A: Datasheet

Algorithm: eyedea_3

Developer: Eyedea Recognition

Submission Date: 2018_06_18

Template size: 1036 bytes

Template time (2.5 percentile): 351 msec

Template time (median): 383 msec

Template time (97.5 percentile): 434 msec

Investigation:

Frontal mugshot ranking 215 (out of 265) –– FNIR(1600000, 0, 1) = 0.0800 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 187 (out of 227) –– FNIR(1600000, 0, 1) = 0.1479 vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 153 (out of 196) –– FNIR(1600000, 0, 1) = 0.9603 vs. lowest 0.0591 from sensetime_005

Immigration visa–border ranking 103 (out of 148) –– FNIR(1600000, 0, 1) = 0.1013 vs. lowest 0.0013 from visionlabs_010

Immigration visa–kiosk ranking 107 (out of 145) –– FNIR(1600000, 0, 1) = 0.3792 vs. lowest 0.0568 from hr_000

Identification:

Frontal mugshot ranking 208 (out of 265) –– FNIR(1600000, T, L+1) = 0.3871, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

Mugshot webcam ranking 185 (out of 225) –– FNIR(1600000, T, L+1) = 0.5426, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 95 (out of 195) –– FNIR(1600000, T, L+1) = 0.9944, FPIR=0.001000 vs. lowest 0.1331 from hr_000

Immigration visa–border ranking 105 (out of 146) –– FNIR(1600000, T, L+1) = 0.5705, FPIR=0.001000 vs. lowest 0.0049 from hr_000

