

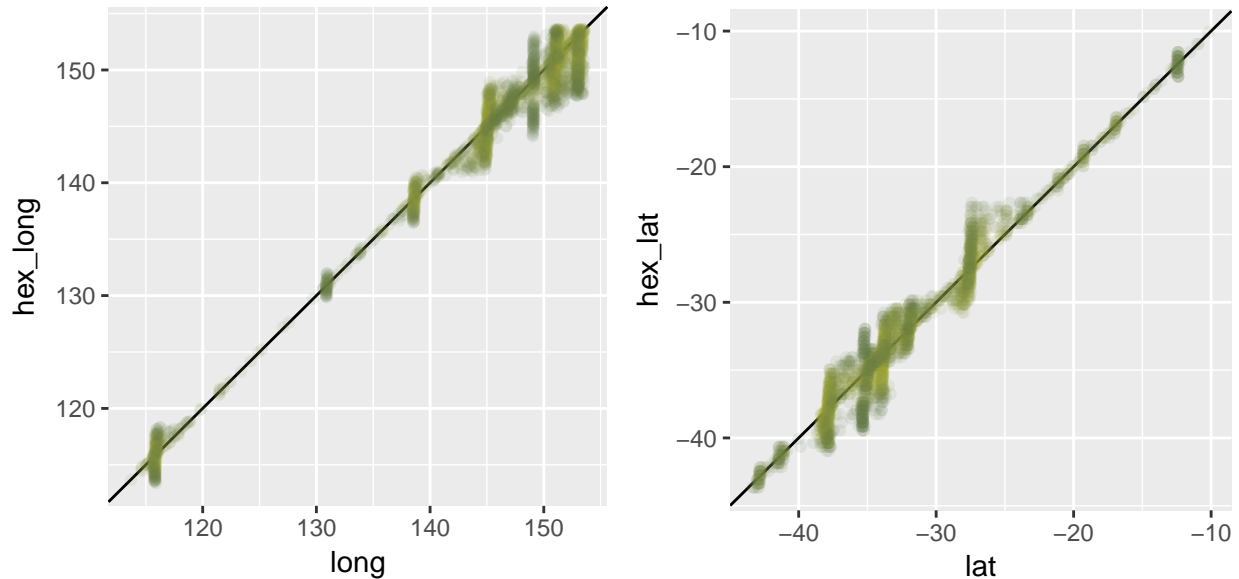
Australia Maps

Stephanie Kobakian and Di Cook

4/13/2018

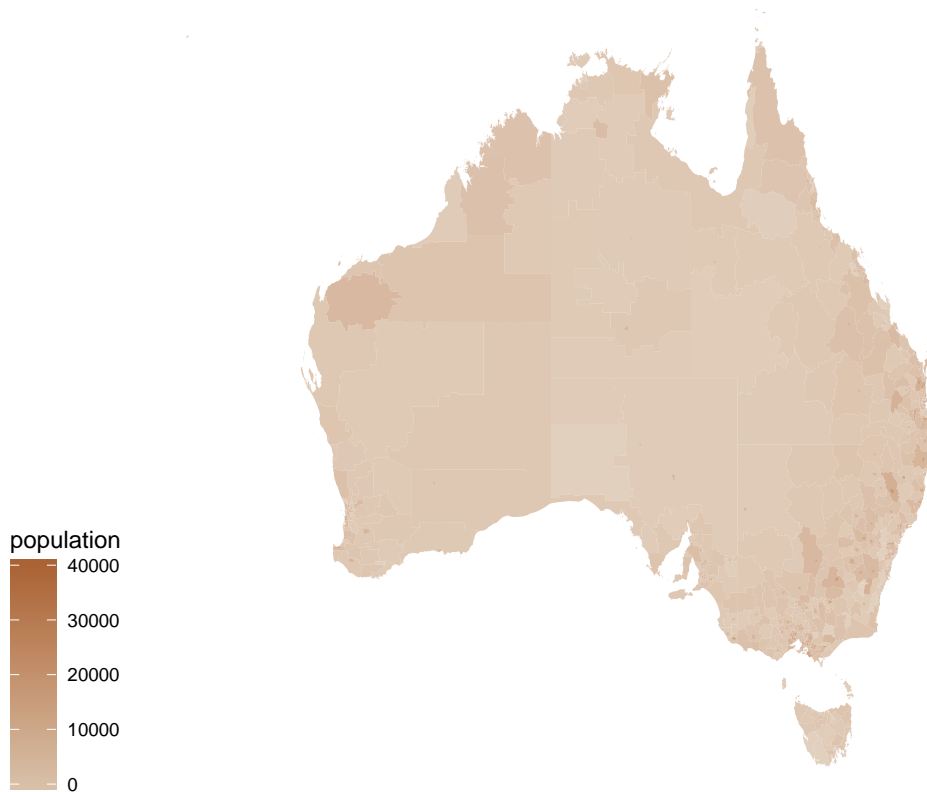
```
library(tidyverse)
library(ggthemes)
library(gridExtra)
load("data/sa2.Rda")
load("data/sa2_tidy.Rda")
load("data/sa2_hex.Rda")

p1 <- ggplot(sa2_hex, aes(x=long, y=hex_long, colour=rank(desc(pop)))) +
  scale_colour_gradient(low="#c0c030", high="#607848") +
  geom_abline(slope=1, intercept=0) + geom_point(alpha=0.1) +
  theme(aspect.ratio=1, legend.position="none")
p2 <- ggplot(sa2_hex, aes(x=lat, y=hex_lat, colour=rank(desc(pop)))) +
  scale_colour_gradient(low="#c0c030", high="#607848") +
  geom_abline(slope=1, intercept=0) + geom_point(alpha=0.1) +
  theme(aspect.ratio=1, legend.position="none")
grid.arrange(p1, p2, ncol=2)
```



