TABLE S1 Reverse, SD=0, ME=0, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	94.7% (93.8%, 95.5%)	94.7% (93.8%, 95.5%)	96.3% (95.6%, 97%)	100% (99.9%, 100%)	100% (99.9%, 100%)
Efficiency						
	Mean (95% CI)	64.7% (64.3%, 65.1%)	69.9% (69.5%, 70.3%)	62.1% (61.7%, 62.5%)	40.8% (40.4%, 41.2%)	60.3% (59.9%, 60.7%)
	Median (Q1, Q3)	65% (59%, 71%)	71% (67%, 73%)	63% (56%, 70%)	40% (30%, 50%)	61% (52%, 69%)
	Min, Max	37%, 79%	52%, 79%	25%, 79%	0%, 80%	28%, 86%
Rounds						
	Mean (95% CI)	5.5 (5.3, 5.6)	3.7 (3.6, 3.8)	3.8 (3.7, 3.9)	11 (11, 11)	9.9 (9.7, 10)
	Median (Q1, Q3)	5 (4, 6)	4 (3, 4)	4 (3, 4)	11 (11, 11)	10 (9, 11)
	Min, Max	2, 11	2, 7	2, 7	10, 11	3, 11

TABLE S2 Reverse, SD=0, ME=0.025, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	90% (88.9%, 91.1%)	90.6% (89.5%, 91.6%)	92.7% (91.7%, 93.6%)	97.8% (97.2%, 98.3%)	97.3% (96.7%, 97.9%)
Efficiency						
	Mean (95% CI)	64.6% (64.2%, 65.1%)	69.2% (68.7%, 69.6%)	61.6% (61.2%, 62%)	40.5% (40.1%, 40.9%)	60.2% (59.8%, 60.6%)
	Median (Q1, Q3)	65% (60%, 71%)	70% (66%, 74%)	63% (55%, 70%)	40% (30%, 51%)	60% (53%, 68%)
	Min, Max	36%, 79%	31%, 79%	25%, 79%	0%, 80%	24%, 86%
Rounds						
	Mean (95% CI)	5.5 (5.4, 5.6)	3.8 (3.7, 3.9)	3.9 (3.8, 4)	11 (11, 11)	10 (9.8, 10.1)
	Median (Q1, Q3)	5 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (9, 11)
	Min, Max	2, 12	2, 11	2, 7	11, 11	3, 11

TABLE S3 Reverse, SD=0, ME=0.05, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	87.2% (85.9%, 88.4%)	87.1% (85.8%, 88.3%)	89.7% (88.6%, 90.8%)	95.9% (95.1%, 96.6%)	94.8% (94%, 95.6%)
Efficiency						
	Mean (95% CI)	64.5% (64%, 64.9%)	68.7% (68.3%, 69.1%)	61.6% (61.1%, 62%)	40.6% (40.1%, 41%)	59.5% (59.1%, 60%)
	Median (Q1, Q3)	65% (59%, 71%)	70% (65%, 73%)	63% (55%, 70%)	40% (30%, 51%)	60% (52%, 67%)
	Min, Max	32%, 80%	31%, 80%	25%, 80%	0%, 80%	24%, 86%
Rounds						
	Mean (95% CI)	5.6 (5.5, 5.8)	3.9 (3.8, 4.1)	3.9 (3.8, 4)	11 (11, 11)	10 (9.9, 10.2)
	Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 13	1, 11	1, 7	11, 11	3, 11

TABLE S4 Reverse, SD=0, ME=0.075, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	83% (81.6%, 84.3%)	83.4% (82%, 84.7%)	86.4% (85.1%, 87.6%)	93.3% (92.3%, 94.1%)	92.2% (91.2%, 93.1%)
Efficiency						
	Mean (95% CI)	64.5% (64.1%, 64.9%)	68.4% (68%, 68.8%)	61.5% (61.1%, 61.9%)	40.8% (40.3%, 41.2%)	59.1% (58.6%, 59.5%)
	Median (Q1, Q3)	65% (59%, 71%)	70% (65%, 74%)	62% (55%, 70%)	40% (30%, 51%)	60% (51%, 67%)
	Min, Max	32%, 80%	27%, 80%	26%, 80%	0%, 81%	21%, 86%
Rounds						
	Mean (95% CI)	5.7 (5.5, 5.9)	4 (3.8, 4.1)	3.9 (3.8, 4)	11 (11, 11)	10 (9.9, 10.2)
	Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 13	1, 13	1, 7	10, 11	3, 11

