

Package ‘USAboundaries’

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Type Package

Title Historical and Contemporary Boundaries of the United States of America

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Description The boundaries for geographical units in the United States of America contained in this package include state, county, congressional district, and zip code tabulation area. Contemporary boundaries are provided by the U.S. Census Bureau (public domain). Historical boundaries for the years from 1629 to 2000 are provided from the Newberry Library's 'Atlas of Historical County Boundaries' (licensed CC BY-NC-SA). Additional high resolution data is provided in the 'USAboundariesData' package; this package provides an interface to access that data.

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URL <https://github.com/ropensci/USAboundaries>

BugReports <https://github.com/ropensci/USAboundaries/issues>

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R topics documented:

census_boundaries	2
hist_us_counties	3
hist_us_states	4
install_data_package	4
state_codes	5
USAboundaries	5
us_boundaries	6
us_congressional	7
us_counties	8
us_states	9

Index **10**

census_boundaries	<i>Cartographic boundary files from the U.S. Census Bureau</i>
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Description

The U.S. Census Bureau provides **cartographic boundary files** for current U.S. boundaries. The datasets in this package provide a selection of boundaries from the 2014 Census files. They are objects of class `SpatialPolygonsDataFrame`. They are intended to be used with the functions in the `USAboundaries` package, but the data objects can also be used on their own. The attributes data associated with these boundaries is unchanged from what is available in the `Census boundaries`, with the exception that a `state_name` column has been added where necessary for convenience in filtering the boundaries.

Details

The following objects are included in this package or in `USAboundariesData`:

cb_2014_us_cd114_500k Congressional district boundaries for the 114th Congress, 1:500k resolution.

cb_2014_us_cd114_20m Congressional district boundaries for the 114th Congress, 1:20m resolution.

cb_2014_us_county_500k County boundaries, 1:500k resolution.

cb_2014_us_county_20m County boundaries, 1:20m resolution.

cb_2014_us_state_500k State boundaries, 1:500k resolution.

cb_2014_us_state_20m State boundaries, 1:20m resolution.

References

U.S. Census Bureau, [Cartographic Boundary Shapefiles](#) (2014).

See the U.S. Census Bureau's "[Understanding Geographic Identifiers \(GEOIDs\)](#)" and their "[Geographic Codes](#)" pages for the details of this attribute data.

hist_us_counties	<i>Boundaries of counties in the United States of America, 1629–2000</i>
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Description

This dataset contains polygons for all of the county boundaries in the United States or colonies that became the United States from 1629 to 2000. The dataset includes a data frame with descriptions of the changes to the boundaries and the dates with which they valid.

Usage

```
hist_us_counties
```

Format

A SpatialPolygonsDataFrame with 17,727 elements

Details

- `start_date`, `end_date`, `start_n`, `end_n`, `start_posix`, `end_posix`: The start and end dates for which a polygon is valid. Columns ending in `_date` are factors, those ending in `_n` are integers in `yyyymmdd` format, those ending in `_posix` are R date objects.
- `fips`: The county's FIPS code, when available.

Slots

`data` A data frame with information about the boundaries. For a full description of all of the columns in the data frame, see the [documentation in the zip files](#) provided by AHCB. Some of the most important columns are listed in the details section of this documentation.

Source

John H. Long, et al., *Atlas of Historical County Boundaries*, Dr. William M. Scholl Center for American History and Culture, The Newberry Library, Chicago (2010), <http://publications.newberry.org/ahcbp/>.

See also the [AHCB's about page](#).

hist_us_states	<i>Boundaries of states in the United States of America, 1783–2000</i>
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Description

This dataset contains polygons for all of the state boundaries in the United States from 1783 to 2000. The dataset includes a data frame with descriptions of the changes to the boundaries and the dates with which they valid.

Usage

```
hist_us_states
```

Format

A SpatialPolygonsDataFrame with 220 elements

Details

- start_date, end_date, start_n, end_n, start_posix, end_posix: The start and end dates for which a polygon is valid. Columns ending in _date are factors, those ending in _n are integers in yyyymmdd format, those ending in _posix are R date objects.

