readr haven        readr        tidyverse

```
#
pacman::p_load(
  here,
  readr,   # csv      tidyverse
  haven   # sav, dta, sas
  )
```

## csv

### read.csv

```
# read.csv csv
d_csv_1 <- read.csv("data/raw/u001.csv")
#
head(d_csv_1)
```

```
  caseid sex ybirth mbirth ZQ03 JC_1 JC_41 ZQ08A ZQ08B ZQ08C ZQ08D ZQ08E ZQ08F
1  10001   1   1976     10    1    2    12     4     1     3     4     4     4
2  10002   1   1972      1    1    2     9     6     2     2     4     6     6
3  10003   1   1975      4    1    2     9     6     6     6     3     6     6
4  10004   2   1974     11    1    2     7     6     1     1     5     1     1
5  10005   1   1978      1    2   10    88     6     2     2     4     1     2
6  10006   1   1984      2    2   10    88     6     1     2     6     3     6
  ZQ08G ZQ08H ZQ11_A ZQ11_B ZQ11_C ZQ11_D ZQ11_E ZQ11_F ZQ11_G ZQ11_H ZQ11_I
1     5     3      2      2      2      2      2      2      2      2      2
2     6     5      2      2      2      2      2      1      2      2      2
3     4     6      2      2      2      2      1      1      1      2      2
4     4     2      2      2      2      2      2      2      2      2      2
5     5     1      2      2      2      2      1      2      2      2      2
```

```
6       6       6       2       2       2       2       2       2       2       2       2
   ZQ11_J ZQ11_K ZQ11_L ZQ11_M ZQ11_N ZQ11_O ZQ12 ZQ14_1A ZQ14_1B ZQ14_1C
1       2       2       2       2       2       2       2       0       0       1
2       2       2       2       2       2       2       2       0       0       0
3       2       2       2       2       2       2       4       0       0       0
4       2       2       2       2       2       2       3       1       1       0
5       1       2       1       2       2       2       4       2       0       0
6       1       2       2       2       1       2       2       0       0       1
   ZQ14_1D ZQ23A ZQ23B ZQ23C ZQ23D ZQ24 ZQ25 ZQ26A ZQ26B ZQ26C ZQ26D ZQ26E ZQ26F
1       0       5       5       5       4       1       1       4       5       3       5       3       4
2       1       3       5       2       2       1       3       5       5       2       5       1       5
3       0       3       2       2       2       1       3       5       5       4       5       3       5
4       0       3       5       2       2       1       2       3       5       2       4       2       4
5       0       5       8       5       5       1       2       3       3       4       3       3       4
6       0       4       8       3       2       1       4       3       4       3       4       3       5
   ZQ30D ZQ35 ZQ39A ZQ42 ZQ43 ZQ47A ZQ47B ZQ47C ZQ50 ZQ52A ZQ52Y ZQ54A ZQ54B
1       2       4       4       9       2       6       5       8       2       2       51       1       2
2       1       5       3       1       1       9       5       10       2       2       51       1       2
3       1       4       5       9       4       6       3       6       2       2       56       3       5
4       2       5       3       3       3       6       8       9       2       2       48       6       1
5       4       5       4       2       2       1       99       99       1       8       888       8       8
6       4       7       4       2       3       2       15       10       1       8       888       8       8
   ZQ54C ZQ54D ZQ61_A ZQ61_B ZQ61_C ZQ61_D ZQ61_E ZQ61_F ZQ61_G ZQ61_H ZQ61_I
1       9       9       1       2       2       2       2       2       2       2       2
2       2       4       1       2       2       2       2       2       2       2       2
3       3       2       1       2       2       2       2       2       2       2       2
4       5       4       1       2       2       2       2       2       2       2       2
5       8       8       2       2       2       1       2       2       2       2       2
6       8       8       1       2       2       2       2       2       2       2       2
   ZQ62
1       3
2       2
3       2
4       4
5       1
6       2
```

```
#
class(d_csv_1)
```

```
[1] "data.frame"
```

