

A: Datasheet

Algorithm: cloudwalk_mt_000

Developer: Cloudwalk – Hengrui AI Technology

Submission Date: 2022_01_31

Investigation:

Frontal mugshot ranking 51 (out of 333) -- FNIR(1600000, 0, 1) = 0.0018 vs. lowest 0.0008 from sensetime_007

Mugshot webcam ranking 51 (out of 295) -- FNIR(1600000, 0, 1) = 0.0110 vs. lowest 0.0056 from sensetime_007

Mugshot profile ranking 3 (out of 264) -- FNIR(1600000, 0, 1) = 0.0575 vs. lowest 0.0521 from sensetime_007

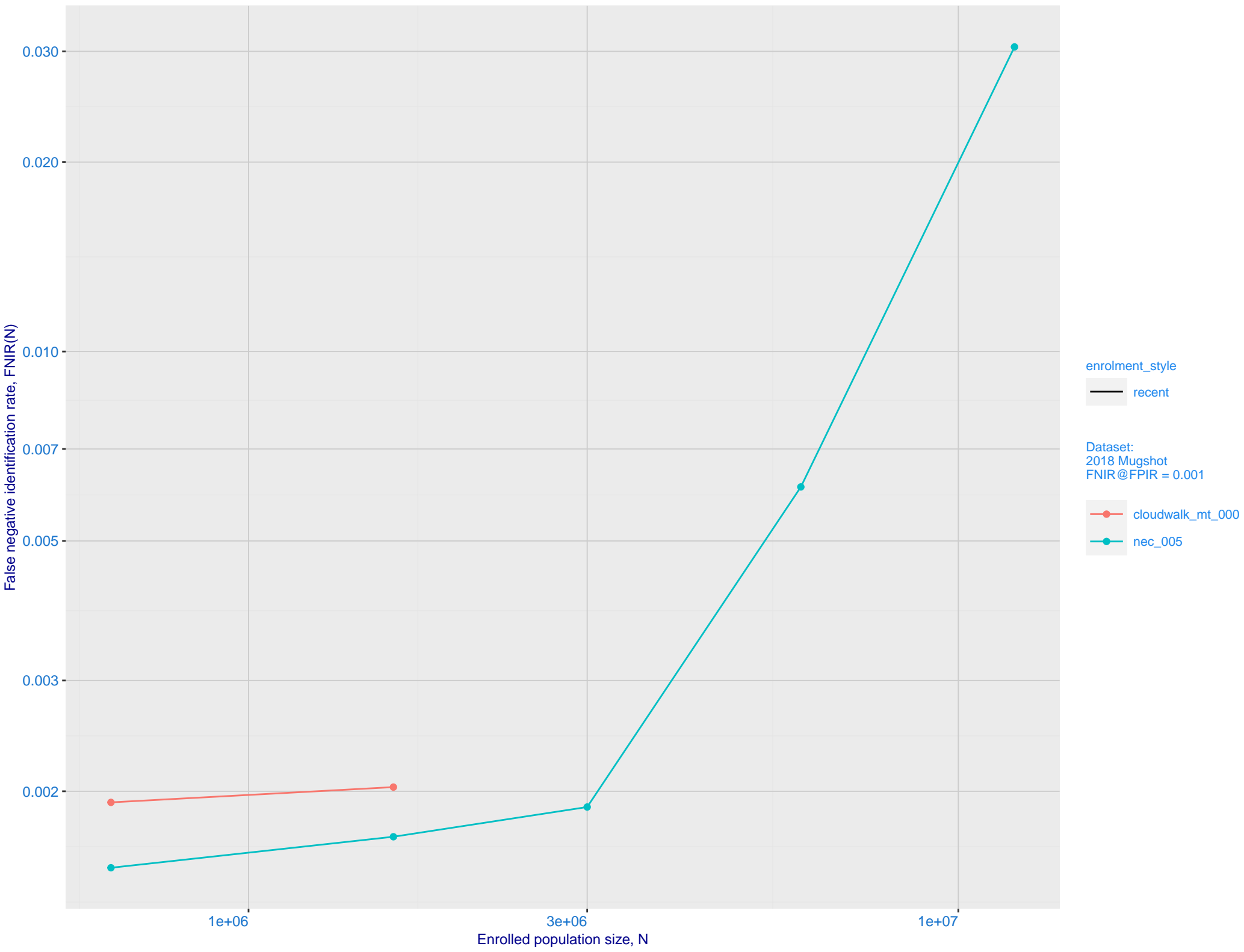
Identification:

Frontal mugshot ranking 8 (out of 333) -- FNIR(1600000, T, L+1) = 0.0020, FPIR=0.001000 vs. lowest 0.0014 from sensetime_007

Mugshot webcam ranking 8 (out of 293) -- FNIR(1600000, T, L+1) = 0.0133, FPIR=0.001000 vs. lowest 0.0093 from sensetime_007

Mugshot profile ranking 1 (out of 263) -- FNIR(1600000, T, L+1) = 0.1093, FPIR=0.001000

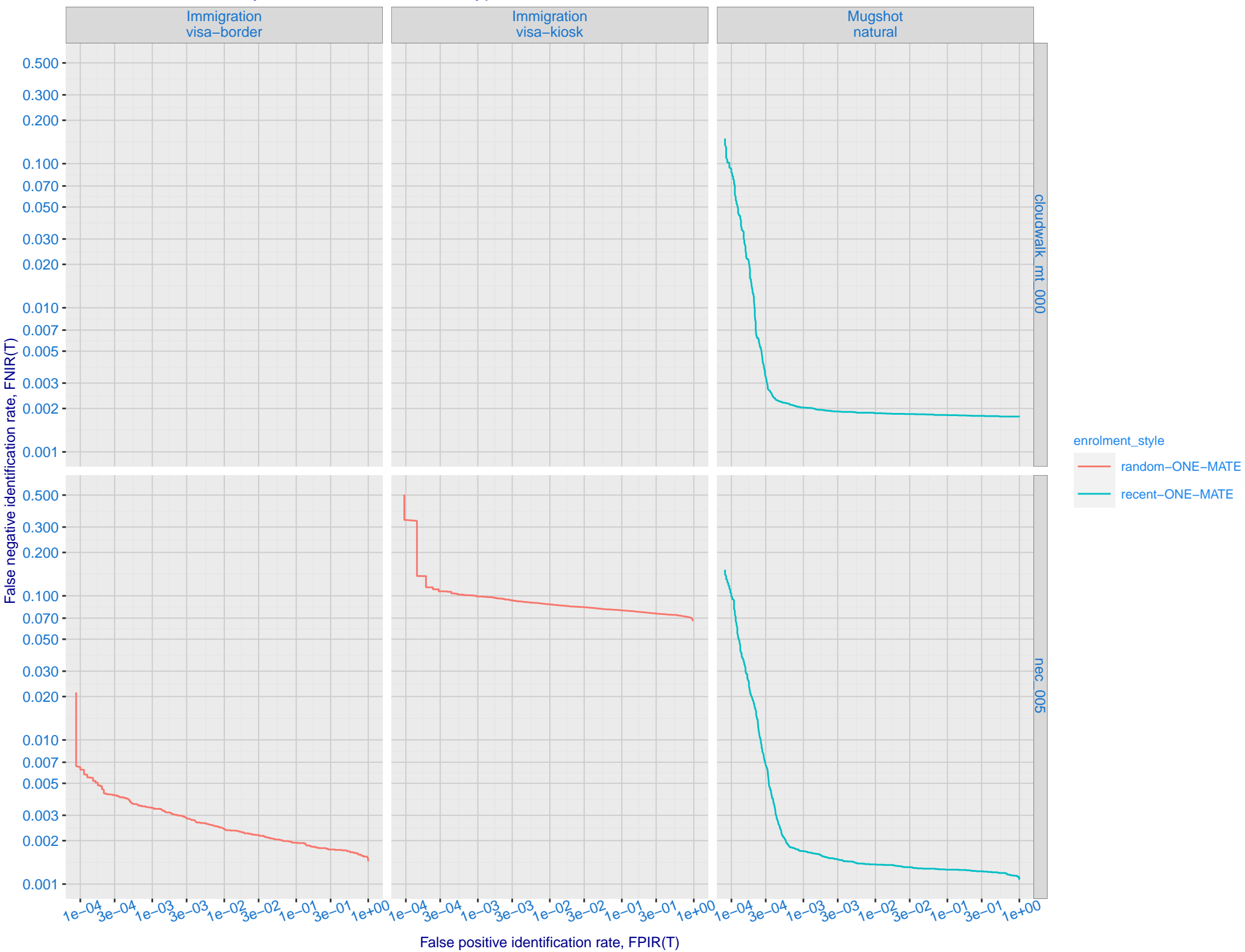
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (nec_005)



