

Project5

2022-11-15

1. Data Preparation

```
dat = read.csv("./crime.csv")
```

(a)

```
dat = dat[, 6:ncol(dat)]
```

(b)

```
cutoff = 0.6
keep_columns = c()
for (cname in colnames(dat)) {
  missing = sum(is.na(dat[,cname])) / dim(dat)[1]
  if (missing < cutoff) {
    keep_columns = append(keep_columns, cname)
  }
}

dat = dat[, keep_columns]
```

(c)

There is only one remaining value missing and it is under the column OtherPerCap (row 131). I impute the missing value with the mean of the column.

```
summary(dat)
```

```
##      population      householdsize      racepctblack      racePctWhite
## Min.   :0.00000    Min.   :0.0000    Min.   :0.0000    Min.   :0.0000
## 1st Qu.:0.01000    1st Qu.:0.3500    1st Qu.:0.0200    1st Qu.:0.6300
## Median :0.02000    Median :0.4400    Median :0.0600    Median :0.8500
## Mean   :0.05759    Mean   :0.4634    Mean   :0.1796    Mean   :0.7537
## 3rd Qu.:0.05000    3rd Qu.:0.5400    3rd Qu.:0.2300    3rd Qu.:0.9400
## Max.   :1.00000    Max.   :1.0000    Max.   :1.0000    Max.   :1.0000
##
##      racePctAsian      racePctHisp      agePct12t21      agePct12t29
## Min.   :0.0000    Min.   :0.000    Min.   :0.0000    Min.   :0.0000
## 1st Qu.:0.0400    1st Qu.:0.010    1st Qu.:0.3400    1st Qu.:0.4100
## Median :0.0700    Median :0.040    Median :0.4000    Median :0.4800
## Mean   :0.1537    Mean   :0.144    Mean   :0.4242    Mean   :0.4939
```

```

## 3rd Qu.:0.1700 3rd Qu.:0.160 3rd Qu.:0.4700 3rd Qu.:0.5400
## Max. :1.0000 Max. :1.000 Max. :1.0000 Max. :1.0000
##
## agePct16t24 agePct65up numbUrban pctUrban
## Min. :0.0000 Min. :0.0000 Min. :0.00000 Min. :0.0000
## 1st Qu.:0.2500 1st Qu.:0.3000 1st Qu.:0.00000 1st Qu.:0.0000
## Median :0.2900 Median :0.4200 Median :0.03000 Median :1.0000
## Mean :0.3363 Mean :0.4232 Mean :0.06407 Mean :0.6963
## 3rd Qu.:0.3600 3rd Qu.:0.5300 3rd Qu.:0.07000 3rd Qu.:1.0000
## Max. :1.0000 Max. :1.0000 Max. :1.00000 Max. :1.0000
##
## medIncome pctWWage pctWFarmSelf pctWInvInc
## Min. :0.0000 Min. :0.0000 Min. :0.0000 Min. :0.0000
## 1st Qu.:0.2000 1st Qu.:0.4400 1st Qu.:0.1600 1st Qu.:0.3700
## Median :0.3200 Median :0.5600 Median :0.2300 Median :0.4800
## Mean :0.3611 Mean :0.5582 Mean :0.2916 Mean :0.4957
## 3rd Qu.:0.4900 3rd Qu.:0.6900 3rd Qu.:0.3700 3rd Qu.:0.6200
## Max. :1.0000 Max. :1.0000 Max. :1.0000 Max. :1.0000
##
## pctWSocSec pctWPubAsst pctWRetire medFamInc
## Min. :0.0000 Min. :0.0000 Min. :0.0000 Min. :0.0000
## 1st Qu.:0.3500 1st Qu.:0.1425 1st Qu.:0.3600 1st Qu.:0.2300
## Median :0.4750 Median :0.2600 Median :0.4700 Median :0.3300
## Mean :0.4711 Mean :0.3178 Mean :0.4792 Mean :0.3757
## 3rd Qu.:0.5800 3rd Qu.:0.4400 3rd Qu.:0.5800 3rd Qu.:0.4800
## Max. :1.0000 Max. :1.0000 Max. :1.0000 Max. :1.0000
##
## perCapInc whitePerCap blackPerCap indianPerCap
## Min. :0.0000 Min. :0.000 Min. :0.0000 Min. :0.0000
## 1st Qu.:0.2200 1st Qu.:0.240 1st Qu.:0.1725 1st Qu.:0.1100
## Median :0.3000 Median :0.320 Median :0.2500 Median :0.1700
## Mean :0.3503 Mean :0.368 Mean :0.2911 Mean :0.2035
## 3rd Qu.:0.4300 3rd Qu.:0.440 3rd Qu.:0.3800 3rd Qu.:0.2500
## Max. :1.0000 Max. :1.000 Max. :1.0000 Max. :1.0000
##
## AsianPerCap OtherPerCap HispPerCap NumUnderPov
## Min. :0.0000 Min. :0.0000 Min. :0.0000 Min. :0.00000
## 1st Qu.:0.1900 1st Qu.:0.1700 1st Qu.:0.2600 1st Qu.:0.01000
## Median :0.2800 Median :0.2500 Median :0.3450 Median :0.02000
## Mean :0.3224 Mean :0.2847 Mean :0.3863 Mean :0.05551
## 3rd Qu.:0.4000 3rd Qu.:0.3600 3rd Qu.:0.4800 3rd Qu.:0.05000
## Max. :1.0000 Max. :1.0000 Max. :1.0000 Max. :1.00000
##
## PctPopUnderPov PctLess9thGrade PctNotHSGrad PctBSorMore
## Min. :0.000 Min. :0.0000 Min. :0.0000 Min. :0.0000
## 1st Qu.:0.110 1st Qu.:0.1600 1st Qu.:0.2300 1st Qu.:0.2100
## Median :0.250 Median :0.2700 Median :0.3600 Median :0.3100
## Mean :0.303 Mean :0.3158 Mean :0.3833 Mean :0.3617
## 3rd Qu.:0.450 3rd Qu.:0.4200 3rd Qu.:0.5100 3rd Qu.:0.4600
## Max. :1.000 Max. :1.0000 Max. :1.0000 Max. :1.0000
##
## PctUnemployed PctEmploy PctEmplManu PctEmplProfServ
## Min. :0.0000 Min. :0.0000 Min. :0.0000 Min. :0.0000
## 1st Qu.:0.2200 1st Qu.:0.3800 1st Qu.:0.2500 1st Qu.:0.3200

```

##	Median :0.3200	Median :0.5100	Median :0.3700	Median :0.4100
##	Mean :0.3635	Mean :0.5011	Mean :0.3964	Mean :0.4406
##	3rd Qu.:0.4800	3rd Qu.:0.6275	3rd Qu.:0.5200	3rd Qu.:0.5300
##	Max. :1.0000	Max. :1.0000	Max. :1.0000	Max. :1.0000
##				
##	PctOccupManu	PctOccupMgmtProf	MalePctDivorce	MalePctNevMarr
##	Min. :0.0000	Min. :0.0000	Min. :0.0000	Min. :0.0000
##	1st Qu.:0.2400	1st Qu.:0.3100	1st Qu.:0.3300	1st Qu.:0.3100
##	Median :0.3700	Median :0.4000	Median :0.4700	Median :0.4000
##	Mean :0.3912	Mean :0.4413	Mean :0.4612	Mean :0.4345
##	3rd Qu.:0.5100	3rd Qu.:0.5400	3rd Qu.:0.5900	3rd Qu.:0.5000
##	Max. :1.0000	Max. :1.0000	Max. :1.0000	Max. :1.0000
##				
##	FemalePctDiv	TotalPctDiv	PersPerFam	PctFam2Par
##	Min. :0.0000	Min. :0.0000	Min. :0.0000	Min. :0.0000
##	1st Qu.:0.3600	1st Qu.:0.3600	1st Qu.:0.4000	1st Qu.:0.4900
##	Median :0.5000	Median :0.5000	Median :0.4700	Median :0.6300
##	Mean :0.4876	Mean :0.4943	Mean :0.4877	Mean :0.6109
##	3rd Qu.:0.6200	3rd Qu.:0.6300	3rd Qu.:0.5600	3rd Qu.:0.7600
##	Max. :1.0000	Max. :1.0000	Max. :1.0000	Max. :1.0000
##				
##	PctKids2Par	PctYoungKids2Par	PctTeen2Par	PctWorkMomYoungKids
##	Min. :0.0000	Min. :0.0000	Min. :0.0000	Min. :0.0000
##	1st Qu.:0.4900	1st Qu.:0.5300	1st Qu.:0.4800	1st Qu.:0.3900
##	Median :0.6400	Median :0.7000	Median :0.6100	Median :0.5100
##	Mean :0.6207	Mean :0.6640	Mean :0.5829	Mean :0.5014
##	3rd Qu.:0.7800	3rd Qu.:0.8400	3rd Qu.:0.7200	3rd Qu.:0.6200
##	Max. :1.0000	Max. :1.0000	Max. :1.0000	Max. :1.0000
##				
##	PctWorkMom	NumIlleg	PctIlleg	NumImmig
##	Min. :0.0000	Min. :0.000000	Min. :0.00	Min. :0.000000
##	1st Qu.:0.4200	1st Qu.:0.000000	1st Qu.:0.09	1st Qu.:0.000000
##	Median :0.5400	Median :0.010000	Median :0.17	Median :0.010000
##	Mean :0.5267	Mean :0.03629	Mean :0.25	Mean :0.03006
##	3rd Qu.:0.6500	3rd Qu.:0.020000	3rd Qu.:0.32	3rd Qu.:0.020000
##	Max. :1.0000	Max. :1.000000	Max. :1.00	Max. :1.000000
##				
##	PctImmigRecent	PctImmigRec5	PctImmigRec8	PctImmigRec10
##	Min. :0.0000	Min. :0.0000	Min. :0.0000	Min. :0.0000
##	1st Qu.:0.1600	1st Qu.:0.2000	1st Qu.:0.2500	1st Qu.:0.2800
##	Median :0.2900	Median :0.3400	Median :0.3900	Median :0.4300
##	Mean :0.3202	Mean :0.3606	Mean :0.3991	Mean :0.4279
##	3rd Qu.:0.4300	3rd Qu.:0.4800	3rd Qu.:0.5300	3rd Qu.:0.5600
##	Max. :1.0000	Max. :1.0000	Max. :1.0000	Max. :1.0000
##				
##	PctRecentImmig	PctRecImmig5	PctRecImmig8	PctRecImmig10
##	Min. :0.0000	Min. :0.0000	Min. :0.0000	Min. :0.0000
##	1st Qu.:0.0300	1st Qu.:0.0300	1st Qu.:0.0300	1st Qu.:0.0300
##	Median :0.0900	Median :0.0800	Median :0.0900	Median :0.0900
##	Mean :0.1814	Mean :0.1821	Mean :0.1848	Mean :0.1829
##	3rd Qu.:0.2300	3rd Qu.:0.2300	3rd Qu.:0.2300	3rd Qu.:0.2300
##	Max. :1.0000	Max. :1.0000	Max. :1.0000	Max. :1.0000
##				
##	PctSpeakEnglOnly	PctNotSpeakEnglWell	PctLargHouseFam	PctLargHouseOccup

##	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000
##	1st Qu.	:0.7300	1st Qu.	:0.0300	1st Qu.	:0.1500	1st Qu.	:0.1400
##	Median	:0.8700	Median	:0.0600	Median	:0.2000	Median	:0.1900
##	Mean	:0.7859	Mean	:0.1506	Mean	:0.2676	Mean	:0.2519
##	3rd Qu.	:0.9400	3rd Qu.	:0.1600	3rd Qu.	:0.3100	3rd Qu.	:0.2900
##	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000
##								
##	PersPerOccupHous		PersPerOwnOccHous		PersPerRentOccHous		PctPersOwnOccup	
##	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000
##	1st Qu.	:0.3400	1st Qu.	:0.3900	1st Qu.	:0.2700	1st Qu.	:0.4400
##	Median	:0.4400	Median	:0.4800	Median	:0.3600	Median	:0.5600
##	Mean	:0.4621	Mean	:0.4944	Mean	:0.4041	Mean	:0.5626
##	3rd Qu.	:0.5500	3rd Qu.	:0.5800	3rd Qu.	:0.4900	3rd Qu.	:0.7000
##	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000
##								
##	PctPersDenseHous		PctHousLess3BR		MedNumBR		HousVacant	
##	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000
##	1st Qu.	:0.0600	1st Qu.	:0.4000	1st Qu.	:0.0000	1st Qu.	:0.0100
##	Median	:0.1100	Median	:0.5100	Median	:0.5000	Median	:0.0300
##	Mean	:0.1863	Mean	:0.4952	Mean	:0.3147	Mean	:0.0768
##	3rd Qu.	:0.2200	3rd Qu.	:0.6000	3rd Qu.	:0.5000	3rd Qu.	:0.0700
##	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000
##								
##	PctHousOccup		PctHousOwnOcc		PctVacantBoarded		PctVacMore6Mos	
##	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000
##	1st Qu.	:0.6300	1st Qu.	:0.4300	1st Qu.	:0.0600	1st Qu.	:0.2900
##	Median	:0.7700	Median	:0.5400	Median	:0.1300	Median	:0.4200
##	Mean	:0.7195	Mean	:0.5487	Mean	:0.2045	Mean	:0.4333
##	3rd Qu.	:0.8600	3rd Qu.	:0.6700	3rd Qu.	:0.2700	3rd Qu.	:0.5600
##	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000
##								
##	MedYrHousBuilt		PctHousNoPhone		PctWOFullPlumb		OwnOccLowQuart	
##	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000
##	1st Qu.	:0.3500	1st Qu.	:0.0600	1st Qu.	:0.1000	1st Qu.	:0.0900
##	Median	:0.5200	Median	:0.1850	Median	:0.1900	Median	:0.1800
##	Mean	:0.4942	Mean	:0.2645	Mean	:0.2431	Mean	:0.2647
##	3rd Qu.	:0.6700	3rd Qu.	:0.4200	3rd Qu.	:0.3300	3rd Qu.	:0.4000
##	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000
##								
##	OwnOccMedVal		OwnOccHiQuart		RentLowQ		RentMedian	
##	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000
##	1st Qu.	:0.0900	1st Qu.	:0.0900	1st Qu.	:0.1700	1st Qu.	:0.2000
##	Median	:0.1700	Median	:0.1800	Median	:0.3100	Median	:0.3300
##	Mean	:0.2635	Mean	:0.2689	Mean	:0.3464	Mean	:0.3725
##	3rd Qu.	:0.3900	3rd Qu.	:0.3800	3rd Qu.	:0.4900	3rd Qu.	:0.5200
##	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000
##								
##	RentHighQ		MedRent		MedRentPctHousInc		MedOwnCostPctInc	
##	Min.	:0.000	Min.	:0.0000	Min.	:0.0000	Min.	:0.0000
##	1st Qu.	:0.220	1st Qu.	:0.2100	1st Qu.	:0.3700	1st Qu.	:0.3200
##	Median	:0.370	Median	:0.3400	Median	:0.4800	Median	:0.4500
##	Mean	:0.423	Mean	:0.3841	Mean	:0.4901	Mean	:0.4498
##	3rd Qu.	:0.590	3rd Qu.	:0.5300	3rd Qu.	:0.5900	3rd Qu.	:0.5800
##	Max.	:1.000	Max.	:1.0000	Max.	:1.0000	Max.	:1.0000

```

##
## MedOwnCostPctIncNoMtg NumInShelters NumStreet PctForeignBorn
## Min. :0.0000 Min. :0.00000 Min. :0.00000 Min. :0.0000
## 1st Qu.:0.2500 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.0600
## Median :0.3700 Median :0.00000 Median :0.00000 Median :0.1300
## Mean :0.4038 Mean :0.02944 Mean :0.02278 Mean :0.2156
## 3rd Qu.:0.5100 3rd Qu.:0.01000 3rd Qu.:0.00000 3rd Qu.:0.2800
## Max. :1.0000 Max. :1.00000 Max. :1.00000 Max. :1.0000
##
## PctBornSameState PctSameHouse85 PctSameCity85 PctSameState85
## Min. :0.0000 Min. :0.0000 Min. :0.0000 Min. :0.0000
## 1st Qu.:0.4700 1st Qu.:0.4200 1st Qu.:0.5200 1st Qu.:0.5600
## Median :0.6300 Median :0.5400 Median :0.6700 Median :0.7000
## Mean :0.6089 Mean :0.5351 Mean :0.6264 Mean :0.6515
## 3rd Qu.:0.7775 3rd Qu.:0.6600 3rd Qu.:0.7700 3rd Qu.:0.7900
## Max. :1.0000 Max. :1.0000 Max. :1.0000 Max. :1.0000
##
## LandArea PopDens PctUsePubTrans LemasPctOfficDrugUn
## Min. :0.00000 Min. :0.0000 Min. :0.0000 Min. :0.00000
## 1st Qu.:0.02000 1st Qu.:0.1000 1st Qu.:0.0200 1st Qu.:0.00000
## Median :0.04000 Median :0.1700 Median :0.0700 Median :0.00000
## Mean :0.06523 Mean :0.2329 Mean :0.1617 Mean :0.09405
## 3rd Qu.:0.07000 3rd Qu.:0.2800 3rd Qu.:0.1900 3rd Qu.:0.00000
## Max. :1.00000 Max. :1.0000 Max. :1.0000 Max. :1.00000
##
## ViolentCrimesPerPop
## Min. :0.000
## 1st Qu.:0.070
## Median :0.150
## Mean :0.238
## 3rd Qu.:0.330
## Max. :1.000
##

```

```
which(is.na(dat$OtherPerCap))
```

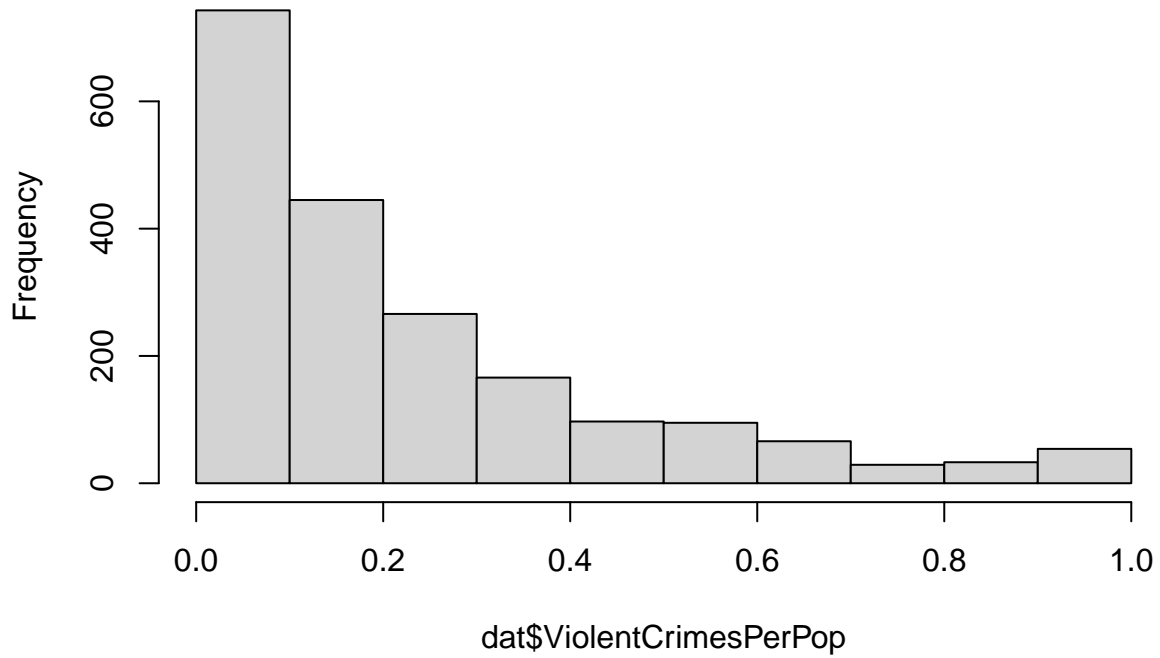
```
## [1] 131
```

```
dat[131, "OtherPerCap"] = mean(dat$OtherPerCap, na.rm = TRUE)
```

(d)

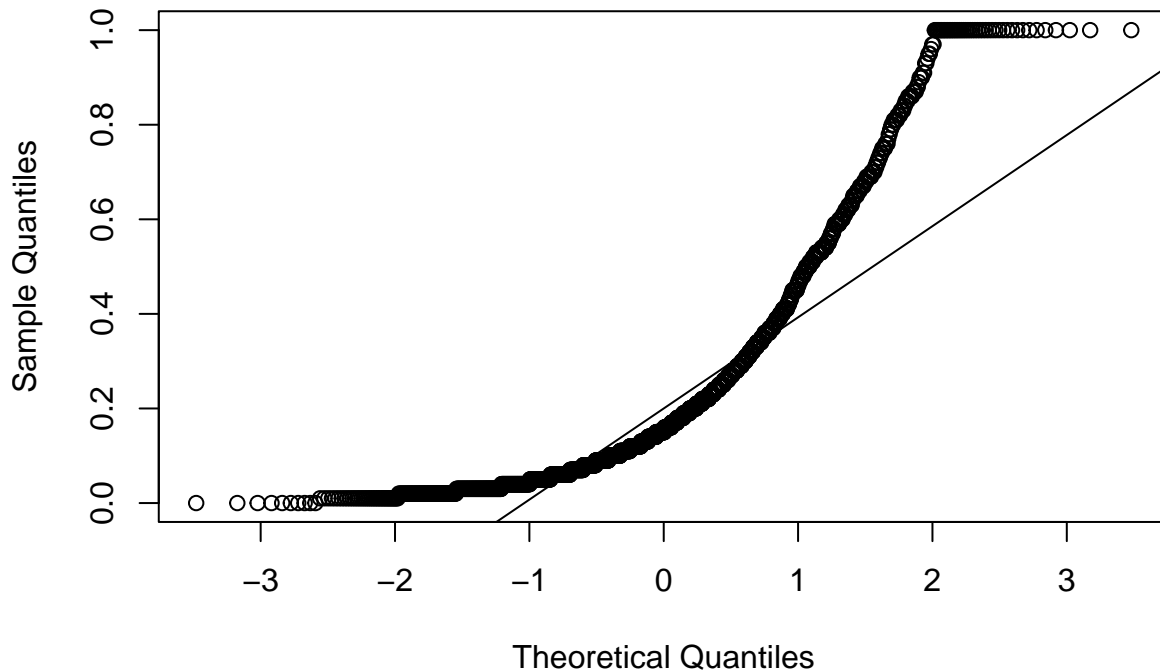
```
hist(dat$ViolentCrimesPerPop, main = "Histogram of Violent Crimes
Per 100,000 Individuals")
```

Histogram of Violent Crimes Per 100,000 Individuals



```
qqnorm(dat$ViolentCrimesPerPop, main = "Q-Q Plot of Violent Crimes  
Per 100,000 Individuals")  
qqline(dat$ViolentCrimesPerPop)
```

