TABLE S1 Hypred Mid Tier, AGAIG, SD=1 ME=0, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	95% (91.5%, 97.3%)	96.1% (93%, 98.1%)	96.9% (94%, 98.7%)	100% (98.6%, 100%)	100% (98.6%, 100%)
Efficiency						
	Mean (95% CI)	77% (76.3%, 77.7%)	76.5% (75.8%, 77.2%)	76.2% (75.5%, 76.9%)	79% (78.4%, 79.7%)	77.6% (76.9%, 78.2%)
	Median (Q1, Q3)	78% (76%, 79%)	76% (75%, 78.8%)	77% (75%, 78.8%)	79% (75%, 85%)	79% (72.2%, 84%)
	Min, Max	67%, 80%	67%, 80%	66%, 80%	58%, 90%	58%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.4, 2.7)	2.1 (2, 2.2)	2.1 (2, 2.2)	6.9 (6.4, 7.4)	7.6 (7.1, 8)
	Median (Q1, Q3)	2 (2, 3)	2 (2, 2)	2 (2, 2)	7 (4.25, 9)	8 (6, 10)
	Min, Max	1, 5	1, 4	1, 3	1, 11	1, 11

TABLE S2 Hypred Mid Tier, AGAIG, SD=1 ME=0.025, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	91.5% (87.4%, 94.6%)	92.6% (88.7%, 95.5%)	94.2% (90.6%, 96.7%)	98.1% (95.5%, 99.4%)	97.7% (95%, 99.1%)
Efficiency						
	Mean (95% CI)	77.1% (76.5%, 77.8%)	76.4% (75.8%, 77.1%)	76.3% (75.6%, 77%)	79.1% (78.4%, 79.7%)	77.9% (77.3%, 78.6%)
	Median (Q1, Q3)	78% (76%, 79%)	77% (75%, 78%)	77% (75%, 78%)	80% (74%, 85%)	79% (73%, 84%)
	Min, Max	62%, 80%	62%, 80%	60%, 80%	48%, 90%	50%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.4, 2.8)	2.2 (2, 2.3)	2 (1.9, 2.1)	7.1 (6.6, 7.6)	7.4 (7, 7.9)
	Median (Q1, Q3)	3 (2, 3)	2 (2, 2)	2 (2, 2)	8 (5, 10)	8 (5, 10)
	Min, Max	1, 5	1, 5	1, 4	1, 11	1, 11

TABLE S3 Hypred Mid Tier, AGAIG, SD=1 ME=0.05, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	87% (82.3%, 90.8%)	88.1% (83.6%, 91.8%)	91.2% (87.1%, 94.3%)	93.9% (90.2%, 96.5%)	95.4% (92.1%, 97.6%)
Efficiency						
	Mean (95% CI)	77.2% (76.5%, 77.8%)	76.5% (75.8%, 77.1%)	76.3% (75.7%, 77%)	79.1% (78.4%, 79.7%)	77.7% (77.1%, 78.4%)
	Median (Q1, Q3)	78% (76%, 79%)	77% (75%, 78%)	77% (75%, 78%)	80% (75%, 85%)	79% (72.2%, 84%)
	Min, Max	61%, 80%	57%, 80%	58%, 80%	39%, 90%	42%, 90%
Rounds						
	Mean (95% CI)	2.5 (2.4, 2.7)	2.1 (2, 2.2)	2 (1.9, 2.1)	7.1 (6.6, 7.6)	7.5 (7, 8)
	Median (Q1, Q3)	2 (2, 3)	2 (2, 2)	2 (2, 2)	8 (5, 10)	8 (5, 10)
	Min, Max	1, 7	1, 6	1, 4	1, 11	1, 11

