R Code

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# All increases - raw data

data<-read.csv(file = "nadacv2 (1).csv") # Can be found in <Drug
Cost Analysis v1.0.xlsx\Raw Data>

dates<-as.Date(data$Date)

x<-data$Percent.Change

hist(x, breaks = 800, freq=FALSE, xlim=c(-0.01,0.3), xlab="%",
main="Density Distribution of Weekly Percentage Increase in NADAC,
Given an Increase")

mean<-mean(x)

median<-median(x)

var(x)

quantile(x,0.79)

quantile(x,0.975)


# Frequency

freq<-read.csv(file="frequencybydate.csv") # Can be found in
<Drug Cost Analysis v1.0.xlsx\Frequency Raw Data>

fdates<-as.Date(freq$Date)

NumIncreases<-freq$Count

plot(fdates,NumIncreases, ylab="# of price increases per week",
xlab="Date", main="Frequency distribution")

mean(NumIncreases)

var(NumIncreases)

hist(NumIncreases, xlab="# of price increases per week",
main="Frequency distribution", breaks=70, freq=FALSE)


# Annualized increases

annual<-read.csv(file="nadacannualized.csv") # Can be found in
<Drug Cost Analysis v1.0.xlsx\Annualization - Results>

xAnnual<-annual$Annualized...increase
```

```
hist(xAnnual, breaks = 70, freq=FALSE, xlab= "%", xlim=c(-0.01,2),
main="Density Distribution of Annualized Percentage Increase in
NADAC, Given an Increase")

mean(xAnnual)

alpha<-(mean(xAnnual)/sd(xAnnual))^2

beta<-var(xAnnual)/mean(xAnnual)


# sample of 20 drugs

sample<-read.csv(file="sample.csv") # Can be found in <Drug Cost
Analysis v1.0.xlsx\Sample>

DollarImpact<-sample$Total.impact

DollarImpact<-DollarImpact/1000000

Percent<-sample$Percent.Change

cor(DollarImpact, Percent)

plot(Percent, DollarImpact)

hist(DollarImpact, breaks = 20, freq=FALSE, xlab="$ Million",
main="Dollar impacts of a sample of drug price increases")
```