

MSM4PCoD Task 3C Results

2023-10-24

Does a calf ratio submodel improve power?

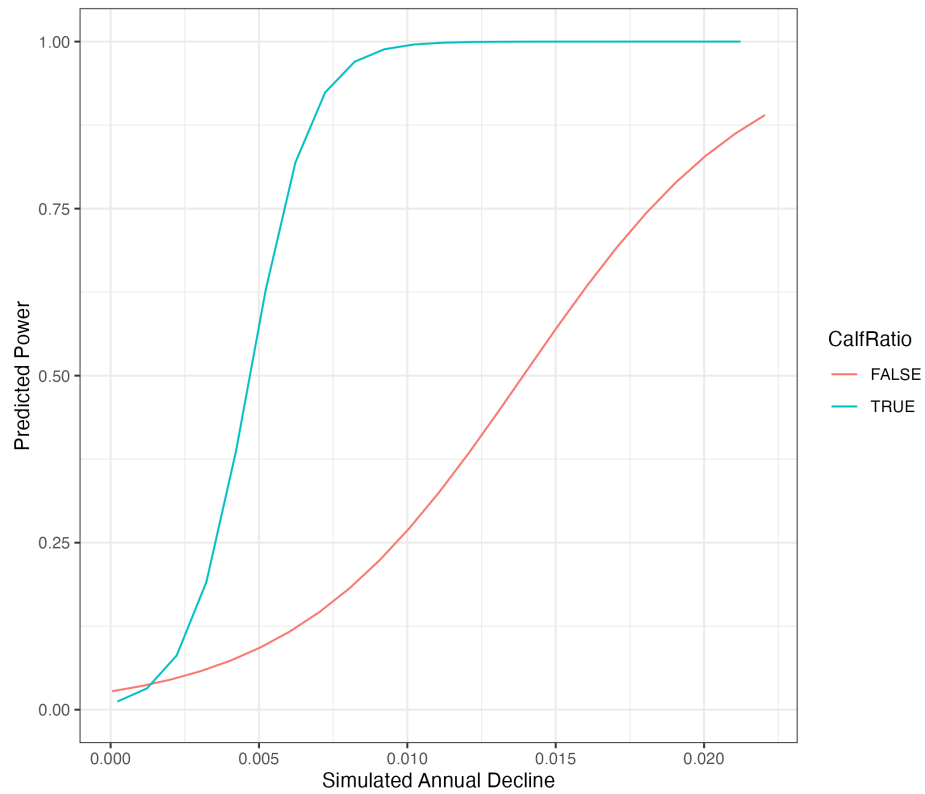


Figure 1: Comparison of results from a realistic simulation with and without a calf ratio observational submodel

