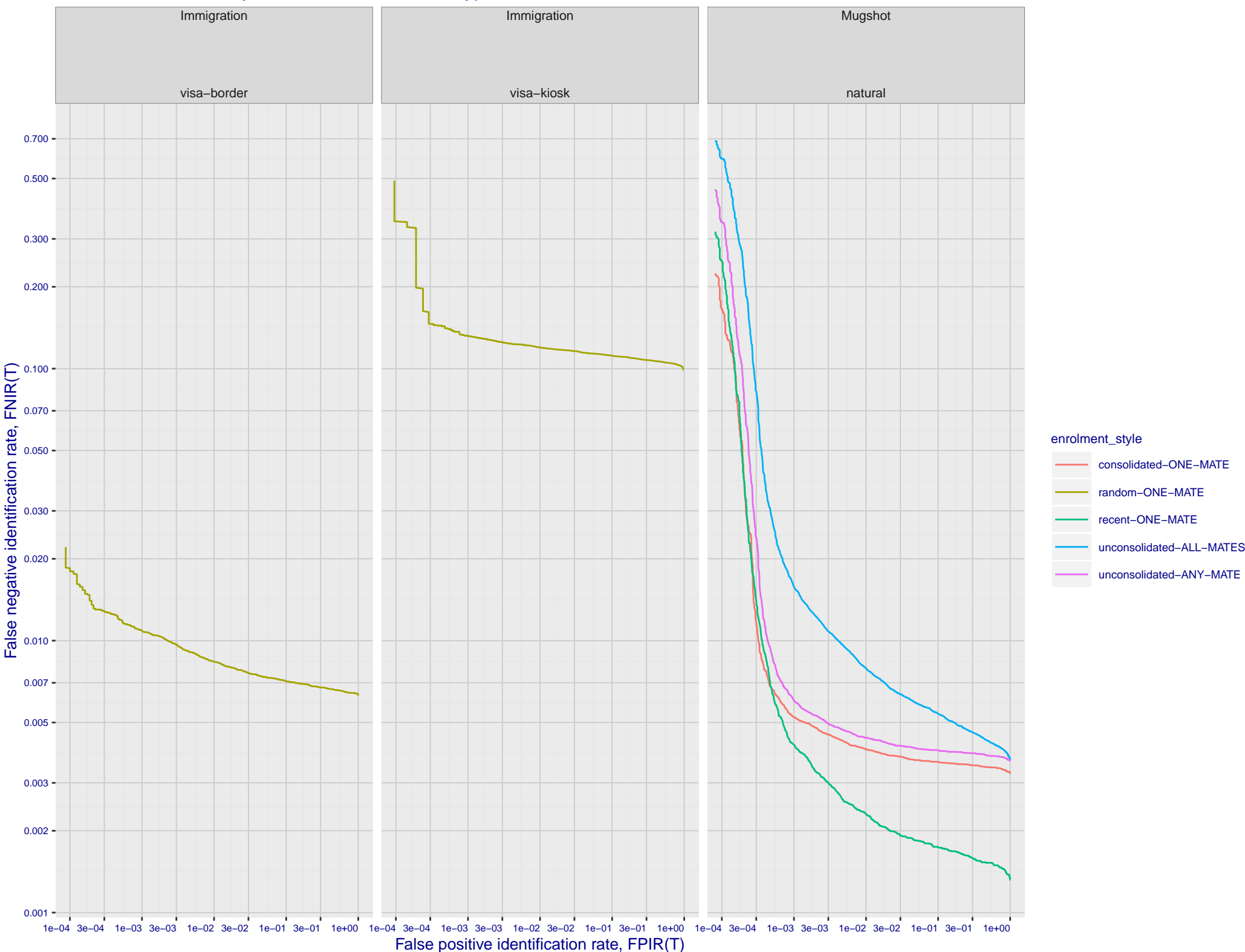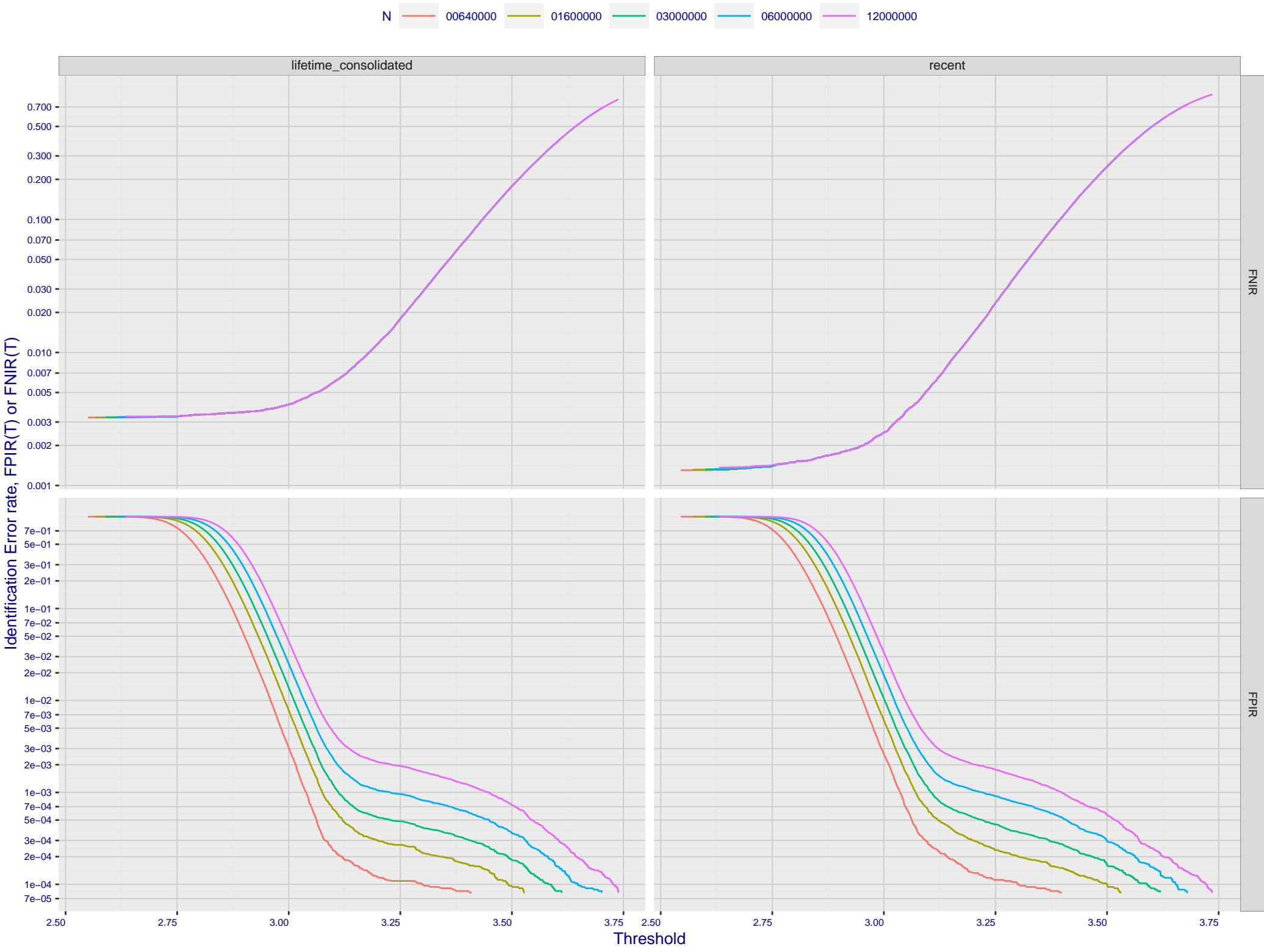