Table 1: Comparison between TMLE estimators and one-step EIF estimator under positivity assumption violation when the outcome is not in the district of the treatment.

	$\psi^+_{dnorm}(\hat{Q})$	$\psi_{dnorm}(\hat{Q}^\star)$	$\psi^+_{densratio}(\hat{Q})$	$\psi_{densratio}(\hat{Q}^\star)$	$\psi^+_{bayes}(\hat{Q})$	$\psi_{bayes}(\hat{Q}^\star)$
n=500						
Bias	-0.033	0.027	0.009	-0.031	-0.019	0.035
SD	1.174	2.804	1.036	3.006	1.273	3.083
MSE	1.379	7.856	1.073	9.026	1.620	9.500
CI coverage	68.3%	90.7%	62.3%	90.6%	64%	89.7%
CI width	2.302	7.165	2.166	7.756	2.375	7.544
n=1000						
Bias	0.005	-0.004	0.103	-0.019	0.006	-0.048
SD	0.869	1.620	0.812	1.783	0.948	1.799
MSE	0.755	2.623	0.669	3.175	0.898	3.236
CI coverage	68.5%	91.9%	78.3%	94.1%	66.2%	93.2%
CI width	1.824	5.210	2.333	5.961	1.882	5.463
n=2000						
Bias	-0.012	-0.030	0.147	-0.023	-0.016	-0.047
SD	0.615	1.143	0.641	1.457	0.698	1.235
MSE	0.378	1.307	0.432	2.121	0.487	1.527
CI coverage	74.6%	95.2%	87.2%	96.2%	71.5%	94.4%
CI width	1.408	4.068	2.534	5.101	1.514	4.303