

Package ‘jstable’

August 30, 2024

Title Create Tables from Different Types of Regression

Version 1.3.3

Date 2024-08-14

Description Create regression tables from generalized linear model(GLM), generalized estimating equation(GEE), generalized linear mixed-effects model(GLMM), Cox proportional hazards model, survey-weighted generalized linear model(svyglm) and survey-weighted Cox model results for publication.

Depends R (>= 3.4.0)

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Encoding UTF-8

RoxygenNote 7.3.2

Imports geepack, lme4, stats, data.table, labelled, tableone, coxme, survival (>= 3.0.0), survey, methods, dplyr, purrr, magrittr, tibble

URL <https://github.com/jinseob2kim/jstable>

BugReports <https://github.com/jinseob2kim/jstable/issues>

Suggests testthat, knitr, rmarkdown

VignetteBuilder knitr

LazyData true

NeedsCompilation no

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Repository CRAN

Date/Publication 2024-08-30 04:30:09 UTC

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Details

GEE like - cluster, Mixed effect model like - frailty

Value

Table, cluster/frailty info, metrics, caption

Examples

```
library(survival)
data(lung)
fit1 <- coxph(Surv(time, status) ~ ph.ecog + age + cluster(inst), data = lung, model = TRUE)
fit2 <- coxph(Surv(time, status) ~ ph.ecog + age + frailty(inst), data = lung, model = TRUE)
cox2.display(fit1)
cox2.display(fit2)
```

coxExp	<i>coxExp: transform the unit of coefficients in cox model(internal function)</i>
--------	---

Description

Transform the unit of coefficients to "HR"

Usage

```
coxExp(cox.coef, dec)
```

Arguments

cox.coef	cox model coefficients
dec	Decimal point

Details

DETAILS

Value

The transformed coefficients(95

Examples

```
library(coxme)
fit <- coxme(Surv(time, status) ~ ph.ecog + age + (1 | inst), lung)
jstable:::coxExp(jstable:::coxmeTable(fit))
```

coxme.display	<i>coxme.display: table for coxme.object (coxme package)</i>
---------------	--

Description

Make mixed effect model results from coxme.object (coxme package)

Usage

```
coxme.display(coxme.obj, dec = 2)
```

Arguments

coxme.obj	coxme.object
dec	Decimal point, Default: 2

Details

DETAILS

Value

Fixed effect table, random effect, metrics, caption

Examples

```
library(coxme)
fit <- coxme(Surv(time, status) ~ ph.ecog + age + (1 | inst), lung)
coxme.display(fit)
```

coxmeTable	<i>coxmeTable: Summary table of coxme.object(internal function)</i>
------------	---

Description

Extract fixed effect table in coxme.object

Usage

```
coxmeTable(mod)
```

Arguments

mod	coxme.object
-----	--------------

Details

DETAILS

Value

beta, se, z, p of fixed effects

Examples

```
library(coxme)
fit <- coxme(Surv(time, status) ~ ph.ecog + age + (1 | inst), lung)
jstable:::coxmeTable(fit)
```

CreateTableOne2	<i>CreateTableOne2: Modified CreateTableOne function in tableone package</i>
-----------------	--

Description

Combine CreateTableOne & print function in tableone package

Usage

```
CreateTableOne2(
  data,
  strata,
  vars,
  factorVars,
  includeNA = F,
  test = T,
  testApprox = chisq.test,
  argsApprox = list(correct = TRUE),
  testExact = fisher.test,
  argsExact = list(workspace = 2 * 10^5),
  testNormal = oneway.test,
  argsNormal = list(var.equal = F),
  testNonNormal = kruskal.test,
  argsNonNormal = list(NULL),
  showAllLevels = T,
  printToggle = F,
  quote = F,
  smd = F,
  Labels = F,
  exact = NULL,
  nonnormal = NULL,
  catDigits = 1,
  contDigits = 2,
```

```

    pDigits = 3,
    labeldata = NULL,
    minMax = F,
    showpm = T,
    addOverall = F
  )

```

Arguments

<code>data</code>	A data frame in which these variables exist. All variables (both vars and strata) must be in this data frame.
<code>strata</code>	Stratifying (grouping) variable name(s) given as a character vector. If omitted, the overall results are returned.
<code>vars</code>	Variables to be summarized given as a character vector. Factors are handled as categorical variables, whereas numeric variables are handled as continuous variables. If empty, all variables in the data frame specified in the data argument are used.
<code>factorVars</code>	Numerically coded variables that should be handled as categorical variables given as a character vector. Do not include factors, unless you need to relevel them by removing empty levels. If omitted, only factors are considered categorical variables. The variables specified here must also be specified in the vars argument.
<code>includeNA</code>	If TRUE, NA is handled as a regular factor level rather than missing. NA is shown as the last factor level in the table. Only effective for categorical variables., Default: F
<code>test</code>	If TRUE, as in the default and there are more than two groups, groupwise comparisons are performed, Default: T
<code>testApprox</code>	A function used to perform the large sample approximation based tests. The default is <code>chisq.test</code> . This is not recommended when some of the cell have small counts like fewer than 5, Default: <code>chisq.test</code>
<code>argsApprox</code>	A named list of arguments passed to the function specified in <code>testApprox</code> . The default is <code>list(correct = TRUE)</code> , which turns on the continuity correction for <code>chisq.test</code> , Default: <code>list(correct = TRUE)</code>
<code>testExact</code>	A function used to perform the exact tests. The default is <code>fisher.test</code> . If the cells have large numbers, it will fail because of memory limitation. In this situation, the large sample approximation based should suffice., Default: <code>fisher.test</code>
<code>argsExact</code>	A named list of arguments passed to the function specified in <code>testExact</code> . The default is <code>list(workspace = 2 * 10^5)</code> , which specifies the memory space allocated for <code>fisher.test</code> , Default: <code>list(workspace = 2 * 10^5)</code>
<code>testNormal</code>	A function used to perform the normal assumption based tests. The default is <code>oneway.test</code> . This is equivalent of the t-test when there are only two groups, Default: <code>oneway.test</code>
<code>argsNormal</code>	A named list of arguments passed to the function specified in <code>testNormal</code> . The default is <code>list(var.equal = TRUE)</code> , which makes it the ordinary ANOVA that assumes equal variance across groups., Default: <code>list(var.equal = F)</code>