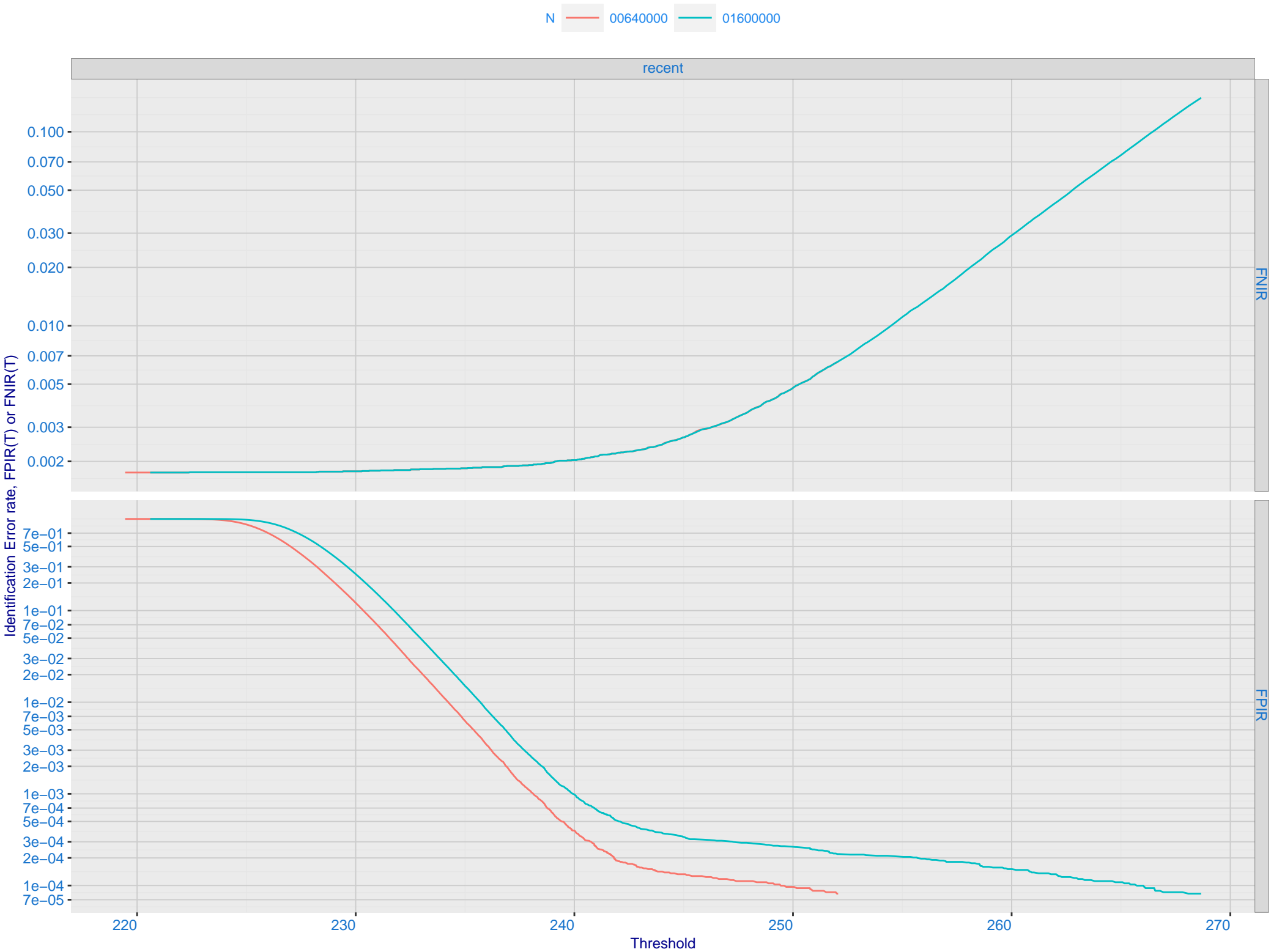
C: Evolution of accuracy for CLOUDWALK_MT algorithms on three datasets 2018 – present



