# Package 'USpopcenters'

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Title United States Centers of Population (Centroids)
Version 0.2.0
<b>Description</b> Centers of population (centroid) data for census areas in the United States.
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#### **Description**

A data set of the latitude and longitude coordinates of the centers of population (centroids) of census block groups in the US states plus the District of Columbia and Puerto Rico. Populations according to the 2000 decennial census are also included.

# Usage

block\_group2000

#### **Format**

A tibble with 211,267 rows and 7 variables:

STATEFP The two-digit GEOID of the state where the block group is located

**COUNTYFP** The last three digits of the five-digit GEOID of the county where the block group is located

**TRACTCE** The last six digits of the eleven-digit GEOID of the tract where the block group is located

**BLKGRPCE** The last digit of the twelve-digit GEOID of the block group

**POPULATION** The population of the block group

**LATITUDE** The latitude coordinate of the center of population (centroid) of the block group (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the block group (positive is east; negative is west)

#### **Details**

There are 707 block groups with a POPULATION of 0 and a missing value for both LATITUDE and LONGITUDE.

Unlike county2000, block\_group2000 does not contain data from American Samoa, Guam, the Northern Mariana Islands, or the US Virgin Islands.

The source data file in the zip file on the US census website has different column names than what its data dictionary reports. The data dictionary's version of the column names were used, since they are consistent with the majority of the other data files and data dictionaries on the census website.

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# US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file is in the .zip file at https://www2.census.gov/geo/docs/reference/cenpop2000/blkgrp/bg\_popcen.zip. The 2000 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2000.html

#### See Also

```
Other 2000 census centers of population: state2000; county2000; tract2000 2010 census centers of population: state2010; county2010; tract2010; block_group2010; US_mean_center2010; US_median_center2010 2020 census centers of population: state2020; county2020; tract2020; block_group2020; US_mean_center2020; US_median_center2020
```

# **Examples**

block\_group2000

block_group2010	Centers of population of US census block groups according to the 2010
	census

# **Description**

A data set of the latitude and longitude coordinates of the centers of population (centroids) of census block groups in the US states plus the District of Columbia and Puerto Rico. Populations according to the 2010 decennial census are also included.

#### Usage

block\_group2010

#### **Format**

A tibble with 220,334 rows and 7 variables:

STATEFP The two-digit GEOID of the state where the block group is located

**COUNTYFP** The last three digits of the five-digit GEOID of the county where the block group is located

**TRACTCE** The last six digits of the eleven-digit GEOID of the tract where the block group is located

**BLKGRPCE** The last digit of the twelve-digit GEOID of the block group

**POPULATION** The population of the block group

block\_group2020

**LATITUDE** The latitude coordinate of the center of population (centroid) of the block group (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the block group (positive is east; negative is west)

# US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2010/blkgrp/CenPop2010\_Mean\_BG.txt The 2010 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2010.html

# See Also

Other 2010 census centers of population: state2010; county2010; tract2010; US\_mean\_center2010; US\_median\_center2010

2020 census centers of population: state2020; county2020; tract2020; block\_group2020; US\_mean\_center2020; US\_median\_center2020

2000 census centers of population: state2000; county2000; tract2000; block\_group2000

# **Examples**

block\_group2010

block_group2020	Centers of population of US census block groups according to the 2020
	census

# Description

A data set of the latitude and longitude coordinates of the centers of population (centroids) of census block groups in the US states plus the District of Columbia and Puerto Rico. Populations according to the 2020 decennial census are also included.

# Usage

block\_group2020

block\_group2020 5

#### **Format**

A tibble with 242,335 rows and 7 variables:

**STATEFP** The two-digit GEOID of the state where the block group is located

**COUNTYFP** The last three digits of the five-digit GEOID of the county where the block group is located

**TRACTCE** The last six digits of the eleven-digit GEOID of the tract where the block group is located

**BLKGRPCE** The last digit of the twelve-digit GEOID of the block group

**POPULATION** The population of the block group

**LATITUDE** The latitude coordinate of the center of population (centroid) of the block group (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the block group (positive is east; negative is west)

# US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2020/blkgrp/CenPop2020\_Mean\_BG.txt The 2020 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2020.html

# See Also

Other 2020 census centers of population: state2020; county2020; tract2020; US\_mean\_center2020; US\_median\_center2020

2010 census centers of population: state2010; county2010; tract2010; block\_group2010; US\_mean\_center2010; US\_median\_center2010

2000 census centers of population: state2000; county2000; tract2000; block\_group2000

# **Examples**

block\_group2020

6 county 2000

county2000

Centers of population of US counties according to the 2000 census

# Description

A data set of the latitude and longitude coordinates of the centers of population (centroids) of counties (and county equivalents) in the US states plus the District of Columbia, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands, and the US Virgin Islands. Populations according to the 2000 decennial census are also included.

