

MIPaperFigures

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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)
```

Treat

Table 1: Treatment

	Bias			MSE		
	Low	Medium	High	Low	Medium	High
ORACLE	-0.0040	0.0007	-0.0025	0.0052	0.0051	0.0051
MCAR						
CC	-0.0047	-0.0013	-0.0095	0.0065	0.0094	0.0152
MICE	0.0008	0.0110	0.0123	0.0052	0.0054	0.0055
RF	0.0016	0.0123	0.0154	0.0052	0.0054	0.0056
DAE	0.0105	0.0307	0.0422	0.0054	0.0061	0.0070
MAR						
CC	-0.0030	-0.0043	-0.0016	0.0063	0.0089	0.0136
MICE	-0.0029	0.0015	0.0107	0.0054	0.0053	0.0056
RF	0.0042	0.0090	0.0206	0.0054	0.0055	0.0061
DAE	0.0080	0.0229	0.0438	0.0053	0.0056	0.0071
MNAR 1						
CC	-0.0022	-0.0014	-0.0041	0.0061	0.0087	0.0141
MICE	-0.0037	0.0086	0.0227	0.0054	0.0052	0.0060
RF	0.0043	0.0240	0.0474	0.0054	0.0057	0.0077
DAE	0.0076	0.0304	0.0516	0.0054	0.0058	0.0078
MNAR 2						
CC	-0.0025	0.0002	-0.0054	0.0062	0.0084	0.0137
MICE	-0.0024	0.0039	0.0195	0.0053	0.0051	0.0059
RF	0.0046	0.0151	0.0404	0.0053	0.0054	0.0071
DAE	0.0068	0.0253	0.0473	0.0053	0.0056	0.0074

Table 2: Treatment

	SE			Coverage		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0510	0.0509	0.0509	0.951	0.964	0.956
MCAR						
CC	0.0568	0.0685	0.0872	0.949	0.956	0.954
MICE	0.0514	0.0519	0.0525	0.953	0.954	0.953
