

TABLE S1 AGAIG, SD=1.0, ME=0, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	96.9% (96.2%, 97.5%)	96.9% (96.3%, 97.5%)	98.2% (97.6%, 98.6%)	100% (99.9%, 100%)	100% (99.9%, 100%)
Efficiency						
	Mean (95% CI)	73.2% (72.8%, 73.5%)	70.6% (70.2%, 71%)	70.2% (69.8%, 70.6%)	78% (77.7%, 78.4%)	60.5% (60.1%, 61%)
	Median (Q1, Q3)	73% (71%, 75%)	71% (68%, 74%)	70% (68%, 73%)	79% (74%, 82%)	61% (54%, 68.2%)
	Min, Max	57%, 80%	53%, 80%	52%, 80%	40%, 90%	13%, 90%
Rounds						
	Mean (95% CI)	3.3 (3.3, 3.4)	3.5 (3.4, 3.6)	2.5 (2.4, 2.5)	6 (5.7, 6.2)	9.8 (9.7, 10)
	Median (Q1, Q3)	3 (3, 4)	3 (3, 4)	2 (2, 3)	6 (4, 8)	10 (9, 11)
	Min, Max	1, 7	1, 7	1, 4	1, 11	1, 11

TABLE S2 AGAIG, SD=1.0, ME=0.025, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	92.8% (91.8%, 93.7%)	91.3% (90.3%, 92.3%)	95.9% (95.1%, 96.6%)	96.9% (96.2%, 97.5%)	97.9% (97.3%, 98.4%)
Efficiency						
	Mean (95% CI)	71.7% (71.3%, 72.1%)	69% (68.6%, 69.4%)	69.8% (69.4%, 70.2%)	74.3% (73.9%, 74.7%)	59.1% (58.6%, 59.5%)
	Median (Q1, Q3)	73% (70%, 75%)	71% (66%, 73%)	71% (67%, 73%)	76.5% (68%, 82%)	60% (52%, 68%)
	Min, Max	44%, 80%	40%, 80%	51%, 80%	38%, 89%	4%, 89%
Rounds						
	Mean (95% CI)	4 (3.9, 4.2)	3.9 (3.7, 4)	2.6 (2.5, 2.6)	7.4 (7.1, 7.7)	10 (9.9, 10.2)
	Median (Q1, Q3)	4 (3, 5)	4 (3, 5)	2 (2, 3)	8 (4, 11)	11 (9, 11)
	Min, Max	1, 12	1, 10	1, 5	2, 11	2, 11

TABLE S3 AGAIG, SD=1.0, ME=0.05, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	90.9% (89.8%, 91.9%)	89.1% (87.9%, 90.2%)	94.8% (93.9%, 95.6%)	95.8% (95%, 96.5%)	96.2% (95.5%, 96.9%)
Efficiency						
	Mean (95% CI)	70.9% (70.5%, 71.3%)	68.3% (67.8%, 68.7%)	69.3% (68.9%, 69.7%)	72% (71.7%, 72.4%)	58% (57.5%, 58.4%)
	Median (Q1, Q3)	72% (68%, 75%)	70% (64%, 73%)	70% (67%, 73%)	75% (65%, 81%)	58% (50%, 67%)
	Min, Max	39%, 80%	34%, 80%	46%, 80%	28%, 89%	-5%, 89%
Rounds						
	Mean (95% CI)	4.4 (4.3, 4.6)	4 (3.9, 4.1)	2.7 (2.6, 2.7)	8 (7.7, 8.3)	10.1 (10, 10.3)
	Median (Q1, Q3)	4 (3, 6)	4 (3, 5)	2 (2, 3)	10 (4, 11)	11 (10, 11)
	Min, Max	1, 12	1, 11	1, 5	2, 11	2, 11

