

A: Datasheet

Algorithm: decatur_000

Developer: **[**Developer name**]**

Submission Date: 2022_02_09

Template size: 2052 bytes

Template time (2.5 percentile): 853 msec

Template time (median): 864 msec

Template time (97.5 percentile): 898 msec

Investigation:

Immigration visa–border ranking 69 (out of 224) — FNIR(1600000, 0, 1) = 0.0041 vs. lowest 0.0008 from sensetime_007

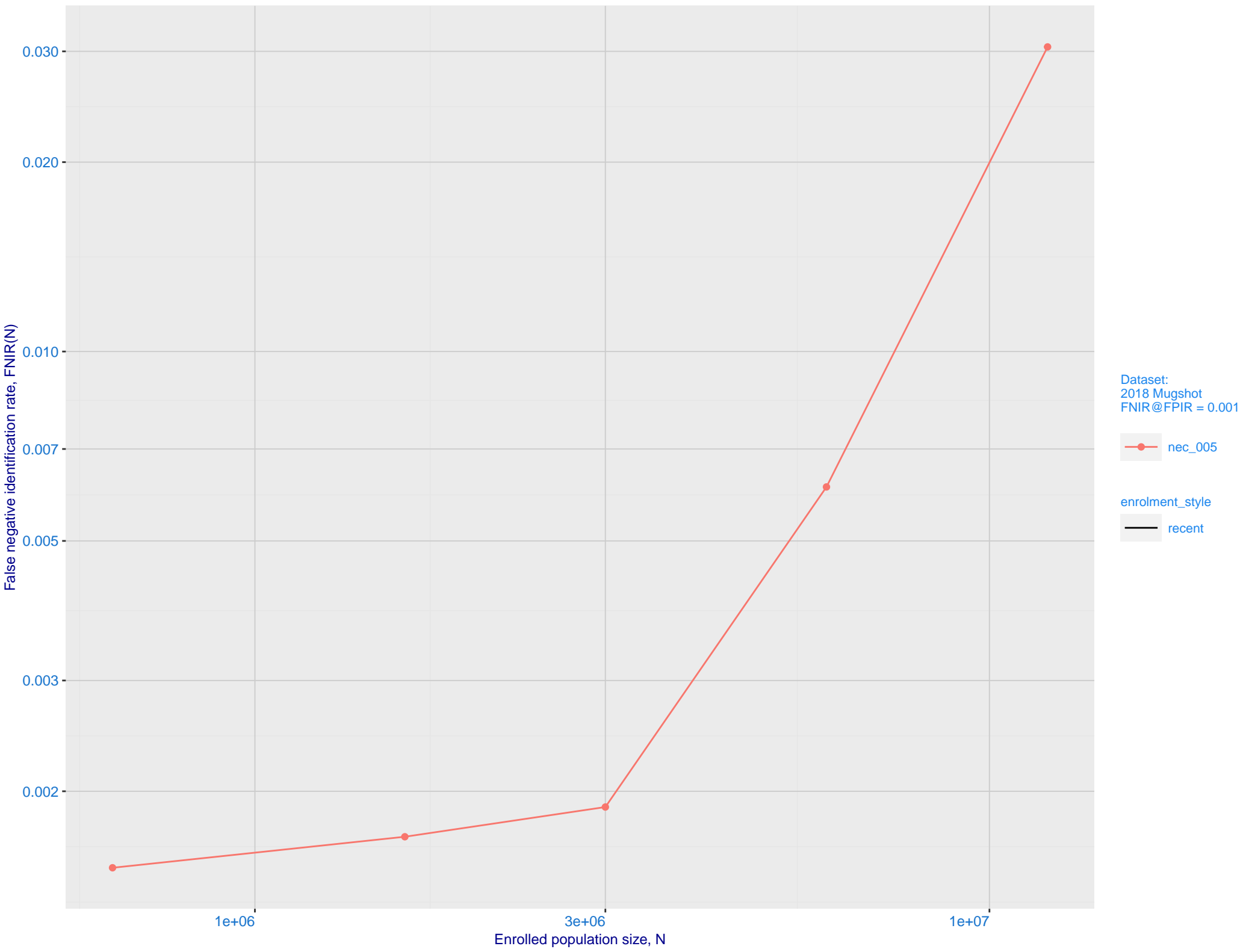
Immigration visa–kiosk ranking 81 (out of 221) — FNIR(1600000, 0, 1) = 0.1089 vs. lowest 0.0487 from cubox_000

