Package 'BLSloadR'

May 6, 2026

Type Package

Title Download Time Series Data from the U.S. Bureau of Labor Statistics

Version 0.4.5

Description These functions provide a convenient interface for downloading data from the U.S. Bureau of Labor Statistics <https://www.bls.gov>. The functions in this package utilize flat files produced by the Bureau of Labor Statistics, which contain full series history. These files include employment, unemployment, wages, prices, industry and occupational data at a national, state, and sub-state level, depending on the series. Individual functions are included for those programs which have data available at the state level. The core functions provide direct access to the Current Employment Statistics (CES) <https://www.bls.gov/ces/>, Local Area Unemployment Statistics (LAUS) <https://www.bls.gov/lau/>, Occupational Employment and Wage Statistics (OEWS) <https://www.bls.gov/oes/> and Alternative Measures of Labor Underutilization (SALT) <https://www.bls.gov/lau/stalt.htm> data produced by the Bureau of Labor Statistics.

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Contents

area_lookup *Area Lookup Tables (QCEW)*

Description

A data frame containing area codes, titles, and additional geographic information about valid areas for the Quarterly Census of Employment and Wages (QCEW).

This table is primarily used internally by ‘BLSloadR‘ functions to add human-readable area titles or define valid area lookups.

Usage

```
data(area_lookup)
```

Format

A data frame with 4649 rows and 5 columns:

- area_fips - Character. The area FIPS code. When all numeric characters, it represents either a state or a county definition.
- area_title - Character. The descripion of the area code provided by the Bureau of Labor Statistics.
- area_type - Character. A desription ot the type of area defined. Values are National, State, County, County Unknown or Undefined, National Subgroup, Combined Statistical Area, Metropolitan Statistical Area, or Micropolitan Statistical Area.
- stfips - Character. For state or counties, the two-digit FIPS code of the associated state. For national areas, or those areas which may span multiple states the value is "00".
- specified_region - Either the two-character US Postal abbreviation for a state or group of states, or "No region" for other areas.

Details

Area codes are five characters long. When all numeric characters, this is a state-county FIPS, with statewide data using a "000" as the county FIPS. Other aggregations include various alphabetic characters to aid in the classification of different regions.

Source

https://www.bls.gov/cew/classifications/areas/qcew-area-titles.htm

Examples

```
# Load the lookup table
data(area_lookup)

# Find the area codes for all Statewide areas
state_codes <- area_lookup[area_lookup$area_type == "State", ]
```

```
# Get all Metropolitan Statistical Area codes including Arkansas.
ar_codes <- area_lookup |>
dplyr::filter(grepl("AR", specified_region) &
 area_type == "Metropolitan Statistical Area")
```

`bls_get_cache_dir` *Get the current BLSloadR Cache Directory*

Description

Displays the path currently being used for caching. This will check the 'BLS_CACHE_DIR' environment variable, falling back to the default system cache directory if the variable is not set.

Usage

```
bls_get_cache_dir()
```

Value

A character string of the cache path.

`bls_overview` *Display BLS Dataset Overview*

Description

Fetches and displays the overview text file for a BLS dataset. This provides a convenient reference within the R environment without needing to manually find and review the text file on the BLS website.

Usage

```
bls_overview(
  series_id,
  display_method = "viewer",
  base_url = "https://download.bls.gov/pub/time.series"
)
```

Arguments

`series_id`	Character string. The BLS series identifier (e.g., "ln", "cu", "ap")
`display_method`	Character string. How to display the overview: "viewer" (default), "console", or "popup"
`base_url`	Character string. Base URL for BLS data (default uses official BLS site)

Value

Invisibly returns the text content. Function is called to use the viewer, console, or as a popup, depending on the 'display_method' argument.

Examples

```
if(interactive()){
# Display Average Price Data overview
bls_overview("ap")

# Display consumer price index overview
bls_overview("cu")

# Display in console instead of viewer
bls_overview("ap", display_method = "console")
}
```

---

create_bls_object *Create a BLS data object with diagnostics*

Description

This is a helper function to create a list with the additional class 'bls_data_collection' containing data downloaded form the U.S. Bureau of Labor Statistics as well as diagnostic details about the download. It is used invisibly in the package to bundle information about file downloads.

Usage

```
create_bls_object(
  data,
  downloads,
  data_type = "BLS",
  processing_steps = character(0)
)
```

Arguments

data	The processed data (data.table/data.frame)
downloads	List of download results from fread_bls()
data_type	Character string describing the type of BLS data (e.g., "CES", "JOLTS", "CPS")
processing_steps	Character vector describing processing steps applied

Value

A bls_data_collection object

display_in_console *Display text content in console.*

Description

Helper function used to display content from 'bls_overview' in the console..

Usage

```
display_in_console(content, series_id)
```

Arguments

content	Character. Text content to display
series_id	Two-letter series ID for a BLS time series to render in the display.

Value

No object returned, called to render content in console only..

display_in_popup *Display text content in popup window.*

Description

Helper function used to display content from 'bls_overview' in a popup window.

Usage

```
display_in_popup(content, series_id)
```

Arguments

content	Character. Text content to display
series_id	Two-letter series ID for a BLS time series to render in the display.

Value

No object returned, called to render content in popup.

display_in_viewer *Display text content in Viewer window.*

Description

Helper function used to display content from 'bls_overview' in the HTML viewer.

Usage

```
display_in_viewer(content, series_id)
```

Arguments

content	Character. Text content to display
series_id	Two-letter series ID for a BLS time series to render in the display.

Value

No object returned, called to render content in HTML viewer.

download_bls_files *Helper function for downloading and tracking BLS files*

Description

This function is used to pass multiple URLs at the Bureau of Labor Statistics into 'fread_bls()'

Usage

```
download_bls_files(urls, suppress_warnings = TRUE, cache = FALSE)
```

Arguments

urls	Named character vector of URLs to download
suppress_warnings	Logical. If TRUE, suppress individual download warnings
cache	Logical. If TRUE, download and cache local copy of files.

Value

Named list of bls_data objects

fread_bls *Download BLS Time Series Data*

Description

This function downloads a tab-delimited BLS flat file, incorporating diagnostic information about the file and returning an object with the bls_data class that can be used in the BLSloadR package.

Usage

```
fread_bls(url, verbose = FALSE, cache = check_bls_cache_env())
```

Arguments

url	Character string. URL to the BLS flat file
verbose	Logical. If TRUE, prints additional messages during file read and processing.
cache	Logical. If TRUE, uses local persistent caching.