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

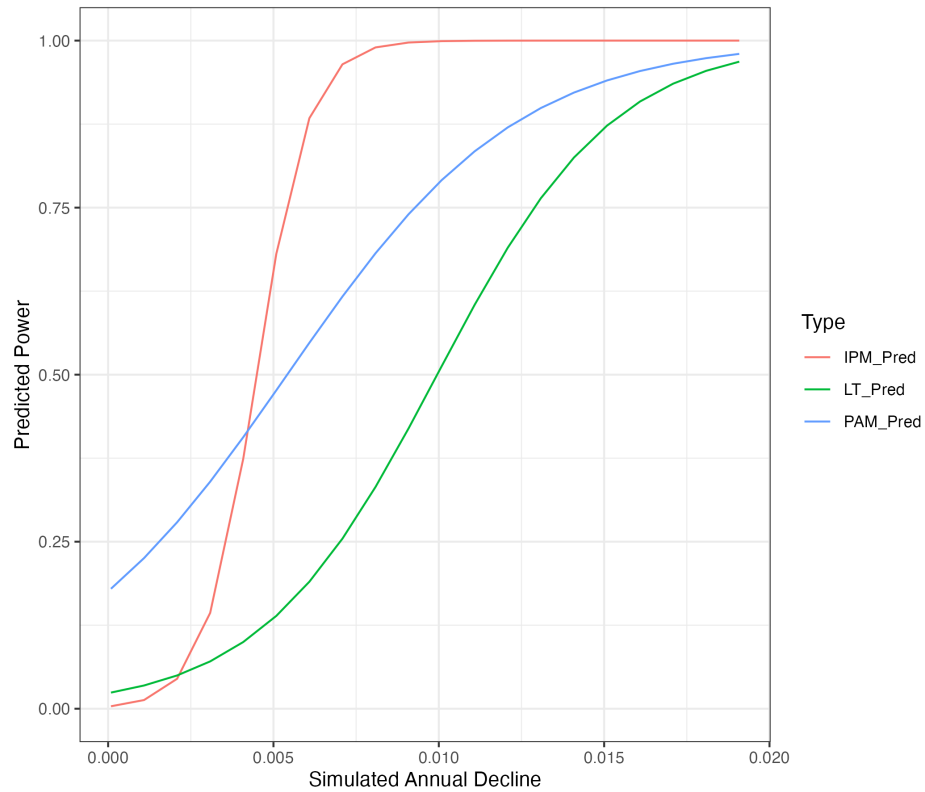


Figure 2: Predicted power for ideal scenario

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

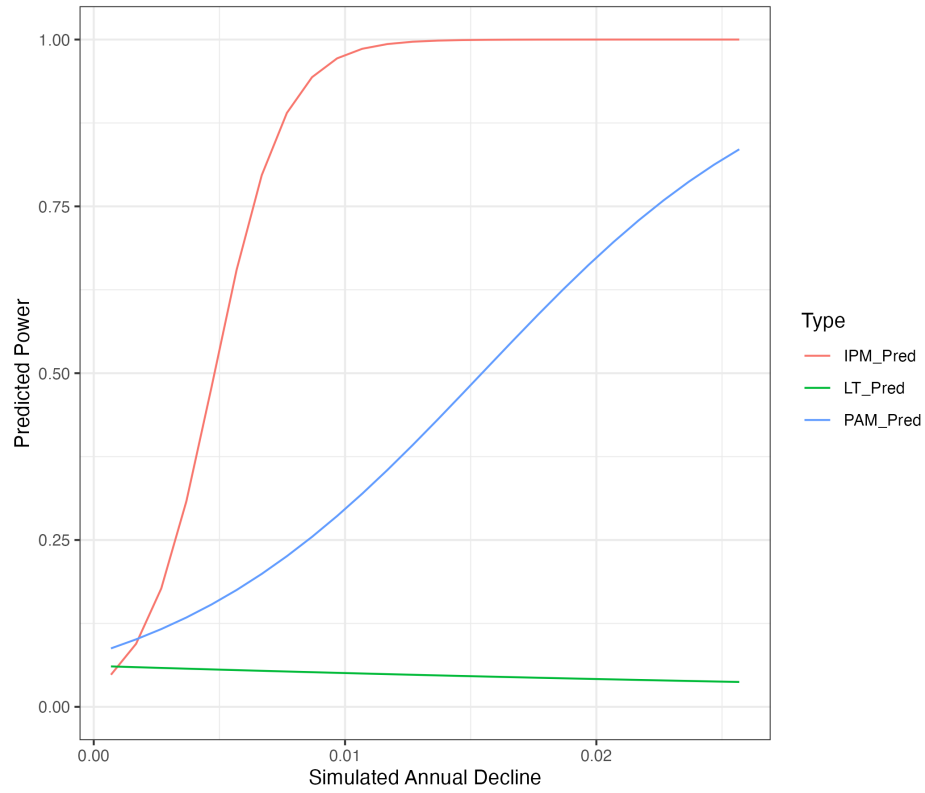


Figure 3: Predicted power for 20 year ideal scenario