Identification:

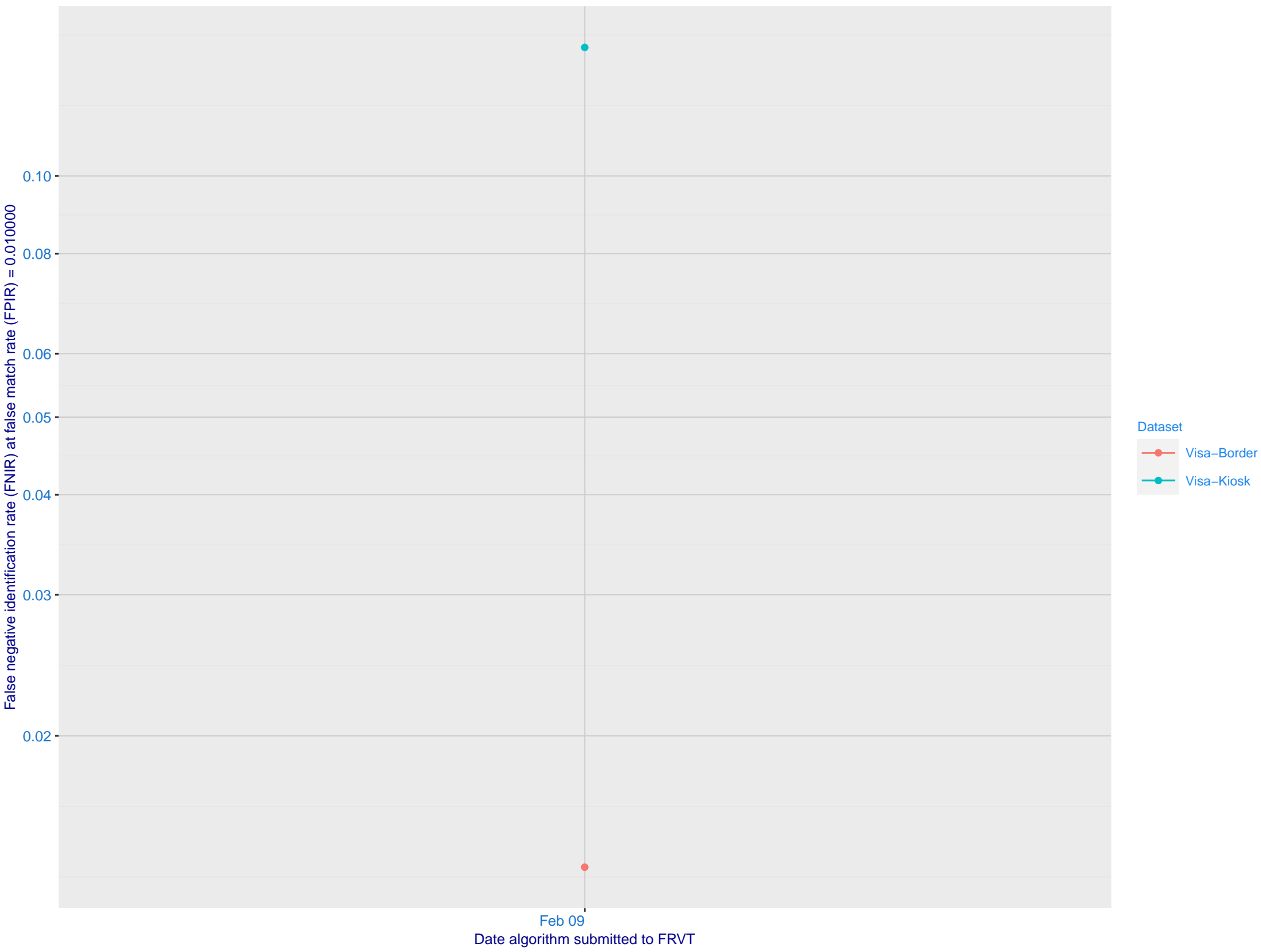
Immigration visa–border ranking 62 (out of 223) — FNIR(1600000, T, L+1) = 0.0273, FPIR=0.001000 vs. lowest 0.0024 from cloudwalk_mt_000