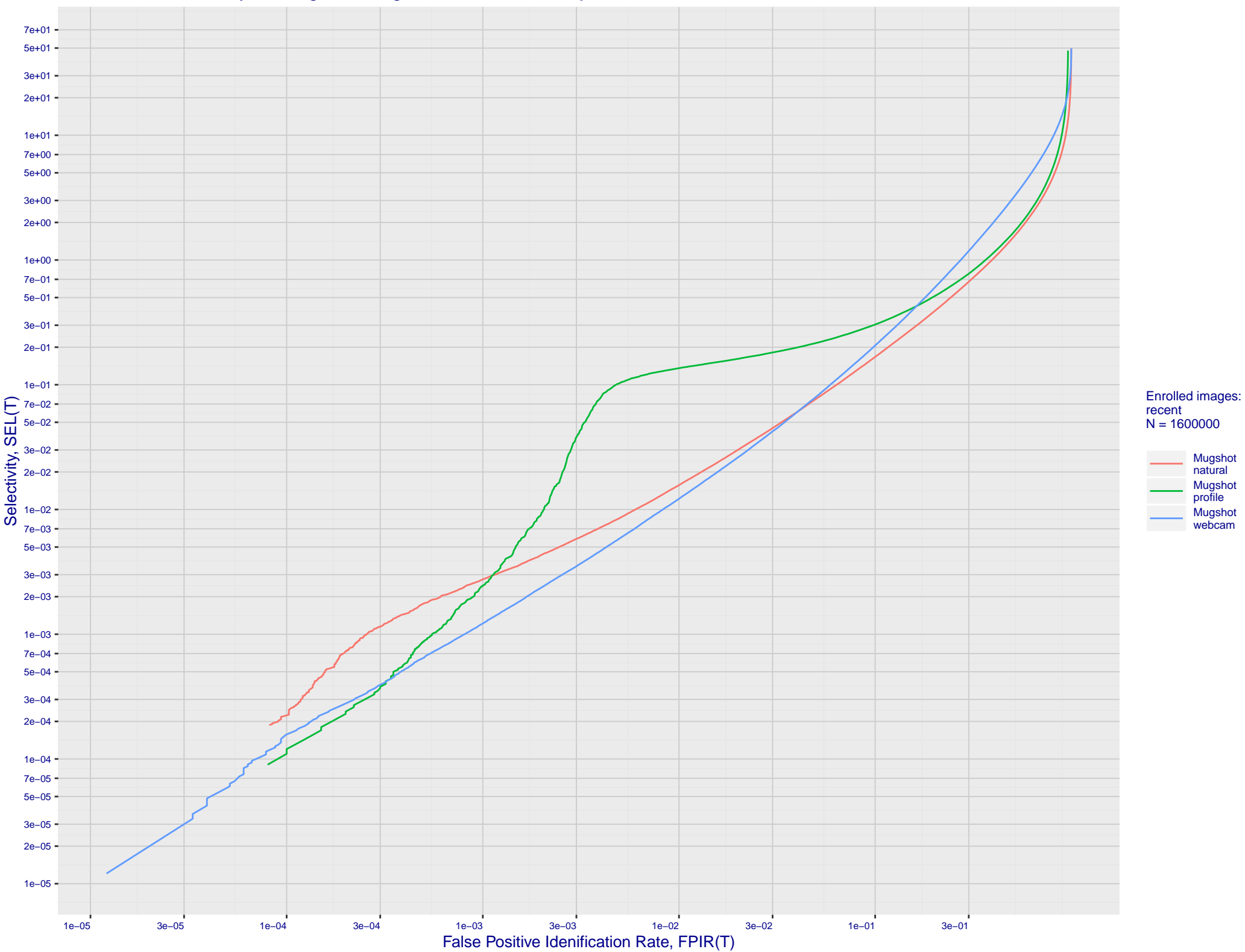A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals
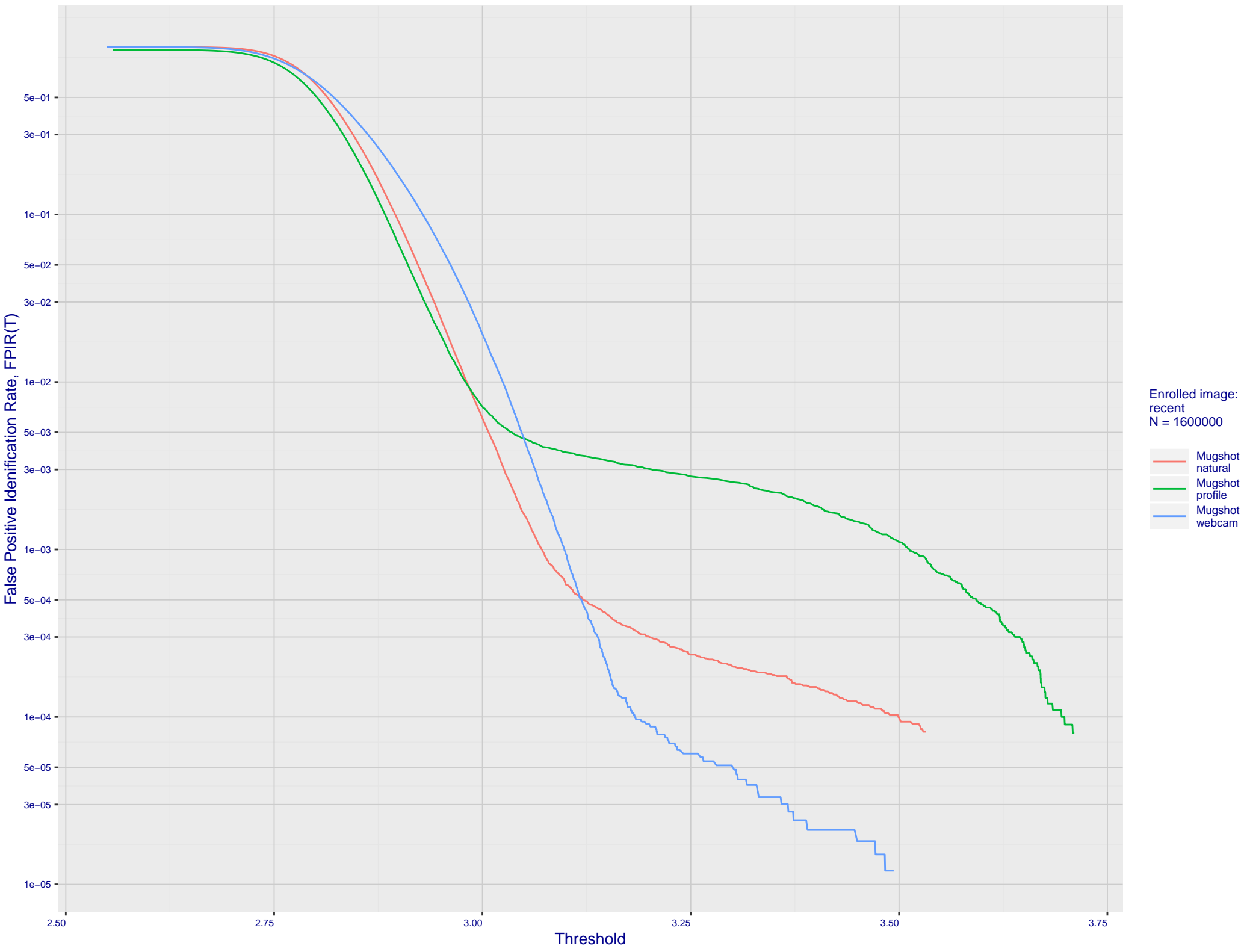
