

# Package ‘nomisr’

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**Type** Package

**Title** Access 'Nomis' UK Labour Market Data

**Version** 0.2.0

**Description** Access UK official statistics from the 'Nomis' database.

'Nomis' includes data from the Census, the Labour Force Survey, DWP benefit statistics and other economic and demographic data from the Office for National Statistics, based around statistical geographies. See <https://www.nomisweb.co.uk/api/v01/help> for full API documentation.

**URL** <https://github.com/ropensci/nomisr>

**BugReports** <https://github.com/ropensci/nomisr/issues>

**License** MIT + file LICENSE

**Depends** R (>= 3.4.0)

**Imports** jsonlite, tibble, readr, dplyr, httr, utils

**RoxygenNote** 6.0.1

**Suggests** knitr, rmarkdown, testthat, purrr, tidyr, magrittr

**VignetteBuilder** knitr

**NeedsCompilation** no

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nomisr	<i>nomisr: Access Nomis UK Labour Market Data with R</i>
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### Description

Access UK official statistics from the Nomis database through R. Nomis includes data from the Census, the Labour Force Survey, DWP benefit statistics and other economic and demographic data from the Office for National Statistics.

### Details

The package provides functions to find what data is available, the variables and query options for different datasets and a function for downloading data.

The full API documentation is available at <https://www.nomisweb.co.uk/api/v01/help>

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nomis_api_key	<i>Nomis API Key</i>
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### Description

Assign or reassign API key for Nomis.

### Usage

```
nomis_api_key(check_env = FALSE)
```

### Arguments

check_env	If TRUE, will check the environment variable NOMIS_API_KEY first before asking for user input.
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### Details

The Nomis API has an optional key. Using the key means that 100,000 rows can be returned per call, which can speed up larger data requests and reduce the chances of being rate limited or having requests timing out.

By default, *nomisr* will look for the environment variable `NOMIS_API_KEY` when the package is loaded. If found, the API key will be stored in the session option `nomisr.API.key`. If you would like to reload the API key or would like to manually enter one in, this function may be used.

You can sign up for an API key [here](#).

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nomis_content_type	<i>Nomis dataset content types</i>
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## Description

Nomis content type metadata is included in annotation tags, in the form of `contenttype/<contenttype>` in the `annotationtitle` column in the `annotations.annotation` list-column returned from [nomis\\_data\\_info](#). For example, the content types returned from dataset "NM\_1658\_1", using `nomis_data_info("NM_1658_1")`, are "geoglevel", "2001census" and "sources".

## Usage

```
nomis_content_type(content_type, id = NULL)
```

## Arguments

`content_type` A string with the content type to return metadata on.  
`id` A string with an optional `content_type` id.

## Value

A tibble with metadata on a given content type.

## See Also

[nomis\\_search](#)  
[nomis\\_data\\_info](#)

## Examples

```
a <- nomis_content_type("sources")  
tibble::glimpse(a)  
b <- nomis_content_type("sources", id = "census")  
tibble::glimpse(b)
```

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nomis_data_info	<i>Nomis data structures</i>
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### Description

Retrieve metadata on the structure and available variables for all available data sets or the information available in a specific dataset based on its ID.

### Usage

```
nomis_data_info(id)
```

### Arguments

id	Dataset ID. If empty, returns data on all available datasets. If the ID of a dataset, returns metadata for that particular dataset.
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### Value

A tibble with all available datasets and their metadata.

### See Also

[nomis\\_get\\_data](#)  
[nomis\\_get\\_metadata](#)  
[nomis\\_overview](#)

### Examples

```
# Get info on all datasets
x <- nomis_data_info()

tibble::glimpse(x)

# Get info on a particular dataset
y <- nomis_data_info('NM_1658_1')

tibble::glimpse(y)
```

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nomis_get_data	<i>Retrieve Nomis datasets</i>
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## Description

Retrieves specific datasets from Nomis, based on their ID. To find dataset IDs, use [nomis\\_data\\_info](#). Datasets are retrieved in csv format and parsed with the `read_csv` function from the `readr` package into a tibble, with all columns parsed as character columns.

To find the code options for a given dataset, use [nomis\\_get\\_metadata](#).

