Package ‘geogenr’

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Type Package
Title Generator from American Community Survey Geodatabases
Version 2.0.1
Description The American Community Survey (ACS) <https://www.census.gov/programs-surveys/acs> offers geodatabases with geographic information and associated data of interest to researchers in the area. The goal of this package is to generate objects that allow us to access and consult the information available in various formats, such as in 'GeoPackage' format or in multidimensional 'ROLAP' (Relational On-Line Analytical Processing) star format.
License MIT + file LICENSE
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Author Jose Samos [aut, cre] (<https://orcid.org/0000-0002-4457-3439>), Universidad de Granada [cph]
Maintainer Jose Samos <jsamos@ugr.es>
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**Description**

An `acs_5yr` object is created from a given local dir. This dir will contain the geodatabase files that we download.
Usage
acs_5yr(dir = "")

Arguments
dir A string.

Value
An acs_5yr object.

See Also
Other data download functions: download_selected_files(), get_area_file_names(), get_area_groups(), get_area_years(), get_areas(), get_selected_file_names(), get_too_heavy_file_names(), select_area_files(), unzip_files()

Examples

dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir = dir)

---

acs_5yr_md

**Titles and Years of Selected Demographic and Economic Data**

Description
Available selected Demographic and Economic Data from the American Community Survey (ACS) 5-year estimates data titles and years.

Usage
acs_5yr_md

Format
A vector list.

Source
anrc_2021_x01  "Alaska Native Regional Corporation", 2021, "X01 Age And Sex"

Description

Topic selected for the area and years indicated: "Alaska Native Regional Corporation", 2021.

Usage

    anrc_2021_x01

Format

An `acs_5yr_topic` object.

Examples

```
# Defined by:
dir <- tempdir()
source_dir <- system.file("extdata/acs_5yr", package = "geogenr")
files <- list.files(source_dir, "*.zip", full.names = TRUE)
file.copy(from = files, to = dir, overwrite = TRUE)
ac <- acs_5yr(dir)

files <- ac |> unzip_files()

anrc_2021_x01 <- ac |> as_acs_5yr_topic("Alaska Native Regional Corporation", 2021, "X01 Age And Sex")
```

as_acs_5yr_geo

Get an `acs_5yr_geo` object

Description

Once we have selected the topics that interest us and, possibly also the reports or subreports, we obtain an `acs_5yr_geo` object with which we can represent or export the geographic layer along with the data of interest more easily.

Usage

```
as_acs_5yr_geo(act)
```

## S3 method for class 'acs_5yr_topic'
as_acs_5yr_geo(act)
As ACS census topic (report group)

Description

Gets an ACS census topic object (report group) for the given years of the Demographic and Economic Areas that are downloaded and unzipped, available to be queried.

Usage

as_acs_5yr_topic(ac, area, years, topic)

## S3 method for class 'acs_5yr'
as_acs_5yr_topic(ac, area, years = NULL, topic = NULL)

Arguments

- ac: An acs_5yr object.
- area: A string, area name.
- years: A vector, year number.
- topic: A vector, topic name.

Details

If no year is indicated, all available years are taken. If no topic is given, the first one that appears in the files is taken.
as_flat_table

Value

An `acs_5yr_topic` object.

See Also

Other data selection functions: `get_available_area_topics()`, `get_available_area_years()`, `get_available_areas()`, `get_geo_attribute_names()`, `get_geo_layer.acs_5yr_geo()`, `get_names_of_other_topics()`, `get_report_names()`, `get_subreport_names()`, `get_topic_name()`, `select_report()`, `select_subreport()`, `select_topic()`

Examples

dir <- tempdir()
source_dir <- system.file("extdata/acs_5yr", package = "geogenr")
files <- list.files(source_dir, "*.zip", full.names = TRUE)
file.copy(from = files, to = dir, overwrite = TRUE)
ac <- acs_5yr(dir)

files <- ac |> unzip_files()
anrc_2021_x01 <- ac |
  as_acs_5yr_topic("Alaska Native Regional Corporation", 2021, "X01 Age And Sex")
anrc_2021_2022_x01_x07 <- ac |
  as_acs_5yr_topic("Alaska Native Regional Corporation", topic = c("X01 Age And Sex", "X07 Migration"))

Description

Obtain an `rolap::flat_table` object to be able to modify the data or integrate it with other data.