Q-Q Plot of Violent Crimes Per 100,000 Individuals



```
as.data.frame(cor(dat))
```

```
##           population households size racepctblack racePctWhite
## population      1.0000000000 -0.046148407  0.231177738 -0.300845485
## households size -0.0461484072  1.0000000000 -0.067109137 -0.235906924
## racepctblack    0.2311777382 -0.067109137  1.0000000000 -0.794389039
## racePctWhite   -0.3008454852 -0.235906924 -0.794389039  1.0000000000
## racePctAsian    0.1816027284  0.201996365 -0.106737676 -0.270265574
## racePctHispanic 0.1562178039  0.468659284 -0.066580664 -0.444166125
## agePct12t21    0.0063675936  0.520461483  0.122338418 -0.194014881
## agePct12t29    0.1303438913  0.367338426  0.153474521 -0.266851936
## agePct16t24    0.0755960130  0.295225155  0.134067980 -0.183804408
## agePct65up     -0.1020055359 -0.612666114  0.052933675  0.136482814
## numbUrban      0.9931124252 -0.047580558  0.223469256 -0.295236810
## pctUrban       0.2394460552 -0.015739295 -0.001269197 -0.052273316
## medIncome      -0.1016154405  0.209430559 -0.360677758  0.308685769
## pctWWage       0.0045120675  0.440268815 -0.227562660  0.117234442
## pctWFarmSelf   -0.1306915768  0.182579364 -0.152884871  0.096981803
## pctWInvInc     -0.1507875779 -0.155100865 -0.492914250  0.596067209
## pctWSocSec     -0.1202526901 -0.451411581  0.111815623  0.067203954
## pctWPubAsst    0.1771716681  0.115204067  0.444933146 -0.589538014
## pctWRetire     -0.0939107528 -0.324699582 -0.072391214  0.228337628
## medFamInc      -0.1053700535  0.111437822 -0.359962747  0.343336366
## perCapInc      -0.0556563928 -0.130716482 -0.286881557  0.315083211
## whitePerCap    0.0370442822 -0.131671029 -0.102516820  0.123322093
## blackPerCap    -0.0596458397  0.042506098 -0.254696909  0.187613715
## indianPerCap   -0.0172636890 -0.007849700 -0.048518811  0.039825917
## AsianPerCap    -0.0810332761 -0.055817926 -0.115583530  0.145204452
## OtherPerCap    -0.0310016862  0.016718886 -0.105901098  0.104872017
## HispPerCap     -0.0830651546 -0.085088234 -0.151800211  0.213038036
## NumUnderPov    0.9475978454 -0.030139281  0.322460834 -0.376409490
## PctPopUnderPov 0.1620036733  0.055085496  0.490240836 -0.542138551
## PctLess9thGrade 0.0367057656  0.172144185  0.287046320 -0.470762128
## PctNotHSGrad   0.0570312692  0.100285659  0.367355587 -0.485573962
## PctBSorMore    -0.0034182665 -0.033412496 -0.179972188  0.218160172
## PctUnemployed  0.1452472128  0.143810519  0.388318652 -0.517482799
## PctEmploy      -0.0052171674  0.113240009 -0.273292951  0.255373033
## PctEmplManu    -0.1062835500  0.023286985 -0.017563585  0.038210090
## PctEmplProfServ 0.0217694118 -0.084040009  0.098525642  0.027496577
## PctOccupManu   -0.0294089924  0.054622493  0.234502196 -0.263274508
## PctOccupMgmtProf -0.0213799951 -0.075044664 -0.195773969  0.260434870
## MalePctDivorce 0.2326029008 -0.449460571  0.403861652 -0.341788111
## MalePctNevMarr 0.2475666953  0.154910676  0.284990734 -0.378077244
## FemalePctDiv   0.2585294905 -0.349127641  0.429002009 -0.446714017
## TotalPctDiv    0.2480987901 -0.409331125  0.432427172 -0.407564601
## PersPerFam     0.0866662854  0.845514487  0.046415304 -0.396829444
## PctFam2Par     -0.2663409839  0.283067298 -0.700595703  0.638071206
## PctKids2Par    -0.2735582877  0.205665225 -0.736244118  0.702032211
## PctYoungKids2Par -0.2267100933  0.199643720 -0.655573263  0.596824870
## PctTeen2Par    -0.2633476223  0.269767480 -0.689904082  0.614155870
## PctWorkMomYoungKids -0.0371652825 -0.225673418  0.168451471  0.010076620
## PctWorkMom     -0.0901906355 -0.268500151  0.075215048  0.158997610
## NumIlleg       0.8851783445 -0.031316205  0.402798838 -0.420760582
## PctIlleg       0.3325635615  0.020711241  0.810700376 -0.803451907
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## NumImmig	0.7415927467	0.105828348	0.076281190	-0.308449909
## PctImmigRecent	0.1397446328	0.028750795	0.165415061	-0.235496362
## PctImmigRec5	0.1563364872	0.051887389	0.194133399	-0.297287308
## PctImmigRec8	0.1829203494	0.069203114	0.227286483	-0.356666321
## PctImmigRec10	0.2075586899	0.103576809	0.249027574	-0.416132054
## PctRecentImmig	0.1997654657	0.275236786	-0.037873768	-0.403605561
## PctRecImmig5	0.2012209607	0.288425464	-0.029021578	-0.424057505
## PctRecImmig8	0.2072675220	0.295677297	-0.024917933	-0.438165978
## PctRecImmig10	0.2116532061	0.306490985	-0.020109158	-0.450365397
## PctSpeakEnglOnly	-0.1683755319	-0.418949869	0.096139285	0.421493088
## PctNotSpeakEnglWell	0.1816101307	0.416071616	-0.046705964	-0.454456166
## PctLargHouseFam	0.1903076231	0.661574678	0.185605654	-0.591878717
## PctLargHouseOccup	0.1235724522	0.741098985	0.108921681	-0.522773789
## PersPerOccupHous	-0.0365668367	0.892978280	-0.111595183	-0.214499695
## PersPerOwnOccHous	-0.0034760886	0.825000205	-0.171935514	-0.116701773
## PersPerRentOccHous	0.0315478420	0.725371417	0.108296085	-0.470568939
## PctPersOwnOccup	-0.2478544677	0.138005298	-0.376602974	0.508515516
## PctPersDenseHous	0.2059128339	0.501638014	0.158356985	-0.639795026
## PctHousLess3BR	0.2184918935	-0.331716557	0.234670367	-0.368909074
## MedNumBR	-0.2052864256	0.221582467	-0.145600361	0.279931780
## HousVacant	0.8963244075	-0.175594153	0.279908188	-0.280924802
## PctHousOccup	-0.0898874416	0.230173760	-0.252870847	0.178123037
## PctHousOwnOcc	-0.2531360998	0.192774184	-0.339204830	0.440890509
## PctVacantBoarded	0.3261420664	0.051489765	0.472905674	-0.450964830
## PctVacMore6Mos	-0.0854014288	-0.037003623	0.168710617	0.007262937
## MedYrHousBuilt	-0.0566659774	0.253884879	-0.086077309	0.017374474
## PctHousNoPhone	0.0614815007	-0.007920689	0.485035494	-0.481074798
## PctWOfullPlumb	0.1080457705	0.143367693	0.303009205	-0.419140224
## OwnOccLowQuart	-0.0121311756	0.134583739	-0.287745072	0.091178500
## OwnOccMedVal	0.0006890811	0.123738638	-0.269740569	0.072974414
## OwnOccHiQuart	0.0185748924	0.100420495	-0.246149162	0.061224043
## RentLowQ	-0.0064786106	0.150030509	-0.321254095	0.128077913
## RentMedian	-0.0098354811	0.167956378	-0.304787329	0.126731677
## RentHighQ	0.0040595180	0.179718262	-0.293334021	0.120754139
## MedRent	-0.0246745801	0.181259759	-0.279272816	0.125921099
## MedRentPctHousInc	0.1304301832	0.130425179	0.192188157	-0.339710405
## MedOwnCostPctInc	0.0832143268	0.247991967	-0.070004378	-0.173291782
## MedOwnCostPctIncNoMtg	-0.0379763588	-0.096442658	0.220838046	-0.059358103
## NumInShelters	0.8212434714	-0.082164182	0.229323144	-0.277743189
## NumStreet	0.6517972923	-0.043010972	0.167133434	-0.238924660
## PctForeignBorn	0.1727314814	0.311107197	-0.098113661	-0.372923997
## PctBornSameState	-0.1251332898	-0.049253108	0.093494140	0.113798389
## PctSameHouse85	-0.1236906329	-0.057842212	-0.045645633	0.165285453
## PctSameCity85	0.0016096624	-0.103109247	0.056358128	-0.019676501
## PctSameState85	-0.0896375661	-0.003277132	-0.002894107	0.032414689
## LandArea	0.7136524854	-0.015077966	0.149758238	-0.131389200
## PopDens	0.2318974318	-0.004071731	0.095053206	-0.337457588
## PctUsePubTrans	0.2703555285	-0.051505566	0.147022985	-0.215635553
## LemasPctOfficDrugUn	0.4663522939	-0.094367522	0.260792643	-0.276234210
## ViolentCrimesPerPop	0.3671573783	-0.034922595	0.631263635	-0.684769576
##	racePctAsian	racePctHisp	agePct12t21	agePct12t29
## population	0.181602728	0.1562178039	0.006367594	0.1303438913
## householdsize	0.201996365	0.4686592838	0.520461483	0.3673384262
## racepctblack	-0.106737676	-0.0665806639	0.122338418	0.1534745211

## racePctWhite	-0.270265574	-0.4441661248	-0.194014881	-0.2668519355
## racePctAsian	1.000000000	0.2667426632	-0.025019905	0.1007274204
## racePctHisp	0.266742663	1.000000000	0.145741227	0.2058702210
## agePct12t21	-0.025019905	0.1457412269	1.000000000	0.8224241501
## agePct12t29	0.100727420	0.2058702210	0.822424150	1.000000000
## agePct16t24	0.052761200	0.0863433694	0.894547386	0.9337199901
## agePct65up	-0.272019576	-0.2276941387	-0.410957889	-0.5206369742
## numbUrban	0.200593492	0.1539409878	-0.021367314	0.1126144554
## pctUrban	0.269380055	0.0382984559	-0.239994193	-0.0898838868
## medIncome	0.362964327	-0.1404711230	-0.296722842	-0.3427404573
## pctWwage	0.310799861	0.0196286506	0.119775815	0.2596985879
## pctWFarmSelf	-0.087625657	0.0828554915	0.265498133	0.1246256345
## pctWInvInc	0.166277344	-0.4171614617	-0.279091267	-0.3571574724
## pctWSocSec	-0.369642133	-0.1571961663	-0.257844381	-0.4209535724
## pctWPubAsst	-0.059083606	0.4197037720	0.213396960	0.1919158162
## pctWRetire	-0.173984347	-0.2620110670	-0.312075986	-0.4244146051
## medFamInc	0.353457190	-0.2047325347	-0.266137624	-0.3078391449
## perCapInc	0.318984230	-0.2420260933	-0.405047699	-0.4139243242
## whitePerCap	0.355612948	-0.2005961013	-0.384193407	-0.3785353910
## blackPerCap	0.300124697	-0.0638999433	-0.283794940	-0.2596931531
## indianPerCap	0.115035968	-0.0097539994	-0.157399104	-0.1496679768
## AsianPerCap	0.095798126	-0.1140055303	-0.265299541	-0.3251588160
## OtherPerCap	0.192691971	-0.0963719738	-0.174009609	-0.1512552878
## HispPerCap	0.199030193	-0.2401132270	-0.311167238	-0.3216631380
## NumUnderPov	0.089710961	0.1964409333	0.086402631	0.1777255177
## PctPopUnderPov	-0.173610826	0.3146507674	0.500218766	0.4540738179
## PctLess9thGrade	-0.161913070	0.5432497299	0.174320381	0.1470922795
## PctNotHSGrad	-0.238000258	0.4555580954	0.120124293	0.1040924683
## PctBSorMore	0.318947188	-0.2596761762	0.023817709	-0.0001121789
## PctUnemployed	-0.158989133	0.4326011875	0.273155212	0.2294048941
## PctEmploy	0.246307805	-0.1412251840	-0.191836537	0.0066095226
## PctEmplManu	-0.098321441	-0.0528553522	-0.107170882	-0.1014767261
## PctEmplProfServ	0.010821519	-0.2410421611	0.346520634	0.2232535509
## PctOccupManu	-0.282805559	0.2060077453	0.108710675	0.0974183910
## PctOccupMgmtProf	0.286037664	-0.2914969864	-0.109094973	-0.1581459156
## MalePctDivorce	-0.110807919	0.0624529406	-0.207122713	-0.0088321219
## MalePctNevMarr	0.208212074	0.1731799950	0.560840358	0.7618912471
## FemalePctDiv	-0.013848334	0.1848485853	-0.132457089	0.0744285259
## TotalPctDiv	-0.067080818	0.1248793228	-0.169761514	0.0314778922
## PersPerFam	0.205350583	0.6103725707	0.297363112	0.2132165058
## PctFam2Par	0.146330664	-0.1373062592	-0.139290891	-0.2553264148
## PctKids2Par	0.130236635	-0.2050562422	-0.148870341	-0.2482604741
## PctYoungKids2Par	0.192196135	-0.1417868133	-0.166410922	-0.2094886464
## PctTeen2Par	0.111515336	-0.1058233498	-0.123578372	-0.2533021597
## PctWorkMomYoungKids	-0.156372134	-0.2799900467	-0.010561141	0.0827702447
## PctWorkMom	-0.179122584	-0.4044532473	-0.050586869	0.0328780416
## NumIlleg	0.068250973	0.1430237299	0.032698209	0.1257084286
## PctIlleg	-0.047203631	0.2371683140	0.191920276	0.3045391307
## NumImmig	0.381759035	0.3777255739	-0.009834051	0.1143606563
## PctImmigRecent	0.193521893	0.0855512266	0.377214812	0.4771967337
## PctImmigRec5	0.227601565	0.1449522503	0.376641550	0.5027616892
## PctImmigRec8	0.289424693	0.1840341533	0.358841361	0.5043362432
## PctImmigRec10	0.316365759	0.2586674446	0.335118040	0.4935982792
## PctRecentImmig	0.646998618	0.6259890290	0.074138430	0.2523003568

## PctRecImmig5	0.648608279	0.6524836750	0.053732848	0.2352689467
## PctRecImmig8	0.676784539	0.6600749935	0.035607558	0.2144242119
## PctRecImmig10	0.673064018	0.6811803698	0.023119238	0.1999350259
## PctSpeakEnglOnly	-0.471319028	-0.8907684233	-0.050939901	-0.1496314162
## PctNotSpeakEnglWell	0.393117682	0.8928121842	0.077844598	0.1802745986
## PctLargHouseFam	0.243618166	0.7591672277	0.271138521	0.2599815952
## PctLargHouseOccup	0.238052319	0.7461916883	0.272866204	0.2231450837
## PersPerOccupHous	0.213640317	0.5080209086	0.227349796	0.0812390231
## PersPerOwnOccHous	0.207659753	0.4211887216	0.232948366	0.1411150052
## PersPerRentOccHous	0.226492174	0.6415742979	0.270178872	0.2021892397
## PctPersOwnOccup	-0.124632228	-0.3265895838	-0.274165615	-0.5784637148
## PctPersDenseHous	0.351670951	0.8793417437	0.222697673	0.3039510514
## PctHousLess3BR	0.059511309	0.3328867169	0.024502387	0.3117083702
## MedNumBR	-0.084814393	-0.2941803503	-0.079141761	-0.2984573429
## HousVacant	0.038867808	0.1044977707	-0.047207649	0.0661224590
## PctHousOccup	0.248922923	-0.0799577796	0.027717423	0.0166673319
## PctHousOwnOcc	-0.109810047	-0.2617091191	-0.260619144	-0.5872599775
## PctVacantBoarded	-0.136360683	0.1641104194	0.121946637	0.0996356336
## PctVacMore6Mos	-0.389486128	-0.1575759649	0.035329404	-0.1493096215
## MedYrHousBuilt	0.074454084	0.0920727162	0.104178562	0.0813723693
## PctHousNoPhone	-0.305036187	0.2741346519	0.279829175	0.2203254883
## PctWOfullPlumb	-0.081023825	0.3693169969	0.173921088	0.1498472088
## OwnOccLowQuart	0.584873343	0.0794395298	-0.258720156	-0.1782517807
## OwnOccMedVal	0.587593747	0.0855542190	-0.249725749	-0.1780487495
## OwnOccHiQuart	0.574250678	0.0765648132	-0.242268488	-0.1841001517
## RentLowQ	0.568154578	0.0710847053	-0.296926083	-0.1589832987
## RentMedian	0.547089818	0.0560460216	-0.299245239	-0.1941504896
## RentHighQ	0.537666997	0.0601681853	-0.286992892	-0.1946092456
## MedRent	0.510042285	0.0285208166	-0.307206576	-0.2235227155
## MedRentPctHousInc	0.178592720	0.2870977846	0.273052099	0.2749501458
## MedOwnCostPctInc	0.398413651	0.3369102545	-0.171146880	-0.0165706110
## MedOwnCostPctIncNoMtg	-0.229338930	-0.1125256112	-0.121144513	-0.0898485178
## NumInShelters	0.131333209	0.1140327326	-0.005888318	0.1007673047
## NumStreet	0.169440449	0.1577227695	-0.024945549	0.0685348349
## PctForeignBorn	0.657450523	0.6841903281	-0.068537175	0.0776636306
## PctBornSameState	-0.405275853	-0.2621699055	0.080280578	-0.0475404848
## PctSameHouse85	-0.189516805	-0.1656780001	-0.357145132	-0.5590751357
## PctSameCity85	-0.194923444	0.0144939983	-0.361225420	-0.5059928492
## PctSameState85	-0.198279375	0.0002017781	-0.150555214	-0.3176469758
## LandArea	-0.001083969	0.0116338111	0.025735552	0.0624761758
## PopDens	0.389943760	0.3701032427	-0.095749017	0.1197248661
## PctUsePubTrans	0.296920667	0.0783659904	-0.173279462	-0.0235069790
## LemasPctOfficDrugUn	0.101887758	0.1253530421	0.001301159	0.1172902796
## ViolentCrimesPerPop	0.037621787	0.2930502181	0.060477249	0.1533566883
##	agePct16t24	agePct65up	numbUrban	pctUrban
## population	0.075596013	-0.102005536	0.9931124252	0.239446055
## householdsize	0.295225155	-0.612666114	-0.0475805579	-0.015739295
## racepctblack	0.134067980	0.052933675	0.2234692559	-0.001269197
## racePctWhite	-0.183804408	0.136482814	-0.2952368098	-0.052273316
## racePctAsian	0.052761200	-0.272019576	0.2005934917	0.269380055
## racePctHisp	0.086343369	-0.227694139	0.1539409878	0.038298456
## agePct12t21	0.894547386	-0.410957889	-0.0213673139	-0.239994193
## agePct12t29	0.933719990	-0.520636974	0.1126144554	-0.089883887
## agePct16t24	1.000000000	-0.323091525	0.0545790542	-0.138893314

## agePct65up	-0.323091525	1.000000000	-0.1060751032	-0.111336717
## numbUrban	0.054579054	-0.106075103	1.000000000	0.333615546
## pctUrban	-0.138893314	-0.111336717	0.3336155464	1.000000000
## medIncome	-0.326802950	-0.290085650	-0.0645398716	0.343762254
## pctWwage	0.103367566	-0.838662379	0.0271710197	0.256351843
## pctWFarmSelf	0.144875762	-0.158638626	-0.1602777051	-0.373185293
## pctWInvInc	-0.221543086	0.075723613	-0.1236181220	0.227341360
## pctWSocSec	-0.233325321	0.941817212	-0.1315452329	-0.193829880
## pctWPubAsst	0.150779366	0.142935820	0.1496060930	-0.224679613
## pctWRetire	-0.271479503	0.657900604	-0.0849765396	0.065896560
## medFamInc	-0.259318242	-0.225113605	-0.0696169168	0.331474954
## perCapInc	-0.342084049	-0.031136164	-0.0208399960	0.337613407
## whitePerCap	-0.314939675	-0.033475650	0.0698900793	0.347929046
## blackPerCap	-0.261790456	-0.170551926	-0.0306147745	0.275406856
## indianPerCap	-0.150975431	-0.050720852	-0.0049897885	0.126914477
## AsianPerCap	-0.275577263	0.050025831	-0.0687997875	0.102378977
## OtherPerCap	-0.161561801	-0.112755247	-0.0146292425	0.184079158
## HispPerCap	-0.279457949	-0.029623518	-0.0546258571	0.255913259
## NumUnderPov	0.135678736	-0.062354079	0.9360879564	0.167861781
## PctPopUnderPov	0.471089743	0.099690227	0.1241983269	-0.319011644
## PctLess9thGrade	0.111316988	0.197346294	0.0122491873	-0.270839504
## PctNotHSGrad	0.063784921	0.271176235	0.0334336856	-0.252302863
## PctBSorMore	0.093927333	-0.218606140	0.0155854709	0.214941440
## PctUnemployed	0.201251387	0.128850196	0.1165687834	-0.230682789
## PctEmploy	-0.150371867	-0.614405070	0.0236047331	0.293141389
## PctEmplManu	-0.156564371	0.012246435	-0.1105380095	-0.111422780
## PctEmplProfServ	0.393075757	0.086202590	0.0141909337	-0.045876182
## PctOccupManu	0.030908723	0.145571666	-0.0548570340	-0.306911536
## PctOccupMgmtProf	-0.062896170	-0.136970330	0.0000845711	0.231507618
## MalePctDivorce	-0.105174461	0.186056164	0.2184885790	-0.061060878
## MalePctNevMarr	0.772085517	-0.221207474	0.2451600995	0.082255659
## FemalePctDiv	-0.050242092	0.064709136	0.2477837798	-0.015912213
## TotalPctDiv	-0.079420201	0.132139279	0.2354573353	-0.040759147
## PersPerFam	0.056441799	-0.572482435	0.0885777884	0.048407905
## PctFam2Par	-0.232615848	-0.256409643	-0.2482730207	0.104054584
## PctKids2Par	-0.220879847	-0.237319945	-0.2555737653	0.098440965
## PctYoungKids2Par	-0.197030591	-0.240725474	-0.2019447181	0.179034545
## PctTeen2Par	-0.227616603	-0.198798489	-0.2508625754	0.042857122
## PctWorkMomYoungKids	0.059943484	0.006949457	-0.0404822830	-0.067017159
## PctWorkMom	0.033110063	0.020759852	-0.0910702383	-0.064926566
## NumIlleg	0.080347939	-0.049951113	0.8767187099	0.166072406
## PctIlleg	0.244876272	0.009646308	0.3226578302	0.011935126
## NumImmig	0.053593964	-0.114160031	0.7406017108	0.201736559
## PctImmigRecent	0.481486622	-0.178553204	0.1273573338	-0.037918847
## PctImmigRec5	0.489270626	-0.200248419	0.1457239737	-0.023374349
## PctImmigRec8	0.471036211	-0.239035314	0.1749917349	0.009724791
## PctImmigRec10	0.435419311	-0.264282897	0.1994282414	0.019926952
## PctRecentImmig	0.177975625	-0.205988836	0.2137639520	0.226485386
## PctRecImmig5	0.152426560	-0.205016997	0.2163218602	0.232721119
## PctRecImmig8	0.128220853	-0.210084040	0.2236928995	0.245665961
## PctRecImmig10	0.107973346	-0.209205553	0.2285440112	0.250943355
## PctSpeakEnglOnly	-0.053740098	0.165234088	-0.1782022587	-0.161471313
## PctNotSpeakEnglWell	0.072409429	-0.162811672	0.1882396918	0.128920682
## PctLargHouseFam	0.127331479	-0.303523952	0.1903003467	0.055098101

## PctLargHouseOccup	0.093275582	-0.345979724	0.1251140807	0.050023282
## PersPerOccupHous	-0.043813488	-0.587271365	-0.0287233193	0.070889743
## PersPerOwnOccHous	0.005852199	-0.651512485	0.0112625370	0.148036635
## PersPerRentOccHous	0.065677127	-0.403846719	0.0229318969	-0.063039130
## PctPersOwnOccup	-0.478045096	0.049806109	-0.2299956351	0.069499114
## PctPersDenseHous	0.171921922	-0.253097996	0.2014916548	0.032549663
## PctHousLess3BR	0.257778849	0.256096820	0.2080910190	-0.024223019
## MedNumBR	-0.268014052	-0.163401560	-0.1989987833	-0.020173586
## HousVacant	0.035460657	0.038713251	0.8875986042	0.195878347
## PctHousOccup	0.001072248	-0.277958734	-0.0669726721	0.172894668
## PctHousOwnOcc	-0.487876528	0.059383485	-0.2385790308	0.036304984
## PctVacantBoarded	0.065643043	0.024439236	0.3159517174	0.016986317
## PctVacMore6Mos	-0.076435563	0.256499873	-0.1102910277	-0.297328003
## MedYrHousBuilt	0.005482349	-0.421197347	-0.0594902378	-0.018058792
## PctHousNoPhone	0.201227505	0.152032102	0.0196928044	-0.410568817
## PctW0FullPlumb	0.115309087	0.045750418	0.0854862354	-0.212775083
## OwnOccLowQuart	-0.166014828	-0.159327018	0.0212934618	0.334584660
## OwnOccMedVal	-0.158616127	-0.149964767	0.0328434461	0.325842852
## OwnOccHiQuart	-0.152353617	-0.128879877	0.0491884364	0.314966275
## RentLowQ	-0.197404793	-0.260957278	0.0325853596	0.411814622
## RentMedian	-0.207092872	-0.225589510	0.0283383622	0.398899853
## RentHighQ	-0.197657636	-0.219266459	0.0413553007	0.392859667
## MedRent	-0.234416457	-0.225961524	0.0128634085	0.386408014
## MedRentPctHousInc	0.337232033	0.065065748	0.1214630319	-0.015925874
## MedOwnCostPctInc	-0.098923066	-0.215032264	0.1021873419	0.226758098
## MedOwnCostPctIncNoMtg	-0.078878041	0.203615212	-0.0390818948	-0.031217315
## NumInShelters	0.068057509	-0.032220883	0.8135792257	0.156276074
## NumStreet	0.037037956	-0.036676821	0.6473548864	0.131645539
## PctForeignBorn	0.005593972	-0.139957226	0.1951181000	0.293092603
## PctBornSameState	-0.013802160	0.149763240	-0.1402372794	-0.233622807
## PctSameHouse85	-0.462897202	0.394347291	-0.1051986159	0.096459459
## PctSameCity85	-0.479077338	0.372970731	0.0133278542	0.069879823
## PctSameState85	-0.274539931	0.255659493	-0.0896108260	-0.074734122
## LandArea	0.031631711	-0.124245178	0.6934445575	0.081044024
## PopDens	0.045979255	0.015434067	0.2581467500	0.331112699
## PctUsePubTrans	-0.040418783	0.006785723	0.2981963759	0.343560808
## LemasPctOfficDrugUn	0.083179594	-0.010167977	0.4781788915	0.258955284
## ViolentCrimesPerPop	0.099346680	0.067171454	0.3628974422	0.082025420
## medIncome		pctWWage	pctWFarmSelf	pctWInvInc
## population	-0.101615440	0.004512067	-0.130691577	-0.150787578
## householdsize	0.209430559	0.440268815	0.182579364	-0.155100865
## racepctblack	-0.360677758	-0.227562660	-0.152884871	-0.492914250
## racePctWhite	0.308685769	0.117234442	0.096981803	0.596067209
## racePctAsian	0.362964327	0.310799861	-0.087625657	0.166277344
## racePctHisp	-0.140471123	0.019628651	0.082855491	-0.417161462
## agePct12t21	-0.296722842	0.119775815	0.265498133	-0.279091267
## agePct12t29	-0.342740457	0.259698588	0.124625635	-0.357157472
## agePct16t24	-0.326802950	0.103367566	0.144875762	-0.221543086
## agePct65up	-0.290085650	-0.838662379	-0.158638626	0.075723613
## numbUrban	-0.064539872	0.027171020	-0.160277705	-0.123618122
## pctUrban	0.343762254	0.256351843	-0.373185293	0.227341360
## medIncome	1.000000000	0.616422085	-0.048971715	0.757896609
## pctWWage	0.616422085	1.000000000	0.072540436	0.308812943
## pctWFarmSelf	-0.048971715	0.072540436	1.000000000	0.007336054

## pctWInvInc	0.757896609	0.308812943	0.007336054	1.000000000
## pctWSocSec	-0.421414277	-0.897936072	-0.117708551	-0.086062467
## pctWPubAsst	-0.656529322	-0.552405311	-0.029719793	-0.751076183
## pctWRetire	-0.072924673	-0.516124912	-0.279461627	0.202976989
## medFamInc	0.977615818	0.565346320	-0.040280765	0.813243387
## perCapInc	0.894174758	0.384700800	-0.069223834	0.811617483
## whitePerCap	0.839626643	0.346929762	-0.081631054	0.722331148
## blackPerCap	0.674666604	0.406372351	-0.115484551	0.497540920
## indianPerCap	0.294295925	0.160419631	-0.045322176	0.195804667
## AsianPerCap	0.457594756	0.121574212	-0.046612844	0.387464476
## OtherPerCap	0.415574594	0.272645013	-0.087386049	0.310178810
## HispPerCap	0.637927549	0.296109672	-0.116150217	0.550871312
## NumUnderPov	-0.237807374	-0.106959934	-0.100297356	-0.269043101
## PctPopUnderPov	-0.791095169	-0.519955619	0.142377984	-0.721647979
## PctLess9thGrade	-0.595990296	-0.460829108	0.088698766	-0.685445524
## PctNotHSGrad	-0.683270717	-0.544382777	-0.027756647	-0.778308579
## PctBSorMore	0.679963719	0.430598018	0.098937268	0.735853665
## PctUnemployed	-0.651877542	-0.513510260	-0.021638367	-0.731220775
## PctEmploy	0.640400270	0.860863576	-0.011083440	0.412191362
## PctEmplManu	-0.051286335	0.002259370	-0.147321735	-0.131891455
## PctEmplProfServ	0.028782028	-0.097085824	0.154531185	0.309541060
## PctOccupManu	-0.620096640	-0.368811789	-0.054776267	-0.671351200
## PctOccupMgmtProf	0.725697189	0.381856050	0.065783128	0.769240133
## MalePctDivorce	-0.558566121	-0.375949805	-0.179503693	-0.576368766
## MalePctNevMarr	-0.199890711	0.063377348	-0.073558485	-0.168919079
## FemalePctDiv	-0.537576737	-0.302570695	-0.159704144	-0.630788535
## TotalPctDiv	-0.562484971	-0.351811563	-0.171428591	-0.618737379
## PersPerFam	0.111539385	0.366253987	0.102682111	-0.337068963
## PctFam2Par	0.734326350	0.553705944	0.183921750	0.702579403
## PctKids2Par	0.720012919	0.540232883	0.174131910	0.744358279
## PctYoungKids2Par	0.722126574	0.562732221	0.131297157	0.706445611
## PctTeen2Par	0.627916847	0.458412170	0.171624602	0.609837646
## PctWorkMomYoungKids	-0.150324510	0.097507240	0.062634975	-0.025077739
## PctWorkMom	-0.041917911	0.164830196	0.039192361	0.126395715
## NumIlleg	-0.183239169	-0.097912134	-0.140071830	-0.251983088
## PctIlleg	-0.488650985	-0.290080475	-0.183225108	-0.634581135
## NumImmig	-0.005116316	0.044824398	-0.117476268	-0.130849369
## PctImmigRecent	-0.181629457	0.055327462	0.092734919	-0.135161904
## PctImmigRec5	-0.199057697	0.064414053	0.078472808	-0.197560309
## PctImmigRec8	-0.179984304	0.098980177	0.087002305	-0.217694157
## PctImmigRec10	-0.196316696	0.105179896	0.099953789	-0.277754101
## PctRecentImmig	0.106504167	0.151649874	-0.076164667	-0.095009070
## PctRecImmig5	0.105817939	0.149448828	-0.085960159	-0.118491947
## PctRecImmig8	0.125299746	0.159978433	-0.090390923	-0.116563247
## PctRecImmig10	0.119196080	0.155713407	-0.094003054	-0.136077804
## PctSpeakEnglOnly	-0.025288822	-0.058209714	0.012809188	0.243306926
## PctNotSpeakEnglWell	-0.082390134	0.007276966	-0.011031146	-0.347252043
## PctLargHouseFam	-0.161526648	0.042034541	0.046507586	-0.507661014
## PctLargHouseOccup	-0.081871654	0.108165263	0.072797775	-0.452147920
## PersPerOccupHous	0.313763428	0.474527376	0.119219678	-0.148554115
## PersPerOwnOccHous	0.383195576	0.591122665	0.087031807	-0.033906141
## PersPerRentOccHous	-0.094414545	0.144804503	0.124418817	-0.504453866
## PctPersOwnOccup	0.623932302	0.227439160	0.081980494	0.593808612
## PctPersDenseHous	-0.263503023	-0.016489048	0.041714100	-0.568277370

## PctHousLess3BR	-0.610426853	-0.422058782	-0.125435870	-0.486266393
## MedNumBR	0.451225295	0.290814338	0.064496375	0.348503377
## HousVacant	-0.188336225	-0.132183572	-0.123741422	-0.183877506
## PctHousOccup	0.388655317	0.411524153	-0.033029357	0.343185609
## PctHousOwnOcc	0.585373151	0.181980580	0.099138087	0.519920565
## PctVacantBoarded	-0.361339668	-0.262449814	-0.069754541	-0.453133505
## PctVacMore6Mos	-0.213800625	-0.336786792	0.098855094	-0.138196208
## MedYrHousBuilt	0.163644469	0.403603887	0.248165750	-0.009347416
## PctHousNoPhone	-0.726986879	-0.501780850	0.156100548	-0.752677399
## PctW0FullPlumb	-0.412070822	-0.291887166	0.056468518	-0.507494478
## OwnOccLowQuart	0.798571803	0.400544921	-0.114956131	0.562504119
## OwnOccMedVal	0.790456162	0.380823979	-0.101944012	0.559241618
## OwnOccHiQuart	0.778764305	0.352258255	-0.087549770	0.562681995
## RentLowQ	0.809739218	0.541736682	-0.174010455	0.569699428
## RentMedian	0.854882590	0.508118818	-0.166996972	0.599603459
## RentHighQ	0.856285659	0.495518738	-0.159264245	0.606165737
## MedRent	0.864736085	0.510696279	-0.166624148	0.594151229
## MedRentPctHousInc	-0.232316533	-0.260897311	-0.081049664	-0.256314977
## MedOwnCostPctInc	0.380446563	0.267824292	-0.133666027	0.072520455
## MedOwnCostPctIncNoMtg	-0.026156182	-0.157021868	-0.155504972	-0.058564078
## NumInShelters	-0.123153392	-0.067947642	-0.100779633	-0.137992300
## NumStreet	-0.083780864	-0.046490644	-0.085158584	-0.124954323
## PctForeignBorn	0.228123174	0.148530718	-0.130027505	-0.037270749
## PctBornSameState	-0.245540755	-0.202315547	0.081541463	-0.135203975
## PctSameHouse85	0.248834196	-0.187837359	-0.138365162	0.254448660
## PctSameCity85	-0.006224379	-0.301704803	-0.162086655	-0.054455233
## PctSameState85	-0.051826184	-0.241734390	0.011491629	-0.074313012
## LandArea	-0.047378605	0.061147285	-0.011248854	-0.073165356
## PopDens	-0.023661139	-0.034333204	-0.265258518	-0.113916351
## PctUsePubTrans	0.250454146	0.084611133	-0.244915879	0.161269995
## LemasPctOfficDrugUn	-0.126211326	-0.064601681	-0.158809553	-0.154076232
## ViolentCrimesPerPop	-0.424220617	-0.305500466	-0.153124351	-0.576323644
##	pctWSocSec	pctWPubAsst	pctWRetire	medFamInc
## population	-0.120252690	0.17717167	-9.391075e-02	-0.105370054
## householdsize	-0.451411581	0.11520407	-3.246996e-01	0.111437822
## racepctblack	0.111815623	0.44493315	-7.239121e-02	-0.359962747
## racePctWhite	0.067203954	-0.58953801	2.283376e-01	0.343336366
## racePctAsian	-0.369642133	-0.05908361	-1.739843e-01	0.353457190
## racePctHisp	-0.157196166	0.41970377	-2.620111e-01	-0.204732535
## agePct12t21	-0.257844381	0.21339696	-3.120760e-01	-0.266137624
## agePct12t29	-0.420953572	0.19191582	-4.244146e-01	-0.307839145
## agePct16t24	-0.233325321	0.15077937	-2.714795e-01	-0.259318242
## agePct65up	0.941817212	0.14293582	6.579006e-01	-0.225113605
## numbUrban	-0.131545233	0.14960609	-8.497654e-02	-0.069616917
## pctUrban	-0.193829880	-0.22467961	6.589656e-02	0.331474954
## medIncome	-0.421414277	-0.65652932	-7.292467e-02	0.977615818
## pctWWage	-0.897936072	-0.55240531	-5.161249e-01	0.565346320
## pctWFarmSelf	-0.117708551	-0.02971979	-2.794616e-01	-0.040280765
## pctWInvInc	-0.086062467	-0.75107618	2.029770e-01	0.813243387
## pctWSocSec	1.000000000	0.31035681	6.506370e-01	-0.374908017
## pctWPubAsst	0.310356811	1.00000000	-2.192712e-02	-0.685016781
## pctWRetire	0.650636950	-0.02192712	1.000000e+00	-0.058875678
## medFamInc	-0.374908017	-0.68501678	-5.887568e-02	1.000000000
## perCapInc	-0.227652857	-0.63824397	6.909517e-03	0.938020017

## whitePerCap	-0.226625475	-0.53853625	-3.776005e-02	0.884082006
## blackPerCap	-0.288843102	-0.42812645	-4.870049e-02	0.662515106
## indianPerCap	-0.118416509	-0.18977297	-1.888950e-02	0.291459000
## AsianPerCap	-0.035160488	-0.26512338	4.510129e-02	0.471825427
## OtherPerCap	-0.184759578	-0.30922740	-3.941285e-02	0.409152597
## HispPerCap	-0.154112170	-0.45179208	5.607433e-02	0.653193521
## NumUnderPov	-0.048064801	0.32245265	-1.045662e-01	-0.239823588
## PctPopUnderPov	0.244077721	0.78240831	-1.531778e-01	-0.762811029
## PctLess9thGrade	0.356652000	0.72913841	-9.646116e-02	-0.630681070
## PctNotHSGrad	0.445894076	0.77272209	1.258043e-02	-0.726852389
## PctBSorMore	-0.387590369	-0.57023303	-1.864214e-01	0.767383162
## PctUnemployed	0.301765603	0.83619530	1.731583e-02	-0.676394461
## PctEmploy	-0.728597413	-0.63630886	-3.859411e-01	0.593841501
## PctEmplManu	0.079756878	0.11013817	-2.479776e-02	-0.092219119
## PctEmplProfServ	0.052820762	-0.06812808	3.622848e-02	0.141319635
## PctOccupManu	0.315526552	0.58078747	6.762444e-03	-0.669756552
## PctOccupMgmtProf	-0.313672071	-0.57821726	-8.616998e-02	0.798023405
## MalePctDivorce	0.183388594	0.45013926	1.731176e-02	-0.559905766
## MalePctNevMarr	-0.185474619	0.24191947	-2.631665e-01	-0.125092876
## FemalePctDiv	0.067857158	0.51186799	-7.877005e-02	-0.544726857
## TotalPctDiv	0.133321097	0.49774135	-3.288509e-02	-0.565653683
## PersPerFam	-0.410048635	0.30144823	-3.824515e-01	-0.008308382
## PctFam2Par	-0.328717542	-0.73734909	-8.897192e-03	0.710212472
## PctKids2Par	-0.323516429	-0.76031791	-1.327105e-05	0.709953583
## PctYoungKids2Par	-0.341890730	-0.77535045	-1.270119e-02	0.713891824
## PctTeen2Par	-0.250394108	-0.62957658	2.847058e-02	0.603701111
## PctWorkMomYoungKids	-0.020684049	-0.19751480	-6.748927e-02	-0.133220333
## PctWorkMom	-0.026620869	-0.34629868	-7.187795e-04	-0.017847904
## NumIlleg	-0.035317398	0.31542444	-8.807813e-02	-0.192121442
## PctIlleg	0.099233001	0.66895419	-1.494241e-01	-0.496349615
## NumImmig	-0.145704808	0.17881337	-1.435884e-01	-0.024559118
## PctImmigRecent	-0.195793336	0.10949518	-2.936829e-01	-0.123515021
## PctImmigRec5	-0.213908811	0.14620632	-3.298788e-01	-0.149444487
## PctImmigRec8	-0.261665241	0.14652465	-3.776035e-01	-0.138105522
## PctImmigRec10	-0.280488261	0.18086879	-4.215657e-01	-0.167187088
## PctRecentImmig	-0.257474375	0.15943250	-2.867819e-01	0.102926241
## PctRecImmig5	-0.251950557	0.17656024	-2.881212e-01	0.093635830
## PctRecImmig8	-0.259821848	0.17179629	-2.914208e-01	0.107755799
## PctRecImmig10	-0.255542987	0.18515212	-2.935971e-01	0.095699485
## PctSpeakEnglOnly	0.144655049	-0.32004909	2.378988e-01	0.024078965
## PctNotSpeakEnglWell	-0.119628236	0.41328682	-2.513523e-01	-0.137273235
## PctLargHouseFam	-0.162250083	0.52474745	-2.655315e-01	-0.249405533
## PctLargHouseOccup	-0.199631776	0.45849418	-2.587436e-01	-0.182221573
## PersPerOccupHous	-0.454435633	0.09281616	-3.005990e-01	0.177084447
## PersPerOwnOccHous	-0.540148626	-0.01998520	-3.679212e-01	0.277090047
## PersPerRentOccHous	-0.266439057	0.40014488	-2.539590e-01	-0.220901063
## PctPersOwnOccup	0.031952235	-0.53839287	2.390678e-01	0.582544754
## PctPersDenseHous	-0.166574451	0.55446315	-3.143809e-01	-0.332893849
## PctHousLess3BR	0.238525775	0.44594265	-7.083547e-02	-0.558027709
## MedNumBR	-0.146562185	-0.33123578	8.028770e-02	0.409284465
## HousVacant	0.005107118	0.17511469	-3.712914e-02	-0.182604062
## PctHousOccup	-0.277970332	-0.22244736	-5.475213e-02	0.379265921
## PctHousOwnOcc	0.055813205	-0.47022064	2.511366e-01	0.527160014
## PctVacantBoarded	0.136268332	0.50278490	-1.508837e-02	-0.378730286

## PctVacMore6Mos	0.362925759	0.17973867	1.679744e-01	-0.210376391
## MedYrHousBuilt	-0.463403735	-0.25818285	-2.930743e-01	0.106372656
## PctHousNoPhone	0.296493716	0.69227935	-1.222577e-01	-0.737899320
## PctW0FullPlumb	0.154614560	0.56454949	-1.453760e-01	-0.437269763
## OwnOccLowQuart	-0.305044668	-0.39907959	-7.222733e-02	0.810152374
## OwnOccMedVal	-0.299194780	-0.38664032	-8.211833e-02	0.807396207
## OwnOccHiQuart	-0.283458443	-0.38005933	-8.652468e-02	0.803289798
## RentLowQ	-0.419974249	-0.52045412	-9.323703e-02	0.790370447
## RentMedian	-0.377133806	-0.49946136	-7.491435e-02	0.840391266
## RentHighQ	-0.365108224	-0.48942056	-7.154520e-02	0.844428922
## MedRent	-0.370383494	-0.50759431	-6.447478e-02	0.841975366
## MedRentPctHousInc	0.102432229	0.38613246	-3.441589e-03	-0.204399815
## MedOwnCostPctInc	-0.284906122	-0.07791128	-1.853646e-01	0.331343120
## MedOwnCostPctIncNoMtg	0.252466694	0.09830687	3.359779e-02	-0.017154082
## NumInShelters	-0.044826592	0.21401039	-7.203189e-02	-0.118982221
## NumStreet	-0.056538367	0.16566197	-6.795393e-02	-0.086077469
## PctForeignBorn	-0.196153302	0.12813378	-2.050190e-01	0.199243878
## PctBornSameState	0.282666171	0.20508273	9.471827e-02	-0.238682665
## PctSameHouse85	0.438072058	-0.05232456	3.789270e-01	0.229233346
## PctSameCity85	0.434447941	0.21958952	2.602005e-01	-0.041447365
## PctSameState85	0.356326671	0.21076434	1.672813e-01	-0.069252512
## LandArea	-0.127046546	0.03045572	-5.264906e-02	-0.057979288
## PopDens	-0.024486206	0.19705533	-8.799199e-02	-0.017016283
## PctUsePubTrans	-0.058336190	-0.01643810	-4.056889e-02	0.275346167
## LemasPctOfficDrugUn	-0.024825476	0.17603610	-5.711307e-02	-0.117179703
## ViolentCrimesPerPop	0.117977155	0.57466527	-9.844222e-02	-0.439107738
##	perCapInc	whitePerCap	blackPerCap	indianPerCap
## population	-0.0556563928	0.037044282	-0.0596458397	-0.0172636890
## householdsSize	-0.1307164824	-0.131671029	0.0425060979	-0.0078496998
## racePctBlack	-0.2868815568	-0.102516820	-0.2546969093	-0.0485188106
## racePctWhite	0.3150832115	0.123322093	0.1876137148	0.0398259171
## racePctAsian	0.3189842297	0.355612948	0.3001246966	0.1150359678
## racePctHisp	-0.2420260933	-0.200596101	-0.0638999433	-0.0097539994
## agePct12t21	-0.4050476990	-0.384193407	-0.2837949396	-0.1573991039
## agePct12t29	-0.4139243242	-0.378535391	-0.2596931531	-0.1496679768
## agePct16t24	-0.3420840492	-0.314939675	-0.2617904560	-0.1509754307
## agePct65up	-0.0311361641	-0.033475650	-0.1705519259	-0.0507208517
## numbUrban	-0.0208399960	0.069890079	-0.0306147745	-0.0049897885
## pctUrban	0.3376134074	0.347929046	0.2754068556	0.1269144770
## medIncome	0.8941747582	0.839626643	0.6746666037	0.2942959250
## pctWwage	0.3847008003	0.346929762	0.4063723513	0.1604196309
## pctWFarmSelf	-0.0692238341	-0.081631054	-0.1154845507	