A: Datasheet

Algorithm: paravision_007

Developer: Paravision (EverAI)

Submission Date: 2021_02_01

Template size: 4096 bytes

Template time (2.5 percentile): 700 msec

Template time (median): 701 msec

Template time (97.5 percentile): 711 msec

Investigation:

Frontal mugshot ranking 6 (out of 259) –– FNIR(1600000, 0, 1) = 0.0012 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 6 (out of 221) –– FNIR(1600000, 0, 1) = 0.0080 vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 2 (out of 190) –– FNIR(1600000, 0, 1) = 0.0661 vs. lowest 0.0591 from sensetime_005

Immigration visa–border ranking 31 (out of 142) –– FNIR(1600000, 0, 1) = 0.0050 vs. lowest 0.0014 from visionlabs_009

Immigration visa–kiosk ranking 23 (out of 139) –– FNIR(1600000, 0, 1) = 0.1008 vs. lowest 0.0694 from cib_000

Identification:

Frontal mugshot ranking 7 (out of 259) –– FNIR(1600000, T, L+1) = 0.0040, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004
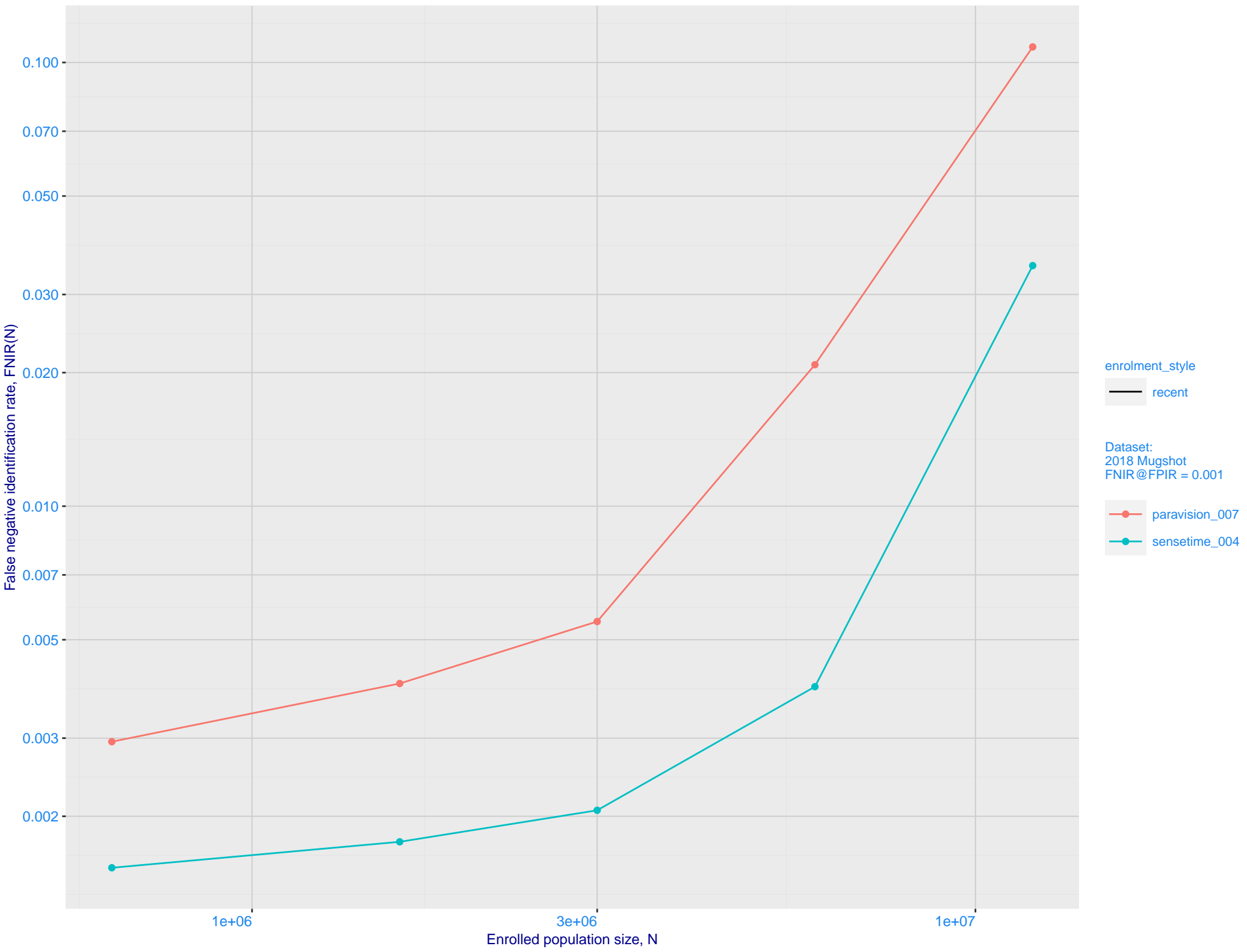
Mugshot webcam ranking 8 (out of 219) –– FNIR(1600000, T, L+1) = 0.0250, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 170 (out of 189) –– FNIR(1600000, T, L+1) = 0.9999, FPIR=0.001000 vs. lowest 0.1733 from sensetime_005
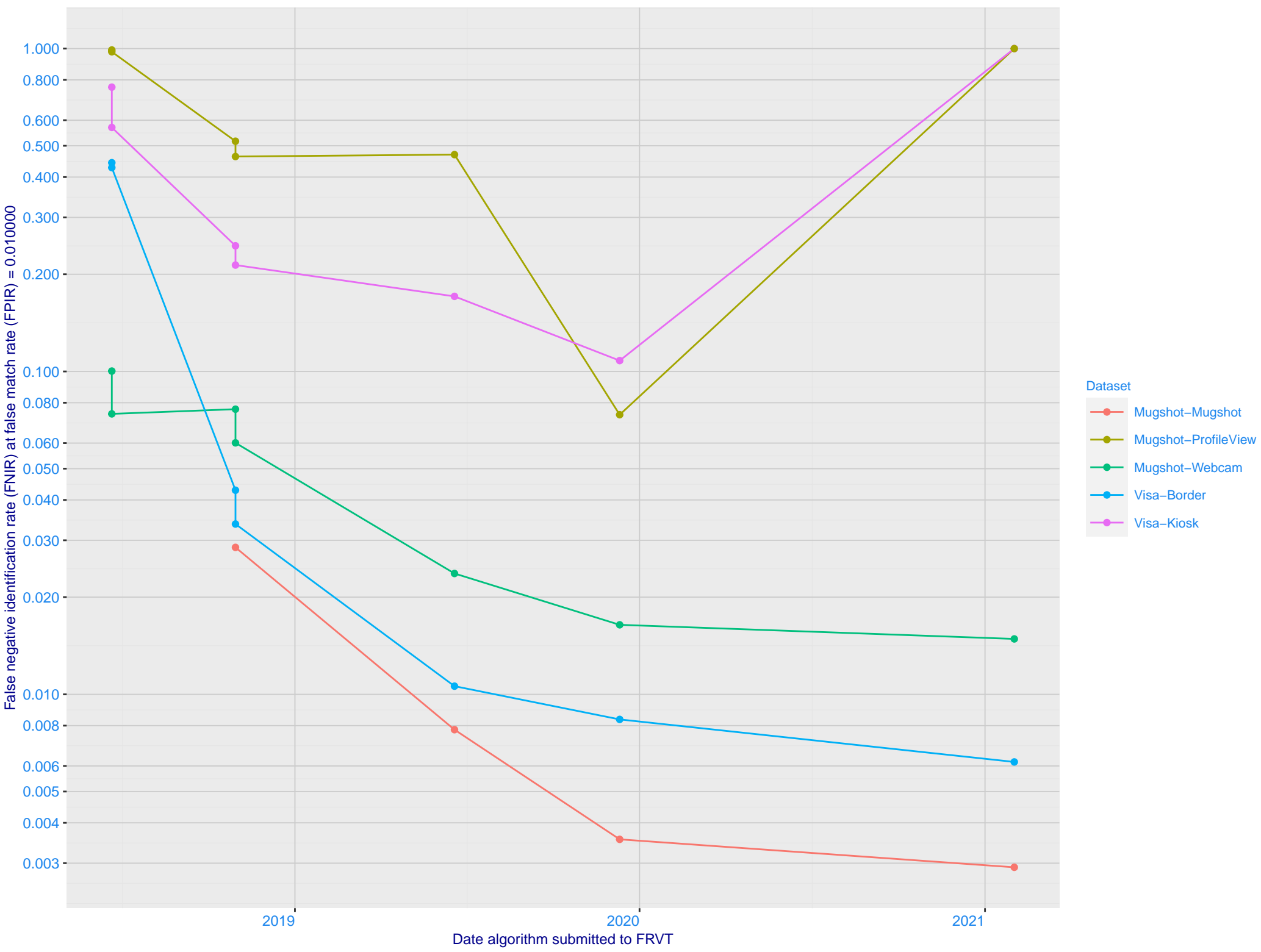
Immigration visa–border ranking 9 (out of 139) –– FNIR(1600000, T, L+1) = 0.0086, FPIR=0.001000 vs. lowest 0.0059 from sensetime_004

