# Package 'SouthKoreAPIs'

September 1, 2025

**Title** Access South Korean Data via Public APIs and Curated Datasets

Type Package

```
Version 0.1.0
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Description Provides functions to access data from public RESTful APIs including
      'Nager.Date', 'World Bank API', and 'REST Countries API', retrieving real-time or historical
      data related to South Korea, such as holidays, economic indicators, and international
      demographic and geopolitical indicators. Additionally, the package includes one of the largest
      curated collections of open datasets focused on South Korea, covering topics such as public health
      outbreaks, demographics, social surveys, elections, economic indicators, natural disasters,
      administrative divisions, air quality, climate data, energy consumption, cultural information,
      and financial markets. The package supports reproducible research and teaching by integrating
      reliable international APIs and structured datasets from public, academic, and govern-
      ment sources.
      For more information on the APIs, see:
      'Nager.Date' <a href="https://date.nager.at/Api">https://date.nager.at/Api</a>,
      'World Bank API' < https:
      //datahelpdesk.worldbank.org/knowledgebase/articles/889392>,
      and 'REST Countries API' <a href="https://restcountries.com/">https://restcountries.com/>.
License MIT + file LICENSE
Language en
URL https://github.com/lightbluetitan/southkoreapis,
      https://lightbluetitan.github.io/southkoreapis/
BugReports https://github.com/lightbluetitan/southkoreapis/issues
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Imports utils, httr, jsonlite, dplyr, scales, tibble
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RoxygenNote 7.3.2
```

2 Contents

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AutoOwnershipKorea\_df Korean Auto Ownership Data

#### **Description**

This dataset, AutoOwnershipKorea\_df, is a data frame containing information on auto ownership in South Korea, along with related economic indicators. It includes data on gross national product, car prices, and oil prices over a series of years.

### Usage

data(AutoOwnershipKorea\_df)

#### **Format**

A data frame with 10 observations and 5 variables:

Year Year of observation (numeric)

**AO** Auto ownership level (numeric)

**GNP** Gross National Product (numeric)

**CP** Car price (numeric)

**OP** Oil price (numeric)

## **Details**

The dataset name has been kept as 'AutoOwnershipKorea\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'df' indicates that the dataset is a data frame object. The original content has not been modified in any way.

### Source

Data taken from the **SenSrivastava** package version 2015.6.2

demographicsKR\_tbl\_df Korean Demographics (2000-2022)

## Description

This dataset, demographicsKR\_tbl\_df, is a tibble containing demographic data of South Korea from 2000 to 2022. It includes values and rates for birth, death, natural growth, marriage, and divorce, organized by date and region. The dataset preserves the original structure from its source on Kaggle.

### Usage

data(demographicsKR\_tbl\_df)

#### **Format**

A tibble with 4,860 observations and 12 variables:

**Date** Date of the record (character)

Region Region name in South Korea (character)

**Birth** Number of births (numeric)

**Birth rate** Birth rate (per 1,000 people) (numeric)

**Death** Number of deaths (numeric)

**Death\_rate** Death rate (per 1,000 people) (numeric)

**Divorce** Number of divorces (numeric)

**Divorce\_rate** Divorce rate (per 1,000 people) (numeric)

Marriage Number of marriages (numeric)

Marriage\_rate Marriage rate (per 1,000 people) (numeric)

Natural\_growth Difference between births and deaths (numeric)

Natural\_growth\_rate Natural growth rate (per 1,000 people) (numeric)

#### **Details**

The dataset name has been kept as 'demographicsKR\_tbl\_df' to maintain consistency with the naming conventions in the SouthKoreAPIs package. The suffix 'tbl\_df' indicates that this is a tibble data frame. The original content has not been modified in any way.

#### Source

Data obtained from Kaggle: https://www.kaggle.com/datasets/alexandrepetit881234/korean-demographics-200

 ${\tt GasSales\_Korea\_tbl\_df} \quad \textit{Korea Natural Gas Sales with Temperature}$ 

## Description

This dataset, GasSales\_Korea\_tbl\_df, is a tibble containing monthly natural gas sales data with corresponding average temperatures for provinces of South Korea. It includes sales figures for each province, the national total, and temperature information, organized by year and month. The dataset preserves the original structure from its source on Kaggle.

