC.x     : int  2023 2023 2023 2023 2023 2023 2023 2023 2023
2023 ...
##  $ NUMERO       : int  1 2 3 4 5 6 7 8 9 10 ...
##  $ CCAA         : chr  "16" "09" "01" "02" ...
##  $ NUTS1        : chr  "2" "5" "6" "2" ...
##  $ CAPROV       : chr  "6" "6" "6" "6" ...
##  $ TAMAMU       : chr  "5" "5" "2" "5" ...
##  $ DENSIDAD     : chr  "2" "2" "2" "3" ...
##  $ CLAVE        : chr  "1" "1" "2" "1" ...
##  $ CLATEO       : chr  "2" "1" "2" "1" ...
##  $ FACTOR.x     : num  401 1576 962 621 261 ...
##  $ NMIEMB       : int  1 3 1 2 4 1 1 2 2 5 ...
##  $ TAMANO       : chr  "1" "3" "1" "2" ...
##  $ NMIEMSD      : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ NMIEMHU      : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ NMIEMIN      : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ NMIEM1       : int  1 1 1 2 4 1 1 2 2 4 ...
##  $ NMIEM2       : int  0 2 0 0 0 0 0 0 0 1 ...
##  $ NMIEM3       : int  0 2 0 0 0 0 0 0 0 1 ...
##  $ NMIEM4       : int  1 1 1 2 4 1 1 2 2 4 ...
##  $ NMIEM5       : int  0 2 0 0 0 0 0 0 0 1 ...
##  $ NMIEM6       : int  1 1 1 2 4 1 1 2 2 4 ...
##  $ NMIEM7       : int  0 0 0 0 0 0 0 0 0 1 ...
##  $ NMIEM8       : int  0 2 0 0 0 0 0 0 0 0 ...
##  $ NMIEM9       : int  0 0 0 0 2 0 0 0 0 0 ...
##  $ NMIEM10      : int  0 0 0 0 0 0 0 0 0 1 ...
##  $ NMIEM11      : int  1 1 1 0 2 0 0 0 2 1 ...
##  $ NMIEM12      : int  0 0 0 2 0 1 1 2 0 1 ...
##  $ NMIEM13      : int  0 0 0 0 0 0 0 0 0 1 ...
##  $ NUMACTI      : int  1 1 1 0 2 0 0 0 2 1 ...
##  $ NUMINACTI    : int  0 2 0 2 2 1 1 2 0 4 ...
##  $ NUMOCU       : int  1 1 1 0 2 0 0 0 2 1 ...
##  $ NUMNOCU      : int  0 2 0 2 2 1 1 2 0 4 ...
##  $ NUMESTU      : int  0 0 0 0 2 0 0 0 0 0 ...
##  $ NUMNOESTU    : int  1 3 1 2 2 1 1 2 2 5 ...
##  $ NNINOSD      : int  0 2 0 0 2 0 0 0 0 1 ...
##  $ NHIJOSD      : int  0 2 0 0 2 0 0 0 0 1 ...
##  $ UC1          : num  1 2 1 1.7 3.1 1 1 1.7 1.7 3.6 ...
##  $ UC2          : num  1 1.6 1 1.5 2.5 1 1 1.5 1.5 2.8 ...
##  $ PF2TEO       : int  0 0 0 1 3 0 0 1 1 3 ...
##  $ PF2RECO      : int  0 0 0 0 3 0 0 1 1 2 ...
##  $ TIPHOGAR1    : chr  " 2" " 4" " 2" " 5" ...
##  $ TIPHOGAR2    : chr  " 2" " 4" " 2" " 5" ...
##  $ TIPHOGAR3    : chr  " 2" " 9" " 2" " 4" ...
##  $ TIPHOGAR4    : chr  " 3" " 8" " 1" " 5" ...
##  $ TIPHOGAR5    : chr  " 3" " 8" " 1" " 5" ...
##  $ TIPHOGAR6    : chr  " 1" " 2" " 1" " 5" ...
##  $ TIPHOGAR7    : chr  " 1" " 7" " 1" " 3" ...
##  $ TIPHOGAR8    : chr  " 2" " 3" " 2" " 1" ...
```

