

A: Datasheet

Algorithm: smilart_5

Developer: Smilart

Submission Date: 2018_10_30

Template size: 2048 bytes

Template time (2.5 percentile): 430 msec

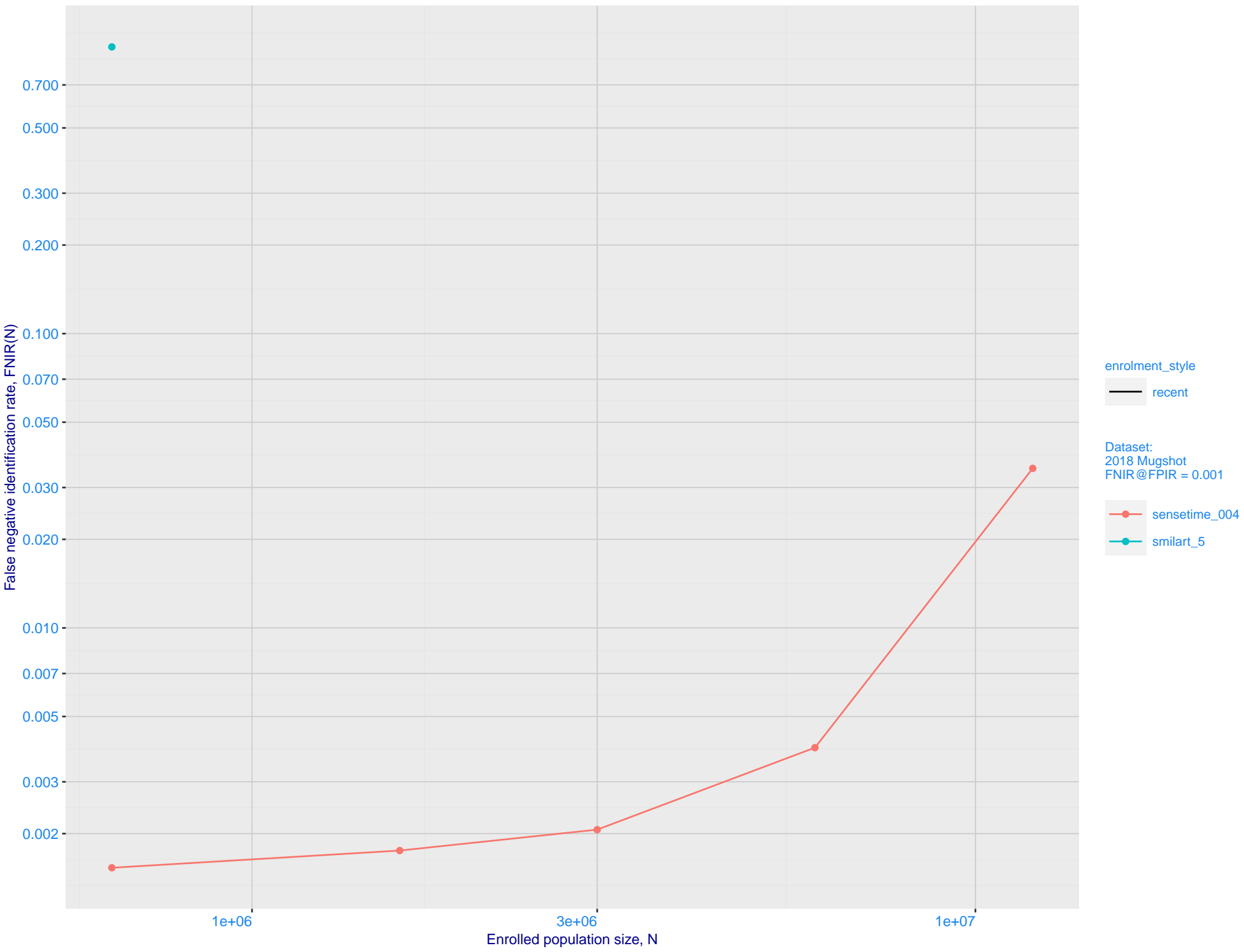
Template time (median): 451 msec

Template time (97.5 percentile): 711 msec

Investigation:

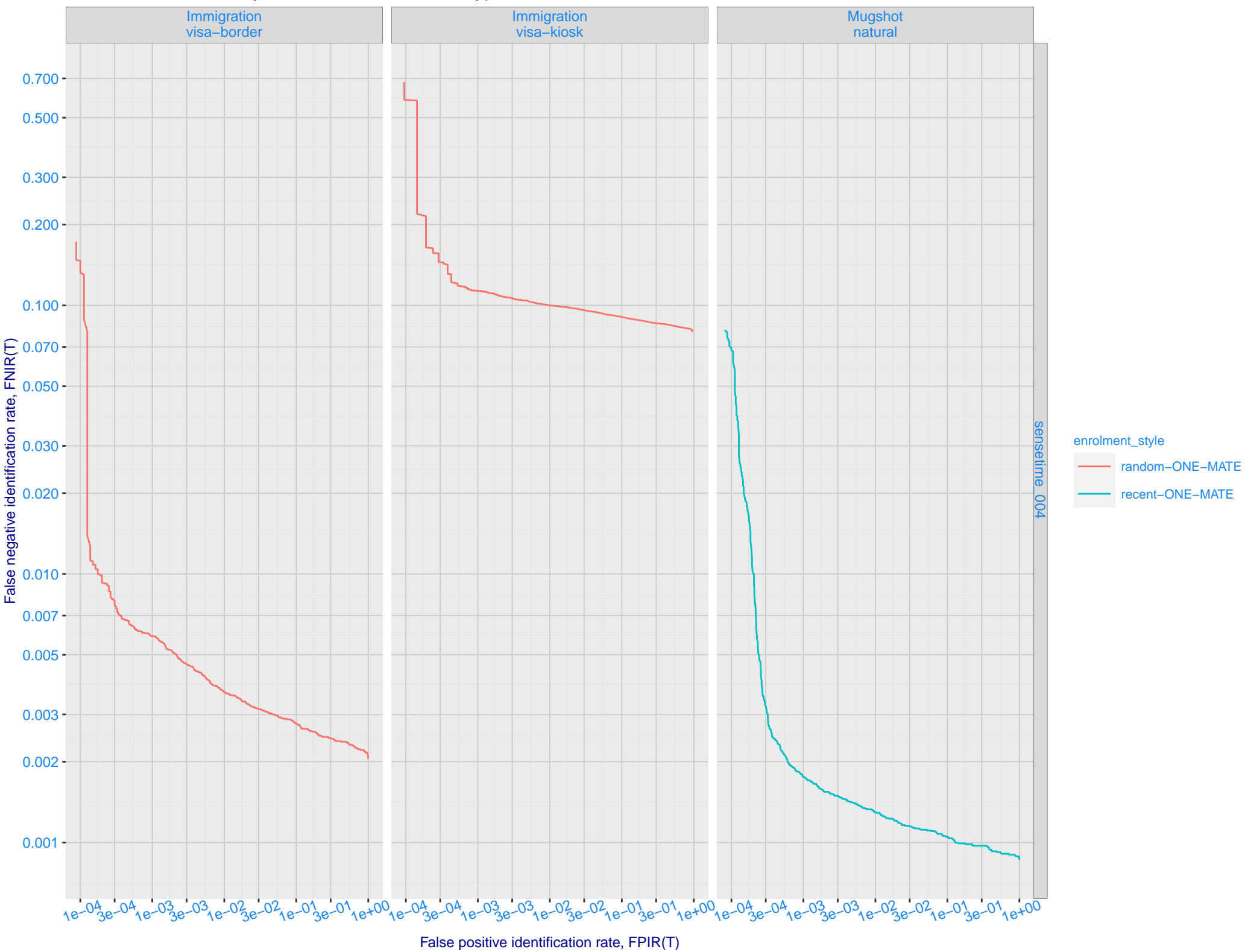
Identification:

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

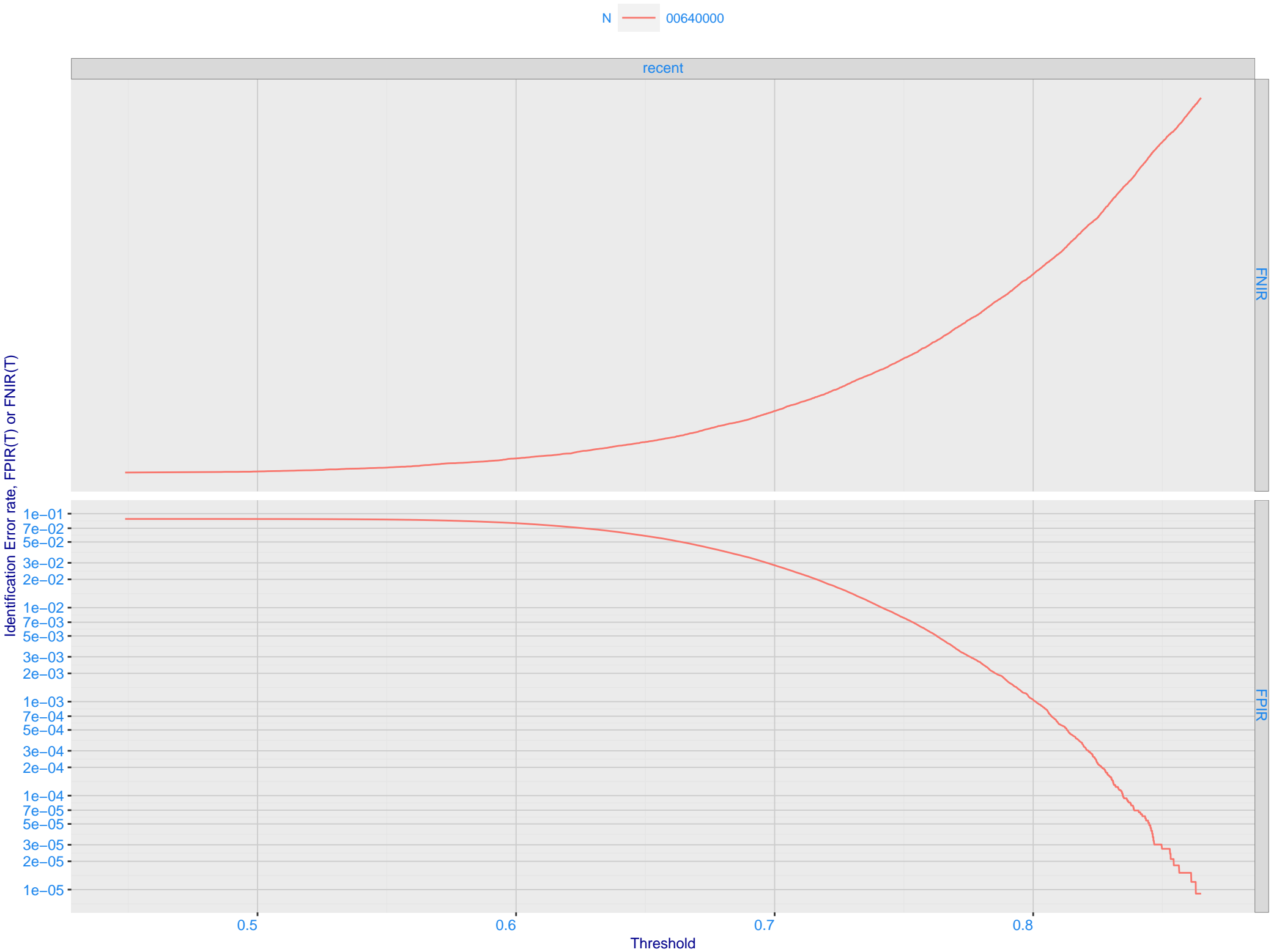


C: Evolution of accuracy for SMILART