A: Datasheet

Algorithm: gorilla_004

Developer: Gorilla Technology

Submission Date: 2020_01_06

Template size: 2192 bytes

Template time (2.5 percentile): 385 msec

Template time (median): 388 msec

Template time (97.5 percentile): 423 msec

Investigation:

Frontal mugshot ranking 96 (out of 265) –– FNIR(1600000, 0, 1) = 0.0063 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 96 (out of 227) –– FNIR(1600000, 0, 1) = 0.0238 vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 75 (out of 196) –– FNIR(1600000, 0, 1) = 0.6966 vs. lowest 0.0591 from sensetime_005

Immigration visa–border ranking 65 (out of 148) –– FNIR(1600000, 0, 1) = 0.0116 vs. lowest 0.0013 from visionlabs_010

Immigration visa–kiosk ranking 67 (out of 145) –– FNIR(1600000, 0, 1) = 0.1615 vs. lowest 0.0568 from hr_000

Identification:

Frontal mugshot ranking 130 (out of 265) –– FNIR(1600000, T, L+1) = 0.0889, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004
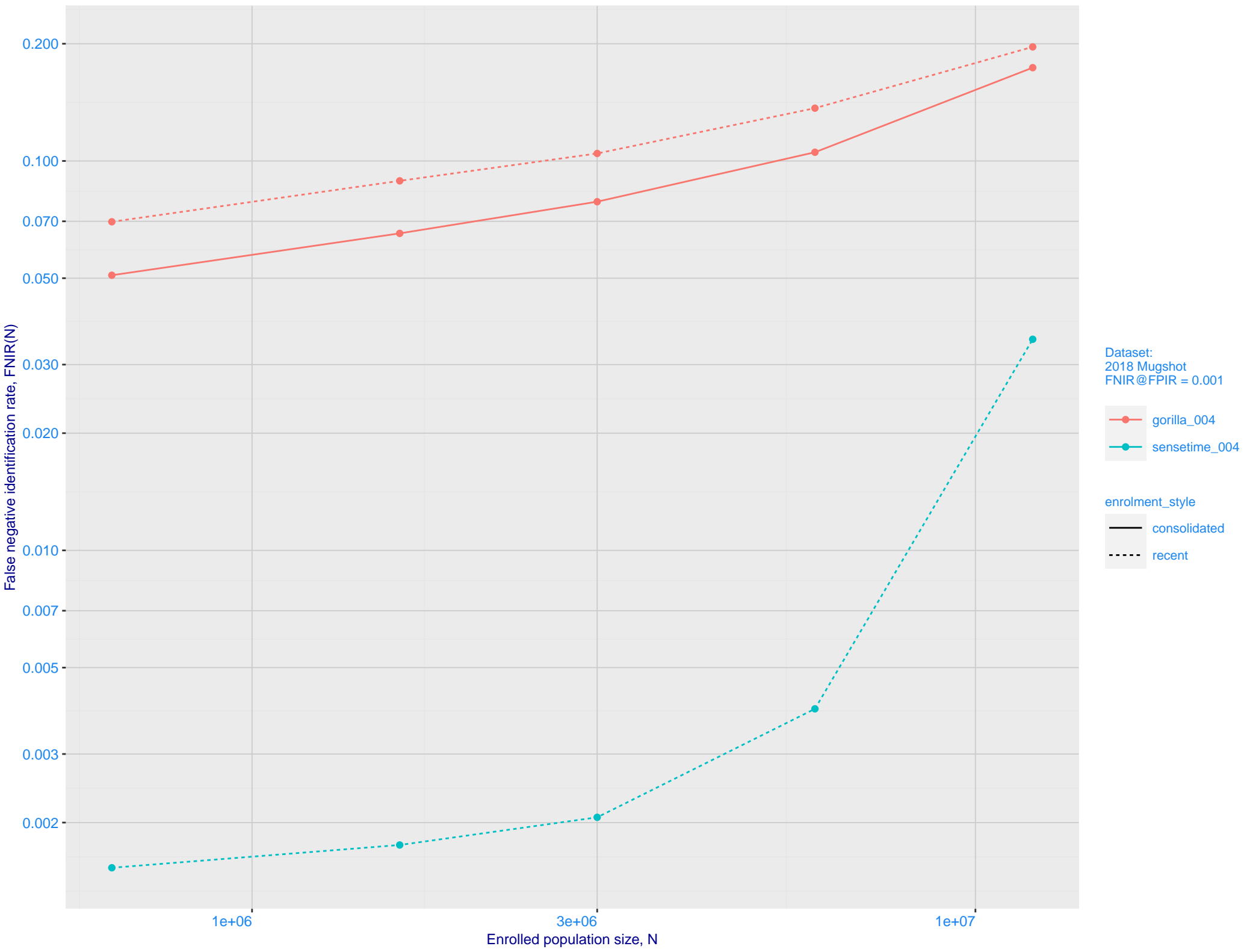
Mugshot webcam ranking 114 (out of 225) –– FNIR(1600000, T, L+1) = 0.1601, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 39 (out of 195) –– FNIR(1600000, T, L+1) = 0.9587, FPIR=0.001000 vs. lowest 0.1331 from hr_000
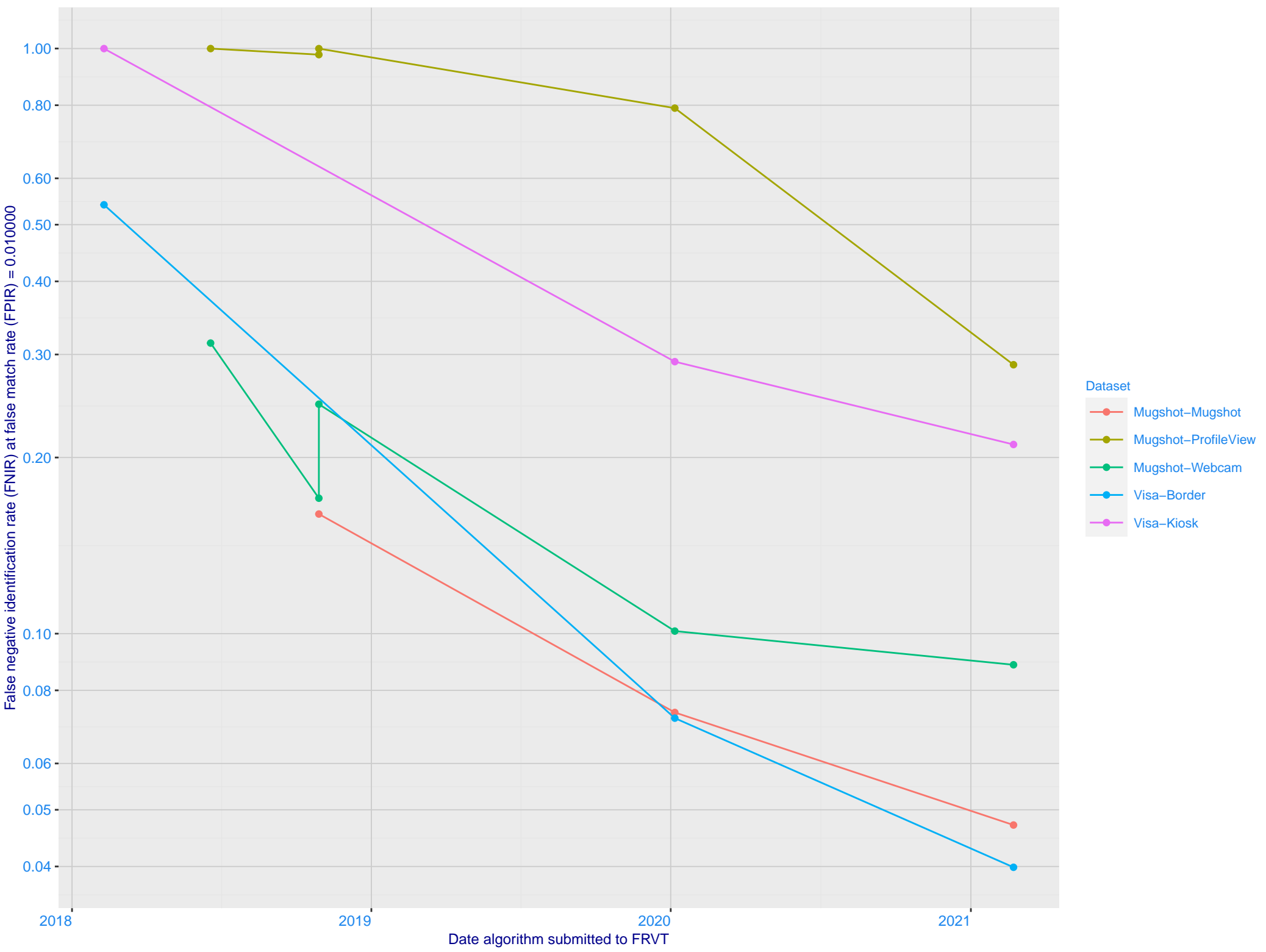
Immigration visa–border ranking 75 (out of 146) –– FNIR(1600000, T, L+1) = 0.1350, FPIR=0.001000 vs. lowest 0.0049 from hr_000