Immigration visa–kiosk ranking 64 (out of 218) — FNIR(1600000, T, L+1) = 0.2460, FPIR=0.001000 vs. lowest 0.0719 from cloudwalk_mt_000

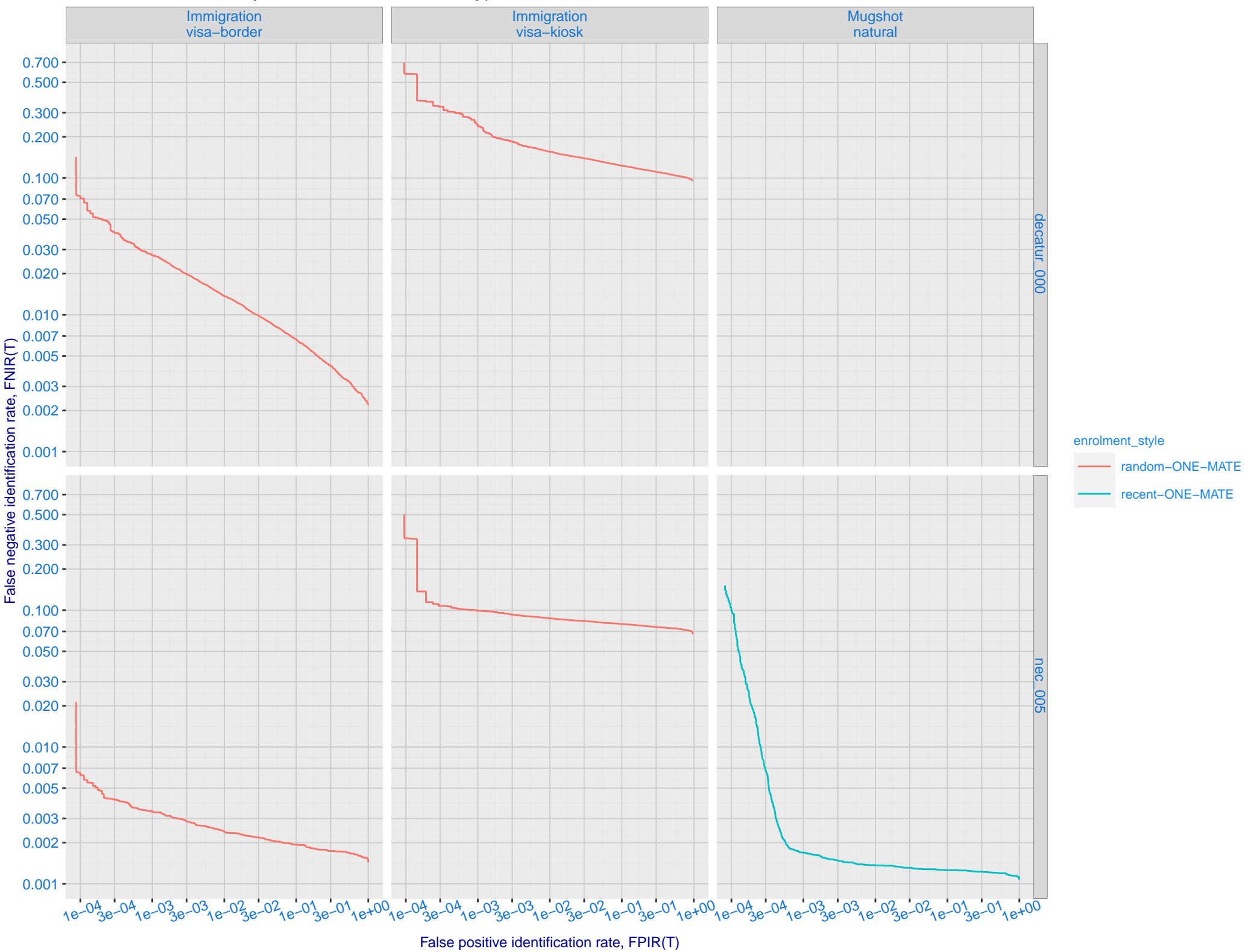
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (nec_005)



