

Table SM4. Results for all non-null scenarios (1.2-1.6, 2.2-2.3, 3.2, 3.4, 4.2).

Scenario	Sample size	Method	P _{IS} (i)	P _{IS} (ii)	P _{IS} (iii)	P _{IS} (iv)	RMR	P _{best}	IORC	P _{near-best}
1.2	500	FE Freq	0.030	NA	NA	NA	0.839	0.891	0.891	0.891
		FE Bayes Rep	0.046				0.858	0.905	0.905	0.905
		FE Bayes UR1	0.047				0.845	0.895	0.895	0.895
		FE Bayes UR2	0.037				0.826	0.883	0.883	0.883
		ME Freq	0.149				0.853	0.901	0.901	0.901
		ME Bayes Rep	0.083				0.856	0.904	0.904	0.904
		ME Bayes UR1	0.082				0.854	0.902	0.902	0.902
		ME Bayes UR2	0.078				0.848	0.898	0.898	0.898
1.2	1000	FE Freq	0.115	NA	NA	NA	0.963	0.974	0.974	0.974
		FE Bayes Rep	0.157				0.967	0.977	0.977	0.977
		FE Bayes UR1	0.131				0.960	0.972	0.972	0.972
		FE Bayes UR2	0.125				0.957	0.970	0.970	0.970
		ME Freq	0.374				0.971	0.980	0.980	0.980
		ME Bayes Rep	0.236				0.967	0.977	0.977	0.977
		ME Bayes UR1	0.236				0.968	0.978	0.978	0.978
		ME Bayes UR2	0.234				0.968	0.978	0.978	0.978
1.2	1500	FE Freq	0.289	NA	NA	NA	0.982	0.988	0.988	0.988
		FE Bayes Rep	0.326				0.985	0.990	0.990	0.990
		FE Bayes UR1	0.301				0.984	0.989	0.989	0.989
		FE Bayes UR2	0.292				0.982	0.988	0.988	0.988
		ME Freq	0.624				0.994	0.996	0.996	0.996
		ME Bayes Rep	0.430				0.995	0.997	0.997	0.997
		ME Bayes UR1	0.429				0.994	0.996	0.996	0.996
		ME Bayes UR2	0.426				0.995	0.997	0.997	0.997
1.2	2000	FE Freq	0.474	NA	NA	NA	0.996	0.997	0.997	0.997
		FE Bayes Rep	0.504				0.996	0.997	0.997	0.997
		FE Bayes UR1	0.477				0.995	0.997	0.997	0.997
		FE Bayes UR2	0.473				0.995	0.997	0.997	0.997
		ME Freq	0.757				0.998	0.999	0.999	0.999
		ME Bayes Rep	0.587				0.998	0.999	0.999	0.999
		ME Bayes UR1	0.590				0.998	0.999	0.999	0.999
		ME Bayes UR2	0.586				0.998	0.999	0.999	0.999
1.2	3000	FE Freq	0.748	NA	NA	NA	0.999	1.000	1.000	1.000
		FE Bayes Rep	0.762				0.999	1.000	1.000	1.000
		FE Bayes UR1	0.748				0.999	1.000	1.000	1.000
		FE Bayes UR2	0.743				1.000	1.000	1.000	1.000
		ME Freq	0.930				0.999	1.000	1.000	1.000
		ME Bayes Rep	0.832				1.000	1.000	1.000	1.000
		ME Bayes UR1	0.826				1.000	1.000	1.000	1.000

		ME Bayes UR2	0.830				1.000	1.000	1.000	1.000
1.2	4000	FE Freq	0.878	NA	NA	NA	1.000	1.000	1.000	1.000
		FE Bayes Rep	0.884				1.000	1.000	1.000	1.000
		FE Bayes UR1	0.881				1.000	1.000	1.000	1.000
		FE Bayes UR2	0.873				1.000	1.000	1.000	1.000
		ME Freq	0.975				1.000	1.000	1.000	1.000
		ME Bayes Rep	0.919				1.000	1.000	1.000	1.000
		ME Bayes UR1	0.917				1.000	1.000	1.000	1.000
		ME Bayes UR2	0.911				1.000	1.000	1.000	1.000
1.2	5000	FE Freq	0.955	NA	NA	NA	1.000	1.000	1.000	1.000
		FE Bayes Rep	0.957				1.000	1.000	1.000	1.000
		FE Bayes UR1	0.957				1.000	1.000	1.000	1.000
		FE Bayes UR2	0.956				1.000	1.000	1.000	1.000
		ME Freq	0.995				1.000	1.000	1.000	1.000
		ME Bayes Rep	0.970				1.000	1.000	1.000	1.000
		ME Bayes UR1	0.968				1.000	1.000	1.000	1.000
		ME Bayes UR2	0.972				1.000	1.000	1.000	1.000
1.3	500	FE Freq	0.027	0.033	0.048	0.054	0.733	0.789	0.837	0.886
		FE Bayes Rep	0.037	0.051	0.064	0.078	0.755	0.807	0.850	0.893
		FE Bayes UR1	0.029	0.042	0.076	0.088	0.770	0.825	0.860	0.896
		FE Bayes UR2	0.034	0.043	0.049	0.059	0.733	0.790	0.837	0.886
		ME Freq	0.108	0.176	0.115	0.183	0.750	0.802	0.846	0.890
		ME Bayes Rep	0.055	0.079	0.077	0.1	0.755	0.805	0.849	0.894
		ME Bayes UR1	0.051	0.078	0.082	0.107	0.757	0.807	0.850	0.894
		ME Bayes UR2	0.053	0.078	0.075	0.098	0.751	0.803	0.846	0.891
1.3	1000	FE Freq	0.054	0.093	0.085	0.124	0.873	0.888	0.922	0.957
		FE Bayes Rep	0.071	0.13	0.099	0.156	0.879	0.894	0.926	0.958
		FE Bayes UR1	0.055	0.109	0.123	0.173	0.885	0.901	0.930	0.958
		FE Bayes UR2	0.059	0.103	0.089	0.132	0.873	0.888	0.922	0.957
		ME Freq	0.208	0.38	0.223	0.382	0.880	0.892	0.926	0.959
		ME Bayes Rep	0.116	0.198	0.13	0.206	0.885	0.898	0.929	0.960
		ME Bayes UR1	0.113	0.197	0.13	0.207	0.884	0.898	0.929	0.959
		ME Bayes UR2	0.112	0.19	0.132	0.206	0.885	0.898	0.929	0.960
1.3	1500	FE Freq	0.114	0.227	0.136	0.242	0.908	0.916	0.943	0.971
		FE Bayes Rep	0.126	0.257	0.152	0.274	0.913	0.920	0.946	0.973
		FE Bayes UR1	0.114	0.25	0.167	0.292	0.919	0.927	0.950	0.973
		FE Bayes UR2	0.119	0.241	0.143	0.256	0.911	0.918	0.945	0.972
		ME Freq	0.269	0.552	0.301	0.564	0.921	0.928	0.950	0.972
		ME Bayes Rep	0.164	0.339	0.193	0.353	0.919	0.925	0.949	0.973
		ME Bayes UR1	0.162	0.337	0.189	0.351	0.918	0.925	0.949	0.973
		ME Bayes UR2	0.164	0.338	0.189	0.351	0.918	0.925	0.949	0.973
1.3	2000	FE Freq	0.163	0.349	0.193	0.375	0.942	0.943	0.964	0.985
		FE Bayes Rep	0.172	0.38	0.211	0.417	0.946	0.948	0.967	0.986