Immigration visa–kiosk ranking 130 (out of 134) –– FNIR(1600000, T, L+1) = 1.0000, FPIR=0.001000 vs. lowest 0.1048 from sensetime_005
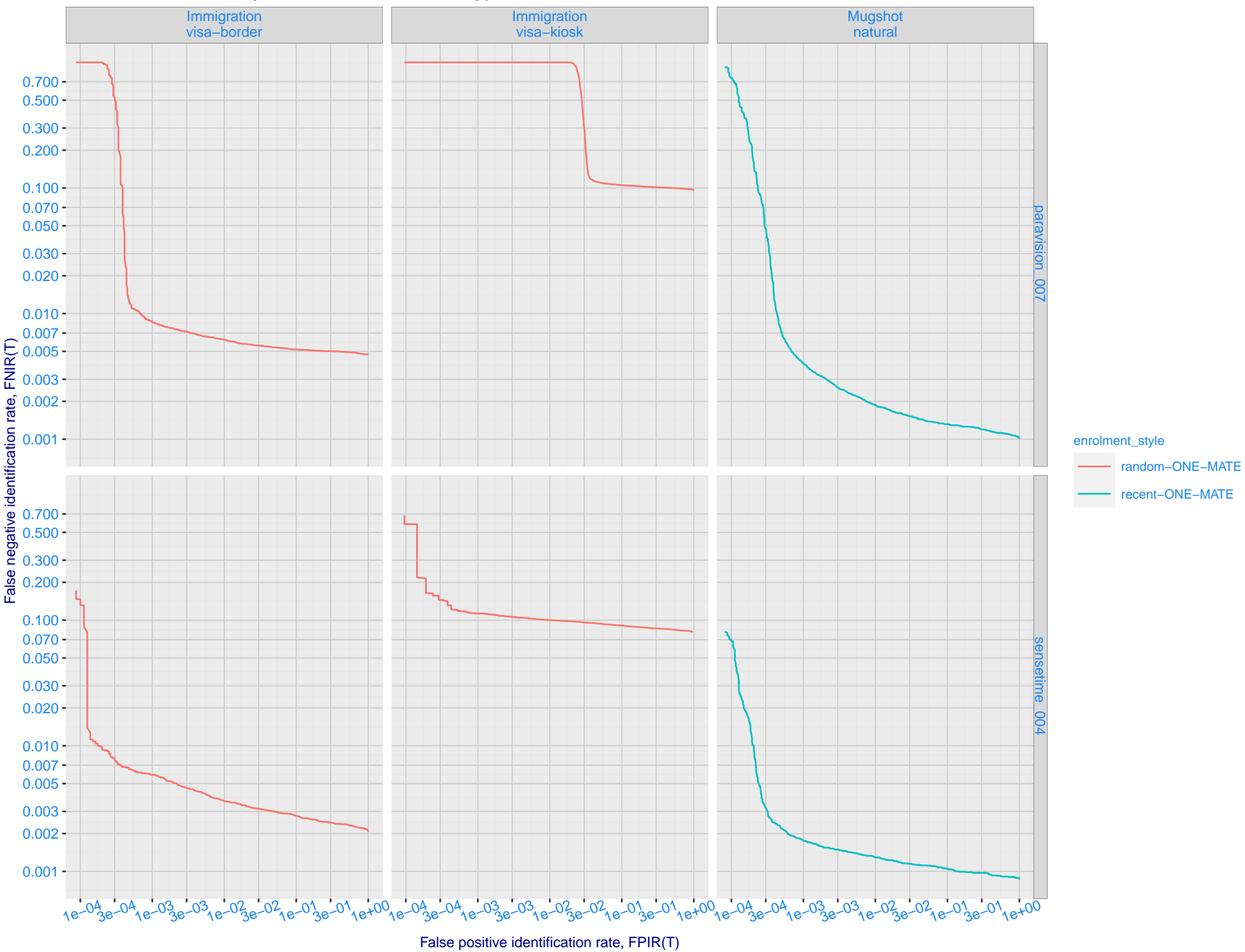