This can be a slow process if querying significant amounts of data. Guest users are limited to 25,000 rows per query, although `nomisr` identifies queries that will return more than 25,000 rows, sending individual queries and combining the results of those queries into a single tibble.

Note the difference between the `time` and `date` parameters. The `time` and `date` parameters should not be used at the same time. If they are, the function will retrieve data based on the `date` parameter. If given more than one query, `time` will return all data available between those queries, inclusively, while `date` will only return data for the exact queries specified. So `time=c("first", "latest")` will return all data, while `date=c("first", "latest")` will return only the first and latest data published.

## Usage

```
nomis_get_data(id, time = NULL, date = NULL, geography = NULL,
  sex = NULL, measures = NULL, additional_queries = NULL,
  exclude_missing = FALSE, select = NULL)
```

## Arguments

<code>id</code>	The ID of the dataset to retrieve.
<code>time</code>	Parameter for selecting dates and date ranges. There are two styles of values that can be used to query time. The first is one or more of "latest" (returns the latest available data), "previous" (the date prior to "latest"), "prevyear" (the date one year prior to "latest") or "first" (the oldest available data for the dataset). The second style is to use or a specific date or multiple dates, in the style of the time variable codelist, which can be found using the <a href="#">nomis_get_metadata</a> function. Values for the <code>time</code> and <code>date</code> parameters should not be used at the same time. If they are, the function will retrieve data based on the <code>date</code> parameter. Defaults to NULL.
<code>date</code>	Parameter for selecting specific dates. There are two styles of values that can be used to query time. The first is one or more of "latest" (returns the latest available data), "previous" (the date prior to "latest"), "prevyear" (the date one year prior to "latest") or "first" (the oldest available data for the dataset).



```

tibble::glimpse(jobseekers_country)

# Return data for Wigan
jobseekers_wigan <- nomis_get_data(id="NM_1_1", time="latest",
                                   geography = "1879048226",
                                   measures=c(20100, 20201), sex="5")

tibble::glimpse(jobseekers_wigan)

# annual population survey - regional - employment by occupation
emp_by_occupation <- nomis_get_data(id="NM_168_1", time="latest",
                                    geography = "2013265925", sex="0",
                                    select = c("geography_code",
                                                "C_OCCPUK11H_0_NAME", "obs_vAlUE"))

tibble::glimpse(emp_by_occupation)

```

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nomis\_get\_metadata      *Nomis metadata concepts and types*

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## Description

Retrieve all concept code options of all Nomis datasets, concept code options for a given dataset, or the all the options for a given concept variable from a particular dataset. Specifying concept will return all the options for a given variable in a particular dataset.

If looking for a more detailed overview of all available metadata for a given dataset, see [nomis\\_overview](#).

## Usage

```
nomis_get_metadata(id, concept = NULL, type = NULL, search = NULL,
                  additional_queries = NULL)
```

## Arguments

id	The ID of the particular dataset. Returns no data if not specified.
concept	A string with the variable concept to return options for. If left empty, returns all the variables for the dataset specified by id. Codes are not case sensitive. Defaults to NULL.
type	A string with options for a particular code value, to return types of variables available for a given code. Defaults to NULL. If concept == NULL, type will be ignored.
search	A string or character vector of strings to search for in the metadata. Defaults to NULL. As in <a href="#">nomis_search</a> , the wildcard character * can be added to the beginning and/or end of each search string.
additional_queries	Any other additional queries to pass to the API. See <a href="https://www.nomisweb.co.uk/api/v01/help">https://www.nomisweb.co.uk/api/v01/help</a> for instructions on query structure. Defaults to NULL.

**Value**

A tibble with options.

**See Also**

[nomis\\_data\\_info](#)

[nomis\\_get\\_data](#)

[nomis\\_overview](#)

**Examples**

```
a <- nomis_get_metadata('NM_1_1')

tibble::glimpse(a)

b <- nomis_get_metadata('NM_1_1', 'geography')

tibble::glimpse(b)

# returns all types of geography
c <- nomis_get_metadata('NM_1_1', 'geography', 'TYPE')

tibble::glimpse(c)

# returns geography types available within Wigan
d <- nomis_get_metadata('NM_1_1', 'geography', '1879048226')

tibble::glimpse(d)

e <- nomis_get_metadata('NM_1_1', 'item',
                        additional_queries = "?geography=1879048226&sex=5")

tibble::glimpse(e)

f <- nomis_get_metadata('NM_1_1', 'item', search = "*married*")

tibble::glimpse(f)
```

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nomis\_overview

*Nomis dataset overview*

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**Description**

Returns an overview of available metadata for a given dataset.