## Usage

```
data(GasSales_Korea_tbl_df)
```

#### **Format**

A tibble with 252 observations and 21 variables:

**Year** Year of observation (numeric)

**Month** Month of observation (numeric)

**Temperature** Average temperature in degrees Celsius (numeric)

**Gangwondo** Gas sales in Gangwon-do province (numeric)

Seoul Gas sales in Seoul (numeric)

**Gyeonggido** Gas sales in Gyeonggi-do province (numeric)

**Incheon** Gas sales in Incheon (numeric)

**Gyeongsangnamdo** Gas sales in Gyeongsangnam-do province (numeric)

**Gyeongsangbukdo** Gas sales in Gyeongsangbuk-do province (numeric)

**Gwangju** Gas sales in Gwangju (numeric)

Daegu Gas sales in Daegu (numeric)

**Daejeon** Gas sales in Daejeon (numeric)

**Busan** Gas sales in Busan (numeric)

**Sejong** Gas sales in Sejong (numeric)

**Ulsan** Gas sales in Ulsan (numeric)

**Jeollanamdo** Gas sales in Jeollanam-do province (numeric)

**Jeollabukdo** Gas sales in Jeollabuk-do province (numeric)

**Jeju** Gas sales in Jeju province (numeric)

Chungcheongnamdo Gas sales in Chungcheongnam-do province (numeric)

Chungcheongbukdo Gas sales in Chungcheongbuk-do province (numeric)

**Sum** Total gas sales in South Korea (numeric)

### Details

The dataset name has been kept as 'GasSales\_Korea\_tbl\_df' to maintain consistency with the naming conventions in the SouthKoreAPIs package. The suffix 'tbl\_df' indicates that this is a tibble data frame. The original content has not been modified in any way.

#### Source

Data obtained from Kaggle: https://www.kaggle.com/datasets/zxtzxt30/korea-monthly-gas-sales-with-temper

get\_country\_info\_kr

get\_country\_info\_kr Get Country Information for South Korea

## **Description**

Retrieves comprehensive country information for South Korea from the REST Countries API. This function fetches data including official and common names, geographical information, capital, area, population, and languages.

## Usage

```
get_country_info_kr()
```

#### **Details**

This function makes a request to the REST Countries API v3.1 endpoint specifically for South Korea using full text search. It handles API errors gracefully and returns NULL if the request fails or no data is found.

### Value

A tibble with one row containing South Korea's country information:

```
name_common Common name of the country
name_official Official name of the country
region Geographic region
subregion Geographic subregion
capital Capital city(ies)
area Total area in square kilometers
population Total population
languages Languages spoken (comma-separated)
```

```
# Get South Korea information
sk_info <- get_country_info_kr()
print(sk_info)</pre>
```

```
get_southkorea_child_mortality
```

Get South Korea's Under-5 Mortality Rate from World Bank

## **Description**

Retrieves South Korea's under-5 mortality rate, measured as the number of deaths of children under five years of age per 1,000 live births, for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is SH.DYN.MORT.

#### Usage

```
get_southkorea_child_mortality()
```

#### **Details**

This function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

#### Value

A tibble with the following columns:

- indicator: Indicator name (e.g., "Mortality rate, under-5 (per 1,000 live births)")
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: Mortality rate (per 1,000 live births)

## Note

Requires internet connection.

## Source

```
World Bank Open Data API: https://data.worldbank.org/indicator/SH.DYN.MORT
```

### See Also

```
GET, fromJSON, as_tibble
```

```
if (interactive()) {
   get_southkorea_child_mortality()
}
```

8 get\_southkorea\_cpi

 $\begin{array}{ll} {\it get\_southkorea\_cpi} & {\it Get~South~Korea's~Consumer~Price~Index~(2010=100)~from~World} \\ {\it Bank} \end{array}$ 

### **Description**

Retrieves South Korea's Consumer Price Index (CPI), with 2010 as the base year (index = 100), for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is FP.CPI.TOTL.

### Usage

```
get_southkorea_cpi()
```

### **Details**

This function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

### Value

A tibble with the following columns:

- indicator: Indicator name (e.g., "Consumer price index (2010 = 100)")
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: Consumer Price Index (numeric, base year 2010 = 100)

#### Note

Requires internet connection.

#### **Source**

World Bank Open Data API: https://data.worldbank.org/indicator/FP.CPI.TOTL

### See Also

```
GET, fromJSON, as_tibble
```

```
if (interactive()) {
  get_southkorea_cpi()
}
```

```
get_southkorea_energy_use
```

Get South Korea's Energy Use (kg of oil equivalent per capita) from World Bank

## Description

Retrieves South Korea's energy use per capita, measured in kilograms of oil equivalent, for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is EG.USE.PCAP.KG.OE.

## Usage

```
get_southkorea_energy_use()
```

#### **Details**

This function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

## Value

A tibble with the following columns:

- indicator: Indicator name (e.g., "Energy use (kg of oil equivalent per capita)")
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: Energy use in kilograms of oil equivalent per capita

## Note

Requires internet connection.