-0.0453221763
## pctWInvInc	0.8116174826	0.722331148	0.4975409198	0.1958046674
## pctWSocSec	-0.2276528567	-0.226625475	-0.2888431016	-0.1184165088
## pctWPubAsst	-0.6382439677	-0.538536246	-0.4281264515	-0.1897729700
## pctWRetire	0.0069095169	-0.037760046	-0.0487004920	-0.0188895004
## medFamInc	0.9380200167	0.884082006	0.6625151064	0.2914589997
## perCapInc	1.0000000000	0.970246524	0.6318090404	0.2850714096
## whitePerCap	0.9702465243	1.0000000000	0.5827041276	0.2807655024
## blackPerCap	0.6318090404	0.582704128	1.0000000000	0.2418194143
## indianPerCap	0.2850714096	0.280765502	0.2418194143	1.0000000000
## AsianPerCap	0.5102252592	0.486403996	0.3323611389	0.1573748591
## OtherPerCap	0.3867072268	0.370780274	0.3421683432	0.1570490786
## HispPerCap	0.6728908248	0.645107948	0.5004484077	0.2174237961

## NumUnderPov	-0.1793484541	-0.071805643	-0.1504540958	-0.0607631620
## PctPopUnderPov	-0.7006477220	-0.594184062	-0.5339615138	-0.2334861822
## PctLess9thGrade	-0.6075059090	-0.540460739	-0.3895574716	-0.1748447090
## PctNotHSGrad	-0.6988254105	-0.629915362	-0.4449854800	-0.1930012428
## PctBSorMore	0.7916751413	0.786339966	0.4678310877	0.2060146572
## PctUnemployed	-0.6553194228	-0.577231681	-0.4107529763	-0.2057894561
## PctEmploy	0.4908645200	0.441783743	0.4532909619	0.1952352773
## PctEmplManu	-0.1529292429	-0.182153312	-0.0119093248	-0.0257876563
## PctEmplProfServ	0.1897036741	0.215582216	-0.0028582700	-0.0047062385
## PctOccupManu	-0.6938467562	-0.674333345	-0.4301325880	-0.1954727606
## PctOccupMgmtProf	0.8385131256	0.827732975	0.5096031066	0.2208898774
## MalePctDivorce	-0.4069094601	-0.325095331	-0.3295546457	-0.0892846960
## MalePctNevMarr	-0.1500787347	-0.070289309	-0.1233769457	-0.0774741403
## FemalePctDiv	-0.3989024057	-0.303142106	-0.3023421401	-0.0712277785
## TotalPctDiv	-0.4119252356	-0.320135787	-0.3228617352	-0.0823881092
## PersPerFam	-0.2079657117	-0.175633260	0.0252933083	-0.0021442561
## PctFam2Par	0.5748898001	0.432682882	0.4615363728	0.1648355247
## PctKids2Par	0.5873531913	0.434809270	0.4611448391	0.1565035357
## PctYoungKids2Par	0.6015750826	0.470478125	0.4790613697	0.1845006245
## PctTeen2Par	0.4678032947	0.325251202	0.3778269261	0.1240657665
## PctWorkMomYoungKids	-0.1330245719	-0.119618603	-0.1248305879	-0.0480161575
## PctWorkMom	-0.0406039595	-0.052661615	-0.0577014452	-0.0047031996
## NumIlleg	-0.1345995347	-0.012371180	-0.1131495917	-0.0346788703
## PctIlleg	-0.4340769131	-0.261383682	-0.3285357895	-0.1085109862
## NumImmig	-0.0009735439	0.069358771	0.0264699210	0.0141404086
## PctImmigRecent	-0.1031442961	-0.046036886	-0.1215982218	-0.0575383390
## PctImmigRec5	-0.1300466113	-0.061742672	-0.1281085444	-0.0618339157
## PctImmigRec8	-0.1189141867	-0.039558445	-0.1091487441	-0.0517859529
## PctImmigRec10	-0.1492303762	-0.061471463	-0.1168269331	-0.0465888760
## PctRecentImmig	0.1019954538	0.157589030	0.1245553837	0.0551760647
## PctRecImmig5	0.0895394800	0.147887554	0.1245759965	0.0584341072
## PctRecImmig8	0.1011746460	0.160894966	0.1422956310	0.0657696851
## PctRecImmig10	0.0880696760	0.148750011	0.1392562483	0.0640248493
## PctSpeakEnglOnly	0.0527388480	0.012480677	-0.0766366343	-0.0331859631
## PctNotSpeakEnglWell	-0.1592823488	-0.111536267	-0.0013013749	0.0047578466
## PctLargHouseFam	-0.3471318722	-0.268818485	-0.1361206161	-0.0462583866
## PctLargHouseOccup	-0.3074886957	-0.250274754	-0.0941440697	-0.0331115317
## PersPerOccupHous	-0.0455716077	-0.054437634	0.1472385067	0.0469881779
## PersPerOwnOccHous	0.0395093386	0.011356810	0.2169355812	0.0652049287
## PersPerRentOccHous	-0.3496500842	-0.301485661	-0.1222488854	-0.0458135313
## PctPersOwnOccup	0.4853956710	0.386324375	0.3671759049	0.1528584922
## PctPersDenseHous	-0.3651824109	-0.278738497	-0.1650594681	-0.0455130213
## PctHousLess3BR	-0.4132271586	-0.342453370	-0.3303357207	-0.1161572337
## MedNumBR	0.3055522211	0.254506014	0.2417347796	0.1011956064
## HousVacant	-0.0809335686	0.016480618	-0.1199032103	-0.0303718792
## PctHousOccup	0.2477670410	0.194991131	0.2753976337	0.0705581694
## PctHousOwnOcc	0.4316571462	0.344029648	0.3309966660	0.1427081870
## PctVacantBoarded	-0.3469871453	-0.248097835	-0.2554225311	-0.0963831092
## PctVacMore6Mos	-0.2029428163	-0.195817648	-0.1981653821	-0.1083766401
## MedYrHousBuilt	0.0413173489	0.031681442	0.0713374778	0.0709247475
## PctHousNoPhone	-0.6597424950	-0.567693684	-0.5009441094	-0.2081146111
## PctWOfullPlumb	-0.4137926362	-0.341591337	-0.2575083890	-0.1169692527
## OwnOccLowQuart	0.7866458530	0.772478573	0.5929553808	0.2645102429
## OwnOccMedVal	0.7984380402	0.791410096	0.5822411706	0.2660504349

## OwnOccHiQuart	0.8164398308	0.819873557	0.5637324383	0.2644938607
## RentLowQ	0.7367881864	0.701673626	0.5961165709	0.2852665785
## RentMedian	0.7872092866	0.758162960	0.6247097032	0.2842523866
## RentHighQ	0.7921365392	0.768565016	0.6231666993	0.2801163797
## MedRent	0.7825890214	0.754959317	0.6257350498	0.2917938147
## MedRentPctHousInc	-0.2041352681	-0.147247085	-0.1464617070	-0.0369808606
## MedOwnCostPctInc	0.2927185108	0.312538436	0.3019605022	0.1657786505
## MedOwnCostPctIncNoMtg	-0.0120647511	0.008156542	0.0006656418	0.0003339756
## NumInShelters	-0.0561866998	0.039876792	-0.0752028582	-0.0367723898
## NumStreet	-0.0281532422	0.042633733	-0.0443124100	-0.0067307533
## PctForeignBorn	0.1897037920	0.231780015	0.2270521599	0.1036099560
## PctBornSameState	-0.2972822726	-0.315012371	-0.1842937234	-0.1264878244
## PctSameHouse85	0.2164699824	0.184829907	0.1827020547	0.0471476097
## PctSameCity85	-0.0236376458	-0.025545893	0.0222241462	-0.0152421424
## PctSameState85	-0.1196180550	-0.136069625	-0.0303139979	-0.0261307896
## LandArea	-0.0338280370	0.020088660	-0.0584091066	-0.0180509883
## PopDens	0.0191235531	0.064240465	0.0744307510	0.0404042428
## PctUsePubTrans	0.3078802398	0.360946828	0.2263363451	0.0919373952
## LemasPctOfficDrugUn	-0.0554330832	0.021377772	-0.0930427413	-0.0073644356
## ViolentCrimesPerPop	-0.3520847296	-0.209272201	-0.2753910857	-0.0908538163
##	AsianPerCap	OtherPerCap	HispanicPerCap	NumUnderPov
## population	-0.0810332761	-0.031001686	-0.083065155	0.947597845
## householdsize	-0.0558179256	0.016718886	-0.085088234	-0.030139281
## racepctblack	-0.1155835298	-0.105901098	-0.151800211	0.322460834
## racePctWhite	0.1452044524	0.104872017	0.213038036	-0.376409490
## racePctAsian	0.0957981261	0.192691971	0.199030193	0.089710961
## racePctHispanic	-0.1140055303	-0.096371974	-0.240113227	0.196440933
## agePct12t21	-0.2652995410	-0.174009609	-0.311167238	0.086402631
## agePct12t29	-0.3251588160	-0.151255288	-0.321663138	0.177725518
## agePct16t24	-0.2755772632	-0.161561801	-0.279457949	0.135678736
## agePct65up	0.0500258311	-0.112755247	-0.029623518	-0.062354079
## numbUrban	-0.0687997875	-0.014629242	-0.054625857	0.936087956
## pctUrban	0.1023789774	0.184079158	0.255913259	0.167861781
## medIncome	0.4575947561	0.415574594	0.637927549	-0.237807374
## pctWwage	0.1215742119	0.272645013	0.296109672	-0.106959934
## pctWFarmSelf	-0.0466128439	-0.087386049	-0.116150217	-0.100297356
## pctWInvInc	0.3874644762	0.310178810	0.550871312	-0.269043101
## pctWSocSec	-0.0351604876	-0.184759578	-0.154112170	-0.048064801
## pctWPubAsst	-0.2651233766	-0.309227396	-0.451792079	0.322452653
## pctWRetire	0.0451012889	-0.039412854	0.056074331	-0.104566205
## medFamInc	0.4718254266	0.409152597	0.653193521	-0.239823588
## perCapInc	0.5102252592	0.386707227	0.672890825	-0.179348454
## whitePerCap	0.4864039964	0.370780274	0.645107948	-0.071805643
## blackPerCap	0.3323611389	0.342168343	0.500448408	-0.150454096
## indianPerCap	0.1573748591	0.157049079	0.217423796	-0.060763162
## AsianPerCap	1.0000000000	0.183578084	0.410828793	-0.129258698
## OtherPerCap	0.1835780840	1.0000000000	0.485350196	-0.095080073
## HispanicPerCap	0.4108287928	0.485350196	1.0000000000	-0.159596422
## NumUnderPov	-0.1292586976	-0.095080073	-0.159596422	1.0000000000
## PctPopUnderPov	-0.3310818935	-0.349843776	-0.515916384	0.338313815
## PctLess9thGrade	-0.2460811458	-0.274872810	-0.420602081	0.169246400
## PctNotHSGrad	-0.2777068803	-0.298007459	-0.466634285	0.193370860
## PctBSorMore	0.3501957776	0.274145227	0.505405046	-0.081767565
## PctUnemployed	-0.2702358310	-0.294575968	-0.459954402	0.291400211

## PctEmploy	0.1609190593	0.305407070	0.363590780	-0.149753364
## PctEmplManu	-0.0006940563	-0.047193064	-0.070132347	-0.106928264
## PctEmplProfServ	0.0874913792	-0.034753675	0.088239126	0.061506559
## PctOccupManu	-0.3011327663	-0.290131485	-0.469152492	0.065108629
## PctOccupMgmtProf	0.4189516889	0.296840117	0.565517544	-0.105031823
## MalePctDivorce	-0.2251515677	-0.184013874	-0.310247689	0.279449427
## MalePctNevMarr	-0.1580281259	-0.089122035	-0.150022341	0.296114345
## FemalePctDiv	-0.2272609873	-0.176525381	-0.312605357	0.302763846
## TotalPctDiv	-0.2297794870	-0.185120999	-0.317107432	0.296160464
## PersPerFam	-0.0661550694	0.004930475	-0.122322676	0.114880735
## PctFam2Par	0.2948151949	0.286072383	0.423256106	-0.390919143
## PctKids2Par	0.2890346074	0.281742405	0.427407180	-0.399834770
## PctYoungKids2Par	0.2868171539	0.303645655	0.439970667	-0.359002793
## PctTeen2Par	0.2563293602	0.236314783	0.341030626	-0.374518870
## PctWorkMomYoungKids	-0.1423910560	-0.032406856	-0.087691628	-0.069382731
## PctWorkMom	-0.1018666761	0.015753301	-0.023505034	-0.147095999
## NumIlleg	-0.0999349425	-0.068695975	-0.115195141	0.940572757
## PctIlleg	-0.2159747796	-0.187011671	-0.306511596	0.447705673
## NumImmig	-0.0356512252	-0.009083324	-0.057502132	0.705238687
## PctImmigRecent	-0.1828340730	-0.070980490	-0.145700559	0.166620749
## PctImmigRec5	-0.2157157224	-0.091102864	-0.183460589	0.181953744
## PctImmigRec8	-0.2103680634	-0.076445290	-0.189760155	0.200883477
## PctImmigRec10	-0.2197504195	-0.086235232	-0.226927565	0.224754835
## PctRecentImmig	-0.0036209467	0.046148497	-0.010039788	0.179224623
## PctRecImmig5	-0.0057995368	0.045064889	-0.018024660	0.179232670
## PctRecImmig8	0.0040202288	0.054846360	-0.006183919	0.180472987
## PctRecImmig10	0.0007629144	0.051616291	-0.013144440	0.185954499
## PctSpeakEnglOnly	0.0270494787	-0.008896640	0.085431352	-0.180136402
## PctNotSpeakEnglWell	-0.0807387524	-0.063107334	-0.177186692	0.213034394
## PctLargHouseFam	-0.1529649161	-0.101493092	-0.264497410	0.249016144
## PctLargHouseOccup	-0.1261694751	-0.075684384	-0.223452114	0.173077892
## PersPerOccupHous	0.0182398828	0.080768096	0.004637319	-0.039984795
## PersPerOwnOccHous	0.0489558655	0.123161421	0.069238678	-0.022750395
## PersPerRentOccHous	-0.1604085738	-0.075207348	-0.247506741	0.073258287
## PctPersOwnOccup	0.3167255328	0.234482975	0.417055970	-0.325804318
## PctPersDenseHous	-0.1860418856	-0.130024755	-0.305060377	0.262745221
## PctHousLess3BR	-0.2570222788	-0.190358556	-0.346472755	0.277809696
## MedNumBR	0.2255545274	0.153133420	0.263987538	-0.256353392
## HousVacant	-0.0884440489	-0.051519489	-0.100866726	0.881445624
## PctHousOccup	0.1158631900	0.125293976	0.205077458	-0.149679145
## PctHousOwnOcc	0.2937285222	0.212317136	0.376120319	-0.321212251
## PctVacantBoarded	-0.1355498743	-0.157447048	-0.227617821	0.431780492
## PctVacMore6Mos	-0.0100212320	-0.105783171	-0.097896565	-0.003768899
## MedYrHousBuilt	-0.0045533114	0.095495425	0.037881476	-0.104244396
## PctHousNoPhone	-0.2727085503	-0.312025550	-0.480767455	0.205804093
## PctWOfullPlumb	-0.1540466932	-0.212355165	-0.276985698	0.215830834
## OwnOccLowQuart	0.3856898121	0.358853086	0.524786346	-0.128974491
## OwnOccMedVal	0.3943531011	0.350232657	0.522880724	-0.112930558
## OwnOccHiQuart	0.4027582264	0.337648810	0.522441640	-0.091599297
## RentLowQ	0.3486888924	0.406647886	0.525327444	-0.145622860
## RentMedian	0.3804047147	0.406617248	0.553081836	-0.140765800
## RentHighQ	0.3753207563	0.393969468	0.548281864	-0.126045088
## MedRent	0.3863707695	0.414793631	0.560933288	-0.152945350
## MedRentPctHousInc	-0.1395009802	-0.070783431	-0.178067864	0.188634995

## MedOwnCostPctInc	0.1067664588	0.193407044	0.201889352	0.015044298
## MedOwnCostPctIncNoMtg	0.0276638530	0.024850924	0.022056953	0.003510488
## NumInShelters	-0.0762066134	-0.056146094	-0.092877984	0.823481070
## NumStreet	-0.0415679693	-0.041668007	-0.073294959	0.641190851
## PctForeignBorn	0.0807345306	0.116136506	0.085661878	0.135848084
## PctBornSameState	-0.0585296984	-0.145936459	-0.152939092	-0.055767337
## PctSameHouse85	0.2319789997	0.086642812	0.243603941	-0.116684483
## PctSameCity85	0.1297503909	-0.028951539	0.053062331	0.033018889
## PctSameState85	0.0692299072	-0.047636546	-0.030176202	-0.046708043
## LandArea	-0.0412107306	-0.010157604	-0.041592700	0.649896118
## PopDens	-0.0251547406	0.029340088	-0.013839003	0.227730657
## PctUsePubTrans	0.1240291656	0.146850631	0.215107141	0.258566792
## LemasPctOfficDrugUn	-0.0631116287	-0.024719137	-0.072958917	0.447769921
## ViolentCrimesPerPop	-0.1555916647	-0.126344818	-0.244552896	0.447581641
##	PctPopUnderPov	PctLess9thGrade	PctNotHSGrad	PctBSorMore
## population	0.16200367	0.03670577	0.05703127	-0.0034182665
## householdsiz	0.05508550	0.17214418	0.10028566	-0.0334124961
## racepctblack	0.49024084	0.28704632	0.36735559	-0.1799721884
## racePctWhite	-0.54213855	-0.47076213	-0.48557396	0.2181601722
## racePctAsian	-0.17361083	-0.16191307	-0.23800026	0.3189471880
## racePctHisp	0.31465077	0.54324973	0.45555810	-0.2596761762
## agePct12t21	0.50021877	0.17432038	0.12012429	0.0238177094
## agePct12t29	0.45407382	0.14709228	0.10409247	-0.0001121789
## agePct16t24	0.47108974	0.11131699	0.06378492	0.0939273333
## agePct65up	0.09969023	0.19734629	0.27117623	-0.2186061403
## numbUrban	0.12419833	0.01224919	0.03343369	0.0155854709
## pctUrban	-0.31901164	-0.27083950	-0.25230286	0.2149414396
## medIncome	-0.79109517	-0.59599030	-0.68327072	0.6799637188
## pctWwage	-0.51995562	-0.46082911	-0.54438278	0.4305980184
## pctWFarmSelf	0.14237798	0.08869877	-0.02775665	0.0989372683
## pctWInvInc	-0.72164798	-0.68544552	-0.77830858	0.7358536648
## pctWSocSec	0.24407772	0.35665200	0.44589408	-0.3875903692
## pctWPubAsst	0.78240831	0.72913841	0.77272209	-0.5702330267
## pctWRetire	-0.15317782	-0.09646116	0.01258043	-0.1864214361
## medFamInc	-0.76281103	-0.63068107	-0.72685239	0.7673831620
## perCapInc	-0.70064772	-0.60750591	-0.69882541	0.7916751413
## whitePerCap	-0.59418406	-0.54046074	-0.62991536	0.7863399660
## blackPerCap	-0.53396151	-0.38955747	-0.44498548	0.4678310877
## indianPerCap	-0.23348618	-0.17484471	-0.19300124	0.2060146572
## AsianPerCap	-0.33108189	-0.24608115	-0.27770688	0.3501957776
## OtherPerCap	-0.34984378	-0.27487281	-0.29800746	0.2741452270
## HispPerCap	-0.51591638	-0.42060208	-0.46663428	0.5054050464
## NumUnderPov	0.33831382	0.16924640	0.19337086	-0.0817675645
## PctPopUnderPov	1.00000000	0.65812938	0.66892658	-0.3928975381
## PctLess9thGrade	0.65812938	1.00000000	0.94385034	-0.6180905198
## PctNotHSGrad	0.66892658	0.94385034	1.00000000	-0.7641550744
## PctBSorMore	-0.39289754	-0.61809052	-0.76415507	1.0000000000
## PctUnemployed	0.77621210	0.68896374	0.74362167	-0.5662320008
## PctEmploy	-0.70480106	-0.55119761	-0.61301587	0.4035458076
## PctEmplManu	-0.06886237	0.25966014	0.30185249	-0.3287817629
## PctEmplProfServ	0.16516982	-0.24036860	-0.32311289	0.5744804285
## PctOccupManu	0.45051208	0.68692100	0.78154148	-0.7832507255
## PctOccupMgmtProf	-0.46868701	-0.63802492	-0.77066837	0.9528190785
## MalePctDivorce	0.39430507	0.25498531	0.39159108	-0.4797427242

## MalePctNevMarr	0.40449979	0.13510149	0.09584652	0.1659545805
## FemalePctDiv	0.43180931	0.27819428	0.38435543	-0.4191481464
## TotalPctDiv	0.42859877	0.27677148	0.39925909	-0.4548131072
## PersPerFam	0.12521726	0.32673154	0.27478393	-0.2060251550
## PctFam2Par	-0.74363365	-0.51403728	-0.61742980	0.4557285870
## PctKids2Par	-0.75860905	-0.57233789	-0.67526909	0.4893002142
## PctYoungKids2Par	-0.76090534	-0.55087179	-0.65021411	0.4982087617
## PctTeen2Par	-0.66495669	-0.41737518	-0.50623474	0.3390868799
## PctWorkMomYoungKids	-0.10305989	-0.08869407	-0.07091885	-0.0637720824
## PctWorkMom	-0.25261090	-0.23123633	-0.20737326	0.0132073474
## NumIlleg	0.27653100	0.15408923	0.19806700	-0.0852228945
## PctIlleg	0.63889851	0.49852392	0.56947075	-0.3223043754
## NumImmig	0.10253576	0.16043080	0.12341172	-0.0012434528
## PctImmigRecent	0.32153249	0.04432021	-0.00326042	0.1878889146
## PctImmigRec5	0.34498050	0.09507707	0.04899725	0.1494915030
## PctImmigRec8	0.33932548	0.10492370	0.05430761	0.1525573478
## PctImmigRec10	0.35781087	0.15524985	0.10395272	0.1016714615
## PctRecentImmig	0.10166375	0.21604940	0.11908090	0.1416388809
## PctRecImmig5	0.09641478	0.23899414	0.14589279	0.1053988102
## PctRecImmig8	0.07798703	0.23648368	0.14449048	0.1011113056
## PctRecImmig10	0.07988546	0.25470441	0.16548314	0.0737650129
## PctSpeakEnglOnly	-0.18165307	-0.48169174	-0.37102796	0.1122027529
## PctNotSpeakEnglWell	0.26028197	0.55982780	0.46090275	-0.2028051796
## PctLargHouseFam	0.37923674	0.51044667	0.48044947	-0.3215055994
## PctLargHouseOccup	0.30139346	0.47427942	0.43492113	-0.3005261259
## PersPerOccupHous	-0.08678152	0.16335176	0.10732394	-0.1082338797
## PersPerOwnOccHous	-0.18699490	0.05173415	-0.01731473	0.0122051245
## PersPerRentOccHous	0.28600201	0.42174672	0.40657942	-0.3581127739
## PctPersOwnOccup	-0.63100976	-0.42487624	-0.43151507	0.2635991424
## PctPersDenseHous	0.45418575	0.58984133	0.53415067	-0.3304926120
## PctHousLess3BR	0.50842171	0.43982838	0.46816573	-0.3282039496
## MedNumBR	-0.41922547	-0.33627539	-0.33492839	0.1915007872
## HousVacant	0.21595485	0.03664781	0.08375393	-0.0432421268
## PctHousOccup	-0.36879757	-0.18942438	-0.25612389	0.2265687874
## PctHousOwnOcc	-0.56816054	-0.35769441	-0.35829533	0.1998117603
## PctVacantBoarded	0.47523595	0.35834043	0.43154154	-0.3077524146
## PctVacMore6Mos	0.22400003	0.22092015	0.26968793	-0.2110326720
## MedYrHousBuilt	-0.13517447	-0.19812760	-0.24750528	0.1055653689
## PctHousNoPhone	0.81379986	0.69272652	0.73733705	-0.5287406375
## PctWOfullPlumb	0.52897976	0.57960747	0.57980663	-0.3595618223
## OwnOccLowQuart	-0.55118737	-0.38194049	-0.48051311	0.5937458165
## OwnOccMedVal	-0.52907353	-0.37318288	-0.47607649	0.6140097131
## OwnOccHiQuart	-0.50528722	-0.37296782	-0.47965878	0.6429012557
## RentLowQ	-0.65743348	-0.49332078	-0.55975878	0.5363296923
## RentMedian	-0.65120770	-0.47324069	-0.54843577	0.5782865708
## RentHighQ	-0.63616553	-0.46478393	-0.54532983	0.5952018698
## MedRent	-0.66054192	-0.47619271	-0.54306779	0.5659821007
## MedRentPctHousInc	0.45000956	0.20827068	0.21921940	-0.0541250403
## MedOwnCostPctInc	-0.23835761	-0.08012016	-0.12188619	0.1637841239
## MedOwnCostPctIncNoMtg	0.05069471	0.16025882	0.20071625	-0.0981730478
## NumInShelters	0.18198523	0.06970284	0.09228579	-0.0060432476
## NumStreet	0.13214197	0.07293347	0.07821195	-0.0115860268
## PctForeignBorn	-0.02740111	0.23147993	0.13742065	0.0946190721
## PctBornSameState	0.15372057	0.23071838	0.27002982	-0.2946939686

## PctSameHouse85	-0.26269636	0.09244730	0.12042441	-0.0831490569
## PctSameCity85	-0.05086935	0.29990801	0.35518599	-0.3313226173
## PctSameState85	0.01780058	0.27278486	0.32035979	-0.3259088828
## LandArea	0.06614003	-0.04300738	-0.02652778	0.0053429290
## PopDens	0.06500914	0.18089374	0.18009145	-0.0250507234
## PctUsePubTrans	-0.10899305	-0.08060386	-0.08648915	0.2692473225
## LemasPctOfficDrugUn	0.17016920	0.08460769	0.10506189	-0.0257313610
## ViolentCrimesPerPop	0.52187654	0.41109551	0.48336588	-0.3146751780
##	PctUnemployed	PctEmploy	PctEmplManu	PctEmplProfServ
## population	0.14524721	-0.005217167	-0.1062835500	0.021769412
## householdsSize	0.14381052	0.113240009	0.0232869853	-0.084040009
## racePctBlack	0.38831865	-0.273292951	-0.0175635854	0.098525642
## racePctWhite	-0.51748280	0.255373033	0.0382100902	0.027496577
## racePctAsian	-0.15898913	0.246307805	-0.0983214409	0.010821519
## racePctHisp	0.43260119	-0.141225184	-0.0528553522	-0.241042161
## agePct12t21	0.27315521	-0.191836537	-0.1071708818	0.346520634
## agePct12t29	0.22940489	0.006609523	-0.1014767261	0.223253551
## agePct16t24	0.20125139	-0.150371867	-0.1565643709	0.393075757
## agePct65up	0.12885020	-0.614405070	0.0122464345	0.086202590
## numbUrban	0.11656878	0.023604733	-0.1105380095	0.014190934
## pctUrban	-0.23068279	0.293141389	-0.1114227804	-0.045876182
## medIncome	-0.65187754	0.640400270	-0.0512863355	0.028782028
## pctWwage	-0.51351026	0.860863576	0.0022593697	-0.097085824
## pctWFarmSelf	-0.02163837	-0.011083440	-0.1473217351	0.154531185
## pctWInvInc	-0.73122078	0.412191362	-0.1318914548	0.309541060
## pctWSocSec	0.30176560	-0.728597413	0.0797568782	0.052820762
## pctWPubAsst	0.83619530	-0.636308856	0.1101381708	-0.068128080
## pctWRetire	0.01731583	-0.385941120	-0.0247977601	0.036228484
## medFamInc	-0.67639446	0.593841501	-0.0922191195	0.141319635
## perCapInc	-0.65531942	0.490864520	-0.1529292429	0.189703674
## whitePerCap	-0.57723168	0.441783743	-0.1821533121	0.215582216
## blackPerCap	-0.41075298	0.453290962	-0.0119093248	-0.002858270
## indianPerCap	-0.20578946	0.195235277	-0.0257876563	-0.004706239
## AsianPerCap	-0.27023583	0.160919059	-0.0006940563	0.087491379
## OtherPerCap	-0.29457597	0.305407070	-0.0471930641	-0.034753675
## HispPerCap	-0.45995440	0.363590780	-0.0701323471	0.088239126
## NumUnderPov	0.29140021	-0.149753364	-0.1069282644	0.061506559
## PctPopUnderPov	0.77621210	-0.704801061	-0.0688623660	0.165169822
## PctLess9thGrade	0.68896374	-0.551197606	0.2596601402	-0.240368605
## PctNothHSGrad	0.74362167	-0.613015868	0.3018524852	-0.323112894
## PctBSorMore	-0.56623200	0.403545808	-0.3287817629	0.574480429
## PctUnemployed	1.00000000	-0.683759350	0.0550120090	-0.064861871
## PctEmploy	-0.68375935	1.000000000	0.0572881044	-0.188599205
## PctEmplManu	0.05501201	0.057288104	1.0000000000	-0.458843006
## PctEmplProfServ	-0.06486187	-0.188599205	-0.4588430060	1.000000000
## PctOccupManu	0.53592594	-0.377654222	0.6532435454	-0.460276836
## PctOccupMgmtProf	-0.58753553	0.391873185	-0.3283626202	0.551471219
## MalePctDivorce	0.36581036	-0.238379370	0.0586695989	-0.273257806
## MalePctNevMarr	0.24759260	-0.116218374	-0.1581335387	0.384669927
## FemalePctDiv	0.40013950	-0.189018975	0.0120919315	-0.233761393
## TotalPctDiv	0.39603904	-0.224084054	0.0342796673	-0.248525536
## PersPerFam	0.31182355	0.129949683	0.1051707713	-0.243824965
## PctFam2Par	-0.65151541	0.540966388	-0.0170862216	-0.020674351
## PctKids2Par	-0.67928331	0.554359733	-0.0310146219	0.024101243

## PctYoungKids2Par	-0.68584549	0.571300599	-0.0778560790	0.021599240
## PctTeen2Par	-0.54923059	0.440856658	0.0340135890	-0.062199528
## PctWorkMomYoungKids	-0.20848507	0.251598360	0.0922102219	0.006544579
## PctWorkMom	-0.34714130	0.348906519	0.0841560955	0.028440848
## NumIlleg	0.27114714	-0.118755878	-0.0662017173	0.033770701
## PctIlleg	0.58993419	-0.365472380	0.0475920829	0.002009803
## NumImmig	0.14176861	0.009485836	-0.0365233786	-0.066974239
## PctImmigRecent	0.08167856	-0.055059225	-0.1271915938	0.253236082
## PctImmigRec5	0.11046638	-0.050374931	-0.1053066759	0.202425837
## PctImmigRec8	0.10450047	-0.015385858	-0.1093992310	0.163682052
## PctImmigRec10	0.13063022	-0.010856161	-0.1062217074	0.100296434
## PctRecentImmig	0.14650308	0.037880634	-0.0834355371	-0.031392742
## PctRecImmig5	0.16330403	0.041199455	-0.0714690517	-0.073110657
## PctRecImmig8	0.15669260	0.055649273	-0.0670990098	-0.093600937
## PctRecImmig10	0.16856637	0.052942697	-0.0613507217	-0.120999139
## PctSpeakEnglOnly	-0.34222907	0.078462644	0.0536228022	0.186939892
## PctNotSpeakEnglWell	0.40791955	-0.120346581	0.0106859813	-0.240846239
## PctLargHouseFam	0.51544500	-0.165075421	0.0235582890	-0.211352038
## PctLargHouseOccup	0.45659815	-0.115207249	0.0471915647	-0.240250574
## PersPerOccupHous	0.11802363	0.240574500	0.1140432215	-0.294381720
## PersPerOwnOccHous	0.02155562	0.364551744	0.1204519953	-0.199026082
## PersPerRentOccHous	0.39824513	-0.072201908	0.0570848335	-0.351944800
## PctPersOwnOccup	-0.47552247	0.269805339	0.0442126064	-0.023796084
## PctPersDenseHous	0.52164609	-0.201966856	-0.0282904940	-0.246808169
## PctHousLess3BR	0.43803144	-0.372643386	-0.0634863806	-0.047015925
## MedNumBR	-0.34079524	0.280886976	0.1040908073	-0.029635622
## HousVacant	0.18801449	-0.105896892	-0.1937705314	0.017124099
## PctHousOccup	-0.33022265	0.376776637	0.2963948022	0.042177513
## PctHousOwnOcc	-0.41114580	0.208853547	0.0400469346	-0.074016360
## PctVacantBoarded	0.52197397	-0.335705652	-0.0128320205	0.025688529
## PctVacMore6Mos	0.28488299	-0.353041267	0.0505500397	0.107069231
## MedYrHousBuilt	-0.24364244	0.314148418	-0.1906933295	-0.208432871
## PctHousNoPhone	0.67692358	-0.585530990	0.0958442496	-0.079510355
## PctWOfullPlumb	0.54205408	-0.368057962	0.0806158393	-0.077738621
## OwnOccLowQuart	-0.42642337	0.439191716	-0.0897419013	0.053616498
## OwnOccMedVal	-0.42006755	0.415731838	-0.1056037801	0.078937668
## OwnOccHiQuart	-0.41859927	0.386921772	-0.1309663697	0.114909531
## RentLowQ	-0.52403476	0.577504990	-0.1298504443	-0.064669900
## RentMedian	-0.49827555	0.539550576	-0.1284628673	-0.018203015
## RentHighQ	-0.48480713	0.521458990	-0.1411782319	0.009842815
## MedRent	-0.49774794	0.540001085	-0.1180388848	-0.034605035
## MedRentPctHousInc	0.40727230	-0.394149815	-0.2663750064	0.177061849
## MedOwnCostPctInc	-0.06697620	0.281963492	-0.1671251716	-0.162066023
## MedOwnCostPctIncNoMtg	0.18185330	-0.102798951	0.0385527592	0.032637715
## NumInShelters	0.16679599	-0.059506100	-0.1130924192	0.065397497
## NumStreet	0.13768592	-0.040185969	-0.0953966106	-0.002048115
## PctForeignBorn	0.12932653	0.063625098	-0.0702931561	-0.138003106
## PctBornSameState	0.15742708	-0.183739387	0.3352150134	0.046761133
## PctSameHouse85	-0.01116921	-0.097867071	0.2638264890	-0.050580298
## PctSameCity85	0.19451283	-0.181420991	0.3843434592	-0.201365540
## PctSameState85	0.18677560	-0.205941350	0.3183764709	-0.117825962
## LandArea	0.04500435	0.045990830	-0.1132793310	-0.001894763
## PopDens	0.17261510	-0.016857619	0.0053843278	-0.035224657
## PctUsePubTrans	-0.01695006	0.102643531	-0.1821481707	0.163265338

## LemasPctOfficDrugUn	0.17003356	-0.060654217	-0.0802462501	0.024791691
## ViolentCrimesPerPop	0.50423464	-0.331642828	-0.0449060027	-0.071482612
##	PctOccupManu	PctOccupMgmtProf	MalePctDivorce	
## population	-0.0294089924	-0.0213799951	0.232602901	
## householdsSize	0.0546224929	-0.0750446636	-0.449460571	
## racePctBlack	0.2345021962	-0.1957739694	0.403861652	
## racePctWhite	-0.2632745081	0.2604348702	-0.341788111	
## racePctAsian	-0.2828055587	0.2860376643	-0.110807919	
## racePctHisp	0.2060077453	-0.2914969864	0.062452941	
## agePct12t21	0.1087106749	-0.1090949733	-0.207122713	
## agePct12t29	0.0974183910	-0.1581459156	-0.008832122	
## agePct16t24	0.0309087231	-0.0628961703	-0.105174461	
## agePct65up	0.1455716655	-0.1369703297	0.186056164	
## numbUrban	-0.0548570340	0.0000845711	0.218488579	
## pctUrban	-0.3069115358	0.2315076179	-0.061060878	
## medIncome	-0.6200966401	0.7256971893	-0.558566121	
## pctWwage	-0.3688117891	0.3818560498	-0.375949805	
## pctWFarmSelf	-0.0547762670	0.0657831281	-0.179503693	
## pctWInvInc	-0.6713511999	0.7692401335	-0.576368766	
## pctWSocSec	0.3155265520	-0.3136720711	0.183388594	
## pctWPubAsst	0.5807874669	-0.5782172571	0.450139255	
## pctWRetire	0.0067624441	-0.0861699751	0.017311762	
## medFamInc	-0.6697565522	0.7980234046	-0.559905766	
## perCapInc	-0.6938467562	0.8385131256	-0.406909460	
## whitePerCap	-0.6743333454	0.8277329751	-0.325095331	
## blackPerCap	-0.4301325880	0.5096031066	-0.329554646	
## indianPerCap	-0.1954727606	0.2208898774	-0.089284696	
## AsianPerCap	-0.3011327663	0.4189516889	-0.225151568	
## OtherPerCap	-0.2901314850	0.2968401168	-0.184013874	
## HispPerCap	-0.4691524919	0.5655175436	-0.310247689	
## NumUnderPov	0.0651086287	-0.1050318231	0.279449427	
## PctPopUnderPov	0.4505120772	-0.4686870083	0.394305074	
## PctLess9thGrade	0.6869210037	-0.6380249212	0.254985310	
## PctNotHSGrad	0.7815414792	-0.7706683718	0.391591076	
## PctBSorMore	-0.7832507255	0.9528190785	-0.479742724	
## PctUnemployed	0.5359259403	-0.5875355331	0.365810356	
## PctEmploy	-0.3776542219	0.3918731852	-0.238379370	
## PctEmplManu	0.6532435454	-0.3283626202	0.058669599	
## PctEmplProfServ	-0.4602768359	0.5514712195	-0.273257806	
## PctOccupManu	1.0000000000	-0.8255688425	0.385344590	
## PctOccupMgmtProf	-0.8255688425	1.0000000000	-0.468500802	
## MalePctDivorce	0.3853445901	-0.4685008025	1.000000000	
## MalePctNevMarr	-0.0387875193	0.0335697625	0.017558225	
## FemalePctDiv	0.3465903006	-0.4222185496	0.922394634	
## TotalPctDiv	0.3730614226	-0.4504047205	0.975725517	
## PersPerFam	0.2052109153	-0.2197057154	-0.245446757	
## PctFam2Par	-0.4699730596	0.5011819424	-0.730487745	
## PctKids2Par	-0.4976323641	0.5295313130	-0.710138227	
## PctYoungKids2Par	-0.5307524394	0.5354082888	-0.671909133	
## PctTeen2Par	-0.3543028948	0.3897437406	-0.655678913	
## PctWorkMomYoungKids	0.0860714699	-0.0934118350	0.176532571	
## PctWorkMom	-0.0067725845	-0.0114297853	0.101851195	
## NumIlleg	0.0813164865	-0.1015458898	0.274184601	
## PctIlleg	0.3991662974	-0.3777599740	0.484043120	

## NumImmig	0.0036495874	-0.0265961204	0.092107541	
## PctImmigRecent	-0.0306306134	0.0739735826	0.072034280	
## PctImmigRec5	0.0134269975	0.0266235543	0.122675471	
## PctImmigRec8	0.0048050970	0.0304718623	0.148009809	
## PctImmigRec10	0.0336922042	-0.0169949600	0.191203946	
## PctRecentImmig	-0.0621473160	0.0634300735	-0.056277762	
## PctRecImmig5	-0.0411879382	0.0315323236	-0.037786102	
## PctRecImmig8	-0.0457687194	0.0324331251	-0.035791512	
## PctRecImmig10	-0.0312981477	0.0102003419	-0.023841206	
## PctSpeakEnglOnly	-0.0835299483	0.1421165904	0.076010954	
## PctNotSpeakEnglWell	0.1998829143	-0.2433331357	0.006652765	
## PctLargHouseFam	0.3006712376	-0.3552825223	0.020273148	
## PctLargHouseOccup	0.2796401337	-0.3273123736	-0.078484397	
## PersPerOccupHous	0.0919007854	-0.1059127869	-0.406019057	
## PersPerOwnOccHous	0.0111260723	0.0018244803	-0.476415114	
## PersPerRentOccHous	0.3046636359	-0.3820629304	-0.022935883	
## PctPersOwnOccup	-0.3196771140	0.3688374991	-0.549792832	
## PctPersDenseHous	0.2936559177	-0.3836145066	0.174746406	
## PctHousLess3BR	0.2960697398	-0.3978915132	0.568246724	
## MedNumBR	-0.1713288085	0.2557929132	-0.416136552	
## HousVacant	-0.0484649821	-0.0554896696	0.323787858	
## PctHousOccup	-0.0339022113	0.2274367929	-0.384364669	
## PctHousOwnOcc	-0.2725180994	0.3060508247	-0.517377202	
## PctVacantBoarded	0.2841632753	-0.3119536921	0.345628426	
## PctVacMore6Mos	0.2225793306	-0.1759558457	-0.021657413	
## MedYrHousBuilt	-0.2447345911	0.0944274370	-0.069108167	
## PctHousNoPhone	0.5797324880	-0.5529434354	0.516654224	
## PctWOFullPlumb	0.4115512745	-0.3806082582	0.235441551	
## OwnOccLowQuart	-0.5299737966	0.6078838974	-0.381106720	
## OwnOccMedVal	-0.5364175479	0.6266399303	-0.369428678	
## OwnOccHiQuart	-0.5522325352	0.6536097836	-0.354347159	
## RentLowQ	-0.5610650794	0.5458059697	-0.346208316	
## RentMedian	-0.5786199318	0.5914011385	-0.398384634	
## RentHighQ	-0.5902738441	0.6080613173	-0.417172272	
## MedRent	-0.5710274759	0.5841700077	-0.409903392	
## MedRentPctHousInc	-0.0002664631	-0.1296710563	0.095670470	
## MedOwnCostPctInc	-0.2545855452	0.1463084380	-0.121892595	
## MedOwnCostPctIncNoMtg	0.1026349027	-0.0877519133	-0.047516919	
## NumInShelters	-0.0028351388	-0.0250237867	0.241561195	
## NumStreet	-0.0025620450	-0.0296813773	0.212397745	
## PctForeignBorn	-0.0899904745	0.0620480491	-0.117822931	
## PctBornSameState	0.3845128573	-0.2586022209	-0.050643508	
## PctSameHouse85	0.0999450274	0.0283640540	-0.297370445	
## PctSameCity85	0.3489490615	-0.2247920364	0.035782071	
## PctSameState85	0.3395854423	-0.2514418984	-0.034063966	
## LandArea	-0.0599365486	0.0065682684	0.147940207	
## PopDens	0.0641044025	-0.0616257607	0.091908538	
## PctUsePubTrans	-0.2065772715	0.2515846245	-0.078334055	
## LemasPctOfficDrugUn	0.0087261257	-0.0459482981	0.237637546	
## ViolentCrimesPerPop	0.2955812273	-0.3391092255	0.525407284	
##	MalePctNevMarr	FemalePctDiv	TotalPctDiv	PersPerFam
## population	0.247566695	0.258529491	0.248098790	0.086666285
## householdsize	0.154910676	-0.349127641	-0.409331125	0.845514487
## racepctblack	0.284990734	0.429002009	0.432427172	0.046415304

## racePctWhite	-0.378077244	-0.446714017	-0.407564601	-0.396829444
## racePctAsian	0.208212074	-0.013848334	-0.067080818	0.205350583
## racePctHisp	0.173179995	0.184848585	0.124879323	0.610372571
## agePct12t21	0.560840358	-0.132457089	-0.169761514	0.297363112
## agePct12t29	0.761891247	0.074428526	0.031477892	0.213216506
## agePct16t24	0.772085517	-0.050242092	-0.079420201	0.056441799
## agePct65up	-0.221207474	0.064709136	0.132139279	-0.572482435
## numbUrban	0.245160100	0.247783780	0.235457335	0.088577788
## pctUrban	0.082255659	-0.015912213	-0.040759147	0.048407905
## medIncome	-0.199890711	-0.537576737	-0.562484971	0.111539385
## pctWWage	0.063377348	-0.302570695	-0.351811563	0.366253987
## pctWFarmSelf	-0.073558485	-0.159704144	-0.171428591	0.102682111
## pctWInvInc	-0.168919079	-0.630788535	-0.618737379	-0.337068963
## pctWSocSec	-0.185474619	0.067857158	0.133321097	-0.410048635
## pctWPubAsst	0.241919470	0.511867985	0.497741346	0.301448232
## pctWRetire	-0.263166470	-0.078770048	-0.032885090	-0.382451459
## medFamInc	-0.125092876	-0.544726857	-0.565653683	-0.008308382
## perCapInc	-0.150078735	-0.398902406	-0.411925236	-0.207965712
## whitePerCap	-0.070289309	-0.303142106	-0.320135787	-0.175633260
## blackPerCap	-0.123376946	-0.302342140	-0.322861735	0.025293308
## indianPerCap	-0.077474140	-0.071227779	-0.082388109	-0.002144256
## AsianPerCap	-0.158028126	-0.227260987	-0.229779487	-0.066155069
## OtherPerCap	-0.089122035	-0.176525381	-0.185120999	0.004930475
## HispPerCap	-0.150022341	-0.312605357	-0.317107432	-0.122322676
## NumUnderPov	0.296114345	0.302763846	0.296160464	0.114880735
## PctPopUnderPov	0.404499788	0.431809310	0.428598772	0.125217260
## PctLess9thGrade	0.135101486	0.278194283	0.276771477	0.326731541
## PctNotHSGrad	0.095846524	0.384355431	0.399259088	0.274783935
## PctBSorMore	0.165954580	-0.419148146	-0.454813107	-0.206025155
## PctUnemployed	0.247592599	0.400139498	0.396039040	0.311823551
## PctEmploy	-0.116218374	-0.189018975	-0.224084054	0.129949683
## PctEmplManu	-0.158133539	0.012091932	0.034279667	0.105170771
## PctEmplProfServ	0.384669927	-0.233761393	-0.248525536	-0.243824965
## PctOccupManu	-0.038787519	0.346590301	0.373061423	0.205210915
## PctOccupMgmtProf	0.033569763	-0.422218550	-0.450404721	-0.219705715
## MalePctDivorce	0.017558225	0.922394634	0.975725517	-0.245446757
## MalePctNevMarr	1.000000000	0.075359782	0.045337606	0.071579262
## FemalePctDiv	0.075359782	1.000000000	0.983216799	-0.131836320
## TotalPctDiv	0.045337606	0.983216799	1.000000000	-0.191512372
## PersPerFam	0.071579262	-0.131836320	-0.191512372	1.000000000
## PctFam2Par	-0.405964772	-0.748805962	-0.760732953	0.114359782
## PctKids2Par	-0.387279703	-0.729921784	-0.740135358	0.035144595
## PctYoungKids2Par	-0.311453484	-0.670848203	-0.689721014	0.036380962
## PctTeen2Par	-0.407394057	-0.685770746	-0.690638067	0.127281006
## PctWorkMomYoungKids	0.018350264	0.147440686	0.166205887	-0.256466380
## PctWorkMom	-0.011990812	0.052358495	0.078381946	-0.343677475
## NumIlleg	0.296651701	0.288098507	0.286049485	0.119874427
## PctIlleg	0.485711554	0.522627180	0.518061783	0.184203014
## NumImmig	0.254106577	0.151870653	0.122506792	0.227730792
## PctImmigRecent	0.446140407	0.141600051	0.110574271	-0.027242762
## PctImmigRec5	0.463689147	0.205868345	0.169000809	0.007676795
## PctImmigRec8	0.459538286	0.240522680	