

MI Paper Tables - Lower dimension DAE

Kylie Getz and Kristin Linn

6/28/2022

Results using 1000 simulations, 10 MI trueTreatment approx -0.69, trueEcog appox 0.4

```
os1 <- coxph(Surv(cmonth, dead) ~ treat + genderf +  
reth_black + reth_hisp + reth_oth + practypec + b.ecogvalue + smokey + dgradeh + surgery + site_ureter  
+ site_renal + site_urethra + age + var1 + var2, data=sdat.c, x=T)
```

Low Dimensional DAE Results

Treat

Table 1: Treatment

	Bias			MSE		
	Low	Medium	High	Low	Medium	High
ORACLE	-0.0056	-0.0029	-0.0031	0.0053	0.0052	0.0053
MCAR						
CC	-0.0072	-0.0041	-0.0057	0.0066	0.0107	0.0218
MICE	-0.0017	0.0074	0.0157	0.0053	0.0055	0.0060
RF	-0.0009	0.0130	0.0282	0.0053	0.0055	0.0064
DAE	0.0119	0.0499	0.0838	0.0056	0.0081	0.0128
MAR						
CC	-0.0049	-0.0068	-0.0119	0.0071	0.0128	0.0254
MICE	-0.0003	0.0185	0.0390	0.0054	0.0060	0.0072
RF	0.0002	0.0219	0.0459	0.0054	0.0062	0.0081
DAE	0.0255	0.0763	0.1033	0.0063	0.0121	0.0173
MNAR 1						
CC	-0.0046	-0.0039	-0.0114	0.0072	0.0135	0.0288
MICE	0.0370	0.0635	0.0820	0.0067	0.0095	0.0120
RF	0.0380	0.0714	0.0815	0.0067	0.0105	0.0119
DAE	0.0521	0.0897	0.1091	0.0086	0.0148	0.0184
MNAR 2						
CC	-0.0038	-0.0070	-0.0106	0.0070	0.0128	0.0264
MICE	0.0182	0.0464	0.0640	0.0057	0.0076	0.0095
RF	0.0173	0.0537	0.0735	0.0057	0.0082	0.0107
DAE	0.0359	0.0834	0.1094	0.0068	0.0131	0.0186

Table 2: Treatment

	SE			Coverage		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0513	0.0512	0.0512	0.942	0.957	0.9590
MCAR						
CC	0.0568	0.0732	0.1028	0.941	0.949	0.9460
MICE	0.0517	0.0528	0.0544	0.945	0.954	0.9460
RF	0.0516	0.0524	0.0535	0.943	0.952	0.9140
DAE	0.0517	0.0527	0.0531	0.930	0.841	0.6348
MAR						
CC	0.0591	0.0796	0.1124	0.950	0.950	0.9540
MICE	0.0520	0.0533	0.0549	0.953	0.939	0.8920
RF	0.0518	0.0536	0.0563	0.951	0.933	0.8800
DAE	0.0547	0.0594	0.0612	0.938	0.765	0.6070
MNAR 1						
CC	0.0600	0.0822	0.1176	0.945	0.948	0.9420
MICE	0.0514	0.0521	0.0526	0.887	0.762	0.6430
RF	0.0512	0.0518	0.0525	0.879	0.705	0.6480
DAE	0.0567	0.0627	0.0620	0.865	0.718	0.5910
MNAR 2						
CC	0.0591	0.0799	0.1151	0.947	0.955	0.9510
MICE	0.0517	0.0524	0.0533	0.929	0.874	0.7870
RF	0.0515	0.0520	0.0527	0.928	0.834	0.7240
DAE	0.0533	0.0593	0.0620	0.901	0.733	0.5760

ECOG

Table 3: ECOG

	Bias			MSE		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0028	0.0025	0.0020	0.0011	0.0011	0.0011
MCAR						
CC	0.0035	0.0042	0.0075	0.0014	0.0024	0.0046
MICE	-0.0020	-0.0095	-0.0211	0.0013	0.0017	0.0025
RF	-0.0002	-0.0103	-0.0277	0.0012	0.0017	0.0030
DAE	-0.0109	-0.0433	-0.0798	0.0020	0.0068	0.0169
MAR						
CC	0.0018	0.0015	0.0062	0.0013	0.0021	0.0039
MICE	-0.0062	-0.0252	-0.0401	0.0012	0.0022	0.0038
RF	0.0000	-0.0061	-0.0122	0.0012	0.0018	0.0033
DAE	-0.0105	-0.0326	-0.0556	0.0016	0.0046	0.0119
MNAR 1						
CC	0.0011	0.0019	0.0081	0.0014	0.0026	0.0053
MICE	-0.0089	-0.0219	-0.0453	0.0014	0.0023	0.0051
RF	-0.0043	-0.0264	-0.0566	0.0013	0.0026	0.0065
DAE	-0.0167	-0.0392	-0.0579	0.0024	0.0078	0.0187
MNAR 2						
CC	0.0034	0.0017	0.0032	0.0015	0.0024	0.0050
MICE	-0.0074	-0.0220	-0.0352	0.0014	0.0022	0.0038
RF	-0.0011	-0.0129	-0.0313	0.0013	0.0019	0.0037
DAE	-0.0148	-0.0460	-0.0691	0.0021	0.0078	0.0184

Table 4: ECOG

	SE			Coverage		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0234	0.0234	0.0234	0.944	0.944	0.9460
MCAR						
CC	0.0259	0.0334	0.0471	0.947	0.938	0.9480
MICE	0.0249	0.0286	0.0327	0.947	0.942	0.9080
RF	0.0247	0.0282	0.0335	0.951	0.938	0.8860
DAE	0.0303	0.0485	0.0665	0.945	0.899	0.7626
MAR						
CC	0.0257	0.0320	0.0433	0.949	0.943	0.9370
MICE	0.0249	0.0285	0.0355	0.944	0.870	0.8290
RF	0.0248	0.0298	0.0414	0.951	0.954	0.9580
DAE	0.0286	0.0447	0.0654	0.960	0.914	0.8630
MNAR 1						
CC	0.0268	0.0355	0.0508	0.956	0.952	0.9460
MICE	0.0256	0.0307	0.0379	0.934	0.901	0.7640
RF	0.0256	0.0318	0.0432	0.948	0.880	0.7670
DAE	0.0362	0.0642	0.0922	0.977	0.970	0.9320
MNAR 2						
CC	0.0265	0.0345	0.0493	0.943	0.942	0.9520
MICE	0.0254	0.0299	0.0370	0.941	0.904	0.8440
RF	0.0252	0.0301	0.0383	0.942	0.943	0.8800
DAE	0.0339	0.0610	0.0866	0.957	0.952	0.9130