### Source

World Bank Open Data API: https://data.worldbank.org/indicator/EG.USE.PCAP.KG.OE

### See Also

```
GET, fromJSON, as_tibble
```

```
if (interactive()) {
  get_southkorea_energy_use()
}
```

10 get\_southkorea\_gdp

get\_southkorea\_gdp

Get South Korea's GDP (current US\$) from World Bank

## Description

Retrieves South Korea's Gross Domestic Product (GDP) in current US dollars for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is NY.GDP.MKTP.CD.

## Usage

```
get_southkorea_gdp()
```

### **Details**

This function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

#### Value

A tibble with the following columns:

- indicator: Indicator name (e.g., "GDP (current US\$)")
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: GDP in current US dollars
- value\_label: Formatted GDP with commas (e.g., "1,800,000,000,000")

## Note

Requires internet connection.

### **Source**

```
World Bank Open Data API: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD
```

### See Also

```
GET, fromJSON, as_tibble, comma
```

```
if (interactive()) {
  get_southkorea_gdp()
}
```

```
get_southkorea_holidays
```

Get Official Public Holidays in South Korea for a Given Year

## **Description**

Retrieves the list of official public holidays in South Korea for a specific year using the Nager.Date public holidays API. This function returns a tibble containing the date of the holiday, the name in the local language (Korean), and the English name. It is useful for academic, planning, and data analysis purposes. The information is retrieved directly from the Nager.Date API and reflects the current status of holidays for the requested year. The field names returned are consistent with the API structure.

#### Usage

```
get_southkorea_holidays(year)
```

### **Arguments**

year

An integer indicating the year (e.g., 2024 or 2025).

#### Value

A tibble with the following columns:

- date: Date of the holiday (class Date)
- local\_name: Holiday name in the local language (Korean)
- name: Holiday name in English

### Source

```
Data obtained from the Nager.Date API: https://date.nager.at/
```

```
get_southkorea_holidays(2024)
get_southkorea_holidays(2025)
```

```
get_southkorea_hospital_beds
```

Get South Korea's Hospital Beds (per 1,000 people) from World Bank

## **Description**

Retrieves South Korea's number of hospital beds per 1,000 people for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is SH.MED.BEDS.ZS.

### Usage

```
get_southkorea_hospital_beds()
```

### **Details**

This function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

#### Value

A tibble with the following columns:

- indicator: Indicator name (e.g., "Hospital beds (per 1,000 people)")
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: Number of hospital beds per 1,000 people

### Note

Requires internet connection.

#### Source

```
World Bank Open Data API: https://data.worldbank.org/indicator/SH.MED.BEDS.ZS
```

## See Also

```
GET, fromJSON, as_tibble
```

```
if (interactive()) {
  get_southkorea_hospital_beds()
}
```

```
get_southkorea_life_expectancy
```

Get South Korea's Life Expectancy at Birth (Total, Years) from World Bank

## **Description**

Retrieves South Korea's life expectancy at birth (total, years) for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is SP.DYN.LE00.IN.

## Usage

```
get_southkorea_life_expectancy()
```

### **Details**

This function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

## Value

A tibble with the following columns:

- indicator: Indicator name (e.g., "Life expectancy at birth, total (years)")
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: Life expectancy at birth in years

## Note

Requires internet connection.

## Source

```
World Bank Open Data API: https://data.worldbank.org/indicator/SP.DYN.LE00.IN
```

### See Also

```
GET, fromJSON, as_tibble
```

```
if (interactive()) {
   get_southkorea_life_expectancy()
}
```

```
get_southkorea_literacy_rate
```

Get South Korea's Adult Literacy Rate

## **Description**

Retrieves South Korea's adult literacy rate ( for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is SE.ADT.LITR.ZS.

### Usage

```
get_southkorea_literacy_rate()
```

### **Details**

This function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

#### Value

A tibble with the following columns:

- indicator: Indicator name
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: Literacy rate as a percentage

### Note

Requires internet connection.

## Source

```
World Bank Open Data API: https://data.worldbank.org/indicator/SE.ADT.LITR.ZS
```

## See Also

```
GET, fromJSON, as_tibble
```

```
literacy_data <- get_southkorea_literacy_rate()
head(literacy_data)</pre>
```

```
get_southkorea_population
```

Get South Korea's Total Population from World Bank

### **Description**

Retrieves South Korea's total population for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is SP.POP.TOTL.

