

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 7 (out of 271) -- FNIR(1600000, 0, 1) = 0.0012 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 8 (out of 232) -- FNIR(1600000, 0, 1) = 0.0080 vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 3 (out of 201) -- FNIR(1600000, 0, 1) = 0.0661 vs. lowest 0.0591 from sensetime_005

Immigration visa-border ranking 38 (out of 160) -- FNIR(1600000, 0, 1) = 0.0050 vs. lowest 0.0013 from visionlabs_010

Immigration visa-kiosk ranking 28 (out of 157) -- FNIR(1600000, 0, 1) = 0.1008 vs. lowest 0.0568 from hr_000

Identification:

Frontal mugshot ranking 9 (out of 271) -- FNIR(1600000, T, L+1) = 0.0040, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

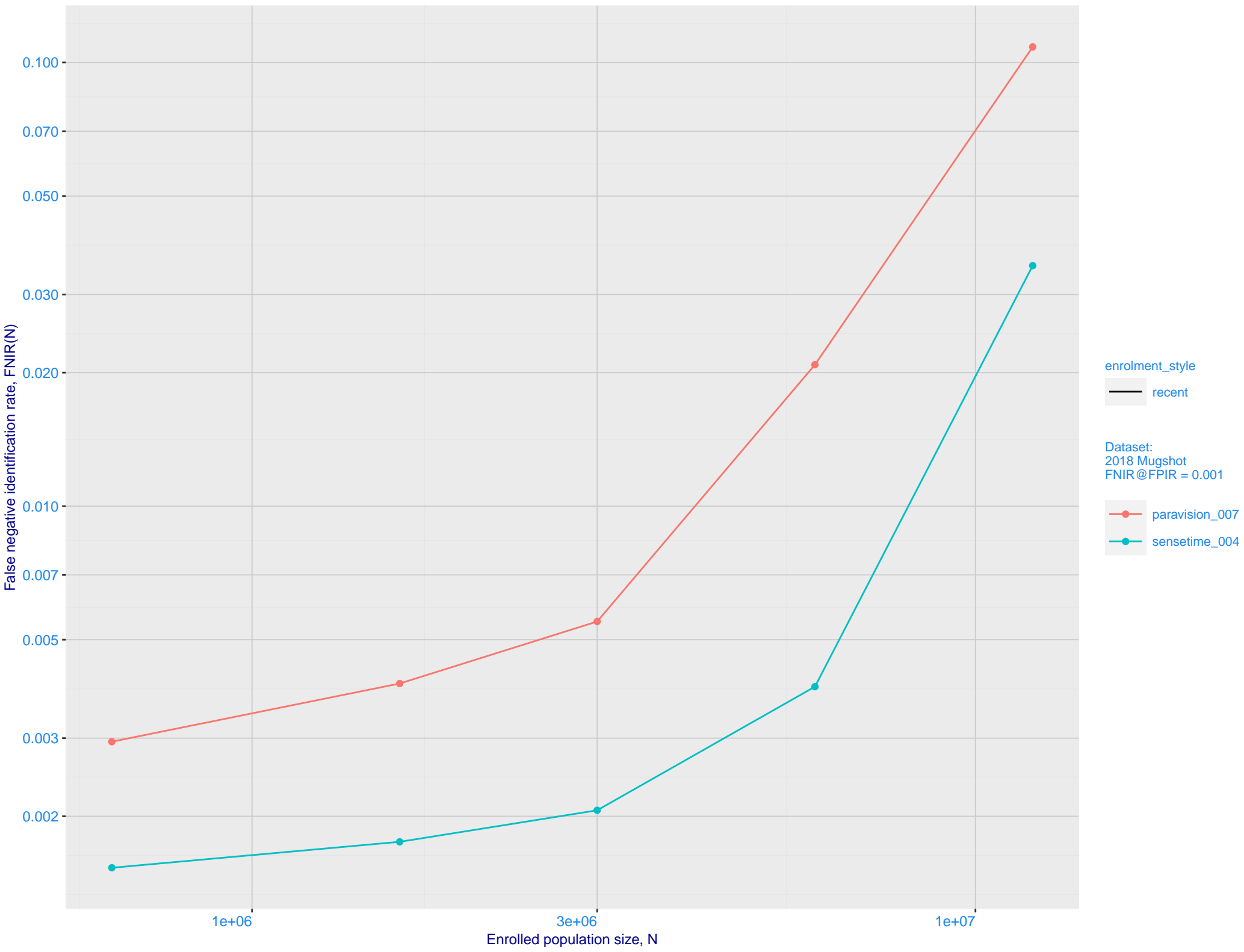
Mugshot webcam ranking 11 (out of 230) -- FNIR(1600000, T, L+1) = 0.0250, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 180 (out of 200) -- FNIR(1600000, T, L+1) = 0.9999, FPIR=0.001000 vs. lowest 0.1331 from hr_000