0.199960788	0.040471081
## PctImmigRec10	0.432881288	0.288040340	0.246036872	0.100801346
## PctRecentImmig	0.411111949	0.072433958	0.006822664	0.335532384

## PctRecImmig5	0.392695553	0.091293019	0.025642478	0.361016549
## PctRecImmig8	0.372929241	0.092620366	0.027374339	0.376983385
## PctRecImmig10	0.354396190	0.103824121	0.039096354	0.398870048
## PctSpeakEnglOnly	-0.250204502	-0.037249494	0.020863122	-0.552690231
## PctNotSpeakEnglWell	0.253207941	0.129913804	0.069593058	0.571629170
## PctLargHouseFam	0.241604387	0.131428735	0.078019242	0.853342450
## PctLargHouseOccup	0.155481629	0.037464854	-0.020469955	0.895145376
## PersPerOccupHous	-0.122410358	-0.297033679	-0.359450577	0.928681365
## PersPerOwnOccHous	-0.017273903	-0.375954179	-0.434828637	0.889953681
## PersPerRentOccHous	-0.029924935	0.096966512	0.036830846	0.768109378
## PctPersOwnOccup	-0.592354941	-0.616458795	-0.595545238	0.040010124
## PctPersDenseHous	0.266194373	0.304843173	0.244189639	0.659588387
## PctHousLess3BR	0.431652924	0.565820113	0.576267822	-0.196161060
## MedNumBR	-0.394901974	-0.418676224	-0.422810070	0.134604077
## HousVacant	0.194620676	0.315631337	0.322726038	-0.044685969
## PctHousOccup	0.026238378	-0.324884212	-0.358533334	0.187965401
## PctHousOwnOcc	-0.625317543	-0.576574220	-0.559040277	0.085097946
## PctVacantBoarded	0.205946227	0.325699093	0.343102313	0.226592579
## PctVacMore6Mos	-0.102978252	-0.122605996	-0.072064278	-0.002097387
## MedYrHousBuilt	-0.269063394	-0.014497029	-0.046395603	0.138362821
## PctHousNoPhone	0.091383523	0.516004224	0.531332961	0.111577303
## PctWOfullPlumb	0.173817781	0.254316196	0.253448963	0.274673259
## OwnOccLowQuart	0.104734734	-0.320842074	-0.361122479	0.074282098
## OwnOccMedVal	0.111949548	-0.308191167	-0.348496581	0.061931585
## OwnOccHiQuart	0.114327143	-0.293842895	-0.333165521	0.033296913
## RentLowQ	0.027180582	-0.296466311	-0.333919742	0.087037746
## RentMedian	0.043597562	-0.352589250	-0.388240776	0.098372389
## RentHighQ	0.062841112	-0.371566264	-0.407183558	0.105462475
## MedRent	0.001910734	-0.368685281	-0.402093759	0.107421943
## MedRentPctHousInc	0.428611716	0.159044591	0.132347729	0.090662714
## MedOwnCostPctInc	0.138444358	-0.043311451	-0.088815452	0.265487906
## MedOwnCostPctIncNoMtg	0.117237167	-0.105416583	-0.073827466	0.009297996
## NumInShelters	0.276200414	0.243356874	0.244932185	0.041421159
## NumStreet	0.208717294	0.224278047	0.219395784	0.056251406
## PctForeignBorn	0.279724391	-0.001398831	-0.062474539	0.402333674
## PctBornSameState	-0.075988907	-0.115240926	-0.077018770	0.030283976
## PctSameHouse85	-0.285997569	-0.375452693	-0.337798894	0.077693518
## PctSameCity85	-0.276716577	-0.012112648	0.018564080	0.148694848
## PctSameState85	-0.184009078	-0.078642354	-0.050561087	0.155210061
## LandArea	0.039994010	0.143641568	0.144667458	0.030508075
## PopDens	0.410488825	0.167486503	0.133426938	0.159223312
## PctUsePubTrans	0.347279981	-0.056479286	-0.067043908	0.068961978
## LemasPctOfficDrugUn	0.238060539	0.253158462	0.248831804	0.014882440
## ViolentCrimesPerPop	0.304582923	0.556031877	0.552777387	0.140651345
##	PctFam2Par	PctKids2Par	PctYoungKids2Par	PctTeen2Par
## population	-0.2663409839	-2.735583e-01	-0.226710093	-0.26334762
## householdsize	0.2830672978	2.056652e-01	0.199643720	0.26976748
## racepctblack	-0.7005957034	-7.362441e-01	-0.655573263	-0.68990408
## racePctWhite	0.6380712063	7.020322e-01	0.596824870	0.61415587
## racePctAsian	0.1463306637	1.302366e-01	0.192196135	0.11151534
## racePctHisp	-0.1373062592	-2.050562e-01	-0.141786813	-0.10582335
## agePct12t21	-0.1392908914	-1.488703e-01	-0.166410922	-0.12357837
## agePct12t29	-0.2553264148	-2.482605e-01	-0.209488646	-0.25330216
## agePct16t24	-0.2326158477	-2.208798e-01	-0.197030591	-0.22761660

## agePct65up	-0.2564096433	-2.373199e-01	-0.240725474	-0.19879849
## numbUrban	-0.2482730207	-2.555738e-01	-0.201944718	-0.25086258
## pctUrban	0.1040545845	9.844096e-02	0.179034545	0.04285712
## medIncome	0.7343263502	7.200129e-01	0.722126574	0.62791685
## pctW Wage	0.5537059436	5.402329e-01	0.562732221	0.45841217
## pctWFarmSelf	0.1839217501	1.741319e-01	0.131297157	0.17162460
## pctWInvInc	0.7025794033	7.443583e-01	0.706445611	0.60983765
## pctWSocSec	-0.3287175418	-3.235164e-01	-0.341890730	-0.25039411
## pctWPubAsst	-0.7373490928	-7.603179e-01	-0.775350449	-0.62957658
## pctWRetire	-0.0088971921	-1.327105e-05	-0.012701194	0.02847058
## medFamInc	0.7102124719	7.099536e-01	0.713891824	0.60370111
## perCapInc	0.5748898001	5.873532e-01	0.601575083	0.46780329
## whitePerCap	0.4326828815	4.348093e-01	0.470478125	0.32525120
## blackPerCap	0.4615363728	4.611448e-01	0.479061370	0.37782693
## indianPerCap	0.1648355247	1.565035e-01	0.184500625	0.12406577
## AsianPerCap	0.2948151949	2.890346e-01	0.286817154	0.25632936
## OtherPerCap	0.2860723831	2.817424e-01	0.303645655	0.23631478
## HispPerCap	0.4232561064	4.274072e-01	0.439970667	0.34103063
## NumUnderPov	-0.3909191428	-3.998348e-01	-0.359002793	-0.37451887
## PctPopUnderPov	-0.7436336520	-7.586091e-01	-0.760905344	-0.66495669
## PctLess9thGrade	-0.5140372833	-5.723379e-01	-0.550871787	-0.41737518
## PctNotHSGrad	-0.6174298045	-6.752691e-01	-0.650214111	-0.50623474
## PctBSorMore	0.4557285870	4.893002e-01	0.498208762	0.33908688
## PctUnemployed	-0.6515154131	-6.792833e-01	-0.685845493	-0.54923059
## PctEmploy	0.5409663883	5.543597e-01	0.571300599	0.44085666
## PctEmplManu	-0.0170862216	-3.101462e-02	-0.077856079	0.03401359
## PctEmplProfServ	-0.0206743513	2.410124e-02	0.021599240	-0.06219953
## PctOccupManu	-0.4699730596	-4.976324e-01	-0.530752439	-0.35430289
## PctOccupMgmtProf	0.5011819424	5.295313e-01	0.535408289	0.38974374
## MalePctDivorce	-0.7304877451	-7.101382e-01	-0.671909133	-0.65567891
## MalePctNevMarr	-0.4059647724	-3.872797e-01	-0.311453484	-0.40739406
## FemalePctDiv	-0.7488059625	-7.299218e-01	-0.670848203	-0.68577075
## TotalPctDiv	-0.7607329535	-7.401354e-01	-0.689721014	-0.69063807
## PersPerFam	0.1143597823	3.514460e-02	0.036380962	0.12728101
## PctFam2Par	1.0000000000	9.853580e-01	0.935616104	0.91702409
## PctKids2Par	0.9853580282	1.000000e+00	0.931154516	0.90765181
## PctYoungKids2Par	0.9356161036	9.311545e-01	1.000000000	0.83682051
## PctTeen2Par	0.9170240916	9.076518e-01	0.836820509	1.00000000
## PctWorkMomYoungKids	-0.1127928687	-8.947903e-02	-0.056361049	-0.10759820
## PctWorkMom	-0.0005194511	3.540624e-02	0.056491321	-0.01517034
## NumIlleg	-0.4168938077	-4.256268e-01	-0.382820672	-0.40403975
## PctIlleg	-0.8432341168	-8.701983e-01	-0.812282916	-0.79846088
## NumImmig	-0.1503829728	-1.751080e-01	-0.110107583	-0.14351104
## PctImmigRecent	-0.2341322121	-2.160750e-01	-0.186639929	-0.23875214
## PctImmigRec5	-0.2758506556	-2.653393e-01	-0.224063468	-0.27541899
## PctImmigRec8	-0.2852361254	-2.811511e-01	-0.231204013	-0.29215101
## PctImmigRec10	-0.3027491530	-3.077297e-01	-0.250406207	-0.30930958
## PctRecentImmig	-0.0703006209	-9.851779e-02	-0.005769282	-0.07936903
## PctRecImmig5	-0.0801191970	-1.125871e-01	-0.017902881	-0.08622454
## PctRecImmig8	-0.0715706485	-1.070261e-01	-0.010315674	-0.07983394
## PctRecImmig10	-0.0745227581	-1.135224e-01	-0.014828287	-0.08126880
## PctSpeakEnglOnly	0.0512047395	1.125033e-01	0.037695241	0.03897753
## PctNotSpeakEnglWell	-0.1442997018	-2.030463e-01	-0.127087757	-0.11412351
## PctLargHouseFam	-0.2199131036	-2.956340e-01	-0.243321098	-0.17622706

## PctLargHouseOccup	-0.0985111126	-1.805450e-01	-0.139240058	-0.06205069
## PersPerOccupHous	0.3524690668	2.660421e-01	0.255113552	0.34181128
## PersPerOwnOccHous	0.4189049110	3.565810e-01	0.342390606	0.39855964
## PersPerRentOccHous	-0.0692694776	-1.594784e-01	-0.133108827	-0.04023549
## PctPersOwnOccup	0.7326782281	7.054658e-01	0.645323803	0.67973265
## PctPersDenseHous	-0.3122058954	-3.833477e-01	-0.304244392	-0.26820578
## PctHousLess3BR	-0.6550161656	-6.320712e-01	-0.550792986	-0.59303273
## MedNumBR	0.4962411663	4.791746e-01	0.416489904	0.45002359
## HousVacant	-0.3439001883	-3.457431e-01	-0.299507682	-0.33832422
## PctHousOccup	0.3830228705	3.939565e-01	0.366603524	0.34898655
## PctHousOwnOcc	0.6912579864	6.502950e-01	0.594433094	0.64305835
## PctVacantBoarded	-0.5094343041	-5.385645e-01	-0.514589524	-0.45893723
## PctVacMore6Mos	-0.1113179579	-1.260374e-01	-0.178451663	-0.07931393
## MedYrHousBuilt	0.2838945483	2.500932e-01	0.266811685	0.22937011
## PctHousNoPhone	-0.6796920759	-7.142767e-01	-0.724240663	-0.58936226
## PctWOfullPlumb	-0.4288014478	-4.654510e-01	-0.446175629	-0.37005316
## OwnOccLowQuart	0.4551495906	4.452622e-01	0.496774265	0.36746876
## OwnOccMedVal	0.4376015743	4.272627e-01	0.479401695	0.34971715
## OwnOccHiQuart	0.4165376817	4.070027e-01	0.460033499	0.32884437
## RentLowQ	0.5149562913	5.050929e-01	0.570780623	0.42032962
## RentMedian	0.5202590558	5.056512e-01	0.566090104	0.42351945
## RentHighQ	0.5186579542	5.007266e-01	0.563206930	0.41837214
## MedRent	0.5299935378	5.095770e-01	0.568052734	0.43096356
## MedRentPctHousInc	-0.3577627241	-3.738728e-01	-0.331903961	-0.34205439
## MedOwnCostPctInc	0.1366076055	1.075067e-01	0.177527520	0.06793215
## MedOwnCostPctIncNoMtg	-0.1365740731	-1.397121e-01	-0.136013270	-0.14316362
## NumInShelters	-0.3098642756	-3.094904e-01	-0.271442475	-0.29916747
## NumStreet	-0.2256118142	-2.314738e-01	-0.181455866	-0.21439101
## PctForeignBorn	0.0311148685	-1.428170e-02	0.082660668	0.01953437
## PctBornSameState	-0.0814512081	-7.194165e-02	-0.137818910	-0.03508066
## PctSameHouse85	0.2137658893	1.850279e-01	0.163750523	0.22630874
## PctSameCity85	-0.0704227598	-9.391542e-02	-0.110196329	-0.02170860
## PctSameState85	-0.0201950781	-3.866251e-02	-0.060931741	0.03255278
## LandArea	-0.0832193488	-9.875841e-02	-0.084421668	-0.08857551
## PopDens	-0.2569214762	-2.513173e-01	-0.162081680	-0.25045953
## PctUsePubTrans	-0.0774481631	-6.546815e-02	-0.004990444	-0.11239219
## LemasPctOfficDrugUn	-0.3066165404	-3.141697e-01	-0.274949149	-0.31092729
## ViolentCrimesPerPop	-0.7066674692	-7.384238e-01	-0.666058896	-0.66158164
## PctWorkMomYoungKids		PctWorkMom	NumIlleg	
## population	-0.037165282	-0.0901906355	0.88517834	
## householdsize	-0.225673418	-0.2685001510	-0.03131620	
## racepctblack	0.168451471	0.0752150477	0.40279884	
## racePctWhite	0.010076620	0.1589976097	-0.42076058	
## racePctAsian	-0.156372134	-0.1791225840	0.06825097	
## racePctHisp	-0.279990047	-0.4044532473	0.14302373	
## agePct12t21	-0.010561141	-0.0505868687	0.03269821	
## agePct12t29	0.082770245	0.0328780416	0.12570843	
## agePct16t24	0.059943484	0.0331100632	0.08034794	
## agePct65up	0.006949457	0.0207598525	-0.04995111	
## numbUrban	-0.040482283	-0.0910702383	0.87671871	
## pctUrban	-0.067017159	-0.0649265664	0.16607241	
## medIncome	-0.150324510	-0.0419179114	-0.18323917	
## pctWWage	0.097507240	0.1648301960	-0.09791213	
## pctWFarmSelf	0.062634975	0.0391923608	-0.14007183	

## pctWInvInc	-0.025077739	0.1263957151	-0.25198309
## pctWSocSec	-0.020684049	-0.0266208693	-0.03531740
## pctWPubAsst	-0.197514799	-0.3462986754	0.31542444
## pctWRetire	-0.067489267	-0.0007187795	-0.08807813
## medFamInc	-0.133220333	-0.0178479038	-0.19212144
## perCapInc	-0.133024572	-0.0406039595	-0.13459953
## whitePerCap	-0.119618603	-0.0526616147	-0.01237118
## blackPerCap	-0.124830588	-0.0577014452	-0.11314959
## indianPerCap	-0.048016157	-0.0047031996	-0.03467887
## AsianPerCap	-0.142391056	-0.1018666761	-0.09993494
## OtherPerCap	-0.032406856	0.0157533013	-0.06869598
## HispPerCap	-0.087691628	-0.0235050339	-0.11519514
## NumUnderPov	-0.069382731	-0.1470959994	0.94057276
## PctPopUnderPov	-0.103059888	-0.2526109012	0.27653100
## PctLess9thGrade	-0.088694069	-0.2312363250	0.15408923
## PctNotHSGrad	-0.070918847	-0.2073732648	0.19806700
## PctBSorMore	-0.063772082	0.0132073474	-0.08522289
## PctUnemployed	-0.208485068	-0.3471412976	0.27114714
## PctEmploy	0.251598360	0.3489065187	-0.11875588
## PctEmplManu	0.092210222	0.0841560955	-0.06620172
## PctEmplProfServ	0.006544579	0.0284408477	0.03377070
## PctOccupManu	0.086071470	-0.0067725845	0.08131649
## PctOccupMgmtProf	-0.093411835	-0.0114297853	-0.10154589
## MalePctDivorce	0.176532571	0.1018511951	0.27418460
## MalePctNevMarr	0.018350264	-0.0119908120	0.29665170
## FemalePctDiv	0.147440686	0.0523584949	0.28809851
## TotalPctDiv	0.166205887	0.0783819462	0.28604949
## PersPerFam	-0.256466380	-0.3436774746	0.11987443
## PctFam2Par	-0.112792869	-0.0005194511	-0.41689381
## PctKids2Par	-0.089479026	0.0354062441	-0.42562681
## PctYoungKids2Par	-0.056361049	0.0564913206	-0.38282067
## PctTeen2Par	-0.107598200	-0.0151703369	-0.40403975
## PctWorkMomYoungKids	1.000000000	0.8991865537	-0.04861120
## PctWorkMom	0.899186554	1.0000000000	-0.11604199
## NumIlleg	-0.048611196	-0.1160419923	1.00000000
## PctIlleg	0.044822521	-0.0837831494	0.51867687
## NumImmig	-0.108397243	-0.1762904858	0.64988338
## PctImmigRecent	0.017241750	-0.0236756035	0.12642144
## PctImmigRec5	0.018391798	-0.0292072128	0.14539774
## PctImmigRec8	0.034932771	-0.0253158741	0.16650006
## PctImmigRec10	0.030388974	-0.0435924421	0.18678709
## PctRecentImmig	-0.225279300	-0.3052932063	0.15742098
## PctRecImmig5	-0.222215911	-0.3050064898	0.16198034
## PctRecImmig8	-0.216991022	-0.3028618673	0.16557726
## PctRecImmig10	-0.217117461	-0.3075421363	0.17014334
## PctSpeakEnglOnly	0.309793403	0.4125359826	-0.14482126
## PctNotSpeakEnglWell	-0.268204188	-0.3926377742	0.18048507
## PctLargHouseFam	-0.255842594	-0.3930251288	0.24201423
## PctLargHouseOccup	-0.271499088	-0.3983403175	0.16394257
## PersPerOccupHous	-0.263706381	-0.3136713253	-0.03176521
## PersPerOwnOccHous	-0.214329427	-0.2372541405	-0.01028772
## PersPerRentOccHous	-0.228431162	-0.3438678878	0.06172288
## PctPersOwnOccup	-0.024043705	0.0759356432	-0.30172159
## PctPersDenseHous	-0.211313662	-0.3729058117	0.22856793

## PctHousLess3BR	0.059242830	-0.0256479263	0.24792069	
## MedNumBR	-0.043433018	0.0215092049	-0.21367705	
## HousVacant	-0.020602145	-0.0731088306	0.82266856	
## PctHousOccup	0.021561280	0.0648842052	-0.12656788	
## PctHousOwnOcc	-0.054590206	0.0288485263	-0.29802278	
## PctVacantBoarded	-0.100378158	-0.1940201819	0.45141904	
## PctVacMore6Mos	-0.082709245	-0.0930133334	0.01648750	
## MedYrHousBuilt	0.081065346	0.0964506482	-0.14706710	
## PctHousNoPhone	-0.018791804	-0.1545565794	0.18058546	
## PctW0FullPlumb	-0.079680119	-0.1899937216	0.21176552	
## OwnOccLowQuart	-0.215375901	-0.1480582096	-0.08760095	
## OwnOccMedVal	-0.227194682	-0.1667487552	-0.07276713	
## OwnOccHiQuart	-0.231294379	-0.1776898144	-0.05190294	
## RentLowQ	-0.145892484	-0.0556202478	-0.10449338	
## RentMedian	-0.184108783	-0.0911264635	-0.09134641	
## RentHighQ	-0.195568152	-0.0990520979	-0.07743503	
## MedRent	-0.178667112	-0.0800671076	-0.09772486	
## MedRentPctHousInc	-0.185734028	-0.2119563171	0.16016745	
## MedOwnCostPctInc	-0.161823740	-0.1320223845	0.04095623	
## MedOwnCostPctIncNoMtg	-0.064974526	-0.0141369061	0.06401021	
## NumInShelters	-0.049880059	-0.0916677379	0.82399321	
## NumStreet	-0.043733976	-0.0915251597	0.63282887	
## PctForeignBorn	-0.265353203	-0.3358085737	0.12535775	
## PctBornSameState	0.123335498	0.1218009968	-0.04087768	
## PctSameHouse85	-0.101207575	-0.0657291013	-0.05332524	
## PctSameCity85	-0.049778536	-0.0825792376	0.07879897	
## PctSameState85	-0.004924433	-0.0159613626	-0.01731141	
## LandArea	0.006932103	-0.0060445134	0.57047133	
## PopDens	-0.123690090	-0.1888123897	0.27229835	
## PctUsePubTrans	-0.183811360	-0.1804886814	0.32709700	
## LemasPctOfficDrugUn	-0.024499703	-0.0669444175	0.40744465	
## ViolentCrimesPerPop	-0.022535363	-0.1505582608	0.47102814	
##	PctIlleg	NumImmig	PctImmigRecent	PctImmigRec5
## population	0.3325635615	0.7415927467	0.139744633	0.156336487
## householdsize	0.0207112411	0.1058283478	0.028750795	0.051887389
## racepctblack	0.8107003757	0.0762811895	0.165415061	0.194133399
## racePctWhite	-0.8034519073	-0.3084499091	-0.235496362	-0.297287308
## racePctAsian	-0.0472036314	0.3817590352	0.193521893	0.227601565
## racePctHisp	0.2371683140	0.3777255739	0.085551227	0.144952250
## agePct12t21	0.1919202759	-0.0098340507	0.377214812	0.376641550
## agePct12t29	0.3045391307	0.1143606563	0.477196734	0.502761689
## agePct16t24	0.2448762715	0.0535939641	0.481486622	0.489270626
## agePct65up	0.0096463085	-0.1141600312	-0.178553204	-0.200248419
## numbUrban	0.3226578302	0.7406017108	0.127357334	0.145723974
## pctUrban	0.0119351261	0.2017365594	-0.037918847	-0.023374349
## medIncome	-0.4886509851	-0.0051163161	-0.181629457	-0.199057697
## pctWWage	-0.2900804752	0.0448243980	0.055327462	0.064414053
## pctWFarmSelf	-0.1832251083	-0.1174762678	0.092734919	0.078472808
## pctWInvInc	-0.6345811355	-0.1308493690	-0.135161904	-0.197560309
## pctWSocSec	0.0992330011	-0.1457048078	-0.195793336	-0.213908811
## pctWPubAsst	0.6689541946	0.1788133701	0.109495181	0.146206315
## pctWRetire	-0.1494240976	-0.1435884189	-0.293682934	-0.329878821
## medFamInc	-0.4963496146	-0.0245591177	-0.123515021	-0.149444487
## perCapInc	-0.4340769131	-0.0009735439	-0.103144296	-0.130046611

## whitePerCap	-0.2613836821	0.0693587710	-0.046036886	-0.061742672
## blackPerCap	-0.3285357895	0.0264699210	-0.121598222	-0.128108544
## indianPerCap	-0.1085109862	0.0141404086	-0.057538339	-0.061833916
## AsianPerCap	-0.2159747796	-0.0356512252	-0.182834073	-0.215715722
## OtherPerCap	-0.1870116706	-0.0090833236	-0.070980490	-0.091102864
## HispPerCap	-0.3065115963	-0.0575021324	-0.145700559	-0.183460589
## NumUnderPov	0.4477056730	0.7052386866	0.166620749	0.181953744
## PctPopUnderPov	0.6388985066	0.1025357565	0.321532493	0.344980499
## PctLess9thGrade	0.4985239249	0.1604307986	0.044320214	0.095077074
## PctNotHSGrad	0.5694707547	0.1234117249	-0.003260420	0.048997249
## PctBSorMore	-0.3223043754	-0.0012434528	0.187888915	0.149491503
## PctUnemployed	0.5899341860	0.1417686095	0.081678563	0.110466383
## PctEmploy	-0.3654723799	0.0094858357	-0.055059225	-0.050374931
## PctEmplManu	0.0475920829	-0.0365233786	-0.127191594	-0.105306676
## PctEmplProfServ	0.0020098028	-0.0669742386	0.253236082	0.202425837
## PctOccupManu	0.3991662974	0.0036495874	-0.030630613	0.013426997
## PctOccupMgmtProf	-0.3777599740	-0.0265961204	0.073973583	0.026623554
## MalePctDivorce	0.4840431202	0.0921075406	0.072034280	0.122675471
## MalePctNevMarr	0.4857115536	0.2541065770	0.446140407	0.463689147
## FemalePctDiv	0.5226271800	0.1518706532	0.141600051	0.205868345
## TotalPctDiv	0.5180617833	0.1225067924	0.110574271	0.169000809
## PersPerFam	0.1842030143	0.2277307919	-0.027242762	0.007676795
## PctFam2Par	-0.8432341168	-0.1503829728	-0.234132212	-0.275850656
## PctKids2Par	-0.8701983204	-0.1751079679	-0.216074998	-0.265339299
## PctYoungKids2Par	-0.8122829155	-0.1101075830	-0.186639929	-0.224063468
## PctTeen2Par	-0.7984608778	-0.1435110354	-0.238752140	-0.275418992
## PctWorkMomYoungKids	0.0448225213	-0.1083972432	0.017241750	0.018391798
## PctWorkMom	-0.0837831494	-0.1762904858	-0.023675603	-0.029207213
## NumIlleg	0.5186768739	0.6498833798	0.126421436	0.145397743
## PctIlleg	1.0000000000	0.2513425948	0.241777202	0.285894657
## NumImmig	0.2513425948	1.0000000000	0.119416637	0.153326533
## PctImmigRecent	0.2417772018	0.1194166373	1.000000000	0.902589127
## PctImmigRec5	0.2858946571	0.1533265330	0.902589127	1.000000000
## PctImmigRec8	0.3092749672	0.1872109615	0.828879228	0.936926575
## PctImmigRec10	0.3371120008	0.2276428531	0.754346278	0.866274803
## PctRecentImmig	0.2085627598	0.4892333113	0.412951191	0.451776076
## PctRecImmig5	0.2219280038	0.4983251339	0.358094346	0.433637990
## PctRecImmig8	0.2184553181	0.5106259314	0.317464857	0.393614365
## PctRecImmig10	0.2231373894	0.5194971961	0.286019309	0.361995155
## PctSpeakEnglOnly	-0.1910947067	-0.4534037788	-0.076970667	-0.129275449
## PctNotSpeakEnglWell	0.2726660185	0.4728926516	0.138999284	0.203801040
## PctLargHouseFam	0.4133602717	0.3526688759	0.101610487	0.159299891
## PctLargHouseOccup	0.3109451095	0.2972727501	0.055094455	0.107188597
## PersPerOccupHous	-0.0414244269	0.1248204426	-0.120792431	-0.093587363
## PersPerOwnOccHous	-0.0953073328	0.1395392464	-0.104949706	-0.093494325
## PersPerRentOccHous	0.2391221776	0.1836598223	0.042379716	0.105249517
## PctPersOwnOccup	-0.6209609082	-0.2693247114	-0.428758768	-0.479737766
## PctPersDenseHous	0.4278353908	0.4335356887	0.187064804	0.261775228
## PctHousLess3BR	0.4810950179	0.2713251813	0.284558397	0.330668402
## MedNumBR	-0.3550109304	-0.2168969365	-0.266794850	-0.310523465
## HousVacant	0.3541058536	0.5763625077	0.117269644	0.135595307
## PctHousOccup	-0.2406828203	0.0054027151	-0.030550412	-0.052239092
## PctHousOwnOcc	-0.5778257655	-0.2584138774	-0.426436989	-0.467769149
## PctVacantBoarded	0.5545547821	0.1413114536	0.032687619	0.044698305

## PctVacMore6Mos	0.0954167622	-0.1722971982	-0.179293806	-0.216018575
## MedYrHousBuilt	-0.2101296255	-0.0492234277	0.034074613	0.061979783
## PctHousNoPhone	0.5601933187	0.0019659760	0.152087860	0.189123223
## PctW0FullPlumb	0.4324986712	0.1787716372	0.091990022	0.113301837
## OwnOccLowQuart	-0.2703683088	0.1852363119	-0.027734178	-0.026053286
## OwnOccMedVal	-0.2534211472	0.1993296237	-0.013142910	-0.010380029
## OwnOccHiQuart	-0.2385328555	0.2105342515	0.001779031	0.004692040
## RentLowQ	-0.3264548471	0.1575837702	-0.051352183	-0.036473074
## RentMedian	-0.3091716591	0.1544028485	-0.066683560	-0.058454912
## RentHighQ	-0.2993790774	0.1707582969	-0.061840234	-0.055348685
## MedRent	-0.3073436894	0.1301974132	-0.091915407	-0.083501874
## MedRentPctHousInc	0.3635869038	0.1942294344	0.232971529	0.253945112
## MedOwnCostPctInc	0.0432150156	0.2494670535	-0.013223344	0.027958279
## MedOwnCostPctIncNoMtg	0.2005029275	-0.0698412986	-0.094191512	-0.094607793
## NumInShelters	0.3547400865	0.6836000271	0.126158864	0.146458620
## NumStreet	0.2655095695	0.6610918768	0.103743899	0.122850517
## PctForeignBorn	0.1299880676	0.4960910751	0.141053497	0.196263482
## PctBornSameState	0.0352934796	-0.2472989135	-0.172847582	-0.199294804
## PctSameHouse85	-0.1415363544	-0.1049305648	-0.429935470	-0.468325985
## PctSameCity85	0.0769729376	0.0002132079	-0.375616458	-0.392256056
## PctSameState85	0.0003810523	-0.0996174022	-0.328306192	-0.335959787
## LandArea	0.1395614464	0.4264527491	0.041165797	0.049902984
## PopDens	0.3225251387	0.4037676234	0.152838313	0.184337626
## PctUsePubTrans	0.2178443246	0.3137362511	0.082515344	0.093534919
## LemasPctOfficDrugUn	0.3501910965	0.3434768863	0.131350254	0.148809081
## ViolentCrimesPerPop	0.7379565499	0.2942399999	0.171877772	0.216048975
##	PctImmigRec8	PctImmigRec10	PctRecentImmig	PctRecImmig5
## population	0.182920349	0.207558690	0.199765466	0.201220961
## householdsiz	0.069203114	0.103576809	0.275236786	0.288425464
## racepctblack	0.227286483	0.249027574	-0.037873768	-0.029021578
## racePctWhite	-0.356666321	-0.416132054	-0.403605561	-0.424057505
## racePctAsian	0.289424693	0.316365759	0.646998618	0.648608279
## racePctHisp	0.184034153	0.258667445	0.625989029	0.652483675
## agePct12t21	0.358841361	0.335118040	0.074138430	0.053732848
## agePct12t29	0.504336243	0.493598279	0.252300357	0.235268947
## agePct16t24	0.471036211	0.435419311	0.177975625	0.152426560
## agePct65up	-0.239035314	-0.264282897	-0.205988836	-0.205016997
## numbUrban	0.174991735	0.199428241	0.213763952	0.216321860
## pctUrban	0.009724791	0.019926952	0.226485386	0.232721119
## medIncome	-0.179984304	-0.196316696	0.106504167	0.105817939
## pctWwage	0.098980177	0.105179896	0.151649874	0.149448828
## pctWFarmSelf	0.087002305	0.099953789	-0.076164667	-0.085960159
## pctWInvInc	-0.217694157	-0.277754101	-0.095009070	-0.118491947
## pctWSocSec	-0.261665241	-0.280488261	-0.257474375	-0.251950557
## pctWPubAsst	0.146524653	0.180868787	0.159432500	0.176560237
## pctWRetire	-0.377603479	-0.421565728	-0.286781923	-0.288121161
## medFamInc	-0.138105522	-0.167187088	0.102926241	0.093635830
## perCapInc	-0.118914187	-0.149230376	0.101995454	0.089539480
## whitePerCap	-0.039558445	-0.061471463	0.157589030	0.147887554
## blackPerCap	-0.109148744	-0.116826933	0.124555384	0.124575997
## indianPerCap	-0.051785953	-0.046588876	0.055176065	0.058434107
## AsianPerCap	-0.210368063	-0.219750420	-0.003620947	-0.005799537
## OtherPerCap	-0.076445290	-0.086235232	0.046148497	0.045064889
## HispPerCap	-0.189760155	-0.226927565	-0.010039788	-0.018024660

## NumUnderPov	0.200883477	0.224754835	0.179224623	0.179232670
## PctPopUnderPov	0.339325481	0.357810869	0.101663749	0.096414778
## PctLess9thGrade	0.104923704	0.155249850	0.216049396	0.238994136
## PctNotHSGrad	0.054307609	0.103952722	0.119080900	0.145892789
## PctBSorMore	0.152557348	0.101671462	0.141638881	0.105398810
## PctUnemployed	0.104500472	0.130630220	0.146503081	0.163304025
## PctEmploy	-0.015385858	-0.010856161	0.037880634	0.041199455
## PctEmplManu	-0.109399231	-0.106221707	-0.083435537	-0.071469052
## PctEmplProfServ	0.163682052	0.100296434	-0.031392742	-0.073110657
## PctOccupManu	0.004805097	0.033692204	-0.062147316	-0.041187938
## PctOccupMgmtProf	0.030471862	-0.016994960	0.063430073	0.031532324
## MalePctDivorce	0.148009809	0.191203946	-0.056277762	-0.037786102
## MalePctNevMarr	0.459538286	0.432881288	0.4111111949	0.392695553
## FemalePctDiv	0.240522680	0.288040340	0.072433958	0.091293019
## TotalPctDiv	0.199960788	0.246036872	0.006822664	0.025642478
## PersPerFam	0.040471081	0.100801346	0.335532384	0.361016549
## PctFam2Par	-0.285236125	-0.302749153	-0.070300621	-0.080119197
## PctKids2Par	-0.281151092	-0.307729705	-0.098517792	-0.112587050
## PctYoungKids2Par	-0.231204013	-0.250406207	-0.005769282	-0.017902881
## PctTeen2Par	-0.292151014	-0.309309576	-0.079369030	-0.086224535
## PctWorkMomYoungKids	0.034932771	0.030388974	-0.225279300	-0.222215911
## PctWorkMom	-0.025315874	-0.043592442	-0.305293206	-0.305006490
## NumIlleg	0.166500056	0.186787092	0.157420981	0.161980338
## PctIlleg	0.309274967	0.337112001	0.208562760	0.221928004
## NumImmig	0.187210962	0.227642853	0.489233311	0.498325134
## PctImmigRecent	0.828879228	0.754346278	0.412951191	0.358094346
## PctImmigRec5	0.936926575	0.866274803	0.451776076	0.433637990
## PctImmigRec8	1.000000000	0.941123594	0.477937329	0.466323719
## PctImmigRec10	0.941123594	1.000000000	0.501706535	0.497423374
## PctRecentImmig	0.477937329	0.501706535	1.000000000	0.988998537
## PctRecImmig5	0.466323719	0.497423374	0.988998537	1.000000000
## PctRecImmig8	0.447868514	0.484980082	0.977964211	0.993433179
## PctRecImmig10	0.418423827	0.473745274	0.966459852	0.985615701
## PctSpeakEnglOnly	-0.170732028	-0.238014802	-0.776645043	-0.800047410
## PctNotSpeakEnglWell	0.240932995	0.308398629	0.795944997	0.823061773
## PctLargHouseFam	0.192630786	0.260720129	0.523223599	0.550897997
## PctLargHouseOccup	0.138544929	0.204319389	0.486653322	0.514184010
## PersPerOccupHous	-0.064417293	-0.014117544	0.257634023	0.281527716
## PersPerOwnOccHous	-0.070335099	-0.035622236	0.246084964	0.262024273
## PersPerRentOccHous	0.146489919	0.214421647	0.370908920	0.398908236
## PctPersOwnOccup	-0.502277434	-0.524642229	-0.412906990	-0.411074923
## PctPersDenseHous	0.310313392	0.391804542	0.678665336	0.707082317
## PctHousLess3BR	0.342440074	0.367823231	0.390804292	0.396495933
## MedNumBR	-0.325837828	-0.339348741	-0.336737841	-0.340112434
## HousVacant	0.156195878	0.179174228	0.108597939	0.112759146
## PctHousOccup	-0.056029038	-0.078884241	0.098103763	0.087658638
## PctHousOwnOcc	-0.485219353	-0.498352753	-0.384066706	-0.378048839
## PctVacantBoarded	0.058119328	0.075710874	-0.031197981	-0.025036979
## PctVacMore6Mos	-0.240763271	-0.249323660	-0.337692920	-0.342811177
## MedYrHousBuilt	0.101486333	0.130941857	-0.034739427	-0.022824997
## PctHousNoPhone	0.200730795	0.246623627	-0.072646849	-0.062386378
## PctWOFullPlumb	0.120606168	0.155491287	0.171567673	0.182552382
## OwnOccLowQuart	-0.005175795	-0.020251709	0.443422966	0.439259373
## OwnOccMedVal	0.011187111	-0.003599312	0.453836659	0.449208842

## OwnOccHiQuart	0.026083949	0.010137759	0.448581385	0.442801273
## RentLowQ	-0.002891368	-0.007114450	0.396261940	0.401445845
## RentMedian	-0.030547196	-0.038459175	0.386652391	0.390303943
## RentHighQ	-0.029834579	-0.038913309	0.391963393	0.394634491
## MedRent	-0.055406602	-0.063486764	0.341858947	0.346542142
## MedRentPctHousInc	0.240977639	0.238011433	0.339015465	0.337409656
## MedOwnCostPctInc	0.069235419	0.095706702	0.458784291	0.480217184
## MedOwnCostPctIncNoMtg	-0.109261385	-0.116798649	-0.084967695	-0.076160229
## NumInShelters	0.164965555	0.184571250	0.177599422	0.178747563
## NumStreet	0.144908783	0.171726363	0.222796906	0.227369527
## PctForeignBorn	0.242522943	0.290077304	0.910382247	0.929603755
## PctBornSameState	-0.230459434	-0.240371931	-0.486190229	-0.487039238
## PctSameHouse85	-0.492238499	-0.507836700	-0.241198904	-0.234787816
## PctSameCity85	-0.401833907	-0.383990823	-0.162397613	-0.144599688
## PctSameState85	-0.341589698	-0.321773883	-0.255304500	-0.237552702
## LandArea	0.065780426	0.077756588	-0.034902467	-0.034282330
## PopDens	0.207023161	0.234298326	0.607740701	0.613809844
## PctUsePubTrans	0.108192525	0.104142882	0.387004874	0.379377268
## LemasPctOfficDrugUn	0.167379125	0.179635391	0.185672371	0.193727206
## ViolentCrimesPerPop	0.248135353	0.291535996	0.230768561	0.248044621
##	PctRecImmig8	PctRecImmig10	PctSpeakEnglOnly	
## population	0.207267522	0.2116532061	-1.683755e-01	
## householdsiz	0.295677297	0.3064909853	-4.189499e-01	
## racepctblack	-0.024917933	-0.0201091584	9.613929e-02	
## racePctWhite	-0.438165978	-0.4503653965	4.214931e-01	
## racePctAsian	0.676784539	0.6730640184	-4.713190e-01	
## racePctHisp	0.660074993	0.6811803698	-8.907684e-01	
## agePct12t21	0.035607558	0.0231192384	-5.093990e-02	
## agePct12t29	0.214424212	0.1999350259	-1.496314e-01	
## agePct16t24	0.128220853	0.1079733457	-5.374010e-02	
## agePct65up	-0.210084040	-0.2092055531	1.652341e-01	
## numbUrban	0.223692900	0.2285440112	-1.782023e-01	
## pctUrban	0.245665961	0.2509433554	-1.614713e-01	
## medIncome	0.125299746	0.1191960801	-2.528882e-02	
## pctWwage	0.159978433	0.1557134075	-5.820971e-02	
## pctWFarmSelf	-0.090390923	-0.0940030536	1.280919e-02	
## pctWInvInc	-0.116563247	-0.1360778041	2.433069e-01	
## pctWSocSec	-0.259821848	-0.2555429865	1.446550e-01	
## pctWPubAsst	0.171796291	0.1851521179	-3.200491e-01	
## pctWRetire	-0.291420750	-0.2935971149	2.378988e-01	
## medFamInc	0.107755799	0.0956994849	2.407896e-02	
## perCapInc	0.101174646	0.0880696760	5.273885e-02	
## whitePerCap	0.160894966	0.1487500112	1.248068e-02	
## blackPerCap	0.142295631	0.1392562483	-7.663663e-02	
## indianPerCap	0.065769685	0.0640248493	-3.318596e-02	
## AsianPerCap	0.004020229	0.0007629144	2.704948e-02	
## OtherPerCap	0.054846360	0.0516162909	-8.896640e-03	
## HispPerCap	-0.006183919	-0.0131444398	8.543135e-02	
## NumUnderPov	0.180472987	0.1859544988	-1.801364e-01	
## PctPopUnderPov	0.077987026	0.0798854616	-1.816531e-01	
## PctLess9thGrade	0.236483684	0.2547044076	-4.816917e-01	
## PctNotHSGrad	0.144490482	0.1654831422	-3.710280e-01	
## PctBSorMore	0.101111306	0.0737650129	1.122028e-01	
## PctUnemployed	0.156692603	0.1685663668	-3.422291e-01	

## PctEmploy	0.055649273	0.0529426969	7.846264e-02
## PctEmplManu	-0.067099010	-0.0613507217	5.362280e-02
## PctEmplProfServ	-0.093600937	-0.1209991394	1.869399e-01
## PctOccupManu	-0.045768719	-0.0312981477	-8.352995e-02
## PctOccupMgmtProf	0.032433125	0.0102003419	1.421166e-01
## MalePctDivorce	-0.035791512	-0.0238412056	7.601095e-02
## MalePctNevMarr	0.372929241	0.3543961904	-2.502045e-01
## FemalePctDiv	0.092620366	0.1038241207	-3.724949e-02
## TotalPctDiv	0.027374339	0.0390963535	2.086312e-02
## PersPerFam	0.376983385	0.3988700478	-5.526902e-01
## PctFam2Par	-0.071570648	-0.0745227581	5.120474e-02
## PctKids2Par	-0.107026054	-0.1135224220	1.125033e-01
## PctYoungKids2Par	-0.010315674	-0.0148282866	3.769524e-02
## PctTeen2Par	-0.079833940	-0.0812687991	3.897753e-02
## PctWorkMomYoungKids	-0.216991022	-0.2171174611	3.097934e-01
## PctWorkMom	-0.302861867	-0.3075421363	4.125360e-01
## NumIlleg	0.165577264	0.1701433437	-1.448213e-01
## PctIlleg	0.218455318	0.2231373894	-1.910947e-01
## NumImmig	0.510625931	0.5194971961	-4.534038e-01
## PctImmigRecent	0.317464857	0.2860193088	-7.697067e-02
## PctImmigRec5	0.393614365	0.3619951555	-1.292754e-01
## PctImmigRec8	0.447868514	0.4184238270	-1.707320e-01
## PctImmigRec10	0.484980082	0.4737452743	-2.380148e-01
## PctRecentImmig	0.977964211	0.9664598519	-7.766450e-01
## PctRecImmig5	0.993433179	0.9856157014	-8.000474e-01
## PctRecImmig8	1.000000000	0.9955254221	-8.148081e-01
## PctRecImmig10	0.995525422	1.0000000000	-8.324535e-01
## PctSpeakEnglOnly	-0.814808124	-0.8324535024	1.000000e+00
## PctNotSpeakEnglWell	0.828594737	0.8464803948	-9.393694e-01
## PctLargHouseFam	0.559086235	0.5800327513	-6.908237e-01
## PctLargHouseOccup	0.524197060	0.5459961499	-6.761927e-01
## PersPerOccupHous	0.299457996	0.3194956004	-4.617181e-01
## PersPerOwnOccHous	0.279373709	0.2948058550	-4.231144e-01
## PersPerRentOccHous	0.410445551	0.4300123086	-5.374207e-01
## PctPersOwnOccup	-0.393525304	-0.3864352988	2.985967e-01
## PctPersDenseHous	0.715430745	0.7376346045	-8.134009e-01
## PctHousLess3BR	0.385462767	0.3870482336	-3.322678e-01
## MedNumBR	-0.330946005	-0.3299248132	2.983268e-01
## HousVacant	0.116322730	0.1215020967	-9.591172e-02
## PctHousOccup	0.089320364	0.0793327740	1.281658e-06
## PctHousOwnOcc	-0.359778853	-0.3501774235	2.552050e-01
## PctVacantBoarded	-0.021949825	-0.0132853033	-1.041692e-01
## PctVacMore6Mos	-0.346742997	-0.3421221066	1.767007e-01
## MedYrHousBuilt	-0.013754867	-0.0062868806	3.241210e-02
## PctHousNoPhone	-0.068630804	-0.0558755802	-9.869753e-02
## PctWOFullPlumb	0.183505561	0.1957615248	-3.201244e-01
## OwnOccLowQuart	0.454556450	0.4432587959	-3.075085e-01
## OwnOccMedVal	0.463721124	0.4519312889	-3.113413e-01
## OwnOccHiQuart	0.456184554	0.4436497145	-2.963575e-01
## RentLowQ	0.421014471	0.4142222612	-2.591191e-01
## RentMedian	0.408988411	0.4017110081	-2.633492e-01
## RentHighQ	0.411756424	0.4043166632	-2.689233e-01
## MedRent	0.365767792	0.3594074119	-2.289855e-01
## MedRentPctHousInc	0.327195835	0.3235831373	-2.873730e-01

## MedOwnCostPctInc	0.495015043	0.4989831237	-4.519250e-01
## MedOwnCostPctIncNoMtg	-0.079733294	-0.0800775721	5.259912e-05
## NumInShelters	0.180253930	0.1816642809	-1.327810e-01
## NumStreet	0.231939007	0.2370117079	-1.767869e-01
## PctForeignBorn	0.946027201	0.9552285629	-8.777926e-01
## PctBornSameState	-0.490785142	-0.4862554594	3.303051e-01
## PctSameHouse85	-0.219583271	-0.2089923987	4.537729e-02
## PctSameCity85	-0.127642311	-0.1073617216	-5.581285e-02
## PctSameState85	-0.221407019	-0.2019849574	2.712499e-02
## LandArea	-0.031911957	-0.0287079970	2.204065e-02
## PopDens	0.620002208	0.6228120357	-5.200059e-01
## PctUsePubTrans	0.382955349	0.3750133451	-2.625083e-01
## LemasPctOfficDrugUn	0.198399801	0.1998574686	-1.628048e-01
## ViolentCrimesPerPop	0.253197241	0.2642631480	-2.414659e-01
##	PctNotSpeakEnglWell	PctLargHouseFam	PctLargHouseOccup
## population	0.181610131	0.190307623	0.123572452
## householdsiz	0.416071616	0.661574678	0.741098985
## racepctblack	-0.046705964	0.185605654	0.108921681
## racePctWhite	-0.454456166	-0.591878717	-0.522773789
## racePctAsian	0.393117682	0.243618166	0.238052319
## racePctHisp	0.892812184	0.759167228	0.746191688
## agePct12t21	0.077844598	0.271138521	0.272866204
## agePct12t29	0.180274599	0.259981595	0.223145084
## agePct16t24	0.072409429	0.127331479	0.093275582
## agePct65up	-0.162811672	-0.303523952	-0.345979724
## numbUrban	0.188239692	0.190300347	0.125114081
## pctUrban	0.128920682	0.055098101	0.050023282
## medIncome	-0.082390134	