

A: Datasheet

Algorithm: microfocus_4

Developer: MicroFocus

Submission Date: 2018_06_22

Template size: 256 bytes

Template time (2.5 percentile): 228 msec

Template time (median): 267 msec

Template time (97.5 percentile): 315 msec

Investigation:

Frontal mugshot ranking 258 (out of 265) --- FNIR(1600000, 0, 1) = 0.5763 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 222 (out of 227) --- FNIR(1600000, 0, 1) = 0.7577 vs. lowest 0.0062 from sensetime_005

Immigration visa-border ranking 134 (out of 148) --- FNIR(1600000, 0, 1) = 0.7006 vs. lowest 0.0013 from visionlabs_010

Immigration visa-kiosk ranking 136 (out of 145) --- FNIR(1600000, 0, 1) = 0.9035 vs. lowest 0.0568 from hr_000

Identification:

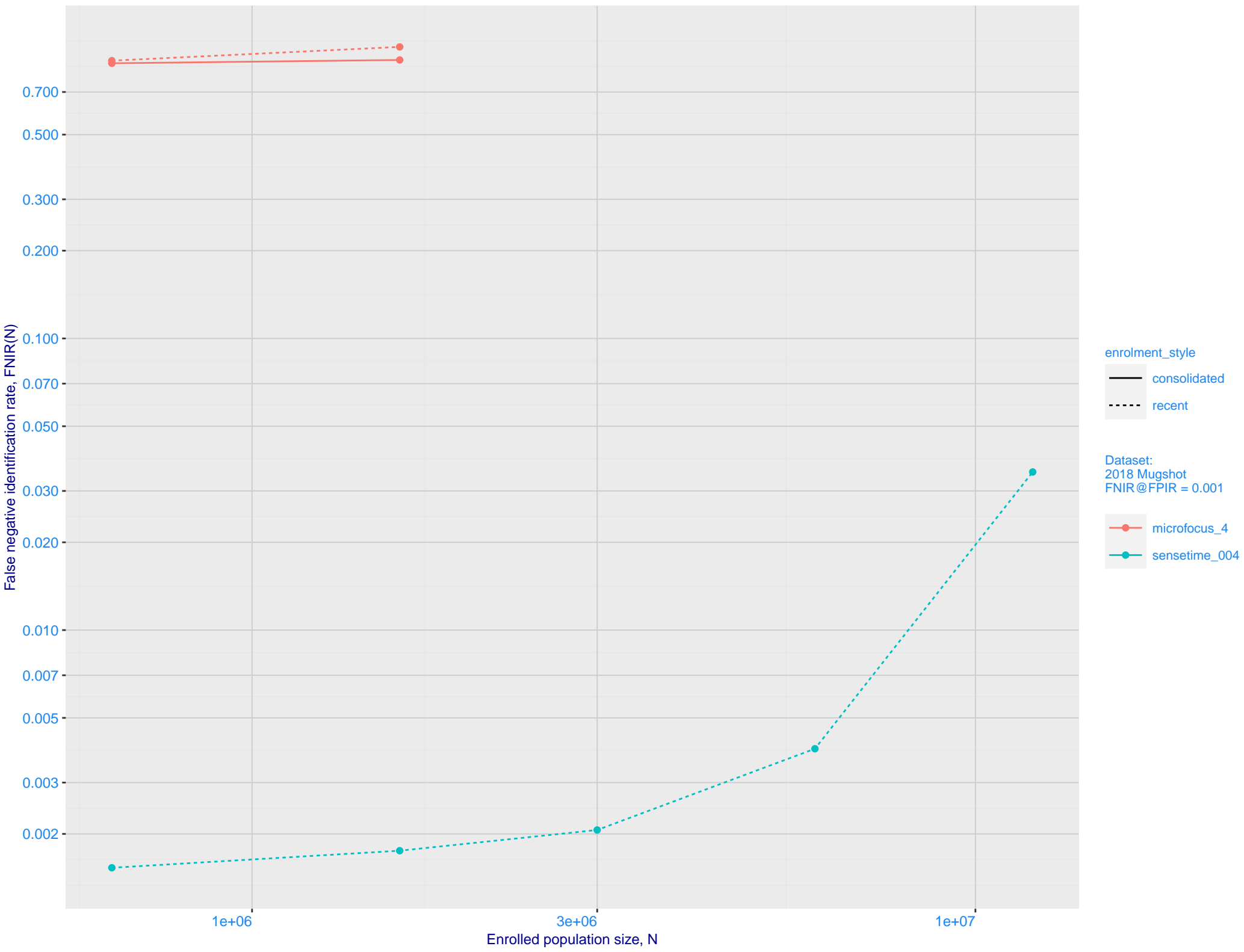
Frontal mugshot ranking 261 (out of 265) --- FNIR(1600000, T, L+1) = 0.9994, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