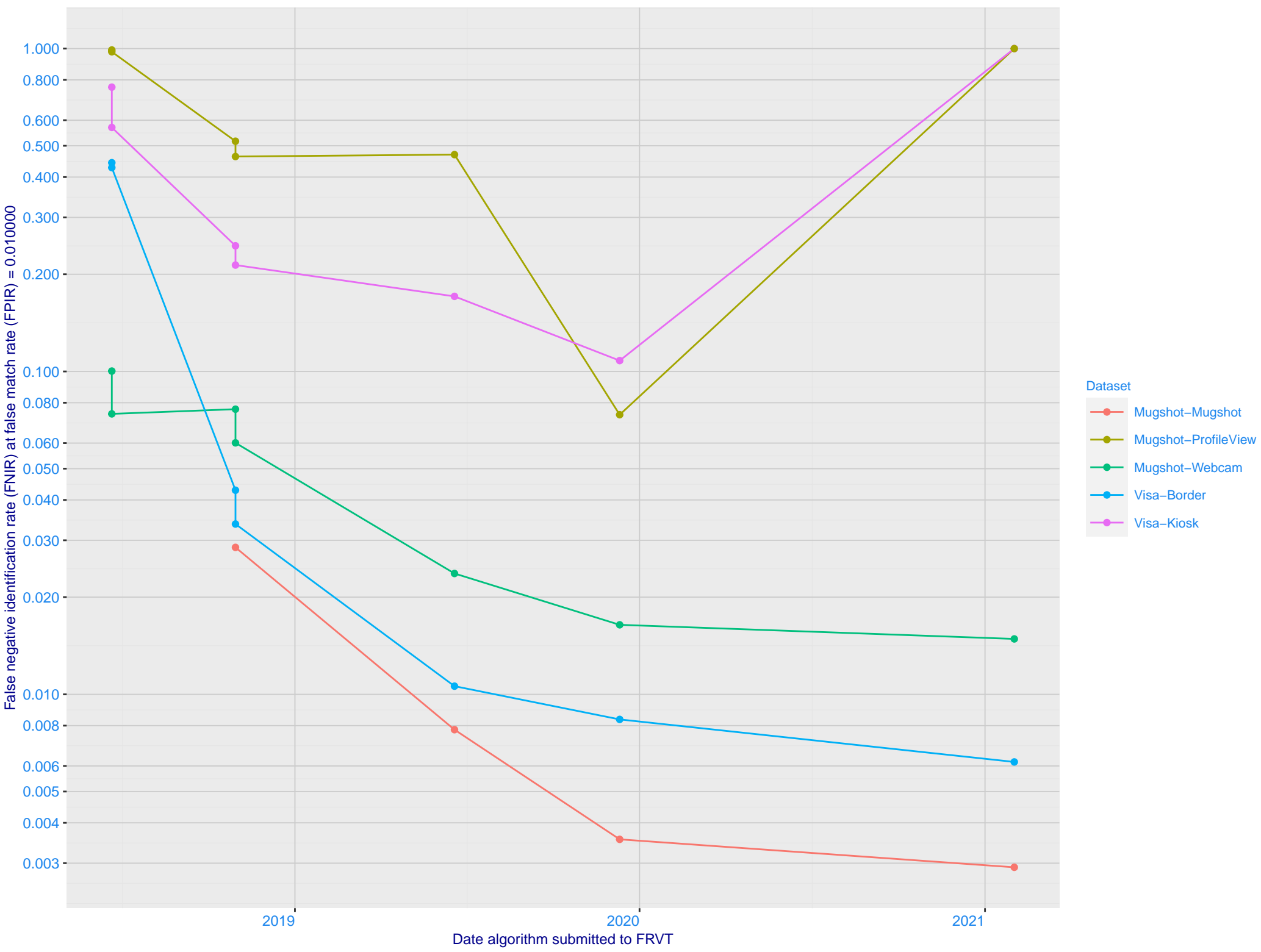
Immigration visa-border ranking 12 (out of 159) -- FNIR(1600000, T, L+1) = 0.0086, FPIR=0.001000 vs. lowest 0.0047 from idemia_008

Immigration visa-kiosk ranking 148 (out of 154) -- FNIR(1600000, T, L+1) = 1.0000, FPIR=0.001000 vs. lowest 0.0996 from hr_000

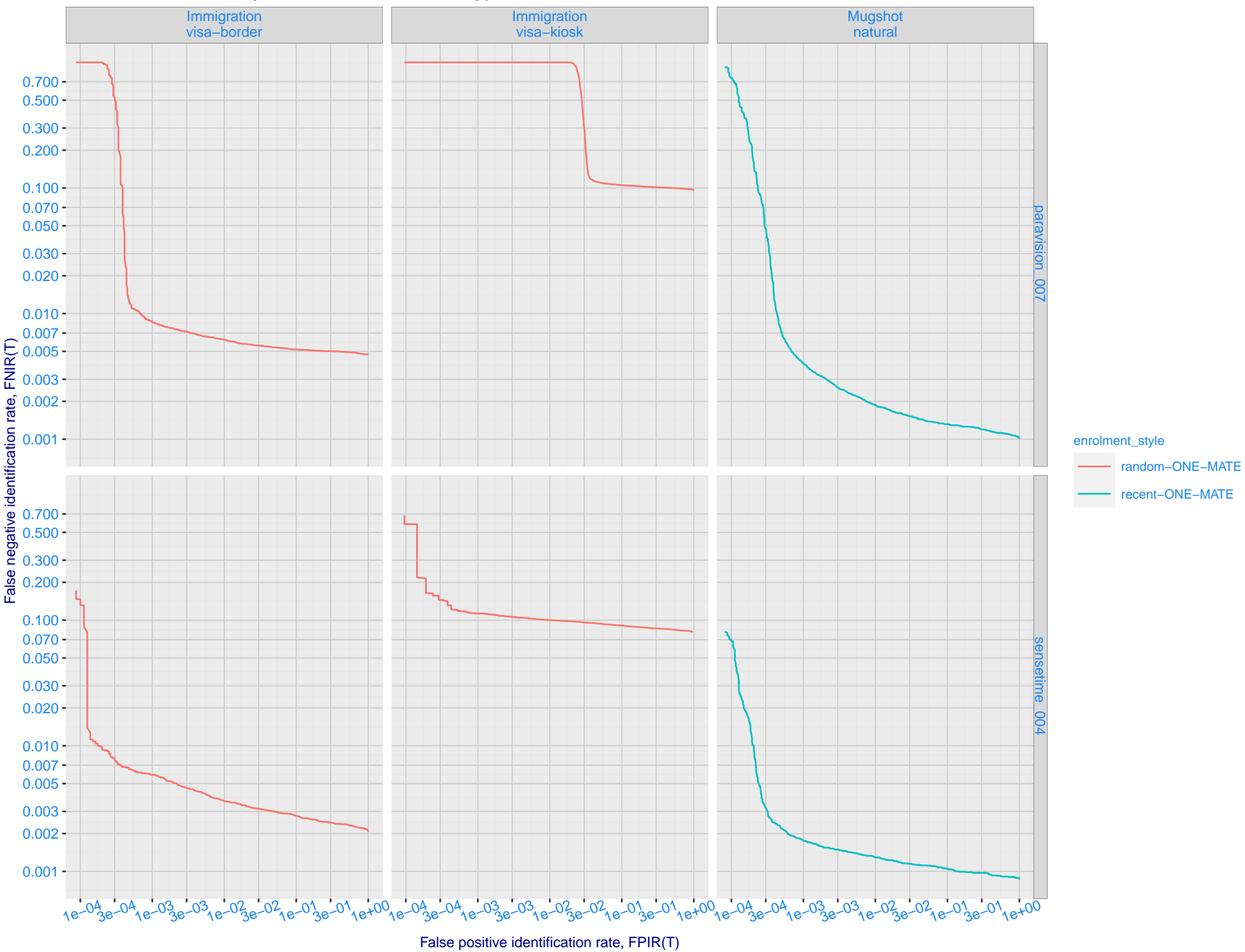
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)