Value

A named list with the data and diagnostics.

get_bls_data *Extract data from BLS data object*

Description

This is a helper function to extract the data element of a 'bls_data_collection' object.

Usage

```
get_bls_data(bls_obj)
```

Arguments

bls_obj	A bls_data_collection object or raw data

Value

The data component of a 'bls_data_collection' object as a data frame.

get_bls_diagnostics *Get download diagnostics from BLS data object*

Description

This is a helper function to extract the download diagnostics element of a 'bls_data_collection' object.

Usage

```
get_bls_diagnostics(bls_obj)
```

Arguments

bls_obj	A bls_data_collection object

Value

List of download diagnostics from a bls_data_collection object.

get_bls_summary *Get summary information from BLS data object*

Description

This is a helper function to extract the summary element of a 'bls_data_collection' object. This containes the number of files downloaded, the number of files with potential warnings, and the total number of warnings.

Usage

```
get_bls_summary(bls_obj)
```

Arguments

bls_obj	A bls_data_collection object

Value

List of summary information

get_ces *Download Current Employment Statistics (CES) Data*

Description

This function downloads Current Employment Statistics data from the Bureau of Labor Statistics. The data includes national, regional, state, and substate employment statistics. By default, all available areas, data types, and periods are included.

Usage

```
get_ces(
  states = NULL,
  industry_filter = NULL,
  current_year_only = FALSE,
  transform = TRUE,
  monthly_only = TRUE,
  simplify_table = TRUE,
  suppress_warnings = TRUE,
  return_diagnostics = FALSE,
  cache = check_bls_cache_env()
)
```

Arguments

states	Character vector of state abbreviations to download (e.g., c("MA", "NY", "CA")). If specified, downloads only these states (all industries, all years). Cannot be combined with industry_filter or current_year_only. Use ‘list_ces_states()‘ to see all available states.
industry_filter	Character string specifying industry category to download. If specified, downloads this industry for all states (2007-present). Cannot be combined with states or current_year_only. Use ‘list_ces_industries()‘ to see all available industry filters.
current_year_only	Logical. If TRUE, downloads the current year file which contains all states and industries for recent years (2006-present). Cannot be combined with states or industry_filter. If FALSE (default), uses other parameters.
transform	Logical. If TRUE (default), converts employment values from thousands to actual counts by multiplying by 1000 for specific data types (codes 1, 6, 26) and removes ", In Thousands" from data type labels.
monthly_only	Logical. If TRUE (default), filters out annual data (period M13).
simplify_table	Logical. If TRUE (default), removes excess columns and creates a date column from Year and Period in the original data.

`suppress_warnings`
: Logical. If TRUE (default), suppress individual download warnings and diagnostic messages for cleaner output during batch processing. If FALSE, returns the data and prints warnings and messages to the console.

`return_diagnostics`
: Logical. If FALSE (default), returns only the data. If TRUE, returns the full bls_data_collection object with diagnostics.

`cache`
: Logical. Uses USE_BLS_CACHE environment variable, or defaults to FALSE. If TRUE, will download a cached file from BLS server and update cache if BLS server indicates an updated file.

Details

Performance Notes: The default behavior downloads a very large file (~500MB+) containing all states and industries, which can take several minutes. For faster downloads, consider:

- Use `states = c("MA", "NY")` to download only specific states
- Use `industry_filter = "total_nonfarm"` for summary employment data only
- Use `current_year_only = TRUE` for recent data only (2006-present)

State Codes: Use standard two-letter state abbreviations (e.g., "MA", "CA", "NY"). Puerto Rico = "PR", Virgin Islands = "VI", District of Columbia = "DC".

Industry Filters: Available options include:

- "total_nonfarm" - Total non-farm employment summary
- "total_private" - Private sector totals (2007-present)
- "manufacturing" - Manufacturing sector (2007-present)
- "construction" - Construction sector (2007-present)
- "retail_trade" - Retail trade sector (2007-present)
- "government" - Government sector (2007-present)
- And others - see BLS documentation for full list

Value

By default, returns a data.table with CES data. If return_diagnostics = TRUE, returns a bls_data_collection object containing data and comprehensive diagnostics.

See Also

`list_ces_states()` to see available states, `list_ces_industries()` to see available industry filters, `show_ces_options()` for a comprehensive overview of filtering options.

Examples

```
## Not run:
# Fast download: Massachusetts and Connecticut data only (all industries)
ces_states <- get_ces(states = c("MA", "CT"))

# Fast download: Manufacturing data for all states
ces_manufacturing <- get_ces(industry_filter = "manufacturing")

# Fast download: Current year data for all states and industries
ces_current <- get_ces(current_year_only = TRUE)

# Complete dataset (slower - all states, industries, and years)
ces_all <- get_ces()

# Download with full diagnostics if needed
ces_result <- get_ces(states = "MA", return_diagnostics = TRUE)
ces_data <- get_bls_data(ces_result)

# Check for download issues
if (has_bls_issues(ces_result)) {
  print_bls_warnings(ces_result)
}

## End(Not run)
```

---

get_jolts *Download Job Openings and Labor Turnover Survey (JOLTS) Data*

Description

This function downloads Job Openings and Labor Turnover data from the U.S. Bureau of Labor Statistics. JOLTS data provides insights into job market dynamics including job openings, hires, separations, quits, and layoffs. Data is available at national, regional, and state levels with various industry and size class breakdowns.

Usage

```
get_jolts(
  monthly_only = TRUE,
  remove_regions = TRUE,
  remove_national = TRUE,
  suppress_warnings = TRUE,
  return_diagnostics = FALSE,
  cache = check_bls_cache_env()
)
```

Arguments

`monthly_only`	Logical. If TRUE (default), excludes annual data (period M13) and includes only monthly observations.
`remove_regions`	Logical. If TRUE (default), excludes regional aggregates (Midwest, Northeast, South, West) identified by state codes MW, NE, SO, WE.
`remove_national`	Logical. If TRUE (default), excludes national-level data (state code 00). Set to FALSE to include national data with industry and size class breakdowns.
`suppress_warnings`	Logical. If TRUE (default), suppress individual download warnings and diagnostic messages for cleaner output during batch processing. If FALSE, returns the data and prints warnings and messages to the console.
`return_diagnostics`	Logical. If TRUE, returns a bls_data_collection object with full diagnostics. If FALSE (default), returns just the data table.
`cache`	Logical. Uses USE_BLS_CACHE environment variable, or defaults to FALSE. If TRUE, will download a cached file from BLS server and update cache if BLS server indicates an updated file.