Usage

```r
as_flat_table(act, attributes)
```

## S3 method for class 'acs_5yr_topic'
as_flat_table(act, attributes = NULL)
as_geomultistar

Arguments

act  An `acs_5yr_topic` object.
attributes  A string vector.

Details

We can indicate the attributes of the geographic layer to include in the export. Otherwise, the default attributes are included (not area, perimeter or location attributes).

Value

A `flat_table` object.

See Also

Other data exploitation and export functions: `as_GeoPackage()`, `as_acs_5yr_geo()`, `as_geomultistar()`, `as_star_database()`, `get_metadata()`, `set_metadata()`

Examples

```r
ft <- anrc_2021_x01 |> as_flat_table()
```

---

as_geomultistar  As `geomultistar::geomultistar` object

Description

Obtain an `geomultistar::geomultistar` object to be able to enrich multidimensional queries with geographic data.

Usage

```r
as_geomultistar(act, attributes)
```

## S3 method for class 'acs_5yr_topic'
```r
as_geomultistar(act, attributes = NULL)
```

Arguments

act  An `acs_5yr_topic` object.
attributes  A string vector.
Details

We can indicate the attributes of the geographic layer to include in the export. Otherwise, the default attributes are included (not area, perimeter or location attributes).

Value

A geomultistar object.

See Also

Other data exploitation and export functions: `as_GeoPackage()`, `as_acs_5yr_geo()`, `as_flat_table()`, `as_star_database()`, `get_metadata()`, `set_metadata()`

Examples

```r
  gms <- anrc_2021_x01 |> as_geomultistar()
```

Description

Save the data layer (geographic information layer), the metadata layer and the data source description layer in a file in GeoPackage format to be able to work with other tools.

Usage

```r
  as_GeoPackage(geo, dir, name)
```

## S3 method for class 'acs_5yr_geo'
```r
  as_GeoPackage(geo, dir = NULL, name = NULL)
```

Arguments

- `geo`: An `acs_5yr_geo` object.
- `dir`: A string.
- `name`: A string, file name.

Details

The GeoPackage format only allows defining a maximum of 1998 columns. If the number of variables and columns in the geographic layer exceeds this number, it cannot be saved in this format.
as_star_database

Value

A string, file name.

See Also

Other data exploitation and export functions: `as_acs_5yr_geo()`, `as_flat_table()`, `as_geomultistar()`, `as_star_database()`, `get_metadata()`, `set_metadata()`

Examples

```r
act <- anrc_2021_x01 |> select_report(report = "B01002-Median Age By Sex")
geo <- act |> as_acs_5yr_geo()
dir <- tempdir()
file <- geo |>
  as_GeoPackage(dir)
```

__as_star_database__

As rolap::star_database object

Description

Obtain an rolap::star_database object to be able to export it to a RDBMS and make queries with other tools.

Usage

```r
as_star_database(act, attributes)
```

## S3 method for class 'acs_5yr_topic'
```r
as_star_database(act, attributes = NULL)
```

Arguments

- `act`: An acs_5yr_topic object.
- `attributes`: A string vector.

Details

We can indicate the attributes of the geographic layer to include in the export. Otherwise, the default attributes are included (not area, perimeter or location attributes).
Value
A star_database object.

See Also
Other data exploitation and export functions: as_GeoPackage(), as_acs_5yr_geo(), as_flat_table(), as_geomultistar(), get_metadata(), set_metadata()

Examples

st <- anrc_2021_x01 |> as_star_database()

download_selected_files

Description
Download the files that have been selected and have not been downloaded yet, unzip them (if desired) and, if everything went well and is indicated in the parameter, delete the downloaded files.

Usage
download_selected_files(ac, subdir = NULL, unzip = TRUE, delete_zip = FALSE)

Arguments
ac An acs_5yr object.
subdir NULL/'year'/'area', output subdir.
unzip A boolean, unzip files.
delete_zip A boolean, delete zip files if correctly unzipped.

Details
In the subdir parameter, the values NULL, 'year' or 'area' can be indicated. With NULL it does not create any subdirs, with 'year' it creates them by years of downloaded files and with 'area' it creates them by areas.