		FE Bayes UR1	0.158	0.367	0.231	0.435	0.951	0.954	0.970	0.985
		FE Bayes UR2	0.164	0.362	0.196	0.394	0.943	0.945	0.965	0.985
		ME Freq	0.356	0.689	0.404	0.724	0.951	0.954	0.970	0.985
		ME Bayes Rep	0.231	0.473	0.276	0.502	0.949	0.952	0.968	0.985
		ME Bayes UR1	0.233	0.474	0.275	0.499	0.950	0.952	0.969	0.985
		ME Bayes UR2	0.234	0.472	0.272	0.494	0.950	0.952	0.969	0.985
1.3	3000	FE Freq	0.247	0.589	0.29	0.617	0.977	0.976	0.986	0.996
		FE Bayes Rep	0.26	0.617	0.31	0.646	0.978	0.977	0.986	0.996
		FE Bayes UR1	0.24	0.6	0.334	0.664	0.979	0.978	0.987	0.996
		FE Bayes UR2	0.249	0.61	0.296	0.636	0.977	0.976	0.986	0.996
		ME Freq	0.484	0.891	0.523	0.902	0.982	0.981	0.989	0.996
		ME Bayes Rep	0.335	0.685	0.394	0.715	0.981	0.981	0.988	0.996
		ME Bayes UR1	0.339	0.69	0.398	0.722	0.980	0.980	0.988	0.996
		ME Bayes UR2	0.332	0.68	0.391	0.714	0.980	0.979	0.988	0.996
1.3	4000	FE Freq	0.349	0.753	0.408	0.776	0.992	0.991	0.995	1.000
		FE Bayes Rep	0.353	0.773	0.42	0.793	0.991	0.990	0.995	1.000
		FE Bayes UR1	0.341	0.761	0.44	0.801	0.993	0.992	0.996	1.000
		FE Bayes UR2	0.352	0.759	0.41	0.786	0.992	0.991	0.995	1.000
		ME Freq	0.596	0.945	0.644	0.967	0.995	0.995	0.997	1.000
		ME Bayes Rep	0.441	0.807	0.475	0.824	0.994	0.993	0.996	1.000
		ME Bayes UR1	0.44	0.817	0.483	0.83	0.994	0.993	0.996	1.000
		ME Bayes UR2	0.439	0.809	0.478	0.824	0.994	0.994	0.997	1.000
1.3	5000	FE Freq	0.415	0.873	0.499	0.889	0.993	0.992	0.996	1.000
		FE Bayes Rep	0.42	0.868	0.509	0.896	0.993	0.992	0.996	1.000
		FE Bayes UR1	0.409	0.874	0.528	0.904	0.993	0.992	0.996	1.000
		FE Bayes UR2	0.413	0.871	0.497	0.888	0.992	0.991	0.995	1.000
		ME Freq	0.677	0.985	0.73	0.987	0.994	0.994	0.997	1.000
		ME Bayes Rep	0.517	0.904	0.576	0.914	0.995	0.994	0.997	1.000
		ME Bayes UR1	0.511	0.901	0.573	0.908	0.995	0.994	0.997	1.000
		ME Bayes UR2	0.517	0.904	0.58	0.916	0.995	0.994	0.997	1.000
1.4	500	FE Freq	0.031	NA	NA	NA	0.979	0.991	0.991	0.991
		FE Bayes Rep	0.058				0.982	0.992	0.992	0.992
		FE Bayes UR1	0.066				0.978	0.991	0.991	0.991
		FE Bayes UR2	0.05				0.982	0.992	0.992	0.992
		ME Freq	0.146				0.975	0.990	0.990	0.990
		ME Bayes Rep	0.088				0.975	0.990	0.990	0.990
		ME Bayes UR1	0.084				0.976	0.990	0.990	0.990
		ME Bayes UR2	0.085				0.975	0.990	0.990	0.990
1.4	1000	FE Freq	0.141	NA	NA	NA	0.996	0.999	0.999	0.999
		FE Bayes Rep	0.166				0.997	0.999	0.999	0.999
		FE Bayes UR1	0.183				0.996	0.999	0.999	0.999
		FE Bayes UR2	0.159				0.997	0.999	0.999	0.999
		ME Freq	0.377				0.997	0.999	0.999	0.999

		ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.225 0.229 0.224				0.995 0.996 0.995	0.998 0.999 0.998	0.998 0.999 0.998	0.998 0.999 0.998
1.4	1500	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.275 0.321 0.338 0.308 0.584 0.42 0.418 0.423	NA	NA	NA	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000
1.4	2000	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.448 0.476 0.51 0.473 0.744 0.567 0.559 0.559	NA	NA	NA	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000
1.4	3000	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.721 0.74 0.758 0.733 0.912 0.815 0.821 0.817	NA	NA	NA	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000
1.4	4000	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.887 0.894 0.911 0.894 0.985 0.934 0.937 0.933	NA	NA	NA	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000
1.4	5000	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.953 0.962 0.964 0.957 0.995 0.972 0.97 0.968	NA	NA	NA	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000

1.5	500	FE Freq	0.141	0.283	0.182	0.323	0.943	0.949	0.964	0.949
		FE Bayes Rep	0.192	0.396	0.239	0.448	0.953	0.959	0.971	0.959
		FE Bayes UR1	0.166	0.369	0.287	0.475	0.955	0.962	0.972	0.962
		FE Bayes UR2	0.164	0.343	0.206	0.39	0.944	0.950	0.965	0.950
		ME Freq	0.344	0.661	0.393	0.695	0.948	0.954	0.967	0.954
		ME Bayes Rep	0.252	0.478	0.307	0.528	0.952	0.958	0.970	0.958
		ME Bayes UR1	0.246	0.471	0.305	0.526	0.951	0.957	0.969	0.957
		ME Bayes UR2	0.246	0.469	0.301	0.52	0.949	0.955	0.967	0.955
1.5	1000	FE Freq	0.321	0.705	0.383	0.755	0.990	0.989	0.994	0.989
		FE Bayes Rep	0.358	0.764	0.432	0.812	0.992	0.991	0.995	0.991
		FE Bayes UR1	0.33	0.742	0.482	0.829	0.995	0.995	0.997	0.995
		FE Bayes UR2	0.336	0.732	0.401	0.781	0.990	0.989	0.994	0.989
		ME Freq	0.577	0.933	0.633	0.951	0.993	0.993	0.996	0.993
		ME Bayes Rep	0.442	0.819	0.506	0.852	0.994	0.993	0.996	0.993
		ME Bayes UR1	0.444	0.823	0.507	0.857	0.993	0.993	0.996	0.993
		ME Bayes UR2	0.441	0.807	0.501	0.847	0.993	0.993	0.996	0.993
1.5	1500	FE Freq	0.502	0.92	0.56	0.942	0.998	0.997	0.999	0.997
		FE Bayes Rep	0.535	0.94	0.585	0.957	0.998	0.998	0.999	0.998
		FE Bayes UR1	0.503	0.937	0.623	0.963	0.998	0.998	0.999	0.998
		FE Bayes UR2	0.497	0.932	0.558	0.948	0.998	0.997	0.999	0.997
		ME Freq	0.746	0.992	0.788	0.999	0.999	0.999	0.999	0.999
		ME Bayes Rep	0.605	0.95	0.659	0.966	0.999	0.999	0.999	0.999
		ME Bayes UR1	0.607	0.948	0.668	0.962	0.999	0.999	1.000	0.999
		ME Bayes UR2	0.605	0.943	0.66	0.959	0.999	0.999	1.000	0.999
1.5	2000	FE Freq	0.661	0.986	0.699	0.984	0.999	0.999	1.000	0.999
		FE Bayes Rep	0.69	0.987	0.726	0.987	0.999	0.999	1.000	0.999
		FE Bayes UR1	0.658	0.986	0.745	0.987	0.999	0.999	1.000	0.999
		FE Bayes UR2	0.661	0.987	0.701	0.986	0.999	0.999	1.000	0.999
		ME Freq	0.858	0.998	0.873	0.999	0.999	0.999	1.000	0.999
		ME Bayes Rep	0.749	0.984	0.781	0.984	0.999	0.999	1.000	0.999
		ME Bayes UR1	0.75	0.982	0.78	0.984	0.999	0.999	1.000	0.999
		ME Bayes UR2	0.752	0.987	0.779	0.987	0.999	0.999	1.000	0.999
1.5	3000	FE Freq	0.81	1	0.877	1	1.000	1.000	1.000	1.000
		FE Bayes Rep	0.838	1	0.891	1	1.000	1.000	1.000	1.000
		FE Bayes UR1	0.816	1	0.9	1	1.000	1.000	1.000	1.000
		FE Bayes UR2	0.821	1	0.875	1	1.000	1.000	1.000	1.000
		ME Freq	0.948	1	0.967	1	1.000	1.000	1.000	1.000
		ME Bayes Rep	0.888	0.996	0.921	0.998	1.000	1.000	1.000	1.000
		ME Bayes UR1	0.884	0.995	0.921	0.998	1.000	1.000	1.000	1.000
		ME Bayes UR2	0.884	0.995	0.914	0.996	1.000	1.000	1.000	1.000
1.5	4000	FE Freq	0.935	1	0.95	1	1.000	1.000	1.000	1.000
		FE Bayes Rep	0.942	1	0.955	1	1.000	1.000	1.000	1.000
		FE Bayes UR1	0.936	1	0.963	1	1.000	1.000	1.000	1.000
		FE Bayes UR2	0.934	1	0.949	1	1.000	1.000	1.000	1.000