Details

The function performs several data transformations:

- Converts rate values to proportions (divides by 100) except for Unemployed to Job Opening ratio.
- Converts level values to actual counts (multiplies by 1000)
- Creates a proper date column from year and period
- Adds readable month names

Value

By default, returns a data.table with JOLTS data. If return_diagnostics = TRUE, returns a bls_data_collection object containing JOLTS data with the following key columns:

series_id BLS series identifier

year Year of observation

period Time period (M01-M12 for months)

value JOLTS statistic value (transformed based on data type)

date Date of observation

state_text State name

dataelement_text Type of JOLTS measure (job openings, hires, separations, etc.)

area_text Geographic area description

sizeclass_text Establishment size class

industry_text Industry classification

ratelevel_code Whether the value is a "Level" (count) or "Rate" (percentage)

periodname Month name

Examples

```
## Not run:
# Download state-level JOLTS data (default - returns data directly)
jolts_data <- get_jolts()

# Include national data with industry breakdowns
jolts_national <- get_jolts(remove_national = FALSE)

# Get full diagnostic object if needed
jolts_with_diagnostics <- get_jolts(return_diagnostics = TRUE)
print_bls_warnings(jolts_with_diagnostics)

# View job openings by state for latest period
job_openings <- jolts_data[dataelement_text == "Job openings" &
                           date == max(date)]

## End(Not run)
```

---

get_laus *Download Local Area Unemployment Statistics (LAUS) Data*

Description

This function downloads Local Area Unemployment Statistics data from the U.S. Bureau of Labor Statistics. Due to the large size of some LAUS datasets (county and city files are >300MB), users must specify which geographic level to download. The function provides access to both seasonally adjusted and unadjusted data at various geographic levels. Additional datasets provide comprehensive non-seasonally-adjusted data for all areas broken out in 5-year increments

Usage

```
get_laus(
  geography = "state_adjusted",
  monthly_only = TRUE,
  transform = TRUE,
  suppress_warnings = TRUE,
  return_diagnostics = FALSE,
  cache = check_bls_cache_env()
)
```

Arguments

geography	Character string specifying the geographic level and adjustment type. Default is "state_adjusted". Valid options are: • "state_current_adjusted" - Current seasonally adjusted state data • "state_unadjusted" - All historical unadjusted state data • "state_adjusted" - All historical seasonally adjusted state data (default)

- "region_unadjusted" - Unadjusted regional and division data
- "region_adjusted" - Seasonally adjusted regional and division data
- "metro" - Metropolitan statistical area data
- "division" - Division-level data
- "micro" - Micropolitan statistical area data
- "combined" - Combined statistical area data
- "county" - County-level data (large file >300MB)
- "city" - City and town data (large file >300MB)
- "1990-1994" - Comprehensive unadjusted data for 1990-1994
- "1995-1999" - Comprehensive unadjusted data for 1995-1999
- "2000-2004" - Comprehensive unadjusted data for 2000-2004
- "2005-2009" - Comprehensive unadjusted data for 2005-2009
- "2010-2014" - Comprehensive unadjusted data for 2010-2014
- "2015-2019" - Comprehensive unadjusted data for 2015-2019
- "2020-2024" - Comprehensive unadjusted data for 2020-2024
- "2025-2029" - Comprehensive unadjusted data for 2025-2029
- "ST" - Any state two-character USPS abbreviation, plus DC and PR

`monthly_only` Logical. If TRUE (default), excludes annual data (period M13) and creates a date column from year and period.

`transform` Logical. If TRUE (default), converts rate and ratio measures from percentages to proportions by dividing by 100. Unemployment rates will be expressed as decimals (e.g., 0.05 for 5% unemployment) rather than as whole numbers (e.g. 5).

`suppress_warnings`
Logical. If TRUE (default), suppress individual download warnings and diagnostic messages for cleaner output during batch processing. If FALSE, returns the data and prints warnings and messages to the console.

`return_diagnostics`
Logical. If TRUE, returns a bls_data_collection object with full diagnostics. If FALSE (default), returns just the data table.

`cache` Logical. Uses USE_BLS_CACHE environment variable, or defaults to FALSE. If TRUE, will download a cached file from BLS server and update cache if BLS server indicates an updated file.

Details

The function joins data from multiple BLS files:

- Main data file (varies by geography selection)
- Series definitions (la.series)
- Area codes and names (la.area)
- Measure definitions (la.measure)

Value

By default, returns a data.table with LAUS data. If return_diagnostics = TRUE, returns a bls_data_collection object containing LAUS data with the following key columns:

series_id BLS series identifier

year Year of observation

period Time period (M01-M12 for months, M13 for annual)

value Employment statistic value (transformed if transform = TRUE)

date Date of observation (if monthly_only = TRUE)

area_text Geographic area name

area_type_code Code indicating area type

measure_text Type of measure (unemployment rate, labor force, employment, etc.)

seasonal Seasonal adjustment status

Examples

```
## Not run:
# Download state-level seasonally adjusted data (default operation)
laus_states <- get_laus()

# View unemployment rates by state for latest period
unemployment <- laus_states[grepl("unemployment rate", measure_text) & date == max(date)]

# Download unadjusted state data
laus_states_unadjusted <- get_laus(geography = "state_unadjusted")

# Get full diagnostic object if needed
laus_with_diagnostics <- get_laus(return_diagnostics = TRUE)
print_bls_warnings(laus_with_diagnostics)



## End(Not run)
```

`get_national_ces` *Get National Current Employment Statistics (CES) Data from BLS*

Description

This function downloads and processes national Current Employment Statistics (CES) data from the Bureau of Labor Statistics (BLS). It retrieves multiple related datasets and joins them together to create a comprehensive employment statistics dataset with industry classifications, data types, and time period information.

