

Package: cincy (via r-universe)

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Title Cincinnati Neighborhood, Tract, County, and ZIP Code Geographies

Version 1.1.0

Description Provide simple feature (sf) objects for Cincinnati neighborhood, tract, county, and ZIP code geographies.

License GPL (>= 3)

Encoding UTF-8

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Depends R (>= 2.10)

LazyData true

LazyDataCompression xz

URL <https://geomarker.io/cincy/>

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Repository <https://geomarker-io.r-universe.dev>

RemoteUrl <https://github.com/geomarker-io/cincy>

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Contents

add_neighborhood	2
blockgroup_tigris_2000	3
county_7cc_2010	3

county_8cc_2010	4
county_hlthvoh_2010	5
county_hlthv_2010	6
county_swoh_2010	6
dep_index	7
districts_tigris_2011	8
interpolate	8
neigh_ccc	9
neigh_cchmc_2010	9
neigh_cchmc_2020	10
neigh_sna	10
tract_tigris_2000	11
zcta_tigris_2000	11

Index	13
--------------	-----------

add_neighborhood	<i>Add neighborhood based on census tract</i>
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Description

This function uses the internal data objects, `hamilton_tract_to_cincy_neighborhood_2010` and `hamilton_tract_to_cincy_neighborhood_2020`, to add a neighborhood from `cincy::neigh_cchmc_2010` and `cincy::neigh_cchmc_2020` for each row of a data frame.

Usage

```
add_neighborhood(.x, vintage = c("2010", "2020"))
```

Arguments

<code>.x</code>	a data frame containing a census tract column named <code>census_tract_id</code> , <code>census_tract_id_2010</code> , or <code>census_tract_id_2020</code>
<code>vintage</code>	a string specifying to use the 2010 or 2020 census tract to neighborhood lookup table; if set will override any vintage found in census tract id column names

Details

The vintage of tracts is automatically inferred based on the name of the found tract column (`census_tract_id_2010` or `census_tract_id_2020`), but can be specified using the `vintage` argument. If just the column `census_tract_id` exists, then a default of 2010 will be used.

Examples

```
add_neighborhood(tract_tigris_2010)
```

blockgroup_tigris_2000
Block Groups

Description

Census block groups for Hamilton County from 2000, 2010, and 2020.

Usage

blockgroup_tigris_2000

blockgroup_tigris_2010

blockgroup_tigris_2020

Format

An object of class sf (inherits from data.frame) with 736 rows and 2 columns.

An object of class sf (inherits from data.frame) with 697 rows and 2 columns.

An object of class sf (inherits from data.frame) with 678 rows and 2 columns.

Details

Block groups were downloaded directly from the Census Bureau using the [tigris](#) package

Source

[2000 TIGER/Line Shapefiles](#)

[2010 TIGER/Line Shapefiles](#)

[2020 TIGER/Line Shapefiles](#) Block Groups (2000 TIGER/Line)

county_7cc_2010 *Seven County Region*

Description

County groupings are derived from CCHMC operational definitions

Usage

county_7cc_2010

Format

A simple features data frame with 7 rows and 6 columns:

county_name County Name
county_id County ID
state_name State Name
state_id State ID
geoid GEOID (state_id + county_id)
geometry simple features geometry column

Source

see data-raw/data.R for county FIPS listed for each grouping

Examples

```
tmap::tm_shape(county_7cc_2010) +
  tmap::tm_polygons(col = "county_name",
                    legend.show = FALSE) +
  tmap::tm_text(text = "county_name")
```

county_8cc_2010

Eight County Region

Description

County groupings are derived from CCHMC operational definitions

Usage

county_8cc_2010

Format

A simple features data frame with 8 rows and 6 columns:

county_name County Name
county_id County ID
state_name State Name
state_id State ID
geoid GEOID (state_id + county_id)
geometry simple features geometry column

