

Generator v2: latent processes and selective observation

LATENT LAYER — hidden from the model, recorded in the latent logs

Judge backlog episodes

two-state chain (normal $\rightleftharpoons$ backlogged);
flips within intervals at true sub-interval days
gaps $\times 2.5$ while backlogged; settle logit -2
fatigue: leverage $\times e^{-0.0015d}$ per backlog day

Hidden case regime

Normal $\rightarrow$ Adverse flip (0.04 / event, unobserved)
settlement pressure reset to 0; gains halved
stall hazard $+0.15$; accept logit -0.8
leverage decays $e^{-0.002d}$ per day while adverse

True event process

full event log — every filing, offer, deposition, ruling

selectively observed

Observation mask

deposition-class events dropped (base rates 0.85–0.95);
drop rate rises with district congestion; FILED & terminal kept

Latent logs record

(case-level ground truth)

- backlog episode log & time fraction
- regime flip day
- true event log
- observation mask

used for acceptance tests and
stratified forensics only

mask reconciles
docket $\leftrightarrow$ true log

Observed docket

what the model sees (and is trained/evaluated on)

Labels (settlement, recovery, duration) derive from the TRUE process; the model never sees the mask, the backlog state, or the regime.