Immigration visa–kiosk ranking 87 (out of 141) –– FNIR(1600000, T, L+1) = 0.7947, FPIR=0.001000 vs. lowest 0.0996 from hr_000
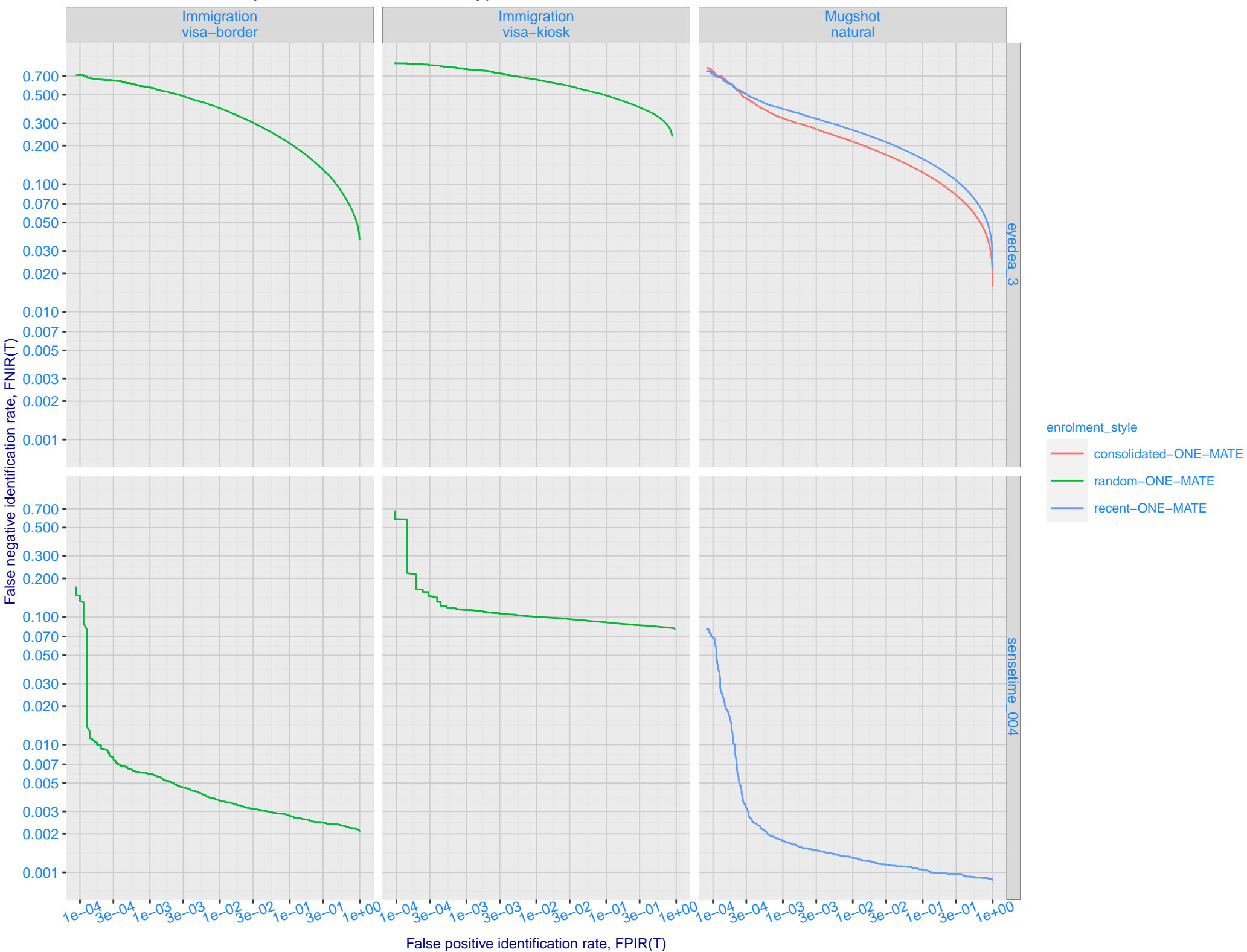
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)
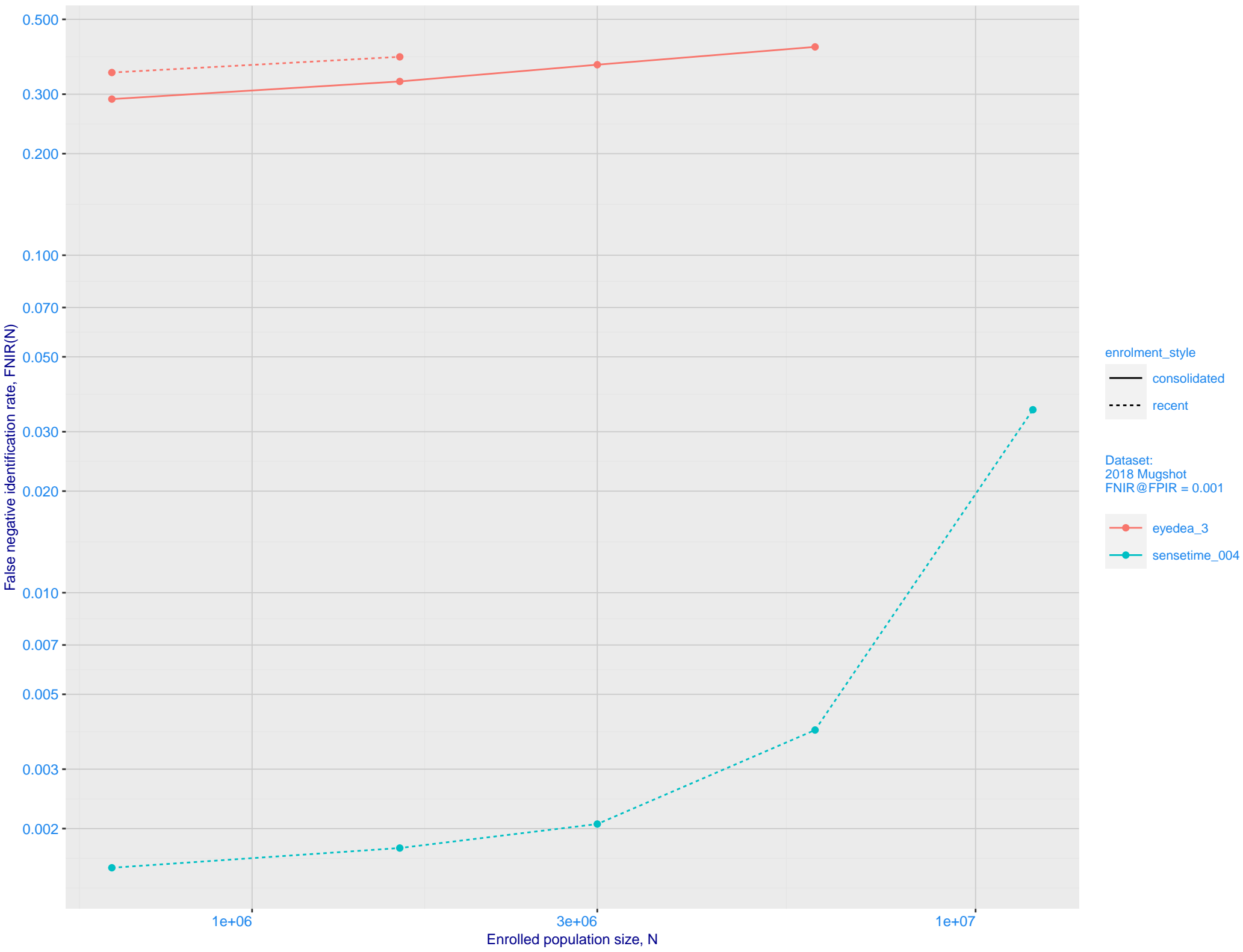