

Package ‘UScensus2000tract’

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Type Package

Title US Census 2000 Tract Level Shapefiles and Additional Demographic Data

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Description US 2000 Census Tract shapefiles and additional demographic data from the SF1 100 percent files. This data set contains polygon files in lat/lon coordinates and the corresponding demographic data for a number of different variables.

License GPL (>= 2)

Depends R (>= 2.10), maptools, sp, foreign, methods, grDevices, base, stats, utils

LazyLoad yes

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R topics documented:

alabama.tract	3
alaska.tract	7
arizona.tract	11
arkansas.tract	15
california.tract	19
colorado.tract	23
connecticut.tract	27
delaware.tract	31
district_of_columbia.tract	35

florida.tract	39
georgia.tract	43
hawaii.tract	47
idaho.tract	51
illinois.tract	55
indiana.tract	59
iowa.tract	63
kansas.tract	67
kentucky.tract	71
louisiana.tract	75
maine.tract	79
maryland.tract	83
massachusetts.tract	87
michigan.tract	91
minnesota.tract	95
mississippi.tract	99
missouri.tract	103
montana.tract	107
nebraska.tract	111
nevada.tract	115
new_hampshire.tract	119
new_jersey.tract	123
new_mexico.tract	127
new_york.tract	131
north_carolina.tract	135
north_dakota.tract	139
ohio.tract	143
oklahoma.tract	147
oregon.tract	151
pennsylvania.tract	155
rhode_island.tract	159
south_carolina.tract	163
south_dakota.tract	167
tennessee.tract	171
texas.tract	175
utah.tract	179
vermont.tract	183
virginia.tract	187
washington.tract	191
west_virginia.tract	195
wisconsin.tract	199
wyoming.tract	203

alabama.tract

*alabama.tract***Description**

alabama.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(alabama.tract)
```

Details**ID Variables**

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino

(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household

(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(alabama.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
```

```

##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:1.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(alabama.tract,alabama.tract$pop2000)
plot(alabama.tract,col=colors.use$colors)
#text(coordinates(alabama.tract),alabama.tract@data$name,cex=.3)
title(main="Census Tracts \n of Alabama, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(alabama.tract)

map('state',region='alabama')
plotvar <- alabama.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(alabama.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Alabama, 2000", sub="Quantiles (equal frequency)")
map.text("county", "alabama",cex=.7,add=TRUE)
map('county', 'alabama',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

alaska.tract

*alaska.tract***Description**

alaska.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(alaska.tract)
```

Details**ID Variables**

data field name	Full Description
state	State FIPS code
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Census Variables

Census SF1 Field Name	data field name	Full Description
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(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(alaska.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem,na.rm=TRUE)),dig.lab = 6)
  dem.num[which(is.na(dem.num))==TRUE]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
```

```

##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:l.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(alaska.tract,alaska.tract$pop2000)
plot(alaska.tract,col=colors.use$colors,ylim=c(51.78495, 71.33953),xlim=c(-176.81043, -130.0427))
#text(coordinates(alaska.tract),alaska.tract@data$name,cex=.3)
title(main="Census Tracts \n of Alaska, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(alaska.tract)

plotvar <- alaska.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(alaska.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Alaska, 2000", sub="Quantiles (equal frequency)")
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

```
arizona.tract      arizona.tract
```

Description

arizona.tract is a `SpatialPolygonsDataFrame` with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(arizona.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
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(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
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(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino

(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household

(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(arizona.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
```

```

##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:1.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(arizona.tract,arizona.tract$pop2000)
plot(arizona.tract,col=colors.use$colors)
#text(coordinates(arizona.tract),arizona.tract@data$name,cex=.3)
title(main="Census Tracts \n of Arizona, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(arizona.tract)

map('state',region='arizona')
plotvar <- arizona.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(arizona.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Arizona, 2000", sub="Quantiles (equal frequency)")
map.text("county", "arizona",cex=.7,add=TRUE)
map('county', 'arizona',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

arkansas.tract	<i>arkansas.tract</i>
----------------	-----------------------

Description

arkansas.tract is a `SpatialPolygonsDataFrame` with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(arkansas.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino

(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household

(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(arkansas.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
```

```

##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:1.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(arkansas.tract,arkansas.tract$pop2000)
plot(arkansas.tract,col=colors.use$colors)
#text(coordinates(arkansas.tract),arkansas.tract@data$name,cex=.3)
title(main="Census Tracts \n of Arkansas, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(arkansas.tract)

map('state',region='arkansas')
plotvar <- arkansas.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(arkansas.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Arkansas, 2000", sub="Quantiles (equal frequency)")
map.text("county", "arkansas",cex=.7,add=TRUE)
map('county', 'arkansas',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

california.tract	<i>california.tract</i>
------------------	-------------------------

Description

california.tract is a `SpatialPolygonsDataFrame` with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(california.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino

(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
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(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
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(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household

(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
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(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(california.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
```

```

##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:1.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(california.tract,california.tract$pop2000)
plot(california.tract,col=colors.use$colors)
#text(coordinates(california.tract),california.tract@data$name,cex=.3)
title(main="Census Tracts \n of California, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(california.tract)

map('state',region='california')
plotvar <- california.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(california.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of California, 2000", sub="Quantiles (equal frequency)")
map.text("county", "california",cex=.7,add=TRUE)
map('county','california',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

colorado.tract	<i>colorado.tract</i>
----------------	-----------------------

Description

colorado.tract is a `SpatialPolygonsDataFrame` with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(colorado.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino

(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household

(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(colorado.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
```

```

##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:1.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(colorado.tract,colorado.tract$pop2000)
plot(colorado.tract,col=colors.use$colors)
#text(coordinates(colorado.tract),colorado.tract@data$name,cex=.3)
title(main="Census Tracts \n of Colorado, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(colorado.tract)

map('state',region='colorado')
plotvar <- colorado.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(colorado.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Colorado, 2000", sub="Quantiles (equal frequency)")
map.text("county", "colorado",cex=.7,add=TRUE)
map('county','colorado',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

connecticut.tract *connecticut.tract*

Description

connecticut.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(connecticut.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino

(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household

(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(connecticut.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
```

