Package 'SeerMapperRegs'

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Type Package

Version 1.2.5

Date 2021-01-08

Title Supplemental U.S. 2000 Census Tract Boundaries for 19 States
with Seer Registries for 'SeerMapper'

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Depends R (>= 3.6.0)

Imports sp

Suggests

Description Provides supplemental 2000 census tract boundaries for the 19 states
containing Seer Registries for use with the 'SeerMapper' package.
The data contained in this
package is derived from U.S. Census data and is in the public domain.

License GPL (>= 2)

LazyData no

LazyLoad no

BuildResaveData yes

ByteCompile yes

NeedsCompilation no

Repository CRAN

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R topics documented:

SeerMapperRegs–package

> *SeerMapper-Supplemental 2000 Census Tract boundary datasets for states with Seer Registries*

Description

The *SeerMapperRegs* package provides 2000 Census Tract boundary datasets for 19 states containing Seer Registries for use with *SeerMapper* package.

The *SeerMapperWest* data only package contains the 2000 census tract boundary dataset for 13 states west of the Mississippi river that do not contain NCI Seer Registries. The *SeerMapperEast* data only package contains the 2000 census trace boundary datasets for 20 states, District of Columbia and Puerto Rico that do not have Seer Registries and are east of the Mississippi river.

By loading these packages (via the library function) expands the *SeerMapper* package abilities to map 2000 census tract level data in any of the 50 states, the District of Columbia and Puerto Rico.

Details

Package:	SeerMapperRegs
Type:	Package
Version:	1.2.4
Date:	2020-06-22
License:	GPL-2
LazyLoad:	no

No special action is required by the user to install this package or load it when running *SeerMapper*. The defined interdependencies of the packages automatically install the supplemental 2000 census tract boundary packages when *SeerMapper* is install. When *SeerMapper* is called, if it determines that one or more supplemental packages need to be loaded, it initiates the loading for the caller.

```
library(SeerMapper)

rateDate <- data.frame(FIBS=stateFibs,
                       Rate=stateRateVector,
                       pValue=stateRatePValue)

SeerMapper(rateData, Title=c("Test Map"))
```

If the package attachment or dataset load fails, the caller is notified of the problem and mapping is terminated.

The *SeerMapperRegs* package contains the 2000 census tract boundary datasets for:

```
    FIPS    Name          # of Registries
```

```
02      Alaska      1
04      Arizona     1
06      California  4
09      Connecticut 1
13      Georgia     3
15      Hawaii      1
16      Idaho       1
19      Iowa        1
21      Kentucky    1
22      Louisiana   1
25      Massachusetts 1
26      Michigan    1
34      New Jersey  1
36      New York    1
35      New Mexico  1
40      Oklahoma    1
49      Utah        1
53      Washington  1
55      Wisconsin   1
```

The *SeerMapperEast* package contains the 2000 census tract boundary datasets for:

```
FIPS    Name
01      Alabama
10      Delaware
11      District of Columbia
12      Florida
17      Illinois
18      Indiana
23      Maine
24      Maryland
28      Mississippi
33      New Hampshire
37      North Carolina
39      Ohio
42      Pennsylvania
44      Rhode Island
45      South Carolina
47      Tennessee
50      Vermont
51      Virginia
54      West Virginia
72      Puerto Rico
```

The *SeerMapperWest* package contains the 2000 census tract boundary datasets for:

```
FIPS    Name
05      Arkansas
```

```
08        Colorado
20        Kansas
27        Minnesota
29        Missouri
30        Montana
31        Nebraska
32        Neveda
38        North Dakota
41        Oregon
46        South Dakota
48        Texas
56        Wyoming
```

Author(s)

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Maintainer: "Joe Zou" <zouj@imsweb.com>

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trXX_dXX	*Provides the U.S. 2000 Census Tract Boundary Datasets for 19 States that have Seer Registries for use with SeerMapper Package*

Description

There are six supplemental census tract boundary packages for use with *SeerMapper*. The are *SeerMapperRegs*, *SeerMapperEast*, *SeerMapperWest* for the 2000 census and *Seer2010MapperRegs*, *Seer2010MapperEast* and *SeerMapper2010West* for the 2010 census. The combination of the either three provide a set of census tract boundaries for one U. S. census year (either 2000 or 2010). The *SeerMapperRegs* and *Seer2010MapperRegs* packages contain the census tract boundaries for the 19 states the have U. S. Seer Registries. The remaining census tract boundaries are split into two packages for each census year based on whether the state is east or west of the Mississippi river. The census tracts for 20 states, district and territory without registries east of the Mississippi river at contained in the *SeerMapperEast* and *Seer2010MapperEast* packages. The tract boundaries for the 13 states west of the Mississippi river are in the *SeerMapperWest* and *Seer2010MapperWest* packages. The states include the District of Columbia and Puerto Rico. This package contains the 2000 census tract boundaries for the 19 states with Seer Registries.