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)
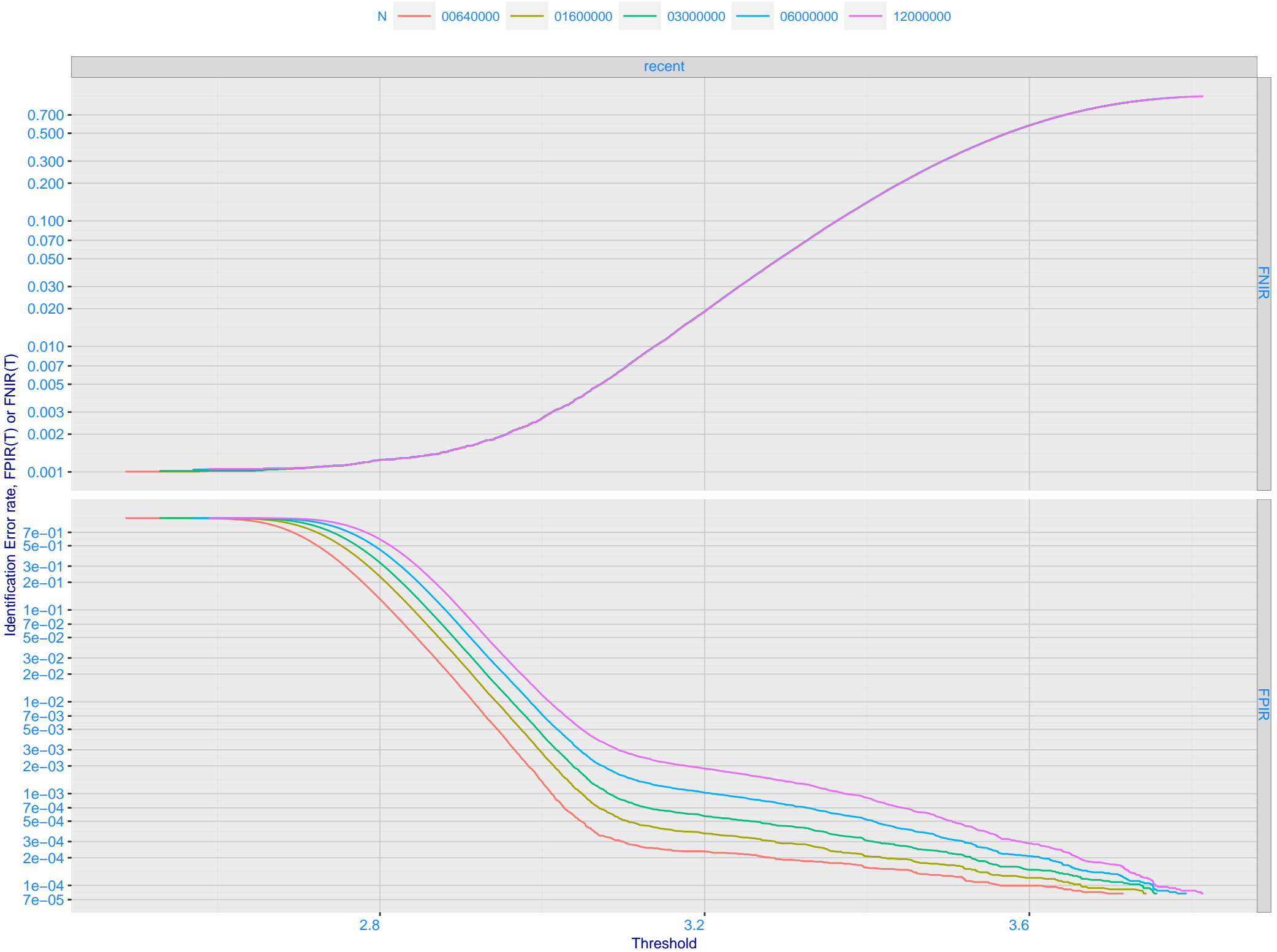
C: Evolution of accuracy for PARAVISION algorithms on