# Bhasin-S-hw1-2

### 2023-01-25

## R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

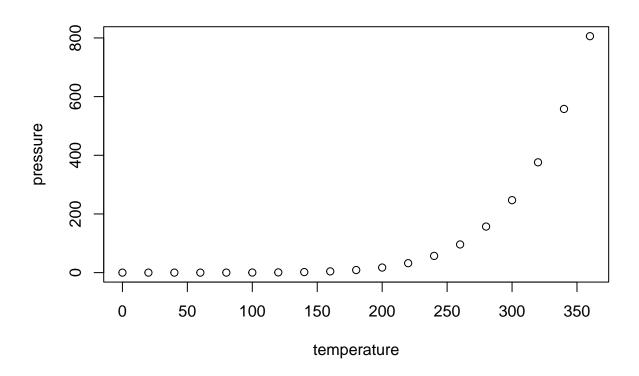
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

#### summary(cars)

```
##
        speed
                         dist
    Min.
           : 4.0
                            : 2.00
##
                    Min.
##
    1st Qu.:12.0
                    1st Qu.: 26.00
    Median:15.0
                    Median : 36.00
##
##
           :15.4
                            : 42.98
    Mean
                    Mean
##
    3rd Qu.:19.0
                    3rd Qu.: 56.00
##
    Max.
            :25.0
                    Max.
                            :120.00
```

## **Including Plots**

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

## Read in enrollment data for january of each year

```
install.packages("usethis") install.packages("tidyverse") library(tidyverse) install.packages("dplyr") library(dplyr) install.packages("magrittr") library(magrittr) #Enrollment Data
```

#1.

tot.obs <- as.numeric(count(full.ma.data %>% ungroup()))

#There are 19,126,783 observations in my current data set.

#2 There are 27 different plan\_type in the data

plan.type.table <- full.ma.data %>% group\_by(plan\_type) %>% count() %>% arrange(-n)

#3

plan.type.year1 <- full.ma.data %>% group\_by(plan\_type, year) %>% count() %>% arrange(year,-n) %>% filter(plan\_type, NA) plan.type.year1 <- pivot\_wider(plan.type.year1, names\_from = "year", values\_from = "n", names\_prefix = "Count\_")

final.data <- final.plans %>% inner\_join(contract.service.area %>% select(contractid, fips, year), by=c("contractid", "fips", "year")) %>% filter(!is.na(avg\_enrollment))

#4

final.plans <- full.ma.data %>% filter(snp= 'No' & eghp == "No" & (planid < 800 | planid >= 900))

final.data <- final.plans %>% inner\_join(contract.service.area %>% select(contractid, fips, year), by=c("contractid", "fips", "year")) %>% filter(!is.na(avg\_enrollment))

 $plan.type.year2 <- final.plans \%>\% group\_by(plan\_type, year) \%>\% count() \%>\% arrange(year,-n) \%>\% filter(plan\_type, NA) plan.type.year2 <- pivot\_wider(plan.type.year2, names\_from = "year", values\_from = "n", names\_prefix = "Count\_")$ 

#5

#enrollment figure

fig.avg.enrollment <- final.data %>% group\_by(flips, year) %>% select(flips, year, avg\_enrollment) %>% summarize(all\_enroll=sum(avg\_enrollment)) %>% ggplot2(aes(x=as, factor(year), y=all\_enroll)) + stat\_summary(fun.y="mean", geom = "bar") + labs( x= "Year", y= "People", title ="" ) + scale y continous(labels=comma) + theme bw()

rm(list = c("full.ma.data,"contract.info)) # basically drop everything in inviorment except fig.avg. enroll + plan.type,table + year1

#7 I think we need to use the ggplot2 function to create this graph. Before I do this, I need to eliminate the errors I am getting in the previous codes.

#8 I think we dropped it since there were replicates when we merged the dataset

#9 The beneficiary is not making a profit since they are charging the expect value of the cost.

#10 It has been very challenging to work with this data. I think getting the tables was a learnign experience since you had to make sure R knew exactly what data to put where. Also, it was aggervating when the errors would come, then I would try to fix them and they would keep occurring.