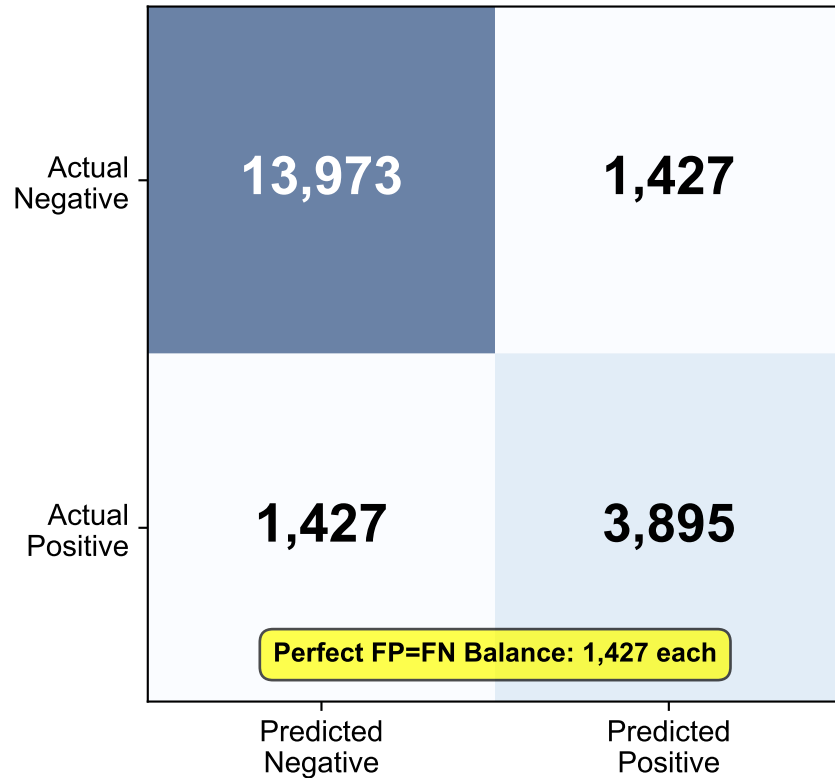
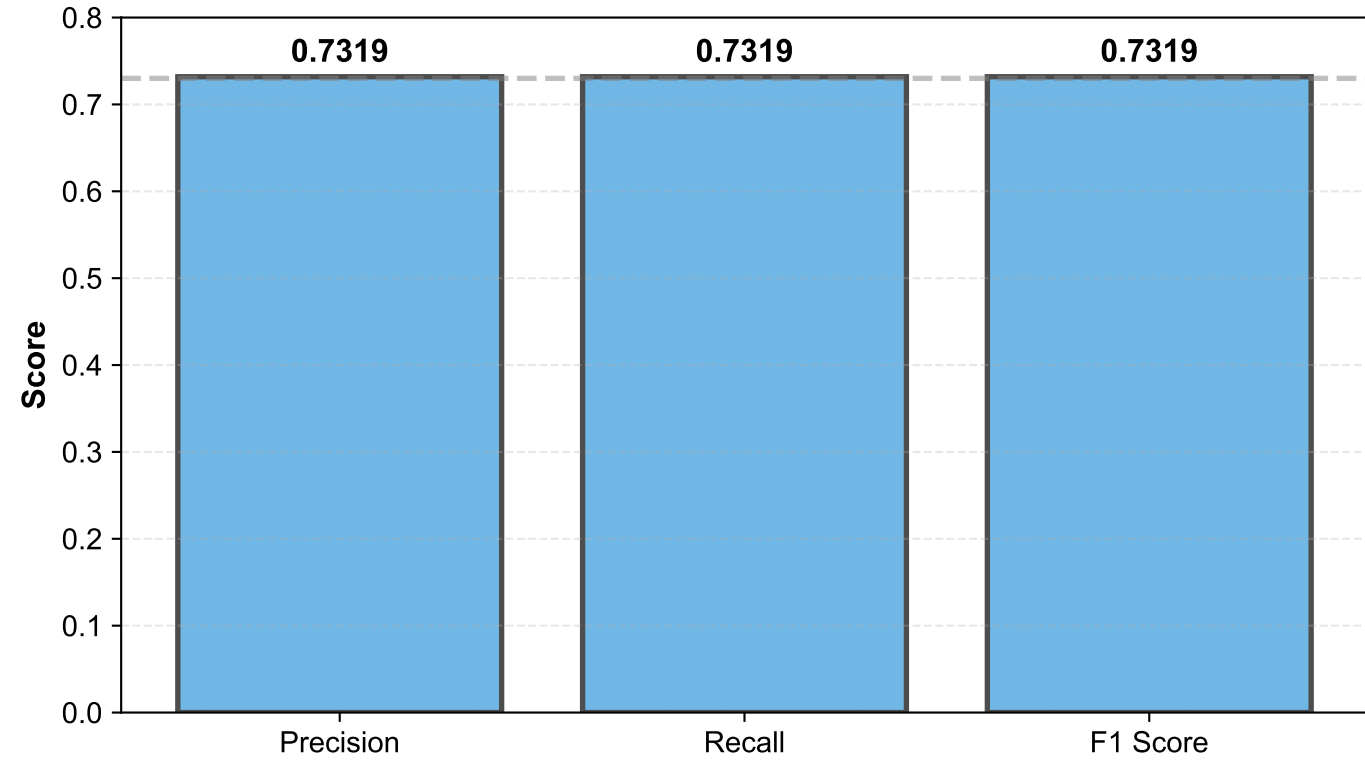