three datasets 2018 – present
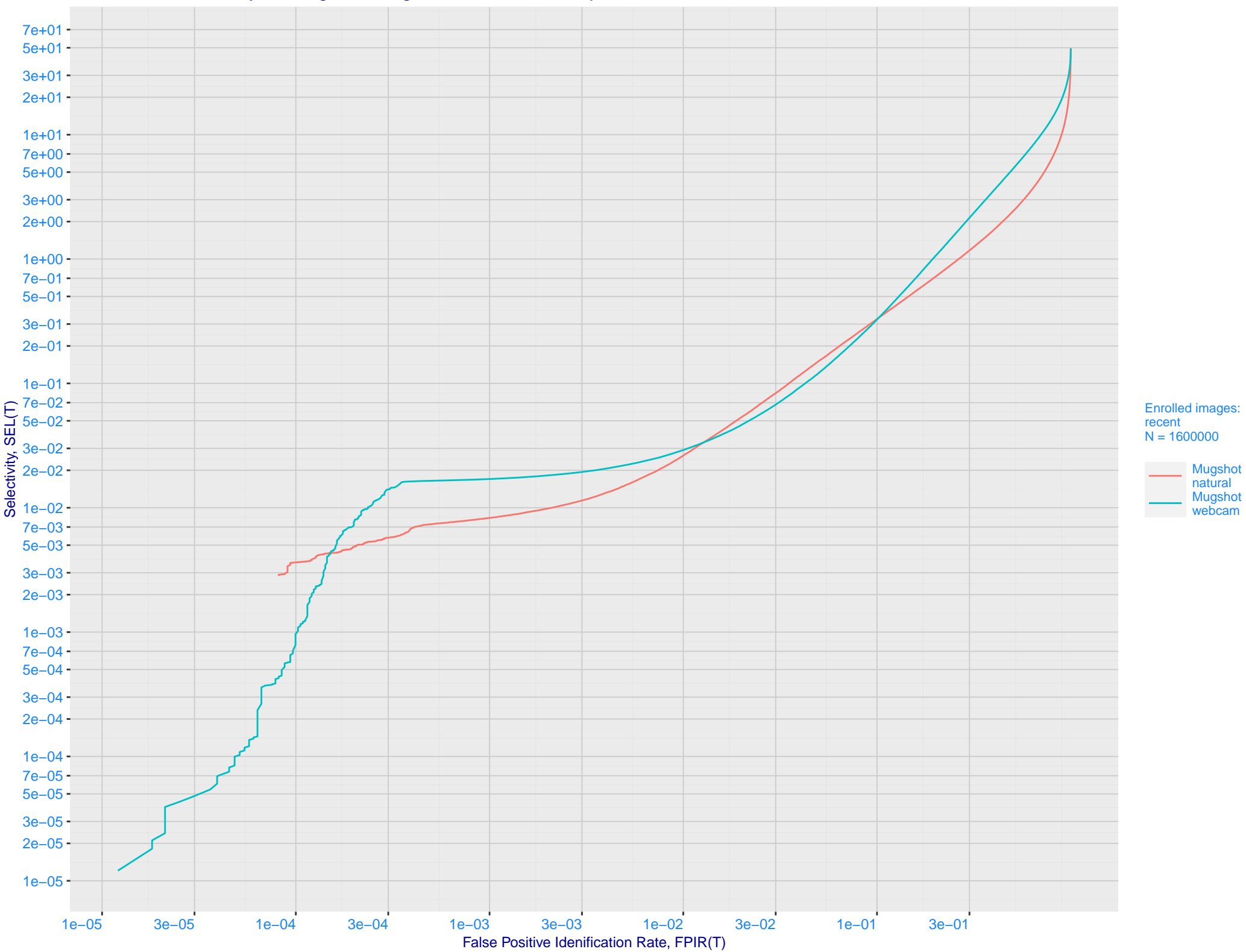
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals
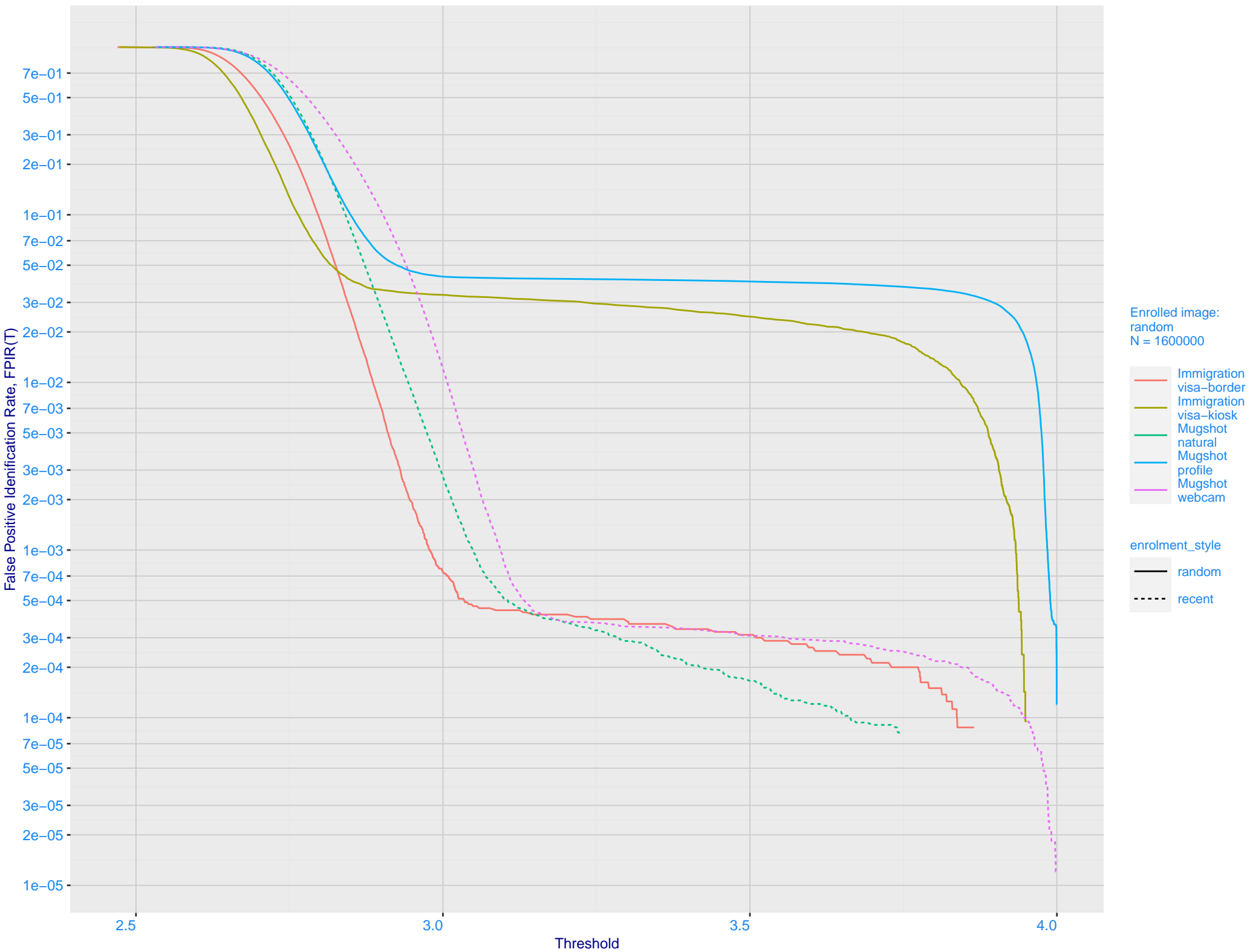