		ME Freq	0.986	1	0.996	1	1.000	1.000	1.000	1.000
		ME Bayes Rep	0.956	1	0.978	1	1.000	1.000	1.000	1.000
		ME Bayes UR1	0.96	1	0.975	1	1.000	1.000	1.000	1.000
		ME Bayes UR2	0.956	0.998	0.97	0.999	1.000	1.000	1.000	1.000
1.5	5000	FE Freq	0.973	1	0.983	1	1.000	1.000	1.000	1.000
		FE Bayes Rep	0.977	1	0.988	1	1.000	1.000	1.000	1.000
		FE Bayes UR1	0.971	1	0.991	1	1.000	1.000	1.000	1.000
		FE Bayes UR2	0.97	1	0.986	1	1.000	1.000	1.000	1.000
		ME Freq	0.998	1	1	1	1.000	1.000	1.000	1.000
		ME Bayes Rep	0.983	0.999	0.993	0.999	1.000	1.000	1.000	1.000
		ME Bayes UR1	0.986	1	0.994	1	1.000	1.000	1.000	1.000
		ME Bayes UR2	0.985	1	0.993	1	1.000	1.000	1.000	1.000
1.6	500	FE Freq	0.01	0.018	0.018	0.026	0.874	0.851	0.966	0.966
		FE Bayes Rep	0.019	0.039	0.029	0.047	0.882	0.857	0.972	0.972
		FE Bayes UR1	0.03	0.047	0.02	0.039	0.864	0.835	0.966	0.966
		FE Bayes UR2	0.019	0.037	0.024	0.041	0.877	0.854	0.967	0.967
		ME Freq	0.07	0.139	0.071	0.136	0.881	0.859	0.969	0.969
		ME Bayes Rep	0.035	0.072	0.044	0.08	0.880	0.857	0.969	0.969
		ME Bayes UR1	0.037	0.073	0.044	0.079	0.880	0.857	0.969	0.969
		ME Bayes UR2	0.037	0.074	0.041	0.078	0.880	0.856	0.969	0.969
1.6	1000	FE Freq	0.043	0.087	0.052	0.097	0.931	0.912	0.988	0.988
		FE Bayes Rep	0.061	0.114	0.064	0.118	0.937	0.919	0.990	0.990
		FE Bayes UR1	0.078	0.133	0.053	0.109	0.928	0.908	0.987	0.987
		FE Bayes UR2	0.059	0.11	0.059	0.111	0.935	0.917	0.988	0.988
		ME Freq	0.175	0.313	0.19	0.332	0.947	0.931	0.992	0.992
		ME Bayes Rep	0.1	0.187	0.111	0.198	0.943	0.926	0.992	0.992
		ME Bayes UR1	0.095	0.183	0.109	0.198	0.942	0.925	0.991	0.991
		ME Bayes UR2	0.1	0.187	0.114	0.201	0.942	0.924	0.991	0.991
1.6	1500	FE Freq	0.068	0.135	0.103	0.171	0.960	0.946	0.998	0.998
		FE Bayes Rep	0.083	0.165	0.12	0.203	0.961	0.948	0.998	0.998
		FE Bayes UR1	0.093	0.171	0.1	0.179	0.958	0.942	0.998	0.998
		FE Bayes UR2	0.081	0.159	0.118	0.197	0.962	0.948	0.998	0.998
		ME Freq	0.249	0.44	0.295	0.48	0.967	0.954	0.999	0.999
		ME Bayes Rep	0.129	0.258	0.182	0.31	0.965	0.952	0.999	0.999
		ME Bayes UR1	0.131	0.255	0.183	0.306	0.965	0.952	0.999	0.999
		ME Bayes UR2	0.135	0.263	0.179	0.307	0.966	0.953	0.999	0.999
1.6	2000	FE Freq	0.128	0.233	0.18	0.285	0.972	0.961	1.000	1.000
		FE Bayes Rep	0.144	0.256	0.188	0.302	0.974	0.963	1.000	1.000
		FE Bayes UR1	0.157	0.271	0.175	0.29	0.970	0.959	1.000	1.000
		FE Bayes UR2	0.14	0.252	0.185	0.297	0.972	0.962	1.000	1.000
		ME Freq	0.313	0.543	0.377	0.605	0.976	0.966	1.000	1.000
		ME Bayes Rep	0.198	0.358	0.244	0.405	0.974	0.964	1.000	1.000
		ME Bayes UR1	0.204	0.371	0.253	0.422	0.974	0.964	1.000	1.000