Immigration visa–kiosk ranking 57 (out of 141) –– FNIR(1600000, T, L+1) = 0.4381, FPIR=0.001000 vs. lowest 0.0996 from hr_000
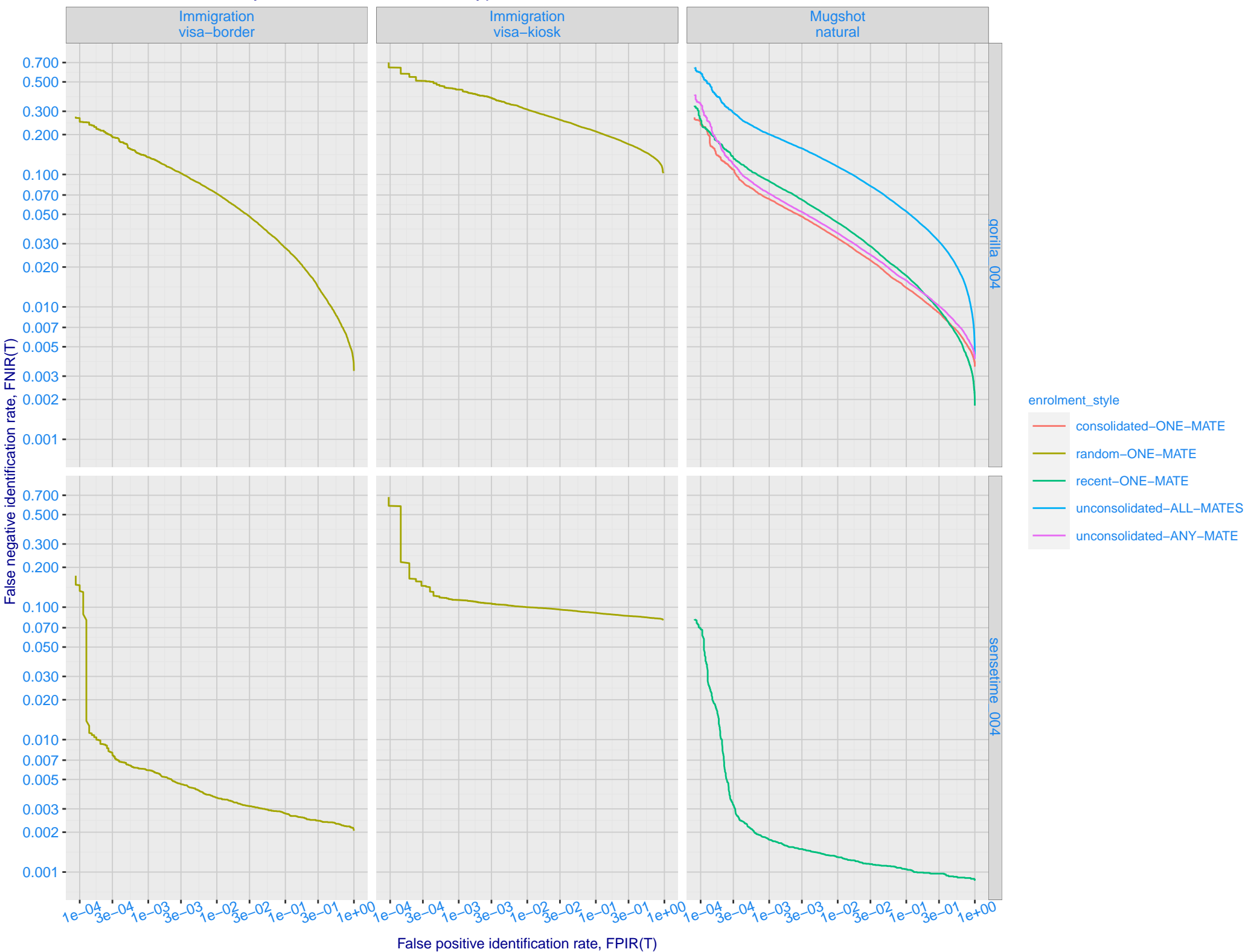
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)

