Package ‘censusr’

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Type  Package
Title  Collect Data from the Census API
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Description  Use the US Census API to collect summary data tables for SF1 and ACS datasets at arbitrary geographies.

URL  https://github.com/transportfoundry/censusr
BugReports  https://github.com/transportfoundry/censusr/issues
License  MIT + file LICENSE
LazyData  TRUE
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VignetteBuilder  knitr
RoxygenNote  6.0.1
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R topics documented:

aggregate_moe .................................................. 2
append_geoid .................................................. 3
call_api_once .................................................. 4
call_census_api .................................................. 4
call_geolocator .................................................. 5
aggregate_moe

Aggregated margin of error across multiple geographies

Description
Aggregated margin of error across multiple geographies

Usage
aggregate_moe(x)

Arguments

x  A numeric vector containing margins of error for estimates in multiple geographies.

Details

Value
The aggregated margin of error for the geographies.

Author(s)
Josie Kressner

Examples

x <- c(3L, 5L, 12L, 4L)
aggregate_moe(x)
data_frame(x = x, group = c(1L, 1L, 2L, 2L)) %>%
group_by(group) %>%
summarise(moe = aggregate_moe(x))
append_geoid

Retrieve GEOID from the Census Geocoder by address

Description

Returns GEOID for 2010 geographies.

Usage

append_geoid(address, geoid_type = "bl")

Arguments

address A tibble/data frame with (at a minimum, others can be present) either character columns street, city, and state OR numeric columns lat and lon. Lat/lon columns take priority.

geoid_type GEOID level to return, c('co', 'tr', 'bg', 'bl'). Defaults to block.

Details

It is possible in some situations for the geolocator API to return a 500 error. Repeating the call should avoid this.

Value

the original tibble with GEOIDs appended as a new column called geoid.

Examples

```r
## Not run:
airports <- dplyr::data_frame(
    street = "700 Catalina Dr", city = "Daytona Beach", state = "FL"
)
append_geoid(airports, 'tr')

## End(Not run)
```
call_api_once  

Call Census API for a set of variables

Description

This is an internal function and is not intended for users. See instead call_census_api.

Usage

call_api_once(variables_to_get, geoid, allgeos, data_source, year, period, api_key)

Arguments

variables_to_get  
A character vector of the desired variable names for the Census API call, defined at https://www.census.gov/data/developers/data-sets.html

geoid  
A character string with a FIPS code, between 2 and 15 digits long.

allgeos  
(optional) A string identifying the type of geography for which to collect data within the requested geoids. Must be one of c('co', 'tr', 'bg', 'bl'). For instance, if allgeos = "bg", will return all block groups within the given geoids.

data_source  
A string identifying whether the SF1 (decennial census) or ACS data is desired.

year  
If data_source = "acs", the final year of the summary period. Default is 2013.

period  
If data_source = "acs", the length of aggregation period. Default is 5, or a 5-year aggregation table.

api_key  
The user's Census API key (as a character string). You can get a free key from [Census](http://api.census.gov/data/key_signup.html). See vignette('censusr', package = 'censusr') to setup a default key as an environment variable.

Value

A codedata.frame with the requested variables at the requested geography.

call_census_api  

Retrieve data from the Census API

Description

Returns Census data for the 2010 SF1 or ACS 2013-2015 1-, 3-, and 5-Yr aggregations for requested variables and geographies.
Usage

```r
call_census_api(variables_to_get, names = NULL, geoids, allgeos = NULL,
data_source = c("sf1", "acs"), year = 2013, period = 5,
api_key = NULL)
```

Arguments

- **variables_to_get**: A character vector of the desired variable names for the Census API call, defined at [https://www.census.gov/data/developers/data-sets.html](https://www.census.gov/data/developers/data-sets.html).
- **names**: A character vector of the same length as `variables_to_get` giving the user-defined names for the variables (optional). Defaults to raw API names.
- **geoids**: A character vector of FIPS codes; must be at least to the county (5-digit) level, and can accept down to blocks (15-digit).
- **allgeos**: (optional) A string identifying the type of geography for which to collect data within the requested `geoids`. Must be one of `c('co', 'tr', 'bg', 'bl')`. For instance, if `allgeos = "bg"`, will return all block groups within the given `geoids`.
- **data_source**: A string identifying whether the SF1 (decennial census) or ACS data is desired.
- **year**: If `data_source = "acs"`, the final year of the summary period. Default is 2013.
- **period**: If `data_source = "acs"`, the length of aggregation period. Default is 5, or a 5-year aggregation table.
- **api_key**: The user’s Census API key (as a character string). You can get a free key from [Census](http://api.census.gov/data/key_signup.html). See vignette(`'censusr'`, package = `'censusr'`) to setup a default key as an environment variable.

Details

See vignette(`'censusr'`, package = `'censusr'`) for examples.

Value

A `data_frame` with each requested variable at each requested geography.

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**call_geolocator**

_Call geolocator for one address_

Description

Call geolocator for one address

Usage

```r
call_geolocator(street, city, state)
```
Arguments

- street: A character string indicating a street name and number
- city: A character string indicating a city
- state: A two-digit character string with a state postal code

Value

A character string representing the Census block of the supplied address.

Description

Call gelocator for one address with lat/lon

Usage

call_geolocator_latlon(lat, lon)

Arguments

- lat: A numeric value
- lon: A numeric value

Value

A character string representing the Census block of the supplied lat/lon.

Description

The censusr package provides principally one main function: call_census_api allows users to pass a list of variables and a list of geographies, and returns a data_frame with the requested data.
**get_geo_url**

*Construct a geography request string from a FIPS Code*

**Description**

Construct a geography request string from a FIPS Code

**Usage**

`get_geo_url(geoid, allgeos)`

**Arguments**

- `geoid` A character string with a FIPS code, between 2 and 15 digits long.
- `allgeos` (optional) A string identifying the type of geography for which to collect data within the requested geoids. Must be one of `c('co', 'tr', 'bg', 'bl')`. For instance, if `allgeos = "bg"`, will return all block groups within the given geoids.

**Value**

A string with the FIPS formatted for an API request.
Index

aggregate_moe, 2
append_geoid, 3

call_api_once, 4
call_census_api, 4, 4
call_geolocator, 5
call_geolocator_lation, 6
censusr, 6
censusr-package (censusr), 6

get_geo_url, 7