Source

see data-raw/data.R for county FIPS listed for each grouping

Examples

```
tmap::tm_shape(county_8cc_2010) +  
  tmap::tm_polygons(col = "county_name",  
                    legend.show = FALSE) +  
  tmap::tm_text(text = "county_name")
```

county_hlthvoh_2010 *Healthvine Ohio Counties*

Description

County groupings are derived from CCHMC operational definitions

Usage

```
county_hlthvoh_2010
```

Format

A simple features data frame with 8 rows and 6 columns:

county_name County Name

county_id County ID

state_name State Name

state_id State ID

geoid GEOID (state_id + county_id)

geometry simple features geometry column

Source

see data-raw/data.R for county FIPS listed for each grouping

Examples

```
tmap::tm_shape(county_hlthvoh_2010) +  
  tmap::tm_polygons(col = "county_name",  
                    legend.show = FALSE) +  
  tmap::tm_text(text = "county_name")
```

county_hlthv_2010 *Healthvine Counties*

Description

County groupings are derived from CCHMC operational definitions

Usage

county_hlthv_2010

Format

A simple features data frame with 15 rows and 6 columns:

county_name County Name

county_id County ID

state_name State Name

state_id State ID

geoid GEOID (state_id + county_id)

geometry simple features geometry column

Source

see data-raw/data.R for county FIPS listed for each grouping

Examples

```
tmap::tm_shape(county_hlthv_2010) +  
  tmap::tm_polygons(col = "county_name",  
                    legend.show = FALSE) +  
  tmap::tm_text(text = "county_name")
```

county_swoh_2010 *Southwest Ohio Counties*

Description

County groupings are derived from CCHMC operational definitions

Usage

county_swoh_2010

Format

A simple features data frame with 4 rows and 6 columns:

county_name County Name

county_id County ID

state_name State Name

state_id State ID

geoid GEOID (state_id + county_id)

geometry simple features geometry column

Source

see data-raw/data.R for county FIPS listed for each grouping

Examples

```
tmap::tm_shape(county_swoh_2010) +  
  tmap::tm_polygons(col = "county_name",  
                    legend.show = FALSE) +  
  tmap::tm_text(text = "county_name")
```

dep_index

Deprivation Index

Description

An example census tract-level dataset. A simple features object of all census tracts in Hamilton County, OH with values for the 2018 deprivation index and its six components.

Usage

```
dep_index
```

Format

An object of class `sf` (inherits from `data.frame`) with 222 rows and 9 columns.

Source

The [2018 deprivation_index](#). See data-raw/make_dep_index_data.R.

districts_tigris_2011 *Congressional Districts (2011 TIGER/Line)*

Description

Congressional Districts (2011 TIGER/Line)

Congressional Districts (2013 TIGER/Line)

Usage

```
districts_tigris_2011
```

```
districts_tigris_2013
```

Format

An object of class `sf` (inherits from `data.frame`) with 2 rows and 2 columns.

An object of class `sf` (inherits from `data.frame`) with 2 rows and 2 columns.

interpolate

Spatially interpolate community-level data

Description

Weights at the census block-level are used to spatially interpolate different geographies. Block-level total population, total number of homes, or total area from the 2020 Census can be chosen to use for the weights. All *numeric* variables in `from` are interpolated *non-extensively*, except for any numeric variables that start with `n_`, which are interpolated *extensively*.

Usage

```
interpolate(from, to, weights = c("pop", "homes", "area"))
```

Arguments

<code>from</code>	<code>sf</code> object with a neighborhood, census tract, census block group, census block, or zcta column and numeric values to be interpolated into target geographies. The <code>from</code> object should be CRS 5072. If not, it will be projected to 5072 for interpolation.
<code>to</code>	<code>sf</code> object of target geography This function is designed to work with <code>cincy::</code> geography objects, and <code>to</code> objects must be CRS 5072.
<code>weights</code>	use one of "pop" (population), "homes", or "area" from the 2020 census block estimates to interpolate the values

Details

Possible geography id column names include "neighborhood", "zcta", "census_tract_id", "census_block_id", "census_block_group_id", and "district". Optionally, the column names can be appended with the census decade vintage "_2000", "_2010", or "_2000" ("district" vintages include "_2011" and "_2013").

Examples

```
# interpolate 2018 deprivation index to ZIP code level
interpolate(dep_index, cincy::zcta_tigris_2010, "pop")
# interpolate 2018 deprivation index to 2020 census tracts
interpolate(dep_index, cincy::tract_tigris_2020, "pop")
```

neigh_ccc	<i>Neighborhood: Cincinnati Community Council (CCC)</i>
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Description

Neighborhood: Cincinnati Community Council (CCC)

Usage

```
neigh_ccc
```

Format

An object of class `sf` (inherits from `data.frame`) with 75 rows and 2 columns.