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

Dataset

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

False negative identification rate (FNIR) at false match rate (FPIR) = 0.010000
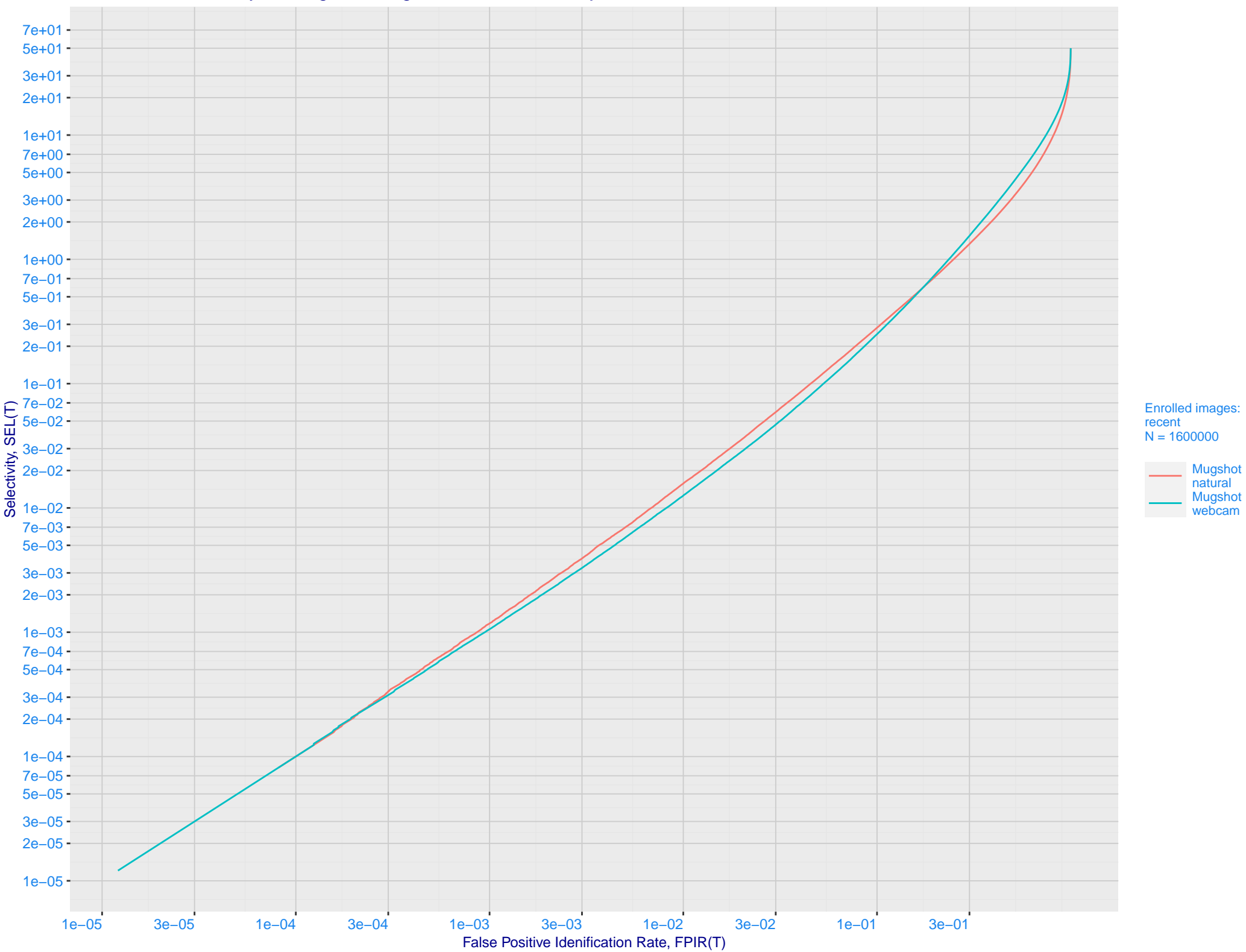
Date algorithm submitted to FRVT