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

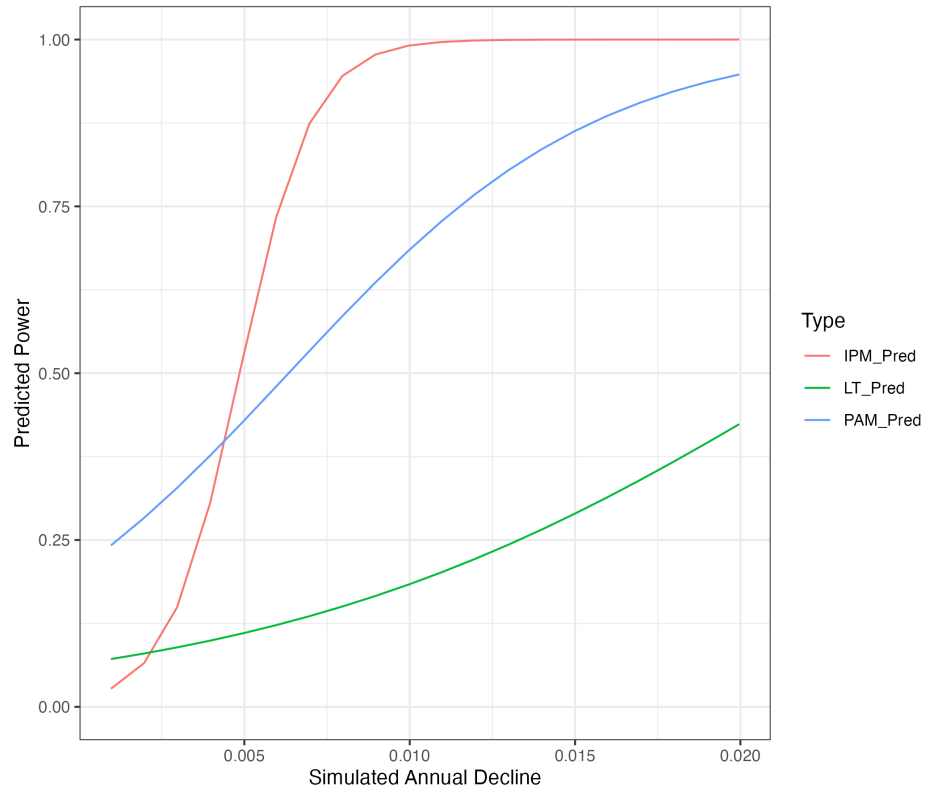


Figure 4: Predicted power for frequent survey scenario

Optimistic Surveys Scenario

DeltaTrend_Sim	IPM_Pred	PAM_Pred	LT_Pred
0.00	0.02	0.08	0.09
0.00	0.59	0.28	0.13
-0.01	0.99	0.62	0.20
-0.02	1.00	0.97	0.39

