Package 'ggsurvey'

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Type Package

Title Simplifying 'ggplot2' for Survey Data

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Description Functions for survey data including svydesign objects from the 'survey' package that call 'ggplot2' to make bar charts, histograms, boxplots, and hexplots of survey data.

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Imports stats

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Contents

`ggbarcrosstabs` *Crosstabs of Two Variables*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes. This function creates a crosstab of x by a second variable y.

Usage

```
ggbarcrosstabs(df, x, y, weights, fill = NULL, labeller = NULL)
```

Arguments

`df`	data frame of survey
`x`	variable to bar chart
`y`	faceting variable
`weights`	survey weights that sum to sample size
`fill`	if true the fill of each bar will be a different color corresponding to the level of the factor
`labeller`	argument to pass onto facet_grid

Value

ggplot object

Examples

```
library(survey)
data(api)
ggbarcrosstabs(apistrat, stype, yr.rnd, pw)+ylab("Proportion")
ggbarcrosstabs(apistrat, stype, yr.rnd, pw, fill = TRUE)+ylab("Proportion")
data(nhanes)
ggbarcrosstabs(nhanes, race, agecat, WTMEC2YR)
```

ggbarcrosstabs3d *Crosstabs of Three Variables*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggbarcrosstabs3d(df, x, y, z, weights, fill = NULL, labeller = NULL)
```

Arguments

df	data frame
x	bar chart variable
y	crosstab variable 1 (horizontal facets)
z	crosstab variable 2 (vertical facets)
weights	survey weights that sum to sample size
fill	if true the fill of each bar will be a different color corresponding to the level of the factor
labeller	argument to pass onto facet_grid

Value

ggplot pbject

Examples

```
library(survey)
data(api)
ggbarcrosstabs3d(apistrat, stype, yr.rnd, awards, pw)
ggbarcrosstabs3d(apistrat, stype, yr.rnd, awards, pw, TRUE)
data(nhanes)
ggbarcrosstabs3d(nhanes, race, agecat, RIAGENDR, WTMEC2YR)
```

ggbarcrosstabs3d_svy *Crosstabs of Three Variables Using svy.design object*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggbarcrosstabs3d_svy(surveyobj, x, y, z, fill = NULL, labeller = NULL)
```

Arguments

surveyobj	svy.design obj
x	bar chart variable
y	crosstab variable 1 (horizontal facets)
z	crosstab variable 2 (vertical facets)
fill	if true the fill of each bar will be a different color corresponding to the level of the factor
labeller	argument to pass onto facet_grid

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
ggbarcrosstabs3d_svy(dstrat, stype, yr.rnd, awards)
ggbarcrosstabs3d_svy(dstrat, stype, yr.rnd, awards, fill = TRUE)
data(nhanes)
design <- svydesign(id=~SDMVPSU, strata=~SDMVSTRA, weights=~WTMEC2YR, nest=TRUE,data=nhanes)
ggbarcrosstabs3d_svy(design, race, agecat, RIAGENDR)
```

ggbarcrosstabs_svy *Crosstabs for svy.design objects*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggbarcrosstabs_svy(surveyobj, x, y, fill = NULL, labeller = NULL)
```

Arguments

surveyobj	svy.design obj
x	variable for bar chart
y	faceting variable (comparison factor)
fill	if true the fill of each bar will be a different color corresponding to the level of the factor
labeller	argument to pass onto facet_grid

Value

ggplot object

Examples

```
library(survey)
library(ggplot2)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
ggbarcrosstabs_svy(dstrat, stype, yr.rnd)+ylab("Proportion")
ggbarcrosstabs_svy(dstrat, stype, yr.rnd, TRUE)+ylab("Proportion")
data(nhanes)
design <- svydesign(id=~SDMVPSU, strata=~SDMVSTRA, weights=~WTMEC2YR, nest=TRUE,data=nhanes)
ggbarcrosstabs_svy(design, race, agecat)
```

ggbarweight *Weighted Univariate Bar Charts*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggbarweight(df, x, weights, fill = NULL)
```

Arguments

df	data frame of survey
x	name of question of interest
weights	survey weights that sums to sample size
fill	if true the fill of each bar will be a different color corresponding to the level of the factor

Value

ggplot object

Examples