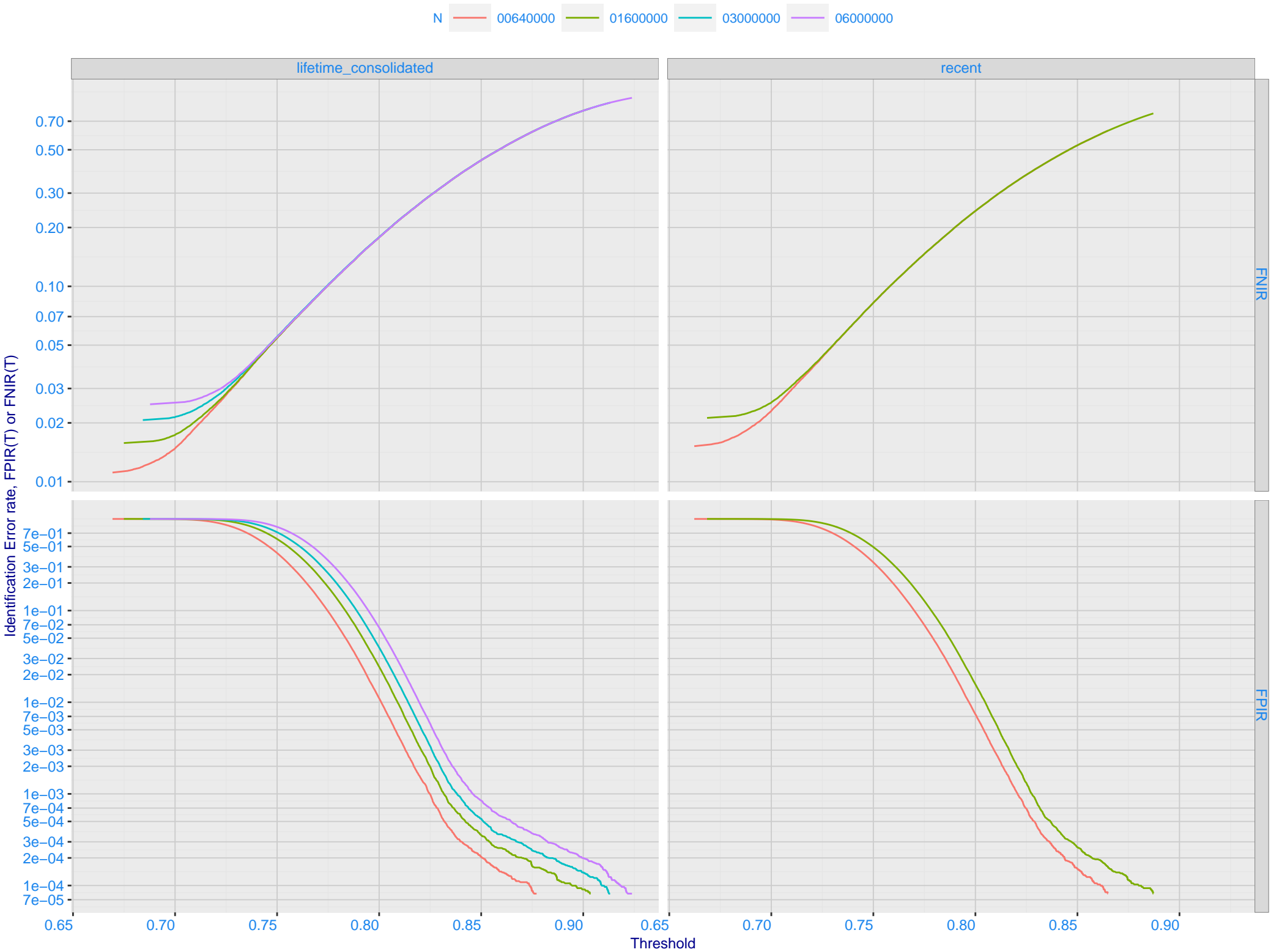
C: Evolution of accuracy for EYEDEA algorithms on three datasets 2018 – present
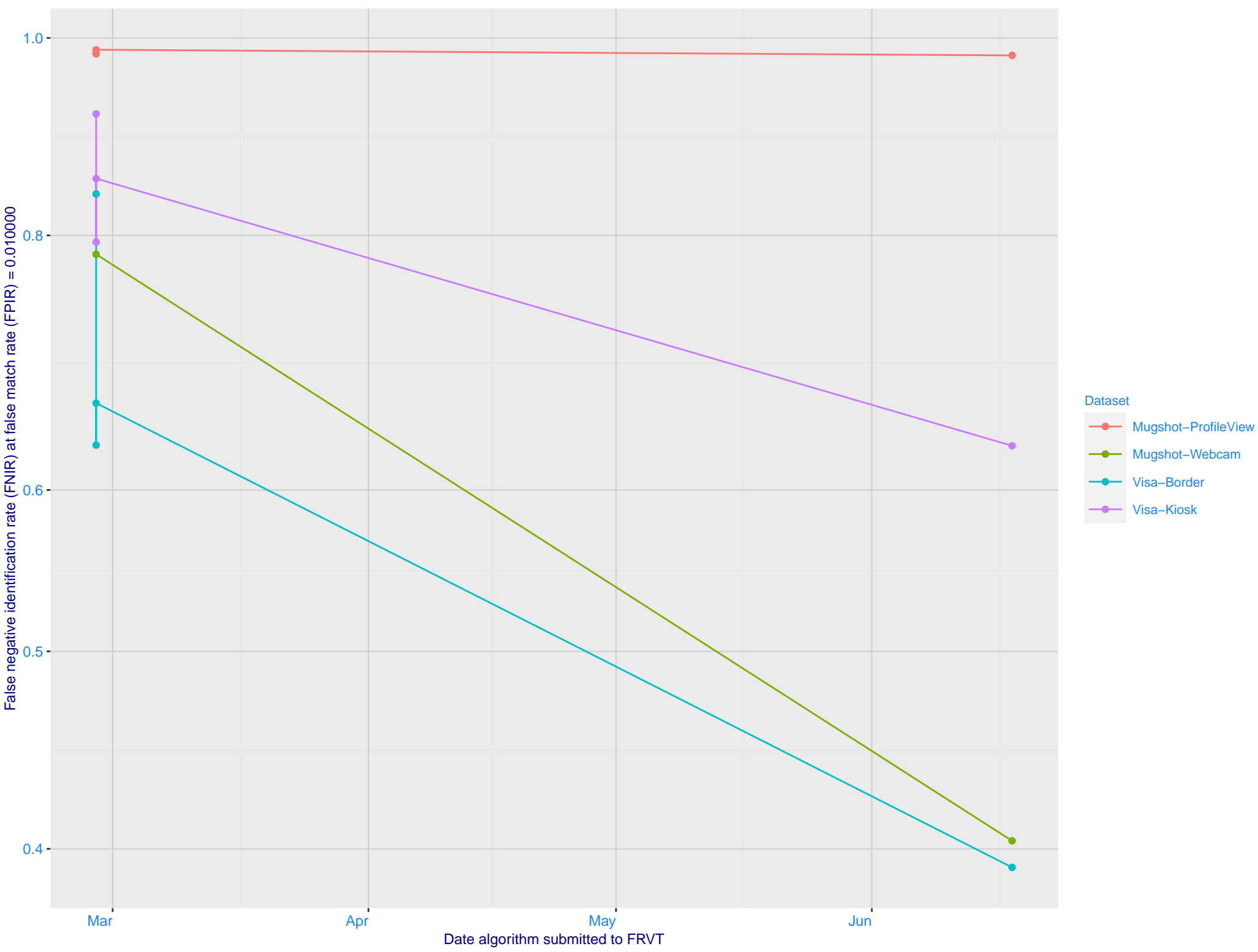