

A: Datasheet

Algorithm: aware\_1

Developer: Aware

Submission Date: 2018\_02\_16

Template size: 1564 bytes

Template time (2.5 percentile): 592 msec

Template time (median): 648 msec

Template time (97.5 percentile): 726 msec

Investigation:

Frontal mugshot ranking 218 (out of 279) -- FNIR(1600000, 0, 1) = 0.0562 vs. lowest 0.0009 from sensetime\_005

Mugshot profile ranking 192 (out of 210) -- FNIR(1600000, 0, 1) = 0.9769 vs. lowest 0.0587 from xforwardai\_002

Immigration visa-border ranking 130 (out of 168) -- FNIR(1600000, 0, 1) = 0.1492 vs. lowest 0.0013 from visionlabs\_010

Immigration visa-kiosk ranking 126 (out of 165) -- FNIR(1600000, 0, 1) = 0.3793 vs. lowest 0.0568 from cloudwalk\_hr\_000

Identification:

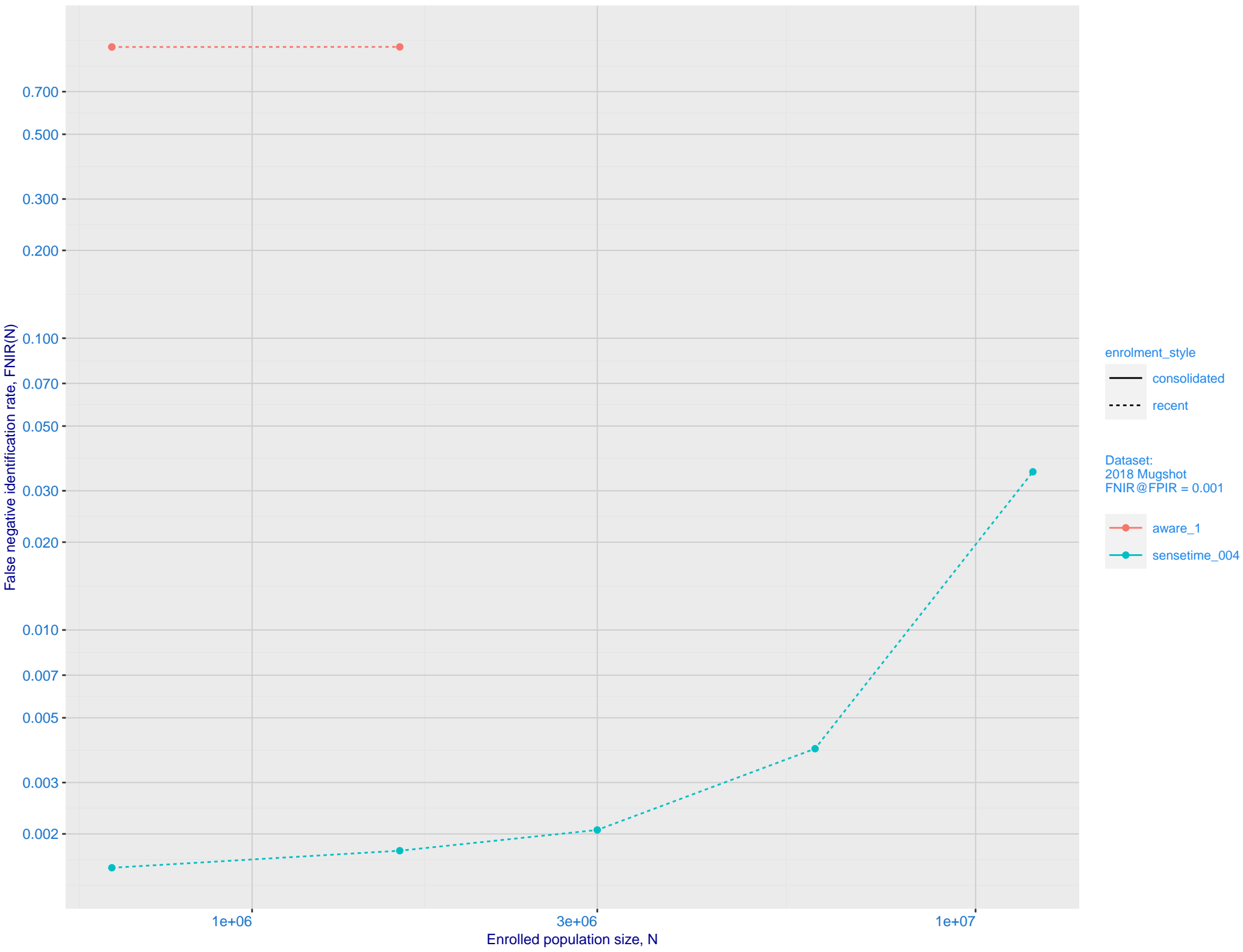
Frontal mugshot ranking 271 (out of 279) -- FNIR(1600000, T, L+1) = 0.9965, FPIR=0.001000 vs. lowest 0.0018 from sensetime\_004