```

##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:1.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(connecticut.tract,connecticut.tract$pop2000)
plot(connecticut.tract,col=colors.use$colors)
#text(coordinates(connecticut.tract),connecticut.tract@data$name,cex=.3)
title(main="Census Tracts \n of Connecticut, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(connecticut.tract)

map('state',region='connecticut')
plotvar <- connecticut.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(connecticut.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Connecticut, 2000", sub="Quantiles (equal frequency)")
map.text("county", "connecticut",cex=.7,add=TRUE)
map('county', 'connecticut',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

delaware.tract	<i>delaware.tract</i>
----------------	-----------------------

Description

delaware.tract is a `SpatialPolygonsDataFrame` with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(delaware.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino

(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household

(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(delaware.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
```

```

##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:1.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(delaware.tract,delaware.tract$pop2000)
plot(delaware.tract,col=colors.use$colors)
#text(coordinates(delaware.tract),delaware.tract@data$name,cex=.3)
title(main="Census Tracts \n of Delaware, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(delaware.tract)

map('state',region='delaware')
plotvar <- delaware.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(delaware.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Delaware, 2000", sub="Quantiles (equal frequency)")
map.text("county", "delaware",cex=.7,add=TRUE)
map('county', 'delaware', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

```
district_of_columbia.tract
      district_of_columbia.tract
```

Description

district_of_columbia.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(district_of_columbia.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone

(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household

(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(district_of_columbia.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
```

```

## using runif, may take a couple times to get a good color scheme.
##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:1.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(district_of_columbia.tract,district_of_columbia.tract$pop2000)
plot(district_of_columbia.tract,col=colors.use$colors)
#text(coordinates(district_of_columbia.tract),district_of_columbia.tract@data$name,cex=.3)
title(main="Census Tracts \n of District_of_columbia, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",b

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(district_of_columbia.tract)

map('state',region='district_of_columbia')
plotvar <- district_of_columbia.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(district_of_columbia.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of District_of_columbia, 2000", sub="Quantiles (equal frequency)")
map.text("county", "district_of_columbia",cex=.7,add=TRUE)
map('county','district_of_columbia',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

```

```
## End(Not run)
```

```
florida.tract      florida.tract
```

Description

florida.tract is a `SpatialPolygonsDataFrame` with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(florida.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone

(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household

(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(florida.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
```

```

##commented out, but creates different color schemes
## using runif, may take a couple times to get a good color scheme.
##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:l.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(florida.tract,florida.tract$pop2000)
plot(florida.tract,col=colors.use$colors)
#text(coordinates(florida.tract),florida.tract@data$name,cex=.3)
title(main="Census Tracts \n of Florida, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(florida.tract)

map('state',region='florida')
plotvar <- florida.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(florida.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Florida, 2000", sub="Quantiles (equal frequency)")
map.text("county", "florida",cex=.7,add=TRUE)
map('county','florida',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

```

End(Not run)

georgia.tract *georgia.tract*

Description

georgia.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

data(georgia.tract)

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone

(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household

(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state 1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(georgia.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
```

```

if(is.null(y)){
  ##commented out, but creates different color schemes
  ## using runif, may take a couple times to get a good color scheme.
  ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
  col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
  col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:l.uc){
  colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(georgia.tract,georgia.tract$pop2000)
plot(georgia.tract,col=colors.use$colors)
#text(coordinates(georgia.tract),georgia.tract@data$name,cex=.3)
title(main="Census Tracts \n of Georgia, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",b

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(georgia.tract)

map('state',region='georgia')
plotvar <- georgia.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(georgia.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Georgia, 2000", sub="Quantiles (equal frequency)")
map.text("county", "georgia",cex=.7,add=TRUE)
map('county','georgia',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),

```

```
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)
```

hawaii.tract

hawaii.tract

Description

hawaii.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(hawaii.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone

(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household

(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state 1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(hawaii.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem,breaks=ceiling(quantile(dem,na.rm=TRUE))),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
```

```

l.uc<-length(table(dem.num))
if(is.null(y)){
##commented out, but creates different color schemes
## using runif, may take a couple times to get a good color scheme.
##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=l.poly)
for(i in 1:l.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(hawaii.tract,hawaii.tract$pop2000)
plot(hawaii.tract,col=colors.use$colors)
#text(coordinates(hawaii.tract),hawaii.tract$name,cex=.3)
title(main="Census Tracts \n of Hawaii, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(hawaii.tract)

plotvar <- as.numeric(hawaii.tract@data$pop2000)
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(hawaii.tract, col=colcode, border="transparent")
#transparent
title(main="Census Tracts \n of Hawaii, 2000", sub="Quantiles (equal frequency)")
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

```

```
## End(Not run)
```

```
idaho.tract
```

```
idaho.tract
```

Description

idaho.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(idaho.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone

(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household

(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(idaho.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
```

```

##commented out, but creates different color schemes
## using runif, may take a couple times to get a good color scheme.
##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:l.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(idaho.tract,idaho.tract$pop2000)
plot(idaho.tract,col=colors.use$colors)
#text(coordinates(idaho.tract),idaho.tract@data$name,cex=.3)
title(main="Census Tracts \n of Idaho, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg="white")

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(idaho.tract)

map('state',region='idaho')
plotvar <- idaho.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(idaho.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Idaho, 2000", sub="Quantiles (equal frequency)")
map.text("county", "idaho",cex=.7,add=TRUE)
map('county','idaho',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

```

```
## End(Not run)
```

```
illinois.tract      illinois.tract
```

Description

illinois.tract is a `SpatialPolygonsDataFrame` with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(illinois.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone

(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household

(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state 1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(illinois.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
```

```

if(is.null(y)){
  ##commented out, but creates different color schemes
  ## using runif, may take a couple times to get a good color scheme.
  ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
  col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
  col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=1.poly)
for(i in 1:l.uc){
  colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(illinois.tract,illinois.tract$pop2000)
plot(illinois.tract,col=colors.use$colors)
#text(coordinates(illinois.tract),illinois.tract@data$name,cex=.3)
title(main="Census Tracts \n of Illinois, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",b

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(illinois.tract)

map('state',region='illinois')
plotvar <- illinois.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(illinois.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Illinois, 2000", sub="Quantiles (equal frequency)")
map.text("county", "illinois",cex=.7,add=TRUE)
map('county','illinois',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),

```

```
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)
```

indiana.tract	<i>indiana.tract</i>
---------------	----------------------

Description

indiana.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(indiana.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone

