

# default.R

2025-03-24

## Contents

1	Reading a Stata file	1
2	Raster pdf for fast plotting of very large vector graphics	8
3	BUGS	15

4	lme classes	15
5	Colorize	16

## Contents

# 1 Reading a Stata file

rio doesn't do a good job here.

```
library(haven)

dd <- read_dta('~/Courses_taken/2025_Discrimination_Research/session1.dta')

# Conversion of Stat (.dta) objects as read by 'haven::read_stata()'
```

```
conv <- function(object, ...) UseMethod("conv")
conv.haven_labelled <- function(object,...) haven::as_factor(object)
conv.default <- function(object,...) object
conv.data.frame <- function(object,...){
  object[] <- lapply(object, conv)
  as.data.frame(object)
}
dd <- conv(dd)
head(dd)
```

```
##   year serial month      cpsid asecflag asecwth statefip county pernum
## 1 2024       6 March 2.02302e+13     ASEC  601.57  Maine     0     1
## 2 2024       6 March 2.02302e+13     ASEC  601.57  Maine     0     2
## 3 2024       6 March 2.02302e+13     ASEC  601.57  Maine     0     3
## 4 2024       7 March 2.02301e+13     ASEC 1559.99  Maine     0     1
## 5 2024       7 March 2.02301e+13     ASEC 1559.99  Maine     0     2
## 6 2024       8 March 2.02402e+13     ASEC  580.60  Maine     0     1
```

```
##      cpsidp      cpsidv    asecwt age     sex   race                  marst
## 1 2.02302e+13 2.02302e+14  601.57  85 Female White Married, spouse present
## 2 2.02302e+13 2.02302e+14  601.57  85 Male  White Married, spouse present
## 3 2.02302e+13 2.02302e+14 1312.04  15 Female White Never married/single
## 4 2.02301e+13 2.02301e+14 1559.99  53 Female White Married, spouse present
## 5 2.02301e+13 2.02301e+14 1559.99  52 Male  White Married, spouse present
## 6 2.02402e+13 2.02402e+14  580.60  68 Male  White                   Widowed
##      citizen      hispan                  empstat                  labforce
## 1 Born in U.S Not Hispanic          NILF, retired No, not in the labor force
## 2 Born in U.S Not Hispanic          NILF, retired No, not in the labor force
## 3 Born in U.S Not Hispanic          NILF, other No, not in the labor force
## 4 Born in U.S Not Hispanic NILF, unable to work No, not in the labor force
## 5 Born in U.S Not Hispanic          At work Yes, in the labor force
## 6 Not a citizen Not Hispanic NILF, unable to work No, not in the labor force
##      occ                      educ      diffany
## 1 0 High school diploma or equivalent Has difficulty
## 2 0 High school diploma or equivalent No difficulty
```

```
## 3      0           Grades 7 or 8  No difficulty
## 4      0 High school diploma or equivalent Has difficulty
## 5 5240      Some college but no degree  No difficulty
## 6      0           Grades 7 or 8 Has difficulty
```

```
lapply(dd, class)
```

```
## $year
## [1] "numeric"
##
## $serial
## [1] "numeric"
##
## $month
## [1] "factor"
##
## $cpsid
```

```
## [1] "numeric"
##
## $asecflag
## [1] "factor"
##
## $asecwth
## [1] "numeric"
##
## $statefip
## [1] "factor"
##
## $county
## [1] "numeric"
##
## $pernum
## [1] "numeric"
##
```

```
## $cpsidp
## [1] "numeric"
##
## $cpsidv
## [1] "numeric"
##
## $asecwt
## [1] "numeric"
##
## $age
## [1] "factor"
##
## $sex
## [1] "factor"
##
## $race
## [1] "factor"
```

```
##  
## $marst  
## [1] "factor"  
##  
## $citizen  
## [1] "factor"  
##  
## $hispan  
## [1] "factor"  
##  
## $empstat  
## [1] "factor"  
##  
## $labforce  
## [1] "factor"  
##  
## $occ
```

```
## [1] "numeric"  
##  
## $educ  
## [1] "factor"  
##  
## $diffany  
## [1] "factor"
```