		ME Bayes UR2	0.203	0.364	0.249	0.411	0.974	0.964	1.000	1.000
1.6	3000	FE Freq	0.227	0.396	0.28	0.447	0.986	0.980	1.000	1.000
		FE Bayes Rep	0.242	0.42	0.291	0.467	0.989	0.984	1.000	1.000
		FE Bayes UR1	0.262	0.435	0.273	0.446	0.985	0.979	1.000	1.000
		FE Bayes UR2	0.239	0.415	0.295	0.47	0.987	0.981	1.000	1.000
		ME Freq	0.448	0.751	0.526	0.8	0.990	0.987	1.000	1.000
		ME Bayes Rep	0.316	0.559	0.374	0.605	0.990	0.986	1.000	1.000
		ME Bayes UR1	0.317	0.558	0.374	0.603	0.990	0.986	1.000	1.000
		ME Bayes UR2	0.316	0.556	0.379	0.606	0.991	0.987	1.000	1.000
1.6	4000	FE Freq	0.309	0.528	0.389	0.609	0.990	0.987	1.000	1.000
		FE Bayes Rep	0.32	0.55	0.393	0.621	0.990	0.986	1.000	1.000
		FE Bayes UR1	0.332	0.561	0.377	0.607	0.989	0.985	1.000	1.000
		FE Bayes UR2	0.317	0.541	0.399	0.619	0.990	0.986	1.000	1.000
		ME Freq	0.574	0.878	0.632	0.894	0.992	0.989	1.000	1.000
		ME Bayes Rep	0.421	0.713	0.489	0.753	0.992	0.989	1.000	1.000
		ME Bayes UR1	0.417	0.708	0.49	0.757	0.992	0.989	1.000	1.000
		ME Bayes UR2	0.408	0.701	0.494	0.758	0.992	0.989	1.000	1.000
1.6	5000	FE Freq	0.394	0.634	0.481	0.716	0.995	0.993	1.000	1.000
		FE Bayes Rep	0.405	0.657	0.486	0.73	0.995	0.994	1.000	1.000
		FE Bayes UR1	0.429	0.668	0.472	0.715	0.994	0.992	1.000	1.000
		FE Bayes UR2	0.403	0.648	0.488	0.726	0.995	0.993	1.000	1.000
		ME Freq	0.68	0.941	0.729	0.957	0.997	0.996	1.000	1.000
		ME Bayes Rep	0.502	0.79	0.569	0.84	0.996	0.995	1.000	1.000
		ME Bayes UR1	0.503	0.79	0.572	0.838	0.996	0.994	1.000	1.000
		ME Bayes UR2	0.502	0.786	0.569	0.837	0.995	0.994	1.000	1.000
2.2	500	FE Freq	0.043	0.05	0.044	0.051	0.747	0.808	0.850	0.924
		FE Bayes Rep	0.065	0.093	0.065	0.092	0.774	0.828	0.865	0.938
		FE Bayes UR1	0.109	0.136	0.043	0.071	0.757	0.803	0.855	0.930
		FE Bayes UR2	0.047	0.067	0.046	0.066	0.745	0.804	0.849	0.923
		ME Freq	0	0	0	0	0.749	0.806	0.850	0.925
		ME Bayes Rep	0	0	0	0	0.752	0.808	0.852	0.926
		ME Bayes UR1	0	0	0	0	0.754	0.810	0.854	0.929
		ME Bayes UR2	0.001	0.001	0	0	0.751	0.807	0.852	0.927
2.2	1000	FE Freq	0.101	0.139	0.124	0.165	0.881	0.904	0.930	0.964
		FE Bayes Rep	0.115	0.179	0.148	0.214	0.889	0.908	0.934	0.968
		FE Bayes UR1	0.168	0.238	0.123	0.199	0.884	0.900	0.932	0.964
		FE Bayes UR2	0.108	0.161	0.136	0.193	0.880	0.902	0.929	0.964
		ME Freq	0	0	0	0	0.879	0.900	0.929	0.964
		ME Bayes Rep	0	0	0	0	0.881	0.902	0.930	0.965
		ME Bayes UR1	0	0	0	0	0.885	0.906	0.932	0.966
		ME Bayes UR2	0	0	0	0	0.881	0.901	0.930	0.965
2.2	1500	FE Freq	0.119	0.242	0.176	0.295	0.936	0.948	0.962	0.982
		FE Bayes Rep	0.137	0.287	0.204	0.345	0.942	0.953	0.965	0.985

		FE Bayes UR1	0.197	0.342	0.158	0.31	0.935	0.944	0.962	0.981
		FE Bayes UR2	0.125	0.263	0.18	0.311	0.934	0.946	0.961	0.981
		ME Freq	0	0	0	0	0.936	0.948	0.962	0.982
		ME Bayes Rep	0	0	0	0	0.936	0.948	0.962	0.982
		ME Bayes UR1	0	0	0	0	0.936	0.948	0.962	0.982
		ME Bayes UR2	0	0	0	0	0.937	0.948	0.962	0.983
2.2	2000	FE Freq	0.162	0.348	0.266	0.451	0.956	0.962	0.974	0.987
		FE Bayes Rep	0.183	0.387	0.286	0.486	0.958	0.964	0.975	0.987
		FE Bayes UR1	0.244	0.444	0.252	0.465	0.956	0.961	0.974	0.986
		FE Bayes UR2	0.17	0.367	0.271	0.463	0.955	0.962	0.973	0.987
		ME Freq	0	0	0	0	0.956	0.962	0.974	0.987
		ME Bayes Rep	0	0	0	0	0.958	0.964	0.975	0.987
		ME Bayes UR1	0	0	0	0	0.957	0.963	0.975	0.987
		ME Bayes UR2	0	0	0	0	0.957	0.963	0.974	0.987
2.2	3000	FE Freq	0.233	0.609	0.412	0.734	0.989	0.989	0.994	0.995
		FE Bayes Rep	0.253	0.644	0.432	0.759	0.989	0.989	0.994	0.995
		FE Bayes UR1	0.313	0.688	0.378	0.741	0.988	0.988	0.993	0.995
		FE Bayes UR2	0.235	0.626	0.408	0.74	0.989	0.990	0.994	0.996
		ME Freq	0	0	0	0	0.989	0.989	0.994	0.995
		ME Bayes Rep	0	0	0	0	0.989	0.989	0.994	0.995
		ME Bayes UR1	0	0	0	0	0.989	0.989	0.994	0.995
		ME Bayes UR2	0	0	0	0	0.989	0.989	0.994	0.995
2.2	4000	FE Freq	0.301	0.766	0.54	0.883	0.994	0.994	0.997	0.998
		FE Bayes Rep	0.306	0.779	0.555	0.898	0.995	0.995	0.997	0.998
		FE Bayes UR1	0.381	0.814	0.52	0.885	0.993	0.993	0.996	0.997
		FE Bayes UR2	0.303	0.774	0.541	0.888	0.994	0.994	0.997	0.998
		ME Freq	0	0	0	0	0.994	0.994	0.997	0.998
		ME Bayes Rep	0	0	0	0	0.993	0.994	0.996	0.997
		ME Bayes UR1	0	0	0	0	0.995	0.995	0.997	0.998
		ME Bayes UR2	0	0	0	0	0.993	0.994	0.996	0.997
2.2	5000	FE Freq	0.384	0.868	0.66	0.96	0.998	0.998	0.999	0.999
		FE Bayes Rep	0.401	0.887	0.673	0.968	0.998	0.998	0.999	0.999
		FE Bayes UR1	0.452	0.894	0.638	0.958	0.998	0.998	0.999	0.999
		FE Bayes UR2	0.383	0.879	0.658	0.963	0.998	0.998	0.999	0.999
		ME Freq	0	0	0	0	0.998	0.998	0.999	0.999
		ME Bayes Rep	0	0	0	0	0.998	0.998	0.999	0.999
		ME Bayes UR1	0	0	0	0	0.998	0.998	0.999	0.999
		ME Bayes UR2	0	0	0	0	0.998	0.998	0.999	0.999
2.3	500	FE Freq	0.094	0.128	0.076	0.112	0.535	0.666	0.722	0.782
		FE Bayes Rep	0.111	0.161	0.094	0.142	0.558	0.679	0.734	0.792
		FE Bayes UR1	0.1	0.151	0.118	0.165	0.572	0.698	0.744	0.794
		FE Bayes UR2	0.109	0.152	0.082	0.123	0.530	0.663	0.718	0.777
		ME Freq	0.163	0.256	0.13	0.221	0.552	0.676	0.730	0.787