Mugshot webcam ranking 216 (out of 225) --- FNIR(1600000, T, L+1) = 0.9747, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

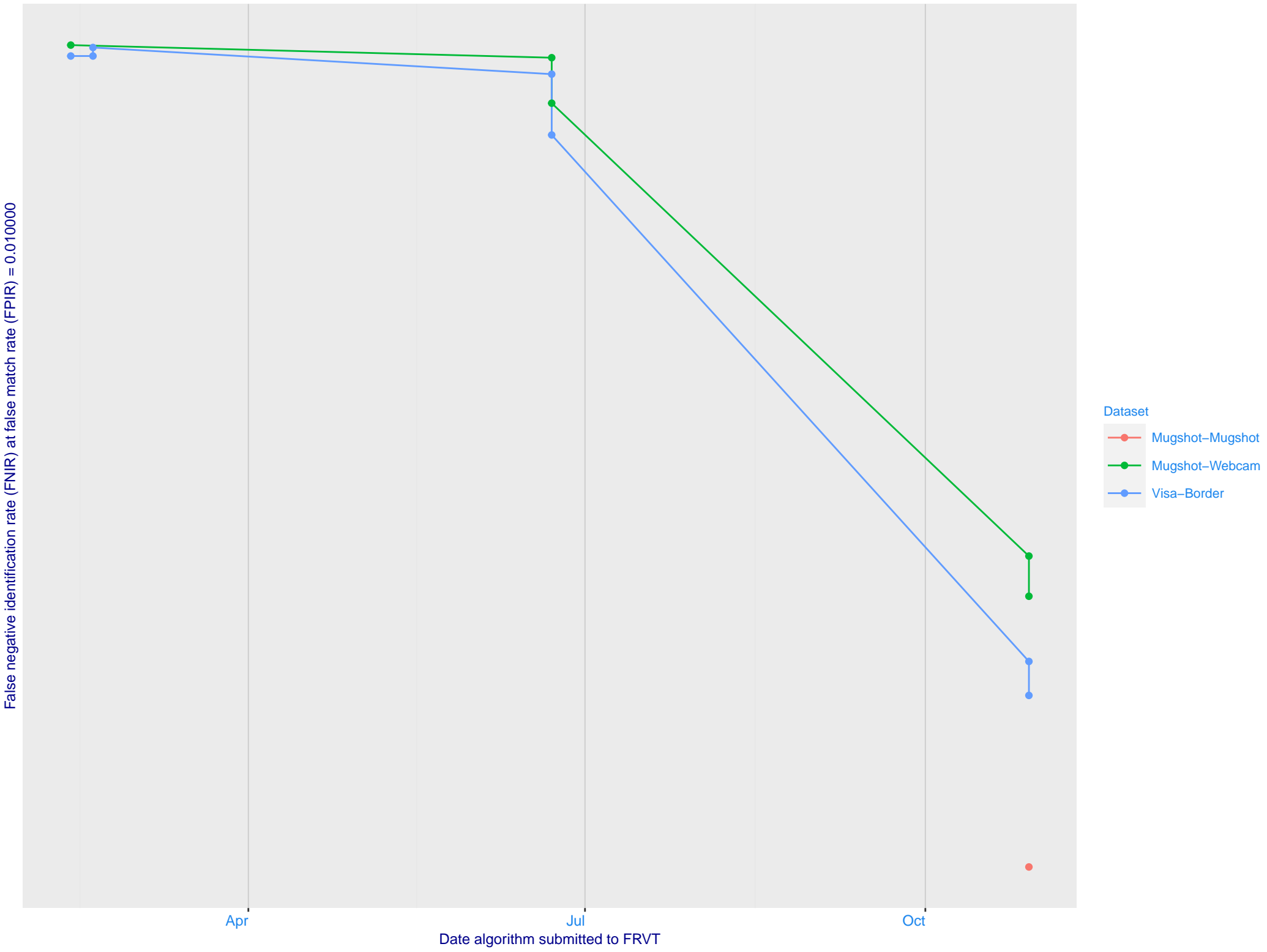
Immigration visa-border ranking 129 (out of 146) --- FNIR(1600000, T, L+1) = 0.9744, FPIR=0.001000 vs. lowest 0.0049 from hr_000

Immigration visa-kiosk ranking 121 (out of 141) --- FNIR(1600000, T, L+1) = 0.9893, FPIR=0.001000 vs. lowest 0.0996 from hr_000