testNonNormal	A function used to perform the nonparametric tests. The default is <code>kruskal.test</code> (Kruskal-Wallis Rank Sum Test). This is equivalent of the <code>wilcox.test</code> (Mann-Whitney U test) when there are only two groups, Default: <code>kruskal.test</code>
argsNonNormal	A named list of arguments passed to the function specified in <code>testNonNormal</code> . The default is <code>list(NULL)</code> , which is just a placeholder., Default: <code>list(NULL)</code>
showAllLevels	Whether to show all levels. FALSE by default, i.e., for 2-level categorical variables, only the higher level is shown to avoid redundant information., Default: T
printToggle	Whether to print the output. If FALSE, no output is created, and a matrix is invisibly returned., Default: F
quote	Whether to show everything in quotes. The default is FALSE. If TRUE, everything including the row and column names are quoted so that you can copy it to Excel easily, Default: F
smd	If TRUE, as in the default and there are more than two groups, standardized mean differences for all pairwise comparisons are calculated, Default: F
Labels	Use Label, Default: F
exact	A character vector to specify the variables for which the p-values should be those of exact tests. By default all p-values are from large sample approximation tests (<code>chisq.test</code>), Default: NULL
nonnormal	A character vector to specify the variables for which the p-values should be those of nonparametric tests. By default all p-values are from normal assumption-based tests (<code>oneway.test</code>), Default: NULL
catDigits	Number of digits to print for proportions., Default: 1
contDigits	Number of digits to print for continuous variables. Default 2.
pDigits	Number of digits to print for p-values (also used for standardized mean differences), Default: 3
labeldata	labeldata to use, Default: NULL
minMax	Whether to use <code>[min,max]</code> instead of <code>[p25,p75]</code> for nonnormal variables. The default is FALSE.
showpm	Logical, show normal distributed continuous variables as Mean \pm SD. Default: T
addOverall	(optional, only used if strata are supplied) Adds an overall column to the table. Smd and p-value calculations are performed using only the stratified columns. Default: F

Details

DETAILS

Value

A matrix object containing what you see is also invisibly returned. This can be assigned a name and exported via `write.csv`.

Examples

```
library(survival)
CreateTableOne2(vars = names(lung), strata = "sex", data = lung)
```

CreateTableOneJS *CreateTableOneJS: Modified CreateTableOne function in tableone package*

Description

Combine CreateTableOne & print function in tableone package

Usage

```
CreateTableOneJS(
  vars,
  strata = NULL,
  strata2 = NULL,
  data,
  factorVars = NULL,
  includeNA = F,
  test = T,
  testApprox = chisq.test,
  argsApprox = list(correct = TRUE),
  testExact = fisher.test,
  argsExact = list(workspace = 2 * 10^5),
  testNormal = oneway.test,
  argsNormal = list(var.equal = F),
  testNonNormal = kruskal.test,
  argsNonNormal = list(NULL),
  showAllLevels = T,
  printToggle = F,
  quote = F,
  smd = F,
  Labels = F,
  exact = NULL,
  nonnormal = NULL,
  catDigits = 1,
  contDigits = 2,
  pDigits = 3,
  labeldata = NULL,
  psub = T,
  minMax = F,
  showpm = T,
  addOverall = F,
  normalityTest = F
)
```

Arguments

<code>vars</code>	Variables to be summarized given as a character vector. Factors are handled as categorical variables, whereas numeric variables are handled as continuous variables. If empty, all variables in the data frame specified in the <code>data</code> argument are used.
<code>strata</code>	Stratifying grouping variable name(s) given as a character vector. If omitted, the overall results are returned.
<code>strata2</code>	Stratifying 2nd grouping variable name(s) given as a character vector. If omitted, the 1 group results are returned.
<code>data</code>	A data frame in which these variables exist. All variables (both <code>vars</code> and <code>strata</code>) must be in this data frame.
<code>factorVars</code>	Numerically coded variables that should be handled as categorical variables given as a character vector. Do not include factors, unless you need to relevel them by removing empty levels. If omitted, only factors are considered categorical variables. The variables specified here must also be specified in the <code>vars</code> argument.
<code>includeNA</code>	If TRUE, NA is handled as a regular factor level rather than missing. NA is shown as the last factor level in the table. Only effective for categorical variables., Default: F
<code>test</code>	If TRUE, as in the default and there are more than two groups, groupwise comparisons are performed, Default: T
<code>testApprox</code>	A function used to perform the large sample approximation based tests. The default is <code>chisq.test</code> . This is not recommended when some of the cell have small counts like fewer than 5, Default: <code>chisq.test</code>
<code>argsApprox</code>	A named list of arguments passed to the function specified in <code>testApprox</code> . The default is <code>list(correct = TRUE)</code> , which turns on the continuity correction for <code>chisq.test</code> , Default: <code>list(correct = TRUE)</code>
<code>testExact</code>	A function used to perform the exact tests. The default is <code>fisher.test</code> . If the cells have large numbers, it will fail because of memory limitation. In this situation, the large sample approximation based should suffice., Default: <code>fisher.test</code>
<code>argsExact</code>	A named list of arguments passed to the function specified in <code>testExact</code> . The default is <code>list(workspace = 2 * 10^5)</code> , which specifies the memory space allocated for <code>fisher.test</code> , Default: <code>list(workspace = 2 * 10^5)</code>
<code>testNormal</code>	A function used to perform the normal assumption based tests. The default is <code>oneway.test</code> . This is equivalent of the t-test when there are only two groups, Default: <code>oneway.test</code>
<code>argsNormal</code>	A named list of arguments passed to the function specified in <code>testNormal</code> . The default is <code>list(var.equal = TRUE)</code> , which makes it the ordinary ANOVA that assumes equal variance across groups., Default: <code>list(var.equal = F)</code>
<code>testNonNormal</code>	A function used to perform the nonparametric tests. The default is <code>kruskal.test</code> (Kruskal-Wallis Rank Sum Test). This is equivalent of the <code>wilcox.test</code> (Mann-Whitney U test) when there are only two groups, Default: <code>kruskal.test</code>
<code>argsNonNormal</code>	A named list of arguments passed to the function specified in <code>testNonNormal</code> . The default is <code>list(NULL)</code> , which is just a placeholder., Default: <code>list(NULL)</code>

