

```
#####
# R programming statements for h205 data
#
# This file contains programming statements needed to import the ASCII data
# file (.dat) into R. The R programming language has the capability to produce
# appropriate standard errors for estimates from a survey with a complex sample
# design such as the Medical Expenditure Panel Survey (MEPS).
#
# The input file is the ASCII data file (h205.dat) supplied in this PUF
# release, which can be extracted from the .zip file supplied at the MEPS
# website: https://meps.ahrq.gov/mepsweb/data_stats/download_data_files.jsp
#
# This code imports the MEPS data into R as a data frame called 'h205'.
#
# Note that additional packages are needed to successfully run this code. To
# install these packages, run the 'install.packages' function (shown below).
# Once installed, the packages can be called using the 'library' function.
# Packages only need to be installed once, but they must be called using the
# 'library' function every time a new R session is started.
#
# Two options are available to run this code:
#
# 1. Copy and paste the code into an interactive R session.
#
#    The user must first download the ASCII (.dat) file from the MEPS website
#    and save it to a local directory, which must be defined in the
#    'meps_path' variable below. In this example, the local directory is
#    called "C:/MEPS". Note that the path structure will differ on Mac and PC.
#
# 2. Call this code directly from an interactive R session.
#
#    (a) If the ASCII (.dat) file has already been downloaded from the MEPS
#    website and saved to a local directory, the following code can be run
#    (after re-defining the 'meps_path' variable to point to the location
#    of the h205.dat file.)
#
#        meps_path <- "C:/MEPS/h205.dat"
#        source("https://meps.ahrq.gov/mepsweb/data_stats/download_data/pufs/h205/h205ru.txt")
#        head(h205) # view data
#
#    (b) Alternatively, the ASCII (.dat) file can be downloaded directly from
#    the MEPS website. The following code can be used to download and
#    import the h205 data into R without having to manually download,
#    unzip, and store the file on your local computer.
#
#        url <- "https://meps.ahrq.gov/mepsweb/data_files/pufs/h205dat.zip"
#        download.file(url, temp <- tempfile())
#
#        meps_path <- unzip(temp, exdir = tempdir())
#        source("https://meps.ahrq.gov/mepsweb/data_stats/download_data/pufs/h205/h205ru.txt")
#
#        unlink(temp) # Unlink to delete temporary file
#
#        head(h205) # view data
#
#####

# DEFINE 'meps_path' -----
# 'meps_path' should point to the file path of the ASCII file (h205.dat)
# Here, the 'exists' function checks whether meps_path is already defined. This
# feature is useful if calling this file from an external source.

if(!exists("meps_path"))
  meps_path = "C:/MEPS/h205.dat"

# INSTALL PACKAGES -----
# Uncomment and run this portion if packages are not yet installed
#
# install.packages("readr")

# LOAD PACKAGES -----
# Run this for every new R session

library(readr)

# DATA FILE INFO -----

# Define start and end positions to read fixed-width file

pos_start <-
c(1, 8, 11, 21, 23, 25, 27, 29, 30, 32, 33, 36, 37, 38, 40,
  44, 46, 50, 51, 52, 54, 56, 57, 61, 63, 65, 69, 70, 71, 73,
  74, 75, 76, 77, 78, 79, 81, 84, 87, 90, 93, 95, 97, 99,