Slots

data A data frame with information about the boundaries. For a full description of all of the columns in the data frame, see the [documentation in the zip files](#) provided by AHCB. Some of the most important columns are listed in the details section of this documentation.

Source

John H. Long, et al., *Atlas of Historical County Boundaries*, Dr. William M. Scholl Center for American History and Culture, The Newberry Library, Chicago (2010), <http://publications.newberry.org/ahcbp/>.

See also the [AHCB's about page](#).

install_data_package	<i>Install the USAboundariesData package after checking with the user</i>
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Description

Install the USAboundariesData package after checking with the user

Usage

```
install_data_package()
```

state_codes	<i>State codes and abbreviations for U.S. states and territories</i>
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Description

This data frame includes abbreviations and codes for states and territories in the United States. It is intended as a lookup table.

Usage

```
state_codes
```

Format

A data frame with 68 rows and 4 variables:

state_name The state or territory name

state_abbr The two character abbreviation for the state or territory.

state_code A three digit numeric FIPS code for the state or territory.

jurisdiction_type One of state, territory, or district.

References

U.S. Census Bureau, [U.S. Gazetteer Files](#) (2014).

[Federal Information Processing Standard state code](#), Wikipedia (accessed July 23, 2015).

USAboundaries	<i>USAboundaries: Historical and Contemporary Boundaries of the United States of America</i>
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Description

This package provides contemporary (2014) boundaries for states, counties, zip code tabulation areas, and congressional districts in the United States of America. This data is provided by the [U.S. Census Bureau](#).

Details

This package also provides spatial objects with historical boundaries of states or counties in the United States of America from 1629 to 2000. It provides data from the [Atlas of Historical County Boundaries](#). The copyright to the historical data used in this package is owned by the Newberry Library, and it is included in the USAboundariesData package under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 2.5 Generic](#) (CC BY-NC-SA 2.5) license.

The code in this package is copyrighted by [Lincoln Mullen](#), and is released under the terms of the [MIT License](#).

us_boundaries

Get historical or contemporary boundaries of the United States

Description

This function is a general-purpose wrapper around the more specific functions in this package. It is provided for convenience and backward-compatibility with earlier versions of the package. In most cases you should use the more specific functions for the type of boundary that you need.

Usage

```
us_boundaries(map_date = NULL, type = c("state", "county", "congressional"),
              resolution = c("low", "high"), states = NULL)
```

Arguments

map_date	The date of the boundaries as some object coercible to a date with <code>as.Date()</code> . For state maps the date must be between 3 September 1783 and 31 December 2000; for county maps the date must be between 30 December 1636 and 31 December 2000. A NULL value will return contemporary boundaries. This value is ignored for types of boundaries other than states and counties.
type	The type of the map, either state, county, or congressional.
resolution	The resolution of the map. High resolution data is contained in the suggested package <code>USAboundariesData</code> . If that package is not available, you will be prompted to install it.
states	A character vector of state or territory names. Only boundaries inside these states/territories will be returned.

Value

A `SpatialPolygonsDataFrame`.

See Also

[us_states](#), [us_counties](#), [us_congressional](#)

Examples

```
map_states <- us_boundaries("1850-07-04")
map_counties <- us_boundaries(as.Date("1850-07-04"), type = "county")
new_england <- c("Massachusetts", "Vermont", "New Hampshire", "Connecticut",
               "Rhode Island", "Maine")
map_ne <- us_boundaries("1943-02-12", states = new_england)
map_congressional <- us_boundaries(type = "congressional",
                                   states = new_england)

if (require(sp)) {
```

```
plot(map_states)
plot(map_counties)
plot(map_ne)
plot(map_congressional)
}
```

us_congressional	<i>Congressional district boundaries (contemporary)</i>
------------------	---

Description

Get the current (2014) boundaries for U.S. Congressional districts.

Usage

```
us_congressional(resolution = c("low", "high"), states = NULL)
```

Arguments

resolution	The resolution of the boundaries.
states	A character vector of state or territory names. Only boundaries inside these states/territories will be returned. If NULL, all boundaries will be returned.

