MSM4PCoD Task 3C Results

2023-10-24

Does a calf ratio submodel improve power?

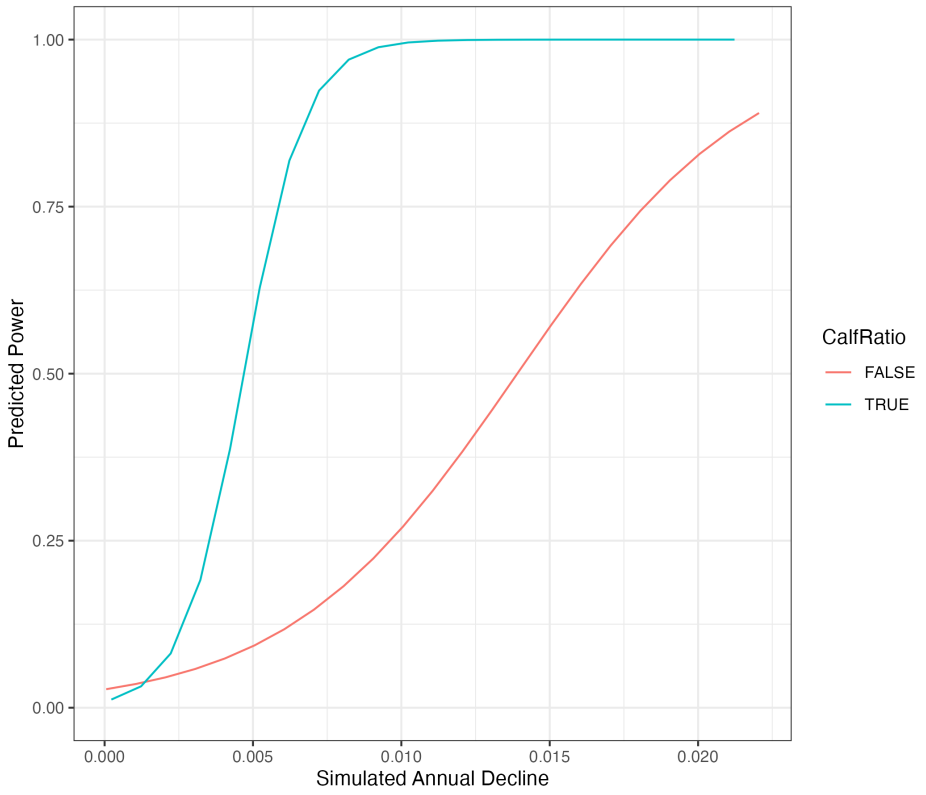

Figure 1: Comparison of results from a realistic simualation with and without a calf ratio observational submodel

Results with calf ratio submodel

Ideal Scenario

DeltaTrend_Sim	IPM_Pred	PAM_Pred	LT_Pred
0.00	0.00	0.18	0.02
0.00	0.66	0.47	0.14
-0.01	1.00	0.79	0.50
-0.02	1.00	0.98	0.98

