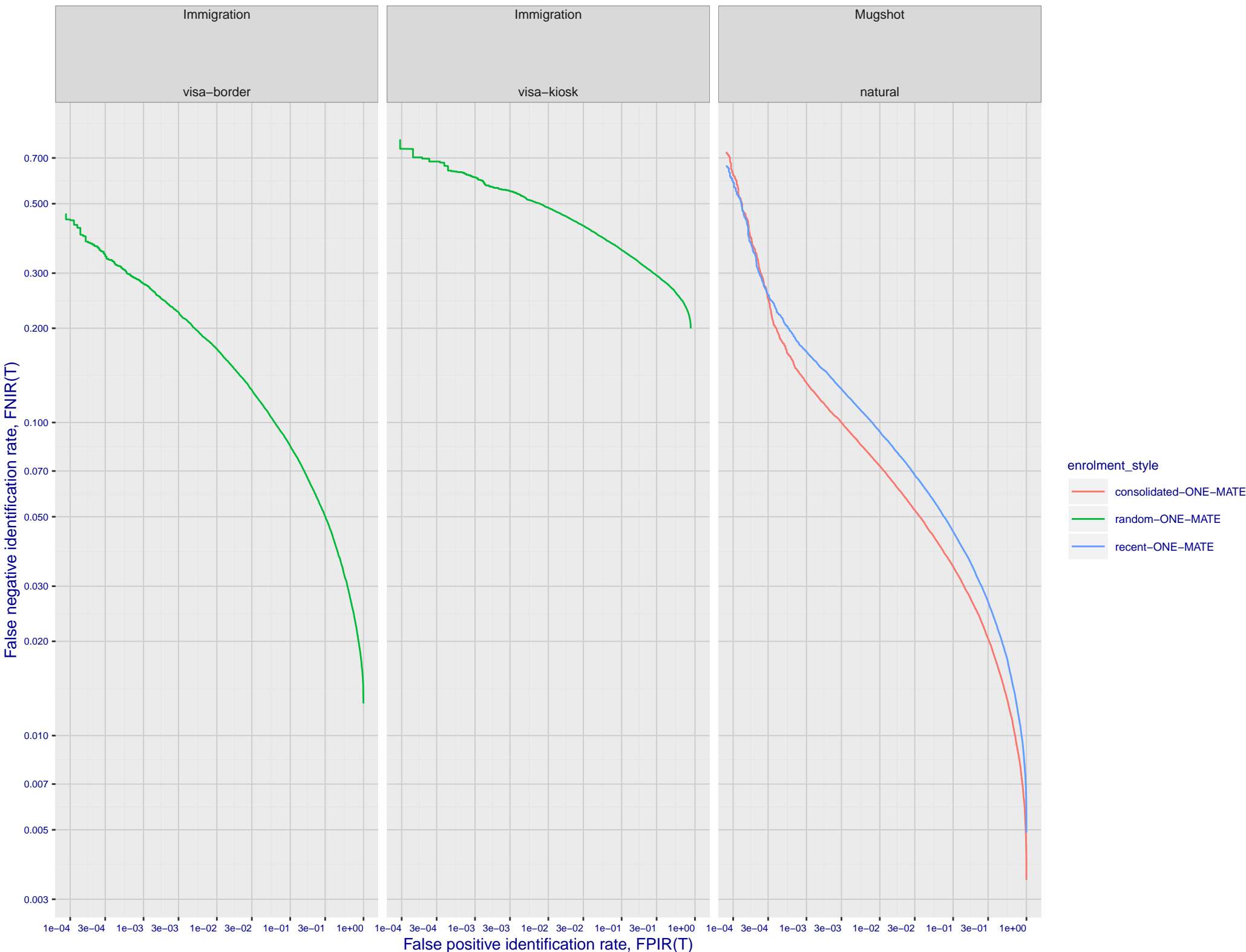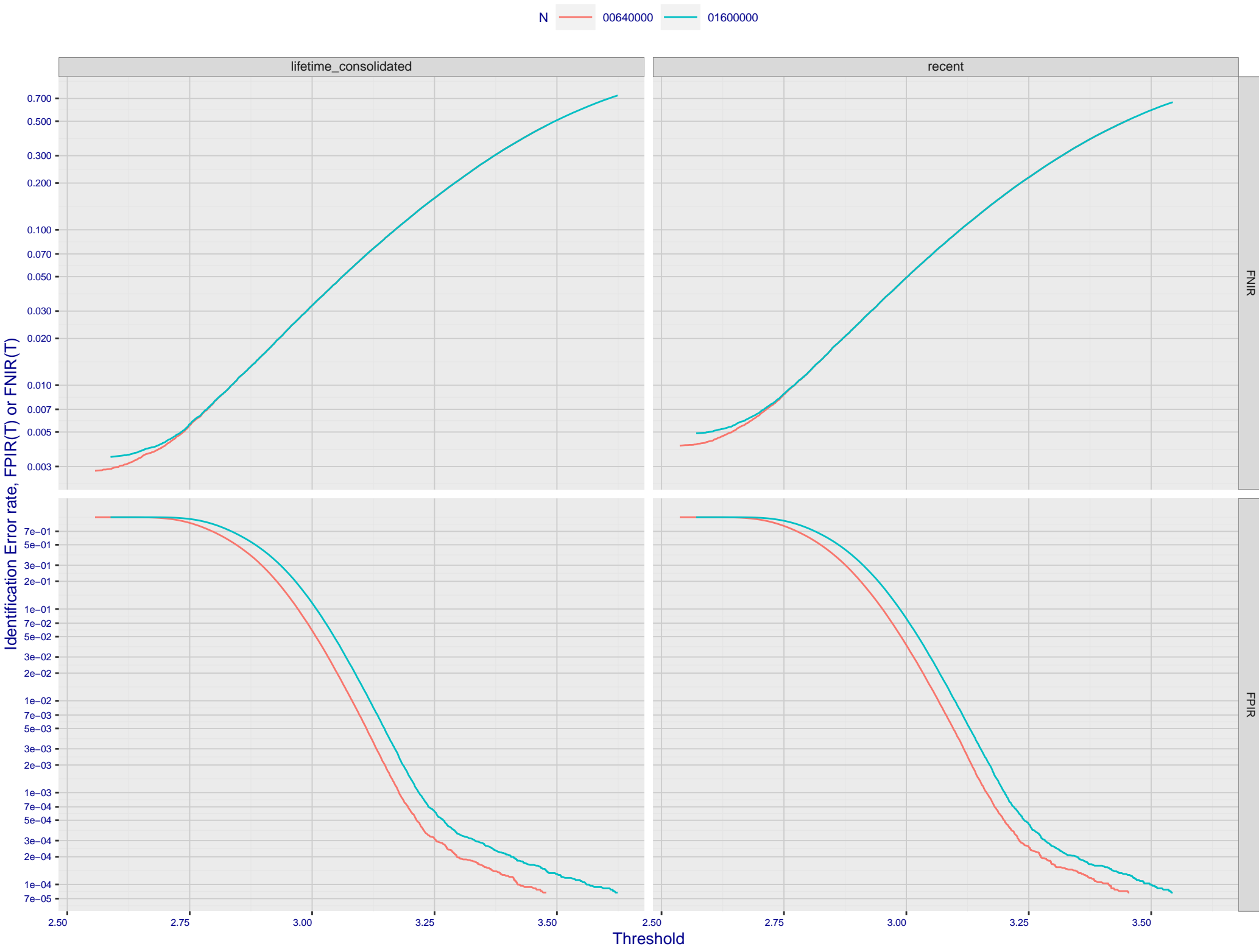