# Usage

county2000

#### **Format**

A tibble with 3,232 rows and 6 variables:

**STATEFP** The two-digit GEOID of the state where the county is located

COUNTYFP The last three digits of the five-digit GEOID of the county

COUNAME The name of the county

**POPULATION** The population of the county

**LATITUDE** The latitude coordinate of the center of population (centroid) of the county (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the county (positive is east; negative is west)

# **Details**

This had to be stitched together from separate state files.

Unlike county2020 and county2010, county2000 contains data from American Samoa, Guam, the Northern Mariana Islands, and the US Virgin Islands. Also unlike county2020 and county2010, county2000 does not contain the STNAME (state name) column.

# US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

# Source

The individual state source files are at https://www2.census.gov/geo/docs/reference/cenpop2000/county/. The 2000 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2000.html

county2010 7

# See Also

```
Other 2000 census centers of population: state2000; tract2000; block_group2000 2010 census centers of population: state2010; county2010; tract2010; block_group2010; US_mean_center2010; US_median_center2010 2020 census centers of population: state2020; county2020; tract2020; block_group2020; US_mean_center2020; US_median_center2020
```

# **Examples**

county2000

county2010

Centers of population of US counties according to the 2010 census

# **Description**

A data set of the latitude and longitude coordinates of the centers of population (centroids) of counties (and county equivalents) in the US states plus the District of Columbia and Puerto Rico. Populations according to the 2010 decennial census are also included.

# Usage

county2010

#### **Format**

A tibble with 3,221 rows and 7 variables:

STATEFP The two-digit GEOID of the state where the county is located

COUNTYFP The last three digits of the five-digit GEOID of the county

**COUNAME** The name of the county

**STNAME** The name of the state where the county is located

POPULATION The population of the county

**LATITUDE** The latitude coordinate of the center of population (centroid) of the county (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the county (positive is east; negative is west)

# **Details**

Unlike county2000, county2010 and county2020 do not contain data from American Samoa, Guam, the Northern Mariana Islands, or the US Virgin Islands. Also unlike county2000, county2010 and county2020 contain the state name column STNAME.

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#### US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### **Source**

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2010/county/CenPop2010\_Mean\_CO.txt The 2010 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2010.html

#### See Also

Other 2010 census centers of population: state2010; tract2010; block\_group2010; US\_mean\_center2010; US\_median\_center2010

2020 census centers of population: state2020; county2020; tract2020; block\_group2020; US\_mean\_center2020; US\_median\_center2020

2000 census centers of population: state2000; county2000; tract2000; block\_group2000

# **Examples**

county2010

county2020

Centers of population of US counties according to the 2020 census

# Description

A data set of the latitude and longitude coordinates of the centers of population (centroids) of counties (and county equivalents) in the US states plus the District of Columbia and Puerto Rico. Populations according to the 2020 decennial census are also included.

# Usage

county2020

#### **Format**

A tibble with 3,221 rows and 7 variables:

**STATEFP** The two-digit GEOID of the state where the county is located

COUNTYFP The last three digits of the five-digit GEOID of the county

**COUNAME** The name of the county

**STNAME** The name of the state where the county is located

**POPULATION** The population of the county

**LATITUDE** The latitude coordinate of the center of population (centroid) of the county (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the county (positive is east; negative is west)

state2000 9

#### **Details**

Unlike county2000, county2020 and county2010 do not contain data from American Samoa, Guam, the Northern Mariana Islands, or the US Virgin Islands. Also unlike county2000, county2020 and county2010 contain the state name column STNAME.

# US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2020/county/CenPop2020\_Mean\_CO.txt The 2020 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2020.html

# See Also

```
Other 2020 census centers of population: state2020; tract2020; block_group2020; US_mean_center2020; US_median_center2020
```

2010 census centers of population: state2010; county2010; tract2010; block\_group2010; US\_mean\_center2010; US\_median\_center2010

2000 census centers of population: state2000; county2000; tract2000; block\_group2000

# **Examples**

county2020

state2000

Centers of population of US states according to the 2000 census

# Description

A data set of the latitude and longitude coordinates of the centers of population (centroids) of the US states plus the District of Columbia. Populations according to the 2000 decennial census are also included.

#### Usage

state2000

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#### **Format**

A tibble with 51 rows and 5 columns

**STATEFP** The two-digit GEOID of the state

**STNAME** The name of the state

**POPULATION** The population of the state

**LATITUDE** The latitude coordinate of the center of population (centroid) of the state (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the state (positive is east; negative is west)

#### **Details**

Note that this dataset does not contain Puerto Rico data, unlike state2010 and state2020.

