Sigma square = 1

Sample Size	Method	P(underestimation)	P(correct estimation)	P(overestimation)
5	BIC	0	0	1
	BICc	0	0	1
	PAL	0.27	0.295	0.435
	AIC	0	0	1
15	BIC	0	0.015	0.985
	BICc	0	0.725	0.275
	PAL	0	0.92	0.08
	AIC	0	0	1
25	BIC	0	0.165	0.835
	BICc	0	0.955	0.045
	PAL	0	1	0
	AIC	0	0	1
50	BIC	0	0.525	0.475
	BICc	0	0.985	0.015
	PAL	0	1	0
	AIC	0	0	1
100	BIC	0	0.66	0.34
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1
200	BIC	0	0.78	0.22
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1
400	BIC	0	0.91	0.09
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1

Sigma square =3

Sample size	Method	P(underestimation)	P(correct estimation)	P(overestimation)
5	BIC	0	0	1
	BICc	0	0	1
	PAL	0.125	0.285	0.59
	AIC	0	0	1
15	BIC	0	0.01	0.99
	BICc	0.01	0.595	0.395
	PAL	0.015	0.78	0.205
	AIC	0	0	1
25	BIC	0	0.105	0.895
	BICc	0	0.905	0.095
	PAL	0	0.945	0.055
	AIC	0	0	1
50	BIC	0	0.535	0.465
	BICc	0	0.99	0.01
	PAL	0	0.99	0.01
	AIC	0	0	1
100	BIC	0	0.69	0.31
	BICc	0	0.995	0.005
	PAL	0	0.995	0.005
	AIC	0	0	1
200	BIC	0	0.83	0.17
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1
400	BIC	0	0.895	0.105
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1

Sigma square =6

Sample Size	Method	P(Underestimation)	P(correct estimation)	P(overestimation)
5	BIC	0	0	1
	BICc	0	0	1
	PAL	0.095	0.26	0.645
	AIC	0	0	1
15	BIC	0	0.01	0.99
	BICc	0.115	0.38	0.505
	PAL	0.105	0.54	0.355
	AIC	0	0	1
25	BIC	0	0.125	0.875
	BICc	0.005	0.865	0.13
	PAL	0.005	0.875	0.12
	AIC	0	0	1
50	BIC	0	0.51	0.49
	BICc	0	0.985	0.015
	PAL	0	0.975	0.025
	AIC	0	0	1
100	BIC	0	0.73	0.27
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1
200	BIC	0	0.79	0.21
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1
400	BIC	0	0.885	0.115
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1

Sigma square=9

Sample size	Method	P(underestimation)	P(correct estimation)	P(overestimation)
5	BIC	0	0	1
	BICc	0	0	1
	PAL	0.05	0.25	0.7
	AIC	0	0	1
15	BIC	0	0	1
	BICc	0.29	0.24	0.47
	PAL	0.305	0.34	0.355
	AIC	0	0	1
25	BIC	0	0.125	0.875
	BICc	0.16	0.725	0.115
	PAL	0.05	0.76	0.19
	AIC	0	0	1
50	BIC	0	0.51	0.49
	BICc	0.015	0.97	0.015
	PAL	0.005	0.94	0.055
	AIC	0	0	1
100	BIC	0	0.745	0.255
	BICc	0	1	0
	PAL	0	0.99	0.01
	AIC	0	0	1
200	BIC	0	0.755	0.245
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1
400	BIC	0	0.935	0.065
	BICc	0	1	0
	PAL	0	1	0
	AIC	0	0	1

Sigma square= 15

Sample size	Method	P(Underestimation)	P(correct estimation)	P(overestimation)
5	BIC	0	0	1
	BICc	0	0	1
	PAL	0.025	0.18	0.795
	AIC	0	0	1
15	BIC	0	0	1
	BICc	0.48	0.11	0.41
	PAL	0.47	0.165	0.365
	AIC	0	0	1
25	BIC	0.03	0.115	0.855
	BICc	0.655	0.32	0.025
	PAL	0.36	0.475	0.165
	AIC	0	0	1
50	BIC	0.01	0.515	0.475
	BICc	0.195	0.795	0.01
	PAL	0.05	0.85	0.1
	AIC	0	0	1
100	BIC	0	0.695	0.305
	BICc	0.005	0.995	0
	PAL	0	0.955	0.045
	AIC	0	0	1
200	BIC	0	0.775	0.225
	BICc	0	0.995	0.005
	PAL	0	0.98	0.02
	AIC	0	0	1
400	BIC	0	0.91	0.09
	BICc	0	1	0
	PAL	0	0.995	0.005
	AIC	0	0	1

Sigma square=20

Sample size	Method	P(underestimation)	P(correct estimation)	P(overestimation)
5	BIC	0	0	1
	BICc	0	0	1
	PAL	0.045	0.175	0.78
	AIC	0	0	1
15	BIC	0	0	1
	BICc	0.64	0.07	0.29
	PAL	0.615	0.115	0.27
	AIC	0	0	1
25	BIC	0.045	0.13	0.825
	BICc	0.665	0.295	0.04
	PAL	0.43	0.4	0.17
	AIC	0	0	1
50	BIC	0.055	0.485	0.46
	BICc	0.465	0.525	0.01
	PAL	0.165	0.66	0.175
	AIC	0	0	1
100	BIC	0.01	0.73	0.26
	BICc	0.045	0.955	0
	PAL	0.01	0.925	0.065
	AIC	0	0	1
200	BIC	0	0.79	0.21
	BICc	0	1	0
	PAL	0	0.93	0.07
	AIC	0	0	1
400	BIC	0	0.88	0.12
	BICc	0	1	0
	PAL	0	0.995	0.005
	AIC	0	0	1

Sigma square=30

Sample size	Method	P(underestimation)	P(correct estimation)	P(overestimation)
5	BIC	0	0	1
	BICc	0	0	1
	PAL	0.055	0.19	0.755
	AIC	0	0	1
15	BIC	0	0	1
	BICc	0.7	0.03	0.27
	PAL	0.68	0.11	0.21
	AIC	0	0	1
25	BIC	0.15	0.095	0.755
	BICc	0.92	0.07	0.01
	PAL	0.725	0.18	0.095
	AIC	0	0	1
50	BIC	0.2	0.315	0.485
	BICc	0.825	0.17	0.005
	PAL	0.4	0.45	0.15
	AIC	0	0	1
100	BIC	0.045	0.625	0.33
	BICc	0.225	0.77	0.005
	PAL	0.05	0.805	0.145
	AIC	0	0	1
200	BIC	0	0.81	0.19
	BICc	0.015	0.985	0
	PAL	0	0.93	0.07
	AIC	0	0	1
400	BIC	0	0.885	0.115
	BICc	0	1	0
	PAL	0	0.99	0.01
	AIC	0	0	1