  102, 104, 106, 109, 111, 113, 115, 117, 119, 121, 123, 125,
  127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149,
  151, 153, 156, 162, 164, 167, 170, 173, 176, 179, 182, 183,
  184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195,
  196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207,
  209, 210, 222, 234, 238)

pos_end <-
c(7, 10, 20, 22, 24, 26, 28, 29, 31, 32, 35, 36, 37, 39, 43,
  45, 49, 50, 51, 53, 55, 56, 60, 62, 64, 68, 69, 70, 72, 73,
  74, 75, 76, 77, 78, 80, 83, 86, 89, 92, 94, 96, 98, 101,
  103, 105, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126,
  128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150,
  152, 155, 161, 163, 166, 169, 172, 175, 178, 181, 182, 183,
  184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195,
  196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 208,
  209, 221, 233, 237, 238)

# Define variable names and types ('c' = character, 'n' = 'numeric')

var_names <-
c("DUID", "PID", "DUPERSID", "PANEL", "FAMID13", "RULETR13",
  "RUSIZE13", "RUCLAS13", "FAMSIZ13", "REGION13", "RNDREF13",
  "RDRESP13", "PROXY13", "BEGRFM13", "BEGRFY13", "ENDRFM13",
  "ENDREFY13", "KEYNESS", "INSCOP13", "PSTAT13", "RURSLT13",
  "RUENDM13", "RUENDY13", "AGE13X", "DOBMM", "DOBY", "SEX",
  "RACEV1X", "RACEV2X", "RACEAX", "RACEBX", "RACEWX",
  "RACETHX", "HISPANX", "HISPNCAT", "MARRY13X", "SPOUID13",
  "SPOUIN13", "EDUCYR", "HIDEG", "FTSTD13X", "ACTDTY13",
  "REFRL13X", "OTHLGSPK", "WHTLGSPP", "HWELLSPP", "BORNUSA",
  "YRSINUS", "RTHLTH13", "MNLTH13", "IADLHP13", "ADLHLP13",
  "AIDHLP13", "WLKLIM13", "LFTDIF13", "STPDIF13", "WLKDIF13",
  "MILDIF13", "STNDIF13", "BENDIF13", "RCHDIF13", "FNGRDF13",
  "ACTLIM13", "WRKLIM13", "HSELIM13", "SCHLIM13", "UNABLE13",
  "SOCLIM13", "COGLIM13", "EMPST13", "HRWAG13X", "HRWGRD13",
  "HRWAY13", "HOUR13", "HELD13X", "OFFER13X", "NUMEMP13",
  "SELFCM13", "IHS13", "TRIAT13", "VAPROG13", "MCARE13",
  "MCARE13X", "GOVTA13", "GOVTB13", "GOVTC13", "MCAID13",
  "MCAID13X", "PUB13X", "PRIEU13", "PRIEU013", "PRINE013",
  "PRIDK13", "PRING13", "PRIOG13", "PRSTX13", "PRIV13",
  "HPRIEU13", "HPRIDK13", "HPRING13", "HPRIOG13", "HPRSTX13",
  "HPRIV13", "VERFLG13", "INSRD13X", "WGTSPI3", "WGTRU13",
  "VARSTR", "VARFSU")

var_types <-
c("n", "n", "c", "n", "c", "c", "n", "n", "n", "n", "n", "n",
  "n", "n", "n", "n", "n", "n", "n", "c", "n", "n", "n",
  "n", "n", "n", "n", "n", "n", "n", "n", "n", "n", "n",
  "n", "n", "n", "n", "n", "n", "n", "n", "n", "n", "n",
  "n", "n", "n", "n", "n", "n", "n", "n", "n", "n", "n",
  "n", "n", "n", "n", "n", "n", "n", "n", "n", "n", "n",
  "n", "n", "n", "n", "n", "n", "n", "n", "n", "n", "n",
  "n", "n", "n", "n", "n", "n", "n", "n", "n", "n", "n",
  "n")

var_types <- setNames(var_types, var_names)

# IMPORT ASCII (.dat) file -----

h205 <- read_fwf(
  meps_path,
  col_positions =
    fwf_positions(
      start = pos_start,
      end = pos_end,
      col_names = var_names),
  col_types = var_types)

# OPTIONAL: save as .Rdata file for easier loading -----
# Run this to save a permanent .Rdata file in the local working directory
#
# save(h205, file = "h205.Rdata")

# -----
# NOTES:
#
# 1. This program has been tested on R version 3.6.0
#
# 2. This program will create a temporary data frame in R called 'h205'.
#    You must run the 'save' command to permanently save the data to a local
#    folder
#
# -----
```