-0.161526648	-0.081871654
## pctWwage	0.007276966	0.042034541	0.108165263
## pctWFarmSelf	-0.011031146	0.046507586	0.072797775
## pctWInvInc	-0.347252043	-0.507661014	-0.452147920
## pctWSocSec	-0.119628236	-0.162250083	-0.199631776
## pctWPubAsst	0.413286818	0.524747455	0.458494176
## pctWRetire	-0.251352252	-0.265531499	-0.258743580
## medFamInc	-0.137273235	-0.249405533	-0.182221573
## perCapInc	-0.159282349	-0.347131872	-0.307488696
## whitePerCap	-0.111536267	-0.268818485	-0.250274754
## blackPerCap	-0.001301375	-0.136120616	-0.094144070
## indianPerCap	0.004757847	-0.046258387	-0.033111532
## AsianPerCap	-0.080738752	-0.152964916	-0.126169475
## OtherPerCap	-0.063107334	-0.101493092	-0.075684384
## HispPerCap	-0.177186692	-0.264497410	-0.223452114
## NumUnderPov	0.213034394	0.249016144	0.173077892
## PctPopUnderPov	0.260281973	0.379236735	0.301393457
## PctLess9thGrade	0.559827800	0.510446668	0.474279416
## PctNotHSGrad	0.460902746	0.480449469	0.434921129
## PctBSorMore	-0.202805180	-0.321505599	-0.300526126
## PctUnemployed	0.407919552	0.515445004	0.456598148
## PctEmploy	-0.120346581	-0.165075421	-0.115207249
## PctEmplManu	0.010685981	0.023558289	0.047191565
## PctEmplProfServ	-0.240846239	-0.211352038	-0.240250574
## PctOccupManu	0.199882914	0.300671238	0.279640134
## PctOccupMgmtProf	-0.243333136	-0.355282522	-0.327312374
## MalePctDivorce	0.006652765	0.020273148	-0.078484397

## MalePctNevMarr	0.253207941	0.241604387	0.155481629
## FemalePctDiv	0.129913804	0.131428735	0.037464854
## TotalPctDiv	0.069593058	0.078019242	-0.020469955
## PersPerFam	0.571629170	0.853342450	0.895145376
## PctFam2Par	-0.144299702	-0.219913104	-0.098511113
## PctKids2Par	-0.203046341	-0.295633977	-0.180544968
## PctYoungKids2Par	-0.127087757	-0.243321098	-0.139240058
## PctTeen2Par	-0.114123505	-0.176227062	-0.062050694
## PctWorkMomYoungKids	-0.268204188	-0.255842594	-0.271499088
## PctWorkMom	-0.392637774	-0.393025129	-0.398340318
## NumIlleg	0.180485074	0.242014229	0.163942572
## PctIlleg	0.272666019	0.413360272	0.310945109
## NumImmig	0.472892652	0.352668876	0.297272750
## PctImmigRecent	0.138999284	0.101610487	0.055094455
## PctImmigRec5	0.203801040	0.159299891	0.107188597
## PctImmigRec8	0.240932995	0.192630786	0.138544929
## PctImmigRec10	0.308398629	0.260720129	0.204319389
## PctRecentImmig	0.795944997	0.523223599	0.486653322
## PctRecImmig5	0.823061773	0.550897997	0.514184010
## PctRecImmig8	0.828594737	0.559086235	0.524197060
## PctRecImmig10	0.846480395	0.580032751	0.545996150
## PctSpeakEnglOnly	-0.939369368	-0.690823737	-0.676192702
## PctNotSpeakEnglWell	1.000000000	0.746926614	0.723701838
## PctLargHouseFam	0.746926614	1.000000000	0.984402596
## PctLargHouseOccup	0.723701838	0.984402596	1.000000000
## PersPerOccupHous	0.461089409	0.702985264	0.794959947
## PersPerOwnOccHous	0.398870884	0.616892087	0.698787566
## PersPerRentOccHous	0.580701115	0.772189278	0.816731277
## PctPersOwnOccup	-0.373589886	-0.266152868	-0.152400187
## PctPersDenseHous	0.876887013	0.869178567	0.839686310
## PctHousLess3BR	0.391358416	0.197763164	0.081844949
## MedNumBR	-0.335173980	-0.170490991	-0.082497127
## HousVacant	0.106231387	0.106947629	0.031055074
## PctHousOccup	-0.004053245	-0.010549226	0.040359298
## PctHousOwnOcc	-0.318940025	-0.196476023	-0.079003091
## PctVacantBoarded	0.135038339	0.331918747	0.272804856
## PctVacMore6Mos	-0.196188298	-0.054108174	-0.054936212
## MedYrHousBuilt	-0.020939830	0.030835634	0.089911335
## PctHousNoPhone	0.169968404	0.299765061	0.241076616
## PctWOFullPlumb	0.382217031	0.396124193	0.351498448
## OwnOccLowQuart	0.200894082	0.004194333	0.031039011
## OwnOccMedVal	0.207417992	0.004032136	0.027118214
## OwnOccHiQuart	0.196077445	-0.009106212	0.009520630
## RentLowQ	0.158353015	-0.009610769	0.027737924
## RentMedian	0.155634809	-0.009281760	0.028930767
## RentHighQ	0.161580752	0.001051093	0.037736167
## MedRent	0.122970371	-0.018985354	0.025119021
## MedRentPctHousInc	0.299871414	0.294283370	0.245511866
## MedOwnCostPctInc	0.395158399	0.286232160	0.289724570
## MedOwnCostPctIncNoMtg	-0.038470898	-0.027712283	-0.055944141
## NumInShelters	0.160472208	0.166935668	0.089436104
## NumStreet	0.206187311	0.180731815	0.118964595
## PctForeignBorn	0.847519460	0.552013882	0.534294462
## PctBornSameState	-0.298179569	-0.099208499	-0.092725571

## PctSameHouse85	-0.092620997	-0.045319975	-0.010124076
## PctSameCity85	0.063077811	0.126624930	0.129826515
## PctSameState85	-0.018607043	0.091889913	0.102288245
## LandArea	-0.021357964	0.031455258	0.007825793
## PopDens	0.526983221	0.348481420	0.281645142
## PctUsePubTrans	0.216213816	0.133513668	0.079178420
## LemasPctOfficDrugUn	0.176030477	0.131459836	0.069966137
## ViolentCrimesPerPop	0.300019042	0.383479735	0.294804139
##	PersPerOccupHous	PersPerOwnOccHous	PersPerRentOccHous
## population	-0.036566837	-0.003476089	0.0315478420
## householdsSize	0.892978280	0.825000205	0.7253714169
## racePctBlack	-0.111595183	-0.171935514	0.1082960846
## racePctWhite	-0.214499695	-0.116701773	-0.4705689388
## racePctAsian	0.213640317	0.207659753	0.2264921742
## racePctHisp	0.508020909	0.421188722	0.6415742979
## agePct12t21	0.227349796	0.232948366	0.2701788724
## agePct12t29	0.081239023	0.141115005	0.2021892397
## agePct16t24	-0.043813488	0.005852199	0.0656771271
## agePct65up	-0.587271365	-0.651512485	-0.4038467188
## numbUrban	-0.028723319	0.011262537	0.0229318969
## pctUrban	0.070889743	0.148036635	-0.0630391298
## medIncome	0.313763428	0.383195576	-0.0944145454
## pctWWage	0.474527376	0.591122665	0.1448045028
## pctWFarmSelf	0.119219678	0.087031807	0.1244188171
## pctWInvInc	-0.148554115	-0.033906141	-0.5044538658
## pctWSocSec	-0.454435633	-0.540148626	-0.2664390573
## pctWPubAsst	0.092816160	-0.019985197	0.4001448787
## pctWRetire	-0.300598950	-0.367921222	-0.2539589999
## medFamInc	0.177084447	0.277090047	-0.2209010631
## perCapInc	-0.045571608	0.039509339	-0.3496500842
## whitePerCap	-0.054437634	0.011356810	-0.3014856605
## blackPerCap	0.147238507	0.216935581	-0.1222488854
## indianPerCap	0.046988178	0.065204929	-0.0458135313
## AsianPerCap	0.018239883	0.048955866	-0.1604085738
## OtherPerCap	0.080768096	0.123161421	-0.0752073478
## HispPerCap	0.004637319	0.069238678	-0.2475067414
## NumUnderPov	-0.039984795	-0.022750395	0.0732582870
## PctPopUnderPov	-0.086781524	-0.186994905	0.2860020053
## PctLess9thGrade	0.163351761	0.051734152	0.4217467242
## PctNothHSGrad	0.107323936	-0.017314727	0.4065794164
## PctBSorMore	-0.108233880	0.012205125	-0.3581127739
## PctUnemployed	0.118023631	0.021555617	0.3982451260
## PctEmploy	0.240574500	0.364551744	-0.0722019085
## PctEmplManu	0.114043221	0.120451995	0.0570848335
## PctEmplProfServ	-0.294381720	-0.199026082	-0.3519448005
## PctOccupManu	0.091900785	0.011126072	0.3046636359
## PctOccupMgmtProf	-0.105912787	0.001824480	-0.3820629304
## MalePctDivorce	-0.406019057	-0.476415114	-0.0229358835
## MalePctNevMarr	-0.122410358	-0.017273903	-0.0299249349
## FemalePctDiv	-0.297033679	-0.375954179	0.0969665124
## TotalPctDiv	-0.359450577	-0.434828637	0.0368308460
## PersPerFam	0.928681365	0.889953681	0.7681093784
## PctFam2Par	0.352469067	0.418904911	-0.0692694776
## PctKids2Par	0.266042125	0.356580999	-0.1594783695

## PctYoungKids2Par	0.255113552	0.342390606	-0.1331088265
## PctTeen2Par	0.341811283	0.398559637	-0.0402354916
## PctWorkMomYoungKids	-0.263706381	-0.214329427	-0.2284311618
## PctWorkMom	-0.313671325	-0.237254141	-0.3438678878
## NumIlleg	-0.031765214	-0.010287723	0.0617228808
## PctIlleg	-0.041424427	-0.095307333	0.2391221776
## NumImmig	0.124820443	0.139539246	0.1836598223
## PctImmigRecent	-0.120792431	-0.104949706	0.0423797159
## PctImmigRec5	-0.093587363	-0.093494325	0.1052495172
## PctImmigRec8	-0.064417293	-0.070335099	0.1464899189
## PctImmigRec10	-0.014117544	-0.035622236	0.2144216471
## PctRecentImmig	0.257634023	0.246084964	0.3709089196
## PctRecImmig5	0.281527716	0.262024273	0.3989082362
## PctRecImmig8	0.299457996	0.279373709	0.4104455508
## PctRecImmig10	0.319495600	0.294805855	0.4300123086
## PctSpeakEnglOnly	-0.461718125	-0.423114357	-0.5374206634
## PctNotSpeakEnglWell	0.461089409	0.398870884	0.5807011150
## PctLargHouseFam	0.702985264	0.616892087	0.7721892780
## PctLargHouseOccup	0.794959947	0.698787566	0.8167312766
## PersPerOccupHous	1.000000000	0.920459533	0.7848284193
## PersPerOwnOccHous	0.920459533	1.000000000	0.5583775826
## PersPerRentOccHous	0.784828419	0.558377583	1.000000000
## PctPersOwnOccup	0.274688128	0.275463417	-0.1350391867
## PctPersDenseHous	0.523226202	0.405603608	0.7355432954
## PctHousLess3BR	-0.418886187	-0.410653402	-0.0402909244
## MedNumBR	0.300202476	0.301199028	0.0001968271
## HousVacant	-0.167329425	-0.157984823	-0.0337007426
## PctHousOccup	0.255421203	0.364423544	-0.0502728590
## PctHousOwnOcc	0.334427543	0.264436157	0.0011053586
## PctVacantBoarded	0.060704512	0.021134805	0.1982700961
## PctVacMore6Mos	-0.044925117	-0.095211424	-0.0234424955
## MedYrHousBuilt	0.283009623	0.201406060	0.2810497453
## PctHousNoPhone	-0.059983590	-0.194990322	0.2995574774
## PctWOFullPlumb	0.128190178	0.064897584	0.3133587860
## OwnOccLowQuart	0.182897775	0.234783990	-0.0277099868
## OwnOccMedVal	0.165626011	0.212612394	-0.0317417641
## OwnOccHiQuart	0.133192905	0.174565954	-0.0496833349
## RentLowQ	0.226768151	0.276163032	0.0217387880
## RentMedian	0.238318686	0.283951370	0.0105201171
## RentHighQ	0.241298555	0.283233921	0.0073275005
## MedRent	0.260825170	0.288312032	0.0371580122
## MedRentPctHousInc	0.015120895	-0.070078556	0.2226199544
## MedOwnCostPctInc	0.301219969	0.284604962	0.2790727442
## MedOwnCostPctIncNoMtg	-0.078181623	-0.016072941	-0.1306116823
## NumInShelters	-0.091119847	-0.060491068	-0.0095065982
## NumStreet	-0.041522969	-0.027070494	0.0342884909
## PctForeignBorn	0.353703696	0.339909873	0.3992423043
## PctBornSameState	-0.044390154	0.009727538	-0.1667597875
## PctSameHouse85	0.109579850	0.148411525	-0.1795992840
## PctSameCity85	0.099916556	0.108971460	-0.0420304016
## PctSameState85	0.111004177	0.125668618	-0.0215245458
## LandArea	-0.007562364	-0.005308543	0.0167996584
## PopDens	0.015978089	0.092608752	0.0878037926
## PctUsePubTrans	-0.030254813	0.087453649	-0.1284719626

## LemasPctOfficDrugUn	-0.094697804	-0.073440881	0.0018086843
## ViolentCrimesPerPop	-0.039739105	-0.124415956	0.2483397863
##	PctPersOwnOccup	PctPersDenseHous	PctHousLess3BR
## population	-0.247854468	0.205912834	0.21849189
## householdsSize	0.138005298	0.501638014	-0.33171656
## racePctBlack	-0.376602974	0.158356985	0.23467037
## racePctWhite	0.508515516	-0.639795026	-0.36890907
## racePctAsian	-0.124632228	0.351670951	0.05951131
## racePctHispanic	-0.326589584	0.879341744	0.33288672
## agePct12t21	-0.274165615	0.222697673	0.02450239
## agePct12t29	-0.578463715	0.303951051	0.31170837
## agePct16t24	-0.478045096	0.171921922	0.25777885
## agePct65up	0.049806109	-0.253097996	0.25609682
## numUrban	-0.229995635	0.201491655	0.20809102
## pctUrban	0.069499114	0.032549663	-0.02422302
## medIncome	0.623932302	-0.263503023	-0.61042685
## pctWwage	0.227439160	-0.016489048	-0.42205878
## pctWFarmSelf	0.081980494	0.041714100	-0.12543587
## pctWInvInc	0.593808612	-0.568277370	-0.48626639
## pctWSocSec	0.031952235	-0.166574451	0.23852578
## pctWPubAsst	-0.538392871	0.554463146	0.44594265
## pctWRetire	0.239067818	-0.314380897	-0.07083547
## medFamInc	0.582544754	-0.332893849	-0.55802771
## perCapInc	0.485395671	-0.365182411	-0.41322716
## whitePerCap	0.386324375	-0.278738497	-0.34245337
## blackPerCap	0.367175905	-0.165059468	-0.33033572
## indianPerCap	0.152858492	-0.045513021	-0.11615723
## AsianPerCap	0.316725533	-0.186041886	-0.25702228
## OtherPerCap	0.234482975	-0.130024755	-0.19035856
## HispPerCap	0.417055970	-0.305060377	-0.34647276
## NumUnderPov	-0.325804318	0.262745221	0.27780970
## PctPopUnderPov	-0.631009760	0.454185747	0.50842171
## PctLess9thGrade	-0.424876242	0.589841325	0.43982838
## PctNothHSGrad	-0.431515074	0.534150673	0.46816573
## PctBSorMore	0.263599142	-0.330492612	-0.32820395
## PctUnemployed	-0.475522471	0.521646092	0.43803144
## PctEmploy	0.269805339	-0.201966856	-0.37264339
## PctEmplManu	0.044212606	-0.028290494	-0.06348638
## PctEmplProfServ	-0.023796084	-0.246808169	-0.04701593
## PctOccupManu	-0.319677114	0.293655918	0.29606974
## PctOccupMgmtProf	0.368837499	-0.383614507	-0.39789151
## MalePctDivorce	-0.549792832	0.174746406	0.56824672
## MalePctNevMarr	-0.592354941	0.266194373	0.43165292
## FemalePctDiv	-0.616458795	0.304843173	0.56582011
## TotalPctDiv	-0.595545238	0.244189639	0.57626782
## PersPerFam	0.040010124	0.659588387	-0.19616106
## PctFam2Par	0.732678228	-0.312205895	-0.65501617
## PctKids2Par	0.705465809	-0.383347687	-0.63207119
## PctYoungKids2Par	0.645323803	-0.304244392	-0.55079299
## PctTeen2Par	0.679732648	-0.268205784	-0.59303273
## PctWorkMomYoungKids	-0.024043705	-0.211313662	0.05924283
## PctWorkMom	0.075935643	-0.372905812	-0.02564793
## NumIlleg	-0.301721595	0.228567927	0.24792069
## PctIlleg	-0.620960908	0.427835391	0.48109502

## NumImmig	-0.269324711	0.433535689	0.27132518	
## PctImmigRecent	-0.428758768	0.187064804	0.28455840	
## PctImmigRec5	-0.479737766	0.261775228	0.33066840	
## PctImmigRec8	-0.502277434	0.310313392	0.34244007	
## PctImmigRec10	-0.524642229	0.391804542	0.36782323	
## PctRecentImmig	-0.412906990	0.678665336	0.39080429	
## PctRecImmig5	-0.411074923	0.707082317	0.39649593	
## PctRecImmig8	-0.393525304	0.715430745	0.38546277	
## PctRecImmig10	-0.386435299	0.737634605	0.38704823	
## PctSpeakEnglOnly	0.298596684	-0.813400940	-0.33226780	
## PctNotSpeakEnglWell	-0.373589886	0.876887013	0.39135842	
## PctLargHouseFam	-0.266152868	0.869178567	0.19776316	
## PctLargHouseOccup	-0.152400187	0.839686310	0.08184495	
## PersPerOccupHous	0.274688128	0.523226202	-0.41888619	
## PersPerOwnOccHous	0.275463417	0.405603608	-0.41065340	
## PersPerRentOccHous	-0.135039187	0.735543295	-0.04029092	
## PctPersOwnOccup	1.000000000	-0.471562484	-0.78966003	
## PctPersDenseHous	-0.471562484	1.000000000	0.43620831	
## PctHousLess3BR	-0.789660030	0.436208312	1.00000000	
## MedNumBR	0.624737301	-0.363465896	-0.76691149	
## HousVacant	-0.261412372	0.146627185	0.29254460	
## PctHousOccup	0.237536456	-0.102588493	-0.37848455	
## PctHousOwnOcc	0.981898517	-0.388351088	-0.78240772	
## PctVacantBoarded	-0.255154531	0.244768853	0.20187407	
## PctVacMore6Mos	0.147839833	-0.187781992	-0.11461787	
## MedYrHousBuilt	0.169117028	0.115545840	-0.16408190	
## PctHousNoPhone	-0.494714332	0.365266775	0.40470498	
## PctWOFullPlumb	-0.354273682	0.434156628	0.32084380	
## OwnOccLowQuart	0.220386828	0.012866008	-0.19665832	
## OwnOccMedVal	0.204720410	0.021770703	-0.18247308	
## OwnOccHiQuart	0.196106489	0.016735282	-0.17193316	
## RentLowQ	0.275162039	-0.003140054	-0.22217441	
## RentMedian	0.311433789	-0.025063020	-0.25914941	
## RentHighQ	0.313558003	-0.019254511	-0.26033989	
## MedRent	0.356500814	-0.049663568	-0.30737409	
## MedRentPctHousInc	-0.332962024	0.368292497	0.34198937	
## MedOwnCostPctInc	-0.043088947	0.317789483	0.10201920	
## MedOwnCostPctIncNoMtg	-0.006868095	-0.145029758	0.04924145	
## NumInShelters	-0.268384375	0.169870785	0.23702104	
## NumStreet	-0.235068086	0.215365891	0.22988507	
## PctForeignBorn	-0.255549129	0.688202528	0.31337703	
## PctBornSameState	0.161200840	-0.263172919	-0.21104280	
## PctSameHouse85	0.544556029	-0.247484383	-0.37190505	
## PctSameCity85	0.278788533	-0.011189068	-0.12610968	
## PctSameState85	0.290679636	-0.044859067	-0.18595871	
## LandArea	-0.043972476	0.033702758	0.04217082	
## PopDens	-0.430134521	0.414668879	0.42032233	
## PctUsePubTrans	-0.149353196	0.082661957	0.15243201	
## LemasPctOfficDrugUn	-0.281824048	0.167623916	0.25578219	
## ViolentCrimesPerPop	-0.525491144	0.452900907	0.47448990	
##	MedNumBR	HousVacant	PctHousOccup	PctHousOwnOcc
## population	-0.2052864256	0.896324408	-8.988744e-02	-0.253136100
## householdsize	0.2215824668	-0.175594153	2.301738e-01	0.192774184
## racepctblack	-0.1456003612	0.279908188	-2.528708e-01	-0.339204830

## racePctWhite	0.2799317801	-0.280924802	1.781230e-01	0.440890509
## racePctAsian	-0.0848143931	0.038867808	2.489229e-01	-0.109810047
## racePctHisp	-0.2941803503	0.104497771	-7.995778e-02	-0.261709119
## agePct12t21	-0.0791417607	-0.047207649	2.771742e-02	-0.260619144
## agePct12t29	-0.2984573429	0.066122459	1.666733e-02	-0.587259978
## agePct16t24	-0.2680140519	0.035460657	1.072248e-03	-0.487876528
## agePct65up	-0.1634015595	0.038713251	-2.779587e-01	0.059383485
## numbUrban	-0.1989987833	0.887598604	-6.697267e-02	-0.238579031
## pctUrban	-0.0201735858	0.195878347	1.728947e-01	0.036304984
## medIncome	0.4512252953	-0.188336225	3.886553e-01	0.585373151
## pctW Wage	0.2908143375	-0.132183572	4.115242e-01	0.181980580
## pctWFarmSelf	0.0644963749	-0.123741422	-3.302936e-02	0.099138087
## pctWInvInc	0.3485033774	-0.183877506	3.431856e-01	0.519920565
## pctWSocSec	-0.1465621850	0.005107118	-2.779703e-01	0.055813205
## pctWPubAsst	-0.3312357773	0.175114694	-2.224474e-01	-0.470220635
## pctWRetire	0.0802876959	-0.037129142	-5.475213e-02	0.251136595
## medFamInc	0.4092844652	-0.182604062	3.792659e-01	0.527160014
## perCapInc	0.3055522211	-0.080933569	2.477670e-01	0.431657146
## whitePerCap	0.2545060143	0.016480618	1.949911e-01	0.344029648
## blackPerCap	0.2417347796	-0.119903210	2.753976e-01	0.330996666
## indianPerCap	0.1011956064	-0.030371879	7.055817e-02	0.142708187
## AsianPerCap	0.2255545274	-0.088444049	1.158632e-01	0.293728522
## OtherPerCap	0.1531334205	-0.051519489	1.252940e-01	0.212317136
## HispPerCap	0.2639875383	-0.100866726	2.050775e-01	0.376120319
## NumUnderPov	-0.2563533924	0.881445624	-1.496791e-01	-0.321212251
## PctPopUnderPov	-0.4192254742	0.215954847	-3.687976e-01	-0.568160544
## PctLess9thGrade	-0.3362753910	0.036647808	-1.894244e-01	-0.357694410
## PctNotHSGrad	-0.3349283919	0.083753931	-2.561239e-01	-0.358295331
## PctBSorMore	0.1915007872	-0.043242127	2.265688e-01	0.199811760
## PctUnemployed	-0.3407952405	0.188014488	-3.302226e-01	-0.411145799
## PctEmploy	0.2808869758	-0.105896892	3.767766e-01	0.208853547
## PctEmplManu	0.1040908073	-0.193770531	2.963948e-01	0.040046935
## PctEmplProfServ	-0.0296356217	0.017124099	4.217751e-02	-0.074016360
## PctOccupManu	-0.1713288085	-0.048464982	-3.390221e-02	-0.272518099
## PctOccupMgmtProf	0.2557929132	-0.055489670	2.274368e-01	0.306050825
## MalePctDivorce	-0.4161365523	0.323787858	-3.843647e-01	-0.517377202
## MalePctNevMarr	-0.3949019737	0.194620676	2.623838e-02	-0.625317543
## FemalePctDiv	-0.4186762245	0.315631337	-3.248842e-01	-0.576574220
## TotalPctDiv	-0.4228100701	0.322726038	-3.585333e-01	-0.559040277
## PersPerFam	0.1346040774	-0.044685969	1.879654e-01	0.085097946
## PctFam2Par	0.4962411663	-0.343900188	3.830229e-01	0.691257986
## PctKids2Par	0.4791746034	-0.345743109	3.939565e-01	0.650294997
## PctYoungKids2Par	0.4164899043	-0.299507682	3.666035e-01	0.594433094
## PctTeen2Par	0.4500235903	-0.338324215	3.489866e-01	0.643058352
## PctWorkMomYoungKids	-0.0434330176	-0.020602145	2.156128e-02	-0.054590206
## PctWorkMom	0.0215092049	-0.073108831	6.488421e-02	0.028848526
## NumIlleg	-0.2136770511	0.822668557	-1.265679e-01	-0.298022775
## PctIlleg	-0.3550109304	0.354105854	-2.406828e-01	-0.577825766
## NumImmig	-0.2168969365	0.576362508	5.402715e-03	-0.258413877
## PctImmigRecent	-0.2667948503	0.117269644	-3.055041e-02	-0.426436989
## PctImmigRec5	-0.3105234654	0.135595307	-5.223909e-02	-0.467769149
## PctImmigRec8	-0.3258378277	0.156195878	-5.602904e-02	-0.485219353
## PctImmigRec10	-0.3393487415	0.179174228	-7.888424e-02	-0.498352753
## PctRecentImmig	-0.3367378409	0.108597939	9.810376e-02	-0.384066706

## PctRecImmig5	-0.3401124341	0.112759146	8.765864e-02	-0.378048839
## PctRecImmig8	-0.3309460053	0.116322730	8.932036e-02	-0.359778853
## PctRecImmig10	-0.3299248132	0.121502097	7.933277e-02	-0.350177423
## PctSpeakEnglOnly	0.2983268037	-0.095911722	1.281658e-06	0.255204997
## PctNotSpeakEnglWell	-0.3351739799	0.106231387	-4.053245e-03	-0.318940025
## PctLargHouseFam	-0.1704909910	0.106947629	-1.054923e-02	-0.196476023
## PctLargHouseOccup	-0.0824971275	0.031055074	4.035930e-02	-0.079003091
## PersPerOccupHous	0.3002024761	-0.167329425	2.554212e-01	0.334427543
## PersPerOwnOccHous	0.3011990281	-0.157984823	3.644235e-01	0.264436157
## PersPerRentOccHous	0.0001968271	-0.033700743	-5.027286e-02	0.001105359
## PctPersOwnOccup	0.6247373008	-0.261412372	2.375365e-01	0.981898517
## PctPersDenseHous	-0.3634658964	0.146627185	-1.025885e-01	-0.388351088
## PctHousLess3BR	-0.7669114922	0.292544604	-3.784845e-01	-0.782407720
## MedNumBR	1.0000000000	-0.253083984	2.725909e-01	0.612370724
## HousVacant	-0.2530839842	1.000000000	-3.802676e-01	-0.257706245
## PctHousOccup	0.2725908528	-0.380267649	1.000000e+00	0.181935834
## PctHousOwnOcc	0.6123707244	-0.257706245	1.819358e-01	1.000000000
## PctVacantBoarded	-0.1861502738	0.357335587	-2.344261e-01	-0.224724935
## PctVacMore6Mos	0.1108300039	0.011490238	-2.888414e-01	0.169662879
## MedYrHousBuilt	0.1329524427	-0.019020952	-1.320514e-01	0.214264809
## PctHousNoPhone	-0.3151676817	0.145958010	-4.388915e-01	-0.420533858
## PctWOfullPlumb	-0.2556751355	0.122168995	-2.422679e-01	-0.308993553
## OwnOccLowQuart	0.1416944969	-0.104711364	3.052866e-01	0.197542644
## OwnOccMedVal	0.1303508626	-0.086514434	2.817940e-01	0.184112324
## OwnOccHiQuart	0.1206413962	-0.056568660	2.453250e-01	0.177299967
## RentLowQ	0.1507686099	-0.083050495	2.613345e-01	0.254638242
## RentMedian	0.1792473177	-0.084550910	2.669956e-01	0.293023138
## RentHighQ	0.1759303794	-0.072119874	2.616504e-01	0.297025596
## MedRent	0.2136299932	-0.091259756	2.461920e-01	0.346909220
## MedRentPctHousInc	-0.3042639100	0.161238906	-2.194375e-01	-0.279166495
## MedOwnCostPctInc	-0.0657349579	0.071291330	-4.622847e-02	-0.019751838
## MedOwnCostPctIncNoMtg	-0.0039288154	0.020837201	-1.465071e-01	-0.033117890
## NumInShelters	-0.2169759645	0.745891440	-8.955583e-02	-0.272238363
## NumStreet	-0.1878805871	0.595506131	-7.909337e-02	-0.230285621
## PctForeignBorn	-0.2676205671	0.084579743	1.055268e-01	-0.226382368
## PctBornSameState	0.1841422994	-0.165387800	1.701695e-01	0.125094027
## PctSameHouse85	0.3119439274	-0.151424549	2.278843e-01	0.514190119
## PctSameCity85	0.1375141442	-0.034111990	1.560064e-01	0.267176792
## PctSameState85	0.1585663063	-0.142500655	2.069908e-01	0.278312046
## LandArea	-0.0553682048	0.700792306	-1.770887e-01	-0.041544200
## PopDens	-0.3116593039	0.150539722	1.404847e-01	-0.448335501
## PctUsePubTrans	-0.1097704068	0.215303994	1.180765e-01	-0.196133829
## LemasPctOfficDrugUn	-0.2277163780	0.463774961	-1.129739e-01	-0.283625994
## ViolentCrimesPerPop	-0.3573847423	0.421395796	-3.190097e-01	-0.470682589
## PctVacantBoarded				
## PctVacMore6Mos				
## MedYrHousBuilt				
## population	0.32614207	-0.085401429	-0.056665977	
## householdsize	0.05148977	-0.037003623	0.253884879	
## racepctblack	0.47290567	0.168710617	-0.086077309	
## racePctWhite	-0.45096483	0.007262937	0.017374474	
## racePctAsian	-0.13636068	-0.389486128	0.074454084	
## racePctHisp	0.16411042	-0.157575965	0.092072716	
## agePct12t21	0.12194664	0.035329404	0.104178562	
## agePct12t29	0.09963563	-0.149309621	0.081372369	
## agePct16t24	0.06564304	-0.076435563	0.005482349	

## agePct65up	0.02443924	0.256499873	-0.421197347
## numbUrban	0.31595172	-0.110291028	-0.059490238
## pctUrban	0.01698632	-0.297328003	-0.018058792
## medIncome	-0.36133967	-0.213800625	0.163644469
## pctWWage	-0.26244981	-0.336786792	0.403603887
## pctWFarmSelf	-0.06975454	0.098855094	0.248165750
## pctWInvInc	-0.45313350	-0.138196208	-0.009347416
## pctWSocSec	0.13626833	0.362925759	-0.463403735
## pctWPubAsst	0.50278490	0.179738668	-0.258182853
## pctWRetire	-0.01508837	0.167974406	-0.293074305
## medFamInc	-0.37873029	-0.210376391	0.106372656
## perCapInc	-0.34698715	-0.202942816	0.041317349
## whitePerCap	-0.24809783	-0.195817648	0.031681442
## blackPerCap	-0.25542253	-0.198165382	0.071337478
## indianPerCap	-0.09638311	-0.108376640	0.070924747
## AsianPerCap	-0.13554987	-0.010021232	-0.004553311
## OtherPerCap	-0.15744705	-0.105783171	0.095495425
## HispPerCap	-0.22761782	-0.097896565	0.037881476
## NumUnderPov	0.43178049	-0.003768899	-0.104244396
## PctPopUnderPov	0.47523595	0.224000029	-0.135174471
## PctLess9thGrade	0.35834043	0.220920152	-0.198127604
## PctNotHSGrad	0.43154154	0.269687926	-0.247505276
## PctBSorMore	-0.30775241	-0.211032672	0.105565369
## PctUnemployed	0.52197397	0.284882986	-0.243642439
## PctEmploy	-0.33570565	-0.353041267	0.314148418
## PctEmplManu	-0.01283202	0.050550040	-0.190693330
## PctEmplProfServ	0.02568853	0.107069231	-0.208432871
## PctOccupManu	0.28416328	0.222579331	-0.244734591
## PctOccupMgmtProf	-0.31195369	-0.175955846	0.094427437
## MalePctDivorce	0.34562843	-0.021657413	-0.069108167
## MalePctNevMarr	0.20594623	-0.102978252	-0.269063394
## FemalePctDiv	0.32569909	-0.122605996	-0.014497029
## TotalPctDiv	0.34310231	-0.072064278	-0.046395603
## PersPerFam	0.22659258	-0.002097387	0.138362821
## PctFam2Par	-0.50943430	-0.111317958	0.283894548
## PctKids2Par	-0.53856449	-0.126037433	0.250093239
## PctYoungKids2Par	-0.51458952	-0.178451663	0.266811685
## PctTeen2Par	-0.45893723	-0.079313933	0.229370110
## PctWorkMomYoungKids	-0.10037816	-0.082709245	0.081065346
## PctWorkMom	-0.19402018	-0.093013333	0.096450648
## NumIlleg	0.45141904	0.016487496	-0.147067095
## PctIlleg	0.55455478	0.095416762	-0.210129625
## NumImmig	0.14131145	-0.172297198	-0.049223428
## PctImmigRecent	0.03268762	-0.179293806	0.034074613
## PctImmigRec5	0.04469830	-0.216018575	0.061979783
## PctImmigRec8	0.05811933	-0.240763271	0.101486333
## PctImmigRec10	0.07571087	-0.249323660	0.130941857
## PctRecentImmig	-0.03119798	-0.337692920	-0.034739427
## PctRecImmig5	-0.02503698	-0.342811177	-0.022824997
## PctRecImmig8	-0.02194982	-0.346742997	-0.013754867
## PctRecImmig10	-0.01328530	-0.342122107	-0.006286881
## PctSpeakEnglOnly	-0.10416920	0.176700696	0.032412099
## PctNotSpeakEnglWell	0.13503834	-0.196188298	-0.020939830
## PctLargHouseFam	0.33191875	-0.054108174	0.030835634

## PctLargHouseOccup	0.27280486	-0.054936212	0.089911335
## PersPerOccupHous	0.06070451	-0.044925117	0.283009623
## PersPerOwnOccHous	0.02113481	-0.095211424	0.201406060
## PersPerRentOccHous	0.19827010	-0.023442496	0.281049745
## PctPersOwnOccup	-0.25515453	0.147839833	0.169117028
## PctPersDenseHous	0.24476885	-0.187781992	0.115545840
## PctHousLess3BR	0.20187407	-0.114617871	-0.164081901
## MedNumBR	-0.18615027	0.110830004	0.132952443
## HousVacant	0.35733559	0.011490238	-0.019020952
## PctHousOccup	-0.23442607	-0.288841374	-0.132051387
## PctHousOwnOcc	-0.22472494	0.169662879	0.214264809
## PctVacantBoarded	1.00000000	0.367506127	-0.275328902
## PctVacMore6Mos	0.36750613	1.000000000	-0.331094907
## MedYrHousBuilt	-0.27532890	-0.331094907	1.000000000
## PctHousNoPhone	0.44420280	0.290776463	-0.095272990
## PctW0FullPlumb	0.36383144	0.221114664	-0.185667500
## OwnOccLowQuart	-0.30079740	-0.288448170	-0.009762320
## OwnOccMedVal	-0.28753150	-0.280425576	-0.006126086
## OwnOccHiQuart	-0.27462431	-0.269643029	-0.002177971
## RentLowQ	-0.35344647	-0.392789138	0.162896264
## RentMedian	-0.32610244	-0.328332425	0.105935975
## RentHighQ	-0.30924691	-0.303062306	0.094273554
## MedRent	-0.31597981	-0.286014422	0.129518809
## MedRentPctHousInc	0.17224298	-0.044841037	-0.023274376
## MedOwnCostPctInc	-0.12872300	-0.252439640	0.211909534
## MedOwnCostPctIncNoMtg	0.18992329	0.358591315	-0.356154594
## NumInShelters	0.32279399	-0.027621152	-0.142527560
## NumStreet	0.21912454	-0.072295038	-0.049424786
## PctForeignBorn	-0.04766172	-0.319059255	-0.032070004
## PctBornSameState	0.17736101	0.386630305	-0.352753102
## PctSameHouse85	0.11263796	0.395061198	-0.495333579
## PctSameCity85	0.24768593	0.327204678	-0.483884284
## PctSameState85	0.18839548	0.315845551	-0.363854440
## LandArea	0.22004038	0.028820878	0.137968827
## PopDens	0.12874259	-0.197230318	-0.410440481
## PctUsePubTrans	0.13852331	-0.037038257	-0.391386644
## LemasPctOfficDrugUn	0.24434859	-0.047481027	-0.110083876
## ViolentCrimesPerPop	0.48281580	0.021282828	-0.109994394
##	PctHousNoPhone	PctW0FullPlumb	OwnOccLowQuart
## population	0.061481501	0.10804577	-0.012131176
## householdsize	-0.007920689	0.14336769	0.134583739
## racepctblack	0.485035494	0.30300920	-0.287745072
## racePctWhite	-0.481074798	-0.41914022	0.091178500
## racePctAsian	-0.305036187	-0.08102383	0.584873343
## racePctHisp	0.274134652	0.36931700	0.079439530
## agePct12t21	0.279829175	0.17392109	-0.258720156
## agePct12t29	0.220325488	0.14984721	-0.178251781
## agePct16t24	0.201227505	0.11530909	-0.166014828
## agePct65up	0.152032102	0.04575042	-0.159327018
## numbUrban	0.019692804	0.08548624	0.021293462
## pctUrban	-0.410568817	-0.21277508	0.334584660
## medIncome	-0.726986879	-0.41207082	0.798571803
## pctWWage	-0.501780850	-0.29188717	0.400544921
## pctWFarmSelf	0.156100548	0.05646852	-0.114956131

## pctWInvInc	-0.752677399	-0.50749448	0.562504119
## pctWSocSec	0.296493716	0.15461456	-0.305044668
## pctWPubAsst	0.692279350	0.56454949	-0.399079589
## pctWRetire	-0.122257704	-0.14537602	-0.072227328
## medFamInc	-0.737899320	-0.43726976	0.810152374
## perCapInc	-0.659742495	-0.41379264	0.786645853
## whitePerCap	-0.567693684	-0.34159134	0.772478573
## blackPerCap	-0.500944109	-0.25750839	0.592955381
## indianPerCap	-0.208114611	-0.11696925	0.264510243
## AsianPerCap	-0.272708550	-0.15404669	0.385689812
## OtherPerCap	-0.312025550	-0.21235517	0.358853086
## HispPerCap	-0.480767455	-0.27698570	0.524786346
## NumUnderPov	0.205804093	0.21583083	-0.128974491
## PctPopUnderPov	0.813799865	0.52897976	-0.551187370
## PctLess9thGrade	0.692726517	0.57960747	-0.381940486
## PctNotHSGrad	0.737337054	0.57980663	-0.480513113
## PctBSorMore	-0.528740637	-0.35956182	0.593745816
## PctUnemployed	0.676923584	0.54205408	-0.426423374
## PctEmploy	-0.585530990	-0.36805796	0.439191716
## PctEmplManu	0.095844250	0.08061584	-0.089741901
## PctEmplProfServ	-0.079510355	-0.07773862	0.053616498
## PctOccupManu	0.579732488	0.41155127	-0.529973797
## PctOccupMgmtProf	-0.552943435	-0.38060826	0.607883897
## MalePctDivorce	0.516654224	0.23544155	-0.381106720
## MalePctNevMarr	0.091383523	0.17381778	0.104734734
## FemalePctDiv	0.516004224	0.25431620	-0.320842074
## TotalPctDiv	0.531332961	0.25344896	-0.361122479
## PersPerFam	0.111577303	0.27467326	0.074282098
## PctFam2Par	-0.679692076	-0.42880145	0.455149591
## PctKids2Par	-0.714276676	-0.46545100	0.445262231
## PctYoungKids2Par	-0.724240663	-0.44617563	0.496774265
## PctTeen2Par	-0.589362261	-0.37005316	0.367468756
## PctWorkMomYoungKids	-0.018791804	-0.07968012	-0.215375901
## PctWorkMom	-0.154556579	-0.18999372	-0.148058210
## NumIlleg	0.180585463	0.21176552	-0.087600951
## PctIlleg	0.560193319	0.43249867	-0.270368309
## NumImmig	0.001965976	0.17877164	0.185236312
## PctImmigRecent	0.152087860	0.09199002	-0.027734178
## PctImmigRec5	0.189123223	0.11330184	-0.026053286
## PctImmigRec8	0.200730795	0.12060617	-0.005175795
## PctImmigRec10	0.246623627	0.15549129	-0.020251709
## PctRecentImmig	-0.072646849	0.17156767	0.443422966
## PctRecImmig5	-0.062386378	0.18255238	0.439259373
## PctRecImmig8	-0.068630804	0.18350556	0.454556450
## PctRecImmig10	-0.055875580	0.19576152	0.443258796
## PctSpeakEnglOnly	-0.098697532	-0.32012435	-0.307508498
## PctNotSpeakEnglWell	0.169968404	0.38221703	0.200894082
## PctLargHouseFam	0.299765061	0.39612419	0.004194333
## PctLargHouseOccup	0.241076616	0.35149845	0.031039011
## PersPerOccupHous	-0.059983590	0.12819018	0.182897775
## PersPerOwnOccHous	-0.194990322	0.06489758	0.234783990
## PersPerRentOccHous	0.299557477	0.31335879	-0.027709987
## PctPersOwnOccup	-0.494714332	-0.35427368	0.220386828
## PctPersDenseHous	0.365266775	0.43415663	0.012866008

## PctHousLess3BR	0.404704980	0.32084380	-0.196658325	
## MedNumBR	-0.315167682	-0.25567514	0.141694497	
## HousVacant	0.145958010	0.12216899	-0.104711364	
## PctHousOccup	-0.438891461	-0.24226788	0.305286642	
## PctHousOwnOcc	-0.420533858	-0.30899355	0.197542644	
## PctVacantBoarded	0.444202799	0.36383144	-0.300797405	
## PctVacMore6Mos	0.290776463	0.22111466	-0.288448170	
## MedYrHousBuilt	-0.095272990	-0.18566750	-0.009762320	
## PctHousNoPhone	1.000000000	0.54512476	-0.600750888	
## PctW0FullPlumb	0.545124762	1.00000000	-0.256552279	
## OwnOccLowQuart	-0.600750888	-0.25655228	1.000000000	
## OwnOccMedVal	-0.580410810	-0.24297025	0.994481325	
## OwnOccHiQuart	-0.558467892	-0.23644368	0.976236803	
## RentLowQ	-0.683228500	-0.33821231	0.850933455	
## RentMedian	-0.678685171	-0.32120032	0.910737432	
## RentHighQ	-0.672862854	-0.31050207	0.920570540	
## MedRent	-0.669463811	-0.32005038	0.886961155	
## MedRentPctHousInc	0.180645280	0.18893233	0.073298572	
## MedOwnCostPctInc	-0.293681521	-0.01599028	0.602089487	
## MedOwnCostPctIncNoMtg	0.094397935	0.16791417	-0.011797653	
## NumInShelters	0.097297935	0.15870846	-0.017190757	
## NumStreet	0.069507645	0.14584262	0.038197396	
## PctForeignBorn	-0.146563271	0.16059514	0.543656324	
## PctBornSameState	0.196695823	0.12322823	-0.362063862	
## PctSameHouse85	-0.151922078	0.01955275	0.128845567	
## PctSameCity85	0.070291077	0.15402310	-0.032058237	
## PctSameState85	0.076627094	0.12019915	-0.091221509	
## LandArea	0.049067735	0.07985775	-0.086362727	
## PopDens	-0.059376040	0.16332972	0.278500867	
## PctUsePubTrans	-0.202669237	0.05436925	0.391171908	
## LemasPctOfficDrugUn	0.108529829	0.10892504	-0.017642793	
## ViolentCrimesPerPop	0.488243452	0.36445392	-0.210549812	
##	OwnOccMedVal	OwnOccHiQuart	RentLowQ	RentMedian
## population	0.0006890811	0.018574892	-0.006478611	-0.009835481
## householdsize	0.1237386382	0.100420495	0.150030509	0.167956378
## racepctblack	-0.2697405695	-0.246149162	-0.321254095	-0.304787329
## racePctWhite	0.0729744135	0.061224043	0.128077913	0.126731677
## racePctAsian	0.5875937473	0.574250678	0.568154578	0.547089818
## racePctHisp	0.0855542190	0.076564813	0.071084705	0.056046022
## agePct12t21	-0.2497257485	-0.242268488	-0.296926083	-0.299245239
## agePct12t29	-0.1780487495	-0.184100152	-0.158983299	-0.194150490
## agePct16t24	-0.1586161269	-0.152353617	-0.197404793	-0.207092872
## agePct65up	-0.1499647668	-0.128879877	-0.260957278	-0.225589510
## numbUrban	0.0328434461	0.049188436	0.032585360	0.028338362
## pctUrban	0.3258428516	0.314966275	0.411814622	0.398899853
## medIncome	0.7904561625	0.778764305	0.809739218	0.854882590
## pctWwage	0.3808239792	0.352258255	0.541736682	0.508118818
## pctWFarmSelf	-0.1019440115	-0.087549770	-0.174010455	-0.166996972
## pctWInvInc	0.5592416181	0.562681995	0.569699428	0.599603459
## pctWSocSec	-0.2991947804	-0.283458443	-0.419974249	-0.377133806
## pctWPubAsst	-0.3866403203	-0.380059334	-0.520454120	-0.499461360
## pctWRetire	-0.0821183255	-0.086524677	-0.093237032	-0.074914355
## medFamInc	0.8073962074	0.803289798	0.790370447	0.840391266
## perCapInc	0.7984380402	0.816439831	0.736788186	0.787209287

## whitePerCap	0.7914100965	0.819873557	0.701673626	0.758162960
## blackPerCap	0.5822411706	0.563732438	0.596116571	0.624709703
## indianPerCap	0.2660504349	0.264493861	0.285266578	0.284252387
## AsianPerCap	0.3943531011	0.402758226	0.348688892	0.380404715
## OtherPerCap	0.3502326568	0.337648810	0.406647886	0.406617248
## HispPerCap	0.5228807240	0.522441640	0.525327444	0.553081836
## NumUnderPov	-0.1129305577	-0.091599297	-0.145622860	-0.140765800
## PctPopUnderPov	-0.5290735270	-0.505287224	-0.657433483	-0.651207702
## PctLess9thGrade	-0.3731828831	-0.372967824	-0.493320775	-0.473240691
## PctNotHSGrad	-0.4760764869	