

**TABLE S1** Reverse, SD=1.0, ME=0, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	96.6% (95.9%, 97.3%)	96.9% (96.3%, 97.5%)	97.7% (97.1%, 98.2%)	100% (99.9%, 100%)	100% (99.9%, 100%)
Efficiency						
	Mean (95% CI)	65.6% (65.1%, 66%)	70.6% (70.2%, 71%)	63.5% (63.1%, 63.9%)	44.8% (44.4%, 45.3%)	60.5% (60.1%, 61%)
	Median (Q1, Q3)	66.5% (61%, 72%)	71% (68%, 74%)	65% (58%, 70%)	44% (36%, 55%)	61% (54%, 68.2%)
	Min, Max	25%, 80%	53%, 80%	25%, 80%	-7%, 90%	13%, 90%
Rounds						
	Mean (95% CI)	5.4 (5.2, 5.5)	3.5 (3.4, 3.6)	3.7 (3.6, 3.7)	11 (10.9, 11)	9.8 (9.7, 10)
	Median (Q1, Q3)	5 (4, 6)	3 (3, 4)	4 (3, 4)	11 (11, 11)	10 (9, 11)
	Min, Max	1, 13	1, 7	1, 6	1, 11	1, 11

**TABLE S2** Reverse, SD=1.0, ME=0.025, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	91.9% (90.8%, 92.9%)	91.3% (90.3%, 92.3%)	93.6% (92.7%, 94.5%)	98.5% (97.9%, 98.9%)	97.9% (97.3%, 98.4%)
Efficiency						
	Mean (95% CI)	64.6% (64.1%, 65%)	69% (68.6%, 69.4%)	62.4% (61.9%, 62.8%)	44.3% (43.8%, 44.7%)	59.1% (58.6%, 59.5%)
	Median (Q1, Q3)	66% (60%, 71%)	71% (66%, 73%)	64% (57%, 69.2%)	45% (34%, 53%)	60% (52%, 68%)
	Min, Max	33%, 80%	40%, 80%	26%, 80%	0%, 84%	4%, 89%
Rounds						
	Mean (95% CI)	5.8 (5.6, 5.9)	3.9 (3.7, 4)	3.8 (3.7, 3.9)	11 (11, 11)	10 (9.9, 10.2)
	Median (Q1, Q3)	6 (5, 7)	4 (3, 5)	4 (3, 4)	11 (11, 11)	11 (9, 11)
	Min, Max	1, 13	1, 10	1, 7	7, 11	2, 11

**TABLE S3** Reverse, SD=1.0, ME=0.05, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	89.6% (88.5%, 90.7%)	89.1% (87.9%, 90.2%)	92.2% (91.2%, 93.2%)	96.8% (96.1%, 97.4%)	96.2% (95.5%, 96.9%)
	Efficiency					
Efficiency	Mean (95% CI)	64.2% (63.8%, 64.6%)	68.3% (67.8%, 68.7%)	61.9% (61.5%, 62.4%)	44.1% (43.7%, 44.5%)	58% (57.5%, 58.4%)
	Median (Q1, Q3)	66% (59%, 70%)	70% (64%, 73%)	64% (56%, 69%)	45% (34%, 53%)	58% (50%, 67%)
	Min, Max	34%, 80%	34%, 80%	21%, 80%	-6%, 82%	-5%, 89%
Rounds						
	Mean (95% CI)	6 (5.8, 6.1)	4 (3.9, 4.1)	3.9 (3.8, 4)	11 (11, 11)	10.1 (10, 10.3)
	Median (Q1, Q3)	6 (5, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 13	1, 11	1, 7	9, 11	2, 11