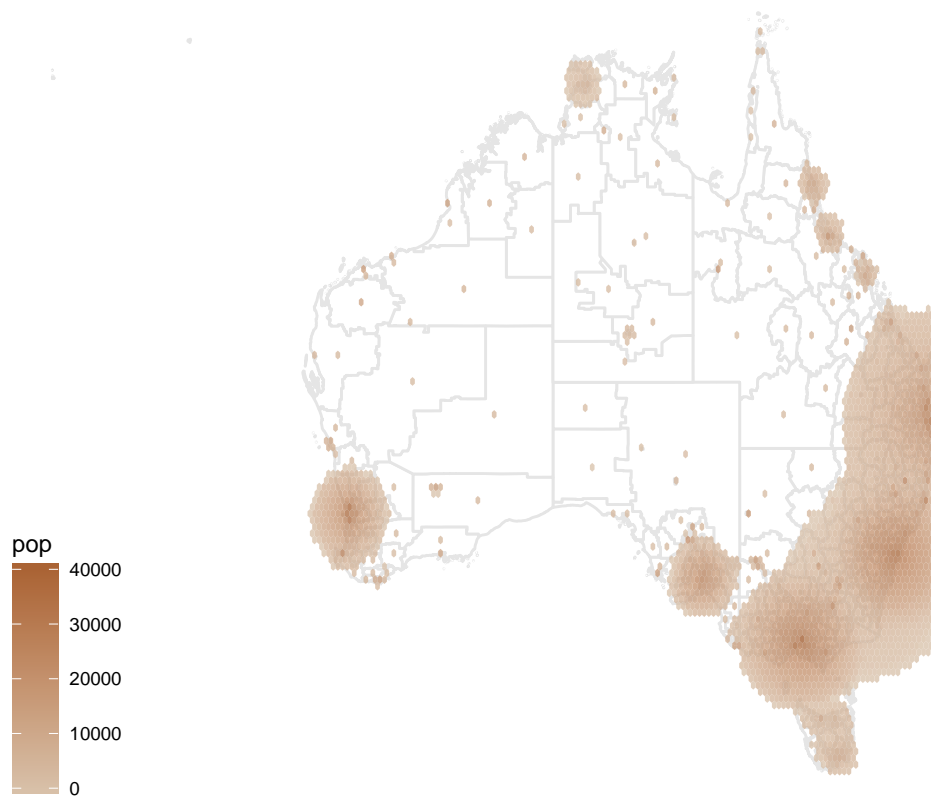
Map of Australian SA2 areas coloured by population.

```
ggplot(sa2_tidy) +
  geom_polygon(aes(x=long, y=lat, group=group,
                  fill=population), alpha=0.75)+
  scale_fill_gradient(low = "#d8c0a8", high = "#a86030") +
  theme_map()
```



Map of Australian SA2 areas represented by hexagons, coloured by population.

```
(ausHex <- ggplot(sa2_tidy) +
  geom_polygon(aes(x=long, y=lat, group=group),
              fill="white", colour="grey90") +
  geom_hex(data=sa2_hex, aes(x = hex_long, y = hex_lat,
                           fill = pop, label=name),
          stat = "identity", colour = NA, alpha = 0.75) +
  scale_fill_gradient(low = "#d8c0a8", high = "#a86030") +
  theme_map()
)
```



Interactive plot, label contains the SA2 name for 2016

```
library(plotly)
#ggplotly(ausHex)
```