Package ‘gglorenz’

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Title Plotting Lorenz Curve with the Blessing of ‘ggplot2’

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Encoding UTF-8

LazyData true

URL https://github.com/jjchern/gglorenz

BugReports https://github.com/jjchern/gglorenz/issues

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Imports ineq

Suggests spelling

Language en-US

NeedsCompilation no

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annotate_ineq

Annotate ggplot2 chart with inequality metric

Description

Adds text annotation to chart with any inequality measure from ineq::ineq. Inequality measures include Gini, RS, Atkinson, Theil, Kol, var, square.var, entropy.

Usage

annotate_ineq(data_ineq, x = 0.1, y = 0.95, decimals = 2, measure_ineq = "Gini", sep_ineq = ": ", ...
)

Arguments

data_ineq Data to calculate the inequality metric on.
x annotation x-axis position, defaults to 0.1.
y annotation y-axis position, defaults to 0.95.
decimals number of decimals to show, defaults to 2.
measure_ineq Name of measure to use; defaults to Gini.
sep_ineq text separator between annotation label and value.
...
any additional parameters to ggplot2::annotate().

References

Gini coefficient from Wikipedia

Examples

library(gglorenz)

ggplot(billionaires, aes(TNW)) +
  stat_lorenz() +
  annotate_ineq(billionaires$TNW)

ggplot(billionaires, aes(TNW)) +
  stat_lorenz(desc = TRUE) +
  geom_abline(linetype = "dashed") +
  theme_bw() +
billionaires

annotate_inaq(billionaires$TNW, measure_inaq = "RS", color = "red",
family = theme_get()$text[["family"]],
size = theme_get()$text[["size"]]/2,
fontface = "italic"
)

billionaires Billionaires data

Description
Contains 500 billionaires’ name, country, industry, and total net worth. The data is collected in Feb. 8, 2018.

Usage
billionaires

Format
An object of class tbl_df (inherits from tbl, data.frame) with 500 rows and 6 columns.

Source
https://www.bloomberg.com/billionaires/

gglorenz gglorenz: Plotting Lorenz Curve with ggplot2

Description
The package provides statistical transformations for plotting empirical ordinary Lorenz curve and generalized Lorenz curve.

Author(s)
JJ Chen
stat_lorenz  Values of Ordinary Lorenz Curve

Description

Provides ordinary Lorenz curve values for line plots

Usage

stat_lorenz(
    mapping = NULL,
    data = NULL,
    geom = "path",
    position = "identity",
    ..., 
    desc = FALSE,
    show.legend = NA,
    inherit.aes = TRUE
)

Arguments

mapping  Set of aesthetic mappings created by aes() or aes_. If specified and inherit.aes = TRUE (the default), it is combined with the default mapping at the top level of the plot. You must supply mapping if there is no plot mapping.
data  The data to be displayed in this layer. There are three options:
If NULL, the default, the data is inherited from the plot data as specified in the call to ggplot().
A data.frame, or other object, will override the plot data. All objects will be fortified to produce a data frame. See fortify() for which variables will be created.
A function will be called with a single argument, the plot data. The return value must be a data.frame, and will be used as the layer data. A function can be created from a formula (e.g. ~ head(.x,10)).
geom  which geom to use; defaults to "path".
position  Position adjustment, either as a string, or the result of a call to a position adjustment function.
...  Other arguments passed on to layer(). These are often aesthetics, used to set an aesthetic to a fixed value, like colour = "red" or size = 3. They may also be parameters to the paired geom/stat.
desc  If FALSE, the default, the population is arranged in ascending order along the x-axis. If TRUE, the population is arranged in descending order.
show.legend  logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.
If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. `borders()`.

**References**

Lorenz curve from Wikipedia

**Examples**

```r
library(gglorenz)

ggplot(billionaires, aes(TNW)) +
  stat_lorenz()

ggplot(billionaires, aes(TNW)) +
  stat_lorenz(desc = TRUE) +
  coord_fixed() +
  geom_abline(linetype = "dashed") +
  theme_minimal()
```

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**stat_lorenz_generalized**

*Values of Generalized Lorenz Curve*

**Description**

Provides generalized Lorenz curve values for line plots

**Usage**

```r
stat_lorenz_generalized(
  mapping = NULL,
  data = NULL,
  geom = "path",
  position = "identity",
  ..., 
  show.legend = NA,
  inherit.aes = TRUE
)
```

**Arguments**

- `mapping` Set of aesthetic mappings created by `aes()` or `aes()`. If specified and `inherit.aes = TRUE` (the default), it is combined with the default mapping at the top level of the plot. You must supply `mapping` if there is no plot mapping.
The data to be displayed in this layer. There are three options:

If NULL, the default, the data is inherited from the plot data as specified in the call to `ggplot()`.

A data.frame, or other object, will override the plot data. All objects will be fortified to produce a data frame. See `fortify()` for which variables will be created.

A function will be called with a single argument, the plot data. The return value must be a data.frame, and will be used as the layer data. A function can be created from a formula (e.g. `~ head(.x, 10)`).

**geom**

which geom to use; defaults to "path".

**position**

Position adjustment, either as a string, or the result of a call to a position adjustment function.

**...**

Other arguments passed on to `layer()`. These are often aesthetics, used to set an aesthetic to a fixed value, like `colour = "red"` or `size = 3`. They may also be parameters to the paired geom/stat.

**show.legend**

logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

**inherit.aes**

If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. `borders()`.

**References**

Lorenz curve from Wikipedia

**Examples**

```r
library(gglorenz)

ggplot(billionaires, aes(TNW)) +
  stat_lorenz_generalized()
```
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