

TABLE S1 Hypred Mid Tier, Reverse, SD=0 ME=0, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S2 Hypred Mid Tier, Reverse, SD=0 ME=0.025, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S3 Hypred Mid Tier, Reverse, SD=0 ME=0.05, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S4 Hypred Mid Tier, Reverse, SD=0 ME=0.075, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S5 Hypred Mid Tier, Reverse, SD=0 ME=0.1, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S6 Hypred Mid Tier, Reverse, SD=0 ME=0.125, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S7 Hypred Mid Tier, Reverse, SD=0 ME=0.15, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S8 Hypred Mid Tier, Reverse, SD=0 ME=0.175, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S9 Hypred Mid Tier, Reverse, SD=0 ME=0.2, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S10 Hypred Mid Tier, Reverse, SD=0 ME=0.225, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S11 Hypred Mid Tier, Reverse, SD=0 ME=0.25, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S12 Hypred Mid Tier, Reverse, SD=0 ME=0.5, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)	NaN% (0%, 100%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	90% (89.5%, 90.5%)	90% (89.5%, 90.5%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	90%, 90%	90%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 1	1, 1

TABLE S13 Hypred Mid Tier, Reverse, SD=0 ME=0.75, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	0% (0%, 21.8%)	0% (0%, 21.8%)	0% (0%, 21.8%)	0% (0%, 21.8%)	0% (0%, 21.8%)
Efficiency						
	Mean (95% CI)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	80% (79.4%, 80.6%)	88% (87.5%, 88.5%)	88.1% (87.5%, 88.6%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (90%, 90%)	90% (90%, 90%)
	Min, Max	80%, 80%	80%, 80%	80%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1.2 (1, 1.4)	1.2 (1, 1.4)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
	Min, Max	1, 1	1, 1	1, 1	1, 11	1, 11

TABLE S14 Hypred Low Tier, Reverse, SD=0 ME=0, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	95% (94.2%, 95.8%)	94.4% (93.5%, 95.2%)	96.5% (95.7%, 97.1%)	100% (99.9%, 100%)	100% (99.9%, 100%)
Efficiency						
	Mean (95% CI)	52.4% (51.8%, 52.9%)	61.2% (60.6%, 61.8%)	46.4% (45.8%, 46.9%)	20.3% (19.8%, 20.7%)	46.4% (45.8%, 46.9%)
	Median (Q1, Q3)	53% (45%, 59.2%)	61% (56%, 67%)	48% (37%, 56%)	20% (10%, 30%)	47% (38%, 55%)
	Min, Max	26%, 74%	40%, 76%	11%, 73%	-10%, 61%	12%, 76%
Rounds						
	Mean (95% CI)	7.7 (7.5, 7.9)	5.4 (5.2, 5.5)	4.8 (4.7, 4.9)	11 (11, 11)	10.4 (10.2, 10.5)
	Median (Q1, Q3)	7.5 (6, 9)	5 (4, 6)	5 (4, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	3, 12	2, 9	3, 7	11, 11	6, 11

TABLE S15 Hypred Low Tier, Reverse, SD=0 ME=0.025, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	90.7% (89.6%, 91.7%)	89.7% (88.5%, 90.8%)	93.2% (92.2%, 94.1%)	98.6% (98.1%, 99%)	97.4% (96.8%, 98%)
Efficiency	Mean (95% CI)	51.6% (51%, 52.1%)	60.2% (59.7%, 60.8%)	45.3% (44.8%, 45.9%)	20.9% (20.5%, 21.4%)	45.9% (45.3%, 46.4%)
	Median (Q1, Q3)	52% (45%, 59%)	61% (56%, 66%)	46% (37%, 54%)	20.5% (10%, 30%)	46% (38%, 54%)
	Min, Max	23%, 75%	29%, 76%	9%, 75%	-10%, 60%	7%, 79%
Rounds	Mean (95% CI)	8.1 (7.8, 8.3)	5.6 (5.4, 5.7)	4.9 (4.8, 5)	11 (11, 11)	10.5 (10.4, 10.6)
	Median (Q1, Q3)	8 (7, 9)	5 (5, 6)	5 (4, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	3, 15	2, 12	2, 7	11, 11	6, 11