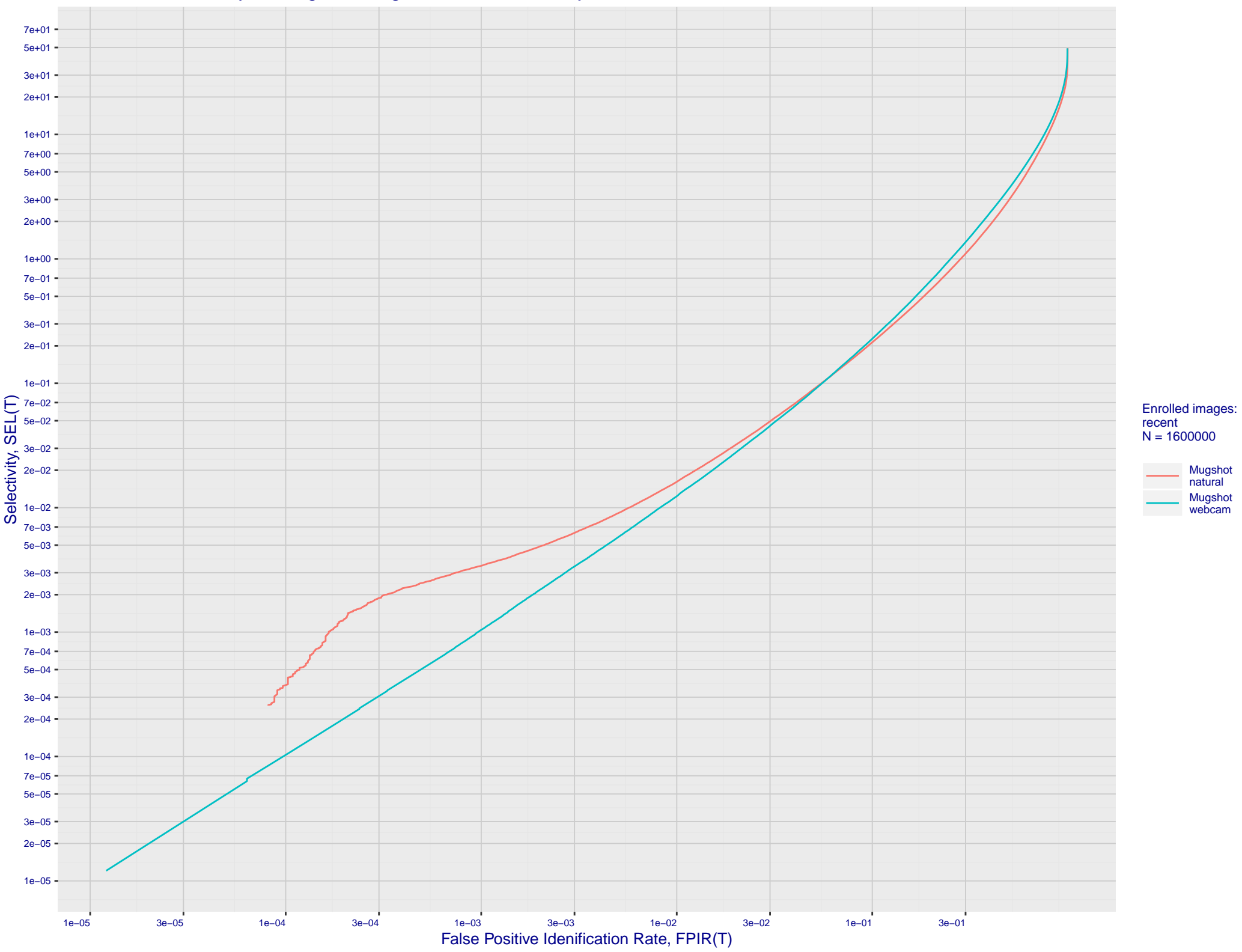A