Source

[CAGIS Open Data](#) Community Council (CCC) Neighborhoods

neigh_cchmc_2010	<i>Neighborhood: CCHMC 2010</i>
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Description

Neighborhood: CCHMC 2010

Usage

```
neigh_cchmc_2010
```

Format

An object of class `sf` (inherits from `tbl_df`, `tbl`, `data.frame`) with 81 rows and 2 columns.

Source

See data-raw/hamilton_tract_to_cincy_neighborhood_2010.csv for tract to neighborhood lookup table

neigh_cchmc_2020 *Neighborhood: CCHMC 2020*

Description

Neighborhood: CCHMC 2020

Usage

neigh_cchmc_2020

Format

An object of class sf (inherits from tbl_df, tbl, data.frame) with 81 rows and 2 columns.

Source

See data-raw/make_tract_neigh_crosswalk_data.R for tract to neighborhood lookup table

neigh_sna *Neighborhood: Statistical Neighborhood Approximations (SNA)*

Description

Neighborhood: Statistical Neighborhood Approximations (SNA)

Usage

neigh_sna

Format

An object of class sf (inherits from data.frame) with 50 rows and 2 columns.

Source

[CAGIS Open Data](#) Community Council (CCC) Neighborhoods

tract_tigris_2000	<i>Tract</i>
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Description

Census Tracts for Hamilton County from 2000, 2010, and 2020.

Usage

tract_tigris_2000

tract_tigris_2010

tract_tigris_2020

Format

An object of class sf (inherits from data.frame) with 230 rows and 2 columns.

An object of class sf (inherits from data.frame) with 222 rows and 2 columns.

An object of class sf (inherits from data.frame) with 226 rows and 2 columns.

Details

Tracts were downloaded directly from the Census Bureau using the [tigris](#) package

Source

/data-raw/make_blockgroup_tract_zcta_data.R

[2000 TIGER/Line Shapefiles](#)

[2010 TIGER/Line Shapefiles](#)

[2020 TIGER/Line Shapefiles](#) Census Tracts (2000 TIGER/Line)

zcta_tigris_2000	<i>ZCTA</i>
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Description

[ZIP Code Tabulation Areas \(ZCTAs\)](#) for Ohio that (at least partially) intersect with Hamilton County from 2000, 2010, and 2020.

Usage

```
zcta_tigris_2000
```

```
zcta_tigris_2010
```

```
zcta_tigris_2020
```

Format

An object of class `sf` (inherits from `data.frame`) with 53 rows and 2 columns.

An object of class `sf` (inherits from `data.frame`) with 54 rows and 2 columns.

An object of class `sf` (inherits from `data.frame`) with 55 rows and 2 columns.

Source

ZCTAs were downloaded directly from the Census Bureau using the `tigris` package ZCTA (2000 TIGER/Line)

Index

* datasets

- blockgroup_tigris_2000, [3](#)
- county_7cc_2010, [3](#)
- county_8cc_2010, [4](#)
- county_hlthv_2010, [6](#)
- county_hlthvoh_2010, [5](#)
- county_swoh_2010, [6](#)
- dep_index, [7](#)
- districts_tigris_2011, [8](#)
- neigh_ccc, [9](#)
- neigh_cchmc_2010, [9](#)
- neigh_cchmc_2020, [10](#)
- neigh_sna, [10](#)
- tract_tigris_2000, [11](#)
- zcta_tigris_2000, [11](#)

tract_tigris_2000, [11](#)

tract_tigris_2010 (tract_tigris_2000), [11](#)

tract_tigris_2020 (tract_tigris_2000), [11](#)

zcta_tigris_2000, [11](#)

zcta_tigris_2010 (zcta_tigris_2000), [11](#)

zcta_tigris_2020 (zcta_tigris_2000), [11](#)

add_neighborhood, [2](#)

blockgroup_tigris_2000, [3](#)

blockgroup_tigris_2010
(blockgroup_tigris_2000), [3](#)

blockgroup_tigris_2020
(blockgroup_tigris_2000), [3](#)

county_7cc_2010, [3](#)

county_8cc_2010, [4](#)

county_hlthv_2010, [6](#)

county_hlthvoh_2010, [5](#)

county_swoh_2010, [6](#)

dep_index, [7](#)

districts_tigris_2011, [8](#)

districts_tigris_2013
(districts_tigris_2011), [8](#)

interpolate, [8](#)

neigh_ccc, [9](#)

neigh_cchmc_2010, [9](#)

neigh_cchmc_2020, [10](#)

neigh_sna, [10](#)