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images
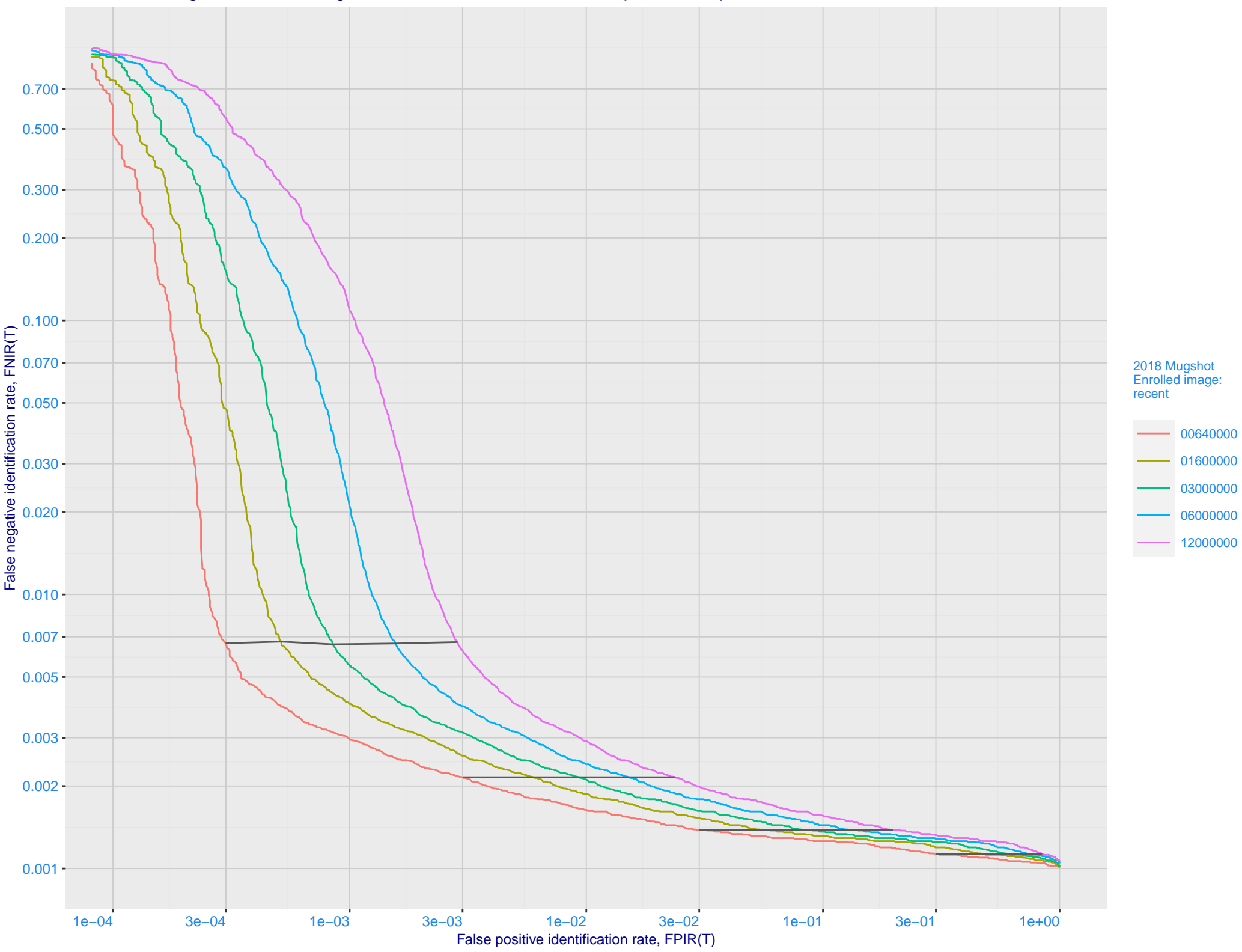
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

