

**Table malib.Crime**

<b>Obs.</b>	<b>State</b>	<b>Murder</b>	<b>Rape</b>	<b>Robbery</b>	<b>Assault</b>	<b>Burglary</b>	<b>Larceny</b>	<b>Auto_Theft</b>
1	Alabama	14.2	25.2	96.8	278.3	1135.5	1881.9	280.7
2	Alaska	10.8	51.6	96.8	284.0	1331.7	3369.8	753.3
3	Arizona	9.5	34.2	138.2	312.3	2346.1	4467.4	439.5
4	Arkansas	8.8	27.6	83.2	203.4	972.6	1862.1	183.4
5	California	11.5	49.4	287.0	358.0	2139.4	3499.8	663.5
6	Colorado	6.3	42.0	170.7	292.9	1935.2	3903.2	477.1
7	Connecticut	4.2	16.8	129.5	131.8	1346.0	2620.7	593.2
8	Delaware	6.0	24.9	157.0	194.2	1682.6	3678.4	467.0
9	Florida	10.2	39.6	187.9	449.1	1859.9	3840.5	351.4
10	Georgia	11.7	31.1	140.5	256.5	1351.1	2170.2	297.9
11	Hawaii	7.2	25.5	128.0	64.1	1911.5	3920.4	489.4
12	Idaho	5.5	19.4	39.6	172.5	1050.8	2599.6	237.6
13	Illinois	9.9	21.8	211.3	209.0	1085.0	2828.5	528.6
14	Indiana	7.4	26.5	123.2	153.5	1086.2	2498.7	377.4
15	Iowa	2.3	10.6	41.2	89.8	812.5	2685.1	219.9
16	Kansas	6.6	22.0	100.7	180.5	1270.4	2739.3	244.3
17	Kentucky	10.1	19.1	81.1	123.3	872.2	1662.1	245.4
18	Louisiana	15.5	30.9	142.9	335.5	1165.5	2469.9	337.7
19	Maine	2.4	13.5	38.7	170.0	1253.1	2350.7	246.9
20	Maryland	8.0	34.8	292.1	358.9	1400.0	3177.7	428.5
21	Massachusetts	3.1	20.8	169.1	231.6	1532.2	2311.3	1140.1
22	Michigan	9.3	38.9	261.9	274.6	1522.7	3159.0	545.5
23	Minnesota	2.7	19.5	85.9	85.8	1134.7	2559.3	343.1
24	Mississippi	14.3	19.6	65.7	189.1	915.6	1239.9	144.4
25	Missouri	9.6	28.3	189.0	233.5	1318.3	2424.2	378.4
26	Montana	5.4	16.7	39.2	156.8	804.9	2773.2	309.2
27	Nebraska	3.9	18.1	64.7	112.7	760.0	2316.1	249.1
28	Nevada	15.8	49.1	323.1	355.0	2453.1	4212.6	559.2
29	New Hampshire	3.2	10.7	23.2	76.0	1041.7	2343.9	293.4
30	New Jersey	5.6	21.0	180.4	185.1	1435.8	2774.5	511.5
31	New Mexico	8.8	39.1	109.6	343.4	1418.7	3008.6	259.5

<b>Obs.</b>	<b>State</b>	<b>Murder</b>	<b>Rape</b>	<b>Robbery</b>	<b>Assault</b>	<b>Burglary</b>	<b>Larceny</b>	<b>Auto_Theft</b>
32	New York	10.7	29.4	472.6	319.1	1728.0	2782.0	745.8
33	North Carolina	10.6	17.0	61.3	318.3	1154.1	2037.8	192.1
34	North Dakota	0.9	9.0	13.3	43.8	446.1	1843.0	144.7
35	Ohio	7.8	27.3	190.5	181.1	1216.0	2696.8	400.4
36	Oklahoma	8.6	29.2	73.8	205.0	1288.2	2228.1	326.8
37	Oregon	4.9	39.9	124.1	286.9	1636.4	3506.1	388.9
38	Pennsylvania	5.6	19.0	130.3	128.0	877.5	1624.1	333.2
39	Rhode Island	3.6	10.5	86.5	201.0	1489.5	2844.1	791.4
40	South Carolina	11.9	33.0	105.9	485.3	1613.6	2342.4	245.1
41	South Dakota	2.0	13.5	17.9	155.7	570.5	1704.4	147.5
42	Tennessee	10.1	29.7	145.8	203.9	1259.7	1776.5	314.0
43	Texas	13.3	33.8	152.4	208.2	1603.1	2988.7	397.6
44	Utah	3.5	20.3	68.8	147.3	1171.6	3004.6	334.5
45	Vermont	1.4	15.9	30.8	101.2	1348.2	2201.0	265.2
46	Virginia	9.0	23.3	92.1	165.7	986.2	2521.2	226.7
47	Washington	4.3	39.6	106.2	224.8	1605.6	3386.9	360.3
48	West Virginia	6.0	13.2	42.2	90.9	597.4	1341.7	163.3
49	Wisconsin	2.8	12.9	52.2	63.7	846.9	2614.2	220.7
50	Wyoming	5.4	21.9	39.7	173.9	811.6	2772.2	282.0