Usage

```
get_national_ces(
  dataset_filter = "all_data",
  monthly_only = TRUE,
  simplify_table = TRUE,
  suppress_warnings = TRUE,
  return_diagnostics = FALSE,
  cache = check_bls_cache_env()
)
```

Arguments

dataset_filter	Character string specifying which dataset to download. Options include: • "all_data" (default) - Complete dataset with all series • "current_seasonally_adjusted" - Only seasonally adjusted all-employee series • "real_earnings_all_employees" - Real earnings data for all employees • "real_earnings_production" - Real earnings data for production employees
monthly_only	Logical. If TRUE (default), excludes annual averages (period "M13") and returns only monthly data. If FALSE, includes all periods including annual averages.
simplify_table	Logical. If TRUE (default), removes several metadata columns (series_title, begin_year, begin_period, end_year, end_period, naics_code, publishing_status, display_level, selectable, sort_sequence) and adds a formatted date column. If FALSE, returns the full dataset with all available columns.
suppress_warnings	Logical. If TRUE (default), suppresses download warnings and diagnostics. If FALSE, displays warning output and diagnostic information.
return_diagnostics	Logical. If TRUE, returns a bls_data_collection object with full diagnostics. If FALSE (default), returns just the data table.
cache	Logical. Uses USE_BLS_CACHE environment variable, or defaults to FALSE. If TRUE, will download a cached file from BLS server and update cache if BLS server indicates an updated file.

Details

The function can download one of four specialized national CES datasets based on the dataset_filter parameter:

- all_data: Complete dataset (ce.data.0.AllCESSeries) - contains entire history of all series currently published by the CES program
- current_seasonally_adjusted: (ce.data.01a.CurrentSeasAE) - contains every seasonally adjusted all employee series and complete history
- real_earnings_all_employees: (ce.data.02b.AllRealEarningsAE) - contains real earnings data (1982-84 dollars) for all employees

- real_earnings_production: (ce.data.03c.AllRealEarningsPE) - contains real earnings data (1982-84 dollars) for production/nonsupervisory employees

Additional metadata files are always downloaded and joined:

- ce.series - Series metadata
- ce.industry - Industry classifications
- ce.datatype - Data type definitions
- ce.period - Time period definitions
- ce.supersector - Supersector classifications

These datasets are joined together to provide context and labels for the employment statistics. The function uses the enhanced 'download_bls_files()' helper function for robust downloads with diagnostic reporting.

Performance Note: Using specialized datasets (other than "all_data") can significantly reduce download time and file size while still providing comprehensive employment statistics.

Value

By default, returns a data.table with CES data. If return_diagnostics = TRUE, returns a bls_data_collection object containing data and comprehensive diagnostics.

Note

This function requires the following packages: dplyr, data.table, httr, and lubridate (for date formatting when simplify_table=TRUE). The 'fread_bls()' and 'create_bls_object()' helper functions must be available in your environment.

See Also

Please visit the Bureau of Labor Statistics at https://www.bls.gov/ces/ for more information about CES data

Examples

```
## Not run:
# Get complete monthly CES data with simplified table structure (default)
ces_monthly <- get_national_ces()

# Get only seasonally adjusted data (faster download)
ces_seasonal <- get_national_ces(dataset_filter = "current_seasonally_adjusted")

# Get real earnings data for all employees
ces_real_earnings <- get_national_ces(dataset_filter = "real_earnings_all_employees")

# Get all data including annual averages with full metadata
ces_full <- get_national_ces(dataset_filter = "all_data",
                             monthly_only = FALSE, simplify_table = FALSE)

# Get data with warnings and diagnostic information displayed
```

```
ces_with_warnings <- get_national_ces(suppress_warnings = FALSE)

# Get full diagnostic object if needed
data_with_diagnostics <- get_national_ces(return_diagnostics = TRUE)
print_bls_warnings(data_with_diagnostics)

## End(Not run)
```

`get_oews` *Download Occupational Employment and Wage Statistics (OEWS) Data*

Description

This function downloads and joins together occupational employment and wage data from the Bureau of Labor Statistics OEWS program. The data includes employment and wage estimates by occupation and geographic area. Note that OEWS is a large data set (over 6 million rows), so it will require longer to download.

Usage

```
get_oews(
  simplify_table = TRUE,
  suppress_warnings = TRUE,
  return_diagnostics = FALSE,
  fast_read = TRUE,
  cache = check_bls_cache_env()
)
```

Arguments

`simplify_table`	Logical. If TRUE (default), remove columns from the result that are internal BLS references or can be derived from other elements in the table.
`suppress_warnings`	Logical. If TRUE (default), suppress individual download warnings and diagnostic messages for cleaner output during batch processing. If FALSE, returns the data and prints warnings and messages to the console.
`return_diagnostics`	Logical. If TRUE, returns a bls_data_collection object with full diagnostics. If FALSE (default), returns just the data table.
`fast_read`	Logical. If TRUE (default), derives lookup values directly from series_id to avoid reading the series file, to speed download process. With fast_read, the data can download in 17 seconds (depending on bandwidth). Without fast_read, the same download takes 57 seconds.
`cache`	Logical. Uses USE_BLS_CACHE environment variable, or defaults to FALSE. If TRUE, will download a cached file from BLS server and update cache if BLS server indicates an updated file.

Value

By default, returns a data.table with OEWS data. If return_diagnostics = TRUE, returns a bls_data_collection object containing data and comprehensive diagnostics. The columns in the returned data frame when ‘simplify_table = TRUE‘ are listed below. Unless otherwise specified, all data is returned as a character string to preserve the value of leading and trailing zeroes.

- series_id - The unique OEWS series identifier.
- year - The year to which the estimate refers. Because OEWS is not time series data, this is always the most recent year.
- value - Numeric. The value of the given data type, for the given area, in the given industry and occupation.
- seasonal - Whether or not the data is seasonally adjusted.
- areatype_code - Code representing the type of area (National ("N"), Statewide ("S"), or Local ("M")).
- industry_code - NAICS code of the industry.
- occupation_code - SOC code of the occupation. Description given by occupation_name.
- datatype_code - Lookup code for the data type of a given row. Description given by datatype_name.
- state_code - Two-digit FIPS code for the state.
- area_code - The unique OEWS code for a substate area. Description given by area_name.
- series_title - Descriptive title of the full series ID.
- occupation_name - The text description of the occupation.
- occupation_description - More detailed description of the tasks associated with the occupation.
- area_name - The text description of the area.
- datatype_name - The text description of the type of data represented by ‘value‘.

