

cars93 S1-S4 univariate skewness, r1-r4 univariate kurtosis

Obs	S1	S2	S3	S4	R1	R2	R3	R4
1	0.80307	0.97670	0.23950	-0.17573	-0.23118	1.36260	-0.27524	-0.83799

cars93 S1-S4 univariate skewness, r1-r4 univariate kurtosis

Multivariate normality test statistics	
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M_SKEW	
5.383	Multivariate skewness

CHI_SKEW	
81.638	skewness chisquare

PVALSKEW	
0.000	skewness P-value

M_KURT	
29.419	Multivariate kurtosis

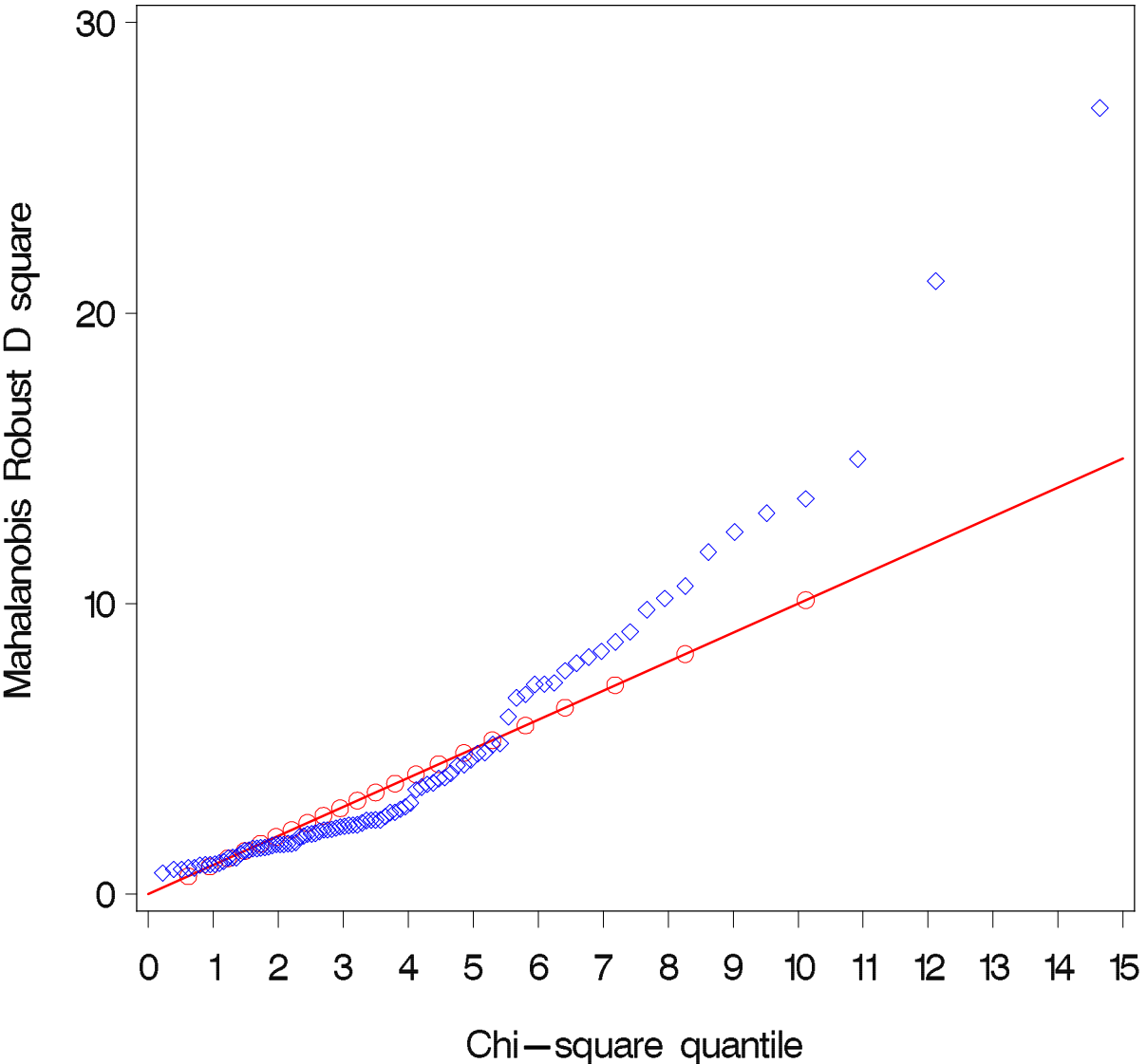
Z_KURT	
3.730	kurtosis z-value

PVALKURT	
0.000	kurtosis P-value

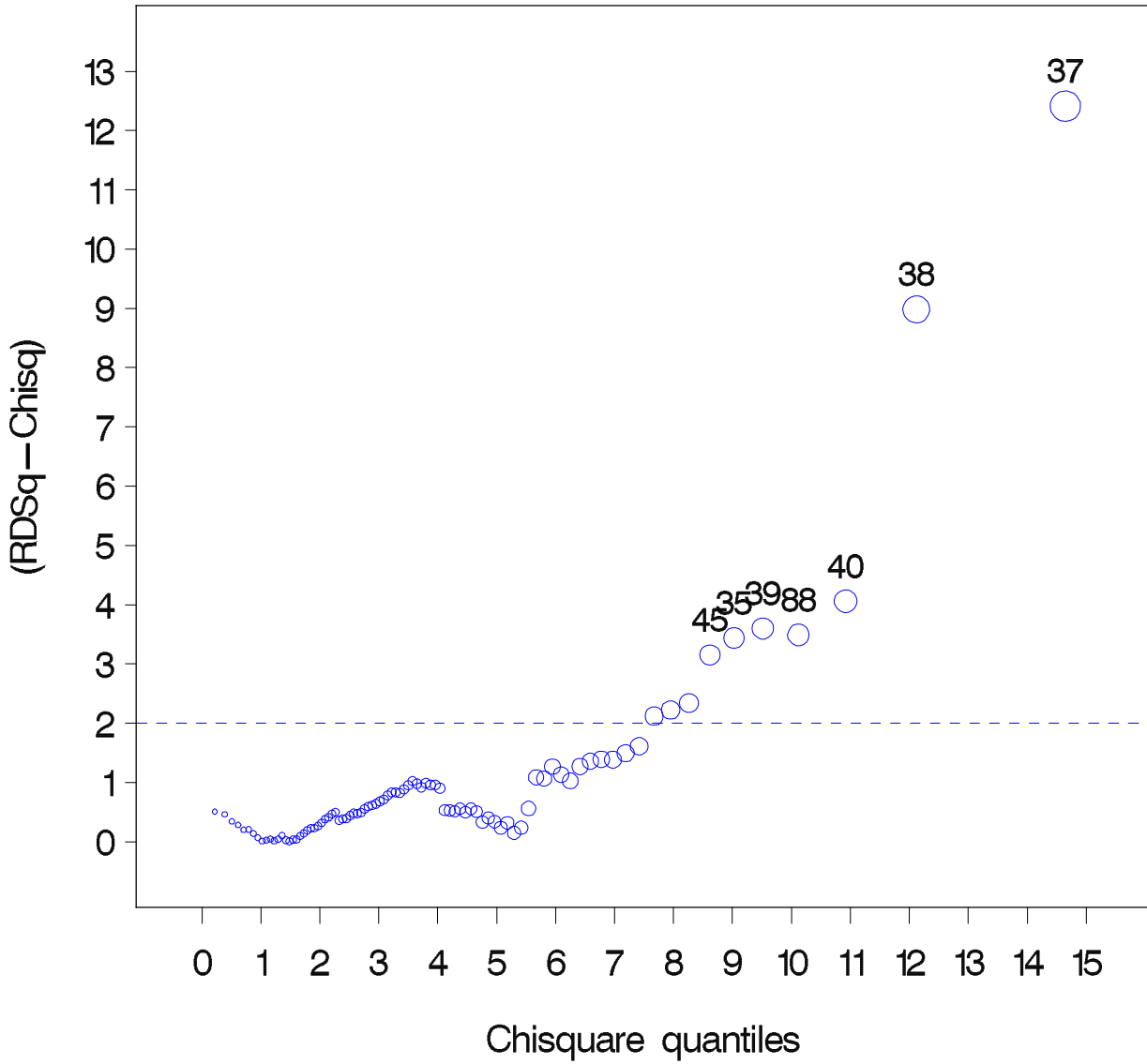
cars93 Influential/outlier observations (RDSQ > 2.5)

OBS	ID	RDSQ	CHISQ	DIFF
37	37	27.0588	14.6461	12.4127
38	38	21.1042	12.1196	8.9845
40	40	14.9784	10.9205	4.0579
39	39	13.1137	9.5145	3.5992
87	88	13.6099	10.1195	3.4904
35	35	12.4614	9.0265	3.4349
44	45	11.7705	8.6167	3.1538