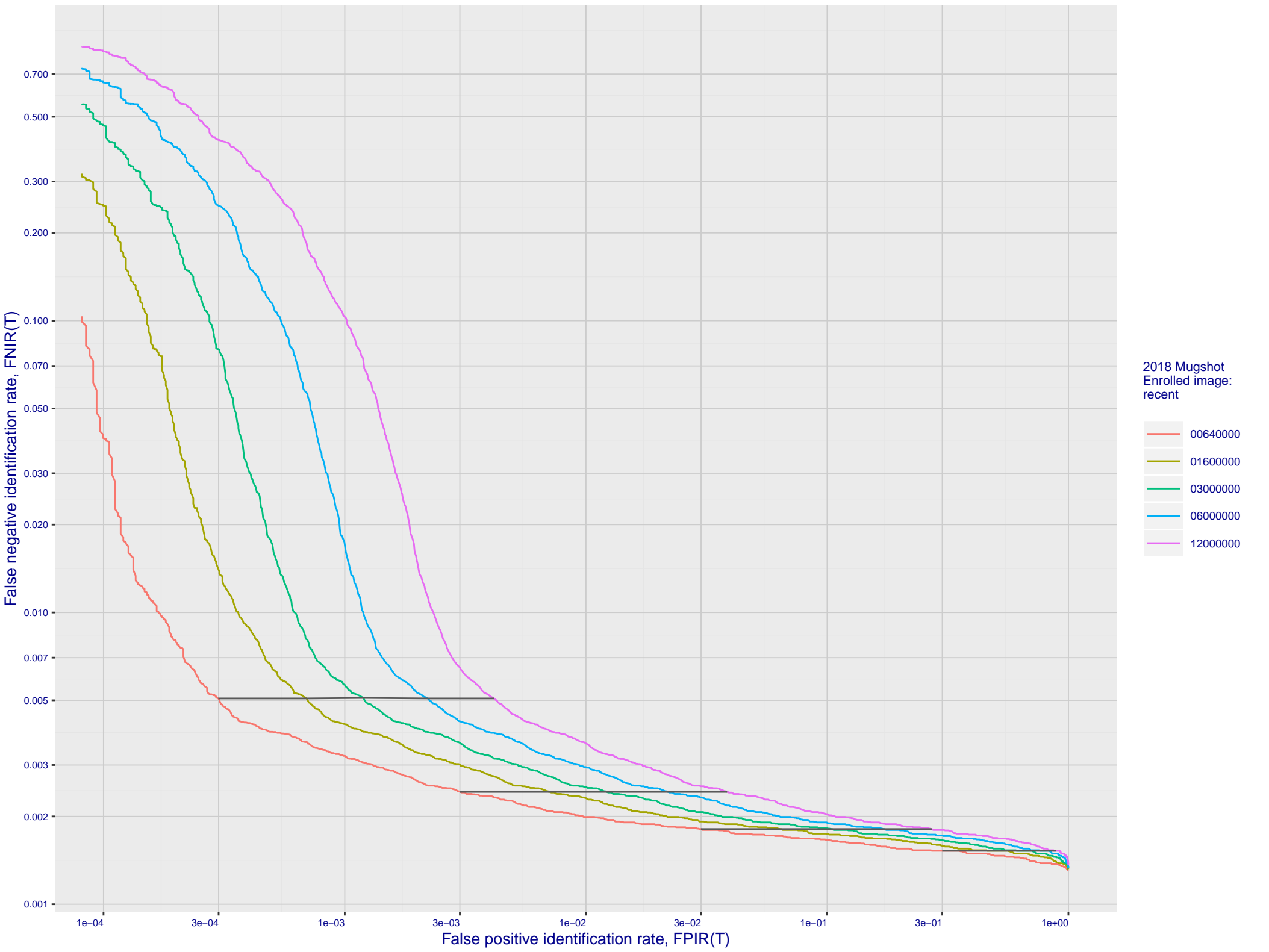B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