Examples

```
## Not run:
# Download current OEWS data
oews_data <- get_oews()

# View available occupations
unique(oews_data$occupation_name)

# Filter for specific occupation
software_devs <- oews_data[grepl("Software", occupation_name)]

# Get full diagnostic object if needed
oews_with_diagnostics <- get_oews(return_diagnostics = TRUE)
print_bls_warnings(oews_with_diagnostics)

## End(Not run)
```

`get_oews_areas` *Download OEWS Area Definitions*

Description

Download OEWS Area Definitions

Usage

```
get_oews_areas(ref_year, silent = TRUE, geometry = TRUE)
```

Arguments

`ref_year`	Four-digit year (converted to integer). The year for which to retrieve OEWS area definitions. Valid values are 2024 through current release year. Prior years included Township codes, which change the structure of the file.
`silent`	Logical. If TRUE (default), suppress console output
`geometry`	Logical. If TRUE (default), downloads shapefiles for OEWS area definitions using ‘tigris::counties()‘ and ‘tigris::shift_geometry()‘ to render Alaska, Hawaii, and Puerto Rico with a focus on the area of the continental United States.

Value

Data table which maps individual counties to OEWS area definitions.

- fips_code - The State FIPS code
- state_name - The state name
- state_abb - The state two-character postal abbreviation
- oews_area_code - The OEWS area code defining the metropolitan area or nonmetropolitan area the county belongs to.
- oews_area_name - The OEWS area name
- county_code - The FIPS code for the county
- county_name - The county name

Examples

```
## Not run:
 # Get OEWS area definitions without shapefiles and with processing messages.
 test <- get_oews_areas(ref_year = 2024, geometry = FALSE, silent = FALSE)


## End(Not run)
```

get_qcew *Get QCEW Data Slices*

Description

This function pulls data from the BLS QCEW Open Data Access CSV Data Slices. It iterates over specified years and quarters (or annual data) to retrieve industry-specific or area-specific data tables and merges them into a single data.table. Optionally, it joins internal package lookup tables for industry and area descriptions.

Usage

```
get_qcew(
  period_type = "quarter",
  year_start = NULL,
  year_end = NULL,
  industry_code = NULL,
  area_code = NULL,
  add_lookups = TRUE,
  silently = FALSE
)
```

Arguments

period_type	Character. Either "quarter" or "year". Defaults to "quarter".
year_start	Numeric. The first year to retrieve data for. Defaults to the year of the date 6 months prior to the current system date.
year_end	Numeric. The last year to retrieve data for. Defaults to the year of the date 6 months prior to the current system date.
industry_code	Character. The NAICS industry code (e.g., "10", "31-33"). Constructs a URL for an Industry Data Slice. Mutually exclusive with ‘area_code‘.
area_code	Character. The QCEW area code (e.g., "US000", "32000", "C2982"). Constructs a URL for an Area Data Slice. Mutually exclusive with ‘industry_code‘.
add_lookups	Logical. If TRUE, joins the package's ind_lookup and area_lookup tables to the results to provide descriptive labels. Defaults to TRUE.
silently	Logical. If TRUE, suppresses status messages about the URLs being accessed. Defaults to FALSE.

Value

A combined data.table containing the requested QCEW data, optionally merged with lookup columns and a calculated date column. The data layout is different for quarterly or annual data files set by the ‘period_type‘ argument.

For Quarterly files:

- area_fips - Character. Area code of row. Included ‘area_lookup‘ data file contains mapping information.
- industry_code - Character. NAICS, Supersector, Cluster, or Total All Industries code. Numeric characters as a string to preserve examining the structure heirarchy.
- own_code - Integer. Values of 0-5 to designate ownership. See definitions at https://www.bls.gov/cew/classifications/ownerships/ownership-titles.htm
- agglvl_code - Integer. Two digit code identifying the level of aggregation. See definitons at https://www.bls.gov/cew/classifications/aggregation/agg-level-titles.htm
- size_code - Integer. Single-digit code representing the size of establishments. See definitions at https://www.bls.gov/cew/classifications/size/size-titles.htm
- year Integer. Four-digit calendar year for the returned data.
- qtr Integer. The calendar quarter of the data.
- disclosure_code Character. Values are either a blank string on "N". Values of N do not disclose employment or wages to maintain confidentiality.
- qtryly_estabs Integer. The number of business establishments (worksites) for the industry in the area in the quarter.
- month1_emplvl Integer. Employment in the first month of the quarter (January, April, July, or October).
- month2_emplvl Integer. Employment in the second month of the quarter (February, May, August, November).
- month3_emplvl Integer. Employment in the third month of the quarter (March, June, September, December).
- total_qtrly_wages Ingeger64. Total wages paid during the quarter.
- taxable_qtrly_wages Ingeger64. Wages subject to unemployment insurance (UI) taxes during the quarter. Note - wages subject to UI vary by state and will follow different seasonal patterns as a result.
- qtrly_contributions Integer. UI taxes (Contributions) paid by employers for this quarter. Note - UI tax policy varies by state.
- avg_wkly_wage Integer. Average weekly wage during the quarter (Total wages divided by average employment, divided by 13).
- lq_disclosure_code Character. Blank or "N". Values of "N" will suppress location quotient data for confidentiality.
- lq_qtrly_estabs Numeric. Location quotient of establishments relative to the U.S.
- lq_month1_emplvl Numeric. Location quotient of month 1 employment relative to the U.S.
- lq_month2_emplvl Numeric. Location quotient of month 2 employment relative to the U.S.
- lq_month3_emplvl Numeric. Location quotient of month 3 employment relative to the U.S.
- lq_total_qtrly_wages Numeric. Location quotient of total wages relative to the U.S.
- lq_taxable_qtrly_wages Numeric. Location quotient of taxable quarterly wages relative to the U.S.
- lq_qtrly_contributions Numeric. Location quotient of quarterly UI taxes paid relative to the U.S.