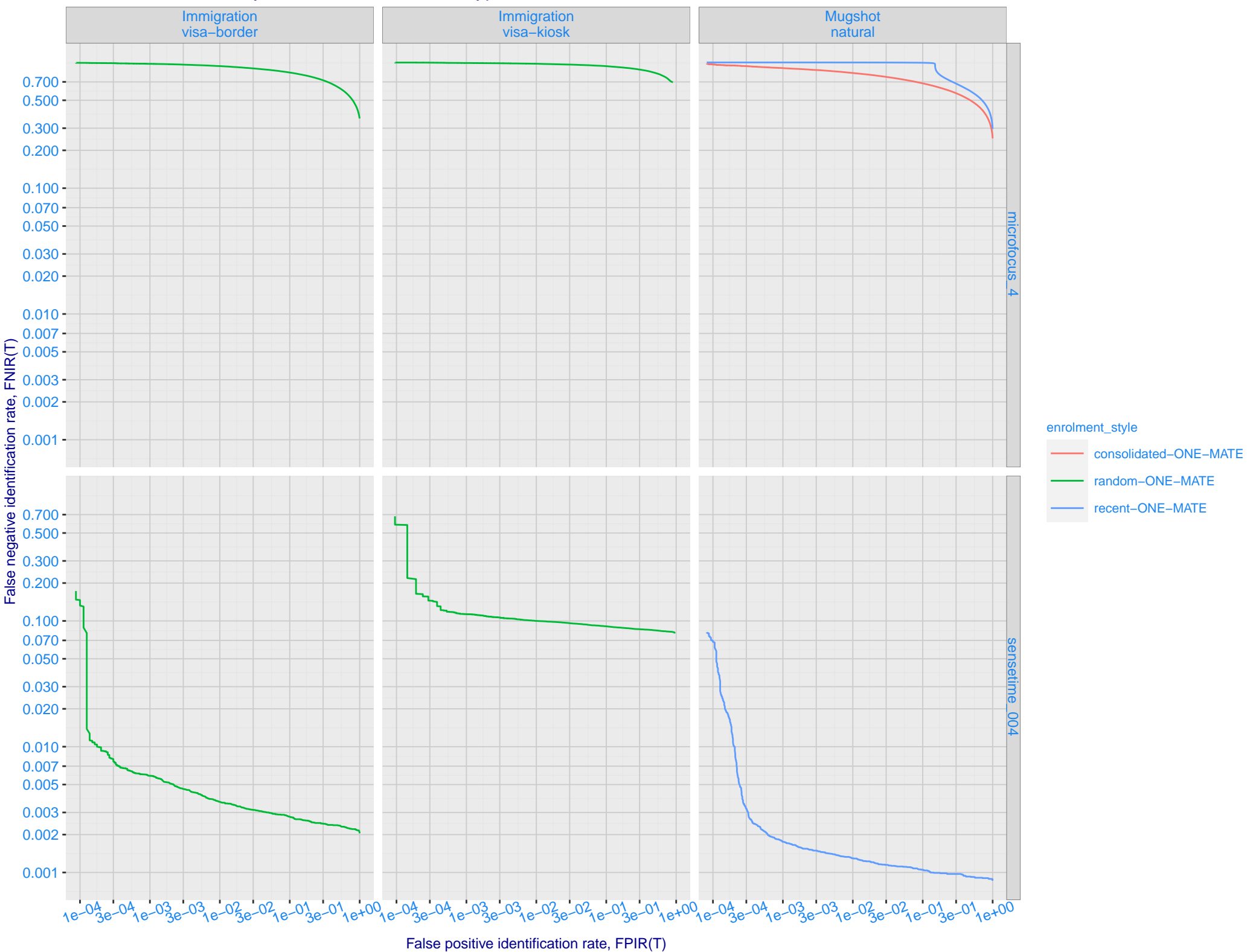
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)