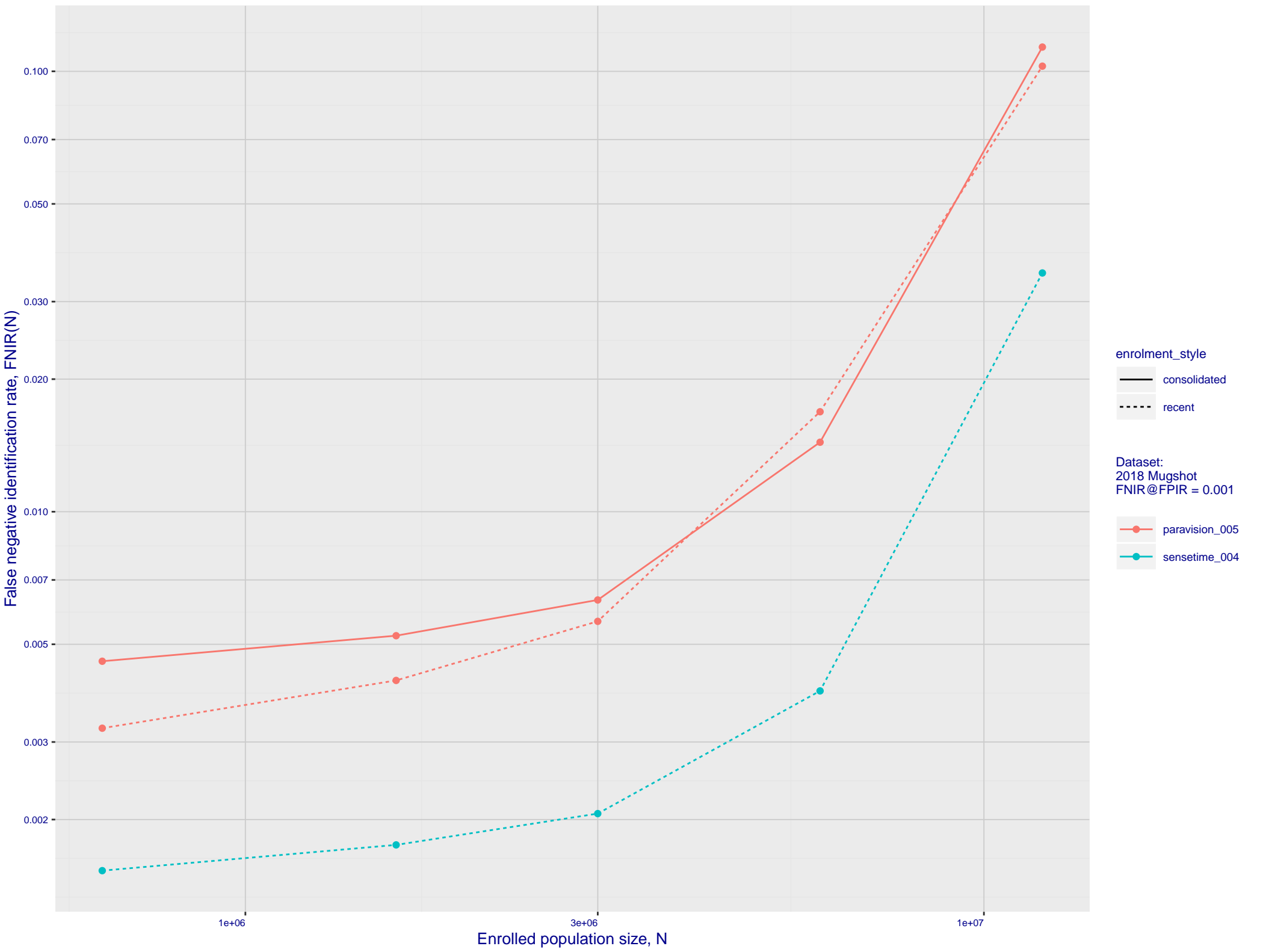C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