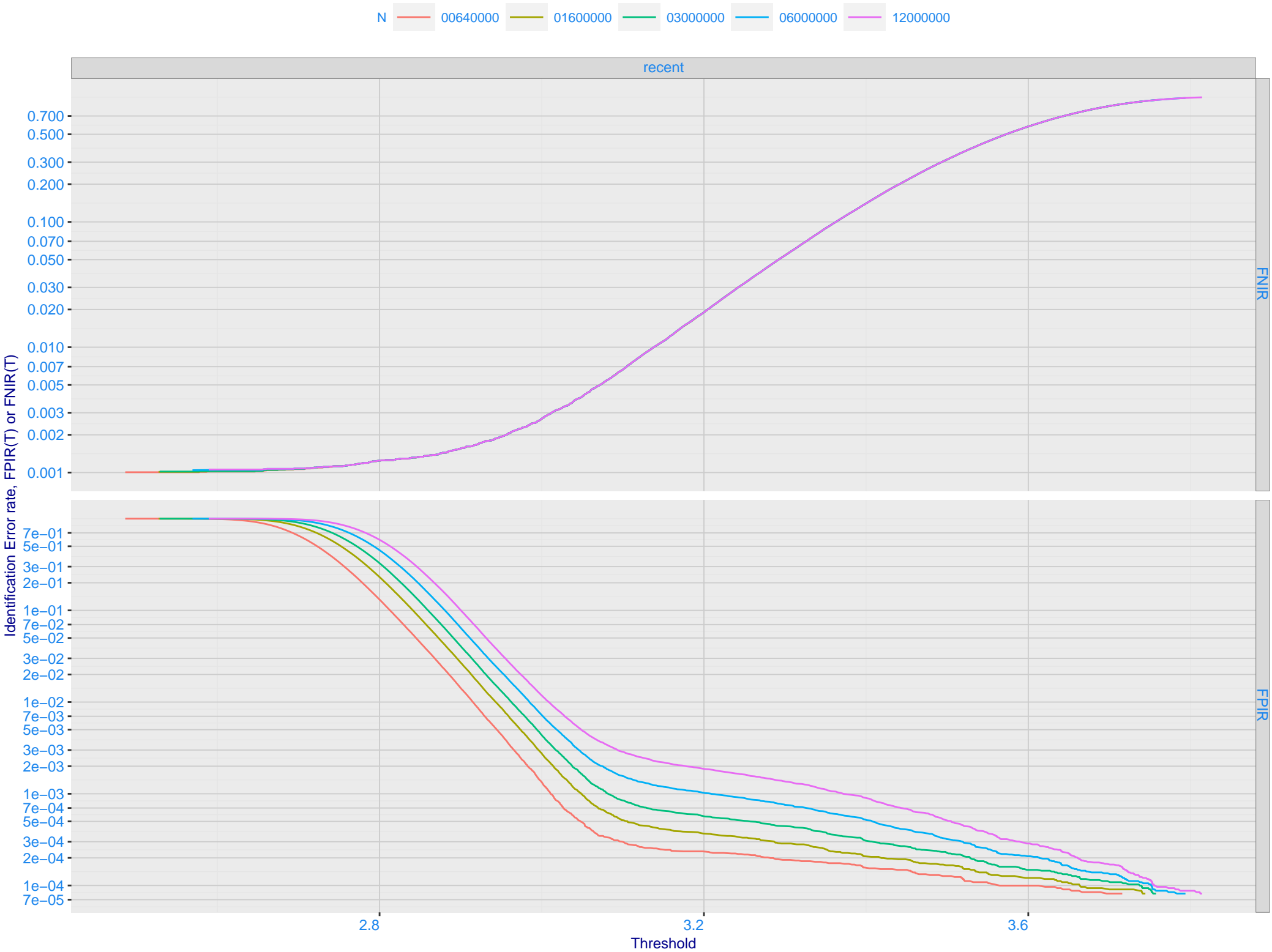
C: Evolution of accuracy for PARAVISION algorithms on three datasets 2018 – present