RF	0.0513	0.0518	0.0523	0.953	0.954	0.950
DAE	0.0509	0.0506	0.0505	0.945	0.894	0.861
MAR						
CC	0.0554	0.0657	0.0826	0.943	0.942	0.949
MICE	0.0513	0.0519	0.0526	0.946	0.950	0.941
RF	0.0514	0.0524	0.0537	0.940	0.943	0.929
DAE	0.0508	0.0506	0.0504	0.938	0.922	0.861
MNAR 1						
CC	0.0555	0.0662	0.0832	0.948	0.955	0.943
MICE	0.0513	0.0517	0.0522	0.953	0.954	0.923
RF	0.0513	0.0519	0.0523	0.948	0.936	0.855
DAE	0.0508	0.0505	0.0503	0.945	0.916	0.824
MNAR 2						
CC	0.0551	0.0651	0.0816	0.954	0.953	0.941
MICE	0.0512	0.0517	0.0521	0.954	0.961	0.923
RF	0.0513	0.0519	0.0523	0.953	0.947	0.868
DAE	0.0509	0.0506	0.0503	0.948	0.925	0.833

ECOG

Table 3: ECOG

	Bias			MSE		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0021	0.0007	0.0018	0.0011	0.0011	0.0011
MCAR						
CC	0.0017	0.0019	0.0040	0.0014	0.0020	0.0033
MICE	-0.0039	-0.0097	-0.0138	0.0012	0.0015	0.0018
RF	-0.0027	-0.0094	-0.0150	0.0012	0.0015	0.0018
DAE	-0.0016	-0.0057	-0.0068	0.0012	0.0013	0.0015
MAR						
CC	0.0027	0.0023	0.0050	0.0013	0.0018	0.0028
MICE	-0.0050	-0.0140	-0.0196	0.0012	0.0016	0.0019
RF	-0.0139	-0.0207	-0.0256	0.0015	0.0023	0.0030
DAE	-0.0011	-0.0058	-0.0077	0.0012	0.0014	0.0015
MNAR 1						
CC	0.0020	0.0011	0.0022	0.0014	0.0019	0.0030
MICE	-0.0056	-0.0136	-0.0205	0.0013	0.0016	0.0022
