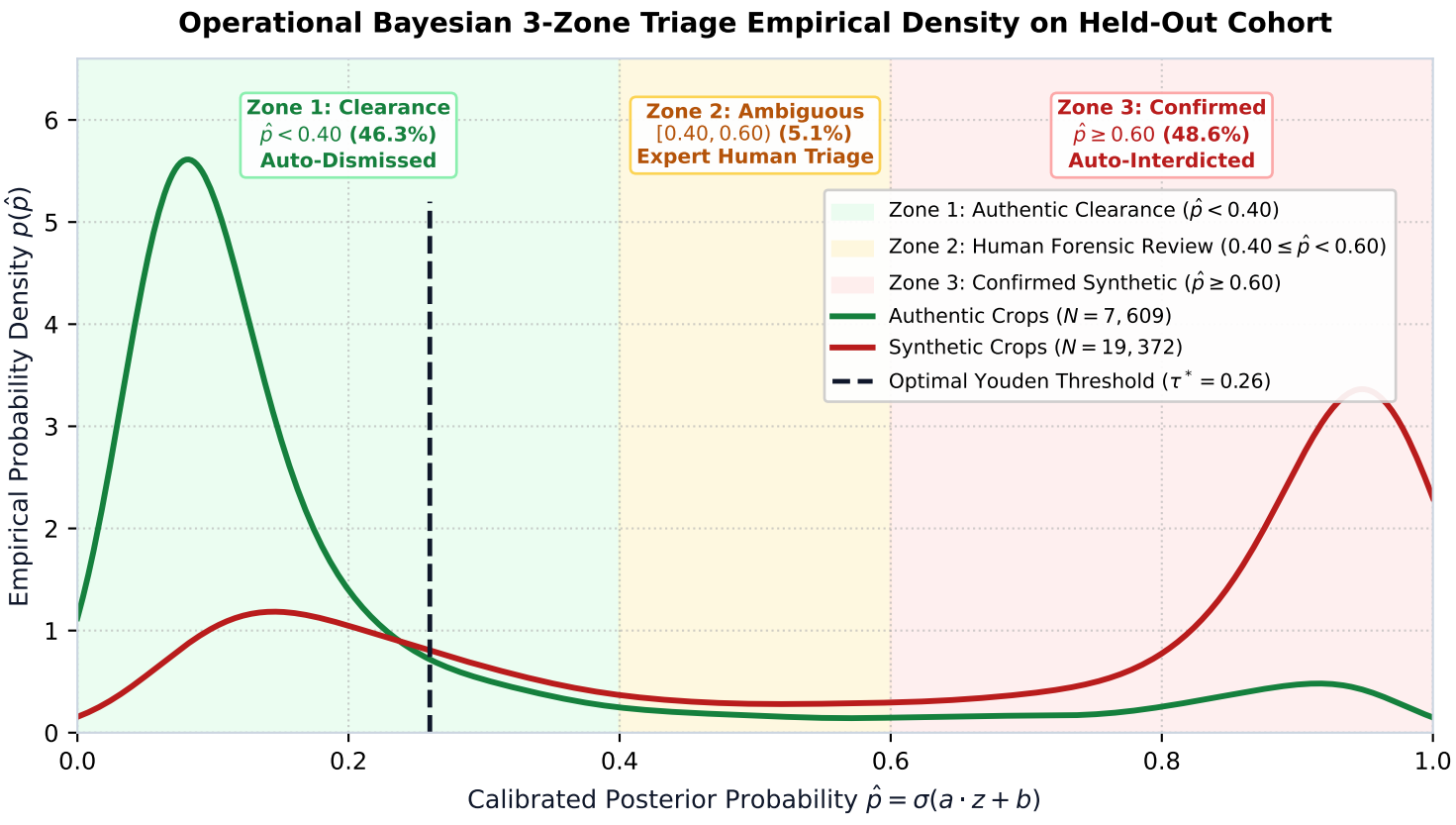
Operational Bayesian 3-Zone Triage Empirical Density on Held-Out Cohort
Zone 1: Clearance
$\hat{p} < 0.40$ (46.3%)
Auto-Dismissed
Zone 2: Ambiguous
[0.40, 0.60) (5.1%)
Expert Human Triage
Zone 3: Confirmed
$\hat{p} \geq 0.60$ (48.6%)
Auto-Interdicted
Zone 1: Authentic Clearance ($\hat{p} < 0.40$)
Zone 2: Human Forensic Review ($0.40 \leq \hat{p} < 0.60$)
Zone 3: Confirmed Synthetic ($\hat{p} \geq 0.60$)
Authentic Crops ($N = 7,609$)
Synthetic Crops ($N = 19,372$)
Optimal Youden Threshold ($\tau^* = 0.26$)
Empirical Probability Density $p(\hat{p})$
0
1
2
3
4
5
6
0.0
0.2
0.4
0.6
0.8
1.0
Calibrated Posterior Probability $\hat{p} = \sigma(a \cdot z + b)$