## 2 Raster pdf for fast plotting of very large vector graphics

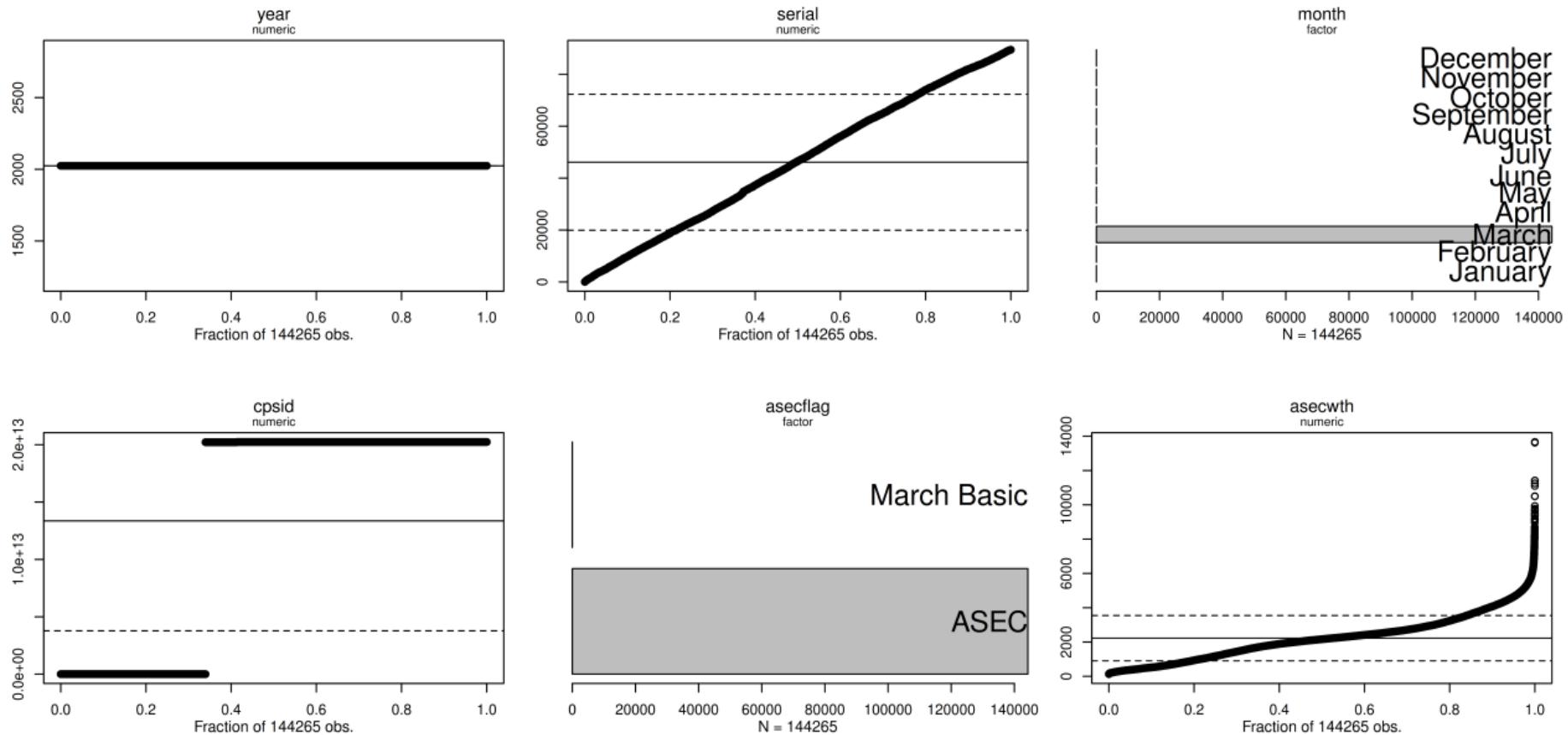
```
# install.packages('rasterpdf')  
library(spida2)  
  
##  
## Attaching package: 'spida2'
```