```
##  $ TIPHOGAR9    : chr  " 1" " 4" " 1" " 2" ...
##  $ TIPHOGAR10   : chr  " 1" " 2" " 1" " 3" ...
##  $ TIPHOGAR11   : chr  " 1" " 2" " 1" " 3" ...
##  $ SITUOCUHOG   : chr  "-9" "-9" "-9" " 8" ...
##  $ SITUACTHOG   : chr  "-9" "-9" "-9" " 8" ...
##  $ NORDENSP     : int  1 1 1 1 1 1 1 1 1 1 ...
##  $ EDADSP       : int  50 41 64 70 60 69 79 76 40 68 ...
##  $ SEXOSP       : chr  " 6" " 6" " 1" " 1" ...
##  $ PAISNACSP    : chr  " 1" " 1" " 1" " 1" ...
##  $ NACIONASP    : chr  " 1" " 1" " 1" " 1" ...
##  $ PAISSP       : chr  "  " "  " "  " "  " ...
##  $ SITURESSP    : chr  " 1" " 1" " 1" " 1" ...
##  $ ECIVILLEGALSP: chr  " 1" " 5" " 4" " 2" ...
##  $ NORDENCOSP   : int  99 99 99 2 2 99 99 2 2 2 ...
##  $ UNIONSP      : chr  "  " "  " "  " "  " ...
##  $ CONVIVENCIASP: chr  " 3" " 3" " 3" " 1" ...
##  $ NORDENPASP   : int  99 99 99 99 99 99 99 99 99 99 ...
##  $ PAISPADRESP  : chr  " 1" " 1" " 1" " 1" ...
##  $ NORDENMASP   : int  99 99 99 99 99 99 99 99 99 99 ...
##  $ PAISMADRESP  : chr  " 1" " 1" " 1" " 1" ...
##  $ ESTUDIOSSP   : chr  " 3" " 7" " 4" " 3" ...
##  $ ESTUDREDSP   : chr  " 2" " 4" " 3" " 2" ...
##  $ SITUACTSP    : chr  " 1" " 1" " 2" " 4" ...
##  $ SITUREDSP    : chr  " 1" " 1" " 1" " 2" ...
##  $ OCUSP        : chr  " 1" " 1" " 1" " 2" ...
##  $ JORNADASP    : chr  " 1" " 2" " 1" "  " ...
##  $ PERCEPSP     : chr  " 1" " 1" " 1" " 1" ...
##  $ IMPEXACPSP   : int  -9 -9 850 -9 2570 1400 958 -9 -9 -9 ...
##  $ INTERINPSP   : chr  "03" "02" "02" "05" ...
##  $ TRABAJO      : chr  " 1" " 1" " 1" " 1" ...
##  $ OCUPA        : chr  " 4" " 4" " 4" " 3" ...
##  $ OCUPARED     : chr  " 3" " 3" " 3" " 2" ...
##  $ ACTESTB      : chr  " C" " R" " G" " D" ...
##  $ ACTESTBRED   : chr  " 2" " 3" " 3" " 2" ...
##  $ SITPROF      : chr  " 1" " 1" " 1" " 1" ...
##  $ SECTOR       : chr  " 6" " 1" " 6" " 6" ...
##  $ CONTRATO     : chr  " 1" " 1" " 1" " 1" ...
##  $ TIPOCONT     : chr  " 1" " 1" " 1" " 1" ...
##  $ SITSOCI      : chr  " 2" " 4" " 2" " 8" ...
##  $ SITSOCIRE    : chr  " 2" " 2" " 2" " 5" ...
##  $ REGTEN       : chr  "1" "2" "1" "1" ...
##  $ TIPOEDIF     : chr  " 4" " 2" " 2" " 2" ...
##  $ ZONARES      : chr  " 3" " 7" " 3" " 7" ...
##  $ TIPOCASA     : chr  " 2" " 2" " 2" " 2" ...
##  $ NHABIT       : int  4 5 5 5 5 5 6 6 5 7 ...
##  $ ANNOCON      : chr  " 1" " 1" " 6" " 6" ...
##  $ SUPERF       : int  85 90 85 87 87 100 128 95 90 120 ...
##  $ AGUACALI     : chr  " 1" " 1" " 1" " 1" ...
##  $ FUENAGUA     : chr  " 3" " 2" " 3" " 1" ...
##  $ CALEF        : chr  " 1" " 1" " 6" " 1" ...
```

```
##  $ FUENCALE     : chr  " 3" " 2" "  " " 1" ...
##   [list output truncated]
## NULL

# Guardar como archivo .RData
save(EPF_2023, file = "C:/Users/November/Documents/EPF_2023.RData")

# Guardar como archivo .csv

write.csv(EPF_2023, "C:/Users/November/Documents/EPF_2023.csv", row.names
= FALSE)
# Guardar como archivo .xlsx
# install.packages("openxlsx")
library(openxlsx)


write.xlsx(EPF_2023, "C:/Users/November/Documents/EPF_2023.xlsx")
```