## Usage

```
get_southkorea_population()
```

#### **Details**

The function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

### Value

A tibble with the following columns:

- indicator: Indicator name (e.g., "Population, total")
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: Population as a numeric value
- value\_label: Formatted population with commas (e.g., "51,000,000")

#### Note

Requires internet connection. The data is retrieved in real time from the World Bank API.

#### Source

```
World Bank Open Data API: https://data.worldbank.org/indicator/SP.POP.TOTL
```

### See Also

```
GET, fromJSON, as_tibble, comma
```

```
if (interactive()) {
  get_southkorea_population()
}
```

get\_southkorea\_unemployment

Get South Korea's Unemployment Rate (Total) from World Bank

### **Description**

Retrieves South Korea's total unemployment rate, measured as a percentage of the total labor force, for the years 2010 to 2022 using the World Bank Open Data API. The indicator used is SL.UEM.TOTL.ZS.

#### Usage

```
get_southkorea_unemployment()
```

#### **Details**

This function sends a GET request to the World Bank API. If the API request fails or returns an error status code, the function returns NULL with an informative message.

#### Value

A tibble with the following columns:

- indicator: Indicator name (e.g., "Unemployment, total (
- country: Country name ("Korea, Rep.")
- year: Year of the data (integer)
- value: Unemployment rate as a numeric value (percentage)

## Note

Requires internet connection.

## Source

```
World Bank Open Data API: https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS
```

### See Also

```
GET, fromJSON, as_tibble
```

```
if (interactive()) {
   get_southkorea_unemployment()
}
```

HeptathlonSeoul1988\_df

Olympic Heptathlon Results - Seoul 1988

## **Description**

This dataset, HeptathlonSeoul1988\_df, is a data frame containing the results of the Olympic heptathlon competition held in Seoul in 1988. It includes performance metrics for each of the seven events as well as the total score.

#### Usage

```
data(HeptathlonSeoul1988_df)
```

#### **Format**

A data frame with 25 observations and 8 variables:

**hurdles** Time in seconds for the 100m hurdles (numeric)

**highjump** Height in meters for the high jump (numeric)

**shot** Distance in meters for the shot put (numeric)

run200m Time in seconds for the 200m run (numeric)

longjump Distance in meters for the long jump (numeric)

**javelin** Distance in meters for the javelin throw (numeric)

run800m Time in seconds for the 800m run (numeric)

score Total heptathlon score (integer)

#### **Details**

The dataset name has been kept as 'HeptathlonSeoul1988\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'df' indicates that the dataset is a base R data frame object. The original content has not been modified in any way.

## Source

Data taken from the HSAUR3 package version 1.0-15

KoreanBoneDensity\_df Bone quality in South Koreans

### Description

This dataset, KoreanBoneDensity\_df, is a data frame containing bone mass density measurements of South Korean subjects at three body locations. It includes demographic information such as sex, age, height, and weight, along with bone mass density values for the lumbar spine, hip, and neck.

### Usage

data(KoreanBoneDensity\_df)

#### **Format**

A data frame with 969 observations and 7 variables:

**Sex** Sex of the subject (factor with 2 levels)

Age Age of the subject in years (integer)

**Height** Height of the subject in centimeters (numeric)

**Weight** Weight of the subject in kilograms (numeric)

LumbarBMD Bone mass density at the lumbar spine (numeric)

**HipBMD** Bone mass density at the hip (numeric)

**NeckBMD** Bone mass density at the neck (numeric)

### Details

The dataset name has been kept as 'KoreanBoneDensity\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'df' indicates that the dataset is a data frame object. The original content has not been modified in any way.

## **Source**

Data taken from the **SRMData** package version 1.0.1

KoreanElection2017\_df 2017 Korea Presidential Election Data

## **Description**

This dataset, KoreanElection2017\_df, is a data frame containing information from the 2017 presidential election in South Korea. It includes precinct- and city-level data along with demographic and socioeconomic indicators related to the voting population.

## Usage

data(KoreanElection2017\_df)

#### **Format**

A data frame with 1250 observations and 9 variables:

PrecinctCode Precinct code (integer)

CityCode City code (integer)

**CandidateName** Candidate identifier code (integer)

**AveAge** Average age of the voting population (numeric)

**AveYearEdu** Average years of education (numeric)

AveHousePrice Average house price (numeric)

**AveInsurance** Average insurance enrollment indicator or count (integer)

VoteRate Voter turnout rate (numeric)

**NumVote** Number of votes cast (integer)

#### **Details**

The dataset name has been kept as 'KoreanElection2017\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'df' indicates that the dataset is a data frame object. The original content has not been modified in any way.