TABLE S5 Reverse, SD=0, ME=0.1, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	80.7% (79.2%, 82.1%)	80.7% (79.3%, 82.1%)	83.5% (82.1%, 84.8%)	91.9% (90.9%, 92.9%)	90% (88.9%, 91.1%)
Efficiency						
	Mean (95% CI)	64.6% (64.2%, 65%)	68.2% (67.8%, 68.6%)	61.5% (61.1%, 61.9%)	40.7% (40.2%, 41.1%)	58.3% (57.9%, 58.8%)
	Median (Q1, Q3)	65% (59.7%, 72%)	70% (65%, 74%)	62% (55%, 70%)	40% (30%, 51%)	60% (49.8%, 68%)
	Min, Max	30%, 80%	23%, 80%	28%, 80%	0%, 81%	14%, 88%
Rounds						
	Mean (95% CI)	5.7 (5.5, 5.9)	4 (3.9, 4.2)	3.9 (3.8, 4)	11 (11, 11)	10.1 (9.9, 10.2)
	Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 13	1, 13	1, 7	10, 11	3, 11

TABLE S6 Reverse, SD=0, ME=0.125, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	78.4% (76.9%, 79.9%)	78.7% (77.2%, 80.1%)	81.5% (80.1%, 82.9%)	90.5% (89.4%, 91.5%)	88.1% (86.9%, 89.2%)
Efficiency						
	Mean (95% CI)	64.8% (64.3%, 65.2%)	67.9% (67.5%, 68.3%)	61.5% (61.1%, 61.9%)	40.7% (40.3%, 41.2%)	57.9% (57.5%, 58.3%)
	Median (Q1, Q3)	66% (59%, 72%)	70% (64%, 74%)	62% (54%, 70%)	40% (30%, 51%)	60% (48%, 69%)
	Min, Max	30%, 80%	23%, 80%	26%, 80%	0%, 81%	8%, 88%
Rounds						
	Mean (95% CI)	5.7 (5.5, 5.9)	4 (3.9, 4.2)	3.9 (3.8, 4)	11 (11, 11)	10 (9.9, 10.2)
	Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 13	1, 13	1, 7	10, 11	3, 11

TABLE S7 Reverse, SD=0, ME=0.15, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	76.1% (74.6%, 77.6%)	76.6% (75%, 78.1%)	79.7% (78.3%, 81.2%)	88.7% (87.5%, 89.8%)	86.3% (85.1%, 87.5%)
Efficiency						
	Mean (95% CI)	64.6% (64.2%, 65%)	67.5% (67.1%, 67.9%)	61.3% (60.9%, 61.8%)	40.9% (40.5%, 41.4%)	57.6% (57.1%, 58%)
	Median (Q1, Q3)	66% (59%, 72%)	70% (64%, 74%)	62% (54%, 70%)	40% (30%, 51%)	60% (48%, 69%)
	Min, Max	19%, 80%	23%, 80%	18%, 80%	0%, 81%	0%, 88%
Rounds						
	Mean (95% CI)	5.8 (5.6, 6)	4.1 (3.9, 4.3)	3.9 (3.8, 4)	11 (11, 11)	10 (9.9, 10.2)
	Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 16	1, 13	1, 8	10, 11	3, 11

TABLE S8 Reverse, SD=0, ME=0.175, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	74.2% (72.6%, 75.7%)	74% (72.4%, 75.6%)	77.5% (75.9%, 78.9%)	87.3% (86%, 88.4%)	84.7% (83.4%, 86%)
Efficiency						
	Mean (95% CI)	64.6% (64.2%, 65%)	67.4% (67%, 67.8%)	61.4% (60.9%, 61.8%)	41.1% (40.7%, 41.6%)	57.2% (56.8%, 57.7%)
	Median (Q1, Q3)	66% (59%, 72%)	70% (63%, 74%)	62.5% (54%, 71%)	40.5% (30%, 51.2%)	59% (47%, 70%)
	Min, Max	16%, 80%	23%, 80%	19%, 80%	0%, 82%	0%, 88%
Rounds						
	Mean (95% CI)	5.8 (5.6, 6)	4.1 (3.9, 4.3)	3.9 (3.8, 4)	11 (11, 11)	10 (9.9, 10.2)
	Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 17	1, 13	1, 7	9, 11	3, 11

TABLE S9 Reverse, SD=0, ME=0.2, Estimated betas

	Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity					
Mean (95% CI)	71.6% (69.9%, 73.2%)	71.9% (70.3%, 73.5%)	75.3% (73.8%, 76.8%)	85.2% (83.9%, 86.5%)	83.1% (81.7%, 84.4%)
Efficiency					
Mean (95% CI)	64.8% (64.4%, 65.2%)	67.2% (66.8%, 67.6%)	61.4% (61%, 61.8%)	41.4% (40.9%, 41.8%)	56.9% (56.5%, 57.3%)
Median (Q1, Q3)	66% (59%, 73%)	70% (63%, 74%)	63% (54%, 71%)	41% (30%, 52%)	59% (45%, 70%)
Min, Max	15%, 80%	23%, 80%	13%, 80%	0%, 83%	0%, 88%
Rounds					
Mean (95% CI)	5.8 (5.6, 6)	4.2 (4, 4.3)	3.9 (3.8, 4)	11 (11, 11)	10 (9.8, 10.1)
Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (9, 11)
Min, Max	1, 17	1, 13	1, 8	8, 11	2, 11