(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household

(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state 1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(indiana.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
```

```

l.uc<-length(table(dem.num))
if(is.null(y)){
##commented out, but creates different color schemes
## using runif, may take a couple times to get a good color scheme.
##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=l.poly)
for(i in 1:l.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(indiana.tract,indiana.tract$pop2000)
plot(indiana.tract,col=colors.use$colors)
#text(coordinates(indiana.tract),indiana.tract@data$name,cex=.3)
title(main="Census Tracts \n of Indiana, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",b

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(indiana.tract)

map('state',region='indiana')
plotvar <- indiana.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(indiana.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Indiana, 2000", sub="Quantiles (equal frequency)")
map.text("county", "indiana",cex=.7,add=TRUE)
map('county','indiana',add=TRUE)

```

```
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
      cex=0.9, bty="o", title="Population Count", bg="white")
```

```
## End(Not run)
```

iowa.tract

iowa.tract

Description

iowa.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(iowa.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone

(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household

(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(iowa.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
```

```

dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
l.uc<-length(table(dem.num))
if(is.null(y)){
  ##commented out, but creates different color schemes
  ## using runif, may take a couple times to get a good color scheme.
  ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
  col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
  col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=l.poly)
for(i in 1:l.uc){
  colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(iowa.tract,iowa.tract$pop2000)
plot(iowa.tract,col=colors.use$colors)
#text(coordinates(iowa.tract),iowa.tract@data$name,cex=.3)
title(main="Census Tracts \n of Iowa, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",b

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(iowa.tract)

map('state',region='iowa')
plotvar <- iowa.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(iowa.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Iowa, 2000", sub="Quantiles (equal frequency)")

```

```

map.text("county", "iowa", cex=.7, add=TRUE)
map('county', 'iowa', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count", bg="white")

## End(Not run)

```

kansas.tract

kansas.tract

Description

kansas.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(kansas.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
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(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino

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(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
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(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
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(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
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(H003003)	hh.vacant	vacant housing units
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(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
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(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(kansas.tract)

#####
## Helper function for handling coloring of the map
#####
```

```

color.map<- function(x,dem,y=NULL){
l.poly<-length(x@polygons)
dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
l.uc<-length(table(dem.num))
if(is.null(y)){
##commented out, but creates different color schemes
## using runif, may take a couple times to get a good color scheme.
##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=l.poly)
for(i in 1:l.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(kansas.tract,kansas.tract$pop2000)
plot(kansas.tract,col=colors.use$colors)
#text(coordinates(kansas.tract),kansas.tract@data$name,cex=.3)
title(main="Census Tracts \n of Kansas, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(kansas.tract)

map('state',region='kansas')
plotvar <- kansas.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(kansas.tract, col=colcode, border="transparent",add=TRUE)

```

```
#transparent
title(main="Census Tracts \n of Kansas, 2000", sub="Quantiles (equal frequency)")
map.text("county", "kansas",cex=.7,add=TRUE)
map('county','kansas',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)
```

 kentucky.tract

kentucky.tract

Description

kentucky.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(kentucky.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
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(P011001)	hispanic	people who are hispanic or latino
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(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
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(H013006)	hh.5person	5-person household

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(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
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(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
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(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(kentucky.tract)
```

```
#####
```

```

## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
l.poly<-length(x@polygons)
dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
l.uc<-length(table(dem.num))
if(is.null(y)){
##commented out, but creates different color schemes
## using runif, may take a couple times to get a good color scheme.
##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
}else{
col.heat<-y
}
dem.col<-cbind(col.heat,names(table(dem.num)))
colors.dem<-vector(length=l.poly)
for(i in 1:l.uc){
colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
}
out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(kentucky.tract,kentucky.tract$pop2000)
plot(kentucky.tract,col=colors.use$colors)
#text(coordinates(kentucky.tract),kentucky.tract@data$name,cex=.3)
title(main="Census Tracts \n of Kentucky, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(kentucky.tract)

map('state',region='kentucky')
plotvar <- kentucky.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")

```

```

colcode <- findColours(class, plotclr)
plot(kentucky.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Kentucky, 2000", sub="Quantiles (equal frequency)")
map.text("county", "kentucky",cex=.7,add=TRUE)
map('county', 'kentucky',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

louisiana.tract

*louisiana.tract***Description**

louisiana.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(louisiana.tract)
```

Details**ID Variables**

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone

(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household

(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```
data(louisiana.tract)
```

```
#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(louisiana.tract,louisiana.tract$pop2000)
plot(louisiana.tract,col=colors.use$colors)
#text(coordinates(louisiana.tract),louisiana.tract@data$name,cex=.3)
title(main="Census Tracts \n of Louisiana, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",b

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(louisiana.tract)

map('state',region='louisiana')
plotvar <- louisiana.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
```

```

class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(louisiana.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Louisiana, 2000", sub="Quantiles (equal frequency)")
map.text("county", "louisiana",cex=.7,add=TRUE)
map('county','louisiana',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

maine.tract

maine.tract

Description

maine.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(maine.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone

(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household

(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

data(maine.tract)

```
#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(maine.tract,maine.tract$pop2000)
plot(maine.tract,col=colors.use$colors)
#text(coordinates(maine.tract),maine.tract@data$name,cex=.3)
title(main="Census Tracts \n of Maine, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",b

#####
### Alternative way to do the above
#####
## Not run:
###This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
###This example requires the following additional libraries

data(maine.tract)

map('state',region='maine')
plotvar <- maine.tract$pop2000
nclr <- 4
#BuPu
```

```

plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(maine.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Maine, 2000", sub="Quantiles (equal frequency)")
map.text("county", "maine",cex=.7,add=TRUE)
map('county', 'maine',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

maryland.tract

*maryland.tract***Description**

maryland.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(maryland.tract)
```

Details**ID Variables**

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone
(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone

(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units
(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household