#### Source

Data taken from the **KPC** package version 0.1.2

KoreanSocialSurvey\_tbl\_df

A Sample of Korean General Social Survey Data, 2023

#### **Description**

This dataset, KoreanSocialSurvey\_tbl\_df, is a tibble containing a sample of data from the Korean General Social Survey (KGSS) conducted in 2023. It includes demographic, social, and attitudinal variables for respondents.

#### Usage

```
data(KoreanSocialSurvey_tbl_df)
```

#### **Format**

```
A tibble with 1123 observations and 13 variables:

year Survey year (numeric)

respid Respondent identifier (numeric)

age Age of the respondent (numeric)

female Gender indicator: 1 = female, 0 = male (numeric)

employed Employment status indicator (numeric)

unived University education indicator (numeric)

netuse Internet use indicator (numeric)

ideo Political ideology score (numeric)

si_gbh Regional code or classification (numeric)

satisfin Satisfaction with financial situation (numeric)

fp_mord Attitude toward moral issues (numeric)

fpcat Category for family planning or related topics (character)

cntryaffq Country affiliation or related attitude (character)
```

## Details

The dataset name has been kept as 'KoreanSocialSurvey\_tbl\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'tbl\_df' indicates that the dataset is a tibble object. The original content has not been modified in any way.

### **Source**

Data taken from the **simqi** package version 0.2.0

KOSPI200\_list 21

KOSPI200\_list

Korea Stock Price Index 200 (KOSPI 200)

## **Description**

This dataset, KOSPI200\_list, is a list containing historical data for the Korea Stock Price Index 200 (KOSPI 200). It includes a vector of dates and the corresponding index values over time.

## Usage

```
data(KOSPI200_list)
```

#### **Format**

A list with 2 components:

date A Date vector of length 896 representing the observation dates

index A numeric vector of length 896 representing the KOSPI 200 index values

#### **Details**

The dataset name has been kept as 'KOSPI200\_list' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'list' indicates that the dataset is stored as a list object. The original content has not been modified in any way.

#### **Source**

Data taken from the **EMD** package version 1.5.9

KPopIdols\_tbl\_df

All KPop Idols

## **Description**

This dataset, KPopIdols\_tbl\_df, is a tibble containing a complete detailed database of all current KPop idols, both male and female. It includes each idol's stage name, full name, Korean name, Korean stage name, date of birth, group name, country, height, weight, birthplace, gender, and Instagram handle. The dataset preserves the original structure from its source on Kaggle.

## Usage

```
data(KPopIdols_tbl_df)
```

#### **Format**

A tibble with 1,666 observations and 12 variables:

Stage Name Stage Name Stage name of the idol (character)

Full Name Full Name Full name of the idol (character)

Korean Name Korean Name Korean name of the idol (character)

**K. Stage Name K. Stage Name** Stage name written in Korean (character)

Date of Birth Date of Birth Date of birth (character)

**Group Group** Name of the group the idol belongs to (character)

**Country Country** Country of origin (character)

**Height Height** Height in centimeters (numeric)

Weight Weight in kilograms (numeric)

Birthplace Birthplace Place of birth (character)

**Gender Gender** Gender of the idol (character)

**Instagram Instagram** Instagram handle or profile URL (character)

#### **Details**

The dataset name has been kept as 'KPopIdols\_tbl\_df' to maintain consistency with the naming conventions in the SouthKoreAPIs package. The suffix 'tbl\_df' indicates that this is a tibble data frame. The original content has not been modified in any way.

#### Source

Data obtained from Kaggle: https://www.kaggle.com/datasets/onlyrohit/all-kpop-idols

MERSKorea2015\_list

Middle East respiratory syndrome in South Korea, 2015

## Description

This dataset, MERSKorea2015\_list, is a list containing two data frames with information collected during the first weeks of the Middle East respiratory syndrome (MERS-CoV) outbreak in South Korea in 2015. The data was initially gathered by the Epidemic Intelligence group at the European Centre for Disease Prevention and Control (ECDC).

## Usage

data(MERSKorea2015\_list)

#### **Format**

A list of 2 elements:

```
linelist A data frame with 162 observations and 15 variables:
```

```
id Case identifier (character)
age Age of the individual (integer)
age_class Age class of the individual (character)
sex Sex of the individual (factor with 2 levels)
place_infect Place of infection (factor with 2 levels)
reporting_ctry Reporting country (factor with 2 levels)
loc_hosp Location or hospital (factor with 13 levels)
dt_onset Date of symptom onset (Date)
dt_report Date of case report (Date)
week_report Week of report (factor with 5 levels)
dt_start_exp Start date of exposure (Date)
dt_end_exp End date of exposure (Date)
dt_diag Date of diagnosis (Date)
outcome Outcome of the case (factor with 2 levels)
```

**contacts** A data frame with 98 observations and 4 variables:

**dt\_death** Date of death, if applicable (Date)

```
from ID of the source case (character)
to ID of the contact case (character)
exposure Type of exposure (factor with 5 levels)
diff_dt_onset Difference in days between onset dates (integer)
```

### **Details**

The dataset name has been kept as 'MERSKorea2015\_list' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'list' indicates that the object is a list containing multiple related data frames. The original content has not been modified in any way.