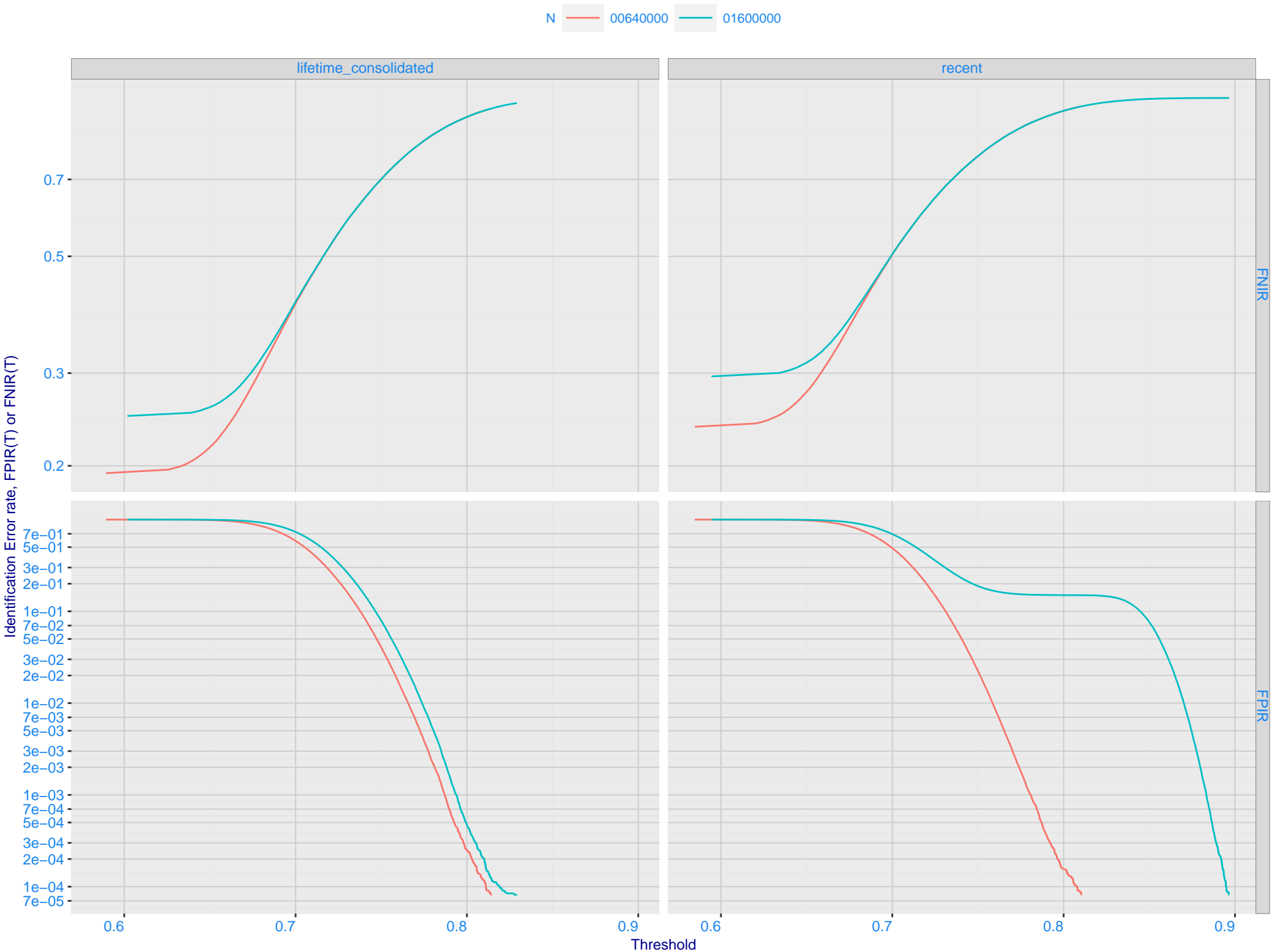
C: Evolution of accuracy for MICROFOCUS algorithms on three datasets 2018 – present