algorithms on three datasets 2018 – present

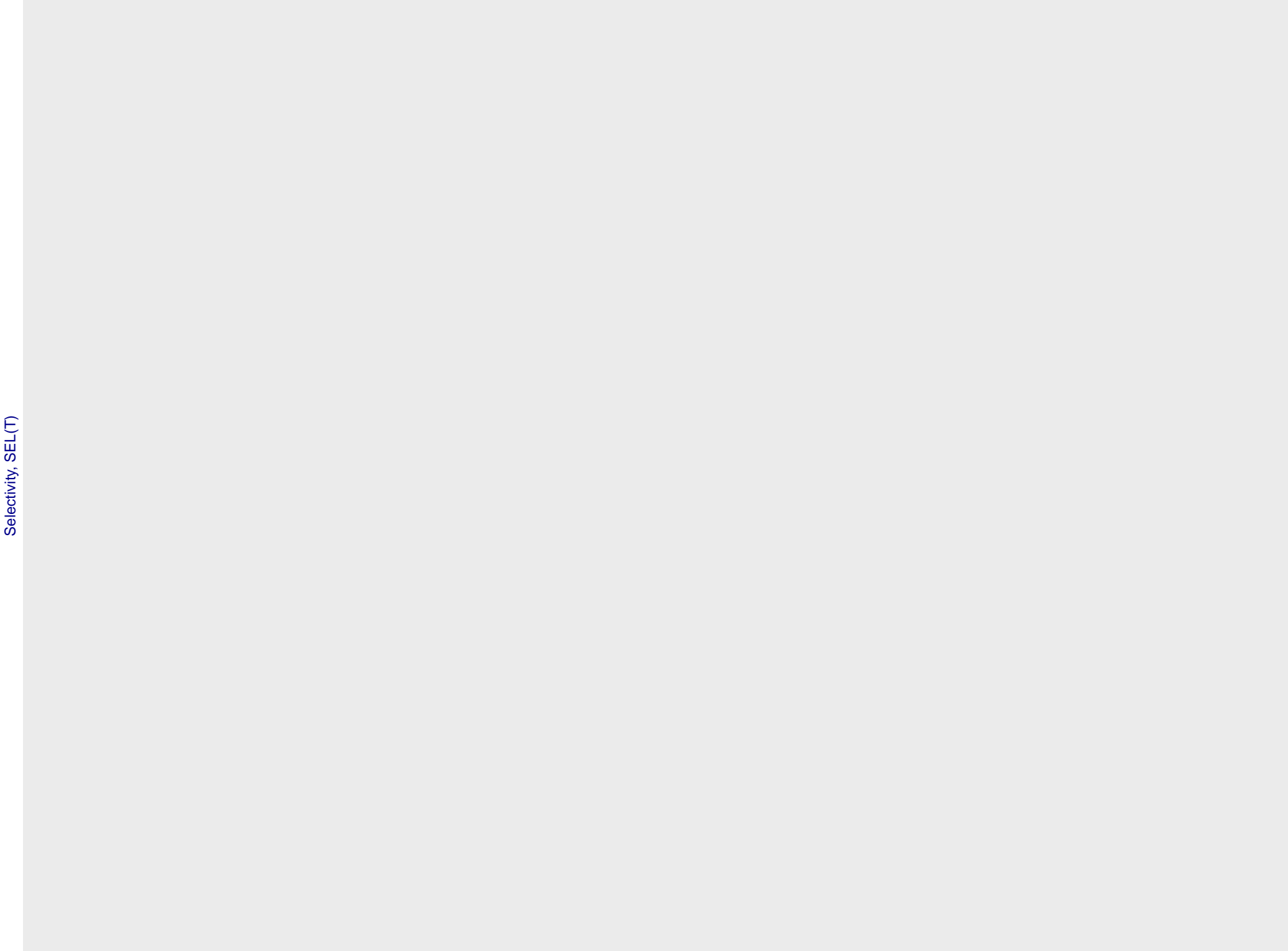
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals



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



Selectivity, SEL(T)

False Positive Identification Rate, FPIR(T)

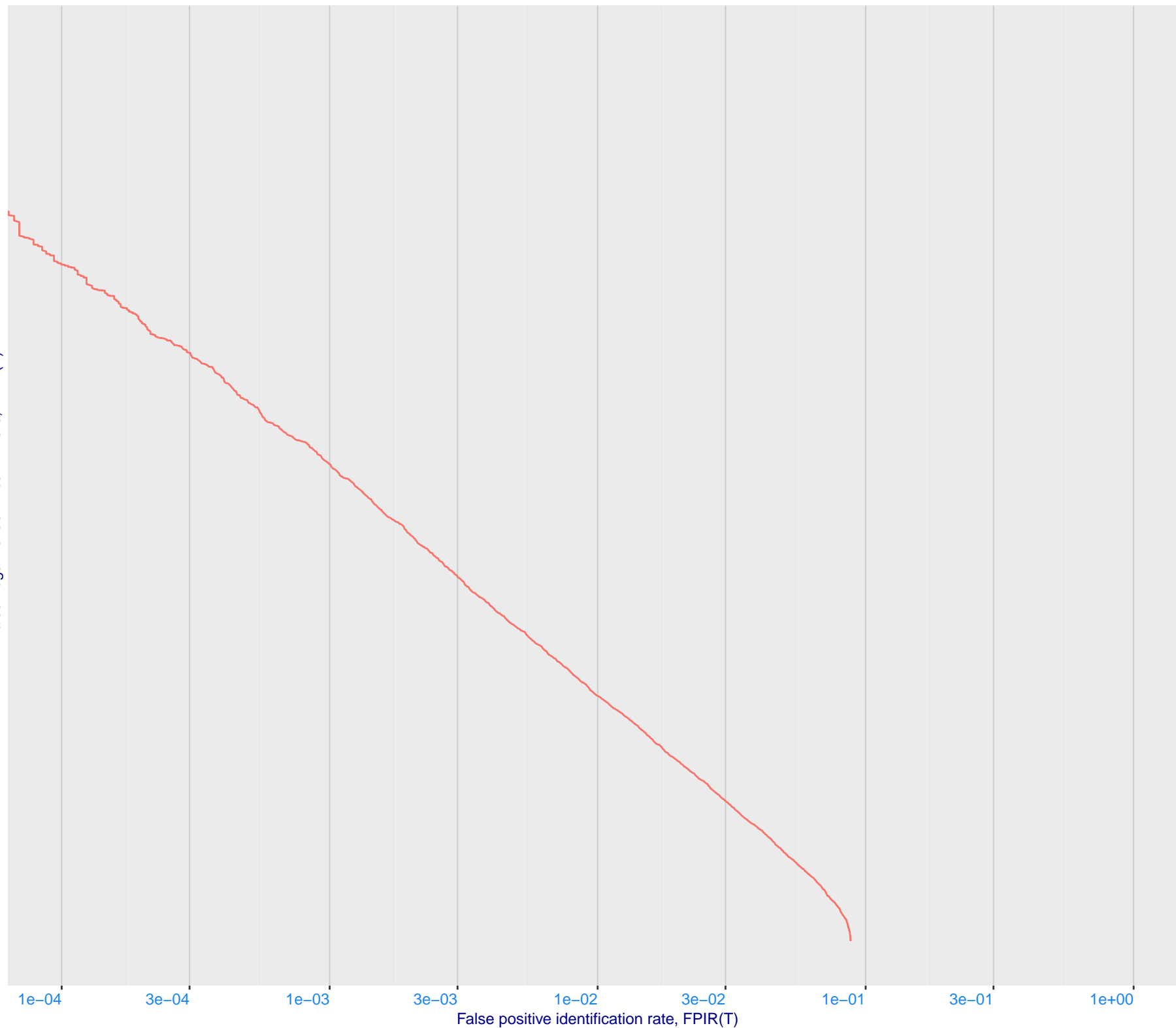
G: FPIR dependence on T by probe type for N = 1600000 subjects