Furthermore, unlike county2000, state2000 does not contain data from Puerto Rico, American Samoa, Guam, the Northern Mariana Islands, or the US Virgin Islands.

The source data file on the US census website has different column names than what its data dictionary reports. The data dictionary's version of the column names were used, since they are consistent with the majority of the other data files and data dictionaries on the census website.

#### US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2000/statecenters.txt. The 2000 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2000.html

#### See Also

```
Other 2000 census centers of population: county2000; tract2000; block_group2000 2010 census centers of population: state2010; county2010; tract2010; block_group2010; US_mean_center2010; US_median_center2010 2020 census centers of population: state2020; county2020; tract2020; block_group2020; US_mean_center2020; US_median_center2020
```

# Examples

state2000

state2010 11

state2010

Centers of population of US states according to the 2010 census

# **Description**

A data set of the latitude and longitude coordinates of the centers of population (centroids) of the US states plus the District of Columbia and Puerto Rico. Populations according to the 2010 decennial census are also included.

# Usage

state2010

#### **Format**

A tibble with 52 rows and 5 columns

**STATEFP** The two-digit GEOID of the state

**STNAME** The name of the state

**POPULATION** The population of the state

**LATITUDE** The latitude coordinate of the center of population (centroid) of the state (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the state (positive is east; negative is west)

# **Details**

Note that this dataset (and state2020) contains Puerto Rico data, unlike state2000.

# US census data terms of service

```
https://www.census.gov/data/developers/about/terms-of-service.html
```

#### **Source**

```
The source file is at https://www2.census.gov/geo/docs/reference/cenpop2010/CenPop2010_
Mean_ST.txt. The 2010 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2010.html
```

# See Also

```
Other 2010 census centers of population: county2010; tract2010; block_group2010; US_mean_center2010; US_median_center2010

2020 census centers of population: state2020; county2020; tract2020; block_group2020; US_mean_center2020; US_median_center2020
```

2000 census centers of population: state2000; county2000; tract2000; block\_group2000

12 state 2020

# **Examples**

state2010

state2020

Centers of population of US states according to the 2020 census

# Description

A data set of the latitude and longitude coordinates of the centers of population (centroids) of the US states plus the District of Columbia and Puerto Rico. Populations according to the 2020 decennial census are also included.

# Usage

state2020

#### **Format**

A tibble with 52 rows and 5 columns

**STATEFP** The two-digit GEOID of the state

**STNAME** The name of the state

**POPULATION** The population of the state

**LATITUDE** The latitude coordinate of the center of population (centroid) of the state (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the state (positive is east; negative is west)

#### **Details**

Note that this dataset (and state2010) contains Puerto Rico data, unlike state2000.

#### US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

# Source

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2020/CenPop2020\_Mean\_ST.txt. The 2020 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2020.html

tract2000 13

# See Also

Other 2020 census centers of population: county2020; tract2020; block\_group2020; US\_mean\_center2020; US\_median\_center2020

2010 census centers of population: state2010; county2010; tract2010; block\_group2010; US\_mean\_center2010; US\_median\_center2010

2000 census centers of population: state2000; county2000; tract2000; block\_group2000

# **Examples**

state2020

tract2000

Centers of population of US census tracts according to the 2000 census

# **Description**

A data set of the latitude and longitude coordinates of the centers of population (centroids) of census tracts in the US states plus the District of Columbia and Puerto Rico. Populations according to the 2000 decennial census are also included.

# Usage

tract2000

#### **Format**

A tibble with 66,304 rows and 6 variables:

STATEFP The two-digit GEOID of the state where the tract is located

COUNTYFP The last three digits of the five-digit GEOID of the tract

TRACTCE The last six digits of the eleven-digit GEOID of the tract

**POPULATION** The population of the tract

**LATITUDE** The latitude coordinate of the center of population (centroid) of the tract (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the tract (positive is east; negative is west)

#### **Details**

There are 307 tracts with a POPULATION of 0 and a missing value for both LATITUDE and LONGITUDE.

Unlike county2000, tract2000 does not contain data from American Samoa, Guam, the Northern Mariana Islands, or the US Virgin Islands.

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# US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2000/tract/tract\_pop.txt. The 2000 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2000.html

#### See Also

```
Other 2000 census centers of population: state2000; county2000; block_group2000 2010 census centers of population: state2010; county2010; tract2010; block_group2010; US_mean_center2010; US_median_center2010 2020 census centers of population: state2020; county2020; tract2020; block_group2020; US_mean_center2020; US_median_center2020
```

# **Examples**

tract2000

tract2010

Centers of population of US census tracts according to the 2010 census

# Description

A data set of the latitude and longitude coordinates of the centers of population (centroids) of census tracts in the US states plus the District of Columbia and Puerto Rico. Populations according to the 2010 decennial census are also included.