Value

A SpatialPolygonsDataFrame.

See Also

For documentation of and citation to the underlying shapefiles for contemporary data from the U.S. Census Bureau, see [census_boundaries](#).

Examples

```
va_congressional <- us_congressional(states = "Virginia")
if (require(sp)) {
  plot(va_congressional)
}
```

us_counties	<i>County boundaries (contemporary and historical)</i>
-------------	--

Description

Get the current (2014) boundaries for U.S states, or get historical county boundaries for dates between 30 December 1636 and 31 December 2000.

Usage

```
us_counties(map_date = NULL, resolution = c("low", "high"), states = NULL)
```

Arguments

map_date	The date of the boundaries as some object coercible to a date with <code>as.Date()</code> ; the easiest option is a character vector following the ISO 8601 data format. A NULL value will return contemporary boundaries.
resolution	The resolution of the map.
states	A character vector of state or territory names. Only boundaries inside these states/territories will be returned. If NULL, all boundaries will be returned.

Value

A `SpatialPolygonsDataFrame`.

See Also

For documentation of and citation to the underlying shapefiles for contemporary data from the U.S. Census Bureau, see [census_boundaries](#). For documentation of and citation to the underlying shapefiles for contemporary data from the U.S. Census Bureau, see [hist_us_counties](#).

Examples

```
contemporary <- us_counties()
historical <- us_counties("1820-07-04")
new_england <- us_counties(states = c("Massachusetts", "Vermont", "Maine",
                                     "New Hampshire", "Rhode Island",
                                     "Connecticut"))

if (require(sp)) {
  plot(contemporary)
  plot(historical)
  plot(new_england)
}
```

us_states	<i>State boundaries (contemporary and historical)</i>
-----------	---

Description

Get the current (2014) boundaries for U.S states, or get historical state boundaries for dates between 3 September 1783 and 31 December 2000.

Usage

```
us_states(map_date = NULL, resolution = c("low", "high"), states = NULL)
```

Arguments

map_date	The date of the boundaries as some object coercible to a date with <code>as.Date()</code> ; the easiest option is a character vector following the ISO 8601 data format.
resolution	The resolution of the map.
states	A character vector of state or territory names. Only boundaries inside these states/territories will be returned. If <code>NULL</code> , all boundaries will be returned.

Value

A `SpatialPolygonsDataFrame`.

See Also

For documentation of and citation to the underlying shapefiles for contemporary data from the U.S. Census Bureau, see [census_boundaries](#). For documentation of and citation to the underlying shapefiles for contemporary data from the U.S. Census Bureau, see [hist_us_states](#).

Examples

```
contemporary <- us_states()
historical    <- us_states("1820-07-04")
new_england  <- us_states(states = c("Massachusetts", "Vermont", "Maine",
                                   "New Hampshire", "Rhode Island",
                                   "Connecticut"))

if (require(sp)) {
  plot(contemporary)
  plot(historical)
  plot(new_england)
}
```

Index

- *Topic **datasets**
 - state_codes, 5
- *Topic **dataset**
 - hist_us_counties, 3
 - hist_us_states, 4

- cb_2014_us_cd114_20m
 - (census_boundaries), 2
- cb_2014_us_cd114_500k
 - (census_boundaries), 2
- cb_2014_us_county_20m
 - (census_boundaries), 2
- cb_2014_us_county_500k
 - (census_boundaries), 2
- cb_2014_us_state_20m
 - (census_boundaries), 2
- cb_2014_us_state_500k
 - (census_boundaries), 2
- census_boundaries, 2, 7–9

- hist_us_counties, 3, 8
- hist_us_states, 4, 9

- install_data_package, 4

- SpatialPolygonsDataFrame, 2
- state_codes, 5

- us_boundaries, 6
- us_congressional, 6, 7
- us_counties, 6, 8
- us_states, 6, 9
- USAboundaries, 5
- USAboundaries-package (USAboundaries), 5