TABLE S16 Hypred Low Tier, Reverse, SD=0 ME=0.05, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	87% (85.7%, 88.2%)	85.7% (84.4%, 87%)	89.4% (88.3%, 90.5%)	97.2% (96.6%, 97.8%)	95.2% (94.3%, 95.9%)
Efficiency	Mean (95% CI)	51.3% (50.8%, 51.9%)	59.1% (58.6%, 59.7%)	44.9% (44.3%, 45.4%)	20.8% (20.3%, 21.3%)	44.8% (44.2%, 45.4%)
	Median (Q1, Q3)	52% (44%, 59%)	60% (54%, 66%)	47% (35.8%, 54%)	21% (10%, 30%)	46% (35%, 54.2%)
	Min, Max	19%, 75%	24%, 76%	4%, 75%	-10%, 60%	4%, 79%
Rounds	Mean (95% CI)	8.3 (8, 8.5)	5.8 (5.6, 6)	5 (4.9, 5.1)	11 (11, 11)	10.5 (10.4, 10.6)
	Median (Q1, Q3)	8 (7, 10)	6 (5, 7)	5 (4, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	3, 15	2, 13	2, 8	11, 11	6, 11

TABLE S17 Hypred Low Tier, Reverse, SD=0 ME=0.075, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	84.3% (82.9%, 85.6%)	83.1% (81.7%, 84.4%)	87% (85.7%, 88.2%)	95.7% (94.9%, 96.4%)	93.5% (92.6%, 94.4%)
Efficiency						
	Mean (95% CI)	51.1% (50.5%, 51.7%)	58.4% (57.8%, 58.9%)	44.6% (44.1%, 45.2%)	20.7% (20.3%, 21.2%)	43.6% (43%, 44.1%)
	Median (Q1, Q3)	52% (43.8%, 59.2%)	60% (53%, 66%)	47% (35%, 54%)	21% (10%, 30%)	44% (33%, 54.2%)
	Min, Max	7%, 76%	20%, 76%	3%, 75%	-10%, 60%	-3%, 79%
Rounds						
	Mean (95% CI)	8.5 (8.2, 8.8)	6 (5.7, 6.2)	5 (4.9, 5.1)	11 (11, 11)	10.5 (10.4, 10.6)
	Median (Q1, Q3)	8 (7, 10)	6 (4, 7)	5 (4, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	3, 18	2, 13	2, 8	11, 11	6, 11

TABLE S18 Hypred Low Tier, Reverse, SD=0 ME=0.1, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	82.2% (80.7%, 83.6%)	80.7% (79.2%, 82.1%)	85.6% (84.2%, 86.8%)	94.3% (93.3%, 95.1%)	91.6% (90.5%, 92.6%)
Efficiency						
	Mean (95% CI)	50.6% (50.1%, 51.2%)	57.6% (57.1%, 58.2%)	44.4% (43.8%, 44.9%)	20.9% (20.5%, 21.4%)	42.9% (42.3%, 43.4%)
	Median (Q1, Q3)	52% (42%, 59%)	59% (53%, 66%)	46% (34%, 54%)	20% (10%, 31%)	44% (31%, 55%)
	Min, Max	3%, 76%	8%, 76%	0%, 75%	-10%, 68%	-4%, 79%
Rounds						
	Mean (95% CI)	8.7 (8.4, 9)	6.1 (5.9, 6.4)	5.1 (5, 5.2)	11 (11, 11)	10.5 (10.4, 10.6)
	Median (Q1, Q3)	8 (7, 10)	6 (4, 7)	5 (4, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	3, 20	2, 16	2, 9	11, 11	6, 11

TABLE S19 Hypred Low Tier, Reverse, SD=0 ME=0.125, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	79.9% (78.4%, 81.3%)	78% (76.4%, 79.5%)	83.1% (81.7%, 84.4%)	92.8% (91.8%, 93.7%)	89.5% (88.3%, 90.6%)
Efficiency	Mean (95% CI)	50.4% (49.8%, 51%)	56.9% (56.4%, 57.5%)	44.3% (43.8%, 44.9%)	21.1% (20.6%, 21.5%)	42.3% (41.7%, 42.9%)
	Median (Q1, Q3)	52% (42%, 59%)	59% (51.8%, 66%)	47% (34%, 55%)	20% (10%, 31%)	44% (30%, 56%)
	Min, Max	4%, 77%	9%, 76%	0%, 75%	-10%, 71%	-10%, 81%
Rounds	Mean (95% CI)	8.8 (8.5, 9.2)	6.3 (6, 6.6)	5.1 (5, 5.3)	11 (11, 11)	10.5 (10.4, 10.6)
	Median (Q1, Q3)	9 (7, 10)	6 (4, 7)	5 (4, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	3, 19	2, 16	2, 9	11, 11	6, 11