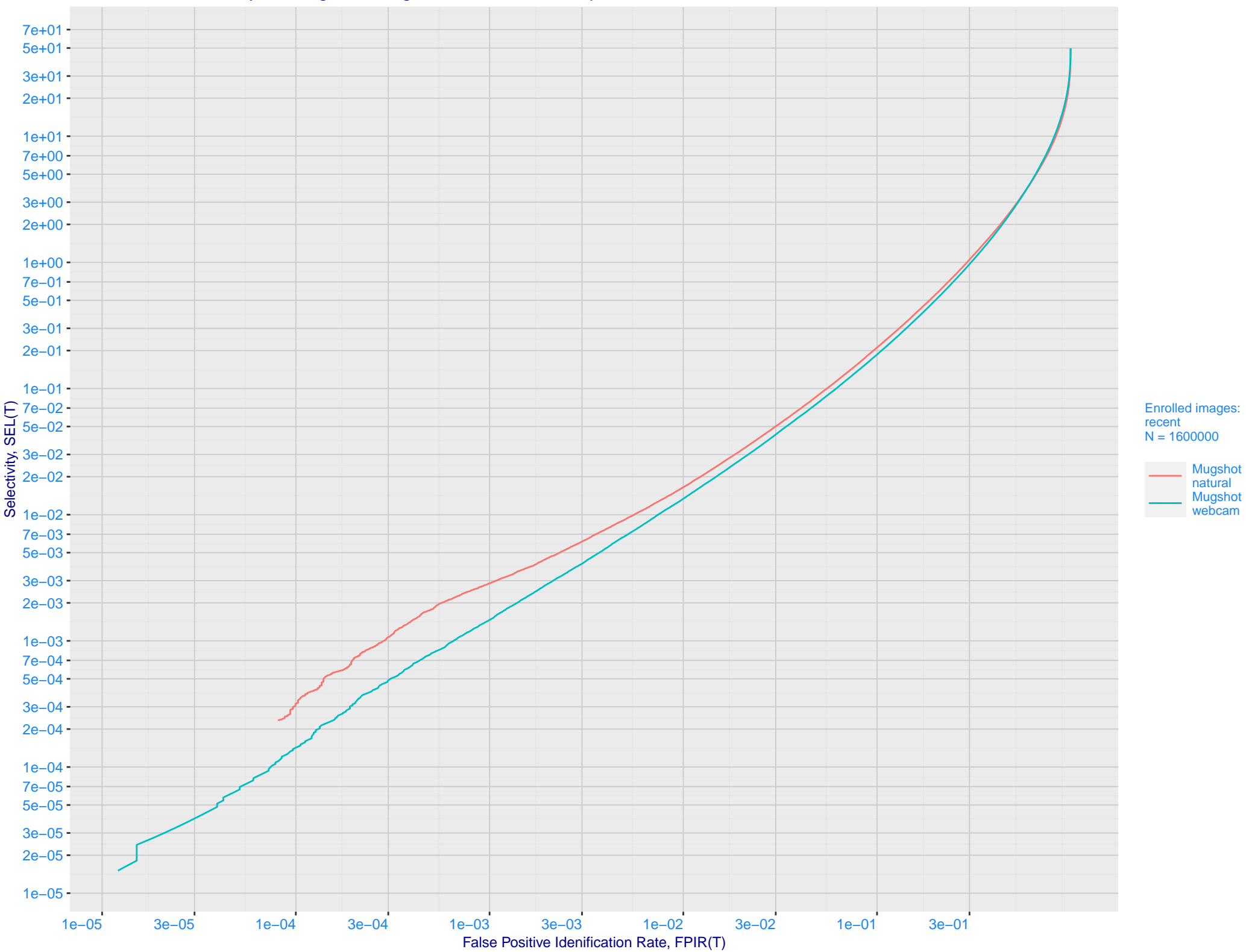
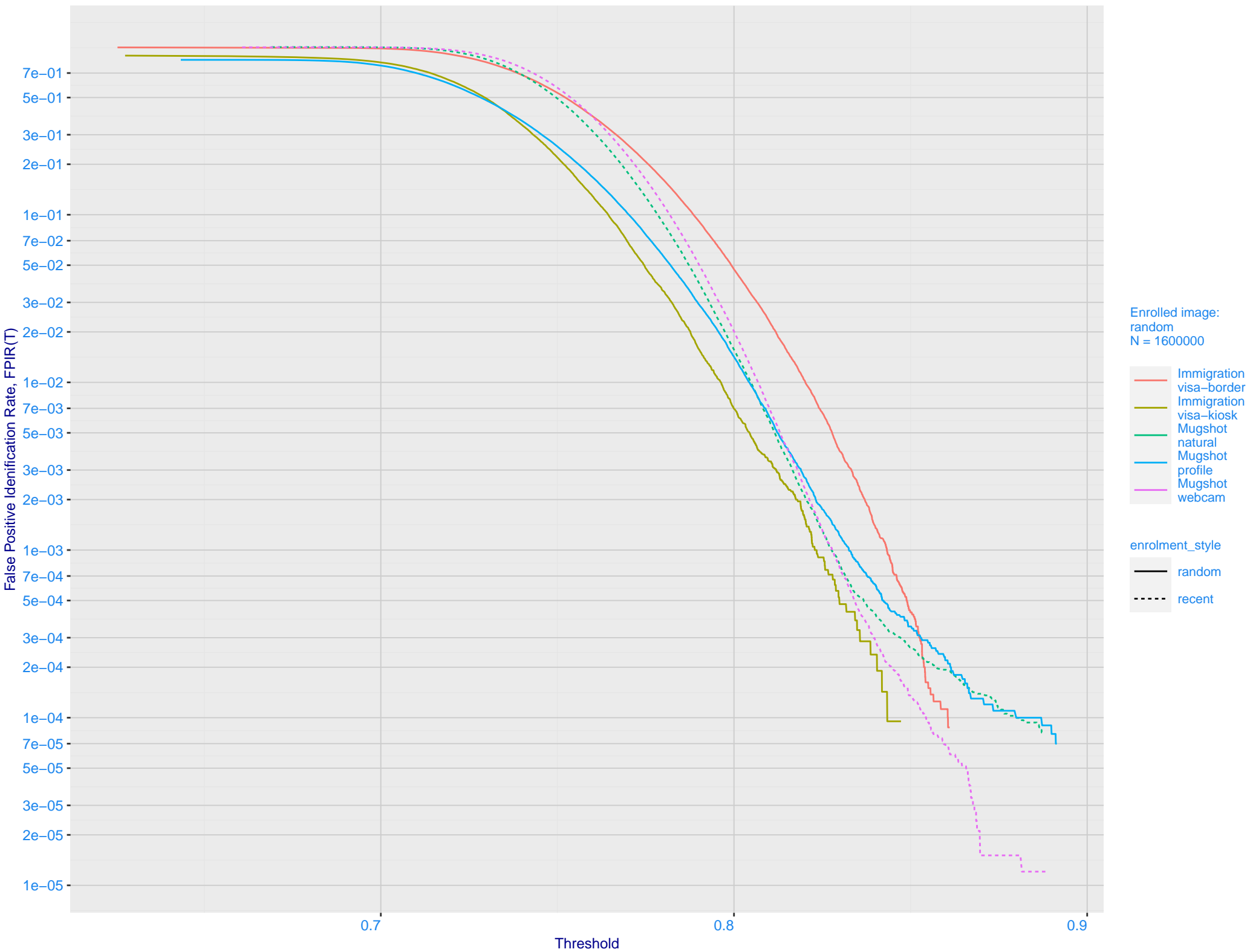D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