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals
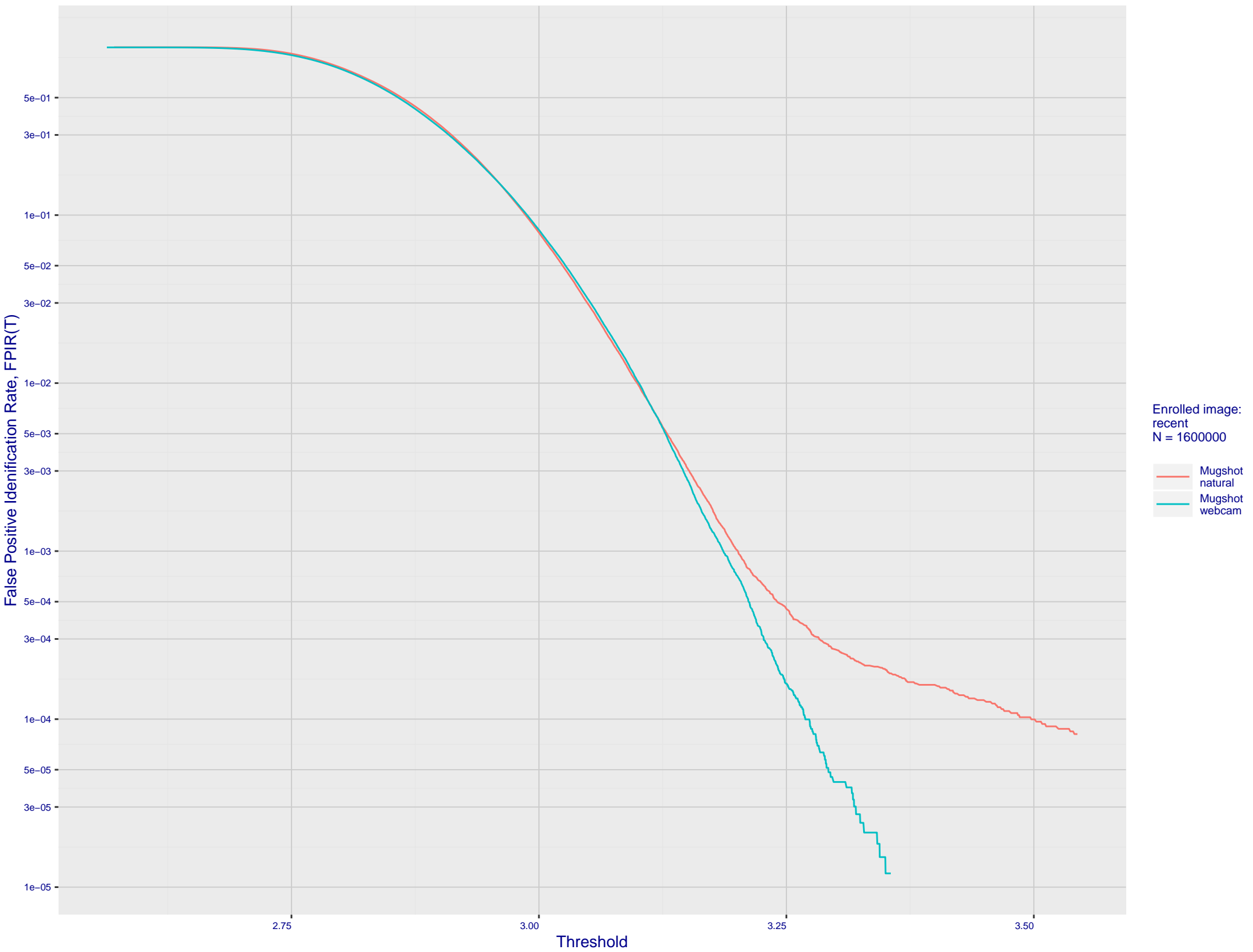
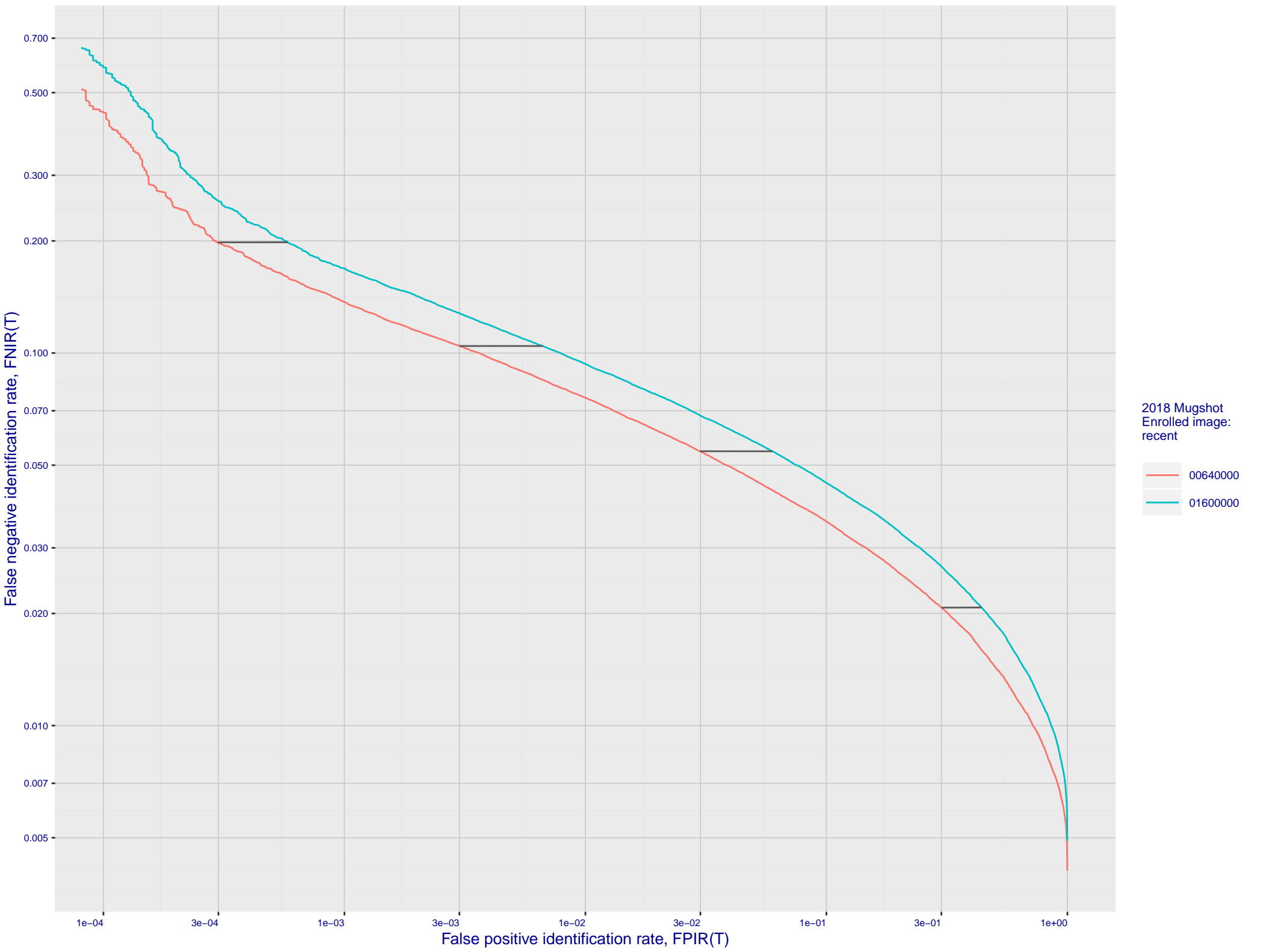B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