TABLE S4 AGAIG, SD=1.0, ME=0.075, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	89.7% (88.5%, 90.8%)	87% (85.7%, 88.2%)	93.8% (92.8%, 94.6%)	94.7% (93.8%, 95.5%)	94.7% (93.8%, 95.5%)
Efficiency						
	Mean (95% CI)	70.2% (69.8%, 70.6%)	67.9% (67.5%, 68.3%)	68.9% (68.5%, 69.3%)	70.7% (70.2%, 71%)	57.2% (56.8%, 57.7%)
	Median (Q1, Q3)	72% (67%, 75%)	69% (64%, 73%)	70% (66%, 73%)	74% (63%, 81%)	58% (49%, 67%)
	Min, Max	36%, 80%	34%, 80%	46%, 80%	20%, 89%	-6%, 89%
Rounds						
	Mean (95% CI)	4.7 (4.5, 4.9)	4.1 (3.9, 4.2)	2.7 (2.7, 2.8)	8.1 (7.8, 8.4)	10.1 (10, 10.3)
	Median (Q1, Q3)	4 (3, 6)	4 (3, 5)	3 (2, 3)	11 (5, 11)	11 (10, 11)
	Min, Max	1, 12	1, 11	1, 6	2, 11	2, 11

TABLE S5 AGAIG, SD=1.0, ME=0.1, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	87.7% (86.5%, 88.9%)	84.7% (83.3%, 86%)	92.4% (91.4%, 93.4%)	93.1% (92.1%, 94%)	93.3% (92.4%, 94.2%)
Efficiency						
	Mean (95% CI)	69.9% (69.5%, 70.3%)	67.7% (67.3%, 68.1%)	68.6% (68.2%, 69%)	69.4% (69%, 69.8%)	56.7% (56.2%, 57.1%)
	Median (Q1, Q3)	72% (66%, 75%)	69.5% (64%, 73%)	70% (66%, 73%)	73% (60%, 81%)	57% (47%, 67%)
	Min, Max	37%, 80%	30%, 80%	42%, 80%	14%, 89%	-7%, 89%
Rounds						
	Mean (95% CI)	4.8 (4.6, 5)	4.2 (4, 4.3)	2.8 (2.7, 2.9)	8.2 (7.9, 8.5)	10.2 (10, 10.3)
	Median (Q1, Q3)	4 (3, 6)	4 (3, 5)	3 (2, 3)	11 (5, 11)	11 (10, 11)
	Min, Max	1, 12	1, 11	1, 6	2, 11	2, 11

TABLE S6 AGAIG, SD=1.0, ME=0.125, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	86% (84.6%, 87.2%)	82.7% (81.3%, 84.1%)	91% (89.9%, 92%)	91.3% (90.2%, 92.3%)	92% (91%, 93%)
Efficiency						
	Mean (95% CI)	69.6% (69.2%, 70%)	67.5% (67.1%, 67.9%)	68.4% (68%, 68.8%)	68.5% (68.1%, 69%)	56.2% (55.7%, 56.6%)
	Median (Q1, Q3)	72% (65%, 75%)	69% (63%, 73%)	70% (65%, 73%)	72.5% (59%, 81%)	57% (46%, 67%)
	Min, Max	37%, 80%	34%, 80%	43%, 80%	9%, 89%	-7%, 89%
Rounds						
	Mean (95% CI)	4.9 (4.7, 5.2)	4.2 (4.1, 4.4)	2.8 (2.7, 2.9)	8.2 (7.9, 8.6)	10.2 (10, 10.3)
	Median (Q1, Q3)	5 (3, 7)	4 (3, 5)	3 (2, 3)	11 (4, 11)	11 (10, 11)
	Min, Max	1, 13	1, 11	1, 6	2, 11	2, 11

TABLE S7 AGAIG, SD=1.0, ME=0.15, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	83.9% (82.5%, 85.3%)	80.6% (79.1%, 82%)	89.7% (88.5%, 90.7%)	89.9% (88.7%, 91%)	90.8% (89.7%, 91.8%)
Efficiency						
	Mean (95% CI)	69.3% (68.9%, 69.7%)	67.2% (66.8%, 67.6%)	68.1% (67.7%, 68.5%)	67.6% (67.2%, 68%)	55.6% (55.2%, 56%)
	Median (Q1, Q3)	72% (65%, 75%)	69% (63%, 73%)	70% (64.8%, 73%)	72% (57%, 82%)	57% (45%, 67%)
	Min, Max	32%, 80%	26%, 80%	40%, 80%	6%, 89%	-7%, 89%
Rounds						
	Mean (95% CI)	5.1 (4.9, 5.3)	4.3 (4.1, 4.4)	2.9 (2.8, 3)	8.3 (7.9, 8.6)	10.2 (10, 10.3)
	Median (Q1, Q3)	5 (3, 7)	4 (3, 5)	3 (2, 4)	11 (4, 11)	11 (10, 11)
	Min, Max	1, 14	1, 12	1, 7	2, 11	2, 11