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Procédure PRINCOMP

**Observations** 50

**Variables** 7

**Statistiques simples**

	<b>Murder</b>	<b>Rape</b>	<b>Robbery</b>	<b>Assault</b>	<b>Burglary</b>	<b>Larceny</b>	<b>Auto_Theft</b>
<b>Moyenne</b>	7.444000000	25.73400000	124.0920000	211.3000000	1291.904000	2671.288000	377.5260000
<b>StD</b>	3.866768941	10.75962995	88.3485672	100.2530492	432.455711	725.908707	193.3944175

**Matrice de corrélation**

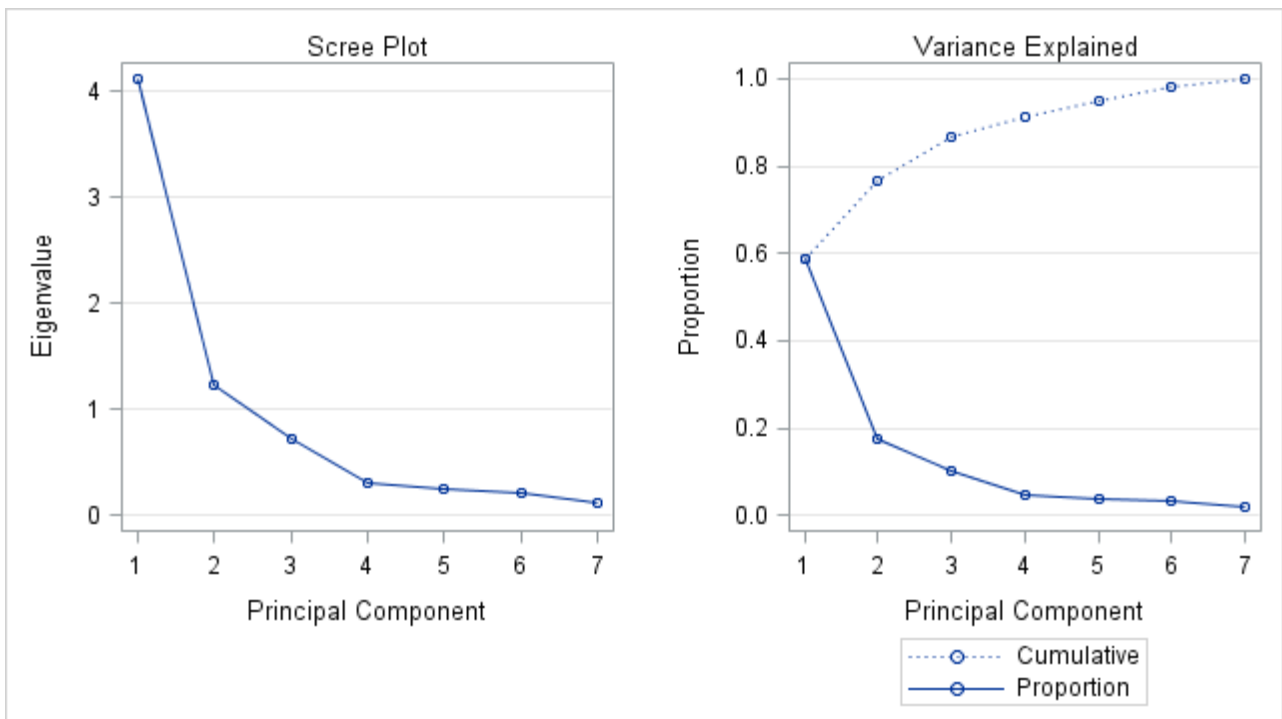
	<b>Murder</b>	<b>Rape</b>	<b>Robbery</b>	<b>Assault</b>	<b>Burglary</b>	<b>Larceny</b>	<b>Auto_Theft</b>
<b>Murder</b>	1.0000	0.6012	0.4837	0.6486	0.3858	0.1019	0.0688
<b>Rape</b>	0.6012	1.0000	0.5919	0.7403	0.7121	0.6140	0.3489
<b>Robbery</b>	0.4837	0.5919	1.0000	0.5571	0.6372	0.4467	0.5907
<b>Assault</b>	0.6486	0.7403	0.5571	1.0000	0.6229	0.4044	0.2758
<b>Burglary</b>	0.3858	0.7121	0.6372	0.6229	1.0000	0.7921	0.5580
<b>Larceny</b>	0.1019	0.6140	0.4467	0.4044	0.7921	1.0000	0.4442
<b>Auto_Theft</b>	0.0688	0.3489	0.5907	0.2758	0.5580	0.4442	1.0000