**Usage**

```
nomis_overview(id, select = NULL)
```

**Arguments**

<code>id</code>	The ID of the particular dataset. Returns no data if not specified.
<code>select</code>	A string or character vector of one or more overview parts to select, excluding all others. <code>select</code> is not case sensitive. The options for <code>select</code> are described below, and are taken from the <a href="#">Nomis API help page</a> .

**Value**

A tibble with two columns, one a character vector with the name of the metadata category, and the other a list column of values for each category.

**Overview part options**

**DatasetInfo** General dataset information such as name, description, sub-description, mnemonic, restricted access and status

**Coverage** Shows the geographic coverage of the main geography dimension in this dataset (e.g. United Kingdom, England and Wales etc.)

**Keywords** The keywords allocated to the dataset

**Units** The units of measure supported by the dataset

**ContentTypes** The classifications allocated to this dataset

**DateMetadata** Information about the first release, last update and next update

**Contact** Details for the point of contact for this dataset

**Analyses** Show the available analysis breakdowns of this dataset

**Dimensions** Individual dimension information (e.g. sex, geography, date, etc.)

**Dimension-concept** Allows a specific dimension to be selected (e.g. dimension-geography would allow information about geography dimension). This is not used if "Dimensions" is specified too.

**Codes** Full list of selectable codes, excluding Geography, which as a list of Types instead. (Requires "Dimensions" to be selected too)

**Codes-concept** Full list of selectable codes for a specific dimension, excluding Geography, which as a list of Types instead. This is not used if "Codes" is specified too (Requires "Dimensions" or equivalent to be selected too)

**DimensionMetadata** Any available metadata attached at the dimensional level (Requires "Dimensions" or equivalent to be selected too)

**Make** Information about whether user defined codes can be created with the MAKE parameter when querying data (Requires "Dimensions" or equivalent to be selected too)

**DatasetMetadata** Metadata attached at the dataset level

**See Also**

[nomis\\_data\\_info](#)  
[nomis\\_get\\_metadata](#)

**Examples**

```
library(dplyr)

q <- nomis_overview("NM_1650_1")

q %>% tidyr::unnest(name) %>% glimpse()

s <- nomis_overview("NM_1650_1", select = c("Units", "Keywords"))

s %>% tidyr::unnest(name) %>% glimpse()
```

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nomis\_search

*Search Nomis datasets*

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**Description**

A function to search for datasets on given topics. In the case of multiple search parameters, returns metadata on all datasets matching one or more of the parameters. The wildcard character \* can be added to the beginning and/or end of each search string.

**Usage**

```
nomis_search(name = NULL, description = NULL, keywords = NULL,
             content_type = NULL, units = NULL)
```

**Arguments**

name	A string or character vector of strings to search for in available dataset names. Defaults to NULL.
description	A string or character vector of strings to search for in available dataset descriptions. Note that description looks for complete matches, so wildcards should be used at the start and end of each string. Defaults to NULL.
keywords	A string or character vector of strings to search for in available dataset keywords. Defaults to NULL.
content_type	A string or character vector of strings to search for in available dataset content types. content_type can include an optional ID for that content type. Defaults to NULL.
units	A string or character vector of strings to search for in available dataset units. Defaults to NULL.

**Value**

A tibble with details on all datasets matching the search query.

**See Also**

[nomis\\_content\\_type](#)

**Examples**

```
x <- nomis_search(name = '*seekers*')  
y <- nomis_search(keywords = 'Claimants')  
  
# Return metadata of all datasets with content_type "sources".  
a <- nomis_search(content_type = "sources")  
  
# Return metadata of all datasets with content_type "sources" and  
# source ID "aces"  
b <- nomis_search(content_type = "sources-aces")
```

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