Mugshot profile ranking 187 (out of 209) -- FNIR(1600000, T, L+1) = 0.9999, FPIR=0.001000 vs. lowest 0.1331 from cloudwalk\_hr\_000

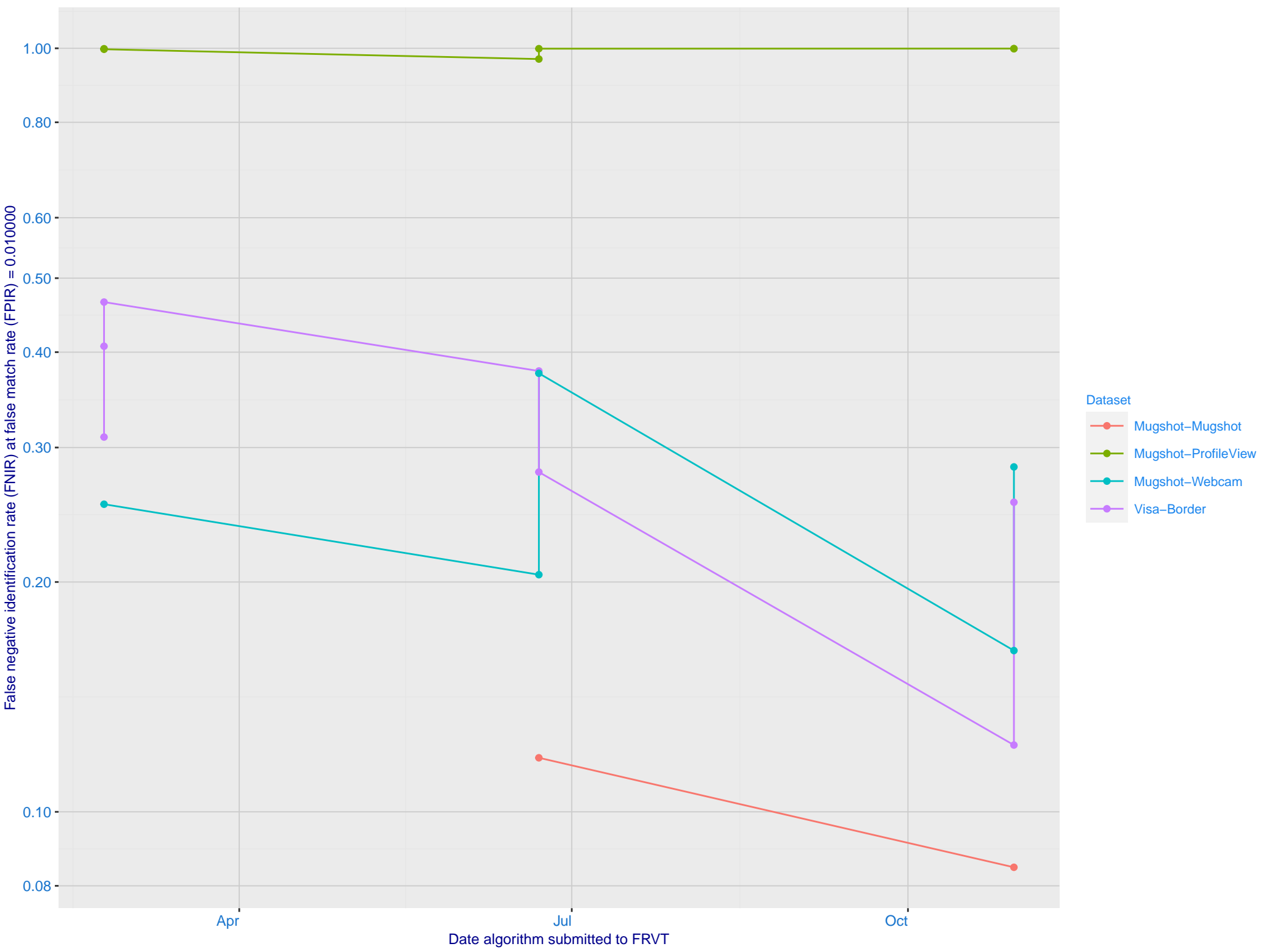
Immigration visa-border ranking 143 (out of 167) -- FNIR(1600000, T, L+1) = 0.9044, FPIR=0.001000 vs. lowest 0.0047 from idemia\_008

