week11hw

Weizi Wu

2024-04-03

```
data()
AirPassengers
```

```
##      Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
## 1949 112 118 132 129 121 135 148 148 136 119 104 118
## 1950 115 126 141 135 125 149 170 170 158 133 114 140
## 1951 145 150 178 163 172 178 199 199 184 162 146 166
## 1952 171 180 193 181 183 218 230 242 209 191 172 194
## 1953 196 196 236 235 229 243 264 272 237 211 180 201
## 1954 204 188 235 227 234 264 302 293 259 229 203 229
## 1955 242 233 267 269 270 315 364 347 312 274 237 278
## 1956 284 277 317 313 318 374 413 405 355 306 271 306
## 1957 315 301 356 348 355 422 465 467 404 347 305 336
## 1958 340 318 362 348 363 435 491 505 404 359 310 337
## 1959 360 342 406 396 420 472 548 559 463 407 362 405
## 1960 417 391 419 461 472 535 622 606 508 461 390 432
```

Tables in LaTeX

This is a center environment.

Year	Jan	July
1950	115	170
1955	242	364
1960	417	622

Tables in Markdown

Year	Jan	Jul
1960	417	622

Tables in HTML

Kable

```
library(knitr)
kable_ex <- data.frame( Year = c("1950", "1955", "1960"),
                        Jan = c("115", "242", "417"),
                        Jul = c("170", "364", "622"))
kable(kable_ex, caption = "Kable Table")
```

Table 3: Linear Regression models *texreg*

	Model 1	Model 2	Model 3
(Intercept)	41.11***	40.83***	38.20***
	(2.84)	(2.76)	(3.67)
Number_of_cylinders	−1.78**	−1.29	−1.11
	(0.61)	(0.66)	(0.68)
Displacement	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)
Weight	−3.64**	−3.85***	−3.30**
	(1.04)	(1.02)	(1.13)
Gross_horsepower		−0.02	−0.03
		(0.01)	(0.01)
Transmission			1.56
			(1.44)
R^2	0.83	0.85	0.86
Adj. R^2	0.81	0.83	0.83
Num. obs.	32	32	32

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table 2: Kable Table

Year	Jan	Jul
1950	115	170
1955	242	364
1960	417	622

texreg

```
# Estimate nested regression models
M1 <- lm(mpg ~ cyl + disp + wt, data = mtcars)
M2 <- lm(mpg ~ cyl + disp + wt + hp, data = mtcars)
M3 <- lm(mpg ~ cyl + disp + wt + hp + am, data = mtcars)
```

```
## Warning: package 'texreg' was built under R version 4.2.3
```

```
## Version:  1.39.3
## Date:     2023-11-09
## Author:   Philip Leifeld (University of Essex)
##
## Consider submitting praise using the praise or praise_interactive functions.
## Please cite the JSS article in your publications -- see citation("texreg").
```

stargazer

```
library(stargazer)
```

```
##
## Please cite as:
```

```
##  Hlavac, Marek (2022). stargazer: Well-Formatted Regression and Summary Statistics Tables.
```

```
##  R package version 5.2.3. https://CRAN.R-project.org/package=stargazer
```

```r
# Create example lm model
model <- lm(mpg ~ cyl + hp + wt, data = mtcars)
# Print table using stargazer
stargazer::stargazer(model, type = "text",title = "Linear Regression Model", covariate.labels = c("cylin
```

Linear Regression Model

	Dependent variable:
	mpg
cylinders	-0.942* (0.551)
horsepower	-0.018 (0.012)
Weight	-3.167*** (0.741)
Constant	38.752*** (1.787)
Observations	32
R2	0.843
Adjusted R2	0.826
Residual Std. Error	2.512 (df = 28)
F Statistic	50.171*** (df = 3; 28)

========== Note: *p<0.1;* ***p<0.05;*** p<0.01

xtable

```r
library(xtable)
table1 = xtable::xtable(M1,
caption = "Linear Regression",
label = "BasicXtableSummary",
digits = 1)
print.xtable(table1)
```

% latex table generated in R 4.2.1 by xtable 1.8-4 package % Wed Apr 3 16:12:03 2024

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	41.1	2.8	14.5	0.0
cyl	-1.8	0.6	-2.9	0.0
disp	0.0	0.0	0.6	0.5
wt	-3.6	1.0	-3.5	0.0

Table 5: Linear Regression