

372_Final_Project

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```
#  
  
data2008 <- read.csv("2007-2018-PIT-Counts-by-State/2008-Table 1.csv")  
#summary(data2008)  
  
data2018 <- read.csv("2007-2018-PIT-Counts-by-State/2018-Table 1.csv")  
#summary(data2018)  
  
how.many.nas2008 <- sapply(data2008, function(x) sum(is.na(x)))  
how.many.nas2018 <- sapply(data2018, function(x) sum(is.na(x)))  
how.many.nas2008
```

```
##                               State  
##                               0  
##                               Number.of.CoCs  
##                               0  
##                               Overall.Homeless..2008  
##                               0  
##                               Sheltered.ES.Homeless..2008  
##                               0  
##                               Sheltered.TH.Homeless..2008  
##                               0  
##                               Sheltered.SH.Homeless..2008  
##                               0  
##                               Sheltered.Total.Homeless..2008  
##                               0  
##                               Unsheltered.Homeless..2008  
##                               0  
##                               Homeless.Individuals..2008  
##                               0  
##                               Sheltered.ES.Homeless.Individuals..2008  
##                               0  
##                               Sheltered.TH.Homeless.Individuals..2008  
##                               0  
##                               Sheltered.SH.Homeless.Individuals..2008  
##                               0  
##                               Sheltered.Total.Homeless.Individuals..2008  
##                               0  
##                               Unsheltered.Homeless.Individuals..2008  
##                               0  
##                               Homeless.People.in.Families..2008  
##                               0  
##                               Sheltered.ES.Homeless.People.in.Families..2008  
##                               0  
##                               Sheltered.TH.Homeless.People.in.Families..2008  
##                               0
```

```

## Sheltered.Total.Homeless.People.in.Families..2008
## 0
## Unsheltered.Homeless.People.in.Families..2008
## 0
## Homeless.Family.Households..2008
## 0
## Sheltered.ES.Homeless.Family.Households..2008
## 0
## Sheltered.TH.Homeless.Family.Households..2008
## 0
## Sheltered.Total.Homeless.Family.Households..2008
## 0
## Unsheltered.Homeless.Family.Households..2008
## 0
## Chronically.Homeless.Individuals..2008
## 0
## Sheltered.Total.Chronically.Homeless.Individuals..2008
## 0
## Unsheltered.Chronically.Homeless.Individuals..2008
## 0
## Homeless.Veterans..2008
## 0
## Sheltered.Total.Homeless.Veterans..2008
## 0
## Unsheltered.Homeless.Veterans..2008
## 0

```

how.many.nas2018

```

## State
## 0
## Number.of.CoCs
## 0
## Overall.Homeless..2018
## 0
## Sheltered.ES.Homeless..2018
## 0
## Sheltered.TH.Homeless..2018
## 0
## Sheltered.SH.Homeless..2018
## 0
## Sheltered.Total.Homeless..2018
## 0
## Unsheltered.Homeless..2018
## 0
## Homeless.Individuals..2018
## 0
## Sheltered.ES.Homeless.Individuals..2018
## 0
## Sheltered.TH.Homeless.Individuals..2018
## 0
## Sheltered.SH.Homeless.Individuals..2018
## 0
## Sheltered.Total.Homeless.Individuals..2018

```

##		0
##	Unsheltered.Homeless.Individuals..2018	
##		0
##	Homeless.People.in.Families..2018	
##		0
##	Sheltered.ES.Homeless.People.in.Families..2018	
##		0
##	Sheltered.TH.Homeless.People.in.Families..2018	
##		0
##	Sheltered.Total.Homeless.People.in.Families..2018	
##		0
##	Unsheltered.Homeless.People.in.Families..2018	
##		0
##	Homeless.Family.Households..2018	
##		0
##	Sheltered.ES.Homeless.Family.Households..2018	
##		0
##	Sheltered.TH.Homeless.Family.Households..2018	
##		0
##	Sheltered.Total.Homeless.Family.Households..2018	
##		0
##	Unsheltered.Homeless.Family.Households..2018	
##		0
##	Chronically.Homeless..2018	
##		0
##	Sheltered.ES.Chronically.Homeless..2018	
##		0
##	Sheltered.SH.Chronically.Homeless..2018	
##		0
##	Sheltered.Total.Chronically.Homeless..2018	
##		0
##	Unsheltered.Chronically.Homeless..2018	
##		0
##	Chronically.Homeless.Individuals..2018	
##		0
##	Sheltered.ES.Chronically.Homeless.Individuals..2018	
##		0
##	Sheltered.SH.Chronically.Homeless.Individuals..2018	
##		0
##	Sheltered.Total.Chronically.Homeless.Individuals..2018	
##		0
##	Unsheltered.Chronically.Homeless.Individuals..2018	
##		0
##	Chronically.Homeless.People.in.Families..2018	
##		0
##	Sheltered.ES.Chronically.Homeless.People.in.Families..2018	
##		0
##	Sheltered.Total.Chronically.Homeless.People.in.Families..2018	
##		0
##	Unsheltered.Chronically.Homeless.People.in.Families..2018	
##		0
##	Homeless.Veterans..2018	
##		0
##	Sheltered.ES.Homeless.Veterans..2018	

##		0
##	Sheltered.TH.Homeless.Veterans..2018	
##		0
##	Sheltered.SH.Homeless.Veterans..2018	
##		0
##	Sheltered.Total.Homeless.Veterans..2018	
##		0
##	Unsheltered.Homeless.Veterans..2018	
##		0
##	Homeless.Unaccompanied.Youth..Under.25...2018	
##		0
##	Sheltered.ES.Homeless.Unaccompanied.Youth..Under.25...2018	
##		0
##	Sheltered.TH.Homeless.Unaccompanied.Youth..Under.25...2018	
##		0
##	Sheltered.SH.Homeless.Unaccompanied.Youth..Under.25...2018	
##		0
##	Sheltered.Total.Homeless.Unaccompanied.Youth..Under.25...2018	
##		0
##	Unsheltered.Homeless.Unaccompanied.Youth..Under.25...2018	
##		0
##	Homeless.Unaccompanied.Youth.Under.18..2018	
##		0
##	Sheltered.ES.Homeless.Unaccompanied.Youth.Under.18..2018	
##		0
##	Sheltered.TH.Homeless.Unaccompanied.Youth.Under.18..2018	
##		0
##	Sheltered.SH.Homeless.Unaccompanied.Youth.Under.18..2018	
##		0
##	Sheltered.Total.Homeless.Unaccompanied.Youth.Under.18..2018	
##		0
##	Unsheltered.Homeless.Unaccompanied.Youth.Under.18..2018	
##		0
##	Homeless.Unaccompanied.Youth.Age.18.24..2018	
##		0
##	Sheltered.ES.Homeless.Unaccompanied.Youth.Age.18.24..2018	
##		0
##	Sheltered.TH.Homeless.Unaccompanied.Youth.Age.18.24..2018	
##		0
##	Sheltered.SH.Homeless.Unaccompanied.Youth.Age.18.24..2018	
##		0
##	Sheltered.Total.Homeless.Unaccompanied.Youth.Age.18.24..2018	
##		0
##	Unsheltered.Homeless.Unaccompanied.Youth.Age.18.24..2018	
##		0
##	Homeless.Parenting.Youth..Under.25...2018	
##		0
##	Sheltered.ES.Homeless.Parenting.Youth..Under.25...2018	
##		0
##	Sheltered.TH.Homeless.Parenting.Youth..Under.25...2018	
##		0
##	Sheltered.Total.Homeless.Parenting.Youth..Under.25...2018	
##		0
##	Unsheltered.Homeless.Parenting.Youth..Under.25...2018	