Q-Q plot checking for multivariate normality — cars93



Influential / outlier detection plot— cars93



Principal component analysis: -cars93

The FACTOR Procedure

Correlations					
		X2	X4	X11	X15
X2	X2	1.00000	0.79350	0.79250	0.79340
X4	X4	0.79350	1.00000	0.65974	0.76146
X11	X11	0.79250	0.65974	1.00000	0.87424
X15	X15	0.79340	0.76146	0.87424	1.00000

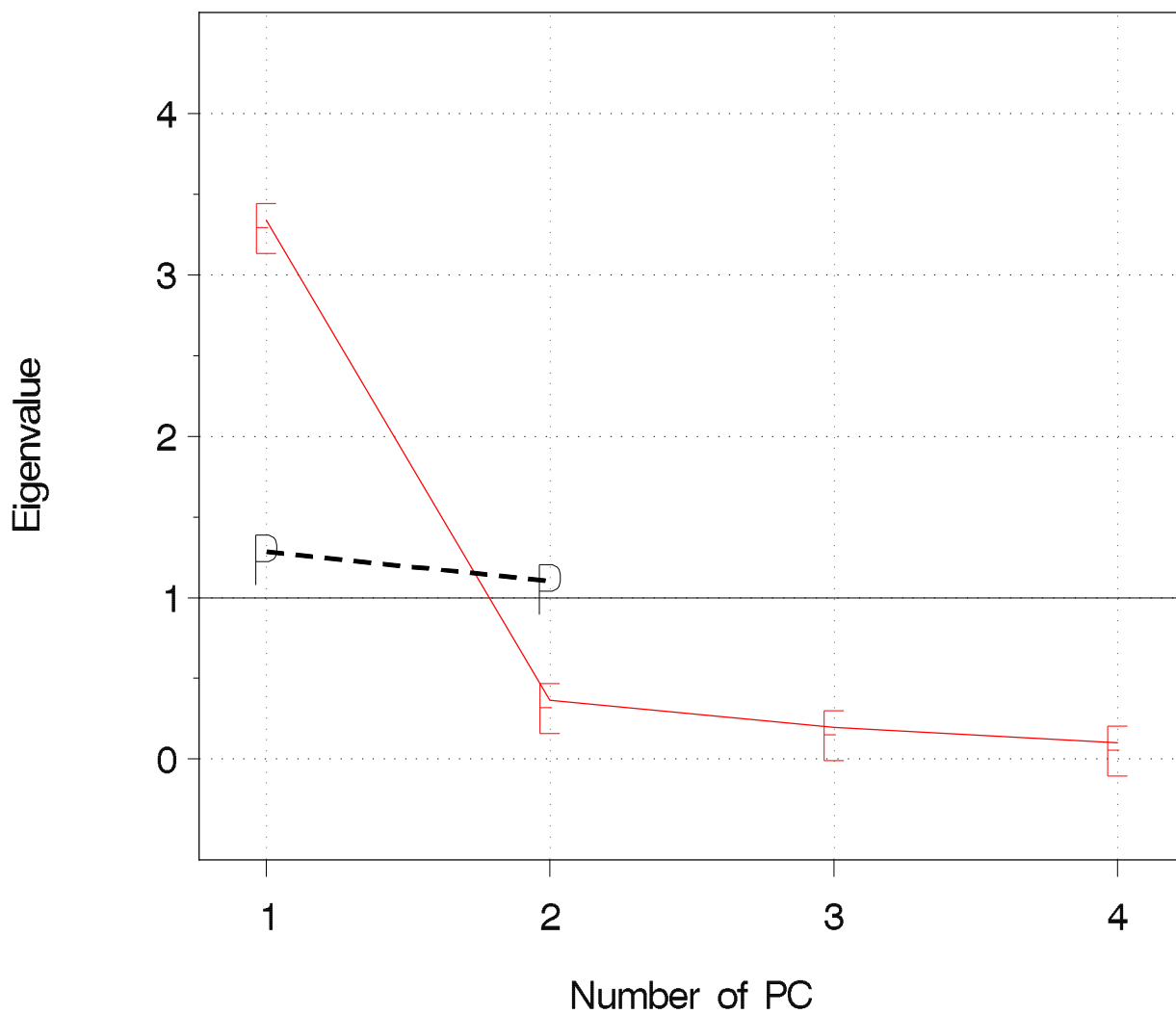
The FACTOR Procedure
Initial Factor Method: Principal Components