showAllLevels	Whether to show all levels. FALSE by default, i.e., for 2-level categorical variables, only the higher level is shown to avoid redundant information., Default: T
printToggle	Whether to print the output. If FALSE, no output is created, and a matrix is invisibly returned., Default: F
quote	Whether to show everything in quotes. The default is FALSE. If TRUE, everything including the row and column names are quoted so that you can copy it to Excel easily, Default: F
smd	If TRUE, as in the default and there are more than two groups, standardized mean differences for all pairwise comparisons are calculated, Default: F
Labels	Use Label, Default: F
exact	A character vector to specify the variables for which the p-values should be those of exact tests. By default all p-values are from large sample approximation tests (chisq.test), Default: NULL
nonnormal	A character vector to specify the variables for which the p-values should be those of nonparametric tests. By default all p-values are from normal assumption-based tests (oneway.test), Default: NULL
catDigits	Number of digits to print for proportions. Default: 1
contDigits	Number of digits to print for continuous variables. Default 2.
pDigits	Number of digits to print for p-values (also used for standardized mean differences), Default: 3
labeldata	labeldata to use, Default: NULL
psub	show sub-group p-values, Default: F
minMax	Whether to use [min,max] instead of [p25,p75] for nonnormal variables. The default is FALSE.
showpm	Logical, show normal distributed continuous variables as Mean \pm SD. Default: T
addOverall	(optional, only used if strata are supplied) Adds an overall column to the table. Smd and p-value calculations are performed using only the stratified columns. Default: F
normalityTest	Logical, perform the Shapiro test for all variables. Default: F

Details

DETAILS

Value

A matrix object containing what you see is also invisibly returned. This can be assigned a name and exported via write.csv.

Examples

```
library(survival)
CreateTableOneJS(vars = names(lung), strata = "sex", data = lung)
```

extractAIC.coxme	<i>extractAIC.coxme: Extract AIC from coxme.object</i>
------------------	--

Description

Extract AIC from coxme.object

Usage

```
## S3 method for class 'coxme'
extractAIC(fit, scale = NULL, k = 2, ...)
```

Arguments

fit	coxme.object
scale	NULL
k	numeric specifying the 'weight' of the equivalent degrees of freedom (=: edf) part in the AIC formula.
...	further arguments (currently unused in base R).

Details

DETAILS

Value

AIC(Integreted, Penalized)

Examples

```
library(coxme)
fit <- coxme(Surv(time, status) ~ ph.ecog + age + (1 | inst), lung)
extractAIC(fit)
```

geeExp	<i>geeExp: transform the unit of coefficients (internal function)</i>
--------	---

Description

Transform the unit of coefficients to "Coeff", "OR" or "RR"

Usage

```
geeExp(gee.coef, family = "binomial", dec)
```

Arguments

gee.coef	geeUni object.
family	Family: "gaussian", "binomial", "poisson", "quasipoisson", etc..., Default: 'binomial'
dec	Decimal point

Details

DETAILS

Value

The transformed coefficients(95

Examples

```
library(geepack)
data(dietox)
dietox$Cu <- as.factor(dietox$Cu)
gee.uni <- geeUni("Weight", c("Time", "Cu"),
  data = dietox, id.vec = dietox$Pig,
  family = "gaussian", cor.type = "exchangeable"
)
gee.exp <- geeExp(gee.uni, "binomial", 2)
```

geeglm.display

geeglm.display

Description

Make gee results from "geeglm" object

Usage

```
geeglm.display(geeglm.obj, decimal = 2)
```

Arguments

geeglm.obj	"geeglm" object
decimal	Decimal, Default: 2

Details

DETAILS

Value

List: caption, main table, metrics table

See Also

[data.table-package complete.cases](#)

Examples

```
library(geepack)
data(dietox)
dietox$Cu <- as.factor(dietox$Cu)
gee01 <- geeglm(Weight ~ Time + Cu,
  id = Pig, data = dietox,
  family = gaussian, corstr = "ex"
)
geeglm.display(gee01)
```

geeUni

geeUni: The coefficient of univariate gee (internal function)

Description

Extract the coefficients of univariate gee using geeglm function (geepack package).