### Source

Data taken from the outbreaks package version 1.9.0

migrationflows\_tbl\_df Annual Origin—Destination Migration Flows Between Korean Regions

#### Description

This dataset, migrationflows\_tbl\_df, is a tibble containing annual migration flows between South Korea's first-level administrative regions from 2012 to 2020. It includes geographic, economic, and demographic indicators for both origin and destination regions.

### Usage

```
data(migrationflows_tbl_df)
```

#### **Format**

```
A tibble with 2,601 observations and 20 variables:
orig Origin region name (character)
dest Destination region name (character)
year Year of migration flow (integer)
flow Number of migrants moving from origin to destination (integer)
dist_cent Distance between region centroids (numeric)
dist_min Minimum distance between regions (numeric)
dist_pw Pairwise distance measure (numeric)
contig Contiguity indicator: TRUE if regions share a border, FALSE otherwise (logical)
orig_pop Population of the origin region (numeric)
dest_pop Population of the destination region (numeric)
orig area Area of the origin region in square meters (numeric)
dest_area Area of the destination region in square meters (numeric)
orig_gdp_pc GDP per capita in the origin region (numeric)
orig_ginc_pc Gross income per capita in the origin region (numeric)
orig_iinc_pc Individual income per capita in the origin region (numeric)
orig_pconsum_pc Private consumption per capita in the origin region (numeric)
dest gdp pc GDP per capita in the destination region (numeric)
dest_ginc_pc Gross income per capita in the destination region (numeric)
dest_iinc_pc Individual income per capita in the destination region (numeric)
dest_pconsum_pc Private consumption per capita in the destination region (numeric)
```

#### **Details**

The dataset name has been kept as 'migrationflows\_tbl\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKore-APIs package and assists users in identifying its specific characteristics. The suffix 'tbl\_df' indicates that the dataset is a tibble object. The original content has not been modified in any way.

### **Source**

Data taken from the **migest** package version 2.0.5

NFIColumnNames\_df

Korean and English Column Names

## Description

This dataset, NFIColumnNames\_df, is a data frame containing Korean and English translations of column names, along with their standardized column identifiers. It is intended to assist users in mapping between Korean-language variables and their English equivalents in related datasets.

## Usage

data(NFIColumnNames\_df)

### **Format**

A data frame with 174 observations and 3 variables:

Korean\_Column\_Name Column name in Korean (character)

English\_Name Column name in English (character)

Column\_Name Standardized column identifier (character)

## **Details**

The dataset name has been kept as 'NFIColumnNames\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'df' indicates that the dataset is a data frame object. The original content has not been modified in any way.

### Source

Data taken from the knfi package version 1.0.1.9

26 RegionalKorea\_df

RegionalKorea\_df

Korean Regional Data (2014–2016 Averages)

### Description

This dataset, RegionalKorea\_df, is a data frame containing average regional-level socioeconomic, demographic, health, and environmental indicators for South Korea over the period 2014–2016.

### Usage

```
data(RegionalKorea_df)
```

#### **Format**

```
A data frame with 268 observations and 23 variables:
```

id Region identifier (integer)

metro Metropolitan area indicator or name (character)

region Region name (character)

type Region type classification (integer)

grdp Gross Regional Domestic Product (numeric)

regpop Regional population (numeric)

popgrowth Population growth rate (numeric)

eq5d EQ-5D health index (numeric)

**deaths** Number of deaths (numeric)

drink Alcohol consumption rate (numeric)

hdrink Heavy drinking rate (numeric)

**smoke** Smoking rate (numeric)

**aged** Proportion of elderly population (numeric)

divorce Divorce rate (numeric)

medrate Medical service utilization rate (numeric)

**gcomp** Gini coefficient or related inequality measure (numeric)

**vehipc** Vehicles per capita (numeric)

accpv Accidents per vehicle (numeric)

dumppc Illegal dumping incidents per capita (numeric)

**stratio** Student–teacher ratio (numeric)

deathrate Death rate (numeric)

pctmale Percentage of male population (numeric)

accpc Accidents per capita (numeric)

SeoulAdminAreas\_sf 27

#### **Details**

The dataset name has been kept as 'RegionalKorea\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'df' indicates that the dataset is a data frame object. The original content has not been modified in any way.

