

# Package ‘plotDK’

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**Title** Plot Summary Statistics as Choropleth Maps of Danish Administrative Areas

**Description** Provides a ggplot2 front end to plot summary statistics on danish provinces, regions, municipalities, and zipcodes. The needed geoms of each of the four levels are inherent in the package, thus making these types of plots easy for the user. This is essentially an updated port of the previously available 'mapDK' package by Sebastian Barfort.

**Version** 0.1.0

**Depends** R (>= 4.0)

**License** MIT + file LICENSE

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.1.1

**Imports** dplyr, ggplot2 (>= 3.1.0), mapproj, plotly, purrr, rlang

**Suggests** testthat

**NeedsCompilation** no

**Author** Kristian Stendorff Nielsen [aut, cre]

**Maintainer** Kristian Stendorff Nielsen <krisdorff@hotmail.com>

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create_plot_data	<i>Create Plot Data</i>
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### Description

If data is provided, this functions attempts to merge the provided data with the geom-data inherent in the package on the chosen plotlevel. If no data is provided, only the geom-data for the chosen plotlevel is returned. This data is used to create the DK-plot.

### Usage

```
create_plot_data(data, id, plotlevel, show_missing = FALSE, ...)
```

### Arguments

data	A data.frame containing an ID-variable specifying either a municipality, region, province or zipcode (see id), as well as a value-variable containing any value to be plotted on the chosen level.
id	A character specifying the name of a column in data containing the ID on the chosen level. For municipalities these variables can be either; <ul style="list-style-type: none"> <li>• A character-variable with danish municipality names. For accepted values see <a href="#">municipality_info</a>.</li> <li>• A numeric/integer-variable with official municipality numbers. For accepted values see <a href="#">municipality_info</a>.</li> </ul> For regions these variables can either; <ul style="list-style-type: none"> <li>• A character-variable with danish region names. For accepted values see <a href="#">region_info</a>.</li> <li>• A numeric/integer-variable with danish region numbers. For accepted values see <a href="#">region_info</a>.</li> </ul> For provinces these variables can be either; <ul style="list-style-type: none"> <li>• A character-variable with danish province names. For accepted values see <a href="#">province_info</a>.</li> <li>• A numeric/integer-variable with danish province numbers. For accepted values see <a href="#">province_info</a>.</li> </ul> For zip-codes these variables can be; <ul style="list-style-type: none"> <li>• A numeric/integer-variable with danish zip-codes. For accepted values see <a href="#">zipcode_info</a>.</li> </ul>
plotlevel	character, indicating which level to plot. Valid options are "municipality", "region", "province", and "zipcode".
show_missing	logical. Should levels not present in data or with NA-values be printed? This can be used to plot only a subset of entities.
...	Further arguments to pass to merge_data

**Value**

A data.frame with either raw geom-data or geom-data merged with any data provided.

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municipality	<i>Municipality data with keys and polygon-geoms for municipalities of Denmark</i>
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**Description**

Municipality data with keys and polygon-geoms for municipalities of Denmark

**Usage**

```
municipality
```

**Format**

A data frame with 39,230 rows and 7 columns:

**long** Longitude coordinates.

**lat** Latitude coordinates.

**order** Order of coordinates in geoms.

**group** Geom groups.

**id** Name of entity.

**id\_numeric** Number of entity.

**hole** Indication of a geom hole.

**Source**

Statistics Denmark

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municipality_info	<i>Information of Valid Municipality Names and Numbers</i>
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**Description**

Information of Valid Municipality Names and Numbers

**Usage**

```
municipality_info
```

**Format**

A data frame with 99 rows and 2 columns:

**municipality\_names** Valid names of municipalities.

**municipality\_numbers** Valid numbers of municipalities.

**Source**

Statistics Denmark

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plotDK	<i>Generate choropleth maps of Danish Municipalities, Regions, Provinces and Zip-areas</i>
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**Description**

Draws a map that highlights any value of interest across either danish municipalities, regions, provinces or zip-codes. This is essentially a ggplot2-wrapper incorporating geoms of danish municipalities, regions, provinces and zipcodes. Therefore the output is compatible with further ggplot2 elements.

**Usage**

```
plotDK(
  data = NULL,
  id = NULL,
  value = NULL,
  plotlevel = "municipality",
  show_missing = FALSE,
  show_borders = TRUE,
  interactive = FALSE,
  titel = NULL
)
```

**Arguments**

**data** A data.frame containing an ID-variable specifying either a municipality, region, province or zipcode (see id), as well as a value-variable containing any value to be plotted on the chosen level.