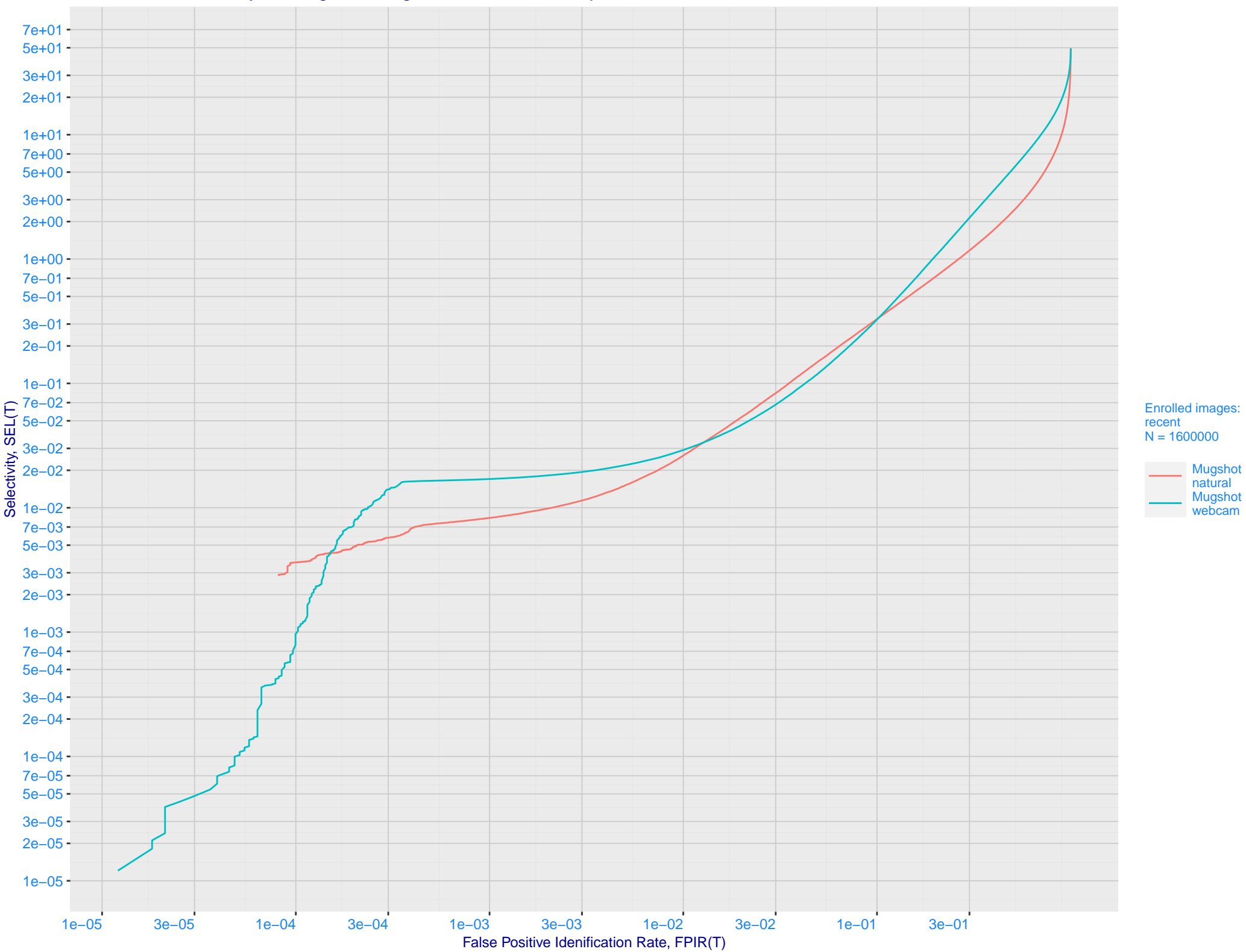
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals



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

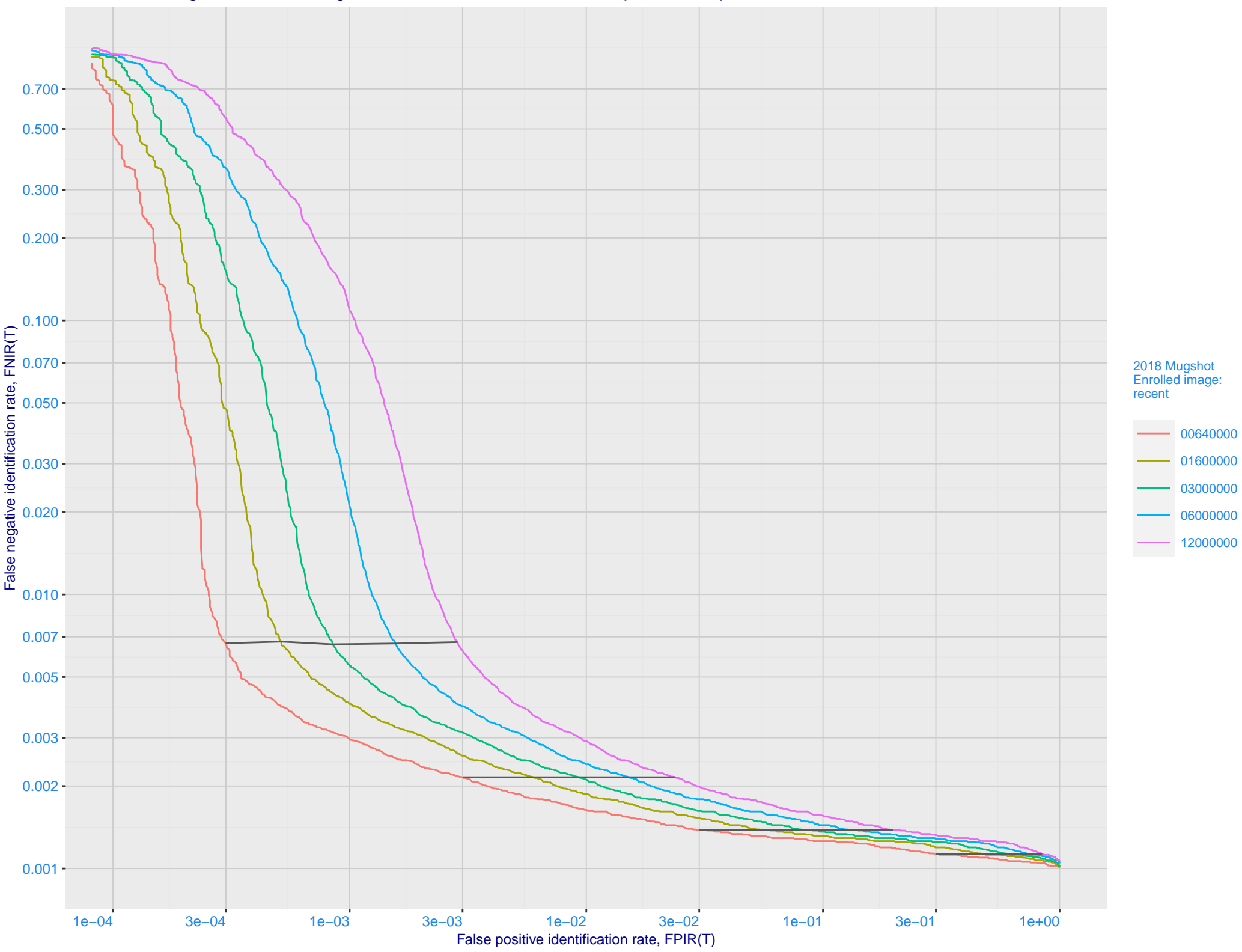


F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

