Simulation Tables

Table 1: Model results for simulated data with n = 1,000, J = 4, p = 2, K = 3, r = 2. 1,000 iterations were run with a burn in of 0. Missingness mechanism was MAR and P(miss) = 0

Model Component	Parameter	Class 1			Class 2			Class 3		
		True	Est. (95% CrI)		True	Est. (95% CrI)		True	Est. (95% CrI)	
MVSN	β_{11}	100	99.69 (99.02, 101.64)		90	89.59 (88.82, 90.25)		100	100.61 (97.93, 101.91)	
Regression	β_{21}	-1	-1.1 (-1.32, -0.85)		1	0.92 (0.63, 1.22)		1	1 (0.7, 1.3)	
	β_{31}	105	104.44 (103.82, 106.98)		85	85.12 (84.49, 85.71)		100	100.68 (99.08, 101.99)	
	β_{41}	-1.5	-1.75 (-1.98, -1.49)		1.5	1.55 (1.23, 1.85)		1	0.81 (0.5, 1.13)	
	β_{12}	110	110.15 (109.37, 114.37)		80	80.27 (79.55, 80.96)		100	99.95 (98.75, 101.22)	
	β_{22}	-2	-2.29 (-2.6, -1.95)		2	1.87 (1.54, 2.19)		1	0.87 (0.61, 1.13)	
	β_{32}	115	115.2 (114.33, 119.72)		75	75.16 (74.48, 75.78)		100	99.41 (98.59, 100.86)	
	β_{42}	-2.5	-2.86 (-3.24, -2.49)		2.5	2.18 (1.84, 2.52)		1	0.8 (0.53, 1.08)	
	Ω_{11}	6	6.85 (5.47, 8.79)		6	5.48 (4.59, 6.82)		5	6.44 (5, 10.56)	
	Ω_{12}	4.5	5.48 (3.08, 7.94)		4.5	3.92 (2.48, 5.89)		2.5	3.48 (2.33, 6.88)	
	Ω_{13}	4.25	4.7 (1.42, 7.36)		4.25	3.17 (0.97, 5.69)		1.25	1.3 (-0.08, 3.32)	
	Ω_{14}	4.62	4.9 (1.18, 8.07)		4.62	3.05 (0.25, 6.04)		0.62	0.03 (-2.04, 3.52)	
	Ω_{22}	9	10.59 (6.52, 14.24)		9	9.08 (6.86, 12.21)		6	6.25 (5.18, 9.24)	
	Ω_{23}	8.5	9.51 (5.25, 13.21)		8.5	8.67 (6.13, 12.06)		2.5	2.03 (1.16, 3.87)	
	Ω_{24}	9.25	9.88 (4.94, 13.91)		9.25	9.18 (6.14, 12.71)		2.25	1.67 (0.09, 4.23)	
	Ω_{33}	14	14.31 (9.92, 18.95)		14	14.82 (10.99, 19.58)		5	4.66 (3.77, 6.54)	
	Ω_{34}	14.5	13.61 (8.65, 19)		14.5	15.66 (11.7, 21.14)		2.5	2.05 (0.53, 4.31)	
	Ω_{44}	21	18.25 (12.19, 25.21)		21	21.8 (16.92, 28.79)		6	6.96 (4.7, 10.42)	
	α_1	0	-0.07 (-0.85, 0.48)		0	0.79 (0.29, 1.48)		-0.24	-0.62 (-1.91, 1.34)	
	α_2	0.19	0.85 (0.03, 1.8)		-0.19	-0.82 (-1.58, -0.23)		0.65	0.22 (-0.8, 1.22)	
	α_3	0.35	-0.03 (-1.69, 0.78)		-0.35	-0.28 (-1.47, 0.93)		-0.47	-0.34 (-1.12, 0.85)	
	α_4	1.43	0.88 (-0.35, 1.75)		-1.43	-2.44 (-4.46, -1.2)		0.52	1.16 (-0.04, 2.26)	
Multinom.	δ_{11}	-0.19	-0.34 (-0.53, -0.15)		-0.19	-0.34 (-0.53, -0.15)		-0.19	-0.34 (-0.53, -0.15)	
	δ_{12}	-0.83	-0.57 (-0.9, -0.29)		-0.83	-0.57 (-0.9, -0.29)		-0.83	-0.57 (-0.9, -0.29)	
	δ_{21}	-0.79	-0.81 (-1.04, -0.61)		-0.79	-0.81 (-1.04, -0.61)		-0.79	-0.81 (-1.04, -0.61)	
	δ_{22}	0.43	0.33 (0.02, 0.64)		0.43	0.33 (0.02, 0.64)		0.43	0.33 (0.02, 0.64)	
Clustering	π_l	0.48	0.48 (0.48, 0.5)		0.26	0.26 (0.26, 0.26)		0.25	0.25 (0.24, 0.25)	