Package ‘quickerstats’

October 8, 2020

Type Package

Title An 'R' Client for the 'USDA NASS Quick Stats API'

Version 0.0.1

Description Provides several convenience functions for searching and pulling data from the 'USDA NASS Quick Stats API' <https://quickstats.nass.usda.gov/api>. Users can easily search for specific data items, and then download county-level or state-level Census of Agricultural data from a specified year.

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Encoding UTF-8

LazyData true

Imports httr (>= 1.4.1), readr (>= 1.3.1), curl (>= 4.2.0), tibble (>= 2.1.3)

BugReports `https://github.com/anderaa/quickerstats/issues`

RoxygenNote 7.1.1

Suggests knitr, rmarkdown, testthat

VignetteBuilder knitr

NeedsCompilation no

Author Aaron Anderson [aut, cre]

Maintainer Aaron Anderson <`aaronanderson.co@gmail.com`>

Repository CRAN

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R topics documented:

`check_response` *Print human-readable messages for http errors.*

Description

Print human-readable messages for http errors.

Usage

```
check_response(status_code)
```

Arguments

`status_code`	The http response code.

Value

Nothing.

`get_county_data` *A flexible function for pulling county-level data.*

Description

Automatically builds the specified query and retrieves county-level data.

Usage

```
get_county_data(
  key,
  year,
  data_item,
  fips = "all",
  domain = "TOTAL",
  source = "CENSUS"
)
```

Arguments

`key` Your NASS API key.

`year` Must be a census year (e.g. 2012, 2017).

`data_item` The long description of the desired series. Use search_data_items function to find one.

`fips` Must be 'all', a 2-digit state fips, or a 5-digit county fips.

`domain` A modifier on data_item, some characterstic (e.g. size categories of operations), use 'all' to get all.

`source` Must be 'CENSUS' or 'SURVEY'.

Value

A tibble df of the requested data, if any exists. Otherwise returns NULL.

Examples

```
key <- Sys.getenv('NASS_KEY')
get_county_data(key=key, year=2017,
                data_item='CORN, GRAIN - ACRES HARVESTED', fips='all')
get_county_data(key=key, year=2017,
                data_item='CORN, GRAIN - ACRES HARVESTED', fips='08')
get_county_data(key=key, year=2017,
                data_item='CORN, GRAIN - ACRES HARVESTED', fips='08069',
                domain='all')
```

get_county_item_count *Get the count of values that exist for the specified query for county-level data.*

Description

This is used as a utility function by other functions, but can also be used to explore expected results before pulling real data.

Usage

```
get_county_item_count(
  key,
  year,
  data_item,
  fips = "all",
  domain = "TOTAL",
  source = "CENSUS"
)
```

Arguments

key Your NASS API key.

year Must be a census year (e.g. 2012, 2017).

data_item The long description of the desired series. Use search_data_items function to find one.

fips Must be ’all’, a 2-digit state fips, or a 5-digit county fips.

domain A modifier on data_item, some characterstic (e.g. size categories of operations), use ’all’ to get all.

source Must be ’CENSUS’ or ’SURVEY’.

Value

The count of values.

Examples

```
key <- Sys.getenv('NASS_KEY')
get_county_item_count(key=key, year=2017,
                      data_item='CORN, GRAIN - ACRES HARVESTED', fips='all')
get_county_item_count(key=key, year=2017,
                      data_item='CORN, GRAIN - ACRES HARVESTED', fips='08')
get_county_item_count(key=key, year=2017,
                      data_item='CORN, GRAIN - ACRES HARVESTED',
                      fips='08069', domain='all')
```

get_options *Get the parameter options available for some short_desc value.*

Description

Not all combinations of parameters are available for all data items. This functions finds the unique combinations that are available.

Usage

```
get_options(key, data_item)
```

Arguments

key Your NASS API key.

data_item The short_desc (data item) string to get options for.

Value

A tibble df of the unique combinations of other paramters that are available.