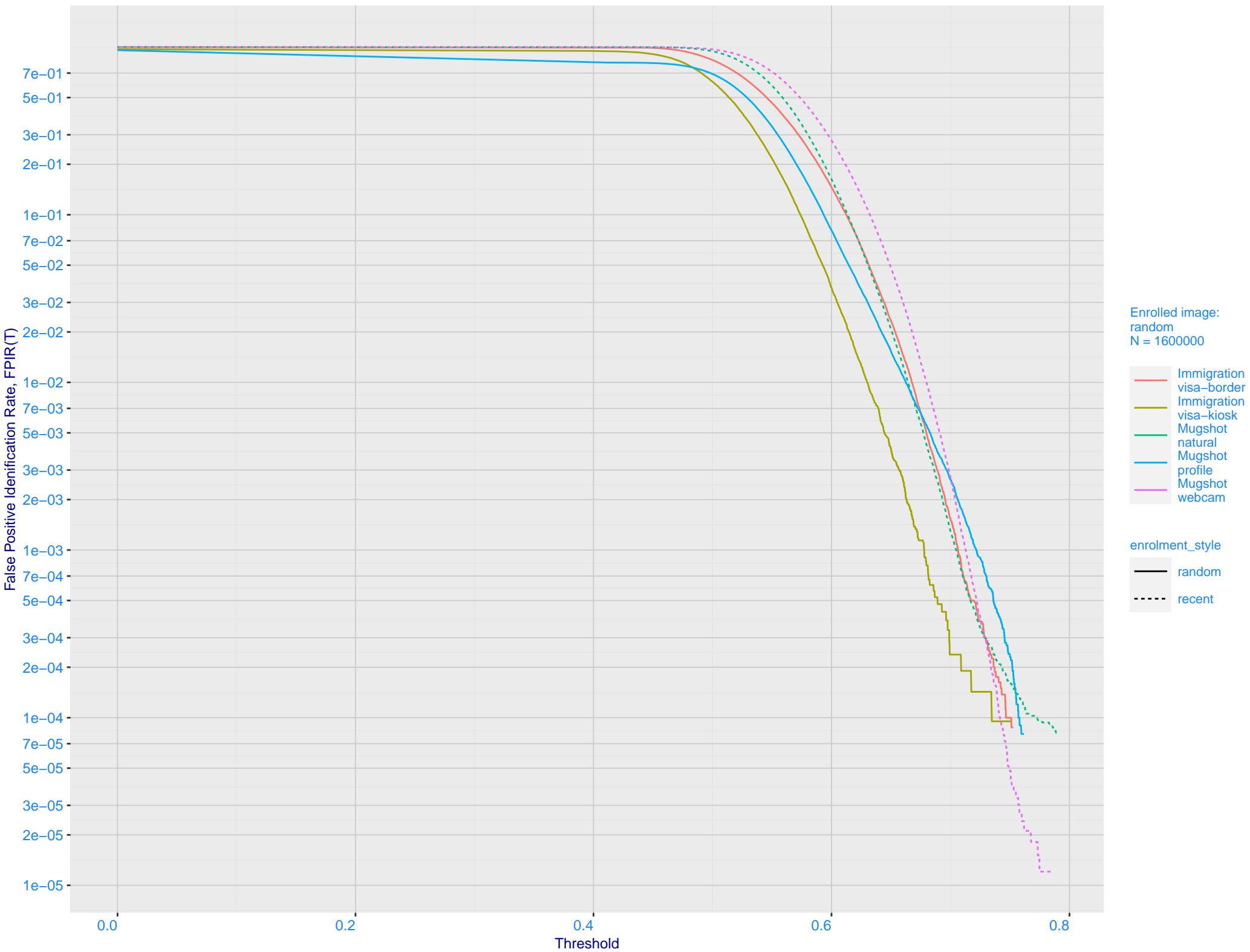D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images