Usage

```
geeUni(y, x, data, id.vec, family, cor.type = "exchangeable")
```

Arguments

y	Dependant variable
x	Independent variable
data	Data
id.vec	Vector of id (should be ordered)
family	Family: "gaussian", "binomial", "poisson", "quasipoisson", etc...
cor.type	Correlation structure, Default: 'exchangeable'

Details

DETAILS

Value

coefficient, standard error, p-value

Examples

```
library(geepack)
data(dietox)
dietox$Cu <- as.factor(dietox$Cu)
gee.uni <- geeUni("Weight", "Time",
  data = dietox, id.vec = dietox$Pig,
  family = "gaussian", cor.type = "exchangeable"
)
```

`glmshow.display`*glmshow.display: Show summary table of glm object.*

Description

Show summary table of glm object(regression, logistic).

Usage

```
glmshow.display(glm.object, decimal = 2)
```

Arguments

<code>glm.object</code>	glm.object
<code>decimal</code>	digits, Default: 2

Details

DETAILS

Value

table

See Also

[glm](#)

Examples

```
glmshow.display(glm(mpg ~ wt + qsec, data = mtcars))
```

LabelepiDisplay	<i>LabelepiDisplay: Apply label information to epiDisplay object using label data</i>
-----------------	---

Description

Apply label information to epiDisplay.object using label data

Usage

```
LabelepiDisplay(epiDisplay.obj, label = F, ref)
```

Arguments

epiDisplay.obj	epiDisplay.object or glmshow.object
label	Apply label information, Default: F
ref	Label data made by mk.lev function

Details

DETAILS

Value

epiDisplay.object with label information

Examples

```
fit <- glm(Sepal.Length ~ Sepal.Width + Species, data = iris)
fit.table <- glmshow.display(fit)
iris.label <- mk.lev(iris)
LabelepiDisplay(fit.table, label = TRUE, ref = iris.label)
```

LabeljsCox	<i>LabeljsCox: Apply label information to cox2.display object using label data</i>
------------	--

Description

Apply label information to cox2.display object using label data

Usage

```
LabeljsCox(obj, ref)
```


Arguments

obj	cox2.display object
ref	Label data made by mk.lev function

Details

DETAILS

Value

cox2.display object with label information

Examples

```
library(survival)
fit <- coxph(Surv(time, status) ~ sex + ph.ecog + ph.karno + cluster(inst),
  data = lung, model = TRUE
)
fit.table <- cox2.display(fit)
lung.label <- mk.lev(lung)
LabeljsCox(fit.table, ref = lung.label)
```

LabeljsGeeglm*LabeljsGeeglm: Apply label information to geeglm.display object using label data*

Description

Apply label information to geeglm.display object using label data

Usage

LabeljsGeeglm(obj, ref)

Arguments

obj	geeglm.display object
ref	Label data made by mk.lev function

Details

DETAILS

Value

geeglm.display object with label information

Examples

```

library(geepack)
library(jstable)
data(dietox)
dietox$Cu <- as.factor(dietox$Cu)
gee01 <- geeglm(Weight ~ Time + Cu,
  id = Pig, data = dietox,
  family = gaussian, corstr = "ex"
)
g1 <- geeglm.display(gee01)
LabeljsGeeglm(g1, ref = mk.lev(dietox))

```

LabeljsMetric	<i>LabeljsMetric: Apply label information to jstable metric object using label data</i>
---------------	---

Description

Apply label information to metric object of jstable using label data

Usage

```
LabeljsMetric(obj.metric, ref)
```

Arguments

obj.metric	metric of lmer.display, coxme.display
ref	Label data made by mk.lev function

Details

DETAILS

Value

metric of lmer.display, coxme.display with label information

Examples

```

library(coxme)
fit <- coxme(Surv(time, status) ~ sex + ph.ecog + ph.karno + (1 | inst) + (1 | sex), lung)
fit.table <- coxme.display(fit)
lung.label <- mk.lev(lung)
LabeljsTable(fit.table$table, ref = lung.label)
LabeljsRanef(fit.table$ranef, ref = lung.label)
LabeljsMetric(fit.table$metric, ref = lung.label)

```

LabeljsMixed	<i>LabeljsMixed: Apply label information to jstable object using label data</i>
--------------	---

Description

Apply label information to object of jstable using label data

Usage

```
LabeljsMixed(obj, ref)
```

Arguments

obj	lmer.display, coxme.display
ref	Label data made by mk.lev function

Details

DETAILS

Value

lmer.display, coxme.display with label information

Examples

```
library(coxme)
fit <- coxme(Surv(time, status) ~ sex + ph.ecog + ph.karno + (1 | inst) + (1 | sex), lung)
fit.table <- coxme.display(fit)
lung.label <- mk.lev(lung)
LabeljsMixed(fit.table, ref = lung.label)
```

LabeljsRanef	<i>LabeljsRanef: Apply label information to jstable random effect object using label data</i>
--------------	---

Description

Apply label information to ranef object of jstable using label data

Usage

```
LabeljsRanef(obj.ranef, ref)
```

Arguments

obj.ranef ranef of lmer.display, coxme.display, cox2.display
 ref Label data made by mk.lev function

Details

DETAILS

Value

ranef of lmer.display, coxme.display, cox2.display with label information

Examples

```
library(coxme)
fit <- coxme(Surv(time, status) ~ sex + ph.ecog + ph.karno + (1 | inst) + (1 | sex), lung)
fit.table <- coxme.display(fit)
lung.label <- mk.lev(lung)
LabeljsTable(fit.table$table, ref = lung.label)
LabeljsRanef(fit.table$ranef, ref = lung.label)
```

LabeljsTable	<i>LabeljsTable: Apply label information to jstable object using label data</i>
--------------	---

Description

Apply label information to table of geeglm.display, lmer.display, coxme.display using label data

Usage

```
LabeljsTable(obj.table, ref)
```

Arguments

obj.table table of geeglm.display, lmer.display, coxme.display
 ref Label data made by mk.lev function