Immigration visa-kiosk ranking 136 (out of 162) -- FNIR(1600000, T, L+1) = 0.9896, FPIR=0.001000 vs. lowest 0.0996 from cloudwalk\_hr\_000

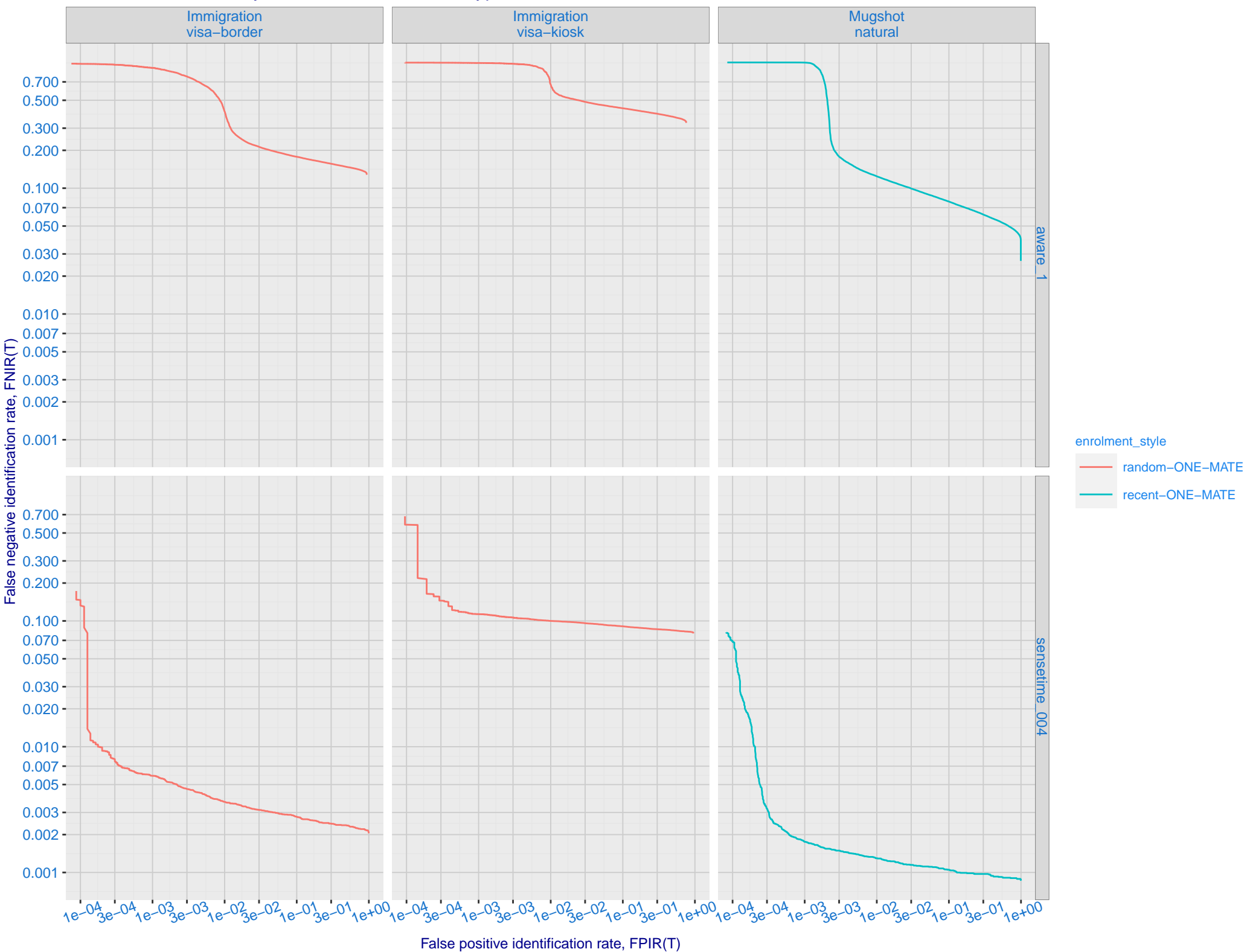
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime\_004)