		ME Bayes Rep	0.112	0.161	0.094	0.141	0.551	0.676	0.729	0.786
		ME Bayes UR1	0.105	0.153	0.091	0.138	0.550	0.675	0.729	0.786
		ME Bayes UR2	0.11	0.159	0.091	0.141	0.548	0.673	0.728	0.785
2.3	1000	FE Freq	0.147	0.246	0.177	0.28	0.553	0.671	0.729	0.793
		FE Bayes Rep	0.157	0.268	0.196	0.309	0.569	0.681	0.738	0.800
		FE Bayes UR1	0.153	0.267	0.211	0.319	0.572	0.688	0.741	0.800
		FE Bayes UR2	0.153	0.26	0.182	0.287	0.549	0.666	0.727	0.793
		ME Freq	0.197	0.324	0.213	0.353	0.568	0.679	0.737	0.799
		ME Bayes Rep	0.118	0.206	0.135	0.217	0.563	0.676	0.734	0.797
		ME Bayes UR1	0.113	0.199	0.132	0.215	0.565	0.679	0.736	0.798
		ME Bayes UR2	0.116	0.199	0.13	0.212	0.560	0.674	0.733	0.797
2.3	1500	FE Freq	0.23	0.399	0.228	0.391	0.633	0.723	0.777	0.833
		FE Bayes Rep	0.245	0.422	0.248	0.414	0.640	0.728	0.781	0.836
		FE Bayes UR1	0.228	0.42	0.26	0.433	0.646	0.736	0.785	0.837
		FE Bayes UR2	0.23	0.409	0.236	0.406	0.635	0.725	0.779	0.835
		ME Freq	0.246	0.424	0.264	0.432	0.636	0.723	0.778	0.836
		ME Bayes Rep	0.152	0.257	0.163	0.264	0.637	0.725	0.779	0.835
		ME Bayes UR1	0.154	0.255	0.161	0.258	0.637	0.724	0.779	0.836
		ME Bayes UR2	0.156	0.257	0.16	0.261	0.638	0.725	0.779	0.837
2.3	2000	FE Freq	0.274	0.446	0.316	0.514	0.616	0.716	0.768	0.823
		FE Bayes Rep	0.279	0.458	0.321	0.523	0.626	0.724	0.774	0.827
		FE Bayes UR1	0.275	0.458	0.345	0.541	0.625	0.727	0.774	0.824
		FE Bayes UR2	0.274	0.453	0.323	0.523	0.618	0.716	0.769	0.825
		ME Freq	0.273	0.426	0.332	0.525	0.630	0.725	0.775	0.827
		ME Bayes Rep	0.178	0.277	0.207	0.331	0.626	0.723	0.773	0.826
		ME Bayes UR1	0.18	0.276	0.203	0.326	0.627	0.725	0.774	0.826
		ME Bayes UR2	0.18	0.273	0.205	0.326	0.625	0.723	0.773	0.826
2.3	3000	FE Freq	0.344	0.579	0.372	0.594	0.653	0.731	0.789	0.851
		FE Bayes Rep	0.354	0.591	0.381	0.607	0.655	0.731	0.790	0.853
		FE Bayes UR1	0.346	0.587	0.393	0.611	0.657	0.735	0.792	0.852
		FE Bayes UR2	0.354	0.586	0.378	0.601	0.653	0.729	0.789	0.852
		ME Freq	0.311	0.515	0.355	0.591	0.657	0.733	0.791	0.853
		ME Bayes Rep	0.214	0.319	0.215	0.352	0.658	0.732	0.792	0.854
		ME Bayes UR1	0.216	0.323	0.219	0.359	0.658	0.732	0.792	0.854
		ME Bayes UR2	0.211	0.317	0.223	0.36	0.657	0.731	0.791	0.853
2.3	4000	FE Freq	0.366	0.633	0.442	0.696	0.656	0.738	0.789	0.844
		FE Bayes Rep	0.37	0.637	0.444	0.705	0.659	0.740	0.791	0.845
		FE Bayes UR1	0.367	0.637	0.455	0.707	0.662	0.742	0.793	0.846
		FE Bayes UR2	0.371	0.636	0.44	0.699	0.656	0.738	0.789	0.844
		ME Freq	0.31	0.53	0.388	0.6	0.661	0.741	0.792	0.845
		ME Bayes Rep	0.209	0.333	0.24	0.366	0.660	0.740	0.792	0.845
		ME Bayes UR1	0.204	0.327	0.238	0.366	0.659	0.740	0.791	0.844
		ME Bayes UR2	0.209	0.332	0.241	0.37	0.659	0.740	0.791	0.844

2.3	5000	FE Freq	0.403	0.683	0.482	0.726	0.665	0.742	0.797	0.855
		FE Bayes Rep	0.407	0.691	0.487	0.736	0.670	0.745	0.799	0.857
		FE Bayes UR1	0.399	0.681	0.495	0.734	0.669	0.746	0.799	0.855
		FE Bayes UR2	0.397	0.682	0.484	0.726	0.667	0.744	0.798	0.855
		ME Freq	0.339	0.558	0.424	0.635	0.669	0.746	0.799	0.855
		ME Bayes Rep	0.226	0.355	0.258	0.402	0.667	0.744	0.798	0.855
		ME Bayes UR1	0.228	0.359	0.251	0.394	0.667	0.744	0.798	0.855
		ME Bayes UR2	0.227	0.361	0.251	0.398	0.668	0.745	0.799	0.856
3.2	500	FE Freq	0.026	0.044	0.087	0.104	0.826	0.860	0.893	0.928
		FE Bayes Rep	0.049	0.098	0.148	0.195	0.856	0.885	0.911	0.937
		FE Bayes UR1	0.036	0.095	0.239	0.29	0.874	0.905	0.922	0.940
		FE Bayes UR2	0.035	0.067	0.096	0.126	0.823	0.857	0.891	0.927
		ME Freq	0.131	0.26	0.181	0.302	0.833	0.866	0.896	0.928
		ME Bayes Rep	0.07	0.147	0.169	0.238	0.838	0.871	0.900	0.929
		ME Bayes UR1	0.066	0.142	0.178	0.246	0.845	0.877	0.904	0.931
		ME Bayes UR2	0.064	0.14	0.16	0.231	0.837	0.869	0.899	0.930
3.2	1000	FE Freq	0.081	0.189	0.199	0.298	0.927	0.937	0.955	0.972
		FE Bayes Rep	0.101	0.256	0.271	0.406	0.940	0.950	0.962	0.975
		FE Bayes UR1	0.091	0.263	0.358	0.495	0.947	0.960	0.967	0.974
		FE Bayes UR2	0.093	0.232	0.211	0.341	0.925	0.936	0.954	0.972
		ME Freq	0.283	0.591	0.388	0.655	0.938	0.950	0.961	0.973
		ME Bayes Rep	0.163	0.36	0.311	0.481	0.937	0.948	0.961	0.973
		ME Bayes UR1	0.157	0.355	0.329	0.498	0.938	0.950	0.962	0.973
		ME Bayes UR2	0.16	0.354	0.308	0.477	0.935	0.946	0.960	0.973
3.2	1500	FE Freq	0.131	0.388	0.319	0.535	0.978	0.979	0.987	0.994
		FE Bayes Rep	0.156	0.461	0.39	0.633	0.983	0.984	0.990	0.995
		FE Bayes UR1	0.126	0.445	0.44	0.681	0.986	0.987	0.991	0.995
		FE Bayes UR2	0.145	0.435	0.33	0.574	0.976	0.976	0.985	0.994
		ME Freq	0.351	0.777	0.535	0.862	0.983	0.984	0.989	0.995
		ME Bayes Rep	0.217	0.548	0.433	0.693	0.983	0.984	0.989	0.995
		ME Bayes UR1	0.214	0.546	0.441	0.701	0.983	0.984	0.989	0.995
		ME Bayes UR2	0.208	0.538	0.426	0.683	0.983	0.984	0.989	0.995
3.2	2000	FE Freq	0.218	0.592	0.437	0.722	0.986	0.986	0.991	0.996
		FE Bayes Rep	0.242	0.644	0.487	0.78	0.989	0.990	0.993	0.996
		FE Bayes UR1	0.217	0.617	0.56	0.818	0.991	0.992	0.994	0.996
		FE Bayes UR2	0.228	0.619	0.44	0.748	0.985	0.986	0.991	0.995
		ME Freq	0.452	0.876	0.656	0.941	0.988	0.990	0.993	0.996
		ME Bayes Rep	0.309	0.699	0.543	0.814	0.990	0.992	0.994	0.996
		ME Bayes UR1	0.306	0.693	0.554	0.812	0.990	0.991	0.993	0.996
		ME Bayes UR2	0.316	0.705	0.542	0.806	0.990	0.991	0.994	0.996