**TABLE S4** Reverse, SD=1.0, ME=0.075, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	87.6% (86.4%, 88.8%)	87% (85.7%, 88.2%)	90.3% (89.1%, 91.3%)	95.2% (94.3%, 95.9%)	94.7% (93.8%, 95.5%)
	Efficiency					
Efficiency	Mean (95% CI)	64% (63.6%, 64.4%)	67.9% (67.5%, 68.3%)	61.8% (61.4%, 62.2%)	44% (43.5%, 44.4%)	57.2% (56.8%, 57.7%)
	Median (Q1, Q3)	65% (58%, 71%)	69% (64%, 73%)	64% (56%, 69%)	44% (33%, 53%)	58% (49%, 67%)
	Min, Max	31%, 80%	34%, 80%	12%, 80%	-7%, 82%	-6%, 89%
Rounds						
	Mean (95% CI)	6.1 (5.9, 6.2)	4.1 (3.9, 4.2)	3.9 (3.8, 4)	11 (11, 11)	10.1 (10, 10.3)
	Median (Q1, Q3)	6 (5, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 13	1, 11	1, 7	9, 11	2, 11

**TABLE S5** Reverse, SD=1.0, ME=0.1, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	85.8% (84.4%, 87%)	84.7% (83.3%, 86%)	88.6% (87.3%, 89.7%)	93.9% (93%, 94.8%)	93.3% (92.4%, 94.2%)
	Efficiency					
Efficiency	Mean (95% CI)	63.9% (63.5%, 64.3%)	67.7% (67.3%, 68.1%)	61.7% (61.3%, 62.1%)	43.9% (43.5%, 44.4%)	56.7% (56.2%, 57.1%)
	Median (Q1, Q3)	65.5% (58%, 71%)	69.5% (64%, 73%)	64% (56%, 69%)	44% (33%, 53%)	57% (47%, 67%)
	Min, Max	34%, 80%	30%, 80%	17%, 80%	-7%, 82%	-7%, 89%
Rounds	Mean (95% CI)	6.1 (5.9, 6.3)	4.2 (4, 4.3)	4 (3.9, 4.1)	11 (11, 11)	10.2 (10, 10.3)
	Median (Q1, Q3)	6 (5, 7)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 14	1, 11	1, 7	9, 11	2, 11

**TABLE S6** Reverse, SD=1.0, ME=0.125, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	83.7% (82.3%, 85%)	82.7% (81.3%, 84.1%)	86.3% (85%, 87.5%)	92.5% (91.5%, 93.5%)	92% (91%, 93%)
	Efficiency					
Efficiency	Mean (95% CI)	63.8% (63.4%, 64.2%)	67.5% (67.1%, 67.9%)	61.7% (61.2%, 62.1%)	43.8% (43.4%, 44.3%)	56.2% (55.7%, 56.6%)
	Median (Q1, Q3)	66% (58%, 71%)	69% (63%, 73%)	64% (56%, 69.2%)	44% (32%, 53%)	57% (46%, 67%)
	Min, Max	31%, 80%	34%, 80%	17%, 80%	-8%, 82%	-7%, 89%
Rounds	Mean (95% CI)	6.2 (6, 6.4)	4.2 (4.1, 4.4)	4 (3.9, 4.1)	11 (11, 11)	10.2 (10, 10.3)
	Median (Q1, Q3)	6 (5, 8)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 14	1, 11	1, 7	9, 11	2, 11

**TABLE S7** Reverse, SD=1.0, ME=0.15, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	81.6% (80.1%, 83%)	80.6% (79.1%, 82%)	84.8% (83.4%, 86.1%)	90.8% (89.6%, 91.8%)	90.8% (89.7%, 91.8%)
	Efficiency					
Efficiency	Mean (95% CI)	63.8% (63.4%, 64.2%)	67.2% (66.8%, 67.6%)	61.5% (61%, 61.9%)	43.7% (43.3%, 44.2%)	55.6% (55.2%, 56%)
	Median (Q1, Q3)	66% (58%, 72%)	69% (63%, 73%)	64% (55%, 70%)	44% (32.8%, 53.2%)	57% (45%, 67%)
	Min, Max	29%, 80%	26%, 80%	17%, 80%	-8%, 82%	-7%, 89%
Rounds						
	Mean (95% CI)	6.3 (6, 6.5)	4.3 (4.1, 4.4)	3.9 (3.8, 4)	11 (10.9, 11)	10.2 (10, 10.3)
	Median (Q1, Q3)	6 (5, 8)	4 (3, 5)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 14	1, 12	1, 7	6, 11	2, 11