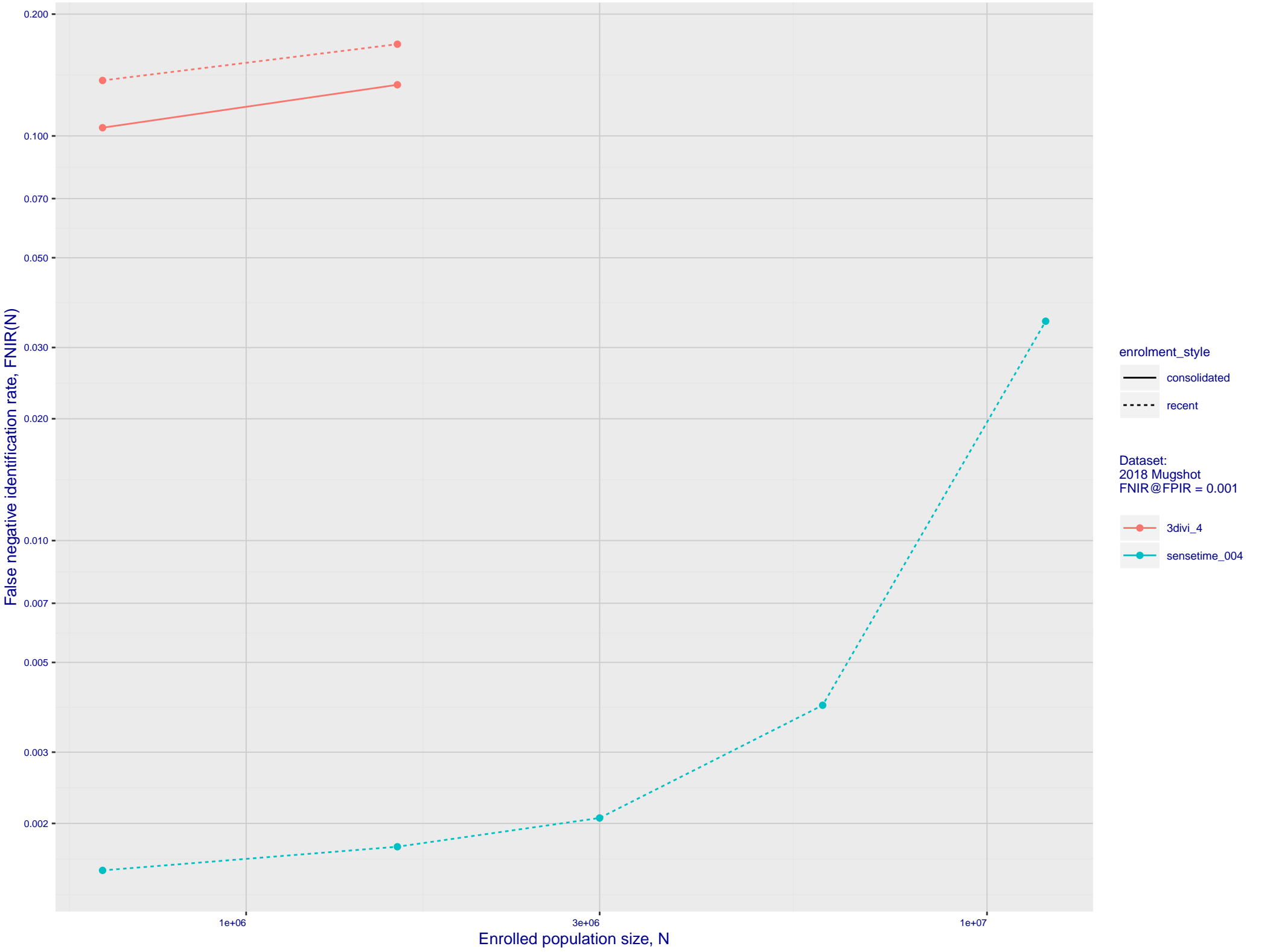C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