Value
A vector, files correctly obtained.
get_areas

See Also

Other data download functions: `acs_5yr()`, `get_area_file_names()`, `get_area_groups()`, `get_area_years()`, `get_areas()`, `get_selected_file_names()`, `get_too_heavy_file_names()`, `select_area_files()`, `unzip_files()`

Examples

dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir)

ac <- ac |> select_area_files("Alaska Native Regional Corporation", 2020:2021)
files <- ac |> download_selected_files(unzip = FALSE)

get_areas

Get area names of a group

Description

Gets the names of the Demographic and Economic Areas of a group or set of groups.

Usage

get_areas(ac, group)

## S3 method for class 'acs_5yr'
get_areas(ac, group = NULL)

Arguments

ac An `acs_5yr` object.

group A string, area group name.

Details

If no group is indicated, all available areas are obtained.

Value

A vector, area names.
get_area_file_names

See Also

Other data download functions: \acs{acs_5yr()}, \download_selected_files(), \get_area_file_names(), \get_area_groups(), \get_area_years(), \get_selected_file_names(), \get_too_heavy_file_names(), \select_area_files(), \unzip_files()

Examples

dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir)

areas <- ac |> get_areas(group = "Statistical Areas")

Description

Get area url file names for the given years. If no year is indicated, all available ones are obtained.

Usage

generate_area_file_names(ac, area, years)

## S3 method for class 'acs_5yr'
generate_area_file_names(ac, area, years = NULL)

Arguments

- **ac**: An \acs{acs_5yr} object.
- **area**: A string, area name.
- **years**: A vector, year number.

Value

A vector, file urls.

See Also

Other data download functions: \acs{acs_5yr()}, \download_selected_files(), \get_area_groups(), \get_area_years(), \get_areas(), \get_selected_file_names(), \get_too_heavy_file_names(), \select_area_files(), \unzip_files()
get_area_groups

Examples

dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir)

url <- ac |> 
  get_area_file_names("State", 2019:2021)

url <- ac |> 
  get_area_file_names("State")

---

get_area_groups   Get area groups

Description

Gets the names of the Demographic and Economic Area Groups where data is available.

Usage

generate_area_groups(ac)

## S3 method for class 'acs_5yr'
geat_area_groups(ac)

Arguments

ac An acs_5yr object.

Value

A vector, area group names.

See Also

Other data download functions: acs_5yr(), download_selected_files(), get_area_file_names(), get_area_years(), get_areas(), get_selected_file_names(), get_too_heavy_file_names(), select_area_files(), unzip_files()

Examples

dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir)

groups <- ac |> 
  get_area_groups()
get_area_years

Get available area years

Description
Get the years for which data has been found to be available for an area.

Usage
get_area_years(ac, area)

## S3 method for class 'acs_5yr'
get_area_years(ac, area)

Arguments
ac An acs_5yr object.
area A string. area name.

Value
A vector, area years.

See Also
Other data download functions: acs_5yr(), download_selected_files(), get_area_file_names(),
get_area_groups(), get_areas(), get_selected_file_names(), get_too_heavy_file_names(),
select_area_files(), unzip_files()

Examples
dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir)

years <- ac |> 
  get_area_years(area = "State")
get_available_areas

Get available area names

Description

Gets the names of the Demographic and Economic Areas that are downloaded and unzipped, available to be queried.

Usage

get_available_areas(ac)

## S3 method for class 'acs_5yr'
get_available_areas(ac)

Arguments

ac

An acs_5yr object.

Value

A vector, area names.

See Also

Other data selection functions: \( \text{as\_acs\_5yr\_topic()} \), \( \text{get\_available\_area\_topics()} \), \( \text{get\_available\_area\_years()} \), \( \text{get\_geo\_attribute\_names()} \), \( \text{get\_geo\_layer\_acs\_5yr\_geo()} \), \( \text{get\_names\_of\_other\_topics()} \), \( \text{get\_report\_names()} \), \( \text{get\_subreport\_names()} \), \( \text{get\_topic\_name()} \), \( \text{select\_report()} \), \( \text{select\_subreport()} \), \( \text{select\_topic()} \)

Examples

dir <- tempdir()
source_dir <- system.file("extdata/acs_5yr", package = "geogenr")
files <- list.files(source_dir, "*.zip", full.names = TRUE)
file.copy(from = files, to = dir, overwrite = TRUE)
ac <- acs_5yr(dir)

files <- ac |> unzip_files()

areas <- ac |> get_available_areas()
get_available_area_topics

Get available area topics (report groups)

Description
Gets the topics (report groups) for the given years of the Demographic and Economic Areas that are downloaded and unzipped, available to be queried.

