

# Package ‘csdata’

November 23, 2022

**Title** Structural Data for Norway

**Version** 2022.11.22

**Description** Datasets relating to population in municipalities, municipality/county matching, and how different municipalities have merged/redistricted over time from 2006 to 2020.

**URL** <https://www.csids.no/csdata/>, <https://github.com/csids/csdata>

**BugReports** <https://github.com/csids/csdata/issues>

**Depends** R (>= 3.5.0)

**License** MIT + file LICENSE

**Encoding** UTF-8

**Imports** data.table, stats, utils

**Suggests** testthat, broom, crayon, dplyr, forcats, fs, geojsonio, ggplot2, glue, gt, knitr, lubridate, magrittr, mapproj, methods, ncd4, purrr, readxl, reshape2, rgeos, rmarkdown, rmapshaper, rstudioapi, stringr, sp, sf, tidyr, zoo

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add\_granularity\_geo\_to\_data\_set  
*Adds granularity\_geo to a given data set*

---

### Description

Adds granularity\_geo to a given data set

### Usage

```
add_granularity_geo_to_data_set(x, location_reference = NULL)
```

### Arguments

x                    A data.table containing a column called "location\_code".  
location\_reference                    A location reference data.table.

### Value

A data.table containing an extra column called "granularity\_geo".

### Examples

```
library(data.table)
data <- data.table(location_code = c("norge", "county03", "blah"))
csdata::add_granularity_geo_to_data_set(data)
print(data)

library(data.table)
data <- data.table(location_code = c("norge", "county03", "blah"))
csdata::add_granularity_geo_to_data_set(data, location_reference = csdata::nor_locations_names())
print(data)
```

---

add\_iso3\_to\_data\_set *Adds iso3 to a given data set*

---

**Description**

Adds iso3 to a given data set

**Usage**

```
add_iso3_to_data_set(x)
```

**Arguments**

x                    A data.table containing a column called "location\_code".

**Value**

A data.table containing an extra column called "iso3".

**Examples**

```
library(data.table)
data <- data.table(location_code = c("norge", "county03", "blah"))
csdata::add_iso3_to_data_set(data)
print(data)
```

---

config                    *An environment containing configuration variables*

---

**Description**

Available configuration variables:

- border\_nor (default 2020): The year in which Norwegian geographical boundaries were designated.

**Usage**

```
config
```

**Format**

An object of class environment of length 1.

**Examples**

```
print(ls(csdata::config))
for(i in names(csdata::config)){
  cat(i, ":", csdata::config[[i]], "\n")
}
```

---

location\_code\_to\_granularity\_geo  
*Convert location\_code to granularity\_geo*

---

**Description**

Convert location\_code to granularity\_geo

**Usage**

```
location_code_to_granularity_geo(x, location_reference = NULL)
```

**Arguments**

**x** Either a vector, or a data.frame/data.table containing a column called "location\_code".

**location\_reference** A location reference data.table.

**Value**

Character vector the same length as x, containing the corresponding granularity\_geo.

**Examples**

```
csdata::location_code_to_granularity_geo(c("nation_nor", "county03"))
```

---

location\_code\_to\_iso3 *Convert location\_code to iso3*

---

**Description**

Convert location\_code to iso3

**Usage**

```
location_code_to_iso3(x)
```

**Arguments**

x Either a vector, or a data.frame/data.table containing a column called "location\_code".

**Value**

Character vector the same length as x, containing the corresponding iso3.

**Examples**

```
csdata::location_code_to_iso3(c("nation_nor", "county03"))
```

---

nb	<i>Norwegian characters in unicode</i>
----	--

---

**Description**

Norwegian characters in unicode

**Usage**

```
nb
```

**Format**

An object of class list of length 6.

**Examples**

```
print(csdata::nb)
```

---

nor_locations_hierarchy_from_to	<i>Location hierarchies in Norway</i>
---------------------------------	---------------------------------------

---

**Description**

Calculates the relationship between different locations in Norway, according to geographic granularity. For example, which municipalities are inside which counties.