```
## 0
## Homeless.Parenting.Youth.Under.18..2018
## 0
## Sheltered.ES.Homeless.Parenting.Youth.Under.18..2018
## 0
## Sheltered.TH.Homeless.Parenting.Youth.Under.18..2018
## 0
## Sheltered.Total.Homeless.Parenting.Youth.Under.18..2018
## 0
## Unsheltered.Homeless.Parenting.Youth.Under.18..2018
## 0
## Homeless.Parenting.Youth.Age.18.24..2018
## 0
## Sheltered.ES.Homeless.Parenting.Youth.Age.18.24..2018
## 0
## Sheltered.TH.Homeless.Parenting.Youth.Age.18.24..2018
## 0
## Sheltered.Total.Homeless.Parenting.Youth.Age.18.24..2018
## 0
## Unsheltered.Homeless.Parenting.Youth.Age.18.24..2018
## 0
## Homeless.Children.of.Parenting.Youth..2018
## 0
## Sheltered.ES.Homeless.Children.of.Parenting.Youth..2018
## 0
## Sheltered.TH.Homeless.Children.of.Parenting.Youth..2018
## 0
## Sheltered.Total.Homeless.Children.of.Parenting.Youth..2018
## 0
## Unsheltered.Homeless.Children.of.Parenting.Youth..2018
## 0
```

```
#No NA's come out in any of the data so we shall proceed
```

```
#finding the total number of homeless people
```

```
x <- data2008$Overall.Homeless..2008
```

```
y <- data2018$Overall.Homeless..2018
```

```
x
```

```
## [1] 1,646 5,387 3,255 12,488 136,531 14,747 4,627 6,044
## [9] 933 50,158 19,095 725 6,061 3,346 1,464 14,724
## [17] 7,395 1,738 8,137 5,481 14,506 9,219 2,632 28,248
## [25] 7,644 7,687 . 1,961 1,417 12,411 615 3,985
## [33] 2,019 13,832 3,015 8,726 61,125 12,912 3,846 20,653
## [41] 15,378 3,012 1,196 5,660 579 9,705 40,190 3,434
## [49] 8,469 602 954 21,954 5,449 2,016 751 639,784
## 56 Levels: . 1,196 1,417 1,464 1,646 1,738 1,961 12,411 12,488 ... 954
```

```
y
```

```
## [1] 2,016 3,434 2,712 9,865 129,972 10,857 3,976 6,904
```

```
## [9] 1,082 31,030 9,499 854 6,530 2,749 2,012 10,643
## [17] 5,258 2,216 3,688 3,059 20,068 7,144 2,516 8,351
## [25] 7,243 5,883 1,044 1,352 1,405 9,268 542 2,421
## [33] 1,450 9,398 2,551 7,544 91,897 10,249 3,871 14,476
## [41] 13,512 3,182 1,101 3,933 1,159 7,883 25,310 2,876
## [49] 5,975 486 1,291 22,304 4,907 1,243 639 552,830
## 56 Levels: 1,044 1,082 1,101 1,159 1,243 1,291 1,352 1,405 ... 91,897
```

#go thorough variables and make sure more than fifty percent are not equal to zero #we shall also examine each variabldz standard deviation to see if any variables are not important