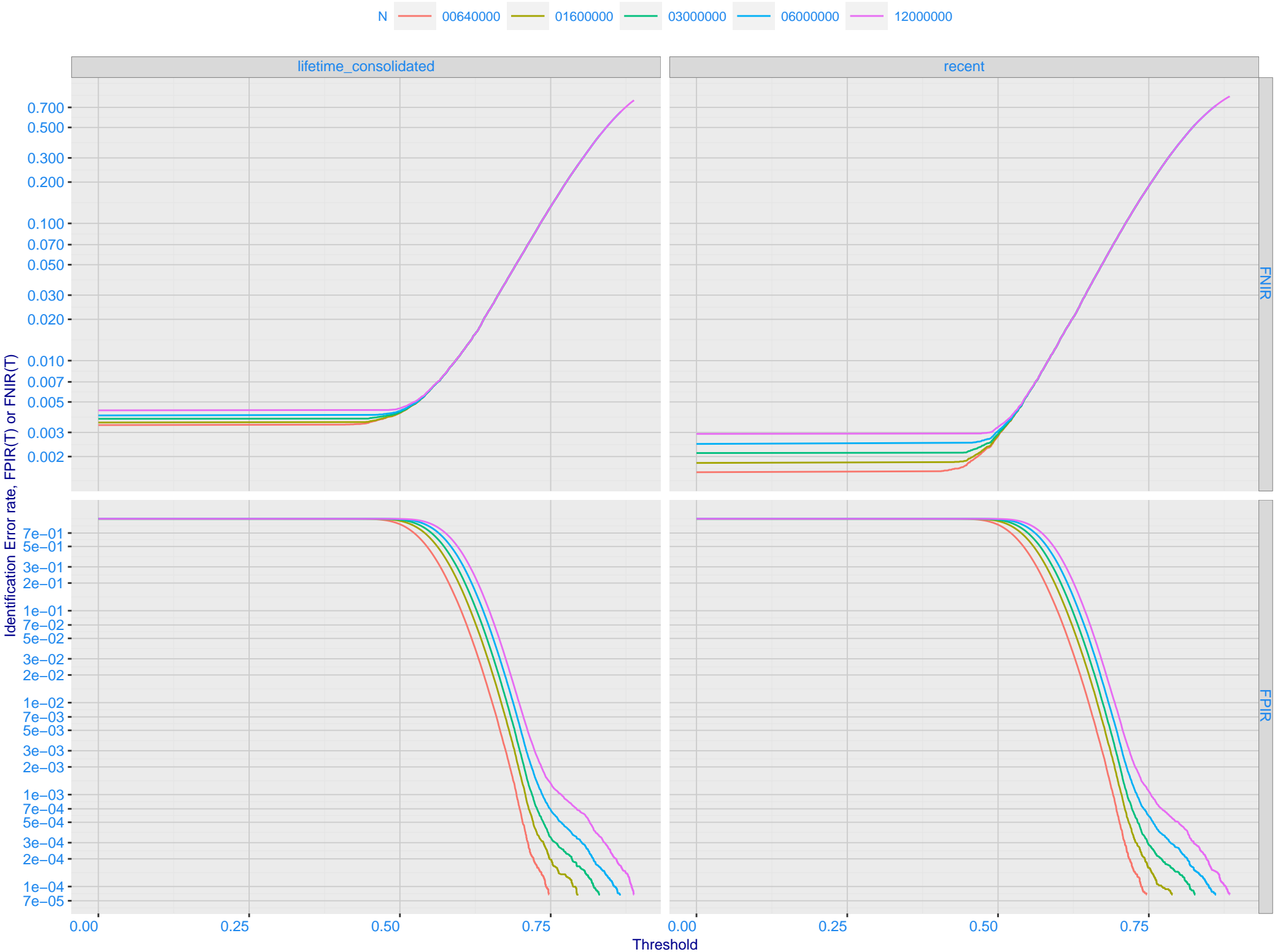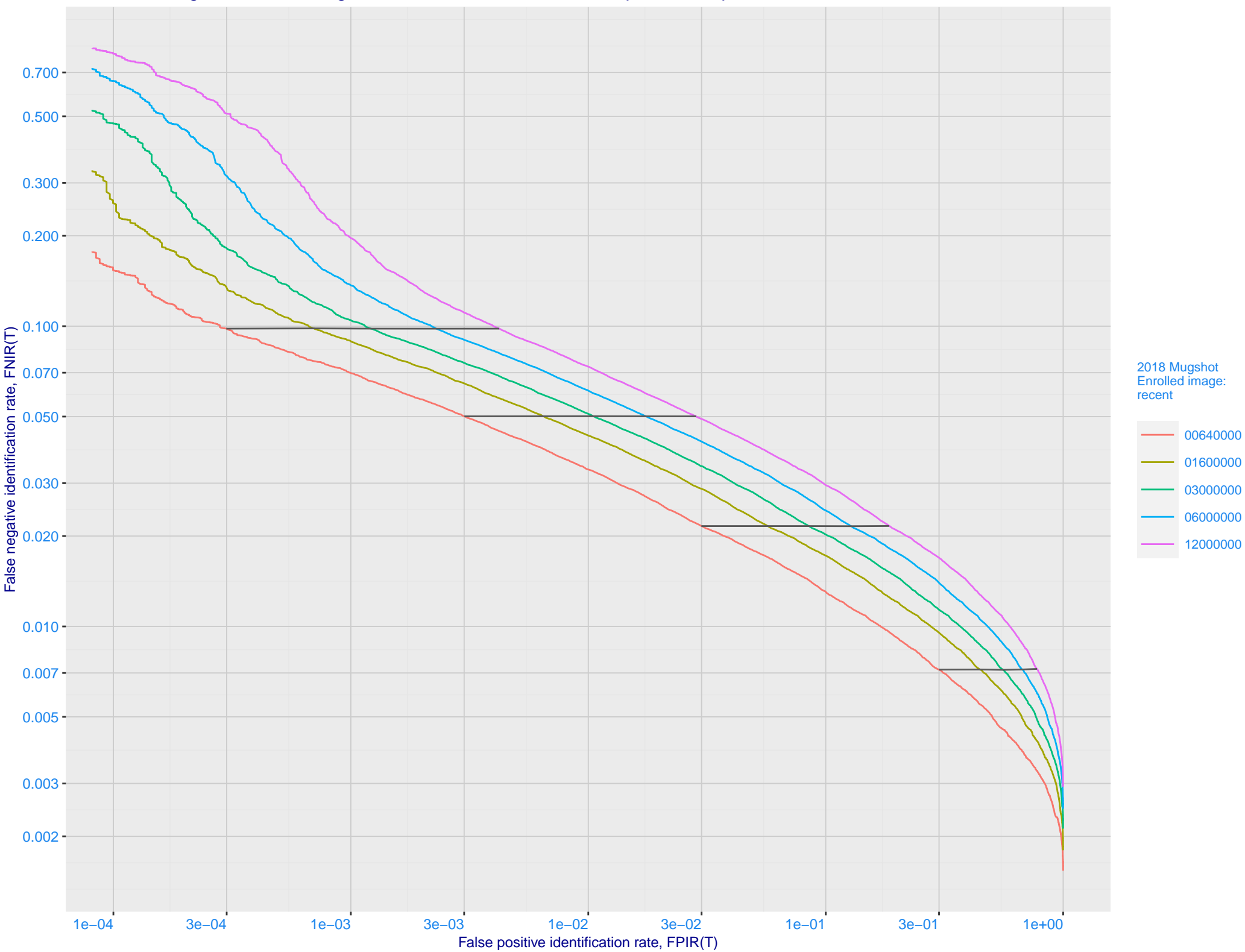
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