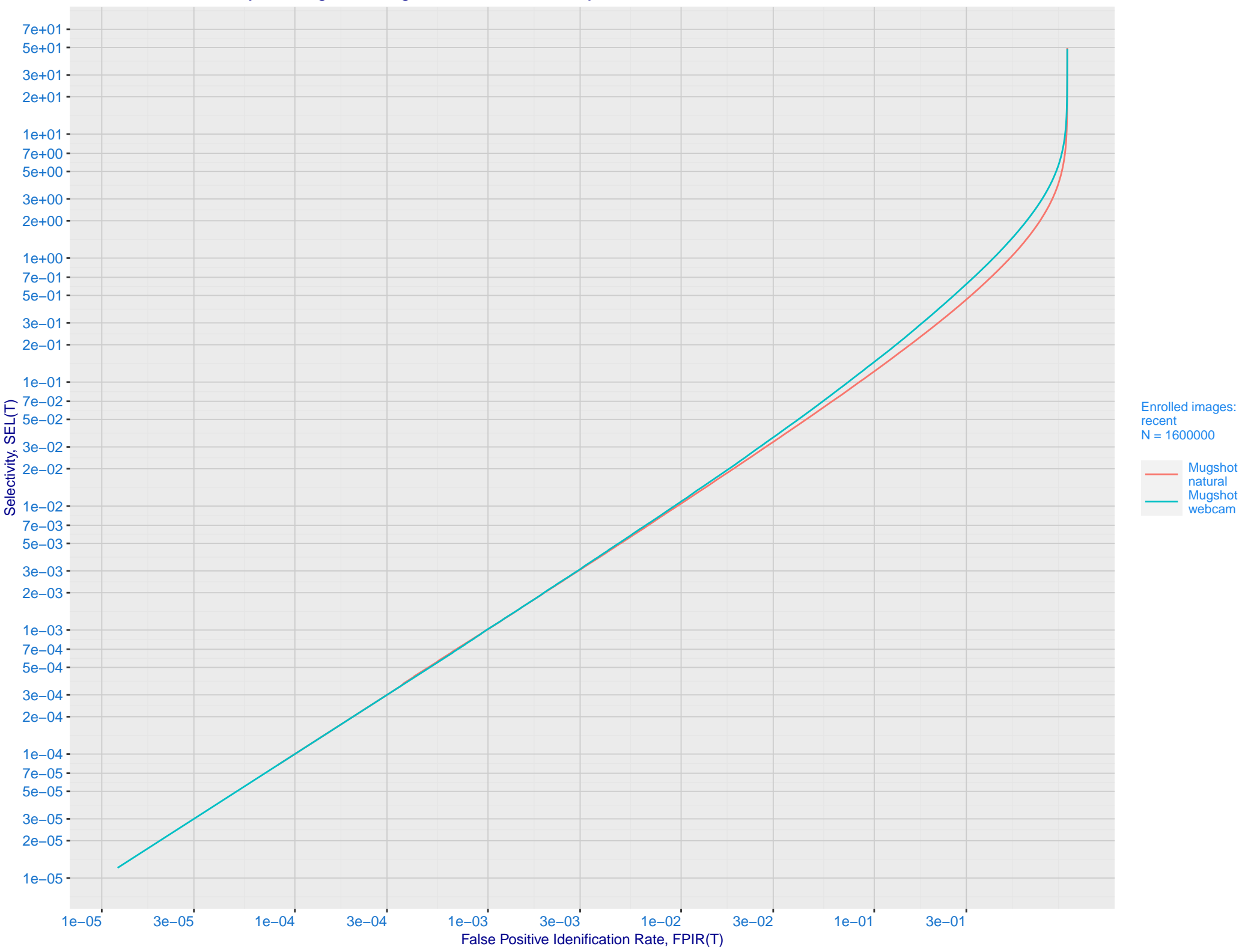
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals



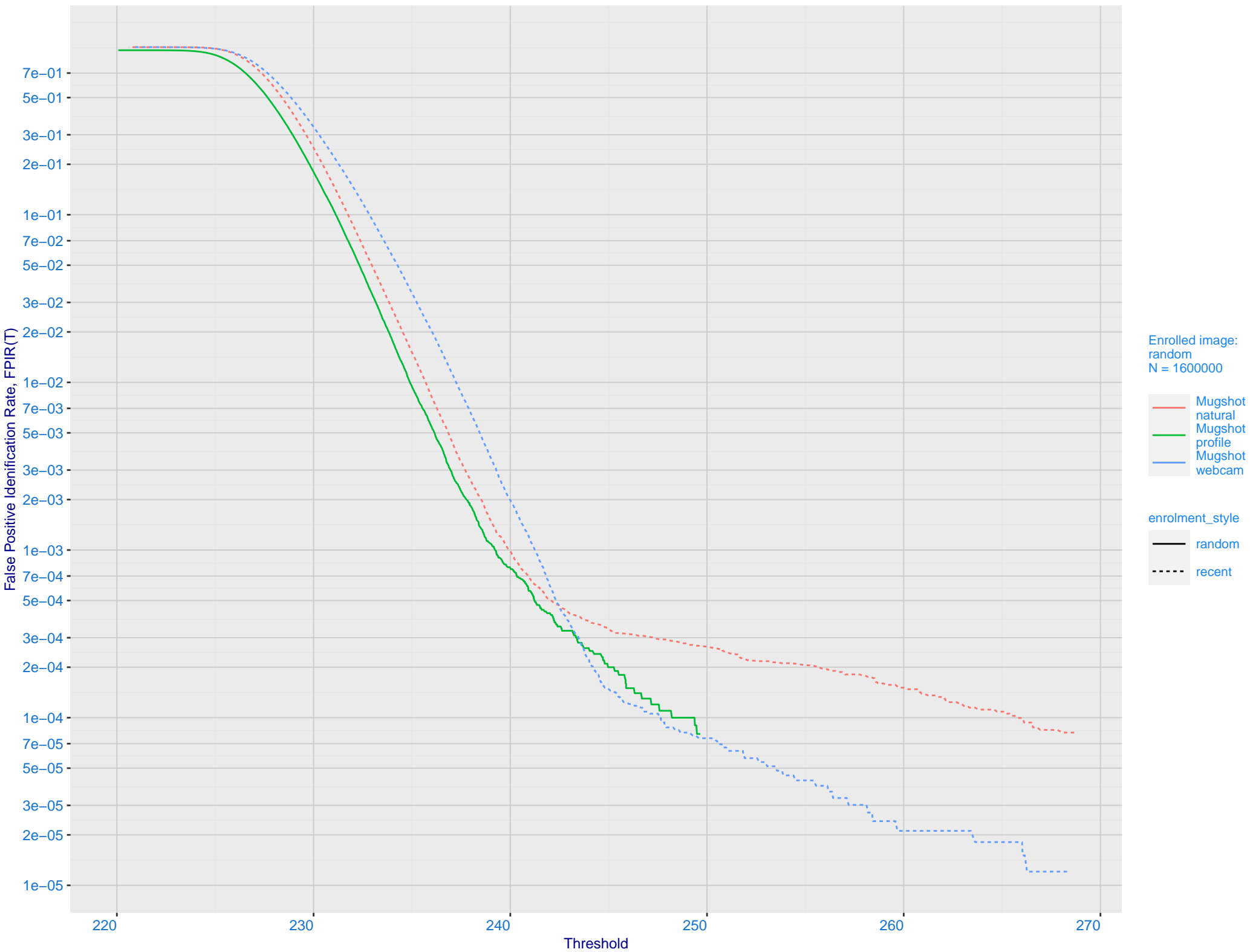
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