**id** A character specifying the name of a column in data containing the ID on the chosen level.

For municipalities these variables can be either;

- A character-variable with danish municipality names. For accepted values see [municipality\\_info](#).
- A numeric/integer-variable with official municipality numbers. For accepted values see [municipality\\_info](#).

For regions these variables can either;

- A character-variable with danish region names. For accepted values see [region\\_info](#).
- A numeric/integer-variable with danish region numbers. For accepted values see [region\\_info](#).

For provinces these variables can be either;

- A character-variable with danish province names. For accepted values see [province\\_info](#).
- A numeric/integer-variable with danish province numbers. For accepted values see [province\\_info](#).

For zip-codes these variables can be;

- A numeric/integer-variable with danish zip-codes. For accepted values see [zipcode\\_info](#).

value	numeric-, factor- or character-variabel to be plotted on the map. Note that character-variables will be naively translated to factors behind the scenes. For full control over levels, pre-convert to a factor.
plotlevel	character, indicating which level to plot. Valid options are "municipality", "region", "province", and "zipcode".
show_missing	logical. Should levels not present in data or with NA-values be printed? This can be used to plot only a subset of entities.
show_borders	logical. Should geom borders be drawn?
interactive	logical. Should the plot be converted to an interactive plotly plot?
titel	character. Optional plot title.

### Value

A ggplot object.

### Examples

```
## Empty plot
plotDK()

province_data <- data.frame(
  province_name = c(
    "nordjylland",
    "østjylland",
    "vestjylland",
    "fyn",
    "sydjylland",
    "vest-og-syd-sjælland",
    "øst-sjælland",
    "københavns-området",
    "byen København",
    "bornholm",
    "nordsjælland"
```

```

),
value = 1:11,
stringsAsFactors = FALSE
)

```

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province	<i>Province data with keys and polygon-geoms for provinces of Denmark</i>
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### Description

Province data with keys and polygon-geoms for provinces of Denmark

### Usage

```
province
```

### Format

A data frame with 4,083 rows og 7 columns:

**long** Longitude coordinates.

**lat** Latitude coordinates.

**order** Order of coordinates in geoms.

**group** Geom groups.

**id** Name of entity.

**id\_numeric** Number of entity.

**hole** Indication of a geom hole.

@source Statistics Denmark

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province_info	<i>Information of Valid Province Names and Numbers</i>
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### Description

Information of Valid Province Names and Numbers

### Usage

```
province_info
```

**Format**

A data frame with 11 rows and 2 columns:

**province\_names** Valid names of provinces.

**province\_numbers** Valid numbers of provinces.

**Source**

Statistics Denmark

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region

*Region data with keys and polygon-geoms for regions of Denmark*

---

**Description**

Region data with keys and polygon-geoms for regions of Denmark

**Usage**

region

**Format**

A data frame with 32,522 rows and 7 columns:

**long** Longitude coordinates.

**lat** Latitude coordinates.

**order** Order of coordinates in geoms.

**group** Geom groups.

**id** Name of entity.

**id\_numeric** Number of entity.

**hole** Indication of a geom hole.

**Source**

Statistics Denmark

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region_info	<i>Information of Valid Region Names and Numbers</i>
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**Description**

Information of Valid Region Names and Numbers

**Usage**

region\_info

**Format**

A data frame with 5 observations and 2 columns:

**region\_names** Valid names of regions.

**region\_numbers** Valid numbers of regions.

**Source**

Statistics Denmark

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zipcodes	<i>Zipcode data with keys and polygon-geoms for zipcodes of Denmark</i>
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**Description**

Zipcode data with keys and polygon-geoms for zipcodes of Denmark

**Usage**

zipcodes

**Format**

A data frame with 49,322 rows and 7 columns:

**long** Longitude coordinates.

**lat** Latitude coordinates.

**order** Order of coordinates in geoms.

**group** Geom groups.

**id** Name of entity.

**id\_numeric** Number of entity.

**hole** Indication of a geom hole.

**Source**

Statistics Denmark



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zipcode_info	<i>Information of Valid Zipcodes</i>
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**Description**

Information of Valid Zipcodes

**Usage**

zipcode\_info

**Format**

A data frame with 598 rows and 1 column:

**zipcode\_numbers** Valid numbers of zipcodes.

**Source**

Statistics Denmark

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