**Valeurs propres de la matrice de corrélation**

	<b>Valeur propre</b>	<b>Différence</b>	<b>Proportion</b>	<b>Cumulé</b>
<b>1</b>	4.11495951	2.87623768	0.5879	0.5879
<b>2</b>	1.23872183	0.51290521	0.1770	0.7648
<b>3</b>	0.72581663	0.40938458	0.1037	0.8685
<b>4</b>	0.31643205	0.05845759	0.0452	0.9137
<b>5</b>	0.25797446	0.03593499	0.0369	0.9506
<b>6</b>	0.22203947	0.09798342	0.0317	0.9823
<b>7</b>	0.12405606		0.0177	1.0000

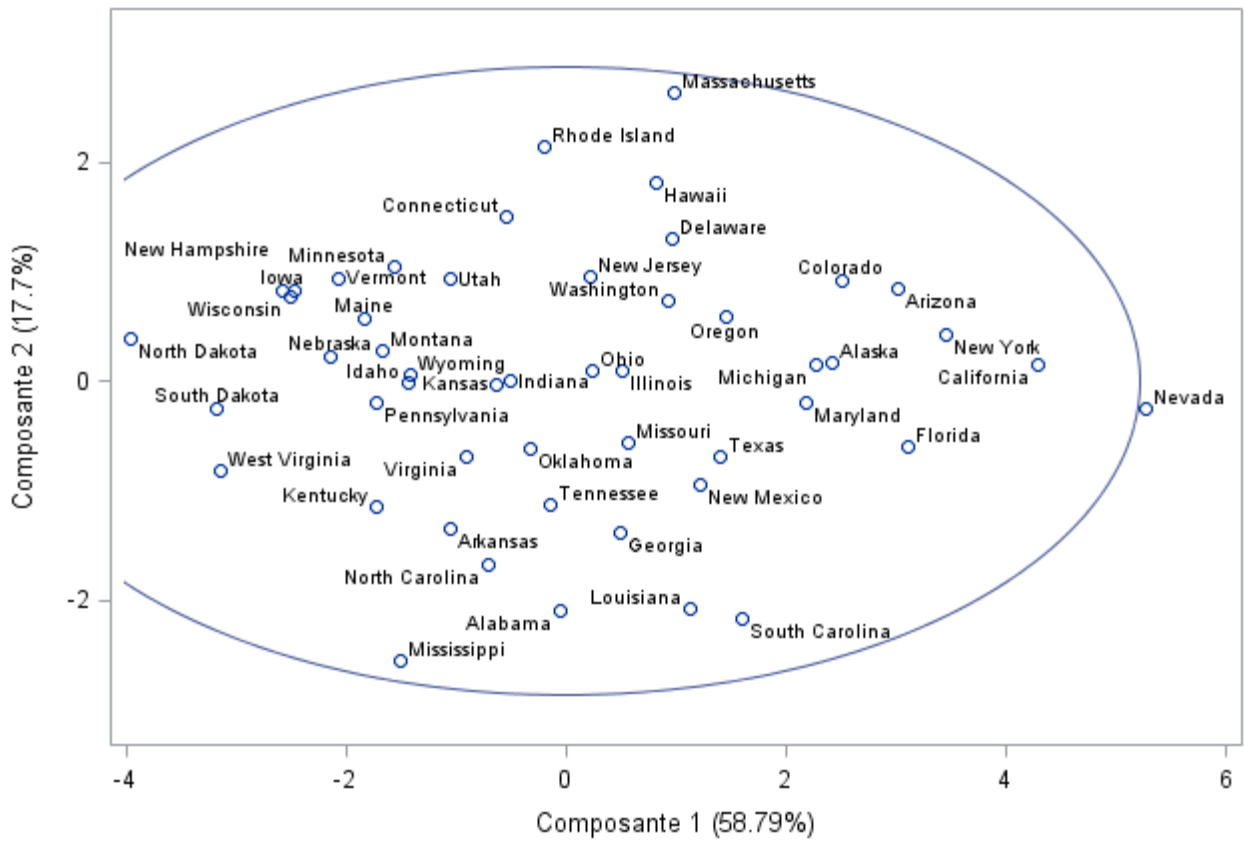
### Vecteurs propres

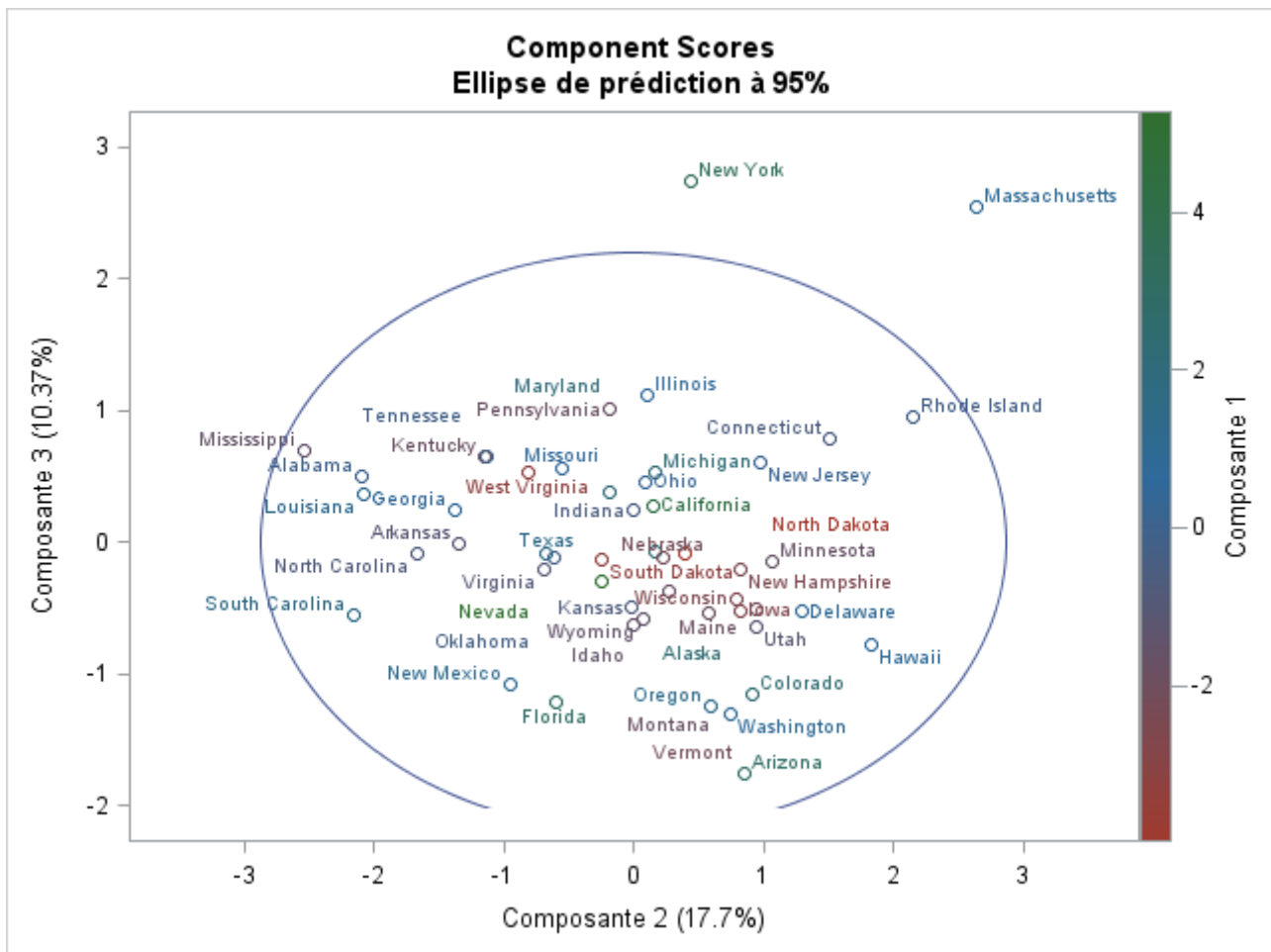
	Prin1	Prin2	Prin3	Prin4	Prin5	Prin6	Prin7
<b>Murder</b>	0.300279	-0.629174	0.178245	-0.232114	0.538123	0.259117	0.267593
<b>Rape</b>	0.431759	-0.169435	-0.244198	0.062216	0.188471	-0.773271	-0.296485
<b>Robbery</b>	0.396875	0.042247	0.495861	-0.557989	-0.519977	-0.114385	-0.003903
<b>Assault</b>	0.396652	-0.343528	-0.069510	0.629804	-0.506651	0.172363	0.191745
<b>Burglary</b>	0.440157	0.203341	-0.209895	-0.057555	0.101033	0.535987	-0.648117
<b>Larceny</b>	0.357360	0.402319	-0.539231	-0.234890	0.030099	0.039406	0.601690
<b>Auto_Theft</b>	0.295177	0.502421	0.568384	0.419238	0.369753	-0.057298	0.147046