```
library(survey)
#Example with data frame
data(api)
ggbarweight(apistrat, stype, pw)
ggbarweight(apistrat, stype, pw, fill = TRUE)
data(nhanes)
ggbarweight(nhanes, race, WTMEC2YR)+ylab("Proportion")
```

---

ggbarweight_svy *Bar Chart from svydesign objects*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggbarweight_svy(surveyobj, x, fill = NULL)
```

Arguments

surveyobj	svydesign
x	variable to plot
fill	if true the fill of each bar will be a different color corresponding to the level of the factor

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
ggbarweight_svy(dstrat, stype)+ylab("Proportion")
ggbarweight_svy(dstrat, stype, fill = TRUE)
data(nhanes)
design <- svydesign(id=~SDMVPSU, strata=~SDMVSTRA, weights=~WTMEC2YR, nest=TRUE,data=nhanes)
ggbarweight_svy(design, agecat)+ylab("Proportion")
ggbarweight_svy(design, agecat, fill = TRUE)+ylab("Proportion")
```

---

ggboxweight *Weighted Box Plot of One Variable*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggboxweight(df, x, weights)
```

Arguments

df	data frame
x	first variable of interest
weights	survey weights that sums to sample size

Value

ggplot object

Examples

```
library(survey)
data(api)
ggboxweight(apistrat, api00, pw)
data(election)
ggboxweight(election_pps, Bush, p)
```

ggboxweight2d *Weighted Boxplot with a categorical variable*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggboxweight2d(df, x, y, weights)
```

Arguments

df	data frame
x	numeric variable of interest
y	categorical variable of interest
weights	survey weights that sums to sample size

Value

ggplot object

Examples

```
library(survey)
data(api)
ggboxweight2d(apistrat, api00, stype, pw)
```

ggboxweight2d_svy *Weighted Boxplot of a survey object with a categorical variable*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggboxweight2d_svy(surveyobj, x, y)
```

Arguments

surveyobj	svy.design object
x	variable to boxplot
y	categorical variable

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
ggboxweight2d_svy(dstrat, api00, stype)
```

---

ggboxweight3d *Weighted Boxplot with a categorical x axis and a faceting variable*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggboxweight3d(df, x, y, z, weights)
```

Arguments

df	data frame
x	first categorical variable of interest
y	numeric variable of interest
z	second variable of interest for faceting
weights	survey weights that sums to sample size

Value

ggplot object

Examples

```
library(survey)
data(api)
ggboxweight3d(apistrat, api00, stype,awards, pw)
```

ggboxweight3d_svy *Weighted Boxplot of svy.design object with two categorical variables*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggboxweight3d_svy(surveyobj, x, y, z)
```

Arguments

surveyobj	svy.design
x	variable to boxplot
y	first categorical variable
z	second categorical variable (for faceting)

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
ggboxweight3d_svy(dstrat, api00, stype, awards)
```

ggboxweight_svy *Weighted Box Plot of svy.design object*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
ggboxweight_svy(surveyobj, x)
```

Arguments

surveyobj	svy.design object
x	variable to boxplot

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
ggboxweight_svy(dstrat, api00)
```

---

gghexweight *Weighted Hex Plot*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghexweight(df, x, y, weights)
```

Arguments

df	data frame
x	name of variable for x axis
y	name of variable for y axis
weights	name of weights variable

Value

ggplot object

Examples

```
library(survey)
data(api)
gghexweight(apistrat, api99, api00, pw)
```

gghexweight2d *Weighted Hex Plot with One Facet Variable*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghexweight2d(df, x, y, z, weights)
```

Arguments

df	data frame
x	name of variable for x axis
y	name of variable for y axis
z	faceting categorical variable
weights	name of weights variable

Value

ggplot object

Examples

```
library(survey)
data(api)
gghexweight2d(apistrat, api99, api00, stype, pw)
```

gghexweight2d_svy *Weighted Hex Plot of svy.design with One Facet Variable*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghexweight2d_svy(surveyobj, x, y, z)
```

Arguments

surveyobj	svy.design
x	variable for x axis
y	variable for y axis
z	faceting variable

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
gghexweight2d_svy(dstrat, api99, api00, stype)
```