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: paravision_005

Developer: Paravision (EverAI)

Submission Date: 2019_12_11

Template size: 4096 bytes

Template time (2.5 percentile): 828 msec

Template time (median): 831 msec

Template time (97.5 percentile): 913 msec

Frontal mugshot investigation rank 10 −− FNIR(1600000, 0, 1) = 0.0015 vs. lowest 0.0010 from sensetime_004

natural investigation rank 10 −− FNIR(1600000, 0, 1) = 0.0097 vs. lowest 0.0067 from sensetime_003

natural investigation rank 1 −− FNIR(1600000, 0, 1) = 0.0492

natural investigation rank 1 −− FNIR(1600000, 0, 1) = 0.0492

natural investigation rank 36 −− FNIR(1600000, 0, 1) = 0.0067 vs. lowest 0.0014 from visionlabs_009

natural investigation rank 22 −− FNIR(1600000, 0, 1) = 0.1061 vs. lowest 0.0694 from cib_000

Frontal mugshot identification rank 6 −− FNIR(1600000, T, L+1) = 0.0041 vs. lowest 0.0018 from sensetime_004
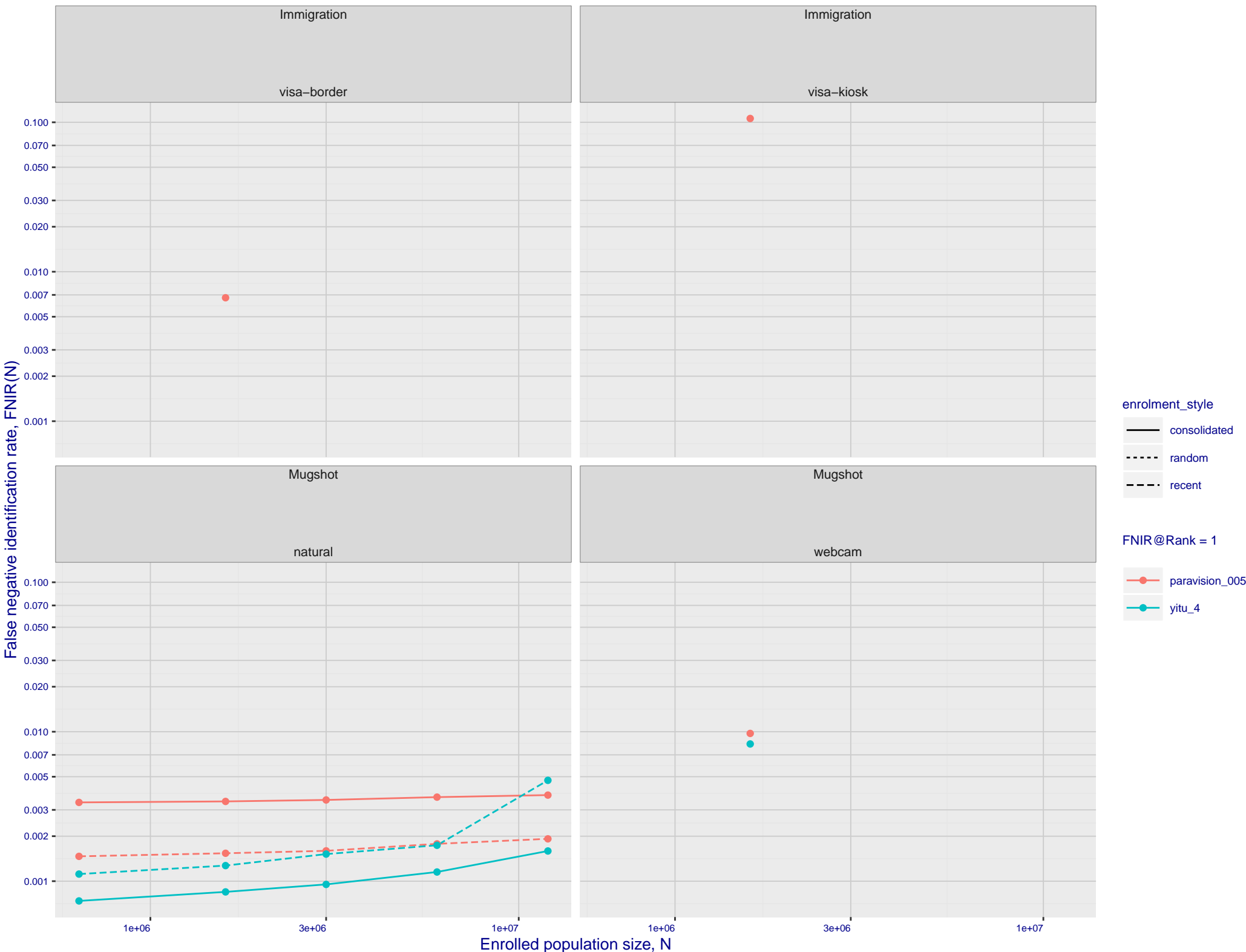
natural identification rank 6 −− FNIR(1600000, T, L+1) = 0.0239 vs. lowest 0.0122 from sensetime_003

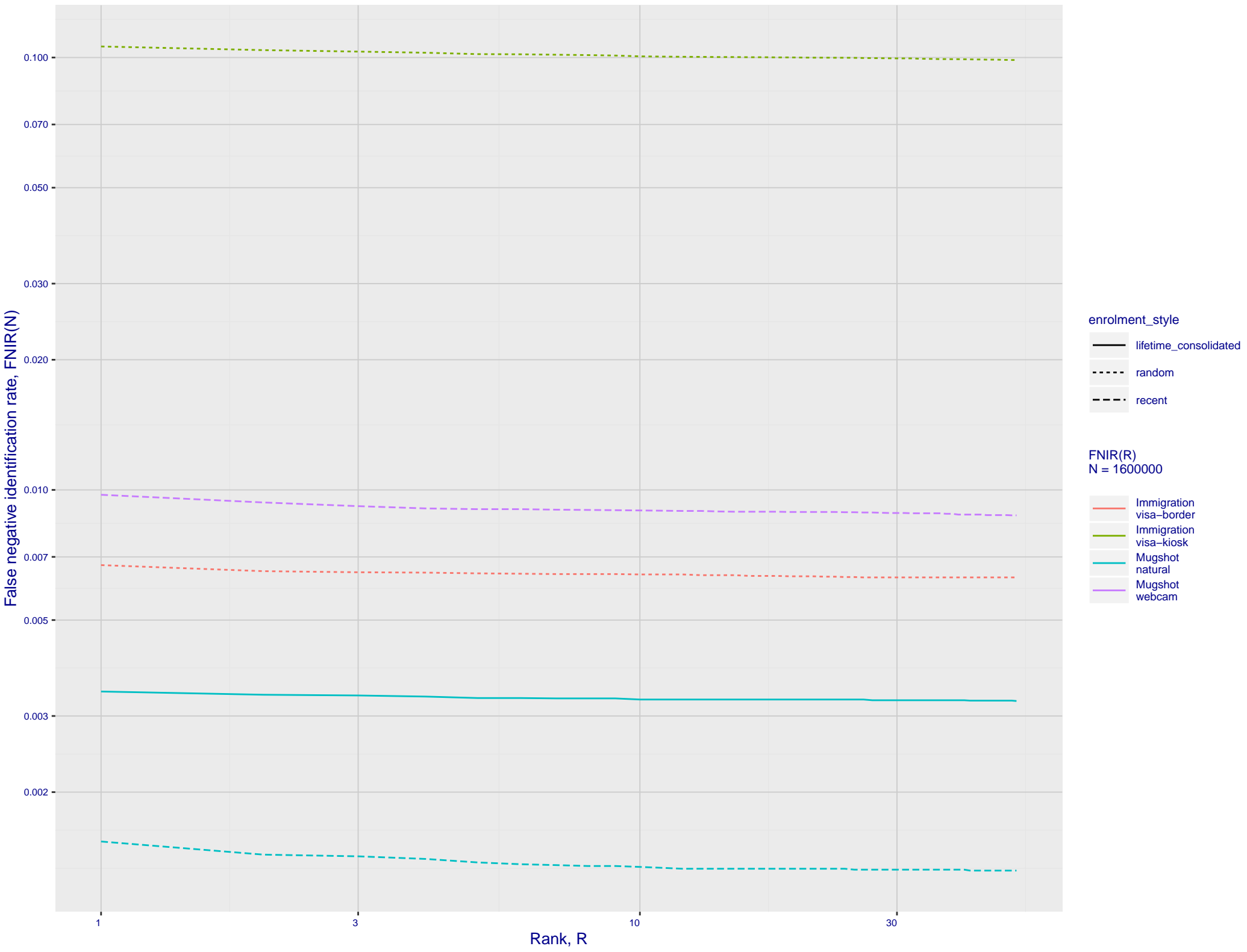natural identification rank 30 −− FNIR(1600000, T, L+1) = 0.8792 vs. lowest 0.1020 from sensetime_004