TABLE S8 AGAIG, SD=1.0, ME=0.175, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity						
	Mean (95% CI)	82.2% (80.7%, 83.5%)	78.9% (77.4%, 80.4%)	87.7% (86.4%, 88.8%)	88.6% (87.4%, 89.7%)	89.2% (88.1%, 90.3%)
Efficiency						
	Mean (95% CI)	69.1% (68.7%, 69.5%)	67.1% (66.7%, 67.5%)	67.9% (67.5%, 68.3%)	66.7% (66.2%, 67.1%)	55.2% (54.8%, 55.6%)
	Median (Q1, Q3)	72% (64%, 75%)	69% (62%, 74%)	70% (64%, 73%)	72% (55%, 82%)	57% (44%, 68%)
	Min, Max	31%, 80%	25%, 80%	36%, 80%	6%, 89%	-7%, 89%
Rounds						
	Mean (95% CI)	5.2 (5, 5.4)	4.3 (4.1, 4.5)	2.9 (2.8, 3)	8.3 (8, 8.6)	10.1 (10, 10.3)
	Median (Q1, Q3)	5 (3, 7)	4 (3, 6)	3 (2, 4)	11 (4, 11)	11 (10, 11)
	Min, Max	1, 15	1, 13	1, 6	2, 11	2, 11

TABLE S9 AGAIG, SD=1.0, ME=0.2, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	80.6% (79.1%, 82%)	77.1% (75.5%, 78.6%)	86% (84.6%, 87.2%)	87% (85.8%, 88.2%)	87.6% (86.4%, 88.8%)
	Efficiency					
Efficiency	Mean (95% CI)	68.9% (68.5%, 69.3%)	67% (66.5%, 67.4%)	67.6% (67.2%, 68.1%)	65.9% (65.5%, 66.3%)	54.9% (54.5%, 55.3%)
	Median (Q1, Q3)	72% (64%, 75%)	69% (62%, 74%)	70% (64%, 73%)	71% (54%, 82%)	57% (43%, 68%)
	Min, Max	31%, 80%	23%, 80%	34%, 80%	3%, 89%	-7%, 89%
Rounds						
	Mean (95% CI)	5.3 (5, 5.5)	4.3 (4.1, 4.5)	2.9 (2.8, 3)	8.4 (8, 8.7)	10.1 (10, 10.3)
	Median (Q1, Q3)	5 (3, 7)	4 (3, 6)	3 (2, 4)	11 (4, 11)	11 (10, 11)
	Min, Max	1, 15	1, 13	1, 7	2, 11	2, 11

TABLE S10 AGAIG, SD=1.0, ME=0.225, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	78.9% (77.4%, 80.4%)	75.5% (73.9%, 77.1%)	84% (82.6%, 85.3%)	85.7% (84.4%, 87%)	86.3% (85.1%, 87.6%)
	Efficiency					
Efficiency	Mean (95% CI)	68.8% (68.4%, 69.2%)	66.8% (66.4%, 67.3%)	67.3% (66.9%, 67.8%)	65.2% (64.8%, 65.6%)	54.3% (53.9%, 54.8%)
	Median (Q1, Q3)	72% (64%, 75%)	69% (62%, 74%)	70% (63%, 73%)	70.5% (52.8%, 82%)	57% (42%, 67.3%)
	Min, Max	26%, 80%	21%, 80%	27%, 80%	-2%, 89%	-7%, 89%
Rounds						
	Mean (95% CI)	5.3 (5.1, 5.6)	4.3 (4.1, 4.5)	3 (2.9, 3.1)	8.4 (8, 8.7)	10.1 (9.9, 10.3)
	Median (Q1, Q3)	5 (3, 7)	4 (3, 6)	3 (2, 4)	11 (4, 11)	11 (10, 11)
	Min, Max	1, 14	1, 13	1, 8	2, 11	2, 11