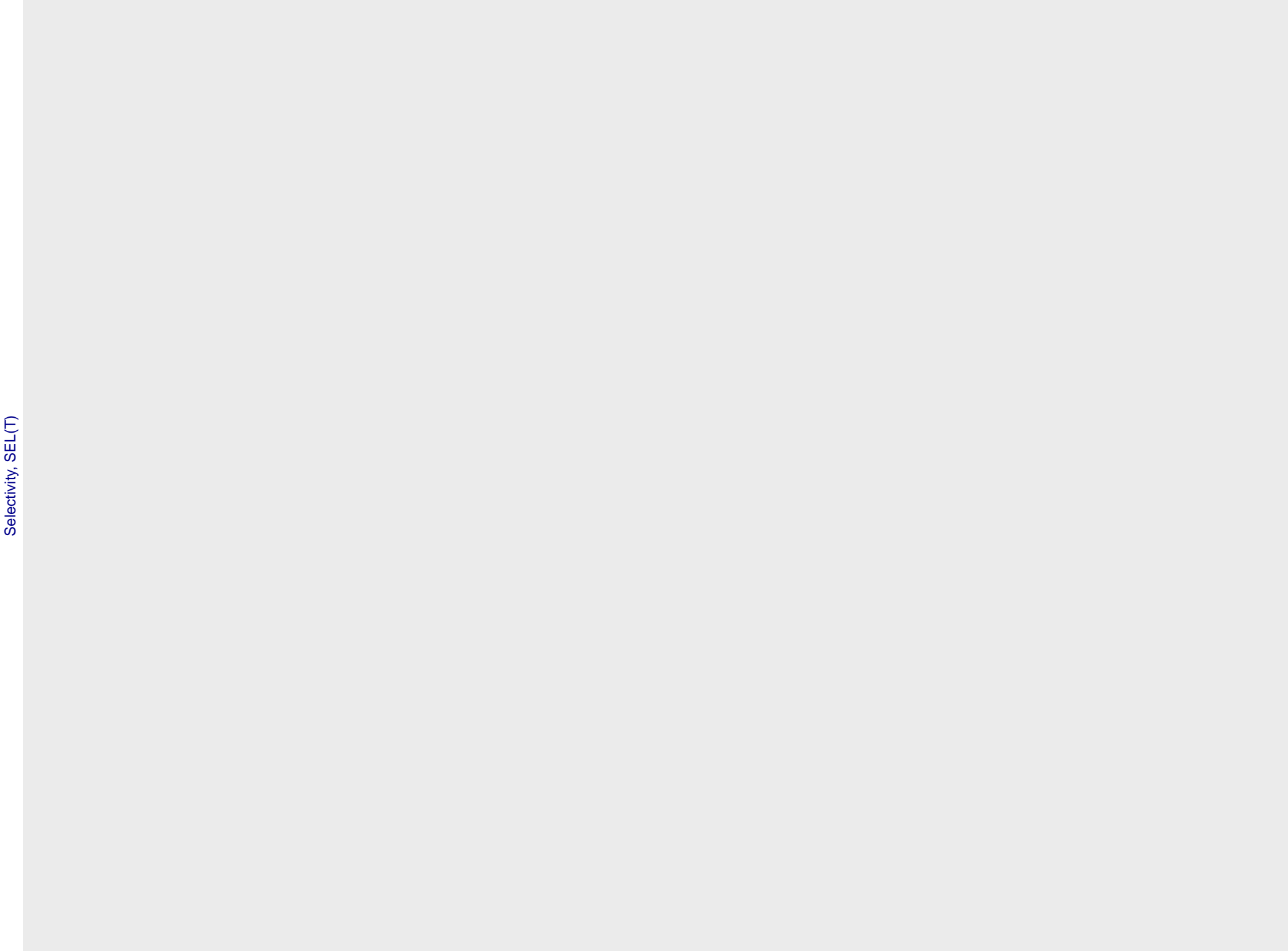
C: Evolution of accuracy for DECATUR algorithms on three datasets 2018 – present



