## data\_stats

## Isabella Lin and Sydney Gu

## 2025-03-10

```
##
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##
       filter, lag
## The following objects are masked from 'package:base':
       intersect, setdiff, setequal, union
##
## Loading required package: Matrix
##
## Attaching package: 'Matrix'
## The following objects are masked from 'package:tidyr':
##
##
       expand, pack, unpack
## Loaded glmnet 4.1-8
##
## Attaching package: 'data.table'
## The following objects are masked from 'package:dplyr':
##
##
       between, first, last
##
## Attaching package: 'kableExtra'
## The following object is masked from 'package:dplyr':
##
##
       group_rows
purl("cleaning.Rmd", output = "cleaning2.R")
```

Calculate summary statistics:

```
# CEX
agec <- summary(cex$age)</pre>
agecv <- var(cex$age)</pre>
famc <- summary(cex$fsize)</pre>
famcv <- var(cex$fsize)</pre>
incc <- summary(cex$income)</pre>
inccv <- var(cex$income)</pre>
foodc <- summary(cex$food)</pre>
foodcv <- var(cex$food)</pre>
# PSID
agep <- summary(psid$age)</pre>
agepv <- var(psid$age, na.rm=TRUE)</pre>
famp <- summary(psid$fsize)</pre>
fampv <- var(psid$fsize)</pre>
incp <- summary(psid$income)</pre>
incpv <- var(psid$income)</pre>
foodp <- summary(psid$food)</pre>
foodpv <- var(psid$food, na.rm=TRUE)</pre>
```

Format into table:

```
data_stats <- data.frame(</pre>
  Variable = c("Age", "Family Size", "Income", "Food Expenditure"),
  Mean = round(c(agec[4], famc[4], incc[4], foodc[4]), 2),
  Median = round(c(agec[3], famc[3], incc[3], foodc[3]), 2),
  Min. = round(c(agec[1], famc[1], incc[1], foodc[1]), 2),
  Max. = round(c(agec[6], famc[6], incc[6], foodc[6]), 2),
  Variance = format(c(agecv, famcv, inccv, foodcv), scientific=TRUE, digits=2),
  Mean = round(c(agep[4], famp[4], incp[4], foodp[4]), 2),
  Median = round(c(agep[3], famp[3], incp[3], foodp[3]), 2),
  Min. = round(c(agep[1], famp[1], incp[1], foodp[1]), 2),
 Max. = round(c(agep[6], famp[6], incp[6], foodp[6]), 2),
  Variance = format(c(agepv, fampv, incpv, foodpv), scientific=TRUE, digits=2),
  check.names = FALSE
table <- kable(data_stats, caption = "Comparison of Summary Statistics in CEX and PSID") %>%
  kable_styling("striped") %>%
  add_header_above(c(" " = 1, "CEX" = 5, "PSID" = 5)) %>%
  row_spec(0, bold = TRUE) %>%
  kable_styling("striped", full_width = FALSE) %>%
  column_spec(1, width = "2cm") %>%
  column_spec(2, width = ".8cm") %>%
  column_spec(3, width = ".8cm") %>%
  column_spec(4, width = ".8cm") %>%
  column_spec(5, width = ".8cm")%>%
  column_spec(6, width = ".8cm") %>%
  column spec(7, width = ".8cm") %>%
  column_spec(8, width = ".8cm") %>%
  column_spec(9, width = ".8cm") %>%
  column_spec(10, width = ".8cm") %>%
  column_spec(11, width = ".8cm")
table
```

Table 1: Comparison of Summary Statistics in CEX and PSID

	CEX				PSID				
Variable	Mean	Media	ıMin.	Max.	Varian Mean	Media	ıMin.	Max.	Variance
Age	44.60	43	30	65	8.8e+0142.81	39	15	99	2.8e + 02
Family Size	3.71	4	2	18	$2.1e+00\ 2.97$	3	1	19	3.2e + 00
Income	40448.9	9 <b>2</b> 35547	1	301400	6.2e + 0838333.7	<b>5</b> 24700	0	241219	92.2e + 09
Food	3855.26	3601	288	24165	2.9e + 063021.20	2600	0	85800	5.3e + 06
Expenditure									