Usage
get_available_area_topics(ac, area, years)

## S3 method for class 'acs_5yr'
get_available_area_topics(ac, area, years = NULL)

Arguments
- **ac**: An acs_5yr object.
- **area**: A string, area name.
- **years**: A vector, year number.

Value
A vector, available report groups.

See Also
Other data selection functions: as_acs_5yr_topic(), get_available_area_years(), get_available_areas(), get_geo_attribute_names(), get_geo_layer.acs_5yr_geo(), get_names_of_other_topics(), get_report_names(), get_subreport_names(), get_topic_name(), select_report(), select_subreport(), select_topic()

Examples
```
dir <- tempdir()
source_dir <- system.file("extdata/acs_5yr", package = "geogenr")
files <- list.files(source_dir, "*.zip", full.names = TRUE)
file.copy(from = files, to = dir, overwrite = TRUE)
ac <- acs_5yr(dir)

files <- ac |> unzip_files()

topics <- ac |> get_available_area_topics("Alaska Native Regional Corporation", 2021)
```
get_available_area_years

Description
Gets the years of the Demographic and Economic Areas that are downloaded and unzipped, available to be queried.

Usage

```r
get_available_area_years(ac, area)
```

## S3 method for class 'acs_5yr'
get_available_area_years(ac, area)

Arguments

- `ac`: An `acs_5yr` object.
- `area`: A string, area name.

Value

A vector, area years.

See Also

Other data selection functions: `as_acs_5yr_topic()`, `get_available_area_topics()`, `get_available_areas()`, `get_geo_attribute_names()`, `get_geo_layer.acs_5yr_geo()`, `get_names_of_other_topics()`, `get_report_names()`, `get_subreport_names()`, `get_topic_name()`, `select_report()`, `select_subreport()`, `select_topic()`

Examples

```r
dir <- tempdir()
source_dir <- system.file("extdata/acs_5yr", package = "geogenr")
files <- list.files(source_dir, "*.zip", full.names = TRUE)
file.copy(from = files, to = dir, overwrite = TRUE)
ac <- acs_5yr(dir)

files <- ac |> unzip_files()
```
years <- ac |>  
  get_available_area_years(area = "Alaska Native Regional Corporation")

get_code_from_area_name(area = "State")

---

**get_code_from_area_name**  
*Get code from area name*

**Description**  
Obtain the code that appears in the name of the file associated with the area.

**Usage**  
```r  
get_code_from_area_name(ac, area)  
```  
## S3 method for class 'acs_5yr'  
```r  
get_code_from_area_name(ac, area)  
```  

**Arguments**  
- `ac`  
  An `acs_5yr` object.  
- `area`  
  A string, area name.

**Value**  
A vector, area code.

**See Also**  
Other information functions: `get_name_from_area_code()`

**Examples**  
```r  
dir <- system.file("extdata/acs_5yr", package = "geogenr")  
ac <- acs_5yr(dir)  

code <- ac |>  
  get_code_from_area_name(area = "State")
```
**get_geo_attribute_names**

*Get geographical attributes*

**Description**

Get the names of the geographic layer attributes (except for the geometry field).

**Usage**

```r
get_geo_attribute_names(act)
```

```r
## S3 method for class 'acs_5yr_topic'
get_geo_attribute_names(act)
```

**Arguments**

- `act` An `acs_5yr_topic` object.

**Value**

A vector, geographical attribute names.