- lq_avg_wkly_wage Numeric. Location quotient of average weekly wages relative to the U.S.
- oty_disclosure_code Character. Blank or "N". Values of "N" will suppress over-the-year data for confidentiality.
- oty_qtrly_estabs_chg Numeric. Over-the-year change in establishments.
- oty_qtrly_estabs_pct_chg Numeric. Over-the-year percent change in establishments.
- oty_month1_emplvl_chg Numeric. Over-the-year change in month 1 employment.
- oty_month1_emplvl_pct_chg Numeric. Over-the-year percent change in month 1 employment.
- oty_month2_emplvl_chg Numeric. Over-the-year change in month 2 employment.
- oty_month2_emplvl_pct_chg Numeric. Over-the-year percent change in month 2 employment.
- oty_month3_emplvl_chg Numeric. Over-the-year change in month 3 employment.
- oty_month3_emplvl_pct_chg Numeric. Over-the-year percent change in month 3 employment.
- oty_total_qtrly_wages_chg Numeric. Over-the-year change in total wages.
- oty_total_qtrly_wages_pct_chg Numeric. Over-the-year percent change in total wages.
- oty_taxable_qtrly_wages_chg Numeric. Over-the-year change in taxable quarterly wages.
- oty_taxable_qtrly_wages_pct_chg Numeric. Over-the-year percent change in taxable quarterly wages.
- oty_qtrly_contributions_chg Numeric. Over-the-year change in quarterly UI taxes paid.
- oty_qtrly_contributions_pct_chg Numeric. Over-the-year percent change in quarterly UI taxes paid.
- oty_avg_wkly_wage_chg Numeric. Over-the-year change in average weekly wages.
- oty_avg_wkly_wage_pct_chg Numeric. Over-the-year percent change in average weekly wages.
- date Date. Calculated calendar date based on year and quarter. Reflects first day of the quarter.
- industry_title Character. Added based on industry_code
- ind_level Character. Description of the level of aggregation based on the industry_code.
- naics_2d Character. First two characters in the industry_code, useful for identifying industries.
- sector Character. Similar to naics_2d, but for industries like Manufacturing which have multiple two digit NAICS codes, this will span those groupings, for example "31-33"
- vintage_start. Integer. Calendar year of the earliest vintage for this industry_code. NAICS codes are updated every 5 years. When using this industry codes from before this date, these titles may not exist or may be incorrect.
- vintage_end. Integer. Calendar year of the last year this industry code was used. Years after this point should not contain this industry code. Set to 3000 for current data.
- area_title Character. Area description based on area_fips as provided by the BLS.
- area_type Character. Description of the type of area based on the area_title. More consistent naming and grouping than BLS data.
- stfips Character. The two-digit FIPS code of the state containing a given area. Set to "00" for multi-state regions.

- specified_region. Either a two-character US Postal Service abbreviation for the state containing an area or a hyphenated list of such codes for multi-state areas.

For Annual files:

- area_fips - Character. Area code of row. Included 'area_lookup' data file contains mapping information.
- industry_code - Character. NAICS, Supersector, Cluster, or Total All Industries code. Numeric characters as a string to preserve examining the structure heirarchy.
- own_code - Integer. Values of 0-5 to designate ownership. See definitions at https://www.bls.gov/cew/classifications/ownerships/ownership-titles.htm
- agglvl_code - Integer. Two digit code identifying the level of aggregation. See definitons at https://www.bls.gov/cew/classifications/aggregation/agg-level-titles.htm
- size_code - Integer. Single-digit code representing the size of establishments. See definitions at https://www.bls.gov/cew/classifications/size/size-titles.htm
- year Integer. Four-digit calendar year for the returned data.
- qtr Character. Set to "A" to represent annual data.
- disclosure_code Character. Values are either a blank string on "N". Values of N do not disclose employment or wages to maintain confidentiality.
- annual_avg_estabs Integer. The average number of business establishments (worksites) for the industry in the area for the year.
- annual_avg_emplvl Integer. The average monthly employment level in a given year.
- total_annual_wages Ingeger64. Total wages paid during the year.
- taxable_annual_wages Ingeger64. Wages subject to unemployment insurance (UI) taxes during the year. Note - wages subject to UI vary by state and will follow different seasonal patterns as a result.
- annual_contributions Integer. UI taxes (Contributions) paid by employers for this year. Note - UI tax policy varies by state.
- annual_avg_wkly_wage Integer. Average weekly wage during the year (Total wages divided by average employment, divided by 52).
- avg_annual_pay Integer. Average annual pay during the year.
- lq_disclosure_code Character. Blank or "N". Values of "N" will suppress location quotient data for confidentiality.
- lq_annual_avg_estabs Numeric. Location quotient of establishments relative to the U.S.
- lq_annual_avg_emplvl Numeric. Location quotient of annual employment relative to the U.S.
- lq_total_annual_wages Numeric. Location quotient of total wages relative to the U.S.
- lq_taxable_annual_wages Numeric. Location quotient of taxable annual wages relative to the U.S.
- lq_annual_contributions Numeric. Location quotient of annual UI taxes paid relative to the U.S.
- lq_annual_avg_wkly_wage Numeric. Location quotient of average weekly wages relative to the U.S.

- lq_avg_annual_pay Numeric. Location quotient of average annual pay relative to the U.S.
- oty_disclosure_code Character. Blank or "N". Values of "N" will suppress over-the-year data for confidentiality.
- oty_annual_avg_estabs_chg Integer. Over-the-year change in establishments.
- oty_annual_avg_estabs_pct_chg Numeric. Over-the-year percent change in establishments.
- oty_annual_avg_emplvl_chg Integer. Over-the-year change in average annual employment.
- oty_annual_avg_emplvl_pct_chg Numeric. Over-the-year percent change in average annual employment.
- oty_total_annual_wages_chg Integer. Over-the-year change in total wages.
- oty_total_annual_wages_pct_chg Numeric. Over-the-year percent change in total wages.
- oty_taxable_annual_wages_chg Integer. Over-the-year change in taxable annual wages.
- oty_taxable_annual_wages_pct_chg Numeric. Over-the-year percent change in taxable annual wages.
- oty_annual_contributions_chg Integer. Over-the-year change in annual UI taxes paid.
- oty_annual_contributions_pct_chg Numeric. Over-the-year percent change in annual UI taxes paid.
- oty_annual_avg_wkly_wage_chg Integer. Over-the-year change in average weekly wages.
- oty_annual_avg_wkly_wage_pct_chg Numeric. Over-the-year percent change in average weekly wages.
- oty_avg_annual_pay_chg Integer. Over-the-year change in average annual pay.
- oty_avg_annual_pay_pct_chg Numeric. Over-the-year percent change in average annual pay.
- date Date. Calculated calendar date based on year and quarter. Reflects first day of the quarter.
- industry_title Character. Added based on industry_code
- ind_level Character. Description of the level of aggregation based on the industry_code.
- naics_2d Character. First two characters in the industry_code, useful for identifying industries.
- sector Character. Similar to naics_2d, but for industries like Manufacturing which have multiple two digit NAICS codes, this will span those groupings, for example "31-33"
- vintage_start. Integer. Calendar year of the earliest vintage for this industry_code. NAICS codes are updated every 5 years. When using this industry codes from before this date, these titles may not exist or may be incorrect.
- vintage_end. Integer. Calendar year of the last year this industry code was used. Years after this point should not contain this industry code. Set to 3000 for current data.
- area_title Character. Area description based on area_fips as provided by the BLS.
- area_type Character. Description of the type of area based on the area_title. More consistent naming and grouping than BLS data.
- stfips Character. The two-digit FIPS code of the state containing a given area. Set to "00" for multi-state regions.
- specified_region. Either a two-character US Postal Service abbreviation for the state containing an area or a hyphenated list of such codes for multi-state areas.