natural identification rank 7 −− FNIR(1600000, T, L+1) = 0.0109 vs. lowest 0.0059 from sensetime_004

natural identification rank 3 −− FNIR(1600000, T, L+1) = 0.1320 vs. lowest 0.1129 from visionlabs_009
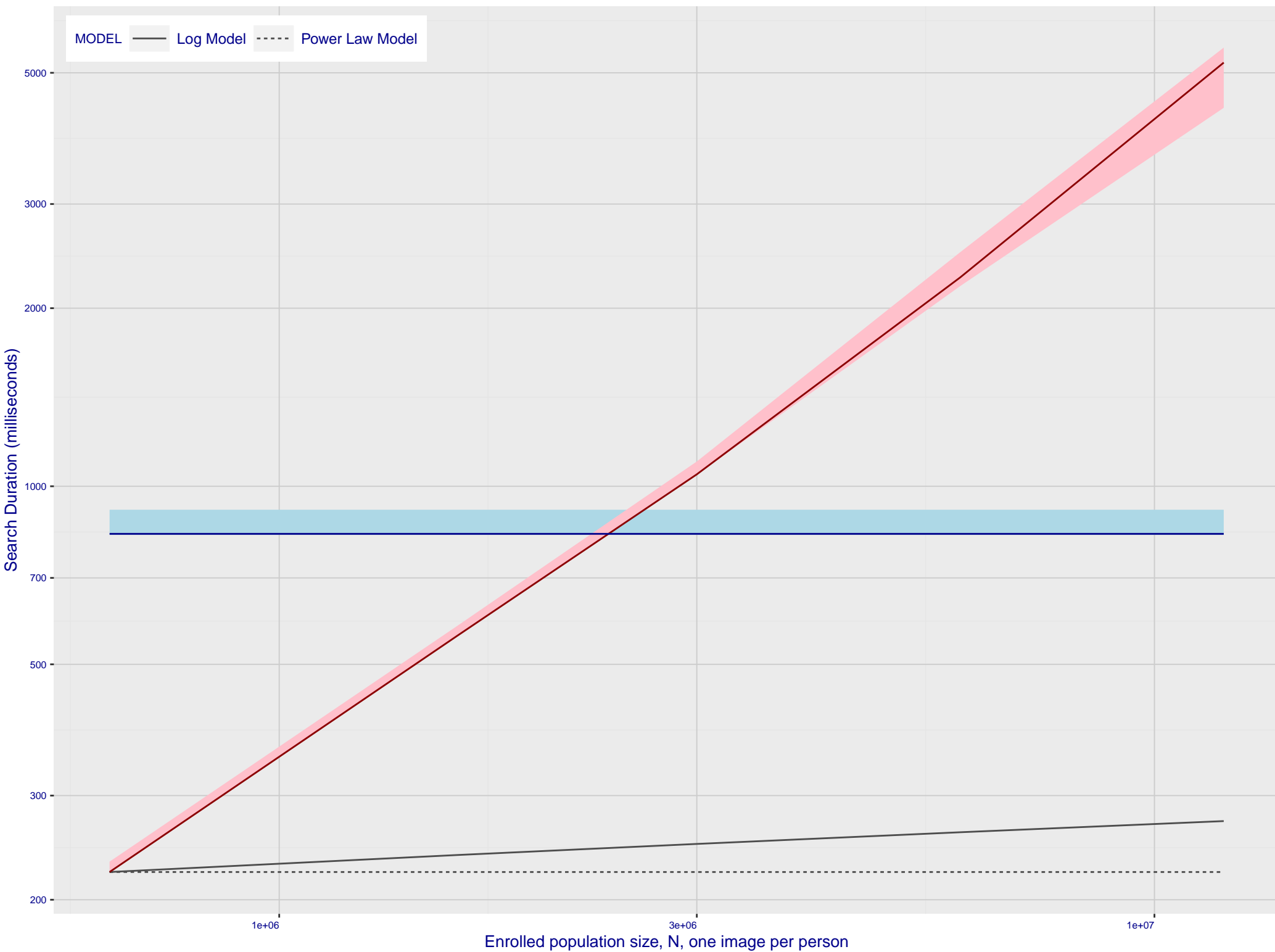
H: Investigational mode: FNIR(N, 1, 0) vs. most accurate (yitu_4)

