## $Crime\_Dataset\_EDA$

## $the\_principal\_components$

## 2022-07-13

## correlation\_table(data=communities, target="ViolentCrimesPerPop")

##		Variable	Violen+CrimeaDerDer
##	1		ViolentCrimesPerPop 1.00
##	2	ViolentCrimesPerPop	0.83
##	3	PctIlleg	0.79
##	3 4	pctWPubAsst PctPopUnderPov	
##	5	<del>-</del>	0.76 0.76
##	6	PctUnemployed	0.76
##	7	racepctblack PctVacantBoarded	0.74
##	8	PctHousNoPhone	0.74
##	9	FemalePctDiv	0.71
##	10	PctLargHouseFam	0.70
##	11	TotalPctDiv	0.70
##	12	PctPolicBlack	0.69
##	13	PctPolicMinor	0.69
##	14	MalePctDivorce	0.66
##	15	NumIlleg	0.64
##	16	PctLargHouseOccup	0.60
##	17	PctWOFullPlumb	0.60
##	18	MalePctNevMarr	0.57
##	19	NumInShelters	0.57
##	20	NumUnderPov	0.56
##	21	PctNotHSGrad	0.55
##	22	PctPersDenseHous	0.55
##	23	PopDens	0.53
##	24	PersPerFam	0.52
##	25	HousVacant	0.50
##	26	NumStreet	0.49
##	27	${\tt MedRentPctHousInc}$	0.44
##	28	population	0.43
##	29	numbUrban	0.43
##	30	PolicPerPop	0.43
##	31	PersPerRentOccHous	0.42
##	32	${\tt LemasSwFTPerPop}$	0.42
##	33	PolicCars	0.42
##	34	PctHousLess3BR	0.41
##	35	LemasSwornFT	0.41
##	36	PctImmigRec10	0.40
##	37	PolicOperBudg	0.39
##	38	PctLess9thGrade	0.38
##	39	${\tt LemasSwFTFieldPerPop}$	0.38
##	40	${\tt LemasTotalReq}$	0.38

