toronto vs. IL

SB

Wednesday, February 04, 2015

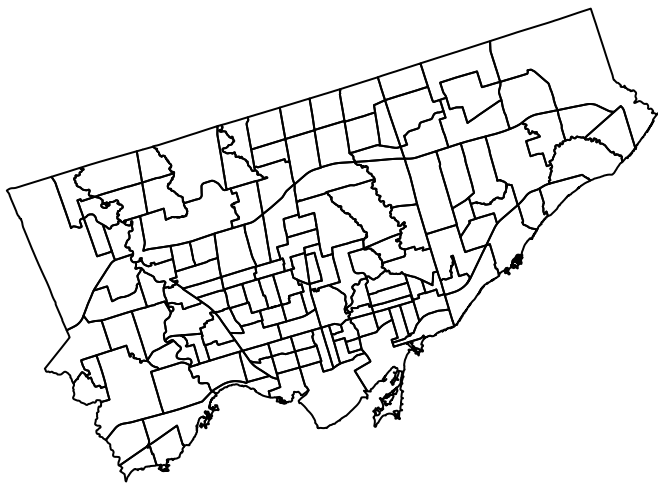## graphing IL from Toronto example

may 2017

modify the toronto example to use the Israeli data

```
library(RColorBrewer)
library(maptools)
library(ggmap)
library(rgeos)

# Read the neighborhood shapefile data and plot
shpfile <- "NEIGHBORHOODS_WGS84_2.shp"
sh <- rgdal::readOGR(shpfile)

## OGR data source with driver: ESRI Shapefile
## Source: "NEIGHBORHOODS_WGS84_2.shp", layer: "NEIGHBORHOODS_WGS84_2"
## with 140 features
## It has 2 fields

plot(sh)
```



```
# Add demographic data
# The neighbourhood ID is a string - change it to a integer
sh@data$AREA_S_CD <- as.numeric(sh@data$AREA_S_CD)

# Read in the demographic data and merge on Neighbourhood Id
demo <- read.csv(file="WB-Demographics.csv", header=T)
sh2 <- merge(sh, demo, by.x='AREA_S_CD', by.y='Neighbourhood.Id')
```
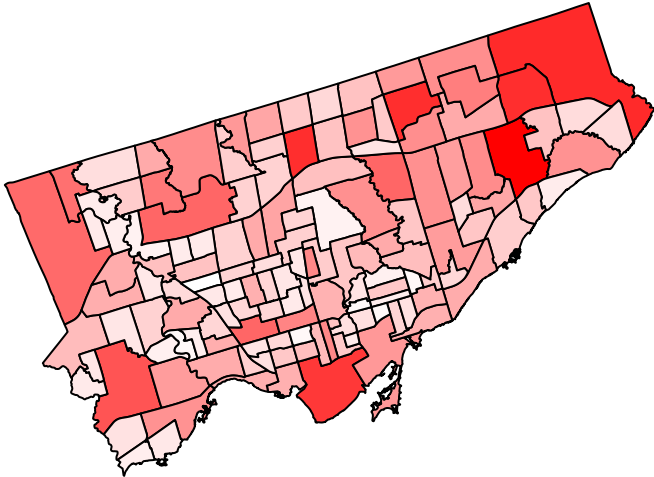
now, what does this col=cols line do?

```
# Set the palette
p <- colorRampPalette(c("white", "red"))(128)
palette(p)

# Scale the total population to the palette
pop <- sh2@data$Total.Population
cols <- (pop - min(pop))/diff(range(pop))*127+1
plot(sh, col=cols)
```
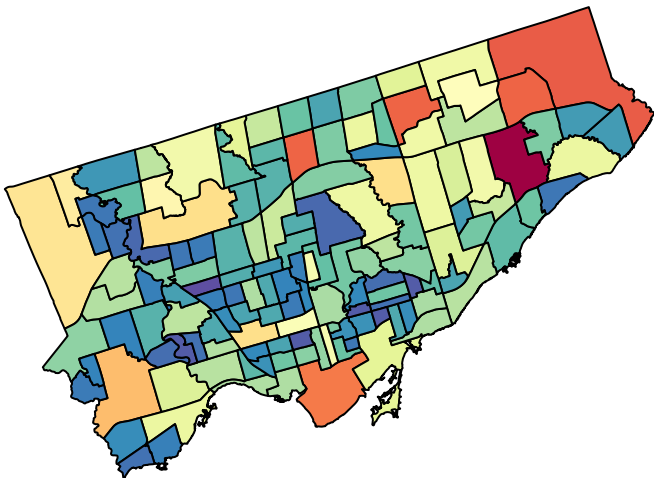


```
#RColorBrewer, spectral
p <- colorRampPalette(brewer.pal(11, 'Spectral'))(128)
palette(rev(p))
plot(sh2, col=cols)
```



```
#GGPLOT
points <- fortify(sh, region = 'AREA_S_CD')

# Plot the neighborhoods
toronto <- qmap("Toronto, Ontario", zoom=10)
```