#### Source

Data taken from the **loedata** package version 1.0.1

SeoulAdminAreas\_sf

Administrative Areas of Seoul, South Korea

#### **Description**

This dataset, SeoulAdminAreas\_sf, is an sf object containing polygon geometries for the 25 administrative areas of Seoul, Republic of Korea. It includes the area names, associated integer values, and polygon geometry data.

### Usage

```
data(SeoulAdminAreas_sf)
```

#### **Format**

An sf object (tibble) with 25 observations and 3 variables:

**name** Name of the administrative area (character)

value Associated value or identifier (integer)

**geometry** Polygon geometry data (sfc\_POLYGON)

### Details

The dataset name has been kept as 'SeoulAdminAreas\_sf' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'sf' indicates that the dataset is a simple features object. The original content has not been modified in any way.

### Source

Data taken from the **valuemap** package version 2.0.4

28 SeoulH3Data\_tbl\_df

SeoulDistrictPop\_df Seoul's Population and Area Data for Districts (2012)

## Description

This dataset, SeoulDistrictPop\_df, is a data frame containing the 2012 population and area data for each of the districts in the city of Seoul, South Korea. It also includes information on the founding year of each district.

#### Usage

data(SeoulDistrictPop\_df)

#### **Format**

A data frame with 25 observations and 5 variables:

**District** Name of the district (character)

**City** Name of the city (character)

**Pop.2012** Population in 2012 (integer)

**Area** Area of the district in square kilometers (numeric)

Founded Year the district was founded (character)

#### Details

The dataset name has been kept as 'SeoulDistrictPop\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKore-APIs package and assists users in identifying its specific characteristics. The suffix 'df' indicates that the dataset is a base R data frame object. The original content has not been modified in any way.

#### Source

Data taken from the **micromapST** package version 3.0.4

SeoulH3Data\_tbl\_df

H3 Addresses within Seoul, South Korea

### **Description**

This dataset, SeoulH3Data\_tbl\_df, is a tibble containing H3 resolution level 8 addresses within Seoul, Republic of Korea, along with associated numeric values. The H3 geospatial indexing system is used for representing hexagonal cells covering the area of Seoul.

SeoulMosquito\_tbl\_df

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#### Usage

```
data(SeoulH3Data_tbl_df)
```

#### **Format**

A tibble with 1,329 observations and 2 variables:

name H3 address at resolution level 8 (character)

value Associated numeric value (numeric)

### **Details**

The dataset name has been kept as 'SeoulH3Data\_tbl\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKore-APIs package and assists users in identifying its specific characteristics. The suffix 'tbl\_df' indicates that the dataset is a tibble object. The original content has not been modified in any way.

### Source

Data taken from the **valuemap** package version 2.0.4

### **Description**

This dataset, SeoulMosquito\_tbl\_df, is a tibble containing daily mosquito indicator data and weather measurements for Seoul, South Korea, from 2016 to 2019. The mosquito indicator represents the number of mosquitoes per specific area. The dataset also includes daily precipitation and temperature metrics (mean, minimum, and maximum). The dataset preserves the original structure from its source on Kaggle.

#### Usage

```
data(SeoulMosquito_tbl_df)
```

#### **Format**

A tibble with 1,342 observations and 6 variables:

date Observation date (Date)

mosquito\_Indicator Number of mosquitoes per specific area (numeric)

rain(mm) Daily precipitation in millimeters (numeric)

mean\_T(°C) Mean daily temperature in degrees Celsius (numeric)

min\_T(°C) Minimum daily temperature in degrees Celsius (numeric)

max\_T(°C) Maximum daily temperature in degrees Celsius (numeric)

30 SolarRadiation\_df

### **Details**

The dataset name has been kept as 'SeoulMosquito\_tbl\_df' to maintain consistency with the naming conventions in the SouthKoreAPIs package. The suffix 'tbl\_df' indicates that this is a tibble data frame. The original content has not been modified in any way.

### Source

Data obtained from Kaggle: https://www.kaggle.com/datasets/kukuroo3/mosquito-indicator-in-seoul-korea

SolarRadiation\_df

Solar Radiation Observations in South Korea

## Description

This dataset, SolarRadiation\_df, is a data frame containing hourly solar radiation measurements recorded at three locations in South Korea: Seoul, Daegu, and Busan. Observations cover the period from September 1, 2003, to September 29, 2003, and were obtained from the Korea Meteorological Administration.

