

Package ‘`covid19mobility`’

July 20, 2020

Title Fetches Data on Covid-19 Mobility Trends from Different Sources

Version 0.1.1

Description Scrapes trends in mobility after the Covid-19 outbreak from different sources. Currently, the package scrapes data from Google <<https://www.google.com/covid19/mobility/>>, Apple <<https://www.apple.com/covid19/mobility/>>, and will add others. The data returned uses the tidy Covid19R project data standard <<https://covid19r.github.io/documentation/>> as well as the controlled vocabularies for measurement types.

License MIT + file LICENSE

URL <https://github.com/Covid19R/covid19mobility>

BugReports <https://github.com/Covid19R/covid19mobility/issues>

Depends R (>= 2.10)

Imports dplyr, glue, janitor, jsonlite, lubridate, magrittr, readr, stringi, tidyr, tigris, utils

Suggests gganimate, ggplot2, knitr, rgeos, rgdal, rmarkdown, rnatrlearn, sf, testthat

VignetteBuilder knitr

Encoding UTF-8

LazyData true

RoxygenNote 7.1.0

NeedsCompilation no

Author Jarrett Byrnes [aut, cre, cph]
(<<https://orcid.org/0000-0002-9791-9472>>),
Amanda Dobbyn [ctb]

Maintainer Jarrett Byrnes <jarrett.byrnes@umb.edu>

Repository CRAN

Date/Publication 2020-07-20 09:20:06 UTC

R topics documented:

covid19mobility_apple_country_demo	2
covid19mobility_google_country_demo	3
get_info_covid19mobility	3
refresh_covid19mobility_apple_city	4
refresh_covid19mobility_apple_country	5
refresh_covid19mobility_apple_subregion	5
refresh_covid19mobility_google_country	6
refresh_covid19mobility_google_subregions	7
refresh_covid19mobility_google_us_counties	9

Index	11
--------------	-----------

covid19mobility_apple_country_demo

Demo Data of the Apple Covid-19 Mobility Data for Countries

Description

Demo Data of the Apple Covid-19 Mobility Data for Countries

Usage

covid19mobility_apple_country_demo

Format

A data frame with 22032 rows and 8 variables:

- date - The date in YYYY-MM-DD form
- location - The name of the location as provided by the data source. The counties dataset provides county and state. They are combined and separated by a ,, and can be split by `tidyr::separate()`, if you wish.
- location_type - The type of location using the covid19R controlled vocabulary.
- location_code - A standardized location code using a national or international standard. In this case, ISO 3166-2 country codes.
- location_code_type The type of standardized location code being used according to the covid19R controlled vocabulary. Here we use `ios_3166_2`
- data_type - the type of data in that given row. Includes `total_cases` and `total_deaths`, cumulative measures of both.
- value - number of cases of each data type
- alternative_name - the alternative name for the country

Source

<https://www.apple.com/covid19/mobility>

`covid19mobility_google_country_demo`*Demo Data of the Apple Covid-19 Mobility Data for Countries*

Description

Demo Data of the Apple Covid-19 Mobility Data for Countries

Usage`covid19mobility_google_country_demo`**Format**

A data frame with 83160 rows and 7 variables:

- `date` - The date in YYYY-MM-DD form
- `location` - The name of the location as provided by the data source. The counties dataset provides county and state. They are combined and separated by a `,` and can be split by `tidyr::separate()`, if you wish.
- `location_type` - The type of location using the covid19R controlled vocabulary.
- `location_code` - A standardized location code using a national or international standard. In this case, ISO 3166-2 country codes.
- `location_code_type` The type of standardized location code being used according to the covid19R controlled vocabulary. Here we use `iso_3166_2`
- `data_type` - the type of data in that given row. Includes `total_cases` and `total_deaths`, cumulative measures of both.
- `value` - number of cases of each data type

Source

<https://www.google.com/covid19/mobility/>

`get_info_covid19mobility`*Get information about the datasets provided by covid19mobility*