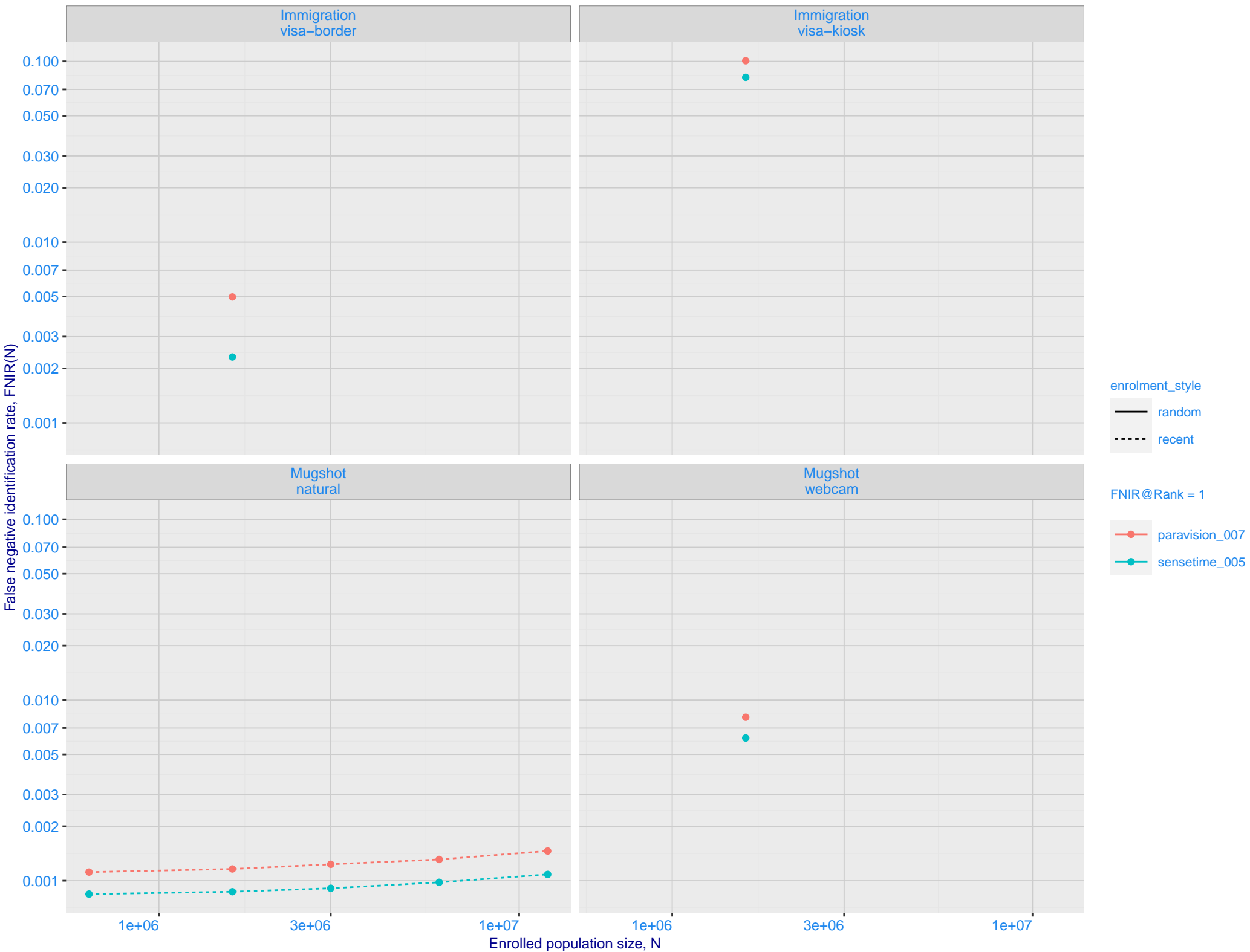




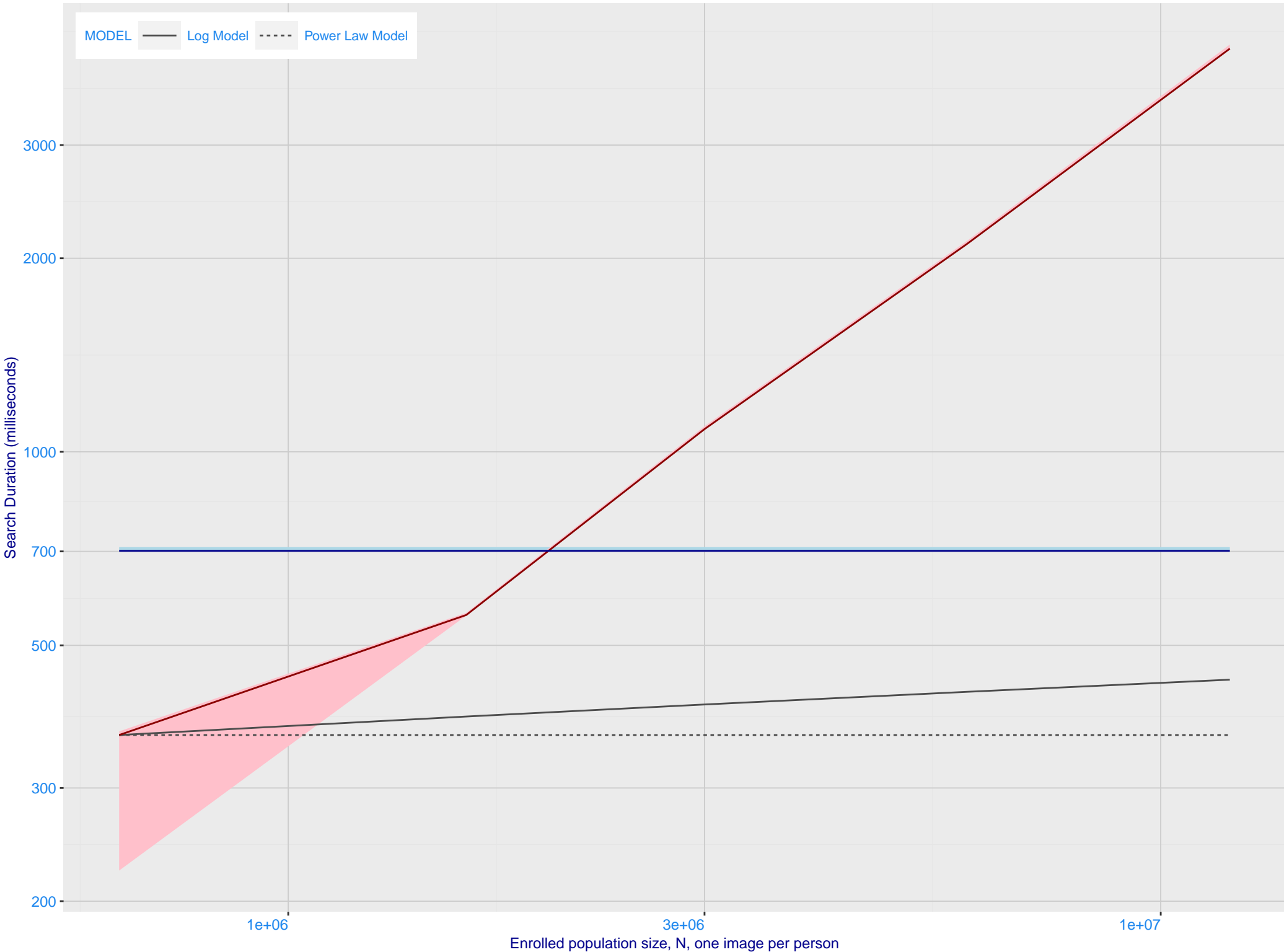
H: DET for Mugshot natural images and various N. Links connect points of equal threshold.