Details

DETAILS

Value

table of geeglm.display, lmer.display, coxme.display with label information

Examples

```
library(coxme)
fit <- coxme(Surv(time, status) ~ sex + ph.ecog + ph.karno + (1 | inst) + (1 | sex), lung)
fit.table <- coxme.display(fit)
lung.label <- mk.lev(lung)
LabeljsTable(fit.table$table, ref = lung.label)
```

lmer.display	<i>lmer.display: table for "lmerMod" or "glmerMod" object (lme4 package)</i>
--------------	--

Description

Make mixed effect model results from "lmerMod" or "glmerMod" object (lme4 package)

Usage

```
lmer.display(lmerMod.obj, dec = 2, ci.ranef = F)
```

Arguments

lmerMod.obj	"lmerMod" or "glmerMod" object
dec	Decimal, Default: 2
ci.ranef	Show confidence interval of random effects?, Default: F

Details

DETAILS

Value

Table: fixed & random effect

Examples

```
library(geepack)
data(dietox)
dietox$Cu <- as.factor(dietox$Cu)
l1 <- lme4::lmer(Weight ~ Time + Cu + (1 | Pig) + (1 | Evit), data = dietox)
lmer.display(l1)
```

lmerExp	<i>lmerExp: transform the unit of coefficients (internal function)</i>
---------	--

Description

Transform the unit of coefficients to "Coeff", "OR" or "RR"

Usage

```
lmerExp(lmer.coef, family = "binomial", dec)
```

Arguments

lmer.coef	lmer coefficients.
family	Family: "gaussian", "binomial", "poisson", "quasipoisson", etc..., Default: 'binomial'
dec	Decimal point

Details

DETAILS

Value

The transformed coefficients(95

Examples

```
# EXAMPLE1
```

mk.lev	<i>Export label and level: multiple variable</i>
--------	--

Description

Export label and level: multiple variable

Usage

```
mk.lev(data)
```

Arguments

data	data
------	------

Details

DETAILS

Value

default label and level data

Examples

```
mk.lev(iris)
```

mk.lev.var

Export label and level: one variable

Description

Export label and level: one variable

Usage

```
mk.lev.var(data, vname)
```

Arguments

data	data
vname	variable to export label and level

Details

DETAILS

Value

if continuous variable - (label, NA), categorical variable - (label, level)

Examples

```
lapply(names(iris), function(x) {  
  jstable::mk.lev.var(iris, x)  
})
```

mort	<i>DATASET_TITLE</i>
------	----------------------

Description

DATASET_DESCRIPTION

Usage

mort

Format

A data frame with 17562 rows and 24 variables:

```

ccode integer COLUMN_DESCRIPTION
cname character COLUMN_DESCRIPTION
yy integer COLUMN_DESCRIPTION
mm integer COLUMN_DESCRIPTION
dd integer COLUMN_DESCRIPTION
date character COLUMN_DESCRIPTION
nonacc integer COLUMN_DESCRIPTION
cardio integer COLUMN_DESCRIPTION
respir integer COLUMN_DESCRIPTION
influenza integer COLUMN_DESCRIPTION
meanpm10 double COLUMN_DESCRIPTION
meanso2 double COLUMN_DESCRIPTION
meanno2 double COLUMN_DESCRIPTION
meanco double COLUMN_DESCRIPTION
maxco double COLUMN_DESCRIPTION
maxo3 double COLUMN_DESCRIPTION
meantemp double COLUMN_DESCRIPTION
maxtemp double COLUMN_DESCRIPTION
mintemp double COLUMN_DESCRIPTION
meanhumi double COLUMN_DESCRIPTION
meanpress double COLUMN_DESCRIPTION
season integer COLUMN_DESCRIPTION
dow integer COLUMN_DESCRIPTION
sn integer COLUMN_DESCRIPTION

```

Details

DETAILS

opt.data	<i>datable option for data(DT package)</i>
----------	--

Description

DT::datatable option for data

Usage

```
opt.data(fname)
```

Arguments

fname	File name to download
-------	-----------------------

Details

DETAILS

Value

datatable option object

Examples

```
opt.data("mtcars")
```

opt.roc	<i>datable option for ROC result(DT package)</i>
---------	--

Description

DT::datatable option for ROC result

Usage

```
opt.roc(fname)
```

Arguments

fname	File name to download
-------	-----------------------

Details

DETAILS

Value

datatable option object

Examples

```
options <- opt.roc("mtcars")
```

opt.simplifiedown	<i>datable option for simple download(DT package)</i>
-------------------	---

Description

Simple download DT::datatable option - No filter, No page

Usage

```
opt.simplifiedown(fname)
```

Arguments

fname	File name to download
-------	-----------------------

Details

DETAILS

Value

datatable option object

Examples

```
options <- opt.simplifiedown("mtcars")
```

opt.tb1	<i>datable option for table 1(DT package)</i>
---------	---

Description

DT::datatable option for table 1

Usage

```
opt.tb1(fname)
```

Arguments

fname	File name to download
-------	-----------------------

Details

DETAILS

Value

datatable option object

Examples

```
options <- opt.tb1("mtcars")
```

opt.tbreg	<i>datable option for regression table(DT package)</i>
-----------	--

Description

DT::datatable option for glm, gee(geepack package), lmer/glmer(lme4 package)

Usage

```
opt.tbreg(fname)
```

Arguments

fname	File name to download
-------	-----------------------

Details

DETAILS

Value

datatable option object

Examples

```
options <- opt.tbreg("mtcars")
```

svycox.display *svycoxph.display: table for svycoxph.object in survey package.*

Description

Table for complex design cox model.

