

A: Datasheet

Algorithm: youverse_001

Developer: Youverse

Submission Date: 2026_07_17

Template size: 2048 bytes

Template time (2.5 percentile): 1127 msec

Template time (median): 1128 msec

Template time (97.5 percentile): 1134 msec

Investigation:

Frontal mugshot ranking 155 (out of 664) -- FNIR(1600000, 0, 1) = 0.0009 vs. lowest 0.0004 from qazsmartvisionai_002

Mugshot webcam ranking 161 (out of 626) -- FNIR(1600000, 0, 1) = 0.0086 vs. lowest 0.0050 from qazsmartvisionai_003

Mugshot profile ranking 151 (out of 595) -- FNIR(1600000, 0, 1) = 0.0598 vs. lowest 0.0390 from qazsmartvisionai_002

Immigration visa-border ranking 152 (out of 546) -- FNIR(1600000, 0, 1) = 0.0020 vs. lowest 0.0008 from qazsmartvisionai_002

Immigration visa-kiosk ranking 110 (out of 497) -- FNIR(1600000, 0, 1) = 0.0503 vs. lowest 0.0334 from viante_003

Identification:

Frontal mugshot ranking 219 (out of 664) -- FNIR(1600000, T, L+1) = 0.0043, FPIR=0.003007 vs. lowest 0.0005 from idemia_013

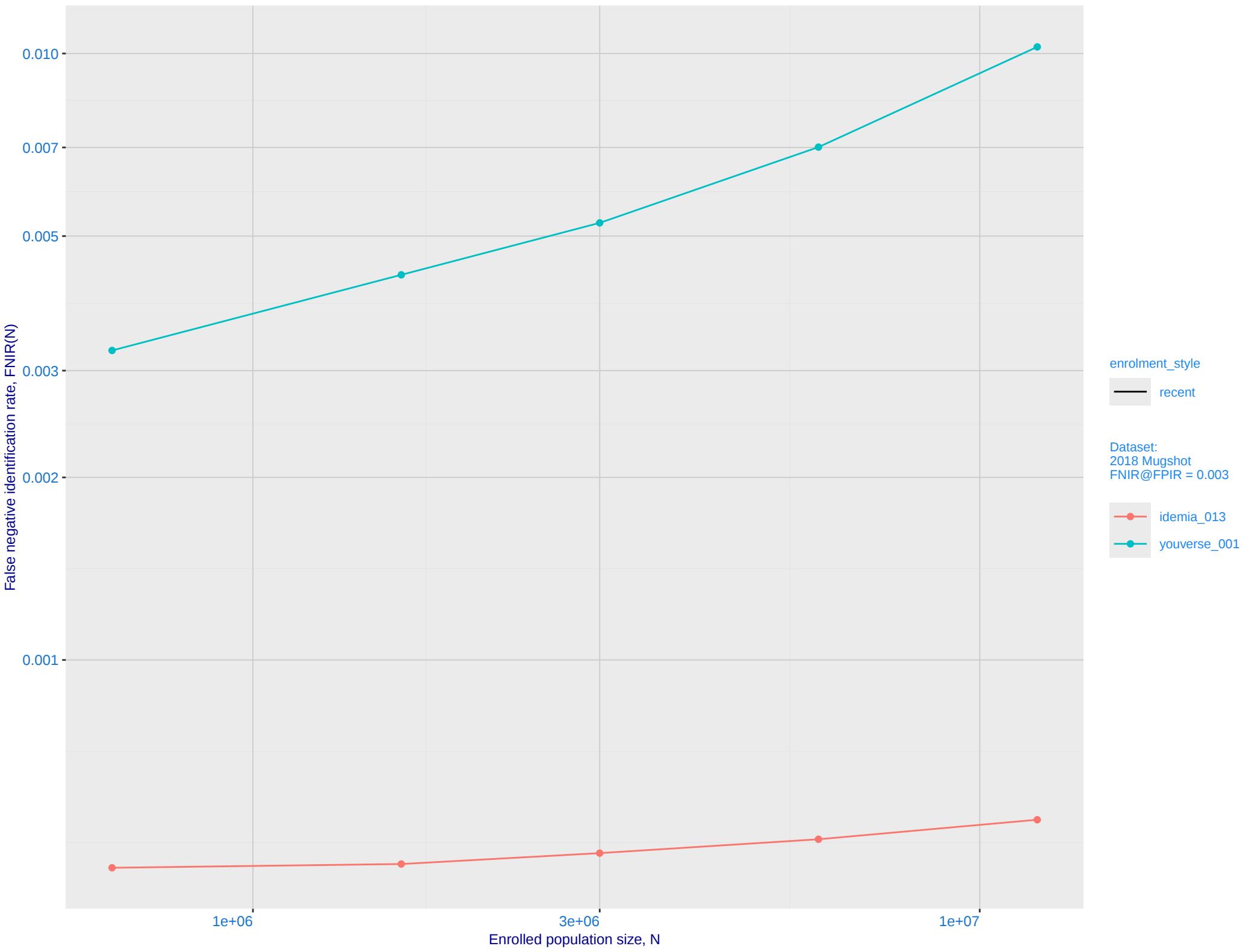
Mugshot webcam ranking 187 (out of 624) -- FNIR(1600000, T, L+1) = 0.0236, FPIR=0.002995 vs. lowest 0.0054 from nec_012

Mugshot profile ranking 139 (out of 594) -- FNIR(1600000, T, L+1) = 0.2055, FPIR=0.003000 vs. lowest 0.0458 from nec_012

Immigration visa-border ranking 186 (out of 545) -- FNIR(1600000, T, L+1) = 0.0106, FPIR=0.002988 vs. lowest 0.0012 from nec_012

Immigration visa-kiosk ranking 128 (out of 497) -- FNIR(1600000, T, L+1) = 0.0821, FPIR=0.002992 vs. lowest 0.0427 from nec_011

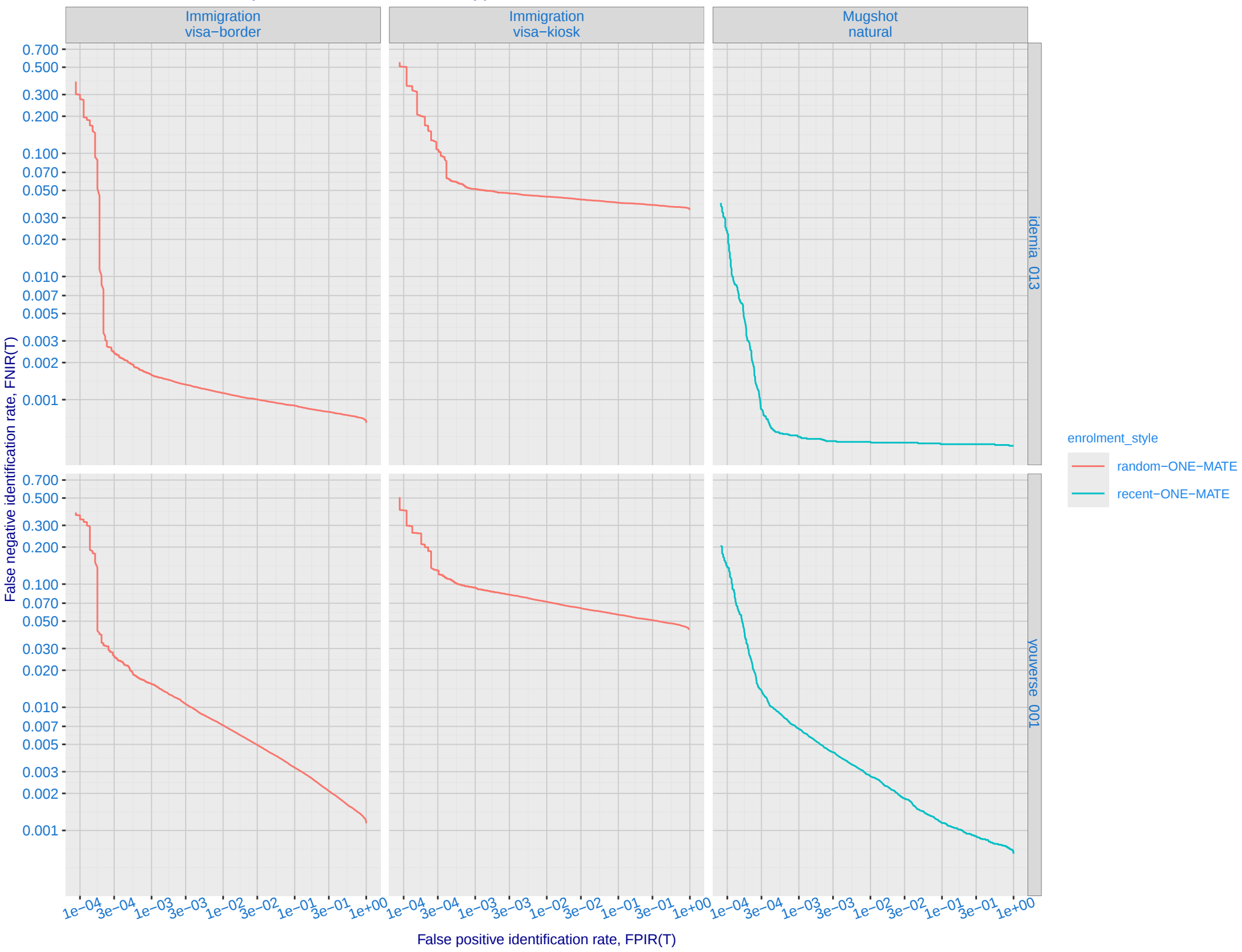
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (idemia_013)