**TABLE S8** Reverse, SD=1.0, ME=0.175, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	79.5% (78%, 81%)	78.9% (77.4%, 80.4%)	83% (81.6%, 84.4%)	89% (87.8%, 90.1%)	89.2% (88.1%, 90.3%)
	Efficiency					
Efficiency	Mean (95% CI)	63.7% (63.3%, 64.1%)	67.1% (66.7%, 67.5%)	61.5% (61%, 61.9%)	43.8% (43.3%, 44.2%)	55.2% (54.8%, 55.6%)
	Median (Q1, Q3)	66% (58%, 72%)	69% (62%, 74%)	63% (55%, 70%)	44% (33%, 54%)	57% (44%, 68%)
	Min, Max	28%, 80%	25%, 80%	17%, 80%	-8%, 82%	-7%, 89%
Rounds						
	Mean (95% CI)	6.4 (6.1, 6.6)	4.3 (4.1, 4.5)	3.9 (3.8, 4)	11 (10.9, 11)	10.1 (10, 10.3)
	Median (Q1, Q3)	6 (5, 8)	4 (3, 6)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 14	1, 13	1, 8	5, 11	2, 11

**TABLE S9** Reverse, SD=1.0, ME=0.2, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	77.9% (76.4%, 79.4%)	77.1% (75.5%, 78.6%)	81.7% (80.3%, 83.1%)	87.7% (86.5%, 88.9%)	87.6% (86.4%, 88.8%)
	Efficiency					
Efficiency	Mean (95% CI)	63.8% (63.3%, 64.2%)	67% (66.5%, 67.4%)	61.4% (61%, 61.8%)	43.6% (43.2%, 44.1%)	54.9% (54.5%, 55.3%)
	Median (Q1, Q3)	66% (57%, 72%)	69% (62%, 74%)	64% (55%, 70%)	44% (32%, 54%)	57% (43%, 68%)
	Min, Max	24%, 80%	23%, 80%	16%, 80%	-8%, 85%	-7%, 89%
Rounds	Mean (95% CI)	6.4 (6.1, 6.6)	4.3 (4.1, 4.5)	3.9 (3.8, 4)	10.9 (10.9, 11)	10.1 (10, 10.3)
	Median (Q1, Q3)	6 (4, 8)	4 (3, 6)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 15	1, 13	1, 8	5, 11	2, 11

**TABLE S10** Reverse, SD=1.0, ME=0.225, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	76.2% (74.6%, 77.7%)	75.5% (73.9%, 77.1%)	79.8% (78.3%, 81.2%)	86.4% (85.1%, 87.6%)	86.3% (85.1%, 87.6%)
	Efficiency					
Efficiency	Mean (95% CI)	63.8% (63.4%, 64.2%)	66.8% (66.4%, 67.3%)	61.2% (60.8%, 61.7%)	43.4% (42.9%, 43.8%)	54.3% (53.9%, 54.8%)
	Median (Q1, Q3)	66% (57%, 72%)	69% (62%, 74%)	63% (54%, 70%)	44.5% (32%, 55%)	57% (42%, 67.3%)
	Min, Max	24%, 80%	21%, 80%	13%, 80%	-8%, 85%	-7%, 89%
Rounds	Mean (95% CI)	6.4 (6.2, 6.6)	4.3 (4.1, 4.5)	3.9 (3.8, 4)	10.9 (10.9, 11)	10.1 (9.9, 10.3)
	Median (Q1, Q3)	6 (4, 8)	4 (3, 6)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 15	1, 13	1, 8	5, 11	2, 11