```
#2008
#finding the coefficients
numeric.data2008 <- sapply(data2008, as.numeric)
means2008 <- colMeans(numeric.data2008)
sds2008 <- apply(numeric.data2008, 2, sd)
coef.variation2008 <- (sds2008/means2008)
head(coef.variation2008)
```

```
##              State              Number.of.CoCs
##              0.57226338              3.71399381
## Overall.Homeless..2008 Sheltered.ES.Homeless..2008
##              0.57226338              0.57226338
## Sheltered.TH.Homeless..2008 Sheltered.SH.Homeless..2008
##              0.56912702              0.06741725
```

```
#only keeping the values with a variation that is above .05
indx.vars.keep2008 <- which(coef.variation2008 > 0.05)
data2008.cleaned <- data2008[, indx.vars.keep2008]
head(data2008.cleaned)
```

```
## State Number.of.CoCs Overall.Homeless..2008 Sheltered.ES.Homeless..2008
## 1 AK 2 1,646 847
## 2 AL 8 5,387 1,534
## 3 AR 6 3,255 1,048
## 4 AZ 3 12,488 3,104
## 5 CA 42 136,531 22,917
## 6 CO 3 14,747 3,492
## Sheltered.TH.Homeless..2008 Sheltered.SH.Homeless..2008
## 1 605 0
## 2 2,309 0
## 3 972 0
## 4 3,866 0
## 5 24,048 0
## 6 3,385 0
## Sheltered.Total.Homeless..2008 Unsheltered.Homeless..2008
## 1 1,452 194
## 2 3,843 1,544
## 3 2,020 1,235
## 4 6,970 5,518
## 5 46,965 89,566
## 6 6,877 7,870
## Homeless.Individuals..2008 Sheltered.ES.Homeless.Individuals..2008
```

## 1	1,067	557
## 2	4,086	1,159
## 3	2,625	860
## 4	8,428	1,782
## 5	109,050	16,233
## 6	6,260	2,104
## Sheltered.TH.Homeless.Individuals..2008		
## 1	355	
## 2	1,644	
## 3	757	
## 4	1,594	
## 5	12,272	
## 6	880	
## Sheltered.SH.Homeless.Individuals..2008		
## 1	0	
## 2	0	
## 3	0	
## 4	0	
## 5	0	
## 6	0	
## Sheltered.Total.Homeless.Individuals..2008		
## 1	912	
## 2	2,803	
## 3	1,617	
## 4	3,376	
## 5	28,505	
## 6	2,984	
## Unsheltered.Homeless.Individuals..2008 Homeless.People.in.Families..2008		
## 1	155	579
## 2	1,283	1,301
## 3	1,008	630
## 4	5,052	4,060
## 5	80,545	27,481
## 6	3,276	8,487
## Sheltered.ES.Homeless.People.in.Families..2008		
## 1	290	
## 2	375	
## 3	188	
## 4	1,322	
## 5	6,684	
## 6	1,388	
## Sheltered.TH.Homeless.People.in.Families..2008		
## 1	250	
## 2	665	
## 3	215	
## 4	2,272	
## 5	11,776	
## 6	2,505	
## Sheltered.Total.Homeless.People.in.Families..2008		
## 1	540	
## 2	1,040	
## 3	403	
## 4	3,594	
## 5	18,460	

## 6	3,893
## Unsheltered.Homeless.People.in.Families..2008	
## 1	39
## 2	261
## 3	227
## 4	466
## 5	9,021
## 6	4,594
## Homeless.Family.Households..2008	
## 1	172
## 2	483
## 3	285
## 4	1,277
## 5	8,924
## 6	2,457
## Sheltered.ES.Homeless.Family.Households..2008	
## 1	83
## 2	131
## 3	76
## 4	404
## 5	2,175
## 6	385
## Sheltered.TH.Homeless.Family.Households..2008	
## 1	75
## 2	245
## 3	81
## 4	681
## 5	3,682
## 6	830
## Sheltered.Total.Homeless.Family.Households..2008	
## 1	158
## 2	376
## 3	157
## 4	1,085
## 5	5,857
## 6	1,215
## Unsheltered.Homeless.Family.Households..2008	
## 1	14
## 2	107
## 3	128
## 4	192
## 5	3,067
## 6	1,242
## Chronically.Homeless.Individuals..2008	
## 1	439
## 2	1,052
## 3	893
## 4	3,097
## 5	40,254
## 6	1,082
## Sheltered.Total.Chronically.Homeless.Individuals..2008	
## 1	355
## 2	579
## 3	492


```
## 4 1,223
## 5 6,206
## 6 449
## Unsheltered.Chronically.Homeless.Individuals..2008
## 1 84
## 2 473
## 3 401
## 4 1,874
## 5 34,048
## 6 633
## Homeless.Veterans..2008 Sheltered.Total.Homeless.Veterans..2008
## 1 218 189
## 2 801 677
## 3 235 219
## 4 736 736
## 5 17,276 5,735
## 6 1,608 915
## Unsheltered.Homeless.Veterans..2008
## 1 29
## 2 124
## 3 16
## 4 0
## 5 11,541
## 6 693
```

```
#remove the state column becuae it doesn't matter
data2008.cleanednostate <- data2008.cleaned[,-c( 0,1)]
#head(data2008.cleanednostate)

#calculate the variance of leftover data and remove all that have too low of a variance
data2008.variance.numeric <- sapply(data2008.cleaned, function(x) var(as.numeric(x)))
#head(data2008.variance.numeric)

data2008.variance.numeric.rem <- which(data2008.variance.numeric < .01)
head(data2008.variance.numeric.rem)
```