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



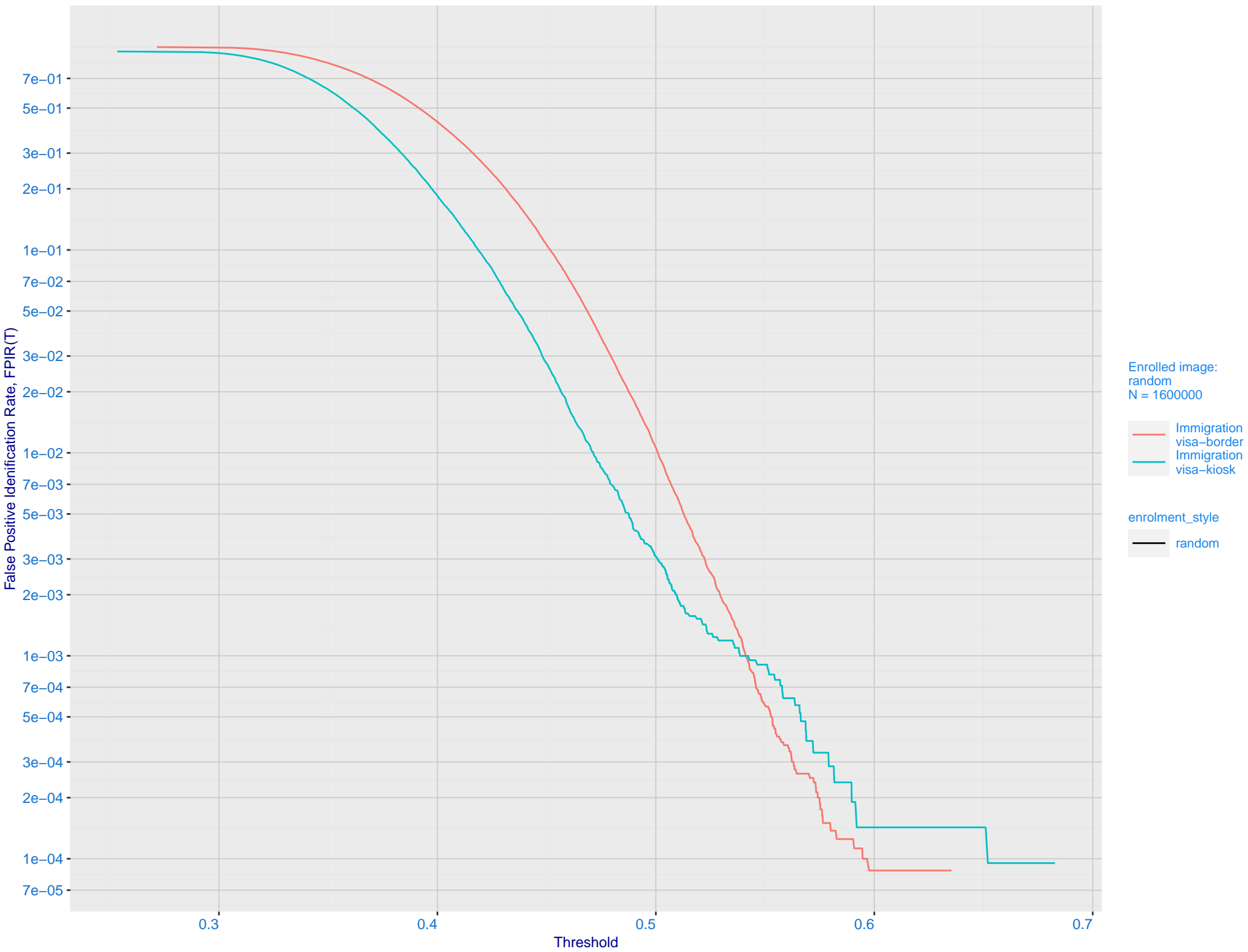
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate



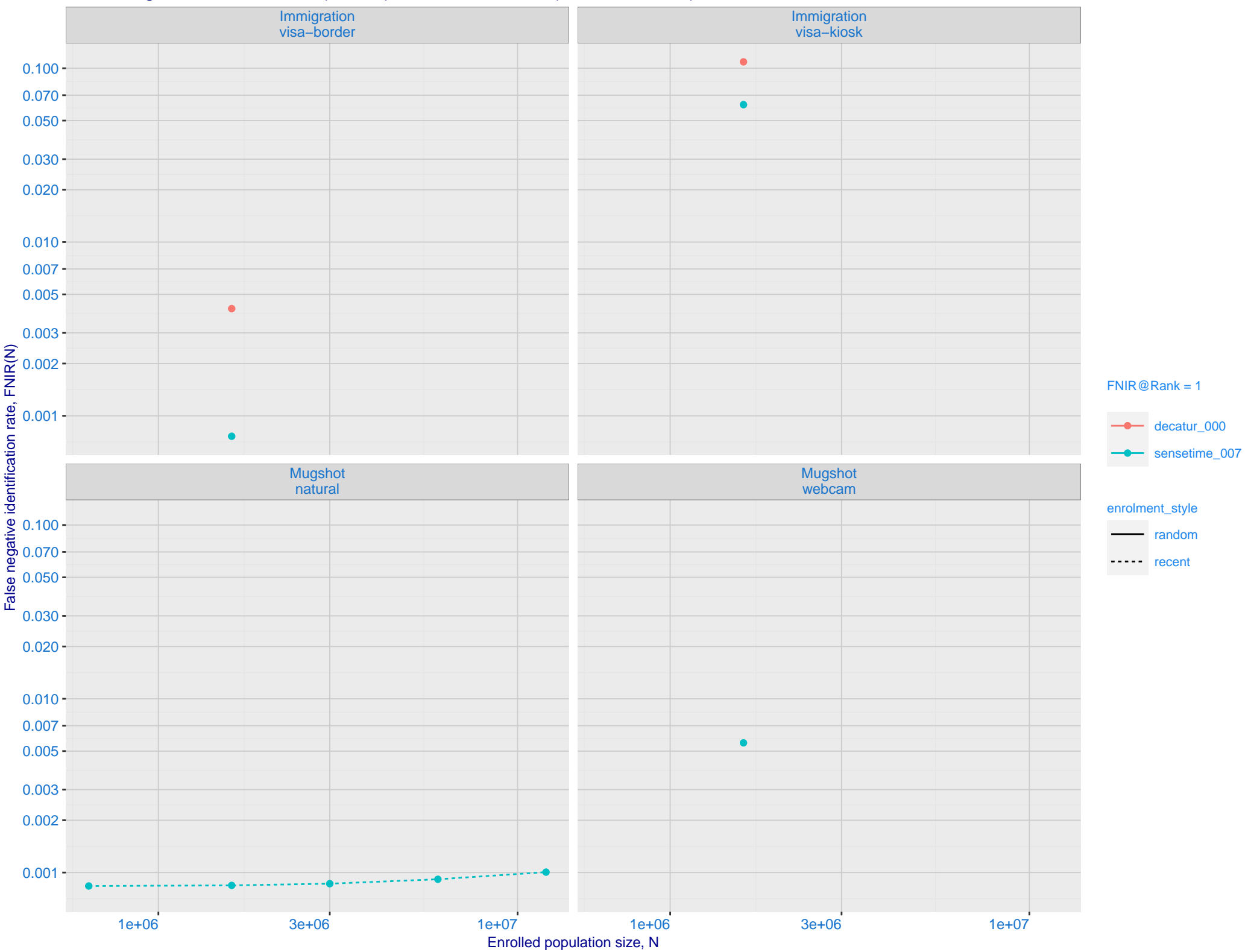
False Positive Identification Rate, FPIR(T)