D: FPIR dependence on T by probe type for N = 1600000 subjects

E: DET for Mugshot natural images and various N. Links connect points of equal threshold.

F: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)

G: Datasheet

Algorithm: 3divi_4

Developer: 3Divi

Submission Date: 2018_06_19

Template size: 4096 bytes

Template time (2.5 percentile): 489 msec

Template time (median): 614 msec

Template time (97.5 percentile): 838 msec

Frontal mugshot investigation rank 144 –– FNIR(1600000, 0, 1) = 0.0175 vs. lowest 0.0010 from sensetime_004

natural investigation rank 145 –– FNIR(1600000, 0, 1) = 0.0621 vs. lowest 0.0067 from sensetime_003

natural investigation rank 73 –– FNIR(1600000, 0, 1) = 0.0354 vs. lowest 0.0014 from visionlabs_009

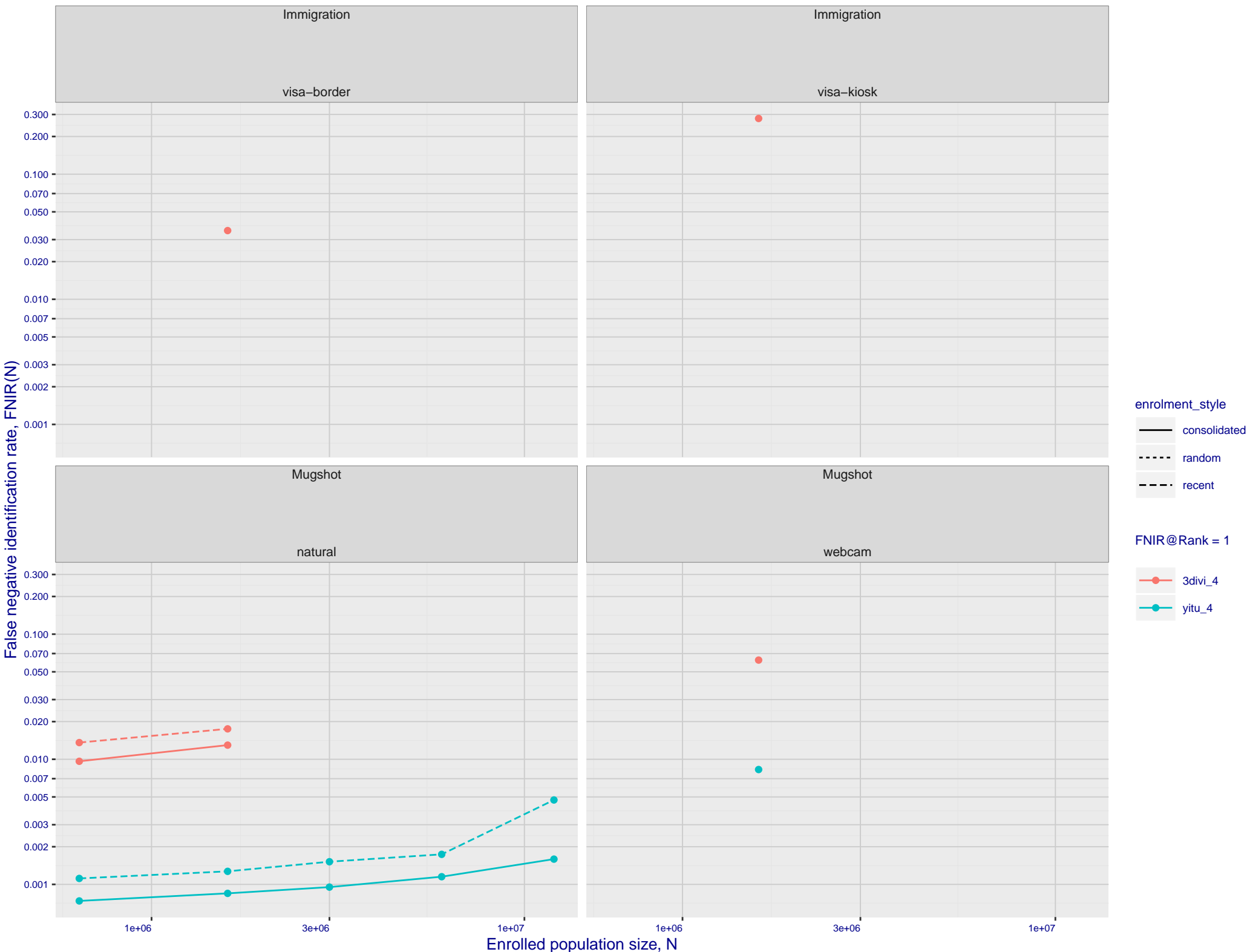natural investigation rank 76 –– FNIR(1600000, 0, 1) = 0.2788 vs. lowest 0.0694 from cib_000

Frontal mugshot identification rank 155 –– FNIR(1600000, T, L+1) = 0.1686 vs. lowest 0.0018 from sensetime_004