TABLE S4 Hypred Mid Tier, AGAIG, SD=1 ME=0.075, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	83.5% (78.5%, 87.8%)	84.7% (79.7%, 88.8%)	87% (82.3%, 90.8%)	91.2% (87.1%, 94.3%)	92% (88%, 95%)
Efficiency						
	Mean (95% CI)	77.1% (76.4%, 77.8%)	76.5% (75.8%, 77.1%)	76.3% (75.7%, 77%)	78.7% (78%, 79.3%)	77.5% (76.8%, 78.2%)
	Median (Q1, Q3)	78% (76%, 79%)	77% (75%, 79%)	77% (75%, 79%)	80% (73.2%, 85%)	79% (72%, 83.8%)
	Min, Max	57%, 80%	58%, 80%	58%, 80%	39%, 90%	42%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.4, 2.8)	2.1 (2, 2.3)	2 (1.9, 2.1)	7.3 (6.8, 7.8)	7.7 (7.2, 8.1)
	Median (Q1, Q3)	2 (2, 3)	2 (2, 2)	2 (2, 2)	8 (5, 11)	8 (5, 10)
	Min, Max	1, 8	1, 6	1, 4	1, 11	1, 11

TABLE S5 Hypred Mid Tier, AGAIG, SD=1 ME=0.1, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	81.1% (75.8%, 85.7%)	82.6% (77.5%, 87%)	84.2% (79.1%, 88.4%)	88.4% (83.9%, 92%)	88% (83.4%, 91.7%)
Efficiency						
	Mean (95% CI)	77.1% (76.4%, 77.8%)	76.5% (75.8%, 77.1%)	76.3% (75.6%, 77%)	78.2% (77.5%, 78.8%)	77.3% (76.6%, 77.9%)
	Median (Q1, Q3)	78% (76%, 79%)	77% (75%, 79%)	77% (75%, 79%)	80% (72.2%, 84.7%)	80% (71.2%, 84%)
	Min, Max	56%, 80%	62%, 80%	55%, 80%	33%, 90%	39%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.4, 2.8)	2.1 (2, 2.3)	2 (1.9, 2.1)	7.4 (6.9, 7.9)	7.7 (7.2, 8.2)
	Median (Q1, Q3)	2 (2, 3)	2 (2, 2)	2 (2, 2)	8 (5, 11)	8 (6, 10)
	Min, Max	1, 7	1, 6	1, 4	1, 11	1, 11

TABLE S6 Hypred Mid Tier, AGAIG, SD=1 ME=0.125, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	76.1% (70.4%, 81.1%)	79.9% (74.5%, 84.6%)	79.5% (74.1%, 84.3%)	86.5% (81.7%, 90.4%)	86.5% (81.7%, 90.4%)
Efficiency						
	Mean (95% CI)	77.1% (76.4%, 77.8%)	76.3% (75.6%, 77%)	76.2% (75.5%, 76.9%)	77.8% (77.1%, 78.4%)	76.8% (76.1%, 77.5%)
	Median (Q1, Q3)	78% (76%, 79%)	77% (75%, 79%)	77% (75%, 79%)	80% (72%, 85%)	80% (70%, 83%)
	Min, Max	53%, 80%	60%, 80%	53%, 80%	33%, 90%	36%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.4, 2.8)	2.1 (2, 2.2)	2 (1.9, 2.1)	7.5 (7, 8)	7.8 (7.4, 8.3)
	Median (Q1, Q3)	2 (2, 3)	2 (2, 2)	2 (2, 2)	8 (5, 11)	8 (6, 11)
	Min, Max	1, 8	1, 5	1, 4	1, 11	1, 11