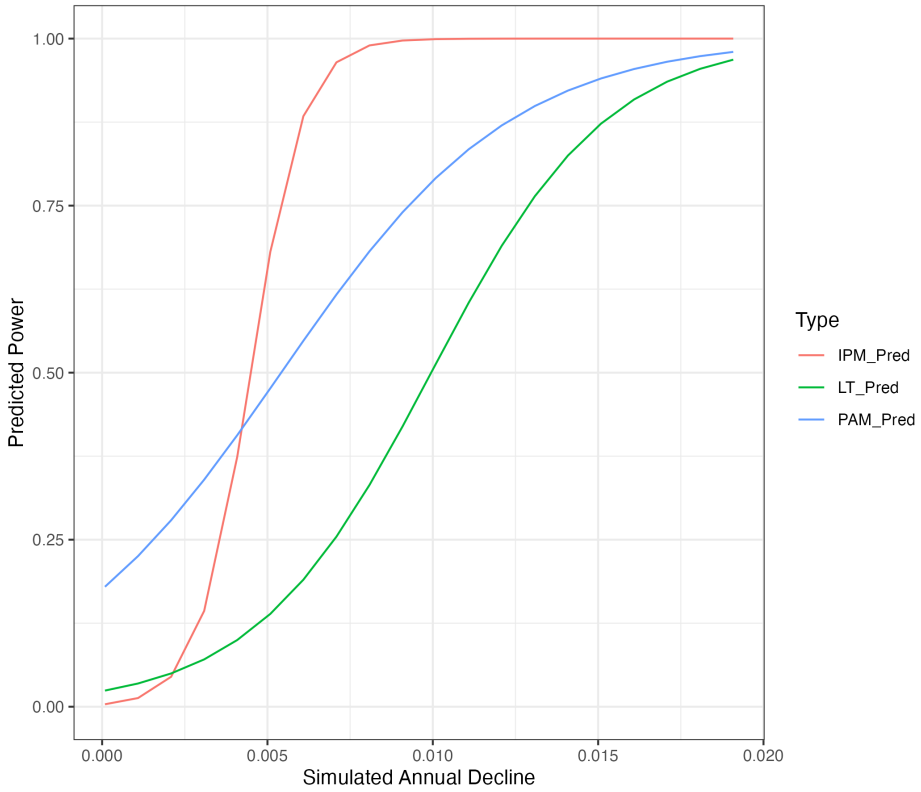

Figure 2: Predicted power for ideal scenario

20-yr Ideal

DeltaTrend_Sim	IPM_Pred	PAM_Pred	LT_Pred
0.00	0.03	0.08	0.06
0.00	0.54	0.16	0.06
-0.01	0.98	0.30	0.05
-0.02	1.00	0.67	0.04

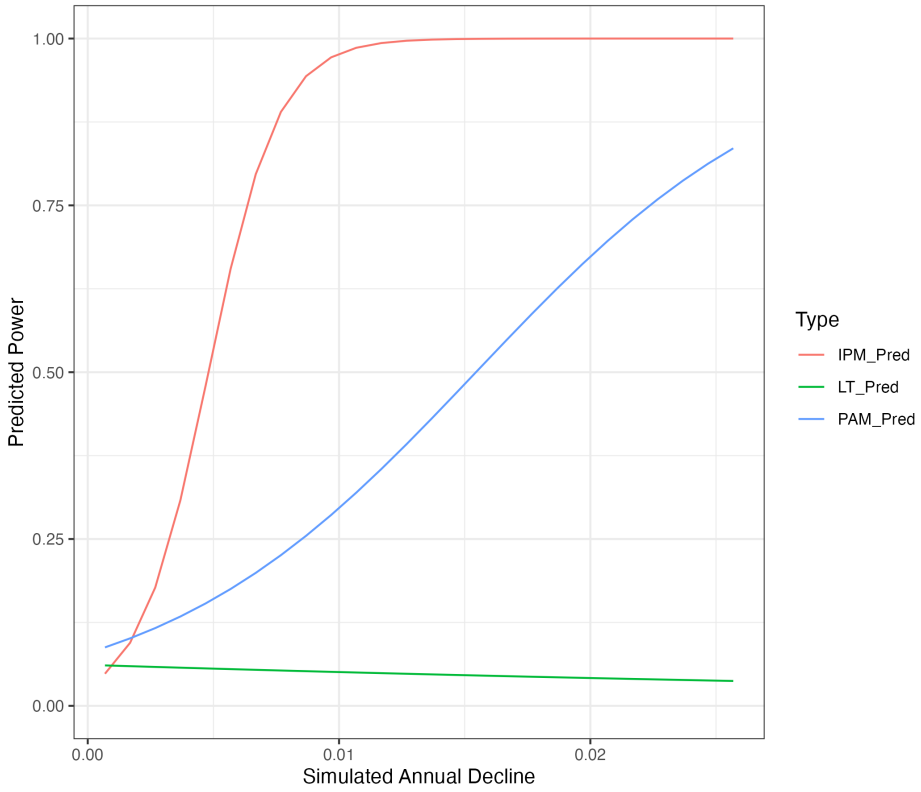

Figure 3: Predicted power for 20 year ideal scenario

Frequent Surveys Scenario

DeltaTrend_Sim	IPM_Pred	PAM_Pred	LT_Pred
0.00	0.01	0.21	0.06
0.00	0.53	0.43	0.11
-0.01	0.99	0.69	0.18
-0.02	1.00	0.95	0.42