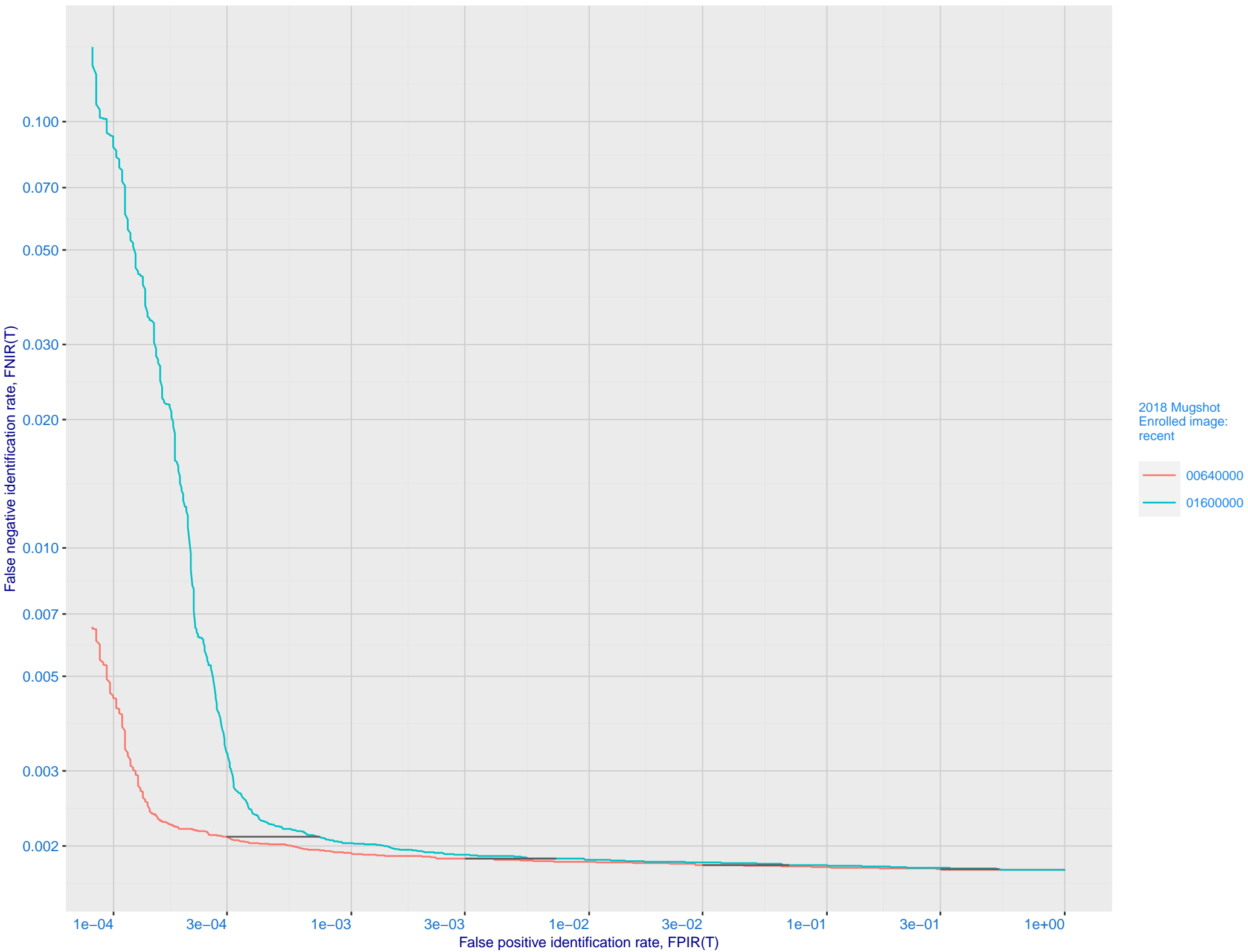
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate



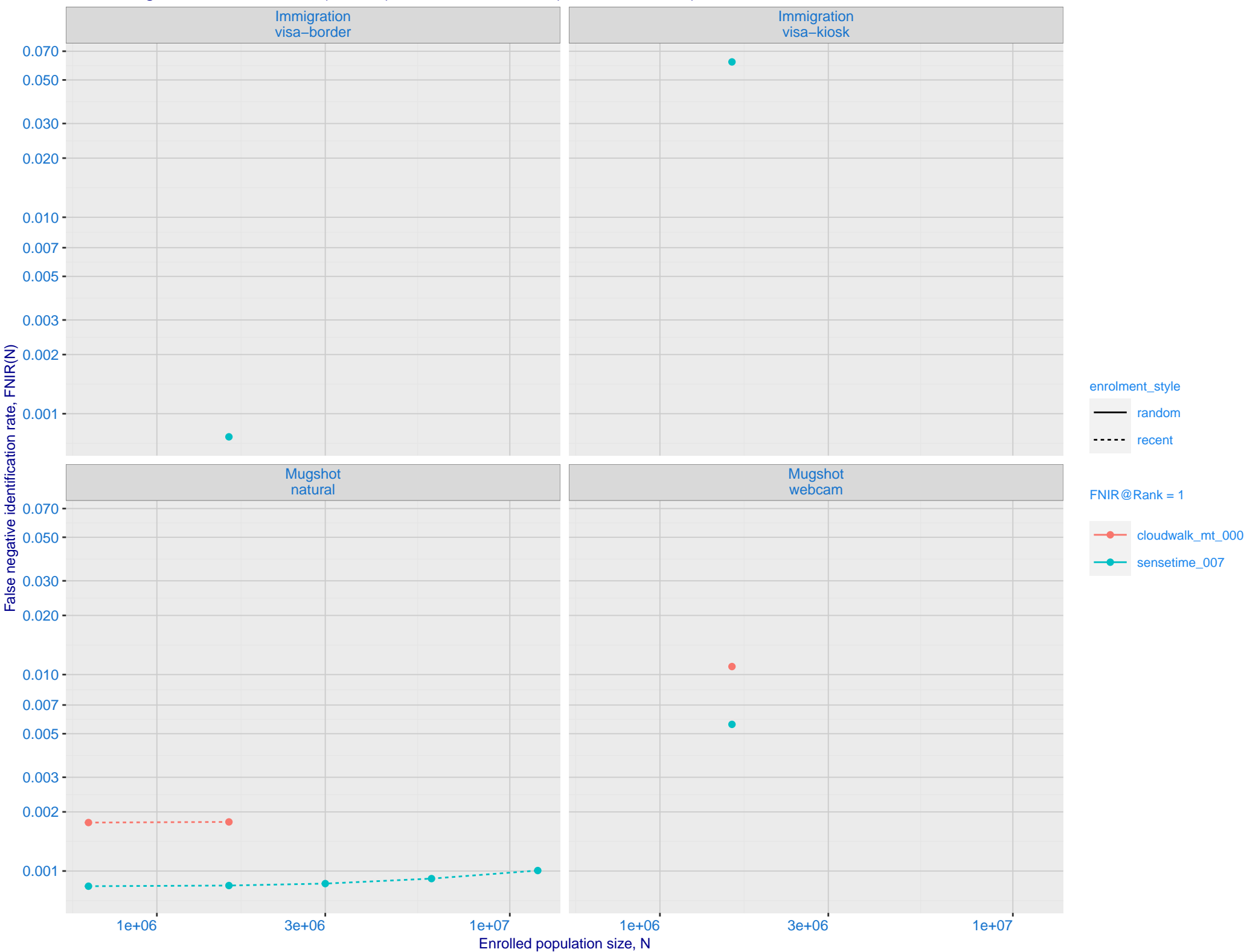
G: FPIR dependence on T by probe type for N = 1600000 subjects