3.2	3000	FE Freq	0.323	0.839	0.612	0.945	0.998	0.999	0.999	1.000
		FE Bayes Rep	0.349	0.862	0.662	0.963	0.998	0.999	0.999	1.000
		FE Bayes UR1	0.317	0.853	0.71	0.97	0.999	1.000	1.000	1.000
		FE Bayes UR2	0.333	0.853	0.623	0.953	0.998	0.998	0.999	1.000
		ME Freq	0.62	0.981	0.822	0.992	0.998	0.999	0.999	1.000
		ME Bayes Rep	0.43	0.883	0.71	0.962	0.999	0.999	0.999	1.000
		ME Bayes UR1	0.424	0.884	0.715	0.956	0.999	0.999	0.999	1.000
		ME Bayes UR2	0.422	0.884	0.703	0.958	0.999	0.999	0.999	1.000
3.2	4000	FE Freq	0.464	0.95	0.757	0.979	1.000	1.000	1.000	1.000
		FE Bayes Rep	0.482	0.954	0.782	0.985	1.000	1.000	1.000	1.000
		FE Bayes UR1	0.456	0.953	0.821	0.989	1.000	1.000	1.000	1.000
		FE Bayes UR2	0.463	0.953	0.755	0.981	0.999	0.999	1.000	1.000
		ME Freq	0.747	0.992	0.904	0.997	1.000	1.000	1.000	1.000
		ME Bayes Rep	0.561	0.949	0.836	0.982	1.000	1.000	1.000	1.000
		ME Bayes UR1	0.561	0.956	0.845	0.984	1.000	1.000	1.000	1.000
		ME Bayes UR2	0.562	0.949	0.838	0.982	1.000	1.000	1.000	1.000
3.2	5000	FE Freq	0.554	0.98	0.842	0.998	1.000	1.000	1.000	1.000
		FE Bayes Rep	0.566	0.983	0.855	0.997	1.000	1.000	1.000	1.000
		FE Bayes UR1	0.541	0.982	0.88	1	1.000	1.000	1.000	1.000
		FE Bayes UR2	0.561	0.983	0.846	0.997	1.000	1.000	1.000	1.000
		ME Freq	0.813	1	0.937	1	1.000	1.000	1.000	1.000
		ME Bayes Rep	0.666	0.97	0.881	0.988	1.000	1.000	1.000	1.000
		ME Bayes UR1	0.662	0.978	0.888	0.993	1.000	1.000	1.000	1.000
		ME Bayes UR2	0.666	0.982	0.886	0.994	1.000	1.000	1.000	1.000
3.4	500	FE Freq	0.111	0.143	0.032	0.065	0.799	0.822	0.876	0.875
		FE Bayes Rep	0.17	0.234	0.052	0.116	0.828	0.843	0.892	0.894
		FE Bayes UR1	0.11	0.17	0.078	0.136	0.840	0.860	0.900	0.911
		FE Bayes UR2	0.103	0.151	0.04	0.089	0.802	0.822	0.877	0.875
		ME Freq	0.218	0.341	0.137	0.267	0.823	0.843	0.889	0.897
		ME Bayes Rep	0.206	0.275	0.094	0.167	0.820	0.838	0.887	0.892
		ME Bayes UR1	0.199	0.273	0.093	0.17	0.820	0.839	0.887	0.892
		ME Bayes UR2	0.198	0.268	0.09	0.164	0.814	0.834	0.884	0.889
3.4	1000	FE Freq	0.22	0.328	0.084	0.204	0.912	0.916	0.945	0.938
		FE Bayes Rep	0.287	0.441	0.108	0.283	0.919	0.923	0.950	0.944
		FE Bayes UR1	0.217	0.365	0.132	0.293	0.927	0.932	0.955	0.953
		FE Bayes UR2	0.234	0.377	0.097	0.251	0.909	0.912	0.944	0.934
		ME Freq	0.374	0.624	0.282	0.561	0.921	0.923	0.951	0.944
		ME Bayes Rep	0.317	0.481	0.154	0.35	0.921	0.924	0.951	0.944
		ME Bayes UR1	0.314	0.476	0.153	0.344	0.919	0.922	0.949	0.944
		ME Bayes UR2	0.316	0.476	0.152	0.339	0.918	0.922	0.949	0.944
3.4	1500	FE Freq	0.323	0.525	0.165	0.405	0.951	0.950	0.970	0.961
		FE Bayes Rep	0.395	0.619	0.186	0.462	0.952	0.950	0.970	0.960
		FE Bayes UR1	0.32	0.559	0.21	0.481	0.961	0.961	0.976	0.971
		FE Bayes UR2	0.333	0.565	0.172	0.438	0.951	0.950	0.970	0.960

		ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.521 0.434 0.427 0.428	0.848 0.667 0.659 0.663	0.383 0.233 0.231 0.234	0.769 0.533 0.528 0.536	0.958 0.957 0.956 0.955	0.958 0.957 0.956 0.955	0.974 0.973 0.973 0.972	0.969 0.968 0.967 0.966
3.4	2000	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.413 0.466 0.399 0.423 0.635 0.529 0.522 0.514	0.707 0.762 0.728 0.732 0.934 0.823 0.81 0.809	0.227 0.256 0.286 0.235 0.502 0.326 0.322 0.323	0.585 0.642 0.656 0.617 0.885 0.714 0.7 0.703	0.966 0.967 0.972 0.964 0.968 0.968 0.968 0.968	0.961 0.962 0.969 0.959 0.964 0.964 0.964 0.964	0.979 0.980 0.983 0.978 0.981 0.981 0.980 0.981	0.964 0.965 0.972 0.962 0.967 0.967 0.967 0.967
3.4	3000	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.62 0.661 0.612 0.626 0.808 0.717 0.715 0.709	0.927 0.949 0.934 0.936 0.994 0.949 0.948 0.945	0.343 0.355 0.392 0.349 0.592 0.43 0.429 0.432	0.837 0.863 0.88 0.854 0.971 0.886 0.886 0.889	0.992 0.992 0.993 0.991 0.994 0.993 0.993 0.993	0.991 0.990 0.992 0.989 0.993 0.992 0.992 0.992	0.995 0.995 0.996 0.995 0.996 0.996 0.996 0.996	0.991 0.990 0.992 0.989 0.993 0.992 0.992 0.992
3.4	4000	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.762 0.787 0.754 0.767 0.904 0.828 0.827 0.831	0.981 0.988 0.987 0.986 0.999 0.984 0.984 0.987	0.45 0.464 0.492 0.454 0.73 0.552 0.555 0.547	0.942 0.95 0.961 0.953 0.996 0.96 0.96 0.959	0.993 0.994 0.995 0.994 0.998 0.996 0.996 0.996	0.992 0.993 0.994 0.993 0.997 0.995 0.995 0.995	0.996 0.997 0.997 0.996 0.999 0.998 0.998 0.998	0.992 0.993 0.994 0.993 0.997 0.995 0.995 0.995
3.4	5000	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1 ME Bayes UR2	0.841 0.859 0.839 0.841 0.945 0.892 0.895 0.899	0.997 0.998 0.997 0.997 1 0.994 0.996 0.995	0.542 0.567 0.595 0.544 0.809 0.667 0.669 0.667	0.975 0.982 0.983 0.978 0.998 0.978 0.985 0.985	0.996 0.996 0.997 0.996 0.996 0.996 0.996 0.996	0.996 0.996 0.997 0.995 0.996 0.996 0.996 0.996	0.998 0.998 0.998 0.997 0.998 0.998 0.998 0.998	0.997 0.997 0.998 0.996 0.997 0.997 0.997 0.997
4.2	500	FE Freq FE Bayes Rep FE Bayes UR1 FE Bayes UR2 ME Freq ME Bayes Rep ME Bayes UR1	0.027 0.037 0.029 0.034 0.108 0.055 0.051	0.033 0.051 0.042 0.043 0.176 0.079 0.078	0.048 0.064 0.076 0.049 0.115 0.077 0.082	0.054 0.078 0.088 0.059 0.183 0.1 0.107	0.733 0.755 0.770 0.733 0.750 0.755 0.757	0.781 0.801 0.823 0.781 0.797 0.799 0.802	0.837 0.850 0.860 0.837 0.846 0.849 0.850	0.886 0.893 0.896 0.886 0.890 0.894 0.894

		ME Bayes UR2	0.053	0.078	0.075	0.098	0.751	0.798	0.846	0.891
4.2	1000	FE Freq	0.054	0.093	0.085	0.124	0.873	0.879	0.922	0.957
		FE Bayes Rep	0.071	0.13	0.099	0.156	0.879	0.886	0.926	0.958
		FE Bayes UR1	0.055	0.109	0.123	0.173	0.885	0.895	0.930	0.958
		FE Bayes UR2	0.059	0.103	0.089	0.132	0.873	0.880	0.922	0.957
		ME Freq	0.208	0.38	0.223	0.382	0.880	0.884	0.926	0.959
		ME Bayes Rep	0.116	0.198	0.13	0.206	0.885	0.891	0.929	0.960
		ME Bayes UR1	0.113	0.197	0.13	0.207	0.884	0.891	0.929	0.959
		ME Bayes UR2	0.112	0.19	0.132	0.206	0.885	0.891	0.929	0.960
4.2	1500	FE Freq	0.114	0.227	0.136	0.242	0.908	0.909	0.943	0.971
		FE Bayes Rep	0.126	0.257	0.152	0.274	0.913	0.914	0.946	0.973
		FE Bayes UR1	0.114	0.25	0.167	0.292	0.919	0.922	0.950	0.973
		FE Bayes UR2	0.119	0.241	0.143	0.256	0.911	0.911	0.945	0.972
		ME Freq	0.269	0.552	0.301	0.564	0.921	0.924	0.950	0.972
		ME Bayes Rep	0.164	0.339	0.193	0.353	0.919	0.921	0.949	0.973
		ME Bayes UR1	0.162	0.337	0.189	0.351	0.918	0.920	0.949	0.973
		ME Bayes UR2	0.164	0.338	0.189	0.351	0.918	0.920	0.949	0.973
4.2	2000	FE Freq	0.163	0.349	0.193	0.375	0.942	0.938	0.964	0.985
		FE Bayes Rep	0.172	0.38	0.211	0.417	0.946	0.942	0.967	0.986
		FE Bayes UR1	0.158	0.367	0.231	0.435	0.951	0.951	0.970	0.985
		FE Bayes UR2	0.164	0.362	0.196	0.394	0.943	0.940	0.965	0.985
		ME Freq	0.356	0.689	0.404	0.724	0.951	0.950	0.970	0.985
		ME Bayes Rep	0.231	0.473	0.276	0.502	0.949	0.948	0.968	0.985
		ME Bayes UR1	0.233	0.474	0.275	0.499	0.950	0.948	0.969	0.985
		ME Bayes UR2	0.234	0.472	0.272	0.494	0.950	0.948	0.969	0.985
4.2	3000	FE Freq	0.247	0.589	0.29	0.617	0.977	0.972	0.986	0.996
		FE Bayes Rep	0.26	0.617	0.31	0.646	0.978	0.973	0.986	0.996
		FE Bayes UR1	0.24	0.6	0.334	0.664	0.979	0.975	0.987	0.996
		FE Bayes UR2	0.249	0.61	0.296	0.636	0.977	0.972	0.986	0.996
		ME Freq	0.484	0.891	0.523	0.902	0.982	0.979	0.989	0.996
		ME Bayes Rep	0.335	0.685	0.394	0.715	0.981	0.978	0.988	0.996
		ME Bayes UR1	0.339	0.69	0.398	0.722	0.980	0.977	0.988	0.996
		ME Bayes UR2	0.332	0.68	0.391	0.714	0.980	0.976	0.988	0.996
4.2	4000	FE Freq	0.349	0.753	0.408	0.776	0.992	0.989	0.995	1.000
		FE Bayes Rep	0.353	0.773	0.42	0.793	0.991	0.988	0.995	1.000
		FE Bayes UR1	0.341	0.761	0.44	0.801	0.993	0.990	0.996	1.000
		FE Bayes UR2	0.352	0.759	0.41	0.786	0.992	0.989	0.995	1.000
		ME Freq	0.596	0.945	0.644	0.967	0.995	0.994	0.997	1.000
		ME Bayes Rep	0.441	0.807	0.475	0.824	0.994	0.992	0.996	1.000
		ME Bayes UR1	0.44	0.817	0.483	0.83	0.994	0.992	0.996	1.000
		ME Bayes UR2	0.439	0.809	0.478	0.824	0.994	0.992	0.997	1.000
4.2	5000	FE Freq	0.415	0.873	0.499	0.889	0.993	0.990	0.996	1.000
		FE Bayes Rep	0.42	0.868	0.509	0.896	0.993	0.990	0.996	1.000

		FE Bayes UR1	0.409	0.874	0.528	0.904	0.993	0.991	0.996	1.000
		FE Bayes UR2	0.413	0.871	0.497	0.888	0.992	0.989	0.995	1.000
		ME Freq	0.677	0.985	0.73	0.987	0.994	0.992	0.997	1.000
		ME Bayes Rep	0.517	0.904	0.576	0.914	0.995	0.993	0.997	1.000
		ME Bayes UR1	0.511	0.901	0.573	0.908	0.995	0.993	0.997	1.000
		ME Bayes UR2	0.517	0.904	0.58	0.916	0.995	0.993	0.997	1.000

P_{IS} , probability of interval separation; P_{IS} (i), correctly predicting the worst treatment;

P_{IS} (ii), correctly predicting one of the bottom two treatment; P_{IS} (iii), correctly

predicting the best treatment; P_{IS} (iv), correctly predicting one of the best two

treatments; RMR, Reduction in mortality ratio; P_{best} , best treatment probability; IORC,

improvement over random choice; $P_{near-best}$, near-best treatment probability

Bias

At small sample sizes, FE Bayes unrepresentative 1 produced the largest absolute bias in many scenarios, however, ME Bayes unrepresentative 1 produced the largest absolute bias in scenario 2.2. The bias produced by all methods approached zero as the sample size increased for all scenarios (Figure SM 8).