Selectivity, SEL(T)

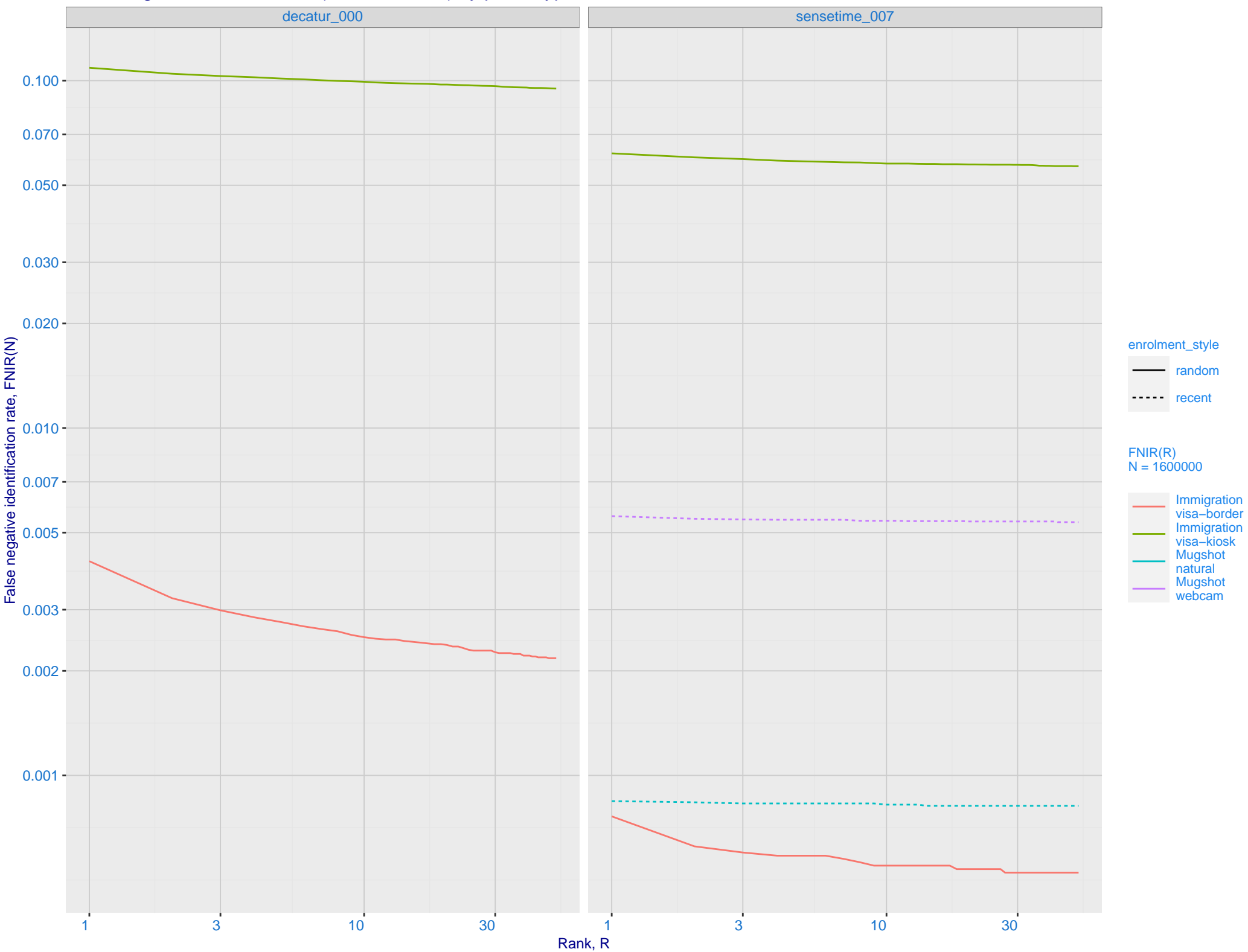
G: FPIR dependence on T by probe type for N = 1600000 subjects