TABLE S7 Hypred Mid Tier, AGAIG, SD=1 ME=0.15, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	71.5% (65.6%, 76.9%)	74.1% (68.4%, 79.3%)	73.4% (67.6%, 78.6%)	82.5% (77.4%, 86.9%)	82.9% (77.8%, 87.2%)
Efficiency						
	Mean (95% CI)	77.1% (76.4%, 77.8%)	76.2% (75.6%, 76.9%)	76.2% (75.5%, 76.9%)	77.3% (76.6%, 78%)	76.3% (75.6%, 77%)
	Median (Q1, Q3)	78% (76%, 79%)	77% (75%, 79%)	77% (75%, 79%)	80% (71%, 85%)	80% (70%, 84%)
	Min, Max	58%, 80%	60%, 80%	53%, 80%	33%, 90%	36%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.4, 2.8)	2.1 (2, 2.3)	2 (1.9, 2.2)	7.6 (7.1, 8.1)	7.9 (7.4, 8.4)
	Median (Q1, Q3)	2 (2, 3)	2 (2, 2)	2 (2, 2)	8 (5, 11)	8 (6, 11)
	Min, Max	1, 7	1, 5	1, 4	1, 11	1, 11

TABLE S8 Hypred Mid Tier, AGAIG, SD=1 ME=0.175, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	66.3% (60.2%, 72%)	69.7% (63.8%, 75.2%)	70.1% (64.2%, 75.5%)	79.2% (73.8%, 83.9%)	80.7% (75.4%, 85.3%)
Efficiency						
	Mean (95% CI)	77.1% (76.4%, 77.8%)	76.3% (75.6%, 77%)	76.2% (75.5%, 76.9%)	76.8% (76.1%, 77.4%)	75.5% (74.8%, 76.2%)
	Median (Q1, Q3)	78% (76.2%, 79%)	77% (75%, 79%)	77% (75%, 79%)	80% (71%, 85%)	80% (69.2%, 84%)
	Min, Max	58%, 80%	60%, 80%	55%, 80%	32%, 90%	32%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.3, 2.8)	2.1 (1.9, 2.2)	2 (1.9, 2.1)	7.6 (7.1, 8.2)	7.9 (7.4, 8.4)
	Median (Q1, Q3)	2 (2, 3)	2 (2, 2)	2 (2, 2)	8 (5, 11)	8.5 (6, 11)
	Min, Max	1, 7	1, 5	1, 5	1, 11	1, 11

TABLE S9 Hypred Mid Tier, AGAIG, SD=1 ME=0.2, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	61.8% (55.7%, 67.6%)	65.1% (59.1%, 70.7%)	65.4% (59.5%, 71.1%)	75.7% (70.2%, 80.7%)	76.8% (71.4%, 81.7%)
Efficiency						
	Mean (95% CI)	76.9% (76.3%, 77.6%)	76.2% (75.5%, 76.9%)	76% (75.3%, 76.6%)	76.2% (75.5%, 76.8%)	74.6% (73.9%, 75.3%)
	Median (Q1, Q3)	78% (77%, 79%)	77% (75%, 79%)	77% (75%, 79%)	80% (68%, 86%)	80% (65.3%, 84%)
	Min, Max	58%, 80%	57%, 80%	56%, 80%	28%, 90%	30%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.3, 2.8)	2.1 (1.9, 2.2)	2 (1.9, 2.1)	7.5 (7, 8.1)	7.8 (7.3, 8.3)
	Median (Q1, Q3)	2 (2, 3)	2 (2, 2)	2 (2, 2)	8.5 (4, 11)	9 (5.25, 11)
	Min, Max	1, 7	1, 6	1, 5	1, 11	1, 11

TABLE S10 Hypred Mid Tier, AGAIG, SD=1 ME=0.225, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	57.7% (51.6%, 63.6%)	60.9% (54.9%, 66.8%)	61.3% (55.3%, 67.1%)	71.5% (65.8%, 76.8%)	72.3% (66.6%, 77.5%)
Efficiency						
	Mean (95% CI)	76.8% (76.1%, 77.5%)	76.2% (75.5%, 76.9%)	75.9% (75.2%, 76.6%)	75.6% (74.9%, 76.3%)	74% (73.3%, 74.7%)
	Median (Q1, Q3)	79% (76%, 80%)	77% (75%, 80%)	77% (74.2%, 80%)	80% (67%, 86%)	80% (65%, 85%)
	Min, Max	58%, 80%	56%, 80%	56%, 80%	28%, 90%	28%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.3, 2.8)	2.1 (1.9, 2.2)	2 (1.8, 2.1)	7.5 (6.9, 8.1)	7.8 (7.2, 8.3)
	Median (Q1, Q3)	2 (1, 3)	2 (1, 2)	2 (1, 2)	9 (4, 11)	9 (5, 11)
	Min, Max	1, 8	1, 6	1, 5	1, 11	1, 11

