Package 'tidyUSDA'

November 8, 2019

Type Package

Title A Minimal Tool Set for Gathering USDA Quick Stat Data for Analysis and Visualization

Version 0.2.4

Description Provides a consistent API to pull United States Department of Agriculture census and survey data from the National Agricultural Statistics Service (NASS) QuickStats service <https://quickstats.nass.usda.gov>.

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URL https://bradlindblad.github.io/tidyUSDA, https://github.com/bradlindblad/tidyUSDA

Depends R (>= 3.6)

Imports curl, dplyr, fuzzyjoin, ggplot2, jsonlite, keyring, magrittr, nlme, rgdal, sf, stringi, tigris, usethis, crayon

Suggests knitr, rgeos, rmarkdown, testthat (>= 2.1.0), covr, spelling

VignetteBuilder knitr

Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

Language en-US

NeedsCompilation no

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R topics documented:

`allCategory` *All possible values from the CATEGORY field.*

Description

All possible values from the CATEGORY field.

Usage

```
allCategory
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allCommodity *All possible values from the COMMODITY field.*

Description

All possible values from the COMMODITY field.

Usage

```
allCommodity
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allCounty *All possible values from the COUNTY field.*

Description

All possible values from the COUNTY field.

Usage

```
allCounty
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allDataItem *All possible values from the DATA ITEM field.*

Description

All possible values from the DATA ITEM field.

Usage

```
allDataItem
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allDomain *All possible values from the DOMAIN field.*

Description

All possible values from the DOMAIN field.

Usage

```
allDomain
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allGeogLevel *All possible values from the GEOGRAPHY LEVEL field.*

Description

All possible values from the GEOGRAPHY LEVEL field.

Usage

```
allGeogLevel
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allGroup *All possible values from the GROUP field.*

Description

All possible values from the GROUP field.

Usage

```
allGroup
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allProgram *All possible values from the PROGRAM field.*

Description

All possible values from the PROGRAM field.

Usage

```
allProgram
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allSector *All possible values from the SECTOR field.*

Description

All possible values from the SECTOR field.

Usage

```
allSector
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allState *All possible values from the STATE field.*

Description

All possible values from the STATE field.

Usage

```
allState
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

getQuickstat *getQuickstat*

Description

Get values from USDA Quick Stats in a dataframe with optional sf (simple features) geometry field

Usage

```
getQuickstat(key = NULL, program = NULL, data_item = NULL,
  sector = NULL, group = NULL, commodity = NULL, category = NULL,
  domain = NULL, geographic_level = NULL, state = NULL,
  county = NULL, year = NULL, geometry = FALSE, lower48 = FALSE,
  weighted_by_area = FALSE)
```

Arguments

key	your USDA api key. Get one at https://quickstats.nass.usda.gov/api - string
program	program field - string
data_item	data_item field - string
sector	sector field - string
group	group field - string
commodity	commodity field - string
category	category field - string
domain	domain field - string

`geographic_level`
: geographic_level field - string

`state`
: state field - either a string or character vector with multiple states

`county`
: county field - either a string or character vector with multiple states

`year`
: year field - string

`geometry`
: geometry field (TRUE or FALSE), set to TRUE if you would like a simple features (SF) geometry field included. Only works when geographic_level is set to 'COUNTY' or 'STATE'

`lower48`
: limit data to the lower 48 states? - TRUE or FALSE

`weighted_by_area`
: option to mutate a new column that takes the target ('Value') and divides it by the square miles in that state or county; only works when GEOMETRY = TRUE - TRUE or FALSE

Note

Go to the webpage https://quickstats.nass.usda.gov/. As a best practice, select the items in these fields and test that that data item exists in the browser before using those parameters in this function. When you have a dataset that works, enter those values in the function as parameters. Ideally, only enter values for your key obviously, then PROGRAM, DATA_ITEM, GEOGRAPHIC_LEVEL and then if necessary, DOMAIN, STATE, COUNTY or YEAR.

Examples

```
## Not run:
getQuickstat(
key = 'your_key',
program = 'CENSUS',
data_item = 'CROP TOTALS - OPERATIONS WITH SALES',
geographic_level = 'COUNTY',
domain = 'TOTAL',
year = '2017',
state = NULL,
geometry = T,
lower48 = T)


## End(Not run)
```

`plotUSDA` *plotUSDA*

Description

Quickly plot a data frame produced by the getQuickstat() function.

Usage

```
plotUSDA(df, fill_by = "Value")
```

Arguments

df	a data frame with a simple feature column (geometry)
fill_by	the value you would like to fill your choropleth output

Examples

```
## Not run:
# Use output from getQuickstat()
plotUSDA(df = df_from_getQuickstat)

## End(Not run)
```

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tidyUSDA *tidyUSDA: An Interface to USDA QuickStats Data with Mapping Capabilities.*

Description

A minimal toolset for gathering USDA Quick Stat data for analysis and visualization.

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