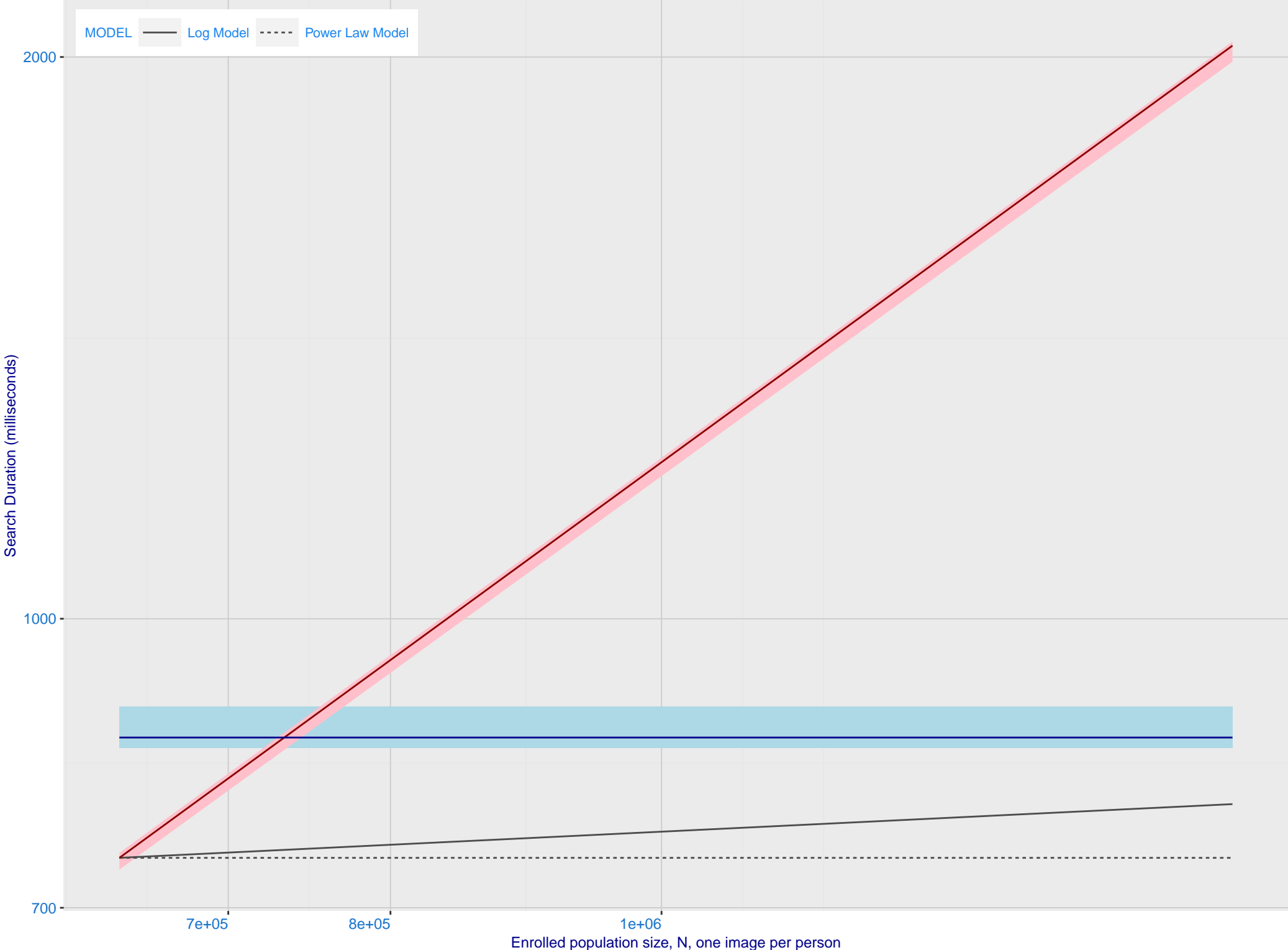
K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_007)



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



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

Dataset: 2018 Mugshot N = 3068801

