

Package ‘tidyUSDA’

August 1, 2021

Type Package

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

Version 0.3.2

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.

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

Depends R (>= 3.6)

Imports crayon, dplyr, fuzzyjoin, ggplot2, httr, jsonlite, magrittr, purrr, sf, tigris (>= 1.0)

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

VignetteBuilder knitr

Encoding UTF-8

Language en-US

LazyData true

RoxygenNote 7.1.1

NeedsCompilation no

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allCategory	<i>All possible values from the CATEGORY field.</i>
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Description

All possible values from the CATEGORY field.

Usage

```
allCategory
```

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

allCommodity	<i>All possible values from the COMMODITY field.</i>
--------------	--

Description

All possible values from the COMMODITY field.

Usage

allCommodity

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

allCounty	<i>All possible values from the COUNTY field.</i>
-----------	---

Description

All possible values from the COUNTY field.

Usage

allCounty

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

allDataItem	<i>All possible values from the DATA ITEM field.</i>
-------------	--

Description

All possible values from the DATA ITEM field.

Usage

allDataItem

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

allDomain	<i>All possible values from the DOMAIN field.</i>
-----------	---

Description

All possible values from the DOMAIN field.

Usage

allDomain

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

<code>allGeogLevel</code>	<i>All possible values from the GEOGRAPHY LEVEL field.</i>
---------------------------	--

Description

All possible values from the GEOGRAPHY LEVEL field.

Usage

`allGeogLevel`

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

<code>allGroup</code>	<i>All possible values from the GROUP field.</i>
-----------------------	--

Description

All possible values from the GROUP field.

Usage

`allGroup`

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

allProgram	<i>All possible values from the PROGRAM field.</i>
------------	--

Description

All possible values from the PROGRAM field.

Usage

allProgram

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

allSector	<i>All possible values from the SECTOR field.</i>
-----------	---

Description

All possible values from the SECTOR field.

Usage

allSector

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

allState	<i>All possible values from the STATE field.</i>
----------	--

Description

All possible values from the STATE field.

Usage

```
allState
```

Format

A vector with 1 variable

Source

<https://quickstats.nass.usda.gov>

getQuickstat	<i>getQuickstat</i>
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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)
```

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.

Author(s)

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See Also

Useful links:

- <https://bradlindblad.github.io/tidyUSDA/>
- <https://github.com/bradlindblad/tidyUSDA/>

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