(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state 1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(maryland.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(maryland.tract,maryland.tract$pop2000)
plot(maryland.tract,col=colors.use$colors)
#text(coordinates(maryland.tract),maryland.tract@data$name,cex=.3)
title(main="Census Tracts \n of Maryland, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(maryland.tract)

map('state',region='maryland')
```

```

plotvar <- maryland.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(maryland.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Maryland, 2000", sub="Quantiles (equal frequency)")
map.text("county", "maryland",cex=.7,add=TRUE)
map('county','maryland',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

massachusetts.tract *massachusetts.tract*

Description

massachusetts.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(massachusetts.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(massachusetts.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(massachusetts.tract,massachusetts.tract$pop2000)
plot(massachusetts.tract,col=colors.use$colors)
#text(coordinates(massachusetts.tract),massachusetts.tract@data$name,cex=.3)
title(main="Census Tracts \n of Massachusetts, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(massachusetts.tract)

map('state',region='massachusetts')
```

```

plotvar <- massachusetts.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(massachusetts.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Massachusetts, 2000", sub="Quantiles (equal frequency)")
map.text("county", "massachusetts",cex=.7,add=TRUE)
map('county','massachusetts',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

michigan.tract

michigan.tract

Description

michigan.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(michigan.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(michigan.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(michigan.tract,michigan.tract$pop2000)
plot(michigan.tract,col=colors.use$colors)
#text(coordinates(michigan.tract),michigan.tract@data$name,cex=.3)
title(main="Census Tracts \n of Michigan, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(michigan.tract)

map('state',region='michigan')
```

```

plotvar <- michigan.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(michigan.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Michigan, 2000", sub="Quantiles (equal frequency)")
map.text("county", "michigan",cex=.7,add=TRUE)
map('county','michigan',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

minnesota.tract

minnesota.tract

Description

minnesota.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(minnesota.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(minnesota.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(minnesota.tract,minnesota.tract$pop2000)
plot(minnesota.tract,col=colors.use$colors)
#text(coordinates(minnesota.tract),minnesota.tract@data$name,cex=.3)
title(main="Census Tracts \n of Minnesota, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(minnesota.tract)

map('state',region='minnesota')
```

```

plotvar <- minnesota.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(minnesota.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Minnesota, 2000", sub="Quantiles (equal frequency)")
map.text("county", "minnesota",cex=.7,add=TRUE)
map('county','minnesota',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

mississippi.tract *mississippi.tract*

Description

mississippi.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(mississippi.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(mississippi.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(mississippi.tract,mississippi.tract$pop2000)
plot(mississippi.tract,col=colors.use$colors)
#text(coordinates(mississippi.tract),mississippi.tract@data$name,cex=.3)
title(main="Census Tracts \n of Mississippi, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(mississippi.tract)

map('state',region='mississippi')
```

```

plotvar <- mississippi.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(mississippi.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Mississippi, 2000", sub="Quantiles (equal frequency)")
map.text("county", "mississippi",cex=.7,add=TRUE)
map('county','mississippi',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

missouri.tract

missouri.tract

Description

missouri.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(missouri.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(missouri.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(missouri.tract,missouri.tract$pop2000)
plot(missouri.tract,col=colors.use$colors)
#text(coordinates(missouri.tract),missouri.tract@data$name,cex=.3)
title(main="Census Tracts \n of Missouri, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(missouri.tract)

map('state',region='missouri')
```

```

plotvar <- missouri.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(missouri.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Missouri, 2000", sub="Quantiles (equal frequency)")
map.text("county", "missouri", cex=.7,add=TRUE)
map('county','missouri',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

montana.tract

montana.tract

Description

montana.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(montana.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(montana.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(montana.tract,montana.tract$pop2000)
plot(montana.tract,col=colors.use$colors)
#text(coordinates(montana.tract),montana.tract@data$name,cex=.3)
title(main="Census Tracts \n of Montana, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(montana.tract)

map('state',region='montana')
```

```

plotvar <- montana.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(montana.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Montana, 2000", sub="Quantiles (equal frequency)")
map.text("county", "montana", cex=.7,add=TRUE)
map('county', 'montana', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count", bg="white")

## End(Not run)

```

nebraska.tract

nebraska.tract

Description

nebraska.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(nebraska.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(nebraska.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(nebraska.tract,nebraska.tract$pop2000)
plot(nebraska.tract,col=colors.use$colors)
#text(coordinates(nebraska.tract),nebraska.tract@data$name,cex=.3)
title(main="Census Tracts \n of Nebraska, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(nebraska.tract)

map('state',region='nebraska')
```

```

plotvar <- nebraska.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(nebraska.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Nebraska, 2000", sub="Quantiles (equal frequency)")
map.text("county", "nebraska", cex=.7,add=TRUE)
map('county', 'nebraska', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count", bg="white")

## End(Not run)