Usage

```
svycox.display(svycoxph.obj, decimal = 2)
```

Arguments

```
svycoxph.obj    svycoxph.object
decimal        digit, Default: 2
```

Details

DETAILS

Value

List including table, metric, caption

See Also

[svycoxph AIC](#)

Examples

```
library(survival)
data(pbc)
pbc$sex <- factor(pbc$sex)
pbc$stage <- factor(pbc$stage)
pbc$randomized <- with(pbc, !is.na(trt) & trt > 0)
biasmodel <- glm(randomized ~ age * edema, data = pbc, family = binomial)
pbc$randprob <- fitted(biasmodel)

if (is.null(pbc$albumin)) pbc$albumin <- pbc$alb ## pre2.9.0

dpsc <- survey::svydesign(
```

```

  id = ~1, prob = ~randprob, strata = ~edema,
  data = subset(pbc, randomized)
)

model <- survey::svycoxph(Surv(time, status > 0) ~ sex + protime + albumin + stage,
  design = dpbc
)
svycox.display(model)

```

svyCreateTableOne2 *svyCreateTableOne2: Modified svyCreateTableOne function in tableone package*

Description

Combine svyCreateTableOne & print function in tableone package

Usage

```

svyCreateTableOne2(
  data,
  strata,
  vars,
  factorVars,
  includeNA = F,
  test = T,
  showAllLevels = T,
  printToggle = F,
  quote = F,
  smd = F,
  nonnormal = NULL,
  catDigits = 1,
  contDigits = 2,
  pDigits = 3,
  Labels = F,
  labeldata = NULL,
  minMax = F,
  showpm = T,
  addOverall = F
)

```

Arguments

data	A data frame in which these variables exist. All variables (both vars and strata) must be in this data frame.
strata	Stratifying (grouping) variable name(s) given as a character vector. If omitted, the overall results are returned.

<code>vars</code>	Variables to be summarized given as a character vector. Factors are handled as categorical variables, whereas numeric variables are handled as continuous variables. If empty, all variables in the data frame specified in the <code>data</code> argument are used.
<code>factorVars</code>	Numerically coded variables that should be handled as categorical variables given as a character vector. Do not include factors, unless you need to relevel them by removing empty levels. If omitted, only factors are considered categorical variables. The variables specified here must also be specified in the <code>vars</code> argument.
<code>includeNA</code>	If TRUE, NA is handled as a regular factor level rather than missing. NA is shown as the last factor level in the table. Only effective for categorical variables., Default: F
<code>test</code>	If TRUE, as in the default and there are more than two groups, groupwise comparisons are performed, Default: T
<code>showAllLevels</code>	Whether to show all levels. FALSE by default, i.e., for 2-level categorical variables, only the higher level is shown to avoid redundant information., Default: T
<code>printToggle</code>	Whether to print the output. If FALSE, no output is created, and a matrix is invisibly returned., Default: F
<code>quote</code>	Whether to show everything in quotes. The default is FALSE. If TRUE, everything including the row and column names are quoted so that you can copy it to Excel easily, Default: F
<code>smd</code>	If TRUE, as in the default and there are more than two groups, standardized mean differences for all pairwise comparisons are calculated, Default: F
<code>nonnormal</code>	A character vector to specify the variables for which the p-values should be those of nonparametric tests. By default all p-values are from normal assumption-based tests (<code>oneway.test</code>), Default: NULL
<code>catDigits</code>	Number of digits to print for proportions., Default: 1
<code>contDigits</code>	Number of digits to print for continuous variables. Default 2.
<code>pDigits</code>	Number of digits to print for p-values (also used for standardized mean differences), Default: 3
<code>Labels</code>	Use Label, Default: F
<code>labeldata</code>	labeldata to use, Default: NULL
<code>minMax</code>	Whether to use [min,max] instead of [p25,p75] for nonnormal variables. The default is FALSE.
<code>showpm</code>	Logical, show normal distributed continuous variables as Mean \pm SD. Default: T
<code>addOverall</code>	(optional, only used if strata are supplied) Adds an overall column to the table. Smd and p-value calculations are performed using only the stratified columns. Default: F

Details

DETAILS

Value

A matrix object containing what you see is also invisibly returned. This can be assigned a name and exported via write.csv.

Examples

```
library(survey)
data(nhanes)
nhanes$SDMVPSU <- as.factor(nhanes$SDMVPSU)
nhanesSvy <- svydesign(
  ids = ~SDMVPSU, strata = ~SDMVSTRA, weights = ~WTMEC2YR,
  nest = TRUE, data = nhanes
)
svyCreateTableOne2(
  vars = c("HI_CHOL", "race", "agecat", "RIAGENDR"),
  strata = "RIAGENDR", data = nhanesSvy,
  factorVars = c("HI_CHOL", "race", "RIAGENDR")
)
```

svyCreateTableOneJS *svyCreateTableOneJS: Modified CreateTableOne function in tableone package*

Description

Combine svyCreateTableOne & print function in tableone package

Usage

```
svyCreateTableOneJS(
  vars,
  strata = NULL,
  strata2 = NULL,
  data,
  factorVars = NULL,
  includeNA = F,
  test = T,
  showAllLevels = T,
  printToggle = F,
  quote = F,
  smd = F,
  Labels = F,
  nonnormal = NULL,
  catDigits = 1,
  contDigits = 2,
  pDigits = 3,
  labeldata = NULL,
  psub = T,
```

```

    minMax = F,
    showpm = T,
    addOverall = F
  )

