

Table 1: Comparison of TMLE and one-step ATT estimators under weak overlap across mediator types.

		Univariate Binary		Univariate Continuous						Bivariate Continuous			
		$\psi_1(\hat{Q}^*)$	$\psi_1^+(\hat{Q})$	$\psi_1(\hat{Q}^*)$	$\psi_1^+(\hat{Q})$	$\psi_{2a}(\hat{Q}^*)$	$\psi_{2a}^+(\hat{Q})$	$\psi_{2b}(\hat{Q}^*)$	$\psi_{2b}^+(\hat{Q})$	$\psi_{2a}(\hat{Q}^*)$	$\psi_{2a}^+(\hat{Q})$	$\psi_{2b}(\hat{Q}^*)$	$\psi_{2b}^+(\hat{Q})$
n=500	Bias	-0.001	-0.01	0.006	0.031	0.004	0.045	0.01	0.021	-0.012	0.305	-0.023	-0.074
	SD	0.103	0.613	0.161	1.147	0.415	3.644	0.398	1.748	0.5	5.278	0.456	2.021
	MSE	0.011	0.376	0.026	1.316	0.172	13.264	0.158	3.054	0.25	27.92	0.208	4.087
	CI coverage	87.4%	93.7%	97.6%	95.5%	97.2%	96.6%	97.2%	96.6%	98.9%	96.7%	97.2%	97.2%
	CI width	0.391	1.002	1.834	1.808	5.331	6.614	3.142	4.133	11.005	13.085	3.223	4.539
n=1000	Bias	0.004	0.011	0.002	-0.02	-0.002	0.108	-0.002	0.02	0.008	-0.004	0.007	0.03
	SD	0.074	0.288	0.116	0.609	0.319	2.026	0.311	0.98	0.363	2.637	0.322	0.962
	MSE	0.006	0.083	0.013	0.37	0.102	4.113	0.097	0.959	0.131	6.946	0.104	0.926
	CI coverage	88.2%	94.5%	97.8%	95.6%	97.8%	97%	98%	97.1%	99.1%	97%	96.6%	95.3%
	CI width	0.299	0.555	1.055	1.042	3.444	3.975	2.072	2.476	5.411	6.096	2.058	2.443
n=2000	Bias	0.002	-0.001	0.002	0.013	0.007	-0.003	0.013	0.022	0.01	0.022	0.013	0.042
	SD	0.051	0.17	0.08	0.343	0.24	1.035	0.244	0.64	0.304	1.463	0.282	0.678
	MSE	0.003	0.029	0.006	0.118	0.058	1.07	0.06	0.41	0.093	2.138	0.08	0.461
	CI coverage	91.2%	96.8%	97.8%	95%	96.9%	96.4%	98%	96.5%	99.8%	97.6%	97.9%	96.2%
	CI width	0.213	0.382	0.748	0.739	2.267	2.468	1.611	1.815	3.644	3.961	1.604	1.825