**See Also**

Other data selection functions: `as_acs_5yr_topic()`, `get_available_area_topics()`, `get_available_area_years()`, `get_available_areas()`, `get_geo_layer.acs_5yr_geo()`, `get_names_of_other_topics()`, `get_report_names()`, `get_subreport_names()`, `get_topic_name()`, `select_report()`, `select_subreport()`, `select_topic()`

**Examples**

```r
names <- anrc_2021_x01 |> get_geo_attribute_names()
```

**get_geo_layer.acs_5yr_geo**

*Get geographic layer*

**Description**

Get the geographic layer.
get_metadata

Usage

## S3 method for class 'acs_5yr_geo'
get_geo_layer(glc)

go_get_geo_layer(glc)

## S3 method for class 'acs_5yr_topic'
get_geo_layer(glc)

Arguments

| glc | An acs_5yr_topic or acs_5yr_geo object. |

Value

A sf object.

See Also

Other data selection functions: as_acs_5yr_topic(), get_available_area_topics(), get_available_area_years(),
get_available_areas(), get_geo_attribute_names(), get_names_of_other_topics(), get_report_names(),
get_subreport_names(), get_topic_name(), select_report(), select_subreport(), select_topic()

Examples

```r
layer <- anrc_2021_x01 |> 
  get_geo_layer()
```

get_metadata  

Get the metadata layer

Description

The metadata layer includes the names and description through various fields of the variables contained in the reports.

Usage

get_metadata(geo)

## S3 method for class 'acs_5yr_geo'
get_metadata(geo)

Arguments

geo An acs_5yr_geo object.
get_names_of_other_topics

Details

The way to select the variables we want to work with is to filter this layer and subsequently set it as
the object’s metadata layer using the set_metadata() function.

Value

A tibble object.

See Also

Other data exploitation and export functions: as_GeoPackage(), as_acs_5yr_geo(), as_flat_table(),
as_geomultistar(), as_star_database(), set_metadata()

Examples

```r
act <- anrc_2021_x01 |> select_report(report = "B01002-Median Age By Sex")
geo <- act |> as_acs_5yr_geo()
metadata <- geo |> get_metadata()
```

Description

The area that we have downloaded has a set of defined topics, we have selected one of them, this
function shows us the rest of the available topics in the area.

Usage

```r
get_names_of_other_topics(act)
```

## S3 method for class 'acs_5yr_topic'
get_names_of_other_topics(act)

Arguments

act

An acs_5yr_topic object.

Value

A vector, available topics.
get_name_from_area_code

See Also

Other data selection functions: as_acs_5yr_topic(), get_available_area_topics(), get_available_area_years(), get_available_areas(), get_geo_attribute_names(), get_geo_layer.acs_5yr_geo(), get_report_names(), get_subreport_names(), get_topic_name(), select_report(), select_subreport(), select_topic()

Examples

topics <- anrc_2021_x01 |> get_names_of_other_topics()

gc <- get_name_from_area_code(area = "METDIV")

Description

Get the name of the area from the code that appears in the name of the area files.

Usage

gc <- get_name_from_area_code(ac, area)

## S3 method for class 'acs_5yr'
gc <- get_name_from_area_code(ac, area)

Arguments

ac An acs_5yr object.
area A string, area name.

Value

A vector, area code.

See Also

Other information functions: get_code_from_area_name()

Examples

dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir)

name <- ac |> gc <- get_name_from_area_code(area = "METDIV")
**get_report_names**

*Description*

Each topic includes several reports. Once a topic has been selected, using this function we obtain the name of the available reports. The report code is included with the name. Each report can contain multiple subreports.

*Usage*

```r
get_report_names(act)
```

```
## S3 method for class 'acs_5yr_topic'
get_report_names(act)
```

*Arguments*

- `act` An `acs_5yr_topic` object.

*Value*

A vector, report names.

*See Also*

Other data selection functions: `as_acs_5yr_topic()`, `get_available_area_topics()`, `get_available_area_years()`, `get_available_areas()`, `get_geo_attribute_names()`, `get_geo_layer.acs_5yr_geo()`, `get_names_of_other_topics()`, `get_subreport_names()`, `get_topic_name()`, `select_report()`, `select_subreport()`, `select_topic()`

*Examples*

```r
reports <- anrc_2021_x01 |> 
  get_report_names()
```

**get_selected_file_names**

*Description*

Gets the names of the files selected to be downloaded.
Usage

get_selected_file_names(ac)

get_subreport_names

Get subreport names

Description

Each topic includes several reports and subreports. Once a topic has been selected, using this function we obtain the name of the available subreports of a report. If no report is indicated, all subreports of the topic are obtained.