Examples

```
# Get quarterly data for "Total, all industries" (Code 10)
# Includes industry/area descriptions and a date column by default
dt_default <- get_qcew(industry_code = "10")

# Get annual data for Nevada (Code 32000) for 2023 without lookups or messages
dt_year <- get_qcew(period_type = "year",
                    year_start = 2023,
                    year_end = 2023,
                    area_code = "32000",
                    add_lookups = FALSE,
                    silently = TRUE)
```

---

get_salt *Download State Alternative Labor Market Measures (SALT) Data*

Description

This function downloads detailed alternative unemployment measures data from BLS, including U-1 through U-6 measures. The data provides a more comprehensive view of labor market conditions beyond the standard unemployment rate (U-3).

Usage

```
get_salt(
  only_states = TRUE,
  geometry = FALSE,
  suppress_warnings = TRUE,
  return_diagnostics = FALSE
)
```

Arguments

only_states	Logical. If TRUE (default), includes only state-level data. If FALSE, includes sub-state areas like New York City where available.
geometry	Logical. If TRUE, uses tigris::states() to download shapefiles for the states to include in the data. If FALSE (default), only returns data table.
suppress_warnings	Logical. If TRUE (default), suppress individual download warnings and diagnostic messages for cleaner output during batch processing. If FALSE, returns the data and prints warnings and messages to the console.
return_diagnostics	Logical. If TRUE, returns a bls_data_collection object with full diagnostics. If FALSE (default), returns just the data table.

Value

By default, returns a data.table with Alternative Measures of Labor Underutilization data. If return_diagnostics = TRUE, returns a bls_data_collection object containing data and comprehensive diagnostics. The function also adds derived measures and quartile comparisons across states.

Examples

```
## Not run:
# Download state-level SALT data
salt_data <- get_salt()

# Include sub-state areas
salt_all <- get_salt(only_states = FALSE)

# Download SALT with geometry included
get_salt(geometry = TRUE)

# Get full diagnostic object if needed
data_with_diagnostics <- get_salt(return_diagnostics = TRUE)

## End(Not run)
```

---

has_bls_issues *Check if BLS data object has potential issues with import.*

Description

Check if BLS data object has potential issues with import.

Usage

```
has_bls_issues(bls_obj)
```

Arguments

bls_obj	A BLS data object

Value

Logical indicating if there were any import issues detected.

`ind_lookup` *NAICS Industry Titles Lookup Table (QCEW)*

Description

A data frame containing the structure of the North American Industry Classification System (NAICS) titles and codes used by the U.S. Bureau of Labor Statistics (BLS), including in the Quarterly Census of Employment and Wages (QCEW) program. This data is current as of the 2022 NAICS revision.

This table is primarily used internally by 'BLSloadR' functions to add human-readable industry titles or define valid industry lookups.

Usage

```
data(ind_lookup)
```

Format

A data frame with 2678 rows and 7 columns:

- industry_code - Character. The NAICS industry code. Items starting with 10 are aggregated values, not corresponding to a unique 6-digit NAICS.
- industry_title - Character. The descripion of the industry code provided by the BLS. This title also includes the code value for clarity.
- ind_level - Character. A description of the level of aggregation. Values are "Total", "Cluster", or "Supersector" for the "10" code aggregations, or else the length of the NAICS code, from 2-6 digits.
- naics_2d - Character. The first two digits of 'industry_code', which may be helpful to filter the results.
- sector - Character. Similar to 'naics_2d' except that when the industry sector spans multiple two digit codes, those codes are hyphenated (e.g. Manufacturing is NAICS 31, 32, and 33, so this displays '31-33').
- vintage_start - Integer. The earliest year reviewed for NAICS code use. NAICS will change every 5 years, so data from before this year will have some missing values.
- vintage_end - Integer. The last year that a particular code is used, if applicable. Set to 3000 for current codes.

Details

The NAICS structure is hierarchical. Codes are typically longer for more detailed industries.

Source

https://www.bls.gov/cew/classifications/industry/industry-titles.htm

Examples

```
# Load the lookup table
data(ind_lookup)

# Find the industry title for NAICS 51 (Information)
ind_lookup[ind_lookup$industry_code == "51", ]

# Get the supersector codes
supersectors <- ind_lookup[ind_lookup$ind_level == "Supersector", ]

# Get all 3-digit NAICS codes in the Manufacturing industry
mfg_codes <- ind_lookup |>
dplyr::filter(sector == "31-33" & ind_level == "NAICS 3-digit")
```

---

list_ces_industries *List Available Industry Filters for CES Data*

Description

Lists all available industry categories that can be used with the ‘industry_filter‘ parameter in ‘get_ces()‘ function. These filters allow you to download specific industry data instead of the complete dataset.

Usage

```
list_ces_industries(show_descriptions = FALSE)
```

Arguments

show_descriptions	Logical. If TRUE, returns a data frame with filter names and descriptions. If FALSE, returns just the filter names.

Value

A character vector of industry filter names, or a data frame with names and descriptions if show_descriptions = TRUE

Examples

```
# See all available industry filters
list_ces_industries()

# See filters with descriptions
list_ces_industries(show_descriptions = TRUE)

# Use with get_ces
# manufacturing_data <- get_ces(industry_filter = "manufacturing")  # All states
```

list_ces_states *List Available States for CES Data*

Description

Lists all available U.S. states and territories that can be used with the ‘states‘ parameter in ‘get_ces()‘ function.

Usage

```
list_ces_states()
```

Value

A character vector of available state/territory abbreviations

Examples

```
# See all available states
list_ces_states()

# Use with get_ces
# ces_data <- get_ces(states = c("MA", "NY"))  # All industries for these states
```

list_national_ces_options *List Available National CES Dataset Options*

Description

This function displays the available dataset filtering options for the get_national_ces() function, helping users understand what specialized datasets are available for download.

Usage

```
list_national_ces_options(show_descriptions = FALSE)
```

Arguments

show_descriptions	Logical. If TRUE, shows detailed descriptions of each dataset option. If FALSE (default), shows only the filter names.

Value

A data frame with dataset filter options and their descriptions.