```

Arguments

<code>vars</code>	Variables to be summarized given as a character vector. Factors are handled as categorical variables, whereas numeric variables are handled as continuous variables. If empty, all variables in the data frame specified in the <code>data</code> argument are used.
<code>strata</code>	Stratifying grouping variable name(s) given as a character vector. If omitted, the overall results are returned.
<code>strata2</code>	Stratifying 2nd grouping variable name(s) given as a character vector. If omitted, the 1 group results are returned.
<code>data</code>	A data frame in which these variables exist. All variables (both <code>vars</code> and <code>strata</code>) must be in this data frame.
<code>factorVars</code>	Numerically coded variables that should be handled as categorical variables given as a character vector. Do not include factors, unless you need to relevel them by removing empty levels. If omitted, only factors are considered categorical variables. The variables specified here must also be specified in the <code>vars</code> argument.
<code>includeNA</code>	If TRUE, NA is handled as a regular factor level rather than missing. NA is shown as the last factor level in the table. Only effective for categorical variables., Default: F
<code>test</code>	If TRUE, as in the default and there are more than two groups, groupwise comparisons are performed, Default: T
<code>showAllLevels</code>	Whether to show all levels. FALSE by default, i.e., for 2-level categorical variables, only the higher level is shown to avoid redundant information., Default: T
<code>printToggle</code>	Whether to print the output. If FALSE, no output is created, and a matrix is invisibly returned., Default: F
<code>quote</code>	Whether to show everything in quotes. The default is FALSE. If TRUE, everything including the row and column names are quoted so that you can copy it to Excel easily, Default: F
<code>smd</code>	If TRUE, as in the default and there are more than two groups, standardized mean differences for all pairwise comparisons are calculated, Default: F
<code>Labels</code>	Use Label, Default: F
<code>nonnormal</code>	A character vector to specify the variables for which the p-values should be those of nonparametric tests. By default all p-values are from normal assumption-based tests (<code>oneway.test</code>), Default: NULL
<code>catDigits</code>	Number of digits to print for proportions., Default: 1
<code>contDigits</code>	Number of digits to print for continuous variables. Default 2.
<code>pDigits</code>	Number of digits to print for p-values (also used for standardized mean differences), Default: 3

labeldata	labeldata to use, Default: NULL
psub	show sub-group p-values, Default: F
minMax	Whether to use [min,max] instead of [p25,p75] for nonnormal variables. The default is FALSE.
showpm	Logical, show normal distributed continuous variables as Mean \pm SD. Default: T
addOverall	(optional, only used if strata are supplied) Adds an overall column to the table. Smd and p-value calculations are performed using only the stratified columns. Default: F

Details

DETAILS

Value

A matrix object containing what you see is also invisibly returned. This can be assigned a name and exported via write.csv.

Examples

```
library(survey)
data(nhanes)
nhanes$SDMVPSU <- as.factor(nhanes$SDMVPSU)
nhanesSvy <- svydesign(
  ids = ~SDMVPSU, strata = ~SDMVSTRA, weights = ~WTMEC2YR,
  nest = TRUE, data = nhanes
)
svyCreateTableOneJS(
  vars = c("HI_CHOL", "race", "agecat", "RIAGENDR"),
  strata = "RIAGENDR", data = nhanesSvy,
  factorVars = c("HI_CHOL", "race", "RIAGENDR")
)
```

svyregress.display *svyregress.display: table for svyglm.object*

Description

table for svyglm.object (survey package).

Usage

```
svyregress.display(svyglm.obj, decimal = 2)
```

Arguments

svyglm.obj	svyglm.object
decimal	digit, Default: 2

Details

DETAILS

Value

table

Examples

```

library(survey)
data(api)
apistrat$tt <- c(rep(1, 20), rep(0, nrow(apistrat) - 20))
dstrat <- svydesign(id = ~1, strata = ~stype, weights = ~pw, data = apistrat, fpc = ~fpc)
ds <- svyglm(api00 ~ ell + meals + cname + mobility, design = dstrat)
ds2 <- svyglm(tt ~ ell + meals + cname + mobility, design = dstrat, family = quasibinomial())
svyregress.display(ds)
svyregress.display(ds2)

```

TableSubgroupCox

*TableSubgroupCox: Sub-group analysis table for Cox/svycox model.***Description**

Sub-group analysis table for Cox/svycox model.

Usage

```

TableSubgroupCox(
  formula,
  var_subgroup = NULL,
  var_cov = NULL,
  data,
  time_eventrate = 3 * 365,
  decimal.hr = 2,
  decimal.percent = 1,
  decimal.pvalue = 3,
  cluster = NULL,
  strata = NULL,
  weights = NULL
)

```

Arguments

formula	formula with survival analysis.
var_subgroup	1 sub-group variable for analysis, Default: NULL
var_cov	Variables for additional adjust, Default: NULL
data	Data or svydesign in survey package.

time_entraterate	Time for kaplan-meier based event rate calculation, Default = 365 * 3
decimal.hr	Decimal for hazard ratio, Default: 2
decimal.percent	Decimal for percent, Default: 1
decimal.pvalue	Decimal for pvalue, Default: 3
cluster	Cluster variable for coxph, Default: NULL
strata	Strata variable for coxph, Default: NULL
weights	Weights variable for coxph, Default: NULL

Details

This result is used to make forestplot.

Value

Sub-group analysis table.

See Also

[safely,map,map2 coxph svycoxph confint](#)

Examples

```
library(survival)
library(dplyr)
lung %>%
  mutate(
    status = as.integer(status == 1),
    sex = factor(sex),
    kk = factor(as.integer(pat.karno >= 70))
  ) -> lung
TableSubgroupCox(Surv(time, status) ~ sex, data = lung, time_entraterate = 100)
TableSubgroupCox(Surv(time, status) ~ sex,
  var_subgroup = "kk", data = lung,
  time_entraterate = 100
)

## survey design
library(survey)
data.design <- svydesign(id = ~1, data = lung)
TableSubgroupCox(Surv(time, status) ~ sex, data = data.design, time_entraterate = 100)
TableSubgroupCox(Surv(time, status) ~ sex,
  var_subgroup = "kk", data = data.design,
  time_entraterate = 100
)
```

TableSubgroupGLM	<i>TableSubgroupGLM: Sub-group analysis table for GLM.</i>
------------------	--

Description

Sub-group analysis table for GLM.