```

nevada.tract

*nevada.tract***Description**

nevada.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(nevada.tract)
```

Details**ID Variables**

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(nevada.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(nevada.tract,nevada.tract$pop2000)
plot(nevada.tract,col=colors.use$colors)
#text(coordinates(nevada.tract),nevada.tract@data$name,cex=.3)
title(main="Census Tracts \n of Nevada, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(nevada.tract)

map('state',region='nevada')
```

```

plotvar <- nevada.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(nevada.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Nevada, 2000", sub="Quantiles (equal frequency)")
map.text("county", "nevada",cex=.7,add=TRUE)
map('county','nevada',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

new_hampshire.tract *new_hampshire.tract*

Description

new_hampshire.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(new_hampshire.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(new_hampshire.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(new_hampshire.tract,new_hampshire.tract$pop2000)
plot(new_hampshire.tract,col=colors.use$colors)
#text(coordinates(new_hampshire.tract),new_hampshire.tract@data$name,cex=.3)
title(main="Census Tracts \n of New_hampshire, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(new_hampshire.tract)

map('state',region='new_hampshire')
```

```

plotvar <- new_hampshire.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(new_hampshire.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of New_hampshire, 2000", sub="Quantiles (equal frequency)")
map.text("county", "new_hampshire",cex=.7,add=TRUE)
map('county','new_hampshire',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

new_jersey.tract	<i>new_jersey.tract</i>
------------------	-------------------------

Description

new_jersey.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(new_jersey.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(new_jersey.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(new_jersey.tract,new_jersey.tract$pop2000)
plot(new_jersey.tract,col=colors.use$colors)
#text(coordinates(new_jersey.tract),new_jersey.tract@data$name,cex=.3)
title(main="Census Tracts \n of New_jersey, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(new_jersey.tract)

map('state',region='new_jersey')
```

```

plotvar <- new_jersey.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(new_jersey.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of New_jersey, 2000", sub="Quantiles (equal frequency)")
map.text("county", "new_jersey",cex=.7,add=TRUE)
map('county', 'new_jersey',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

new_mexico.tract *new_mexico.tract*

Description

new_mexico.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(new_mexico.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(new_mexico.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(new_mexico.tract,new_mexico.tract$pop2000)
plot(new_mexico.tract,col=colors.use$colors)
#text(coordinates(new_mexico.tract),new_mexico.tract@data$name,cex=.3)
title(main="Census Tracts \n of New_mexico, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(new_mexico.tract)

map('state',region='new_mexico')
```

```

plotvar <- new_mexico.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(new_mexico.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of New_mexico, 2000", sub="Quantiles (equal frequency)")
map.text("county", "new_mexico",cex=.7,add=TRUE)
map('county', 'new_mexico',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

new_york.tract

new_york.tract

Description

new_york.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(new_york.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(new_york.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(new_york.tract,new_york.tract$pop2000)
plot(new_york.tract,col=colors.use$colors)
#text(coordinates(new_york.tract),new_york.tract@data$name,cex=.3)
title(main="Census Tracts \n of New_york, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(new_york.tract)

map('state',region='new_york')
```

```

plotvar <- new_york.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(new_york.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of New_york, 2000", sub="Quantiles (equal frequency)")
map.text("county", "new_york",cex=.7,add=TRUE)
map('county', 'new_york', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

north_carolina.tract *north_carolina.tract*

Description

north_carolina.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(north_carolina.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(north_carolina.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(north_carolina.tract,north_carolina.tract$pop2000)
plot(north_carolina.tract,col=colors.use$colors)
#text(coordinates(north_carolina.tract),north_carolina.tract@data$name,cex=.3)
title(main="Census Tracts \n of North_carolina, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(north_carolina.tract)

map('state',region='north_carolina')
```

```

plotvar <- north_carolina.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(north_carolina.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of North_carolina, 2000", sub="Quantiles (equal frequency)")
map.text("county", "north_carolina",cex=.7,add=TRUE)
map('county','north_carolina',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

north_dakota.tract *north_dakota.tract*

Description

north_dakota.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(north_dakota.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(north_dakota.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(north_dakota.tract,north_dakota.tract$pop2000)
plot(north_dakota.tract,col=colors.use$colors)
#text(coordinates(north_dakota.tract),north_dakota.tract@data$name,cex=.3)
title(main="Census Tracts \n of North_dakota, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(north_dakota.tract)

map('state',region='north_dakota')
```

```

plotvar <- north_dakota.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(north_dakota.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of North_dakota, 2000", sub="Quantiles (equal frequency)")
map.text("county", "north_dakota", cex=.7,add=TRUE)
map('county', 'north_dakota', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count", bg="white")

## End(Not run)

```

ohio.tract

*ohio.tract***Description**

ohio.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(ohio.tract)
```

Details**ID Variables**

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(ohio.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(ohio.tract,ohio.tract$pop2000)
plot(ohio.tract,col=colors.use$colors)
#text(coordinates(ohio.tract),ohio.tract@data$name,cex=.3)
title(main="Census Tracts \n of Ohio, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(ohio.tract)

map('state',region='ohio')
```

```

plotvar <- ohio.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(ohio.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Ohio, 2000", sub="Quantiles (equal frequency)")
map.text("county", "ohio",cex=.7,add=TRUE)
map('county','ohio',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

oklahoma.tract	<i>oklahoma.tract</i>
----------------	-----------------------

Description

oklahoma.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(oklahoma.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(oklahoma.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(oklahoma.tract,oklahoma.tract$pop2000)
plot(oklahoma.tract,col=colors.use$colors)
#text(coordinates(oklahoma.tract),oklahoma.tract@data$name,cex=.3)
title(main="Census Tracts \n of Oklahoma, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(oklahoma.tract)

map('state',region='oklahoma')
```

```

plotvar <- oklahoma.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(oklahoma.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Oklahoma, 2000", sub="Quantiles (equal frequency)")
map.text("county", "oklahoma",cex=.7,add=TRUE)
map('county','oklahoma',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

oregon.tract

*oregon.tract***Description**

oregon.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(oregon.tract)
```

Details**ID Variables**

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(oregon.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(oregon.tract,oregon.tract$pop2000)
plot(oregon.tract,col=colors.use$colors)
#text(coordinates(oregon.tract),oregon.tract@data$name,cex=.3)
title(main="Census Tracts \n of Oregon, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(oregon.tract)

map('state',region='oregon')
```

```

plotvar <- oregon.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(oregon.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Oregon, 2000", sub="Quantiles (equal frequency)")
map.text("county", "oregon",cex=.7,add=TRUE)
map('county','oregon',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

pennsylvania.tract *pennsylvania.tract*

Description

pennsylvania.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(pennsylvania.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(pennsylvania.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(pennsylvania.tract,pennsylvania.tract$pop2000)
plot(pennsylvania.tract,col=colors.use$colors)
#text(coordinates(pennsylvania.tract),pennsylvania.tract@data$name,cex=.3)
title(main="Census Tracts \n of Pennsylvania, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(pennsylvania.tract)

map('state',region='pennsylvania')
```

```

plotvar <- pennsylvania.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(pennsylvania.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Pennsylvania, 2000", sub="Quantiles (equal frequency)")
map.text("county", "pennsylvania", cex=.7,add=TRUE)
map('county','pennsylvania',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

rhode_island.tract *rhode_island.tract*

Description

rhode_island.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(rhode_island.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(rhode_island.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(rhode_island.tract,rhode_island.tract$pop2000)
plot(rhode_island.tract,col=colors.use$colors)
#text(coordinates(rhode_island.tract),rhode_island.tract@data$name,cex=.3)
title(main="Census Tracts \n of Rhode_island, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(rhode_island.tract)

map('state',region='rhode_island')
```

```

plotvar <- rhode_island.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(rhode_island.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Rhode_island, 2000", sub="Quantiles (equal frequency)")
map.text("county", "rhode_island", cex=.7,add=TRUE)
map('county', 'rhode_island', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count", bg="white")

