Package 'lehdr'

November 27, 2023

Type Package

Title Grab Longitudinal Employer-Household Dynamics (LEHD) Flat Files

Version 1.1.3

Maintainer Jamaal Green <jamaal.green@gmail.com>

Description Designed to query Longitudinal Employer-Household Dynamics (LEHD)
workplace/residential association and origin-destination flat files and
optionally aggregate Census block-level data to block group, tract, county,
or state. Data comes from the LODES FTP server <https://lehd.ces.census.gov/data/lodes/LODES8/>.

Depends R (>= 4.0.0)

License MIT + file LICENSE

Encoding UTF-8

Imports readr, rlang, stringr, glue, httr2, dplyr, magrittr

Suggests testthat (>= 3.0.0), knitr, rmarkdown, devtools, pacman

VignetteBuilder knitr

RoxygenNote 7.2.3

URL https://github.com/jamgreen/lehdr/

BugReports https://github.com/jamgreen/lehdr/issues/

Config/testthat/edition 3

NeedsCompilation no

Author Jamaal Green [cre, aut],
Liming Wang [aut],
Dillon Mahmoudi [aut],
Matthew Rogers [ctb],
Kyle Walker [ctb]

Repository CRAN

Date/Publication 2023-11-27 14:30:06 UTC

R topics documented:

---

aggregate_lodes_df   *Aggregate data to a certain level dictated by inputs. Internal function.*

Description

Helper function for lehdr which aggregates block geographies based on the block id.

Usage

```
aggregate_lodes_df(lehdr_df, geoid_to, aggname)
```

Arguments

lehdr_df	Data frame (tibble) to be aggregated
geoid_to	The number of characters to do the aggregation on from the geoid
aggname	What the level is called, like "tract" etc

---

grab_crosswalk   *Download and load LODES geographic crosswalk into a data frame (tibble)*

Description

Download LODES geographic crosswalk

Usage

```
grab_crosswalk(
  state,
 download_dir = normalizePath(file.path(tools::R_user_dir("lehdr", which = "cache")),
    mustWork = FALSE)
)
```

Arguments

state	US state abbreviation in lower case, can be a vector of states.
download_dir	Directory where lodes table will be downloaded.

Value

a dataframe (tibble) geographic crosswalk at the block level

Examples

```
# Download and load current geographic crosswalk for Alaska
alaska_xwalk <- grab_crosswalk("VT")

# Download and load current geographic crosswalk for small states
small_states_xwalk <- grab_crosswalk(c("wy", 'ND', 'SD'))
```

---

grab_lodes   *Download and load LODES data into a data frame (tibble)*

Description

Download LODES OD, RAC, and WAC tables

Usage

```
grab_lodes(
  state,
  year,
  version = c("LODES8", "LODES7", "LODES5"),
  lodes_type = c("od", "rac", "wac"),
  job_type = c("JT00", "JT01", "JT02", "JT03", "JT04", "JT05"),
  segment = c("S000", "SA01", "SA02", "SA03", "SE01", "SE02", "SE03", "SI01", "SI02",
    "SI03"),
  agg_geo = c("block", "bg", "tract", "county", "state"),
  state_part = c("", "main", "aux"),
  download_dir = normalizePath(file.path(tools::R_user_dir("lehdr", which = "cache")),
    mustWork = FALSE),
  use_cache = FALSE
)
```

Arguments

state	US state abbreviation in lower case, as character. Can be a vector of states, like c("or","md","tx") for Oregon, Maryland, and Texas.
year	Year of the lodes data, as numerical. Can be a vector of years, like c(2014, 2020) for 2014 and 2020.
version	The LODES version to use. Version 8 (the default, use "LODES8") is enumerated at 2020 Census blocks. "LODES7" is enumerated at 2010 Census blocks, but ends in 2019; LODES5" is enumerated at 2000 Census blocks, but ends in 2009.

lodes_type	The LODES table type. Values can be the default origin-destination ("od"),residential association ("rac"), or workplace association ("wac"). od files give a home and destination census block for workers. Residential files give job totals of worker home census blocks and workplace files give job totals of worker job census blocks
job_type	Jobtype: "JT00" for all jobs, "JT01" for Primary Jobs, "JT02" for All Private Jobs, "JT03" for Private Primary jobs, "JT04" for All Federal jobs, "JT05" for Federal Primary jobs
segment	Segment of the workforce. "S000" total number of jobs for workers, "SA01" number of jobs for workers aged 29 or younger, "SA02" number of jobs for workers aged 30-54,"SA03" number of jobs for workers 55 and older, "SE01" number of jobs with earnings \$1,250/month or less, "SE02" number of jobs with earnings \$1,251 to \$3,333/month, "SE03" number of jobs with earnings greater than \$3,333/month, "SI01" number of jobs in Goods Producing industry sectors, "SI02" number of jobs in Trade, Transportation, & Utilities industry sectors, "SI03" number of jobs in All Other Services industry sectors.
agg_geo	Aggregate to a geography other than Census Block (default). Values can be "bg" for block group, "tract", "county", or "state".
state_part	Part of the state file, required for "od" lodes_type. Can have values of "main" or "aux" in OD files. Using "main" includes workers with their workplace and residence in the state. Using "aux" includes workers with residences out of state and workplace in the state of interest
download_dir	Directory where lodes table will be downloaded.
use_cache	Boolean indicating whether or not to check whether or not the file had already been downloaded. Defaults to FALSE. Setting to TRUE will allow lehdr to reuse existing files that were already downloaded.

Value

a dataframe (tibble) of block or tract level LODES files

Examples

```
# download and load 2014 block level O-D data for Vermont
blk_df_or_od <- grab_lodes(state = 'vt', year = 2014, lodes_type = "od", job_type = "JT01",
                           segment = "SA01", state_part = "main")

# download and load 2014 O-D data for Vermont and aggregate
# to the tract level
trt_df_or_od <- grab_lodes(state = 'vt', year = 2014, lodes_type = "od", job_type = "JT01",
                           segment = "SA01", state_part = "main", agg_geo = "tract")

# download and load 2020 RAC data for Vermont and aggregate
# to the tract level
trt_df_or_rac <- grab_lodes(state = 'vt', year = 2014, lodes_type = "rac", job_type = "JT01",
                            segment = "SA01", agg_geo = "tract")
```

```
# download and load 2020 WAC data for Vermont and aggregate
# to the tract level
trt_df_or_wac <- grab_lodes(state = 'vt', year = 2014, lodes_type = "wac", job_type = "JT01",
                            segment = "SA01", agg_geo = "tract")
```

Index