TABLE S11 Hypred Mid Tier, AGAIG, SD=1 ME=0.25, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	52.4% (46.5%, 58.4%)	55.6% (49.6%, 61.4%)	56.6% (50.7%, 62.5%)	67.8% (62.1%, 73.2%)	67.8% (62.1%, 73.2%)
Efficiency						
	Mean (95% CI)	76.8% (76.1%, 77.5%)	76.2% (75.5%, 76.9%)	75.8% (75.1%, 76.5%)	75.1% (74.4%, 75.8%)	73.6% (72.9%, 74.3%)
	Median (Q1, Q3)	79% (76%, 80%)	77% (75%, 80%)	77% (74%, 80%)	80% (67%, 87%)	80% (64%, 85%)
	Min, Max	56%, 80%	57%, 80%	55%, 80%	22%, 90%	26%, 90%
Rounds						
	Mean (95% CI)	2.6 (2.3, 2.8)	2.1 (1.9, 2.2)	2 (1.8, 2.1)	7.5 (6.9, 8.1)	7.8 (7.2, 8.3)
	Median (Q1, Q3)	2 (1, 3)	2 (1, 2)	2 (1, 2)	9 (4, 11)	9 (5, 11)
	Min, Max	1, 8	1, 6	1, 5	1, 11	1, 11

TABLE S12 Hypred Mid Tier, AGAIG, SD=1 ME=0.5, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	27.7% (23.6%, 32.2%)	28.9% (24.7%, 33.4%)	30.5% (26.2%, 35.1%)	48.5% (43.7%, 53.3%)	47.3% (42.5%, 52.2%)
Efficiency						
	Mean (95% CI)	74.7% (74%, 75.4%)	74.2% (73.5%, 74.9%)	73.6% (72.9%, 74.3%)	69.3% (68.6%, 70%)	68.7% (67.9%, 69.4%)
	Median (Q1, Q3)	80% (76%, 80%)	80% (75%, 80%)	80% (73%, 80%)	80% (52.2%, 90%)	80% (52%, 90%)
	Min, Max	18%, 80%	14%, 80%	3%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	3.1 (2.6, 3.6)	2.5 (2, 2.9)	2 (1.8, 2.3)	6.6 (5.9, 7.4)	6.7 (6, 7.4)
	Median (Q1, Q3)	1 (1, 3.75)	1 (1, 2)	1 (1, 2)	8 (1, 11)	7.5 (1, 11)
	Min, Max	1, 17	1, 15	1, 9	1, 11	1, 11

TABLE S13 Hypred Mid Tier, AGAIG, SD=1 ME=0.75, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	19.2% (16.3%, 22.3%)	19% (16.1%, 22.2%)	19.7% (16.8%, 22.9%)	36.7% (33.1%, 40.4%)	36.8% (33.2%, 40.6%)
Efficiency						
	Mean (95% CI)	72.6% (71.8%, 73.3%)	72.3% (71.5%, 73%)	71.5% (70.8%, 72.2%)	65.8% (65%, 66.6%)	65.1% (64.4%, 65.9%)
	Median (Q1, Q3)	80% (77.2%, 80%)	80% (75%, 80%)	80% (72.2%, 80%)	82% (46%, 90%)	83% (42%, 90%)
	Min, Max	-10%, 80%	-10%, 80%	-10%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	3.6 (2.8, 4.4)	2.8 (2.2, 3.4)	2.1 (1.8, 2.4)	6.2 (5.5, 7)	6.3 (5.5, 7)
	Median (Q1, Q3)	1 (1, 3.75)	1 (1, 2)	1 (1, 2)	7 (1, 11)	6 (1, 11)
	Min, Max	1, 24	1, 20	1, 10	1, 11	1, 11

