Package ‘covid19mobility’

July 20, 2020

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

**Version**  0.1.1

**Description**  Scrape 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, naturalezaarth, sf, testthat

**VignetteBuilder**  knitr

**Encoding**  UTF-8

**LazyData**  true

**RoxygenNote**  7.1.0

**NeedsCompilation**  no

**Author**  Jarrett Byrnes [aut, cre, cph]

Amanda Dobbyn [ctb]

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

**Repository**  CRAN

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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
**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()
refresh_covid19mobility_apple_city

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](https://www.apple.com/covid19/mobility)

**Examples**

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

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**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_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:
refresh_covid19mobility_google_subregions

- 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_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_code
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)
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