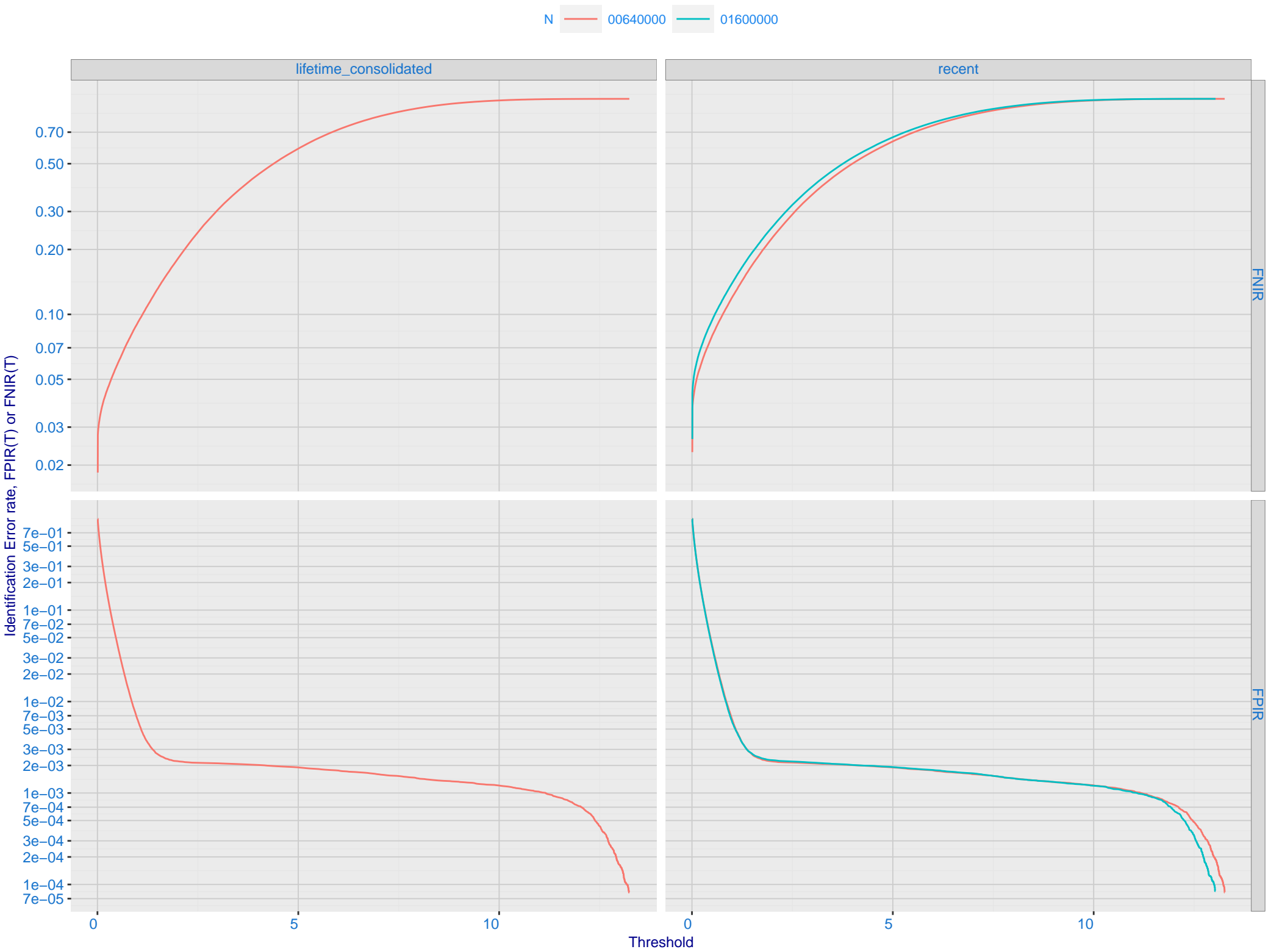
C: Evolution of accuracy for AWARE algorithms on three datasets 2018 – present



