A: Datasheet

Algorithm: scanovate_000

Developer: Scanovate Ltd

Submission Date: 2020_01_15

Template size: 2048 bytes

Template time (2.5 percentile): 669 msec

Template time (median): 705 msec

Template time (97.5 percentile): 778 msec

Investigation:

Frontal mugshot ranking 84 (out of 265) –– FNIR(1600000, 0, 1) = 0.0050 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 140 (out of 227) –– FNIR(1600000, 0, 1) = 0.0446 vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 58 (out of 196) –– FNIR(1600000, 0, 1) = 0.5605 vs. lowest 0.0591 from sensetime_005

Immigration visa–border ranking 87 (out of 148) –– FNIR(1600000, 0, 1) = 0.0346 vs. lowest 0.0013 from visionlabs_010

Immigration visa–kiosk ranking 83 (out of 145) –– FNIR(1600000, 0, 1) = 0.2106 vs. lowest 0.0568 from hr_000

Identification:

Frontal mugshot ranking 108 (out of 265) –– FNIR(1600000, T, L+1) = 0.0665, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004
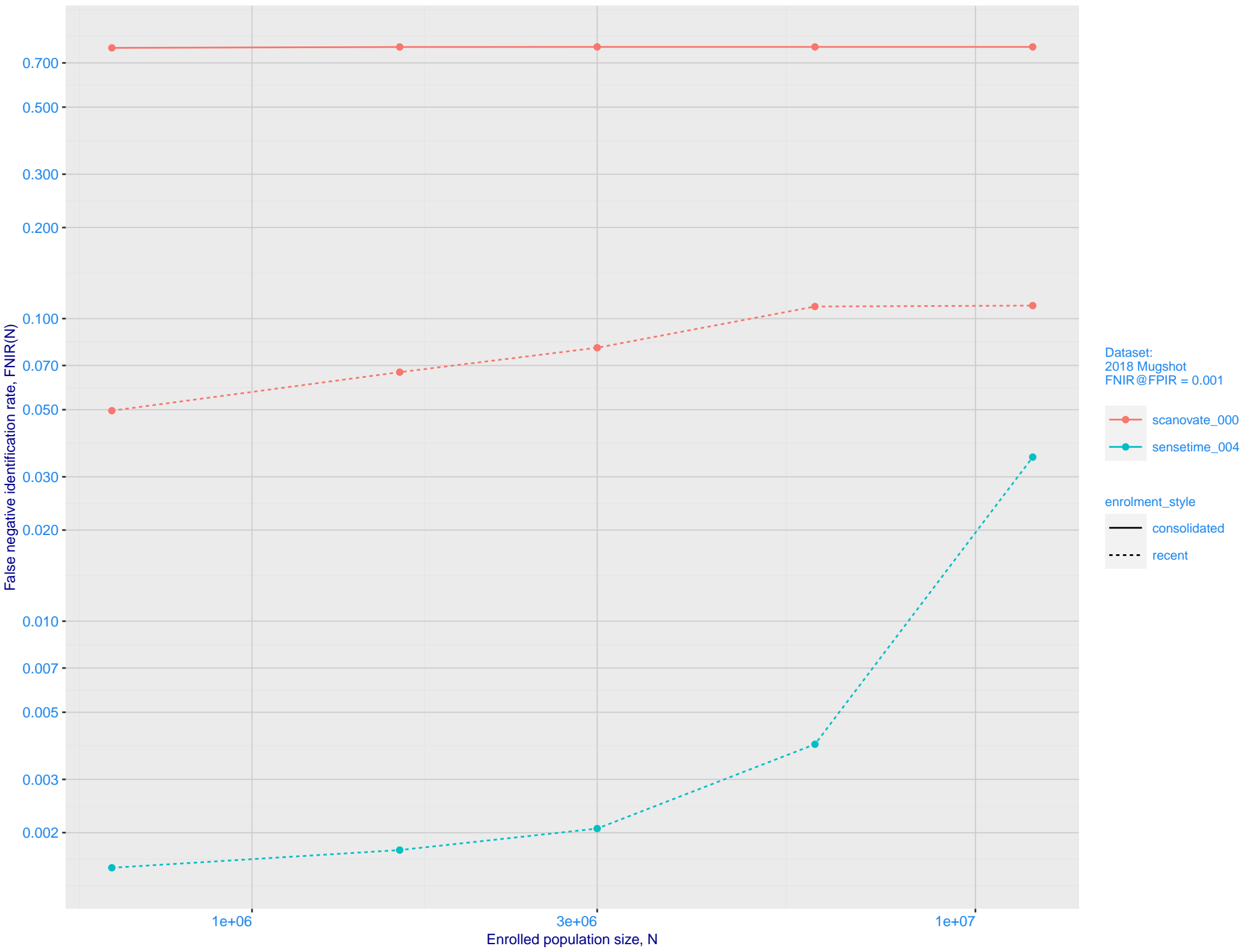
Mugshot webcam ranking 142 (out of 225) –– FNIR(1600000, T, L+1) = 0.2403, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 30 (out of 195) –– FNIR(1600000, T, L+1) = 0.8928, FPIR=0.001000 vs. lowest 0.1331 from hr_000
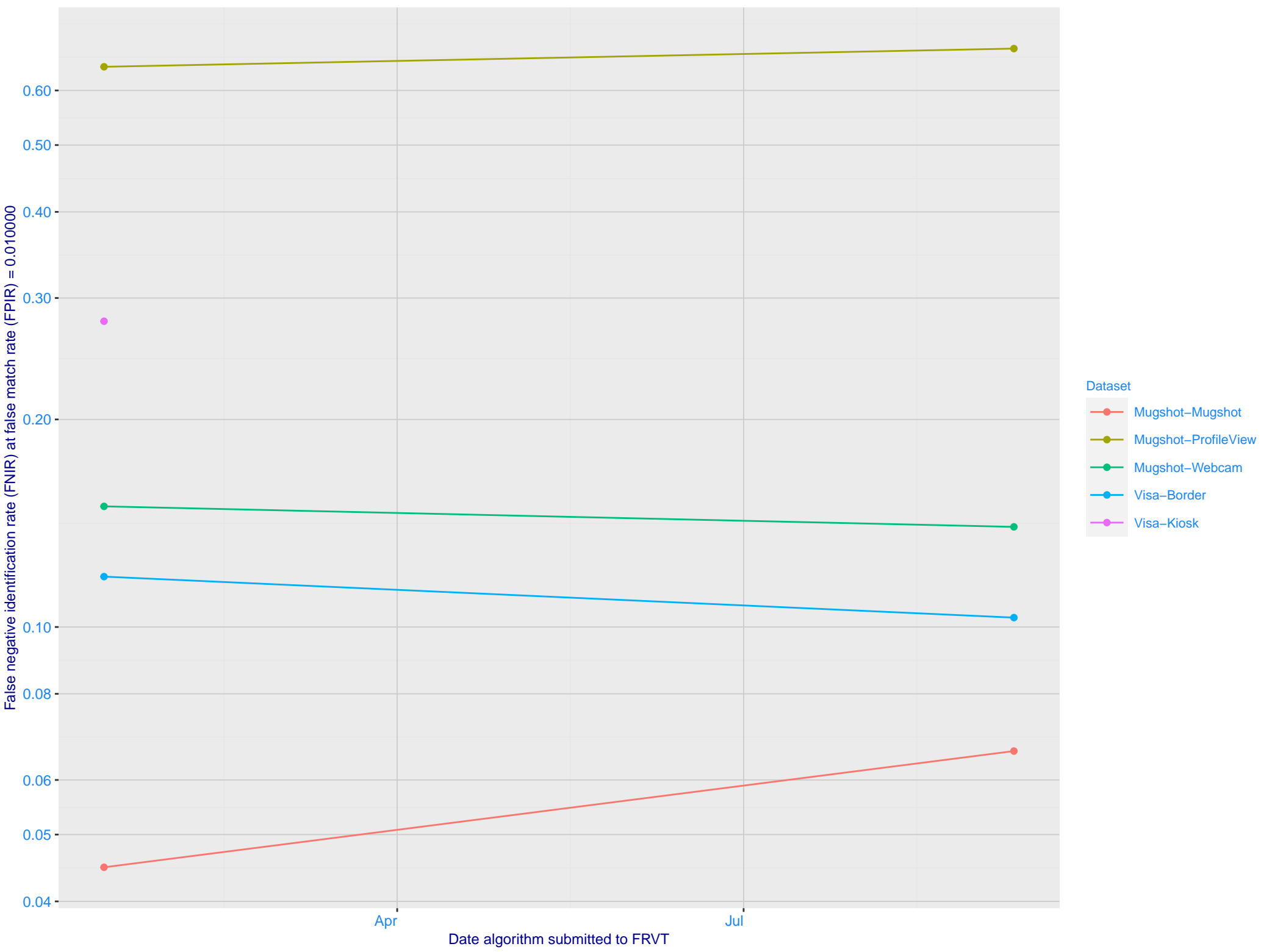
Immigration visa–border ranking 88 (out of 146) –– FNIR(1600000, T, L+1) = 0.2152, FPIR=0.001000 vs. lowest 0.0049 from hr_000