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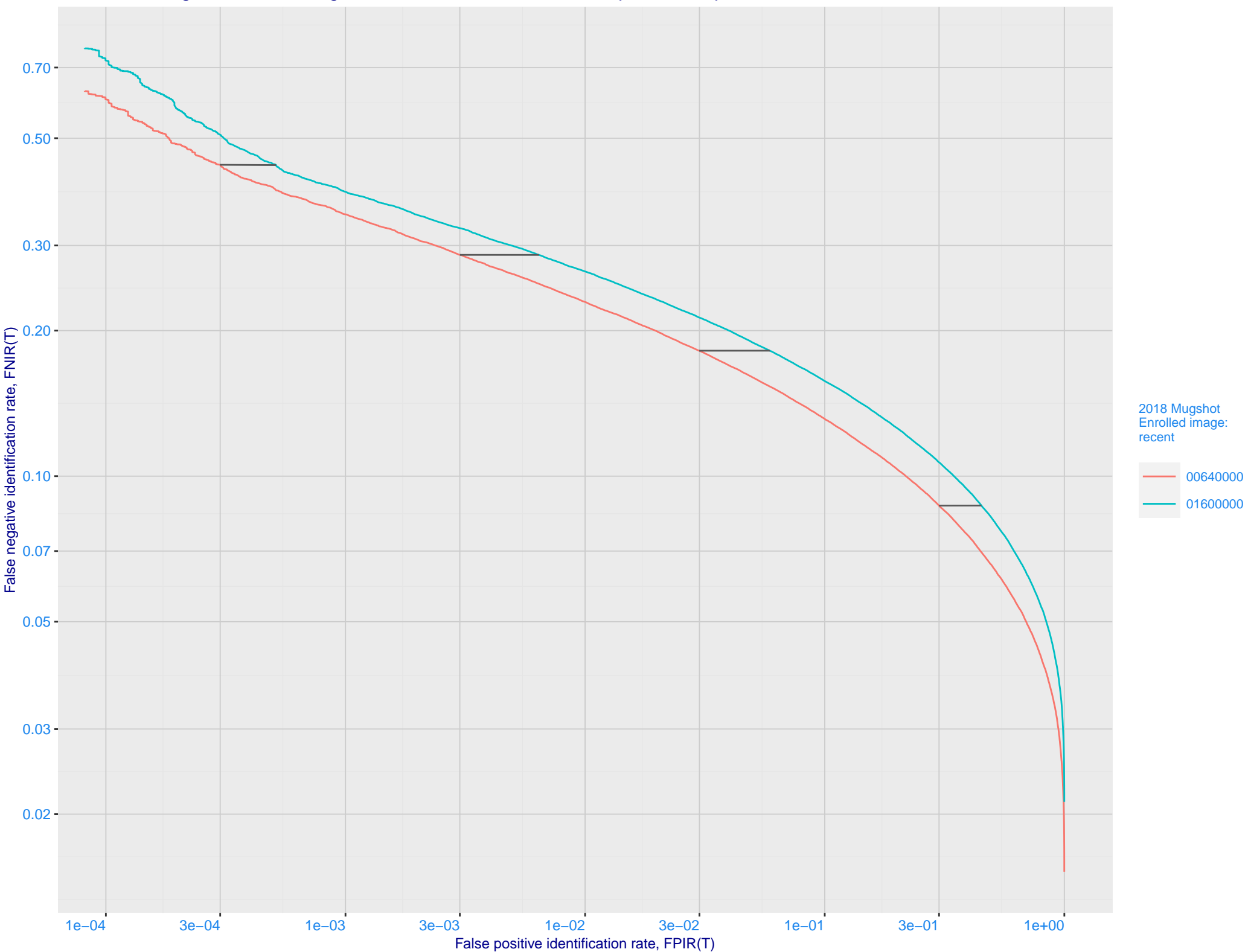
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate
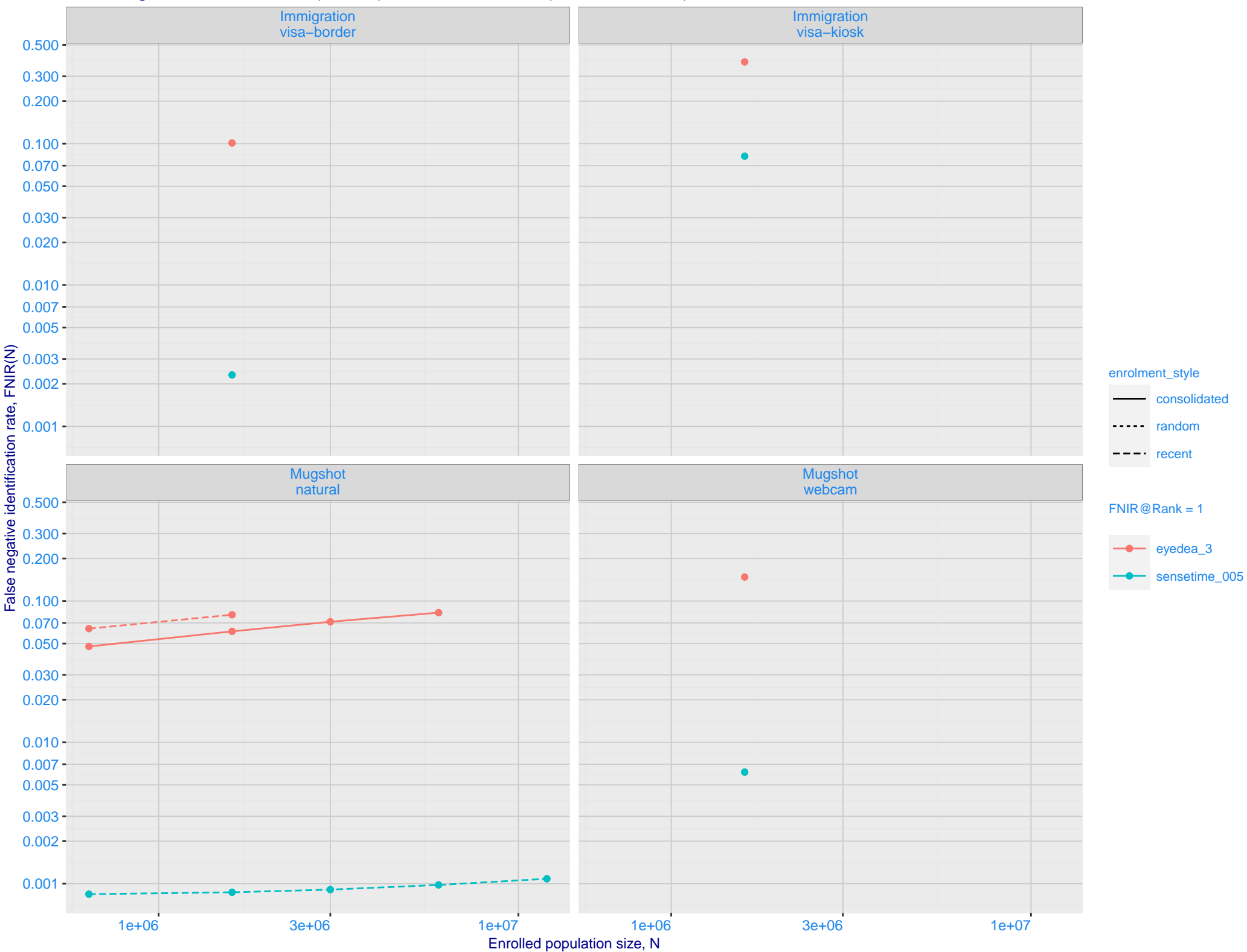
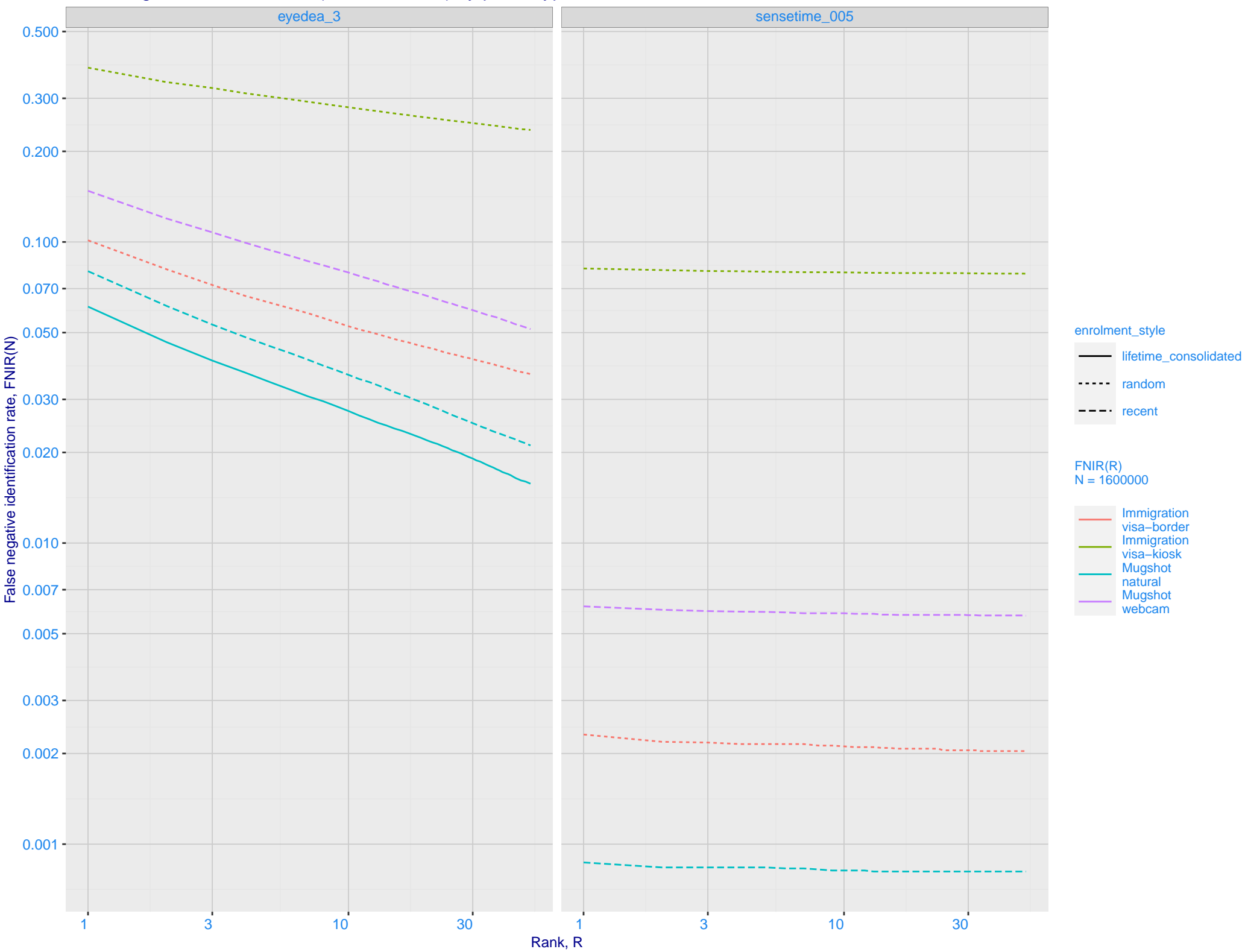G: FPIR dependence on T by probe type for N = 1600000 subjects