Usage

```
TableSubgroupGLM(
  formula,
  var_subgroup = NULL,
  var_cov = NULL,
  data,
  family = "binomial",
  decimal.estimate = 2,
  decimal.percent = 1,
  decimal.pvalue = 3
)
```

Arguments

formula	formula with survival analysis.
var_subgroup	1 sub-group variable for analysis, Default: NULL
var_cov	Variables for additional adjust, Default: NULL
data	Data or svydesign in survey package.
family	family, "gaussian" or "binomial" or 'poisson' or 'quasipoisson'
decimal.estimate	Decimal for estimate, Default: 2
decimal.percent	Decimal for percent, Default: 1
decimal.pvalue	Decimal for pvalue, Default: 3

Details

This result is used to make forestplot.

Value

Sub-group analysis table.

See Also

[safely, map, map2 glm svyglm](#)

Examples

```

library(survival)
library(dplyr)
lung %>%
  mutate(
    status = as.integer(status == 1),
    sex = factor(sex),
    kk = factor(as.integer(pat.karno >= 70))
  ) -> lung
TableSubgroupGLM(status ~ sex, data = lung, family = "binomial")
TableSubgroupGLM(status ~ sex, var_subgroup = "kk", data = lung, family = "binomial")

## survey design
library(survey)
data.design <- svydesign(id = ~1, data = lung)
TableSubgroupGLM(status ~ sex, data = data.design, family = "binomial")
TableSubgroupGLM(status ~ sex, var_subgroup = "kk", data = data.design, family = "binomial")

```

TableSubgroupMultiCox *TableSubgroupMultiCox: Multiple sub-group analysis table for Cox/svycox model.*

Description

Multiple sub-group analysis table for Cox/svycox model.

Usage

```

TableSubgroupMultiCox(
  formula,
  var_subgroups = NULL,
  var_cov = NULL,
  data,
  time_eventrate = 3 * 365,
  decimal.hr = 2,
  decimal.percent = 1,
  decimal.pvalue = 3,
  line = F,
  cluster = NULL,
  strata = NULL,
  weights = NULL
)

```

Arguments

formula formula with survival analysis.
var_subgroups Multiple sub-group variables for analysis, Default: NULL

var_cov	Variables for additional adjust, Default: NULL
data	Data or svydesign in survey package.
time_eventrate	Time for kaplan-meier based event rate calculation, Default = 365 * 3
decimal.hr	Decimal for hazard ratio, Default: 2
decimal.percent	Decimal for percent, Default: 1
decimal.pvalue	Decimal for pvalue, Default: 3
line	Include new-line between sub-group variables, Default: F
cluster	Cluster variable for coxph, Default: NULL
strata	Strata variable for coxph, Default: NULL
weights	Weights variable for coxph, Default: NULL

Details

This result is used to make forestplot.

Value

Multiple sub-group analysis table.

See Also

[map bind](#)

Examples

```
library(survival)
library(dplyr)
lung %>%
  mutate(
    status = as.integer(status == 1),
    sex = factor(sex),
    kk = factor(as.integer(pat.karno >= 70)),
    kk1 = factor(as.integer(pat.karno >= 60))
  ) -> lung
TableSubgroupMultiCox(Surv(time, status) ~ sex,
  var_subgroups = c("kk", "kk1"),
  data = lung, time_eventrate = 100, line = TRUE
)

## survey design
library(survey)
data.design <- svydesign(id = ~1, data = lung)
TableSubgroupMultiCox(Surv(time, status) ~ sex,
  var_subgroups = c("kk", "kk1"),
  data = data.design, time_eventrate = 100
)
```

TableSubgroupMultiGLM *TableSubgroupMultiGLM: Multiple sub-group analysis table for GLM.*

Description

Multiple sub-group analysis table for GLM.

Usage

```
TableSubgroupMultiGLM(
  formula,
  var_subgroups = NULL,
  var_cov = NULL,
  data,
  family = "binomial",
  decimal.estimate = 2,
  decimal.percent = 1,
  decimal.pvalue = 3,
  line = F
)
```

Arguments

formula	formula with survival analysis.
var_subgroups	Multiple sub-group variables for analysis, Default: NULL
var_cov	Variables for additional adjust, Default: NULL
data	Data or svydesign in survey package.
family	family, "gaussian" or "binomial" or 'poisson' or 'quasipoisson'
decimal.estimate	Decimal for estimate, Default: 2
decimal.percent	Decimal for percent, Default: 1
decimal.pvalue	Decimal for pvalue, Default: 3
line	Include new-line between sub-group variables, Default: F

Details

This result is used to make forestplot.

Value

Multiple sub-group analysis table.

See Also[map bind](#)**Examples**

```
library(survival)
library(dplyr)
lung %>%
  mutate(
    status = as.integer(status == 1),
    sex = factor(sex),
    kk = factor(as.integer(pat.karno >= 70)),
    kk1 = factor(as.integer(pat.karno >= 60))
  ) -> lung
TableSubgroupMultiGLM(status ~ sex,
  var_subgroups = c("kk", "kk1"),
  data = lung, line = TRUE, family = "binomial"
)

## survey design
library(survey)
data.design <- svydesign(id = ~1, data = lung)
TableSubgroupMultiGLM(status ~ sex,
  var_subgroups = c("kk", "kk1"),
  data = data.design, family = "binomial"
)
```


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