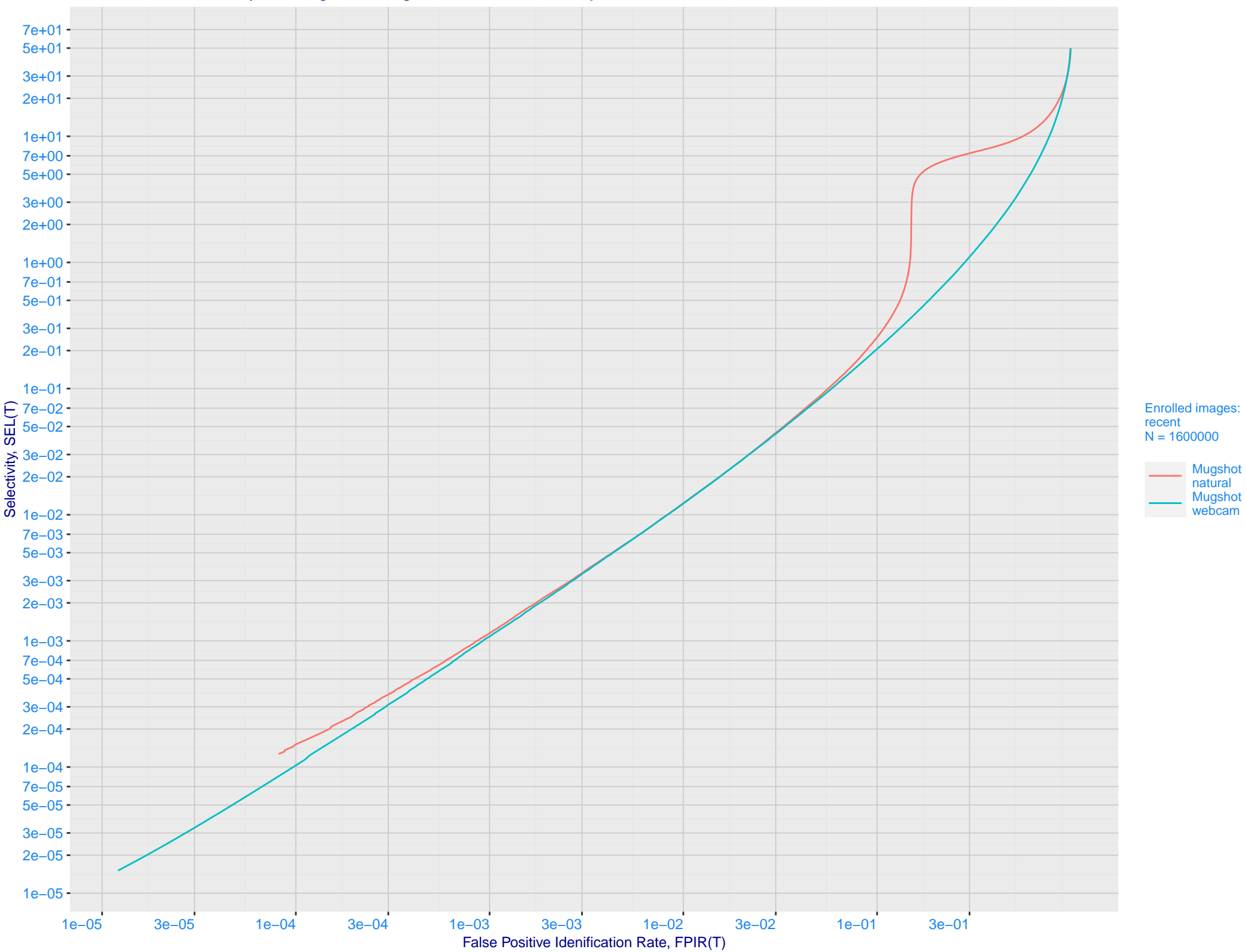
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals



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

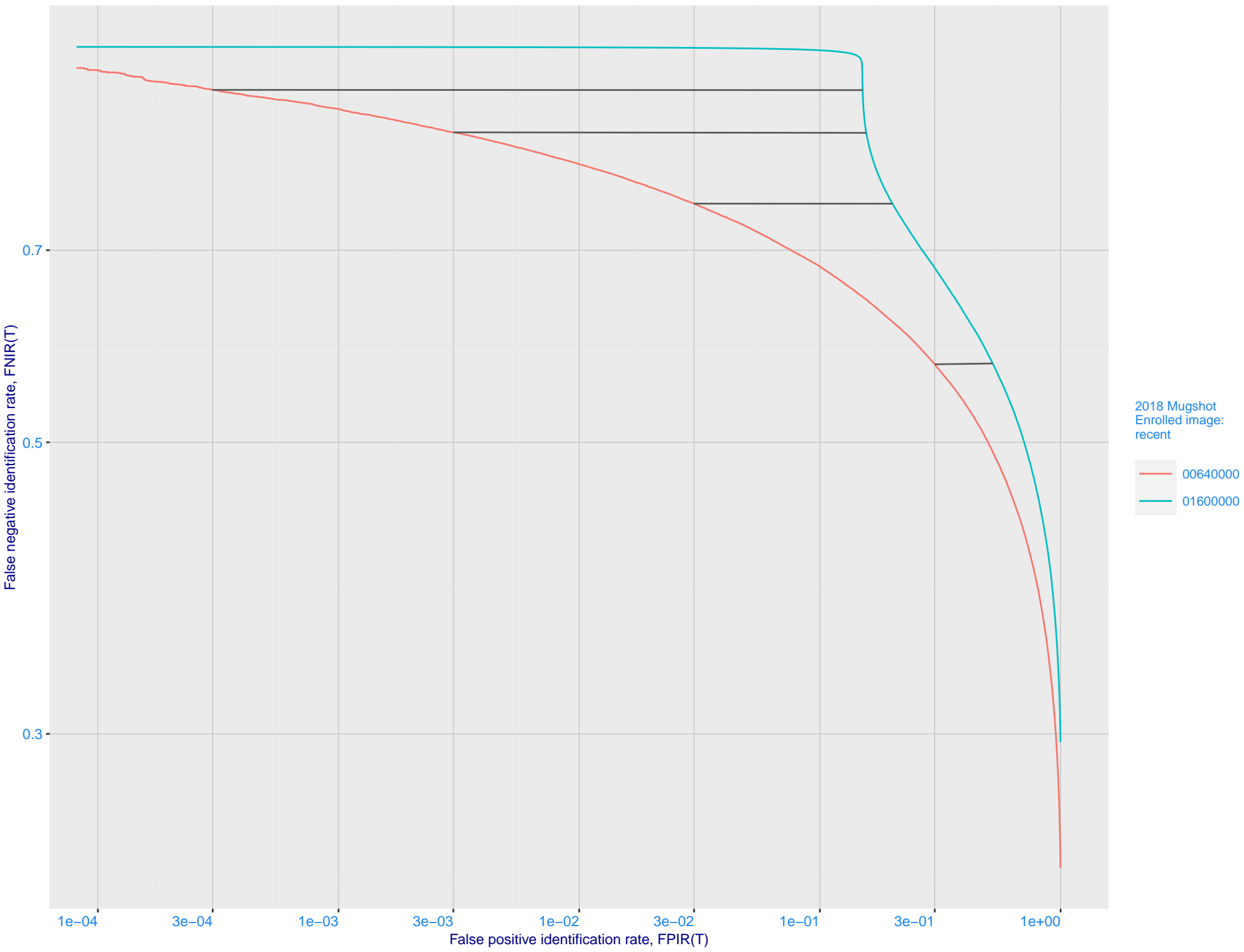


— random
- - - recent

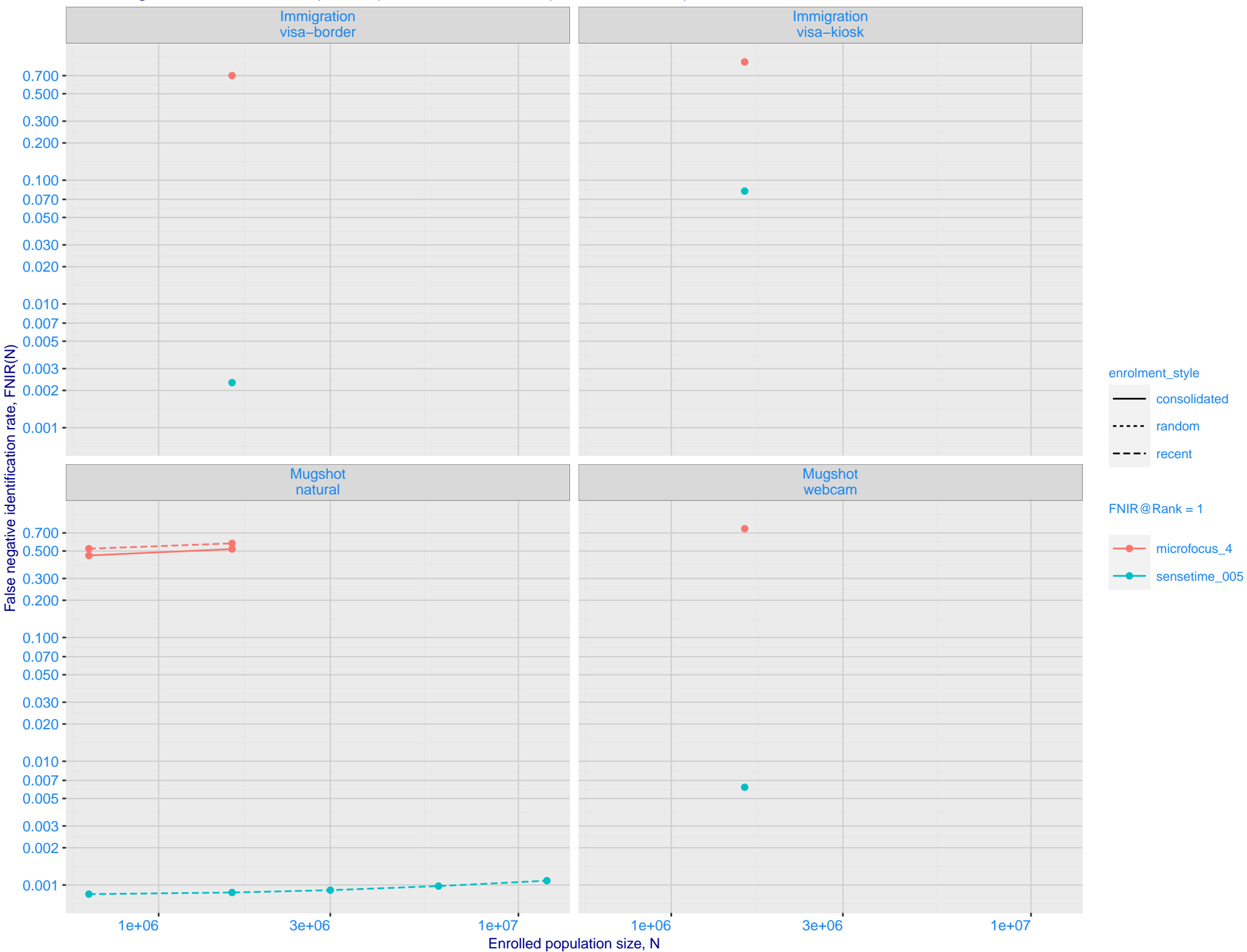
Enrolled image:
random
N = 1600000

Immigration