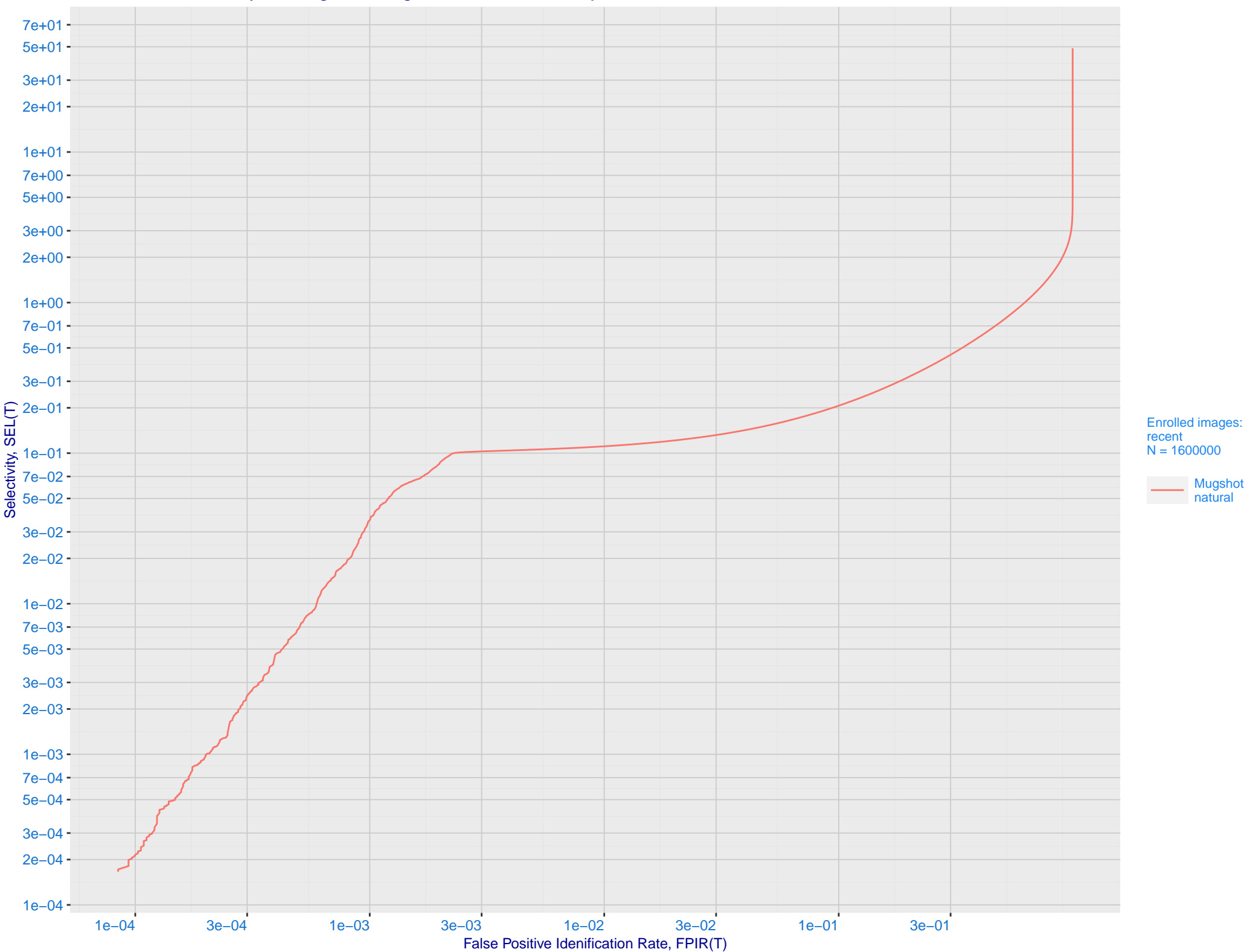
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals



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



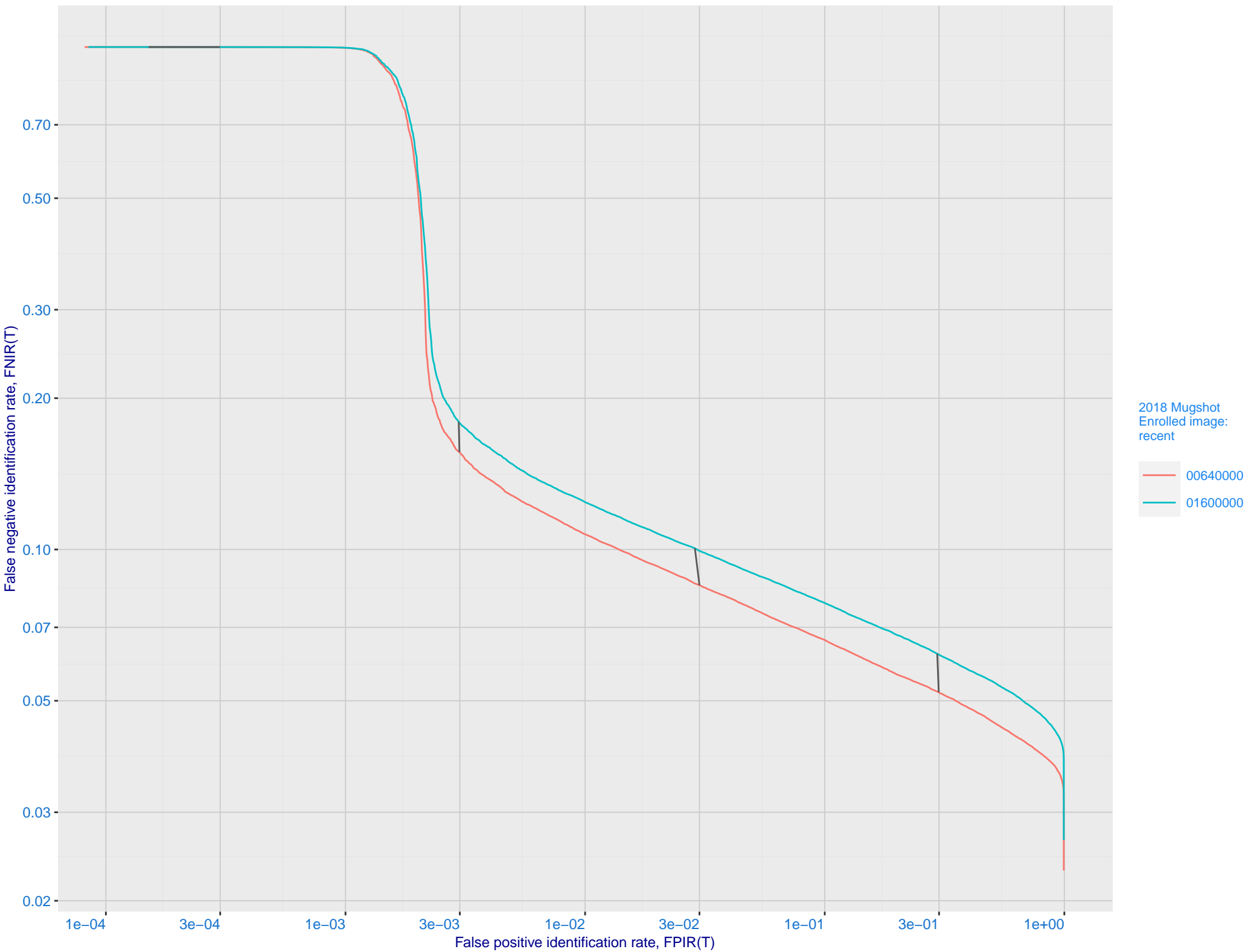
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate



- random
- - - recent

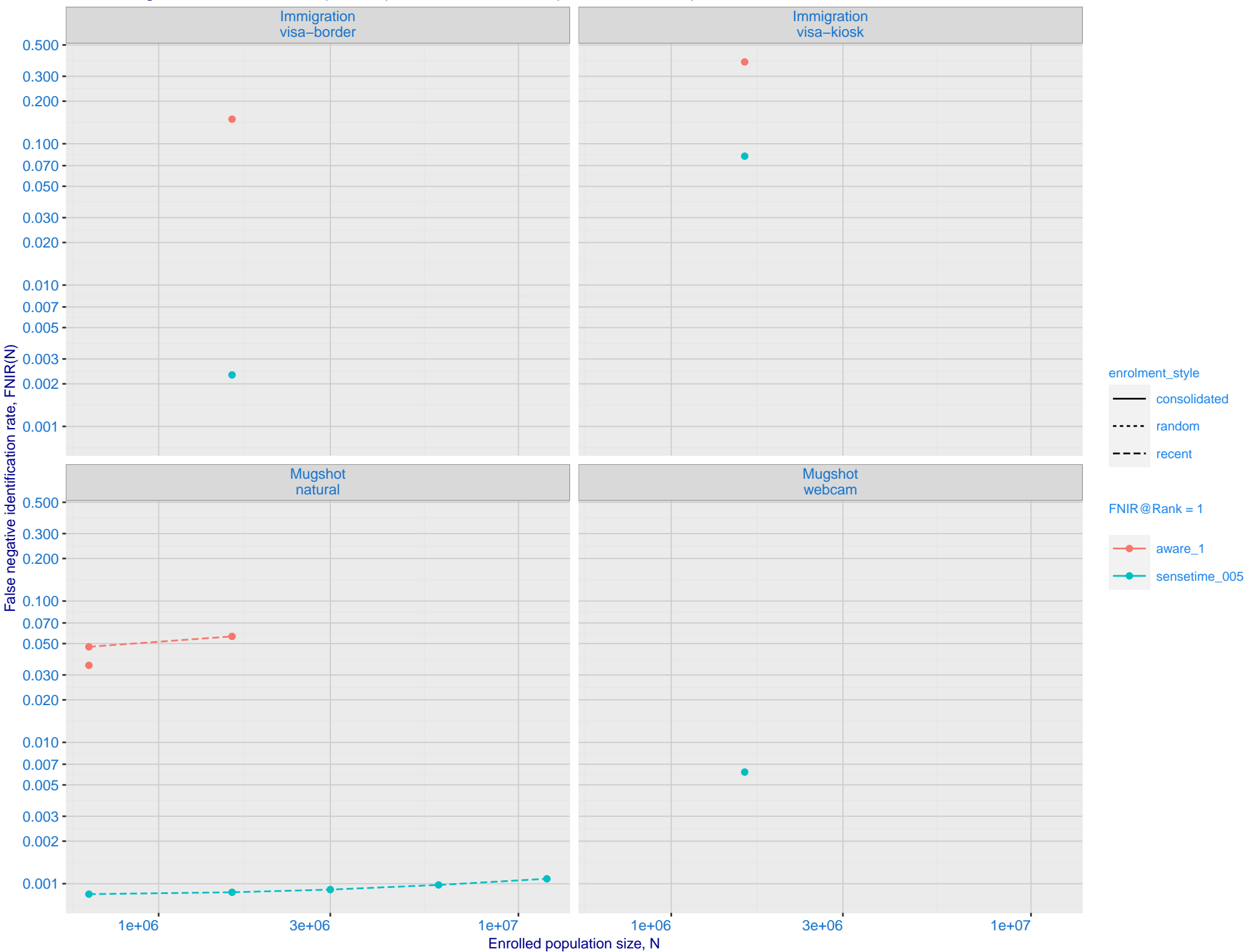
- Immigration visa-border
- Immigration visa-kiosk
- Mugshot natural
- Mugshot profile

