

Simulation Tables

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Table 1: Model results for simulated data with $n = 1500$, $k = 2$, $p = 2$, $h = 3$, $v = 1$. 5000 iterations were run with a burn in of 1000. Missingness mechanism was MAR and $P(\text{miss}) = 0$

Model Component	Parameter	Class 1		Class 2		Class 3	
		True	Est. (95% CrI)	True	Est. (95% CrI)	True	Est. (95% CrI)
MVSN Regression	β_0	-0.96	-0.96 (-1.75, -0.34)	-0.21	-0.27 (-0.62, 0.65)	0.69	0.36 (0.08, 0.62)
	β_1	-1.52	-1.5 (-1.61, -1.39)	-0.09	-0.15 (-0.27, -0.04)	1.49	1.47 (1.37, 1.58)
	β_2	-1.38	-1.38 (-2.08, -0.79)	0.52	0.68 (0.26, 1.27)	3.03	2.95 (2.66, 3.21)
	β_3	-2.37	-2.33 (-2.44, -2.22)	-0.47	-0.55 (-0.67, -0.44)	1.03	1.04 (0.93, 1.14)
	σ_{11}	1	1.03 (0.65, 1.28)	1	0.82 (0.53, 1.13)	1	1.19 (0.99, 1.4)
	σ_{12}	0.97	0.99 (0.62, 1.24)	0.59	0.6 (0.32, 0.85)	-0.98	-0.9 (-1.06, -0.75)
	σ_{22}	1	1.01 (0.64, 1.25)	1	1.09 (0.76, 1.35)	1	1.17 (0.95, 1.42)
	ψ_1	-0.33	-0.27 (-1.06, 0.66)	0.67	0.78 (-0.35, 1.16)	-1	-0.59 (-0.9, -0.26)
	ψ_2	-0.33	-0.28 (-1.03, 0.54)	0.67	0.52 (-0.22, 1.02)	-1	-0.89 (-1.19, -0.52)
Multinom.	δ_{11}	0.45	0.39 (0.22, 0.57)	0.45	0.39 (0.22, 0.57)	0.45	0.39 (0.22, 0.57)
	δ_{12}	-0.04	0.01 (-0.18, 0.2)	-0.04	0.01 (-0.18, 0.2)	-0.04	0.01 (-0.18, 0.2)
Clustering	π_l	0.31	0.3 (0.28, 0.32)	0.38	0.37 (0.34, 0.39)	0.32	0.33 (0.32, 0.35)