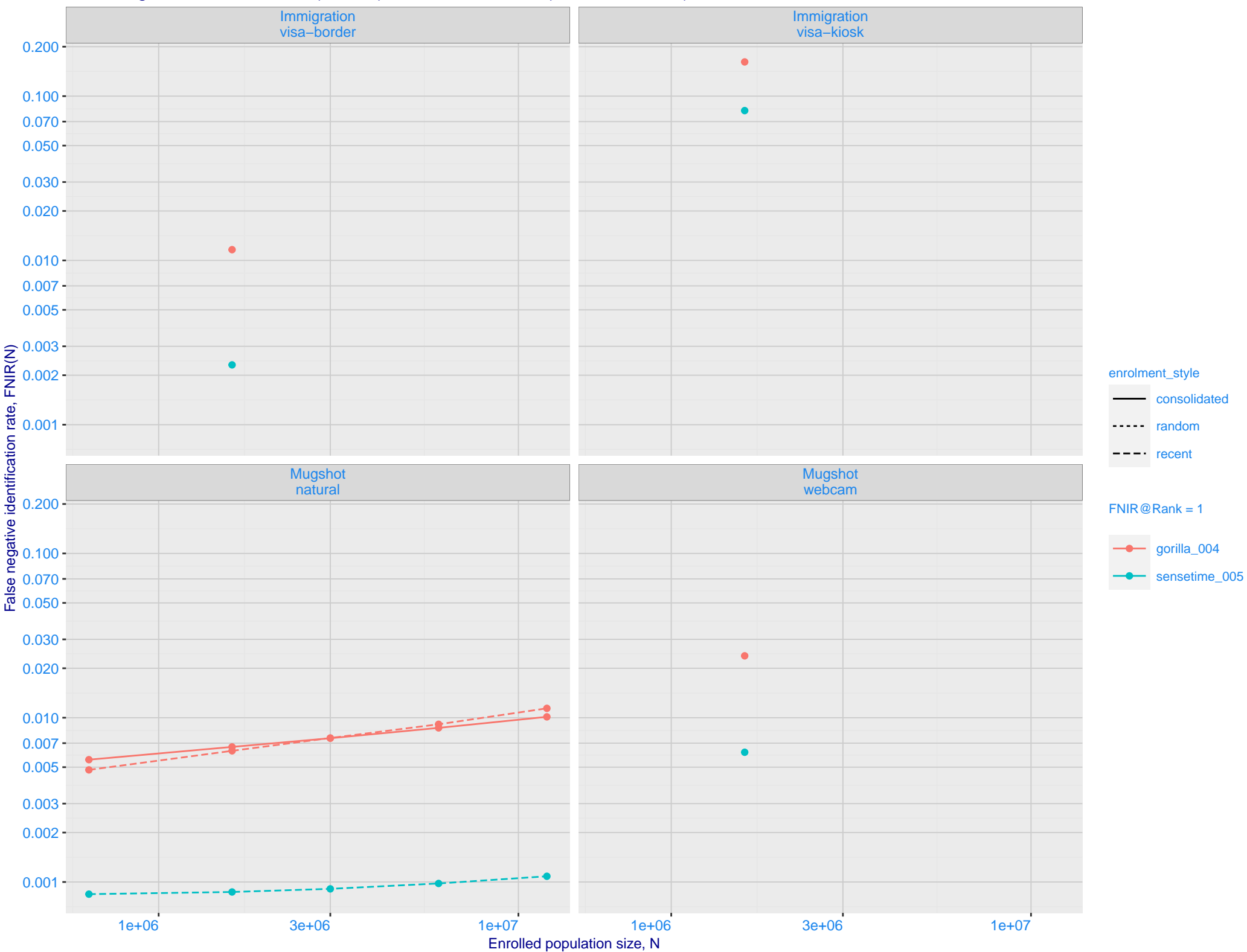G: FPIR dependence on T by probe type for N = 1600000 subjects