**Usage**

```
nor_locations_hierarchy_from_to(
  from,
  to,
  include_to_name = FALSE,
  border = csdata::config$border_nor
)
```

**Arguments**

from	wardoslo, wardbergen, wardtrondheim, wardstavanger, municip, baregion, county, region, mregion, notmainlandmunicip, notmainlandcounty, missingmunicip, missingcounty
to	wardoslo, wardbergen, wardtrondheim, wardstavanger, municip, baregion, county, region, mregion, notmainlandmunicip, notmainlandcounty, missingmunicip, missingcounty
include_to_name	Do you want to include the name of the 'to' location?
border	The year in which Norwegian geographical boundaries were designated.

**Value**

Data.table containing the columns:

- from\_code
- to\_code
- to\_name (if include\_to\_name==TRUE)

**Examples**

```
csdata::nor_locations_hierarchy_from_to(from="wardoslo", to="county")
csdata::nor_locations_hierarchy_from_to(from="municip", to="baregion")
```

---

nor\_locations\_names    *All names in Norway*

---

**Description**

All names in Norway

**Usage**

```
nor_locations_names(border = csdata::config$border_nor)
```

**Arguments**

border	The border year
--------	-----------------

**Value**

- location\_code** Location code.
- location\_name** Location name.
- location\_name\_description\_nb** Location name with additional description.
- location\_name\_file\_nb\_utf** Location name that should be used in file names, with Norwegian characters.
- location\_name\_file\_nb\_ascii** Location name that should be used in file names, without Norwegian characters.
- location\_order** The preferred presentation order.
- granularity\_geo** nation, county, municip, wardoslo, wardbergen, wardstavanger, wardtrondheim, baregion, lab.

**Source**

[https://no.wikipedia.org/wiki/Liste\\_over\\_norske\\_kommunennummer](https://no.wikipedia.org/wiki/Liste_over_norske_kommunennummer)

**Examples**

```
nor_locations_names()
```

---

```
nor_locations_redistricting
      All redistricting in Norway
```

---

**Description**

This function returns a dataset that is used to transfer "original" datasets to the 2020 borders.

**Usage**

```
nor_locations_redistricting(border = csdata::config$border)
```

**Arguments**

**border** The year in which Norwegian geographical boundaries were designated.

**Value**

- location\_code\_current** The location code per today.
- location\_code\_original** The location code as of "calyear".
- calyear** The year corresponding to "county\_code\_original".
- weighting** The weighting that needs to be applied.
- granularity\_geo** nation, county, municip, wardbergen, wardoslo, wardstavanger, wardtrondheim, missingwardbergen, missingwardoslo, missingwardstavanger, missingwardtrondheim, notmainlandcounty, notmainlandmunicip, missingcounty

**Examples**

```
csdata::nor_locations_redistricting()
```

---

```
nor_population_by_age_cats
```

```
Population in Norway by categories
```

---

**Description**

A function that easily categorizes the Norwegian population into different age categories.

**Usage**

```
nor_population_by_age_cats(  
  cats = NULL,  
  include_total = TRUE,  
  include_9999 = FALSE,  
  border = csdata::config$border_nor  
)
```

**Arguments**

cats	A list containing vectors that you want to categorize.
include_total	Boolean. Should 'total' be included as an age cat?
include_9999	Boolean. Should the current year is duplicated and added as "calyear==9999". This is in accordance with the cstydy principles regarding granularity_time=="event_*".
border	The year in which Norwegian geographical boundaries were designated.

**Value**

A data.table containing the following columns:

- granularity\_geo
- location\_code
- age (as specified in the argument "cats")
- sex ("total")
- calyear
- pop\_jan1\_n
- imputed

**Examples**

```
nor_population_by_age_cats(cats = list(c(1:10), c(11:20)))  
nor_population_by_age_cats(cats = list("one to ten" = c(1:10), "eleven to twenty" = c(11:20)))  
nor_population_by_age_cats(cats = list(c(1:10), c(11:20), "021p"=c(21:200)))
```



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se	<i>Swedish characters in unicode</i>
----	--------------------------------------

---

**Description**

Swedish characters in unicode

**Usage**

```
se
```

**Format**

An object of class `list` of length 4.

**Examples**

```
print(csdata::se)
```

---

set_config	<i>Set options in the package config</i>
------------	--

---

**Description**

Set options in the package config

**Usage**

```
set_config(border_nor = NULL)
```

**Arguments**

`border_nor` The year in which Norwegian geographical boundaries were designated.

**Value**

Nothing. Side effect of setting the config environment.

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