

Table 1: Comparative analysis of TMLEs and one-step estimators when variables M and L are combined verse not.

	TMLEs						One-step estimators					
	$\psi_{dnorm}(\hat{Q}^*)$		$\psi_{densratio}(\hat{Q}^*)$		$\psi_{bayes}(\hat{Q}^*)$		$\psi_{dnorm}^+(\hat{Q})$		$\psi_{densratio}^+(\hat{Q})$		$\psi_{bayes}^+(\hat{Q})$	
	M+L	ML	M+L	ML	M+L	ML	M+L	ML	M+L	ML	M+L	ML
n=500												
Bias	-0.027	-0.027	-0.040	-0.037	-0.027	-0.027	-0.022	-0.022	0.008	-0.028	-0.020	-0.020
SD	0.926	0.926	0.954	0.927	0.926	0.926	0.938	0.938	1.676	1.029	0.942	0.942
MSE	0.429	0.429	0.455	0.430	0.429	0.429	0.440	0.440	1.404	0.529	0.443	0.443
CI coverage	90.7%	90.7%	92.3%	93%	90.7%	90.7%	90.8%	90.8%	92.1%	92.6%	90.7%	90.7%
CI width	3.289	3.289	4.658	4.183	3.290	3.290	3.336	3.336	4.739	4.199	3.346	3.346
n=1000												
Bias	0.010	0.010	0.012	0.010	0.009	0.009	0.010	0.010	-0.007	0.004	0.010	0.010
SD	0.631	0.631	0.653	0.634	0.631	0.631	0.633	0.633	0.770	0.654	0.634	0.634
MSE	0.199	0.199	0.213	0.201	0.199	0.199	0.200	0.200	0.296	0.214	0.201	0.201
CI coverage	93.8%	93.8%	92%	93.4%	93.8%	93.8%	93.8%	93.8%	92.7%	93.2%	93.9%	93.9%
CI width	2.337	2.337	2.617	2.492	2.338	2.338	2.351	2.351	2.628	2.497	2.354	2.354
n=2000												
Bias	-0.016	-0.016	-0.014	-0.015	-0.017	-0.017	-0.016	-0.016	-0.012	-0.017	-0.017	-0.017
SD	0.460	0.460	0.464	0.455	0.460	0.460	0.461	0.461	0.536	0.490	0.461	0.461
MSE	0.106	0.106	0.108	0.104	0.106	0.106	0.106	0.106	0.143	0.120	0.106	0.106
CI coverage	93.3%	93.3%	94%	95.2%	93.4%	93.4%	93.3%	93.3%	93.8%	94.3%	93.4%	93.4%
CI width	1.662	1.662	2.051	2.010	1.662	1.662	1.667	1.667	2.055	2.011	1.667	1.667
n=8000												
Bias	0.004	0.004	0.006	0.007	0.004	0.004	0.004	0.004	-0.006	0.007	0.004	0.004
SD	0.323	0.323	0.322	0.317	0.323	0.323	0.323	0.323	0.452	0.366	0.323	0.323
MSE	0.026	0.026	0.026	0.025	0.026	0.026	0.026	0.026	0.051	0.034	0.026	0.026
CI coverage	92.4%	92.4%	99%	99.2%	92.4%	92.4%	92.4%	92.4%	96.9%	98%	92.4%	92.4%
CI width	1.174	1.174	1.916	1.828	1.174	1.174	1.177	1.177	1.919	1.829	1.177	1.177