Immigration visa–kiosk ranking 55 (out of 141) –– FNIR(1600000, T, L+1) = 0.4044, FPIR=0.001000 vs. lowest 0.0996 from hr_000
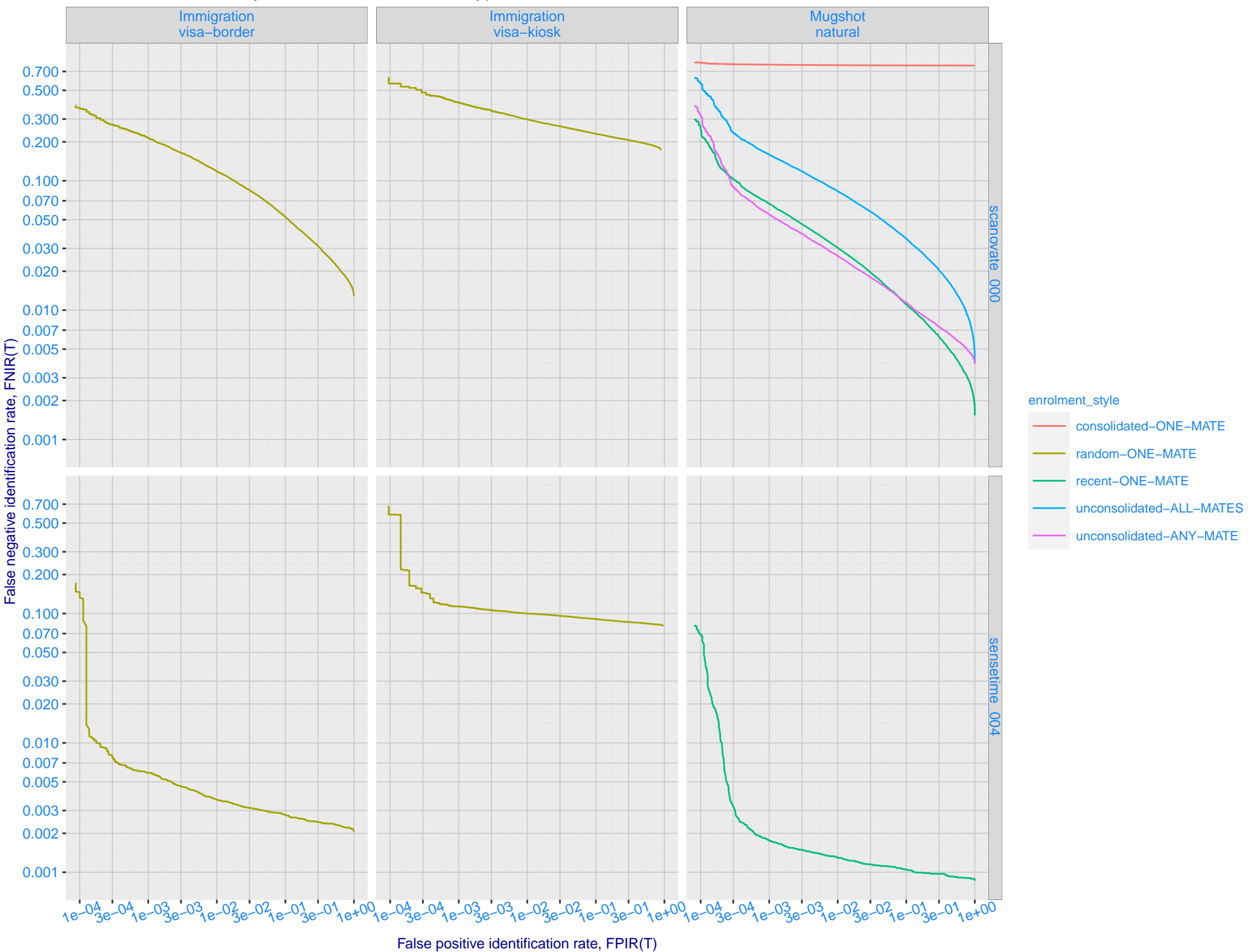
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)

