

Minerva vs Metis: Average ballots drawn

	Minerva	Metis	% improvement
.6 win, 10% alpha.	159.13	157.71	0.892352164896625
.55 win, 10% alpha	655.02	633.62	3.26707581447895
.525win, 10%alpha	2580.39	2534.08	1.7946899499688
.6 win, 5% alpha	205.71	195.92	4.75912692625541
.55 win, 5% alpha	787.63	782.45	0.657669210162132
.525 win, 5% alpha	3159.81	3122.65	1.17602007715654
.6 win, 1% alpha	296.32	295.08	0.418466522678186
.55 win, 1% alpha	1202.82	1179.20	1.96371859463594
.525 win, 1% alpha	4743.64	4722.47	0.446281758312182

Round schedules for .6 winner tally: 100, 200, 400, 800, 1600.
Round schedules for .55 winner tally: 400, 800, 1600, 3200, 6400.
Round schedules for .525 winner tally: 1600, 3200, 6400, 12800, 25600.

In all cases these schedules are sufficiently powerful so that the cumulative stopping probabilities are in excess of .9999 (for all 18 audits).

These results seem to defy a simple takeaway. Note that, if Metis gives a substantive improvement, it’s usually lowering an early-round kmin by 1.