## End(Not run)

```

south_carolina.tract *south_carolina.tract*

Description

south_carolina.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(south_carolina.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(south_carolina.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(south_carolina.tract,south_carolina.tract$pop2000)
plot(south_carolina.tract,col=colors.use$colors)
#text(coordinates(south_carolina.tract),south_carolina.tract@data$name,cex=.3)
title(main="Census Tracts \n of South_carolina, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(south_carolina.tract)

map('state',region='south_carolina')
```

```

plotvar <- south_carolina.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(south_carolina.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of South_carolina, 2000", sub="Quantiles (equal frequency)")
map.text("county", "south_carolina",cex=.7,add=TRUE)
map('county', 'south_carolina',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

south_dakota.tract *south_dakota.tract*

Description

south_dakota.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(south_dakota.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(south_dakota.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(south_dakota.tract,south_dakota.tract$pop2000)
plot(south_dakota.tract,col=colors.use$colors)
#text(coordinates(south_dakota.tract),south_dakota.tract@data$name,cex=.3)
title(main="Census Tracts \n of South_dakota, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(south_dakota.tract)

map('state',region='south_dakota')
```

```

plotvar <- south_dakota.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(south_dakota.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of South_dakota, 2000", sub="Quantiles (equal frequency)")
map.text("county", "south_dakota", cex=.7,add=TRUE)
map('county', 'south_dakota', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count", bg="white")

## End(Not run)

```

tennessee.tract

tennessee.tract

Description

tennessee.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(tennessee.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
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(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(tennessee.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(tennessee.tract,tennessee.tract$pop2000)
plot(tennessee.tract,col=colors.use$colors)
#text(coordinates(tennessee.tract),tennessee.tract@data$name,cex=.3)
title(main="Census Tracts \n of Tennessee, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(tennessee.tract)

map('state',region='tennessee')
```

```

plotvar <- tennessee.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(tennessee.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Tennessee, 2000", sub="Quantiles (equal frequency)")
map.text("county", "tennessee",cex=.7,add=TRUE)
map('county', 'tennessee',add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

texas.tract

texas.tract

Description

texas.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(texas.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(texas.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(texas.tract,texas.tract$pop2000)
plot(texas.tract,col=colors.use$colors)
#text(coordinates(texas.tract),texas.tract@data$name,cex=.3)
title(main="Census Tracts \n of Texas, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(texas.tract)

map('state',region='texas')
```

```

plotvar <- texas.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(texas.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Texas, 2000", sub="Quantiles (equal frequency)")
map.text("county", "texas",cex=.7,add=TRUE)
map('county','texas',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

utah.tract

utah.tract

Description

utah.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(utah.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

- <http://www.census.gov/>
- <http://www2.census.gov/cgi-bin/shapefiles/national-files>
- <http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(utah.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(utah.tract,utah.tract$pop2000)
plot(utah.tract,col=colors.use$colors)
#text(coordinates(utah.tract),utah.tract@data$name,cex=.3)
title(main="Census Tracts \n of Utah, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(utah.tract)

map('state',region='utah')
```

```

plotvar <- utah.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(utah.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Utah, 2000", sub="Quantiles (equal frequency)")
map.text("county", "utah", cex=.7,add=TRUE)
map('county', 'utah', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count", bg="white")

## End(Not run)

```

vermont.tract

vermont.tract

Description

vermont.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(vermont.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(vermont.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(vermont.tract,vermont.tract$pop2000)
plot(vermont.tract,col=colors.use$colors)
#text(coordinates(vermont.tract),vermont.tract@data$name,cex=.3)
title(main="Census Tracts \n of Vermont, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(vermont.tract)

map('state',region='vermont')
```

```

plotvar <- vermont.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(vermont.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Vermont, 2000", sub="Quantiles (equal frequency)")
map.text("county", "vermont", cex=.7,add=TRUE)
map('county', 'vermont', add=TRUE)
legend("bottomright", "(x,y)", legend=names(attr(colcode, "table")), fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count", bg="white")

## End(Not run)

```

virginia.tract

*virginia.tract***Description**

virginia.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(virginia.tract)
```

Details**ID Variables**

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(virginia.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(1.uc,0,1), runif(1.uc,0,1) , runif(1.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(virginia.tract,virginia.tract$pop2000)
plot(virginia.tract,col=colors.use$colors)
#text(coordinates(virginia.tract),virginia.tract@data$name,cex=.3)
title(main="Census Tracts \n of Virginia, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(virginia.tract)

map('state',region='virginia')

```

```

plotvar <- virginia.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(virginia.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Virginia, 2000", sub="Quantiles (equal frequency)")
map.text("county", "virginia",cex=.7,add=TRUE)
map('county','virginia',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

washington.tract *washington.tract*

Description

washington.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

data(washington.tract)

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(washington.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(washington.tract,washington.tract$pop2000)
plot(washington.tract,col=colors.use$colors)
#text(coordinates(washington.tract),washington.tract@data$name,cex=.3)
title(main="Census Tracts \n of Washington, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(washington.tract)

map('state',region='washington')

```

```

plotvar <- washington.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(washington.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Washington, 2000", sub="Quantiles (equal frequency)")
map.text("county", "washington",cex=.7,add=TRUE)
map('county','washington',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

west_virginia.tract *west_virginia.tract*

Description

west_virginia.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(west_virginia.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(west_virginia.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(west_virginia.tract,west_virginia.tract$pop2000)
plot(west_virginia.tract,col=colors.use$colors)
#text(coordinates(west_virginia.tract),west_virginia.tract@data$name,cex=.3)
title(main="Census Tracts \n of West_virginia, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(west_virginia.tract)

map('state',region='west_virginia')
```

```

plotvar <- west_virginia.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(west_virginia.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of West_virginia, 2000", sub="Quantiles (equal frequency)")
map.text("county", "west_virginia",cex=.7,add=TRUE)
map('county','west_virginia',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

wisconsin.tract

wisconsin.tract

Description

wisconsin.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(wisconsin.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(wisconsin.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(wisconsin.tract,wisconsin.tract$pop2000)
plot(wisconsin.tract,col=colors.use$colors)
#text(coordinates(wisconsin.tract),wisconsin.tract@data$name,cex=.3)
title(main="Census Tracts \n of Wisconsin, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(wisconsin.tract)

map('state',region='wisconsin')
```

```

plotvar <- wisconsin.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(wisconsin.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Wisconsin, 2000", sub="Quantiles (equal frequency)")
map.text("county", "wisconsin",cex=.7,add=TRUE)
map('county','wisconsin',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)

```

wyoming.tract

wyoming.tract

Description

wyoming.tract is a [SpatialPolygonsDataFrame](#) with polygons made from the 2000 US Census tiger/line boundary files (<http://www.census.gov/geo/www/tiger/>) for Census Tracts. It also contains 86 variables from the Summary File 1 (SF 1) which contains the 100-percent data (<http://www.census.gov/prod/cen2000/doc/sf1.pdf>).