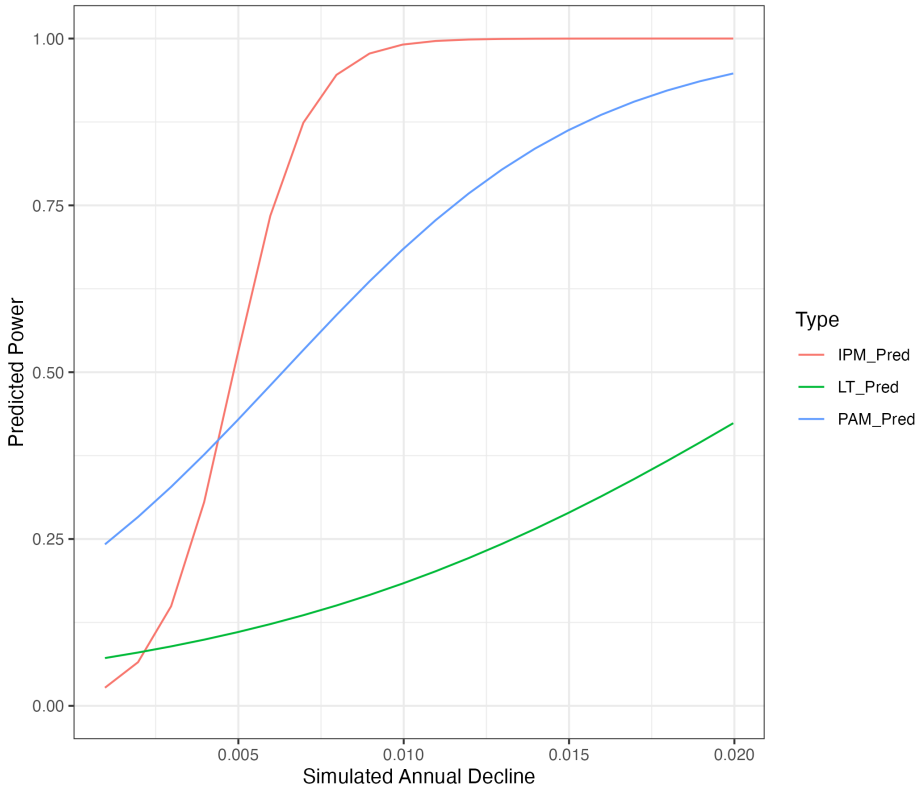

Figure 4: Predicted power for frequent survey scenario

Optimistic Surveys Scenario

DeltaTrend_Sim	IPM_Pred	PAM_Pred	LT_Pred
0.00	0.03	0.11	0.09
0.00	0.63	0.18	0.07
-0.01	0.99	0.29	0.06
-0.02	1.00	0.58	0.05