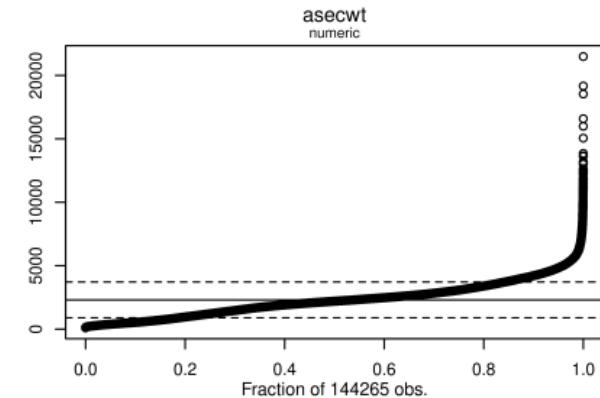
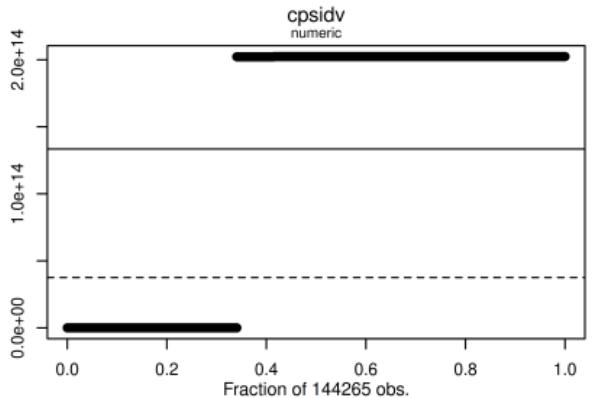
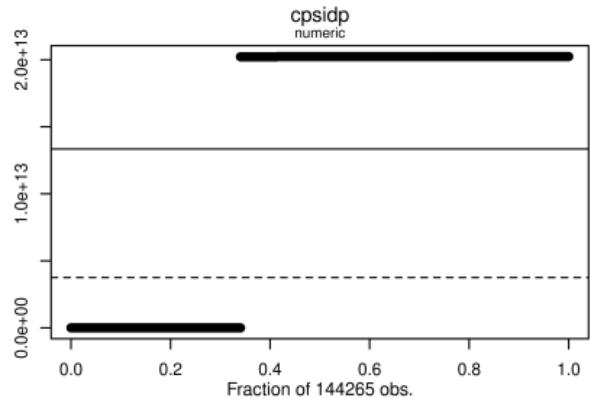
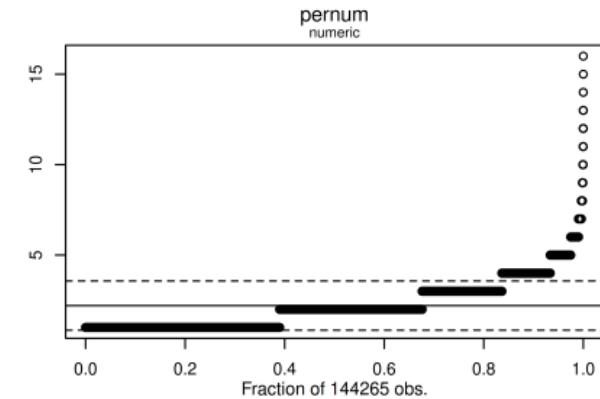
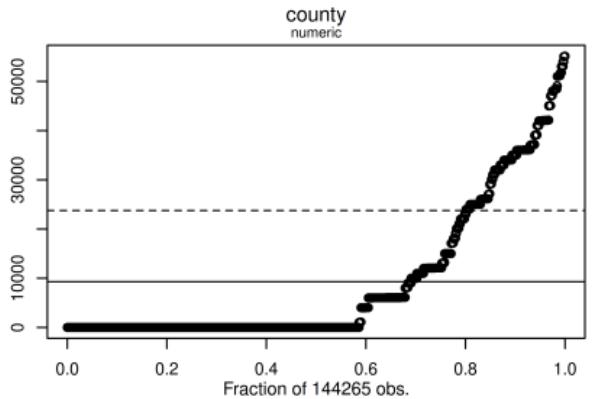
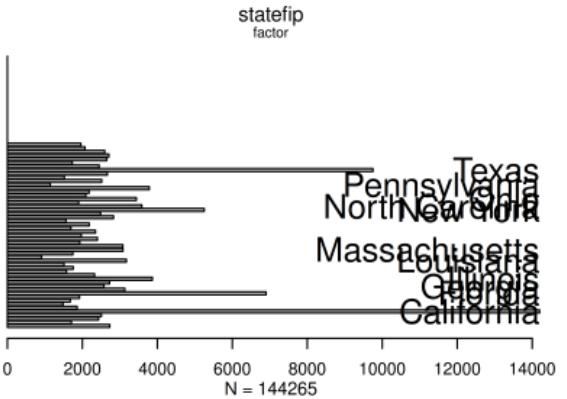
```
## The following object is masked from 'package:base':  
##  
##      grepv  
  
library(rasterpdf)  
  
##  
## Attaching package: 'rasterpdf'  
  
## The following object is masked from 'package:grDevices':  
##  
##      dev.off  
  
# help(p=rasterpdf)  
ls(2)  
  
## [1] "agg_pdf"     "dev.off"      "raster_pdf"
```