TABLE S11 AGAIG, SD=1.0, ME=0.25, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	76.8% (75.3%, 78.3%)	73.8% (72.1%, 75.3%)	81.8% (80.4%, 83.2%)	84.5% (83.1%, 85.7%)	84.8% (83.4%, 86%)
	Efficiency					
Efficiency	Mean (95% CI)	68.6% (68.2%, 69%)	66.6% (66.2%, 67.1%)	67.2% (66.8%, 67.7%)	64.6% (64.1%, 65%)	54.2% (53.7%, 54.6%)
	Median (Q1, Q3)	72% (63%, 76%)	69% (61%, 74%)	70% (63%, 73%)	69% (51.8%, 82%)	57% (42%, 68%)
	Min, Max	24%, 80%	23%, 80%	23%, 80%	-6%, 89%	-9%, 89%
Rounds	Mean (95% CI)	5.4 (5.1, 5.6)	4.4 (4.2, 4.6)	3 (2.9, 3.1)	8.4 (8, 8.7)	10 (9.9, 10.2)
	Median (Q1, Q3)	5 (3, 7)	4 (3, 6)	3 (2, 4)	11 (4, 11)	11 (10, 11)
	Min, Max	1, 18	1, 14	1, 8	2, 11	2, 11

TABLE S12 AGAIG, SD=1.0, ME=0.5, Estimated betas

		Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity	Mean (95% CI)	58.3% (56.6%, 60%)	56.7% (55%, 58.4%)	63.3% (61.7%, 65%)	70.9% (69.3%, 72.4%)	71.3% (69.8%, 72.9%)
	Efficiency					
Efficiency	Mean (95% CI)	67.3% (66.8%, 67.7%)	65.5% (65.1%, 65.9%)	65.3% (64.9%, 65.8%)	60.5% (60.1%, 61%)	52.1% (51.6%, 52.5%)
	Median (Q1, Q3)	72% (61%, 78%)	70% (60%, 75%)	69% (60%, 74%)	68% (43%, 85%)	57% (35%, 72%)
	Min, Max	-5%, 80%	-3%, 80%	-2%, 80%	-10%, 90%	-10%, 90%
Rounds	Mean (95% CI)	5.9 (5.5, 6.2)	4.6 (4.3, 4.8)	3.1 (3, 3.3)	8.1 (7.8, 8.5)	9.8 (9.6, 10)
	Median (Q1, Q3)	5 (2, 9)	4 (2, 6)	3 (2, 4)	11 (3, 11)	11 (9, 11)
	Min, Max	1, 22	1, 18	1, 10	1, 11	1, 11

TABLE S13 AGAIG, SD=1.0, ME=0.75, Estimated betas

	Linreg	MSS	LRSOE	MiniPred	Mini+alg
Sensitivity					
Mean (95% CI)	44.6% (43.1%, 46.2%)	43.5% (42%, 45.1%)	48.7% (47.1%, 50.3%)	60.2% (58.6%, 61.7%)	60.9% (59.4%, 62.4%)
Efficiency					
Mean (95% CI)	65.8% (65.4%, 66.2%)	64.5% (64%, 64.9%)	63.7% (63.3%, 64.2%)	57.9% (57.4%, 58.3%)	51% (50.6%, 51.4%)
Median (Q1, Q3)	74% (59%, 79%)	72% (58%, 75%)	69% (59%, 74%)	68% (33.8%, 86%)	58% (27%, 75.2%)
Min, Max	-17%, 80%	-18%, 80%	-18%, 80%	-10%, 90%	-10%, 90%
Rounds					
Mean (95% CI)	6.1 (5.7, 6.6)	4.7 (4.4, 5.1)	3.2 (3, 3.3)	7.9 (7.5, 8.3)	9.3 (9, 9.5)
Median (Q1, Q3)	5 (2, 9)	3 (2, 7)	2 (2, 4)	11 (3, 11)	11 (9, 11)
Min, Max	1, 29	1, 21	1, 11	1, 11	1, 11