TABLE S14 Hypred Low Tier, AGAIG, SD=1 ME=0, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	91.1% (87.1%, 94.2%)	92.2% (88.4%, 95.1%)	92.6% (88.8%, 95.4%)	100% (98.6%, 100%)	100% (98.6%, 100%)
Efficiency						
	Mean (95% CI)	78.8% (78.3%, 79.2%)	78.6% (78.1%, 79%)	78.6% (78.1%, 79%)	84.6% (84.2%, 85%)	83.7% (83.3%, 84.2%)
	Median (Q1, Q3)	79% (78%, 80%)	79% (78%, 80%)	79% (78%, 80%)	86% (81.8%, 90%)	85% (80%, 90%)
	Min, Max	70%, 80%	72%, 80%	70%, 80%	64%, 90%	55%, 90%
Rounds						
	Mean (95% CI)	1.9 (1.8, 2)	1.6 (1.5, 1.7)	1.6 (1.6, 1.7)	4.9 (4.5, 5.3)	5.3 (4.9, 5.7)
	Median (Q1, Q3)	2 (1, 2)	2 (1, 2)	2 (1, 2)	5 (1, 8)	5 (1, 8.25)
	Min, Max	1, 5	1, 4	1, 3	1, 11	1, 11

TABLE S15 Hypred Low Tier, AGAIG, SD=1 ME=0.025, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	85.1% (80.4%, 89.1%)	87% (82.4%, 90.7%)	87.3% (82.8%, 91%)	97.5% (94.8%, 99%)	97.5% (94.8%, 99%)
Efficiency						
	Mean (95% CI)	78.9% (78.4%, 79.3%)	78.5% (78%, 79%)	78.6% (78.1%, 79.1%)	84.3% (83.9%, 84.7%)	83.7% (83.3%, 84.1%)
	Median (Q1, Q3)	79% (78%, 80%)	79% (78%, 80%)	79% (78%, 80%)	86% (81%, 89%)	84% (80%, 89%)
	Min, Max	72%, 80%	73%, 80%	72%, 80%	64%, 90%	54%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.6, 1.7)	1.7 (1.6, 1.7)	5.1 (4.7, 5.5)	5.6 (5.2, 5.9)
	Median (Q1, Q3)	2 (1, 2)	2 (1, 2)	2 (1, 2)	5 (2, 8)	6 (2, 9)
	Min, Max	1, 5	1, 3	1, 3	1, 11	1, 11

TABLE S16 Hypred Low Tier, AGAIG, SD=1 ME=0.05, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	81.3% (76.2%, 85.7%)	83.5% (78.6%, 87.6%)	84.2% (79.3%, 88.3%)	93.9% (90.4%, 96.4%)	94.6% (91.3%, 96.9%)
Efficiency						
	Mean (95% CI)	78.9% (78.4%, 79.3%)	78.5% (78%, 79%)	78.6% (78.1%, 79%)	84.2% (83.8%, 84.6%)	83.4% (83%, 83.8%)
	Median (Q1, Q3)	79% (78%, 80%)	79% (77%, 80%)	79% (77%, 80%)	85% (81%, 90%)	84% (80%, 90%)
	Min, Max	71%, 80%	72%, 80%	71%, 80%	61%, 90%	52%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.7)	1.6 (1.6, 1.7)	5.2 (4.8, 5.6)	5.6 (5.2, 6.1)
	Median (Q1, Q3)	2 (1, 2)	2 (1, 2)	2 (1, 2)	5 (1, 8)	6 (1, 9)
	Min, Max	1, 5	1, 3	1, 3	1, 11	1, 11