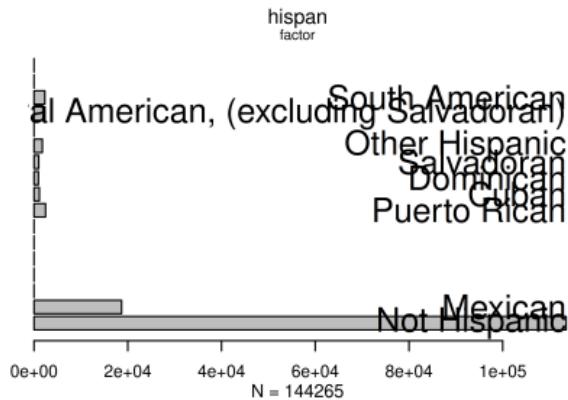
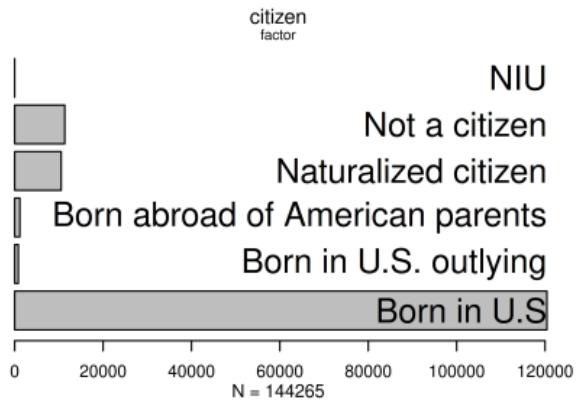
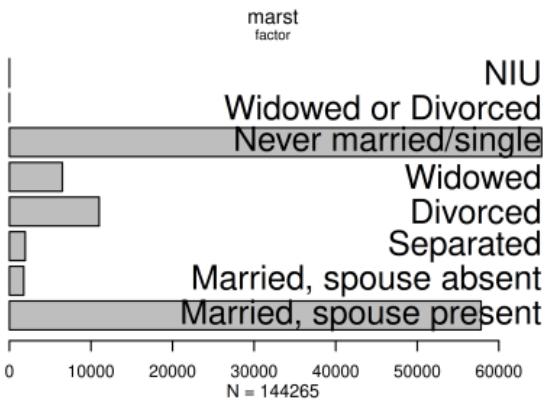
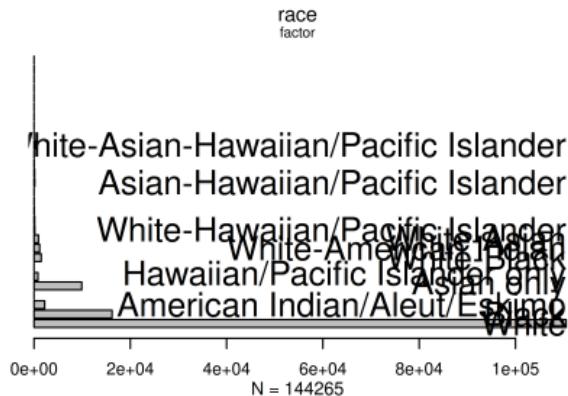
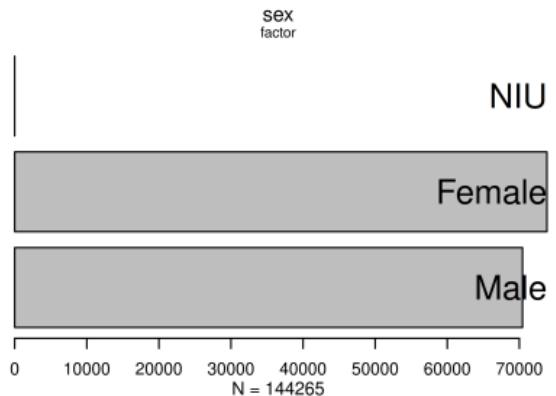
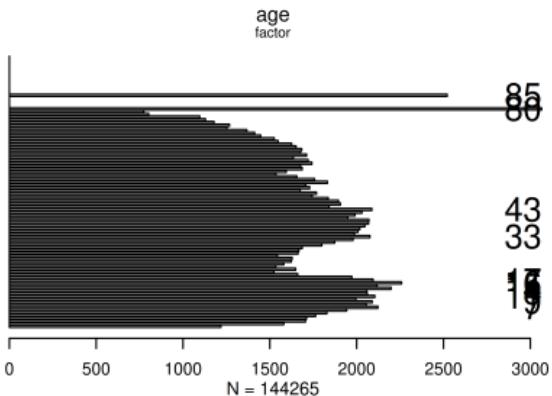
```
system.time({
  file <- paste0("/tmp/tmp",paste0(sample(letters,16,T), collapse = ''), '.pdf')
  raster_pdf(file, width = 12, height = 6, res = 600)
  print(xqplot(dd, mfrow = c(2,3)))
  dev.off()
}
)

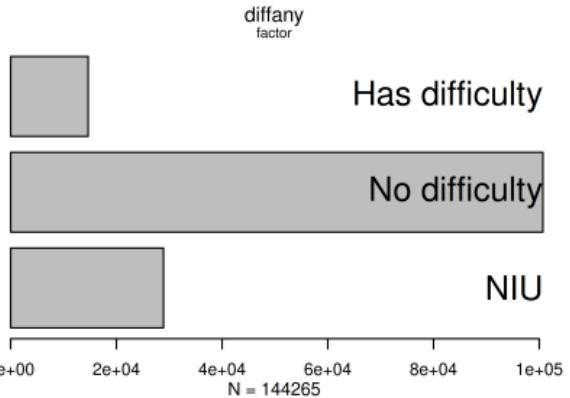
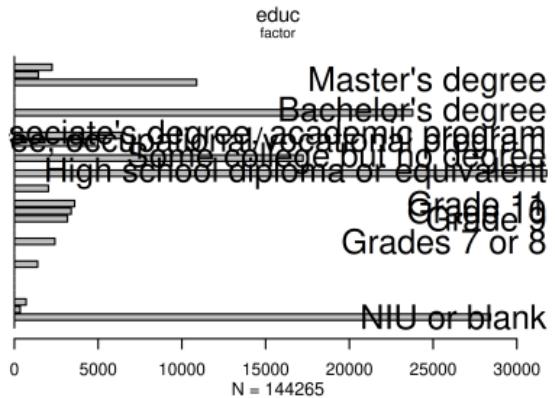