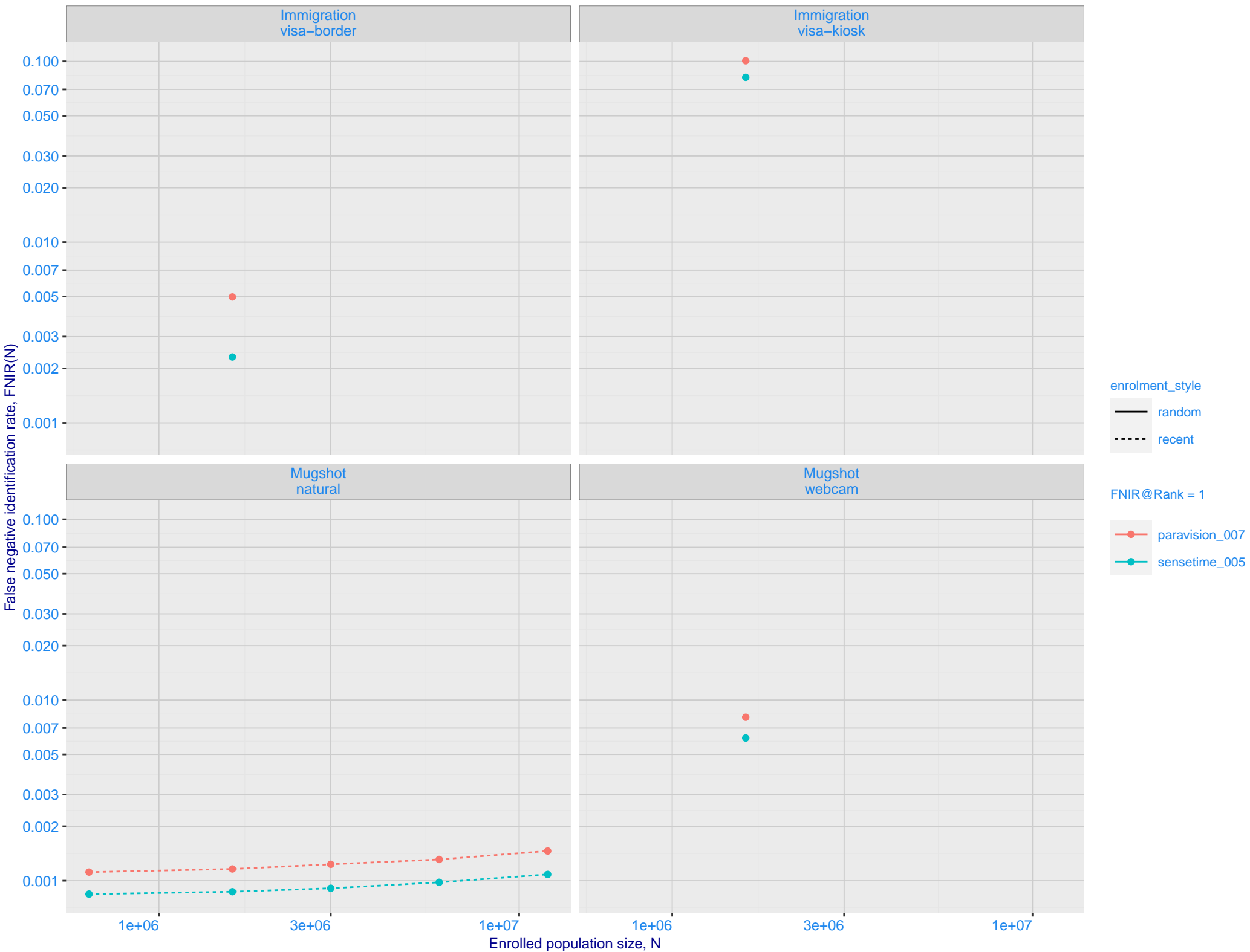G: FPIR dependence on T by probe type for N = 1600000 subjects