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

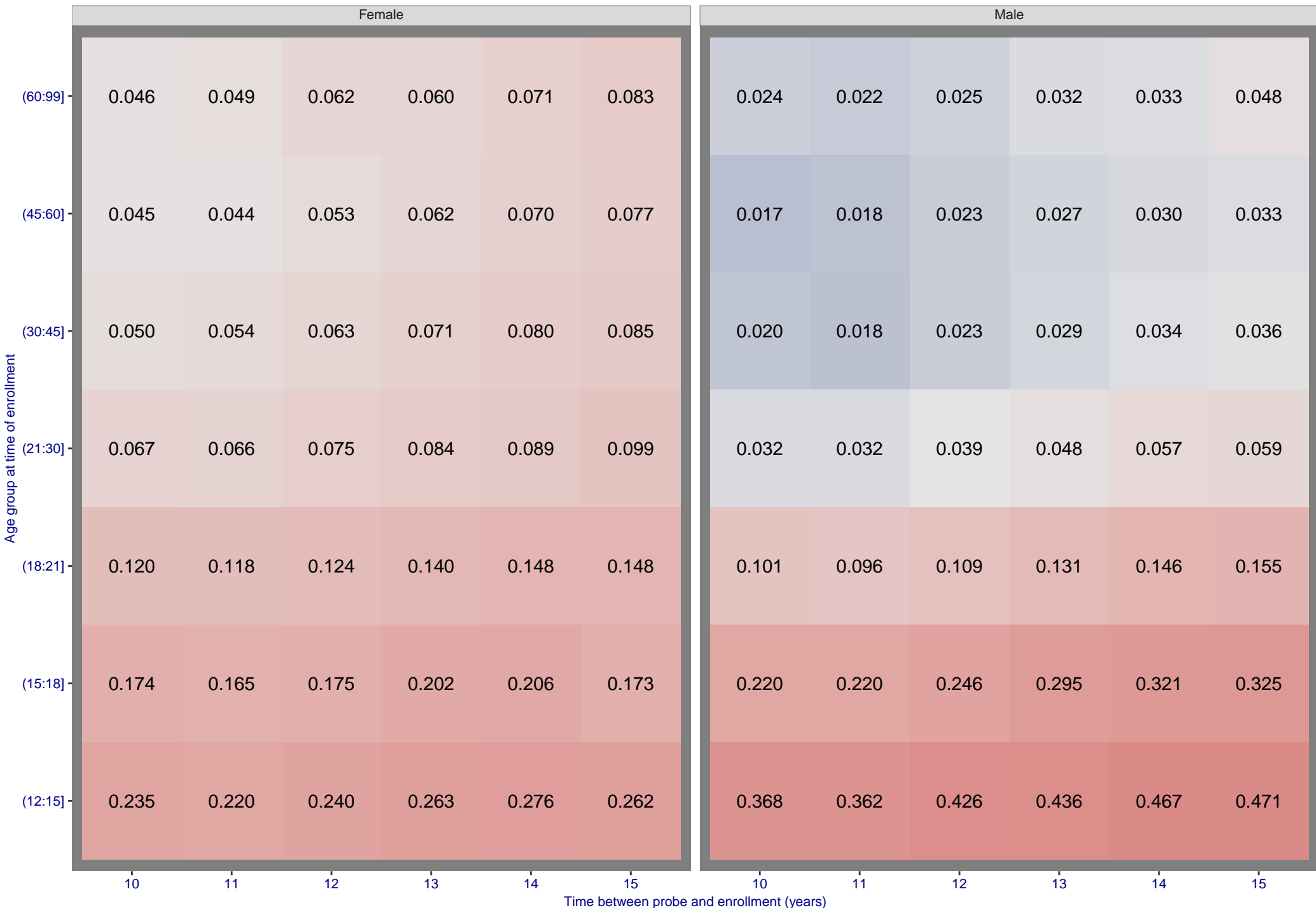


K: Template duration; search duration vs. N. The blue and pink ribbon covers 95 percent of observed measurements. The template generation time is independent of N. The log and power-law models are fit to the first two (N,T) observations



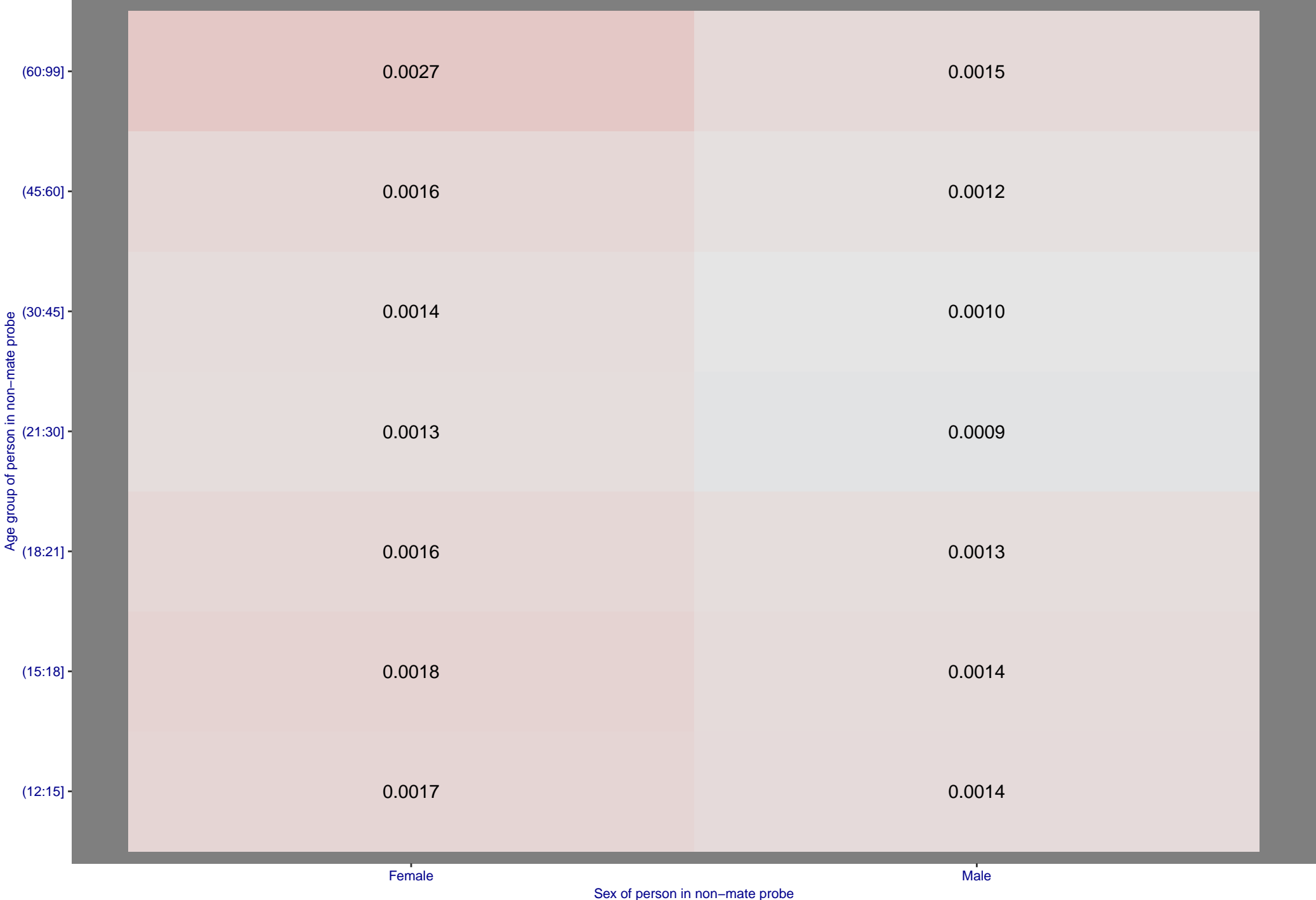
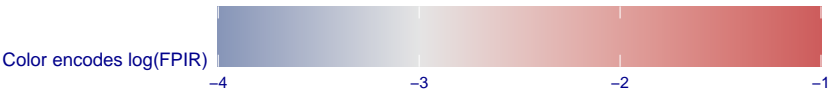
M-A: FNIR(T, N = 1.6 million) by sex, age and time-lapse