RF	-0.0198	-0.0435	-0.0679	0.0017	0.0037	0.0070
DAE	-0.0022	-0.0089	-0.0120	0.0012	0.0014	0.0017
MNAR 2						
CC	0.0010	0.0007	0.0044	0.0013	0.0018	0.0029
MICE	-0.0055	-0.0113	-0.0184	0.0012	0.0014	0.0020
RF	-0.0173	-0.0354	-0.0598	0.0015	0.0028	0.0057
DAE	-0.0026	-0.0079	-0.0121	0.0012	0.0013	0.0017

Table 4: ECOG

	SE			Coverage		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0232	0.0232	0.0232	0.944	0.952	0.945
MCAR						
CC	0.0259	0.0313	0.0399	0.949	0.947	0.946
MICE	0.0248	0.0264	0.0282	0.944	0.939	0.922
RF	0.0247	0.0264	0.0284	0.946	0.945	0.927
DAE	0.0245	0.0259	0.0277	0.948	0.942	0.948
MAR						
CC	0.0257	0.0302	0.0377	0.945	0.953	0.950
MICE	0.0248	0.0265	0.0285	0.949	0.920	0.905
RF	0.0265	0.0322	0.0383	0.925	0.931	0.938
DAE	0.0244	0.0257	0.0276	0.953	0.943	0.953
MNAR 1						
CC	0.0257	0.0307	0.0386	0.948	0.953	0.941
MICE	0.0249	0.0269	0.0294	0.944	0.927	0.891
RF	0.0263	0.0315	0.0371	0.887	0.745	0.549
DAE	0.0245	0.0260	0.0281	0.955	0.944	0.925
MNAR 2						
CC	0.0255	0.0302	0.0380	0.950	0.959	0.952
MICE	0.0246	0.0265	0.0292	0.953	0.943	0.904
RF	0.0257	0.0296	0.0353	0.912	0.815	0.630
DAE	0.0243	0.0257	0.0277	0.956	0.956	0.933

Var 1

Table 5: Var 1

	Bias			MSE		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MCAR						