visa-border
Immigration
visa-kiosk
Mugshot
natural
Mugshot
webcam

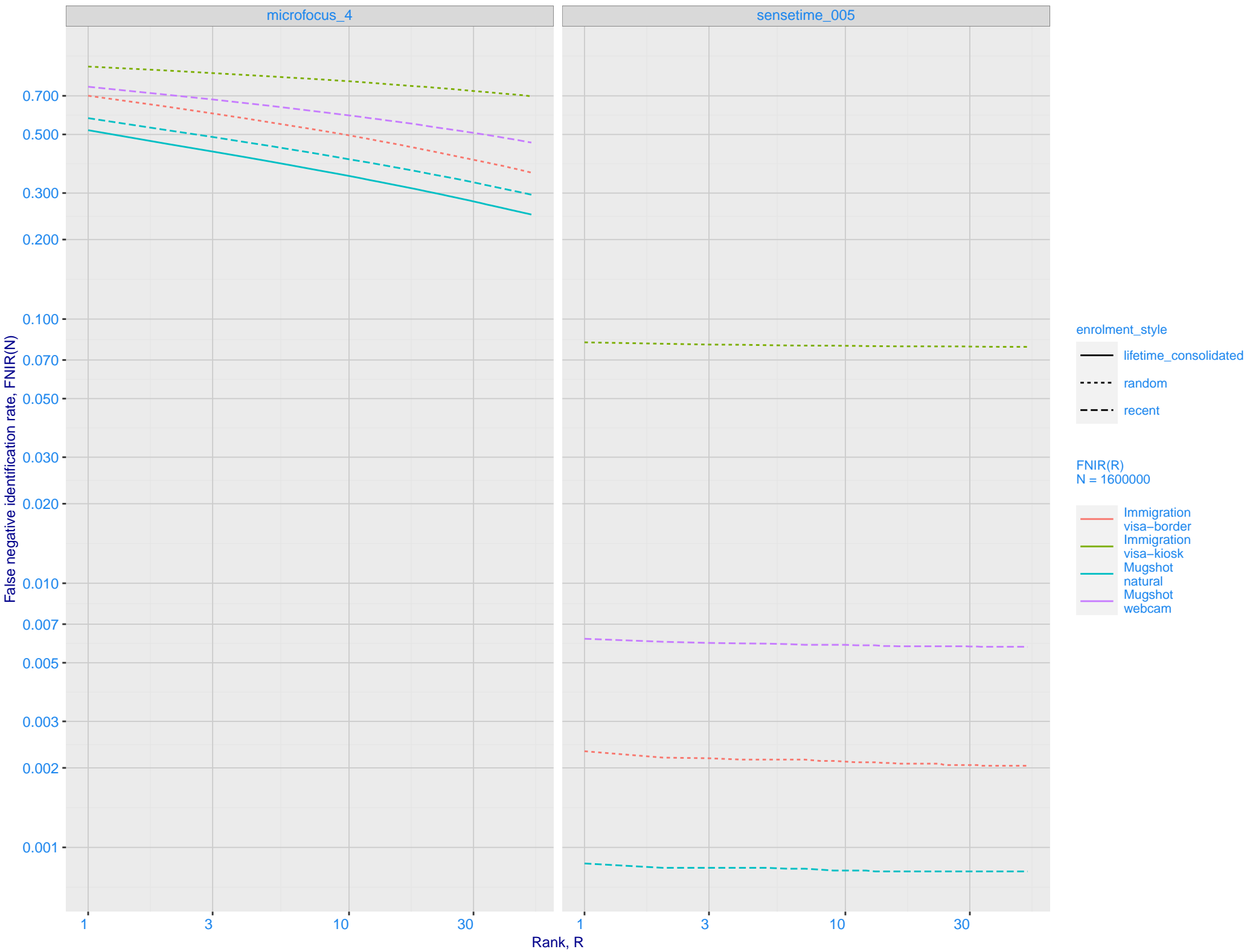
H: DET for Mugshot natural images and various N. Links connect points of equal threshold.



