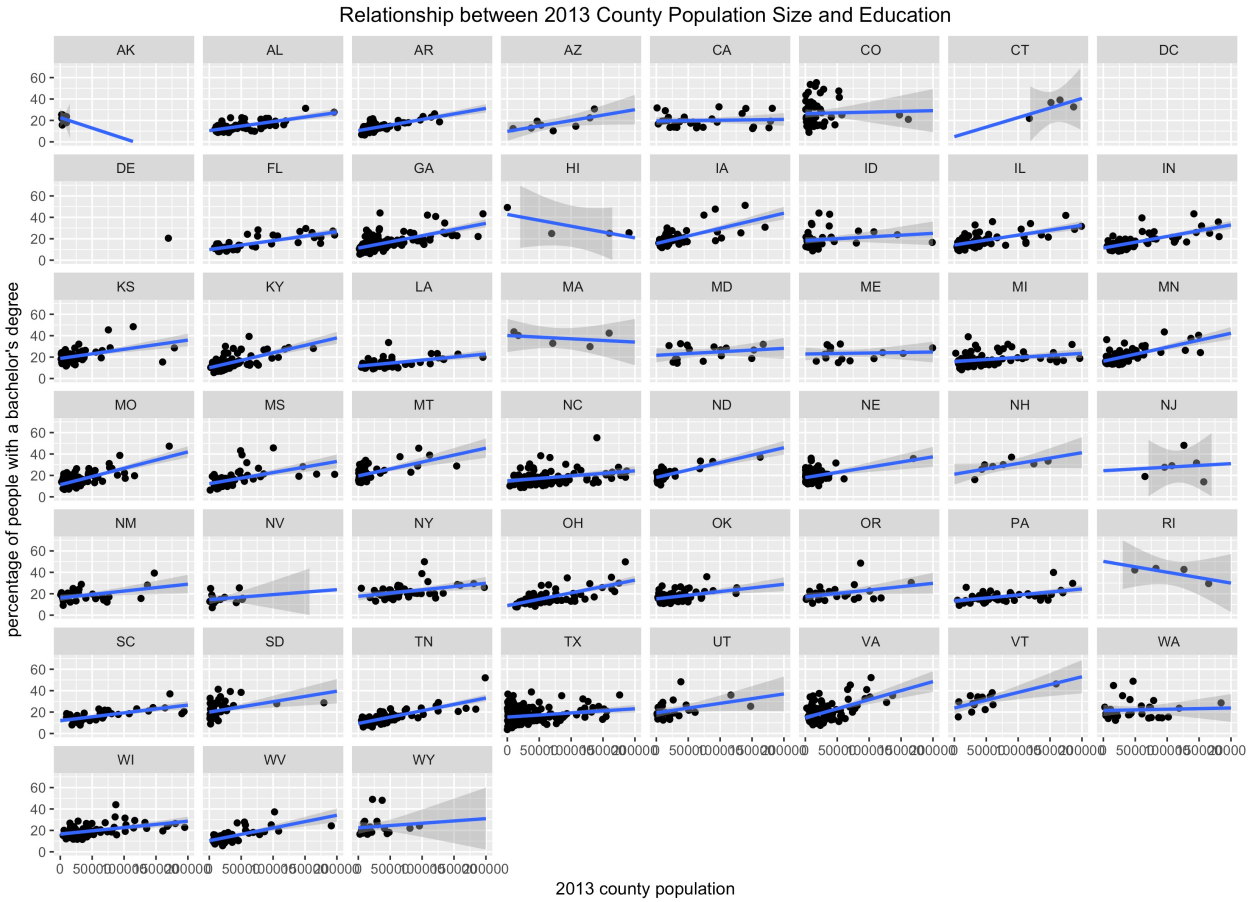
```
#Yang Yi
#10/06/2017
#HW7

#Install and use ggplot2
#install.packages("ggplot2")
library("ggplot2")

#Import data
census <- read.table('http://www.cse.lehigh.edu/~brian/census/DataSet.txt', sep=",",header =
TRUE)
reference <- read.fwf("http://www.cse.lehigh.edu/~brian/census/DataDict.txt", widths=c(10,
87, 4, 8, 11, 8, 10, 7),
col.names=c("Data_Item","Item_Description","Unit","Decimal","Us_Total","Minimum","Maxim
um","Source"))
county <- read.fwf('http://www.cse.lehigh.edu/~brian/census/FIPS_CountyName.txt',
widths=c(6, 50),col.names=c("flips", "counties"), stringsAsFactors=FALSE)

#Data cleaning, choose only those useful data
census <- subset(census, select = c("fips", "PST045213", "EDU685212"))
colnames(census) <- c("fips","population","education")
census$county <- county$counties

#Substitute the first column with only there states, and remove state rows
census$county <- gsub(".*,", "", census$county)
odd <- census$fips %% 2 != 0
census<-census[odd,]

#Factor county column
census$county <- factor(census$county)

#Plot population vs. education
plot <- qplot(data=census, x=population, y=education, facets=~county,xlim = c(0,200000), ylim
= c(0, 70)) + stat_smooth(data = census, method='lm', fullrange=TRUE)  + xlab("2013 county
population") + ylab("percentage of people with a bachelor's degree") + ggtitle("Relationship
between 2013 County Population Size and Education")+theme(plot.title = element_text(hjust =
0.5))

#Save the plot
ggsave("HW7.jpg")
```


Relationship between 2013 County Population Size and Education
AK
AL
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NE
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NV
NY
OH
OK
OR
PA
RI
SC
SD
TN
TX
UT
VA
VT
WA
WI
WV
WY
percentage of people with a bachelor's degree
2013 county population