Examples

```
# Show available dataset filters
list_national_ces_options()

# Show detailed descriptions
list_national_ces_options(show_descriptions = TRUE)
```

`load_bls_dataset` *Generic BLS Dataset Download*

Description

This function generalizes a method to download all BLS data for a given time series database. These files are accessed from https://download.bls.gov/pub/time.series/ and several datasets are available. A summary of an identified database can be generated using the 'bls_overiew()' function. When multiple potential data files exist (common in large data sets), the function will prompt for an input of which file to use.

Usage

```
load_bls_dataset(
  database_code,
  return_full = FALSE,
  simplify_table = TRUE,
  suppress_warnings = FALSE,
  which_data = NULL,
  cache = check_bls_cache_env()
)
```

Arguments

`database_code`	This is the two digit character identifier for the desired database. Some Valid options are: • "ce" - National Current Employment Statistics Data • "sm" - State and Metro area Current Employment Statistics Data • "mp" - Major Sector Total Factor Productivity • "ci" - Employment Cost Index • "eb" - Employee Benefits Survey
`return_full`	This argument defaults to FALSE. If set to TRUE it will return a list of the elements of data retrieved from the BLS separating the data, series, and mapping values downloaded.
`simplify_table`	This parameter defaults to TRUE. When TRUE it will remove all columns from the date with "_code" in the column name, as well as a series of internal identifiers which provide general information about the series but which are not needed for performing time series analysis. This parameter also converts the

column "value" to numeric and generates a date column from the year and period columns in the data.

`suppress_warnings`
: Logical. If TRUE, suppress individual download warnings during processing.

`which_data`
: Character string or NULL. Defaults to NULL.

- "all" - Automatically selects the data file containing ".1.All" (e.g., "bd.data.1.AllItems" or "le.data.1.AllData").
- "current" - Automatically selects the data file containing "Current" (e.g., "ce.data.0.Current").
- NULL - Default behavior. Prompts the user to select a file if multiple exist, or selects the single available file.

If the requested pattern is not found, the function falls back to the default behavior, prompting the user to select a file.

`cache`
: Logical. Uses USE_BLS_CACHE environment variable, or defaults to FALSE. If TRUE, will download a cached file from BLS server and update cache if BLS server indicates an updated file.

Value

This function will return either a bls_data_collection object (if return_full is FALSE or not provided) or a named list of the returned data including the bls_data_collection object.

Examples

```
## Not run:
# Import All Data
fm_import <- load_bls_dataset("fm", which_data = "all")

# Get $data element
fm_data <- fm_import$data

# Filter to a Series
# Families with Children Under 6 and No Employed Parent

u6_no_emp <- fm_data |>
 dplyr::filter(series_title == "Total families with children under 6 - with no parent employed") |>
  dplyr:: select(year, value, fchld_text, fhlf_text, tdat_text)


head(u6_no_emp)

## End(Not run)

## Not run:
# Examples requiring manual intervention in the console
# Download Employer Cost Index Data
cost_index <- load_bls_dataset("ci")

# Download separated data, series, and mapping columns
benefits <- load_bls_dataset("eb", return_full = TRUE)
```

```
# Download data without removing excess columns and value conversions
productivity <- load_bls_dataset("mp", simplify_table = FALSE)

# Check for download issues
if (has_bls_issues(cost_index)) {
  print_bls_warnings(cost_index, detailed = TRUE)
}


## End(Not run)
```

`print_bls_warnings` *Print warnings for BLS data object*

Description

Print warnings for BLS data object

Usage

```
print_bls_warnings(bls_obj, detailed = FALSE, silent = FALSE)
```

Arguments

`bls_obj`	A bls_data_collection object
`detailed`	Logical. If TRUE, shows detailed diagnostics for each file
`silent`	Logical. If TRUE, suppress console output

Value

Character vector of warnings (invisibly)

`read_bls_excel` *Download BLS Excel Data*

Description

Download BLS Excel Data

Usage

```
read_bls_excel(url, verbose = FALSE, ...)
```

Arguments

url	Character string. URL to the BLS .xlsx or .xls file.
verbose	Logical. If TRUE, prints diagnostic messages.
...	Additional arguments passed to readxl::read_excel (e.g., sheet, range).

Value

A data.frame or NULL if the download or read fails.

Examples

```
## Not run:
# Download BLS Alternative MEasures History
salt_url <- "https://www.bls.gov/lau/stalt-moave.xlsx"
salt_data <- read_bls_excel(salt_url, skip = 1)


## End(Not run)
```

---

show_ces_options *Show CES Data Filtering Options*

Description

Displays a comprehensive overview of all filtering options available for the ‘get_ces()‘ function, including states, industries, and usage examples.

Usage

```
show_ces_options()
```

Examples

```
# See all filtering options
show_ces_options()
```

show_national_ces_options *Show National CES Dataset Options and Usage Examples*

Description

This function provides a comprehensive overview of the national CES dataset filtering options available in get_national_ces(), including examples of how to use each option.

Usage

```
show_national_ces_options()
```

Value

Prints formatted information to the console.

Examples

```
show_national_ces_options()
```

smart_bls_download *Check and Download BLS File with Local Caching*

Description

This function manages the downloading of files from the BLS server with a local caching layer. It uses HTTP HEAD requests to compare the server's 'Content-Length' and 'Last-Modified' headers with local file attributes. The file is only downloaded if it does not exist locally, or if the remote version is newer or a different size.

Usage

```
smart_bls_download(url, cache_dir = NULL, verbose = FALSE)
```

Arguments

url	A character string representing the URL of the BLS file (e.g., a '.txt' or '.gz' file from download.bls.gov).
cache_dir	A character string specifying the local directory to store cached files. May also be set with the enviroment variable 'BLS_CACHE_DIR' Defaults to a persistent user data directory managed by `tools::R_user_dir`.
verbose	Logical. Defaults to FALSE. If TRUE, returns status messages for download.

Details

The function uses a specific set of browser-like headers to ensure compatibility with BLS server security policies. Upon a successful download, the local file's modification time is synchronized with the server's 'Last-Modified' header using `Sys.setFileTime` to ensure accurate future comparisons.

Value

A character string containing the local path to the downloaded (or cached) file.

Examples

```
## Not run:
url <- "https://download.bls.gov/pub/time.series/ce/ce.data.0.AllCESSeries"
local_path <- smart_bls_download(url)
data <- data.table::fread(local_path)

## End(Not run)
```

Index