False Positive Identification Rate, $FPIR(T)$

Threshold

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

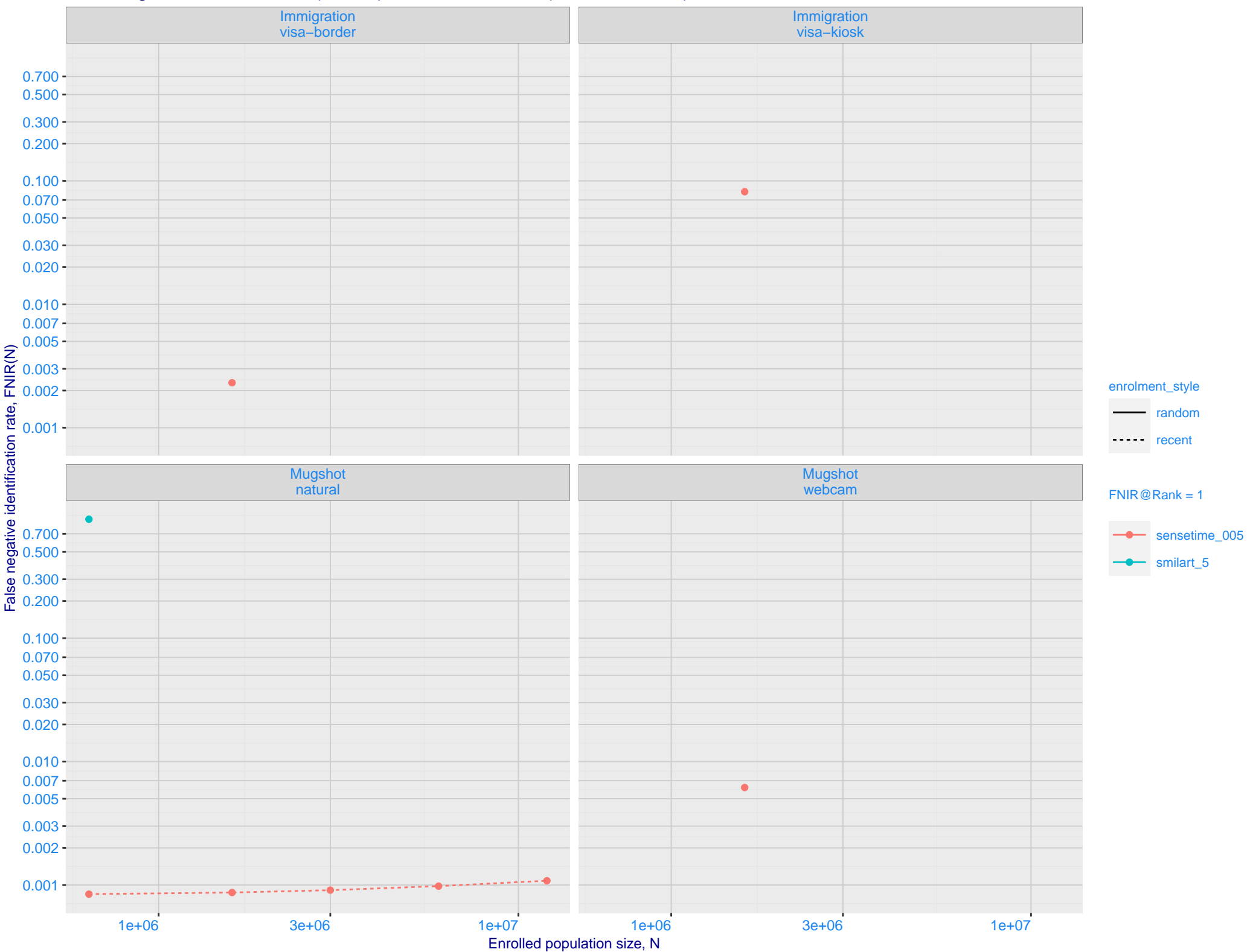
False negative identification rate, FNIR(T)