# Usage

tract2010

#### **Format**

A tibble with 74,002 rows and 6 variables:

**STATEFP** The two-digit GEOID of the state where the tract is located

**COUNTYFP** The last three digits of the five-digit GEOID of the county where the tract is located

**TRACTCE** The last six digits of the eleven-digit GEOID of the tract

**POPULATION** The population of the tract

**LATITUDE** The latitude coordinate of the center of population (centroid) of the tract (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the tract (positive is east; negative is west)

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#### US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2010/tract/CenPop2010\_Mean\_TR.txt The 2010 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2010.html

#### See Also

 $Other\ 2010\ census\ centers\ of\ population:\ state 2010;\ county 2010;\ block\_group 2010;\ US\_mean\_center 2010;\ US\_median\_center 2010$ 

2020 census centers of population: state2020; county2020; tract2020; block\_group2020; US\_mean\_center2020; US\_median\_center2020

2000 census centers of population: state2000; county2000; tract2000; block\_group2000

# **Examples**

tract2010

tract2020

Centers of population of US census tracts according to the 2020 census

#### **Description**

A data set of the latitude and longitude coordinates of the centers of population (centroids) of census tracts in the US states plus the District of Columbia and Puerto Rico. Populations according to the 2020 decennial census are also included.

# Usage

tract2020

#### **Format**

A tibble with 85,395 rows and 6 variables:

**STATEFP** The two-digit GEOID of the state where the tract is located

**COUNTYFP** The last three digits of the five-digit GEOID of the county where the tract is located

**TRACTCE** The last six digits of the eleven-digit GEOID of the tract

**POPULATION** The population of the tract

**LATITUDE** The latitude coordinate of the center of population (centroid) of the tract (positive is north; negative is south)

**LONGITUDE** The longitude coordinate of the center of population (centroid) of the tract (positive is east; negative is west)

# US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file is at https://www2.census.gov/geo/docs/reference/cenpop2020/tract/CenPop2020\_Mean\_TR.txt The 2020 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2020.html

# See Also

```
Other 2020 census centers of population: state2020; county2020; block_group2020; US_mean_center2020; US_median_center2020

2010 census centers of population: state2010; county2010; tract2010; block_group2010; US_mean_center2010; US_median_center2010

2000 census centers of population: state2000; county2000; tract2000; block_group2000
```

# **Examples**

tract2020

US\_mean\_center2020

Mean and Median centers of population of the US

# **Description**

A data set of the latitude and longitude coordinates of the mean and median centers of population (centroids) of the United States, according to the 2020 and 2010 US Census.

# Usage

```
US_mean_center2020
US_median_center2020
US_mean_center2010
US_median_center2010
```

#### **Format**

A tibble with 1 row and 3 columns

**POPULATION** The population of the US

**LATITUDE** The latitude coordinate of the mean or median center of population (centroid) of the US (positive is north; negative is south)

US\_mean\_center2020 17

**LONGITUDE** The longitude coordinate of the mean or median center of population (centroid) of the US (positive is east; negative is west)

An object of class spec\_tbl\_df (inherits from tbl\_df, tbl, data.frame) with 1 rows and 3 columns.

An object of class  $spec_tbl_df$  (inherits from  $tbl_df$ , tbl, data.frame) with 1 rows and 3 columns.

An object of class spec\_tbl\_df (inherits from tbl\_df, tbl, data.frame) with 1 rows and 3 columns.

#### **Details**

The total US population according to the decennial census is also included in each of these one-row tibbles.

#### US census data terms of service

https://www.census.gov/data/developers/about/terms-of-service.html

#### Source

The source file for US\_mean\_center2020 is at https://www2.census.gov/geo/docs/reference/cenpop2020/CenPop2020\_Mean\_US.txt.

The source file for US\_median\_center2020 is at https://www2.census.gov/geo/docs/reference/cenpop2020/CenPop2020\_Median\_US.txt.

The 2020 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2020.html

The source file for US\_mean\_center2010 is at https://www2.census.gov/geo/docs/reference/cenpop2010/CenPop2010\_Mean\_US.txt.

The source file for US\_median\_center2010 is at https://www2.census.gov/geo/docs/reference/cenpop2010/CenPop2010\_Median\_US.txt.

The 2010 center of population info page is at https://www.census.gov/geographies/reference-files/time-series/geo/centers-population.2010.html

#### See Also

Other 2020 census centers of population: state2020; county2020; tract2020; block\_group2020 Other 2010 census centers of population: state2010; county2010; tract2010; block\_group2010 2000 census centers of population: state2000; county2000; tract2000; block\_group2000

# **Examples**

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