CC	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DAE	-0.0016	-0.0057	-0.0068	0.0012	0.0013	0.0015
MAR						
CC	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MICE	0.0001	0.0002	0.0002	0.0000	0.0000	0.0000
RF	-0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
DAE	-0.0011	-0.0058	-0.0077	0.0012	0.0014	0.0015
MNAR 1						
CC	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MICE	0.0001	0.0003	0.0004	0.0000	0.0000	0.0000
RF	0.0000	0.0001	0.0002	0.0000	0.0000	0.0000
DAE	-0.0022	-0.0089	-0.0120	0.0012	0.0014	0.0017
MNAR 2						
CC	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MICE	0.0001	0.0003	0.0003	0.0000	0.0000	0.0000
RF	0.0000	0.0001	0.0002	0.0000	0.0000	0.0000
DAE	-0.0026	-0.0079	-0.0121	0.0012	0.0013	0.0017

Table 6: Var 1

	SE			Coverage		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0001	0.0001	0.0001	0.956	0.952	0.955
MCAR						
CC	0.0001	0.0002	0.0002	0.952	0.956	0.950
MICE	0.0001	0.0001	0.0001	0.959	0.956	0.957
RF	0.0001	0.0001	0.0001	0.963	0.954	0.951
DAE	0.0245	0.0259	0.0277	0.948	0.942	0.948
MAR						
CC	0.0002	0.0003	0.0004	0.937	0.959	0.943
MICE	0.0001	0.0002	0.0002	0.905	0.818	0.796
RF	0.0001	0.0002	0.0002	0.932	0.947	0.959
DAE	0.0244	0.0257	0.0276	0.953	0.943	0.953
MNAR 1						
CC	0.0002	0.0003	0.0004	0.953	0.932	0.947
MICE	0.0001	0.0001	0.0002	0.847	0.453	0.341