H: DET for Mugshot natural images and various N. Links connect points of equal threshold.
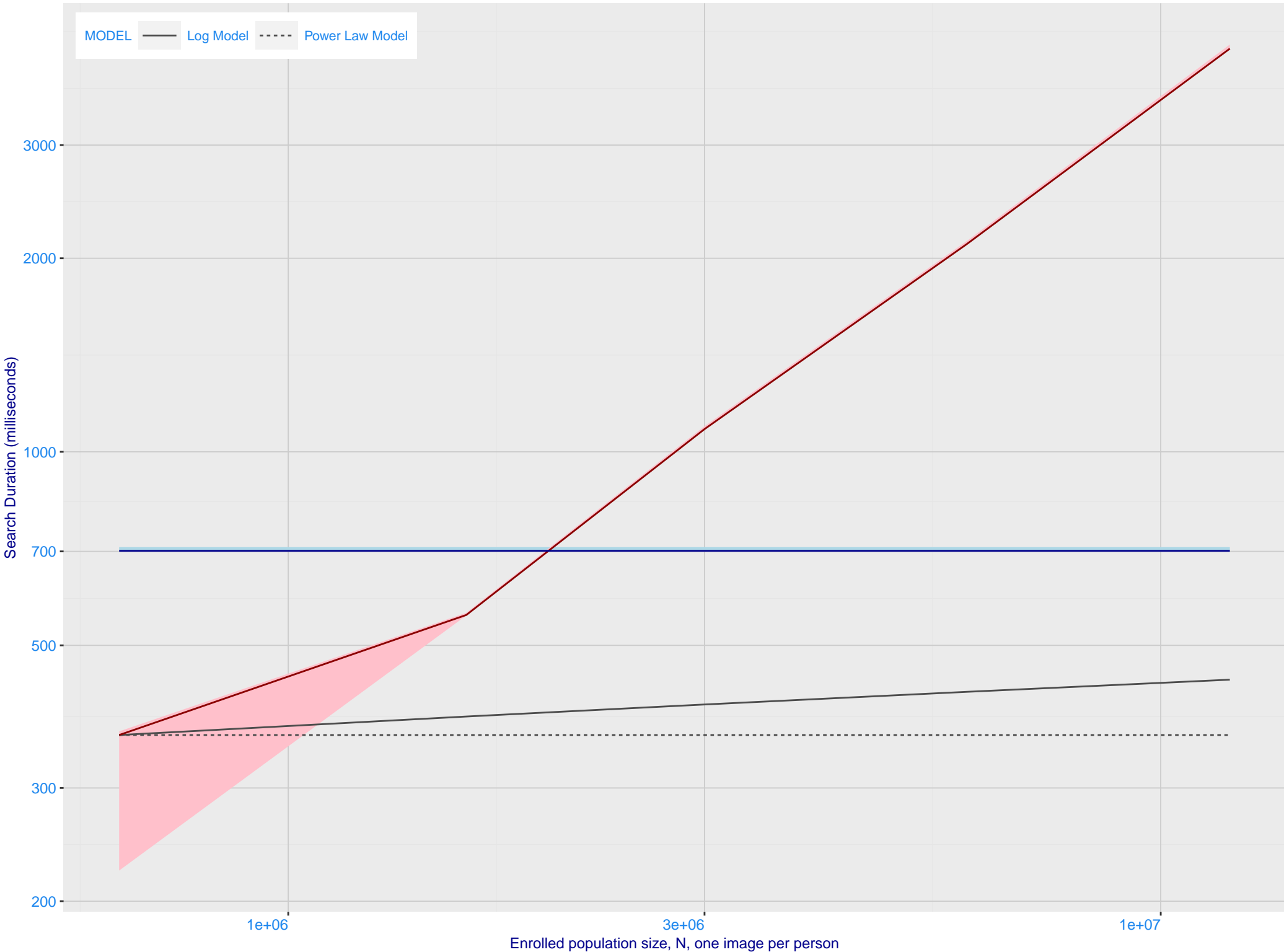
I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