### Component Scores Ellipse de prédiction à 95%





### Statistiques simples

Variable	N	Moyenne	Ecart-type	Somme	Minimum	Maximum
<b>Prin1</b>	50	0	2.02854	0	-3.96408	5.26699
<b>Prin2</b>	50	0	1.11298	0	-2.54671	2.63105
<b>Prin3</b>	50	0	0.85195	0	-1.75195	2.73661
<b>Murder_b</b>	50	0.00103	0.99917	0.05168	-1.68992	2.16021
<b>Rape_b</b>	50	0.0003717	0.99997	0.01859	-1.55483	2.40428
<b>Robbery_b</b>	50	0.0000226	0.99998	0.00113	-1.25399	3.94465
<b>Assault_b</b>	50	0	1.00003	0	-1.67082	2.73317
<b>Burglary_b</b>	50	9.24941E-6	0.99999	0.0004625	-1.95579	2.68510
<b>Larceny_b</b>	50	-2.7552E-6	1.00000	-0.0001378	-1.97186	2.47429
<b>Auto_Theft_b</b>	50	-0.0000207	1.00002	-0.00103	-1.20549	3.94317

Pearson Correlation Coefficients, N = 50 Prob >  r  under H0: Rho=0										
	Prin1	Prin2	Prin3	Murder_b	Rape_b	Robbery_b	Assault_b	Burglary_b	Larceny_b	Auto_Theft_b
Prin1	1.00000 1.0000	0.00000 1.0000	0.00000 1.0000	0.60913 <.0001	0.87584 <.0001	0.80508 <.0001	0.80462 <.0001	0.89287 <.0001	0.72492 <.0001	0.59878 <.0001
Prin2	0.00000 1.0000	1.00000 1.0000	0.00000 1.0000	-0.70026 <.0001	-0.18858 0.1897	0.04702 0.7457	-0.38234 0.0061	0.22631 0.1140	0.44777 0.0011	0.55918 <.0001
Prin3	0.00000 1.0000	0.00000 1.0000	1.00000 1.0000	0.15186 0.2925	-0.20804 0.1471	0.42245 0.0022	-0.05922 0.6829	-0.17882 0.2140	-0.45940 0.0008	0.48423 0.0004
Murder_b	0.60913 <.0001	-0.70026 <.0001	0.15186 0.2925	1.00000	0.60122 <.0001	0.48371 0.0004	0.64855 <.0001	0.38582 0.0057	0.10192 0.4813	0.06881 0.6349
Rape_b	0.87584 <.0001	-0.18858 0.1897	-0.20804 0.1471	0.60122 <.0001	1.00000	0.59188 <.0001	0.74026 <.0001	0.71213 <.0001	0.61399 <.0001	0.34890 0.0130
Robbery_b	0.80508 <.0001	0.04702 0.7457	0.42245 0.0022	0.48371 0.0004	0.59188 <.0001	1.00000	0.55708 <.0001	0.63724 <.0001	0.44674 0.0011	0.59068 <.0001
Assault_b	0.80462 <.0001	-0.38234 0.0061	-0.05922 0.6829	0.64855 <.0001	0.74026 <.0001	0.55708 <.0001	1.00000	0.62291 <.0001	0.40436 0.0036	0.27584 0.0525
Burglary_b	0.89287 <.0001	0.22631 0.1140	-0.17882 0.2140	0.38582 0.0057	0.71213 <.0001	0.63724 <.0001	0.62291 <.0001	1.00000	0.79212 <.0001	0.55795 <.0001
Larceny_b	0.72492 <.0001	0.44777 0.0011	-0.45940 0.0008	0.10192 0.4813	0.61399 <.0001	0.44674 0.0011	0.40436 0.0036	0.79212 <.0001	1.00000	0.44418 0.0012
Auto_Theft_b	0.59878 <.0001	0.55918 <.0001	0.48423 0.0004	0.06881 0.6349	0.34890 0.0130	0.59068 <.0001	0.27584 0.0525	0.55795 <.0001	0.44418 0.0012	1.00000