All polygons are projected in CRS("+proj=longlat +datum=NAD83")

Usage

```
data(wyoming.tract)
```

Details

ID Variables

data field name	Full Description
state	State FIPS code
county	County FIPS code
tract	Tract FIPS code

Census Variables

Census SF1 Field Name	data field name	Full Description
(P007001)	pop2000	population 2000
(P007002)	white	white alone

(P007003)	black	black or african american alone
(P007004)	ameri.es	american indian and alaska native alone
(P007005)	asian	asian alone
(P007006)	hawn.pi	native hawaiian and other pacific islander alone
(P007007)	other	some other race alone
(P007008)	mult.race	2 or more races
(P011001)	hispanic	people who are hispanic or latino
(P008002)	not.hispanic.t	Not Hispanic or Latino
(P008003)	nh.white	White alone
(P008004)	nh.black	Black or African American alone
(P008005)	nh.ameri.es	American Indian and Alaska Native alone
(P008006)	nh.asian	Asian alone
(P008007)	nh.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008008)	nh.other	Some other race alone
(P008010)	hispanic.t	Hispanic or Latino
(P008011)	h.white	White alone
(P008012)	h.black	Black or African American alone
(P008013)	h.american.es	American Indian and Alaska Native alone
(P008014)	h.asian	Asian alone
(P008015)	h.hawn.pi	Native Hawaiian and Other Pacific Islander alone
(P008016)	h.other	Some other race alone
(P012002)	males	males
(P012026)	females	females
(P012003 + P012027)	age.under5	male and female under 5 yrs
(P012004-006 + P012028-030)	age.5.17	male and female 5 to 17 yrs
(P012007-009 + P012031-033)	age.18.21	male and female 18 to 21 yrs
(P012010-011 + P012034-035)	age.22.29	male and female 22 to 29 yrs
(P012012-013 + P012036-037)	age.30.39	male and female 30 to 39 yrs
(P012014-015 + P012038-039)	age.40.49	male and female 40 to 49 yrs
(P012016-019 + P012040-043)	age.50.64	male and female 50 to 64 yrs
(P012020-025 + P012044-049)	age.65.up	male and female 65 yrs and over
(P013001)	med.age	median age, both sexes
(P013002)	med.age.m	median age, males
(P013003)	med.age.f	median age, females
(P015001)	households	households
(P017001)	ave.hh.sz	average household size
(P018003)	hsehld.1.m	1-person household, male householder
(P018004)	hsehld.1.f	1-person household, female householder
(P018008)	marhh.chd	family households, married-couple family, w/ own children under 18 yrs
(P018009)	marhh.no.c	family households, married-couple family, no own children under 18 yrs
(P018012)	mhh.child	family households, other family, male householder, no wife present, w/ own children
(P018015)	fhh.child	family households, other family, female householder, no husband present, w/ own children
(H001001)	hh.units	housing units total
(H002002)	hh.urban	urban housing units
(H002005)	hh.rural	rural housing units
(H003002)	hh.occupied	occupied housing units
(H003003)	hh.vacant	vacant housing units
(H004002)	hh.owner	owner occupied housing units

(H004003)	hh.renter	renter occupied housing units
(H013002)	hh.1person	1-person household
(H013003)	hh.2person	2-person household
(H013004)	hh.3person	3-person household
(H013005)	hh.4person	4-person household
(H013006)	hh.5person	5-person household
(H013007)	hh.6person	6-person household
(H013008)	hh.7person	7-person household
(H015I003)+(H015I011)	hh.nh.white.1p	(white only, not hispanic) 1-person household
(H015I004)+(H015I012)	hh.nh.white.2p	(white only, not hispanic) 2-person household
(H015I005)+(H015I013)	hh.nh.white.3p	(white only, not hispanic) 3-person household
(H015I006)+(H015I014)	hh.nh.white.4p	(white only, not hispanic) 4-person household
(H015I007)+(H015I015)	hh.nh.white.5p	(white only, not hispanic) 5-person household
(H015I008)+(H015I016)	hh.nh.white.6p	(white only, not hispanic) 6-person household
(H015I009)+(H015I017)	hh.nh.white.7p	(white only, not hispanic) 7-person household
(H015H003)+(H015H011)	hh.hisp.1p	(hispanic) 1-person household
(H015H004)+(H015H012)	hh.hisp.2p	(hispanic) 2-person household
(H015H005)+(H015H013)	hh.hisp.3p	(hispanic) 3-person household
(H015H006)+(H015H014)	hh.hisp.4p	(hispanic) 4-person household
(H015H007)+(H015H015)	hh.hisp.5p	(hispanic) 5-person household
(H015H008)+(H015H016)	hh.hisp.6p	(hispanic) 6-person household
(H015H009)+(H015H017)	hh.hisp.7p	(hispanic) 7-person household
(H015B003)+(H015B011)	hh.black.1p	(black) 1-person household
(H015B004)+(H015B012)	hh.black.2p	(black) 2-person household
(H015B005)+(H015B013)	hh.black.3p	(black) 3-person household
(H015B006)+(H015B014)	hh.black.4p	(black) 4-person household
(H015B007)+(H015B015)	hh.black.5p	(black) 5-person household
(H015B008)+(H015B016)	hh.black.6p	(black) 6-person household
(H015B009)+(H015B017)	hh.black.7p	(black) 7-person household
(H015D003)+(H015D011)	hh.asian.1p	(asian) 1-person household
(H015D004)+(H015D012)	hh.asian.2p	(asian) 2-person household
(H015D005)+(H015D013)	hh.asian.3p	(asian) 3-person household
(H015D006)+(H015D014)	hh.asian.4p	(asian) 4-person household
(H015D007)+(H015D015)	hh.asian.5p	(asian) 5-person household
(H015D008)+(H015D016)	hh.asian.6p	(asian) 6-person household
(H015D009)+(H015D017)	hh.asian.7p	(asian) 7-person household

Source

Census 2000 Summary File 1 [name of state1 or United States]/prepared by the U.S. Census Bureau, 2001.