natural identification rank 153 –– FNIR(1600000, T, L+1) = 0.3426 vs. lowest 0.0122 from sensetime_003
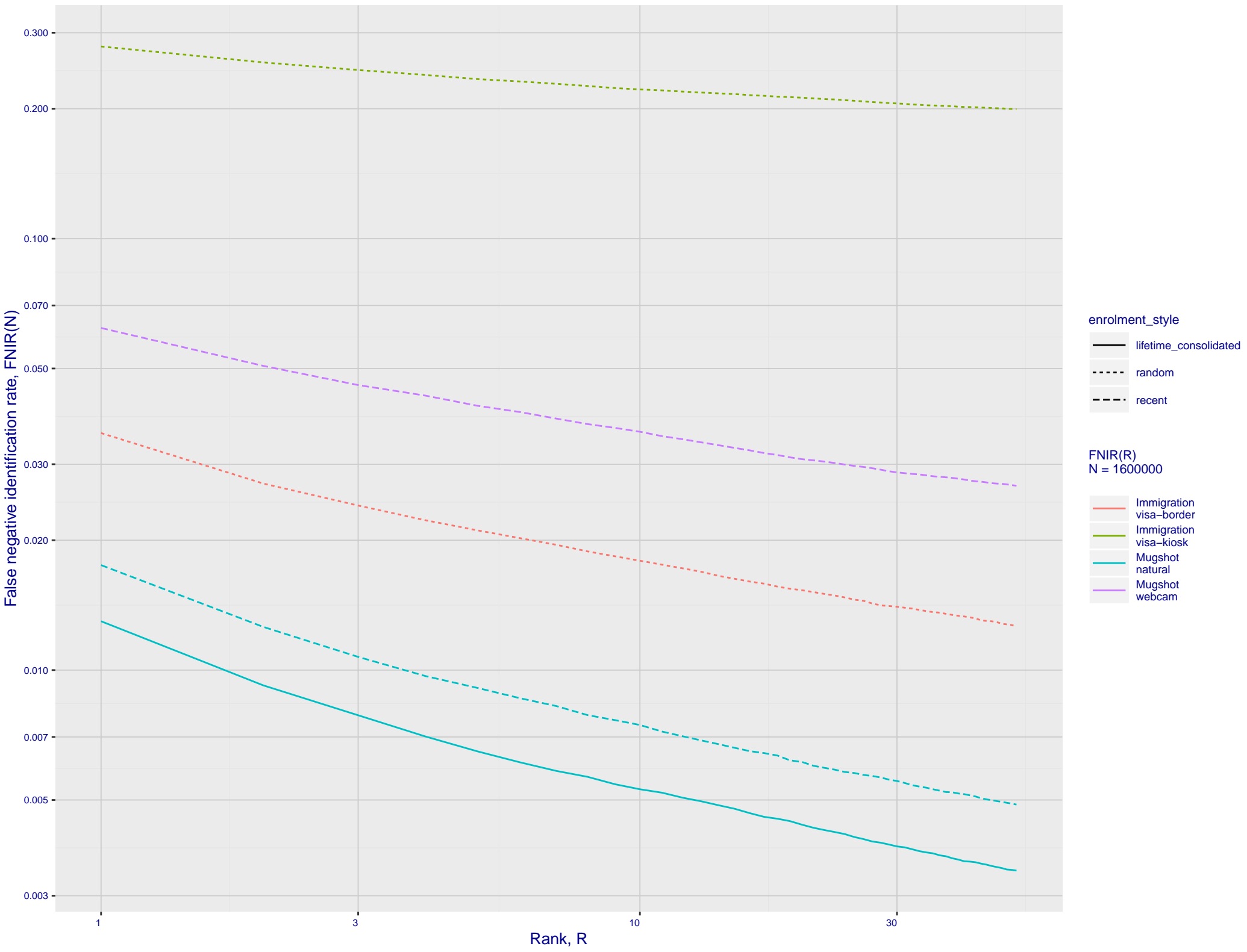
natural identification rank 69 –– FNIR(1600000, T, L+1) = 0.2776 vs. lowest 0.0059 from sensetime_004

natural identification rank 57 –– FNIR(1600000, T, L+1) = 0.6075 vs. lowest 0.1129 from visionlabs_009

H: Investigational mode: FNIR(N, 1, 0) vs. most accurate (yitu_4)

I: Investigational mode: FNIR(1600000, R, 0) by probe type

Template duration; search duration vs. N. The blue and pink ribbon covers 95 percent of observed measurements.
The template generation time is independent of N. The log and power−law models are fit to the first two (N,T) observations

MODEL ── Log Model ⋯⋯ Power Law Model

Search Duration (milliseconds)

700

500

7e+05   8e+05   1e+06

Enrolled population size, N, one image per person