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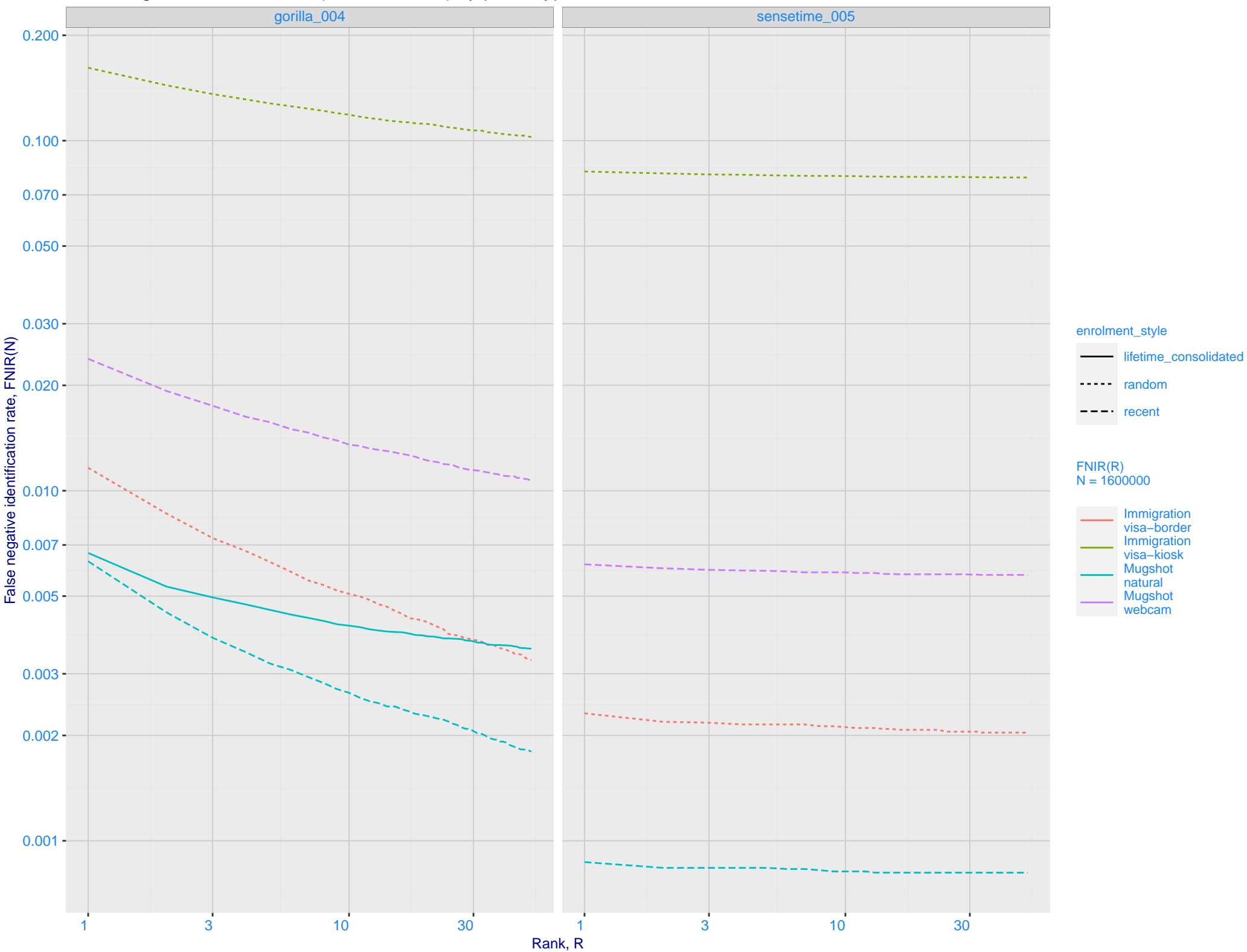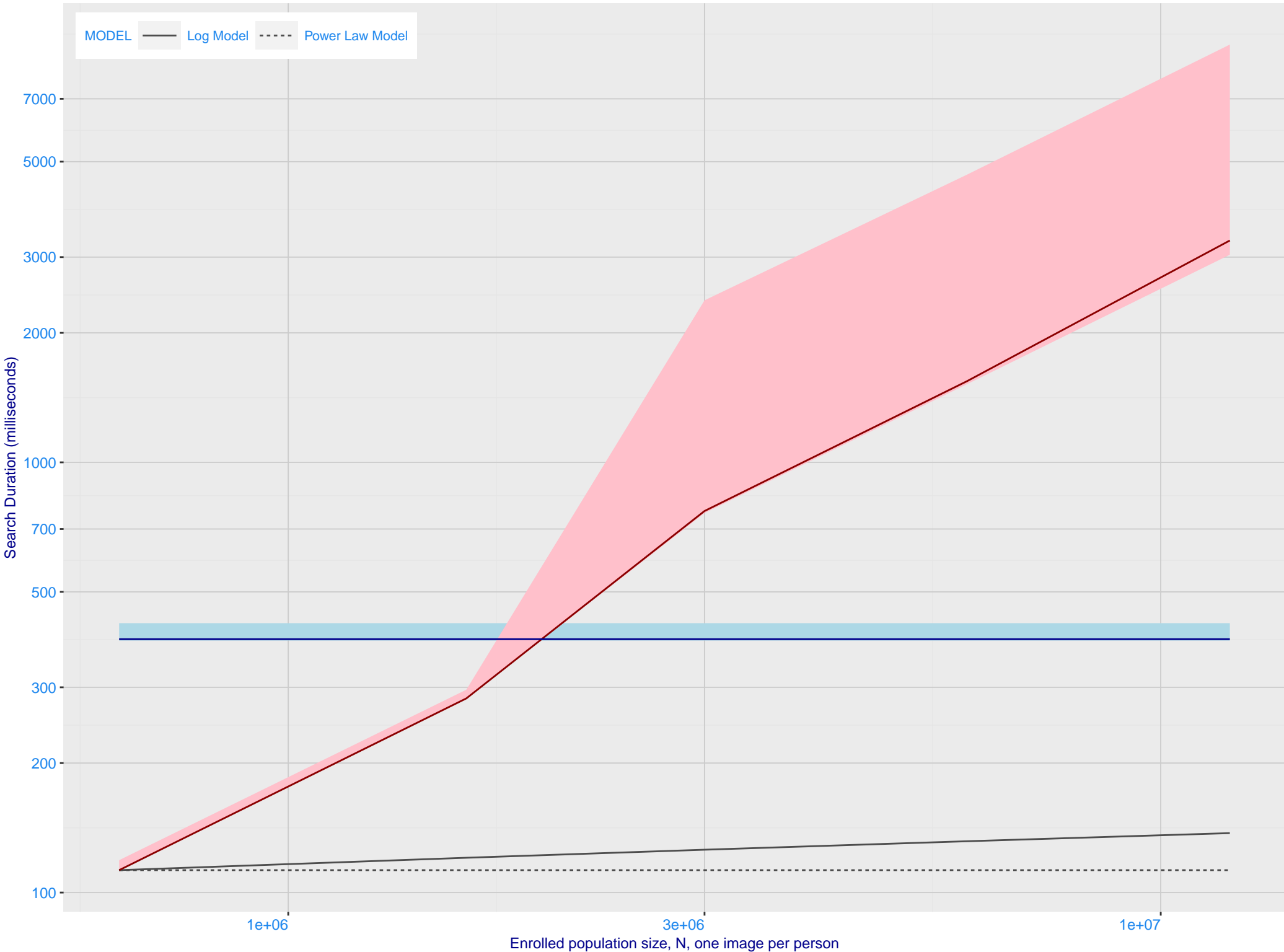
I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

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