Eigenvalues of the Correlation Matrix:				
Total = 4 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	3.33945587	2.97520631	0.8349	0.8349
2	0.36424955	0.16814869	0.0911	0.9259
3	0.19610087	0.09590715	0.0490	0.9750
4	0.10019371		0.0250	1.0000

Eigenvectors			
		1	2
X2	X2	0.50621	0.17614
X4	X4	0.47982	0.73295
X11	X11	0.49899	-0.59407
X15	X15	0.51432	-0.28078

Factor Pattern			
		FACTOR1	FACTOR2
X2	X2	0.92506	0.10631
X4	X4	0.87684	0.44236
X11	X11	0.91187	-0.35854
X15	X15	0.93988	-0.16946

cars93:SCREE PLOT and Parallel Analysis — PCA



PLOT E-E-E EIGENVALUE P-P-P EV

cars93: Factor method: p - Rotation-none

Obs	ID	FACTOR1	FACTOR2
1	43	.	.
2	12	-1.99344	0.21934
3	29	-1.94980	1.14682
4	30	-1.78793	0.36235
5	7	-1.66918	0.51403
6	33	-1.38874	0.62973
7	16	-1.33872	0.54704
8	32	-1.32817	0.28155
9	18	-1.23913	0.59630
10	25	-1.15686	-0.39920
11	4	-1.10270	0.09055
12	6	-1.09079	0.07086
13	28	-1.07994	0.12867
14	20	-1.04773	0.39725
15	21	-1.01901	-0.18792
16	19	-0.96533	0.21747
17	13	-0.94351	-0.37708
18	14	-0.94155	0.00585
19	1	-0.90563	0.34405
20	27	-0.88782	-0.77015
21	22	-0.87943	0.30074
22	26	-0.86514	0.27712
23	24	-0.85465	-0.45959
24	5	-0.83523	-0.45951
25	17	-0.77194	0.57360
26	8	-0.73854	-0.66292
27	10	-0.72765	0.45681
28	2	-0.62152	-0.40581
29	9	-0.61619	-0.57554
30	53	-0.58465	-0.78858
31	92	-0.57753	-0.20969
32	82	-0.54430	0.57209
33	68	-0.52648	0.22082
34	3	-0.50586	0.36843
35	69	-0.50448	-0.73940
36	11	-0.48805	-0.74577
37	87	-0.47501	0.26447
38	54	-0.46046	-1.13398

cars93: Factor method: p - Rotation-none

Obs	ID	FACTOR1	FACTOR2
39	83	-0.44788	0.09089
40	23	-0.42793	-1.00606
41	15	-0.41806	0.36341
42	63	-0.40983	-0.31659
43	76	-0.40310	0.82140
44	72	-0.36203	0.59262
45	31	-0.34299	-0.20182
46	51	-0.31971	0.09290
47	85	-0.25872	-0.64214
48	47	-0.21084	-1.50502
49	66	-0.18481	0.46997
50	62	-0.18354	0.19904
51	90	0.01896	2.15050
52	91	0.17850	0.57139
53	86	0.21375	-1.30579
54	74	0.32785	0.64030
55	57	0.32915	1.30455
56	40	0.35991	0.98552
57	59	0.42846	-0.44986
58	88	0.43205	-2.16678
59	52	0.43748	0.04073
60	61	0.55881	0.50459
61	64	0.67546	0.73011
62	55	0.69152	-0.96046
63	49	0.70584	-0.68510
64	70	0.70780	-1.19185
65	60	0.72119	-0.91296
66	67	0.77245	-0.67588
67	44	0.77485	1.73574
68	81	0.77763	-0.94388
69	50	0.80097	-1.06761
70	89	0.80679	-0.39004
71	34	0.84796	0.78758
72	65	0.85081	-0.78462
73	75	0.86667	-0.62914
74	84	0.86667	-0.62914
75	79	0.86734	0.61542
76	71	0.86741	0.95990

cars93: Factor method: p - Rotation-none

Obs	ID	FACTOR1	FACTOR2
77	80	0.87858	-0.64883
78	41	0.95467	1.41572
79	46	0.98339	-0.82207
80	78	0.98339	-0.82207
81	73	1.06940	-1.57570
82	56	1.10174	0.39827
83	48	1.39259	-2.21985
84	36	1.44371	0.66905
85	77	1.50759	-1.92722
86	38	1.54904	2.70669
87	45	1.71523	-1.30569
88	58	1.90859	-1.12180
89	37	1.91375	2.97008
90	39	1.95276	2.47783
91	42	1.98934	-0.47154
92	35	2.15251	2.41449

cars93: Factor method: p — Rotation—none