# AR Baseline Performance Summary (h=8 months, n=20,722)

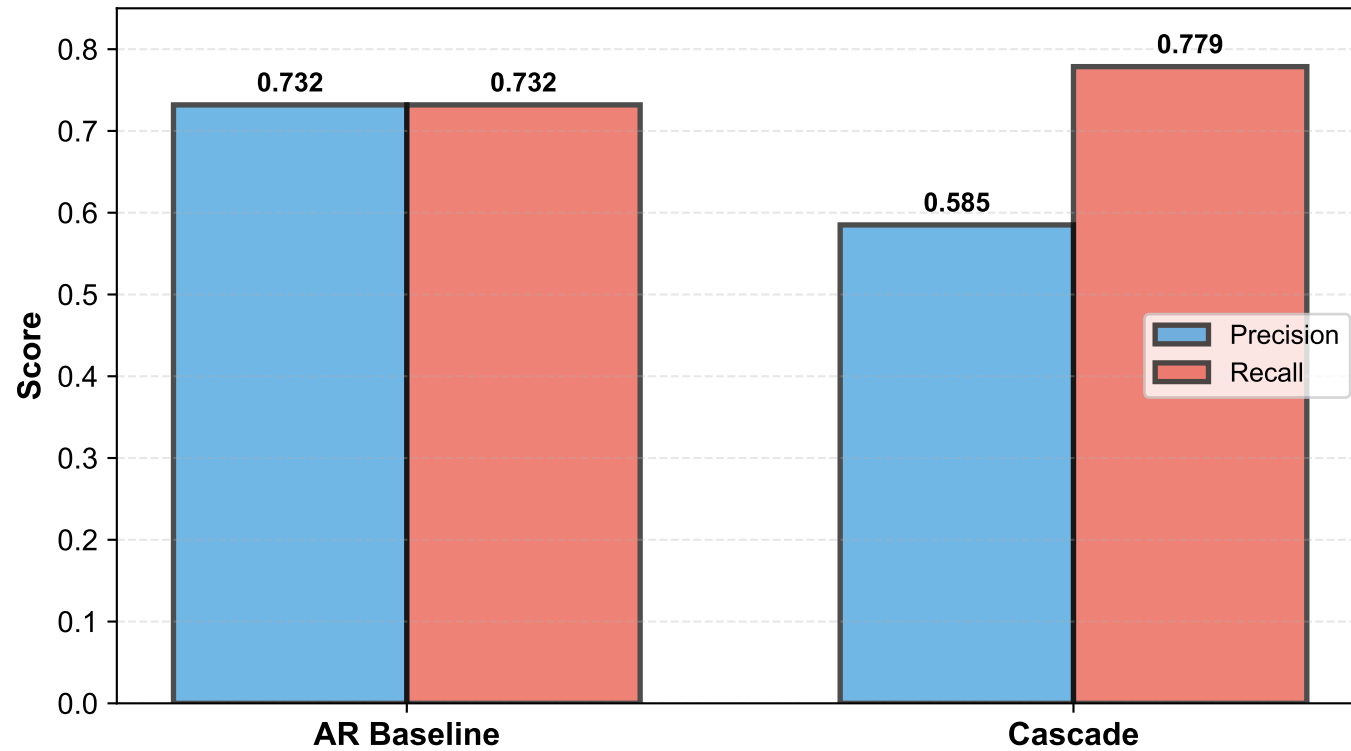
Panel A: Confusion Matrix (h=8, Youden Threshold)



Panel B: AR Baseline Performance Metrics



Panel C: AR Baseline vs Cascade



Panel D: Summary Statistics

Metric	Value
Optimal Threshold	0.6295
True Positives (TP)	3,895
True Negatives (TN)	13,973
False Positives (FP)	1,427
False Negatives (FN)	1,427
Precision	0.7319
Recall	0.7319
F1 Score	0.7319

AR baseline performance metrics. Optimal Youden threshold: 0.6295. Perfect FP=FN balance (1,427 each) produces Precision=Recall=0.7319. Confusion matrix: TP=3,895, TN=13,973, FP=1,427, FN=1,427. Total observations: 20,722. Cascade improves recall to 0.7787 (+0.0468) at precision cost to 0.5851 (-0.1468). Uses 13 AR features: 12 temporal lags (Lt) + 1 spatial lag (Ls).