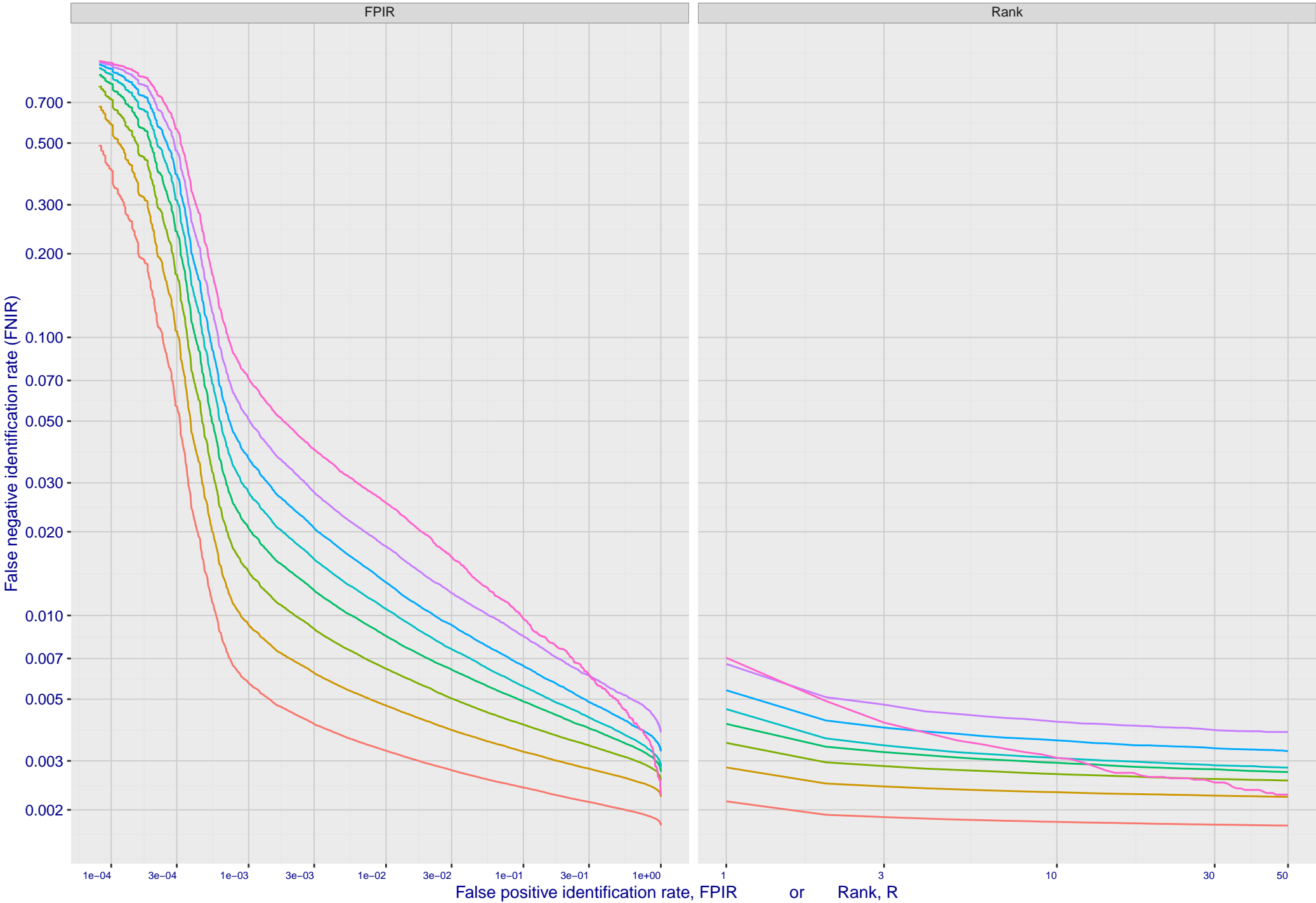I: Investigational mode: FNIR(1600000, R, 0) by probe type

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

M: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing

Dataset: 2018 Mugshot   N = 3068801

Legend:
(00,02]
(02,04]
(04,06]
(06,08]
(08,10]
(10,12]
(12,14]
(14,18]

FPIR   Rank

False negative identification rate (FNIR)

False positive identification rate, FPIR   or   Rank, R

N: Decline of genuine scores with ageing