## Usage

data(SolarRadiation\_df)

### **Format**

A data frame with 696 observations and 4 variables:

**Date** Date and time of observation (POSIXct)

**Seoul** Solar radiation in Seoul (numeric)

Daegu Solar radiation in Daegu (numeric)

Busan Solar radiation in Busan (numeric)

## **Details**

The dataset name has been kept as 'SolarRadiation\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'df' indicates that the dataset is a data frame object. The original content has not been modified in any way.

#### Source

Data taken from the **EPT** package version 0.7.6

SouthKoreaBirths\_tbl\_df

Births in South Korea

## **Description**

This dataset, SouthKoreaBirths\_tbl\_df, is a tibble containing births and mid-year population data for South Korea by age of mother, region, and calendar year from 2011 to 2023. It also includes regional data on GDP per capita (2023) and population density (2020).

### Usage

```
data(SouthKoreaBirths_tbl_df)
```

### **Format**

A tibble with 1,872 observations and 7 variables:

```
age Age group of the mother (character)
```

region Region name (factor with 16 levels)

time Calendar year (integer)

births Number of births (integer)

popn Mid-year population (integer)

gdp\_pc\_2023 GDP per capita in 2023 (numeric)

dens\_2020 Population density in 2020 (character)

## **Details**

The dataset name has been kept as 'SouthKoreaBirths\_tbl\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKore-APIs package and assists users in identifying its specific characteristics. The suffix 'tbl\_df' indicates that the dataset is a tibble object. The original content has not been modified in any way.

### Source

Data taken from the bage package version 0.9.4

SouthKoreaCovid19\_tbl\_df

South Korea COVID-19 dataset

## **Description**

This dataset, SouthKoreaCovid19\_tbl\_df, is a tibble containing COVID-19 data for South Korea from January 20th 2019 to March 20th 2020. It includes epidemiological, demographic, and geographic variables.

### Usage

data(SouthKoreaCovid19\_tbl\_df)

#### **Format**

A tibble with 244 observations and 11 variables:

n\_covid1 Number of COVID-19 cases (numeric)

**Morbidity** Morbidity rate (numeric)

high\_sch\_p Proportion of population with high school education (numeric)

Healthcare\_access Healthcare access index (numeric)

diff\_sd Difference in standard deviation or related metric (numeric)

**Crowding** Crowding index (numeric)

Migration Migration rate (numeric)

**Health\_behavior** Health behavior index (numeric)

x Longitude coordinate (numeric)

y Latitude coordinate (numeric)

ln\_total Natural log of total cases or population (numeric)

#### **Details**

The dataset name has been kept as 'SouthKoreaCovid19\_tbl\_df' to avoid confusion with other datasets in the R ecosystem. This naming convention helps distinguish this dataset as part of the SouthKoreAPIs package and assists users in identifying its specific characteristics. The suffix 'tbl\_df' indicates that the dataset is a tibble object. The original content has not been modified in any way.

### Source

Data taken from the **gwzinbr** package version 0.1.0

SouthKoreAPIs 33

SouthKoreAPIs	SouthKoreAPIs: Access South Korean Data via Public APIs and Curated Datasets
	ratea Datasets

#### **Description**

This package provides functions to access data from public RESTful APIs including 'Nager.Date', 'World Bank API', and 'REST Countries API', retrieving real-time or historical data related to South Korea, such as holidays, economic indicators, and international demographic and geopolitical indicators. Additionally, the package includes one of the largest curated collections of open datasets focused on South Korea, covering topics such as public health outbreaks, demographics, social surveys, elections, economic indicators, natural disasters, administrative divisions, air quality, climate data, energy consumption, cultural information, and financial markets.

#### **Details**

SouthKoreAPIs: Access South Korean Data via Public APIs and Curated Datasets Access South Korean Data via Public APIs and Curated Datasets.

#### Author(s)

Maintainer: Renzo Caceres Rossi <arenzocaceresrossi@gmail.com>

### See Also

Useful links:

• https://github.com/lightbluetitan/southkoreapis

view\_datasets\_SouthKoreAPIs

View Available Datasets in SouthKoreAPIs

### **Description**

This function lists all datasets available in the 'SouthKoreAPIs' package. If the 'SouthKoreAPIs' package is not loaded, it stops and shows an error message. If no datasets are available, it returns a message and an empty vector.

## Usage

view\_datasets\_SouthKoreAPIs()

#### Value

A character vector with the names of the available datasets. If no datasets are found, it returns an empty character vector.

```
if (requireNamespace("SouthKoreAPIs", quietly = TRUE)) {
   library(SouthKoreAPIs)
   view_datasets_SouthKoreAPIs()
}
```

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