-0.479658782	-0.559758779	-0.548435773
## PctBSorMore	0.6140097131	0.642901256	0.536329692	0.578286571
## PctUnemployed	-0.4200675451	-0.418599269	-0.524034757	-0.498275554
## PctEmploy	0.4157318380	0.386921772	0.577504990	0.539550576
## PctEmplManu	-0.1056037801	-0.130966370	-0.129850444	-0.128462867
## PctEmplProfServ	0.0789376684	0.114909531	-0.064669900	-0.018203015
## PctOccupManu	-0.5364175479	-0.552232535	-0.561065079	-0.578619932
## PctOccupMgmtProf	0.6266399303	0.653609784	0.545805970	0.591401139
## MalePctDivorce	-0.3694286777	-0.354347159	-0.346208316	-0.398384634
## MalePctNevMarr	0.1119495484	0.114327143	0.027180582	0.043597562
## FemalePctDiv	-0.3081911669	-0.293842895	-0.296466311	-0.352589250
## TotalPctDiv	-0.3484965813	-0.333165521	-0.333919742	-0.388240776
## PersPerFam	0.0619315847	0.033296913	0.087037746	0.098372389
## PctFam2Par	0.4376015743	0.416537682	0.514956291	0.520259056
## PctKids2Par	0.4272626871	0.407002678	0.505092881	0.505651249
## PctYoungKids2Par	0.4794016948	0.460033499	0.570780623	0.566090104
## PctTeen2Par	0.3497171535	0.328844371	0.420329622	0.423519450
## PctWorkMomYoungKids	-0.2271946823	-0.231294379	-0.145892484	-0.184108783
## PctWorkMom	-0.1667487552	-0.177689814	-0.055620248	-0.091126464
## NumIlleg	-0.0727671272	-0.051902943	-0.104493384	-0.091346409
## PctIlleg	-0.2534211472	-0.238532856	-0.326454847	-0.309171659
## NumImmig	0.1993296237	0.210534251	0.157583770	0.154402848
## PctImmigRecent	-0.0131429098	0.001779031	-0.051352183	-0.066683560
## PctImmigRec5	-0.0103800286	0.004692040	-0.036473074	-0.058454912
## PctImmigRec8	0.0111871112	0.026083949	-0.002891368	-0.030547196
## PctImmigRec10	-0.0035993117	0.010137759	-0.007114450	-0.038459175
## PctRecentImmig	0.4538366592	0.448581385	0.396261940	0.386652391
## PctRecImmig5	0.4492088423	0.442801273	0.401445845	0.390303943
## PctRecImmig8	0.4637211242	0.456184554	0.421014471	0.408988411
## PctRecImmig10	0.4519312889	0.443649714	0.414222261	0.401711008
## PctSpeakEnglOnly	-0.3113413061	-0.296357515	-0.259119086	-0.263349172
## PctNotSpeakEnglWell	0.2074179921	0.196077445	0.158353015	0.155634809
## PctLargHouseFam	0.0040321361	-0.009106212	-0.009610769	-0.009281760
## PctLargHouseOccup	0.0271182135	0.009520630	0.027737924	0.028930767
## PersPerOccupHous	0.1656260113	0.133192905	0.226768151	0.238318686
## PersPerOwnOccHous	0.2126123945	0.174565954	0.276163032	0.283951370
## PersPerRentOccHous	-0.0317417641	-0.049683335	0.021738788	0.010520117
## PctPersOwnOccup	0.2047204101	0.196106489	0.275162039	0.311433789
## PctPersDenseHous	0.0217707028	0.016735282	-0.003140054	-0.025063020
## PctHousLess3BR	-0.1824730798	-0.171933158	-0.222174405	-0.259149409
## MedNumBR	0.1303508626	0.120641396	0.150768610	0.179247318
## HousVacant	-0.0865144336	-0.056568660	-0.083050495	-0.084550910
## PctHousOccup	0.2817939574	0.245325018	0.261334505	0.266995637
## PctHousOwnOcc	0.1841123243	0.177299967	0.254638242	0.293023138
## PctVacantBoarded	-0.2875315042	-0.274624313	-0.353446469	-0.326102441

## PctVacMore6Mos	-0.2804255756	-0.269643029	-0.392789138	-0.328332425
## MedYrHousBuilt	-0.0061260864	-0.002177971	0.162896264	0.105935975
## PctHousNoPhone	-0.5804108101	-0.558467892	-0.683228500	-0.678685171
## PctW0FullPlumb	-0.2429702456	-0.236443680	-0.338212308	-0.321200316
## OwnOccLowQuart	0.9944813250	0.976236803	0.850933455	0.910737432
## OwnOccMedVal	1.0000000000	0.991302485	0.837802753	0.898493826
## OwnOccHiQuart	0.9913024853	1.000000000	0.814933074	0.876542745
## RentLowQ	0.8378027534	0.814933074	1.000000000	0.964336297
## RentMedian	0.8984938260	0.876542745	0.964336297	1.000000000
## RentHighQ	0.9114421396	0.893074367	0.931110186	0.981829400
## MedRent	0.8744424839	0.853309199	0.949975648	0.988585036
## MedRentPctHousInc	0.0827485642	0.087904229	0.051494167	0.070145779
## MedOwnCostPctInc	0.5963053640	0.577506223	0.615757736	0.632317153
## MedOwnCostPctIncNoMtg	-0.0195664099	-0.028462646	-0.036653359	0.021486626
## NumInShelters	-0.0019639310	0.020830546	-0.044484673	-0.030730387
## NumStreet	0.0567408980	0.076649738	0.012900722	0.015650644
## PctForeignBorn	0.5470997154	0.532869034	0.497353987	0.499892193
## PctBornSameState	-0.3758777807	-0.390073462	-0.452526962	-0.420736415
## PctSameHouse85	0.1102072541	0.091797175	0.002034321	0.081748179
## PctSameCity85	-0.0461910620	-0.061466594	-0.144995248	-0.097810882
## PctSameState85	-0.1083562234	-0.131460026	-0.179903720	-0.143738883
## LandArea	-0.0745971064	-0.056366317	-0.059303883	-0.053901242
## PopDens	0.2760646490	0.259400463	0.251340956	0.232081614
## PctUsePubTrans	0.3943622697	0.391820820	0.325447248	0.368200338
## LemasPctOfficDrugUn	-0.0047708733	0.007886508	-0.033571138	-0.028965397
## ViolentCrimesPerPop	-0.1907242089	-0.172122091	-0.251846937	-0.240493738
##	RentHighQ	MedRent	MedRentPctHousInc	
## population	0.004059518	-0.0246745801	0.1304301832	
## householdsiz	0.179718262	0.1812597591	0.1304251791	
## racepctblack	-0.293334021	-0.2792728156	0.1921881572	
## racePctWhite	0.120754139	0.1259210987	-0.3397104053	
## racePctAsian	0.537666997	0.5100422853	0.1785927198	
## racePctHisp	0.060168185	0.0285208166	0.2870977846	
## agePct12t21	-0.286992892	-0.3072065763	0.2730520991	
## agePct12t29	-0.194609246	-0.2235227155	0.2749501458	
## agePct16t24	-0.197657636	-0.2344164569	0.3372320329	
## agePct65up	-0.219266459	-0.2259615238	0.0650657480	
## numbUrban	0.041355301	0.0128634085	0.1214630319	
## pctUrban	0.392859667	0.3864080135	-0.0159258740	
## medIncome	0.856285659	0.8647360846	-0.2323165330	
## pctWwage	0.495518738	0.5106962793	-0.2608973110	
## pctWFarmSelf	-0.159264245	-0.1666241482	-0.0810496643	
## pctWInvInc	0.606165737	0.5941512292	-0.2563149771	
## pctWSocSec	-0.365108224	-0.3703834939	0.1024322287	
## pctWPubAsst	-0.489420560	-0.5075943074	0.3861324561	
## pctWRetire	-0.071545195	-0.0644747769	-0.0034415887	
## medFamInc	0.844428922	0.8419753663	-0.2043998153	
## perCapInc	0.792136539	0.7825890214	-0.2041352681	
## whitePerCap	0.768565016	0.7549593175	-0.1472470847	
## blackPerCap	0.623166699	0.6257350498	-0.1464617070	
## indianPerCap	0.280116380	0.2917938147	-0.0369808606	
## AsianPerCap	0.375320756	0.3863707695	-0.1395009802	
## OtherPerCap	0.393969468	0.4147936307	-0.0707834315	
## HispPerCap	0.548281864	0.5609332880	-0.1780678641	

## NumUnderPov	-0.126045088	-0.1529453504	0.1886349954
## PctPopUnderPov	-0.636165530	-0.6605419155	0.4500095596
## PctLess9thGrade	-0.464783931	-0.4761927080	0.2082706841
## PctNotHSGrad	-0.545329834	-0.5430677946	0.2192194038
## PctBSorMore	0.595201870	0.5659821007	-0.0541250403
## PctUnemployed	-0.484807131	-0.4977479400	0.4072723032
## PctEmploy	0.521458990	0.5400010847	-0.3941498153
## PctEmplManu	-0.141178232	-0.1180388848	-0.2663750064
## PctEmplProfServ	0.009842815	-0.0346050348	0.1770618494
## PctOccupManu	-0.590273844	-0.5710274759	-0.0002664631
## PctOccupMgmtProf	0.608061317	0.5841700077	-0.1296710563
## MalePctDivorce	-0.417172272	-0.4099033920	0.0956704703
## MalePctNevMarr	0.062841112	0.0019107340	0.4286117164
## FemalePctDiv	-0.371566264	-0.3686852810	0.1590445914
## TotalPctDiv	-0.407183558	-0.4020937589	0.1323477292
## PersPerFam	0.105462475	0.1074219428	0.0906627139
## PctFam2Par	0.518657954	0.5299935378	-0.3577627241
## PctKids2Par	0.500726621	0.5095769825	-0.3738727508
## PctYoungKids2Par	0.563206930	0.5680527341	-0.3319039613
## PctTeen2Par	0.418372137	0.4309635647	-0.3420543879
## PctWorkMomYoungKids	-0.195568152	-0.1786671115	-0.1857340278
## PctWorkMom	-0.099052098	-0.0800671076	-0.2119563171
## NumIlleg	-0.077435027	-0.0977248566	0.1601674481
## PctIlleg	-0.299379077	-0.3073436894	0.3635869038
## NumImmig	0.170758297	0.1301974132	0.1942294344
## PctImmigRecent	-0.061840234	-0.0919154070	0.2329715294
## PctImmigRec5	-0.055348685	-0.0835018740	0.2539451125
## PctImmigRec8	-0.029834579	-0.0554066016	0.2409776390
## PctImmigRec10	-0.038913309	-0.0634867640	0.2380114328
## PctRecentImmig	0.391963393	0.3418589465	0.3390154651
## PctRecImmig5	0.394634491	0.3465421422	0.3374096561
## PctRecImmig8	0.411756424	0.3657677916	0.3271958350
## PctRecImmig10	0.404316663	0.3594074119	0.3235831373
## PctSpeakEnglOnly	-0.268923316	-0.2289854657	-0.2873729803
## PctNotSpeakEnglWell	0.161580752	0.1229703707	0.2998714136
## PctLargHouseFam	0.001051093	-0.0189853541	0.2942833695
## PctLargHouseOccup	0.037736167	0.0251190210	0.2455118659
## PersPerOccupHous	0.241298555	0.2608251702	0.0151208953
## PersPerOwnOccHous	0.283233921	0.2883120319	-0.0700785562
## PersPerRentOccHous	0.007327501	0.0371580122	0.2226199544
## PctPersOwnOccup	0.313558003	0.3565008141	-0.3329620240
## PctPersDenseHous	-0.019254511	-0.0496635679	0.3682924972
## PctHousLess3BR	-0.260339891	-0.3073740887	0.3419893652
## MedNumBR	0.175930379	0.2136299932	-0.3042639100
## HousVacant	-0.072119874	-0.0912597558	0.1612389057
## PctHousOccup	0.261650417	0.2461919817	-0.2194374783
## PctHousOwnOcc	0.297025596	0.3469092199	-0.2791664952
## PctVacantBoarded	-0.309246910	-0.3159798079	0.1722429768
## PctVacMore6Mos	-0.303062306	-0.2860144225	-0.0448410367
## MedYrHousBuilt	0.094273554	0.1295188088	-0.0232743763
## PctHousNoPhone	-0.672862854	-0.6694638110	0.1806452796
## PctW0FullPlumb	-0.310502070	-0.3200503770	0.1889323319
## OwnOccLowQuart	0.920570540	0.8869611545	0.0732985720
## OwnOccMedVal	0.911442140	0.8744424839	0.0827485642

## OwnOccHiQuart	0.893074367	0.8533091994	0.0879042286
## RentLowQ	0.931110186	0.9499756484	0.0514941675
## RentMedian	0.981829400	0.9885850360	0.0701457790
## RentHighQ	1.000000000	0.9771798598	0.0973393176
## MedRent	0.977179860	1.0000000000	0.0641728867
## MedRentPctHousInc	0.097339318	0.0641728867	1.0000000000
## MedOwnCostPctInc	0.642090018	0.6248076413	0.3614494071
## MedOwnCostPctIncNoMtg	0.037895896	0.0466517809	0.1049489956
## NumInShelters	-0.012063055	-0.0461502829	0.1252828492
## NumStreet	0.031025319	-0.0001177186	0.1282269041
## PctForeignBorn	0.504642776	0.4602500471	0.3010407792
## PctBornSameState	-0.420977389	-0.4003158428	-0.2200109005
## PctSameHouse85	0.095855187	0.1040997598	-0.2509286783
## PctSameCity85	-0.102116343	-0.0873210262	-0.1957624377
## PctSameState85	-0.149547979	-0.1307944566	-0.0966594373
## LandArea	-0.040719120	-0.0485534570	0.0278199832
## PopDens	0.234903647	0.1878332690	0.2165765397
## PctUsePubTrans	0.388088761	0.3381931545	0.1018559156
## LemasPctOfficDrugUn	-0.017713619	-0.0371025739	0.1434247224
## ViolentCrimesPerPop	-0.232290235	-0.2398637768	0.3250452615
##	MedOwnCostPctInc	MedOwnCostPctIncNoMtg	NumInShelters
## population	0.08321433	-3.797636e-02	0.821243471
## householdsize	0.24799197	-9.644266e-02	-0.082164182
## racepctblack	-0.07000438	2.208380e-01	0.229323144
## racePctWhite	-0.17329178	-5.935810e-02	-0.277743189
## racePctAsian	0.39841365	-2.293389e-01	0.131333209
## racePctHisp	0.33691025	-1.125256e-01	0.114032733
## agePct12t21	-0.17114688	-1.211445e-01	-0.005888318
## agePct12t29	-0.01657061	-8.984852e-02	0.100767305
## agePct16t24	-0.09892307	-7.887804e-02	0.068057509
## agePct65up	-0.21503226	2.036152e-01	-0.032220883
## numbUrban	0.10218734	-3.908189e-02	0.813579226
## pctUrban	0.22675810	-3.121732e-02	0.156276074
## medIncome	0.38044656	-2.615618e-02	-0.123153392
## pctWwage	0.26782429	-1.570219e-01	-0.067947642
## pctWFarmSelf	-0.13366603	-1.555050e-01	-0.100779633
## pctWInvInc	0.07252046	-5.856408e-02	-0.137992300
## pctWSocSec	-0.28490612	2.524667e-01	-0.044826592
## pctWPubAsst	-0.07791128	9.830687e-02	0.214010391
## pctWRetire	-0.18536459	3.359779e-02	-0.072031885
## medFamInc	0.33134312	-1.715408e-02	-0.118982221
## perCapInc	0.29271851	-1.206475e-02	-0.056186700
## whitePerCap	0.31253844	8.156542e-03	0.039876792
## blackPerCap	0.30196050	6.656418e-04	-0.075202858
## indianPerCap	0.16577865	3.339756e-04	-0.036772390
## AsianPerCap	0.10676646	2.766385e-02	-0.076206613
## OtherPerCap	0.19340704	2.485092e-02	-0.056146094
## HispPerCap	0.20188935	2.205695e-02	-0.092877984
## NumUnderPov	0.01504430	3.510488e-03	0.823481070
## PctPopUnderPov	-0.23835761	5.069471e-02	0.181985227
## PctLess9thGrade	-0.08012016	1.602588e-01	0.069702842
## PctNotHSGrad	-0.12188619	2.007163e-01	0.092285791
## PctBSorMore	0.16378412	-9.817305e-02	-0.006043248
## PctUnemployed	-0.06697620	1.818533e-01	0.166795989

## PctEmploy	0.28196349	-1.027990e-01	-0.059506100
## PctEmplManu	-0.16712517	3.855276e-02	-0.113092419
## PctEmplProfServ	-0.16206602	3.263772e-02	0.065397497
## PctOccupManu	-0.25458555	1.026349e-01	-0.002835139
## PctOccupMgmtProf	0.14630844	-8.775191e-02	-0.025023787
## MalePctDivorce	-0.12189259	-4.751692e-02	0.241561195
## MalePctNevMarr	0.13844436	1.172372e-01	0.276200414
## FemalePctDiv	-0.04331145	-1.054166e-01	0.243356874
## TotalPctDiv	-0.08881545	-7.382747e-02	0.244932185
## PersPerFam	0.26548791	9.297996e-03	0.041421159
## PctFam2Par	0.13660761	-1.365741e-01	-0.309864276
## PctKids2Par	0.10750672	-1.397121e-01	-0.309490416
## PctYoungKids2Par	0.17752752	-1.360133e-01	-0.271442475
## PctTeen2Par	0.06793215	-1.431636e-01	-0.299167473
## PctWorkMomYoungKids	-0.16182374	-6.497453e-02	-0.049880059
## PctWorkMom	-0.13202238	-1.413691e-02	-0.091667738
## NumIlleg	0.04095623	6.401021e-02	0.823993213
## PctIlleg	0.04321502	2.005029e-01	0.354740087
## NumImmig	0.24946705	-6.984130e-02	0.683600027
## PctImmigRecent	-0.01322334	-9.419151e-02	0.126158864
## PctImmigRec5	0.02795828	-9.460779e-02	0.146458620
## PctImmigRec8	0.06923542	-1.092614e-01	0.164965555
## PctImmigRec10	0.09570670	-1.167986e-01	0.184571250
## PctRecentImmig	0.45878429	-8.496770e-02	0.177599422
## PctRecImmig5	0.48021718	-7.616023e-02	0.178747563
## PctRecImmig8	0.49501504	-7.973329e-02	0.180253930
## PctRecImmig10	0.49898312	-8.007757e-02	0.181664281
## PctSpeakEnglOnly	-0.45192496	5.259912e-05	-0.132780966
## PctNotSpeakEnglWell	0.39515840	-3.847090e-02	0.160472208
## PctLargHouseFam	0.28623216	-2.771228e-02	0.166935668
## PctLargHouseOccup	0.28972457	-5.594414e-02	0.089436104
## PersPerOccupHous	0.30121997	-7.818162e-02	-0.091119847
## PersPerOwnOccHous	0.28460496	-1.607294e-02	-0.060491068
## PersPerRentOccHous	0.27907274	-1.306117e-01	-0.009506598
## PctPersOwnOccup	-0.04308895	-6.868095e-03	-0.268384375
## PctPersDenseHous	0.31778948	-1.450298e-01	0.169870785
## PctHousLess3BR	0.10201920	4.924145e-02	0.237021038
## MedNumBR	-0.06573496	-3.928815e-03	-0.216975965
## HousVacant	0.07129133	2.083720e-02	0.745891440
## PctHousOccup	-0.04622847	-1.465071e-01	-0.089555827
## PctHousOwnOcc	-0.01975184	-3.311789e-02	-0.272238363
## PctVacantBoarded	-0.12872300	1.899233e-01	0.322793986
## PctVacMore6Mos	-0.25243964	3.585913e-01	-0.027621152
## MedYrHousBuilt	0.21190953	-3.561546e-01	-0.142527560
## PctHousNoPhone	-0.29368152	9.439794e-02	0.097297935
## PctWOFullPlumb	-0.01599028	1.679142e-01	0.158708459
## OwnOccLowQuart	0.60208949	-1.179765e-02	-0.017190757
## OwnOccMedVal	0.59630536	-1.956641e-02	-0.001963931
## OwnOccHiQuart	0.57750622	-2.846265e-02	0.020830546
## RentLowQ	0.61575774	-3.665336e-02	-0.044484673
## RentMedian	0.63231715	2.148663e-02	-0.030730387
## RentHighQ	0.64209002	3.789590e-02	-0.012063055
## MedRent	0.62480764	4.665178e-02	-0.046150283
## MedRentPctHousInc	0.36144941	1.049490e-01	0.125282849

## MedOwnCostPctInc	1.00000000	1.778736e-01	0.058042409
## MedOwnCostPctIncNoMtg	0.17787356	1.000000e+00	0.026009627
## NumInShelters	0.05804241	2.600963e-02	1.000000000
## NumStreet	0.12744543	-3.887238e-02	0.718994157
## PctForeignBorn	0.56073151	-3.058613e-02	0.140560741
## PctBornSameState	-0.45322508	1.965700e-01	-0.091401581
## PctSameHouse85	-0.18289324	3.457046e-01	-0.081418240
## PctSameCity85	-0.19807422	2.254435e-01	0.014583238
## PctSameState85	-0.21647768	1.873137e-01	-0.065281097
## LandArea	0.03691334	-2.824979e-02	0.526515778
## PopDens	0.29942894	1.280745e-01	0.243970148
## PctUsePubTrans	0.25495866	3.129304e-01	0.332450680
## LemasPctOfficDrugUn	0.07922344	6.110815e-02	0.362685688
## ViolentCrimesPerPop	0.06384668	5.376331e-02	0.375754152
##	NumStreet	PctForeignBorn	PctBornSameState
## population	0.6517972923	0.172731481	-0.125133290
## householdsiz	-0.0430109721	0.311107197	-0.049253108
## racepctblack	0.1671334336	-0.098113661	0.093494140
## racePctWhite	-0.2389246597	-0.372923997	0.113798389
## racePctAsian	0.1694404485	0.657450523	-0.405275853
## racePctHisp	0.1577227695	0.684190328	-0.262169906
## agePct12t21	-0.0249455492	-0.068537175	0.080280578
## agePct12t29	0.0685348349	0.077663631	-0.047540485
## agePct16t24	0.0370379561	0.005593972	-0.013802160
## agePct65up	-0.0366768215	-0.139957226	0.149763240
## numbUrban	0.6473548864	0.195118100	-0.140237279
## pctUrban	0.1316455393	0.293092603	-0.233622807
## medIncome	-0.0837808644	0.228123174	-0.245540755
## pctWwage	-0.0464906443	0.148530718	-0.202315547
## pctWFarmSelf	-0.0851585840	-0.130027505	0.081541463
## pctWInvInc	-0.1249543233	-0.037270749	-0.135203975
## pctWSocSec	-0.0565383666	-0.196153302	0.282666171
## pctWPubAsst	0.1656619651	0.128133778	0.205082728
## pctWRetire	-0.0679539294	-0.205019050	0.094718267
## medFamInc	-0.0860774690	0.199243878	-0.238682665
## perCapInc	-0.0281532422	0.189703792	-0.297282273
## whitePerCap	0.0426337329	0.231780015	-0.315012371
## blackPerCap	-0.0443124100	0.227052160	-0.184293723
## indianPerCap	-0.0067307533	0.103609956	-0.126487824
## AsianPerCap	-0.0415679693	0.080734531	-0.058529698
## OtherPerCap	-0.0416680071	0.116136506	-0.145936459
## HispPerCap	-0.0732949594	0.085661878	-0.152939092
## NumUnderPov	0.6411908508	0.135848084	-0.055767337
## PctPopUnderPov	0.1321419704	-0.027401110	0.153720573
## PctLess9thGrade	0.0729334672	0.231479930	0.230718384
## PctNotHSGrad	0.0782119460	0.137420651	0.270029821
## PctBSorMore	-0.0115860268	0.094619072	-0.294693969
## PctUnemployed	0.1376859238	0.129326532	0.157427084
## PctEmploy	-0.0401859691	0.063625098	-0.183739387
## PctEmplManu	-0.0953966106	-0.070293156	0.335215013
## PctEmplProfServ	-0.0020481149	-0.138003106	0.046761133
## PctOccupManu	-0.0025620450	-0.089990474	0.384512857
## PctOccupMgmtProf	-0.0296813773	0.062048049	-0.258602221
## MalePctDivorce	0.2123977450	-0.117822931	-0.050643508

## MalePctNevMarr	0.2087172941	0.279724391	-0.075988907
## FemalePctDiv	0.2242780469	-0.001398831	-0.115240926
## TotalPctDiv	0.2193957836	-0.062474539	-0.077018770
## PersPerFam	0.0562514056	0.402333674	0.030283976
## PctFam2Par	-0.2256118142	0.031114868	-0.081451208
## PctKids2Par	-0.2314738150	-0.014281698	-0.071941649
## PctYoungKids2Par	-0.1814558659	0.082660668	-0.137818910
## PctTeen2Par	-0.2143910051	0.019534365	-0.035080658
## PctWorkMomYoungKids	-0.0437339757	-0.265353203	0.123335498
## PctWorkMom	-0.0915251597	-0.335808574	0.121800997
## NumIlleg	0.6328288662	0.125357750	-0.040877682
## PctIlleg	0.2655095695	0.129988068	0.035293480
## NumImmig	0.6610918768	0.496091075	-0.247298913
## PctImmigRecent	0.1037438985	0.141053497	-0.172847582
## PctImmigRec5	0.1228505170	0.196263482	-0.199294804
## PctImmigRec8	0.1449087830	0.242522943	-0.230459434
## PctImmigRec10	0.1717263633	0.290077304	-0.240371931
## PctRecentImmig	0.2227969058	0.910382247	-0.486190229
## PctRecImmig5	0.2273695268	0.929603755	-0.487039238
## PctRecImmig8	0.2319390075	0.946027201	-0.490785142
## PctRecImmig10	0.2370117079	0.955228563	-0.486255459
## PctSpeakEnglOnly	-0.1767868625	-0.877792626	0.330305107
## PctNotSpeakEnglWell	0.2061873106	0.847519460	-0.298179569
## PctLargHouseFam	0.1807318153	0.552013882	-0.099208499
## PctLargHouseOccup	0.1189645946	0.534294462	-0.092725571
## PersPerOccupHous	-0.0415229687	0.353703696	-0.044390154
## PersPerOwnOccHous	-0.0270704936	0.339909873	0.009727538
## PersPerRentOccHous	0.0342884909	0.399242304	-0.166759787
## PctPersOwnOccup	-0.2350680857	-0.255549129	0.161200840
## PctPersDenseHous	0.2153658913	0.688202528	-0.263172919
## PctHousLess3BR	0.2298850685	0.313377025	-0.211042801
## MedNumBR	-0.1878805871	-0.267620567	0.184142299
## HousVacant	0.5955061313	0.084579743	-0.165387800
## PctHousOccup	-0.0790933687	0.105526776	0.170169523
## PctHousOwnOcc	-0.2302856214	-0.226382368	0.125094027
## PctVacantBoarded	0.2191245397	-0.047661724	0.177361012
## PctVacMore6Mos	-0.0722950383	-0.319059255	0.386630305
## MedYrHousBuilt	-0.0494247855	-0.032070004	-0.352753102
## PctHousNoPhone	0.0695076455	-0.146563271	0.196695823
## PctWofullPlumb	0.1458426231	0.160595143	0.123228229
## OwnOccLowQuart	0.0381973959	0.543656324	-0.362063862
## OwnOccMedVal	0.0567408980	0.547099715	-0.375877781
## OwnOccHiQuart	0.0766497380	0.532869034	-0.390073462
## RentLowQ	0.0129007216	0.497353987	-0.452526962
## RentMedian	0.0156506436	0.499892193	-0.420736415
## RentHighQ	0.0310253192	0.504642776	-0.420977389
## MedRent	-0.0001177186	0.460250047	-0.400315843
## MedRentPctHousInc	0.1282269041	0.301040779	-0.220010900
## MedOwnCostPctInc	0.1274454335	0.560731512	-0.453225075
## MedOwnCostPctIncNoMtg	-0.0388723841	-0.030586127	0.196570022
## NumInShelters	0.7189941572	0.140560741	-0.091401581
## NumStreet	1.0000000000	0.203618919	-0.148794617
## PctForeignBorn	0.2036189192	1.000000000	-0.495764320
## PctBornSameState	-0.1487946171	-0.495764320	1.000000000

## PctSameHouse85	-0.1045434090	-0.073117263	0.473721202	
## PctSameCity85	-0.0152400859	-0.023516407	0.512998844	
## PctSameState85	-0.0794173420	-0.137901004	0.761741066	
## LandArea	0.4259524342	-0.048845427	-0.069273384	
## PopDens	0.2388959518	0.614772283	-0.221341142	
## PctUsePubTrans	0.2390416930	0.401711368	-0.175459468	
## LemasPctOfficDrugUn	0.3064095382	0.170945729	-0.134230086	
## ViolentCrimesPerPop	0.3402767994	0.194390437	-0.077158988	
##	PctSameHouse85	PctSameCity85	PctSameState85	LandArea
## population	-0.123690633	0.0016096624	-0.0896375661	0.713652485
## householdsSize	-0.057842212	-0.1031092471	-0.0032771316	-0.015077966
## racePctBlack	-0.045645633	0.0563581283	-0.0028941066	0.149758238
## racePctWhite	0.165285453	-0.0196765013	0.0324146889	-0.131389200
## racePctAsian	-0.189516805	-0.1949234445	-0.1982793747	-0.001083969
## racePctHisp	-0.165678000	0.0144939983	0.0002017781	0.011633811
## agePct12t21	-0.357145132	-0.3612254198	-0.1505552136	0.025735552
## agePct12t29	-0.559075136	-0.5059928492	-0.3176469758	0.062476176
## agePct16t24	-0.462897202	-0.4790773381	-0.2745399314	0.031631711
## agePct65up	0.394347291	0.3729707315	0.2556594933	-0.124245178
## numbUrban	-0.105198616	0.0133278542	-0.0896108260	0.693444557
## pctUrban	0.096459459	0.0698798229	-0.0747341219	0.081044024
## medIncome	0.248834196	-0.0062243788	-0.0518261837	-0.047378605
## pctWwage	-0.187837359	-0.3017048032	-0.2417343898	0.061147285
## pctWFarmSelf	-0.138365162	-0.1620866546	0.0114916293	-0.011248854
## pctWInvInc	0.254448660	-0.0544552333	-0.0743130125	-0.073165356
## pctWSocSec	0.438072058	0.4344479412	0.3563266709	-0.127046546
## pctWPubAsst	-0.052324562	0.2195895211	0.2107643374	0.030455721
## pctWRetire	0.378927038	0.2602005218	0.1672812536	-0.052649064
## medFamInc	0.229233346	-0.0414473646	-0.0692525123	-0.057979288
## perCapInc	0.216469982	-0.0236376458	-0.1196180550	-0.033828037
## whitePerCap	0.184829907	-0.0255458930	-0.1360696246	0.020088660
## blackPerCap	0.182702055	0.0222241462	-0.0303139979	-0.058409107
## indianPerCap	0.047147610	-0.0152421424	-0.0261307896	-0.018050988
## AsianPerCap	0.231979000	0.1297503909	0.0692299072	-0.041210731
## OtherPerCap	0.086642812	-0.0289515390	-0.0476365459	-0.010157604
## HispPerCap	0.243603941	0.0530623314	-0.0301762020	-0.041592700
## NumUnderPov	-0.116684483	0.0330188891	-0.0467080428	0.649896118
## PctPopUnderPov	-0.262696365	-0.0508693471	0.0178005754	0.066140032
## PctLess9thGrade	0.092447298	0.2999080075	0.2727848551	-0.043007380
## PctNothHSGrad	0.120424413	0.3551859906	0.3203597878	-0.026527775
## PctBSorMore	-0.083149057	-0.3313226173	-0.3259088828	0.005342929
## PctUnemployed	-0.011169214	0.1945128257	0.1867755959	0.045004351
## PctEmploy	-0.097867071	-0.1814209912	-0.2059413496	0.045990830
## PctEmplManu	0.263826489	0.3843434592	0.3183764709	-0.113279331
## PctEmplProfServ	-0.050580298	-0.2013655403	-0.1178259621	-0.001894763
## PctOccupManu	0.099945027	0.3489490615	0.3395854423	-0.059936549
## PctOccupMgmtProf	0.028364054	-0.2247920364	-0.2514418984	0.006568268
## MalePctDivorce	-0.297370445	0.0357820711	-0.0340639662	0.147940207
## MalePctNevMarr	-0.285997569	-0.2767165767	-0.1840090776	0.039994010
## FemalePctDiv	-0.375452693	-0.0121126481	-0.0786423536	0.143641568
## TotalPctDiv	-0.337798894	0.0185640799	-0.0505610868	0.144667458
## PersPerFam	0.077693518	0.1486948481	0.1552100614	0.030508075
## PctFam2Par	0.213765889	-0.0704227598	-0.0201950781	-0.083219349
## PctKids2Par	0.185027919	-0.0939154151	-0.0386625078	-0.098758408

## PctYoungKids2Par	0.163750523	-0.1101963293	-0.0609317412	-0.084421668
## PctTeen2Par	0.226308742	-0.0217086050	0.0325527767	-0.088575510
## PctWorkMomYoungKids	-0.101207575	-0.0497785362	-0.0049244335	0.006932103
## PctWorkMom	-0.065729101	-0.0825792376	-0.0159613626	-0.006044513
## NumIlleg	-0.053325242	0.0787989657	-0.0173114117	0.570471332
## PctIlleg	-0.141536354	0.0769729376	0.0003810523	0.139561446
## NumImmig	-0.104930565	0.0002132079	-0.0996174022	0.426452749
## PctImmigRecent	-0.429935470	-0.3756164575	-0.3283061925	0.041165797
## PctImmigRec5	-0.468325985	-0.3922560556	-0.3359597868	0.049902984
## PctImmigRec8	-0.492238499	-0.4018339066	-0.3415896977	0.065780426
## PctImmigRec10	-0.507836700	-0.3839908231	-0.3217738832	0.077756588
## PctRecentImmig	-0.241198904	-0.1623976126	-0.2553044997	-0.034902467
## PctRecImmig5	-0.234787816	-0.1445996881	-0.2375527018	-0.034282330
## PctRecImmig8	-0.219583271	-0.1276423113	-0.2214070188	-0.031911957
## PctRecImmig10	-0.208992399	-0.1073617216	-0.2019849574	-0.028707997
## PctSpeakEnglOnly	0.045377289	-0.0558128492	0.0271249948	0.022040648
## PctNotSpeakEnglWell	-0.092620997	0.0630778114	-0.0186070427	-0.021357964
## PctLargHouseFam	-0.045319975	0.1266249303	0.0918899131	0.031455258
## PctLargHouseOccup	-0.010124076	0.1298265154	0.1022882449	0.007825793
## PersPerOccupHous	0.109579850	0.0999165564	0.1110041769	-0.007562364
## PersPerOwnOccHous	0.148411525	0.1089714605	0.1256686176	-0.005308543
## PersPerRentOccHous	-0.179599284	-0.0420304016	-0.0215245458	0.016799658
## PctPersOwnOccup	0.544556029	0.2787885333	0.2906796357	-0.043972476
## PctPersDenseHous	-0.247484383	-0.0111890678	-0.0448590667	0.033702758
## PctHousLess3BR	-0.371905048	-0.1261096822	-0.1859587121	0.042170819
## MedNumBR	0.311943927	0.1375141442	0.1585663063	-0.055368205
## HousVacant	-0.151424549	-0.0341119900	-0.1425006548	0.700792306
## PctHousOccup	0.227884347	0.1560064380	0.2069907816	-0.177088709
## PctHousOwnOcc	0.514190119	0.2671767924	0.2783120456	-0.041544200
## PctVacantBoarded	0.112637959	0.2476859321	0.1883954812	0.220040379
## PctVacMore6Mos	0.395061198	0.3272046784	0.3158455513	0.028820878
## MedYrHousBuilt	-0.495333579	-0.4838842841	-0.3638544402	0.137968827
## PctHousNoPhone	-0.151922078	0.0702910765	0.0766270938	0.049067735
## PctWOFullPlumb	0.019552746	0.1540231012	0.1201991471	0.079857747
## OwnOccLowQuart	0.128845567	-0.0320582369	-0.0912215092	-0.086362727
## OwnOccMedVal	0.110207254	-0.0461910620	-0.1083562234	-0.074597106
## OwnOccHiQuart	0.091797175	-0.0614665940	-0.1314600265	-0.056366317
## RentLowQ	0.002034321	-0.1449952476	-0.1799037196	-0.059303883
## RentMedian	0.081748179	-0.0978108821	-0.1437388827	-0.053901242
## RentHighQ	0.095855187	-0.1021163426	-0.1495479795	-0.040719120
## MedRent	0.104099760	-0.0873210262	-0.1307944566	-0.048553457
## MedRentPctHousInc	-0.250928678	-0.1957624377	-0.0966594373	0.027819983
## MedOwnCostPctInc	-0.182893240	-0.1980742220	-0.2164776827	0.036913337
## MedOwnCostPctIncNoMtg	0.345704577	0.2254434835	0.1873136954	-0.028249787
## NumInShelters	-0.081418240	0.0145832376	-0.0652810967	0.526515778
## NumStreet	-0.104543409	-0.0152400859	-0.0794173420	0.425952434
## PctForeignBorn	-0.073117263	-0.0235164070	-0.1379010041	-0.048845427
## PctBornSameState	0.473721202	0.5129988439	0.7617410660	-0.069273384
## PctSameHouse85	1.000000000	0.8031049566	0.6709720355	-0.116900988
## PctSameCity85	0.803104957	1.000000000	0.7420420489	-0.062989091
## PctSameState85	0.670972035	0.7420420489	1.000000000	-0.104403481
## LandArea	-0.116900988	-0.0629890913	-0.1044034809	1.000000000
## PopDens	0.020701279	0.1180820415	-0.0121659486	-0.170856069
## PctUsePubTrans	0.192366946	0.0812603675	-0.0424242818	0.007699304

## LemasPctOfficDrugUn	-0.090249157	0.0082273439	-0.1072893812	0.299631892
## ViolentCrimesPerPop	-0.155388185	0.0755579222	-0.0194589370	0.196799891
##	PopDens	PctUsePubTrans	LemasPctOfficDrugUn	
## population	0.231897432	0.270355529	0.466352294	
## householdsSize	-0.004071731	-0.051505566	-0.094367522	
## racePctBlack	0.095053206	0.147022985	0.260792643	
## racePctWhite	-0.337457588	-0.215635553	-0.276234210	
## racePctAsian	0.389943760	0.296920667	0.101887758	
## racePctHispanic	0.370103243	0.078365990	0.125353042	
## agePct12t21	-0.095749017	-0.173279462	0.001301159	
## agePct12t29	0.119724866	-0.023506979	0.117290280	
## agePct16t24	0.045979255	-0.040418783	0.083179594	
## agePct65up	0.015434067	0.006785723	-0.010167977	
## numUrban	0.258146750	0.298196376	0.478178892	
## pctUrban	0.331112699	0.343560808	0.258955284	
## medIncome	-0.023661139	0.250454146	-0.126211326	
## pctWWage	-0.034333204	0.084611133	-0.064601681	
## pctWFarmSelf	-0.265258518	-0.244915879	-0.158809553	
## pctWInvInc	-0.113916351	0.161269995	-0.154076232	
## pctWSocSec	-0.024486206	-0.058336190	-0.024825476	
## pctWPubAsst	0.197055327	-0.016438100	0.176036100	
## pctWRetire	-0.087991993	-0.040568893	-0.057113069	
## medFamInc	-0.017016283	0.275346167	-0.117179703	
## perCapInc	0.019123553	0.307880240	-0.055433083	
## whitePerCap	0.064240465	0.360946828	0.021377772	
## blackPerCap	0.074430751	0.226336345	-0.093042741	
## indianPerCap	0.040404243	0.091937395	-0.007364436	
## AsianPerCap	-0.025154741	0.124029166	-0.063111629	
## OtherPerCap	0.029340088	0.146850631	-0.024719137	
## HispPerCap	-0.013839003	0.215107141	-0.072958917	
## NumUnderPov	0.227730657	0.258566792	0.447769921	
## PctPopUnderPov	0.065009141	-0.108993054	0.170169198	
## PctLess9thGrade	0.180893736	-0.080603857	0.084607689	
## PctNotHSGrad	0.180091449	-0.086489152	0.105061886	
## PctBSorMore	-0.025050723	0.269247323	-0.025731361	
## PctUnemployed	0.172615099	-0.016950063	0.170033560	
## PctEmploy	-0.016857619	0.102643531	-0.060654217	
## PctEmplManu	0.005384328	-0.182148171	-0.080246250	
## PctEmplProfServ	-0.035224657	0.163265338	0.024791691	
## PctOccupManu	0.064104403	-0.206577271	0.008726126	
## PctOccupMgmtProf	-0.061625761	0.251584624	-0.045948298	
## MalePctDivorce	0.091908538	-0.078334055	0.237637546	
## MalePctNevMarr	0.410488825	0.347279981	0.238060539	
## FemalePctDiv	0.167486503	-0.056479286	0.253158462	
## TotalPctDiv	0.133426938	-0.067043908	0.248831804	
## PersPerFam	0.159223312	0.068961978	0.014882440	
## PctFam2Par	-0.256921476	-0.077448163	-0.306616540	
## PctKids2Par	-0.251317292	-0.065468152	-0.314169730	
## PctYoungKids2Par	-0.162081680	-0.004990444	-0.274949149	
## PctTeen2Par	-0.250459525	-0.112392193	-0.310927289	
## PctWorkMomYoungKids	-0.123690090	-0.183811360	-0.024499703	
## PctWorkMom	-0.188812390	-0.180488681	-0.066944418	
## NumIlleg	0.272298352	0.327097003	0.407444649	
## PctIlleg	0.322525139	0.217844325	0.350191096	

## NumImmig	0.403767623	0.313736251	0.343476886
## PctImmigRecent	0.152838313	0.082515344	0.131350254
## PctImmigRec5	0.184337626	0.093534919	0.148809081
## PctImmigRec8	0.207023161	0.108192525	0.167379125
## PctImmigRec10	0.234298326	0.104142882	0.179635391
## PctRecentImmig	0.607740701	0.387004874	0.185672371
## PctRecImmig5	0.613809844	0.379377268	0.193727206
## PctRecImmig8	0.620002208	0.382955349	0.198399801
## PctRecImmig10	0.622812036	0.375013345	0.199857469
## PctSpeakEnglOnly	-0.520005914	-0.262508341	-0.162804837
## PctNotSpeakEnglWell	0.526983221	0.216213816	0.176030477
## PctLargHouseFam	0.348481420	0.133513668	0.131459836
## PctLargHouseOccup	0.281645142	0.079178420	0.069966137
## PersPerOccupHous	0.015978089	-0.030254813	-0.094697804
## PersPerOwnOccHous	0.092608752	0.087453649	-0.073440881
## PersPerRentOccHous	0.087803793	-0.128471963	0.001808684
## PctPersOwnOccup	-0.430134521	-0.149353196	-0.281824048
## PctPersDenseHous	0.414668879	0.082661957	0.167623916
## PctHousLess3BR	0.420322334	0.152432008	0.255782193
## MedNumBR	-0.311659304	-0.109770407	-0.227716378
## HousVacant	0.150539722	0.215303994	0.463774961
## PctHousOccup	0.140484700	0.118076519	-0.112973899
## PctHousOwnOcc	-0.448335501	-0.196133829	-0.283625994
## PctVacantBoarded	0.128742586	0.138523310	0.244348586
## PctVacMore6Mos	-0.197230318	-0.037038257	-0.047481027
## MedYrHousBuilt	-0.410440481	-0.391386644	-0.110083876
## PctHousNoPhone	-0.059376040	-0.202669237	0.108529829
## PctWOFullPlumb	0.163329721	0.054369252	0.108925040
## OwnOccLowQuart	0.278500867	0.391171908	-0.017642793
## OwnOccMedVal	0.276064649	0.394362270	-0.004770873
## OwnOccHiQuart	0.259400463	0.391820820	0.007886508
## RentLowQ	0.251340956	0.325447248	-0.033571138
## RentMedian	0.232081614	0.368200338	-0.028965397
## RentHighQ	0.234903647	0.388088761	-0.017713619
## MedRent	0.187833269	0.338193154	-0.037102574
## MedRentPctHousInc	0.216576540	0.101855916	0.143424722
## MedOwnCostPctInc	0.299428942	0.254958656	0.079223438
## MedOwnCostPctIncNoMtg	0.128074460	0.312930370	0.061108149
## NumInShelters	0.243970148	0.332450680	0.362685688
## NumStreet	0.238895952	0.239041693	0.306409538
## PctForeignBorn	0.614772283	0.401711368	0.170945729
## PctBornSameState	-0.221341142	-0.175459468	-0.134230086
## PctSameHouse85	0.020701279	0.192366946	-0.090249157
## PctSameCity85	0.118082041	0.081260367	0.008227344
## PctSameState85	-0.012165949	-0.042424282	-0.107289381
## LandArea	-0.170856069	0.007699304	0.299631892
## PopDens	1.000000000	0.587804272	0.228083985
## PctUsePubTrans	0.587804272	1.000000000	0.206643929
## LemasPctOfficDrugUn	0.228083985	0.206643929	1.000000000
## ViolentCrimesPerPop	0.281389517	0.153828847	0.348627258
##	ViolentCrimesPerPop		
## population	0.36715738		
## householdsize	-0.03492260		
## racepctblack	0.63126363		

## racePctWhite	-0.68476958
## racePctAsian	0.03762179
## racePctHisp	0.29305022
## agePct12t21	0.06047725
## agePct12t29	0.15335669
## agePct16t24	0.09934668
## agePct65up	0.06717145
## numbUrban	0.36289744
## pctUrban	0.08202542
## medIncome	-0.42422062
## pctWWage	-0.30550047
## pctWFarmSelf	-0.15312435
## pctWInvInc	-0.57632364
## pctWSocSec	0.11797716
## pctWPubAsst	0.57466527
## pctWRetire	-0.09844222
## medFamInc	-0.43910774
## perCapInc	-0.35208473
## whitePerCap	-0.20927220
## blackPerCap	-0.27539109
## indianPerCap	-0.09085382
## AsianPerCap	-0.15559166
## OtherPerCap	-0.12634482
## HispPerCap	-0.24455290
## NumUnderPov	0.44758164
## PctPopUnderPov	0.52187654
## PctLess9thGrade	0.41109551
## PctNothHSGrad	0.48336588
## PctBSorMore	-0.31467518
## PctUnemployed	0.50423464
## PctEmploy	-0.33164283
## PctEmplManu	-0.04490600
## PctEmplProfServ	-0.07148261
## PctOccupManu	0.29558123
## PctOccupMgmtProf	-0.33910923
## MalePctDivorce	0.52540728
## MalePctNevMarr	0.30458292
## FemalePctDiv	0.55603188
## TotalPctDiv	0.55277739
## PersPerFam	0.14065135
## PctFam2Par	-0.70666747
## PctKids2Par	-0.73842380
## PctYoungKids2Par	-0.66605890
## PctTeen2Par	-0.66158164
## PctWorkMomYoungKids	-0.02253536
## PctWorkMom	-0.15055826
## NumIlleg	0.47102814
## PctIlleg	0.73795655
## NumImmig	0.29424000
## PctImmigRecent	0.17187777
## PctImmigRec5	0.21604898
## PctImmigRec8	0.24813535
## PctImmigRec10	0.29153600
## PctRecentImmig	0.23076856