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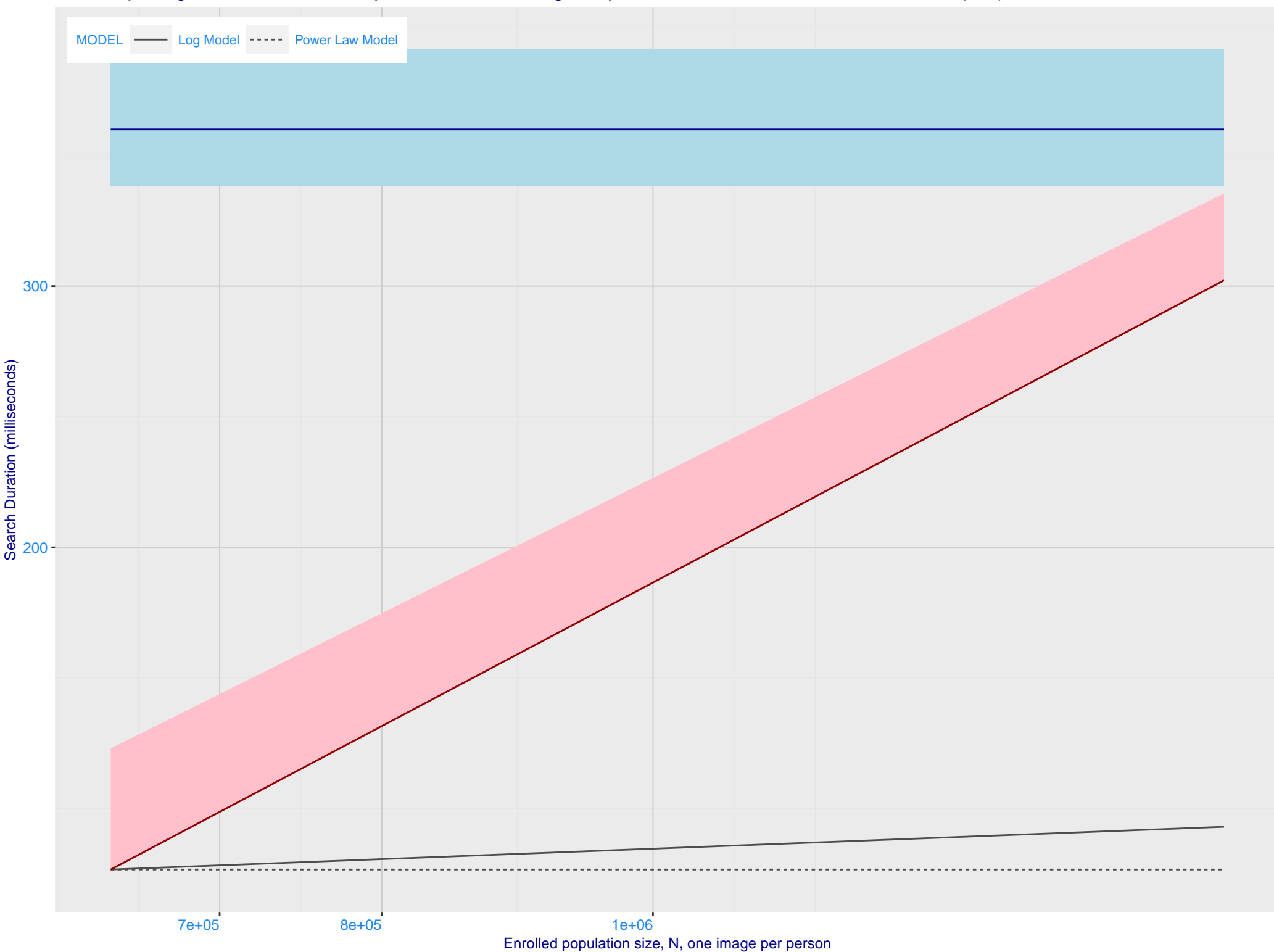
I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

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