```
## named integer(0)
```

```
#No variance is below 0.01 so we can move on to 2018
```

```
#2018
numeric.data2018 <- sapply(data2018, as.numeric)
means2018 <- colMeans(numeric.data2018)
sds2018 <- apply(numeric.data2018, 2, sd)
coef.variation2018 <- sds2018/means2018
head(coef.variation2018)
```

```
## State Number.of.CoCs
## 0.5722634 3.7132107
## Overall.Homeless..2018 Sheltered.ES.Homeless..2018
## 0.5722634 0.5722634
## Sheltered.TH.Homeless..2018 Sheltered.SH.Homeless..2018
## 0.5655762 0.9691054
```

```

#only keeping the values with a variation that is above .05
indx.vars.keep2018 <- which(coef.variation2018 > 0.05)
data2018.cleaned <- data2018[, indx.vars.keep2018]
head(data2008.cleaned)

```

```

## State Number.of.CoCs Overall.Homeless..2008 Sheltered.ES.Homeless..2008
## 1 AK 2 1,646 847
## 2 AL 8 5,387 1,534
## 3 AR 6 3,255 1,048
## 4 AZ 3 12,488 3,104
## 5 CA 42 136,531 22,917
## 6 CO 3 14,747 3,492
## Sheltered.TH.Homeless..2008 Sheltered.SH.Homeless..2008
## 1 605 0
## 2 2,309 0
## 3 972 0
## 4 3,866 0
## 5 24,048 0
## 6 3,385 0
## Sheltered.Total.Homeless..2008 Unsheltered.Homeless..2008
## 1 1,452 194
## 2 3,843 1,544
## 3 2,020 1,235
## 4 6,970 5,518
## 5 46,965 89,566
## 6 6,877 7,870
## Homeless.Individuals..2008 Sheltered.ES.Homeless.Individuals..2008
## 1 1,067 557
## 2 4,086 1,159
## 3 2,625 860
## 4 8,428 1,782
## 5 109,050 16,233
## 6 6,260 2,104
## Sheltered.TH.Homeless.Individuals..2008
## 1 355
## 2 1,644
## 3 757
## 4 1,594
## 5 12,272
## 6 880
## Sheltered.SH.Homeless.Individuals..2008
## 1 0
## 2 0
## 3 0
## 4 0
## 5 0
## 6 0
## Sheltered.Total.Homeless.Individuals..2008
## 1 912
## 2 2,803
## 3 1,617
## 4 3,376
## 5 28,505

```

## 6	2,984	
##	Unsheltered.Homeless.Individuals..2008 Homeless.People.in.Families..2008	
## 1	155	579
## 2	1,283	1,301
## 3	1,008	630
## 4	5,052	4,060
## 5	80,545	27,481
## 6	3,276	8,487
##	Sheltered.ES.Homeless.People.in.Families..2008	
## 1	290	
## 2	375	
## 3	188	
## 4	1,322	
## 5	6,684	
## 6	1,388	
##	Sheltered.TH.Homeless.People.in.Families..2008	
## 1	250	
## 2	665	
## 3	215	
## 4	2,272	
## 5	11,776	
## 6	2,505	
##	Sheltered.Total.Homeless.People.in.Families..2008	
## 1	540	
## 2	1,040	
## 3	403	
## 4	3,594	
## 5	18,460	
## 6	3,893	
##	Unsheltered.Homeless.People.in.Families..2008	
## 1	39	
## 2	261	
## 3	227	
## 4	466	
## 5	9,021	
## 6	4,594	
##	Homeless.Family.Households..2008	
## 1	172	
## 2	483	
## 3	285	
## 4	1,277	
## 5	8,924	
## 6	2,457	
##	Sheltered.ES.Homeless.Family.Households..2008	
## 1	83	
## 2	131	
## 3	76	
## 4	404	
## 5	2,175	
## 6	385	
##	Sheltered.TH.Homeless.Family.Households..2008	
## 1	75	
## 2	245	
## 3	81	

## 4	681	
## 5	3,682	
## 6	830	
## Sheltered.Total.Homeless.Family.Households..2008		
## 1	158	
## 2	376	
## 3	157	
## 4	1,085	
## 5	5,857	
## 6	1,215	
## Unsheltered.Homeless.Family.Households..2008		
## 1	14	
## 2	107	
## 3	128	
## 4	192	
## 5	3,067	
## 6	1,242	
## Chronically.Homeless.Individuals..2008		
## 1	439	
## 2	1,052	
## 3	893	
## 4	3,097	
## 5	40,254	
## 6	1,082	
## Sheltered.Total.Chronically.Homeless.Individuals..2008		
## 1	355	
## 2	579	
## 3	492	
## 4	1,223	
## 5	6,206	
## 6	449	
## Unsheltered.Chronically.Homeless.Individuals..2008		
## 1	84	
## 2	473	
## 3	401	
## 4	1,874	
## 5	34,048	
## 6	633	
## Homeless.Veterans..2008 Sheltered.Total.Homeless.Veterans..2008		
## 1	218	189
## 2	801	677
## 3	235	219
## 4	736	736
## 5	17,276	5,735
## 6	1,608	915
## Unsheltered.Homeless.Veterans..2008		
## 1	29	
## 2	124	
## 3	16	
## 4	0	
## 5	11,541	
## 6	693	