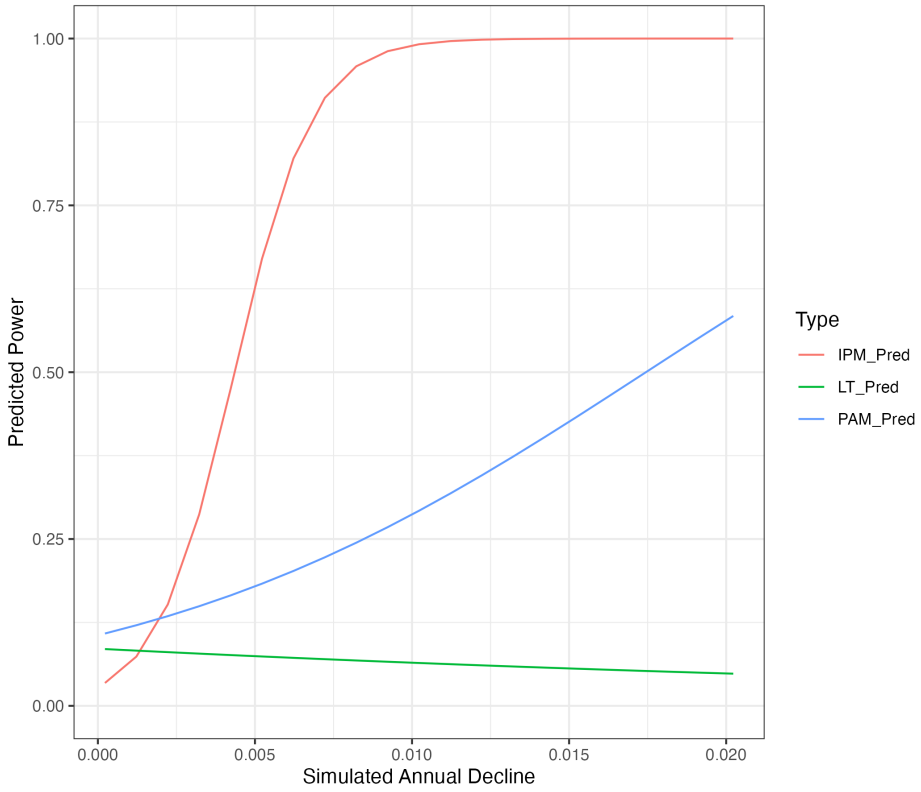

Figure 5: Predicted power for optimistic scenario

Realistic 20-yr Scenario

DeltaTrend_Sim	IPM_Pred	PAM_Pred	LT_Pred
0.00	0.11	0.03	0.04
0.00	0.42	0.06	0.05
-0.01	0.80	0.12	0.05
-0.02	0.99	0.36	0.07

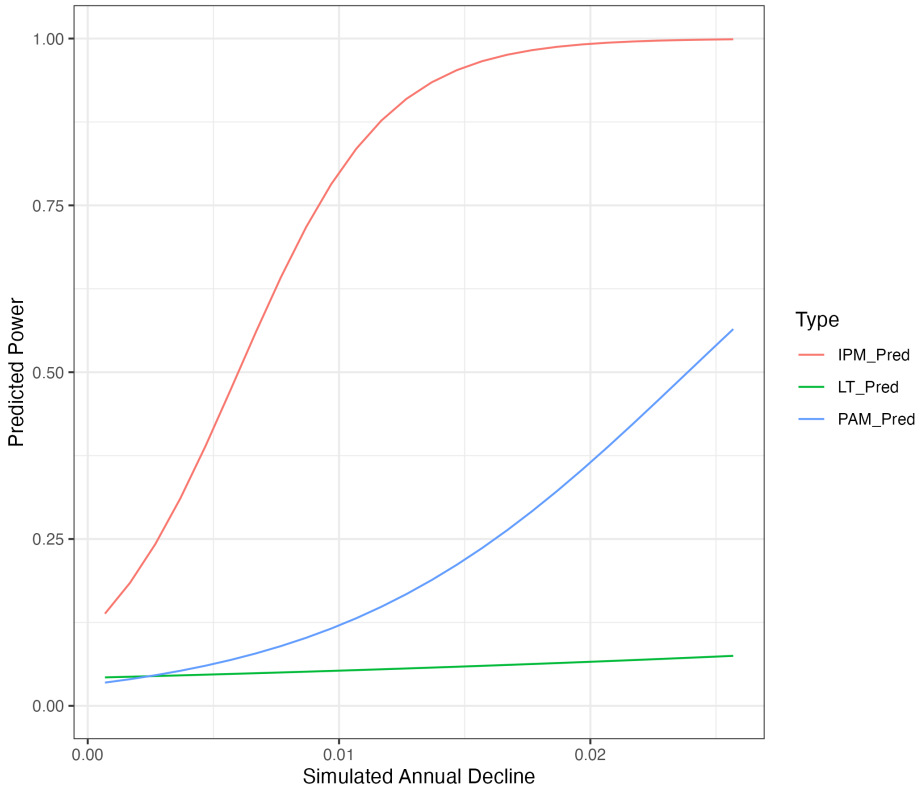

Figure 6: Predicted power for 20 yr realistic scenario