TABLE S17 Hypred Low Tier, AGAIG, SD=1 ME=0.075, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	77.1% (71.8%, 81.9%)	79.9% (74.8%, 84.4%)	79.6% (74.4%, 84.1%)	90.1% (86.1%, 93.3%)	90.5% (86.5%, 93.6%)
Efficiency						
	Mean (95% CI)	78.9% (78.4%, 79.3%)	78.5% (78%, 78.9%)	78.6% (78.1%, 79%)	83.9% (83.5%, 84.4%)	83.1% (82.6%, 83.5%)
	Median (Q1, Q3)	79% (78%, 80%)	79% (77%, 80%)	79% (77%, 80%)	85% (80.8%, 89%)	84% (80%, 89%)
	Min, Max	71%, 80%	71%, 80%	71%, 80%	61%, 90%	51%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.7)	1.6 (1.6, 1.7)	5.3 (4.9, 5.7)	5.8 (5.4, 6.2)
	Median (Q1, Q3)	2 (1, 2)	2 (1, 2)	2 (1, 2)	5 (2, 9)	6 (2, 9)
	Min, Max	1, 5	1, 4	1, 3	1, 11	1, 11

TABLE S18 Hypred Low Tier, AGAIG, SD=1 ME=0.1, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	73.6% (68.1%, 78.6%)	76% (70.7%, 80.9%)	76% (70.7%, 80.9%)	87.5% (83.1%, 91.1%)	86.5% (82%, 90.2%)
Efficiency						
	Mean (95% CI)	78.9% (78.4%, 79.3%)	78.5% (78%, 78.9%)	78.6% (78.1%, 79%)	83.5% (83.1%, 84%)	82.8% (82.3%, 83.2%)
	Median (Q1, Q3)	79% (79%, 80%)	79% (77%, 80%)	79% (77%, 80%)	85% (80%, 90%)	84% (79%, 90%)
	Min, Max	71%, 80%	71%, 80%	71%, 80%	57%, 90%	51%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.7)	1.6 (1.6, 1.7)	5.5 (5, 5.9)	5.9 (5.5, 6.3)
	Median (Q1, Q3)	2 (1, 2)	2 (1, 2)	2 (1, 2)	5 (1, 9)	6 (1, 10)
	Min, Max	1, 5	1, 4	1, 4	1, 11	1, 11

TABLE S19 Hypred Low Tier, AGAIG, SD=1 ME=0.125, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	67.3% (61.7%, 72.6%)	69.7% (64.1%, 74.9%)	69.4% (63.8%, 74.6%)	84.2% (79.5%, 88.1%)	83.8% (79.1%, 87.8%)
Efficiency						
	Mean (95% CI)	78.9% (78.4%, 79.4%)	78.5% (78%, 79%)	78.6% (78.1%, 79%)	83.3% (82.9%, 83.7%)	82.5% (82.1%, 83%)
	Median (Q1, Q3)	79% (79%, 80%)	79% (78%, 80%)	79% (78%, 80%)	85% (80%, 90%)	84% (79%, 90%)
	Min, Max	71%, 80%	71%, 80%	71%, 80%	57%, 90%	51%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.6)	1.6 (1.5, 1.7)	5.5 (5, 5.9)	5.9 (5.5, 6.4)
	Median (Q1, Q3)	2 (1, 2)	2 (1, 2)	2 (1, 2)	5 (1, 9)	6 (1, 10)
	Min, Max	1, 5	1, 4	1, 4	1, 11	1, 11