**read_csv**

```
# read_csv csv
d_csv_2 <- read_csv("data/raw/u001.csv")
```

```
Rows: 1000 Columns: 72
-- Column specification ---------------------------------------------------
Delimiter: ","
dbl (72): caseid, sex, ybirth, mbirth, ZQ03, JC_1, JC_41, ZQ08A, ZQ08B, ZQ08...

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```
#
head(d_csv_2)
```

```
# A tibble: 6 x 72
  caseid   sex ybirth mbirth  ZQ03  JC_1 JC_41 ZQ08A ZQ08B ZQ08C ZQ08D ZQ08E
   <dbl> <dbl>  <dbl>  <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
1  10001     1   1976     10     1     2    12     4     1     3     4     4
2  10002     1   1972      1     1     2     9     6     2     2     4     6
3  10003     1   1975      4     1     2     9     6     6     6     3     6
4  10004     2   1974     11     1     2     7     6     1     1     5     1
5  10005     1   1978      1     2    10    88     6     2     2     4     1
6  10006     1   1984      2     2    10    88     6     1     2     6     3
# i 60 more variables: ZQ08F <dbl>, ZQ08G <dbl>, ZQ08H <dbl>, ZQ11_A <dbl>,
#   ZQ11_B <dbl>, ZQ11_C <dbl>, ZQ11_D <dbl>, ZQ11_E <dbl>, ZQ11_F <dbl>,
#   ZQ11_G <dbl>, ZQ11_H <dbl>, ZQ11_I <dbl>, ZQ11_J <dbl>, ZQ11_K <dbl>,
#   ZQ11_L <dbl>, ZQ11_M <dbl>, ZQ11_N <dbl>, ZQ11_O <dbl>, ZQ12 <dbl>,
#   ZQ14_1A <dbl>, ZQ14_1B <dbl>, ZQ14_1C <dbl>, ZQ14_1D <dbl>, ZQ23A <dbl>,
#   ZQ23B <dbl>, ZQ23C <dbl>, ZQ23D <dbl>, ZQ24 <dbl>, ZQ25 <dbl>, ZQ26A <dbl>,
#   ZQ26B <dbl>, ZQ26C <dbl>, ZQ26D <dbl>, ZQ26E <dbl>, ZQ26F <dbl>, ...
```

```
#
class(d_csv_2)
```

```
[1] "spec_tbl_df" "tbl_df"      "tbl"         "data.frame"
```

## dta (Stata)

```
# read_dta dta
d_dta <- read_dta("data/raw/u001.dta")
#
head(d_dta)
```

```
# A tibble: 6 x 72
  caseid sex     ybirth mbirth ZQ03    JC_1     JC_41    ZQ08A    ZQ08B    ZQ08C
   <dbl> <dbl+l>  <dbl>  <dbl> <dbl+l> <dbl+lb> <dbl+lb> <dbl+l>  <dbl+l>  <dbl+l>
1  10001 1 [mal~   1976     10 1 [ ~    2 [ ~ 12      ~ 4 [ ~ 1 [ ~ 3 [ ~
2  10002 1 [mal~   1972      1 1 [ ~    2 [ ~  9      ~ 6 [ ~ 2 [ ~ 2 [ ~
3  10003 1 [mal~   1975      4 1 [ ~    2 [ ~  9      ~ 6 [ ~ 6 [ ~ 6 [ ~
4  10004 2 [fem~   1974     11 1 [ ~    2 [ ~  7      ~ 6 [ ~ 1 [ ~ 1 [ ~
5  10005 1 [mal~   1978      1 2 [ ~ 10 [ ~ 88 [ ~ 6 [ ~ 2 [ ~ 2 [ ~
6  10006 1 [mal~   1984      2 2 [ ~ 10 [ ~ 88 [ ~ 6 [ ~ 1 [ ~ 2 [ ~
# i 62 more variables: ZQ08D <dbl+lbl>, ZQ08E <dbl+lbl>, ZQ08F <dbl+lbl>,
#   ZQ08G <dbl+lbl>, ZQ08H <dbl+lbl>, ZQ11_A <dbl+lbl>, ZQ11_B <dbl+lbl>,
#   ZQ11_C <dbl+lbl>, ZQ11_D <dbl+lbl>, ZQ11_E <dbl+lbl>, ZQ11_F <dbl+lbl>,
#   ZQ11_G <dbl+lbl>, ZQ11_H <dbl+lbl>, ZQ11_I <dbl+lbl>, ZQ11_J <dbl+lbl>,
#   ZQ11_K <dbl+lbl>, ZQ11_L <dbl+lbl>, ZQ11_M <dbl+lbl>, ZQ11_N <dbl+lbl>,
#   ZQ11_O <dbl+lbl>, ZQ12 <dbl+lbl>, ZQ14_1A <dbl+lbl>, ZQ14_1B <dbl+lbl>,
#   ZQ14_1C <dbl+lbl>, ZQ14_1D <dbl+lbl>, ZQ23A <dbl+lbl>, ZQ23B <dbl+lbl>, ...
```

```
#
class(d_dta)
```

```
[1] "tbl_df"      "tbl"          "data.frame"
```