Algorithm: paravision_007, Dataset: Border-Crossing Ageing
Threshold: 3.039147 set to achieve FPIR(30-45, Male) = 0.001



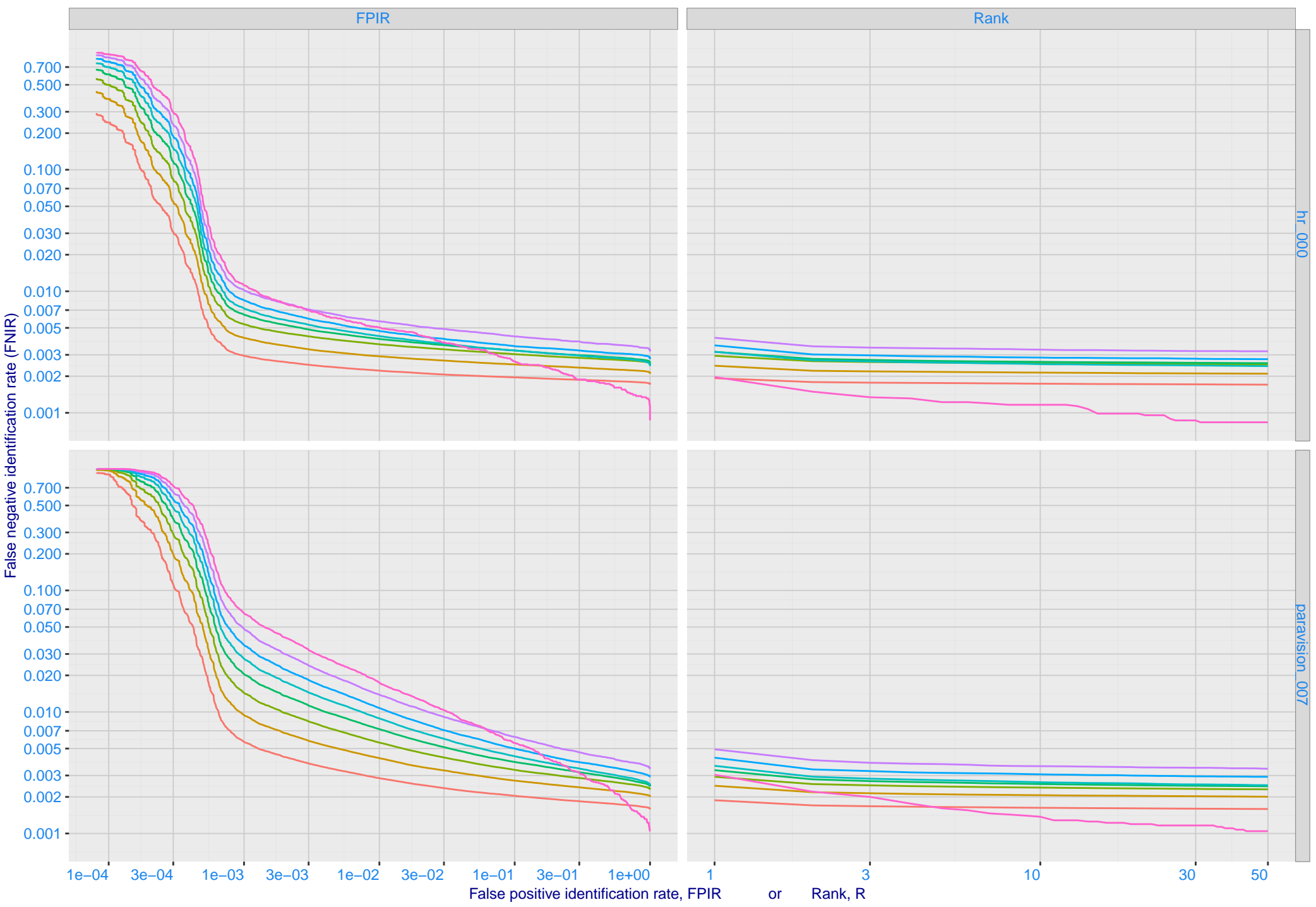
M-B: FPIR(T, N = 1.6 million) by sex and age

Algorithm: paravision_007, Dataset: Border-Crossing Ageing
Threshold: 3.039147 set to achieve FPIR(30-45, Male) = 0.001



N: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing

Dataset: 2018 Mugshot N = 3068801



O: Decline of genuine scores with ageing