TABLE S20 Hypred Low Tier, AGAIG, SD=1 ME=0.15, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	62.8% (57.1%, 68.2%)	63.1% (57.5%, 68.5%)	63.1% (57.5%, 68.5%)	78.6% (73.6%, 83.1%)	78.3% (73.3%, 82.8%)
Efficiency						
	Mean (95% CI)	78.9% (78.4%, 79.3%)	78.5% (78%, 78.9%)	78.5% (78.1%, 79%)	83% (82.5%, 83.4%)	82.2% (81.8%, 82.7%)
	Median (Q1, Q3)	79% (79%, 80%)	79% (77.8%, 80%)	79% (78%, 80%)	86% (79.8%, 90%)	84% (79%, 90%)
	Min, Max	71%, 80%	69%, 80%	70%, 80%	49%, 90%	44%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.6)	1.6 (1.5, 1.6)	5.4 (5, 5.9)	5.9 (5.4, 6.3)
	Median (Q1, Q3)	2 (1, 2)	2 (1, 2)	2 (1, 2)	5 (1, 10)	6 (1, 10)
	Min, Max	1, 6	1, 4	1, 4	1, 11	1, 11

TABLE S21 Hypred Low Tier, AGAIG, SD=1 ME=0.175, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	59.4% (53.7%, 64.9%)	60.7% (55%, 66.2%)	60.7% (55%, 66.2%)	76.9% (71.8%, 81.5%)	75.6% (70.5%, 80.3%)
Efficiency						
	Mean (95% CI)	78.8% (78.4%, 79.3%)	78.5% (78%, 78.9%)	78.5% (78.1%, 79%)	82.5% (82.1%, 82.9%)	81.8% (81.4%, 82.3%)
	Median (Q1, Q3)	80% (79%, 80%)	80% (78%, 80%)	80% (78%, 80%)	86% (79%, 90%)	84% (78%, 90%)
	Min, Max	69%, 80%	68%, 80%	68%, 80%	41%, 90%	41%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.6)	1.6 (1.5, 1.7)	5.5 (5.1, 6)	5.9 (5.4, 6.3)
	Median (Q1, Q3)	1 (1, 2)	1 (1, 2)	1 (1, 2)	5 (1, 10)	6 (1, 10)
	Min, Max	1, 7	1, 5	1, 4	1, 11	1, 11

TABLE S22 Hypred Low Tier, AGAIG, SD=1 ME=0.2, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	54.9% (49.2%, 60.4%)	56.7% (51.1%, 62.2%)	56.7% (51.1%, 62.2%)	74.3% (69.1%, 79%)	73.7% (68.5%, 78.4%)
Efficiency						
	Mean (95% CI)	78.8% (78.4%, 79.3%)	78.4% (78%, 78.9%)	78.4% (78%, 78.9%)	82% (81.6%, 82.5%)	81.3% (80.8%, 81.7%)
	Median (Q1, Q3)	80% (79%, 80%)	80% (78%, 80%)	80% (78%, 80%)	85.5% (78.8%, 90%)	84% (77%, 90%)
	Min, Max	67%, 80%	67%, 80%	63%, 80%	40%, 90%	40%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.6)	1.6 (1.5, 1.7)	5.6 (5.1, 6.1)	6 (5.5, 6.4)
	Median (Q1, Q3)	1 (1, 2)	1 (1, 2)	1 (1, 2)	5 (1, 10)	6 (1, 10)
	Min, Max	1, 7	1, 5	1, 4	1, 11	1, 11

TABLE S23 Hypred Low Tier, AGAIG, SD=1 ME=0.225, Estimated Betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	49.4% (43.9%, 54.9%)	51.5% (46%, 57%)	51.5% (46%, 57%)	70.5% (65.3%, 75.3%)	70.2% (64.9%, 75.1%)
Efficiency						
	Mean (95% CI)	78.8% (78.3%, 79.2%)	78.4% (77.9%, 78.9%)	78.4% (77.9%, 78.8%)	81.5% (81%, 81.9%)	80.8% (80.3%, 81.2%)
	Median (Q1, Q3)	80% (79%, 80%)	80% (77.8%, 80%)	80% (78%, 80%)	85% (78%, 90%)	84% (76%, 90%)
	Min, Max	63%, 80%	64%, 80%	58%, 80%	34%, 90%	30%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.6)	1.6 (1.5, 1.6)	5.6 (5.2, 6.1)	5.9 (5.4, 6.4)
	Median (Q1, Q3)	1 (1, 2)	1 (1, 2)	1 (1, 2)	5 (1, 10)	6 (1, 11)
	Min, Max	1, 7	1, 5	1, 5	1, 11	1, 11