```

#removing the state column
data2018.cleanednostate <- data2018[, -c( 0,1)]
#head(data2018.cleanednostate)

#calculate the variance of leftover data and remove all that have too low of a variance
data2018.variance.numeric <- sapply(data2018.cleanednostate, function(x) var(as.numeric(x)))
#head(data2018.variance.numeric)

data2018.variance.numeric.rem <- which(data2018.variance.numeric < .01)
data2018.variance.numeric.rem

```

```
## named integer(0)
```

```
#No variance is below 0 in this data set either so we are all set to proceed with regression
```

```
#2008
```

```

factors2008 <- sapply(data2008.cleanednostate, is.factor)
data2008.cleanednostate[factors2008] <- lapply(data2008.cleanednostate[factors2008], function(x) as.numeric(x))

Homelessness2008 <- data2008.cleanednostate$Overall.Homeless..2008
sum(Homelessness2008, na.rm = FALSE)

```

```
## [1] 1596
```

```
Homelessness2008
```

```

## [1] 5 33 26 9 12 15 31 39 55 37 17 48 40 27 4 14 45 6 50 35 13 53 20
## [24] 23 46 47 1 7 3 8 43 30 19 11 25 52 42 10 29 21 16 24 2 36 38 54
## [47] 32 28 51 41 56 22 34 18 49 44

```

```
#2018
```

```

factors2018 <- sapply(data2018.cleanednostate, is.factor)
data2018.cleanednostate[factors2018] <- lapply(data2018.cleanednostate[factors2018], function(x) as.numeric(x))

Homelessness2018 <- data2018.cleanednostate$Overall.Homeless..2018
sum(Homelessness2018)