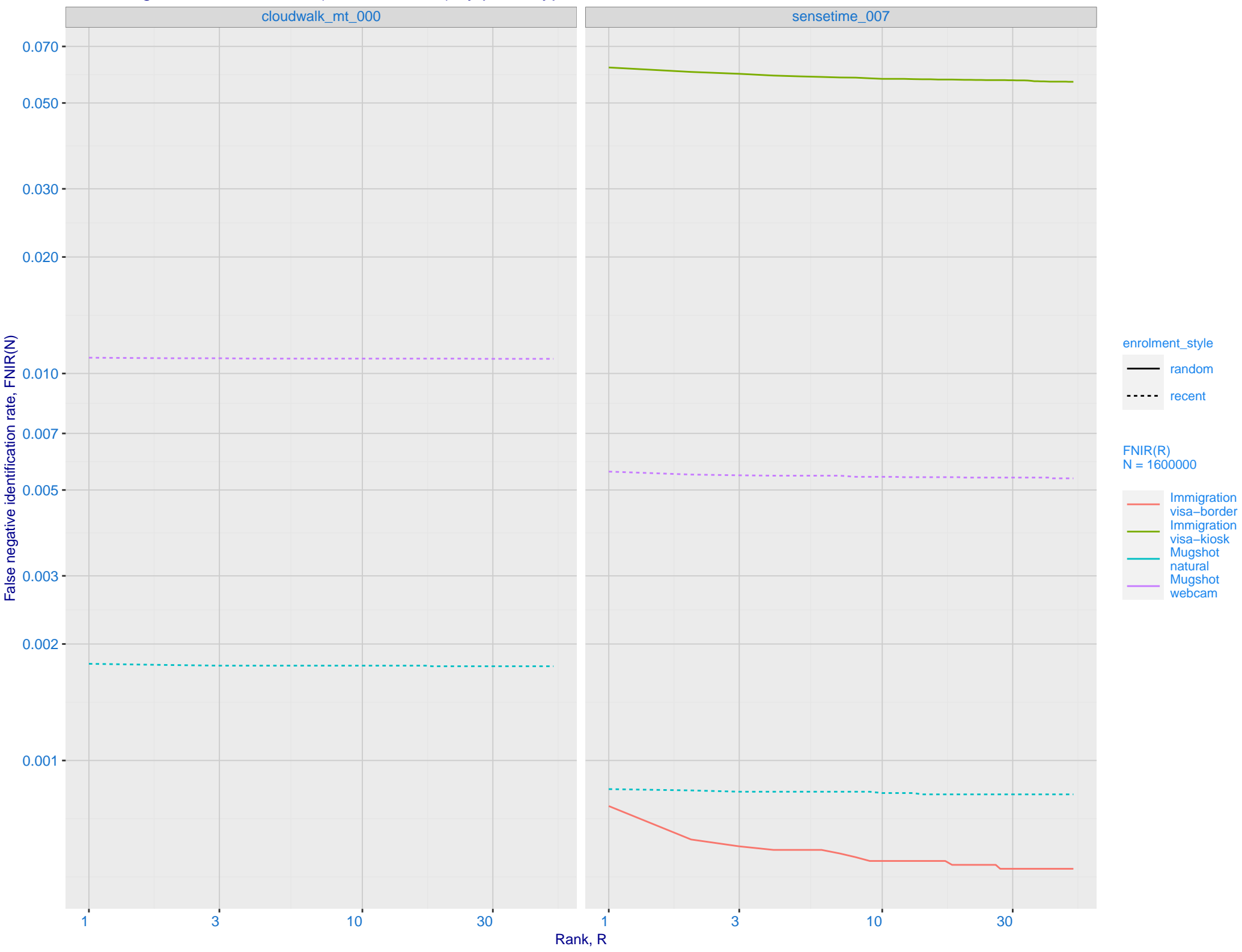
J: DET for Mugshot natural images and various N. Links connect points of equal threshold.



K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_007)



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

Search Duration (milliseconds)

Enrolled population size, N, one image per person

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

Dataset: 2018 Mugshot N = 3068801