Source : https://maps.googleapis.com/maps/api/staticmap?center=Toronto,+Ontario&zoom=10&size=640x640&

Source : https://maps.googleapis.com/maps/api/geocode/json?address=Toronto%2C%20Ontario

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```

```r
toronto + geom_polygon(aes(x=long,y=lat, group=group, alpha=0.25), data=points, fill='white') + geom_po
```

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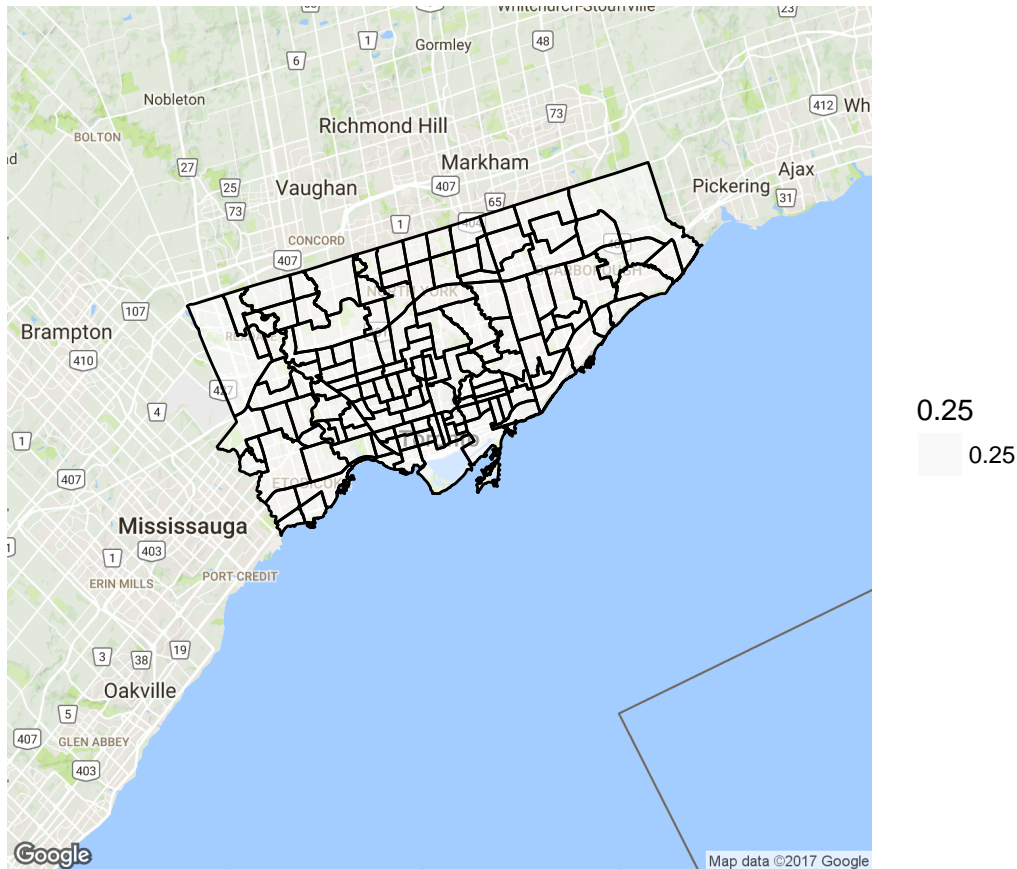
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```