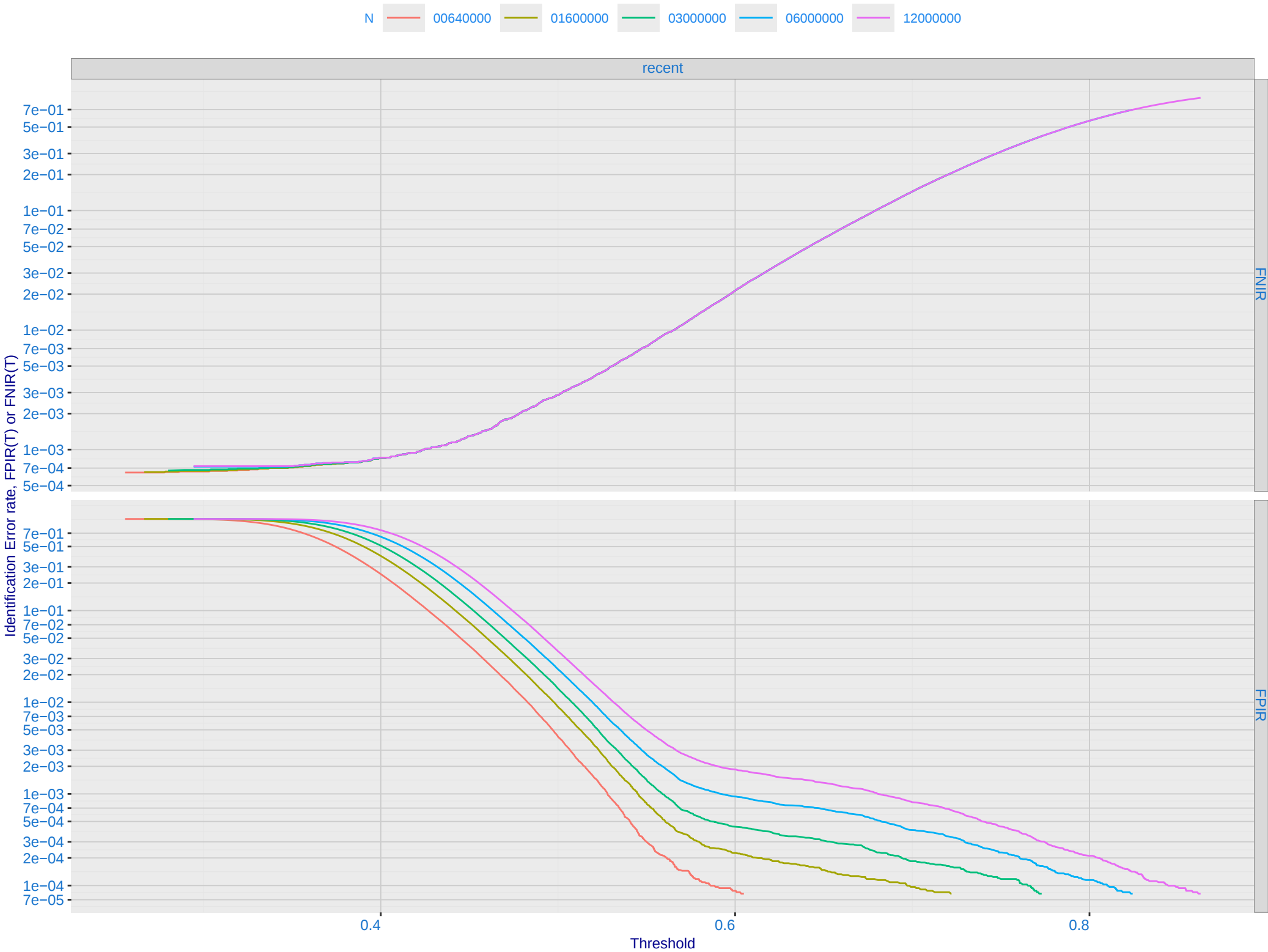
C: Evolution of accuracy for YOUVERSE algorithms on three datasets 2018 – present



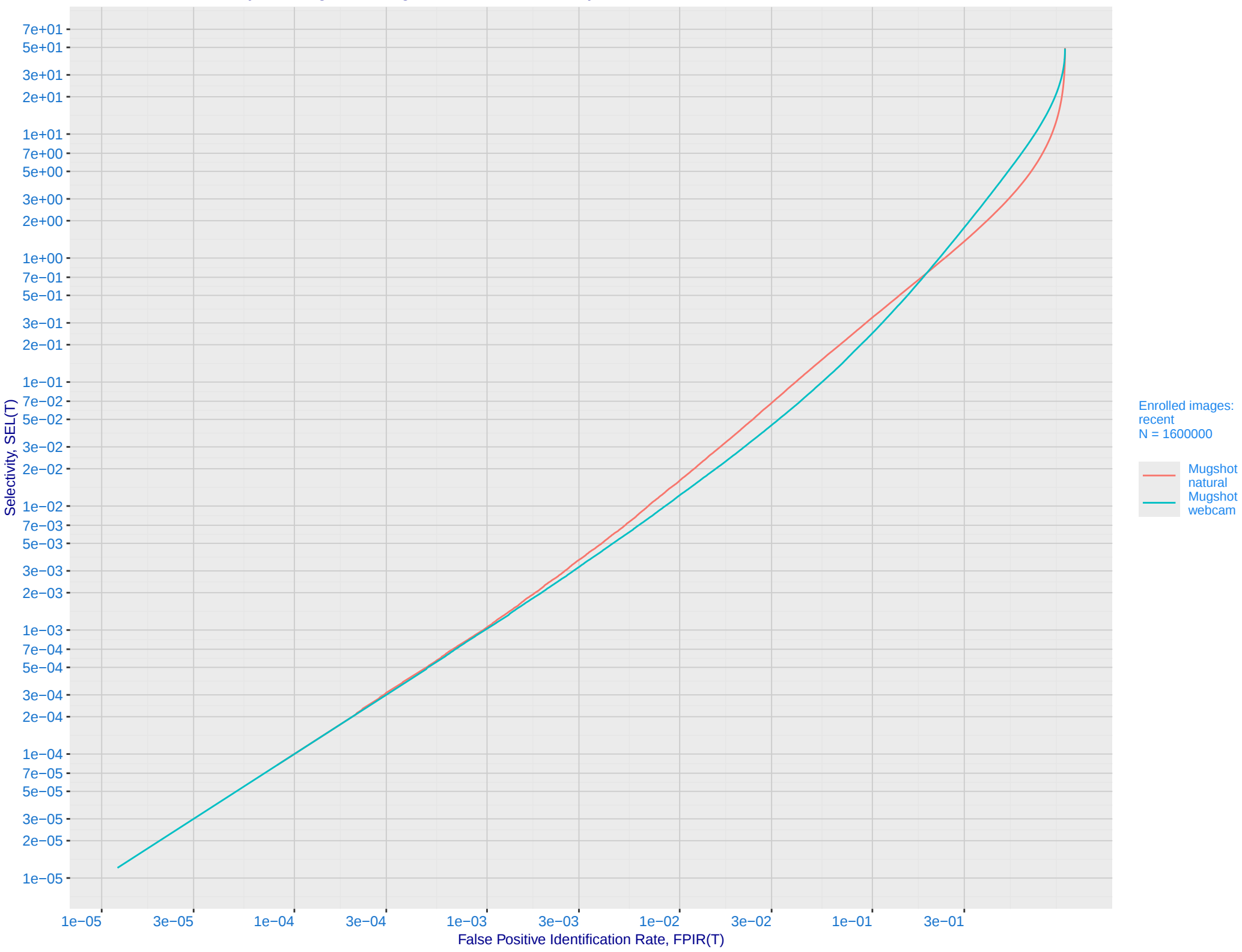
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals



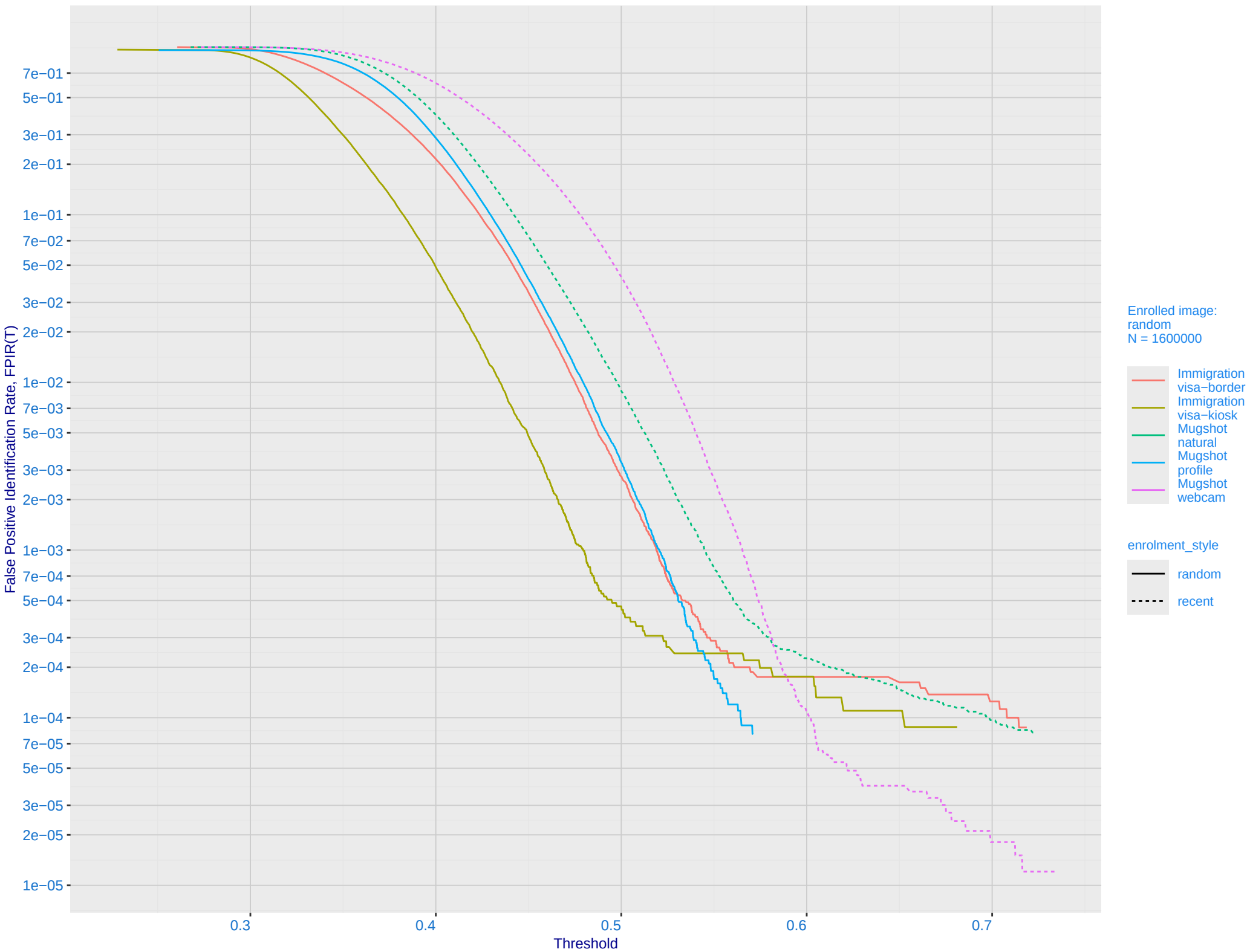
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