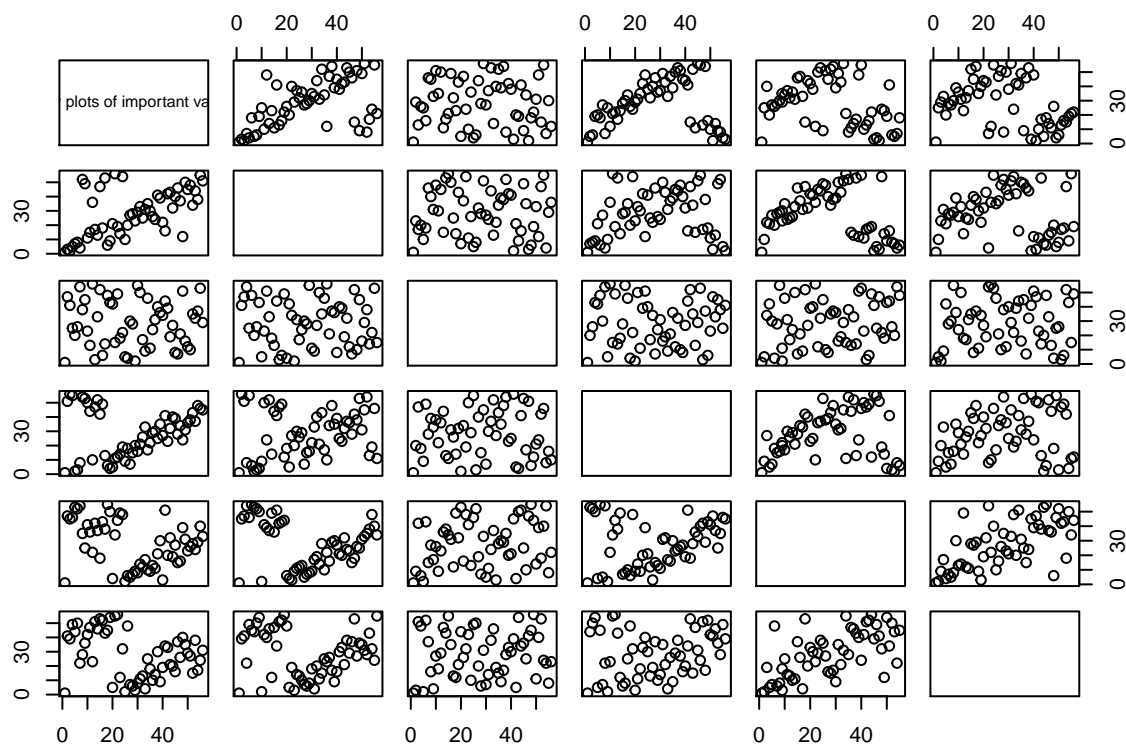
```

```
## [1] 1596
```

```
sum(data2018.cleanednostate$Overall.Homeless..2018)
```

```
## [1] 1596
```

```
pairs(~Overall.Homeless..2008 + Sheltered.Total.Homeless..2008 + Unsheltered.Homeless..2008+ Homeless..
```



#Regression begins