0.25

0.25

```r
# merge the shapefile data with the social housing data, using the neighborhood ID
points2 <- merge(points, demo, by.x='id', by.y='Neighbourhood.Id', all.x=TRUE)

# Plot
toronto + geom_polygon(aes(x=long,y=lat, group=group, fill=Total.Population), data=points2, color='black
  scale_fill_gradient(low='white', high='red')
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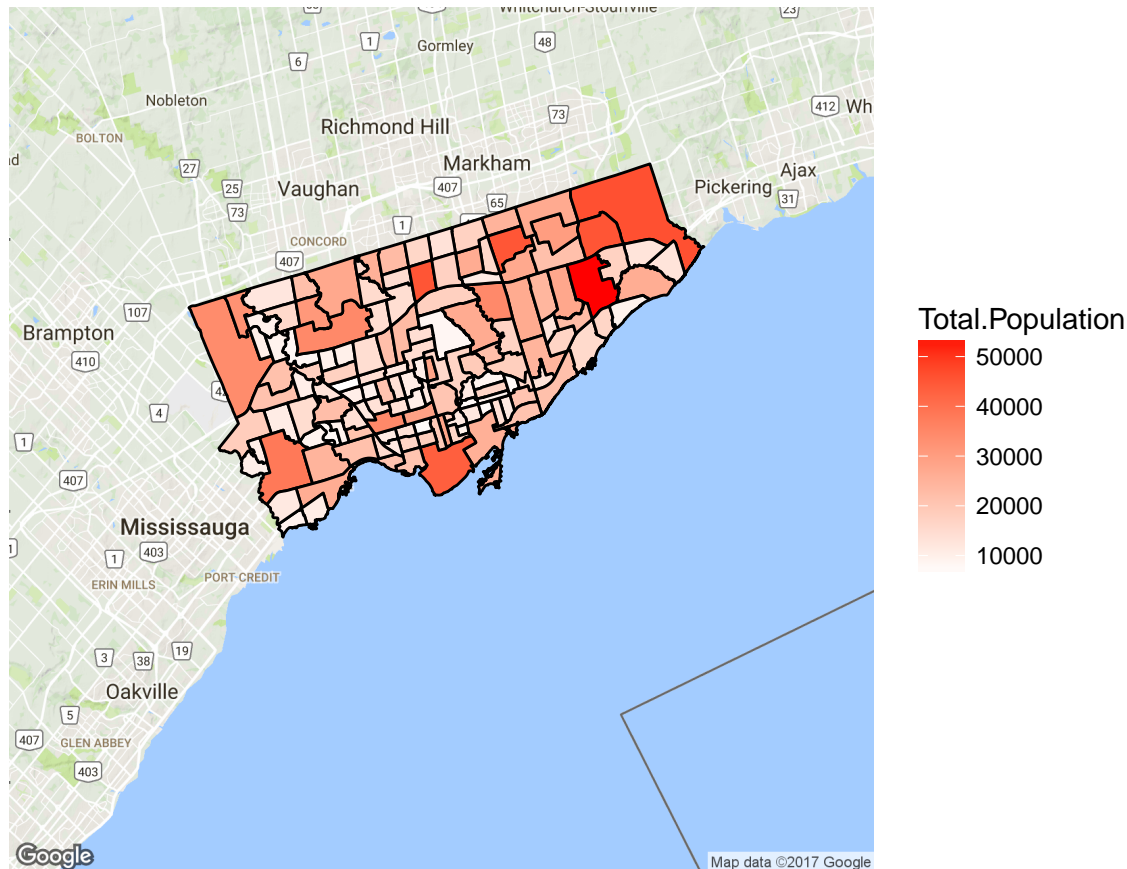


```
# Spectral plot
toronto + geom_polygon(aes(x=long,y=lat, group=group, fill=Total.Population), data=points2, color='blac
  scale_fill_distiller(palette='Spectral') + scale_alpha(range=c(0.5,0.5))
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