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

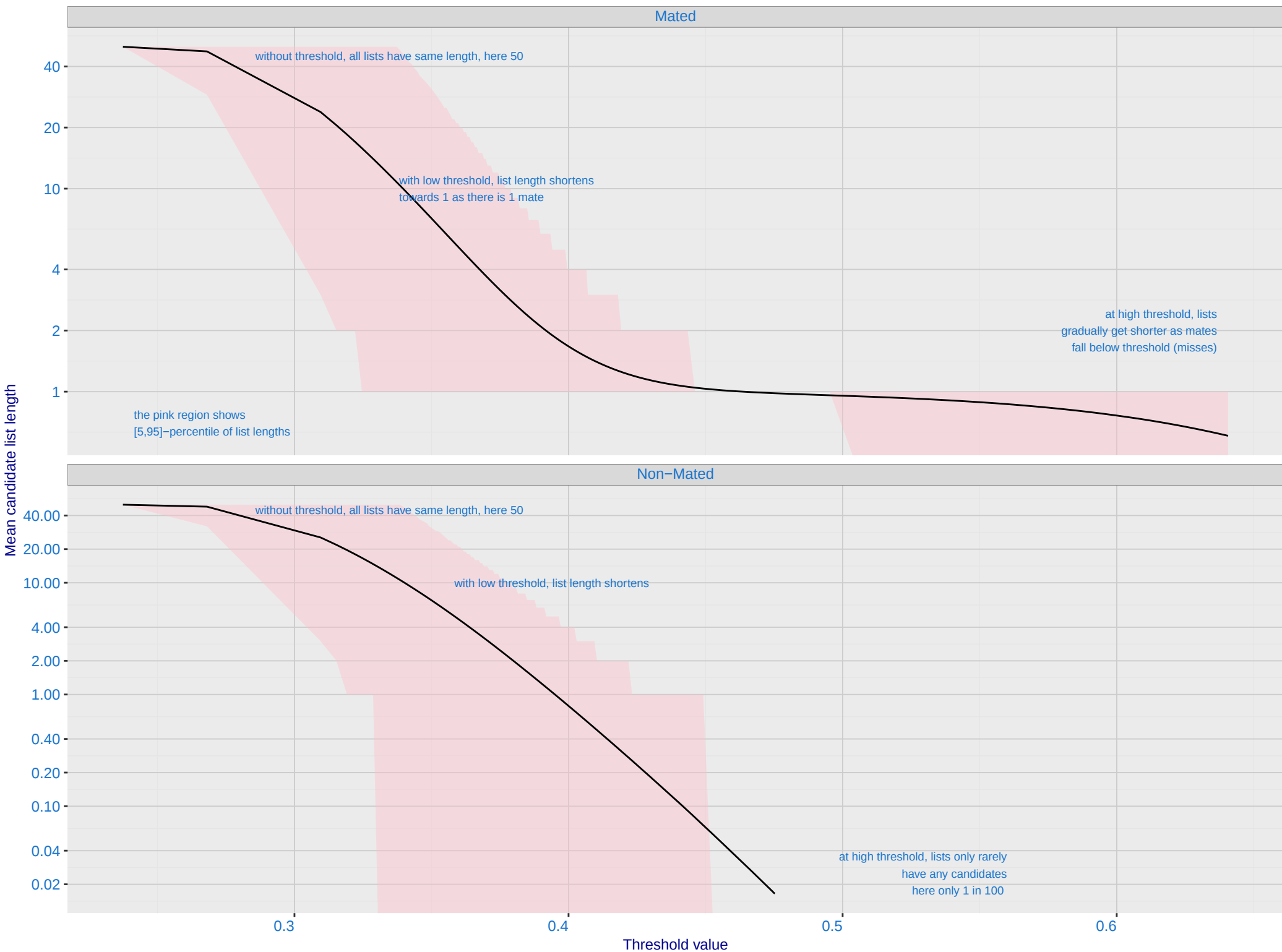


G: FPIR dependence on T by probe type for N = 1600000 subjects



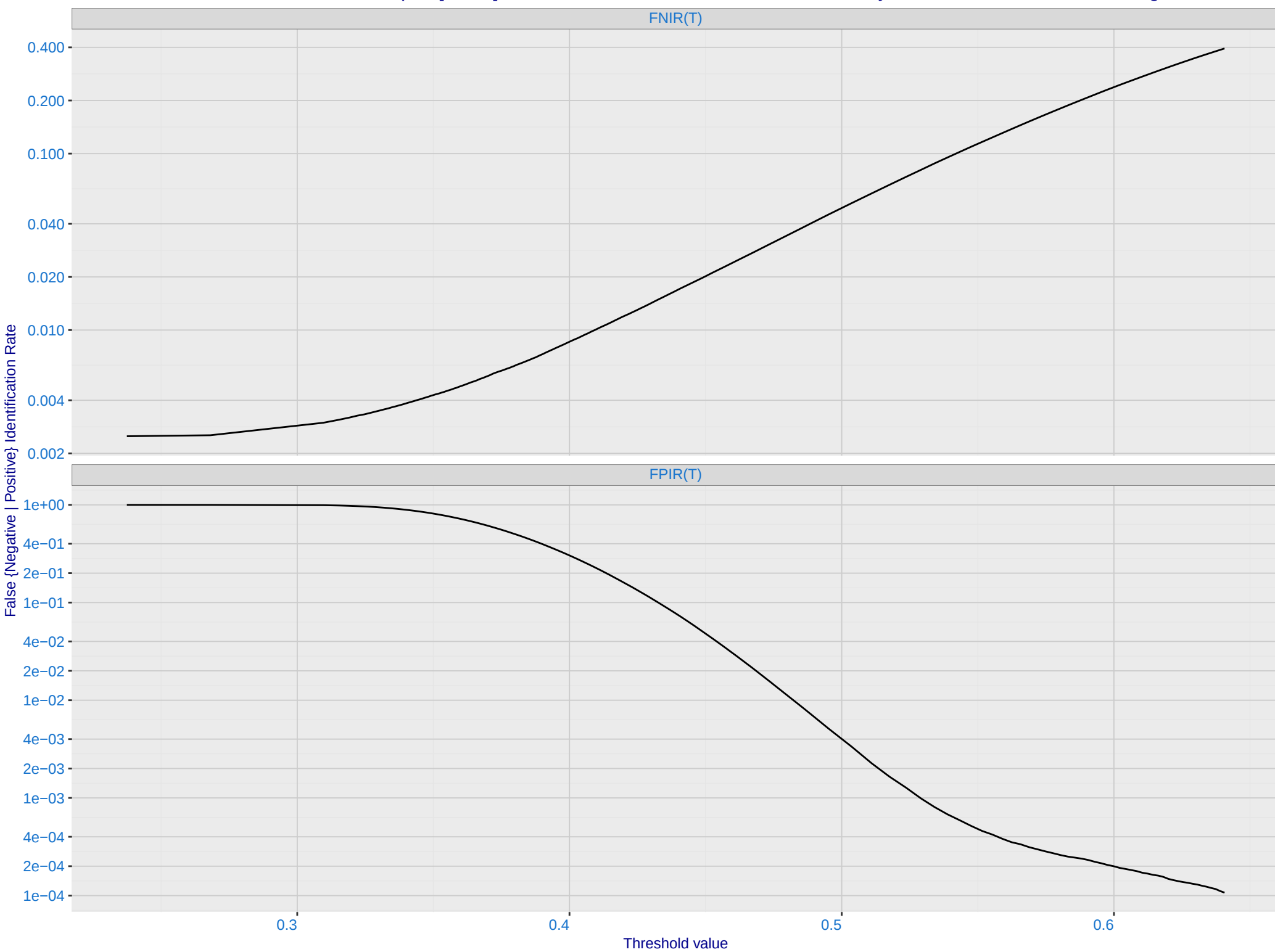
H: Reduced length candidate lists for human review

Dataset is border–border with time–lapse [10,15] YRS with N = 1600000. Probes are 10–15 years later than enrollment image