Usage

get_subreport_names(act, report)

## S3 method for class 'acs_5yr_topic'
get_subreport_names(act, report = NULL)
get_too_heavy_file_names

Arguments

act       An `acs_5yr_topic` object.
report    A string, report name.

Value

A vector, subreport names.

See Also

Other data selection functions: `as_acs_5yr_topic()`, `get_available_area_topics()`, `get_available_area_years()`, `get_available_areas()`, `get_geo_attribute_names()`, `get_geo_layer.acs_5yr_geo()`, `get_names_of_other_topics()`, `get_report_names()`, `get_topic_name()`, `select_report()`, `select_subreport()`, `select_topic()`

Examples

```r
reports <- anrc_2021_x01 |> 
  get_subreport_names(report = "B01002-Median Age By Sex")
```

---

get_too_heavy_file_names

*Get too heavy file names*

Description

Gets the names of the files that are too heavy to be downloaded with the available function. We have downloaded them directly with the web browser.

Usage

```r
get_too_heavy_file_names(ac)
```

## S3 method for class 'acs_5yr'
```r
get_too_heavy_file_names(ac)
```

Arguments

`ac`       An `acs_5yr` object.

Value

A vector, too heavy file names.
get_topic_name

See Also

Other data download functions: `acs_5yr()`, `download_selected_files()`, `get_area_file_names()`, `get_area_groups()`, `get_area_years()`, `get_areas()`, `get_selected_file_names()`, `select_area_files()`, `unzip_files()`

Examples

```r
dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir)

groups <- ac |>  
  gettooheavy_file_names()

# get_topic_name

get_topic_name(ac)  
## S3 method for class 'acs_5yr_topic'
get_topic_name(ac)
```

Description

Get the selected topic by which this object has been defined.

Usage

```r
get_topic_name(act)
```

Arguments

- `act`: An `acs_5yr_topic` object.

Details

A topic is made up of a set of reports.

Value

A vector, topic name.

See Also

Other data selection functions: `as_acs_5yr_topic()`, `get_available_area_topics()`, `get_available_area_years()`, `get_available_areas()`, `get_geo_attribute_names()`, `get_geo_layer.acs_5yr_geo()`, `get_names_of_other_topics()`, `get_report_names()`, `get_subreport_names()`, `select_report()`, `select_subreport()`, `select_topic()`
select_area_files

Examples

```r
topic <- anrc_2021_x01 |> 
  get_topic_name()
```

---

**Description**

Select area files for the given years. If no year is indicated, all available ones are selected.

**Usage**

```r
select_area_files(ac, area, years)
```

```r
## S3 method for class 'acs_5yr'
select_area_files(ac, area, years = NULL)
```

**Arguments**

- `ac` An `acs_5yr` object.
- `area` A string, area name.
- `years` A vector, year number.

**Value**

An `acs_5yr` object.

**See Also**

Other data download functions: `acs_5yr()`, `download_selected_files()`, `get_area_file_names()`, `get_area_groups()`, `get_area_years()`, `get_areas()`, `get_selected_file_names()`, `get_too_heavy_file_names()`, `unzip_files()`

**Examples**

```r
dir <- system.file("extdata/acs_5yr", package = "geogenr")
ac <- acs_5yr(dir)

ac <- ac |> 
  select_area_files("State", 2019:2021)

ac <- ac |> 
  select_area_files("State")
```
select_report

Select report

Description

Select the reports whose names are indicated. We reduce the available reports and variables to those of the selected reports.

Usage

select_report(act, report)

## S3 method for class 'acs_5yr_topic'
select_report(act, report = NULL)

Arguments

act An acs_5yr_topic object.
report A string vector, report names.

Value

An acs_5yr_topic object.

See Also

Other data selection functions: as_acs_5yr_topic(), get_available_area_topics(), get_available_area_years(), get_available_areas(), get_geo_attribute_names(), get_geo_layer.acs_5yr_geo(), get_names_of_other_topics(), get_report_names(), get_subreport_names(), get_topic_name(), select_subreport(), select_topic()

Examples

act <- anrc_2021_x01 |> 
  select_report(report = "B01002-Median Age By Sex")

select_subreport

Select subreport

Description

Select the subreports whose names are indicated. We reduce the available subreports and variables to those of the selected subreports.
select_topic

Usage

select_subreport(act, subreport)

## S3 method for class 'acs_5yr_topic'
select_subreport(act, subreport = NULL)

Arguments

act An acs_5yr_topic object.
subreport A string vector, subreport names.