TABLE S20 Hypred Low Tier, Reverse, SD=0 ME=0.15, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	78% (76.4%, 79.5%)	76.5% (74.9%, 78.1%)	81% (79.5%, 82.4%)	91.3% (90.2%, 92.3%)	88.2% (87%, 89.3%)
Efficiency	Mean (95% CI)	50.7% (50.2%, 51.3%)	56.6% (56%, 57.1%)	44.6% (44%, 45.2%)	21.3% (20.8%, 21.7%)	41.7% (41.1%, 42.2%)
	Median (Q1, Q3)	52% (42%, 60%)	58% (51%, 66%)	46% (35%, 56%)	20.5% (10%, 31%)	44% (29%, 57%)
	Min, Max	2%, 77%	3%, 76%	-2%, 76%	-10%, 71%	-10%, 81%
Rounds	Mean (95% CI)	8.8 (8.5, 9.2)	6.4 (6.1, 6.7)	5.1 (5, 5.3)	11 (11, 11)	10.5 (10.3, 10.6)
	Median (Q1, Q3)	9 (7, 10.25)	6 (4, 8)	5 (4, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	3, 21	2, 17	2, 10	10, 11	4, 11

TABLE S21 Hypred Low Tier, Reverse, SD=0 ME=0.175, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	75.8% (74.2%, 77.4%)	74.3% (72.7%, 75.9%)	78.7% (77.2%, 80.2%)	89.5% (88.3%, 90.6%)	86.8% (85.6%, 88.1%)
Efficiency	Mean (95% CI)	51% (50.4%, 51.5%)	56.4% (55.9%, 57%)	44.9% (44.3%, 45.5%)	21.6% (21.1%, 22.1%)	41.4% (40.9%, 42%)
	Median (Q1, Q3)	52.5% (42%, 61%)	58.5% (49%, 67%)	47.5% (35%, 56%)	20.5% (10%, 32%)	44% (28%, 57%)
	Min, Max	0%, 77%	0%, 76%	-3%, 76%	-10%, 72%	-10%, 81%
Rounds	Mean (95% CI)	8.9 (8.5, 9.2)	6.4 (6.1, 6.8)	5.1 (4.9, 5.2)	11 (11, 11)	10.4 (10.3, 10.6)
	Median (Q1, Q3)	9 (7, 11)	6 (4, 8)	5 (4, 6)	11 (11, 11)	11 (10.75, 11)
	Min, Max	3, 20	2, 18	2, 10	10, 11	4, 11

TABLE S22 Hypred Low Tier, Reverse, SD=0 ME=0.2, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	74.1% (72.5%, 75.7%)	72.4% (70.7%, 74%)	77.2% (75.6%, 78.7%)	88.1% (86.9%, 89.3%)	85.6% (84.3%, 86.9%)
Efficiency	Mean (95% CI)	51% (50.4%, 51.6%)	56% (55.5%, 56.6%)	45.3% (44.7%, 45.9%)	22.1% (21.6%, 22.6%)	41.4% (40.8%, 41.9%)
	Median (Q1, Q3)	53% (42%, 62.2%)	58.5% (48%, 67%)	47.5% (35%, 57%)	21% (10%, 32%)	43% (28%, 57%)
	Min, Max	0%, 78%	0%, 77%	-2%, 76%	-10%, 72%	-10%, 81%
Rounds	Mean (95% CI)	8.8 (8.5, 9.2)	6.5 (6.2, 6.9)	5 (4.9, 5.2)	11 (11, 11)	10.4 (10.3, 10.6)
	Median (Q1, Q3)	9 (6, 11)	6 (4, 8)	5 (4, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	2, 21	2, 18	2, 10	10, 11	4, 11