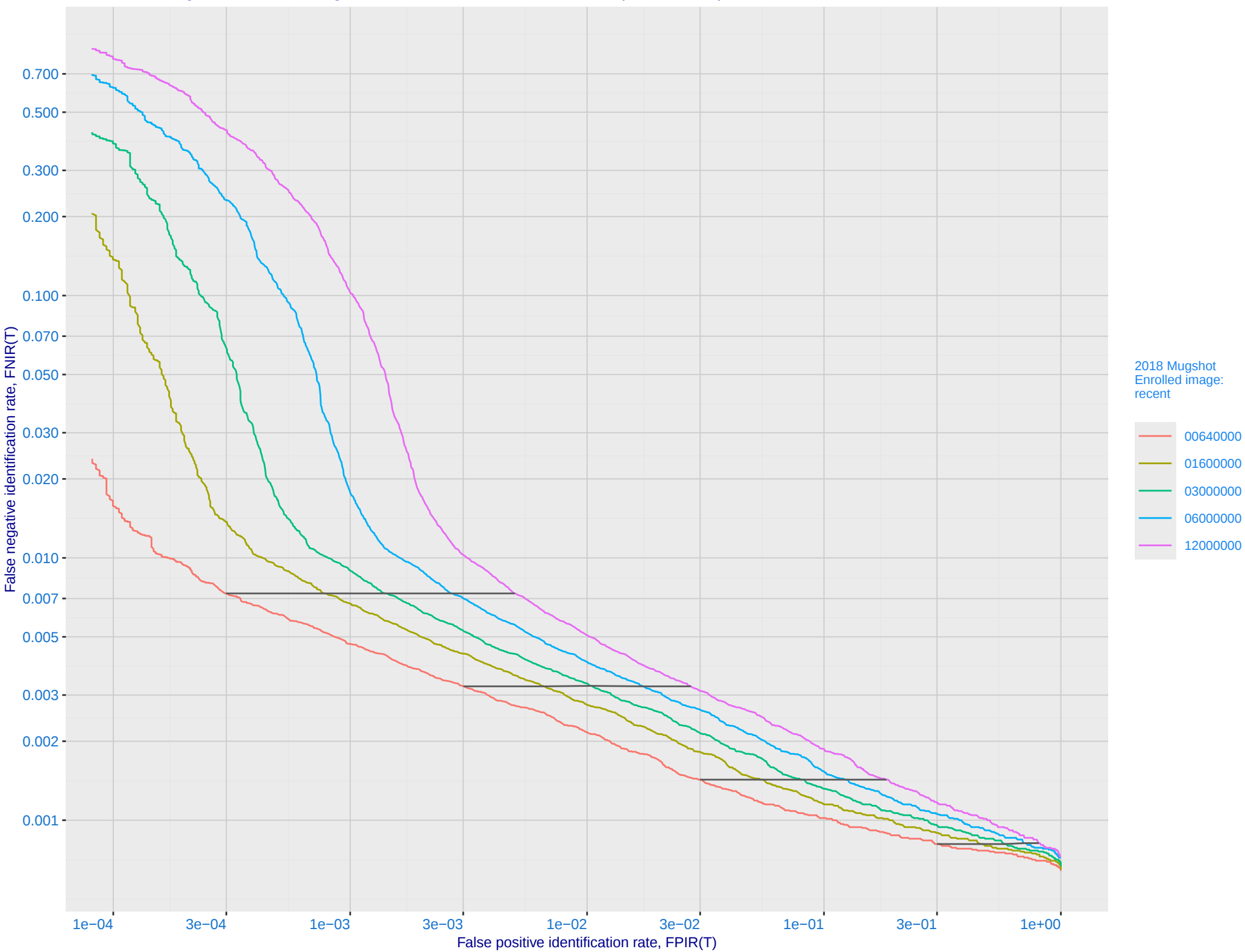


I: FNIR and FPIR dependence on threshold

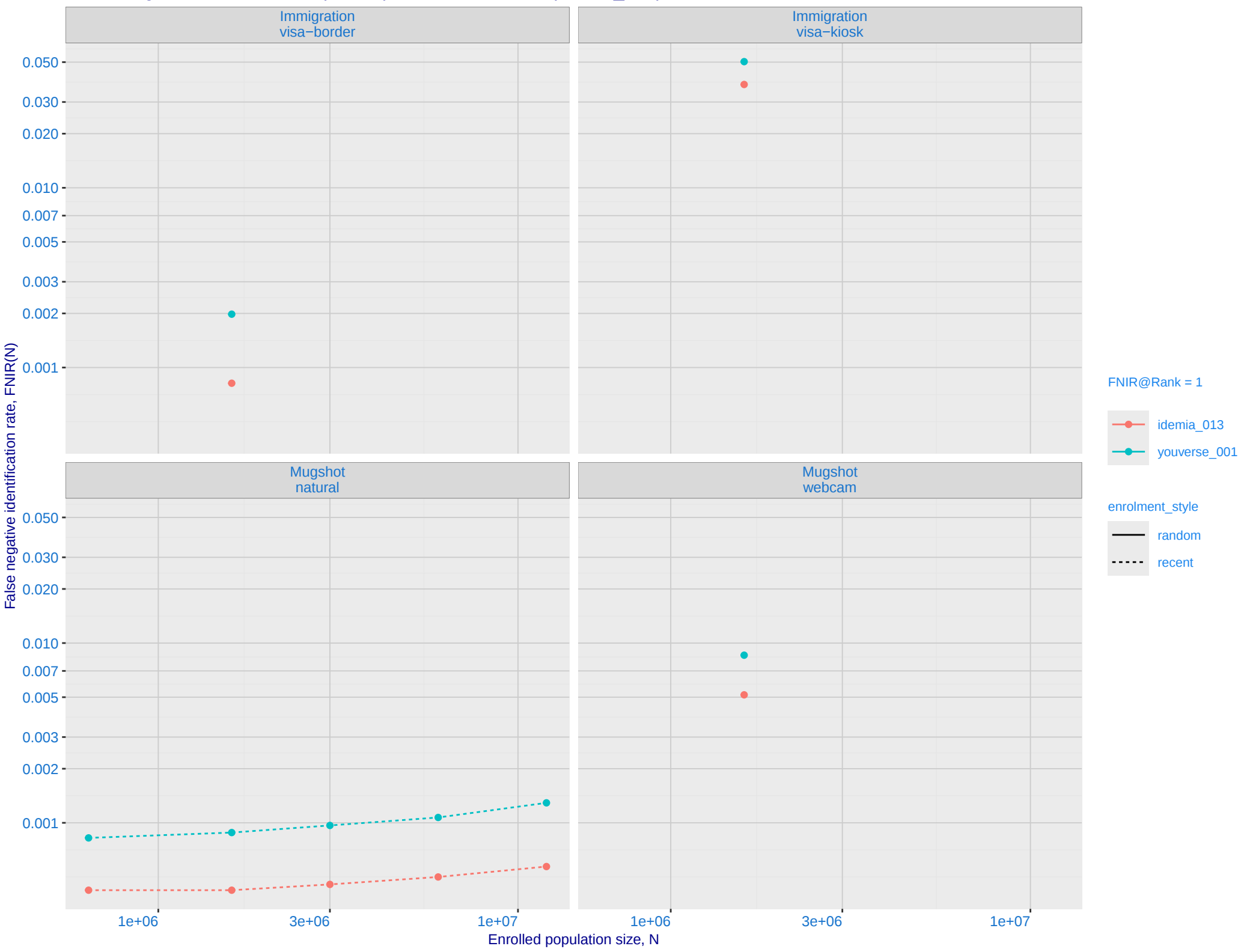
Dataset is border-border with time-lapse [10,15] YRS with N = 1600000. Probes are 10-15 years later than enrollment image



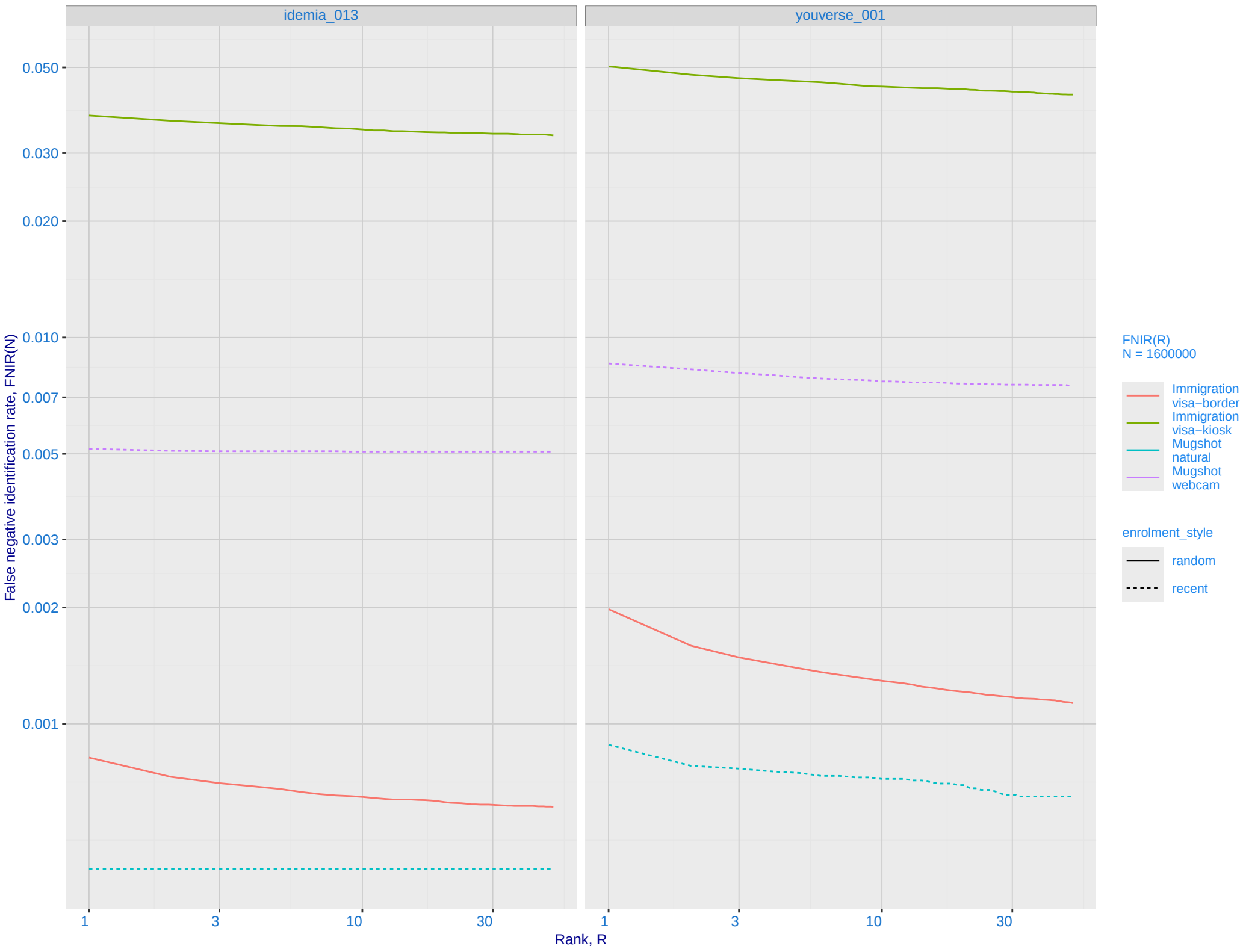
J: DET for Mugshot natural images and various N. Links connect points of equal threshold.