**C: Evolution of accuracy for SCANOVATE algorithms on three datasets 2018 – present**

(y-axis) False negative identification rate (FNIR) at false match rate (FPIR) = 0.010000

(x-axis) Date algorithm submitted to FRVT

Dataset
- Mugshot–Mugshot
- Mugshot–ProfileView
- Mugshot–Webcam
- Visa–Border
- Visa–Kiosk

D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

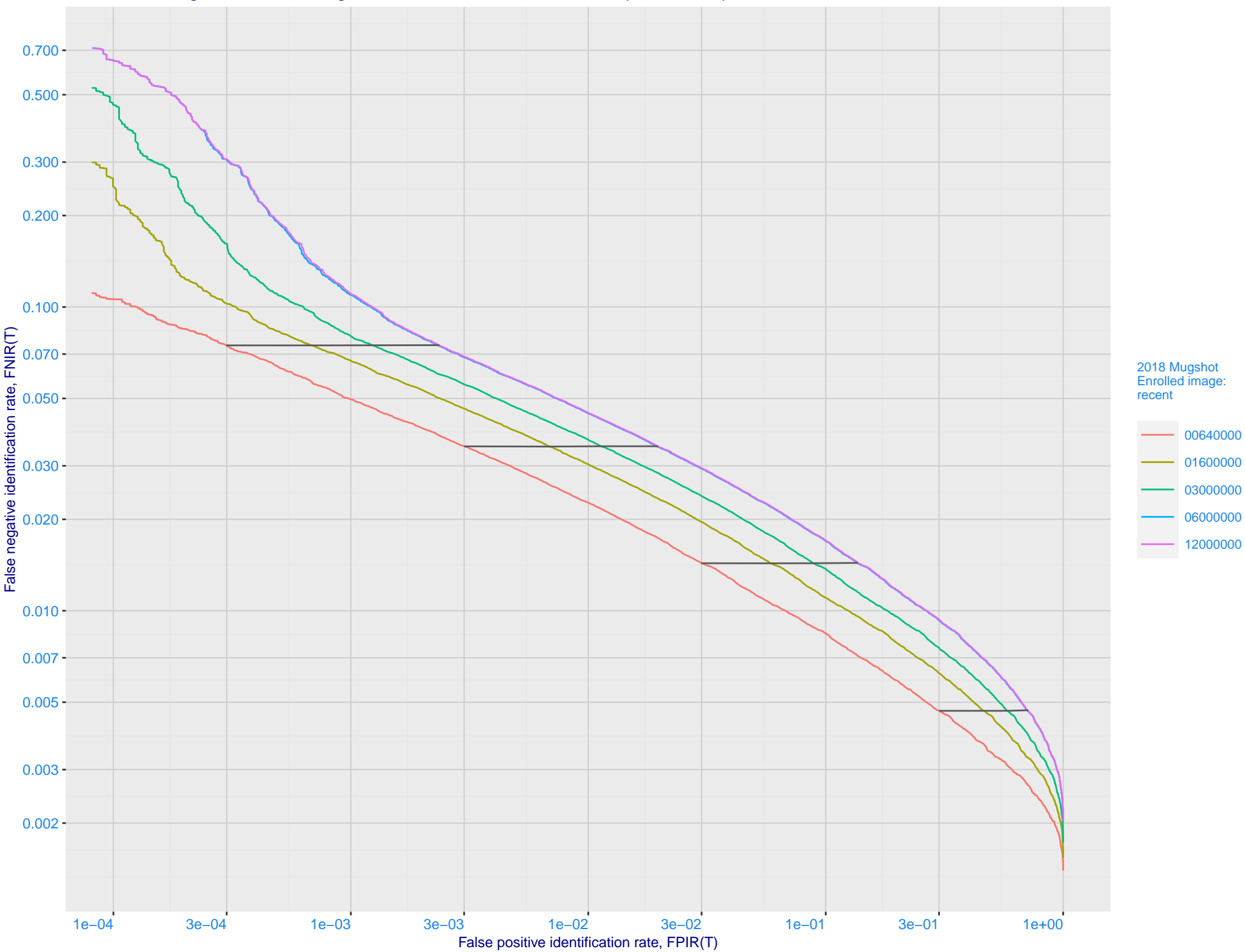N   