RF	0.0001	0.0001	0.0002	0.952	0.866	0.793
DAE	0.0245	0.0260	0.0281	0.955	0.944	0.925
MNAR 2						
CC	0.0002	0.0003	0.0004	0.945	0.940	0.953
MICE	0.0001	0.0001	0.0002	0.801	0.563	0.358
RF	0.0001	0.0001	0.0002	0.954	0.929	0.826
DAE	0.0243	0.0257	0.0277	0.956	0.956	0.933

Var 2

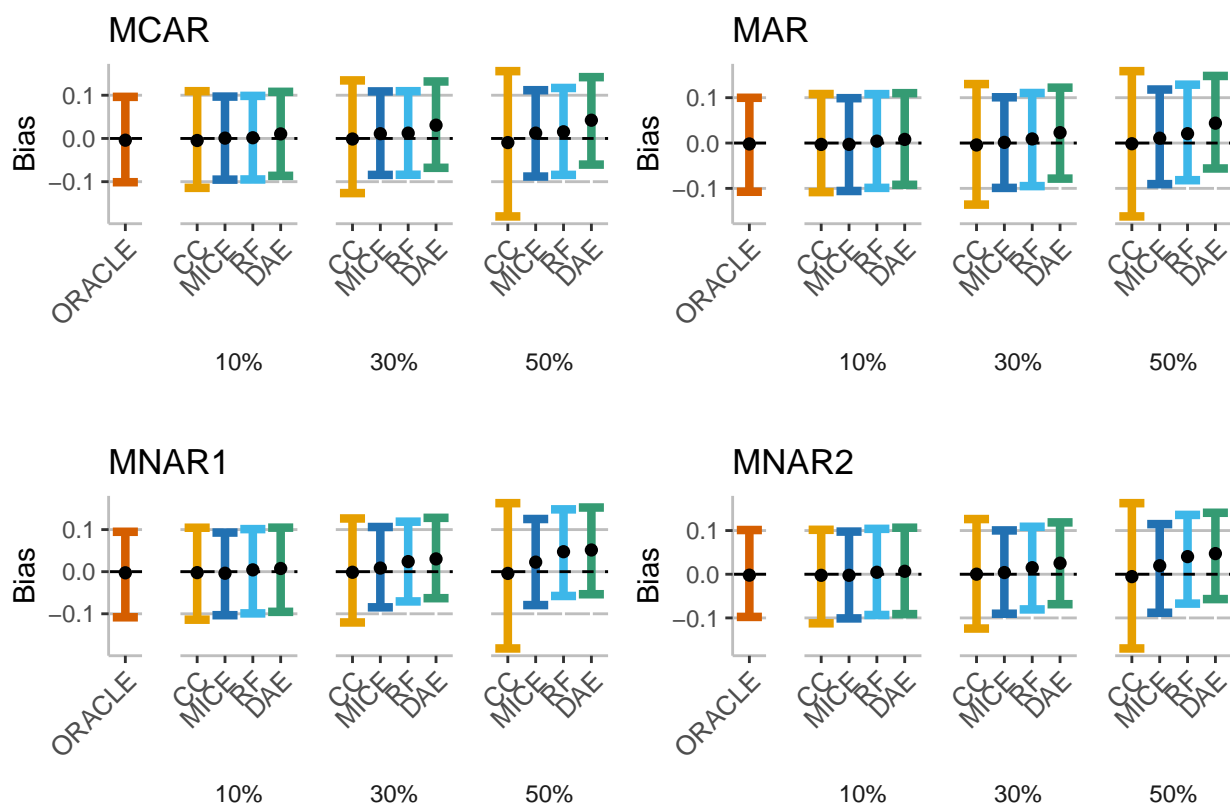
Table 7: Var 2

	Bias			MSE		
	Low	Medium	High	Low	Medium	High
ORACLE	-0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
MCAR						
CC	-0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
MICE	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000
RF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DAE	-0.0016	-0.0057	-0.0068	0.0012	0.0013	0.0015
MAR						
CC	0.0000	0.0000	-0.0001	0.0000	0.0000	0.0000
MICE	0.0001	0.0002	0.0002	0.0000	0.0000	0.0000
RF	-0.0001	-0.0002	-0.0003	0.0000	0.0000	0.0000
DAE	-0.0011	-0.0058	-0.0077	0.0012	0.0014	0.0015
MNAR 1						
CC	0.0000	-0.0001	-0.0001	0.0000	0.0000	0.0000
MICE	0.0002	0.0003	0.0004	0.0000	0.0000	0.0000
RF	0.0000	-0.0001	0.0000	0.0000	0.0000	0.0000
DAE	-0.0022	-0.0089	-0.0120	0.0012	0.0014	0.0017
MNAR 2						
CC	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MICE	0.0002	0.0004	0.0005	0.0000	0.0000	0.0000
RF	0.0001	0.0000	0.0001	0.0000	0.0000	0.0000
DAE	-0.0026	-0.0079	-0.0121	0.0012	0.0013	0.0017