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

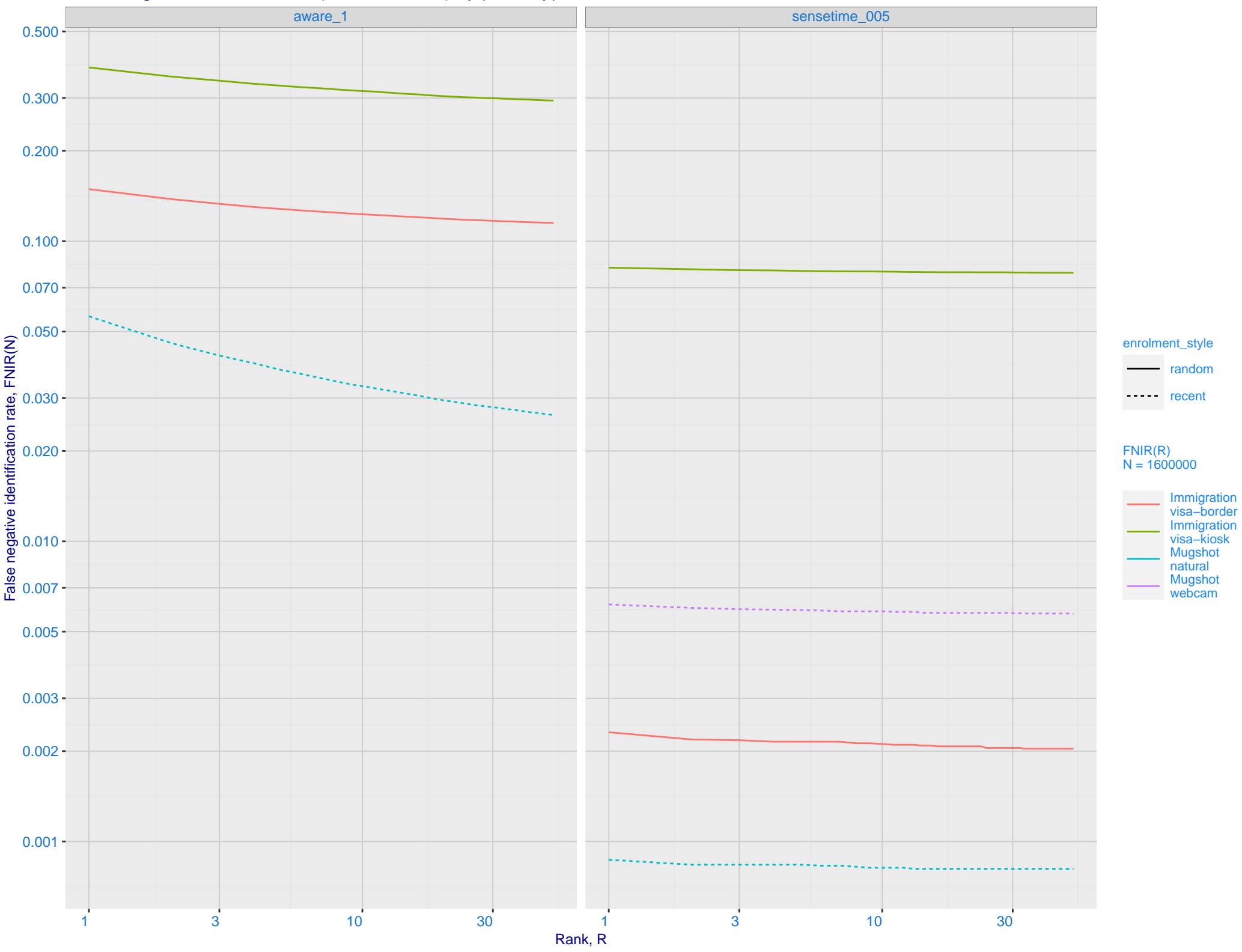




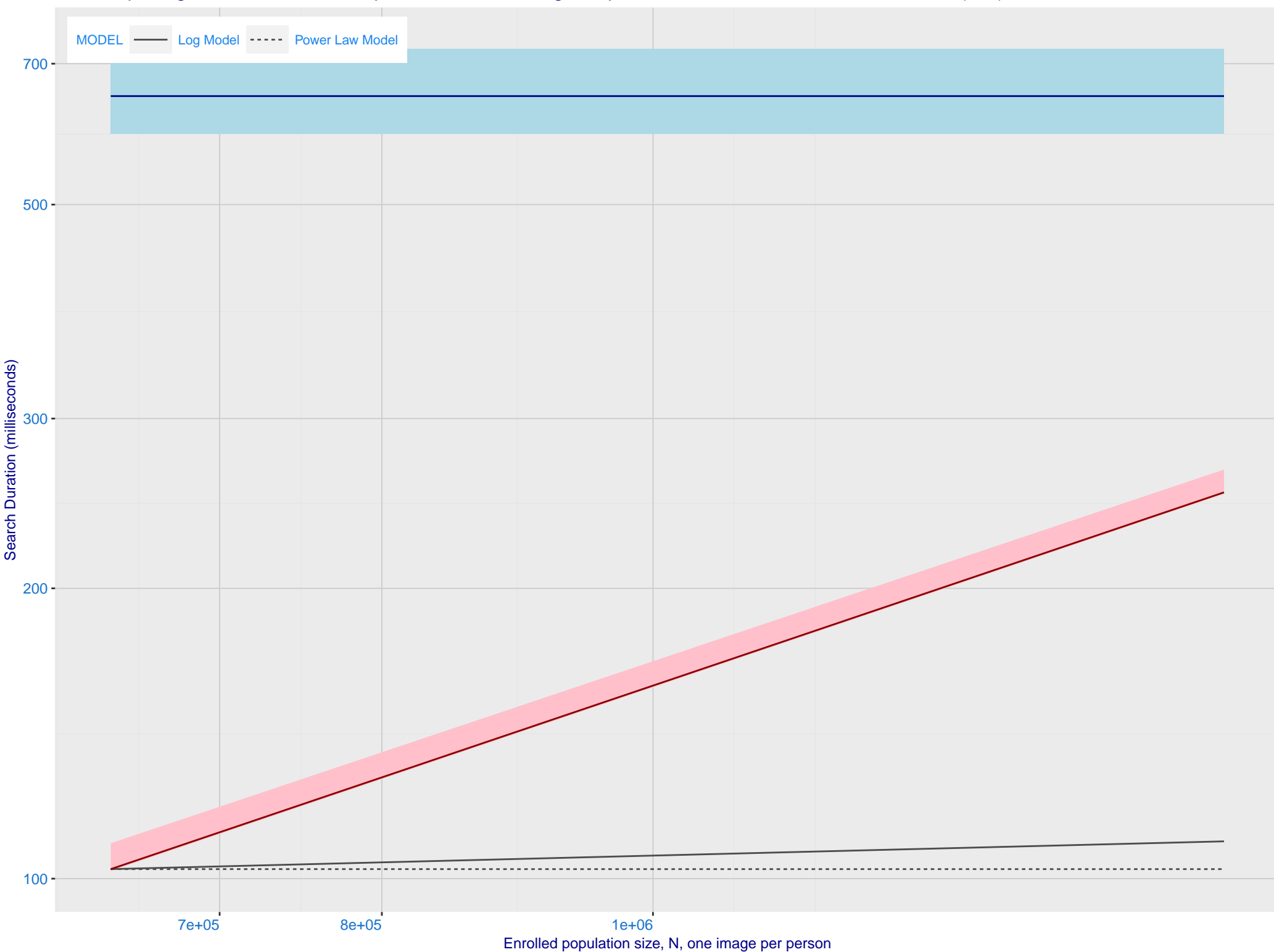
K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime\_005)



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