00640000   01600000   03000000   06000000   12000000
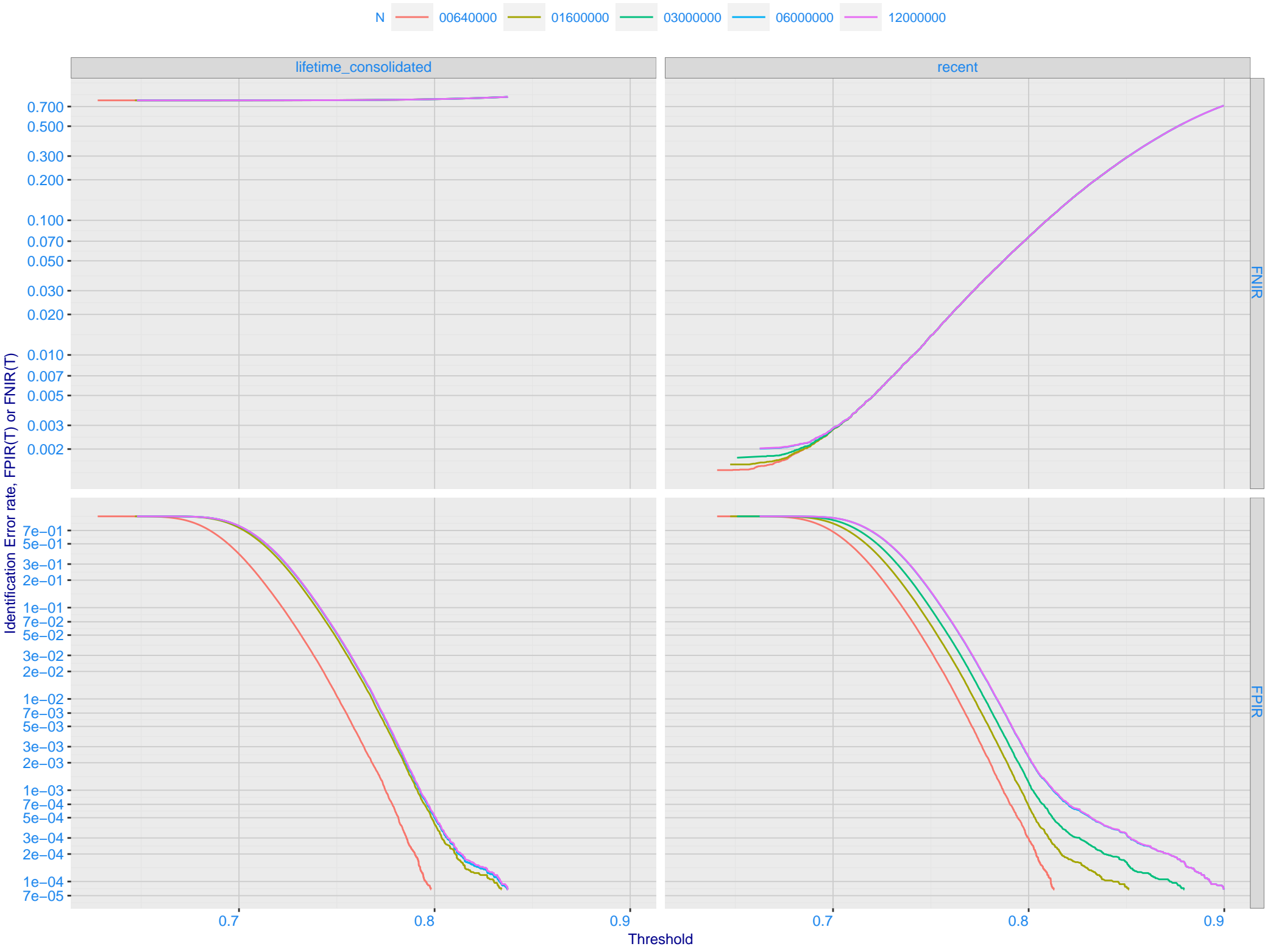
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate
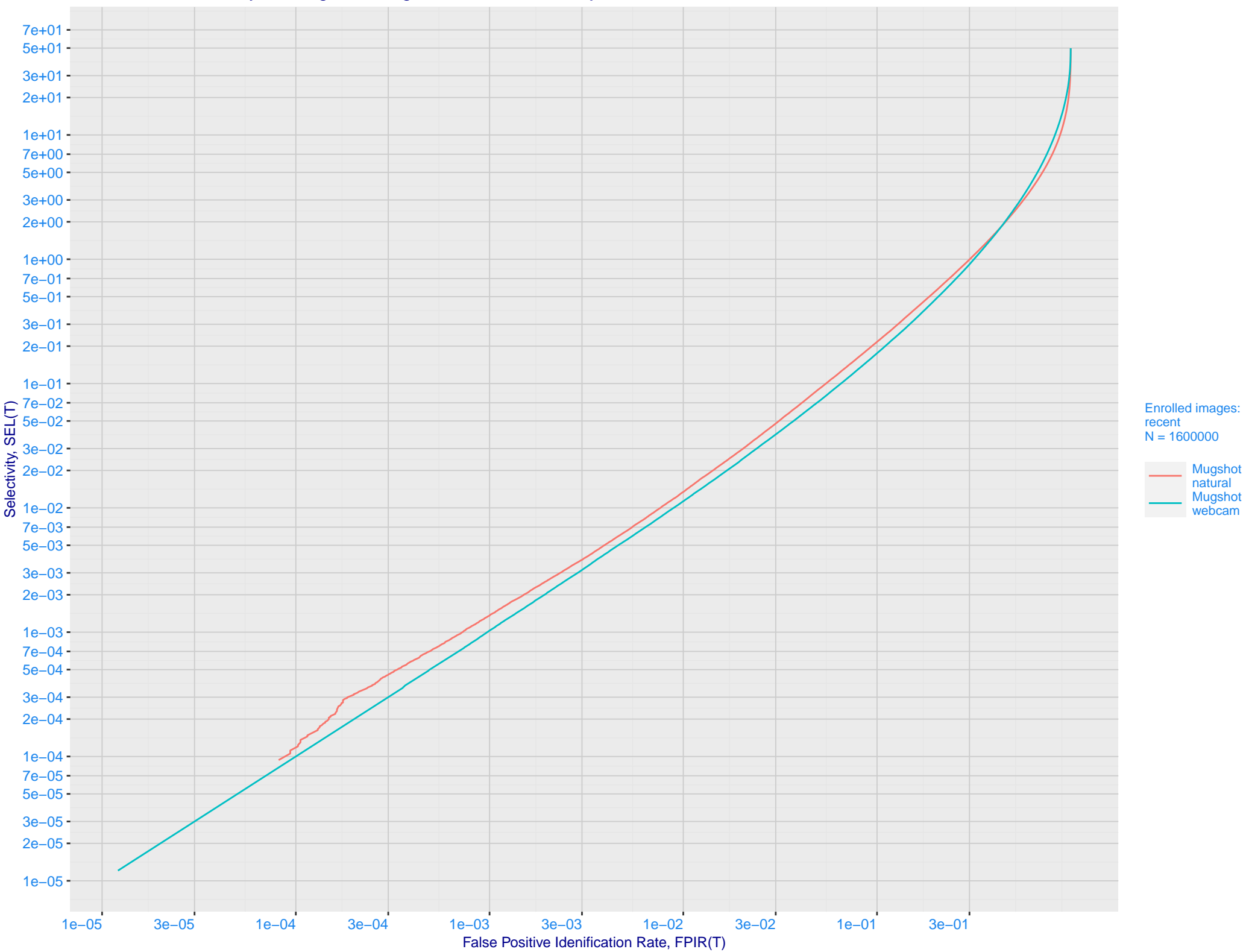