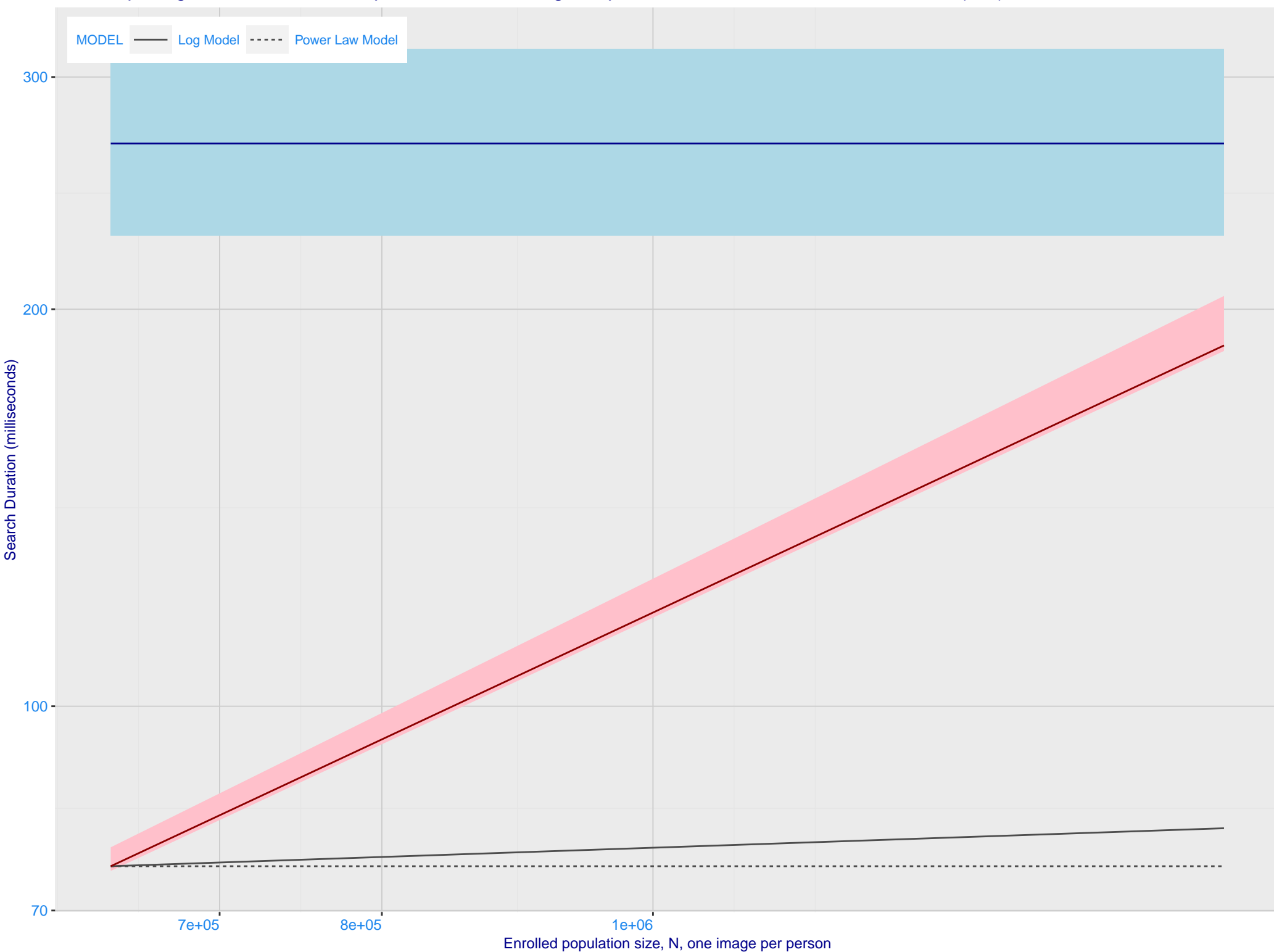
I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)



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

Dataset: 2018 Mugshot N = 3068801