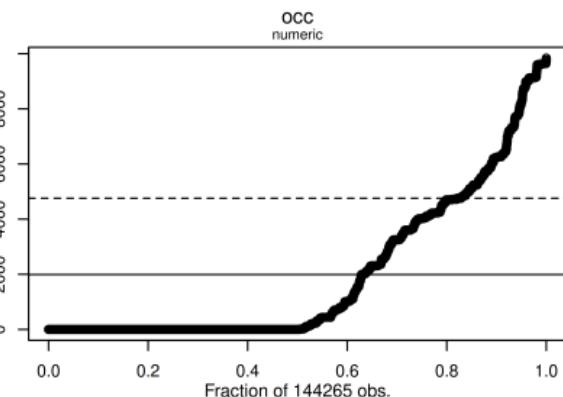
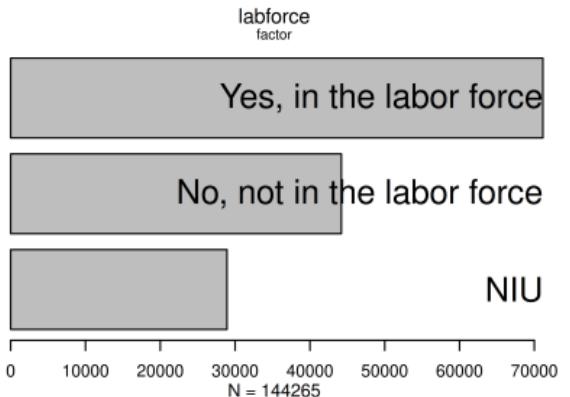
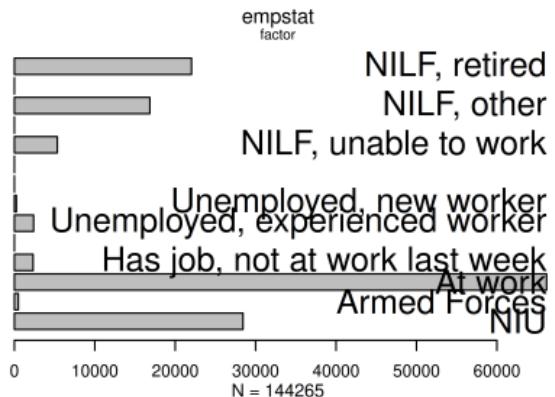
## [1] 0

##    user  system elapsed
##  17.239   0.316  17.549
```









## 3 BUGS

- 2025-07-18: R version 4.5.1 (2025-06-13),
  - `as.data.frame.matrix` has methods in different packages some of which produce weird results. Can use: `base:::as.data.frame.matrix` explicitly.

## 4 lme classes

random: `list( id = pdBlocked(list(pdIdent(~control-1),pdSymm(patient+years_post-1))) list( id = pdBlocked(list(pdIdent(~0 + control),pdSymm(~0 + patient + years_post)))`

weights: `weights=varIdent(form = ~1 | gender)`

correlation: `correlation = corCompSymm(form = ~ 1 | id)`

SOMETHING ABOUT HAVING INTEGERS FROM 1 to ...

## 5 Colorize

```
library(colorize)
```

This should be red and this should be cyan.

works in pdf but not html

Is this huge?

This should be red and this should be cyan.

works in pdf but not html

Is this bold?

This should be red and this should  
be cyan.

Is this normal?

This should be red and this should be

cyan.