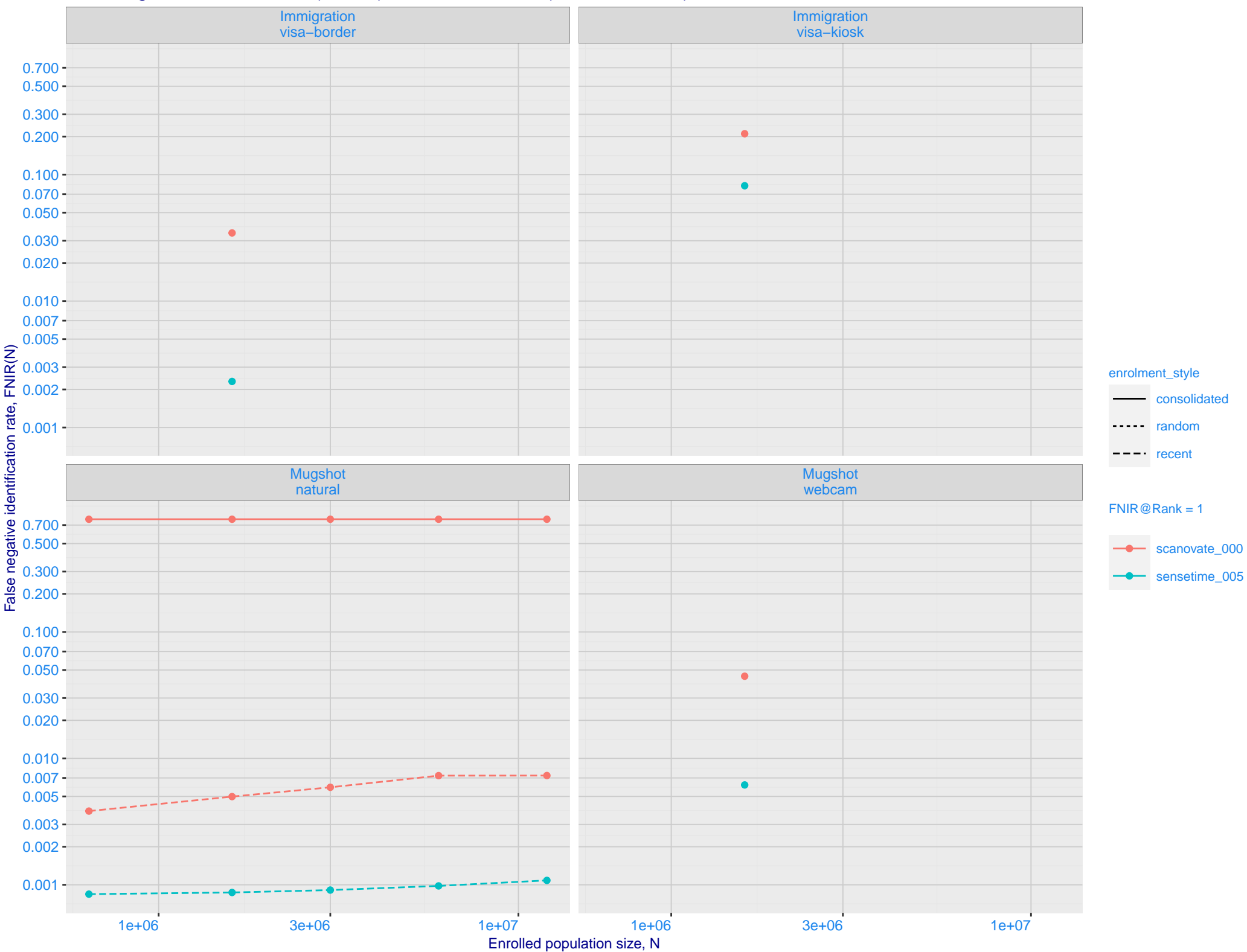G: FPIR dependence on T by probe type for N = 1600000 subjects
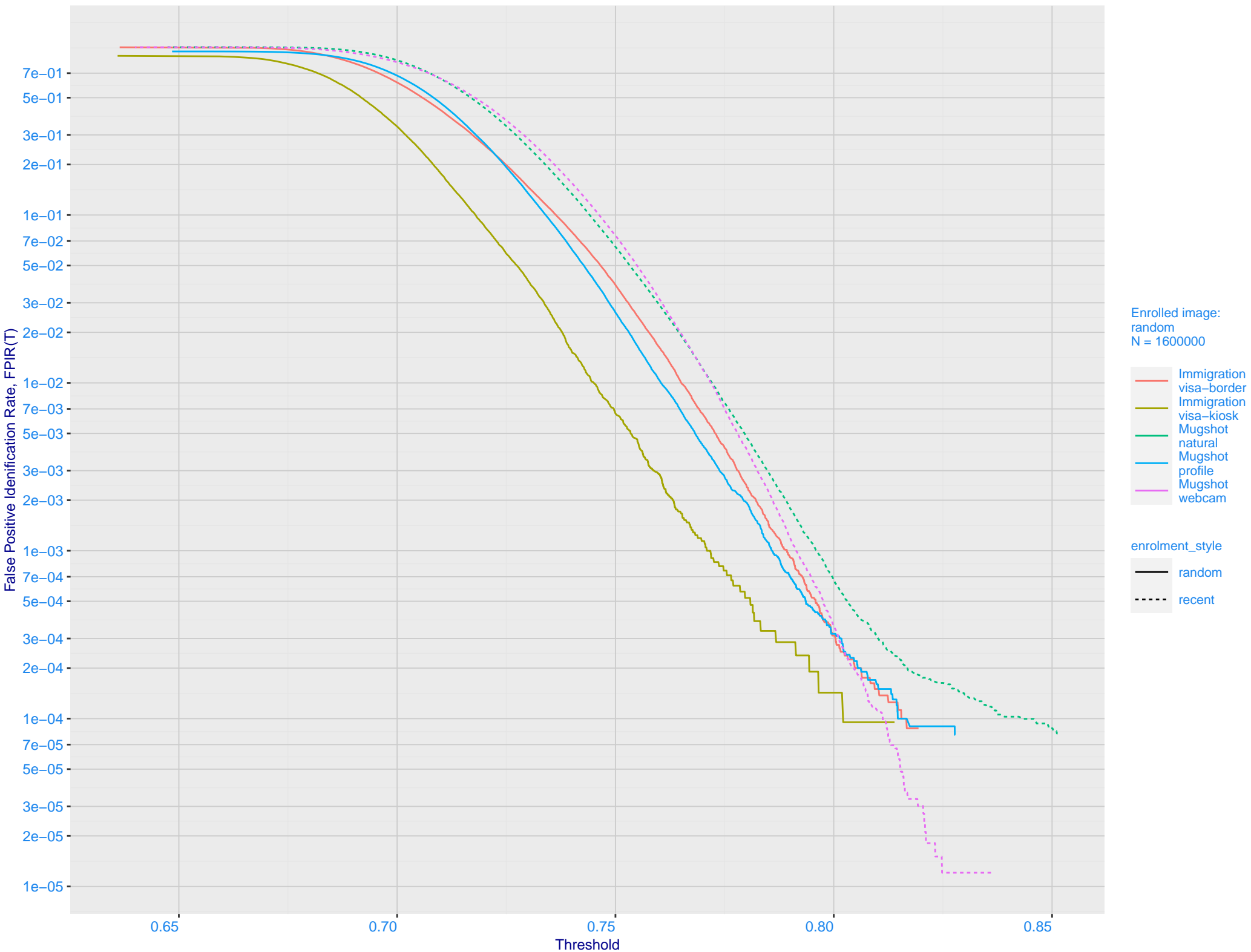
H: DET for Mugshot natural images and various N. Links connect points of equal threshold.