#Now we can see the values that have the biggest influence on the total number of homeless people

#2008

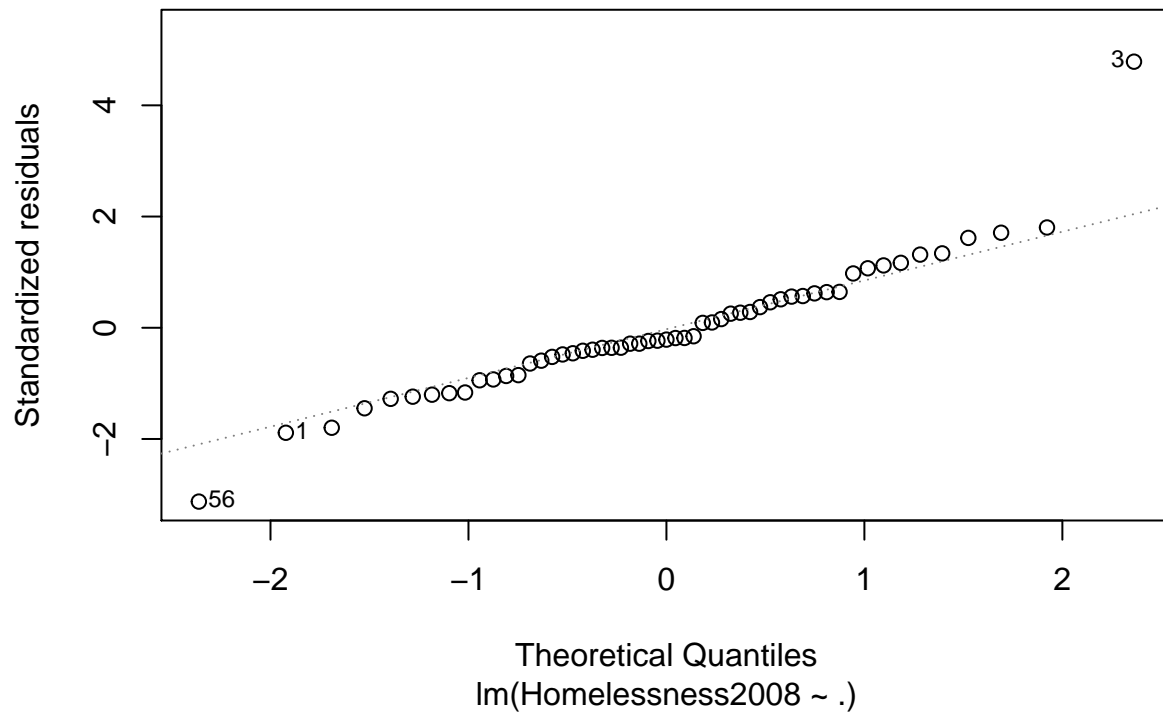
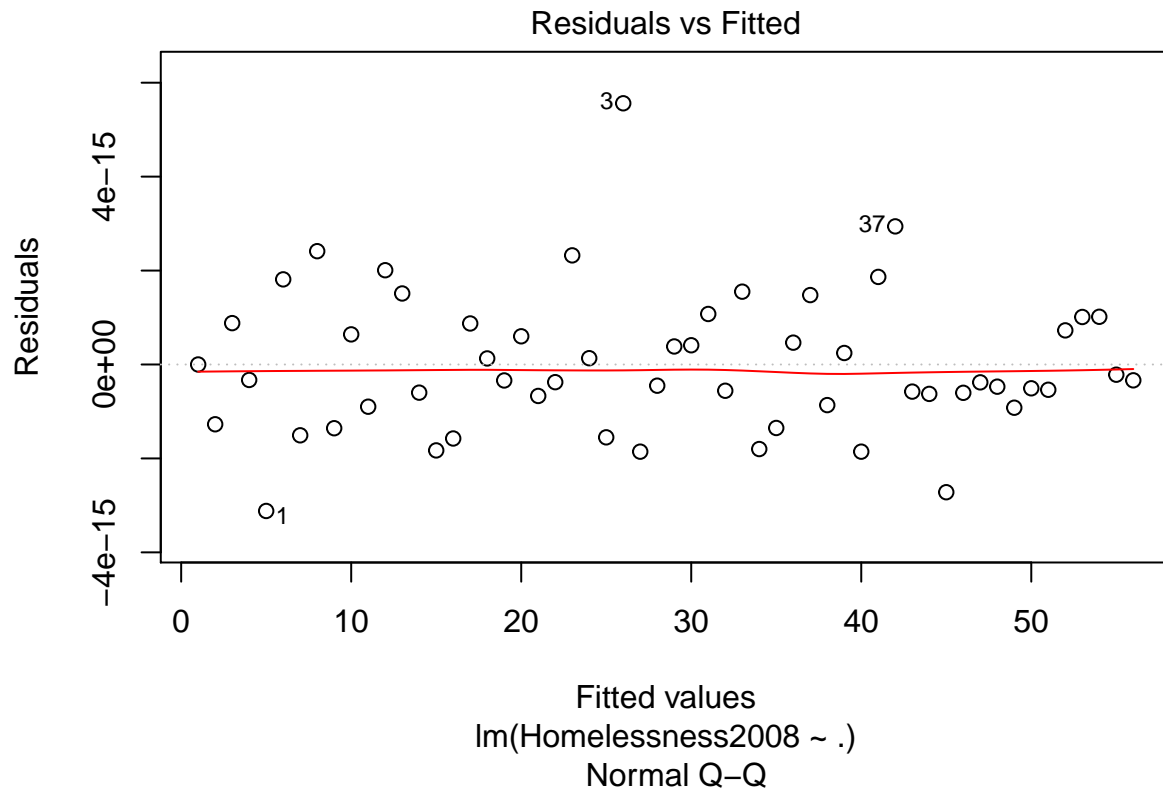
```
reg2008 <- lm(Homelessness2008 ~., data = data2008.cleanednostate)
```

#reg2008

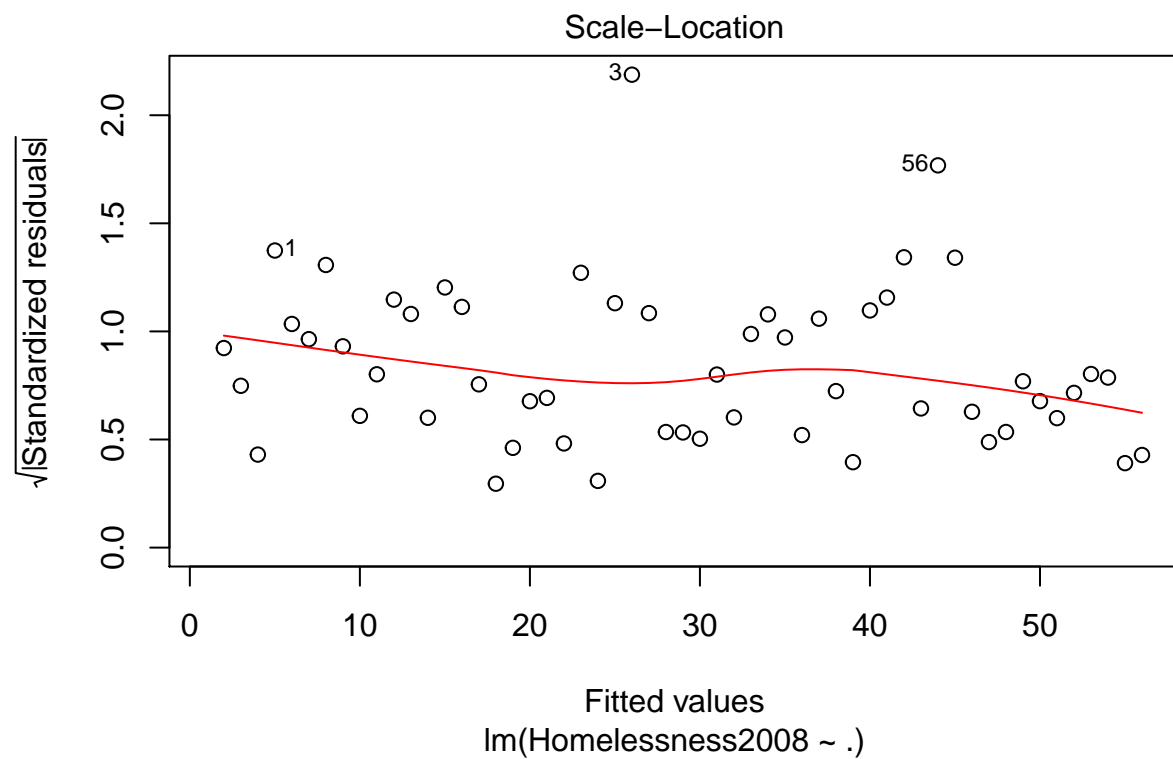
```
plot(reg2008)
```

