

### AC3

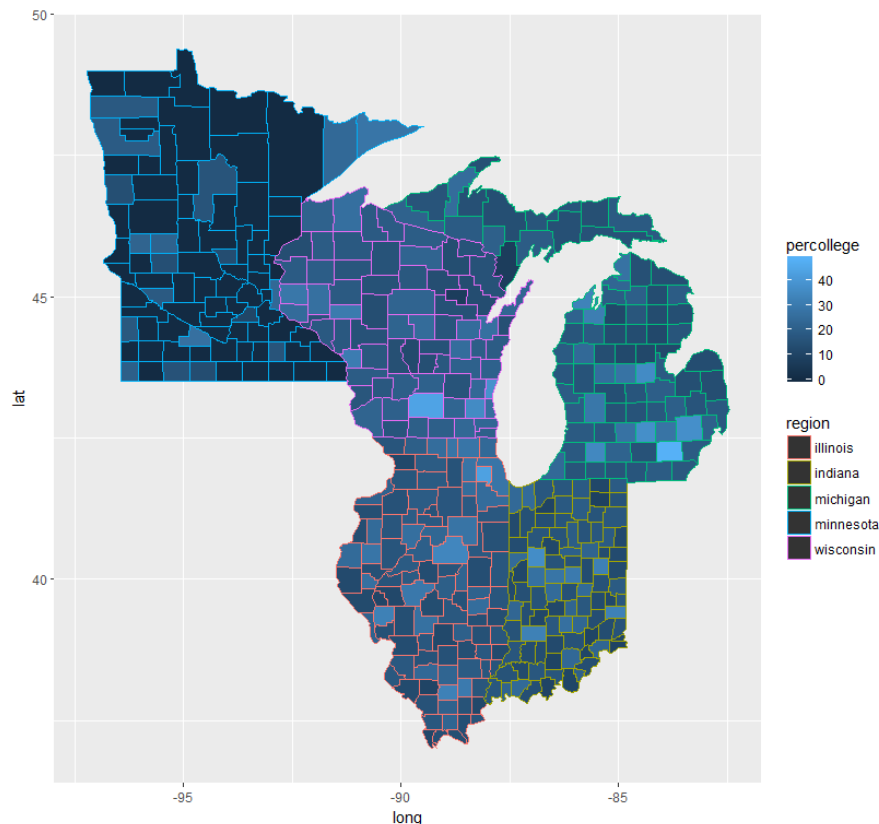
Data: I used midwest dataset from ggplot2 and county dataset from maps package to plot the percollege in each county in Illinois, Indiana, Wisconsin, Michigan, and Minnesota.

Analysis: I added precollege value of each county to a data frame with lat and long coordinates for each corresponding county (midwest\_map), and then I generated a map of counties in five above mentioned states by ggplot + geom\_ploygon using long and lat as x and y coordinates with color represent the value of the precollege for each county from midwest dataset.

```
# extract lat and long of 5 states from map_data("county"):
usa=map_data("county")
midwest_map=subset(usa, region=="illinois"|region=="indiana"|region=="wisconsin"| region=="michigan"|region=="minnesota")
```

```
# plot map filled with precollege using ggplot:
ggplot()+
  geom_polygon(data = midwest_map, aes(x=long, y = lat, group=group, fill=percollege, color=region)) +
  coord_fixed(1.3)
```

Visualization:



This figure shows the percentage of adults with college education in each county in Illinois, Indiana, Wisconsin, Michigan, and Minnesota.