

# Package: hubExamples (via r-universe)

November 17, 2024

**Title** Example Hub Data

**Version** 0.0.1

**Description** This package provides example data for forecasting and scenario modeling hubs in the hubverse format.

**License** MIT + file LICENSE

**Encoding** UTF-8

**Roxygen** list(markdown = TRUE)

**RoxygenNote** 7.3.2

**Suggests** dplyr, ggplot2, hubVis, knitr, rmarkdown, testthat (>= 3.0.0)

**Remotes** hubverse-org/hubVis

**Config/testthat/edition** 3

**URL** <https://github.com/hubverse-org/hubExamples>

**BugReports** <https://github.com/hubverse-org/hubExamples/issues>

**Config/Needs/website** hubverse-org/hubStyle

**Depends** R (>= 2.10)

**LazyData** true

**VignetteBuilder** knitr

**Repository** <https://hubverse-org.r-universe.dev>

**RemoteUrl** <https://github.com/hubverse-org/hubExamples>

**RemoteRef** v0.0.1

**RemoteSha** 002c9a6fec39853e142c827ce7c1e3980cba9e69

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 forecast\_data

*Example forecast hub data*


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## Description

The hubExamples package provides three data sets that contain example model output and target data for an example forecast hub: forecast\_outputs, forecast\_target\_ts, and forecast\_target\_observations.

forecast\_outputs contains example forecast data that represents model outputs from a forecast hub with predictions for three influenza-related targets (wk inc flu hosp, wk flu hops rate category, and wk flu hosp rate) for two reference dates in 2022. This dataset reflect forecast outputs as they look when retrieved from a hub via the hubData package (which is slightly different than they look when originally submitted by modelers).

forecast\_target\_ts contains time series target data from a hub that predicts influenza-related targets.

forecast\_target\_observations contains target data that represents the source of "truth" that model output data will be scored against. This example represents influenza-related targets.

## Usage

forecast\_outputs

forecast\_target\_ts

forecast\_target\_observations

## Format

forecast\_outputs:

A data frame with 5,424 rows and 9 columns:

**location** FIPS code identifying a location

**reference\_date** the starting point of the forecast in yyyy-mm-dd format

**horizon** number of time units ahead being forecasted relative to the reference\_date, in units of weeks

**target\_end\_date** the date of occurrence of the outcome of interest in yyyy-mm-dd format; this can be calculated directly from the reference\_date and horizon as follows: target\_end\_date = reference\_date + 7\*horizon

**target** a unique identifier for the target

**output\_type** the type of representation of the prediction

**output\_type\_id** more identifying information specific to the output type; output\_type\_id is not relevant for every kind of output\_type (for example, hubs will not expect output\_type\_id values when the output\_type is mean or median)

**value** the model's prediction

**model\_id** the name of the model

**forecast\_target\_ts:**

A data frame with 10,255 rows and 3 columns:

**date** the date of the target observation in yyyy-mm-dd format

**location** FIPS code identifying a location

**observation** a count of hospital admissions in the given location in the week ending on the given date.

**forecast\_target\_observations:**

A data frame with 198,485 rows and 6 columns:

**location** FIPS code identifying a location

**target\_end\_date** the target's observation date in yyyy-mm-dd format; this is used to match on the target\_end\_date field in model output data submitted to the hub

**target** a unique identifier for the target

**output\_type** the type of representation of the prediction

**output\_type\_id** more identifying information specific to the output type; as in the model output data, output\_type\_id is not relevant for output\_type of mean and median; target data that represents quantile output\_type will not have an output\_type\_id.

**observation** the observed value of the target

**Source**

<https://github.com/hubverse-org/example-complex-forecast-hub/>

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scenario\_data

*Example scenario hub data*

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**Description**

The hubExamples package provides two data sets that contain example model output and target data for an example scenario hub: scenario\_outputs and scenario\_target\_ts.

scenario\_outputs contains example scenario projection data that represents model outputs and an ensemble from a scenario hub with predictions for one target (inc hosp) in one location ("US"), one round ("2021-03-07") and four scenarios. This dataset reflects scenario projection outputs as they look when retrieved from a hub via the hubData package (which is slightly different than they look when originally submitted by modelers), and with a "mean" ensemble calculated with the hubEnsemble package simple\_ensemble() function with default parameters. The date of occurrence of the outcome of interest in yyyy-mm-dd format can be calculated directly from the origin\_date and horizon as follows: target\_end\_date = origin\_date + (7 \* horizon) - 1

scenario\_target\_ts contains time series target data associated with the scenario projection data.

**Usage**

scenario\_outputs

scenario\_target\_ts

**Format**

scenario\_outputs:

A data frame with 7,176 rows and 9 columns:

**model\_id** the name of the model

**origin\_date** the starting point of the projection in yyyy-mm-dd format

**scenario\_id** a unique identifier for the scenario

**location** FIPS code identifying a location

**target** a unique identifier for the target

**horizon** number of time units ahead being projected relative to the origin\_date, in units of weeks

**output\_type** the type of representation of the prediction; in this example, all values for the output\_type are "quantile".

**output\_type\_id** more identifying information specific to the output type; here, the output\_type\_id specifies the probability level for the quantile prediction

**value** the model's prediction

scenario\_target\_ts:

A data frame with 127 rows and 3 columns:

**location** FIPS code identifying a location

**date** the date of the target observation in yyyy-mm-dd format

**observation** a count of incident cases in the given location in the week ending on the given date.

**target** a unique identifier for the target

**Source**

<https://github.com/hubverse-org/example-complex-scenario-hub/>

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