## 41	${\tt PctUsePubTrans}$	0.38
## 42	PctImmigRec8	0.37
## 43	${\tt LemasTotReqPerPop}$	0.37
## 44	PctOccupManu	0.36
## 45	NumImmig	0.36
## 46	${\tt OfficAssgnDrugUnits}$	0.36
## 47	agePct12t21	0.35
## 48	PctImmigRec5	0.32
## 49	agePct12t29	0.31
## 50	${\tt racePctHisp}$	0.28
## 51	PctImmigRecent	0.27
## 52	${\tt PctNotSpeakEnglWell}$	0.26
## 53	PctPolicHisp	0.26
## 54	${\tt NumKindsDrugsSeiz}$	0.25
## 55	PolicBudgPerPop	0.25
## 56	agePct16t24	0.24
## 57	PctVacMore6Mos	0.23
## 58	PctPolicAsian	0.20
## 59	PolicAveOTWorked	0.20
## 60	householdsize	0.19
## 61	pctUrban	0.19
## 62	PersPerOwnOccHous	0.18
## 63	PctSameCity85	0.15
## 64	PctRecImmig10	0.14
## 65	PersPerOccupHous	0.14
## 66	${\tt PctEmplProfServ}$	0.13
## 67	PctRecImmig8	0.13
		A 10
## 68	MedOwnCostPctIncNoMtg	0.13
## 68 ## 69	PolicReqPerOffic	0.12
## 69 ## 70	PolicReqPerOffic PctRecImmig5	0.12 0.11
## 69 ## 70 ## 71	PolicReqPerOffic PctRecImmig5 PctRecentImmig	0.12 0.11 0.09
## 69 ## 70 ## 71 ## 72	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy	0.12 0.11 0.09 0.09
## 69 ## 70 ## 71 ## 72 ## 73	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85	0.12 0.11 0.09 0.09 0.07
## 69 ## 70 ## 71 ## 72 ## 73 ## 74	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState	0.12 0.11 0.09 0.09 0.07 0.06
## 69 ## 70 ## 71 ## 72 ## 73 ## 74	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county	0.12 0.11 0.09 0.09 0.07 0.06
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 78	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 78 ## 79	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn	0.12 0.11 0.09 0.09 0.07 0.06 0.02 -0.01 -0.01
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 78 ## 79 ## 80	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 78 ## 79 ## 80 ## 81	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.01
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.01 -0.03 -0.03 -0.03
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 83	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.01 -0.03 -0.03 -0.06 -0.06
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 83 ## 84	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.01 -0.03 -0.03 -0.06 -0.06 -0.08
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 83 ## 84 ## 85	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.01 -0.03 -0.03 -0.06 -0.06 -0.06 -0.08 -0.13
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 83 ## 84 ## 85 ## 86	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec racePctAsian	0.12 0.11 0.09 0.09 0.07 0.06 0.02 -0.01 -0.01 -0.01 -0.03 -0.03 -0.06 -0.06 -0.08 -0.13 -0.14
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 83 ## 84 ## 85 ## 86 ## 87	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec racePctAsian PctSpeakEnglOnly	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.03 -0.03 -0.03 -0.06 -0.06 -0.08 -0.13 -0.14 -0.15
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 83 ## 84 ## 85 ## 88	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec racePctAsian PctSpeakEnglOnly LemasPctPolicOnPatr	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.03 -0.03 -0.03 -0.06 -0.06 -0.08 -0.13 -0.14 -0.15 -0.15
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 84 ## 85 ## 88 ## 88	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec racePctAsian PctSpeakEnglOnly LemasPctPolicOnPatr community	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.03 -0.03 -0.03 -0.06 -0.06 -0.08 -0.13 -0.15 -0.15 -0.17
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 84 ## 85 ## 86 ## 87 ## 88	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec racePctAsian PctSpeakEnglOnly LemasPctPolicOnPatr community MedNumBR	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.03 -0.03 -0.06 -0.06 -0.06 -0.08 -0.13 -0.14 -0.15 -0.17 -0.23
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 84 ## 85 ## 86 ## 87 ## 89 ## 90 ## 91	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec racePctAsian PctSpeakEnglOnly LemasPctPolicOnPatr community MedNumBR PctSameHouse85	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.03 -0.03 -0.06 -0.06 -0.08 -0.13 -0.14 -0.15 -0.15 -0.17 -0.23 -0.24
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 84 ## 85 ## 86 ## 87 ## 88 ## 90 ## 91 ## 92	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec racePctAsian PctSpeakEnglOnly LemasPctPolicOnPatr community MedNumBR PctSameHouse85 PctWorkMom	0.12 0.11 0.09 0.09 0.07 0.06 0.02 -0.01 -0.01 -0.03 -0.03 -0.06 -0.06 -0.08 -0.13 -0.14 -0.15 -0.17 -0.23 -0.24 -0.27
## 69 ## 70 ## 71 ## 72 ## 73 ## 74 ## 75 ## 76 ## 77 ## 80 ## 81 ## 82 ## 84 ## 85 ## 86 ## 87 ## 89 ## 90 ## 91	PolicReqPerOffic PctRecImmig5 PctRecentImmig LemasGangUnitDeploy PctSameState85 PctBornSameState county LandArea indianPerCap PctForeignBorn LemasPctOfficDrugUn state fold PctEmplManu MedOwnCostPctInc PctWorkMomYoungKids pctWSocSec racePctAsian PctSpeakEnglOnly LemasPctPolicOnPatr community MedNumBR PctSameHouse85	0.12 0.11 0.09 0.09 0.07 0.06 0.02 0.02 -0.01 -0.01 -0.03 -0.03 -0.06 -0.06 -0.08 -0.13 -0.14 -0.15 -0.15 -0.17 -0.23 -0.24

##	95	${ t pctWFarmSelf}$	-0.31
##	96	whitePerCap	-0.31
##	97	AsianPerCap	-0.32
##	98	OwnOccHiQuart	-0.34
##	99	blackPerCap	-0.37
##	100	PctBSorMore	-0.38
##	101	${\tt RentHighQ}$	-0.38
##	102	PctOccupMgmtProf	-0.39
##	103	OwnOccMedVal	-0.39
##	104	MedRent	-0.39
##	105	LemasSwFTFieldOps	-0.39
##	106	OtherPerCap	-0.40
##	107	${ t MedYrHousBuilt}$	-0.40
##	108	RentMedian	-0.40
##	109	pctWWage	-0.42
##	110	${\tt OwnOccLowQuart}$	-0.42
##	111	HispPerCap	-0.44
##	112	${\tt RentLowQ}$	-0.48
##	113	${\tt perCapInc}$	-0.53
##	114	PctEmploy	-0.53
##	115	${\tt RacialMatchCommPol}$	-0.54
##	116	PctPolicWhite	-0.54
##	117	PctHousOwnOcc	-0.55
##	118	PctHousOccup	-0.57
##	119	${\tt medIncome}$	-0.58
##	120	PctPersOwnOccup	-0.58
##	121	${\tt medFamInc}$	-0.60
##	122	pctWInvInc	-0.76
##	123	${\tt racePctWhite}$	-0.80
##	124	PctYoungKids2Par	-0.82
##	125	PctFam2Par	-0.85
##	126	PctTeen2Par	-0.85
##	127	PctKids2Par	-0.86