Bias of treatment contrasts

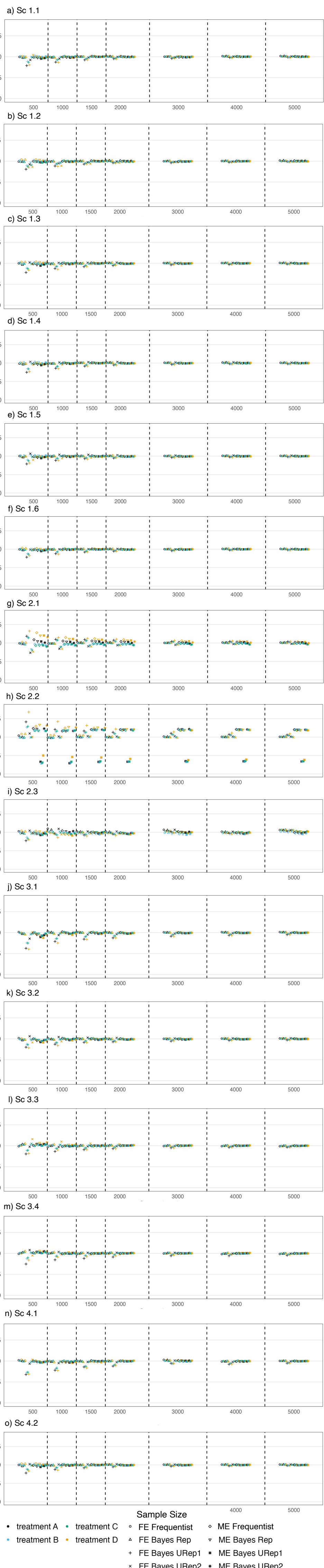


Fig. SM 8 Bias in each treatment (A-D) coefficient for all scenarios, when using a fixed and mixed effects model using frequentist and Bayesian approaches for sample sizes ranging between N = 500-5,000.

Coverage probability,

The coverage probability was around 80% for all FE methods for scenarios 1.1-2.2 & 3.1-4.2 and the ME frequentist method for scenarios 1.1-1.6 & 3.1-4.2 (Figure SM 9). It was often between 85%-90% for the ME Bayes methods for scenarios 1.1-1.6 & 3.1-4.2, where the treatments most common in each of the randomisation lists (treatments *B* and *C*) had the larger coverage probability. For scenarios 2.1-2.2, the ME frequentist and Bayesian methods gave a coverage probability approaching 100%. In scenario 2.3 the coverage probability was small for all methods (which decreased as the sample size increased).

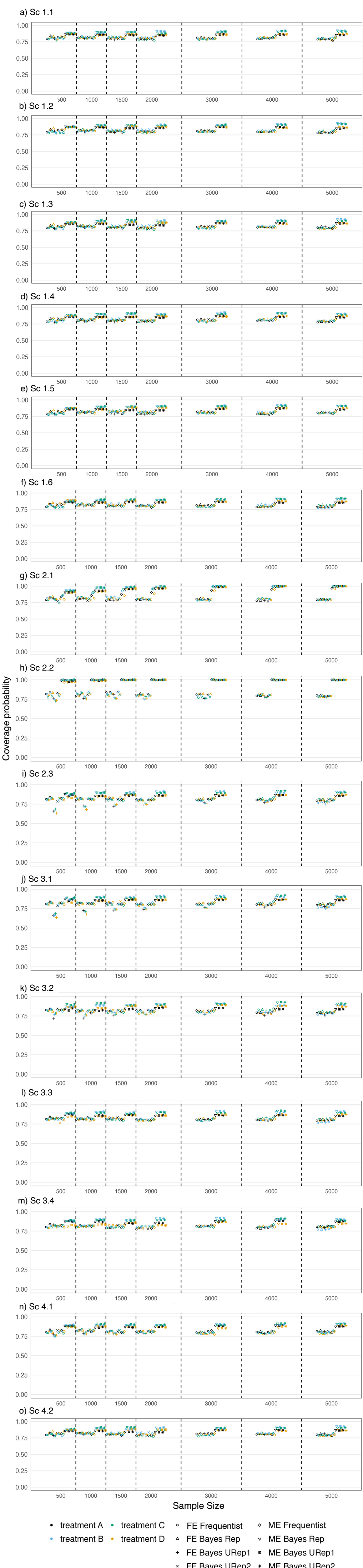


Fig. SM 9 Coverage probability of each treatment (A-D) coefficient 80% confidence/credible intervals for all scenarios, when using a fixed and mixed effects model using frequentist and Bayesian approaches for sample sizes ranging between N = 500-5,000.

Mean squared error

As expected, the MSE decreased as sample size increased, for all scenarios and methods (Figure SM 10). The four ME methods tended to have smaller MSE than the four FE methods, although the difference between the methods decreased as sample size increased. The treatments most common in each of the randomisation lists (treatments *B* and *C*) had the smaller MSE.

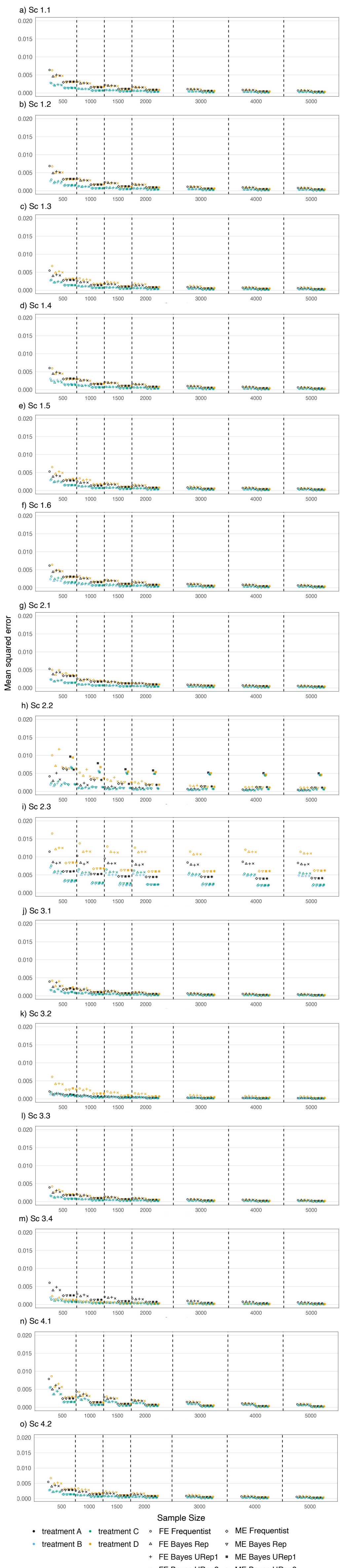


Fig. SM 10 Mean squared error in each treatment (A-D) coefficient for all scenarios, when using a fixed and mixed effects model using frequentist and Bayesian approaches for sample sizes ranging between N = 500-5,000.

ABBREVIATIONS

FE	Fixed effects
IORC	Improvement over random choice
ME	Mixed effects
MSE	Mean squared error
P_{best}	Best treatment probability
$P_{\text{near-best}}$	Near best treatment probability
P_{IS}	Probability of interval separation
P_{IIS}	Probability of incorrect interval separation
PRACTical	Personalised randomised controlled trial
RMR	Reduction in mortality ratio
RCT	Randomised controlled trial
SoC	Standard of care

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