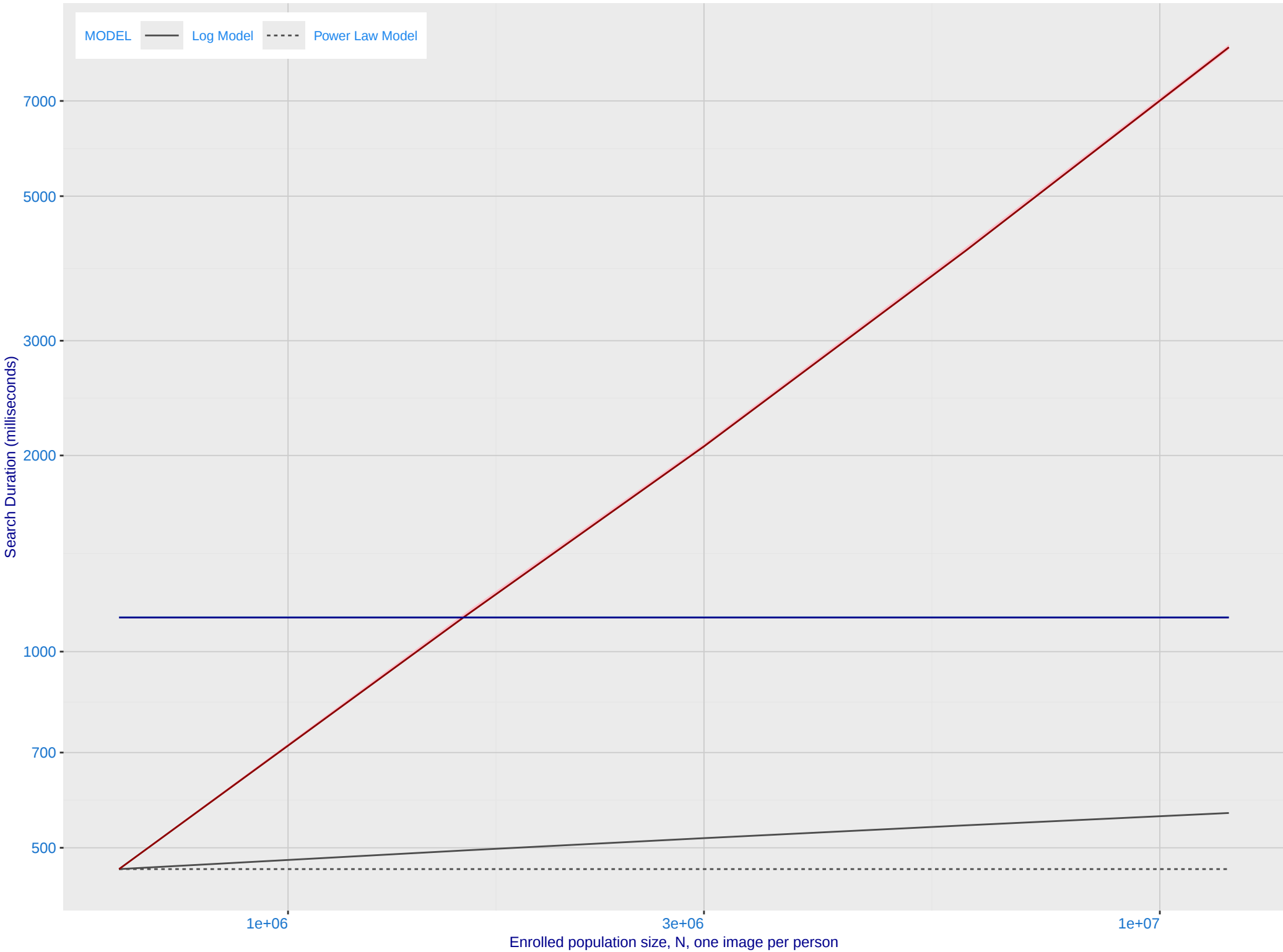
K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (idemia_013)



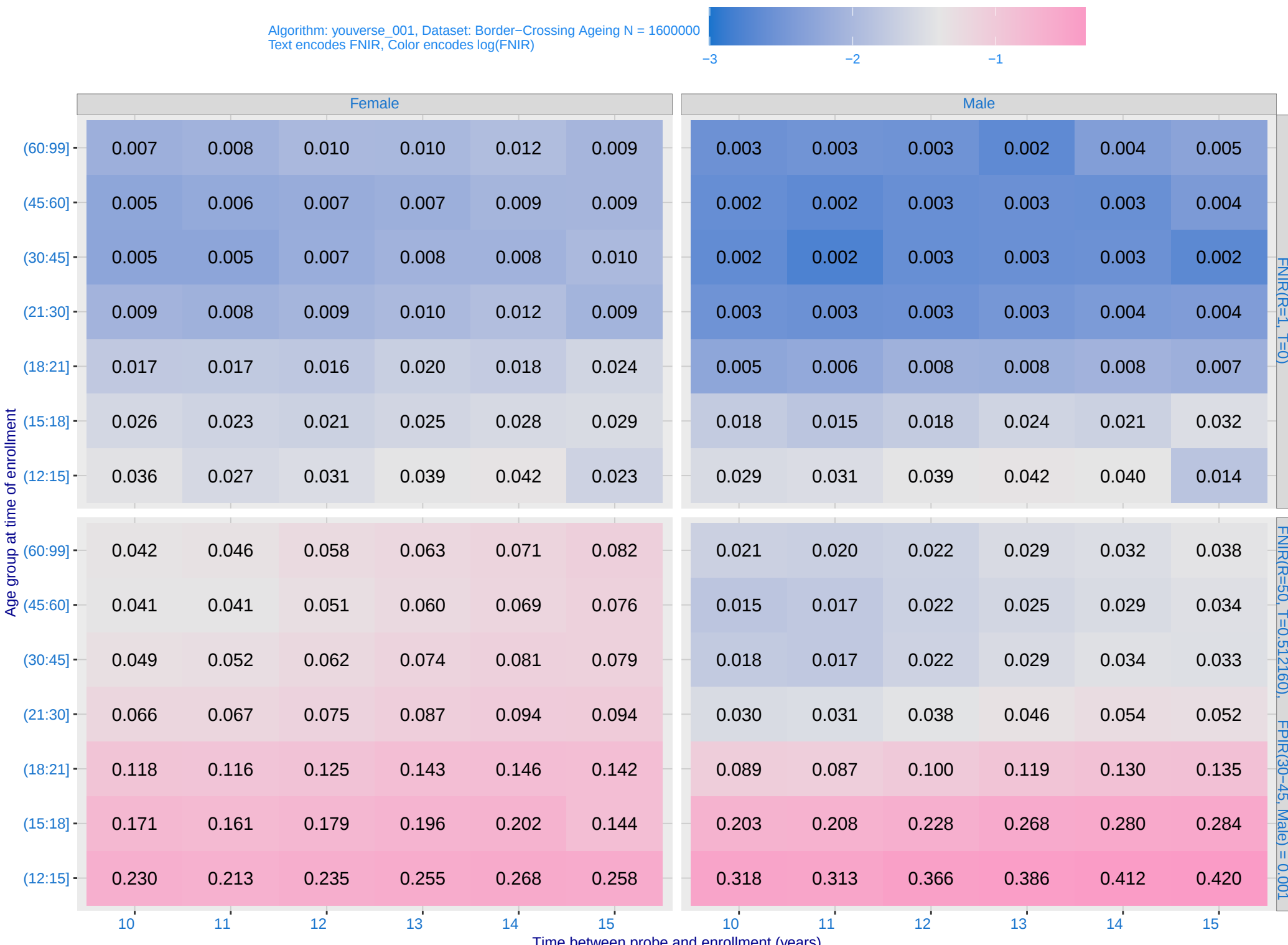
L: Investigational mode: FNIR(1600000, R, 0) by probe type