## sav (SPSS)

```
# read_sav sav
d_sav <- read_sav("data/raw/u001.sav")
#
head(d_sav)
```

```
# A tibble: 6 x 72
  caseid sex      ybirth mbirth ZQ03   JC_1    JC_41   ZQ08A   ZQ08B   ZQ08C
   <dbl> <dbl+l>   <dbl>  <dbl> <dbl+l> <dbl+lb> <dbl+lb> <dbl+l> <dbl+l> <dbl+l>
1  10001 1 [mal~    1976     10 1 [ ~   2 [ ~ 12      ~ 4 [ ~ 1 [ ~ 3 [ ~
2  10002 1 [mal~    1972      1 1 [ ~   2 [ ~  9      ~ 6 [ ~ 2 [ ~ 2 [ ~
3  10003 1 [mal~    1975      4 1 [ ~   2 [ ~  9      ~ 6 [ ~ 6 [ ~ 6 [ ~
4  10004 2 [fem~    1974     11 1 [ ~   2 [ ~  7      ~ 6 [ ~ 1 [ ~ 1 [ ~
5  10005 1 [mal~    1978      1 2 [ ~  10 [ ~ 88 [ ~ 6 [ ~ 2 [ ~ 2 [ ~
6  10006 1 [mal~    1984      2 2 [ ~  10 [ ~ 88 [ ~ 6 [ ~ 1 [ ~ 2 [ ~
# i 62 more variables: ZQ08D <dbl+lbl>, ZQ08E <dbl+lbl>, ZQ08F <dbl+lbl>,
#   ZQ08G <dbl+lbl>, ZQ08H <dbl+lbl>, ZQ11_A <dbl+lbl>, ZQ11_B <dbl+lbl>,
#   ZQ11_C <dbl+lbl>, ZQ11_D <dbl+lbl>, ZQ11_E <dbl+lbl>, ZQ11_F <dbl+lbl>,
#   ZQ11_G <dbl+lbl>, ZQ11_H <dbl+lbl>, ZQ11_I <dbl+lbl>, ZQ11_J <dbl+lbl>,
#   ZQ11_K <dbl+lbl>, ZQ11_L <dbl+lbl>, ZQ11_M <dbl+lbl>, ZQ11_N <dbl+lbl>,
#   ZQ11_O <dbl+lbl>, ZQ12 <dbl+lbl>, ZQ14_1A <dbl+lbl>, ZQ14_1B <dbl+lbl>,
#   ZQ14_1C <dbl+lbl>, ZQ14_1D <dbl+lbl>, ZQ23A <dbl+lbl>, ZQ23B <dbl+lbl>, ...
```

```r
#
class(d_sav)
```

```
[1] "tbl_df"     "tbl"         "data.frame"
```