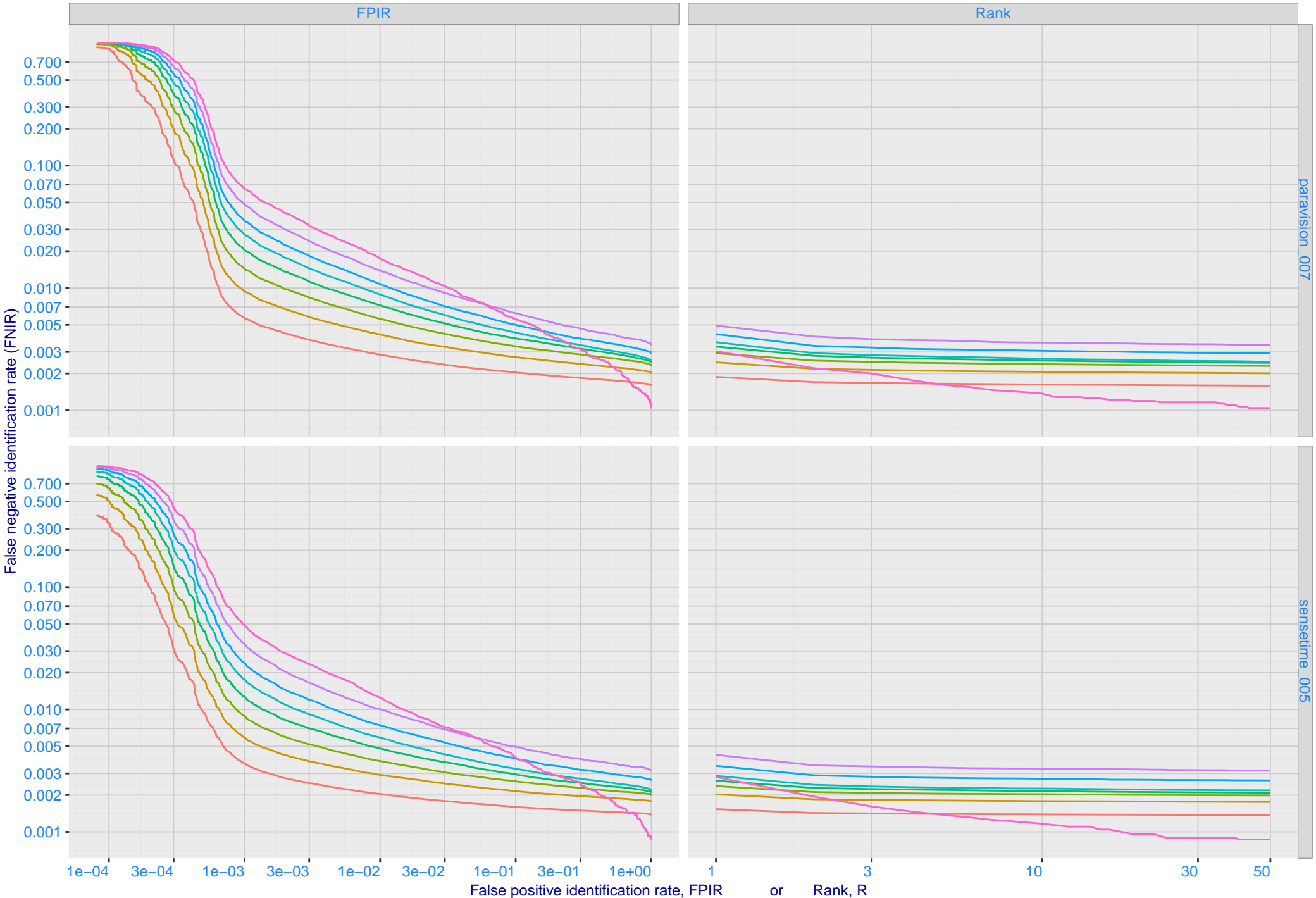J: Investigational mode: FNIR(1600000, R, 0) by probe type

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

N: Decline of genuine scores with ageing