Usage

```
data(tr02_d00)
```

Format

Each file contains a set of SpatialPolygons structures for the 19 states with Seer Registries. Each state structure is a list of the census tracts boundaries that the state. Refer to the documentation on the *sp* package for details on the strucures. Each list element is a "polygons" class structure containing attributes of the census tract (label point, area, ID, etc.) and a list of "Polygons" class elements that define the boundary polygons.

Details

The *SeerMapperRegs* and *SeerMapper2010Regs* packages contains 19 states with Seer Registries including:

```
FIPS    Name
 02     Alaska
 04     Arizona
 06     California
 09     Connecticut
 13     Georgia
 15     Hawaii
 16     Idaho
 19     Iowa
 21     Kentucky
 22     Louisiana
 25     Massacussett
 26     Michigan
 34     New Jersery
 35     New Mexico
 36     New York
 40     Oklahoma
 49     Utah
 53     Washington
 55     Wisconsin
```

The *SeerMapper* package contains the state and county boundary data for all 51 states and DC and the Seer Registry boundary data for the 20 established registries. Due to space limitations, the base packages cannot contain the census tract boundary data.

Three supplemental data packages are used for each census year to provide the census tract boundary data to *SeerMapper* package.

Each state ".rda" file (dataset) contains state's census tract boundary data. The file name structure is trXX_dYY, where tr identifies the file as census tract boundary data, "XX" is the state (2 digits) fips code and "YY" represents the census year (e.g., 00 = 2000 or 10 for 2010)

To conserve disk space and downloading/installation time, the rda files are compressed using the "xy" method.

The U. S. Census Bureau census tract boundary shape file data was pre- processed by "www.MapShaper.org" website version 01.15 using modified Visvalingam method with the intersection repair and prevent shape removal options enabled, the coordinate precision value set to 0.0 and the simplify parameter set to 10 by 85 alignments.

When the *SeerMapper* package is install, the six (6) census tract boundary supplement packages are also install automatically by R. The *SeerMapper* package then manages the loading of the packages to ensure the needed boundary files are available.

Source

The census tract boundary shapefiles were downloaded from the CENSUS.GOV web site for the 2000 Census census tract boundary shapefiles, https://www2.census.gov/geo/tiger/PREVGENZ/tr/tr00shp/trXX_d00_shp.zip where XX is the state FIPS code.

Examples

```
#
#  These examples are a test to ensure each census tract file
#  can be read and a plot of the state generated.
#
require("sp")

#
#  If you want to save the example output PDF files, change the
#  the following "tempDir()" to the path you want to save the output files.
#                 For Example:   outDir <- "c:/RTestPDFs"
outDir    <- tempdir()
cat("Output Directory used:",outDir,"\n")

stList    <- c("02","04","06","09","13",
               "15","16","19","21","22",
               "25","26","34","35","36",
               "40","49","53","55")
stName    <- c("Alaska","Arizona","California","Connecticut","Georgia",
               "Hawaii","Idaho","Iowa","Kentucky","Louisiana",
               "Massachusett","Michigan","New Jersery","New Mexico","New York",
               "Oklahoma","Utah","Washington","Wisconsin")
cY        <- "00"

outFile   <- paste0("SeerMapperRegs",cY,"-CT.pdf")
outFN     <- file.path(outDir,outFile)
cat("Output example PDF file:",outFN,"\n")

pdf(outFN,width=7,height=10)

for (stN in seq(from=1, to=length(stList), by=7)) { # Test draw 3 of 19 states  (1, 8, 15)

    stID   <- stList[stN]
    stNa   <- stName[stN]
    trFN   <- paste0("tr",stID,"_d",cY)
    TT_tr  <- paste0("U. S. Census Tracts - ",stNa," Fips=",stID," file=",trFN)

    data(list=trFN)

    wrSP   <- get(trFN)
    #str(wrSP)

    plot(wrSP,main=TT_tr)
    rm(list=trFN)
}

dev.off()
```

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