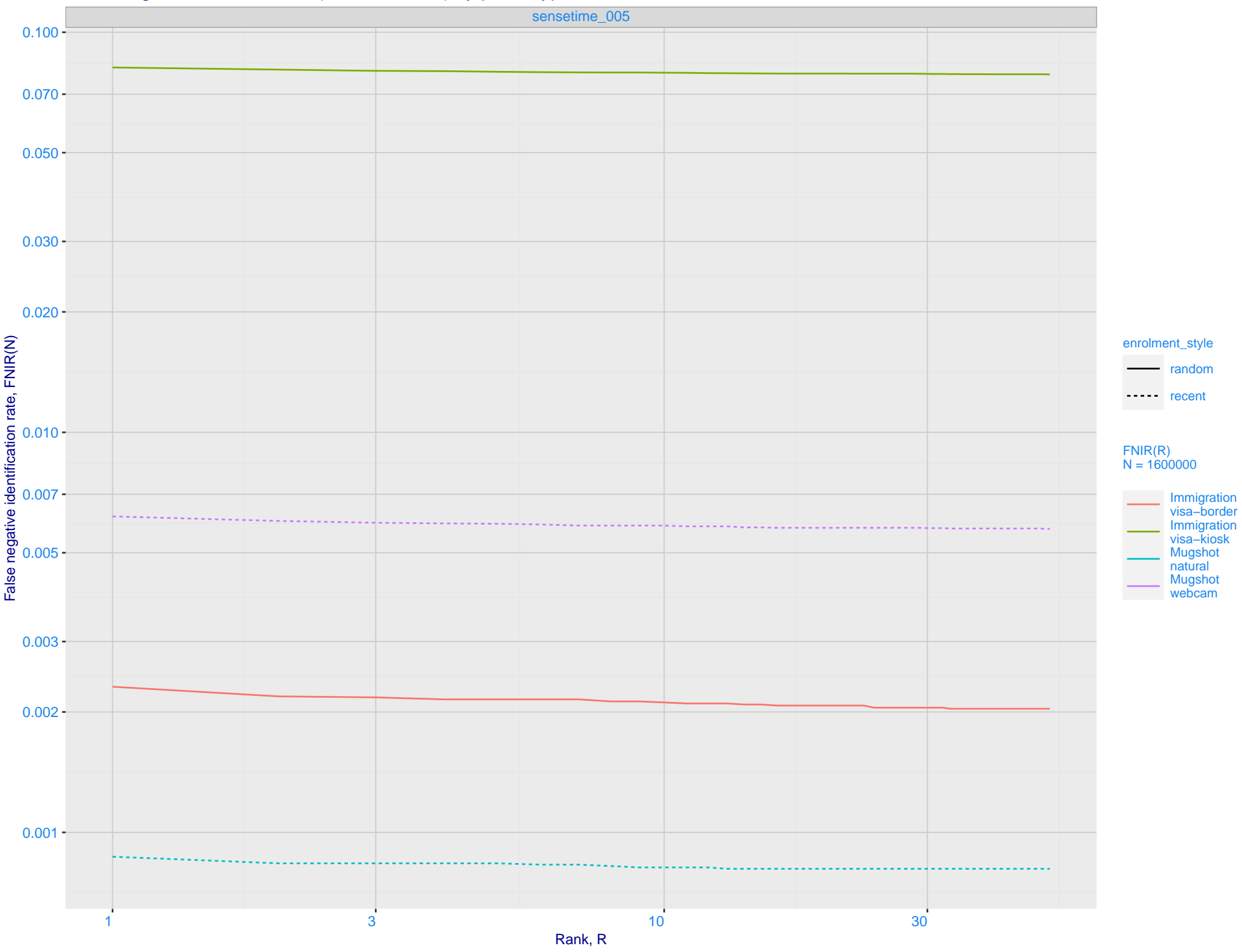
2018 Mugshot
Enrolled image:
recent

00640000

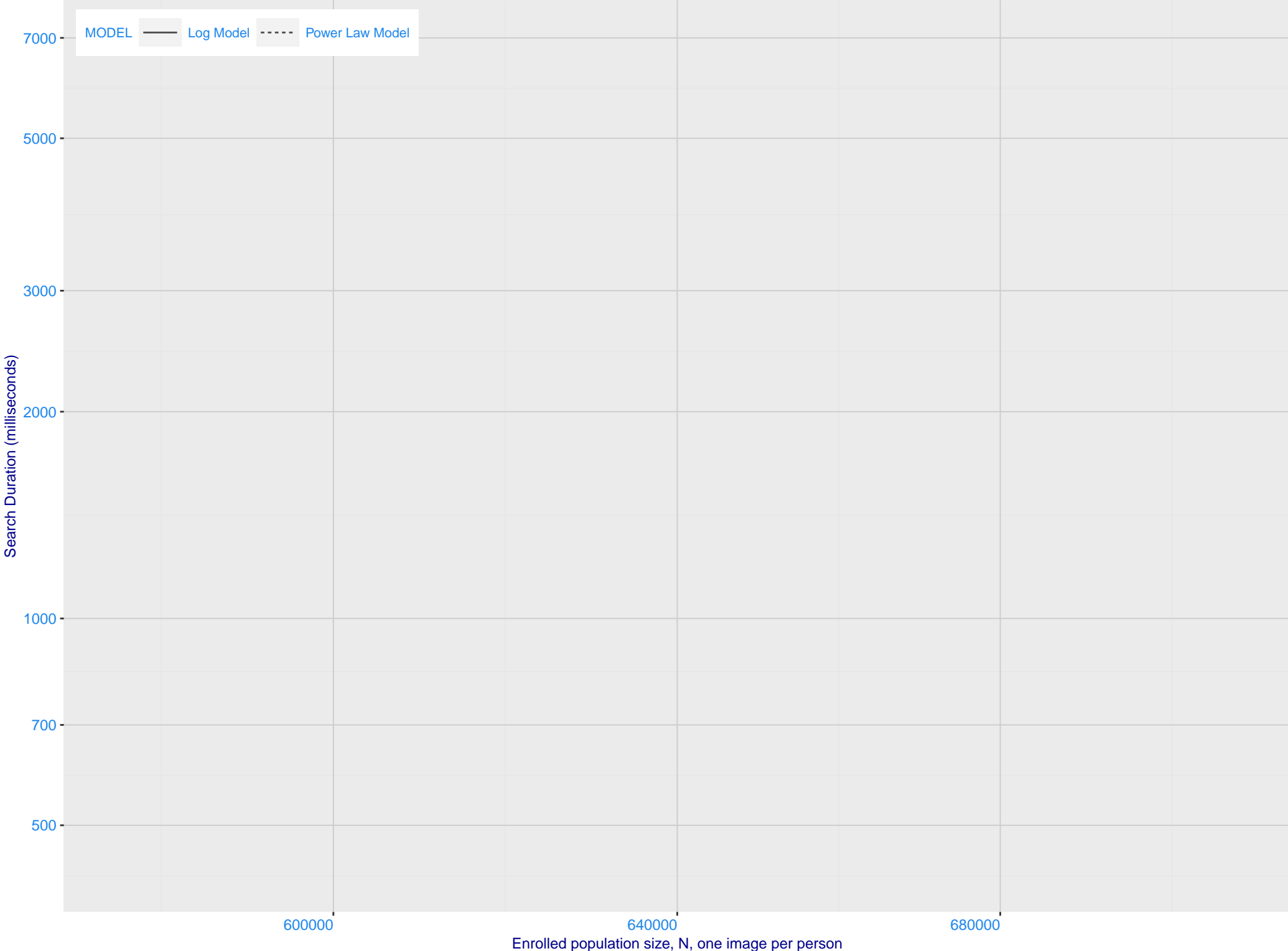
I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)



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