TABLE S24 Hypred Low Tier, AGAIG, SD=1 ME=0.25, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	46% (40.7%, 51.4%)	48.6% (43.2%, 54%)	48% (42.6%, 53.4%)	67.5% (62.3%, 72.4%)	67.8% (62.6%, 72.7%)
Efficiency						
	Mean (95% CI)	78.7% (78.2%, 79.2%)	78.3% (77.9%, 78.8%)	78.3% (77.8%, 78.8%)	80.9% (80.4%, 81.3%)	80.3% (79.8%, 80.7%)
	Median (Q1, Q3)	80% (79%, 80%)	80% (77%, 80%)	80% (77%, 80%)	85.5% (77%, 90%)	84% (76%, 90%)
	Min, Max	53%, 80%	60%, 80%	52%, 80%	24%, 90%	24%, 90%
Rounds						
	Mean (95% CI)	1.8 (1.7, 1.9)	1.6 (1.5, 1.7)	1.6 (1.5, 1.6)	5.7 (5.2, 6.1)	6 (5.5, 6.4)
	Median (Q1, Q3)	1 (1, 2)	1 (1, 2)	1 (1, 2)	5 (1, 11)	6 (1, 11)
	Min, Max	1, 9	1, 6	1, 5	1, 11	1, 11

TABLE S25 Hypred Low Tier, AGAIG, SD=1 ME=0.5, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	26.7% (23%, 30.7%)	28.6% (24.8%, 32.7%)	27.9% (24.1%, 31.9%)	48.5% (44.1%, 52.8%)	47.7% (43.4%, 52.1%)
Efficiency						
	Mean (95% CI)	77.5% (77%, 77.9%)	77.2% (76.7%, 77.6%)	76.8% (76.3%, 77.2%)	74.5% (74%, 75%)	73.9% (73.4%, 74.4%)
	Median (Q1, Q3)	80% (79%, 80%)	80% (77%, 80%)	80% (77%, 80%)	84% (69.7%, 90%)	84% (69%, 90%)
	Min, Max	-2%, 80%	-2%, 80%	-6%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	2.2 (1.9, 2.5)	1.8 (1.6, 2)	1.6 (1.5, 1.8)	5.9 (5.4, 6.4)	6.1 (5.6, 6.6)
	Median (Q1, Q3)	1 (1, 2)	1 (1, 2)	1 (1, 2)	5 (1, 11)	7 (1, 11)
	Min, Max	1, 20	1, 19	1, 10	1, 11	1, 11

TABLE S26 Hypred Low Tier, AGAIG, SD=1 ME=0.75, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	18.9% (16.4%, 21.6%)	20% (17.4%, 22.8%)	19.7% (17.1%, 22.4%)	37.5% (34.3%, 40.7%)	36.9% (33.7%, 40.2%)
Efficiency						
	Mean (95% CI)	75.4% (74.9%, 75.9%)	75.1% (74.6%, 75.6%)	74.7% (74.3%, 75.2%)	69.7% (69.2%, 70.2%)	69.2% (68.6%, 69.7%)
	Median (Q1, Q3)	80% (78%, 80%)	80% (76%, 80%)	80% (76%, 80%)	83% (60.8%, 90%)	83.5% (60.8%, 90%)
	Min, Max	-20%, 80%	-20%, 80%	-20%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	2.7 (2.3, 3.1)	2.2 (1.9, 2.5)	1.8 (1.6, 2)	6 (5.4, 6.5)	6.1 (5.6, 6.6)
	Median (Q1, Q3)	1 (1, 2)	1 (1, 2)	1 (1, 2)	5 (1, 11)	6 (1, 11)
	Min, Max	1, 24	1, 22	1, 10	1, 11	1, 11