References

<http://www.census.gov/>
<http://www2.census.gov/cgi-bin/shapefiles/national-files>
<http://www.census.gov/prod/cen2000/doc/sf1.pdf>

Examples

```

data(wyoming.tract)

#####
## Helper function for handling coloring of the map
#####
color.map<- function(x,dem,y=NULL){
  l.poly<-length(x@polygons)
  dem.num<- cut(dem ,breaks=ceiling(quantile(dem)),dig.lab = 6)
  dem.num[which(is.na(dem.num)==TRUE)]<-levels(dem.num)[1]
  l.uc<-length(table(dem.num))
  if(is.null(y)){
    ##commented out, but creates different color schemes
    ## using runif, may take a couple times to get a good color scheme.
    ##col.heat<-rgb( runif(l.uc,0,1), runif(l.uc,0,1) , runif(l.uc,0,1) )
    col.heat<-heat.colors(16)[c(14,8,4,1)] ##fixed set of four colors
  }else{
    col.heat<-y
  }
  dem.col<-cbind(col.heat,names(table(dem.num)))
  colors.dem<-vector(length=l.poly)
  for(i in 1:l.uc){
    colors.dem[which(dem.num==dem.col[i,2])]<-dem.col[i,1]
  }
  out<-list(colors=colors.dem,dem.cut=dem.col[,2],table.colors=dem.col[,1])
  return(out)
}
#####
## Helper function for handling coloring of the map
#####

colors.use<-color.map(wyoming.tract,wyoming.tract$pop2000)
plot(wyoming.tract,col=colors.use$colors)
#text(coordinates(wyoming.tract),wyoming.tract@data$name,cex=.3)
title(main="Census Tracts \n of Wyoming, 2000", sub="Quantiles (equal frequency)")
legend("bottomright",legend=colors.use$dem.cut,fill=colors.use$table.colors,bty="o",title="Population Count",bg

#####
### Alternative way to do the above
#####
## Not run:
####This example requires the following additional libraries
library(RColorBrewer)
library(classInt)
library(maps)
####This example requires the following additional libraries

data(wyoming.tract)

map('state',region='wyoming')
```

```
plotvar <- wyoming.tract$pop2000
nclr <- 4
#BuPu
plotclr <- brewer.pal(nclr,"BuPu")
class <- classIntervals(plotvar, nclr, style="quantile")
colcode <- findColours(class, plotclr)
plot(wyoming.tract, col=colcode, border="transparent",add=TRUE)
#transparent
title(main="Census Tracts \n of Wyoming, 2000", sub="Quantiles (equal frequency)")
map.text("county", "wyoming",cex=.7,add=TRUE)
map('county','wyoming',add=TRUE)
legend("bottomright","(x,y)", legend=names(attr(colcode, "table")),fill=attr(colcode, "palette"),
cex=0.9, bty="o", title="Population Count",bg="white")

## End(Not run)
```

Index

*Topic **datasets**

alabama.tract, 3
alaska.tract, 7
arizona.tract, 11
arkansas.tract, 15
california.tract, 19
colorado.tract, 23
connecticut.tract, 27
delaware.tract, 31
district_of_columbia.tract, 35
florida.tract, 39
georgia.tract, 43
hawaii.tract, 47
idaho.tract, 51
illinois.tract, 55
indiana.tract, 59
iowa.tract, 63
kansas.tract, 67
kentucky.tract, 71
louisiana.tract, 75
maine.tract, 79
maryland.tract, 83
massachusetts.tract, 87
michigan.tract, 91
minnesota.tract, 95
mississippi.tract, 99
missouri.tract, 103
montana.tract, 107
nebraska.tract, 111
nevada.tract, 115
new_hampshire.tract, 119
new_jersey.tract, 123
new_mexico.tract, 127
new_york.tract, 131
north_carolina.tract, 135
north_dakota.tract, 139
ohio.tract, 143
oklahoma.tract, 147
oregon.tract, 151

pennsylvania.tract, 155
rhode_island.tract, 159
south_carolina.tract, 163
south_dakota.tract, 167
tennessee.tract, 171
texas.tract, 175
utah.tract, 179
vermont.tract, 183
virginia.tract, 187
washington.tract, 191
west_virginia.tract, 195
wisconsin.tract, 199
wyoming.tract, 203

alabama.tract, 3
alaska.tract, 7
arizona.tract, 11
arkansas.tract, 15

california.tract, 19
colorado.tract, 23
connecticut.tract, 27

delaware.tract, 31
district_of_columbia.tract, 35

florida.tract, 39

georgia.tract, 43

hawaii.tract, 47

idaho.tract, 51
illinois.tract, 55
indiana.tract, 59
iowa.tract, 63

kansas.tract, 67
kentucky.tract, 71

louisiana.tract, 75

maine.tract, 79
maryland.tract, 83
massachusetts.tract, 87
michigan.tract, 91
minnesota.tract, 95
mississippi.tract, 99
missouri.tract, 103
montana.tract, 107

nebraska.tract, 111
nevada.tract, 115
new_hampshire.tract, 119
new_jersey.tract, 123
new_mexico.tract, 127
new_york.tract, 131
north_carolina.tract, 135
north_dakota.tract, 139

ohio.tract, 143
oklahoma.tract, 147
oregon.tract, 151

pennsylvania.tract, 155

rhode_island.tract, 159

south_carolina.tract, 163
south_dakota.tract, 167
SpatialPolygonsDataFrame, 3, 7, 11, 15, 19,
23, 27, 31, 35, 39, 43, 47, 51, 55, 59,
63, 67, 71, 75, 79, 83, 87, 91, 95, 99,
103, 107, 111, 115, 119, 123, 127,
131, 135, 139, 143, 147, 151, 155,
159, 163, 167, 171, 175, 179, 183,
187, 191, 195, 199, 203

tennessee.tract, 171
texas.tract, 175

utah.tract, 179

vermont.tract, 183
virginia.tract, 187

washington.tract, 191
west_virginia.tract, 195
wisconsin.tract, 199
wyoming.tract, 203