Description

Returns information about the datasets in this package for covid19R harvesting

Usage`get_info_covid19mobility()`

Value

a tibble of information about the datasets in this package

Examples

```
# get the dataset info from this package
get_info_covid19mobility()
```

```
refresh_covid19mobility_apple_city
```

Refresh The Apple Covid-19 Mobility Data for Cities

Description

Pulls in the CSV of the Apple Mobility Data, filters to cities, and reshapes it

Usage

```
refresh_covid19mobility_apple_city()
```

Value

Returns a tibble that meets the Covid19R Project tidy data standard

References

<https://www.apple.com/covid19/mobility>

Examples

```
mob <- refresh_covid19mobility_apple_city()

head(mob)
```

`refresh_covid19mobility_apple_country`*Refresh The Apple Covid-19 Mobility Data for Countries*

Description

Pulls in the CSV of the Apple Mobility Data, filters to country, and reshapes it

Usage

```
refresh_covid19mobility_apple_country()
```

Value

Returns a tibble that meets the Covid19R Project tidy data standard

References

<https://www.apple.com/covid19/mobility>

Examples

```
mob <- refresh_covid19mobility_apple_country()
head(mob)
```

`refresh_covid19mobility_apple_subregion`*Refresh The Apple Covid-19 Mobility Data for Subregions*

Description

Pulls in the CSV of the Apple Mobility Data, filters to subregions, and reshapes it

Usage

```
refresh_covid19mobility_apple_subregion()
```

Value

Returns a tibble that meets the Covid19R Project tidy data standard

References

<https://www.apple.com/covid19/mobility>

Examples

```
mob <- refresh_covid19mobility_apple_subregion()

head(mob)
```

refresh_covid19mobility_google_country
Get Google Mobility Data at the Country Level

Description

From Google: "Each Community Mobility Report dataset is presented by location and highlights the percent change in visits to places like grocery stores and parks within a geographic area.

Location accuracy and the understanding of categorized places varies from region to region, so we don't recommend using this data to compare changes between countries, or between regions with different characteristics (e.g. rural versus urban areas).

Changes for each day are compared to a baseline value for that day of the week: The baseline is the median value, for the corresponding day of the week, during the 5-week period Jan 3–Feb 6, 2020. The datasets show trends over several months with the most recent data representing approximately 2-3 days ago—this is how long it takes to produce the datasets."

Data represents changes from baseline visits for the following types of locations visited:

- retail and recreation
- grocery and pharmacy
- parks
- transit stations
- workplaces
- residential

Usage

```
refresh_covid19mobility_google_country()
```

Value

A tibble meeting the Covid19R Project data standard. Columns include:

- date - The date in YYYY-MM-DD form
- location - The name of the location as provided by the data source.
- location_type - The type of location using the covid19R controlled vocabulary.
- location_code - A standardized location code using a national or international standard. In this case, FIPS state or county codes. See https://en.wikipedia.org/wiki/Federal_Information_Processing_Standard_state_codes and https://en.wikipedia.org/wiki/FIPS_county_code for more
- location_code_type The type of standardized location code being used according to the covid19R controlled vocabulary. Here we use iso_3166_2
- data_type - the type of data in that given row. See description.
- value - number of cases of each data type

References

Google Covid-19 Mobility Reports <https://www.google.com/covid19/mobility/>

The Covid19R Project <https://covid19r.github.io/documentation/>

Examples

```
covid19mobility_google_country <- refresh_covid19mobility_google_country()  
head(covid19mobility_google_country)
```

refresh_covid19mobility_google_subregions

Get Google Mobility Data at the State of Subdivision Level

Description

From Google: "Each Community Mobility Report dataset is presented by location and highlights the percent change in visits to places like grocery stores and parks within a geographic area.

Location accuracy and the understanding of categorized places varies from region to region, so we don't recommend using this data to compare changes between countries, or between regions with different characteristics (e.g. rural versus urban areas).