---

gghexweight3d *Weighted Box Plot with Two Facet Variables*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghexweight3d(df, x, y, a, b, weights)
```

Arguments

df	data frame
x	name of variable for x axis
y	name of variable for y axis
a	first faceting variable
b	second faceting variable
weights	name of weights variable

Value

ggplot object

Examples

```
library(survey)
data(api)
gghexweight3d(apistrat, api99, api00, stype, awards, pw)
```

gghexweight3d_svy *Weighted Hex Plot of svy.design with Two Faceting Variables*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghexweight3d_svy(surveyobj, x, y, a, b)
```

Arguments

surveyobj	svy.design
x	variable for x axis
y	variable for y axis
a	horizontal facetting variable
b	vertical facetting variable

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
gghexweight3d_svy(dstrat, api99, api00, stype, awards)
```

gghexweight_svy *Weighted Hex Plot of Survey Design Object*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghexweight_svy(surveyobj, x, y)
```

Arguments

surveyobj	svy.design
x	name of variable for x axis
y	name of variable for y axis

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
gghexweight_svy(dstrat, api99, api00)
```

---

gghistweight *Weighted Histogram*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghistweight(df, x, weights, binwidth = NULL)
```

Arguments

df	data frame
x	variable of interest
weights	survey weights that sum to sample size
binwidth	desired binwidth, if NULL bins in geom_histogram defaults to 30

Value

ggplot object

Examples

```
library(survey)
data(api)
gghistweight(apistrat, api00, pw)
gghistweight(apistrat, api00, pw, binwidth = 10)
data(election)
gghistweight(election_pps, Bush, p)
```

gghistweight2d *Weighted Histogram with One Facet In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.*

Description

Weighted Histogram with One Facet In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghistweight2d(df, x, y, weights, binwidth = NULL)
```

Arguments

df	data frame
x	first variable of interest
y	categorical variable for faceting
weights	survey weights that sum to sample size
binwidth	desired binwidth, if NULL bins in geom_histogram defaults to 30

Value

ggplot object

Examples

```
library(survey)
data(api)
gghistweight2d(apistrat, api00, stype, pw)
gghistweight2d(apistrat, api00, stype, pw, binwidth = 10)
```

gghistweight2d_svy *Histogram of svy.object with One Facet*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghistweight2d_svy(surveyobj, x, y, binwidth = NULL)
```

Arguments

surveyobj	svy.design object
x	variable to histogram
y	categorical variable to facet
binwidth	binwidth to pass to geom_hist

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
gghistweight2d_svy(dstrat, api00, stype)
gghistweight2d_svy(dstrat, api00, stype, binwidth = 10)
```

---

gghistweight3d *Weighted Histogram with Two Facets*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghistweight3d(df, x, y, z, weights, binwidth = NULL)
```

Arguments

df	data frame
x	first variable of interest
y	first categorical variable for faceting
z	second categorical variable for faceting
weights	survey weights that sum to sample size
binwidth	desired binwidth, if NULL bins in geom_histogram defaults to 30

Value

ggplot object

Examples

```
library(survey)
data(api)
gghistweight3d(apistrat, api00, stype, awards, pw)
gghistweight3d(apistrat, api00, stype, awards, pw, binwidth = 10)
```

gghistweight3d_svy *Histogram of svy.design object with two facets*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghistweight3d_svy(surveyobj, x, y, z, binwidth = NULL)
```

Arguments

surveyobj	svy.design object
x	variable to histogram
y	horizontal facet
z	vertical facet
binwidth	binwidth to pass to geom_hist

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
gghistweight3d_svy(dstrat, api00, stype, awards)
gghistweight3d_svy(dstrat, api00, stype, awards, binwidth = 10)
```

gghistweight_svy *Histogram of svgdesign object*

Description

In ggsurvey you specify both the plotting variables and weights in plain text with no quotes.

Usage

```
gghistweight_svy(surveyobj, x, binwidth = NULL)
```

Arguments

surveyobj	svy.design object
x	variable to histogram
binwidth	binwidth to pass to geom_hist

Value

ggplot object

Examples

```
library(survey)
data(api)
dstrat<-svydesign(id=~1,strata=~stype, weights=~pw, data=apistrat, fpc=~fpc)
gghistweight_svy(dstrat, api00)
gghistweight_svy(dstrat, api00, binwidth = 10)
```

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