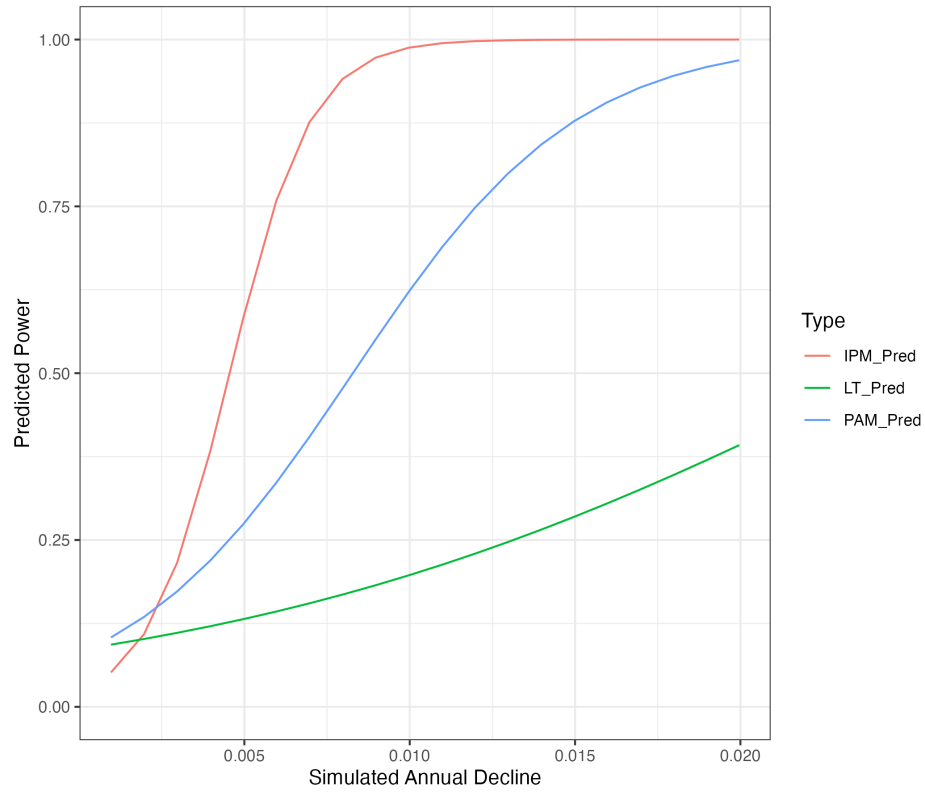


Figure 5: Predicted power for optimistic scenario

Realistic 20-yr Scenario

DeltaTrend_Sim	IPM_Pred	PAM_Pred	LT_Pred
0.00	0.06	0.06	0.03
0.00	0.58	0.24	0.07
-0.01	0.97	0.61	0.15
-0.02	1.00	0.98	0.52

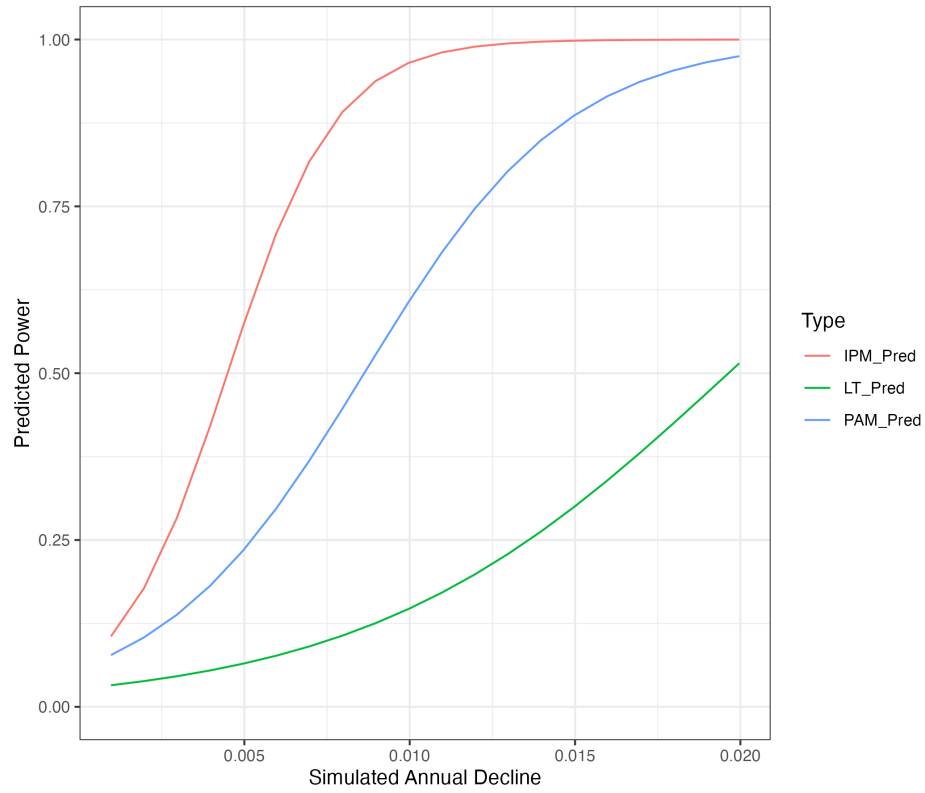


Figure 6: Predicted power for 20 yr realistic scenario