M: 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



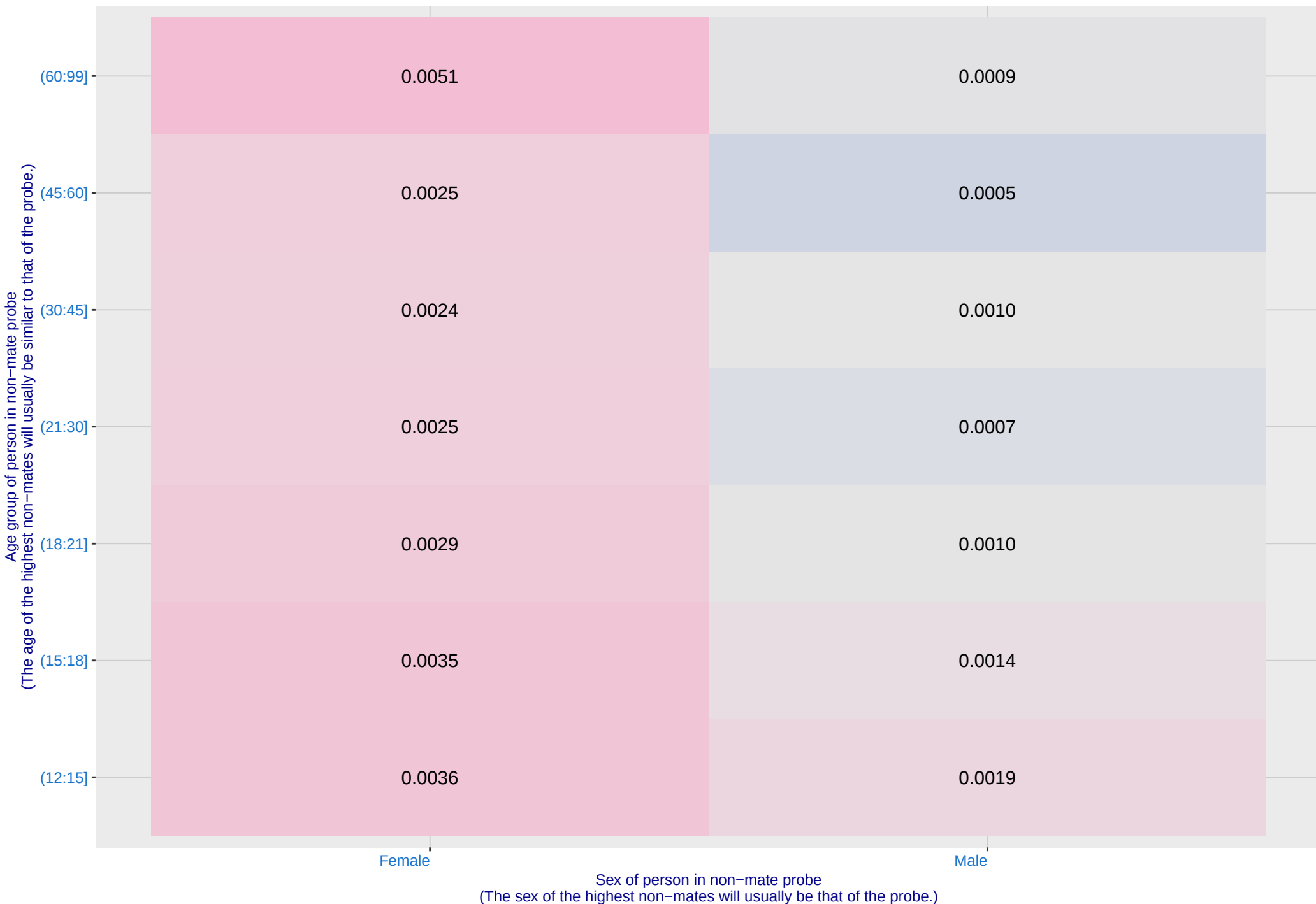
O: FNIR(T, N = 1.6 million) by sex, age and time-lapse. The top row gives investigational rank-1 miss rates. The bottom panels give high threshold for more lights-out identification with low FPIR.



P: FPIR(N = 1.6 million) by sex and age. It is typical for false positive identification rates to be higher in women except in their teens.

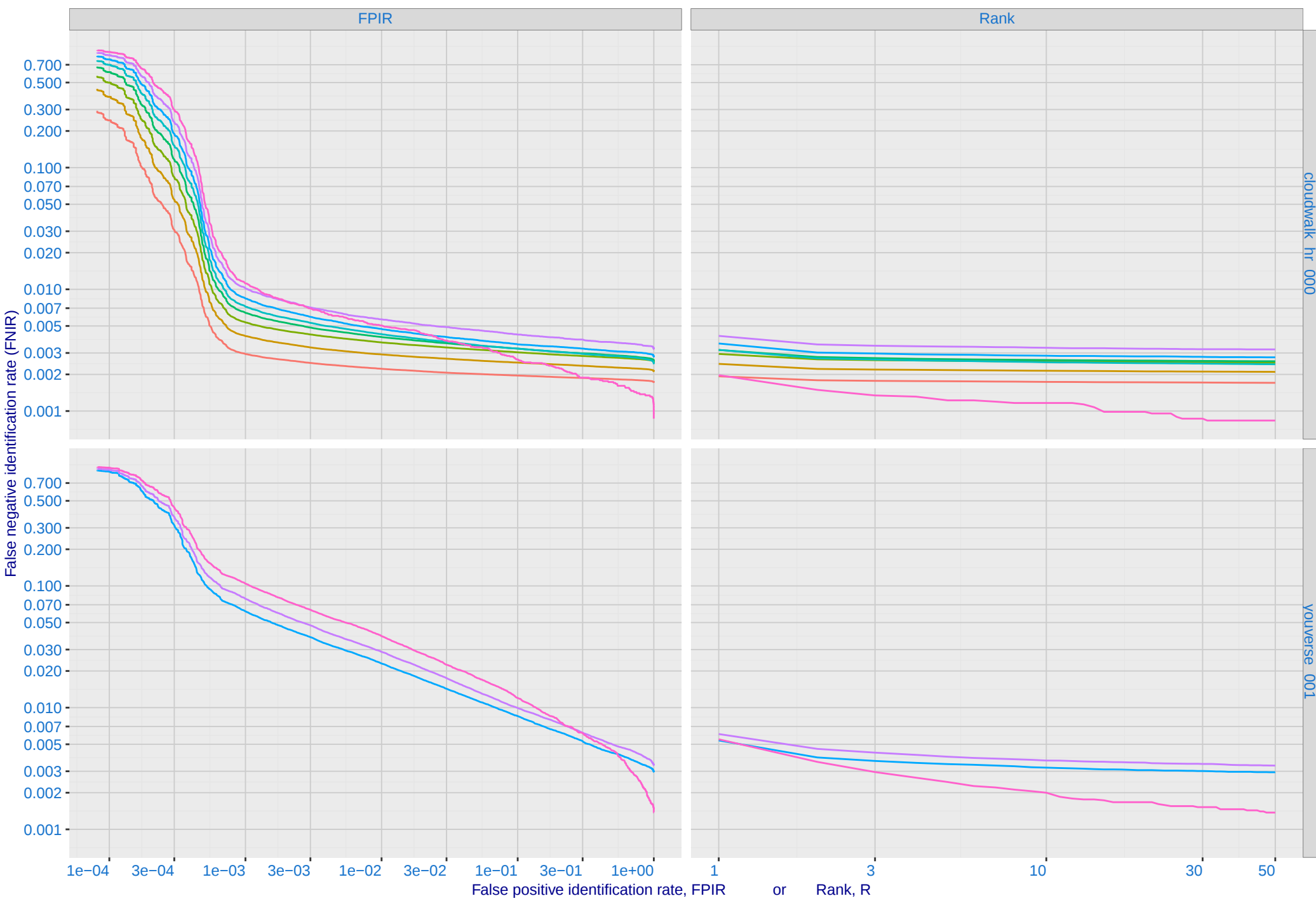
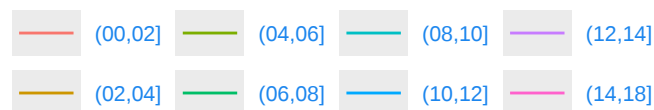
Algorithm: youverse_001, Dataset: Border-Crossing Ageing
Threshold: 0.512160 set to achive FPIR(30-45, Male) = 0.001

Color encodes log(FPIR)