```

## PctRecImmig5          0.24804462
## PctRecImmig8          0.25319724
## PctRecImmig10         0.26426315
## PctSpeakEnglOnly     -0.24146590
## PctNotSpeakEnglWell  0.30001904
## PctLargHouseFam      0.38347973
## PctLargHouseOccup    0.29480414
## PersPerOccupHous     -0.03973911
## PersPerOwnOccHous    -0.12441596
## PersPerRentOccHous   0.24833979
## PctPersOwnOccup      -0.52549114
## PctPersDenseHous     0.45290091
## PctHousLess3BR       0.47448990
## MedNumBR              -0.35738474
## HousVacant            0.42139580
## PctHousOccup          -0.31900965
## PctHousOwnOcc        -0.47068259
## PctVacantBoarded     0.48281580
## PctVacMore6Mos       0.02128283
## MedYrHousBuilt       -0.10999439
## PctHousNoPhone       0.48824345
## PctWOFullPlumb       0.36445392
## OwnOccLowQuart       -0.21054981
## OwnOccMedVal         -0.19072421
## OwnOccHiQuart        -0.17212209
## RentLowQ              -0.25184694
## RentMedian            -0.24049374
## RentHighQ             -0.23229023
## MedRent               -0.23986378
## MedRentPctHousInc    0.32504526
## MedOwnCostPctInc     0.06384668
## MedOwnCostPctIncNoMtg 0.05376331
## NumInShelters        0.37575415
## NumStreet             0.34027680
## PctForeignBorn       0.19439044
## PctBornSameState     -0.07715899
## PctSameHouse85       -0.15538818
## PctSameCity85        0.07555792
## PctSameState85       -0.01945894
## LandArea              0.19679989
## PopDens               0.28138952
## PctUsePubTrans       0.15382885
## LemasPctOfficDrugUn  0.34862726
## ViolentCrimesPerPop  1.00000000

```

2. Partitioning Data

