Table S5. R-Squared (R^2) between realized and <u>predicted genetic value in testing data sets</u>, by data set, simulation scenario, genetic information used and Monte Carlo replicate.

Dataset	FRAMINGHAM						GENEVA			
Scenario	RAND			LOW-MAF			RAND		LOW-MAF	
Information	QTL	Markers	Pedigree	QTL	Markers	Pedigree	QTL	Markers	QTL	Markers
Rep-1	.703	.438	.363	.641	.236	.201	.675	.084	.665	.033
Rep-2	.665	.332	.307	.694	.265	.244	.617	.040	.681	.053
Rep-3	.597	.258	.179	.698	.273	.238	.671	.068	.653	.042
Rep-4	.652	.314	.273	.692	.354	.333	.672	.114	.651	.056
Rep-5	.697	.291	.284	.741	.299	.270	.640	.076	.657	.073
Rep-6	.701	.381	.313	.694	.287	.258	.665	.136	.640	.091
Rep-7	.671	.394	.310	.686	.312	.264	.645	.085	.703	.042
Rep-8	.721	.428	.378	.713	.303	.245	.644	.051	.680	.038
Rep-9	.653	.272	.225	.712	.294	.288	.641	.079	.670	.063
Rep-10	.634	.228	.142	.674	.317	.315	.611	.035	.680	.037
Rep-11	.688	.335	.312	.687	.266	.226	.639	.142	.641	.045
Rep-12	.675	.372	.324	.691	.306	.288	.626	.128	.703	.061
Rep-13	.695	.304	.300	.663	.254	.242	.654	.113	.674	.059
Rep-14	.693	.330	.239	.666	.241	.185	.615	.069	.688	.036
Rep-15	.664	.308	.287	.717	.298	.278	.608	.076	.637	.021
Rep-16	.691	.434	.378	.677	.259	.248	.685	.092	.721	.059
Rep-17	.703	.320	.287	.677	.319	.304	.617	.043	.691	.067
Rep-18	.650	.310	.256	.669	.286	.271	.624	.056	.680	.065
Rep-19	.605	.318	.227	.673	.264	.240	.613	.125	.628	.028
Rep-20	.725	.394	.351	.691	.322	.300	.613	.079	.670	.061
Rep-21	.668	.256	.199	.661	.366	.355	.633	.068	.603	.034
Rep-22	.661	.270	.200	.665	.312	.301	.669	.078	.661	.105
Rep-23	.729	.400	.356	.678	.336	.324	.667	.095	.704	.051
Rep-24	.713	.326	.276	.660	.265	.264	.683	.110	.640	.111
Rep-25	.632	.278	.216	.699	.287	.273	.689	.062	.661	.083
Rep-26	.687	.304	.235	.685	.374	.335	.604	.105	.688	.041
Rep-27	.704	.353	.318	.711	.323	.314	.680	.105	.706	.055
Rep-28	.723	.337	.270	.707	.295	.252	.629	.079	.674	.097
Rep-29	.676	.279	.241	.682	.338	.353	.661	.080	.675	.107
Rep-30	.699	.275	.248	.725	.308	.286	.621	.076	.677	.054
Average	.679	.328	.277	.688	.299	.276	.644	.085	.670	.059
SE	.034	.056	.060	.022	.035	.042	.027	.028	.026	.024