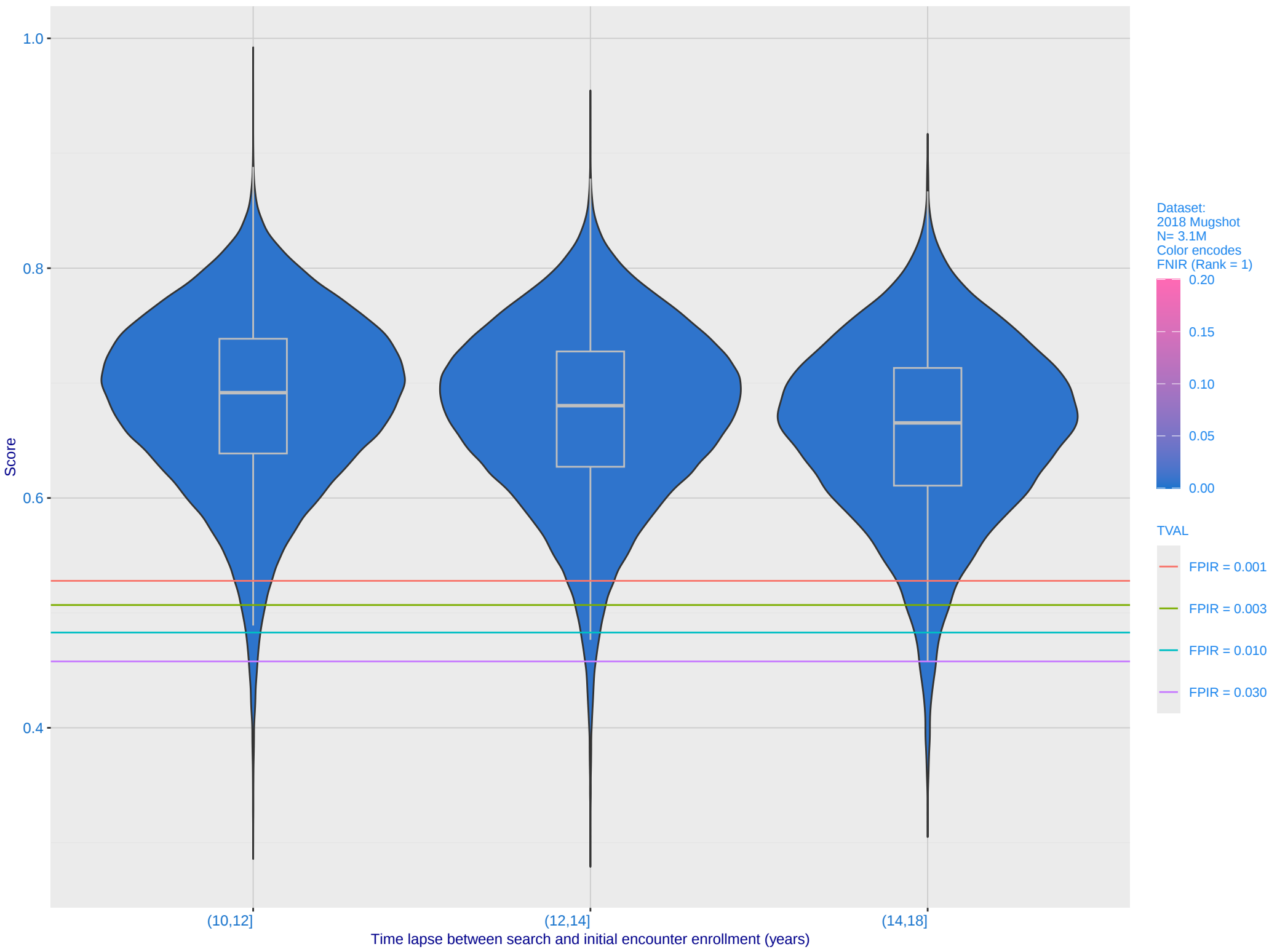


Q: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing

Dataset: 2018 Mugshot N = 3068801



R: Decline of genuine scores with ageing, with some eventually dropping below typical thresholds shown by the horizontal lines

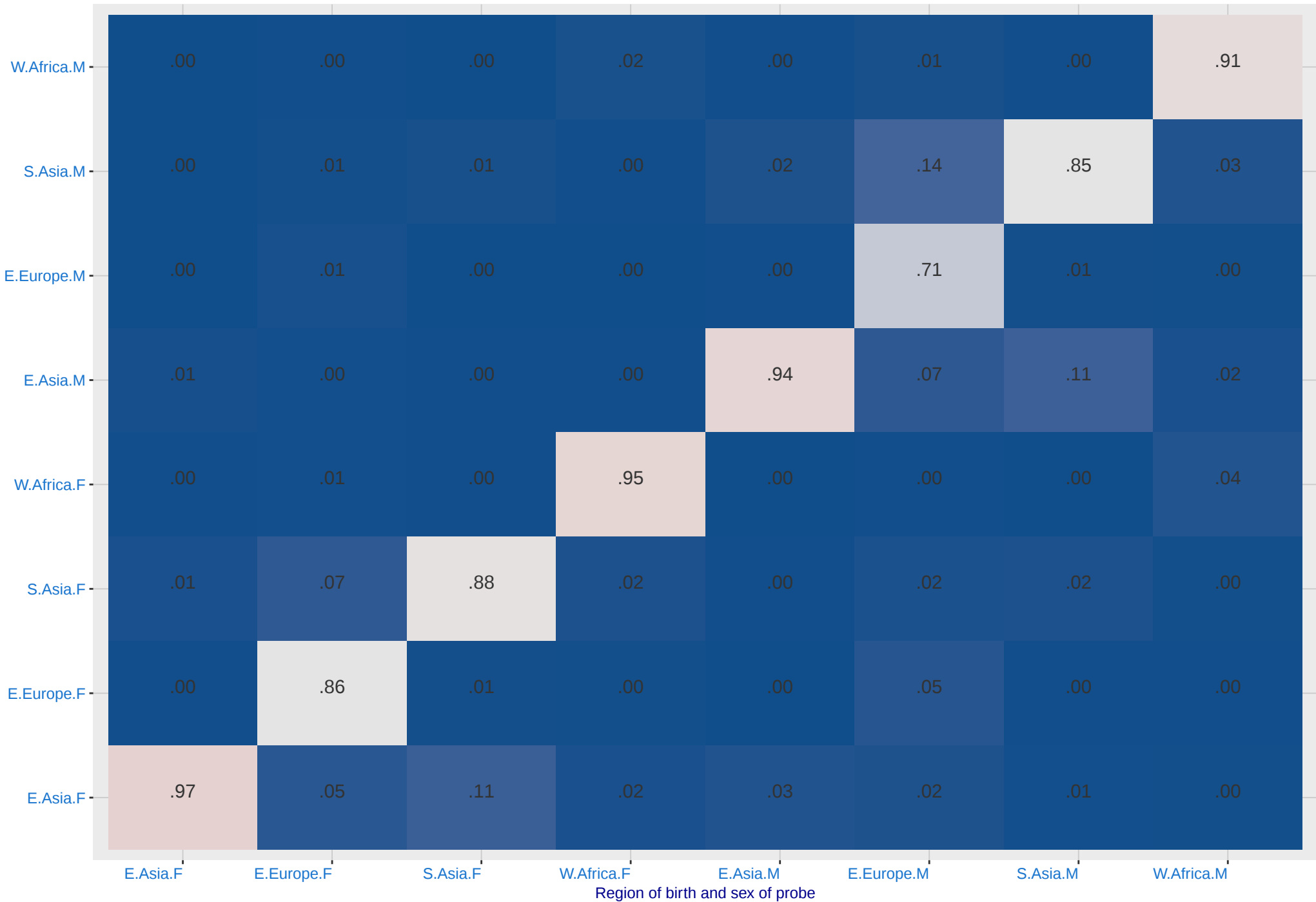


S: Cross demographic group occurrence of probe with top non-mate at $T = 0$.
The values are proportions, the columns sum to 1.

Cross Demographic Confusion, $R = 1$, $T = 0$

0.00 0.25 0.50 0.75 1.00

Region of birth and sex of top non-mate



T: Cross demographic FPIR for algorithm youverse_001, T = 0.460.
The values are $\log_{10}(\text{FPIR})$