**TABLE S11** Reverse, SD=1.0, ME=0.25, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	74.3% (72.7%, 75.9%)	73.8% (72.1%, 75.3%)	78% (76.4%, 79.5%)	84.9% (83.6%, 86.2%)	84.8% (83.4%, 86%)
	Efficiency					
Efficiency	Mean (95% CI)	63.8% (63.4%, 64.3%)	66.6% (66.2%, 67.1%)	61.1% (60.7%, 61.6%)	43.4% (43%, 43.8%)	54.2% (53.7%, 54.6%)
	Median (Q1, Q3)	66% (57%, 72%)	69% (61%, 74%)	63% (54%, 70%)	44% (32%, 55%)	57% (42%, 68%)
	Min, Max	21%, 80%	23%, 80%	13%, 80%	-10%, 86%	-9%, 89%
Rounds						
	Mean (95% CI)	6.4 (6.2, 6.7)	4.4 (4.2, 4.6)	3.9 (3.8, 4)	10.9 (10.9, 11)	10 (9.9, 10.2)
	Median (Q1, Q3)	6 (4, 8)	4 (3, 6)	4 (3, 5)	11 (11, 11)	11 (10, 11)
	Min, Max	1, 17	1, 14	1, 8	5, 11	2, 11

**TABLE S12** Reverse, SD=1.0, ME=0.5, Estimated betas

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	56.9% (55.2%, 58.6%)	56.7% (55%, 58.4%)	60.3% (58.7%, 62%)	71.9% (70.4%, 73.4%)	71.3% (69.8%, 72.9%)
	Efficiency					
Efficiency	Mean (95% CI)	64% (63.6%, 64.4%)	65.5% (65.1%, 65.9%)	60.6% (60.2%, 61.1%)	43.4% (42.9%, 43.8%)	52.1% (51.6%, 52.5%)
	Median (Q1, Q3)	68% (56%, 76%)	70% (60%, 75%)	64% (52.8%, 73%)	47% (25%, 61%)	57% (35%, 72%)
	Min, Max	-4%, 80%	-3%, 80%	-7%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	6.6 (6.2, 7)	4.6 (4.3, 4.8)	3.8 (3.6, 3.9)	10.7 (10.6, 10.8)	9.8 (9.6, 10)
	Median (Q1, Q3)	6 (3, 9)	4 (2, 6)	3 (2, 5)	11 (11, 11)	11 (9, 11)
	Min, Max	1, 23	1, 18	1, 10	1, 11	1, 11

**TABLE S13** Reverse, SD=1.0, ME=0.75, Estimated betas

	<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity					
Mean (95% CI)	44.4% (42.9%, 46%)	43.5% (42%, 45.1%)	47.2% (45.6%, 48.8%)	62.2% (60.6%, 63.7%)	60.9% (59.4%, 62.4%)
Efficiency					
Mean (95% CI)	63.3% (62.8%, 63.7%)	64.5% (64%, 64.9%)	59.9% (59.4%, 60.3%)	43.5% (43.1%, 44%)	51% (50.6%, 51.4%)
Median (Q1, Q3)	70% (54.8%, 79%)	72% (58%, 75%)	65% (50%, 74%)	48% (20%, 67%)	58% (27%, 75.2%)
Min, Max	-16%, 80%	-18%, 80%	-19%, 80%	-10%, 90%	-10%, 90%
Rounds					
Mean (95% CI)	6.7 (6.3, 7.2)	4.7 (4.4, 5.1)	3.6 (3.4, 3.8)	10.2 (10, 10.4)	9.3 (9, 9.5)
Median (Q1, Q3)	6 (2, 10)	3 (2, 7)	3 (2, 5)	11 (11, 11)	11 (9, 11)
Min, Max	1, 29	1, 21	1, 12	1, 11	1, 11

