ST414: Advanced Topics in Statistics

Asymptotic Statistics

Lecture 7

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3rd December 2009

Table: The values of $\hat{\beta}$, $\hat{\beta}_{BC}$ and $\hat{\beta}_{BR}$ for each value of the natural statistic for $n = 5$, $m = 2$ and $x = (-2, -1, 0, 1, 2)$. The sampling probabilities for $\beta_0 = 0.5$ and $\beta_0 = 1$ are also given.

$\sum_{i=1}^{5} y_i x_i$	$\hat{\beta}$	$\hat{\beta}_{BC}$	$\hat{\beta}_{BR}$	Sampling probabilities	
				$\beta_0 = 0.5$	$\beta_0 = 1$
-6	$-\infty$	$-$	-2.009	< 0.001	< 0.001
-5	-1.587	-1.047	-1.183	0.001	< 0.001
-4	-1.012	-0.767	-0.815	0.003	< 0.001
-3	-0.674	-0.538	-0.561	0.010	< 0.001
-2	-0.420	-0.343	-0.355	0.024	0.002
-1	-0.202	-0.167	-0.173	0.052	0.006
0	0	0	0	0.094	0.019
1	0.202	0.167	0.173	0.141	0.046
2	0.420	0.343	0.355	0.180	0.098
3	0.674	0.538	0.561	0.191	0.171
4	1.012	0.767	0.815	0.158	0.233
5	1.587	1.047	1.183	0.104	0.253
6	∞	$-$	2.008	0.043	0.172