Table 8: Var 2

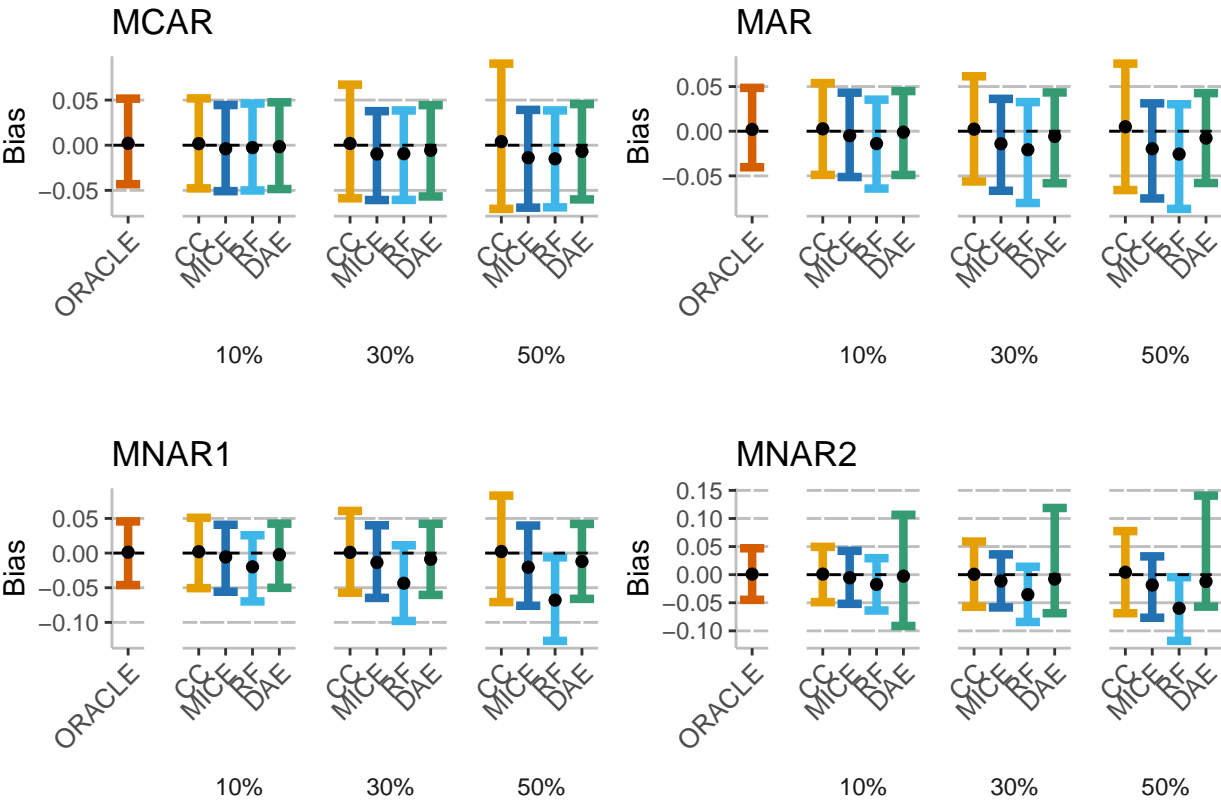
	SE			Coverage		
	Low	Medium	High	Low	Medium	High
ORACLE	0.0007	0.0007	0.0007	0.945	0.947	0.950
MCAR						
CC	0.0008	0.0010	0.0013	0.942	0.955	0.940
MICE	0.0007	0.0008	0.0008	0.943	0.953	0.949
RF	0.0007	0.0008	0.0008	0.948	0.950	0.954
DAE	0.0245	0.0259	0.0277	0.948	0.942	0.948
MAR						
CC	0.0010	0.0013	0.0017	0.947	0.942	0.955
MICE	0.0008	0.0009	0.0009	0.952	0.939	0.950
RF	0.0008	0.0009	0.0010	0.947	0.958	0.971
DAE	0.0244	0.0257	0.0276	0.953	0.943	0.953
MNAR 1						
CC	0.0010	0.0013	0.0017	0.952	0.941	0.950
MICE	0.0008	0.0008	0.0009	0.942	0.941	0.921
RF	0.0008	0.0009	0.0010	0.948	0.967	0.973
DAE	0.0245	0.0260	0.0281	0.955	0.944	0.925
MNAR 2						
CC	0.0010	0.0013	0.0017	0.952	0.953	0.951
MICE	0.0008	0.0008	0.0009	0.937	0.935	0.913
RF	0.0008	0.0008	0.0009	0.959	0.957	0.962
DAE	0.0243	0.0257	0.0277	0.956	0.956	0.933

Treat Percentiles of Est - Truth



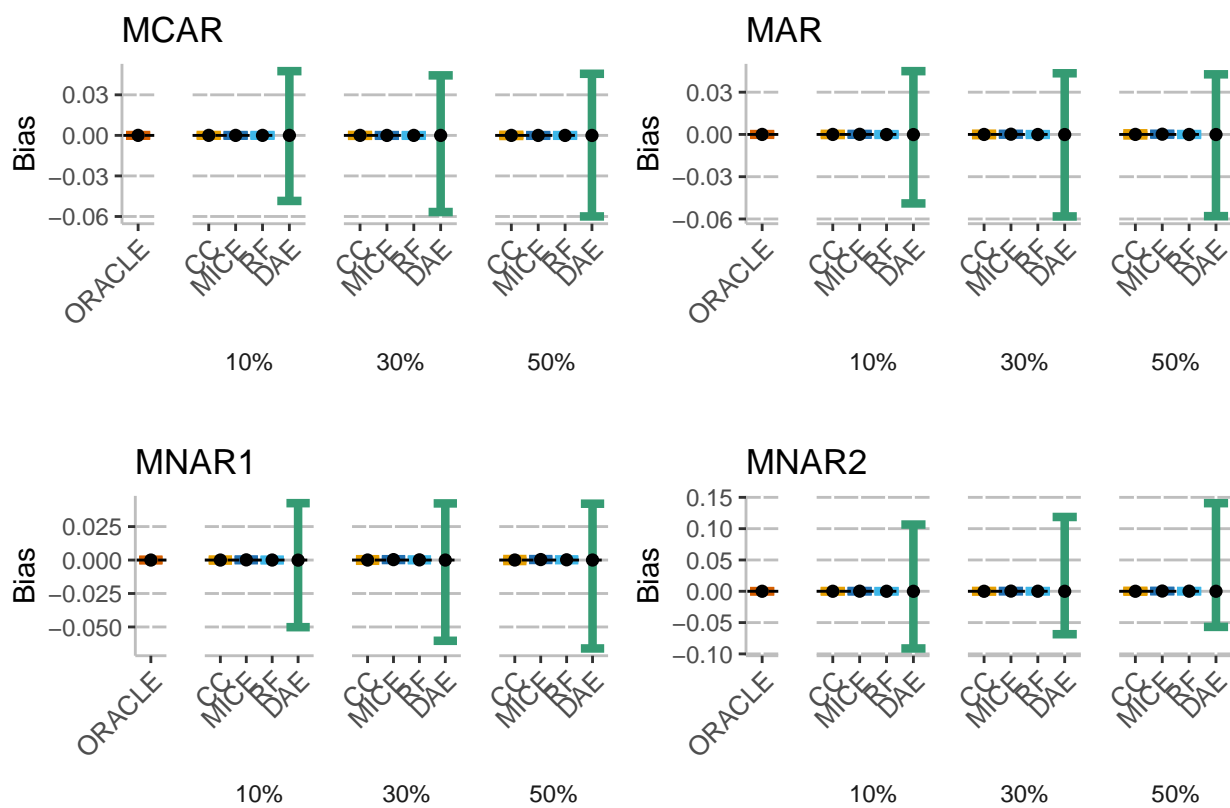
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2

Ecog Percentiles of Est - Truth



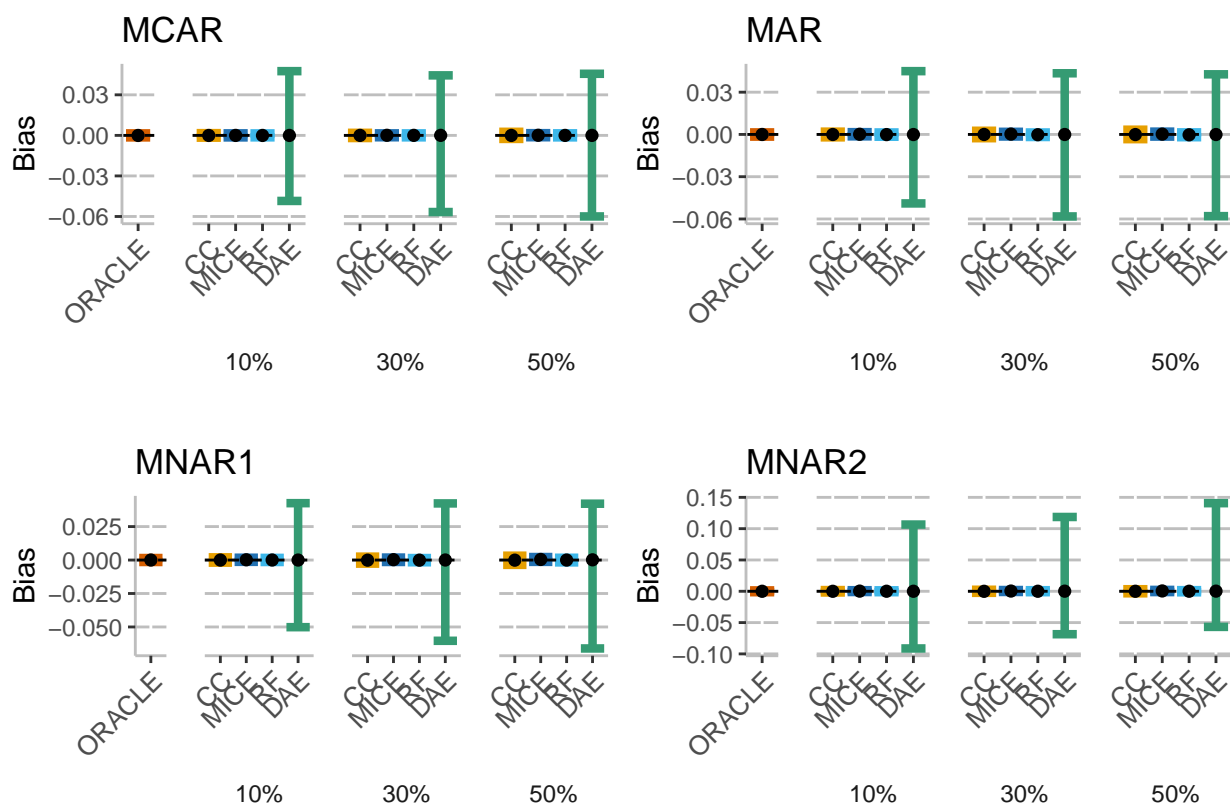
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Var1 Percentiles of Est - Truth



pdf
2

Var2 Percentiles of Est - Truth



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2