Table 1: Comparative analysis for the impact of cross-fitting on TMLEs and one-step estimators in conjunction with the use of random forests. RF refers to random forest with 200 trees and a minimum node size of 1, and CF denotes random forest with cross fitting using 5 folds.

	TMLEs						**One-step estimators**					
	$\psi_{dnorm}(\hat{Q}^\star)$		$\psi_{densratio}(\hat{Q}^\star)$		$\psi_{bayes}(\hat{Q}^\star)$		$\psi^+_{dnorm}(\hat{Q})$		$\psi^+_{densratio}(\hat{Q})$		$\psi^+_{bayes}(\hat{Q})$	
	RF	CF	RF	CF	RF	CF	RF	CF	RF	CF	RF	CF
n=500												
Bias	-0.201	0.027	-0.198	0.004	-0.168	0.056	-0.144	0.019	6.798	0.741	-0.115	0.111
SD	0.325	0.558	0.302	0.515	0.279	0.504	0.306	0.577	3.726	0.879	0.268	0.534
MSE	0.146	0.312	0.130	0.265	0.106	0.257	0.114	0.333	60.089	1.322	0.085	0.297
CI coverage	71.6%	62.9%	100%	95.9%	80.4%	70.7%	77.5%	61%	39.9%	66.8%	84.3%	67.1%
CI width	0.815	1.013	12.070	2.283	0.831	1.089	0.817	1.015	12.194	2.335	0.832	1.091
n=1000												
Bias	-0.198	0.035	-0.192	0.034	-0.173	0.056	-0.146	0.029	7.439	0.825	-0.123	0.100
SD	0.235	0.401	0.225	0.375	0.210	0.372	0.226	0.411	2.538	0.616	0.206	0.389
MSE	0.094	0.162	0.087	0.142	0.074	0.141	0.072	0.170	61.771	1.060	0.057	0.161
CI coverage	65.1%	62.2%	100%	93.9%	72.3%	68.4%	73%	61%	6.4%	41.7%	79.1%	65.8%
CI width	0.571	0.729	7.686	1.408	0.580	0.763	0.572	0.730	7.715	1.431	0.580	0.763
n=2000												
Bias	-0.192	0.026	-0.188	0.019	-0.172	0.044	-0.147	0.021	7.158	0.772	-0.126	0.079
SD	0.171	0.292	0.164	0.275	0.158	0.276	0.168	0.298	1.768	0.431	0.156	0.287
MSE	0.066	0.086	0.062	0.076	0.054	0.078	0.050	0.089	54.362	0.781	0.040	0.089
CI coverage	51.6%	64.3%	100%	90.9%	58.8%	67.6%	63%	63.6%	0.6%	24%	70.4%	64%
CI width	0.400	0.529	5.032	0.911	0.406	0.544	0.401	0.530	5.034	0.923	0.406	0.545