```

sample = sample(c(TRUE, FALSE), nrow(dat), replace=TRUE, prob=c(2/3,1/3))
train = dat[sample, ]
test = dat[!sample, ]

```

3. Predictive Modeling

Building the Models

LASSO Regression

```
library(ncvreg)

formula = ViolentCrimesPerPop ~ .
y = train[, all.vars(formula)[1]]
X = as.data.frame(model.matrix(as.formula(formula), train))

#Cross Validation
cvfit.L1 = cv.ncvreg(X=X,y=y, nfolds=10,
  penalty="lasso", lambda.min=.005)

beta.hat = coef(cvfit.L1)

cutoff = 0.0001

terms = names(beta.hat)[abs(beta.hat) > cutoff]

formula.LASSO = as.formula(paste(c("ViolentCrimesPerPop ~ ", terms[-1]), collapse=" + "))

fit.LASSO = lm(formula.LASSO, data = train)
```

Principal Components Regression

```
library(pls)

##
## Attaching package: 'pls'
## The following object is masked from 'package:stats':
##
##   loadings
fit.PCR = pcr(ViolentCrimesPerPop ~ ., ncomp=16, data=train, method = pls.options()$pcralg,
  validation = "CV", segments = 10, segment.type = "random", scale=TRUE)
summary(fit.PCR)

## Data:   X dimension: 1322 100
## Y dimension: 1322 1
## Fit method: svdpc
## Number of components considered: 16
##
## VALIDATION: RMSEP
## Cross-validated using 10 random segments.
##      (Intercept)  1 comps  2 comps  3 comps  4 comps  5 comps  6 comps
## CV              0.2342  0.1798  0.1725  0.1661  0.159   0.1577  0.1577
## adjCV           0.2342  0.1798  0.1724  0.1660  0.159   0.1577  0.1576
##      7 comps  8 comps  9 comps 10 comps 11 comps 12 comps 13 comps
## CV          0.1551  0.1450  0.145   0.145   0.1440  0.1428  0.1427
## adjCV       0.1551  0.1449  0.145   0.145   0.1439  0.1427  0.1426
##      14 comps 15 comps 16 comps
```

```

## CV      0.1427    0.1427    0.1426
## adjCV   0.1426    0.1426    0.1425
##
## TRAINING: % variance explained
##           1 comps  2 comps  3 comps  4 comps  5 comps  6 comps
## X           25.56   42.45   51.82   59.25   64.85   68.86
## ViolentCrimesPerPop 41.34   46.16   50.18   54.39   55.26   55.32
##           7 comps  8 comps  9 comps 10 comps 11 comps 12 comps
## X           72.04   74.86   76.96   78.60   80.12   81.54
## ViolentCrimesPerPop 56.83   62.24   62.27   62.45   63.12   63.79
##           13 comps 14 comps 15 comps 16 comps
## X           82.84   83.85   84.83   85.73
## ViolentCrimesPerPop 63.85   63.91   63.95   64.05
names(fit.PCR);

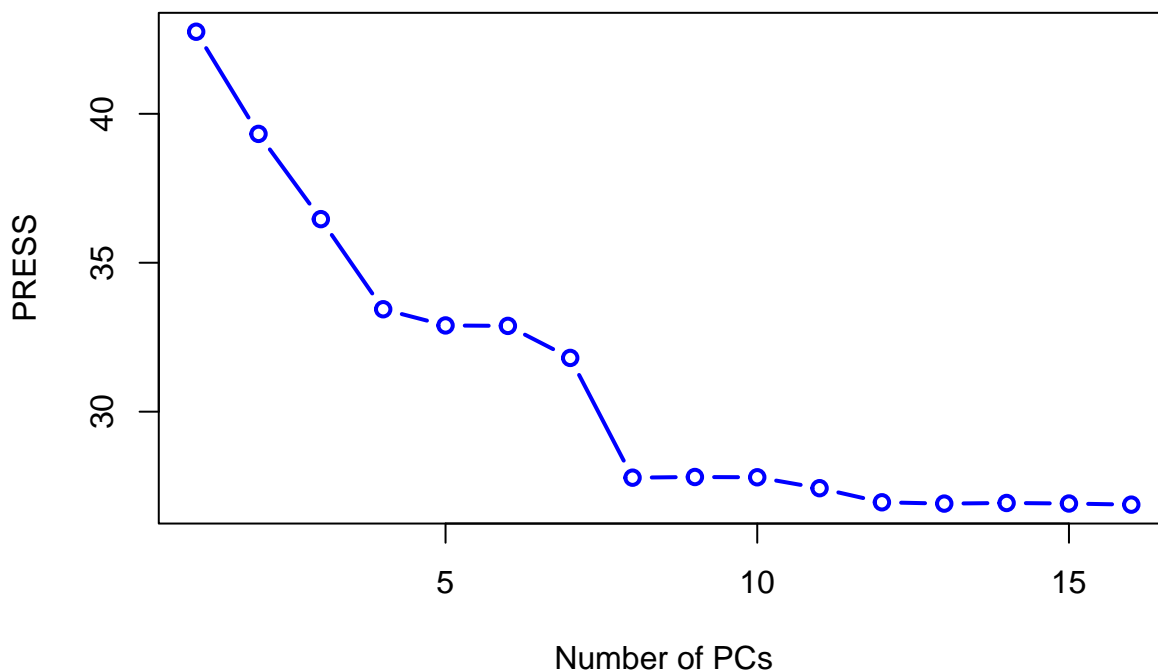
## [1] "coefficients" "scores"      "loadings"      "Yloadings"
## [5] "projection"     "Xmeans"      "Ymeans"        "fitted.values"
## [9] "residuals"     "Xvar"        "Xtotvar"       "fit.time"
## [13] "ncomp"         "method"      "center"        "scale"
## [17] "validation"    "call"        "terms"         "model"

CV = fit.PCR$validation; names(CV)

## [1] "method"      "pred"        "coefficients" "gammas"      "PRESS0"
## [6] "PRESS"       "adj"         "segments"     "ncomp"

plot(1:CV$ncomp, CV$PRESS, xlab="Number of PCs", ylab="PRESS", type="b", col="blue", lwd=2)

```



```

ncomp.best = which.min(CV$PRESS); ncomp.best

## [1] 16

fit.PCR.best = pcr(ViolentCrimesPerPop ~ ., ncomp=ncomp.best, data=train, method = pls.options()$pcralg,
  segments = 1, scale=TRUE)

```

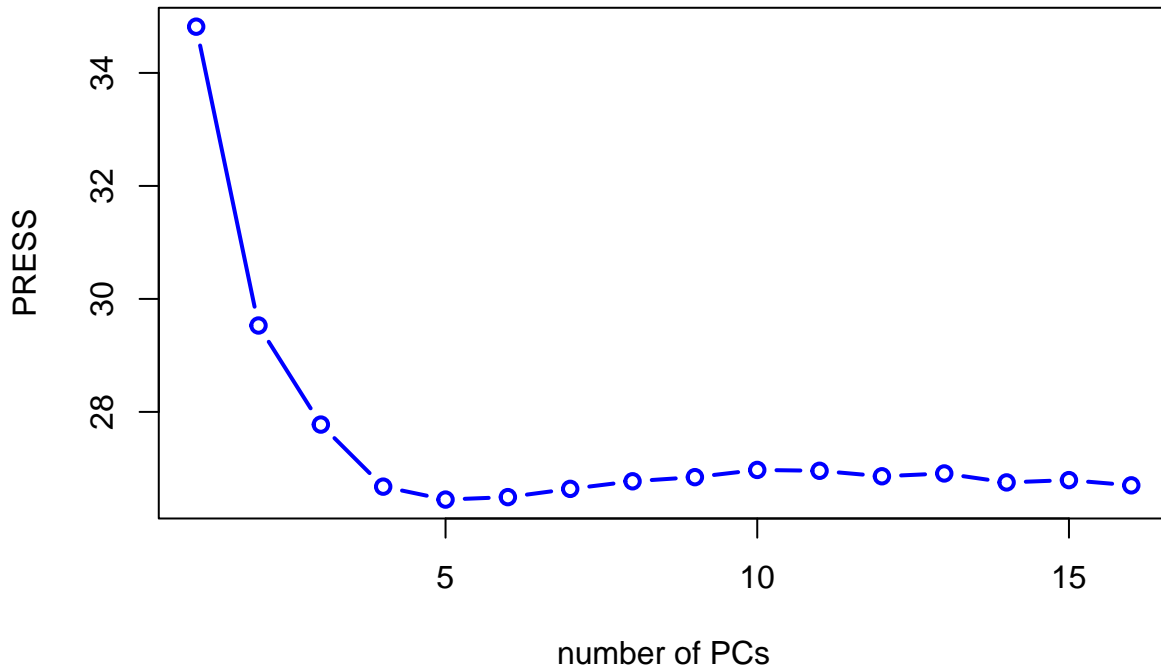
Partial Least Squares Regression

```
fit.PLS = plsr(ViolentCrimesPerPop ~ ., ncomp=16, data=train, method = "simpls",
  validation = "CV", segments = 10, segment.type = "random", scale=TRUE)
summary(fit.PLS)
```

```
## Data:      X dimension: 1322 100
## Y dimension: 1322 1
## Fit method: simpls
## Number of components considered: 16
##
## VALIDATION: RMSEP
## Cross-validated using 10 random segments.
##      (Intercept) 1 comps 2 comps 3 comps 4 comps 5 comps 6 comps
## CV      0.2342  0.1623  0.1495  0.1449  0.1421  0.1414  0.1416
## adjCV    0.2342  0.1623  0.1494  0.1448  0.1419  0.1413  0.1413
##      7 comps 8 comps 9 comps 10 comps 11 comps 12 comps 13 comps
## CV      0.1420  0.1423  0.1425  0.1428  0.1428  0.1425  0.1427
## adjCV    0.1416  0.1418  0.1420  0.1422  0.1422  0.1419  0.1420
##      14 comps 15 comps 16 comps
## CV      0.1423  0.1424  0.1421
## adjCV    0.1416  0.1417  0.1414
##
## TRAINING: % variance explained
##      1 comps 2 comps 3 comps 4 comps 5 comps 6 comps
## X      24.74  35.99  47.63  53.99  60.31  63.48
## ViolentCrimesPerPop 52.58  60.39  63.20  65.04  65.69  66.63
##      7 comps 8 comps 9 comps 10 comps 11 comps 12 comps
## X      68.01  69.92  72.59  74.20  77.00  78.12
## ViolentCrimesPerPop 67.02  67.57  67.83  68.24  68.41  68.70
##      13 comps 14 comps 15 comps 16 comps
## X      79.38  80.49  81.54  82.26
## ViolentCrimesPerPop 68.92  69.10  69.23  69.35
```

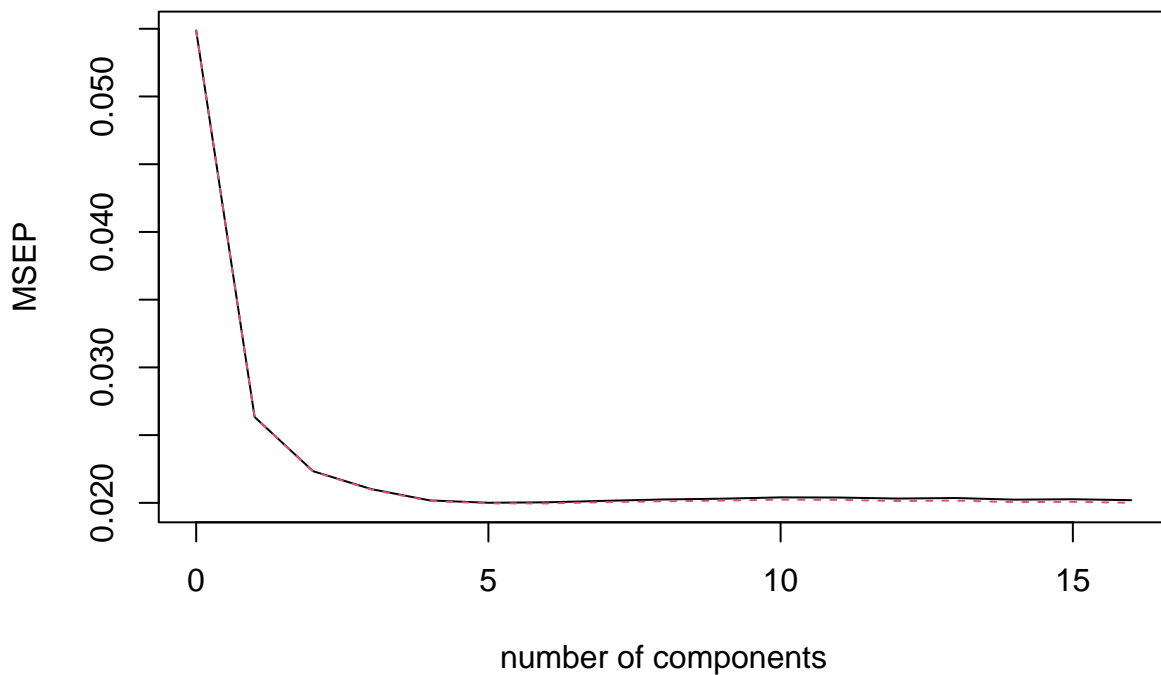
```
CV = fit.PLS$validation
```

```
plot(1:CV$ncomp, CV$PRESS, xlab="number of PCs", ylab="PRESS", type="b", col="blue", lwd=2)
```

```
validationplot(fit.PLS, val.type = "MSEP", main="mean squared error of prediction")
```

mean squared error of prediction



```
ncomp.best = which.min(CV$PRESS); ncomp.best
```

```
## [1] 5
```

```
fit.PLSR.best = pls(ViolentCrimesPerPop ~ ., ncomp=ncomp.best, data=train, method = "simpls", validation
```

Weighted Orthogonal Components Regression

```
library(WOCR)
```

```
fit.WOCR = WOCR(ViolentCrimesPerPop ~., data = train, scale = TRUE, model = "RR.gamma.lambda")
```

Stagewise Regression

```
library(lars)
```

```
## Loaded lars 1.3
```

```
X = as.matrix(train[, -ncol(train)])
```

```
y = train[, ncol(train)]
```

```
fit.stagewise <- lars(X,y,type="for",  
  trace = T, normalize = TRUE, intercept = TRUE)
```

```
## Forward Stagewise sequence
```

```
## Computing X'X .....
```

```
## LARS Step 1 : Variable 45 added
```

```
## LARS Step 2 : Variable 51 added
```

```
## LARS Step 3 : Variable 4 added
```

```
## LARS Step 4 : Variable 72 added
```

```
## NNLS Step: Variable 51 dropped
```

```
## LARS Step 5 : Variable 42 added
```

```
## NNLS Step: Variable 45 dropped
```

```
## LARS Step 6 : Variable 91 added
```

```
## LARS Step 7 : Variable 39 added
```

```
## NNLS Step: Variable 42 dropped
```

```
## LARS Step 8 : Variable 69 added
```

```
## LARS Step 9 : Variable 75 added
```

```
## LARS Step 10 : Variable 12 added
```

```
## NNLS Step: Variable 4 dropped
```

```
## LARS Step 11 : Variable 73 added
```

```
## NNLS Step: Variable 72 dropped
```

```
## LARS Step 12 : Variable 49 added
```

```
## LARS Step 13 : Variable 26 added
```

```
## LARS Step 14 : Variable 3 added
```

```
## LARS Step 15 : Variable 8 added
```

```
## LARS Step 16 : Variable 100 added
```

```
## LARS Step 17 : Variable 89 added
```

```
## LARS Step 18 : Variable 87 added
```

```
## LARS Step 19 : Variable 27 added
```

```
## LARS Step 20 : Variable 59 added
```

```
## NNLS Step: Variable 69 dropped
```

```
## LARS Step 21 : Variable 25 added
```

```
## LARS Step 22 : Variable 69 added
```

```
## LARS Step 23 : Variable 16 added
```

```
## NNLS Step: Variable 39 dropped
```

```
## NNLS Step: Variable 69 dropped
```

```
## LARS Step 24 : Variable 19 added
```

```
## NNLS Step:      Variable 59      dropped
## LARS Step 25 :   Variable 1       added
## LARS Step 26 :   Variable 65      added
## NNLS Step:      Variable 49      dropped
## LARS Step 27 :   Variable 86      added
## LARS Step 28 :   Variable 49      added
## LARS Step 29 :   Variable 95      added
## NNLS Step:      Variable 65      dropped
## LARS Step 30 :   Variable 29      added
## NNLS Step:      Variable 12      dropped
## NNLS Step:      Variable 8       dropped
## NNLS Step:      Variable 86      dropped
## LARS Step 31 :   Variable 24      added
## LARS Step 32 :   Variable 76      added
## LARS Step 33 :   Variable 46      added
## LARS Step 34 :   Variable 70      added
## LARS Step 35 :   Variable 5       added
## LARS Step 36 :   Variable 52      added
## LARS Step 37 :   Variable 40      added
## LARS Step 38 :   Variable 23      added
## LARS Step 39 :   Variable 65      added
## LARS Step 40 :   Variable 59      added
## LARS Step 41 :   Variable 8       added
## NNLS Step:      Variable 95      dropped
## LARS Step 42 :   Variable 83      added
## LARS Step 43 :   Variable 99      added
## LARS Step 44 :   Variable 72      added
## LARS Step 45 :   Variable 77      added
## NNLS Step:      Variable 75      dropped
## LARS Step 46 :   Variable 22      added
## NNLS Step:      Variable 16      dropped
## NNLS Step:      Variable 46      dropped
## NNLS Step:      Variable 5       dropped
## LARS Step 47 :   Variable 30      added
## LARS Step 48 :   Variable 5       added
## LARS Step 49 :   Variable 46      added
## LARS Step 50 :   Variable 86      added
## NNLS Step:      Variable 46      dropped
## LARS Step 51 :   Variable 75      added
## LARS Step 52 :   Variable 14      added
## NNLS Step:      Variable 73      dropped
## NNLS Step:      Variable 87      dropped
## LARS Step 53 :   Variable 10      added
## LARS Step 54 :   Variable 73      added
## LARS Step 55 :   Variable 90      added
## LARS Step 56 :   Variable 35      added
## NNLS Step:      Variable 73      dropped
## LARS Step 57 :   Variable 46      added
## LARS Step 58 :   Variable 61      added
## NNLS Step:      Variable 91      dropped
## LARS Step 59 :   Variable 2       added
## LARS Step 60 :   Variable 37      added
## NNLS Step:      Variable 14      dropped
## NNLS Step:      Variable 46      dropped
```

```
## LARS Step 61 : Variable 15 added
## LARS Step 62 : Variable 7 added
## NNLS Step: Variable 2 dropped
## LARS Step 63 : Variable 98 added
## LARS Step 64 : Variable 88 added
## NNLS Step: Variable 52 dropped
## LARS Step 65 : Variable 36 added
## LARS Step 66 : Variable 46 added
## LARS Step 67 : Variable 33 added
## LARS Step 68 : Variable 4 added
## NNLS Step: Variable 5 dropped
## LARS Step 69 : Variable 52 added
## LARS Step 70 : Variable 71 added
## LARS Step 71 : Variable 44 added
## NNLS Step: Variable 10 dropped
## LARS Step 72 : Variable 14 added
## LARS Step 73 : Variable 34 added
## LARS Step 74 : Variable 73 added
## LARS Step 75 : Variable 16 added
## LARS Step 76 : Variable 9 added
## NNLS Step: Variable 7 dropped
## LARS Step 77 : Variable 67 added
## LARS Step 78 : Variable 51 added
## LARS Step 79 : Variable 63 added
## LARS Step 80 : Variable 12 added
## LARS Step 81 : Variable 48 added
## LARS Step 82 : Variable 80 added
## LARS Step 83 : Variable 39 added
## LARS Step 84 : Variable 10 added
## LARS Step 85 : Variable 94 added
## LARS Step 86 : Variable 79 added
## NNLS Step: Variable 61 dropped
## LARS Step 87 : Variable 50 added
## LARS Step 88 : Variable 18 added
## LARS Step 89 : Variable 68 added
## LARS Step 90 : Variable 54 added
## LARS Step 91 : Variable 61 added
## LARS Step 92 : Variable 66 added
## NNLS Step: Variable 61 dropped
## LARS Step 93 : Variable 38 added
## NNLS Step: Variable 25 dropped
## NNLS Step: Variable 36 dropped
## LARS Step 94 : Variable 32 added
## LARS Step 95 : Variable 93 added
## NNLS Step: Variable 98 dropped
## LARS Step 96 : Variable 47 added
## LARS Step 97 : Variable 78 added
## LARS Step 98 : Variable 28 added
## NNLS Step: Variable 33 dropped
## LARS Step 99 : Variable 85 added
## LARS Step 100 : Variable 41 added
## LARS Step 101 : Variable 96 added
## NNLS Step: Variable 93 dropped
## LARS Step 102 : Variable 6 added
```

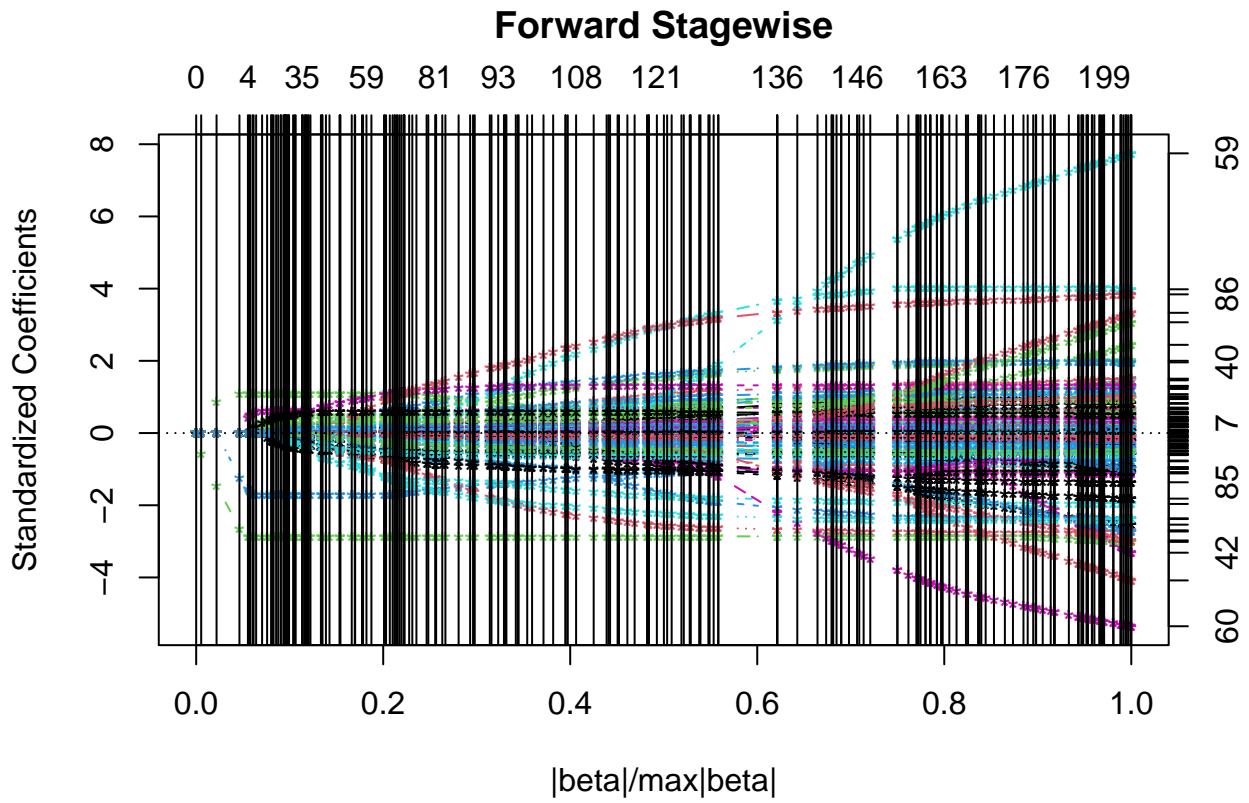
```
## NNLS Step: Variable 72 dropped
## LARS Step 103 : Variable 61 added
## LARS Step 104 : Variable 31 added
## LARS Step 105 : Variable 69 added
## LARS Step 106 : Variable 17 added
## LARS Step 107 : Variable 7 added
## LARS Step 108 : Variable 21 added
## NNLS Step: Variable 19 dropped
## LARS Step 109 : Variable 98 added
## LARS Step 110 : Variable 91 added
## LARS Step 111 : Variable 95 added
## LARS Step 112 : Variable 5 added
## LARS Step 113 : Variable 72 added
## LARS Step 114 : Variable 19 added
## LARS Step 115 : Variable 25 added
## LARS Step 116 : Variable 53 added
## LARS Step 117 : Variable 82 added
## NNLS Step: Variable 89 dropped
## LARS Step 118 : Variable 62 added
## NNLS Step: Variable 19 dropped
## LARS Step 119 : Variable 36 added
## LARS Step 120 : Variable 60 added
## LARS Step 121 : Variable 19 added
## LARS Step 122 : Variable 56 added
## NNLS Step: Variable 98 dropped
## LARS Step 123 : Variable 92 added
## NNLS Step: Variable 26 dropped
## NNLS Step: Variable 76 dropped
## NNLS Step: Variable 9 dropped
## NNLS Step: Variable 72 dropped
## LARS Step 124 : Variable 98 added
## LARS Step 125 : Variable 64 added
## NNLS Step: Variable 63 dropped
## LARS Step 126 : Variable 2 added
## NNLS Step: Variable 16 dropped
## LARS Step 127 : Variable 97 added
## NNLS Step: Variable 100 dropped
## NNLS Step: Variable 98 dropped
## LARS Step 128 : Variable 16 added
## LARS Step 129 : Variable 100 added
## LARS Step 130 : Variable 58 added
## NNLS Step: Variable 75 dropped
## NNLS Step: Variable 100 dropped
## LARS Step 131 : Variable 20 added
## LARS Step 132 : Variable 87 added
## LARS Step 133 : Variable 55 added
## NNLS Step: Variable 54 dropped
## NNLS Step: Variable 53 dropped
## LARS Step 134 : Variable 81 added
## NNLS Step: Variable 82 dropped
## LARS Step 135 : Variable 76 added
## LARS Step 136 : Variable 93 added
## LARS Step 137 : Variable 74 added
## NNLS Step: Variable 66 dropped
```

```
## NNLS Step: Variable 78 dropped
## LARS Step 138 : Variable 42 added
## NNLS Step: Variable 49 dropped
## NNLS Step: Variable 41 dropped
## LARS Step 139 : Variable 54 added
## NNLS Step: Variable 27 dropped
## NNLS Step: Variable 73 dropped
## LARS Step 140 : Variable 26 added
## LARS Step 141 : Variable 75 added
## LARS Step 142 : Variable 11 added
## NNLS Step: Variable 88 dropped
## NNLS Step: Variable 12 dropped
## LARS Step 143 : Variable 33 added
## LARS Step 144 : Variable 88 added
## LARS Step 145 : Variable 78 added
## LARS Step 146 : Variable 100 added
## LARS Step 147 : Variable 89 added
## NNLS Step: Variable 95 dropped
## LARS Step 148 : Variable 43 added
## LARS Step 149 : Variable 12 added
## NNLS Step: Variable 37 dropped
## NNLS Step: Variable 19 dropped
## NNLS Step: Variable 78 dropped
## LARS Step 150 : Variable 66 added
## NNLS Step: Variable 65 dropped
## NNLS Step: Variable 15 dropped
## NNLS Step: Variable 43 dropped
## LARS Step 151 : Variable 15 added
## LARS Step 151 : Variable 43 added
## LARS Step 151 : Variable 65 added
## NNLS Step: Variable 15 dropped
## NNLS Step: Variable 43 dropped
## NNLS Step: Variable 65 dropped
## LARS Step 152 : Variable 53 added
## LARS Step 153 : Variable 13 added
## NNLS Step: Variable 32 dropped
## NNLS Step: Variable 16 dropped
## LARS Step 154 : Variable 43 added
## LARS Step 155 : Variable 15 added
## LARS Step 156 : Variable 49 added
## LARS Step 157 : Variable 82 added
## NNLS Step: Variable 22 dropped
## NNLS Step: Variable 96 dropped
## NNLS Step: Variable 43 dropped
## LARS Step 158 : Variable 22 added
## LARS Step 158 : Variable 43 added
## LARS Step 158 : Variable 96 added
## NNLS Step: Variable 22 dropped
## NNLS Step: Variable 43 dropped
## NNLS Step: Variable 96 dropped
## LARS Step 159 : Variable 98 added
## NNLS Step: Variable 99 dropped
## LARS Step 160 : Variable 32 added
## LARS Step 161 : Variable 96 added
```

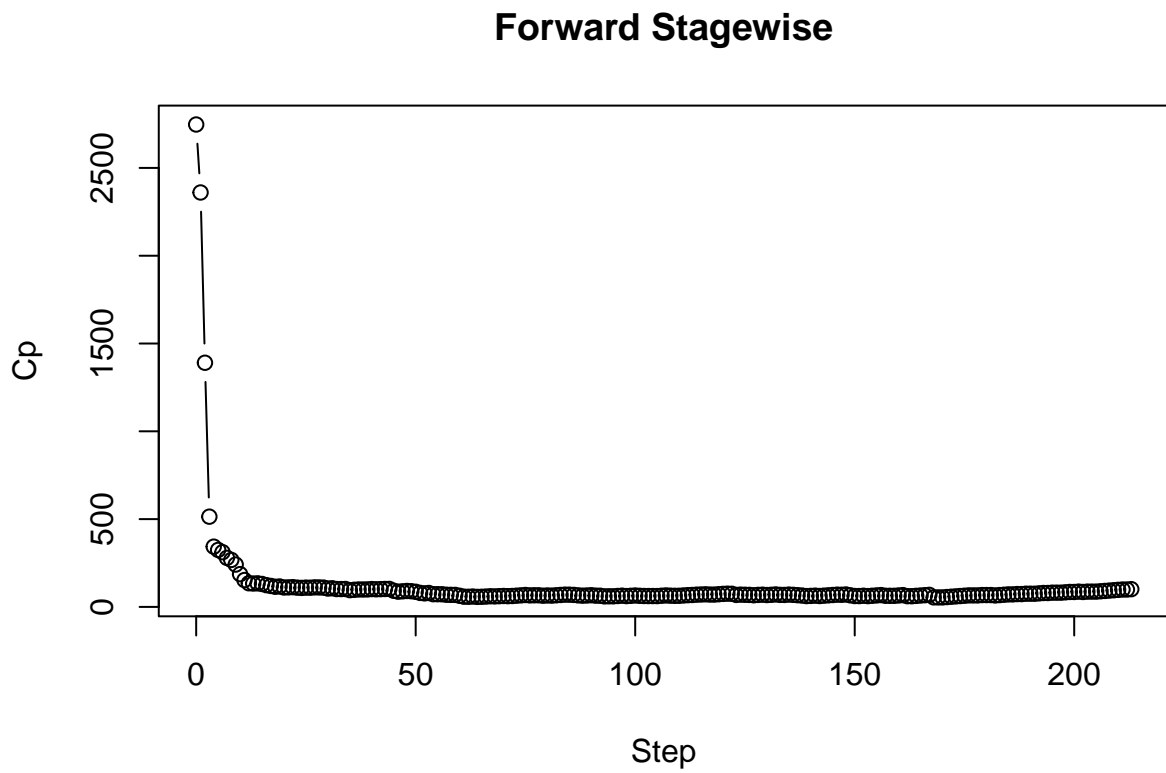
```
## LARS Step 162 : Variable 41 added
## NNLS Step: Variable 8 dropped
## NNLS Step: Variable 44 dropped
## NNLS Step: Variable 2 dropped
## NNLS Step: Variable 75 dropped
## LARS Step 163 : Variable 2 added
## LARS Step 163 : Variable 8 added
## LARS Step 163 : Variable 44 added
## LARS Step 163 : Variable 75 added
## NNLS Step: Variable 2 dropped
## NNLS Step: Variable 8 dropped
## NNLS Step: Variable 44 dropped
## NNLS Step: Variable 75 dropped
## LARS Step 164 : Variable 43 added
## LARS Step 165 : Variable 2 added
## LARS Step 166 : Variable 27 added
## LARS Step 167 : Variable 72 added
## LARS Step 168 : Variable 63 added
## NNLS Step: Variable 83 dropped
## NNLS Step: Variable 46 dropped
## NNLS Step: Variable 34 dropped
## NNLS Step: Variable 5 dropped
## NNLS Step: Variable 15 dropped
## NNLS Step: Variable 96 dropped
## NNLS Step: Variable 43 dropped
## NNLS Step: Variable 2 dropped
## LARS Step 169 : Variable 57 added
## NNLS Step: Variable 62 dropped
## LARS Step 170 : Variable 78 added
## NNLS Step: Variable 40 dropped
## LARS Step 171 : Variable 46 added
## LARS Step 172 : Variable 83 added
## LARS Step 173 : Variable 34 added
## LARS Step 174 : Variable 44 added
## LARS Step 175 : Variable 22 added
## LARS Step 176 : Variable 62 added
## LARS Step 177 : Variable 45 added
## NNLS Step: Variable 62 dropped
## LARS Step 178 : Variable 84 added
## NNLS Step: Variable 83 dropped
## LARS Step 179 : Variable 75 added
## LARS Step 180 : Variable 99 added
## NNLS Step: Variable 30 dropped
## LARS Step 181 : Variable 30 added
## NNLS Step: Variable 30 dropped
## LARS Step 182 : Variable 2 added
## NNLS Step: Variable 35 dropped
## NNLS Step: Variable 27 dropped
## LARS Step 183 : Variable 19 added
## LARS Step 184 : Variable 37 added
## LARS Step 185 : Variable 95 added
## LARS Step 186 : Variable 43 added
## NNLS Step: Variable 7 dropped
## LARS Step 187 : Variable 73 added
```

```
## LARS Step 188 : Variable 40 added
## NNLS Step: Variable 47 dropped
## LARS Step 189 : Variable 7 added
## LARS Step 190 : Variable 8 added
## NNLS Step: Variable 7 dropped
## LARS Step 191 : Variable 35 added
## NNLS Step: Variable 88 dropped
## LARS Step 192 : Variable 83 added
## LARS Step 193 : Variable 88 added
## LARS Step 194 : Variable 96 added
## NNLS Step: Variable 94 dropped
## LARS Step 195 : Variable 27 added
## LARS Step 196 : Variable 9 added
## NNLS Step: Variable 19 dropped
## LARS Step 197 : Variable 16 added
## NNLS Step: Variable 27 dropped
## LARS Step 198 : Variable 15 added
## LARS Step 199 : Variable 7 added
## LARS Step 200 : Variable 62 added
## NNLS Step: Variable 72 dropped
## LARS Step 201 : Variable 5 added
## LARS Step 202 : Variable 65 added
## NNLS Step: Variable 29 dropped
## NNLS Step: Variable 88 dropped
## LARS Step 203 : Variable 72 added
## LARS Step 204 : Variable 30 added
## NNLS Step: Variable 31 dropped
## LARS Step 205 : Variable 94 added
## NNLS Step: Variable 87 dropped
## LARS Step 206 : Variable 47 added
## LARS Step 207 : Variable 27 added
## LARS Step 208 : Variable 88 added
## LARS Step 209 : Variable 19 added
## LARS Step 210 : Variable 31 added
## LARS Step 211 : Variable 87 added
## LARS Step 212 : Variable 29 added
## NNLS Step: Variable 32 dropped
## LARS Step 213 : Variable 32 added
## Computing residuals, RSS etc .....
```

```
plot(fit.stagewise, xvar="norm", breaks=F, plottype="coefficients", omit.zeros = T)
plot(fit.stagewise, xvar="norm", breaks=T, plottype="coefficients", omit.zeros = F)
```

```
plot(fit.stagewise, xvar= "step", breaks = TRUE, plottype = "Cp")
```



Testing/Comparing the Models

```
yobs = test$ViolentCrimesPerPop

LASSO.yhat = as.vector(predict(fit.LASSO, test))
PCR.yhat = as.vector(predict(fit.PCR.best, test))
PLSR.yhat = as.vector(predict(fit.PLSR.best, test))
WOCR.yhat = as.vector(predict(fit.WOCR, test))

b.max.steps = 3
stagewise.yhat = predict(fit.stagewise, s=b.max.steps, newx=as.matrix(test[, -ncol(test)]))$fit

"LASSO MSE"

## [1] "LASSO MSE"
mean((yobs-LASSO.yhat)^2)

## [1] 0.01827628

"PCR MSE"

## [1] "PCR MSE"
mean((yobs-PCR.yhat)^2)

## [1] 0.0220089

"PLSR MSE"

## [1] "PLSR MSE"
mean((yobs-PLSR.yhat)^2)

## [1] 0.02010756

"WOCR MSE"

## [1] "WOCR MSE"
mean((yobs-WOCR.yhat)^2)

## [1] 0.01812583

"Stagewise MSE"

## [1] "Stagewise MSE"
mean((yobs-stagewise.yhat)^2)

## [1] 0.03584728
```