```
## Warning: not plotting observations with leverage one:
```

```
## 27
```

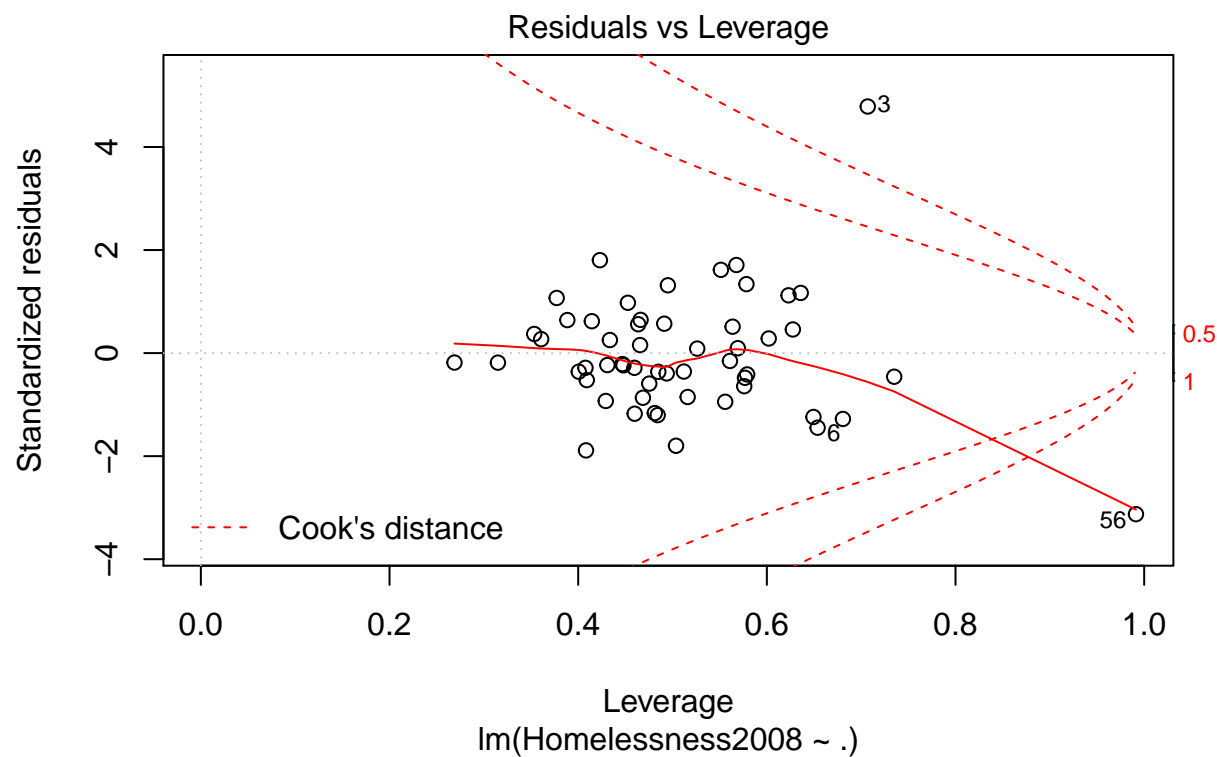


```
## Warning: not plotting observations with leverage one:
## 27
```



```
## Warning in sqrt(crit * p * (1 - hh)/hh): NaNs produced
```

```
## Warning in sqrt(crit * p * (1 - hh)/hh): NaNs produced
```




```
#store the summary and coefficients
summary.data2008 <- summary(reg2008)
```

```
## Warning in summary.lm(reg2008): essentially perfect fit: summary may be
## unreliable
```

```
#summary.data2008
```

```
coef2008 <- reg2008$coefficients
#coef2008
```

```
#Now we can see the values that have the biggest influence on the total number of homeless people
head(sort(coef2008, decreasing = TRUE), 25)
```

```
## Overall.Homeless..2008
## 1.000000e+00
## Sheltered.ES.Homeless.Individuals..2008
## 8.204345e-17
## Sheltered.TH.Homeless..2008
## 7.797219e-17
## Homeless.People.in.Families..2008
## 6.610353e-17
## Homeless.Individuals..2008
## 5.082652e-17
## Sheltered.Total.Chronically.Homeless.Individuals..2008
## 4.990115e-17
## Sheltered.TH.Homeless.Individuals..2008
## 3.843685e-17
## Sheltered.ES.Homeless.People.in.Families..2008
## 3.832546e-17
## Sheltered.ES.Homeless.Family.Households..2008
## 3.065558e-17
## Chronically.Homeless.Individuals..2008
## 2.866213e-17
## Sheltered.Total.Homeless..2008
## 2.411804e-17
## Homeless.Veterans..2008
## 1.723560e-17
## Unsheltered.Homeless.Veterans..2008
## 1.167347e-17
## Sheltered.ES.Homeless..2008
## 1.026112e-18
## (Intercept)
## 0.000000e+00
## Number.of.CoCs
## 0.000000e+00
## Homeless.Family.Households..2008
## -2.741678e-19
## Sheltered.TH.Homeless.Family.Households..2008
## -4.512260e-18
## Unsheltered.Homeless..2008
## -5.514231e-18
## Sheltered.Total.Homeless.Family.Households..2008
```

```
## -1.592866e-17
##      Unsheltered.Homeless.Family.Households..2008
## -1.701664e-17
##      Sheltered.Total.Homeless.Veterans..2008
## -3.457916e-17
##      Unsheltered.Homeless.People.in.Families..2008
## -4.239536e-17
##      Sheltered.TH.Homeless.People.in.Families..2008
## -4.448969e-17
##      Sheltered.Total.Homeless.People.in.Families..2008
## -5.423242e-17
```

```
reg2018 <- lm(Homelessness2018 ~., data = data2018.cleanednostate)
```

```
#store the summary and coefficients
summary.data2018 <- summary(reg2018)
#summary.data2018
```

```
coef2018 <- reg2018$coefficients
#coef2018
```

```
#Now we can see the values that have the biggest influence on the total number of homeless people
head(sort(coef2018, decreasing = TRUE), 25)
```

```
## Overall.Homeless..2018
## 1.000000e+00
## Sheltered.Total.Chronically.Homeless..2018
## 1.329486e-14
## Sheltered.Total.Chronically.Homeless.Individuals..2018
## 1.273588e-14
## Sheltered.SH.Homeless.Unaccompanied.Youth.Under.18..2018
## 8.471493e-15
## Number.of.CoCs
## 6.309112e-15
## Homeless.Unaccompanied.Youth.Under.18..2018
## 2.956580e-15
## Unsheltered.Chronically.Homeless.People.in.Families..2018
## 2.541784e-15
## Homeless.Unaccompanied.Youth.Age.18.24..2018
## 2.388005e-15
## Sheltered.TH.Homeless.Family.Households..2018
## 2.058307e-15
## Homeless.Family.Households..2018
## 1.747146e-15
## Sheltered.ES.Homeless.Unaccompanied.Youth.Age.18.24..2018
## 1.626512e-15
## Sheltered.ES.Homeless..2018
## 1.457502e-15
## Chronically.Homeless.Individuals..2018
## 1.339261e-15
## Sheltered.TH.Homeless.Veterans..2018
## 1.271380e-15
## Unsheltered.Homeless..2018
## 1.100913e-15
```

##	Sheltered.ES.Homeless.Veterans..2018	
##		9.310642e-16
##	Unsheltered.Chronically.Homeless..2018	
##		9.063613e-16
##	Sheltered.Total.Homeless..2018	
##		8.549616e-16
##	Chronically.Homeless..2018	
##		7.859409e-16
##	Chronically.Homeless.People.in.Families..2018	
##		6.632638e-16
##	Sheltered.TH.Homeless.Individuals..2018	
##		6.488350e-16
##	Homeless.People.in.Families..2018	
##		6.225614e-16
##	Sheltered.SH.Chronically.Homeless..2018	
##		5.514102e-16
##	Sheltered.TH.Homeless.Unaccompanied.Youth.Age.18.24..2018	
##		4.498794e-16
##	Sheltered.Total.Homeless.Unaccompanied.Youth..Under.25...2018	
##		2.320074e-16