TABLE S10 Reverse, SD=0, ME=0.225, Estimated betas

	Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity					
Mean (95% CI)	69.2% (67.5%, 70.8%)	70.2% (68.6%, 71.8%)	73.4% (71.9%, 75%)	83.7% (82.4%, 85%)	81.7% (80.3%, 83%)
Efficiency					
Mean (95% CI)	64.8% (64.4%, 65.2%)	67.1% (66.7%, 67.5%)	61.5% (61.1%, 61.9%)	41.7% (41.3%, 42.1%)	56.7% (56.3%, 57.2%)
Median (Q1, Q3)	67% (58%, 73%)	70% (62.8%, 74%)	63% (54%, 71%)	41% (30%, 52%)	59% (45%, 71%)
Min, Max	15%, 80%	23%, 80%	10%, 80%	0%, 85%	0%, 88%
Rounds					
Mean (95% CI)	5.8 (5.6, 6.1)	4.2 (4, 4.4)	3.9 (3.8, 4)	11 (10.9, 11)	9.9 (9.8, 10.1)
Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (9, 11)
Min, Max	1, 17	1, 13	1, 8	6, 11	2, 11

TABLE S11 Reverse, SD=0, ME=0.25, Estimated betas

	Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity					
Mean (95% CI)	67.5% (65.8%, 69.2%)	68.5% (66.9%, 70.2%)	71.6% (69.9%, 73.2%)	82.3% (80.9%, 83.7%)	80.5% (79.1%, 81.9%)
Efficiency					
Mean (95% CI)	64.9% (64.5%, 65.3%)	67% (66.5%, 67.4%)	61.5% (61.1%, 61.9%)	42% (41.6%, 42.4%)	56.7% (56.3%, 57.1%)
Median (Q1, Q3)	67% (58%, 74%)	70% (63%, 74%)	63.5% (54%, 72%)	41% (30%, 53%)	60% (44%, 71%)
Min, Max	16%, 80%	23%, 80%	10%, 80%	0%, 90%	0%, 90%
Rounds					
Mean (95% CI)	5.9 (5.6, 6.1)	4.2 (4, 4.4)	3.9 (3.8, 4)	10.9 (10.9, 11)	9.9 (9.7, 10)
Median (Q1, Q3)	6 (4, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (9, 11)
Min, Max	1, 17	1, 14	1, 8	1, 11	1, 11

TABLE S12 Reverse, SD=0, ME=0.5, Estimated betas

	Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity					
Mean (95% CI)	51.9% (50.1%, 53.7%)	53.2% (51.4%, 55%)	57.1% (55.3%, 58.9%)	70.1% (68.5%, 71.8%)	69.7% (68.1%, 71.4%)
Efficiency					
Mean (95% CI)	66.3% (65.8%, 66.7%)	67.3% (66.9%, 67.7%)	62.9% (62.4%, 63.3%)	45.2% (44.7%, 45.6%)	56.3% (55.8%, 56.7%)
Median (Q1, Q3)	71% (59%, 77%)	72% (62.8%, 75%)	66.5% (55.8%, 74%)	42% (30%, 64.2%)	60% (40%, 77%)
Min, Max	5%, 80%	4%, 80%	-4%, 80%	-10%, 90%	-10%, 90%
Rounds					
Mean (95% CI)	5.6 (5.3, 6)	4.1 (3.9, 4.4)	3.6 (3.4, 3.7)	10.5 (10.3, 10.7)	9.4 (9.2, 9.7)
Median (Q1, Q3)	5 (3, 8)	3 (2, 6)	3 (2, 5)	11 (11, 11)	11 (9, 11)
Min, Max	1, 21	1, 17	1, 9	1, 11	1, 11

TABLE S13 Reverse, SD=0, ME=0.75, Estimated betas

	Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity					
Mean (95% CI)	41.9% (40.2%, 43.7%)	43.6% (41.8%, 45.4%)	45.7% (44%, 47.5%)	62% (60.2%, 63.7%)	62.3% (60.6%, 64%)
Efficiency					
Mean (95% CI)	66.9% (66.5%, 67.3%)	67.6% (67.2%, 68%)	63.8% (63.3%, 64.2%)	46.6% (46.1%, 47%)	55.9% (55.4%, 56.3%)
Median (Q1, Q3)	74% (59%, 79%)	74% (62%, 78%)	70% (55%, 78%)	43.5% (22.8%, 72%)	61% (35.8%, 81%)
Min, Max	-5%, 80%	-4%, 80%	-6%, 80%	-10%, 90%	-10%, 90%
Rounds					
Mean (95% CI)	5.4 (5, 5.8)	4 (3.7, 4.3)	3.3 (3.1, 3.5)	9.7 (9.5, 10)	8.8 (8.5, 9.1)
Median (Q1, Q3)	4 (2, 8)	3 (2, 6)	3 (2, 5)	11 (11, 11)	11 (7, 11)
Min, Max	1, 25	1, 19	1, 9	1, 11	1, 11