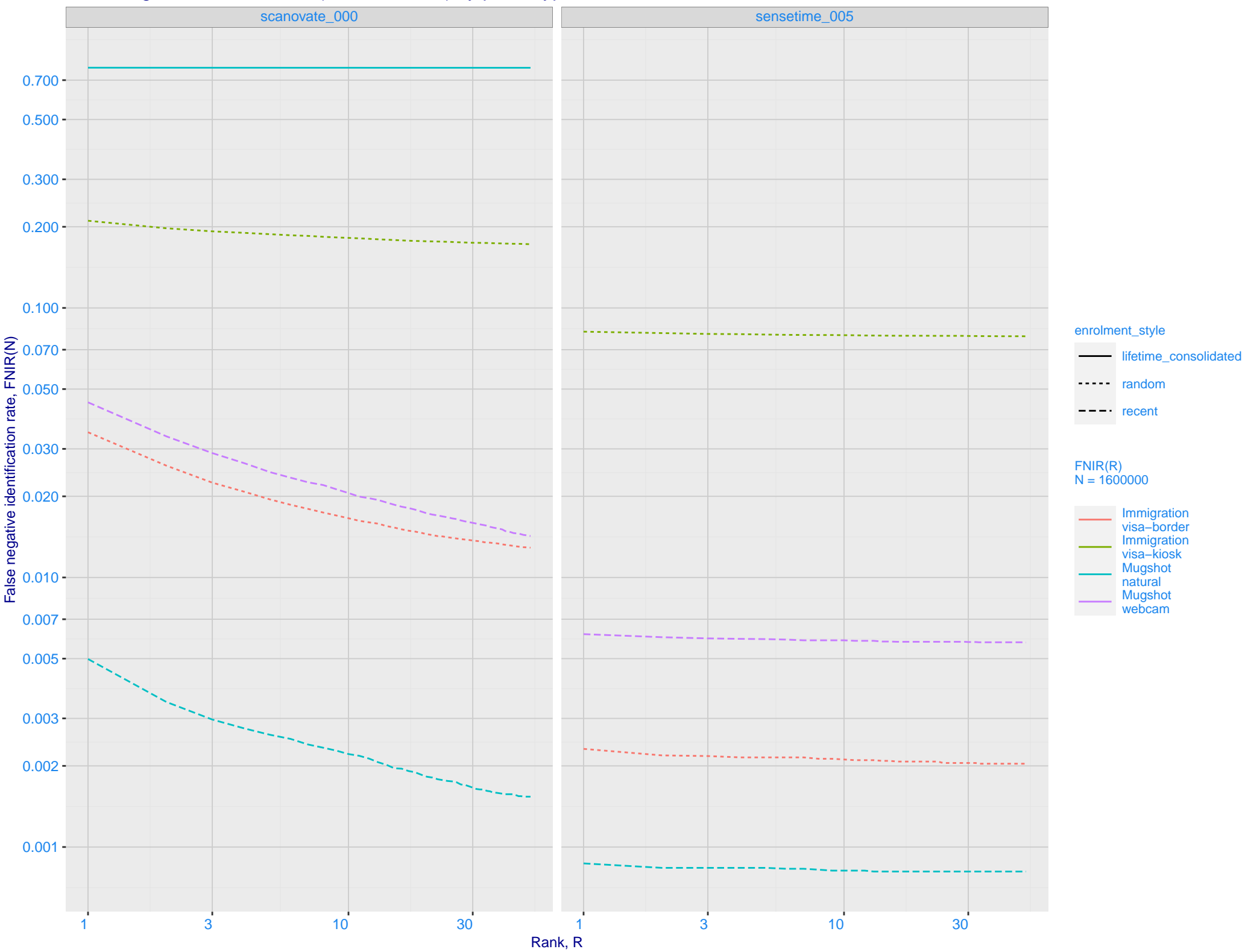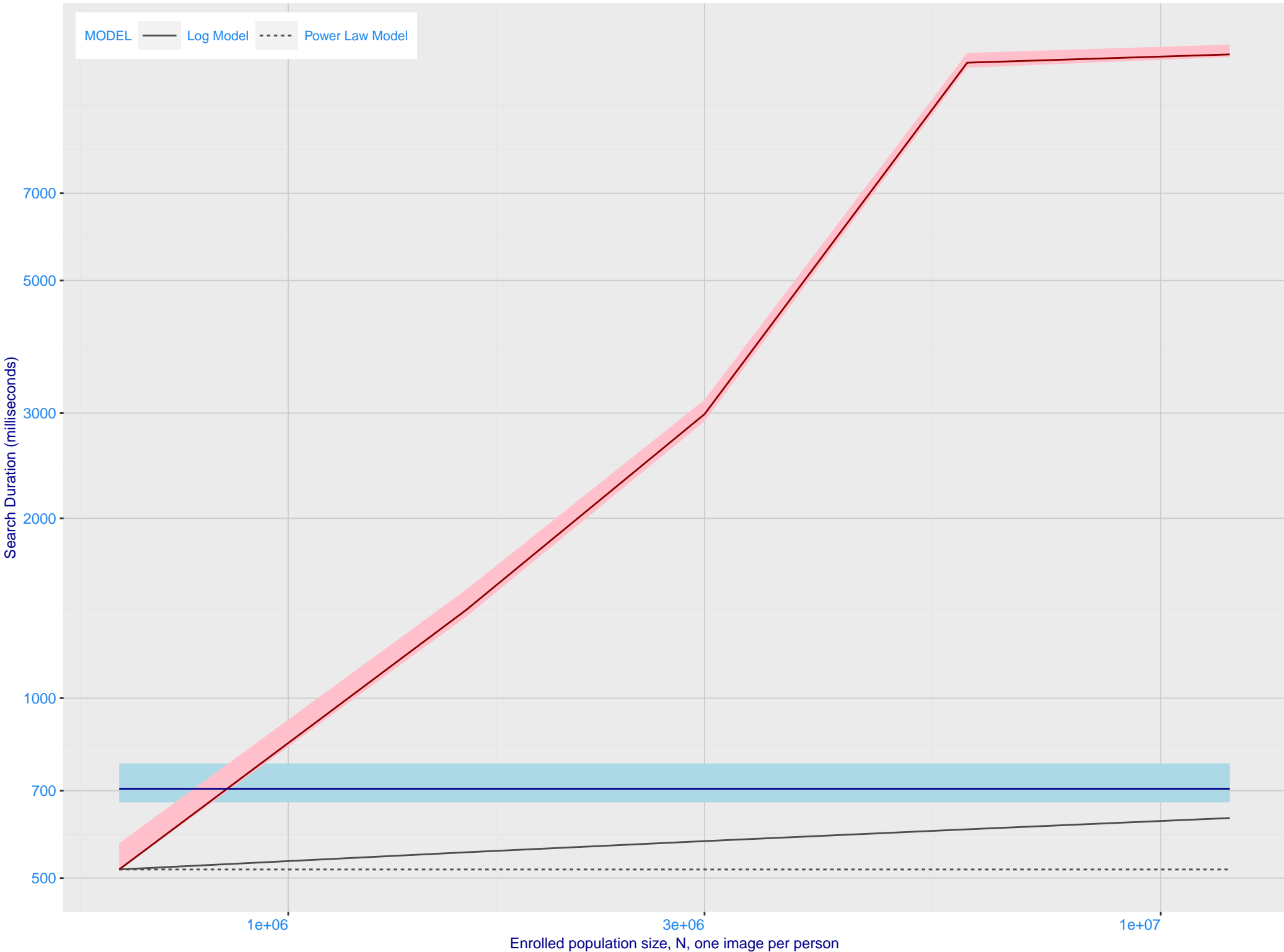
I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

J: 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