Value

A vector, topic name.

See Also

Other data selection functions: as_acs_5yr_topic(), get_available_area_topics(), get_available_area_years(), get_available_areas(), get_geo_attribute_names(), get_geo_layer.acs_5yr_geo(), get_names_of_other_topics(), get_report_names(), get_subreport_names(), get_topic_name(), select_report(), select_topic()

Examples

act2 <- anrc_2021_x01 |> select_subreport(
  c(
    "B01002-B-Median Age By Sex (Black Or African American Alone)",
    "B01002-C-Median Age By Sex (American Indian And Alaska Native Alone)"
  )
)

select_topic

Select topic (report group)

Description

Select a topic. If no topic is given, the first one that appears in the area is taken.

Usage

select_topic(act, topic)

## S3 method for class 'acs_5yr_topic'
select_topic(act, topic = NULL)
set_metadata

Arguments

act An acs_5yr_topic object.
topic A string, topic name.

Value

An acs_5yr_topic object.

See Also

Other data selection functions: as_acs_5yr_topic(), get_available_area_topics(), get_available_area_years(), get_available_areas(), get_geo_attribute_names(), get_geo_layer.acs_5yr_geo(), get_names_of_other_topics(), get_report_names(), get_subreport_names(), get_topic_name(), select_report(), select_subreport()

Examples

dir <- tempdir()
source_dir <- system.file("extdata/acs_5yr", package = "geogenr")
files <- list.files(source_dir, ".*zip", full.names = TRUE)
file.copy(from = files, to = dir, overwrite = TRUE)
ac <- acs_5yr(dir)

files <- ac |> unzip_files()

act <- ac |> as_acs_5yr_topic("Alaska Native Regional Corporation", 2021, "X01 Age And Sex")

act <- act |> select_topic(topic = "X03 Hispanic Or Latino Origin")

set_metadata

Set metadata layer

Description

The metadata layer includes the names and description through various fields of the variables contained in the reports.

Usage

set_metadata(geo, metadata)

## S3 method for class 'acs_5yr_geo'
set_metadata(geo, metadata)
unzip_files

Arguments
geo An acs_5yr_geo object.
metadata A tibble object.

Details
When we set the metadata layer, after filtering it, the data layer is also filtered keeping only the variables from the metadata layer.

Value
A sf object.

See Also
Other data exploitation and export functions: as_GeoPackage(), as_acs_5yr_geo(), as_flat_table(), as_geomultistar(), as_star_database(), get_metadata()

Examples

```r
act <- anrc_2021_x01 |> select_report(report = "B01002-Median Age By Sex")
geo <- act |> as_acs_5yr_geo()
metadata <- geo |> get_metadata()
metadata <- dplyr::filter(metadata, item2 == "Female")
geo2 <- geo |> set_metadata(metadata)
```

Description
Unzip files that are not already unzipped in the object and, if everything went well and is indicated in the parameter, delete the unzipped files.

Usage
unzip_files(ac, subdir = NULL, delete_zip = FALSE)
unzip_files

Arguments

- **ac**: An acs_5yr object.
- **subdir**: NULL/'year'/’area’, output subdir.
- **delete_zip**: A boolean, delete zip files if correctly unzipped.

Details

In the subdir parameter, the values NULL, 'year' or 'area' can be indicated. With NULL it does not create any subdirs, with 'year' it creates them by years of files and with 'area' it creates them by areas.

Value

A vector of strings, name of the processed files.

See Also

Other data download functions: acs_5yr(), download_selected_files(), get_area_file_names(), get_area_groups(), get_area_years(), get_areas(), get_selected_file_names(), get_too_heavy_file_names(), select_area_files()

Examples

dir <- tempdir()
source_dir <- system.file("extdata/acs_5yr", package = "geogenr")
files <- list.files(source_dir, "*.zip", full.names = TRUE)
file.copy(from = files, to = dir, overwrite = TRUE)
ac <- acs_5yr(dir)
files <- ac |> unzip_files()
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