TABLE S23 Hypred Low Tier, Reverse, SD=0 ME=0.225, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	72% (70.3%, 73.6%)	70.6% (69%, 72.3%)	75.7% (74.1%, 77.2%)	86.5% (85.2%, 87.7%)	84.2% (82.8%, 85.5%)
Efficiency						
	Mean (95% CI)	51% (50.4%, 51.5%)	56.1% (55.5%, 56.6%)	45.6% (45.1%, 46.2%)	22.6% (22.1%, 23.1%)	41.4% (40.9%, 42%)
	Median (Q1, Q3)	53.5% (41%, 63%)	59% (48%, 67.3%)	48% (36%, 58%)	21% (10%, 33.2%)	43.5% (28%, 58%)
	Min, Max	0%, 78%	0%, 77%	-5%, 76%	-10%, 75%	-10%, 83%
Rounds						
	Mean (95% CI)	9 (8.6, 9.4)	6.5 (6.1, 6.9)	5 (4.9, 5.2)	11 (11, 11)	10.4 (10.2, 10.5)
	Median (Q1, Q3)	9 (6.75, 11)	6 (4, 8)	5 (4, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	2, 22	2, 18	2, 10	10, 11	4, 11

TABLE S24 Hypred Low Tier, Reverse, SD=0 ME=0.25, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	70% (68.3%, 71.7%)	68.9% (67.2%, 70.6%)	74.2% (72.6%, 75.8%)	85.5% (84.1%, 86.7%)	83% (81.6%, 84.4%)
Efficiency						
	Mean (95% CI)	51.3% (50.8%, 51.9%)	56.3% (55.7%, 56.8%)	45.9% (45.3%, 46.5%)	22.9% (22.4%, 23.4%)	41.2% (40.7%, 41.8%)
	Median (Q1, Q3)	53% (42%, 64%)	60% (49%, 69%)	49% (36%, 58%)	21% (10%, 33.2%)	43% (26%, 58%)
	Min, Max	0%, 79%	0%, 77%	-4%, 77%	-10%, 80%	-10%, 86%
Rounds						
	Mean (95% CI)	9 (8.5, 9.4)	6.5 (6.1, 6.8)	5 (4.8, 5.2)	11 (11, 11)	10.3 (10.2, 10.5)
	Median (Q1, Q3)	9 (6, 11)	6 (4, 8)	5 (4, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	2, 24	2, 18	2, 9	10, 11	3, 11

TABLE S25 Hypred Low Tier, Reverse, SD=0 ME=0.5, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	56% (54.1%, 57.8%)	55.9% (54.1%, 57.7%)	59.8% (58%, 61.6%)	73.8% (72.2%, 75.4%)	72.4% (70.7%, 74%)
Efficiency						
	Mean (95% CI)	53.5% (52.9%, 54.1%)	56.3% (55.8%, 56.9%)	48.4% (47.8%, 49%)	27.4% (26.9%, 27.9%)	42.1% (41.5%, 42.6%)
	Median (Q1, Q3)	59% (40%, 72%)	64% (44%, 73%)	53% (35%, 64.2%)	22% (6%, 44%)	43% (19%, 66.2%)
	Min, Max	-15%, 80%	-11%, 80%	-17%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	8.7 (8.1, 9.3)	6.4 (5.9, 6.9)	4.7 (4.4, 4.9)	10.6 (10.4, 10.8)	9.8 (9.5, 10)
	Median (Q1, Q3)	8 (4, 12)	5 (3, 9)	4 (3, 6)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 25	1, 20	1, 10	1, 11	1, 11

TABLE S26 Hypred Low Tier, Reverse, SD=0 ME=0.75, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	46.4% (44.6%, 48.2%)	47.3% (45.5%, 49.1%)	49.5% (47.7%, 51.4%)	65.3% (63.6%, 67%)	64.9% (63.1%, 66.6%)
Efficiency						
	Mean (95% CI)	55.2% (54.7%, 55.8%)	57.2% (56.6%, 57.7%)	50.9% (50.3%, 51.4%)	31.1% (30.6%, 31.6%)	43.3% (42.7%, 43.8%)
	Median (Q1, Q3)	64% (38.7%, 77%)	68% (43%, 75%)	57% (34%, 71%)	23.5% (1.7%, 58%)	46% (14%, 73%)
	Min, Max	-20%, 80%	-20%, 80%	-20%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	8.3 (7.6, 9)	6.2 (5.6, 6.8)	4.4 (4.1, 4.7)	10.2 (9.9, 10.5)	9.4 (9, 9.7)
	Median (Q1, Q3)	7 (3, 12.25)	4 (2, 10)	4 (2, 6)	11 (11, 11)	11 (9, 11)
	Min, Max	1, 30	1, 22	1, 11	1, 11	1, 11