Examples

```
key <- Sys.getenv('NASS_KEY')
get_options(key=key, data_item='CORN, GRAIN - ACRES HARVESTED')
```

`get_param_values` *Get all values a parameter can take.*

Description

Get all values of a parameters that can be passed in a GET request. Primarily used as a utility function by other functions. See https://quickstats.nass.usda.gov/api for a table of parameter names.

Usage

```
get_param_values(
  key,
  param,
  short_desc = NA,
  source_desc = NA,
  year = NA,
  agg_level_desc = NA
)
```

Arguments

`key`	Your NASS api key.
`param`	The parameter name to get values of.
`short_desc`	The short_desc for which to get possible values of the param.
`source_desc`	The source_desc for which to get possible values of the param.
`year`	The year for which to get possible values of param.
`agg_level_desc`	The agg_level_desc for which to get possible values of param.

Value

A vector of all values that the parameter can take.

Examples

```
key <- Sys.getenv('NASS_KEY')
get_param_values(key=key, param='short_desc')
get_param_values(key=key, param='year',
                 short_desc='CORN, GRAIN - ACRES HARVESTED',
                 source_desc='CENSUS')
```

get_state_data *A flexible function for pulling state-level data.*

Description

Automatically builds the specified query and retrieves state-level data.

Usage

```
get_state_data(
  key,
  year,
  data_item,
  fips = "all",
  domain = "TOTAL",
  source = "CENSUS"
)
```

Arguments

key	Your NASS API key.
year	Must be a census year (e.g. 2012, 2017).
data_item	The long description of the desired series. Use search_data_items function to find one.
fips	Must be 'all' or a 2-digit state fips.
domain	A modifier on data_item, some characterstic (e.g. size categories of operations), use 'all' to get all.
source	Must be 'CENSUS' or 'SURVEY'.

Value

A tibble df of the requested data, if any exists. Otherwise returns NULL.

Examples

```
key <- Sys.getenv('NASS_KEY')
get_state_data(key=key, year=2017,
               data_item='CORN, GRAIN - ACRES HARVESTED', fips='all')
get_state_data(key=key, year=2017,
               data_item='CORN, GRAIN - ACRES HARVESTED', fips='08')
```

get_state_item_count *Get the count of values that exist for the specified query for state-level data.*

Description

This is used as a utility function by other functions, but can also be used to explore expected results before pulling real data.

Usage

```
get_state_item_count(
  key,
  year,
  data_item,
  fips = "all",
  domain = "TOTAL",
  source = "CENSUS"
)
```

Arguments

key	Your NASS API key.
year	Must be a census year (e.g. 2012, 2017).
data_item	The long description of the desired series. Use search_data_items function to find one.
fips	Must be 'all' or a 2-digit state fips.
domain	A modifier on data_item, some characterstic (e.g. size categories of operations), use 'all' to get all.
source	Must be 'CENSUS' or 'SURVEY'.

Value

The count of values.

Examples

```
key <- Sys.getenv('NASS_KEY')
get_state_item_count(key=key, year=2017,
                   data_item='CORN, GRAIN - ACRES HARVESTED', fips='all')
get_state_item_count(key=key, year=2017,
                   data_item='CORN, GRAIN - ACRES HARVESTED', fips='08')
```

search_data_items *Get available data items based on search terms.*

Description

There are large number of data items available. This function can be used to increasingly refine search results until the desired data item is found.

Usage

```
search_data_items(key, search_terms, exclude = c())
```

Arguments

key	Your NASS api key.
search_terms	A vector of search terms. Each result will include all terms.
exclude	A vector of search terms to exclude. No result will have any of these.

Value

A list of all search results.

Examples

```
key <- Sys.getenv('NASS_KEY')
search_data_items(key, search_terms=c('corn', 'harvested'),
                  exclude=c('sweet'))
search_data_items(key, search_terms=c('corn', 'price'), exclude=c())
```

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