Changes for each day are compared to a baseline value for that day of the week: The baseline is the median value, for the corresponding day of the week, during the 5-week period Jan 3–Feb 6, 2020. The datasets show trends over several months with the most recent data representing approximately 2-3 days ago—this is how long it takes to produce the datasets."

Data represents changes from baseline visits for the following types of locations visited:

- retail and recreation
- grocery and pharmacy
- parks
- transit stations
- workplaces
- residential

Usage

```
refresh_covid19mobility_google_subregions()
```

Value

A tibble meeting the Covid19R Project data standard. Columns include:

- date - The date in YYYY-MM-DD form
- location - The name of the location as provided by the data source.
- location_type - The type of location using the covid19R controlled vocabulary.
- location_code - A standardized location code using a national or international standard. In this case, FIPS state or county codes. See https://en.wikipedia.org/wiki/Federal_Information_Processing_Standard_state_codes and https://en.wikipedia.org/wiki/FIPS_county_code for more
- location_code_type The type of standardized location code being used according to the covid19R controlled vocabulary. Here we use iso_3166_2
- data_type - the type of data in that given row. See description.
- value - number of cases of each data type

References

Google Covid-19 Mobility Reports <https://www.google.com/covid19/mobility/>

The Covid19R Project <https://covid19r.github.io/documentation/>

Examples

```
covid19mobility_google_subregions <- refresh_covid19mobility_google_subregions()

head(covid19mobility_google_subregions)
```

refresh_covid19mobility_google_us_counties
Get Google Mobility Data for US States

Description

From Google: "Each Community Mobility Report dataset is presented by location and highlights the percent change in visits to places like grocery stores and parks within a geographic area.

Location accuracy and the understanding of categorized places varies from region to region, so we don't recommend using this data to compare changes between countries, or between regions with different characteristics (e.g. rural versus urban areas).

Changes for each day are compared to a baseline value for that day of the week: The baseline is the median value, for the corresponding day of the week, during the 5-week period Jan 3–Feb 6, 2020. The datasets show trends over several months with the most recent data representing approximately 2-3 days ago—this is how long it takes to produce the datasets."

Data represents changes from baseline visits for the following types of locations visited:

- retail and recreation
- grocery and pharmacy
- parks
- transit stations
- workplaces
- residential

Usage

```
refresh_covid19mobility_google_us_counties()
```

Value

A tibble meeting the Covid19R Project data standard. Columns include:

- date - The date in YYYY-MM-DD form
- location - The name of the location as provided by the data source.
- location_type - The type of location using the covid19R controlled vocabulary.
- location_code - A standardized location code using a national or international standard. In this case, FIPS state or county codes. See https://en.wikipedia.org/wiki/Federal_Information_Processing_Standard_state_codes and https://en.wikipedia.org/wiki/FIPS_county_code for more
- location_code_type The type of standardized location code being used according to the covid19R controlled vocabulary. Here we use iso_3166_2
- data_type - the type of data in that given row. See description.
- value - number of cases of each data type

References

Google Covid-19 Mobility Reports <https://www.google.com/covid19/mobility/>
The Covid19R Project <https://covid19r.github.io/documentation/>

Examples

```
covid19mobility_google_us_counties <- refresh_covid19mobility_google_us_counties()  
head(covid19mobility_google_us_counties)
```

Index

* datasets

covid19mobility_apple_country_demo,

[2](#)

covid19mobility_google_country_demo,

[3](#)

covid19mobility_apple_country_demo, [2](#)

covid19mobility_google_country_demo, [3](#)

get_info_covid19mobility, [3](#)

refresh_covid19mobility_apple_city, [4](#)

refresh_covid19mobility_apple_country,

[5](#)

refresh_covid19mobility_apple_subregion,

[5](#)

refresh_covid19mobility_google_country,

[6](#)

refresh_covid19mobility_google_subregions,

[7](#)

refresh_covid19mobility_google_us_counties,

[9](#)